



Board of County Commissioners Pre-Commission Meeting

February 18, 2025 | 4:00 PM

City Hall
700 Poplar Street
Macon, GA 31201

Mayor Lester M. Miller
Mayor Pro Tem Seth Clark
Commissioner Valerie Wynn
Commissioner Paul Bronson
Commissioner Stanley Stewart
Commissioner Joey Hulett
Commissioner Raymond Wilder
Commissioner Bill Howell
Commissioner Donice Bryant
Commissioner Brendalyn Bailey

1. Call to Order

Mayor Lester M. Miller

2. Approval of Minutes

- a. Approval of minutes from the January 28, 2025 meeting (Sponsored by:)

3. Appointments to Authorities, Boards and Committees

- a. A Resolution Of The Macon-Bibb County Commission To Assent To And Appoint Robert Abbott And Barbara Boyer To The Macon-Bibb County Board Of Elections (Sponsored by: Lester M. Miller, Mayor)
- b. A Resolution Of The Macon-Bibb County Commission Appointing Joshua Hale, Christele Parham, Maiesha Clark, Julia Morrison, Marshall Talley, Anthony Howard, And Scott Mitchell To Serve On The Friends Of Rosa Parks Square Board (Sponsored by: Lester M. Miller, Mayor)
- c. A Resolution Of The Macon-Bibb County Commission Appointing Clifford Rushin, Roger Jackson, And Ellery Dunn To The Macon-Bibb County Fire Civil Service Board (Sponsored by: Lester M. Miller, Mayor)

4. Agreements and Contracts

- a. A Resolution Of The Macon-Bibb County Commission Authorizing The Execution Of An Agreement With Vera Causa Group, LLC For The Provision Of Public

Information Officer And Strategic Advisor Services For The District Attorney's Office, In An Annual Amount Of \$54,000.00, To Be Paid From The General Fund – District Attorney – Contract Labor – Contractual Services Line Item; (Sponsored by: Lester M. Miller, Mayor)

- b. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Sheridan Construction LLC For The Construction Of The Corporate FBO Terminal Building And Parking Lot Rehabilitation At The Middle Georgia Regional Airport, In The Amount Of \$13,445,500.00, To Be Paid From The Macon-Bibb County Industrial Authority Construction Fund 2025; And For Other Lawful Purposes (Sponsored by: Lester M. Miller, Mayor)
- c. Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute A Second Amendment To The Existing Intergovernmental Agreement Between Macon-Bibb County, Bibb County School District, And Macon-Bibb County Industrial Authority Relating To The Distribution Of Pilot Payments In Lieu Of Taxes Related To Project Bengal; To Execute An Acknowledgement To The First Amendment To The Existing Intergovernmental For New 704 Fund Project: Sofkee Industrial Park ("Project Bengal"/Irving)
(Sponsored by:)

5. SPLOST Projects

- a. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor, To Enter An Agreement With 1 Accord Technologies, LLC, In The Amount Of \$260,130.00 For Network Configuration Services For Macon-Bibb County Fire Stations, To Be Paid From 2018 SPLOST Funds – Public Safety Line Item
(Sponsored by: Lester M. Miller, Mayor)
- b. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Spillers Design And Construction LLC For The Renovation Of The Frank Johnson Recreation Center, In The Amount Of \$2,047,412.00, To Be Paid From The SPLOST 2018 Fund – Recreation – Frank Johnson – Property Line Item; (Sponsored by: Lester M. Miller, Mayor)
- c. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Turner Construction Management LLC For The Renovation Of The Memorial Park Recreation Center, In The Amount Of \$1,100,000.00, To Be Paid From The SPLOST 2018 Fund – Recreation – Memorial – Property Line Item; (Sponsored by: Lester M. Miller, Mayor)
- d. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Pro Construction Of Ga, LLC For The Renovation Of Filmore Thomas Park, In The Amount Of \$506,535.00, To Be Paid From The SPLOST 2018 Fund – Recreation – Filmore Thomas – Property Line Item;
(Sponsored by: Lester M. Miller, Mayor)
- e. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Rumcreek Enterprises, LLC For The Provision of SPLOST Management Services, In An Annual Amount Of \$170,000.00, To Be Paid From SPLOST Funds; (Sponsored by: Lester M. Miller, Mayor)

- f. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor, To Enter An Agreement With Williams Communications, Inc., In The Amount Of \$142,219.72 For Repairs To Radio Tower Electric Supply Systems, To Be Paid From 2018 SPLOST Funds – Public Safety Line Item; (Sponsored by:)
- g. An Ordinance Of The Macon-Bibb County Commission To Designate As Complete The Following Projects From The 2018 SPLOST Timeline: From Roads And Bridges - Seventh Street, Central City Commons, Second Street, Navicent, And Allen Road Signal Projects; And From Cultural And Public - Coliseum And S.M.A.R.T. Lake Park Projects; To Authorize The Reappropriation Of \$475,418.00 In 2018 SPLOST Proceeds To Other 2018 SPLOST Projects As Specified Herein; To Approve The Forty-Sixth Amendment To The SPLOST Timeline And Budget As Presented By The SPLOST Project Manager (Sponsored by: Lester M. Miller, Mayor)

6. Grants

- a. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With United Way Of Central Georgia, Inc. Granting An Emergency Solutions Grant, In The Amount Of \$25,106.00, To Provide Emergency Shelter, Support Services, And Case Management Services To Unsheltered Individuals; (Sponsored by: Lester M. Miller, Mayor)
- b. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Macon-Bibb County Economic Opportunity Council, Inc. Granting An Emergency Solutions Grant, In The Amount Of \$48,675.00, To Provide Rental Assistance, Utility Assistance, And Case Management Services To Help Prevent Homelessness; (Sponsored by: Lester M. Miller, Mayor)
- c. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Family Advancement Ministries, Inc. Granting An Emergency Solutions Grant, In The Amount Of \$32,000.00, To Provide Rental Assistance And Utility Assistance To Help Prevent Homelessness; (Sponsored by: Lester M. Miller, Mayor)
- d. A Resolution Of The Macon-Bibb County Commission Authorizing The Acceptance Of Georgia Department Of Transportation Georgia Airport Aid Funding, In The Amount Of Up To \$5,512,500.00, With A \$1,837,500.00 Local Match, To Be Used At The Middle Georgia Regional Airport To Build Hangars, Extend East Drive, And Relocate The Vault; (Sponsored by: Lester M. Miller, Mayor)
- e. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Crisis Line & Safe House Of Central Georgia, Inc. Granting An Emergency Solutions Grant, In The Amount Of \$42,615.00, To Provide Shelter And Comprehensive Services To Individuals And Families Involved In Domestic Violence Situations; (Sponsored by: Lester M. Miller, Mayor)

7. Acceptance of Gifts

- a. A Resolution Of The Macon-Bibb County Commission To Authorize The Acceptance Eleven (11) Bike Racks And Eleven (11) Simme Seats As A Donation To Macon-Bibb County From Bike Walk Macon, Inc., To Be Installed At Various In Downtown Macon (Sponsored by: Lester M. Miller, Mayor)

8. Executive Session

Consultation with the county attorney or other legal counsel to discuss pending or potential litigation, settlement, claims, administrative proceedings, or other judicial actions brought or to be brought by or against Macon-Bibb County or any officer or employee or in which the county or any officer or employee may be directly involved as provided in O.C.G.A. § 50-14-2(1); Entering into an option to purchase, dispose of, or lease property as provided in O.C.G.A. § 50-14-3(b)(1)(E); and Discussion or deliberation on the appointment, employment, compensation, hiring, disciplinary action or dismissal, or periodic evaluation or rating of a county officer or employee as provided in O.C.G.A. § 50-14-3(b)(2);

**MINUTES OF THE
MACON-BIBB PRE-COMMISSION MEETING MEETING
January 28, 2025 – 4:00 PM
City Hall
(Commission Chamber)**

The Pre-Commission Meeting of the Macon-Bibb County Commission was held on January 28, 2025 at 4:00 PM in the Commission Chamber at the Government Center.

COMMISSION MEMBERS PRESENT

Mayor Lester M. Miller
Mayor Pro Tem Seth Clark
Commissioner Paul Bronson
Commissioner Stanley Stewart
Commissioner Joey Hulett
Commissioner Raymond Wilder
Commissioner Bill Howell
Commissioner Donice Bryant
Commissioner Brendalyn Bailey

STAFF PRESENT

Duke Groover, Interim County Attorney
Janice Ross, Clerk of Commission
Keith Moffett, County Manager
Julie Moore, Assistant County Manager
Alex Morrison, Dir. Planning & Public Spaces
Michael McNeill, Sr. Asst Co. Attorney
Sara Davis, Asst. Co. Attorney
Andreanna Beavers, Asst. Co. Attorney
Chris Floore, Communications
Olivia Waters, Communications
Edna Adams, Communications

1. Call to Order

Mayor Lester M. Miller

2. Approval of Minutes

- a. Approval of minutes from the January 7, 2025 meeting (Sponsored by:)

On motion of Commissioner Wilder, seconded by Commissioner Bronson and carried unanimously, the minutes from the January 7, 2025 meeting.

3. Alcohol Beverage Licenses

- a. Tienda Bernabe # 4 LLC DBA 4221 Mercer University Dr., Ste 3, Macon, Georgia 31204
After review, legal recommends denial for failed distance requirements for the sale of alcohol packaged to go. Specifically, the business has applied to sell beer and wine packaged to go from a store only 63 feet from a church and church grounds. The legacy provision of MBC 4-122(c) is not applicable at this business location. (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bronson, seconded by Commissioner Wynn and carried unanimously, the New Alcohol Beverage License for Tienda Bernabe # 4 LLC DBA 4221 Mercer University Dr., Ste 3, Macon, Georgia 31204 was denied based for failed distance requirements for the sale of alcohol packaged to go. Specifically, the business has applied to sell beer and wine packaged to go from a store only 63 feet from a church and church grounds. The legacy provision of MBC 4-122(c) is not applicable at this business location.

- b. Macon C Store LLC dba Macon C Store located at 1471 Rocky Creek Rd., Macon, Georgia 31206
Recommends denial - vice mart (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Wynn, seconded by Commissioner Stewart and carried unanimously, the New Alcohol Beverage License for Macon C Store LLC dba Macon C Store located at 1471 Rocky Creek Rd., Macon, Georgia 31206 was denied as the location is a vice mart.

- c. 777 Vineville Food Mart dba Mobile Food Mart located at 3224 Vineville Ave., Macon, Georgia 31204
Recommends approval. Code Enforcement completed another inspection. Business was open with working gas pumps. (Sponsored by: Lester M. Miller, Mayor)

On motion of Mayor Miller, seconded by Mayor Pro Tem Clark and by a vote of 8 to 1 with Mayor Pro Tem Clark, Commissioner Wynn, Commissioner Bronson, Commissioner Hulett, Commissioner Wilder, Commissioner Howell, Commissioner Bryant, Commissioner Bailey casting the affirmative votes and Commissioner Stewart casting the dissenting vote, the New Alcohol Beverage License for 777 Vineville Food Mart dba Mobile Food Mart located at 3224 Vineville Ave., Macon, Georgia 31204 was approved.

- d. Topline Partners LLC dba Topline Spirits located at 3714 Eisenhower Pkwy., Macon, Georgia 31206
Recommends approval. Liquor store change of ownership. Corner of Eisenhower and Bloomfield (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bailey, seconded by Commissioner Wynn and carried unanimously, the New Alcohol Beverage License for Topline Partners LLC dba Topline Spirits located at 3714 Eisenhower Pkwy., Macon, Georgia 31206 was approved.

- e. Citgo 1681 LLC dba Citgo Food Mart located at 1681 Rocky Creek Rd., Macon, Georgia 31206
Recommends approval. Gas station. (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bailey, seconded by Commissioner Wynn and carried unanimously, the New Alcohol Beverage License for Citgo 1681

LLC dba Citgo Food Mart located at 1681 Rocky Creek Rd., Macon, Georgia 31206 was approved.

- f. 1212 Eisenhower Food Mart LLC dba Texaco Food Mart located at 1212 Eisenhower Pkwy, Macon, Georgia 31206
Recommends approval. Gas station. Change of ownership. (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bailey, seconded by Commissioner Bryant and Passed by a vote of 9 to 1 with Mayor Miller, Mayor Pro Tem Clark, Commissioner Wynn, Commissioner Bronson, Commissioner Hulett, Commissioner Wilder, Commissioner Howell, Commissioner Bryant, Commissioner Bailey casting the affirmative votes and Commissioner Stewart casting the dissenting vote, the New Alcohol Beverage License for 1212 Eisenhower Food Mart LLC dba Texaco Food Mart located at 1212 Eisenhower Pkwy, Macon, Georgia 31206 was approved.

- g. OSLSN LLC dba G Food Mart located at 3598 Williamson Rd., Macon, Georgia 31206
Recommends approval. Gas Station. Change of Ownership. (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bailey, seconded by Commissioner Wynn and Passed by a vote of 8 to 1 with Mayor Pro Tem Clark, Commissioner Wynn, Commissioner Bronson, Commissioner Hulett, Commissioner Wilder, Commissioner Howell, Commissioner Bryant, Commissioner Bailey casting the affirmative votes and Commissioner Stewart casting the dissenting vote, the New Alcohol Beverage License for OSLSN LLC dba G Food Mart located at 3598 Williamson Rd., Macon, Georgia 31206 was approved.

4. Appropriations and Transfers

- a. An Ordinance Of The Macon-Bibb County Commission To Authorize A Budget Transfer Within The Engineering Departmental Budget, From The Professional Services Line Item To The Contract Labor Line Item, In The Amount Of \$250,000.00 For The Purpose Of Funding Roadwork Contracts (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bronson, seconded by Commissioner Wilder and carried unanimously, the Ordinance Of The Macon-Bibb County Commission To Authorize A Budget Transfer Within The Engineering Departmental Budget, From The Professional Services Line Item To The Contract Labor Line Item, In The Amount Of \$250,000.00 For The Purpose Of Funding Roadwork Contracts was approved.

- b. An Ordinance Of The Macon-Bibb County Commission To Authorize The Appropriation Of Up To \$10,624,314.00 From 2018 SPLOST Proceeds To

Be Allocated To Authorized Projects As Specified Herein; (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bailey, seconded by Mayor Pro Tem Clark and carried unanimously, the Ordinance Of The Macon-Bibb County Commission To Authorize The Appropriation Of Up To \$10,624,314.00 From 2018 SPLOST Proceeds To Be Allocated To Authorized Projects As Specified Herein was approved.

- c. An Ordinance Of The Macon-Bibb County Commission To Authorize The Acceptance Of And Approve The Installation Of A Bench In Memory Of Jim, Brax, And Tate Bragg In Coleman Hill Park; To Authorize A Supplemental Appropriation, In The Amount Of Up To \$500.00, From General Fund – Fund Balance To The Parks And Beautification Budget For The Purchase Of Materials And Memorial Signage; (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bronson, seconded by Commissioner Bailey and carried unanimously, the Ordinance Of The Macon-Bibb County Commission To Authorize The Acceptance Of And Approve The Installation Of A Bench In Memory Of Jim, Brax, And Tate Bragg In Coleman Hill Park; To Authorize A Supplemental Appropriation, In The Amount Of Up To \$500.00, From General Fund – Fund Balance To The Parks And Beautification Budget For The Purchase Of Materials And Memorial Signage was approved.

- d. An Ordinance Of The Macon-Bibb County Commission To Approve A Supplemental Appropriation From General Fund – Fund Balance To The Airport Fund – Airport-Middle Ga Regional – Building & Building Improvements Line, In The Amount Of \$110,000.00, To Purchase Lumber; (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Howell, seconded by Commissioner Bronson and carried unanimously, the Ordinance Of The Macon-Bibb County Commission To Approve A Supplemental Appropriation From General Fund – Fund Balance To The Airport Fund – Airport-Middle Ga Regional – Building & Building Improvements Line, In The Amount Of \$110,000.00, To Purchase Lumber was approved.

5. Contracts and Purchase Orders for Approval

- a. A Resolution Of The Macon-Bibb County Commission Expressing The Intent Of Macon-Bibb County To Be Reimbursed For Certain Expenses Relating To Certain Capital Improvements, (Sponsored by:)

On motion of Commissioner Bryant, seconded by Commissioner Bailey and carried unanimously, the Resolution Of The Macon-Bibb County Commission Expressing The Intent Of Macon-Bibb County To Be

Reimbursed For Certain Expenses Relating To Certain Capital Improvements was approved.

- b. A Resolution Of The Macon-Bibb County Commission To Approve Two Change Orders, Both In The Amount Of \$10,000.00 Each, To The Purchase Orders To Civic Partners, To Be Paid From Grant Funds, For Services Rendered To The District Attorney's Office For The R.I.S.E. Initiative (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bronson, seconded by Commissioner Bailey and carried unanimously, the Resolution Of The Macon-Bibb County Commission To Approve Two Change Orders, Both In The Amount Of \$10,000.00 Each, To The Purchase Orders To Civic Partners, To Be Paid From Grant Funds, For Services Rendered To The District Attorney's Office For The R.I.S.E. Initiative was approved.

- c. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor, As Well As The Macon-Bibb Defined Contribution And Deferred Compensation Plan Administrative Board To Execute An Agreement With Nationwide Retirement Solutions, Inc., To Provide Recordkeeping And Administration Services For The Macon-Bibb County 457(B) Deferred Compensation And 401(A) Defined Contribution Plans, To Be Compensated In An Amount Not To Exceed To The Total Of \$98.00 Per Plan Participant And 0.12% Of The Plan Assets Per Year, With Costs To Be Divided Between The Plans And Paid From The Plan Assets On A Prorated Basis, Based On Plan Membership (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bronson, seconded by Commissioner Wynn and carried unanimously, the Resolution Of The Macon-Bibb County Commission Authorizing The Mayor, As Well As The Macon-Bibb Defined Contribution And Deferred Compensation Plan Administrative Board To Execute An Agreement With Nationwide Retirement Solutions, Inc., To Provide Recordkeeping And Administration Services For The Macon-Bibb County 457(B) Deferred Compensation And 401(A) Defined Contribution Plans, To Be Compensated In An Amount Not To Exceed To The Total Of \$98.00 Per Plan Participant And 0.12% Of The Plan Assets Per Year, With Costs To Be Divided Between The Plans And Paid From The Plan Assets On A Prorated Basis, Based On Plan Membership was approved.

6. Community Development Block Grants

- a. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Big Brothers Big Sisters Of The Heart Of Ga, Inc. Granting A Community Development Block Grant, In The Amount Of \$53,077.00, To Provide Mentoring Services To At-Risk Youth (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bailey, seconded by Commissioner Stewart and carried unanimously, the Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Big Brothers Big Sisters Of The Heart Of Ga, Inc. Granting A Community Development Block Grant, In The Amount Of \$53,077.00, To Provide Mentoring Services To At-Risk Youth was approved.

- b. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Family Advancement Ministries, Inc. Granting A Community Development Block Grant, In The Amount Of \$10,140.00, To Provide Car Seats To Families With Young Children; (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bryant, seconded by Commissioner Wynn and carried unanimously, the Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Family Advancement Ministries, Inc. Granting A Community Development Block Grant, In The Amount Of \$10,140.00, To Provide Car Seats To Families With Young Children was approved.

- c. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Crisis Line & Safe House Of Central Georgia, Inc. Granting A Community Development Block Grant, In The Amount Of \$49,887.00, To Provide Shelter Services To Individuals And Families Involved In Domestic Violence Situations; (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bronson, seconded by Commissioner Bryant and carried unanimously, the Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Crisis Line & Safe House Of Central Georgia, Inc. Granting A Community Development Block Grant, In The Amount Of \$49,887.00, To Provide Shelter Services To Individuals And Families Involved In Domestic Violence Situations was approved.

- d. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Family Counseling Center Of Central Georgia, Inc. Granting A Community Development Block Grant, In The Amount Of \$43,200.00, To Provide Counseling And Therapeutic Programs For Low Income Families Dealing With Complex Issues; (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Wynn, seconded by Commissioner Bronson and carried unanimously, the Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Family Counseling Center Of Central Georgia, Inc. Granting A Community Development Block Grant, In The Amount Of \$43,200.00, To Provide Counseling And Therapeutic Programs For Low Income Families Dealing With Complex Issues was approved.

- e. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Homefirst Housing Resource Services, Inc. Granting A Community Development Block Grant, In The Amount Of \$84,700.00, To Provide Home Ownership Counseling, Foreclosure Counseling, And Homebuyer Education (Sponsored by:)

On motion of Commissioner Bronson, seconded by Commissioner Bryant and carried unanimously, the Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Homefirst Housing Resource Services, Inc. Granting A Community Development Block Grant, In The Amount Of \$84,700.00, To Provide Home Ownership Counseling, Foreclosure Counseling, And Homebuyer Education was approved.

- f. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Mother's Nest, Inc. Granting A Community Development Block Grant, In The Amount Of \$20,394.00, To Provide Assistance To New And Expecting Mothers (Sponsored by:)

On motion of Commissioner Bailey, seconded by Commissioner Bronson and carried unanimously, the Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With Mother's Nest, Inc. Granting A Community Development Block Grant, In The Amount Of \$20,394.00, To Provide Assistance To New And Expecting Mothers was approved.

- g. A Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With The Mentors Project Of Bibb County, Inc. Granting A Community Development Block Grant, In The Amount Of \$12,400.00, To Provide Assistance To Students And Families In The Mentors Project To Include The Provision Of Rent, Utilities, Gas, And Food Assistance, And Other Necessities; (Sponsored by: Lester M. Miller, Mayor)

On motion of Commissioner Bailey, seconded by Commissioner Bronson and carried unanimously, the Resolution Of The Macon-Bibb County Commission Authorizing The Mayor To Execute An Agreement With The Mentors Project Of Bibb County, Inc. Granting A Community Development Block Grant, In The Amount Of \$12,400.00, To Provide Assistance To Students And Families In The Mentors Project To Include The Provision Of Rent, Utilities, Gas, And Food Assistance, And Other Necessities was approved.

7. Grants

- a. A Resolution Of The Macon-Bibb County Commission Authorizing The Acceptance Of A 2025 Georgia County Internship Program ("GCIP") Grant From The ACCG Civic Affairs Foundation, In The Amount Of \$5,819.00,

With A Local Match Of Up To \$4,800.00 To Be Paid From The County Attorney's Office Budget, For The Macon-Bibb County Attorney's Office Intern Program; (Sponsored by:)

On motion of Commissioner Bailey, seconded by Commissioner Stewart and carried unanimously, the Resolution Of The Macon-Bibb County Commission Authorizing The Acceptance Of A 2025 Georgia County Internship Program ("GCIP") Grant From The ACCG Civic Affairs Foundation, In The Amount Of \$5,819.00, With A Local Match Of Up To \$4,800.00 To Be Paid From The County Attorney's Office Budget, For The Macon-Bibb County Attorney's Office Intern Program was approved.

8. Executive Session

Consultation with the county attorney or other legal counsel to discuss pending or potential litigation, settlement, claims, administrative proceedings, or other judicial actions brought or to be brought by or against Macon-Bibb County or any officer or employee or in which the county or any officer or employee may be directly involved as provided in O.C.G.A. § 50-14-2(1); Entering into an option to purchase, dispose of, or lease property as provided in O.C.G.A. § 50-14-3(b)(1)(E); and Discussion or deliberation on the appointment, employment, compensation, hiring, disciplinary action or dismissal, or periodic evaluation or rating of a county officer or employee as provided in O.C.G.A. § 50-14-3(b)(2);

Respectfully Submitted:

Janice S. Ross
Clerk of the Commission



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
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A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION TO ASSENT TO AND APPOINT ROBERT ABBOTT AND BARBARA BOYER TO THE MACON-BIBB COUNTY BOARD OF ELECTIONS; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, the Macon-Bibb County Board of Elections was created by Act No. 415 of the 1969 Session of the Georgia General Assembly, which act is recorded in the statutes at large for Georgia at 1969 Ga. L. 3331 (the “Act”); and

WHEREAS, Section 2 of the Act provides, in part, that, “[t]wo members shall be chosen by the county executive committee of the political party which at the last preceding regular general election held for the election of all members of the General Assembly elected the largest number of members of the General Assembly,” and that, “[t]wo members shall be appointed in like fashion by the county executive committee of the political party which, at such election, elected the next largest number of members of the General Assembly”; and

WHEREAS, in the last preceding general election held for the election of all members of the Georgia General Assembly, the Republican Party elected the largest number of members of the General Assembly and the Democratic Party elected the next largest number; and

WHEREAS, the county executive committee of the Republican Party has chosen Robert Abbott and Barbara to serve as its political appointees to the Macon-Bibb County Board of Elections; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants.

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same that, pursuant to Section 2 of Act No. 415 of the 1969 Session of the Georgia General Assembly, the Commission does hereby assent to the appointment of and appoint Robert Abbott and Barbar Boyer to serve as the two political appointees from the Republican Party for the Macon-Bibb County Board of Elections.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution or in the Exhibits hereto after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all ordinances or resolutions or parts of ordinances or resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly.

[SIGNATURES TO FOLLOW]

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this ____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of Commission

Q:\RES MACON-BIBB\2025 Miller Asset And Appointing Abbott And Boyer To Boe - 2-14-25.Docx



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
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A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION APPOINTING JOSHUA HALE, CRISTELE PARHAM, MAIESHA CLARK, JULIA MORRISON, MARSHALL TALLEY, ANTHONY HOWARD, AND SCOTT MITCHELL TO SERVE ON THE FRIENDS OF ROSA PARKS SQUARE BOARD; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, the Friends of Rosa Parks Square Board was been established pursuant to Section 2-890 of the Macon-Bibb County Code of Ordinances, and has a stated mission to “maintain and preserve Rosa Parks Square as a park which sufficiently honors and memorializes the life and legacy of Rosa Parks”; and

WHEREAS, pursuant to Section 2-892 of the Macon-Bibb County Code of Ordinances, the Friends of Rosa Parks Square Board consists of (12) members appointed by the Mayor of Macon-Bibb County, and submitted to the Macon-Bibb County Commission for confirmation; and

WHEREAS, members of the Friends of Rosa Parks Square Board shall be residents of Macon-Bibb County, and shall be at least eighteen (18) years old, and shall serve a term of two years, or until their successor is appointed and confirmed; and

WHEREAS Joshua Hale has been recommended for appointment to replace James Beall, whose term expired on July 14, 2024; and

WHEREAS, Joshua Hale has submitted his resume and certificate of good standing for reference and review, attached hereto as Exhibit A; and

WHEREAS, Cristele Parham has been recommended to replace Jonathan Barton, whose term expired on March 1, 2024 ; and

WHEREAS, Cristele Parham has submitted her resume and certificate of good standing for reference and review, attached hereto as Exhibit B; and

WHEREAS, Maiesha Clark has been recommended to replace Clarence Thomas, whose term expired on March 1, 2024; and

WHEREAS, Maiesha Clark has submitted her resume and certificate of good standing for reference and review, attached hereto as Exhibit C; and

WHEREAS, Julia Morrison has been recommended to replace Alex Morrison, whose term expired July 14, 2024; and

WHEREAS, Julia Morrison has submitted her resume and certificate of good standing for reference and review, attached hereto as Exhibit D; and

WHEREAS, Marshall Talley has been recommended to replace George Muhammed, whose term expired on July 14, 2024; and

WHEREAS, Marshall Talley has submitted his resume and certificate of good standing for reference and review, attached hereto as Exhibit E; and

WHEREAS, Anthony Howard has been recommended to replace Bob Fickling, whose term expired on July 14, 2024; and

WHEREAS, Anthony Howard has submitted his resume and certificate of good standing for reference and review, attached hereto as Exhibit F; and

WHEREAS, Scott Mitchell has been recommended to replace Janeen Andrews, who is unable to complete her term due to scheduling issues, and fulfill the remainder of her unexpired term, which ends on August 14, 2025; and

WHEREAS, Scott Mitchell has submitted his resume and certificate of good standing for reference and review, attached hereto as Exhibit G; and

WHEREAS, Joshua Hale, Maiesha Clark, Julia Morrison, Marshall Talley, Anthony Howard, and Scott Mitchell have expressed their interest and willingness to serve, meet all rules, regulations, and requirements necessary for appointment and have completed all necessary pre-requisite actions for appointment to the Friends of Rosa Parks Square Board; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants.

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that Joshua Hale, Maiesha Clark, Julia Morrison, Marshall Talley, Anthony Howard, and Scott Mitchell are hereby appointed to serve as

members of the Friends of Rosa Parks Square Board, with said terms to begin on the effective date of this Resolution.

BE IT FURTHER RESOLVED, the terms of Joshua Hale, Maiesha Clark, Julia Morrison, Marshall Talley, Anthony Howard shall expire on February 17, 2027.

BE IT FURTHER RESOLVED, the term of Scott Mitchell shall expire on August 14, 2025.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then

this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this _____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

*Q:\RES MACON-BIBB\2025 Miller Appointing Hale, Parham, Clark, Morrison, Talley, Howard, And Mitchell To
FRPSB 2-5-25.Docx*

EXHIBIT A



Macon-Bibb County Certificate of Good Standing

Instructions: This Certificate is used to certify the tax compliance status of certain individuals or business entities with a connection to a person or business that is applying for or being considered for some privilege with the Macon-Bibb County Government. These privileges may include:

- Obtaining a building permit, plat approval, building inspection report, or certificate of occupancy
- Obtaining or renewing any alcohol or privilege license
- Being appointed to any board or position of trust requiring confirmation of the County Commission.
- Being awarded a contract through a formal competitive bid or proposal process
- Being awarded a non-competitive contract over \$50,000.00
- Registering to bid on any surplus real property sold by the Macon-Bibb County Government or the Macon-Bibb County Tax Commissioner
- Any other privilege granted by Macon-Bibb County which may require certifying tax compliance status

If **AN INDIVIDUAL OR SOLE PROPRIETORSHIP** is applying for a privilege requiring this form, then that individual must complete this Certificate using his or her name as both the applicant and the subject.

If **AN ENTITY** is applying for a privilege requiring this form, then an owner or manager must complete this Certificate using the entity's name as both the applicant and the subject; and **ONE ADDITIONAL CERTIFICATE** must be completed **FOR EACH** individual identified as an owner in the entity's Certificate.

FOR BOTH INDIVIDUALS AND ENTITIES, if the privilege requested is a building permit, plat approval, building inspection report, certificate of occupancy, alcohol license, or other privilege license, then **ONE ADDITIONAL CERTIFICATE** must be completed listing the landowner of the construction site or business location as the subject.

All required completed certificates must be submitted together. Giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.

Macon-Bibb County Certificate of Good Standing

1. Name and Title of the applicant: Joshua Todd Hale

2. Name of the subject of this Certificate, if different from the applicant:

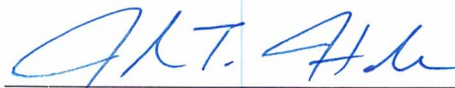
3. Benefit or privilege for which the applicant is applying (mark one):

☐ Building Permit	☐ Plat Approval	☐ Building Inspection Report	☐ Certificate of Occupancy
☐ Alcohol License (Any)	☐ Privilege License (Any other than alcohol)	☐ Political Appointment	☐ Competitive Contract Bid or Proposal
☐ Non-Competitive Contract over \$50,000	☐ Registering to Bid on Real Property	☒ Other: <u>Appointment to Rosa Parks Square Board</u>	

4. If the subject is an individual or sole proprietorship, then list all business entities in which the subject has a direct or indirect ownership interest of 25% or more, or legal control over. If the subject is an entity, then list all individuals who have a direct or indirect ownership interest of 25% or more in the subject entity, or who exercise legal control of the entity. Use additional sheets if needed.

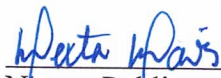
(1) Joshua T. Hale's Lighthouse Law Firm, LLC; (2) LLF Accommodations, LLC; (3) LLF Accommodations 2, LLC; (4) LLF Holdings, LLC; (5) Maynard's Mill Farm, LLC; (6) MMF Holdings, LLC; (7) TNT Dynamos, LLC

5. I, the undersigned, do hereby swear or affirm that the information contained in this Certificate is true and complete to the best of my available knowledge. I further swear or affirm that, as of today, none of the individuals or entities listed in this Certificate are more than 90 days delinquent on the payment of any ad valorem property taxes due to the Macon-Bibb County Government. I understand that giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.



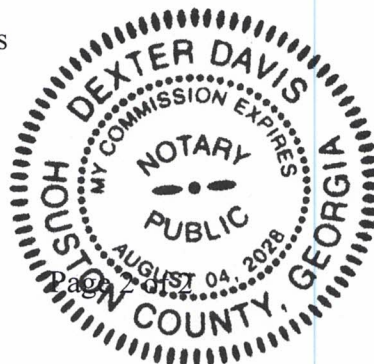
Print and Sign Name

Sworn to and subscribed before me this 16 day of February, 2025.



Notary Public

My commission expires: 8/4/28



Rev. April 2022
See O-22-0011

Joshua is married to Jessica Griffith Hale, who was born and raised in Macon. They have two children: a son, John “Wilder” Hale; and a daughter, “Eliza” Higgins Hale.

Joshua graduated cum laude from Mercer University’s Walter F. George School of Law in 2013. He is the founder of Lighthouse Law Firm.

He is also the founder Lighthouse Recovery Ministries, which was birthed in 2014. Lighthouse Recovery Ministries is a fruitful addiction recovery deliverance ministry for men that has discipled and equipped hundreds of men in middle Georgia.

Joshua also serves as Executive Director for the Griffith Foundation. The Griffith Foundation has been funding grassroots, kingdom, initiatives in the heart of Georgia since 1993.

Lastly, Joshua serves as CEO for Hope for the Heart of Georgia, which is a regional ministry focused on cultivating kingdom connections and facilitating the healing of the heart of Georgia.

EXHIBIT B



Christele Nicolas-Parham, MBA

Innovation Consultant | Ecosystem Builder

To create an innovative future that benefits us all, we must establish equitable pathways where the pain points scarring communities are understood through an empathy lens, activating innovators, creatives, and entrepreneurs closest to the solutions. By creating safe spaces for these individuals to build, we impact the well-being of communities and positively influence the economy, transforming areas into thriving hubs.

As someone passionate about fostering equitable pathways for individuals from diverse backgrounds to fuel innovation, this mission has guided my work. At Ham Designs, I support organizations leading social impact initiatives by developing empathy-driven digital solutions. Through Macon Black Tech, I provide essential resources and training to early-stage founders, helping them scale their businesses from ideas to sustainable MVPs, thereby empowering the local tech community in Middle Georgia. As the owner of CrateX, a coworking and event space in downtown Macon, I fostered a collaborative environment to attract and support entrepreneurs and professionals.

✉ christele@hamdesigns.co ☎ 478-578-8910 🌐 /in/christele-nicolas

Core Competencies

- **Curator and Creator of Data-Driven Initiatives:** Spearheading human-centered design initiatives that leverage data analytics to enhance user engagement and operational efficiency.
- **Project Management:** Proficient in overseeing projects from inception to completion, ensuring deliverables meet quality standards and timelines.
- **Process Improvement:** Skilled in identifying and implementing process enhancements that increase efficiency and reduce costs while maintaining high-quality outcomes.
- **Strategy & Operations:** Experienced in developing strategic approaches that optimize organizational effectiveness and drive business goals.
- **Community Organizer:** Adept at mobilizing community resources, fostering collaborations, and building strong networks to support and advance community initiatives.
- **Staff and User Training:** Experienced in designing and delivering training programs that enhance skills, improve performance, and ensure understanding of complex systems.
- **Design Thinking:** Utilize design thinking methodologies to solve problems creatively and innovate user-centric solutions.
- **Research Studies:** Skilled in conducting comprehensive research studies that inform strategy development and contribute to evidence-based decision making.

Educational Training

Mercer University School (MBA)

- A specialized program formed by Navicent Health and Mercer University with a Healthcare focus

Florida Atlantic University High School

- Bachelors in Accounting

Professional Experience

Navicent Health/ Atrium Health Financial Audit/ Innovation Delivery Specialist

2014-2020

- **Customer Discovery and Patient Journey Mapping:** Led the design and implementation of patient journey mapping projects, effectively documenting and analyzing customer interactions to enhance the delivery of healthcare services. Spearheaded proof of concept initiatives to demonstrate feasibility and effectiveness of proposed solutions.
- **Proof of Concept Coordination:** Coordinated with clinical and business units across the continuum of care to develop and execute proof of concept strategies that aligned with organizational goals, ensuring seamless integration and operational excellence.
- **Revenue Cycle Auditing:** Conducted comprehensive audits of the Revenue Cycle processes to identify and rectify billing errors and insurance denials, significantly reducing financial discrepancies and improving accuracy in patient billing.
- **Staff Training:** Developed and delivered targeted training programs for staff, enhancing their competencies and understanding of new systems and processes, thereby improving overall operational efficiency.
- **Collaborative Protocol Development:** Collaborated with key stakeholders to draft and finalize protocols for Institutional Review Board (IRB) review and approval, ensuring all research activities met rigorous ethical and regulatory standards.

Entrepreneurship Experience

Ham Designs Founder/Chief Innovation Officer Present

- Lead innovation consulting to enhance organizational processes through technology.
- Curate and manage processes for city-led initiatives, enhancing community engagement and effectiveness.

- Develop and oversee virtual event planning and management, ensuring high-quality, engaging online experiences.
- Design and implement data dashboards to monitor and report on project metrics effectively.
- Conduct workshops and team training sessions to foster skills development and promote continuous learning.
- Oversee research projects to inform strategy and decision-making.

Macon Black Tech Co- Founder

2019- present

- Drive ecosystem building by providing tech and innovation resources through dynamic programming and curriculum development.
- Plan and execute a variety of events, ensuring objectives are met and stakeholders are engaged.
- Develop and manage programs that support the growth and development of entrepreneurs within the tech sector.
- Lead fundraising initiatives and develop strategic partnerships with national brands to enhance resource availability and program reach.
- Design and implement the MBT Accelerator Program, including curriculum development for entrepreneurs and effective resource matchmaking.
- Manage budgeting, team onboarding, and partner relations to ensure program success

HamTech Solutions Co-founder

Jan. 2013 to 2022

- Spearheaded strategic planning and project management, ensuring alignment with business goals and seamless execution.
- Served as the Creative Director, leading design and innovation in product and service offerings.
- Directed business development and sales strategies, significantly expanding market reach and customer engagement.
- Oversaw customer service operations to ensure client satisfaction and loyalty.

Programs

Goldman Sachs (2022)

One Million Black Women
Graduate June 2022

Resource (2021)

Village Capital and Black
Innovation Alliance Program

Center for Black Innovation Fellow (2021)

Center for Black Innovation
Program

Awards

- **2022 5 under 40**
 - Macon Magazine
- **Young Business Leader of the Year (2021)**
 - Greater Macon Chamber of Commerce
- **Emerging Leader(2021)**
 - NewTown Macon

Portfolio

Macon-Bibb Equity Hub

- Developed brand
- Conducted foundational research and led the development of the organization's website, creating a digital platform that effectively communicates the mission and impact of the equity initiatives.
- Designed and implemented comprehensive data dashboards that visualize critical metrics and outcomes, enhancing transparency and stakeholder engagement.

Macon Mental Health Matters

- Developed the innovation framework that guides the organization's approach to mental health solutions in the community. Spearheaded multiple research projects that identify needs and measure the effectiveness of various interventions, directly impacting community health strategies.

On The Table

- Organized and facilitated community-wide discussions that provided insights into local issues and fostered community-driven solutions. Enhanced public engagement through effective event planning and stakeholder communication.

Macon Black Tech

- Co-founded this initiative to boost the local tech ecosystem by providing essential resources, training, and support to aspiring entrepreneurs. Oversaw program development and strategic partnerships, significantly impacting the tech community's growth.

MaconThon

- Developed and managed a comprehensive accelerator program under Macon Black Tech, designing curricula and resources specifically for tech entrepreneurs. Led fundraising and resource allocation to support sustainable startup growth.

Articles

2022 Highlights of Macon Black Tech

Village Capital Macon Black Tech Profile

The Telegraph Article about Macon Black Tech

Certifications

- Design Thinking
- Lean Green Belt

Macon-Bibb County Certificate of Good Standing

1. Name and Title of the applicant: Christele Parham

2. Name of the subject of this Certificate, if different from the applicant:

3. Benefit or privilege for which the applicant is applying (mark one):

☐ Building Permit	☐ Plat Approval	☐ Building Inspection Report	☐ Certificate of Occupancy
☐ Alcohol License (Any)	☐ Privilege License (Any other than alcohol)	☒ Political Appointment X	☐ Competitive Contract Bid or Proposal
☐ Non-Competitive Contract over \$50,000	☐ Registering to Bid on Real Property	☐ Other: _____	

4. If the subject is an individual or sole proprietorship, then list all business entities in which the subject has a direct or indirect ownership interest of 25% or more, or legal control over. If the subject is an entity, then list all individuals who have a direct or indirect ownership interest of 25% or more in the subject entity, or who exercise legal control of the entity. Use additional sheets if needed.

Ham Designs, Macon Black Tech, Crate X. Additional owners: Ariane Parham

5. I, the undersigned, do hereby swear or affirm that the information contained in this Certificate is true and complete to the best of my available knowledge. I further swear or affirm that, as of today, none of the individuals or entities listed in this Certificate are more than 90 days delinquent on the payment of any ad valorem property taxes due to the Macon-Bibb County Government. I understand that giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.

Christele Parham
Christele Parham

Print and Sign Name

Sworn to and subscribed before me this
14th day of February, 2025.

Sheila F. Griggs
Notary Public

My commission expires: 8/20/2025



EXHIBIT C

Maiesha L. Clark
616 Millrun Court
Macon, GA 31210
478-291-6420
maieshalachae@gmail.com

Objective

To obtain a position within a dynamic company where I can leverage my extensive experience in team leadership, sales driving, and customer service excellence as well as philanthropic endeavors .

Experience

Non-Profit CEO

BeU=P.I.E. Purpose in Everyone Foundation– Macon, Ga
May 2020-Present

- Provided visionary leadership, strategic direction, and operational oversight to the organization, ensuring mission alignment and long-term sustainability.
- Managed fundraising campaigns, securing major grants, donor partnerships, and sponsorships, resulting in increased revenue and expanded program offerings.
- Oversaw budgeting, financial planning, and resource allocation to optimize organizational efficiency.
- Developed and executed programs and initiatives that served the target community, achieving measurable impact.
- Built and maintained strong relationships with stakeholders, including board members, community leaders, and corporate partners.
- Directed marketing and communication strategies to enhance brand visibility and public engagement.
- Spearheaded organizational growth, scaling operations, and expanding services to reach a broader audience.

Store Manager

Express

February 2021 - January 2022

- Managed a team of 12 employees, ensuring effective operations and team collaboration.
- Trained and onboarded new staff, improving retention rates through mentorship.
- Developed and executed sales strategies, resulting in a 45% increase in revenue.
- Fostered a positive customer service environment, leading to improved customer satisfaction.

Store Manager*Justice*

February 2015 - December 2020

- Led daily operations and sales initiatives for a high-traffic retail location.
- Hired, trained, and mentored team members, enhancing staff performance and morale.
- Implemented customer engagement strategies that boosted repeat customer visits by 90%.
- Maintained effective store operations, achieving consistent performance in visual merchandising and inventory management.

Store Manager*RUE 21*

April 2012 - January 2015

- Directed all store activities, ensuring alignment with company goals and standards.
- Achieved sales targets consistently through effective promotional campaigns and employee motivation.
- Cultivated a customer-first culture, leading to improved feedback and sales conversion rates.

Store Manager*Kirkland's*

September 2010 - April 2012

- Oversaw daily store operations and team performance to meet sales objectives.
- Developed training programs for new hires, resulting in an 85% improvement in onboarding efficiency.
- Enhanced store layout and merchandising strategies, increasing foot traffic and customer engagement.

Education*Central Georgia Technical College*

Business Management

2002 - 2004

Skills

- Team Leadership
- Sales Strategy Development
- Employee Training & Development
- Customer Service Excellence
- Inventory Management

Macon-Bibb County Certificate of Good Standing

1. Name _____ and Title _____ of the applicant: Maiesha Lachae Clark

2. Name of the subject of this Certificate, if different from the applicant: Rosa Parks Square

3. Benefit or privilege for which the applicant is applying (mark one):

☐ Building Permit	☐ Plat Approval	☐ Building Inspection Report	☐ Certificate of Occupancy
☐ Alcohol License (Any)	☐ Privilege License (Any other than alcohol)	☒ Political Appointment	☐ Competitive Contract Bid or Proposal
☐ Non-Competitive Contract over \$50,000	☐ Registering to Bid on Real Property	☐ Other: _____	

4. If the subject is an individual or sole proprietorship, then list all business entities in which the subject has a direct or indirect ownership interest of 25% or more, or legal control over. If the subject is an entity, then list all individuals who have a direct or indirect ownership interest of 25% or more in the subject entity, or who exercise legal control of the entity. Use additional sheets if needed.

Maiesha Lachae LLC
Beu = P.I.E. Purpose In Everyone Foundation

5. I, the undersigned, do hereby swear or affirm that the information contained in this Certificate is true and complete to the best of my available knowledge. I further swear or affirm that, as of today, none of the individuals or entities listed in this Certificate are more than 90 days delinquent on the payment of any ad valorem property taxes due to the Macon-Bibb County Government. I understand that giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.

Maiesha L. Clark Maiesha L. Clark
Print and Sign Name

Sworn to and subscribed before me this 14th day of February, 2026.

Sheila F. Griggs



Page

Rev. April 2022
See O-22-0011

EXHIBIT D

JULIA MORRISON

703-786-7467

MORRISONJULIA528@GMAIL.COM

My experiences as a writer, theatre artist, educator, and communicator guide me to shine a spotlight on others and tell their stories. I am a fierce advocate for artists and culture makers, who are a driving force for positive social change.

SELECTED POSITIONS

9/2019-PRESENT, DIRECTOR OF ARTS MARKETING & COMMUNITY ENGAGEMENT

Mercer University | Marketing Communications

- Working under the Senior Vice President for Marketing Communications and Chief of Staff, this position is responsible for marketing, promotions, media relations and community engagement for five venues, four academic units and multiple ancillary arts organizations.
- Designed and executed all marketing objectives for The Grand Opera House, a historic theatre presenting Broadway tours, concerts, comedy and dance in downtown Macon.
- Directed and produced community cultural development programming that encourages participation and relationship building with community organizations in Middle Georgia.

8/2018-9/2019, PUBLICATIONS MANAGER

Center for the Arts at George Mason University | Hylton Performing Arts Center | College of Visual and Performing Arts

- Lead team member for designers, copy writers and artists involved in the creation and dissemination of printed and electronic publications, advertising and other creative services.
- Supported brand identity and institutional development for two venues hosting events for core audiences across the D.C.-area, as well as seven academic units within the college.

9/2015-8/2018, PROGRAM EDITOR

Alvin Ailey American Dance Theater

- Collected content from departments across a large nonprofit organization and interfaced with peer institutions worldwide for publication.
- Edited, proofread and designed materials to multiple brand standards for programming, marketing, fundraising and education purposes.

8/2016-8/2018, FELLOW

Center for International Theatre Development

- Assisted Founder to manage international cultural initiatives. This included production and editorial management for print and digital content on international cultural policy, which was distributed to a targeted list of major leaders in the field.

5/2015-8/2018, DIGITAL MEDIA/MARKETING COORDINATOR

Talking Band

- Coordinated digital marketing efforts, website and brand identity for a legacy off-Broadway company. Content included blog posts, e-newsletters and social media for world premieres.

4/2013-8/2014, EDITOR/COMMUNICATIONS COORDINATOR

Virginia Tech | Office of International Research, Education, and Development

- Planned and executed all digital/print communications at a USAID-funded international development research initiative, including authoring marketing plans and analytics reports.
- Managed, designed and wrote copy for outputs such as news media, e-newsletters, social media, technical reports, briefs, press releases and special events.

2/2010-5/2013, COPY EDITOR/FORMATTING ASSISTANT

BizActions, a Thomson Reuters Business

- Used HTML to replace photos, edit content and update design in a CMS with thousands of articles, in order to ensure consistent branding for a large e-newsletter subscriber base.

EDUCATION

M.F.A. TOWSON UNIVERSITY | GPA 3.95

Theatre | Thesis: Game design for audience development and inclusion

B.A. VIRGINIA TECH | GPA 3.77

Theatre & Cinema, Magna cum Laude with Honors | Minor in Sociology

FREELANCE

- **7/22-PRESENT: MACON MAGAZINE**
Managing Editor, Contributor
- **8/22-5/23: HEART & SOLE WORKSHOP**
Project Manager
- **8/20-PRESENT: STORYTELLERS MACON**
Director of Fine Arts

COMMUNITY INVOLVEMENT

BOARD OF DIRECTORS

- *Downtown Macon Community Association, Past Chair*
- *Macon200, Marketing Chair*
- *Macon Little Theatre, Past Secretary*
- *Big Brothers Big Sisters*
- *Macon Pride*

Macon-Bibb County

Certificate of Good Standing

1.Name and Title of the applicant: Mrs. Julia Morrison

2.Name of the subject of this Certificate, if different from the applicant:

3.Benefit or privilege for which the applicant is applying (mark one):

☐ Building Permit	☐ Plat Approval	☐ Building Inspection Report	☐ Certificate of Occupancy
☐ Alcohol License (Any)	☐ Privilege License (Any other than alcohol)	☒ Political Appointment	☐ Competitive Contract Bid or Proposal
☐ Non-Competitive Contract over \$50,000	☐ Registering to Bid on Real Property	☐ Other: _____	

4.If the subject is an individual or sole proprietorship, then list all business entities in which the subject has a direct or indirect ownership interest of 25% or more, or legal control over. If the subject is an entity, then list all individuals who have a direct or indirect ownership interest of 25% of more in the subject entity, or who exercise legal control of the entity. Use additional sheets if needed.

5.I, the undersigned, do hereby swear or affirm that the information contained in this Certificate is true and complete to the best of my available knowledge. I further swear or affirm that, as of today, none of the individuals or entities listed in this Certificate are more than 90 days delinquent on the payment of any ad valorem property taxes due to the Macon-Bibb County Government. I understand that giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.

Julia Morrison

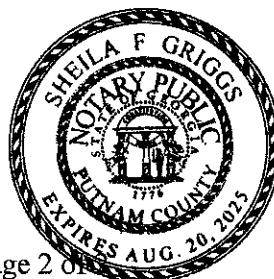
Print and Sign Name

Julia Morrison

Sworn to and subscribed before me this
6 day of February, 2025.

Sheila F. Griggs
Notary Public

My commission expires: 8/20/2025



Page 2 of 2

Rev. April 2022
See O-22-0011

EXHIBIT E

MARSHALL TALLEY

(478)305-3590

MarshallTalley84@gmail.com

1227 Nottingham Dr

Macon GA 31211

United States

PROFILE

Highly accomplished Food & Bev entrepreneur with a demonstrated history of success in consulting, management, and marketing. Skilled in opening new concepts and rebranding underperforming establishments. Adept at evaluating business operations, optimizing resource utilization, and implementing improvement strategies aligned with business objectives.

Strong ability to enhance efficiency and effectiveness, establish cooperative relationships with stakeholders, and promote the business through community events and sponsorships. Experienced in planning and executing advertising campaigns, developing marketing strategies, and negotiating contracts. Proficient in creating and maintaining vendor relationships, designing food and beverage menus, and managing staff recruitment and training. Demonstrated expertise in budgeting, inventory control, and revenue management. Committed to ensuring customer satisfaction, maintaining a safe environment, and driving revenue growth. Passionate about community engagement and social impact initiatives.

KEY SKILLS

Consulting, Management, Marketing, Business Improvement, Relationship Building, Advertising, Vendor Management, Menu Design, Staff Recruitment and Training, Budgeting, Inventory Control, Revenue Management, Customer Satisfaction, Community Engagement, Social Impact

FABARTENDER CONSULTING & MANAGEMENT LLC Macon, GA – Owner

Consultant, Management, Marketing - March 2014 - Present

- Responsible for opening new concepts and rebranding old ones that aren't performing to standards. Evaluates business operations, assess the utilization of resources, and develops and implement improvement strategies in line with business objectives. Improves efficiency and effectiveness. Establishes and maintain cooperative relationships with representatives of the community, consumers, employees, or public interest groups. Promotes the business through participation in and sponsorship of community events. Confers with other owners/managers to identify trends or key group interests or concerns or to provide advice on business decisions.
- Purchases advertising space or time as required to promote client's product or agenda. Plans and prepares advertising and promotional material to increase sales of products or services, working with customers, company officials, sales departments and advertising agencies. Gathers and organizes information to plan advertising campaigns. Confers with clients to provide marketing or technical advice. Prepares and negotiates advertising and sales contracts.
- Creates Food and Bev menus. Initiates and maintains vendor relationships.
- Identifies staff vacancies and recruits, interviews and selects applicants. Plans, directs, supervise, and coordinates work activities of staff relating to employment, compensation, labor relations, and employee relations. Plans, organizes, directs, controls or coordinates the personnel, training, or labor relations activities of an organization. Trains managers to run the store to organization standards.
- Prepares and follows budgets for operations and monitor cost. Audits Food and Bev inventory pricing, purchasing, levels, and sale pricing. Reviews all reports with whom is appointed. Sets revenue goals and benchmarks within the organization.
- Creates and manages comps and promos. Creates up to date training manuals. Coordinates preventative maintenance program with managers. Reviews management performance on a weekly, monthly, and quarterly basis. Tracks customer behavior and sales. Ensures customer satisfaction and retention. Creates fun team building activities to engage staff in up-selling to meet revenue targets. Maintains a safe working and guest environment to reduce the risk of injury or accidents.

CHEERS ENTERTAINMENT SERVICES LLC Macon, GA – Co-Owner

Staffing, Event Planning, Education & Training - July 2016 - Present

- Secured staffing contract with Spectra by Comcast Spectator.
- Contracts waitstaff, bartenders, cooks, and cashiers for various events and businesses for short term, long term, and temp to hire opportunities. Responsible for recruiting, training, and retaining talent pool. Works with clients to determine staffing needs. Handles contracts, taxes, and other payroll tasks. Reduces risk. Identifies clients' requirements and expectations for each event. Structures events and coordinate all the moving parts. Conceptualizes theme ideas. Plans event budgets. Books venues. Manages logistics and present post event reports.
- Negotiates profitable partnerships and alliances with vendors. Administers contracts and agreements for events and facilities. Develop communication and marketing plans for new/existing events.
- Offers online education and training courses (CheersBarTraining.teachable.com)

SPREAD THE VOTE / PROJECT ID

GA Regional Field Coordinator - 2018 - 2020

- Secured a 10K Grant from the Griffith Family Foundation, responsible for coordinating, consolidating, and ensuring smooth implantation of program and operations' activities and adherence to logistic, human resources, administration and security procedures, recruited, trained, and retained volunteers.
- Helped members of the community obtain a Government ID for free, along with all supporting documents. Registered community members to Vote.
- Planned GOTV events. Conducted regular outreach to build awareness. Partnered with corporate, city agencies and elected officials to advance campaigns. Coordinated meetings, community events, and activities. Supported community mobilization efforts.

REGISTERED & READY Macon, GA

Co-Founder Non Profit - 2018 - 2020

- Promoted the common good and general welfare of the community. Increased civic awareness and responsibility in communities of poverty. Registered community members to Vote. Planned GOTV events. Conducted regular outreach to build awareness.
- Partnered with corporate, city agencies and elected officials to advance campaigns. Coordinated meetings, community events, and activities. Supported community mobilization efforts.
- Helped decriminalize marijuana in Macon-Bibb. Registered a record number of community members and voter participation in 2018.

CONSULTING AND MANAGEMENT EXPERIENCE

VIBEZ BRUNCH BAR GRILL - Macon, GA

General Operations Manager - 2020 - Present

MYSTIQUE LOUNGE / TRIPLE CROWN LOUNGE - Macon, GA

Food & Bev Manager, Marketing, Consultant - 2016 - 2020

ICON NIGHTCLUB / PRIMETIME 41 - Macon, GA

Marketing, Consultant - 2013 - 2016

RECESS BAR & LOUNGE - Macon, GA

Marketing, Consultant - June 2014 - 2016

SENSATIONAL CLUB STATUS - Macon, GA

Bar Manager - May 2012 - 2014

BAR 41 - Macon, GA

Bar Manager - May 2012 - 2014

WING'S CAFE - Macon, GA

Bar Manager - May 2010 - 2012

EDUCATION

Albany State University Albany, GA

Completed coursework towards Music Education, May 2004 Education

HONORS & AWARDS

I AM KING Man of the Year 2021, Tubman Museum Underground Award 2020, Black Excellence Award 2019, Umoja Unity Award 2018, Community Social Impact Award 2016



Macon-Bibb County Certificate of Good Standing

Instructions: This Certificate is used to certify the tax compliance status of certain individuals or business entities with a connection to a person or business that is applying for or being considered for some privilege with the Macon-Bibb County Government. These privileges may include: ☐

- Obtaining a building permit, plat approval, building inspection report, or certificate of occupancy
- Obtaining or renewing any alcohol or privilege license
- Being appointed to any board or position of trust requiring confirmation of the County Commission.
- Being awarded a contract through a formal competitive bid or proposal process
- Being awarded a non-competitive contract over \$50,000.00
- Registering to bid on any surplus real property sold by the Macon-Bibb County Government or the Macon-Bibb County Tax Commissioner
- Any other privilege granted by Macon-Bibb County which may require certifying tax compliance status ☐

If **AN INDIVIDUAL OR SOLE PROPRIETORSHIP** is applying for a privilege requiring this form, then that individual must complete this Certificate using his or her name as both the applicant and the subject.

If **AN ENTITY** is applying for a privilege requiring this form, then an owner or manager must complete this Certificate using the entity's name as both the applicant and the subject; and **ONE ADDITIONAL CERTIFICATE** must be completed **FOR EACH** individual identified as an owner in the entity's Certificate.

FOR BOTH INDIVIDUALS AND ENTITIES, if the privilege requested is a building permit, plat approval, building inspection report, certificate of occupancy, alcohol license, or other privilege license, then **ONE ADDITIONAL CERTIFICATE** must be completed listing the landowner of the construction site or business location as the subject.

All required completed certificates must be submitted together. Giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.

Macon-Bibb County Certificate of Good Standing

1. Name Marshall Talley and Title _____ of the applicant: _____

2. Name of the subject of this Certificate, if different from the applicant: _____

3. Benefit or privilege for which the applicant is applying (mark one):

Building Permit	Plat Approval	Building Inspection Report	Certificate of Occupancy
Alcohol License (Any)	Privilege License (Any other than alcohol)	Political Appointment	Competitive Contract Bid or Proposal
Non-Competitive Contract over \$50,000	Registering to Bid on Real Property	Other: _____	

4. If the subject is an individual or sole proprietorship, then list all business entities in which the subject has a direct or indirect ownership interest of 25% or more, or legal control over. If the subject is an entity, then list all individuals who have a direct or indirect ownership interest of 25% of more in the subject entity, or who exercise legal control of the entity. Use additional sheets if needed.

N/A

5. I, the undersigned, do hereby swear or affirm that the information contained in this Certificate is true and complete to the best of my available knowledge. I further swear or affirm that, as of today, none of the individuals or entities listed in this Certificate are more than 90 days delinquent on the payment of any ad valorem property taxes due to the Macon-Bibb County Government. I understand that giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.

Marshall Talley
Marshall Talley

Print and Sign Name

Sworn to and subscribed before me this
13 day of February, 2025.

Sheila F. Griggs
Notary Public

My commission expires: 8/20/2025

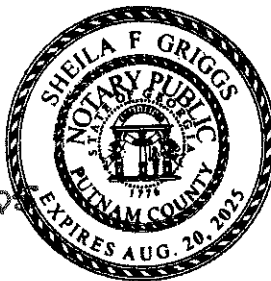


EXHIBIT F

Anthony D Howard Jr.

Entrepreneurial Visionary | Business Strategist | Innovative Leader

Macon, GA. | 404.769.4428 | anthony@howardenterprises.org

Professional Summary

Dynamic entrepreneur with over two decades of experience founding, developing, and managing successful entertainment and gaming businesses. Proven expertise in business operations, strategic planning, and creating unique customer experiences. Dedicated to innovation, growth, and community engagement in the entertainment and gaming industry.

Skills And Competencies

- **Business Strategy & Development**
- **Operations Management**
- **Marketing & Brand Development**
- **Customer Experience Innovation**
- **Community & Industry Engagement**
- **Leadership & Team Building**

Experience

Gamerz On the Block, Inc. President - December 2025

- Lead the strategic direction and operations of a gaming-focused organization dedicated to providing cutting-edge entertainment experiences.
- Oversee business development, marketing, and operations while fostering key industry partnerships.
- Drive growth and innovation in the gaming sector with a focus on community engagement and customer satisfaction.

Serenity Entertainment Complex Owner / Visionary - Dec. 2002-Present

- Conceptualized and launched a multi-faceted entertainment complex offering a variety of recreational and event experiences.
- Built a sustainable business model that balances customer entertainment and profitability.
- Managed daily operations, financial performance, and staff leadership to ensure consistent excellence and growth.

Gamez on Wheelz GA Owner / Operator - December 2017 - Present

- Founded and operated a mobile gaming business delivering premium gaming experiences directly to clients.
- Developed and executed marketing strategies to grow client base and establish a dominant presence in the mobile gaming industry.
- Maintained high customer satisfaction through personalized service and the latest gaming technology.

Education

Westside High School - High School Diploma
Beulah Heights University - Associates in Religious Studies
Full Sail University - Bachelors in Entertainment Business

Community Involvement

Board Member Main Street Macon	Urban Leadership Academy Cohort 21'
Leadership Macon Alumni 24'	New Town Macon Entrepreneur Academy 19
New Town Macon Marking Academy Cohort 24'	
Downtown Diversity Initiative Cohort 23'	

Macon-Bibb County

Certificate of Good Standing

1. Name and Title of the applicant: Anthony Howard
2. Name of the subject of this Certificate, if different from the applicant:
3. Benefit or privilege for which the applicant is applying (mark one):

☐ Building Permit	☐ Plat Approval	☐ Building Inspection Report	☐ Certificate of Occupancy
☐ Alcohol License (Any)	☐ Privilege License (Any other than alcohol)	☐ Political Appointment	☐ Competitive Contract Bid or Proposal
☐ Non-Competitive Contract over \$50,000	☐ Registering to Bid on Real Property	☐ Other: _____	

4. If the subject is an individual or sole proprietorship, then list all business entities in which the subject has a direct or indirect ownership interest of 25% or more, or legal control over. If the subject is an entity, then list all individuals who have a direct or indirect ownership interest of 25% or more in the subject entity, or who exercise legal control of the entity. Use additional sheets if needed.

5. I, the undersigned, do hereby swear or affirm that the information contained in this Certificate is true and complete to the best of my available knowledge. I further swear or affirm that, as of today, none of the individuals or entities listed in this Certificate are more than 90 days delinquent on the payment of any ad valorem property taxes due to the Macon-Bibb County Government. I understand that giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.

Anthony Howard
Print and Sign Name

Sworn to and subscribed before me this
12 day of Feb, 2025

Notary Public
My commission expires:



EXHIBIT G

Scott Mitchell Biography

Scott Mitchell, is a Certified Meditation Teacher with a B.S. in Psychology and studied Addiction Counseling at Mercer University. He is a serial entrepreneur with two businesses in Macon, Georgia: The Bohemian Den and Sweet Eleanor's Divine Desserts. He was the first LGBT Certified Business Enterprise in Macon, GA. He was awarded the Otis Hughes Tourism Spirit Award by Visit Macon in 2024. He was the 2022 Macon-Bibb Chamber of Commerce Small Business Leader of the Year and was awarded the OUT Georgia Business Alliance 2022 Small Business of the Year. He is a 2021 and 2022 OUT Georgia Business Alliance Business Leader of the Year and Small Business of the Year finalist, the recipient of the 2020 Macon Arts Alliance Cultural Award, the Mentor's Project 2018 Board Member of the Year, and NewTown Macon's 2016 Downtown Ambassador Award. He is a 2014 graduate of Leadership Macon and won the 2018 inaugural NewTown Macon Entrepreneur's Academy pitch competition. He serves on the boards of Main Street Macon, the Mentor's Project of Macon-Bibb, United Way of Central Georgia Homeless Initiative, and the Macon Film Festival. He is the current Chair of Marketing for Main Street Macon and serves on the Events Committee. During his time at Main Street, he has written several grants that have changed the landscape of downtown including the Macon Sculpture Walk, the Downtown Macon Music Park and SHINE. He is the Founder and current President of Macon Pride, and serves as the youth director for the Macon LGBTQIA+ Youth Group. He is in lay leadership at Centenary UMC where he just finished his term as the Chair of Ministries and is a lay delegate to the South Georgia Annual Conference. He is an Ambassador for OUTGeorgia and serves on the OUTGeorgia LGBT Entrepreneur's Council. In his spare time, he enjoys spending time with his family and furbabies, volunteering, cooking, traveling, watching Broadway shows, and cheering on the Georgia Bulldogs.

Macon-Bibb County Certificate of Good Standing

1. Name and Title of the applicant: RICHARD SCOTT MITCHELL

2. Name of the subject of this Certificate, if different from the applicant:

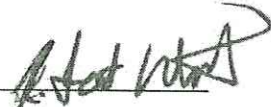
3. Benefit or privilege for which the applicant is applying (mark one):

☐ Building Permit	☐ Plat Approval	☐ Building Inspection Report	☐ Certificate of Occupancy
☐ Alcohol License (Any)	☐ Privilege License (Any other than alcohol)	☐ Political Appointment	☐ Competitive Contract Bid or Proposal
☐ Non-Competitive Contract over \$50,000	☐ Registering to Bid on Real Property	☐ Other: _____	

4. If the subject is an individual or sole proprietorship, then list all business entities in which the subject has a direct or indirect ownership interest of 25% or more, or legal control over. If the subject is an entity, then list all individuals who have a direct or indirect ownership interest of 25% or more in the subject entity, or who exercise legal control of the entity. Use additional sheets if needed.

TRAVIS JENI EMPORIUM, LLC DBA THE BOTTLEMAN DOW
SWEET ELEGANCE LLC

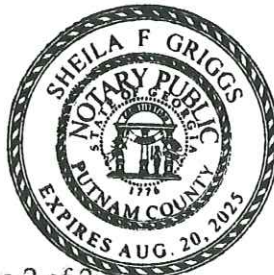
5. I, the undersigned, do hereby swear or affirm that the information contained in this Certificate is true and complete to the best of my available knowledge. I further swear or affirm that, as of today, none of the individuals or entities listed in this Certificate are more than 90 days delinquent on the payment of any ad valorem property taxes due to the Macon-Bibb County Government. I understand that giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.

RICHARD SCOTT MITCHELL 
Print and Sign Name

Sworn to and subscribed before me this
14th day of February, 2025.

Sheila F. Griggs
Notary Public

My commission expires: 8/20/2025





LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION APPOINTING CLIFFORD RUSHIN, ROGER JACKSON, AND ELLERY DUNN TO THE MACON-BIBB COUNTY FIRE CIVIL SERVICE BOARD; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, pursuant to Chapter 18, Article III, Division 2 the Macon-Bibb County Code of Ordinances, the Fire Civil Service Board was created by local Macon-Bibb County Ordinance O-14-0036; and

WHEREAS, the Fire Civil Service Board shall consist of five (5) members who shall be residents of Macon-Bibb County for two (2) years or more, no member shall be a current employee of Macon-Bibb County and members shall be limited to two consecutive full terms of office on the Board; and

WHEREAS, members appointed to the Fire Civil Service Board shall serve four (4) year terms; and

WHEREAS, the members of the Fire Civil Service Board shall review and pass judgment as to the qualifications of promotional candidates for positions and promotions within the Macon-Bibb County Fire Department, as well as adopt, rescind, and amend rules and regulations for the administration of the process and procedures of the Board for interviewing and passing judgment on said candidates; and

WHEREAS, Joey Hulett, who was appointed to the Fire Civil Service Board in 2023, is no longer eligible to serve on the board due to his election to the Macon-Bibb County Commission, making him a current employee and therefore ineligible to serve on this Board; and

WHEREAS, Clifford Rushin has been recommended by Mayor Lester Miller for appointment to serve on the Macon-Bibb County Fire Civil Service Board to fulfil the remaining portion of now-Commissioner Joey Hulett's term; and

WHEREAS, Clifford Rushin has previously served two terms on this Fire Civil Service Board, from 2014 to 2022; and

WHEREAS, while an individual serving on the board may only serve two consecutive terms at a time, there is no limitation on the number of nonconsecutive terms that an individual may serve on the Fire Civil Service Board; and

WHEREAS, Clifford Rushin has expressed his interest and willingness to serve on the Macon-Bibb County Fire Civil Service Board, meets all requirements necessary for appointment, and has submitted his resume and certificate of good standing, attached hereto as Exhibit A for reference and review; and

WHEREAS, Ellery Dunn has been recommended by Mayor Lester Miller for appointment to serve on the Macon-Bibb County Fire Civil Service Board, to replace Greta Williams O'Dell, whose term expired on January 19, 2024; and

WHEREAS, Ellery Dunn has expressed his interest and willingness to serve on the Macon-Bibb County Fire Civil Service Board, meets all requirements necessary for appointment, and has submitted his resume and certificate of good standing, attached hereto as Exhibit B for reference and review; and

WHEREAS, Roger Jackson has been recommended by Mayor Lester Miller for appointment to serve on the Macon-Bibb County Fire Civil Service Board, to replace Louis Frank Thompkins, whose term expired on November 3, 2024; and

WHEREAS, Roger Jackson has expressed his interest and willingness to serve on the Macon-Bibb County Fire Civil Service Board, meets all requirements necessary for appointment, and has submitted his resume and certificate of good standing, attached hereto as Exhibit C for reference and review; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants.

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same that Clifford Rushin, Ellery Dunn, and

Roger Jackson are hereby appointed to serve as on the Macon-Bibb County Fire Civil Service Board for terms to expire on January 16, 2027, with said term to begin on the effective date of this resolution.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution or in the Exhibits hereto after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all ordinances or resolutions or parts of ordinances or resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly.

[SIGNATURES TO FOLLOW]

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this ____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of Commission

Q:\RES MACON-BIBB\2025 Miller Appointing Rushin, Rogers, Dunn To FCSB - 2-11-25.Docx

EXHIBIT A

County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.

Macon-Bibb County Certificate of Good Standing

1. Name title of the applicant: Name of the subject of this Certificate, if different from the applicant:

Cliff Rushin

2. Benefit or privilege for which the applicant is applying (mark one):

☐ Building Permit	☐ Plat Approval	☐ Building Inspection Report	☐ Certificate of Occupancy
☐ Alcohol License (Any)	☐ Privilege License (Any other than alcohol)	☒ Political Appointment	☐ Competitive Contract Bid or Proposal
☐ Non-Competitive Contract over \$50,000	☐ Registering to Bid on Real Property	☐ Other: _____	

3. If the subject is an individual or sole proprietorship, then list all business entities in which the subject has a direct or indirect ownership interest of 25% or more, or legal control over. If the subject is an entity, then list all individuals who have a direct or indirect ownership interest of 25% or more in the subject entity, or who exercise legal control of the entity. Use additional sheets if needed.

N/A

NA

4. I, the undersigned, do hereby swear or affirm that the information contained in this Certificate is true and complete to the best of my available knowledge. I further swear or affirm that, as of today, none of the individuals or entities listed in this Certificate are more than 90 days delinquent on the payment of any ad valorem property taxes due to the Macon-Bibb County Government. I understand that giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.

Clifford H. Rushin 
Print and Sign Name

Sworn to and subscribed before me this
7th day of January, 20 25

Lisa Gillion Smith

Notary Public

My commission expires: 5/31/2027

Lisa Gillion Smith
NOTARY PUBLIC
Bibb County, GEORGIA
My Commission Expires 05/31/2027

CLIFF RUSHIN

CIVIL SERVICE BOARD

CONTACT



(478) 812-1018



chiefiredog@gmail.com



LIZELLA, Ga. 31052

SKILLS

Incident command

Fire suppression

Public safety

Hazardous materials response

Rescue operations

Disaster preparedness

Crisis communication

Emergency medical services

Firefighting operations

Fire protection

Building inspections

Personnel training

Training programs

Teamwork and collaboration

Problem-solving

Attention to detail

Problem-solving abilities

Organizational skills

Excellent communication

Adaptability and flexibility

Reliability

Effective communication

PROFESSIONAL SUMMARY

Dynamic former Assistant Fire Chief at Macon Bibb County Fire Dept. with a proven track record in incident command and crisis communication. Expert in developing training programs and enhancing operational efficiency. Passionate about public safety and fostering teamwork, ensuring top-notch emergency response and personnel development throughout a distinguished career.

EXPERIENCE

July 1972 - January 2013

Assistant Fire Chief Retired

Macon Bibb County Fire Dept., Macon, Ga.

- Supervised the daily operations of a large fire department including budgeting, staffing, scheduling, equipment maintenance and safety management.
- Evaluated existing systems and identified opportunities for improvement in order to enhance efficiency and service delivery.
- Facilitated the development of operational policies, procedures, and protocols to ensure compliance with local, state, and federal laws.
- Organized professional development workshops for firefighters on topics such as hazardous materials handling or first aid and CPR training.
- Coordinated emergency response activities between multiple agencies during crisis situations.
- Created detailed performance reviews of staff members based on established criteria.
- Provided technical assistance in developing long-term plans for various aspects of fire protection services.
- Developed and implemented comprehensive training programs for firefighting personnel in accordance with applicable regulations and standards.
- Maintained positive relationships with key stakeholders such as community members, local officials, businesses.
- Managed recruitment efforts by coordinating interviews and processing applications.
- Performed administrative duties, such as compiling and maintaining records, completing forms, preparing reports, and composing correspondence.
- Communicated fire details to superiors, subordinates, and interagency dispatched centers, using two-way radios.
- Inspected stations, uniforms, equipment, and recreation areas to comply with safety standards, taking corrective action as necessary.

EXHIBIT B

Macon-Bibb County

Certificate of Good Standing

1. Name and Title of the applicant: Ellery R Dunn SR
2. Name of the subject of this Certificate, if different from the applicant:
3. Benefit or privilege for which the applicant is applying (mark one):

☐ Building Permit	☐ Plat Approval	☐ Building Inspection Report	☐ Certificate of Occupancy
☐ Alcohol License (Any)	☐ Privilege License (Any other than alcohol)	☐ Political Appointment	☐ Competitive Contract Bid or Proposal
☐ Non-Competitive Contract over \$50,000	☐ Registering to Bid on Real Property	☒ Other: _____	

4. If the subject is an individual or sole proprietorship, then list all business entities in which the subject has a direct or indirect ownership interest of 25% or more, or legal control over. If the subject is an entity, then list all individuals who have a direct or indirect ownership interest of 25% or more in the subject entity, or who exercise legal control of the entity. Use additional sheets if needed.

5. I, the undersigned, do hereby swear or affirm that the information contained in this Certificate is true and complete to the best of my available knowledge. I further swear or affirm that, as of today, none of the individuals or entities listed in this Certificate are more than 90 days delinquent on the payment of any ad valorem property taxes due to the Macon-Bibb County Government. I understand that giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.

Ellery R Dunn SR
Print and Sign Name

Sworn to and subscribed before me this
14th day of February, 2025.

Lisa Gillion Smith

Notary Public

My commission expires: 5/31/2027

Lisa Gillion Smith

NOTARY PUBLIC

Bibb County, GEORGIA

My Commission Expires 05/31/2027

Ellery Dunn Sr.
Retired Lieutenant
Macon-Bibb County Fire Department

Retired Lt. Dunn began his career with the Fire Department in November 1983. He rose through the ranks of private, sergeant and retired as a lieutenant in fire suppression.

Before beginning his career with the fire department he graduated from Southwest High School then he enlisted in the military proudly serving our country for 3 years in the Marines.

Lt. Dunn specialized training included all hazardous responses, Emergency Medical Responder, Hazmat Technician and Air Rescue Firefighter certification.

While employed as a firefighter, he worked as a court bailiff for the Bibb County Sheriff office and currently holds that position.

Retired Lt. Dunn has served his community in many capacities and would like to continue by assisting with the Civil Service Board.

Retired Lt. Dunn has been married for 35 years, 3 children and 7 grandchildren.

EXHIBIT C

Macon-Bibb County Certificate of Good Standing

1. Name and Title of the applicant: **Roger Jackson**

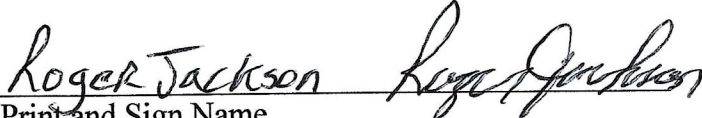
2. Name of the subject of this Certificate, if different from the applicant:

3. Benefit or privilege for which the applicant is applying (mark one):

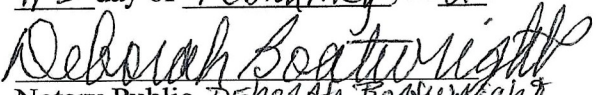
☐ Building Permit	☐ Plat Approval	☐ Building Inspection Report	☐ Certificate of Occupancy
☐ Alcohol License (Any)	☐ Privilege License (Any other than alcohol)	☒ Political Appointment	☐ Competitive Contract Bid or Proposal
☐ Non-Competitive Contract over \$50,000	☐ Registering to Bid on Real Property	☐ Other: _____	

4. If the subject is an individual or sole proprietorship, then list all business entities in which the subject has a direct or indirect ownership interest of 25% or more, or legal control over. If the subject is an entity, then list all individuals who have a direct or indirect ownership interest of 25% or more in the subject entity, or who exercise legal control of the entity. Use additional sheets if needed.

5. I, the undersigned, do hereby swear or affirm that the information contained in this Certificate is true and complete to the best of my available knowledge. I further swear or affirm that, as of today, none of the individuals or entities listed in this Certificate are more than 90 days delinquent on the payment of any ad valorem property taxes due to the Macon-Bibb County Government. I understand that giving false, incomplete, or inaccurate information on this Certificate may result in the denial of any privilege the applicant is applying for, as well as the revocation of any privilege previously granted by Macon-Bibb County, and may constitute the crimes of false writing or false swearing, which carry a penalty of up to five years in prison and up to a \$1,000 fine.


 Print and Sign Name

Sworn to and subscribed before me this
17th day of February, 2025.


 Notary Public DEBORAH BOATWRIGHT
 My commission expires: April 16, 2027



Roger Jackson

3762 Oxford Drive
Macon, Georgia 31204
Home: (478) 474-3248; Cell (478) 320-4756
motivatingyouth@yahoo.com

Profile

Eleven (17) years' experience as a business entrepreneur serving K-12th grade students in structured after school tutorial and summer camp programs to improve academic performance and increase high school graduation rates in Bibb County, Georgia.

Community leader in sponsoring and collaborating with community partners to raise funds for academic scholarships, sports camps & banquets, and college tours for at-risk youth in Middle Georgia. Advocate, Mentor, & Motivational Speaker for at-risk youth locally & nationally. Professional Athlete/Scout for 18 years in the National Football League (NFL). Formal radio analyst for Mercer Football. Started Adult Readiness '19

Experience

Founder and Executive Director

Motivating Youth, Inc., January 2008-Present

- Manage day-to-day operations of after school tutorial & summer programs.
- Recruit & hire certified teachers and volunteers to instruct students, K-12th grade in Reading, Math and Language Arts in after school and summer camp programs.
- Provide life skills in the areas of hygiene, physical fitness, healthy eating, and alcohol & drug prevention.
- Prepare annual budget: Purchase/order supplies, food and equipment, & administer payroll.
- Chief fund raiser for college scholarships annually. Solicit private funding and in-kind support.
- Research pertinent information and write grants.
- Coordinate trainings for staff & parents in compliance with Georgia DECAL requirements.
- Liaison between schools in east Macon & Motivating Youth to provide a seamless strategy to assist students academically & socially.
- Coordinated college tours and other cultural field trips.
- Referred students and parents to other community resources.

Founder and Director, Adult Readiness Program 2019- Present

- Job readiness, soft skills, career development, recruiting companies to hire graduating participants

Radio Sports Analyst

Mercer University Football Program, 2012-2022

- Co-host radio play-by-play analysis, statistics, and pre and post-game commentary of Mercer University's football games, home & away.
- Partner with Mercer to sponsor banquets & workshops for local high school & college student athletes with NFL professional coaches (Tony Dungy & Mike Ditka).

Professional Scout & Athlete

National Football League (NFL) 1982-2002

- Regional Scout, Minnesota Vikings, 1994-2002
- Area Scout, Kansas City Chiefs, 1992-1994
- Area Scout, Denver Broncos, 1990-1992
- **Proven Record of Success Scouting**
 - a. NFC Central Champions, 2000
 - b. NFC Central Champions, 1998
 - c. AFC West Champions, 1994
 - d. AFC West Champions, 1990-91
- **College Coach**
Howard University 1988-89, Defensive Backs
- **Denver Broncos, Defensive Back Player, 1982-1985, 1987**
 - a. Super Bowl XXII Team, 1987

Education

- B.S., Physical Education, Bethune-Cookman College, Daytona Beach, Fla., 1982
 - a. Football Team Captain, Senior Year
 - b. Four (4) Year Letterman
 - c. Athletic Scholastic Award, Highest GPA
- Certification-Food Preparation, Middle Georgia Tech College, Warner Robins, Ga., 2007

Accomplishments & Awards

- **Sponsors** Annual Car Raffle; awarded 122 college scholarships to Bibb County students.
- **46 Motivating Youth students** attending college; 14 college graduates in six years and 4 completed Graduate School.
- **Leadership Macon** Class of 2015
- **Trailblazers & Activist Inductee**, Tubman Museum, 2017
- **Inductee**, Macon Sports Hall of Fame, 2009
- **Lifelong Advocate & Mentor Award**, Coaches of Middle Georgia, 2015
- **Education Award**, New Fellowship Baptist Church, 2017
- **Sponsored** Middle Georgia NFL Youth Football Camp, 1982-2016

- **Servant Leadership Award**, Wesleyan College, 2011
 - **Proclamation**-Mayor's Office, 2013
 - **Proclamation**-Bibb County Board of Commissioners, 2013
 - **Starter**, Central High School State Championship Team, 1975
- Omega Man of the Year**, Lambda Phi Chapter Omega Psi Phi Fraternity, Inc. 2014
- Community Service Award**, NAACP 2022
- Community Champion Award**, Meals On Wheels, 2023
- Humanitarian Award**, Bethel AME Church, 2023
- Omega Man of the Year**, Lambda Phi Chapter Omega Psi Phi Fraternity, Inc. 2023



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE EXECUTION OF AN AGREEMENT WITH VERA CAUSA GROUP, LLC FOR THE PROVISION OF PUBLIC INFORMATION OFFICER AND STRATEGIC ADVISOR SERVICES FOR THE DISTRICT ATTORNEY’S OFFICE, IN AN ANNUAL AMOUNT OF \$54,000.00, TO BE PAID FROM THE GENERAL FUND – DISTRICT ATTORNEY – CONTRACT LABOR – CONTRACTUAL SERVICES LINE ITEM; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, the Macon Judicial Circuit District Attorney’s Office requires the service of a Public Information Officer and Strategic Advisor; and

WHEREAS, pursuant to Section 19-10(b) of the Macon-Bibb County Code of Ordinances, the Macon-Bibb County Commission is authorized to approve the hiring of consultants without going through the competitive procurement process; and

WHEREAS, the District Attorney has selected Vera Causa Group, LLC to perform Public Information Officer and Strategic Advisor services on behalf of her office; and

WHEREAS, the Macon-Bibb County Commission desires to authorize the District Attorney to enter into a Professional Services Agreement with Vera Causa Group, LLC, in an annual amount of \$54,000.00, for Vera Causa Group, LLC to perform the services described in Exhibit A, attached hereto and incorporated herein by reference; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that the District Attorney is authorized to execute an agreement with Vera Causa Group, LLC for the provision of Public Information Officer

and Strategic Advisor services, in an annual amount of \$54,000.00, to be paid from the General Fund – District Attorney – Contract Labor – Contractual Services line item.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

[Signatures on the following page.]

APPROVED AND ADOPTED this _____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

*Q:\RES MACON-BIBB\2025 Miller Authorizing Agreement with Vera Causa Group PIO for District Attorney -
\$54,000 2-13-25.docx*

EXHIBIT A

To: Hon. Anita Howard
District Attorney
Macon Judicial Circuit, Georgia

From: Susan C. Ryan
Vera Causa Group, LLC

Re: Public Information Officer and Strategic Advisor Services

Date: January 3, 2025



In today's 24/7 news cycle, it's important to engage with members of your community so they can understand their role in helping to keep their neighborhoods safe. Effective public communication and engagement can also help leaders dispel misinformation and clarify misunderstandings in the public discourse.

Vera Causa Group helps prosecutors create trusting relationships with the media and their constituents by setting up clear lines and methods of external communication. We focus on building capacity in your office for long-term success.

We will work with you to build a plan to help you gain stronger relationships with the media and the community at large. This will achieve your goals of increasing confidence in the criminal justice system, promoting participation in keeping the community safe and providing education to increase public understanding of the work you do each day.

Proposed Services

Vera Causa Group will serve as in the role of Public Information Officer and Strategic Advisor to help you:

- Update your current communication and education strategy and implementation plan that will serve as a framework for all public communication to create stronger and more productive relationships with the community, media, and other stakeholders
- Facilitate communication between the District Attorney's Office and the media for increased education and understanding with the belief that an engaged public can create a safer community
- Support the District Attorney and serve as spokesperson for the District Attorney's Office when appropriate, responding to media inquiries and providing accurate, timely information about cases, policies, and office initiatives while adhering to legal and ethical guidelines to promote transparency
- Draft for review media advisories, news releases, statements, key messages and other communications
- Monitor media coverage and public dialogue
- Monitor online media platforms including the website, social media and video platforms
- Foster open communication and engagement with constituents, community and law enforcement partners
- Provide important context and background to the media on the law and cases involving the office

- Develop and maintain relationships with members of the media, community organizations, and other stakeholders to ensure effective communication channels
- Provide strategic counsel to office leadership on communication and other matters as it relates to successful office operations
- Assist the District Attorney in establishing and implementing her strategic goals for public safety and organizational operations to best serve the community

Organizational Investment

\$4,500 per month retainer to be paid monthly

We look forward to the opportunity to work with you and your team in 2025.

Regards,



Susan C. Ryan
Vera Causa Group, LLC
Susan@veracausagroup.com



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR TO EXECUTE AN AGREEMENT WITH SHERIDAN CONSTRUCTION LLC FOR THE CONSTRUCTION OF THE CORPORATE FBO TERMINAL BUILDING AND PARKING LOT REHABILITATION AT THE MIDDLE GEORGIA REGIONAL AIRPORT, IN THE AMOUNT OF \$13,445,500.00, TO BE PAID FROM THE MACON-BIBB COUNTY INDUSTRIAL AUTHORITY CONSTRUCTION FUND 2025; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, Macon-Bibb County, as owner and Sponsor of the Middle Georgia Regional Airport, has been planning the construction of a new Fixed Base Operator (“FBO”) corporate terminal since it acquired the rights to the outdated FBO in 2023; and

WHEREAS, the County intends to have a new FBO corporate terminal constructed on the site of the old FBO and intends to rehabilitate the surrounding parking lot; and

WHEREAS, Invitation for Bids (IFB) No. 25-020-LH was published on November 5, 2024, advertised on the Macon-Bibb County Procurement page, and posted to the Georgia Procurement Registry and the BID page for Passero, the County’s contracted airport engineering firm; and

WHEREAS, four hundred sixty-two (462) vendors were notified of the IFB, of whom one hundred eight (108) were African American, twenty-one (21) were Asian American, six (6) were Native American, and two (2) were Hispanic/Latino; and

WHEREAS, on the published due date of December 12, 2025, three (3) responses were received in Procurement, tabulated for responsiveness, and provided to the user department for specification requirement review; and

WHEREAS, after review of the bids, Sheridan Construction LLC, whose bid was the lowest responsive and responsible bid, is recommended for award of a contract for the required renovation; and

WHEREAS, Procurement concurs with the recommendation of award of a contract to Sheridan Construction LLC; and

WHEREAS, the Macon-Bibb County Commission desires to authorize the Mayor to execute an agreement with Sheridan Construction LLC for the construction of the FBO corporate terminal building and parking lot rehabilitation at the Middle Georgia Regional Airport, in the amount of \$13,445,500.00; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that the Mayor is authorized to execute an agreement with Sheridan Construction LLC for the construction of the FBO corporate terminal building and parking lot rehabilitation at the Middle Georgia Regional Airport, in the amount of \$13,445,500.00, in a form to be approved by the County Attorney's Office, to be paid from the Macon-Bibb County Industrial Authority Construction Fund 2025.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this _____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

Q:\RES MACON-BIBB\2025 Miller Authorizing Agreement with Sheridan Construction for FBO Construction - \$13,445,500.00 2-13-25.docx



LEGISLATIVE SPONSORS

- | | |
|--|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT | ☐ COMMISSIONER BRENDALYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR TO EXECUTE A SECOND AMENDMENT TO THE EXISTING INTERGOVERNMENTAL AGREEMENT BETWEEN MACON-BIBB COUNTY, BIBB COUNTY SCHOOL DISTRICT, AND MACON-BIBB COUNTY INDUSTRIAL AUTHORITY RELATING TO THE DISTRIBUTION OF PILOT PAYMENTS IN LIEU OF TAXES RELATED TO PROJECT BENGAL; TO EXECUTE AN ACKNOWLEDGEMENT TO THE FIRST AMENDMENT TO THE EXISTING INTERGOVERNMENTAL FOR NEW 704 FUND PROJECT: SOFKEE INDUSTRIAL PARK (“PROJECT BENGAL”/IRVING); AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, by Resolution No. R-17-0127, adopted on June 20, 2017, the Macon-Bibb County Commission authorized the Mayor to enter into an intergovernmental agreement with the Bibb County School District and the Macon-Bibb County Industrial Authority related to the distribution of payments for Project Bengal, the Manufacturing Facility project located off of Kumho Parkway and Allen Road in Macon-Bibb County, which was amended by a First Amendment to the Intergovernmental Agreement Relating to the Distribution of Payments in Lieu of Taxes Related to Project Bengal between the Macon-Bibb County, Bibb County School District and the Macon-Bibb County Industrial Authority; and

WHEREAS, by Resolution No. R-18-0219, adopted on October 2, 2018, the Macon-Bibb County Commission authorized the Mayor to execute an acknowledgement to the Intergovernmental Agreement for 704 Fund Project: Sofkee Industrial Park (Bengal/Irving) between the Macon-Bibb County Industrial Authority and the Macon Water Authority, agreeing to the provisions applicable to it; and

WHEREAS, Irving Consumer Products, Inc., has proposed to expand its operations in Macon-Bibb County; and

WHEREAS, in connection with Irving Consumer Products, Inc.'s expansion of its operations in Macon-Bibb County, the Macon-Bibb County Commission desires to execute a Second Amendment to the Intergovernmental Agreement Relating to the Distribution of Payments in Lieu of Taxes Related to Project Bengal between the Macon-Bibb County, the Bibb County School District and the Macon-Bibb County Industrial Authority, a copy of which is attached hereto and incorporated herein as Exhibit A, and to execute an acknowledgment to the First Amendment to the Intergovernmental Agreement For New 704 Fund Project: Sofkee Industrial Park (Bengal/Irving) between Macon-Bibb County Industrial Authority and the Macon Water Authority, a copy of which is attached hereto and incorporate herein as Exhibit B; and

WHEREAS, Macon-Bibb County, the Bibb County School District, and the Macon-Bibb County Industrial Authority are authorized, pursuant to Article IX, Section III, Paragraph I (a) of the Constitution of the State of Georgia of 1983, to enter into intergovernmental contracts with each other for any period not exceeding fifty years for joint services, or for the provision of services, or for the joint or separate use of facilities or equipment, if such contract deals with activities, services or facilities which the contracting parties are authorized by law to undertake or provide; and

WHEREAS, the Macon-Bibb County, the Macon Water Authority, and the Macon-Bibb County Industrial Authority are authorized, pursuant to Article IX, Section III, Paragraph I (a) of the Constitution of the State of Georgia 1983, to enter into intergovernmental contracts with each other for any period not exceeding fifty years for joint services, or for the provision of services, or for the joint or separate use of facilities or equipment, if such contract deals with activities, services or facilities which the contracting parties are authorized by law to undertake or provide; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that the Mayor is authorized to execute a Second Amendment to the Intergovernmental Agreement Relating to the Distribution of Payments in Lieu of Taxes Related to Project Bengal between Macon-Bibb County, Bibb County School District, and the Macon-Bibb County Industrial Authority, in substantially the same form as Exhibit A, and to execute an acknowledgement to the First Amendment to the Intergovernmental

Agreement For 704 Fund Project: Sofkee Industrial Park (Bengal/Irving) between the Macon-Bibb County Industrial Authority and the Macon Water Authority, in substantially the same form as Exhibit B.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor and the County Manager, or their designees, the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this _____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL)

Attest: _____
JANICE S. ROSS, Clerk of the Commission

*\\Tc-Storage.Maconbibb.Us\Countyattstorage\RES MACON-BIBB\2025 Miller Authorizing Amendments To PILOT
IGA And 704 IGA - MBCIA - Irving Expansion 2-11-25.Docx*

EXHIBIT A

**SECOND AMENDMENT TO THE
INTERGOVERNMENTAL AGREEMENT RELATING TO
THE DISTRIBUTION OF PAYMENTS IN LIEU OF TAXES
RELATED TO PROJECT BENGAL**

This **SECOND AMENDMENT TO THE INTERGOVERNMENTAL AGREEMENT RELATING TO THE DISTRIBUTION OF PAYMENTS IN LIEU OF TAXES RELATED TO PROJECT BENGAL** (this “**Second Amendment**”), is made as of March 1, 2025 and further amends that certain “Intergovernmental Agreement Relating to the Distribution of Payments in Lieu of Taxes Related to Project Bengal” which was dated June 23, 2017 (the “**Original Agreement**”), as amended by a First Amendment to the Intergovernmental Agreement Relating to the Distribution of Payments in Lieu of Taxes Related to Project Bengal dated as of December 1, 2019 (the “**Amendment**,” and together with the Original Agreement, the “**Agreement**”), being by and between **MACON-BIBB COUNTY** (the “**County**”), a consolidated government and a political subdivision of the State of Georgia, successor to the former City of Macon, Georgia, and former Bibb County, Georgia, acting by and through its Macon-Bibb County Commission; the **BIBB COUNTY SCHOOL DISTRICT**, a public body corporate and politic created and existing under the laws of the State of Georgia, acting by and through its elected Board of Education (the “**District**”), and the **MACON-BIBB COUNTY INDUSTRIAL AUTHORITY**, a public body corporate and politic duly created under and pursuant to the provisions of local amendment to the Constitution of the State of Georgia, Ga. L. 1962, p. 885, incorporating the provisions of local act of the General Assembly of the State of Georgia, Ga. L. 1962, p. 2323, as amended, acting through is appointed board of members (the “**Authority**”); when referred to collectively, the County, the District, and the Authority are each a “**Party**” and sometimes referred to herein collectively as the “**Parties**.”

W I T N E S S E T H:

WHEREAS, pursuant to the plan outlined in the Original Agreement (a true and correct copy of which was attached as to the Amendment, and a true correct copy of the Amendment is attached hereto as Exhibit A and incorporated herein), the Authority entered into the contemplated MOU with “Project Bengal,” which was later publicly identified as Irving Consumer Products, Inc. (hereinafter, the “**Company**”) on August 16, 2017, and the MOU was affirmed at closing of the Bonds (the “**Series 2017 Bonds**”) by that certain Economic Development Agreement between the Company and the Authority dated as of December 1, 2017 (the “**Original EDA**”), to which the MOU was attached; a true and correct copy of the Amended EDA (defined below) incorporating copies of both the Original EDA and the MOU (defined therein), is attached hereto as Exhibit B; and

WHEREAS, the Company has located, constructed, equipped, and opened its manufacturing facility in the County (the “**Original Project**”), and proceeded with a second phase of the Original Project (described as the Optional Project in the MOU; hereinafter, the “**2019 Project**”), such that the Authority entered into an amendment to the Original EDA dated for purposes of reference as of December 1, 2019 (the “**Amended EDA**”) with the Authority, providing certain additional incentives to the Company and requiring investment to be made and

jobs created in the County, as further described in the MOU and the Amended EDA, and under said Amended EDA, the Authority agreed to issue, on the Company's behalf and solely upon the credit of the Company, the Authority's taxable industrial development revenue bonds to refinance the Series 2017 Bonds and issue a new Bond (the "**Series 2019 Bond**") to encompass both the Original Project and the acquisition and installation of the 2019 Project (together, the "**Existing Project**"); and

WHEREAS, in connection with the 2019 Project, the Parties entered into the Amendment; and

WHEREAS, the Company has announced that it desires to proceed with a third phase of the Existing Project (the "**Phase III Expansion Project**"), such that the Authority will enter into a second amendment to the EDA (the "**Second EDA Amendment**") with the Authority providing certain additional incentives to the Company and requiring investment to be made and jobs created in the County, as further described therein (a copy of the Second EDA Amendment, in draft form without attachments, as expected to be delivered at closing, is attached hereto as Exhibit C), and under said Second EDA Amendment, the Authority will agree to issue, on the Company's behalf and solely upon the credit of the Company, the Authority's taxable industrial development revenue bonds to refinance the Series 2019 Bond and issue a new Bond (the "**Series 2025 Bond**") to encompass the Existing Project and the acquisition and installation of the Phase III Expansion Project (collectively, the "**Project**"); and

WHEREAS, the Authority has determined that the issuance of the Series 2025 Bonds for the Project will promote the public good and welfare, trade and commerce in the County, will increase the tax base, and create employment opportunities in the County; and

WHEREAS, the Authority proposes to utilize a portion of the additional PILOT Payments generated under the Second EDA Amendment to fund an additional \$3,000,000 of infrastructure and development costs related to the Phase III Expansion Project (the "**Phase III Costs**") beyond those originally authorized in the Agreement, which shall become part of the total community cash expenditures not to exceed \$12,877,476.11, which includes the costs originally required to induce the Company to locate the Existing Project outlined in the Agreement, and now to construct the Phase III Expansion Project in the County (the Phase III Costs, when addressed collectively together with the originally planned costs as defined in the Agreement, are referred to as the "**PILOT Funded Costs**"); and

WHEREAS, it is understood between the Parties that as a less-expensive alternative to borrowing the PILOT Funded Costs (thus avoid incurring additional debt service costs, the Authority, the County, and the Macon Water Authority ("**MWA**") agreed to utilize available authorized economic development funds (known as the "**704 Fund**") by entering into an "Intergovernmental Agreement For New 704 Fund Project: Sofkee Industrial Park (Bengal/Irving)," dated October 2, 2018, a true and correct copy of which is attached hereto as Exhibit D (the "**Original 704 Fund IGA**"), as amended by the First Amendment to the Intergovernmental Agreement For New 704 Fund Project Sofkee Industrial Park (Bengal/Irving) dated as of March 1, 2025, a true and correct copy of which is attached hereto as Exhibit E (the "**Amended 704 Fund IGA**," together, the Original 704 Fund IGA and the Amended 704 Fund IGA are collectively hereinafter referred to as the "**704 Fund IGA**"); and

WHEREAS, under prior resolution adopted on June 21, 2017, the District consented to coverage of inclusion of its portion of the PILOT Payments which may be derived from the Project, under the conditions, percentages, and proportions as more fully set forth in the Agreement, has consented to the revisions thereto as set forth in the Amendment at an open and public meeting of the Board of Education on November 21, 2019, and has also consented to the revisions thereto as set forth in this Second Amendment at an open and public meeting of the Board of Education on [February 20, 2025]; and

WHEREAS, under prior resolution adopted on June 20, 2017, the County consented to coverage of inclusion of its portion of the PILOT Payments which may be derived from the Project, under the conditions, percentages, and proportions as more fully set forth in the Agreement, has consented to the revisions thereto as set forth in the Amendment at an open and public meeting of the Board of Commissioners on December 3, 2019, and has also consented to the revisions thereto as set forth in this Second Amendment at an open and public meeting of the Board of Commissioners on [March 4, 2025]; and

WHEREAS, by their respective approvals of this Second Amendment, the Authority, the County, and the District each affirm and readopt each the recitals, findings, and determinations as set forth in the Agreement, and incorporate the same herein as if repeated verbatim, and further, by their approvals hereof, the Parties understand the Macon-Bibb Bibb County Board of Tax Assessors (the “**Assessors**”), which acknowledged the Agreement on June 21, 2017 and was made aware of the Amendment, will also be made aware of this Second Amendment, but because the provisions applicable to the Assessors in the Agreement and the Amendment remain unchanged, no further action of the Assessors will be required; and

NOW, THEREFORE, in consideration of the premises and the undertakings as hereinafter set forth, it is agreed between the County and the Authority, each acting by and through its authorized officers pursuant to resolutions duly adopted and properly passed, as follows:

1. Defined Terms. All capitalized terms not defined in this Second Amendment shall have the meanings ascribed to them in the Agreement and as originally set forth therein.

2. Amended Term. The Term of the Agreement is hereby amended and extended an additional five years from December 31, 2042, to be through and until December 31, 2047, so as to allow a full twenty (20) years for the PILOTs to be invoiced and collected for the Phase III Expansion Project (for clarification purposes, the tax savings schedule and PILOT distributions afforded to the Original Project and 2019 Project will remain unchanged, with the Year 1 for each beginning in 2020 and 2022, respectively).

3. Collection and Use of Increased PILOT Payments under Second EDA Amendment for Phase III Costs.

(a) The Parties confirm, and to the extent required, amend the Agreement such that the Authority is authorized to collect and disburse the PILOT Payments under the Agreement and under this Second Amendment for the Phase III Expansion Project to repay the 704 Fund an amount equal to the Phase III Costs, in a manner as quickly as feasible, but in amounts not to exceed:

(i) the maximum of the PILOT Payments collected only as to the Phase III Expansion Project in a given year,

(ii) \$1,000,000 of in any given year of the PILOT Payments collected only as to the Phase III Expansion Project, inclusive of any carrying costs associated with of such 704 Fund dollars being outstanding, and

(iii) the aggregate amount owed and to be repaid under the 704 Fund IGA, as “Irving-Related Redevelopment Costs” (as defined under Sec. 1(d)(vi) of the 704 Fund IGA), which is reflected thereunder, and also agreed by the Parties to be the PILOT Funded Costs as contemplated to be paid from PILOT Payments under this Second Amendment for the Phase III Costs, in the amount of \$3,000,000.00.

(b) Notwithstanding the authorizations for the Authority to utilize the PILOT Payments related to the Phase III Expansion Project in subsection (a) above, the Authority shall continue to invoice, collect, repay the 704 Fund, retain and/or disburse the portion of the PILOT Payments related to the Existing Project in accordance as set forth in the Agreement; further, irrespective of the additional authorizations by the District and the County of the Authority’s uses of the portion of PILOT Payments arising from the Phase III Expansion Project to repay the Phase III Costs, the maximum amount of PILOT Payments which may be retained by the Authority for reimbursement to the 704 Fund will now be \$12,877,476.11.

(c) In the event MWA and the Authority require liquidity for the 704 Fund, the Authority may still pledge the PILOT Payments reserved for repayment of the PILOT Funded Costs under the Agreement and this Second Amendment as permitted under the Agreement; provided, however, neither the District nor the County shall be responsible for, nor shall either of their tax powers be obligated or pledged to, the repayment of any such debt or under any such financing. MWA has agreed to modify the 704 Fund IGA to conform to this Second Amendment, subject to the District and the County entering into the Second Amendment.

(d) It is the express understanding and agreement between the Parties that the County and the District are, in part, agreeing and allowing the Authority to utilize a greater amount of the PILOT Payments to fund all of the Irving-Related Redevelopment Costs/PILOT Funded Costs to reimburse the 704 Fund under the 704 Fund IGA because the Authority was able to avoid costs of financing capitalized interest (as opposed to borrowing the funding for the PILOT Funded Costs from non-governmental sources). As such, the County, the District, and the Authority not only are benefitting from the PILOT Payments under the Agreement and the additional portion of the PILOT Payments to be generated by the Phase III Expansion Project under the Second Amendment, but also are also benefitting from the savings realized by the use of the 704 Fund IGA as a funding source.

(e) It is further the express understanding and intention of the Parties under this Second Amendment that the PILOT Invoices to the Company are anticipated to increase

the annual and aggregate amounts of the PILOT Payments to be collected for the Project. Based upon such anticipated increases in PILOT Payments, even with the additional Phase III Costs included in the PILOT Funded Costs and repayment thereof to 704 Fund, the additional aggregated PILOT Payments created under the Second EDA Amendment will continue to generate funds in excess of 704 Fund repayment obligations and allow for continued disbursements of PILOT Payments to the District, the County, and the Authority as contemplated under the Agreement in amounts equal to or greater than disbursements in 2024, with such disbursements projected to increase annually thereafter throughout the Term.

(f) By virtue of the Second EDA Amendment and this Second Amendment, while the amounts of annual PILOT Payments reflected in the Agreement under its “Exhibit A” spreadsheet are therefore now well below anticipated PILOT Payment revenues to be collected from the Project, the methodology expressed therein as to the calculation, uses, and disbursement by the Authority to the Parties is confirmed and ratified.

4. Reaffirmation of Recitals, Remaining Provisions; Conflicts. By their respective approvals of this Second Amendment, the Authority, the County, and the District each affirm and readopt each of the recitals, findings, and determinations as set forth in the Agreement not specifically amended hereby, and incorporate the same herein as if repeated verbatim. All provisions of the Agreement not modified by this Second Amendment shall remain and continue in full force and effect. To the extent a conflict arises as between the provisions or language of the Agreement and this Second Amendment, the provisions of this Second Amendment shall govern.

5. Further Approvals Not Required. All of the Parties have approved this Second Amendment and no further approvals are required. The Parties understand and agree the Macon-Bibb Bibb County Board of Tax Assessors (the “**Assessors**”), which acknowledged the Agreement on June 21, 2017, and was advised of the Amendment, will be advised of this Second Amendment, but because the provisions applicable to the Assessors in the Agreement and the Amendment remain unchanged, no further action of the Assessors shall be requested or required by virtue of this Second Amendment.

6. Captions. The captions and headings used in this Second Amendment are for convenience only and do not in any way restrict, modify or amplify the terms of this Second Amendment.

7. Counterparts. This Second Amendment may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute but one and the same instrument.

8. Effective Date. This Second Amendment shall become effective as of the date first-above written in the preamble (the “**Effective Date**”). The Effective Date may occur before the final, public approval by all Parties, so long as the Effective Date is no earlier than the earliest public approval nor later than the last public approval of any one of the Parties.

9. Entire Agreement; Amendments. This Second Amendment, when construed together with the Agreement, constitutes the entire agreement between the District, the County, and the Authority with respect to the matters addressed herein. This Second Amendment, the Amendment and the Agreement may not be further amended except in writing signed by the Parties hereto, and if any payments hereunder have been pledged by any Party as permitted, neither this Second Amendment, the Amendment nor the Agreement may be further amended without the prior written consent of the pledgee or pledgees.

[REMAINDER OF PAGE INTENTIONALLY BLANK]

IN WITNESS WHEREOF, the parties hereto, acting by and through their duly authorized officers, have caused this Second Amendment to be executed under seal as of the day and year first above written.

The “County”:

MACON-BIBB COUNTY, GEORGIA

By: _____
Lester Miller, Mayor
Macon-Bibb County Commission

ATTEST:

Janice Ross, Clerk

[SEAL]

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

The “District”:

BIBB COUNTY SCHOOL DISTRICT

By: _____
James M. Freeman, President

ATTEST:

Dr. Dan A. Sims, Superintendent

[SEAL]

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

The “Authority”:

**MACON-BIBB COUNTY
INDUSTRIAL AUTHORITY**

By: _____
Robert E. Fountain, Jr., Chairman

ATTEST:

Stephen H. Adams, Secretary

[SEAL]

EXHIBIT A

**FIRST AMENDMENT TO THE INTERGOVERNMENTAL AGREEMENT RELATING
TO THE DISTRIBUTION OF PAYMENTS IN LIEU OF TAXES RELATED TO
PROJECT BENGAL**

(by and between the County, the District and the Authority)

[SEE ATTACHED]

EXHIBIT B

AMENDED ECONOMIC DEVELOPMENT AGREEMENT
(by and between the Authority and the Company)

[SEE ATTACHED]

EXHIBIT C

**DRAFT OF SECOND AMENDMENT TO ECONOMIC DEVELOPMENT
AGREEMENT**

(by and between the Authority and the Company, w/o referenced attachments)

[SEE ATTACHED]

EXHIBIT D

**2018 INTERGOVERNMENTAL AGREEMENT FOR NEW 704 FUND PROJECT:
SOFKEE INDUSTRIAL PARK (BENGAL/IRVING)
*(by and between MWA, the County, and the Authority)***

[SEE ATTACHED]

EXHIBIT E

**FIRST AMENDMENT TO THE 2018 INTERGOVERNMENTAL AGREEMENT FOR
NEW 704 FUND PROJECT: SOFKEE INDUSTRIAL PARK (BENGAL/IRVING)
*(by and between MWA, the County, and the Authority)***

[SEE ATTACHED]

EXHIBIT B

**FIRST AMENDMENT TO THE INTERGOVERNMENTAL AGREEMENT
FOR NEW 704 FUND PROJECT:
SOFKEE INDUSTRIAL PARK (BENGAL/IRVING)**

THIS FIRST AMENDMENT TO THE INTERGOVERNMENTAL AGREEMENT FOR NEW 704 FUND PROJECT: SOFKEE INDUSTRIAL PARK (BENGAL/IRVING) (this “**Amendment**”), is made for reference as of the 1st day of March, 2025, to that certain “Intergovernmental Agreement For New 704 Fund Project: Sofkee Industrial Park (Bengal/Irving)” dated October 2, 2018 (the “**Agreement**”), with both this Amendment and Agreement being by and between the **MACON-BIBB COUNTY INDUSTRIAL AUTHORITY** (the “**Industrial Authority**”), a public body corporate and politic duly created under and pursuant to the provisions of local amendment to the Constitution of the State of Georgia, Ga. L. 1962, p. 885, incorporating the provisions of local act of the General Assembly of the State of Georgia, Ga. L. 1962, p. 2323, ratified at the general election in November, 1962 and proclaimed, amended by Ga. L. 1985, p. 3600, continued by resolution of Board of Commissioners of Bibb County, Ga. L. 1985, p. 5168, resolution of Mayor and Council of the City of Macon, Ga. L. 1985, p. 5274, and local act of the General Assembly, Ga. L. 1986, p. 4685 (the “**Industrial Authority Act**”), and the **MACON WATER AUTHORITY** (the “**Water Authority**”), public body created by an Act of the General Assembly, 1966 Ga. Laws, p. 2737, as amended further as set forth herein (the “**Water Authority Act**”); the Industrial Authority and the Water Authority are hereinafter each a “**Party**” and collectively are the “**Parties.**” **MACON-BIBB COUNTY, GEORGIA** (the “**County**”), a consolidated government and a political subdivision of the State of Georgia, created under Article IX, Section III, Paragraph II of the Constitution of Georgia, Ga. Law 2012, page 5595 and Ga. Laws 2013, pages 3501, 3942 by virtue of the will of the people in a referendum held on July 31, 2012, successor to the former City of Macon, Georgia, and former Bibb County, Georgia, acting by and through its Mayor and Board of Commissioners, is executing an Acknowledgment attached to this Amendment, but is not considered to be a Party.

W I T N E S S E T H:

WHEREAS, with the consent and acknowledgement of the County, the Industrial Authority and the Water Authority entered into the Agreement in 2018 related to (i) the development of Sokfee Industrial Park, (ii) the provision of land, infrastructure and improvements to incentivize the location of a new tissue plant to be constructed by Irving Consumer Products, Inc. (“**Irving**”), (iii) recovery of Development Costs to the 704 Fund, and (iv) related provisions; and

WHEREAS, following construction of the Original Project, in 2019, Irving exercised its purchase/lease option for the Optioned Irving Tract for expansion of its operations (the “**2019 Project**”) such that the Industrial Authority issued its Taxable Industrial Development Revenue Bond (Irving Consumer Products, Inc. Project), Series 2019, in a maximum principal amount of \$800,000,000 (the “**Series 2019 Bond**”), to (i) retire and refund its Taxable Industrial Development Revenue Bond (Irving Consumer Products, Inc. Project), Series 2017 (the “**Series 2017 Bond**”) financing the Original Project, and (ii) pay the costs of a capital project consisting of the Optioned Irving Tract, the development and construction of one or more structures, related

improvements, building fixtures, and building equipment for the further expansion of the Original Project, and equipment and other personal property to be installed thereat (the “**2019 Project**”; together, the Original Project and the 2019 Project are collectively hereinafter referred to as the “**Existing Project**”); and

WHEREAS, in connection with the issuance of the Series 2019 Bond, the Industrial Authority agreed in its Amended Economic Development Agreement with Irving dated December 1, 2019 (the “**Amended EDA**”), a true and correct copy of which is attached to the Second EDA Amendment (defined below); a copy of the Second EDA Amendment is attached as Exhibit B hereto, and is hereby incorporated by reference, to provide certain incentives to Irving to expand its facilities in the County.

WHEREAS, in 2025, Irving has expressed its desire to proceed with a third phase of the Existing Project to expand its current operations (the “**Phase III Expansion Project**”) for further industrial and business development in the County and in connection therewith, the Industrial Authority agrees to issue its Taxable Industrial Development Revenue Bond (Irving Consumer Products, Inc. Project), Series 2025, in a maximum principal amount of \$1,400,000,000 (the “**Series 2025 Bond**”), the proceeds of which will be (i) used to retire and refund the Series 2019 Bond, and (ii) applied to pay the costs of a capital project consisting of the development and construction of a building to be located on land of the Existing Project and related improvements thereto, and building fixtures, building equipment, manufacturing equipment, and other personal property to be installed therein for the further expansion of the Existing Project (the “**Phase III Expansion Project**,” and when referred collectively with the Existing Project, the “**Project**”); and

WHEREAS, as incentive to Irving to further expand its facilities in the County, the Industrial Authority agreed in its Second Amendment to the Economic Development Agreement with Irving dated for purposes of reference as of March 1, 2025 (“**Second EDA Amendment**”), to provide certain incentives to Irving, including the “**Phase III Authority Grant**,” to wit:

...the Authority also agrees to provide the Company as reimbursements or in-kind improvements amounts equal to **THREE MILLION AND NO/100 DOLLARS (\$3,000,000.00)** so as to offset site improvement costs related to the Phase III Expansion Project, with the allocation of such costs to be determined as further set forth below (the “**Phase III Authority Grant**,” and may be referred to along with the amounts in Section 3.8.1 and 3.8.2 hereof collectively as the “**Authority Grant**”). The disbursements of the Phase III Authority Grant shall be subject to all of the conditions of the Authority Grant.

WHEREAS, the Water Authority and Industrial Authority by this Amendment jointly agree, subject to the County’s acknowledgement and consent, to use available funds from the 704 Fund to fund to the Authority Grant required for acquisition and development of the portion of the Property and infrastructure for Irving and Sofkee Industrial Park; and

WHEREAS, the County, the Water Authority and the Industrial Authority are authorized by Article IX, Section III, Paragraph 1 of the Georgia Constitution of 1983, to enter into

intergovernmental agreements for a period not exceeding fifty (50) years for the joint or separate provision of services and facilities which they are each authorized to provide; and

WHEREAS, the Parties agree that by entering this Amendment, that either: (i) there are sufficient monies remaining in the 704 Fund or authorized deposits in or to be made into the 704 Fund to complete the acquisition and development of the Property under the 1999 Amendment and/or the 2017 Amendment and Tri-Party Contract, or (ii) the expenditures associated with the acquisition and development of the Property will not cause the parties to exceed maximum limitations on the Water Authority's contributions into the 704 Fund without further legislative enactment by the General Assembly and/or the County; and

WHEREAS, the Parties hereby find and determine that (i) the acquisition and development of the Property will promote and assist to develop industry, trade and employment opportunities in the County, including attracting new customers for water and sewer services provided by the Water Authority, and (ii) it is in the best interest of the Parties and the residents of the County that the Property be acquired by the Industrial Authority and developed so as to stimulate capital investment and job creation for the benefit of the residents of the County, and for the Parties to provide funds hereunder to pay the costs related thereto as set forth below; and

WHEREAS, upon its execution of this Agreement, each Party hereto represents and warrants that its governing body has approved and authorized its entry into this Agreement; and

WHEREAS, each of the Parties represents and warrants that there is no litigation pending, or to its knowledge threatened, against or affecting it, nor to the best of its knowledge is there any basis therefor, wherein an unfavorable decision, ruling or finding would materially adversely affect the transactions contemplated by this Agreement, or would adversely affect the validity or enforceability of this Agreement.

NOW, THEREFORE, in consideration of the respective representations and agreements hereinafter contained, and in furtherance of the mutual public purposes hereby sought to be achieved, the Industrial Authority and the Water Authority do hereby agree as follows:

SECTION 1. Recitals and Defined Terms. The Parties hereby agree that the foregoing recitals shall constitute a substantive part of this Amendment. All capitalized terms not defined in this Amendment shall have the meaning ascribed to them as originally set forth in the Agreement.

SECTION 2. Revised Amount of Development Costs. The Parties hereby agree that the total Development Costs related to the "Authority Grant" under the MOU and Second EDA Amendment for the Sofkee Industrial Park Project, to be payable from and reimbursable to the 704 Fund, is hereby increased by \$3,000,000 (the "**Phase III Costs**") to a total of \$12,877,476.11 (with such increase, the revised "**Irving-Related Development Costs**").

SECTION 3. Industrial Authority Obligations; Reimbursement of the Irving-Related Development Costs. The Industrial Authority shall be responsible for initiating and fulfilling the following responsibilities under this Amendment:

(a) Reimbursement of Irving-Related Development Costs. The Parties agree as follows regarding the reimbursement of the 704 Fund in connection with the increased Irving-Related Development Costs for the Sokfee Industrial Park Project:

(i) Under the Second EDA Amendment, in addition to the payment in lieu of taxes related to the Existing Project (“**Existing PILOTs**”), Irving has agreed to make additional payments in lieu of taxes related to the Phase III Expansion Project to the Industrial Authority over twenty years, beginning no later than calendar year 2027 (the “**Phase III Expansion PILOTs**”).

(ii) Under that Second Amendment to the Intergovernmental Agreement Relating to the Distribution of Payments in Lieu of Taxes Related to Project Bengal, between the Industrial Authority, the County, and the Bibb County School District (the “**District**”) dated March 1, 2025, a true and correct copy of which is attached hereto as Exhibit C (the “**Second Amendment to the PILOT IGA**”), which further amends that certain Intergovernmental Agreement Relating to the Distribution of Payments in Lieu of Taxes Related to Project Bengal, dated June 23, 2017 (the “**Original PILOT IGA**”), as amended by a First Amendment to the Intergovernmental Agreement Relating to the Distribution of Payments in Lieu of Taxes Related to Project Bengal dated as of December 1, 2019 (the “**Amendment to the PILOT IGA**,” and together with the Second Amendment to the PILOT IGA and the Original PILOT IGA, the “**PILOT IGA**”), the County and the District have agreed to allow the Phase III Expansion PILOTs and Existing PILOTs collected by the Industrial Authority from Irving to be applied to “PILOT Funded Costs,” as defined under the IGA, which definition is agreed by the Parties to be the same as Development Costs under the Tri-Party Contract and this Amendment.

(iii) Under the Second Amendment to the PILOT IGA, the collection, retention, and distribution of the Existing PILOTs by the Industrial Authority to reimburse the 704 Fund, and to the Industrial Authority, the District, and the County remain unchanged. As such, the Parties hereby affirm and agree that the Existing PILOTs received by the Industrial Authority for the Original Project and 2019 Project up to the amounts reflected in the “Schedule of Payments” as set forth in Section 2(c)(iii) of the Agreement for reimbursement to the 704 Fund will also remain unchanged.

(iv) The Parties hereby agree that all of the Phase III Expansion PILOTs received by the Industrial Authority for infrastructure and development costs related to the Phase III Expansion Project which are generated in accordance with the Second Amendment to the EDA and collected, retained and disbursed by the Industrial Authority according to the terms of the Second Amendment to the PILOT IGA, will be collected and utilized beginning in Year 1 for the Phase III Expansion Project by the Industrial Authority for the number of years required to repay the 704 Fund to repay the Phase III Costs. Once the Phase III Costs have been collected, the Phase III Expansion PILOTs received by the Industrial Authority (including any portion thereof in the Year when the Phase III Costs are reimbursed in excess of the Phase III Costs) will be retained, applied and disbursed in the same manner as Existing PILOTs under the PILOT IGA and the Agreement.

SECTION 4. Miscellaneous. The Parties hereby agree to amend the “Notices” Section below to reflect the contact information of the Parties as follows:

(a) Notices. Any request, demand, authorization, direction, notice, consent, or other document provided or permitted by this Agreement to be made upon, given or furnished to, or filed with, the Parties (which shall also be copied to the County) as set forth below shall be sufficient for every purpose hereunder if in writing and either (i) delivered to an officer or other legal representative of the party to whom the same is directed, (ii) mailed by registered or certified mail, return receipt requested, postage prepaid, (iii) sent via nationally recognized overnight courier for next business day delivery, or (iv) sent by fax, as follows:

If to the Industrial Authority: Macon-Bibb County Industrial Authority
439 Mulberry Street
Macon, Georgia 312101
Attn: Mr. Robert E. Fountain, Jr., Chairman
Email: rfountain@mbcia.com
Attn: Mr. Stephen H. Adams, Executive Director
Email: sadams@mbcia.com

with a copy to: Seyfarth Shaw LLP
515 Mulberry Street, LL • Macon, Georgia 31201
1075 Peachtree Street NE, Suite 2500 • Atlanta, Georgia 30309
Attn: Kevin T. Brown, Esq.
Email: kbrown@seyfarth.com

If to the Water Authority: Macon Water Authority
790 Second Street
Macon, Georgia 31202-0108
Attn: Mr. Gary Bechtel, Chairman
Email: gbechtel1@gmail.com
Attn: Mr. Ron Shipman, President and Executive Director
Email: rshipman@maconwater.org

with a copy to: Jones Cork, LLP
Truist Bank Building, Fifth Floor
435 Second Street
Macon, Georgia 31208-6437
Attn: H. J. Strickland, Jr., Esq.
Email: jay.strickland@jonescork.com

If to the County: Macon-Bibb County
700 Poplar Street
Macon, Georgia 31201
Attn: The Honorable Mayor Lester M. Miller
Email: miller@maconbibb.us

with a copy to:

Macon-Bibb County Attorney's Office
700 Poplar Street
Macon, Georgia 31201

Attn: Duke R. Groover, Esq., County Attorney

Email: dgroover@maconbibb.us

Attn: Michael J. McNeill, Esq., Chief Asst. County Attorney

Email: MMcNeill@maconbibb.us

(b) Entire Agreement; Amendment; Waiver. This Amendment, when construed together with the Agreement, constitutes the entire understanding between the Parties with respect to the subject matters addressed herein and supersedes all other understandings and negotiations with respect thereto. This Amendment and the Agreement may be amended only in a writing signed by all of the Parties. Any provision of this Amendment and the Agreement may be waived only in a writing signed by the Party to be charged with the waiver. No course of dealing between the Parties shall be effective to amend or waive any provision of this Amendment. If any portion of the 704 Fund or payments hereunder have been pledged by the Industrial Authority as permitted, this Amendment and the Agreement may not be amended in substance without the prior written consent of the pledgee or pledgees.

(c) Counterparts. This Amendment may be signed in counterparts, each of which shall be an original and all of which together shall constitute one and the same instrument.

(d) Captions. The captions and headings used in this Amendment are for convenience only and do not in any way restrict, modify or amplify the terms of this Amendment.

(e) Binding Effect. This Amendment shall inure to the benefit of and shall be binding upon the Parties and their respective successors and assigns.

(f) Effective Date. This Amendment shall become effective as of the date first-above written in the preamble (the “**Effective Date**”), so long as the Industrial Authority, the Water Authority, and the County have each approved the same by March 14, 2025.

(g) Construction. No provision of this Amendment shall be construed by any Court or other judicial authority against any party hereto by reason of such party being deemed to have drafted or structured such provision. Both Parties agree that they, through their representatives, have had an opportunity to review and revise this Amendment to meet the terms to which the parties have agreed.

(h) Expiration. This Amendment shall expire on the earlier of: (i) the termination of the Tri-Party Contract; or (ii) the written agreement by the Parties, consented to by the County, to terminate this Amendment.

(i) Severability. In the event any provision of this Amendment shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof.

[REMAINDER OF PAGE INTENTIONALLY BLANK – SIGNATURES BEGIN ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties have hereunto set their hands and affixed their respective seals as of the date and year first above written.

**MACON-BIBB COUNTY
INDUSTRIAL AUTHORITY**

By: _____
Robert E. Fountain, Jr., Chairman

ATTEST:

Stephen H. Adams, Secretary

[SEAL]

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties have hereunto set their hands and affixed their respective seals as of the date and year first above written.

MACON WATER AUTHORITY

By: _____
Gary Bechtel, Chairman

ATTEST:

Ron Shipman, President and Executive Director

[SEAL]

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

ACKNOWLEDGEMENT

The County has acknowledged this Amendment and agrees to the provisions hereof that are applicable to it.

MACON-BIBB COUNTY, GEORGIA

By: _____
Mayor Lester M. Miller

ATTEST:

Janice Ross, County Clerk

Date: _____

[SEAL]

EXHIBIT A

**INTERGOVERNMENTAL AGREEMENT BETWEEN INDUSTRIAL AUTHORITY
AND WATER AUTHORITY FOR NEW 704 FUND PROJECT: SOFKEE INDUSTRIAL
PARK (BENGAL/IRVING)**

[to be attached]

EXHIBIT B

**SECOND AMENDMENT TO ECONOMIC DEVELOPMENT AGREEMENT
BETWEEN INDUSTRIAL AUTHORITY AND IRVING**

[to be attached]

EXHIBIT C

**SECOND AMENDMENT TO THE INTERGOVERNMENTAL AGREEMENT
RELATING TO DISTRIBUTION OF PAYMENTS IN LIEU OF TAXES RELATED TO
PROJECT BENGAL BETWEEN INDUSTRIAL AUTHORITY, COUNTY AND
DISTRICT**

[to be attached]



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR, TO ENTER AN AGREEMENT WITH 1 ACCORD TECHNOLOGIES, LLC, IN THE AMOUNT OF \$260,130.00 FOR NETWORK CONFIGURATION SERVICES FOR MACON-BIBB COUNTY FIRE STATIONS, TO BE PAID FROM 2018 SPLOST FUNDS – PUBLIC SAFETY LINE ITEM; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, the Macon-Bibb County Fire Department operates 22 fire stations and a training facility; and

WHEREAS, the network infrastructure at these facilities is reaching its end-of-life, resulting in slowed connection speeds and significant connection instability; and

WHEREAS, in order to ensure that Fire Department personnel are able to efficiently and safely perform their duties, the Macon-Bibb County Commission desires to have a new network setup installed; and

WHEREAS, 1 Accord Technologies, LLC, is a Georgia limited liability company with the necessary skills and expertise to install and set up the necessary network components and configuration; and

WHEREAS, 1 Accord Technologies is the holder of Georgia Statewide Contract # 99999-SPD-T20120501-0006, for the network equipment installation and configuration; and

WHEREAS, authorized under Macon-Bibb County Code of Ordinances Sec. 19-8, the use of cooperative purchasing agreements allows for faster processing times and more favorable pricing structures from vendors who have been pre-screened for technical skill and ability, and

WHEREAS, Procurement concurs with this award recommendation; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission and it is hereby so resolved by the authority of the same that the Mayor is authorized to enter into an Agreement with 1 Accord Technologies, LLC, in the amount of TWO HUNDRED SIXTY THOUSAND, ONE HUNDRED THIRTY DOLLARS AND 00/100 CENTS (\$260,130.00), for the network installation and configuration services for fire department facilities, as more readily shown in the attached Exhibit A, incorporated herein by reference, with associated costs to be paid from 2018 SPLOST Public Safety funds.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it

is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this ____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

Q:\RES MACON-BIBB\2025 Miller Authorizing Fire Station Network Configuration - 1 Accord - \$260,130.00 - SPLOST - 1-27-25.Docx

EXHIBIT A

Friday, January 24, 2025

Macon-Bibb County Government
Brandt Daniels
200 Cherry St., # 401
Macon, 31201
BCdaniels@maconbibb.us

Dear Brandt,

Federal Tax ID: 83-1698736
E-Rate SPIN: 143051019
FCC Registration Number (FRN): 0027833284
E-Verify ID: 1338537

1 Accord Technologies is a technology solutions provider that was formed in August 2018. Our core principles and vision guide our decisions every day. Our founding members desired to create a company focused on client and employee success. We believe that creating a healthy work culture for our team will continue to drive innovation. Our hope is that our clients will see the difference in our delivery and personal touch. We are a high-spirited company without the big corporate restraints. Our focus is on problem solving to enable the best technology outcomes across every aspect of your business or institution. 1 Accord Technologies partners with some of the most advanced technology companies in the industry, and we seek to understand your needs and goals to deliver a total integrated solution. Our mission is to seek to understand before seeking to be understood.

1 Accord Technologies is headquartered in Middle Georgia with the capacity to deliver our services across the Southeast. We are capable of projects at any scale and specialize in K-12 network environments. Our experienced team of sales associates and engineers have a thorough understanding of the needs in the K-12 arena, so we are well versed in delivering technology solutions across a single campus or district-wide. We pride ourselves in maintaining great working relationships with our manufacturers and distributors which helps us deliver timely and cost-efficient results for our customers. Our primary core strength is customer service. We enjoy helping people, and we look forward to helping you.

Our services include:

Innovation | Integrity | Teamwork

IT Consulting | Network Design & Implementation | Cybersecurity | Managed Services | Intercoms Paging & Alerts
Classroom Audio | School Safety | Server Virtualization | Desktop Virtualization | Hosted-VoIP | Security Cameras
Lesson Capture | Interactive Panels | Fiber & Data Cabling

State contracts that we are on:

Georgia - IT Networking Equipment - Cisco Systems - 99999-SPD-T20120501-0006
Georgia - IT Networking Equipment - Fortinet - 99999-SPD-T20120501-014
Georgia - IT Networking Equipment - Extreme Networks - 99999-SPD-T20120501-0009
Alabama - Cisco Systems - ALJP2022-071
Alabama - Boxlight - ALJP2022-050

Background:

In October 2024, both parties scheduled two days to assess the network infrastructure requirements and deficiencies at Macon-Bibb County Fire Stations. Following this assessment, 1 Accord Technologies is presenting a proposal to address the identified challenges. The proposal includes solutions for network infrastructure, wireless access points, uninterruptible power supplies (UPS), data cabling, rack remediation, and pathway remediation to resolve the current network insufficiencies.

The Fire Department is facing ongoing connectivity, communication, and consistency challenges due to insufficient and non-standardized local infrastructure across all sites. While each site is equipped with redundant WAN connections and similar hardware, these resources remain underutilized or unavailable due to the lack of a centralized network architecture and uniform standards.

1 Accord Technologies will deliver a comprehensive, turn-key solution designed to enhance the overall user experience at each location while optimizing the utilization of the existing WAN infrastructure provided by Cox Communication or Macon-Bibb WAN. Additionally, the solution will improve the physical security of network infrastructure and hardware. This includes consolidating all networking equipment into a centralized, secure location featuring a lockable network cabinet with door monitoring and alert systems to strengthen infrastructure protection.

Further improvements include replacing outdated network cabling, adding extra cables to support additional VOIP handsets—ensuring greater phone access during calls—and standardizing and expanding the number of wireless access points across fire stations to enhance connectivity. These upgrades will significantly bolster the resilience, stability, and security of the network, providing consistent and reliable performance for tools that require network connectivity. This ensures uninterrupted access and operational efficiency across all stations.



Carlos Ochoa
Account Executive
1 Accord Technologies

Fire Station 1

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	3000	\$3,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	13	\$78.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	3	\$6.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	5	\$15.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	13	\$65.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	6	\$102.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	6	\$24.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	6	\$12.00
TSR2FW-JB2	2" Deep Single Gang Box Off White	\$8.00	6	\$48.00
1AT	Fastening (Screws & Anchors)	\$1.00	30	\$30.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00

Fire Station 1

Description		Price	Qty	Ext. Price
NK688MBU	Cat6 Jack Blue	\$6.00	13	\$78.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	13	\$26.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	30	\$30.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$7,390.03	1	\$7,390.03
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$20,456.03

Fire Station 2

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	2000	\$2,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	10	\$60.00

Fire Station 2

Description		Price	Qty	Ext. Price
NK688MGR	Cat6 Jack Green	\$6.00	4	\$24.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK6FIWY	6-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	6	\$18.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	10	\$50.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	4	\$20.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	5	\$85.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	5	\$20.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	5	\$10.00
TSRFW-JB2	2" Deep Single Gang Box Off White	\$8.00	5	\$40.00
1AT	Fastening (Screws & Anchors)	\$1.00	25	\$25.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	10	\$60.00
NK688MGR	Cat6 Jack Green	\$6.00	4	\$24.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	10	\$20.00

Fire Station 2

Description		Price	Qty	Ext. Price
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	4	\$8.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	5	\$4,860.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$9,587.83	1	\$9,587.83
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$22,542.83

Fire Station 3

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	1	\$6.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	2	\$6.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	1	\$5.00

Fire Station 3

Description		Price	Qty	Ext. Price
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	1	\$6.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	1	\$2.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	10	\$10.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$4,195.41	1	\$4,195.41
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
			Subtotal:	\$13,725.41

Fire Station 4

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	2000	\$2,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	8	\$48.00
NK688MGR	Cat6 Jack Green	\$6.00	4	\$24.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	2	\$4.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	6	\$18.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	8	\$40.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	4	\$20.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	5	\$85.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	5	\$20.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	5	\$10.00
TSR2FW-JB2	2" Deep Single Gang Box Off White	\$8.00	5	\$40.00
1AT	Fastening (Screws & Anchors)	\$1.00	25	\$25.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00

Fire Station 4

Description		Price	Qty	Ext. Price
NK688MBU	Cat6 Jack Blue	\$6.00	8	\$48.00
NK688MGR	Cat6 Jack Green	\$6.00	4	\$24.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	8	\$16.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	4	\$8.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	5	\$4,860.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$6,759.28	1	\$6,759.28
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
			Subtotal:	\$19,676.28

Fire Station 5

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	2000	\$2,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	8	\$48.00

Fire Station 5

Description		Price	Qty	Ext. Price
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	2	\$4.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	5	\$15.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	8	\$40.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	4	\$68.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	4	\$16.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	4	\$8.00
TSRFW-JB2	2" Deep Single Gang Box Off White	\$8.00	4	\$32.00
1AT	Fastening (Screws & Anchors)	\$1.00	20	\$20.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	8	\$48.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	8	\$16.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00

Fire Station 5

Description		Price	Qty	Ext. Price
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$1,250.00	1	\$1,250.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$12,916.76	1	\$12,916.76
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$25,428.76

Fire Station 6

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	2000	\$2,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	10	\$60.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	5	\$10.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	5	\$15.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	10	\$50.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	8	\$136.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	8	\$32.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	8	\$16.00
TSRFW-JB2	2" Deep Single Gang Box Off White	\$8.00	8	\$64.00
1AT	Fastening (Screws & Anchors)	\$1.00	40	\$40.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	10	\$60.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	10	\$20.00

Fire Station 6

Description		Price	Qty	Ext. Price
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$9,105.88	1	\$9,105.88
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$20,142.88

Fire Station 7

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	3000	\$3,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	11	\$66.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	3	\$18.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	3	\$6.00
NK6FIWY	6-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	6	\$18.00

Fire Station 7

Description		Price	Qty	Ext. Price
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	11	\$55.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	3	\$15.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	7	\$119.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	7	\$28.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	7	\$14.00
1AT	Fastening (Screws & Anchors)	\$1.00	35	\$35.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	11	\$66.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	3	\$18.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	11	\$22.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	3	\$6.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	30	\$30.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00

Fire Station 7

Description		Price	Qty	Ext. Price
1AT	Misc. Material	\$625.00	1	\$625.00
	Wireless Access Points Hardware			
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
	Labor			
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$8,781.91	1	\$8,781.91
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$21,811.91

Fire Station 8

Description		Price	Qty	Ext. Price
	Cabling Material			
M58281	LAN6 CMP Blue	\$1.00	3000	\$3,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	12	\$72.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	2	\$4.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	2	\$4.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	5	\$15.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	12	\$60.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
TSRFW-JB2	2" Deep Single Gang Box Off White	\$8.00	6	\$48.00
1AT	Fastening (Screws & Anchors)	\$1.00	30	\$30.00

Fire Station 8

Description		Price	Qty	Ext. Price
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	12	\$72.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	12	\$24.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	30	\$30.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$8,643.65	1	\$8,643.65
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
			Subtotal:	\$21,552.65

Fire Station 9

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	2000	\$2,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	10	\$60.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	5	\$10.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	5	\$15.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	10	\$50.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	8	\$136.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	8	\$32.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	8	\$16.00
TSR2FW-JB2	2" Deep Single Gang Box Off White	\$8.00	8	\$64.00
1AT	Fastening (Screws & Anchors)	\$1.00	40	\$40.00
11900-724	2' Wall Mount Enclosure	\$618.00	1	\$618.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00

Fire Station 9

Description		Price	Qty	Ext. Price
NK688MBU	Cat6 Jack Blue	\$6.00	10	\$60.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	10	\$20.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$7,254.40	1	\$7,254.40
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$18,902.40

Fire Station 10

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	2000	\$2,000.00
M58286	LAN6 CMP Green	\$1.00	2000	\$2,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	6	\$36.00

Fire Station 10

Description		Price	Qty	Ext. Price
NK688MGR	Cat6 Jack Green	\$6.00	6	\$36.00
NK688MYL	Cat6 Jack Yellow	\$6.00	3	\$18.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	9	\$27.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	6	\$30.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	5	\$25.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	3	\$15.00
541-135-010OSP	Cat6 OSP Patch Cord Black 10' (outdoor rated)	\$21.00	1	\$21.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	10	\$170.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	10	\$40.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	10	\$20.00
TSRFW-JB2	2" Deep Single Gang Box Off White	\$8.00	10	\$80.00
1AT	Fastening (Screws & Anchors)	\$1.00	50	\$50.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	6	\$36.00
NK688MGR	Cat6 Jack Green	\$6.00	6	\$36.00
NK688MYL	Cat6 Jack Yellow	\$6.00	3	\$18.00

Fire Station 10

Description		Price	Qty	Ext. Price
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	6	\$12.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	6	\$12.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	3	\$6.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	6	\$5,832.00
CW9163E-MR	Catalyst 9163E AP(W6E, tri-band 2x2,Outdoor) w/MERAKI	\$1,167.00	2	\$2,334.00
CW-ANT-O1-NS-00	4/8/8 dBi Omni Dipole, N connector, Catalyst and Meraki	\$114.00	8	\$912.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$8,140.64	1	\$8,140.64
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$26,497.64

Fire Station 11

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	3000	\$3,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	13	\$78.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00

Fire Station 11

Description		Price	Qty	Ext. Price
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	4	\$8.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	2	\$4.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	3	\$9.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	13	\$65.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	6	\$102.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	6	\$24.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	6	\$12.00
TSRFW-JB2	2" Deep Single Gang Box Off White	\$8.00	6	\$48.00
1AT	Fastening (Screws & Anchors)	\$1.00	30	\$30.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	13	\$78.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	13	\$26.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00

Fire Station 11

Description		Price	Qty	Ext. Price
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$6,557.81	1	\$6,557.81
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$18,573.81

Fire Station 12

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	4000	\$4,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	17	\$102.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	4	\$8.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	3	\$6.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	5	\$15.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	17	\$85.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	9	\$153.00

Fire Station 12

Description		Price	Qty	Ext. Price
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	9	\$36.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	9	\$18.00
TSRFW-JB2	2" Deep Single Gang Box Off White	\$8.00	9	\$72.00
1AT	Fastening (Screws & Anchors)	\$1.00	45	\$45.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	17	\$102.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	17	\$34.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	30	\$30.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				

Fire Station 12

Description		Price	Qty	Ext. Price
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$8,511.97	1	\$8,511.97
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$22,767.97

Fire Station 13

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	2000	\$2,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	9	\$54.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	6	\$12.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	3	\$9.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	9	\$45.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	6	\$102.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	6	\$24.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	6	\$12.00
TSRFW-JB2	2" Deep Single Gang Box Off White	\$8.00	6	\$48.00
1AT	Fastening (Screws & Anchors)	\$1.00	30	\$30.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	9	\$54.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	9	\$18.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00

Fire Station 13

Description		Price	Qty	Ext. Price
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$5,811.16	1	\$5,811.16
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$16,751.16

Fire Station 14

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	2000	\$2,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	8	\$48.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	2	\$4.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	5	\$15.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00

Fire Station 14

Description	Price	Qty	Ext. Price
MCTP6BI-6-10 Cat6 Patch Cord Blue 10'	\$5.00	8	\$40.00
MCTP6BI-5-10 Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
MCTP6BI-4-10 Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
TSR2FW-8A 1.25"x8' Off White	\$17.00	5	\$85.00
TSR2FW-50 Ceiling Tile Cover Off White bag of 10	\$4.00	5	\$20.00
TSR2FW-14 Splice Cover Off White bag of 10	\$2.00	5	\$10.00
TSR2FW-JB2 2" Deep Single Gang Box Off White	\$8.00	5	\$40.00
1AT Fastening (Screws & Anchors)	\$1.00	25	\$25.00
242425 2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2 2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019 Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A #6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5 #6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU Cat6 Jack Blue	\$6.00	8	\$48.00
NK688MGR Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1 Cat6 1' Patch Cord Blue	\$2.00	8	\$16.00
MCTP6BI-5-1 Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
MCTP6BI-4-1 Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20 2" Cable Support Loop	\$1.00	20	\$20.00
TL50 5" Cable Support Loop	\$8.00	1	\$8.00
TZE221 Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF Cable Label Refill	\$11.00	1	\$11.00

Fire Station 14

Description		Price	Qty	Ext. Price
1AT	Misc. Material	\$625.00	1	\$625.00
	Wireless Access Points Hardware			
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
	Labor			
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$6,507.77	1	\$6,507.77
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$18,430.77

Fire Station 15

Description		Price	Qty	Ext. Price
	Cabling Material			
M58281	LAN6 CMP Blue	\$1.00	2000	\$2,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	8	\$48.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	2	\$4.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	5	\$15.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	8	\$40.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	5	\$85.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	5	\$20.00

Fire Station 15

Description		Price	Qty	Ext. Price
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	5	\$10.00
TSRFW-JB2	2" Deep Single Gang Box Off White	\$8.00	5	\$40.00
1AT	Fastening (Screws & Anchors)	\$1.00	25	\$25.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	8	\$48.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	8	\$16.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				

Fire Station 15

Description	Price	Qty	Ext. Price
LABOR Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$7,604.70	1	\$7,604.70
Engineering Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:			\$19,527.70

Fire Station 16

Description	Price	Qty	Ext. Price
Cabling Material			
M58281 LAN6 CMP Blue	\$1.00	2000	\$2,000.00
M58286 LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283 LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU Cat6 Jack Blue	\$6.00	8	\$48.00
NK688MGR Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL Cat6 Jack Yellow	\$6.00	3	\$18.00
NK2FIWY 2-Port Faceplate Off White w/ labels	\$2.00	2	\$4.00
NK4FIWY 4-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A 2-Port Biscuit Box Off White	\$3.00	6	\$18.00
NKBMIW Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10 Cat6 Patch Cord Blue 10'	\$5.00	8	\$40.00
MCTP6BI-5-10 Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
MCTP6BI-4-10 Cat6 Patch Cord Yellow 10'	\$5.00	3	\$15.00
TSR2FW-8A 1.25"x8' Off White	\$17.00	6	\$102.00
TSR2FW-50 Ceiling Tile Cover Off White bag of 10	\$4.00	6	\$24.00
TSR2FW-14 Splice Cover Off White bag of 10	\$2.00	6	\$12.00
TSR2FW-JB2 2" Deep Single Gang Box Off White	\$8.00	6	\$48.00
1AT Fastening (Screws & Anchors)	\$1.00	30	\$30.00
242425 2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00

Fire Station 16

Description		Price	Qty	Ext. Price
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	8	\$48.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	3	\$18.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	8	\$16.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	3	\$6.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points and Licensing				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$7,055.56	1	\$7,055.56
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
			Subtotal:	\$19,036.56

Fire Station 17

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	3000	\$3,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	12	\$72.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	2	\$4.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	2	\$4.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	5	\$15.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	12	\$60.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	6	\$102.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	6	\$24.00
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	6	\$12.00
TSR2FW-JB2	2" Deep Single Gang Box Off White	\$8.00	6	\$48.00
1AT	Fastening (Screws & Anchors)	\$1.00	30	\$30.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00

Fire Station 17

Description		Price	Qty	Ext. Price
NK688MBU	Cat6 Jack Blue	\$6.00	12	\$72.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	12	\$24.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	30	\$30.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$8,781.91	1	\$8,781.91
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$21,828.91

Fire Station 18

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	3000	\$3,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	14	\$84.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00

Fire Station 18

Description		Price	Qty	Ext. Price
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	10	\$20.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	3	\$9.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	14	\$70.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	14	\$84.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	14	\$28.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	30	\$30.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points and Licensing				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				

Fire Station 18

Description	Price	Qty	Ext. Price
LABOR Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$9,766.91	1	\$9,766.91
Engineering Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:			\$21,603.91

Fire Station 19

Description	Price	Qty	Ext. Price
Cabling Material			
M58286 LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283 LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MGR Cat6 Jack Green	\$6.00	1	\$6.00
NK688MYL Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2BXIW-A 2-Port Biscuit Box Off White	\$3.00	3	\$9.00
NKBMIW Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-5-10 Cat6 Patch Cord Green 10'	\$5.00	1	\$5.00
MCTP6BI-4-10 Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
NKPP24FMY Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MGR Cat6 Jack Green	\$6.00	1	\$6.00
NK688MYL Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-5-1 Cat6 1' Patch Cord Green	\$2.00	1	\$2.00
MCTP6BI-4-1 Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20 2" Cable Support Loop	\$1.00	10	\$10.00
TL50 5" Cable Support Loop	\$8.00	1	\$8.00
TZE221 Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF Cable Label Refill	\$11.00	1	\$11.00

Fire Station 19

Description		Price	Qty	Ext. Price
1AT	Misc. Material	\$625.00	1	\$625.00
	Wireless Access Points Hardware			
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
	Labor			
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$3,504.10	1	\$3,504.10
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$10,926.10

Fire Station 20

Description		Price	Qty	Ext. Price
	Cabling Material			
M58281	LAN6 CMP Blue	\$1.00	2000	\$2,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	10	\$60.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	5	\$10.00
NK4FIWY	4-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	5	\$15.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	10	\$50.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	3	\$15.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
TSR2FW-8A	1.25"x8' Off White	\$17.00	7	\$119.00
TSR2FW-50	Ceiling Tile Cover Off White bag of 10	\$4.00	7	\$28.00

Fire Station 20

Description		Price	Qty	Ext. Price
TSR2FW-14	Splice Cover Off White bag of 10	\$2.00	7	\$14.00
TSRFW-JB2	2" Deep Single Gang Box Off White	\$8.00	7	\$56.00
1AT	Fastening (Screws & Anchors)	\$1.00	35	\$35.00
242425	2' Wall Mount Enclosure	\$1,045.00	1	\$1,045.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
10610-019	Rack Mount Grounding Bus Bar	\$84.00	1	\$84.00
GECLB62A	#6 2 Hole Lug	\$7.00	5	\$35.00
5K-0601-5	#6 THHN Green	\$2.00	50	\$100.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	10	\$60.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	10	\$20.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				

Fire Station 20

Description		Price	Qty	Ext. Price
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$9,652.35	1	\$9,652.35
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$21,691.35

Fire Station 21

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	1000	\$1,000.00
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	2	\$12.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	1	\$2.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	2	\$6.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	2	\$10.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	2	\$12.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	2	\$4.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	10	\$10.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00

Fire Station 21

Description		Price	Qty	Ext. Price
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$7,615.23	1	\$7,615.23
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$15,055.23

Fire Station 22

Description		Price	Qty	Ext. Price
Cabling Material				
M58283	LAN6 CMP Yellow	\$1.00	1000	\$1,000.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	2	\$6.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-4-10	Cat6 Patch Cord Yellow 10'	\$5.00	2	\$10.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MYL	Cat6 Jack Yellow	\$6.00	2	\$12.00
MCTP6BI-4-1	Cat6 1' Patch Cord Yellow	\$2.00	2	\$4.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	10	\$10.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00

Fire Station 22

Description		Price	Qty	Ext. Price
1AT	Misc. Material	\$625.00	1	\$625.00
	Wireless Access Points Hardware			
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
	Labor			
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$3,643.68	1	\$3,643.68
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$10,043.68

Fire Academy

Description		Price	Qty	Ext. Price
Cabling Material				
M58281	LAN6 CMP Blue	\$1.00	3000	\$3,000.00
M58286	LAN6 CMP Green	\$1.00	1000	\$1,000.00
NK688MBU	Cat6 Jack Blue	\$6.00	13	\$78.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
NK2FIWY	2-Port Faceplate Off White w/ labels	\$2.00	7	\$14.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	3	\$9.00
NKBMIW	Blank Off White bag of 10	\$4.00	1	\$4.00
MCTP6BI-6-10	Cat6 Patch Cord Blue 10'	\$5.00	13	\$65.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	2	\$10.00
541-135-010OSP	Cat6 OSP Patch Cord Black 10' (outdoor rated)	\$21.00	1	\$21.00
NP1500RTX2	2U UPS Battery Backup	\$845.00	1	\$845.00
NKPP24FMY	Keystone 24-port modular flush mount patch panel in black, (1RU).	\$35.00	1	\$35.00
NK688MBU	Cat6 Jack Blue	\$6.00	13	\$78.00
NK688MGR	Cat6 Jack Green	\$6.00	3	\$18.00
MCTP6BI-6-1	Cat6 1' Patch Cord Blue	\$2.00	13	\$26.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	3	\$6.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	20	\$20.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
1AT	Misc. Material	\$625.00	1	\$625.00
Wireless Access Points Hardware				

Fire Academy

Description		Price	Qty	Ext. Price
CW9176I-RTG	Cisco Wireless 9176I(W7,3 radio,3 band 4x4,UWB),Global	\$972.00	4	\$3,888.00
Labor				
LABOR	Installation: CAT 6 Cabling, Rack, UPS, Wireless Access Points	\$3,252.59	1	\$3,252.59
Engineering	Configuration Wireless Access Points	\$750.00	1	\$750.00
Subtotal:				\$13,806.59

Statement of Work

SOW

Scope of Work

1 Accord Technologies will install pathways as required and new CAT6 cabling. The installation will adhere to the recommendations outlined during the site assessments conducted in October 2024. Please reference the Site Walk Through Notes Attached.

Key Tasks Include:

- Installing new CAT6 cables at designated fire stations.
- Building pathways where necessary for cable routing, ensuring compliance with local and federal regulations.
- Replacing or repositioning network racks that are too shallow or not optimally located.
- Installing access points (APs) where specified in the assessment report.
- Optionally, installing a camera to monitor each network cabinet location, with privacy masking applied to areas where necessary.
- Equipping network cabinets with door sensors that communicate with the installed cameras to trigger recording events when the doors are opened.

Exclusions:

- Power circuits will be installed by Macon-Bibb County Government.
- ISP connection relocations and installations will be managed by Macon-Bibb County Government in collaboration with Cox Communications.

Responsibilities

1 Accord Technologies:

- Provide necessary materials and equipment for pathways, cabling, and access point installation.
- Perform all pathway, cabling, and equipment installations as per the assessment report.
- Ensure safe and clean work environments during installation.
- Apply privacy masking to camera images where necessary.

Prerequisite

Macon-Bibb County Government:

- Provide and install dedicated power circuits as specified.
- Coordinate with Cox Communications for ISP installation and relocation.
- Communicate power needs to 1 Accord Technologies.

Deliverables

Installation of CAT6 cabling as per the specified quantity and locations in the assessment report.
Installation of new or repositioned network cabinets with door sensors.
Pathways installed where required for cable management.
Installation of access points at designated locations.
Optional installation of monitoring cameras with privacy masking and door-triggered recording capabilities.
A final walkthrough and sign-off with Macon-Bibb County Government representatives to confirm project completion.

Closet Sensor and Cabling Material for Additional AP's

Description		Price	Qty	Ext. Price
Closet Sensor Hardware				
MT20-HW	Meraki MT20 Indoor Door Open/Close Sensor	\$63.00	23	\$1,449.00
Cabling Material for Each Fire Station's WAP Addition				
M58286	LAN6 CMP Green	\$1.00	5000	\$5,000.00
NK688MGR	Cat6 Jack Green	\$6.00	23	\$138.00
NK2BXIW-A	2-Port Biscuit Box Off White	\$3.00	23	\$69.00
NKBMIW	Blank Off White bag of 10	\$4.00	3	\$12.00
MCTP6BI-5-10	Cat6 Patch Cord Green 10'	\$5.00	23	\$115.00
NK688MGR	Cat6 Jack Green	\$6.00	23	\$138.00
MCTP6BI-5-1	Cat6 1' Patch Cord Green	\$2.00	23	\$46.00
NKBMBL-X	Blank keystone module reserves space for future use. Black	\$1.00	10	\$10.00
TL20	2" Cable Support Loop	\$1.00	30	\$30.00
TL50	5" Cable Support Loop	\$8.00	1	\$8.00
TZE221	Black on White 3/8" Label Tape	\$15.00	1	\$15.00
514-REF	Cable Label Refill	\$11.00	1	\$11.00
Labor				
LABOR	Installation: CAT 6 Cabling, Camera, Sensor	\$11,163.64	1	\$11,163.64
Engineering	Configuration Camera and Sensor	\$1,500.00	1	\$1,500.00
			Subtotal:	\$19,704.64

References

Valdosta City Schools, Valdosta, GA
LaShawna Colbert - 229-671-6094

Thomson-McDuffie Government - Thomson, GA
Robert Spurlin - 706-466-9251

Polk County Schools, Cedartown, GA
Nathan Medley - 678-591-2002

Bibb County Schools, Macon, GA
Carlos Madera - 478-765-8626

Warren County Schools - Warrenton, GA
Tommy Matanane - 706-962-8968

Georgia Educational Technology Consortium, Inc.
GICC - College Park, GA
Blair Johnston - 229-894-0816

Monroe County Schools - Forsyth, GA
Kerry Johnson - 478-214-9420

Putnam County Government, Eatonton, GA
Paul Van Haute - 706-485-1875

Brooks County Schools - Quitman, GA
Mitch Hadden - 229-548-2340

Lake Oconee Academy - Greensboro, GA
Jay Cawley - 770-328-7197

Toombs County Schools, Lyons, GA
Connor Stanley - 912-333-0466

Jackson County Schools, Jefferson, GA
Jeffery DeGeorge - 706-224-7890

Macon County Schools, Oglethorpe, GA
Burt Parker - 478-472-8188

Montgomery County Schools - Mount Vernon, GA
Billy Goodwin - 912-583-2203

Putnam County Charter School System, Eatonton, GA
Ryan Rogers - 478-456-2002



Invoicing

Equipment, licensing, & material will be invoiced for once it has been delivered to customer site.

Installation & configuration will be progress billed monthly for the portion of work that has been completed each month until the project is complete.

90-Day Workmanship Policy

- Covers defects in workmanship for 90 days from service completion/project closeout.
- We will repair or replace faulty work at no extra cost.

Exclusions:

- Does not cover misuse, neglect, alterations, or third-party repairs.
- Does not cover customer-supplied materials.
- Does not cover damage caused by natural disasters, such as lightning strikes, floods and earthquakes
- Additional updating, reworking or testing requested by customers
- Any upgrading or testing requested by customers after the warranty period

Claims:

- Contact support@1accord.com with issue details and proof of service.

Ongoing Support:

Post 90-Day Costs: Additional charges apply after the warranty period.

- Remote Support: Majority of tickets resolved via support@1accord.com.
- Onsite Support: Available for issues not resolved remotely.
- Post-90-Day Costs: Additional charges apply after the warranty period.
- Manufacturer Warranties: Separate from our workmanship warranty and subject to manufacturer terms.
- Billable rates will apply for diagnosing and/or swapping out equipment covered under manufacturer warranties.

Contact:

- **Support Email:** support@1accord.com

We are dedicated to providing excellent service and ongoing support.

Meraki Option Fire Station's Cabling And Meraki Hardware - 99999-SPD-T20120501-0006

Prepared by:

1 Accord Technologies

Carlos Ochoa
478-451-7060
Fax (678) 433-9169
carlos.ochoa@1accord.com



Prepared for:

Macon-Bibb County Government

200 Cherry St., # 401
Macon, 31201
Brandt Daniels
(478) 803-2533
BCdaniels@maconbibb.us

Quote Information:

Quote #: CO-003492

Version: 4
Delivery Date: 01/24/2025
Expiration Date: 01/10/2025

Quote Summary

Description	Amount
Fire Station 1	\$20,456.03
Fire Station 2	\$22,542.83
Fire Station 3	\$13,725.41
Fire Station 4	\$19,676.28
Fire Station 5	\$25,428.76
Fire Station 6	\$20,142.88
Fire Station 7	\$21,811.91
Fire Station 8	\$21,552.65
Fire Station 9	\$18,902.40
Fire Station 10	\$26,497.64
Fire Station 11	\$18,573.81
Fire Station 12	\$22,767.97
Fire Station 13	\$16,751.16
Fire Station 14	\$18,430.77
Fire Station 15	\$19,527.70
Fire Station 16	\$19,036.56
Fire Station 17	\$21,828.91
Fire Station 18	\$21,603.91
Fire Station 19	\$10,926.10
Fire Station 20	\$21,691.35
Fire Station 21	\$15,055.23
Fire Station 22	\$10,043.68
Fire Academy	\$13,806.59
Closet Sensor and Cabling Material for Additional AP's	\$19,704.64

Quote Summary

Description	Amount
GA State Contract Fee (do not print)	\$0.00
Subtotal:	\$460,485.17
Shipping:	\$600.00
Total:	\$461,085.17

Taxes, shipping, handling and other fees may apply. We reserve the right to cancel orders arising from pricing or other errors.

1 Accord Technologies

Macon-Bibb County Government

Signature: 
 Name: Carlos Ochoa
 Title: Account Executive
 Date: 01/24/2025

Signature: _____
 Name: Brandt Daniels
 Title: Deputy CIO - Technology
 Date: _____



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR TO EXECUTE AN AGREEMENT WITH SPILLERS DESIGN AND CONSTRUCTION LLC FOR THE RENOVATION OF THE FRANK JOHNSON RECREATION CENTER, IN THE AMOUNT OF \$2,047,412.00, TO BE PAID FROM THE SPLOST 2018 FUND – RECREATION – FRANK JOHNSON – PROPERTY LINE ITEM; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, Macon-Bibb County has been planning to perform a substantial renovation to the Frank Johnson Recreation Center; and

WHEREAS, Invitation for Bids (IFB) No. 25-022-LH was published on November 21, 2024, advertised on the Macon-Bibb County Procurement page, and posted to the Georgia Procurement Registry; and

WHEREAS, two thousand eight hundred five (2805) vendors were notified of the IFB, of whom ninety-six (96) were African American, eight (8) were Asian American, forty (40) were Native American, twenty-four (24) were Hispanic/Latino, and forty (40) were Pacific Islander/American; and

WHEREAS, on the published due date of January 16, 2025, seven (7) responses were received in Procurement, tabulated for responsiveness, and provided to the user department for specification requirement review; and

WHEREAS, after review of the bids, Spillers Design and Construction LLC, whose bid was the lowest responsive and responsible bid, is recommended for award of a contract for the required renovation; and

WHEREAS, Procurement concurs with the recommendation of award of a contract to Spillers Design and Construction LLC; and

WHEREAS, the Macon-Bibb County Commission desires to authorize the Mayor to execute an agreement with Spillers Design and Construction LLC, for the renovation of the Frank Johnson Recreation Center, in the amount of \$2,047,412.00, in substantially the same form as Exhibit A, attached hereto and incorporated herein by reference; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that the Mayor is authorized to execute an agreement with Spillers Design and Construction LLC for the renovation of the Frank Johnson Recreation Center, in the amount of \$2,047,412.00, to be paid from the SPLOST 2018 Fund – Recreation – Frank Johnson – Property line item, in substantially the same form as Exhibit A.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter

of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this ____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

Q:\RES MACON-BIBB\2025 Miller Authorizing Agreement with Spillers Design and Construction for Frank Johnson Renos \$2,047,412.docx

EXHIBIT A

**FRANK JOHNSON RECREATION CENTER
RENOVATIONS AGREEMENT BETWEEN
MACON-BIBB COUNTY AND
SPILLERS DESIGN AND CONSTRUCTION LLC**

This Frank Johnson Recreation Center Renovations Agreement ("Agreement") is made and entered into by and between Macon-Bibb County, a political subdivision of the State of Georgia ("County"), and Spillers Design and Construction LLC ("Contractor"), a Georgia limited liability company with a principal place of business at 4096 Old Knoxville, Knoxville, Georgia 31050, each individually a "Party" and collectively the "Parties."

NOW THEREFORE, in consideration of the mutual promises and obligations contained in this Agreement, the Parties agree as follows:

1. Term and Compensation

1.1 Term

This Agreement shall be effective as of the date it is fully executed by the Parties. Contractor shall commence performance of services within ten (10) days from receipt of Notice to Proceed. All work, including clean up, demobilization, and restoration of the area to its final state, shall be completed within two hundred (200) days from the issuance of Notice to Proceed, but may be extended in writing upon mutual consent of the Parties.

1.2 Compensation

County shall pay to Contractor a total amount of TWO MILLION FORTY-SEVEN THOUSAND FOUR HUNDRED TWELVE DOLLARS AND 00/100 CENTS (\$2,047,412.00) for the services to be performed pursuant to this Agreement. Payment of all amounts due are to be made upon presentation of an invoice to the County and will be considered past due thirty (30) days from County's receipt of invoice.

A five percent (5%) retainage will be withheld from each payment until substantial completion of the project, consistent with O.C.G.A. §13-10-80. The County will only pay for items used and actual work performed. Change orders will be issued for any variance from this Agreement. Any unauthorized work or material change will not be compensated unless a change order or amendment has been approved in writing by the County.

County shall not pay any interest, penalties, or other amount claimed beyond the amount authorized by the County Commission or agreed to in writing by the County, consistent with Chapter 19 of the Macon-Bibb County Code of Ordinances. County is tax exempt and cannot agree to pay State or Federal taxes.

Prior to the issuance of final payment, Contractor shall certify in a form satisfactory to County that all subcontractors, staff, materialmen, suppliers, and other persons engaged by Contractor in connection with this Agreement have been paid in full or will be paid in full utilizing the funds constituting final payment to Contractor.

2. Services and Obligations of Independent Contractor

2.1 Scope of Services

Contractor shall commence, diligently pursue, and complete the renovations of the Frank Johnson Recreation Center as set forth in this Agreement and as specifically provided in Exhibit A – Invitation for Bids for Renovations to Frank Johnson Recreation Center and Contractor's Response Thereto ("Exhibit A") ("Services"). All Services will be performed in accordance with the specifications provided in Exhibit A, and with all federal, state, and local laws, regulations, and standard codes, including but not limited to International Building Code, State and Local Building Code, Georgia Department of Transportation requirements, and Occupational Safety and Health Administration requirements. Contractor shall maintain current licenses and permits as required for Services provided to the County.

Any changes to the scope of services shall be made in writing in the form of a change order or amendment and must be mutually agreed upon by the Parties. Contractor is not obligated to perform any services beyond what is contemplated in this Agreement.

2.2 Schedule

Contractor shall commence work as soon as practicable upon receipt of the Notice to Proceed. Time is of the essence; therefore, Contractor shall execute all work diligently, completing all work within the timeframe established between County and Contractor, with all work to be completed as provided in Section 1.1 of this Agreement, unless such time is extended in writing by mutual consent of the Parties. This Schedule includes all clean up, demobilization, and other work necessary to return the project area to its final state.

The County may charge Contractor ONE HUNDRED DOLLARS AND 00/100 CENTS (\$100.00) per day as liquidated damages for each day that the project is delayed beyond the date work is to be completed pursuant to this Agreement.

2.3. Method of Performing Services

(a) General

All work to be performed under this Agreement shall comply with all applicable codes, ordinances, and regulations. Contractor shall obtain all permits and licenses and pay all fees as required. Contractor shall also arrange for all required and necessary inspections required by authorities having jurisdiction over the project and submit certificates of approval to the County.

(b) Layout of Work

Contractor shall verify all existing conditions and contiguous work to form a designated worksite, providing all necessary measurements, lines, and levels. Contractor shall assume full responsibility for the accuracy of the work layout.

(c) Work Area

- (i) Contractor shall confine operations to as small an area as possible, using only the areas designated for on-site storage.
- (ii) Contractor shall protect all surrounding and adjoining private and public property, taking every precaution to prevent damage or injury to trees, shrubs, curbs, sidewalks, driveways, and fences along or adjacent to work. Should damage occur, Contractor shall restore, at Contractor's own expense, any such property damage or injuries to a condition equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring to the satisfaction of the County.
- (iii) In case of failure on part of Contractor to restore property and repair damages or injury, County may, after forty-eight (48) hours written notice, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof shall be deducted from any compensation due or which may become due to Contractor under this Agreement.
- (iv) Contractor shall verify all underground utilities and their locations prior to commencing any work under this Agreement. Damages to underground utilities and costs to repair same shall be the sole responsibility of Contractor.

(d) Traffic Control

If required by the project, the Contractor shall maintain traffic by utilizing adequate construction signs and flagmen. Contractor shall furnish, install, maintain, and upon completion of work remove all traffic control devices necessary to properly protect and divert traffic during the term of this Agreement. Contractor shall pay all costs associated with traffic control necessary for the performance of this Agreement and shall assume responsibility for damages resulting from failure to properly protect and divert traffic.

(e) Vandalism

The Contractor shall take every precaution not to leave equipment and materials where they can be reached and used for defacing new or existing work at any time.

(f) Material Disposal

Contractor shall not allow trash, or excess material to accumulate and shall be responsible for removing same from the premises. Such items shall be disposed of off premises. All costs of removing trash shall be the responsibility of Contractor. Contractor shall be responsible for the place and method of proper disposal.

(g) Inspection

- (i) Inspectors may be appointed by the County to inspect all materials used and all work performed. Such inspection may extend to all or any part of the work and to the preparation and manufacture of the materials to be used. The inspectors will not be authorized to revoke, alter, enlarge, or relax the provisions of the specification, nor will they be authorized to approve or accept any portion of the completed work or to issue instruction contrary to the plans and specifications.

The inspector shall have authority to reject defective material and to suspend work that is being improperly done, subject to the final decision of the inspector.

(ii) It is mutually agreed between the Parties to this Agreement to prevent all disputes and misunderstandings between them in relation to the Scope of Services, as such is defined in Sec. 2.1 of this Agreement. In the event of a dispute, the County shall serve as the initial decision maker with regards to all matters related to design, specifications, and project terms of this Agreement. Contractor shall proceed in accordance with the County's decisions, subject to Contractor's right to seek additional compensation and time as a result of such decision. County does not agree to waive any rights to trial by jury.

(iii) County and its designated inspectors shall have free access to all parts of the work site and to all material intended for use in the project. Work will be inspected as it progresses, but failure to reject or condemn defective work at the time it is performed will in no way prevent its rejection whenever it is discovered before the work is finally accepted and approved, nor will final acceptance and approval constitute waiver by the County of any right of action for defective work or the failure to perform this Agreement according to its terms.

2.4 Resources

All equipment, personnel, and materials required for the proper performance of services shall be furnished by and shall remain under the control of Contractor. Contractor shall be responsible, at its sole cost, for procuring and using such resources in proper and qualified, professional and high-quality working and performing order.

2.5 Warranty

Contractor shall guarantee all labor and workmanship for all Services provided for a minimum of one (1) year from the date of completion.

3. Non-Employment Relationship between County and Contractor

3.1 Independent Contractor Relationship

Contractor is an independent contractor, and neither Contractor, nor any employee or agent thereof, shall be deemed for any reason to be an employee or agent of County. County shall not have any liability or responsibility for any direct payments of any salaries, wages, payroll taxes, or any and all other forms or types of compensation or benefits to any personnel performing services for County under this Agreement. Contractor will be responsible for and compensation paid under this Agreement shall include, the cost of obtaining, maintaining, and complying with, and paying all fees and taxes associated with all applicable licenses, authorizations, consents, approvals, and permits required of Contractor in performing Services and complying with this Agreement. Contractor will not make any representations, warranties, or commitments binding the County without the County's written consent. The compensation set forth in this Agreement shall be the sole payment for Services rendered. Contractor shall provide county with a W-9 form for each contract term for which services are performed. Contractor and County agree that Contractor will be free to contract for similar services to be performed for other employers while under Contract with County.

4. Contractor Representations and Warranties

4.1 Authority

Contractor has all the necessary power and authority to enter into and perform its obligations under this Agreement, and the execution and delivery of this Agreement and the consummation of the transactions contemplated by this Agreement have been duly authorized by all necessary actions on its part. This Agreement constitutes a legal, valid and binding obligation of Contractor, enforceable against it in accordance with its terms. No action, suit or proceeding in which Contractor is a party that may restrain or question this Agreement or the provision of services by Contractor is pending or threatened. Agreement does not violate the terms of any agreement between Contractor and any third party.

4.2 Professional Standards

Contractor shall perform the Services using that degree of care, skill, and professionalism ordinarily exercised under similar circumstances by members of the same profession practicing or performing the substantially same or similar services. Contractor represents to County that Contractor retains employees that possess the skills, knowledge, and abilities to competently, timely, and professionally perform Services in accordance with this Agreement.

4.3 Conformity

The development, creation, delivery, provision, implementation, maintenance, and support of all services shall conform in all material respects to the description of services in this Agreement, including all Exhibits attached hereto.

4.4 Representations and Warranties

Contractor will make no representations, warranties, or commitments binding the County without the County's prior written consent.

4.5 Compliance with Laws

Contractor will perform all services in compliance with all applicable local, state, and Federal laws. Contractor will be responsible for, and compensation paid under this Agreement shall include, the cost of obtaining, maintaining and complying with, and paying all fees and taxes associated with all applicable licenses, authorizations, consents, approvals, and permits required of Contractor in performing services and complying with this Agreement.

5. Personnel, Subcontracting, and Conflicts

5.1 Personnel

Contractor shall be responsible, at its own cost, for all recruiting, hiring, training, educating, and orienting of all Contractor's personnel, all of whom shall be fully qualified and shall be authorized under applicable law to perform the Services.

5.2 Subcontracting and Assignments

Should Contractor elect to subcontract any services under this Agreement, Contractor shall remain responsible for the performance of the subcontractors, remain County's sole point of contact for the services, and be responsible for the payment of any subcontractors. Subject to the foregoing, the terms, covenants, and conditions of this Agreement shall be binding on the successors and assigns of either party. Notwithstanding the terms of any subcontractor's agreement, in no circumstances shall any subcontractor have any greater rights as against the County than the Contractor has under this Agreement; and in no circumstances shall the County's responsibilities towards subcontractor be greater than County's responsibilities to Contractor under this Agreement.

Contractor shall submit a "Subcontractor/Supplier Participation Report" on this contract quarterly to the Macon-Bibb County Office of Small Business Affairs which shall include the following:

1. The name of each subcontractor or supplier participating in the contract.
2. A description of the work to be performed, materials, supplies, and services provided by each subcontractor or supplier.
3. Whether each subcontractor or supplier is a minority owned, woman owned, LGBTQIA+ owned, veteran owned, disabled-person owned, Certified Disadvantaged Business Entity, non-profit, or local business.
4. Whether each subcontractor is a supplier, subcontractor, or other.
5. The dollar value of each subcontract or supply agreement.
6. The actual payment to date of each subcontractor or supplier participating in the contract.

The report shall be updated during the applicable quarter by the Contractor whenever any of the approved subcontractors or suppliers have completed the portion of the work they were contracted to perform. Copies of this report should be transmitted promptly to the Macon-Bibb County Office of Small Business Affairs.

The County may withhold any payment due to the Contractor on any project for failure to submit the Subcontractor/Supplier Report within thirty (30) days following the end of the calendar quarter or for the failure to submit updates to the quarterly report within thirty (30) days of any subcontractor or supplier having complete the portion of work they were contracted to perform.

5.3 Conflicts of Interest

Contractor and all subcontractors thereof shall immediately notify County in writing, specifically disclosing any and all potential or actual conflicts of interest, which arise or may arise during the execution of its work in the fulfillment of the requirements of the Agreement. County shall make a written determination as to whether a conflict of interest exists and the actions to be taken to resolve the conflict of interest. Failure to properly disclose any conflicts of interest shall result in immediate termination of this Agreement. Upon termination, Contractor shall be entitled to compensation for services performed prior to the date of termination, on a pro rata basis, provided such services are reasonably satisfactory to the County.

6. Company Prohibitions to Create a Safe Work Environment

6.1 Drug Free Workplace

Contractor, employees and subcontractors shall not be in possession of or use a controlled substance or marijuana during the performance of this Agreement, except for those controlled substances prescribed by a licensed medical provider. County has a no tolerance policy for violation of this rule.

6.2 Discrimination and ADA Compliance

Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, age, sex, disability, national origin, or any other category protected by applicable federal or state law. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notice to be provided by an agency of the federal government, setting forth the provisions of Equal Opportunity laws. Contractor shall comply with the appropriate provisions of the Americans with Disabilities Act (the "ADA"), as enacted and as from time to time amended, and any other applicable federal regulations. A signed certificate confirming compliance with the ADA may be requested by County at any time during the term of this Agreement.

6.3 Equal Employment Opportunity

During the performance of this Agreement, Contractor shall not discriminate against any employee, or applicant for employment, because of race, color, creed, religion, sex, domestic relationship status, parental status, familial status, sexual orientation, national origin, gender identity, age, disability, or political affiliation. As used herein, the words "shall not discriminate" shall mean and include without limitation the following: recruited, whether by advertising or other means; compensated, whether in the form of rates of pay, or other forms of compensation; selected for training, including apprenticeship; promoted; upgraded; demoted; downgraded; transferred; laid off; and terminated.

6.4 Prohibition Against Employing Illegal Immigrants

Contractor is registered with and is authorized to use and uses the federal work authorization program commonly known as E-Verify. Contractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement and will verify immigration status to confirm employment eligibility. Contractor shall not enter into an agreement with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement. Contractor is prohibited from using the E-Verify program procedures to undertake pre-employment screening of job applicants while this Agreement is being performed.

7. Termination

7.1 Termination for Convenience

In addition to the other methods of termination provided for in this Agreement, either Party may terminate this Agreement, or any part of this Agreement upon 15 days written notice with or without cause and with no penalty or additional cost beyond the rates stated in this Agreement. In the event of such termination, Contractor shall be entitled to receive payment only for work completed up to and including the date of termination.

7.2 Fiscal Non-Appropriation Clause

Financial obligations of County payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available in accordance with the rules, regulations, and resolutions of County, and other applicable law. Upon the failure to appropriate such funds, this Agreement shall be terminated immediately and without further obligation on the part of the County.

8. Notices

All notices required or permitted to be given under this Agreement shall be in writing (the "Notice") and deemed given when (a) hand delivered by the sender and properly receipted for by a responsible person of the receiving party, (b) deposited in the United States Mail, properly addressed, with sufficient postage affixed, via first class mail, return receipt requested, (c) via Federal Express, UPS or similar national overnight courier service with delivery charges prepaid; or (d) via facsimile with a copy sent that same day via (a), (b), or (c). All Notices shall be addressed as follows:

For County:

Macon-Bibb County, Georgia
Attn: Mayor
700 Poplar Street
Macon, GA 31202-0247

With Copy To:

Macon-Bibb County Attorney's Office
700 Poplar Street
Macon, Georgia 31202

For Contractor:

Spillers Design and Construction LLC
Attn: Justin Spillers
PO Box 222
Lizella, Georgia 31052
justin@spillersdc.com

Either Party has the right to designate in writing, served as provided above, a different address to which any notice, demand or communication is to be mailed.

9. Indemnification

To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless County, its elected and appointed officials, employees and volunteers, and others working on behalf of County, from and against any and all third-party claims, demands, suits, costs (including reasonable legal costs), expenses, and liabilities ("Claims") alleging personal injury, including bodily injury or death, and/or property damage, but only to the extent that any such Claims are caused by the negligence of Contractor any Officer, employee, representative, or agent of Contractor. Contractor shall

have no obligations under this section to the extent that any Claim arises as a result of Contractor's compliance with all applicable law, ordinances, rules, regulations, resolution, executive orders, or other instructions received from County.

10. Insurance Requirements

10.1 General Terms

Contractor shall procure and maintain, and shall cause any subcontractor of Contractor to procure and maintain, the minimum insurance coverages listed in the "Invitation for Bids" document included in Exhibit A throughout the term of this Agreement. Such coverages shall be procured and maintained with forms and insurers acceptable to County. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

All liability policies obtained by Contractor in satisfaction of this Agreement shall be primary and noncontributory, shall list Macon-Bibb County and all elected officials, officers, agents, and employees thereof as additional insureds, and all such policies shall apply separately to each insured against whom any claim is made or suit is brought, except with respect to limits of insurance provided. All coverage shall be provided on a "pay on behalf" basis, with defense costs paid in addition to policy limits and there shall be no cross liability performed by Contractor. Contractor shall provide current certificates of insurance for all insurance types required under this Agreement and shall provide updated certificates of insurance no later than thirty (30) days prior to the renewal or amendment of any required insurance policy. Contractor shall provide complete copies of any or all insurance policies upon written demand. No policy shall be cancelled, non-renewed, or have policy limits reduced outside of this Agreement unless County is given thirty (30) days advance notice from Contractor. Contractor shall further require that no insurer shall cancel, non-renew, or reduce the policy limits of any policy required under this Agreement without first giving thirty (30) days written notice to County.

Contractor agrees to purchase and have the authorized agent state on the insurance certificate that Contractor has purchased the following types of insurance coverages, consistent with the policies and requirements of O.C.G.A. §50-21-37.

10.2 Evidence of Insurance

Contractor shall provide County with certificates of insurance evidencing the insurance required above, and satisfactory to the County, prior to commencing work under this Agreement. Each insurance policy required above shall be issued by a company licensed by the Insurance Commissioner of the State of Georgia to transact the business of insurance in the State of Georgia for the applicable line of insurance and, except otherwise stated in this Agreement, shall be an insurer with a Best Policyholders Rating of "B+" or better and with a financial size rating of Class V or larger. One original certificate of insurance with all endorsements attached must be deposited with County for each insurance policy required. Contractor is responsible for any delay resulting from the failure of its insurance carriers to furnish proof of proper coverage in the prescribed form.

10.3 County's Obligation

The County shall be under no obligation to ensure that Contractor, or any subcontractor, complies with the insurance requirements of this Agreement, and Contractor assumes all

liability arising from its, or its subcontractor's failure, to acquire and/or maintain adequate insurance to cover its operations and business. Contractor further agrees to indemnify and hold harmless the County for any claims arising from Contractor's, or any subcontractor's, failure to acquire and/or maintain adequate insurance.

11. Force Majeure

Neither Party shall be liable for any loss or damage suffered by the other Party, directly or indirectly, as a result of the first Party's failure to perform, or delay in performing, any of its obligations contained in this Agreement (except any obligations to make payments hereunder), where such failure or delay is caused by circumstances beyond the first Party's control or which makes performance commercially impracticable, including but not limited to fire, flood, storm or other natural disaster, explosion, accident, war, riot, civil disorder, government regulations or restrictions of any kind or any acts of any government, judicial action, power failure, acts of God or other natural circumstances.

12. Arbitration and Jury Trial

Disputes arising under this Agreement shall be governed by and interpreted in accordance with the laws of the State of Georgia. Exclusive jurisdiction and venue for any legal proceeding related to this Agreement shall be in Bibb County Superior Court or the Federal District Court in the Middle District of Georgia (Macon Division.) County does not agree to arbitration nor waive its right to a jury trial. Nothing in this Agreement shall be construed as waiving any immunity held by the County under the Eleventh Amendment of the United States Constitution.

13. Attorney's Fees

In the event of dispute resolution or litigation to enforce any of the terms herein, each Party shall pay all its own costs and attorney's fees.

14. Publicity

Contractor shall not release without prior written approval from County, any publicity regarding services provided by the County, including but not limited to notices, information pamphlets, press releases, research, reports, signs and similar public notices prepared by or for Contractor, identifying County receiving goods or services under this Agreement.

15. Work Product, Intellectual Property, and Information

Except as expressly provided in this Agreement, County shall retain ownership of all work product and deliverables created by Contractor pursuant to this Agreement and all records, documents, notes, data and other materials required for or resulting from the performance of Services hereunder shall not be used by Contractor for any purpose other than the performance of Services hereunder without the express prior written consent of County. All such records, documents, notes, data, and other materials shall be considered "work for hire" and shall become the exclusive property of County when Contractor has been compensated for the same as set forth herein, and County shall thereafter retain sole and exclusive rights to receive and use such materials in such manner and for such purposes as determined by it.

16. Confidential Information and Open Records

County is subject to the Georgia Open Records Act and cannot agree to protect confidential information from public disclosure unless that information is subject to an exception. Contractor shall cooperate fully with County in response to all requests made under the Georgia Open Records Act.

The Parties acknowledge that both Contractor and County are required to comply with the Georgia Open Records Act, O.C.G.A. § 50-18-70, et seq. See, *Milliron v. Antonakakis*, 905 S.E.2d 657 (Ga. 2024). As a result, Contractor acknowledges and agrees that County may make such disclosures as are authorized or required under the Georgia Open Records Act, notwithstanding any claims of confidentiality asserted by Contractor as to any records or data in the County's possession.

Upon execution of this Agreement, Contractor shall designate in writing that one or more of its officers shall be the open records officer for Contractor in accordance with the Open Records Act. In the event that Contractor receives a request for records under the Open Records Act, Contractor shall notify County within two business days by sending an email, return receipt requested, to OpenRecordsNotices@maconbibb.onmicrosoft.com. Contractor shall provide County with copies of all records proposed for production prior to responding to such request. Contractor shall assert all exemptions and exceptions available to the fullest extent of the law and shall not produce any records which are subject to withholding under the Open Records Act or any other state or federal law. Contractor shall have a duty to consult with independent legal counsel concerning which records are or are not subject to production prior to making any production, and shall certify to County at the time the proposed production is provided to County that the records contained therein have been reviewed by counsel for responsiveness and that all information that is protected or protectable from release under the law has been redacted therefrom. Contractor shall be responsible for calculating response costs and billing requestors for all requests sent in accordance with the Open Records Act, and Contractor's complete compliance with the provisions of this section shall be performed at no cost to County.

Contractor assumes all civil and criminal liability for its own compliance with the Open Records Act. In the event that Contractor produces material records that are subject to withholding under the Open Records Act, and it would be impossible or very difficult to accurately estimate the damages and harm caused to County by such production, then Contractor shall pay County the sum of \$10,000.00 per request as liquidated damages. The Parties intend that these liquidated damages shall constitute compensation, and not a penalty, and that the liquidated damages are a reasonable estimate of the anticipated or actual harm that might arise from a breach by Contractor. Where actual damages are calculable, then County shall reserve the right to seek actual damages for the harm caused by such production instead of liquidated damages. Nothing herein shall be construed as limiting in any way the County's right to seek injunctive, declaratory, or other relief to prevent the release of protected information prior to any such production being made.

17. General Terms

17.1 Waiver

Any waiver by the Parties or failure to enforce their rights under this Agreement shall be deemed applicable only to the specific matter and shall not be deemed a waiver or failure

to enforce any other rights under this Agreement, and this Agreement shall continue in full force and effect as though such previous waiver or failure to enforce any rights had not occurred. No supplement, modification, amendment, or waiver of this Agreement will be binding on County unless executed in writing by the County.

17.2 Severability

If any provision of this Agreement is declared invalid, unenforceable, or unlawful, such provision shall be deemed omitted and shall not affect the validity of other provisions of this Agreement.

17.3 Titles, Captions and Headings

The titles, captions and paragraph headings are inserted for convenience only and are in no way intended to interpret, define, or limit the scope or content of this Agreement or any provision hereof.

17.4 No Drafting Presumption

No presumption of any applicable law relating to the interpretation of contracts against the drafter shall apply to this Agreement.

17.5 Survival

Any provision of this Agreement which contemplates performance or observance subsequent to any termination or expiration of this Agreement or which must survive in order to give effect to its meaning, shall survive the expiration or termination of this Agreement.

17.6 Previous Agreements

Any services authorized by County under previous "quote(s)" for services, and any related contract documents, shall be governed by and subject to this Agreement.

17.7 Counterparts

This Agreement may be executed in two or more counterparts, each of which taken together shall constitute one and the same instrument. This Agreement shall be fully executed when each Party whose signature is required has signed at least one counterpart, even though no one counterpart contains all the signatures of all the Parties to this Agreement. Reproduced or electronic signatures shall be considered the same as an original signature. Delivery of a copy of this Agreement bearing an original signature by facsimile transmission, by electronic mail or by any other electronic means will have the same effect as physical delivery of the paper document bearing the original signature.

17.8 Entire Agreement

The Parties acknowledge that this Agreement sets forth the entire agreement and understanding between the Parties and fully supersedes all previous communications, representations or agreements, oral or written, between the Parties pertaining to the same subject matter. This Agreement may only be amended or modified in writing by consent of both Parties. Contractor may not unilaterally amend or modify this Agreement by

including provisions in its invoices, or other business forms, which shall be deemed objected to by the County and of no force or effect.

17.9 Electronic Representation and Records

The Parties agree to regard electronic representations of original signatures as legally sufficient for executing this Agreement and scanned signatures emailed by PDF or otherwise shall be as valid as the original. Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

17.10 Authority to Execute

The person or persons executing this Agreement represent and warrant that they are fully authorized to sign and so execute this Agreement and to bind their respective entities to the performance of its obligations hereunder.

17.11 Precedence of Documents

In the event of any express conflict between the body of this Agreement and any Exhibit or Attachment hereto, the terms and conditions of the body of this Agreement shall control and take precedence over the terms and conditions expressed within the Exhibit or Attachment. Furthermore, any terms or conditions contained within any Exhibit or Attachment hereto which purport to modify the allocation of risk between the parties, provided for within the body of this Agreement, shall be null and void.

[Signatures on following page.]

IN WITNESS WHEREOF, the parties have executed this Agreement to be effective as of the date executed by both parties.

MACON-BIBB COUNTY:

By: _____
Lester M. Miller, Mayor Date

Attested: _____
Janice S. Ross, Clerk of Commission Date

SPILLERS DESIGN AND CONSTRUCTION LLC.:

By: _____

(Printed Name & Title) Date

Attested: _____

(Printed Name & Title) Date

*Q:\CONTRACTS\2025-0752 Spillers Design And Construction - Frank Johnson Rec Center
Reno \$2,047,412.00.Docx*

EXHIBIT A

Exhibit A has been removed from this Resolution because of its size (approximately 700 pages). It is available for review and may be requested from the Clerk of Commission. Exhibit A will be attached to the full contract at execution. The full contract, once executed will be recorded with the Clerk of Commission.



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR TO EXECUTE AN AGREEMENT WITH TURNER CONSTRUCTION MANAGEMENT LLC FOR THE RENOVATION OF THE MEMORIAL PARK RECREATION CENTER, IN THE AMOUNT OF \$1,100,000.00, TO BE PAID FROM THE SPLOST 2018 FUND – RECREATION – MEMORIAL – PROPERTY LINE ITEM; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, Macon-Bibb County has been planning to perform a substantial renovation to the Memorial Park Recreation Center with SPLOST proceeds; and

WHEREAS, Invitation for Bids (IFB) No. 25-023-LH was published on November 21, 2024, advertised on the Macon-Bibb County Procurement page, and posted to the Georgia Procurement Registry; and

WHEREAS, one thousand four hundred two (1402) vendors were notified of the IFB, of whom forty-eight (48) were African American, four (4) were Asian American, twenty (20) were Native American, and twelve (12) were Hispanic/Latino; and

WHEREAS, on the published due date of January 9, 2025, six (6) responses were received in Procurement, tabulated for responsiveness, and provided to the user department for specification requirement review; and

WHEREAS, after review of the bids, Turner Construction Management LLC, whose bid was the lowest responsive and responsible bid, is recommended for award of a contract for the required renovation; and

WHEREAS, Procurement concurs with the recommendation of award of a contract to Turner Construction Management LLC; and

WHEREAS, the Macon-Bibb County Commission desires to authorize the Mayor to execute an agreement with Turner Construction Management LLC, for the renovation of the

Memorial Park Recreation Center, in the amount of \$1,100,000.00, in substantially the same form as Exhibit A, attached hereto and incorporated herein by reference; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that the Mayor is authorized to execute an agreement with Turner Construction Management LLC for the renovation of the Memorial Park Recreation Center, in the amount of \$1,100,000.00, to be paid from the SPLOST 2018 Fund – Recreation – Memorial – Property line item, in substantially the same form as Exhibit A.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it

is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this ____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

*Q:\RES MACON-BIBB\2025 Miller Authorizing Agreement with Turner Construction Management LLC for
Memorial Park Renos \$1,100,000.docx*

EXHIBIT A

**MEMORIAL PARK RECREATION CENTER
RENOVATIONS AGREEMENT BETWEEN
MACON-BIBB COUNTY AND
TURNER CONSTRUCTION MANAGEMENT LLC**

This Memorial Park Recreation Center Renovations Agreement ("Agreement") is made and entered into by and between Macon-Bibb County, a political subdivision of the State of Georgia ("County"), and Turner Construction Management LLC ("Contractor"), a Georgia limited liability company with a principal place of business at 5253 Columbus Road, Columbus, Georgia 31206, each individually a "Party" and collectively the "Parties."

NOW THEREFORE, in consideration of the mutual promises and obligations contained in this Agreement, the Parties agree as follows:

1. Term and Compensation

1.1 Term

This Agreement shall be effective as of the date it is fully executed by the Parties. Contractor shall commence performance of services within ten (10) days from receipt of Notice to Proceed. All work, including clean up, demobilization, and restoration of the area to its final state, shall be completed within one hundred fifty-four (154) from the issuance of Notice to Proceed, but may be extended in writing upon mutual consent of the Parties.

1.2 Compensation

County shall pay to Contractor a total amount of ONE MILLION ONE HUNDRED THOUSAND DOLLARS AND 00/100 CENTS (\$1,100,000.00) for the services to be performed pursuant to this Agreement. Payment of all amounts due are to be made upon presentation of an invoice to the County and will be considered past due thirty (30) days from County's receipt of invoice.

A five percent (5%) retainage will be withheld from each payment until substantial completion of the project, consistent with O.C.G.A. §13-10-80. The County will only pay for items used and actual work performed. Change orders will be issued for any variance from this Agreement. Any unauthorized work or material change will not be compensated unless a change order or amendment has been approved in writing by the County.

County shall not pay any interest, penalties, or other amount claimed beyond the amount authorized by the County Commission or agreed to in writing by the County, consistent with Chapter 19 of the Macon-Bibb County Code of Ordinances. County is tax exempt and cannot agree to pay State or Federal taxes.

Prior to the issuance of final payment, Contractor shall certify in a form satisfactory to County that all subcontractors, staff, materialmen, suppliers, and other persons engaged by Contractor in connection with this Agreement have been paid in full or will be paid in full utilizing the funds constituting final payment to Contractor.

2. Services and Obligations of Independent Contractor

2.1 Scope of Services

Contractor shall commence, diligently pursue, and complete the renovations of Memorial Park Recreation Center as set forth in this Agreement and as specifically provided in Exhibit A – Invitation for Bids for Renovations to Memorial Park Recreation Center (25-023-LH) and Contractor's Response Thereto ("Exhibit A") ("Services"). All Services will be performed in accordance with the specifications provided in Exhibit A, and with all federal, state, and local laws, regulations, and standard codes, including but not limited to International Building Code, State and Local Building Code, Georgia Department of Transportation requirements, and Occupational Safety and Health Administration requirements. Contractor shall maintain current licenses and permits as required for Services provided to the County.

Any changes to the scope of services shall be made in writing in the form of a change order or amendment and must be mutually agreed upon by the Parties. Contractor is not obligated to perform any services beyond what is contemplated in this Agreement.

2.2 Schedule

Contractor shall commence work as soon as practicable upon receipt of the Notice to Proceed. Time is of the essence; therefore, Contractor shall execute all work diligently, completing all work within the timeframe established between County and Contractor, with all work to be completed as provided in Section 1.1 of this Agreement, unless such time is extended in writing by mutual consent of the Parties. This Schedule includes all clean up, demobilization, and other work necessary to return the project area to its final state.

The County may charge Contractor ONE HUNDRED DOLLARS AND 00/100 CENTS (\$100.00) per day as liquidated damages for each day that the project is delayed beyond the date work is to be completed pursuant to this Agreement.

2.3. Method of Performing Services

(a) General

All work to be performed under this Agreement shall comply with all applicable codes, ordinances, and regulations. Contractor shall obtain all permits and licenses and pay all fees as required. Contractor shall also arrange for all required and necessary inspections required by authorities having jurisdiction over the project and submit certificates of approval to the County.

(b) Layout of Work

Contractor shall verify all existing conditions and contiguous work to form a designated worksite, providing all necessary measurements, lines, and levels. Contractor shall assume full responsibility for the accuracy of the work layout.

(c) Work Area

- (i) Contractor shall confine operations to as small an area as possible, using only the areas designated for on-site storage.
- (ii) Contractor shall protect all surrounding and adjoining private and public property, taking every precaution to prevent damage or injury to trees, shrubs, curbs, sidewalks, driveways, and fences along or adjacent to work. Should damage occur, Contractor shall restore, at Contractor's own expense, any such property damage or injuries to a condition equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring to the satisfaction of the County.
- (iii) In case of failure on part of Contractor to restore property and repair damages or injury, County may, after forty-eight (48) hours written notice, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof shall be deducted from any compensation due or which may become due to Contractor under this Agreement.
- (iv) Contractor shall verify all underground utilities and their locations prior to commencing any work under this Agreement. Damages to underground utilities and costs to repair same shall be the sole responsibility of Contractor.

(d) Traffic Control

If required by the project, the Contractor shall maintain traffic by utilizing adequate construction signs and flagmen. Contractor shall furnish, install, maintain, and upon completion of work remove all traffic control devices necessary to properly protect and divert traffic during the term of this Agreement. Contractor shall pay all costs associated with traffic control necessary for the performance of this Agreement and shall assume responsibility for damages resulting from failure to properly protect and divert traffic.

(e) Vandalism

The Contractor shall take every precaution not to leave equipment and materials where they can be reached and used for defacing new or existing work at any time.

(f) Material Disposal

Contractor shall not allow trash, or excess material to accumulate and shall be responsible for removing same from the premises. Such items shall be disposed of off premises. All costs of removing trash shall be the responsibility of Contractor. Contractor shall be responsible for the place and method of proper disposal.

(g) Inspection

- (i) Inspectors may be appointed by the County to inspect all materials used and all work performed. Such inspection may extend to all or any part of the work and to the preparation and manufacture of the materials to be used. The inspectors will not be authorized to revoke, alter, enlarge, or relax the provisions of the specification, nor will they be authorized to approve or accept any portion of the completed work or to issue instruction contrary to the plans and specifications.

The inspector shall have authority to reject defective material and to suspend work that is being improperly done, subject to the final decision of the inspector.

(ii) It is mutually agreed between the Parties to this Agreement to prevent all disputes and misunderstandings between them in relation to the Scope of Services, as such is defined in Sec. 2.1 of this Agreement. In the event of a dispute, the County shall serve as the initial decision maker with regards to all matters related to design, specifications, and project terms of this Agreement. Contractor shall proceed in accordance with the County's decisions, subject to Contractor's right to seek additional compensation and time as a result of such decision. County does not agree to waive any rights to trial by jury.

(iii) County and its designated inspectors shall have free access to all parts of the work site and to all material intended for use in the project. Work will be inspected as it progresses, but failure to reject or condemn defective work at the time it is performed will in no way prevent its rejection whenever it is discovered before the work is finally accepted and approved, nor will final acceptance and approval constitute waiver by the County of any right of action for defective work or the failure to perform this Agreement according to its terms.

2.4 Resources

All equipment, personnel, and materials required for the proper performance of services shall be furnished by and shall remain under the control of Contractor. Contractor shall be responsible, at its sole cost, for procuring and using such resources in proper and qualified, professional and high-quality working and performing order.

2.5 Warranty

Contractor shall guarantee all labor and workmanship for all Services provided for a minimum of one (1) year from the date of completion.

3. Non-Employment Relationship between County and Contractor

3.1 Independent Contractor Relationship

Contractor is an independent contractor, and neither Contractor, nor any employee or agent thereof, shall be deemed for any reason to be an employee or agent of County. County shall not have any liability or responsibility for any direct payments of any salaries, wages, payroll taxes, or any and all other forms or types of compensation or benefits to any personnel performing services for County under this Agreement. Contractor will be responsible for and compensation paid under this Agreement shall include, the cost of obtaining, maintaining, and complying with, and paying all fees and taxes associated with all applicable licenses, authorizations, consents, approvals, and permits required of Contractor in performing Services and complying with this Agreement. Contractor will not make any representations, warranties, or commitments binding the County without the County's written consent. The compensation set forth in this Agreement shall be the sole payment for Services rendered. Contractor shall provide county with a W-9 form for each contract term for which services are performed. Contractor and County agree that Contractor will be free to contract for similar services to be performed for other employers while under Contract with County.

4. Contractor Representations and Warranties

4.1 Authority

Contractor has all the necessary power and authority to enter into and perform its obligations under this Agreement, and the execution and delivery of this Agreement and the consummation of the transactions contemplated by this Agreement have been duly authorized by all necessary actions on its part. This Agreement constitutes a legal, valid and binding obligation of Contractor, enforceable against it in accordance with its terms. No action, suit or proceeding in which Contractor is a party that may restrain or question this Agreement or the provision of services by Contractor is pending or threatened. Agreement does not violate the terms of any agreement between Contractor and any third party.

4.2 Professional Standards

Contractor shall perform the Services using that degree of care, skill, and professionalism ordinarily exercised under similar circumstances by members of the same profession practicing or performing the substantially same or similar services. Contractor represents to County that Contractor retains employees that possess the skills, knowledge, and abilities to competently, timely, and professionally perform Services in accordance with this Agreement.

4.3 Conformity

The development, creation, delivery, provision, implementation, maintenance, and support of all services shall conform in all material respects to the description of services in this Agreement, including all Exhibits attached hereto.

4.4 Representations and Warranties

Contractor will make no representations, warranties, or commitments binding the County without the County's prior written consent.

4.5 Compliance with Laws

Contractor will perform all services in compliance with all applicable local, state, and Federal laws. Contractor will be responsible for, and compensation paid under this Agreement shall include, the cost of obtaining, maintaining and complying with, and paying all fees and taxes associated with all applicable licenses, authorizations, consents, approvals, and permits required of Contractor in performing services and complying with this Agreement.

5. Personnel, Subcontracting, and Conflicts

5.1 Personnel

Contractor shall be responsible, at its own cost, for all recruiting, hiring, training, educating, and orienting of all Contractor's personnel, all of whom shall be fully qualified and shall be authorized under applicable law to perform the Services.

5.2 Subcontracting and Assignments

Should Contractor elect to subcontract any services under this Agreement, Contractor shall remain responsible for the performance of the subcontractors, remain County's sole point of contact for the services, and be responsible for the payment of any subcontractors. Subject to the foregoing, the terms, covenants, and conditions of this Agreement shall be binding on the successors and assigns of either party. Notwithstanding the terms of any subcontractor's agreement, in no circumstances shall any subcontractor have any greater rights as against the County than the Contractor has under this Agreement; and in no circumstances shall the County's responsibilities towards subcontractor be greater than County's responsibilities to Contractor under this Agreement.

Contractor shall submit a "Subcontractor/Supplier Participation Report" on this contract quarterly to the Macon-Bibb County Office of Small Business Affairs which shall include the following:

1. The name of each subcontractor or supplier participating in the contract.
2. A description of the work to be performed, materials, supplies, and services provided by each subcontractor or supplier.
3. Whether each subcontractor or supplier is a minority owned, woman owned, LGBTQIA+ owned, veteran owned, disabled-person owned, Certified Disadvantaged Business Entity, non-profit, or local business.
4. Whether each subcontractor is a supplier, subcontractor, or other.
5. The dollar value of each subcontract or supply agreement.
6. The actual payment to date of each subcontractor or supplier participating in the contract.

The report shall be updated during the applicable quarter by the Contractor whenever any of the approved subcontractors or suppliers have completed the portion of the work they were contracted to perform. Copies of this report should be transmitted promptly to the Macon-Bibb County Office of Small Business Affairs.

The County may withhold any payment due to the Contractor on any project for failure to submit the Subcontractor/Supplier Report within thirty (30) days following the end of the calendar quarter or for the failure to submit updates to the quarterly report within thirty (30) days of any subcontractor or supplier having complete the portion of work they were contracted to perform.

5.3 Conflicts of Interest

Contractor and all subcontractors thereof shall immediately notify County in writing, specifically disclosing any and all potential or actual conflicts of interest, which arise or may arise during the execution of its work in the fulfillment of the requirements of the Agreement. County shall make a written determination as to whether a conflict of interest exists and the actions to be taken to resolve the conflict of interest. Failure to properly disclose any conflicts of interest shall result in immediate termination of this Agreement. Upon termination, Contractor shall be entitled to compensation for services performed prior to the date of termination, on a pro rata basis, provided such services are reasonably satisfactory to the County.

6. Company Prohibitions to Create a Safe Work Environment

6.1 Drug Free Workplace

Contractor, employees and subcontractors shall not be in possession of or use a controlled substance or marijuana during the performance of this Agreement, except for those controlled substances prescribed by a licensed medical provider. County has a no tolerance policy for violation of this rule.

6.2 Discrimination and ADA Compliance

Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, age, sex, disability, national origin, or any other category protected by applicable federal or state law. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notice to be provided by an agency of the federal government, setting forth the provisions of Equal Opportunity laws. Contractor shall comply with the appropriate provisions of the Americans with Disabilities Act (the "ADA"), as enacted and as from time to time amended, and any other applicable federal regulations. A signed certificate confirming compliance with the ADA may be requested by County at any time during the term of this Agreement.

6.3 Equal Employment Opportunity

During the performance of this Agreement, Contractor shall not discriminate against any employee, or applicant for employment, because of race, color, creed, religion, sex, domestic relationship status, parental status, familial status, sexual orientation, national origin, gender identity, age, disability, or political affiliation. As used herein, the words "shall not discriminate" shall mean and include without limitation the following: recruited, whether by advertising or other means; compensated, whether in the form of rates of pay, or other forms of compensation; selected for training, including apprenticeship; promoted; upgraded; demoted; downgraded; transferred; laid off; and terminated.

6.4 Prohibition Against Employing Illegal Immigrants

Contractor is registered with and is authorized to use and uses the federal work authorization program commonly known as E-Verify. Contractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement and will verify immigration status to confirm employment eligibility. Contractor shall not enter into an agreement with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement. Contractor is prohibited from using the E-Verify program procedures to undertake pre-employment screening of job applicants while this Agreement is being performed.

7. Termination

7.1 Termination for Convenience

In addition to the other methods of termination provided for in this Agreement, either Party may terminate this Agreement, or any part of this Agreement upon 15 days written notice with or without cause and with no penalty or additional cost beyond the rates stated in this Agreement. In the event of such termination, Contractor shall be entitled to receive payment only for work completed up to and including the date of termination.

7.2 Fiscal Non-Appropriation Clause

Financial obligations of County payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available in accordance with the rules, regulations, and resolutions of County, and other applicable law. Upon the failure to appropriate such funds, this Agreement shall be terminated immediately and without further obligation on the part of the County.

8. Notices

All notices required or permitted to be given under this Agreement shall be in writing (the "Notice") and deemed given when (a) hand delivered by the sender and properly receipted for by a responsible person of the receiving party, (b) deposited in the United States Mail, properly addressed, with sufficient postage affixed, via first class mail, return receipt requested, (c) via Federal Express, UPS or similar national overnight courier service with delivery charges prepaid; or (d) via facsimile with a copy sent that same day via (a), (b), or (c). All Notices shall be addressed as follows:

For County:

Macon-Bibb County, Georgia
Attn: Mayor
700 Poplar Street
Macon, GA 31202-0247

For Contractor:

Turner Construction Management LLC
Attn: Mitchell Turner, President
5253 Columbus Road
Macon, Georgia 31206
mitchell@turnercmlc.com

With Copy To:
Macon-Bibb County Attorney's Office
700 Poplar Street
Macon, Georgia 31202

Either Party has the right to designate in writing, served as provided above, a different address to which any notice, demand or communication is to be mailed.

9. Indemnification

To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless County, its elected and appointed officials, employees and volunteers, and others working on behalf of County, from and against any and all third-party claims, demands, suits, costs (including reasonable legal costs), expenses, and liabilities ("Claims") alleging personal injury, including bodily injury or death, and/or property damage, but only to the extent that any such Claims are caused by the negligence of Contractor any Officer, employee, representative, or agent of Contractor. Contractor shall

have no obligations under this section to the extent that any Claim arises as a result of Contractor's compliance with all applicable law, ordinances, rules, regulations, resolution, executive orders, or other instructions received from County.

10. Insurance Requirements

10.1 General Terms

Contractor shall procure and maintain, and shall cause any subcontractor of Contractor to procure and maintain, the minimum insurance coverages listed in the "Invitation for Bids" document included in Exhibit A throughout the term of this Agreement. Such coverages shall be procured and maintained with forms and insurers acceptable to County. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

All liability policies obtained by Contractor in satisfaction of this Agreement shall be primary and noncontributory, shall list Macon-Bibb County and all elected officials, officers, agents, and employees thereof as additional insureds, and all such policies shall apply separately to each insured against whom any claim is made or suit is brought, except with respect to limits of insurance provided. All coverage shall be provided on a "pay on behalf" basis, with defense costs paid in addition to policy limits and there shall be no cross liability performed by Contractor. Contractor shall provide current certificates of insurance for all insurance types required under this Agreement and shall provide updated certificates of insurance no later than thirty (30) days prior to the renewal or amendment of any required insurance policy. Contractor shall provide complete copies of any or all insurance policies upon written demand. No policy shall be cancelled, non-renewed, or have policy limits reduced outside of this Agreement unless County is given thirty (30) days advance notice from Contractor. Contractor shall further require that no insurer shall cancel, non-renew, or reduce the policy limits of any policy required under this Agreement without first giving thirty (30) days written notice to County.

Contractor agrees to purchase and have the authorized agent state on the insurance certificate that Contractor has purchased the following types of insurance coverages, consistent with the policies and requirements of O.C.G.A. §50-21-37.

10.2 Evidence of Insurance

Contractor shall provide County with certificates of insurance evidencing the insurance required above, and satisfactory to the County, prior to commencing work under this Agreement. Each insurance policy required above shall be issued by a company licensed by the Insurance Commissioner of the State of Georgia to transact the business of insurance in the State of Georgia for the applicable line of insurance and, except otherwise stated in this Agreement, shall be an insurer with a Best Policyholders Rating of "B+" or better and with a financial size rating of Class V or larger. One original certificate of insurance with all endorsements attached must be deposited with County for each insurance policy required. Contractor is responsible for any delay resulting from the failure of its insurance carriers to furnish proof of proper coverage in the prescribed form.

10.3 County's Obligation

The County shall be under no obligation to ensure that Contractor, or any subcontractor, complies with the insurance requirements of this Agreement, and Contractor assumes all liability arising from its, or its subcontractor's failure, to acquire and/or maintain adequate insurance to cover its operations and business. Contractor further agrees to indemnify and hold harmless the County for any claims arising from Contractor's, or any subcontractor's, failure to acquire and/or maintain adequate insurance.

11. Force Majeure

Neither Party shall be liable for any loss or damage suffered by the other Party, directly or indirectly, as a result of the first Party's failure to perform, or delay in performing, any of its obligations contained in this Agreement (except any obligations to make payments hereunder), where such failure or delay is caused by circumstances beyond the first Party's control or which makes performance commercially impracticable, including but not limited to fire, flood, storm or other natural disaster, explosion, accident, war, riot, civil disorder, government regulations or restrictions of any kind or any acts of any government, judicial action, power failure, acts of God or other natural circumstances.

12. Arbitration and Jury Trial

Disputes arising under this Agreement shall be governed by and interpreted in accordance with the laws of the State of Georgia. Exclusive jurisdiction and venue for any legal proceeding related to this Agreement shall be in Bibb County Superior Court or the Federal District Court in the Middle District of Georgia (Macon Division.) County does not agree to arbitration nor waive its right to a jury trial. Nothing in this Agreement shall be construed as waiving any immunity held by the County under the Eleventh Amendment of the United States Constitution.

13. Attorney's Fees

In the event of dispute resolution or litigation to enforce any of the terms herein, each Party shall pay all its own costs and attorney's fees.

14. Publicity

Contractor shall not release without prior written approval from County, any publicity regarding services provided by the County, including but not limited to notices, information pamphlets, press releases, research, reports, signs and similar public notices prepared by or for Contractor, identifying County receiving goods or services under this Agreement.

15. Work Product, Intellectual Property, and Information

Except as expressly provided in this Agreement, County shall retain ownership of all work product and deliverables created by Contractor pursuant to this Agreement and all records, documents, notes, data and other materials required for or resulting from the performance of Services hereunder shall not be used by Contractor for any purpose other than the performance of Services hereunder without the express prior written consent of County. All such records, documents, notes, data, and other materials shall be considered "work for hire" and shall become the exclusive property of County when Contractor has been compensated for the same as set forth herein, and County shall thereafter retain

sole and exclusive rights to receive and use such materials in such manner and for such purposes as determined by it.

16. Confidential Information and Open Records

County is subject to the Georgia Open Records Act and cannot agree to protect confidential information from public disclosure unless that information is subject to an exception. Contractor shall cooperate fully with County in response to all requests made under the Georgia Open Records Act.

The Parties acknowledge that both Contractor and County are required to comply with the Georgia Open Records Act, O.C.G.A. § 50-18-70, et seq. See, *Milliron v. Antonakakis*, 905 S.E.2d 657 (Ga. 2024). As a result, Contractor acknowledges and agrees that County may make such disclosures as are authorized or required under the Georgia Open Records Act, notwithstanding any claims of confidentiality asserted by Contractor as to any records or data in the County's possession.

Upon execution of this Agreement, Contractor shall designate in writing that one or more of its officers shall be the open records officer for Contractor in accordance with the Open Records Act. In the event that Contractor receives a request for records under the Open Records Act, Contractor shall notify County within two business days by sending an email, return receipt requested, to OpenRecordsNotices@maconbibb.onmicrosoft.com. Contractor shall provide County with copies of all records proposed for production prior to responding to such request. Contractor shall assert all exemptions and exceptions available to the fullest extent of the law and shall not produce any records which are subject to withholding under the Open Records Act or any other state or federal law. Contractor shall have a duty to consult with independent legal counsel concerning which records are or are not subject to production prior to making any production, and shall certify to County at the time the proposed production is provided to County that the records contained therein have been reviewed by counsel for responsiveness and that all information that is protected or protectable from release under the law has been redacted therefrom. Contractor shall be responsible for calculating response costs and billing requestors for all requests sent in accordance with the Open Records Act, and Contractor's complete compliance with the provisions of this section shall be performed at no cost to County.

Contractor assumes all civil and criminal liability for its own compliance with the Open Records Act. In the event that Contractor produces material records that are subject to withholding under the Open Records Act, and it would be impossible or very difficult to accurately estimate the damages and harm caused to County by such production, then Contractor shall pay County the sum of \$10,000.00 per request as liquidated damages. The Parties intend that these liquidated damages shall constitute compensation, and not a penalty, and that the liquidated damages are a reasonable estimate of the anticipated or actual harm that might arise from a breach by Contractor. Where actual damages are calculable, then County shall reserve the right to seek actual damages for the harm caused by such production instead of liquidated damages. Nothing herein shall be construed as limiting in any way the County's right to seek injunctive, declaratory, or other relief to prevent the release of protected information prior to any such production being made.

17. General Terms

17.1 Waiver

Any waiver by the Parties or failure to enforce their rights under this Agreement shall be deemed applicable only to the specific matter and shall not be deemed a waiver or failure to enforce any other rights under this Agreement, and this Agreement shall continue in full force and effect as though such previous waiver or failure to enforce any rights had not occurred. No supplement, modification, amendment, or waiver of this Agreement will be binding on County unless executed in writing by the County.

17.2 Severability

If any provision of this Agreement is declared invalid, unenforceable, or unlawful, such provision shall be deemed omitted and shall not affect the validity of other provisions of this Agreement.

17.3 Titles, Captions and Headings

The titles, captions and paragraph headings are inserted for convenience only and are in no way intended to interpret, define, or limit the scope or content of this Agreement or any provision hereof.

17.4 No Drafting Presumption

No presumption of any applicable law relating to the interpretation of contracts against the drafter shall apply to this Agreement.

17.5 Survival

Any provision of this Agreement which contemplates performance or observance subsequent to any termination or expiration of this Agreement or which must survive in order to give effect to its meaning, shall survive the expiration or termination of this Agreement.

17.6 Previous Agreements

Any services authorized by County under previous "quote(s)" for services, and any related contract documents, shall be governed by and subject to this Agreement.

17.7 Counterparts

This Agreement may be executed in two or more counterparts, each of which taken together shall constitute one and the same instrument. This Agreement shall be fully executed when each Party whose signature is required has signed at least one counterpart, even though no one counterpart contains all the signatures of all the Parties to this Agreement. Reproduced or electronic signatures shall be considered the same as an original signature. Delivery of a copy of this Agreement bearing an original signature by facsimile transmission, by electronic mail or by any other electronic means will have the same effect as physical delivery of the paper document bearing the original signature.

17.8 Entire Agreement

The Parties acknowledge that this Agreement sets forth the entire agreement and understanding between the Parties and fully supersedes all previous communications, representations or agreements, oral or written, between the Parties pertaining to the same subject matter. This Agreement may only be amended or modified in writing by consent of both Parties. Contractor may not unilaterally amend or modify this Agreement by including provisions in its invoices, or other business forms, which shall be deemed objected to by the County and of no force or effect.

17.9 Electronic Representation and Records

The Parties agree to regard electronic representations of original signatures as legally sufficient for executing this Agreement and scanned signatures emailed by PDF or otherwise shall be as valid as the original. Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

17.10 Authority to Execute

The person or persons executing this Agreement represent and warrant that they are fully authorized to sign and so execute this Agreement and to bind their respective entities to the performance of its obligations hereunder.

17.11 Precedence of Documents

In the event of any express conflict between the body of this Agreement and any Exhibit or Attachment hereto, the terms and conditions of the body of this Agreement shall control and take precedence over the terms and conditions expressed within the Exhibit or Attachment. Furthermore, any terms or conditions contained within any Exhibit or Attachment hereto which purport to modify the allocation of risk between the parties, provided for within the body of this Agreement, shall be null and void.

[Signatures on following page.]

IN WITNESS WHEREOF, the parties have executed this Agreement to be effective as of the date executed by both parties.

MACON-BIBB COUNTY:

By: _____
Lester M. Miller, Mayor

_____ Date

Attested: _____
Janice S. Ross, Clerk of Commission

_____ Date

Turner Construction Management LLC:

By: _____

(Printed Name & Title)

_____ Date

Attested: _____

(Printed Name & Title)

_____ Date

Q:\CONTRACTS\25-023-LH Turner Construction Management LLC For Renos To Memorial Park Rec Center - \$1,100,000.00.Docx

EXHIBIT A



Macon-Bibb County, Georgia

INVITATION FOR BIDS

FOR

Renovations to Memorial Park Recreation Center

98863

BID NUMBER: 25-023-LH

ISSUED: 11-21-2024

BIDS DUE NO LATER THAN 12:00 NOON ON THURSDAY, JANUARY 9, 2025

**Macon-Bibb County Procurement Department
700 Poplar Street
Suite 308
Macon-Bibb County City Hall
Macon, Georgia 31201**

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FORMS PROVIDED:

BID FORM
BIDDER QUALIFICATION FORM
FINANCIAL & LEGAL STABILITY STATEMENT
LIST OF SUB-CONTRACTORS
BIDDER MINORITY PARTICIPATION GOAL
GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT (E-VERIFY) AFFIDAVIT

ATTACHMENTS:

A – REQUIRED SUBMISSION DOCUMENTS
B - SPECIFICATIONS
C – PLANS & DRAWINGS

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Renovations to Memorial Park Recreation Center

I. GENERAL

A. Invitation

1. Notice is hereby given that the Macon-Bibb County Board of Commissioners will receive (**1 original and Flash Drive**) sealed bids in the Procurement Department, Suite 308, Macon-Bibb Government Center Annex, 700 Poplar Street, Macon, Georgia 31201, until **12:00 o'clock NOON** at the time legally prevailing in Macon, Georgia on **Thursday, January 9, 2025**, for Renovations to Memorial Park Recreation Center for Macon, Bibb County, Georgia.
2. **NO BIDS WILL BE ACCEPTED AFTER THIS DESIGNATED TIME.**
3. Bids will be publicly opened in the Macon-Bibb County Procurement Department Conference Room on **Thursday, January 9, 2025, at 2:00 pm.**
4. Minority, Women Owned, and other Disadvantaged Business Enterprises are encouraged to participate in the solicitation process. Additionally, respondents are encouraged to use M/W/DBE subcontractors where possible. Small and other disadvantaged businesses requiring assistance with the competitive process can contact Charise Stephens, Director of Small Business Affairs at (478) 300-2297 or cstephens2@maconbibb.us.

B. Bid Documents

1. Bid documents may be examined and obtained at the Macon-Bibb County Procurement Department, Suite 308, Macon City Hall, 700 Poplar Street, Macon, Georgia 31201, by calling (478) 803-0550, or may be viewed and downloaded from one of the links included below:
Georgia Procurement Registry website
http://ssl.doas.state.ga.us/PRSapp/PR_custom_index.jsp?agency=61100
Macon-Bibb County Procurement Page www.maconbibb.us/purchasing

C. Pre-Bid

1. A mandatory-pre-bid conference is scheduled for **10:00 o'clock a.m., Wednesday, December 11, 2024**, in the Procurement Department Conference Room, Suite 308, City Hall, 700 Poplar Street, Macon, Georgia 31201. **The deadline to submit questions Friday, December 13, 2024, by 3:00 PM. All questions must be submitted by email only to Lhardwick@maconbibb.us**

D. Bid Bond

1. Bids, in order to be considered, shall be accompanied by a bid bond, payable to the Owner, in an amount not less than five percent (5%) of the total base bid.
 - a) This bid security shall become payable to the Owner only if the bidder, to whom award is made, should fail to execute a contract with the Owner and furnish bond and insurance in accordance with terms of the contract within ten (10) days after notification of award.

E. Sealed Bids

1. Envelopes shall be identified on the outside as
“Bid 25-023-LH –Renovations to Memorial Park Recreation Center”
and delivered by hand or mailed to:
Macon-Bibb County Procurement Department
Suite 308, 700 Poplar Street
Macon, Georgia 31201

F. Responsiveness

In order to be considered “*responsive*” the submission must include completed copies of the following documents:

- Price Proposal Form
- Proposer Qualification Form
- List of Sub-Consultants
- Minority Participation Goal
- Financial & Legal Stability Statement
- Georgia Security and Immigration Compliance Act (E-Verify) Affidavit
- Non-Collusion Affidavit

G. Responsibility

In order to be considered “*responsible*” the submitting firm must meet the following minimum qualifications:

- Three (3) years of experience providing the services included herein
- Licensed to do business in the State of Georgia
- Financially and legally responsible to perform the services included herein

H. Validity

1. No bid may be withdrawn for a period of sixty (60) days after time has been called on date of bid opening.

I. **Local Preference**

1. Macon-Bibb County reserves the right to award bids to County businesses and merchants whose bid is within **5% (five percent)** of the lowest responsive and responsible bid which conforms to the Invitation to Bid.

J. Contract Award

1. The contract, if awarded, will be based on Identify the basis of award (Total Bid Price, by location, per line item, etc.)
2. Guidelines in the award of this contract will be Section 36-10-2.2, Official Code of Georgia Annotated.
3. Upon award of the Contract, a pre-construction meeting will be held to discuss the project and to establish a schedule of work.

K. Surety

1. Whereas the anticipated contracted price exceeds \$5,000.00 the bidder to whom the award is made shall submit a Payment Bond and a Performance Bond, both in the amount of one hundred percent (100%) of the contract price.
 - a) Bonding company/Surety shall be:
 - (1) Rated B+ or better in the current Key Rating Guide as issued by A.M. Best Company, Oldwick, NJ.
 - (2) Licensed to do business in the State of Georgia.

L. Payment Conditions

1. The County Inspector will collect material tickets, measure, and inspect work completed to date on said job and report to the Project Manager for payment.
2. A 5% retainage will be withheld from each payment until the final payment is made. The Owner will only pay for items used and actual work performed.
3. Change orders are issued for any variance from contract or plan sheets.
4. Any unauthorized work or material change will not be paid for unless a change order has been issued.

M. Excise Taxes

1. Any material that is to be incorporated into the work of this project may be consigned to Macon-Bibb County in the care of the contractor. If the shipping papers show clearly that any such materials are so consigned, the shipment shall be exempt from the tax on transportation of property under the provisions of Section 3478(b) of the Internal Revenue Code, as amended by Public Law 180-78th Congress.
2. The Contractor shall pay all transportation charges.
3. Each bidder shall take this exemption into account in calculating his bid.

N. Insurance

1. Insurance coverage shall be carried with an insurance company licensed to do business in the State of Georgia.
2. Insurance shall be obtained prior to commencement of work and shall remain in force throughout the period of the contract.
3. Macon-Bibb County shall be named as additional insured on the policy.
4. Coverage shall include water damage.
5. Contractor is responsible for any and all deductibles.
6. Required coverage:
 - a) Worker's Compensation: Statutory
 - b) General Liability:
 - (1) \$1,000,000.00 combined single limit for B.I., P.D.
 - (2) Maximum deductible: \$5,000.00
 - (3) To include:
 - (a) Premises – Operations
 - (b) Products & Completed Operations
 - (c) Broad form Contractual
 - (d) Independent Contractor and Subcontractor
 - (e) Underground explosion and collapse
 - c) Automobile Liability:
 - (1) \$1,000,000.00 combined single limit for B.I. and P.D.
 - (2) Maximum deductible: \$5,000.00
 - (3) To include:
 - (a) Owned Automobiles
 - (b) Hired Automobiles
 - (c) Non-Owned Automobiles

II. INSTRUCTIONS TO BIDDERS

A. Definitions

1. Wherever the term “Owner”, “County”, or “Macon-Bibb County” occur in these specifications, it shall mean Macon-Bibb County, a political subdivision of the State of Georgia acting through the Macon-Bibb County Board of Commissioners.
2. Wherever the term “Engineer” occurs in these specifications, it shall mean the engineer of the Owner, the County Engineer, or his representative.
3. Wherever the term “work” occurs in these specifications, it shall mean the work as defined herein, including, all labor, materials, equipment, transportation, and supervision necessary to complete the contract.
4. Wherever the term “D.O.T.” occurs in these specifications, it shall mean the Georgia Department of Transportation.

B. Related Documents

1. Specifications (Attachment “A”)
2. Bid Form
3. Bidder’s Qualification Form
4. Financial & Legal Stability Statement
5. Bidder MBE Plan Form
6. List of Sub-contractors
7. Bond Forms
8. E-Verify Affidavit
9. Title VI non-discrimination Notice

C. Bidder’s Representation

1. Each bidder, by making his bid, represents that he has:
 - a) Read and understands the bidding documents; and,
 - b) Visited the site and became familiar with the local conditions under which the work is to be performed.
- (1) Bidders shall examine the areas wherein work of this project is to be carried out and shall take into consideration all conditions that might affect his work.
 - (a) The failure of the bidder to inspect firsthand the areas affected by work in this project shall not relieve him of the obligation to comply fully with the scope of the work as defined herein.
 - (b) No consideration will be given any claim based on lack of knowledge of existing conditions, except where the Contract Documents make definite provisions for adjustment of cost or extension of time due to existing conditions that cannot be readily ascertained.

D. Document Discrepancies

1. Should the bidder find discrepancies in, or omissions from the documents, he shall at once

notify the Macon-Bibb County Procurement Department.

2. Requests for Interpretations of Drawings and Specifications shall be made in writing to the Macon-Bibb County Procurement Department not later than seven (7) days prior to receipt of bids, email preferred to Lhardwick@maconbibb.us
3. Any subsequent instructions to bidders will be issued in the form of addenda to the specifications and sent to the bidder. All addenda shall be enumerated in the Bid Form.
4. All definitions set forth in the specifications are applicable to this Instruction to Bidders, the Bid Form and the proposed Contract Documents including, but not limited to, drawings, project manual, and any addenda issued prior to receipt of bids.
 - a) Addenda are written or graphic instruments issued prior to the execution of the Contract that may modify or interpret the bidding documents by deletion, additions, clarifications or corrections.
 - b) Addenda will become part of the Contract Documents when the Construction Contract is executed.

E. Reservations

Macon-Bibb County will not provide compensation to Respondents for any expenses incurred by the Respondent(s) for submittal preparation or for any demonstrations that may be made, unless otherwise expressly stated or required by law.

Each submission should be prepared simply and economically, providing a straightforward, concise description of your firm's ability to meet the requirements of this RPS. Emphasis should be on completeness, clarity of content, responsiveness to the requirements, and an understanding of the Owner's needs.

Macon-Bibb County makes no guarantee that an award will be made as a result of this RPS and reserves the right to accept or reject any or all submittals, with or without cause, waive any formalities or minor technical inconsistencies, or delete any item/requirement from this RPS or contract when deemed to be in the Owner's best interest.

Macon-Bibb County will consider only representations made within the submission in response to this RPS. Owner will not be bound to act by any previous knowledge, communication, or submission by the firms other than this RPS.

Failure to comply with the requirements contained herein may result in the submission being deemed "non-responsive" or "non-responsible". Nonresponsive submissions will not be reviewed for potential award.

F. Surety and Insurance Companies

1. The Contract provides that the surety and insurance companies must be acceptable to the Owner. The bidder shall require the attorney in fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of his power of attorney indicating the monetary limit of such power.

III. SPECIAL CONDITIONS

A. General

1. All work to be performed as part of this specification shall comply with all codes, ordinances, and regulations applicable to the contract, including, but not limited to:
 - a) International Building Code
 - b) State and Local Building Code
 - c) Georgia Department of Transportation (D.O.T.)
 - d) Occupational Safety and Health Administration (OSHA)
 - e) Other Federal, State, or Local Codes

B. Permits and Licenses

1. Contractor shall obtain all permits and licenses, paying all fees as required, for execution of the Contract. In addition, the Contractor shall arrange for necessary inspections required by the City, County, State and other authorities having jurisdiction, and submit certificates of approval to the Owner or his designated representative.

C. Layout of Work

1. The Contractor shall verify all existing conditions and contiguous work and lay out his work there from, providing for himself all other necessary measurements, lines and levels, and shall assume the responsibility for the correctness of the layout of the work.

D. Work Area

1. The Contractor shall confine his operations to as small an area as possible, using only the areas designated for on-site storage.
2. The Contractor shall protect all surrounding adjoining private and public property, taking every precaution to prevent damage or injury to trees, shrubs, curbs, sidewalks, driveways and fences along or adjacent to the work. Should damage occur, the Contractor shall restore, at his expense, any such property damage or injuries by his operations to a condition equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring as may be directed by, and to the satisfaction of the Owner.
3. In case of failure on the part of the Contractor to restore such property, or make good such damages or injury, the Owner may, after forty-eight (48) hours written notice, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof shall be deducted from any monies due or which may become due the contractor under this contract.

E. Underground Utilities

1. The Contractor shall verify all underground utilities and their locations prior to commencing any work under this contract. Damages to underground utilities, and costs to repair same, shall be the responsibility of the Contractor.

F. Traffic Control

1. It shall be the responsibility of the Contractor to maintain traffic by utilizing adequate construction signs and flagmen at all times.

2. The Contractor shall furnish, install, maintain, and eventually remove all traffic control devices necessary to properly protect and divert traffic. Such barricades and detour signs shall be illuminated at night.
 3. All costs associated with traffic control shall be the responsibility of the Contractor.
 4. The Contractor shall assume all responsibility for damages resulting from the failure of the signs and/or barricades to properly protect the work from traffic.
- G. Erosion Control
1. The Contractor shall control all erosion by incorporating temporary grassing, mulch, baled straw, or silt fencing wherever required.
- H. Vandalism
1. The Contractor shall take every precaution not to leave equipment and materials where they can be reached and used for defacing new or existing work at any time.
- I. Material Disposal
1. The Contractor shall allow no trash, dirt, stumps, tree trunks, or excess material to accumulate and shall be responsible for removing same from the premises.
 - a) Such items shall be disposed of off the premises.
 - b) Burning material on the site will not be permitted.
 - c) All costs of removing trash shall be the responsibility of the Contractor.
 - d) The place and method of disposal shall be the responsibility of the Contractor.
- J. Extension of Time
1. In the event the work under this project is delayed by neglect, delay, or default of any other Contractor or the Owner, or by any damage which is the result of an Act of God, or by a general strike of the employees, the Contractor shall have reason to claim for delay and request an extension of time to complete the contract.
- K. Liquidated Damages
1. Liquidated damages in the amount of \$100 dollar amount for liquidated damages shall be charged to the contractor for each day that the project is delayed beyond the completion date of the contract. These charges are to defray the cost of inspection by Macon-Bibb employees assigned to the project.
- L. Inspection
1. The Engineer may appoint inspectors to inspect all materials used and all work performed. Such inspection may extend to all or any part of the work and to the preparation of manufacture of the materials to be used. The inspectors will not be authorized to revoke, alter, enlarge or relax the provisions of this specification, nor will they be authorized to

approve or accept any portion of the completed work or to issue instruction contrary to the plans and specifications. The inspector shall have authority to reject defective material and to suspend work that is being improperly done, subject to the final decision of the Engineer.

2. It is mutually agreed between the parties to the contract that to prevent all disputes and misunderstandings between them in relation to any of the provisions contained in these specifications, or their performance by either of said parties, the Engineer shall serve as the referee to decide all matters of construction of the specifications and of the terms of the contract, and as to all matters arising or growing out of said contract and his decision shall be final and binding upon both parties.
3. The Engineer and his inspectors shall have free access to all parts of the work, and to all material intended for use in the work. The work will be inspected as it progresses, but failure to reject or condemn defective work at the time it is done will in no way prevent its rejection whenever it is discovered before the work is finally accepted and approved, nor will final acceptance and approval constitute waiver by the County of any right of action for defective work or the failure to perform the contract according to its terms.

IV. EXECUTION

A. General

1. It is the intent of this specification to provide for the **Renovations to Memorial Park Recreation Center**, for the Macon-Bibb County Engineering Department, Macon, Georgia.

B. Specifications

1. The Contractor shall provide all services as outlined in Attachment “B”- Specifications, and Attachment “C” Diagram/Drawings attached hereto and incorporated herein.

C. Schedule

1. The contractor shall commence work within 10 calendar days following issuance of notice to proceed, shall execute the work diligently, and shall complete all work requirements within 30 calendar days following the Notice to Proceed. This time includes weather delays of 3 workdays. This time shall include all clean up, demobilization, and other work necessary to return the project area to its final state.

V. WARRANTY

The Contractor shall guarantee all labor and workmanship for minimum of one (1) year from date of completion.

X. CONFIDENTIALITY AND OPEN RECORDS

In order to ensure compliance with Georgia’s Open Records Act, the following language must be included in all Macon-Bibb County contracts and will be a required term for any contract entered into as a result of this solicitation.

The Parties acknowledge that both Vendor and County are required to comply with the Georgia Open Records Act, O.C.G.A. § 50-18-70, et seq. See, *Milliron v. Antonakakis*, 905 S.E.2d 657 (Ga. 2024). As a result, Vendor acknowledges and agrees that County may make such disclosures as are authorized or required under the Georgia Open Records Act, notwithstanding any claims of confidentiality asserted by Vendor as to any records or data in the County’s possession.

Upon execution of this Agreement, Vendor shall designate in writing that one or more of its officers shall be the

open records officer for Vendor in accordance with the Open Records Act. In the event that Vendor receives a request for records under the Open Records Act, Vendor shall notify County within two business days by sending an email, return receipt requested, to OpenRecordsNotices@maconbibb.onmicrosoft.com. Vendor shall provide County with copies of all records proposed for production prior to responding to such request. Vendor shall fully assert all exemptions and exceptions available of the law and shall not produce any records which are subject to withholding under the Open Records Act or any other state or federal law. Vendor shall have a duty to consult with independent legal counsel concerning which records are or are not subject to production prior to making any production and shall certify to County at the time the proposed production is provided to County that the records contained therein have been reviewed by counsel for responsiveness and that all information that is protected or protectable from release under the law has been redacted therefrom. Vendor shall be responsible for calculating response costs and billing requestors for all requests sent in accordance with the Open Records Act, and Vendor's complete compliance with the provisions of this section shall be performed at no cost to County.

Vendor assumes all civil and criminal liability for its own compliance with the Open Records Act. In the event that Vendor produces material records that are subject to withholding under the Open Records Act, and it would be impossible or very difficult to accurately estimate the damages and harm caused to County by such production, then Vendor shall pay County the sum of \$10,000.00 per request as liquidated damages. The Parties intend that these liquidated damages shall constitute compensation, and not a penalty, and that the liquidated damages are a reasonable estimate of the anticipated or actual harm that might arise from a breach by Vendor. Where actual damages are calculable, then County shall reserve the right to seek actual damages for the harm caused by such production instead of liquidated damages. Nothing herein shall be construed as limiting in any way the County's right to seek injunctive, declaratory, or other relief to prevent the release of protected information prior to any such production being made.

XI. SUBCONTRACTOR REPORTING REQUIREMENTS

A. Contractor shall submit a "Subcontractor/Supplier Participation Report" on this contract quarterly to the Macon-Bibb County Office of Small Business Affairs which shall include the following:

1. The name of each subcontractor or supplier participating in the contract.
2. A description of the work to be performed, materials, supplies, and services provided by each subcontractor or supplier.
3. Whether each subcontractor or supplier is a minority owned, woman owned, LGBTQIA+ owned, veteran owned, disabled person owned, Certified Disadvantaged Business Entity, non-profit, or local business.
4. Whether each subcontractor is a supplier, subcontractor, or other.
5. The dollar value of each subcontract or supply agreement.

6. The actual payment to date of each subcontractor or supplier participating in the contract

- B. The report shall be updated during the applicable quarter by the Contractor whenever any of the approved subcontractors or suppliers have completed the portion of the work they were contracted to perform. Copies of this report should be transmitted promptly to the Macon-Bibb County Office of Small Business Affairs.
- C. The County may withhold any payment due to the Contractor on any project for failure to submit the Subcontractor/Supplier Report within thirty (30) days following the end of the calendar quarter or for the failure to submit updates to the quarterly report within thirty (30) days of any subcontractor or supplier having complete the portion of work they were contracted to perform.

BID FORM

Macon-Bibb County Government
Macon-Bibb County, Procurement Dept.
700 Poplar Street, Suite 308
Macon, Georgia 31201

DATE: _____

Re: **25-023-LH Renovations to Memorial Park Recreation Center**
Macon-Bibb County
Bibb County, Georgia

Dear Ms. Hardwick:

1. We have examined the Specifications, related documents and the site of the proposed Work, and are familiar with all the conditions surrounding this project, including the availability of materials and labor, and hereby bid to furnish all materials and labor, and to complete the project in accordance with the Contract Documents, within the time set forth herein, and at the prices stated below. These prices are to cover all expenses incurred in performing the Work required under these Specifications, of which this bid is part.

2. ADDENDUM RECEIPT:

- a. We acknowledge our responsibility to ensure that all addenda have been received prior to the submission of a bid.

- b. Bidder acknowledges receipt of the following addenda:

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

We agree to commence actual physical work on site, with an adequate force and equipment within the timeframe presented in the specifications and to complete fully all work within the stated timeframe following notice to proceed.

We agree that this bid may not be revoked or withdrawn after the time set for the opening of bids and shall remain open for acceptance for a period of ninety (90) days following such time.

5. In case of written notification by mail, telegraph, or delivery of the acceptance of this bid within ninety (90) days after the time set for the opening of bids, the undersigned agrees to execute within ten (10) days a Contract for the Work for the below stated compensation and at the same time to furnish and deliver to the Owner a Performance Bond and a Payment Bond, both in an amount equal to one hundred percent (100%) of the Contract Sum.
6. Enclosed herewith is a Bid Bond in the amount of five percent (5%) of the total base bid. We agree that the above stated amount is the proper measure of liquidated damages that the Owner will sustain by the failure of the undersigned to execute the Contract and to furnish the Performance Bond and the Payment Bond.
7. If this bid is accepted within ninety (90) days after the date set for the opening of bids and we fail to execute the Contract within ten (10) days after written notice of such acceptance or if we fail to furnish both a Performance Bond and a Payment Bond, the obligation of the bond will remain in full force and affect and the money payable thereon shall be paid into the funds of the Owner as liquidated damages for such failure; otherwise, the obligation of the bond will be null and void.

8. We hereby certify that we have not, nor has any member of the firm(s) or corporation(s), either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this submitted bid.
3. We understand the total bid price listed below to be inclusive of all materials, labor, equipment, and other provisions necessary to provide the services in accordance with the associated specification.

Bid Price Form

For

25-023-LH Renovations to Memorial Park

Total Bid Price	\$ _____
Timeline for Project	_____ Calendar Days

I certify that my bid meets these minimum specifications. This bid shall be valid and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving bids.

Printed Name: _____

Authorized Signature: _____ **Date:** _____

Company Name: _____

BID FORM

Macon-Bibb County Government
Macon-Bibb County, Procurement Dept.
700 Poplar Street, Suite 308
Macon, Georgia 31201

DATE: _____

Re: **25-023-LH Renovations to Memorial Park Recreation Center**
Macon-Bibb County
Bibb County, Georgia

Dear Ms. Hardwick:

1. We have examined the Specifications, related documents and the site of the proposed Work, and are familiar with all the conditions surrounding this project, including the availability of materials and labor, and hereby bid to furnish all materials and labor, and to complete the project in accordance with the Contract Documents, within the time set forth herein, and at the prices stated below. These prices are to cover all expenses incurred in performing the Work required under these Specifications, of which this bid is part.

2. ADDENDUM RECEIPT:

b. We acknowledge our responsibility to ensure that all addenda have been received prior to the submission of a bid.

b. Bidder acknowledges receipt of the following addenda:

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

We agree to commence actual physical work on site, with an adequate force and equipment within the timeframe presented in the specifications and to complete fully all work within the stated timeframe following notice to proceed.

We agree that this bid may not be revoked or withdrawn after the time set for the opening of bids and shall remain open for acceptance for a period of ninety (90) days following such time.

5. In case of written notification by mail, telegraph, or delivery of the acceptance of this bid within ninety (90) days after the time set for the opening of bids, the undersigned agrees to execute within ten (10) days a Contract for the Work for the below stated compensation and at the same time to furnish and deliver to the Owner a Performance Bond and a Payment Bond, both in an amount equal to one hundred percent (100%) of the Contract Sum.

6. Enclosed herewith is a Bid Bond in the amount of five percent (5%) of the total base bid. We agree that the above stated amount is the proper measure of liquidated damages that the Owner will sustain by the failure of the undersigned to execute the Contract and to furnish the Performance Bond and the Payment Bond.

7. If this bid is accepted within ninety (90) days after the date set for the opening of bids and we fail to execute the Contract within ten (10) days after written notice of such acceptance or if we fail to furnish both a Performance Bond and a Payment Bond, the obligation of the bond will remain in full force and affect and the money payable thereon shall be paid into the funds of the Owner as liquidated damages for such failure; otherwise, the obligation of the bond will be null and void.

8. We hereby certify that we have not, nor has any member of the firm(s) or corporation(s), either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this submitted bid.

4. We understand the total bid price listed below to be inclusive of all materials, labor, equipment, and other provisions necessary to provide the services in accordance with the associated specification.

Bid Price Form

For

25-023-LH Renovations to Memorial Park Recreation Center

Total Bid Price	\$ _____
Timeline for Project	_____ Calendar Days

I certify that my bid meets these minimum specifications. This bid shall be valid and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving bids.

Printed Name: _____

Authorized Signature: _____ **Date:** _____

Company Name: _____

Attachment “A”
Required Submission Documents

Macon-Bibb County
Summary of Attachment “A” Required Documents

- Bidder Qualification Form
- List of Sub-Contractors
- Bidder Minority Participation Goal
- Financial & Legal Stability Statement
- Insurability Statement
- Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- Non-Collusion Affidavit

Instructions and additional information regarding the three forms below can be found on our website under the Procurement Department Documents tab if needed.

- Macon-Bibb County Vendor Application
- Form W-9
- E-Verify Affidavit

Attachment "A"
Required Submission Documents

BIDDER QUALIFICATION FORM

Company Name: _____

Address: _____

When Organized: _____ Where Incorporated: _____

How many years have you engaged in business under the present firm name? _____

Credit available for this contract? _____

Contracts now in hand? _____

Has bidder ever refused to execute a contract at the original bid amount? _____

Has bidder ever been declared in default on a contract? _____

Comments: _____

Company Name: _____

Authorized By (typed name): _____

Authorized Signature: _____

Title: _____ Date: _____

References

Following is a reference list of contracts that are similar to this project:

NAME OF PROJECT/DATE	LOCATION	CONTACT	PHONE #
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

____ DAY OF _____, 201____

My Commission Expires: _____

Notary Public

[NOTARY SEAL]

Attachment “A”

Required Submission Documents

LIST OF SUB-CONTRACTORS

I do ☐, do not ☐, propose to sub-contract some of the work on this project. I propose to sub-contract work to the following contractors.

NAME/ADDRESS

TYPE OF WORK

% of Contract

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Contractor Name

Attachment “A”

Required Submission Documents

BIDDER MINORITY PARTICIPATION GOAL

(Attach additional pages if required.)

I do ☐, do not ☐, propose to employ the minority sub-contractors as listed below on some of the work on this project.

NAME/ADDRESS

TYPE OF WORK

% of Contract

[illegible]

Contractor Name

Attachment "A"
Required Submission Documents

FINANCIAL & LEGAL STABILITY STATEMENT

Please check appropriate item(s):

☐ Firm has the financial capability to undertake the work and assume the liability required if awarded this solicitation.

☐ Firm has the legal capability to undertake the work and assume the responsibilities required if awarded this solicitation.

Pending litigations (if any) will not affect the firm's ability to perform on this contract, if awarded.

Company Name: _____

Authorized By (typed name): _____

Authorized Signature: _____

Title: _____ Date: _____

SUBSCRIBED AND SWORN

BEFORE ME ON THIS THE

_____ DAY OF _____, 201____ My Commission Expires: _____

_____ [NOTARY SEAL]

Notary Public

Attachment "A"
Required Submission Documents

INSURABILITY STATEMENT

Please check appropriate item(s):

☐ By submission of this form, this firm confirms the ability to acquire and maintain the required levels of insurance as outlined in the bid document. It is the understanding of this firm that proof of Insurance must be provided prior to contract execution and maintained throughout the entire term of the contract.

Company Name: _____

Authorized By (typed name): _____

Authorized Signature: _____

Title: _____ Date: _____

SUBSCRIBED AND SWORN

BEFORE ME ON THIS THE

_____ DAY OF _____, 201_____ My Commission Expires: _____

Notary Public [NOTARY SEAL]

Attachment "A"
Required Submission Documents



**Macon-Bibb County
Procurement Department
700 Poplar Street, Suite 308
Macon, Georgia 31202-0247
Tel: (478) 803-0550 • Fax: (478) 751-7252
www.maconbibb.us**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION
INELIGIBILITY AND VOLUNTARY EXCLUSION**

The Bidder/offer certifies, by submission of this Proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier, transactions, proposals, contracts, and subcontracts. Where the Bidder/offeror or any lower tier participant is unable to certify to this statement, it shall attach an explanation of this solicitation/proposal.

Dated at this _____ day of _____, 2019.

Signature of Contractor: _____

Title: _____

For Macon Bibb County Personnel Only:

Macon Bibb County Procurement Department will verify that the above bidder/offer certifies, by submission of this Proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from participation in this transaction by any Federal department or agency.

Signature of Procurement Officer _____ Date _____

Printed Name _____

Attachment "A"
Required Submission Documents

NON COLLUSION AFFIDAVIT

Date:	
Project:	Bibb County, Georgia
Project #:	
Project Description:	
Services Provided:	General Contracting
State of:	Georgia
County of:	Bibb

I, _____ having first been duly sworn, deposes and states as follows:

I am the party making the foregoing Proposal or Bid; that such Proposal or Bid is genuine and not collusive or sham; that said Proposer or Bidder has not colluded, conspired, connived, or agreed, directly or indirectly, with any Proposer or Bidder or person, to put in a sham Proposal or Bid, or that such other person refrain from proposing or bidding, and has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the Proposal Fee or Bid Price of affiant or any other Proposer or Bidder, or to fix any overhead, profit or cost element of said Proposal Fee or Bid Price, or that of any other Proposer or Bidder, or to secure any advantage against Bibb County, Georgia or any person interested in the proposed Contract; and that all statements in said Proposal or Bid are true; and further, that such Proposer or Bidder has not directly or indirectly submitted this Proposal or Bid, or the contents thereof, or divulged information or data relative thereto to any association or to any member or agent thereof.

Contractor:

(Signature)

(Seal)



Attachment "A"
Required Submission Documents

MACON-BIBB COUNTY
Vendor Application

Date Submitted: _____

☐

New Application

☐

Revised Application

RETURN THIS COMPLETED FORM TO:

Macon-Bibb County Procurement Department
700 Poplar Street, Ste. 308
Macon, GA 31201

Phone: 478-803-0550
Fax: 478-751-7252
Email: procurement@maconbibb.us

GENERAL VENDOR INFORMATION

Company Name:

Company Address:

Authorized By (Name):

Title:

Authorized Signature:

Date:

Telephone Number:

Fax Number:

Email Address:

REMITTANCE INFORMATION (where payments should be sent)

Remit to Name:

Remit to Address:

Phone:

Fax:

Toll Free:

Contact:

Email:

Business Type (choose one):

☐

Individual/Sole Proprietor

☐

Single member LLC

☐

Business - incorporated

☐

Business - not incorporated/partnership

☐

LLC: C S P (circle one)

☐

Other (Specify):

Social Security #:

Federal Tax ID #:

PURCHASE ORDER INFORMATION (where purchase orders should be sent)

Purchase Order Name:

Purchase Order Address:

Phone:

Fax:

Toll Free:

Contact:

Email:

Payment Terms: Discount %

Days

Net Due

Freight Terms: Ship Via

FOB

E-Verify Information

Private Employer Affidavit is attached :

With E-Verify # _____ With E-Verify exemption selected _____

Contractor Affidavit is attached: (additional affidavit, if applicable)

With E-Verify # _____ Without E-Verify # but a copy of my driver's license is attached since

I have no employees and no intent to hire employees _____

MBE/DBE/WBE STATUS (Select at least one)

Minority Owned (African American, Hispanic, Native American, Asian American) circle one _____

Woman Owned _____ Disabled _____ Veteran _____ Not Applicable _____

Do you maintain a local office in Macon-Bibb County?

Yes _____

No _____

Attachment "A"

Required Submission Documents

Request for Taxpayer Identification Number and Certification

Form

W-9

(Rev. October 2018)
Department of the Treasury
Internal Revenue Service

► Go to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the requester. Do not send to the IRS.

Print or type.
See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
2 Business name/disregarded entity name, if different from above	
3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes. ☐ Individual/sole proprietor or single-member LLC ☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► _____ Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. ☐ Other (see instructions) ► _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ (Applies to accounts maintained outside the U.S.)
5 Address (number, street, and apt. or suite no.) See instructions.	Requester's name and address (optional)
6 City, state, and ZIP code	
7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number									
				-				-	
or									
Employer identification number									
				-					

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ►	Date ►
-----------	----------------------------	--------

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

Attachment "A"
Required Submission Documents

E-VERIFY AND PRIVATE EMPLOYER AFFIDAVIT

Pursuant To O.C.G.A. § 36-60-6(d)

By executing this affidavit, the undersigned private employer verifies one of the following with respect to its application for an occupational tax certificate, alcohol license, or other document required to operate a business as referenced in O.C.G.A. § 36-60-6(d):

Business Name: _____

SECTION 1 (Choose ONE of the following)

- (A) ☐ On January 1 of the below-signed year, the individual, firm, or corporation employed **ten (10) or less employees.** (Proceed to Section 3)
- (B) ☐ On January 1 of the below-signed year, the individual, firm, or corporation employed **more than ten (10) employees** and has registered with the E-Verify program. (Proceed to Section 2)

SECTION 2

The employer has registered with and utilizes the Federal Work Authorization program commonly known as E-Verify, in accordance with the applicable provisions and deadlines established in O.C.G.A. §36-60-6. The undersigned private employer also attests that its E-Verify number and date of authorization are as follows:

E-Verify Number: _____

Date of Authorization: _____ **(Proceed to Section 3)**

SECTION 3

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, _____, 20____ in _____ (city), _____ (state)

Printed Name of Authorized Officer or Agent: _____

Title of Authorized Officer or Agent: _____

Signature of Authorized Officer or Agent: _____

SUBSCRIBED AND SWORN BEFORE ME

ON THIS THE _____ DAY OF _____, 20____

NOTARY PUBLIC

My Commission Expires: _____

PROJECT MANUAL

MEMORIAL PARK RECREATION CENTER

**For MBC PARKS AND RECREATION
MEMORIAL PARK RECREATION CENTER
2465 2ND ST, MACON, GA 31206**

Project No: 2024-079

November 1st 2024

**100% CDs
FOR CONSTRUCTION**

PREPARED BY:

WM2A Architects
348 Cotton Avenue, Suite 500
Macon, GA 31201

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WM2A Architects
WM2A Project No. 2024-079

00 0001 - 1

**MEMORIAL PARK
RECREATION CENTER
MACON, GA**

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SECTION 00 0015 - LIST OF DRAWINGS

END OF SECTION 00 0015

SECTION 00 0060 - GUARANTY BONDS

PART 1 - GENERAL

1.1 GUARANTY BOND FORMS

- A. Guaranty Bonds shall be executed on the AIA Standard Performance Bond and Payment Bond.

1.2 AMOUNT OF BOND

- A. Amount shown in each part of Guaranty Bond shall be equal to 100% of the contract sum.

1.3 SURETY

- A. Surety shall be a company licensed to do business in the State of Georgia and acceptable to the Owner.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 00 0060

SECTION 00 0100 - GENERAL CONDITIONS

PART 1 - GENERAL

1.1 GENERAL CONDITIONS

- A. The AIA, ***STANDARD AGREEMENT AND GENERAL CONDITIONS BETWEEN OWNER AND GENERAL CONTRACTOR***, inclusive, hereinafter referred to as General Conditions, are hereby made a part of these Specifications and shall apply to all work executed under this contract. A copy of this document is on file at the office of the Architect. Copies can be obtained by General Contractors and Subcontractors, submitting bona fide bids on this project, upon receipt of written request submitted to the Architect.

1.2 DEFINITIONS

- A. The use of the term "General Contractor" within these specifications shall refer to the "Contractor" as defined in the agreement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 00 0100

SECTION 00 0120 - SPECIAL CONDITIONS

PART 1 - GENERAL

1.1 SCOPE

- A. These special conditions apply equally to all sections of these specifications.
- B. Nothing in any of the Contract Documents shall be interpreted as being contrary to law or local and state ordinances and all codes and laws of governing agencies (local and state) shall be followed as though they were herein bound.

1.2 SPECIAL CONDITIONS

- A. **CONSTRUCTION LIMITS:** The Contractor shall conduct all his activities within an area defined as the project site. Any damage to public or private property beyond this area shall be repaired at the Contractor's cost and in a manner satisfactory to the Owner.
 - 1. The Owner will establish areas for storage of materials, staging and other construction activities that take place outside of the building.
- B. **SAFETY CODE COMPLIANCE:** Rules and regulations governing construction, demolition and all excavation shall comply with the rules and regulations for the prevention of accidents as issued by the local city or county having jurisdiction.
- C. **STANDARDS:**
 - 1. Wherever reference is made to the standard specifications of nationally known organizations, the latest edition in effect on the date of this specification, shall govern unless otherwise stated herein. Where specific articles, sections, divisions or headings are not given, such specifications shall apply in full. Standard specifications when included herein, by abbreviation, or otherwise, shall form a part of this specification the same as if quoted in full.
- D. The Architect may require, and the Contractor shall furnish, if required to do so, certificates from manufacturers to the effect that the products or materials furnished by them for use in the work comply with applicable specified requirements of the materials or products being furnished.
- E. **GENERAL EQUIPMENT REQUIREMENTS - FIELD DIMENSIONS:** The drawings accompanying these Specifications generally indicate the design and arrangement of all equipment, apparatus, fixtures, accessories, etc., as necessary to complete the installation of all systems. The exact location or arrangement of equipment, unless otherwise dimensioned, is subject to minor changes necessitated by

SECTION 00 0120 - SPECIAL CONDITIONS

field conditions and shall be made as required without additional cost to the Owner. Measurements shall be verified by actual observation at construction site and each respective Contractor shall be responsible for all of his work fitting into place in a satisfactory and workmanlike manner to the approval of the Owner.

- F. **RULES AND REGULATIONS - CODE COMPLIANCE:** The Contractor and Subcontractor shall comply with all local, state, and applicable Federal agencies in regards to Code requirements, Ordinances, and Laws.
- G. **FIRE EXTINGUISHERS:** The Contractor shall furnish, during all phases of construction, fire extinguishers in accordance with OSHA and the local Fire Marshal's requirements.
- H. **PERMITS:** The Contractor and his Subcontractors shall be responsible for obtaining all building permits and pay all fees as required to complete their work shown on the drawings and as specified herein.
- I. **WEATHER PROTECTION:** The Contractor or his subcontractors shall furnish and install any temporary enclosures, doors, and plastic covered windows and openings to protect the construction from weather. All openings through roof shall be protected.
- J. **SPECIFICATION EXPLANATION:**
 - 1. Attention is directed to the fact that the detailed specification and separate sections may be written in short or abridged form. In regard to every section of the specifications and all parts thereof, mention therein or indications on the drawings of articles, materials, operations, or methods required that the Contractor: Provide each item mentioned and indicated; Perform each operation prescribed; Provide therefore all necessary labor, equipment and incidentals.
 - 2. Whenever in these specifications or on the drawings the words "directed", "required", "permitted", "ordered", or words of like import are used, it shall be understood that the direction, requirements, permission or order of the Architect is intended; and similar words "approved", "acceptable", "satisfactory", or words of like shall mean approved by, or acceptable to, or satisfactory to the Architect.
 - 3. For convenience of reference and to facilitate the letting of contracts and subcontracts, these specifications are separated into titled sections. Such separation shall not, however, operate to make the Architect an arbiter to establish limits to the contracts between the Contractor and Subcontractor, nor shall such separation be interpreted as superseding normal union jurisdiction.
- K. **SCAFFOLDING:** Erect and maintain scaffolding, ramps, runways, platforms, guards, rails, stairs and ladders as necessary to protect the safety of all those involved with this work.
- L. **MATERIAL STORAGE:** Store materials in a secure and dry manner. Do not leave any materials exposed to weather.

SECTION 00 0120 - SPECIAL CONDITIONS

1.3 TESTING

- A. **GENERAL:** The Owner shall employ an independent Testing Agency to inspect the materials and workmanship and perform as a minimum the tests described herein. The Agency shall submit inspection reports, certification and instances of noncompliance to the Architect, Owner and Structural Engineer. The Testing Agency shall immediately notify the Architect whenever the materials or the workmanship is not in compliance with the construction documents.
- B. **QUANTITIES:** The Owner shall furnish to the Testing Agency the anticipated volume of earthwork, material quantities and construction schedule for the project. The Agency shall use this information as a basis to establish a scope of work and cost proposal to the Owner.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 00 0120

SECTION 01 1000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Owner-furnished products.
 - 4. Contractor-furnished, Owner-installed products.
 - 5. Access to site.
 - 6. Work restrictions.
 - 7. Specification and drawing conventions.
 - 8. Miscellaneous provisions.

- B. Related Requirements:

- 1. Section 01 5000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

- A. Project Identification: Memorial Park Recreation

- 1. Project Location: 2465 2ND ST, MACON, GA 31206

- B. Owner: Macon-Bibb County.

- C. Architect: WM2A Architects; 348 Cotton Avenue, Suite 500; Macon, GA 31201; 478-745-4945

- D. Architect's Consultants: The Architect has retained the following design professionals who have prepared designated portions of the Contract Documents:

- 1. MEP Engineering: Total Engineers -478-741-4632/ EDC – 478-781-1833
 - 2. Structural Engineering: Pi Tech 478-743-5600
 - 3. Civil Engineering: Traverse Land Services 478-922-7724

SECTION 01 1000 - SUMMARY

- E. Contractor: Will be engaged after award.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. Site upgrades, pavilion and Pump house. The scope of work is as indicated within the contract documents for the project.
- B. Type of Contract:
 - 1. Project will be constructed under a single prime contract.

1.5 PHASED CONSTRUCTION

- A. The Work shall be conducted in a Single phase:
- B. Before commencing Work, submit an updated copy of Contractor's construction schedule showing the sequence, commencement and completion dates, and move-out and -in dates of Owner's personnel for all phases of the Work.

1.6 WORK BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

1.7 WORK UNDER SEPARATE CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.

1.8 OWNER-FURNISHED PRODUCTS

- A. Owner will furnish products indicated. The Work includes receiving, unloading, handling, storing, protecting, and installing Owner-furnished products.
- B. Owner-Furnished Products:
 - 1. As indicated within the drawings.

SECTION 01 1000 - SUMMARY

1.9 CONTRACTOR-FURNISHED, OWNER-INSTALLED PRODUCTS

- A. Contractor shall furnish products indicated. The Work includes unloading, handling, storing, and protecting Contractor-furnished products as directed and turning them over to Owner at Project closeout.

1.10 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Limit site disturbance, including earthwork and clearing of vegetation, to 40 feet beyond building perimeter; 10 feet beyond surface walkways, patios, surface parking, and utilities less than 12 inches in diameter; 15 feet beyond primary roadway curbs and main utility branch trenches; and 25 feet beyond constructed areas with permeable surfaces (such as pervious paving areas, stormwater detention facilities, and playing fields) that require additional staging areas in order to limit compaction in the constructed area.
 - 2. Driveways, Walkways and Entrances: Keep driveways loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.

1.11 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site and existing adjacent building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or

SECTION 01 1000 - SUMMARY

used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.

2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.12 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 6 a.m. to 8 p.m., Monday through Friday, unless otherwise indicated.
 1. Weekend Hours: Same as times permitted for weekday work.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 1. Notify Owner not less than two days in advance of proposed utility interruptions.
 2. Obtain Owner's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 1. Notify Owner not less than two days in advance of proposed disruptive operations.
 2. Obtain Owner's written permission before proceeding with disruptive operations.
- E. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor-air intakes.
- F. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.
- G. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.
- H. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
 1. Maintain list of approved screened personnel with Owner's representative.

SECTION 01 1000 - SUMMARY

1.13 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.
 - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 1000

SECTION 01 2100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
 - 1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances.
 - 2. Quantity allowances.
 - 3. Testing and inspecting allowances.
- C. Related Requirements:
 - 1. Section 01 4000 "Quality Requirements" for procedures governing the use of allowances for testing and inspecting.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.

1.4 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the

form specified for Change Orders.

1.5 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.6 COORDINATION

- A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.7 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.8 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.

- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.
- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.9 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
 - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
 - 3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
 - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES:

- A. Allowance **No. 1:** Gym roof leak repair: Provide pricing for the investigation and repair of an apparent roof leak on the north gym wall. Pricing should include cost to replace roof membrane/material, metal decking or through wall scupper that may be damaged or rusted. Findings are to be reported to the Architect.

END OF SECTION 01 2100

SECTION 01 2200 - UNIT PRICES

SECTION 01 2200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.

1.3 DEFINITIONS

- A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

SECTION 01 2200 - UNIT PRICES

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

- A. Unit Price 1: Removal of unsatisfactory soil and replacement with satisfactory soil material. Per cubic yard price \$_____.
1. Description: Unsatisfactory soil excavation and disposal off site and replacement with satisfactory fill material or engineered fill from off site, as required, according to Section 31 2300 "Earthwork"
 2. Unit of Measurement: Cubic yard of soil excavated, based on survey of volume removed.
 3. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in Section 01 2100 "Allowances."

END OF SECTION 01 2200

SECTION 01 2300 - ALTERNATES

SECTION 01 2300 - ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.

SECTION 01 2300 - ALTERNATES

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1 Restroom wall tile:

1. Alternate: Provide floor to ceiling wall tile in rooms 121 VEST, 122 WOMEN'S DRESSING and 123 MEN'S DRESSING. Tile basis of design: Daltile AC23 Coconut rectangle Handcrafted glossy, rectangle 3" x 12". Refer to finish schedule. If accepted, colors are to be chosen by Architect in field.

END OF SECTION 01 2300

SECTION 01 2500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use CSI Form 13.1A.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as

SECTION 01 2500 - SUBSTITUTION PROCEDURES

- performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

SECTION 01 2500 - SUBSTITUTION PROCEDURES

1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
 - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Requested substitution provides sustainable design characteristics that specified product provided.
 - c. Substitution request is fully documented and properly submitted.
 - d. Requested substitution will not adversely affect Contractor's construction schedule.
 - e. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - f. Requested substitution is compatible with other portions of the Work.
 - g. Requested substitution has been coordinated with other portions of the Work.
 - h. Requested substitution provides specified warranty.
 - i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Architect will consider requests for substitution if received 10 days or more prior to bid date. Requests received after that time shall be rejected by the Architect. Approval of such requests shall be issued as an addendum to all bidders prior to bid date.
 - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

SECTION 01 2500 - SUBSTITUTION PROCEDURES

- a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
- b. Requested substitution does not require extensive revisions to the Contract Documents.
- c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- d. Substitution request is fully documented and properly submitted.
- e. Requested substitution will not adversely affect Contractor's construction schedule.
- f. Requested substitution has received necessary approvals of authorities having jurisdiction.
- g. Requested substitution is compatible with other portions of the Work.
- h. Requested substitution has been coordinated with other portions of the Work.
- i. Requested substitution provides specified warranty.
- j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 2500

SECTION 01 2600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time.

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request or 10 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - e. Quotation Form: Use CSI Form 13.6D, "Proposal Worksheet Summary," and Form 13.6C, "Proposal Worksheet Detail."

SECTION 01 2600 - CONTRACT MODIFICATION PROCEDURES

- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 4. Include costs of labor and supervision directly attributable to the change.
 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 6. Comply with requirements in Section 01 2500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
 7. Proposal Request Form: Use CSI Form 13.6A, "Change Order Request (Proposal)," with attachments CSI Form 13.6D, "Proposal Worksheet Summary," and Form 13.6C, "Proposal Worksheet Detail."

1.5 ADMINISTRATIVE CHANGE ORDERS

- A. Allowance Adjustment: See Section 01 2100 "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.
- B. Unit-Price Adjustment: See Section 01 2200 "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit-price work.

1.6 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Changes Proposal Request, Construction Manager will issue a Change Order for signatures of Architect and Contractor on ConsensusDocs 525.

1.7 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

SECTION 01 2600 - CONTRACT MODIFICATION PROCEDURES

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 2600

SECTION 01 2900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
 - 1. Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the schedule of values to Architect at earliest possible date, but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
 - 3. Subschedules for Phased Work: Where the Work is separated into phases requiring separately phased payments, provide subschedules showing values coordinated with each phase of payment.
 - 4. Subschedules for Separate Elements of Work: Where the Contractor's construction schedule defines separate elements of the Work, provide subschedules showing values coordinated with each element.

SECTION 01 2900 - PAYMENT PROCEDURES

5. Subschedules for Separate Design Contracts: Where the Owner has retained design professionals under separate contracts who will each provide certification of payment requests, provide subschedules showing values coordinated with the scope of each design services contract as described in Section 01 1000 "Summary."
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
 1. Arrange schedule of values consistent with format of AIA Document G702.
 2. Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
 - a. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 - 1) Labor.
 - 2) Materials.
 - 3) Equipment.
 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
 - a. Include separate line items under Contractor and principal subcontracts for Project closeout requirements in an amount totaling five percent of the Contract Sum and subcontract amount.
 4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
 6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
 7. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.

SECTION 01 2900 - PAYMENT PROCEDURES

8. Purchase Contracts: Provide a separate line item in the schedule of values for each purchase contract. Show line-item value of purchase contract. Indicate owner payments or deposits, if any, and balance to be paid by Contractor.
9. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
10. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C. Application for Payment Forms: Use AIA Document G702 as form for Applications for Payment.
- D. Application for Payment Forms: Use forms acceptable to Architect and Owner for Applications for Payment. Submit forms for approval with initial submittal of schedule of values.
- E. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.

SECTION 01 2900 - PAYMENT PROCEDURES

3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- F. **Stored Materials:** Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- G. **Transmittal:** Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- H. **Waivers of Mechanic's Lien:** With each Application for Payment, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 2. When an application shows completion of an item, submit conditional final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 5. **Waiver Forms:** Submit executed waivers of lien on forms, acceptable to Owner.
- I. **Initial Application for Payment:** Administrative actions and submittals that must

SECTION 01 2900 - PAYMENT PROCEDURES

precede or coincide with submittal of first Application for Payment include the following:

1. List of subcontractors.
 2. Schedule of values.
 3. Contractor's construction schedule (preliminary if not final).
 4. Combined Contractor's construction schedule (preliminary if not final) incorporating Work of multiple contracts, with indication of acceptance of schedule by each Contractor.
 5. Products list (preliminary if not final).
 6. Schedule of unit prices.
 7. Submittal schedule (preliminary if not final).
 8. List of Contractor's staff assignments.
 9. List of Contractor's principal consultants.
 10. Copies of building permits.
 11. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 12. Initial progress report.
 13. Report of preconstruction conference.
 14. Certificates of insurance and insurance policies.
 15. Performance and payment bonds.
 16. Data needed to acquire Owner's insurance.
- J. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- K. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 6. AIA Document G707, "Consent of Surety to Final Payment."
 7. Evidence that claims have been settled.
 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.

SECTION 01 2900 - PAYMENT PROCEDURES

9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 2900

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. Requests for Information (RFIs).
 - 4. Project meetings.

1.3 DEFINITIONS

- A. RFI: Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use CSI Form 1.5A. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.
 - 1. Post copies of list in project meeting room, in temporary field office, and by each

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

temporary telephone. Keep list current at all times.

1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's construction schedule.
 - 2. Preparation of the schedule of values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Preinstallation conferences.
 - 7. Project closeout activities.
 - 8. Startup and adjustment of systems.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

1.6 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
 - b. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - c. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
 - d. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
 - e. Indicate required installation sequences.
 - f. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:
1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
 2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within ceiling plenum to accommodate layout of light fixtures indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
 3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
 4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
 5. Mechanical and Plumbing Work: Show the following:

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

- a. Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems.
 - b. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment.
 - c. Fire-rated enclosures around ductwork.
 6. Electrical Work: Show the following:
 - a. Runs of vertical and horizontal conduit 1-1/4 inches in diameter and larger.
 - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire-alarm locations.
 - c. Panel board, switch board, switchgear, transformer, busway, generator, and motor control center locations.
 - d. Location of pull boxes and junction boxes, dimensioned from column center lines.
 7. Fire-Protection System: Show the following:
 - a. Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.
 8. Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will so inform Contractor, who shall make changes as directed and resubmit.
 9. Coordination Drawing Prints: Prepare coordination drawing prints according to requirements in Section 01 3300 "Submittal Procedures."
- C. Coordination Digital Data Files: Prepare coordination digital data files according to the following requirements:
1. File Preparation Format: DWG, Version , operating in Microsoft Windows operating system.
 2. File Submittal Format: Submit or post coordination drawing files using Portable Data File (PDF) format.
 3. Architect will furnish Contractor one set of digital data files of Drawings for use in preparing coordination digital data files.
 - a. Architect makes no representations as to the accuracy or completeness of digital data files as they relate to Drawings.
 - b. Digital Data Software Program: Drawings are available in Revit and Autocad.

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

1.7 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 - 1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
 - 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 - 1. Project name.
 - 2. Project number.
 - 3. Date.
 - 4. Name of Contractor.
 - 5. Name of Architect.
 - 6. RFI number, numbered sequentially.
 - 7. RFI subject.
 - 8. Specification Section number and title and related paragraphs, as appropriate.
 - 9. Drawing number and detail references, as appropriate.
 - 10. Field dimensions and conditions, as appropriate.
 - 11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 - 12. Contractor's signature.
 - 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: ConsensusDocs 204 Software-generated form with substantially the same content as indicated above, acceptable to Architect.
 - 1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
 - 1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.

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- b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Architect's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 01 2600 "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
 - E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Use CSI Log Form 13.2B. Include the following:
 1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Architect.
 4. RFI number including RFIs that were returned without action or withdrawn.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Architect's response was received.
 - F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.
 1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
 2. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.
- 1.8 PROJECT MEETINGS
- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

- Architect of scheduled meeting dates and times.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
- 1. Conduct the conference to review responsibilities and personnel assignments.
 - 2. Attendees: Authorized representatives of Owner Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 3. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Lines of communications.
 - f. Procedures for processing field decisions and Change Orders.
 - g. Procedures for RFIs.
 - h. Procedures for testing and inspecting.
 - i. Procedures for processing Applications for Payment.
 - j. Distribution of the Contract Documents.
 - k. Submittal procedures.
 - l. Preparation of record documents.
 - m. Use of the premises and existing building.
 - n. Work restrictions.
 - o. Working hours.
 - p. Owner's occupancy requirements.
 - q. Responsibility for temporary facilities and controls.
 - r. Procedures for moisture and mold control.
 - s. Procedures for disruptions and shutdowns.
 - t. Construction waste management and recycling.
 - u. Parking availability.
 - v. Office, work, and storage areas.
 - w. Equipment deliveries and priorities.
 - x. First aid.
 - y. Security.
 - z. Progress cleaning.

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4. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect, Construction Manager of scheduled meeting dates.
 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility requirements.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written instructions.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.
 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.

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5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Project Closeout Conference: Schedule and conduct a project closeout conference, at a time convenient to Owner and Architect, but no later than 90 days prior to the scheduled date of Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
 2. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of record documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Submittal of written warranties.
 - d. Requirements for preparing operations and maintenance data.
 - e. Requirements for delivery of material samples, attic stock, and spare parts.
 - f. Requirements for demonstration and training.
 - g. Preparation of Contractor's punch list.
 - h. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
 - i. Submittal procedures.
 - j. Coordination of separate contracts.
 - k. Owner's partial occupancy requirements.
 - l. Installation of Owner's furniture, fixtures, and equipment.
 - m. Responsibility for removing temporary facilities and controls.
 4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- E. Progress Meetings: Conduct progress meetings at weekly intervals.
1. Coordinate dates of meetings with preparation of payment requests.
 2. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.

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3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Resolution of BIM component conflicts.
 - 4) Status of submittals.
 - 5) Deliveries.
 - 6) Off-site fabrication.
 - 7) Access.
 - 8) Site utilization.
 - 9) Temporary facilities and controls.
 - 10) Progress cleaning.
 - 11) Quality and work standards.
 - 12) Status of correction of deficient items.
 - 13) Field observations.
 - 14) Status of RFIs.
 - 15) Status of proposal requests.
 - 16) Pending changes.
 - 17) Status of Change Orders.
 - 18) Pending claims and disputes.
 - 19) Documentation of information for payment requests.
 4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
 - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
- F. Coordination Meetings: Conduct Project coordination meetings at weekly intervals.

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.

1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
 - c. Review present and future needs of each contractor present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Resolution of BIM component conflicts.
 - 4) Status of submittals.
 - 5) Deliveries.
 - 6) Off-site fabrication.
 - 7) Access.
 - 8) Site utilization.
 - 9) Temporary facilities and controls.
 - 10) Work hours.
 - 11) Hazards and risks.
 - 12) Progress cleaning.
 - 13) Quality and work standards.
 - 14) Change Orders.
3. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 3100

SECTION 01 3200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's construction schedule.
 - 2. Construction schedule updating reports.
 - 3. Material location reports.
 - 4. Site condition reports.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- C. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:

WM2A Architects

01 3200 - 1

WM2A Project No. 2024-079

**MEMORIAL PARK
RECREATION CENTER
MACON, GA**

SECTION 01 3200 - CONSTRUCTION PROGRESS DOCUMENTATION

1. Working electronic copy of schedule file, where indicated.
2. PDF electronic file.

B. Qualification Data: For scheduling consultant.

1.5 QUALITY ASSURANCE

- A. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Section 01 3100 "Project Management and Coordination." Review methods and procedures related to the preliminary construction schedule and Contractor's construction schedule, including, but not limited to, the following:
1. Discuss constraints, including phasing work stages interim milestones and partial Owner occupancy.

1.6 COORDINATION

- A. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
1. Secure time commitments for performing critical elements of the Work from entities involved.
 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for commencement of the Work to date of final completion.
1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each story or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.

SECTION 01 3200 - CONSTRUCTION PROGRESS DOCUMENTATION

3. Submittal Review Time: Include review and resubmittal times indicated in Section 01 3300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
 4. Startup and Testing Time: Include no fewer than 15 days for startup and testing.
 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
 6. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and final completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
 2. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Section 01 1000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 3. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Subcontract awards.
 - b. Submittals.
 - c. Fabrication.
 - d. Installation.
 - e. Tests and inspections.
 - f. Startup and placement into final use and operation.
 4. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
 - a. Structural completion.
 - b. Permanent space enclosure.
 - c. Completion of mechanical installation.
 - d. Completion of electrical installation.
 - e. Substantial Completion.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion, and the following interim milestones:
1. Temporary enclosure and space conditioning.
- E. Cost Correlation: Superimpose a cost correlation timeline, indicating planned and actual costs. On the line, show planned and actual dollar volume of the Work performed as of planned and actual dates used for preparation of payment requests.

SECTION 01 3200 - CONSTRUCTION PROGRESS DOCUMENTATION

1. See Section 01 2900 "Payment Procedures" for cost reporting and payment procedures.
- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
 1. Unresolved issues.
 2. Unanswered Requests for Information.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.
 5. Pending modifications affecting the Work and Contract Time.
- G. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
 1. Use Microsoft Project, for Windows operating system.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's construction schedule within 30 days of date established for commencement of the Work. Base schedule on the startup construction schedule and additional information received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.3 REPORTS

- A. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site. Indicate the following categories for stored materials:

SECTION 01 3200 - CONSTRUCTION PROGRESS DOCUMENTATION

1. Material stored prior to previous report and remaining in storage.
 2. Material stored prior to previous report and since removed from storage and installed.
 3. Material stored following previous report and remaining in storage.
- B. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate final completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Architect Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 3200

SECTION 01 3300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."
- C. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.
 - 1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - 2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those

SECTION 01 3300 - SUBMITTAL PROCEDURES

submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.

3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
4. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category: Action; informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's final release or approval.
 - g. Scheduled date of fabrication.
 - h. Scheduled dates for purchasing.
 - i. Scheduled dates for installation.
 - j. Activity or event number.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
 1. Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings and Project record drawings.
 - a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
 - b. The following digital data files will be furnished for each appropriate discipline:
 - 1) Floor plans.
 - 2) Reflected ceiling plans.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.

SECTION 01 3300 - SUBMITTAL PROCEDURES

3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 10 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 10 days for review of each resubmittal.
 4. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 10 days for review of each submittal. Submittal will be returned to Architect before being returned to Contractor.
- D. Paper Submittals: Place a permanent label or title block on each submittal item for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 3. Include the following information for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Name of subcontractor.
 - f. Name of supplier.
 - g. Name of manufacturer.
 - h. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01).

SECTION 01 3300 - SUBMITTAL PROCEDURES

Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).

- i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 - k. Location(s) where product is to be installed, as appropriate.
4. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
- a. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.
5. Transmittal for Paper Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return without review submittals received from sources other than Contractor.
- a. Transmittal Form for Paper Submittals: Provide locations on form for the following information:
 - 1) Project name.
 - 2) Date.
 - 3) Destination (To:).
 - 4) Source (From:).
 - 5) Name and address of Architect.
 - 6) Name of Contractor.
 - 7) Name of firm or entity that prepared submittal.
 - 8) Names of subcontractor, manufacturer, and supplier.
 - 9) Category and type of submittal.
 - 10) Submittal purpose and description.
 - 11) Specification Section number and title.
 - 12) Specification paragraph number or drawing designation and generic name for each of multiple items.
 - 13) Drawing number and detail references, as appropriate.
 - 14) Indication of full or partial submittal.
 - 15) Transmittal number, numbered consecutively.
 - 16) Remarks.
 - 17) Signature of transmitter.
- E. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
- 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.

SECTION 01 3300 - SUBMITTAL PROCEDURES

2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
 4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Owner, containing the following information:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Contractor.
 - e. Name of firm or entity that prepared submittal.
 - f. Names of subcontractor, manufacturer, and supplier.
 - g. Category and type of submittal.
 - h. Submittal purpose and description.
 - i. Specification Section number and title.
 - j. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - k. Drawing number and detail references, as appropriate.
 - l. Location(s) where product is to be installed, as appropriate.
 - m. Related physical samples submitted directly.
 - n. Indication of full or partial submittal.
 - o. Transmittal number, numbered consecutively.
 - p. Submittal and transmittal distribution record.
 - q. Remarks.
- F. Options: Identify options requiring selection by Architect.
- G. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.

SECTION 01 3300 - SUBMITTAL PROCEDURES

3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, and installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 1. Post electronic submittals as PDF electronic files directly to Architect's shared folder site specifically established for Project.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 2. Submit electronic submittals via email as PDF electronic files.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 3. Action Submittals: Submit three paper copies of each submittal unless otherwise indicated. Architect will return two copies.
 4. Informational Submittals: Submit two paper copies of each submittal unless otherwise indicated. Architect will not return copies.
 5. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
 - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.

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- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 5. Submit Product Data before or concurrent with Samples.
 6. Submit Product Data in the following format:
 - a. PDF electronic file.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal based on Architect's digital data drawing files is otherwise permitted.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.

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2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches.
 3. Submit Shop Drawings in the following format:
 - a. PDF electronic file.
 - b. Two opaque (bond) copies of each submittal. Architect will return one copy(ies).
 - c. Three opaque copies of each submittal. Architect will retain two copies; remainder will be returned.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 - e. Specification paragraph number and generic name of each item.
 3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with

SECTION 01 3300 - SUBMITTAL PROCEDURES

options selected.

6. **Samples for Verification:** Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. **Number of Samples:** Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record sample.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. **Product Schedule:** As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
 2. Manufacturer and product name, and model number if applicable.
 3. Number and name of room or space.
 4. Location within room or space.
 5. Submit product schedule in the following format:
 - a. PDF electronic file.
 - b. Three paper copies of product schedule or list unless otherwise indicated. Architect will return two copies.
- F. **Coordination Drawing Submittals:** Comply with requirements specified in Section 01 3100 "Project Management and Coordination."
- G. **Contractor's Construction Schedule:** Comply with requirements specified in Section 01 3200 "Construction Progress Documentation."
- H. **Application for Payment and Schedule of Values:** Comply with requirements specified in Section 01 2900 "Payment Procedures."

SECTION 01 3300 - SUBMITTAL PROCEDURES

- I. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Section 01 4000 "Quality Requirements."
- J. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 01 7700 "Closeout Procedures."
- K. Maintenance Data: Comply with requirements specified in Section 01 7823 "Operation and Maintenance Data."
- L. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- M. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- N. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- O. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- P. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- Q. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- R. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- S. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- T. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization.

SECTION 01 3300 - SUBMITTAL PROCEDURES

2. Date of evaluation.
 3. Time period when report is in effect.
 4. Product and manufacturers' names.
 5. Description of product.
 6. Test procedures and results.
 7. Limitations of use.
- U. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- V. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- W. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- X. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file and three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

SECTION 01 3300 - SUBMITTAL PROCEDURES

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 01 7700 "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may be returned by the Architect without action.

END OF SECTION 01 3300

SECTION 01 4000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
 - 4. Specific test and inspection requirements are not specified in this Section.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Mockups: Full-size physical assemblies that are constructed on-site per 5/A2-1. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances.

SECTION 01 4000 - QUALITY REQUIREMENTS

Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.

1. Integrated Exterior Mockups: Mockups of the exterior envelope erected separately from the building but on Project site, consisting of multiple products, assemblies, and subassemblies. See detail on drawings.
- D. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- E. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
- F. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- I. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated

SECTION 01 4000 - QUALITY REQUIREMENTS

numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 ACTION SUBMITTALS

- A. Shop Drawings: For integrated exterior mockups, provide plans, sections, and elevations, indicating materials and size of mockup construction.
 - 1. Indicate manufacturer and model number of individual components.
 - 2. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.

1.6 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Qualification Data: For Contractor's quality-control personnel.
- C. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility sent to authorities having jurisdiction before starting work on the following systems:
 - 1. Seismic-force-resisting system, designated seismic system, or component listed in the designated seismic system quality-assurance plan prepared by Architect.
 - 2. Main wind-force-resisting system or a wind-resisting component listed in the wind-force-resisting system quality-assurance plan prepared by Architect.
- D. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

1.7 CONTRACTOR'S QUALITY-CONTROL PLAN

- A. Quality-Control Plan, General: Submit quality-control plan within 10 days of Notice to Proceed, and not less than five days prior to preconstruction conference. Submit in format acceptable to Architect. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities. Coordinate with Contractor's construction schedule.
- B. Quality-Control Personnel Qualifications: Engage qualified full-time personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.

SECTION 01 4000 - QUALITY REQUIREMENTS

1. Project quality-control manager may also serve as Project superintendent.
- C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- D. Testing and Inspection: In quality-control plan, include a comprehensive schedule of Work requiring testing or inspection, including the following:
 1. Contractor-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections.
 2. Special inspections required by authorities having jurisdiction and indicated on the "Statement of Special Inspections."
 3. Owner-performed tests and inspections indicated in the Contract Documents.
- E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Architect has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

1.8 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
 1. Date of issue.
 2. Project title and number.
 3. Name, address, and telephone number of testing agency.
 4. Dates and locations of samples and tests or inspections.
 5. Names of individuals making tests and inspections.
 6. Description of the Work and test and inspection method.
 7. Identification of product and Specification Section.
 8. Complete test or inspection data.
 9. Test and inspection results and an interpretation of test results.
 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 12. Name and signature of laboratory inspector.

SECTION 01 4000 - QUALITY REQUIREMENTS

13. Recommendations on retesting and re-inspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of technical representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products, and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement that equipment complies with requirements.
 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 4. Statement whether conditions, products, and installation will affect warranty.
 5. Other required items indicated in individual Specification Sections.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.
- 1.9 QUALITY ASSURANCE
- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

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- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.
- F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
 - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Pre-construction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
 - 1. Testing Agency Responsibilities: Submit a certified written report of each test,

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inspection, and similar quality-assurance service to Architect, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

- K. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
1. Build mockups in location and of as directed by the drawings. [See 5/A2-1.](#)
 2. Notify Architect days in advance of dates and times when mockups will be constructed.
 3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at Project.
 4. Demonstrate the proposed range of aesthetic effects and workmanship.
 5. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
 - a. Allow seven days for initial review and each re-review of each mockup.
 6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 7. Demolish and remove mockups when directed unless otherwise indicated.
- L. Integrated Exterior Mockups: Construct integrated exterior mockup according to approved Shop Drawings. Coordinate installation of exterior envelope materials and products for which mockups are required in individual Specification Sections, along with supporting materials.

1.10 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 2. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.
 3. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 01 3300 "Submittal Procedures."

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- C. **Manufacturer's Technical Services:** Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in pre-installation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- D. **Retesting/Re-inspecting:** Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- E. **Testing Agency Responsibilities:** Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Architect, Commissioning Authority, Construction Manager, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 - 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 - 6. Do not perform any duties of Contractor.
- F. **Associated Services:** Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 - 1. Access to the Work.
 - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - 4. Facilities for storage and field curing of test samples.
 - 5. Delivery of samples to testing agencies.
 - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- G. **Coordination:** Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

SECTION 01 4000 - QUALITY REQUIREMENTS

1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- H. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents as a component of Contractor's quality-control plan. Coordinate and submit concurrently with Contractor's construction schedule. Update as the Work progresses.
 1. Distribution: Distribute schedule to Owner, Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.11 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specification Sections and in Statement of Special Inspections attached to this Section, and as follows:
 1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviews the completeness and adequacy of those procedures to perform the Work.
 2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
 4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 6. Retesting and re-inspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
 1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. Date test or inspection results were transmitted to Architect.
 4. Identification of testing agency or special inspector conducting test or inspection.

SECTION 01 4000 - QUALITY REQUIREMENTS

- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 01 7300 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 4000

SECTION 01 4100 - SPECIAL STRUCTURAL TESTING AND INSPECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 INTENT AND CONDITIONS

A. Intent

1. Define and coordinate structural testing and special inspection services.
2. Define and coordinate conventional testing and inspection services.
3. Provide greater confidence that the specified work is constructed in compliance with the contract documents and Chapter 17 of the 2018 International Building Code.
4. Testing and Inspection services are intended to assist in determining probable compliance of the work with requirements specified. These services do not relieve the Contractor of responsibility for compliance with the requirements of the contract documents.

B. Conditions

1. Special inspection reports and a final report in the accordance with Section 1704.1.2 of the Georgia State Minimum Standard Building Code shall be available at the time the building is approved for occupancy.
2. If inspection of fabricator's work is required, the Owner's representative may require testing and inspection of the work at the plant, before shipment. Owner, Architect and Structural Engineer of Record (SER) reserve the right to reject material not complying with the contract documents.
3. Testing and inspection shall be performed in accordance with the industry standard used as the reference for the specific material or procedure unless other criteria are specified. In the absence of a referenced standard, tests shall be accomplished in accordance with generally accepted industry standards.
4. Work shall be checked as it progresses, but failure to detect any defective work or materials shall in no way prevent later rejection if defective work or materials are discovered, nor shall it obligate Owner to accept such work.

1.3 Related Requirements

- A. Refer to PART 2 for technical scope sections regarding specific qualifications, inspections, tests, frequency and standards required.

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1.4 Definitions

- A. Testing – Evaluation of systems, primarily requiring physical manipulation and analysis of materials, in accordance with approved standards.
- B. Inspection – Evaluation of systems, primarily requiring observation and engineering judgment.
- C. Structural Testing and Special Inspection – Structural Testing and Special Inspection Services herein include items required by the 2018 IBC as adopted by the current Georgia State Building Code, and other items which in the professional judgment of the Structural Engineer of Record, are critical to the integrity of the building structure.
- D. Conventional Testing and Inspection – Conventional Testing and Inspection Services herein describe those items not specially required by Code but may be considered essential to the proper performance of the building systems.
- E. Architect of Record – The prime consultant in charge of overall design and coordination of the project.
- F. Structural Engineer of Record (SER) – The Licensed Engineer in responsible charge of the structural design for the project.
- G. Licensed Structural Engineer: – A professional engineer with education and experience in the design of structures similar to this project licensed to practice in the state in which the project is located.
- H. Testing Agency (TA) – The properly qualified firm performing testing services.
- I. Special Inspector (SI) – A properly qualified individual or firm performing special inspections.
- J. Building Official – The Officer or his duly authorized representative charged with the administration and enforcement of the Georgia State Building Code.
- K. Continuous –The full-time observation of work requiring special inspection by an approved special inspector who is present in the area where the work is being performed.
- L. Periodic –The part-time or intermittent observation of work requiring special inspection by an approved special inspector who is present in the area where the work is being performed.

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1.5 References

- A. ASTM E329-02 - Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.
- B. ASTM E43-02 - Standard Practice for Agencies Performing Nondestructive Testing.
- C. ASTM C1077-02 - Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation.
- D. ASTM C1093-95 - Practice for Accreditation of Testing Agencies for Unit Masonry.
- E. ASTM D3740-01 - Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- F. SBCCI Standard Building Code (International Building Code), 2006 Edition, with Georgia Amendments referred herein as the Georgia State Building Code
- G. See technical sections of PART 2 for specific references.

1.6 Qualifications

- A. Testing Agency (TA) – The testing agency shall be an approved independent testing agency acceptable to the Owner, Architect, SER and as noted below:
 - 1. Authorized to operate in the state in which the project is located and experienced with the requirements and testing methods specified in the technical scope sections of PART 2.
 - 2. Meeting applicable requirements of Section 1.04 "References".
 - 3. Testing equipment shall be calibrated at reasonable intervals by devices of accuracy traceable to either the National Bureau of Standards, or to accepted values of natural physical constants.
- B. Guidelines for Qualifications of Special Inspectors:
 - 1. Any individual offering to perform special inspections or testing shall submit a registration or for approval by the building official.
 - 2. Except for professional engineers and architects registered in the state of the project, special inspectors shall meet the following criteria. Work experience shall be related to the field for which the inspector is being qualified and may be obtained by for an engineering firm specializing in the field in which registration is being sought.
 - 3. An individual shall meet a minimum of one of the requirements identified below, for each category in which approval is sought.

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- a. Reinforced Concrete (RC)
 - 1) Current International Code Council (ICC) Reinforced Concrete Special Inspector, or,
 - 2) Engineer in Training (EIT) with one year related experience under supervision of a Licensed PE
- b. Prestressed Concrete (PC), Pretension tendons (PC1)
 - 1) Current ICC Prestressed Concrete Special Inspector Certification
 - 2) EIT with one year related experience including plan reading under supervision of a Licensed PE
- c. Post-tension tendons (PC2)
 - 1) Current Post-Tensioning Institute (PTI) Certification Level 1
- d. Post-Tension Slabs-on-Ground (PTS)
 - 1) Current PTI Certification Level 1
- e. Welding (SW)
 - 1) Current American Welding Society (AWS) Certified Welding Inspector
 - 2) Current Canadian Welding Bureau Certified Welding Inspector
- f. Nondestructive Testing of Welds (SN), Nondestructive Testing of Welds (SN)
 - 1) Current Nondestructive Testing Level II and/or Level III (MT, PT & UT)
 - a) The applicant must be Level II certified by the American Society of Nondestructive Testing (ASNT) to perform Magnetic Particle Testing (MT) Liquid Penetrant Testing (PT) and Ultrasonic Testing (UT), or
 - 2) The applicant must be Level II certified by an ASNT Level III examiner to perform MT, PT and UT.
 - a) The Level III examiner shall be certified by ASNT and must submit a copy of his certification with the Level II certification.
- g. High-Strength Bolting/ Steel Frame (SS)
 - 1) Current ICC Structural Steel and Bolting Special Inspector

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- h. Structural Masonry (SM)
 - 1) EIT with one year related experience including plan reading under supervision of a Licensed PE
 - 2) Current ICC Structural Masonry Special Inspection
- i. Sprayed Fire-Resistant Materials (FP)
 - 1) Current ICC Spray-Applied Fireproofing Special Inspector
- j. Deep Foundations (PDP)
 - 1) Current National Institute for Certification in Engineering Technologies (NICET) Level II certification in geotechnical engineering technology/construction
 - 2) EIT with one year related experience under supervision of a Licensed PE
 - 3) Current SCDOT Foundation Inspector Certification
- k. Excavation and Filling (EF)/Verification of Soils (VS)
 - 1) Current NICET Level II certification in geotechnical engineering technology/construction
 - 2) Current NICET Level II in Soils
 - 3) EIT with one year related experience under supervision of a Licensed PE
 - 4) Soils Special Inspector
 - 5) Current SCDOT Earthwork, Drainage and Base Certification
- l. Modular Retaining Walls (MRW)
 - 1) EIT with one year related experience under supervision of a Licensed PE
- m. Precast Concrete Erection (PCE) (Not a separate registration)
 - 1) The special inspector shall be registered for Reinforced Concrete (RC) or Welding (SW) as required based on the type of inspection being performed.
- n. Exterior Insulation and Finish System (EIFS)
 - 1) EIT with one year related experience
- o. Smoke Control (SC)
 - 1) Current NICET N-II-FPAS

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- 2) Current NICET N-II-FPFA
- 3) Current National Environmental Balancing Bureau
- 4) Current Associated Air Balance Council

p. Inspection of Fabricators

- 1) Precast
 - a) Current ICC Reinforced Concrete Certification
 - b) Precast/Prestressed Concrete Institute Level II
- 2) Bar Joist
 - a) See welding/bolting requirements
- 3) Metal Building
 - a) See welding/bolting requirements
- 4) Structural Steel
 - a) See welding/bolting requirements
- 5) Lateral Force Resistance (SR)
 - a) EIT with two years related experience under supervision of a Licensed PE
- 6) Detention Basin (DB)
 - a) Professional land surveyor
 - b) EIT with two years related experience under supervision of a Licensed PE
- 7) Special Cases (XX)
 - a) BCC registration is limited to categories listed above. Special inspectors for special cases shall be approved by the jurisdictional building official.

1.7 Responsibilities

A. Structural Testing and Special Inspection

1. Special Inspectors:

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- a. Sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencement of construction.
 - b. If requested, attend a pre-construction meeting to review the scope of structural testing and special inspection.
 - c. Use the approved design drawings and specifications, supplemented by the approved shop drawings for review of the work.
 - d. Test and/or inspect the work assigned for conformance with the building department approved design drawings, specifications and applicable material and workmanship provisions of the Code. Perform testing and inspection in a timely manner to avoid delay of work.
 - e. Bring discrepancies to the immediate attention of the contractor for correction, confirm that they are corrected and, if uncorrected after a reasonable period of time, bring to the attention of the Structural Engineer of Record, the Building Official, and to the Architect.
 - 1) A "SPECIAL INSPECTION DISCREPANCY NOTICE" form is included at the end of this section.
 - f. Submit test and/or inspection reports to the Building Official, Contractor, the Structural Engineer of Record, and other designated persons in accordance with the Schedule of Special Inspection Services.
 - 1) A "SPECIAL INSPECTION DAILY REPORT" form is included at the end of this section.
 - 2) A "SPECIAL INSPECTION INTERIM REPORT " form is included at the end of this section.
 - g. Submit a final signed report stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans, specifications and the applicable workmanship provisions of the Code.
 - 1) The "FINAL REPORT OF SPECIAL INSPECTIONS" form is included at the end of this section.
2. Testing Agency:
- a. Sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencement of construction.
 - b. If requested, attend a pre-construction meeting to review the scope of structural testing and special inspection.
 - c. When engaged as a special inspector, provide structural testing and special inspection services as previously described.
3. Architect of Record (or other prime consultant):

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- a. Complete and sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencement of construction. Provide a completed copy of the schedule to all signed parties including Building Official.
 - 1) The " STATEMENT OF SPECIAL INSPECTIONS " form is included at the end of this section.
 - b. If appropriate, arrange and attend a pre-construction meeting to review the scope of structural testing and special inspection. Include Contractor, Building Official, SER, Testing Agency and other parties concerned.
 - c. Coordinate the flow of reports and related information to expedite resolution of construction issues.
4. Structural Engineer of Record (SER):
- a. Identify items requiring structural testing and special inspection including special cases.
 - b. Define "type" of special inspector required for "description" of work indicated on the structural testing and special inspection schedule.
 - c. Complete and sign the Schedule of Special Inspection Services prior to commencement of construction.
 - d. If requested, attend a pre-construction meeting to review the scope of structural testing and special inspection.
 - e. Review reports submitted by special inspectors.
 - f. If engaged as a special inspector, provide structural testing and special inspection services as previously described.
5. Contractor:
- a. Sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencement of construction.
 - b. Sign the Contractor's Statement Of Responsibility.
 - 1) The " CONTRACTOR'S STATEMENT OF RESPONSIBILITY " form is included at the end of this section.
 - c. If requested, attend a pre-construction meeting to review the scope of structural testing and special inspection.
 - d. Post or make available the Schedule of Special Inspection Services within its office at the job site. Also, provide adequate notification to those parties designated on the schedule so they may properly prepare for and schedule their work.
 - e. Provide the special inspectors access to the approved design drawings, approved shop drawings and specifications at the job site.
 - f. Review reports submitted by special inspectors.

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- g. Retain at the job site all reports submitted by the special inspectors for review by the building official upon request.
 - h. Correct in a timely manner, deficiencies identified in inspection and/or testing reports.
 - i. Provide the special inspector safe access to the work requiring inspection and/or testing.
 - j. Provide labor and facilities to provide access to the work and to obtain, handle and deliver samples, to facilitate testing and inspection and for storage and curing of test samples.
 - k. Verification of conformance of the work within specified construction tolerances is solely the Contractor's responsibility.
- 6. Fabricator:
 - a. Sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencing construction.
 - b. Sign the Fabricator's Certificate Of Compliance.
 - 1) The " FABRICATOR'S CERTIFICATE OF COMPLIANCE " form is included at the end of this section.
 - c. Submit a Certificate of Compliance to the Building Official, Special Inspector, and Structural Engineer of Record that the work was performed in accordance with the approved plans and specifications.
- 7. Building Official (Typical responsibilities noted for information only):
 - a. Determine work, which in the Building Officials opinion, involves unusual hazards or conditions in accordance with the IBC.
 - b. Review special inspector qualifications.
 - c. Accept and sign the completed Schedule of Special Inspection Services.
 - d. Review all fabricators who perform work in their shop, which requires special inspection.
 - e. Review reports and recommendations submitted by the special inspectors.
 - f. Review the "final signed reports" submitted by the special inspector(s). These documents should be accepted and approved by the building department prior to issuance of a Certificate of Occupancy.
- 8. Owner:
 - a. Establish direct funding to provide for cost of structural testing and special inspection services.
 - b. Provide special inspector with approved design drawings, specifications and approved shop drawings.
 - c. Provide special inspectors and testing agencies with full access to site at all times.

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- d. Sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencement of construction.
- B. Conventional Testing and Inspection
 - 1. Testing Agency:
 - a. Test or inspect the work assigned, for conformance with building department approved plans, specifications and applicable workmanship provisions of the IBC.
 - b. Bring non-conforming items to the immediate attention of the Contractor, and if uncorrected to the Architect of Record.
 - c. Submit test and/or inspection reports to the Architect of Record, the Contractor and other designated persons.
 - 2. Contractor:
 - a. Provide adequate notification to testing agency so they may properly prepare for and schedule their work.
 - b. Provide testing agency with access to the approved design drawings, approved shop drawings and specifications at the job site.
 - c. Correct in a timely manner, deficiencies identified in test and/or inspection reports.
 - d. Provide testing agency with safe access to the work requiring testing and inspection.
 - e. Provide labor and facilities to provide access to the work and to obtain and handle samples, to facilitate testing and inspection and for storage and curing of test samples.
 - f. Verification of conformance of the work within specified construction tolerances is solely the Contractor's responsibility.
 - 3. Architect of Record (or other prime consultant):
 - a. Coordinate the flow of reporting and related information to expedite resolution of construction issues.
- C. Inspections by Building Official
 - 1. Contractor shall provide adequate notice for inspections performed by the Building Official, as required by the 2012 IBC, the Georgia State Building Code, and local ordinance.
- D. Periodic Site Observations by Design Consultant
 - 1. Special structural testing and inspection, conventional testing and inspection, and periodic inspections by the Building Official do not preclude the normal field involvement and site observations by Architect or Structural Engineer of Record,

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nor shall it relieve the Contractor of any responsibility to complete the work in accordance with the approved drawings and specifications.

E. Limits of Authority

1. Testing agents and/or special inspectors may not waive or alter contract requirements, or approve or accept any portion of the work unless specifically authorized by the Architect or Structural Engineer of Record. They may not assume any duties of the Contractor, and they have no authority to stop or reject "Work".

1.8 Payment

- A. Owner shall directly employ and pay for services of the special inspectors to perform required Structural Testing and Special Inspection.
- B. Owner shall employ and pay for services of the testing agency to perform required Conventional Testing and Inspection.
- C. Unless noted otherwise, the Contractor shall provide and pay for all materials, samples, mock-ups, and assemblies required for testing and inspection and shall pay for all shipping costs related to delivery of this work. Testing agency will pay for shipping costs of samples transported from site to lab.
- D. If exploratory work is required to determine the cause of defects, the cost of such work shall be paid by the Contractor, if the work is found to be defective, in the judgment of the Architect/Engineer. Contractor shall reimburse the Owner for all costs incurred in this event.
- E. Any tests required to qualify the Contractor, or the workmen for any phase of the work, shall be performed at no additional cost to the Owner.

1.9 Inspection Notice

- A. Contractor shall provide minimum of 24 hours notice for all items requiring testing or inspection. Items requiring testing and inspection services prior to or during placement shall not be placed until testing and inspection services are available. Items requiring testing and inspection services after placement shall not be enclosed or obscured until testing and inspection services are performed.

1.10 Reports

- A. Testing agency and/or special inspectors shall submit reports in accordance with the Schedule of Special Inspection Services and shall conduct and interpret tests and

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inspections and state in each report whether; (1) test specimens and observations comply with Contract Documents, and specifically state any deviations, (2) record types and locations of defects found in work, (3) record work required and performed, to correct deficiencies.

- B. Reports for structural testing and special inspection, shall be submitted in timely manner to the Contractor, Building Official, SER, and Architect of Record.
 - 1. Submit a final signed report stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans, specifications and the applicable workmanship provisions of the code.
- C. Reports for conventional testing and inspection shall be submitted in a timely manner to the Contractor and the Architect of Record.

1.11 Frequency of Testing and Inspection

- A. For detailed requirements see Schedule of Special Inspection Services.

1.12 Protection and Repair

- A. Upon completion of testing, sample-taking, or inspection, the Contractor shall repair damaged work and restore substrates and finishes to eliminate deficiencies, including deficiencies in the visual qualities of exposed surfaces, as judged solely by the Architect/Engineer of Record. Protect work exposed by or for testing and/or inspection and protect repaired work. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for testing and/or inspection.

1.13 Tests to Demonstrate Qualification

- A. If the Contractor proposes a product material, method, or other system that has not been pre-qualified, the Architect may require applicable tests, to establish a basis for acceptance or rejection. These tests will be paid for by the Contractor.
- B. The Architect/Engineer of Record reserves the right to require certification or other proof that the system proposed, is in compliance with any tests, criteria or standards called for. The certificate shall be signed by a representative of an independent testing agency.

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PART 2 - MATERIALS (NOT USED)

PART 3 - SCOPE OF TESTING AND INSPECTION

3.1 Schedule of Special Inspection Services

- A. The parties involved shall complete and sign the Schedule of Special Inspection Services. The Program, including Summary Schedule, shall be submitted to the building official for approval prior to issuance of a building permit. The completed schedule includes the following:
1. A specific listing of the items requiring inspection and testing.
 2. The associated technical scope sections that define the applicable standards by which to judge conformance with the approved plans and specifications in accordance with the IBC, as adopted by the Georgia State Building Code. The technical scope sections should also include the degree or basis of inspection and testing; i.e., intermittent/will-call or full-time/continuous.
 3. The frequency of reporting, i.e., weekly, monthly, per test/inspection, per floor, etc.
 4. The parties responsible for performing the inspection and testing work.
 5. The required acknowledgments by each designated party.

3.2 Conventional Testing and Inspection

- A. Schedule of Special Inspection Services
1. See attached form at end of section.

3.3 Technical Sections

- A. Section 02080 - Trench Excavation, Bedding, Backfill And Compaction
1. IBC Code Section 1704.7 Soils
 2. Definitions
 - a. Refer to PART 1 for standard definitions.
 - b. Refer to PART 1 for Guidelines for Qualifications of Special Inspectors.
 3. Structural Testing and Special Inspection Requirement
Item and Frequency
 - a. Classification of materials used and encountered during construction per ASTM:D2488 and ASTM:D2487.

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- b. Performance of laboratory testing of materials, as needed (Proctor, Sieve Analysis, Atterberg Limits, Consolidation Test, etc.).
 - c. Field Density Tests:
 - d. Provide periodic results of field compaction and laboratory work for general compliance with Contract Documents and Geotechnical Reports.
 - e. Observe all subgrades/excavation bases below footings and slabs and verify design bearing capacity is achieved.
 - f. Document presence of groundwater within excavations.
 - g. Provide reports of subgrade observations for general compliance with Contract Documents and Geotechnical Report.
 - h. Verify cut and fill slopes as specified in the contract documents.
4. Conventional Testing and Inspections Requirements
- a. Contractor shall verify that footings comply with frost depth requirements and shall report any variances to the SER in a timely manner.

B. Section 03 3000 - Concrete

- 1. IBC Code Section 1704.4 Concrete Construction
- 2. General
 - a. Refer to Section 05 1200 - Structural Steel for inspections involving welding reinforcing steel.
- 3. Definitions
 - a. Refer to PART 1 for standard definitions.
 - b. Refer to PART 1 for Guidelines for Qualifications of Special Inspectors.
- 4. Structural Testing and Special Inspection Requirements
 - a. Verify formwork dimensions for all concrete, excluding:
 - 1) Isolated spread footings of buildings three stories or less in height that are fully supported on earth or rock
 - 2) Strip footings of buildings three stories or less in height that are fully supported on earth or rock, where the footings support walls of light frame construction, the footings are designed in accordance with Table 1805.4.2, or the footing structural design is based on a f'_c no greater than 2500 psi.
 - 3) Non-structural slabs on grade, including prestressed slabs on grade when effective prestress in concrete is less than 150 pounds per square inch.

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- 4) Concrete foundation walls constructed in accordance with Table 1805.5(2), Table 1805.5(3) or Table 1805.5(4).
 - 5) Concrete patios, driveways and sidewalks on grade.
- b. Inspect reinforcement in all cast in place concrete, excluding:
- 1) Isolated spread footings of buildings three stories or less in height that are fully supported on earth or rock
 - 2) Strip footings of buildings three stories or less in height that are fully supported on earth or rock, where the footings support walls of light frame construction, the footings are designed in accordance with Table 1805.4.2, or the footing structural design is based on a f'_c no greater than 2500 psi.
 - 3) Non-structural slabs on grade, including prestressed slabs on grade when effective prestress in concrete is less than 150 pounds per square inch.
- c. Verify the following:
- 1) Verify reinforcing bar grade.
 - 2) Verify reinforcing bars are free of dirt, excessive rust, and damage.
 - 3) Verify reinforcing bars are adequately tied, chaired, and supported to prevent displacement during concrete placement.
 - 4) Verify proper clear distances between bars and to surfaces of concrete.
 - 5) Verify reinforcing bar size and placement.
 - 6) Verify bar laps for proper length and stagger.
 - 7) Verify mechanical splices are placed in accordance with the plans, specifications and reviewed shop drawings.
 - 8) Verify weldability of reinforcing steel, other than ASTM A706. Verify welding of reinforcing bars meets requirements set forth in Section 05100.
 - 9) Verify epoxy coating is present at locations noted on the plans and specifications, include tie wires, chairs, bolsters, etc. Verify coating damage is repaired in accordance with the contract documents.
- d. Sample and test all cast in place concrete.
- 1) Prepare compression test specimens (ASTM C31), one set of four standard cylinders of concrete for each compressive strength test, mold and store cylinders for laboratory-cured specimens.
 - 2) Perform compressive strength tests (ASTM C39). One set of four cylinders for each day's pour between one and 25 cubic yards. If a day's pour exceeds 25 cubic yards, one set of four cylinders for each additional 50 cubic yards, or fraction thereof. One specimen at seven days, two at 28 days, and one specimen retained in reserve

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for later testing if required. For post tensioned concrete, make and test an additional cylinder at three days to verify strength prior to stressing. (When frequency of testing will provide less than five strength tests for a given class of concrete, conduct at least five strength tests from randomly selected batches. If fewer than five batches are used, conduct one test from each batch.)

- 3) Slump (ASTM C143): One test at point of discharge for each set of compression test specimens; additional tests when concrete consistency appears to have changed.
 - 4) Air entrainment (ASTM C231): Test the first batch of air entrained concrete and one additional test for each set of compression test specimens.
 - 5) Concrete Temperature: Test concrete temperature hourly when air temperature is 40F and below and when 80F and above, and each time a set of compression test specimens is made.
- e. Perform concrete mix verification.
- 1) Verify mixer truck trip ticket conforms to approved mix design.
 - 2) Verify that total water added to mix on site does not exceed that allowed by concrete mix design.
 - 3) Verify that concrete quality is indicative of adequate mixing time, consistency, and relevant time limits.
- f. Inspect preparation and placement of all concrete, excluding:
- 1) Isolated spread footings of buildings three stories or less in height that are fully supported on earth or rock
 - 2) Strip footings of buildings three stories or less in height that are fully supported on earth or rock, where the footings support walls of light frame construction, the footings are designed in accordance with Table 1805.4.2, or the footing structural design is based on a f'_c no greater than 2500 psi.
 - 3) Non-structural slabs on grade, including prestressed slabs on grade when effective prestress in concrete is less than 150 pounds per square inch.
 - 4) Concrete foundation walls constructed in accordance with Table 1805.5(2), Table 1805.5(3) or Table 1805.5(4).
 - 5) Verify the following:
 - a) Verify acceptable general condition of concrete base prior to placement.
 - b) Verify that concrete conveyance and depositing avoids segregation and contamination.
 - c) Verify that concrete is properly consolidated.

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- d) Verify reinforcement remains at proper location.
 - g. Observe protection and curing methods for all concrete, excluding:
 - 1) Isolated spread footings of buildings three stories or less in height that are fully supported on earth or rock
 - 2) Strip footings of buildings three stories or less in height that are fully supported on earth or rock, where the footings support walls of light frame construction, the footings are designed in accordance with Table 1805.4.2, or the footing structural design is based on a f'_c no greater than 2500 psi.
 - 3) Non-structural slabs on grade, including prestressed slabs on grade when effective prestress in concrete is less than 150 pounds per square inch.
 - 4) Concrete foundation walls constructed in accordance with Table 1805.5(2), Table 1805.5(3) or Table 1805.5(4).
 - 5) Verify the following:
 - a) Verify specified curing procedures are followed.
 - b) Verify that specified hot and cold weather procedures are followed.
 - h. Inspect all bolts installed in concrete.
 - 1) Verify specified size, type, spacing, configuration, embedment, and quantity.
 - 2) Verify proper concrete placement and means have been taken to achieve consolidation around all bolts.
5. Conventional Testing and Inspection Requirements
- a. (Not Used)
- C. Section 05 1200 - Structural Steel
- 1. IBC Code Section 1704.3 Steel Construction
 - 2. General
 - a. If special inspection of fabricators work is required, testing agent may test and inspect structural steel at plant before shipment. Owner and SER reserve right to reject material not complying with Contract Documents at any time before final acceptance.
 - 3. Definitions
 - a. Refer to PART 1 for standard definitions.

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- b. Refer to PART 1 for Guidelines for Qualifications of Special Inspectors.
 - c. A.S.N.T: The American Society for Non-destructive Testing.
 - d. N.D.E.: Non-destructive Evaluation.
 - e. A.W.S./C.A.W.I. : American Welding Society/Certified Associate Weld Inspector.
 - f. A.W.S./C.W.I.: American Welding Society/Certified Weld Inspector.
 - g. R.C.S.C: Research Council On Structural Connections
4. Structural Testing and Special Inspection Requirements
- Item and Frequency
- a. High Strength Bolting (Field Installed):
 - 1) General
 - a) On a periodic basis, visually inspect mating surfaces and bolt type for all slip-critical bolted connections for general conformance with the contract documents prior to bolting.
 - b) Determine the requirements for bolts, nuts, washers, paint and installation/tightening standards are met.
 - c) Observe calibration procedures when such procedures are required in the contract documents and verify that selected procedure is used to tighten bolts.
 - 2) Slip Critical Bolts and Tension Bolts
 - a) Test bolt tightening in 10% of all bolts. Test a minimum of two bolts in each connection. Verify that all plies of connected elements have been brought into contact, at 100% of connections. Verify all tips are removed from "twist"-off bolts.
 - 3) Bearing Bolts
 - a) On a periodic basis, visually inspect to confirm all plies of connected elements have been brought into contact, at 100% of connections. (Applies only to bolts designed for values not requiring exclusion of threads from failure plane, all other bolts require testing as for tension bolts.)
 - 4) Standard
 - a) Test High Strength bolted connections per R.C.S.C. "Specifications for Structural Joints Using ASTM A325 or A490 Bolts."

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- b) High Strength Bolting (Shop Installed): For shop fabricated work, perform tests required for field installation, except that bolt testing may be reduced or deleted, if fabrication shop satisfies AISC Quality Certification Program - Category I, or more stringent criteria, or is approved by building official and SER.
- c) Welding (General): The Special Inspector shall perform the following on a periodic basis:
 - 1)) Prior to start of fabrication determine if fabrication shop meets the criteria for exempting shop welds from inspection and confirm in writing to building official and SER.
 - 2)) Verify qualifications of all welders as AWS certified.
 - 3)) Verify Manufacturer's certificate of compliance for weld filler materials.
 - 4)) Verify proposed welding procedures and materials.
 - 5)) Verify adequate preparation of faying surfaces.
 - 6)) Verify preheat and interpass temperatures of steel, proper technique and sequence of welding, and cleaning and number of passes are provided as required.
- d) Welding (Field):
 - 1)) Fillet Welds: On a periodic basis, visually inspect 100% of all fillet welds, for size, length, and quality, per AWS D1.1.
 - 2)) Partial Penetration Welds: Test 100% of all partial penetration welds exceeding 5/16inch, using Ultrasonic Testing per A.W.S. D1.1. Test 25% of all partial penetration welds less than 5/16 inch, using Magnetic Particle Testing per ASTM E-109, performed on root pass and on finished weld.
 - 3)) Welding (Exceptions): Refer to IBC 1704.3, exception 2) for exceptions to continuous inspection for items including:
 - a)) Single pass fillet welds not exceeding 5/16" size.
 - b)) Welded studs when used for structural diaphragm.
 - c)) Sheet metal or cold formed framing.
 - d)) Stairs and railing systems.
 - 4)) Full Penetration Welds: Test 100% of all full penetration welds exceeding 5/16 inch, using Ultrasonic Testing per A.W.S. D1.1 Test 25% of all full penetration welds less than 5/16 inch, using Magnetic Particle testing per ASTM E-109, performed on root pass and on finished weld.
 - 5)) Stud Shear Connector Welds: Visually inspect 100% of installed studs for full 360° flash. Test all questionable studs, not showing full 360° flash by bending studs to 15°

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from vertical, away from welds continuity, per AWS D1.1. All ceramic welding ferrules shall be removed by contractor. Randomly test all other studs by bending to 15° from vertical as noted:

- a)) Studs welded thru deck 15%
- b)) Studs welded to bare steel 5%. Alternatively, sound 100% of installed studs, for full penetration weld, using an 8 lb. maul. Test questionable studs as noted above. Welding ferrules need not be removed.
- 6)) Steel Joist/Joist Girder Welds: Provide testing and inspection for field welds previously described.
- 7)) Deck Welds: On a periodic basis, visually inspect size, location, length and burn thru for 100% of puddle welds on metal deck designed as a structural element, per AWS D1.3.
- 8)) Cold Formed Metal Framing Welds: On a periodic basis, visually inspect 100% of welds for specified length, size, and continuity in accordance with AWS D1.3 for metal less than 1/8" in thickness, for work designed as a structural element.
- 9)) Welding of Reinforcing Bars: Visually inspect 100% of all reinforcing bar welds as the welding is performed, per AWS D1.4.
 - a)) Verify weldability of reinforcing steel other than ASTM A706.
 - b)) Verify proper joint preparation is provided and proper electrodes are used and properly stored and dried.
- 10)) Miscellaneous Metals, Inserts and Prefabricated Components: Where integrity of the connections impact life safety or performance of the building structure, provide testing and inspection as for typical welds previously specified.
- e) Welding (Shop):
 - 1)) Perform inspections as for field welding except weld testing may be reduced or deleted, if fabrication shop satisfies AISC Quality Certification Program - Category I, or more stringent criteria, and is approved by building official and SER.
- f) Mechanical Fasteners (Misc.):
 - 1)) Fasteners: Visually inspect specified size, spacing, embedment, and location.
- g) Structural Configuration:
 - 1)) Submittals: Verify mill test reports and other submitted documentation, for compliance with contract document.
 - 2)) Materials: Verify materials delivered to site comply with contract documents and approved shop drawings. Materials include:

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- a)) Structural Steel
- b)) Bolts
- c)) Electrodes
- d)) Mechanical fasteners
- e)) Deck gauge
- 3)) Detail Compatibility. On a periodic basis:
 - a)) Review project documents affecting integrity of the structure, including contract documents and pertinent submittals (approved shop drawings).
 - b)) Visit site, at intervals appropriate to the stage of construction, to perform review of the structure and visually confirm general compliance with the project documents.
 - c)) Inspect the following to verify member orientation, configuration, type, and size complies with details indicated on the contract documents an approved shop drawings:
 - 1))) Bracing and stiffening members.
 - 2))) Proper applications of joint details at connections for structural members.
 - 3))) Other work critical to the integrity of the building structure.
- 4)) Conventional Testing and Inspection Requirements
 - a)) High Strength Bolting
 - 1))) Bolt Material Test: Test a minimum of two bolts of each ASTM class specified, for bolt hardness and tensile properties.
 - 2))) Fabrication and Erection Tolerances: Verify in-place structure satisfies specified tolerances.

- 3.4 Refer to attached Appendix – Section 01 4100 Schedule of Special Inspections Schedule.

STATEMENT OF SPECIAL INSPECTIONS

PROJECT: Memorial Park Recreation Center Renovation

LOCATION: 2465 2nd St. Macon, GA 31206

PERMIT APPLICANT: _____

APPLICANT'S ADDRESS: _____

ARCHITECT OF RECORD: Brandon Fairbanks, WM2A Architects, GA License #RA016919

STRUCTURAL ENGINEER OF RECORD: Matt Ellis, GA SE License #SE000061

MECHANICAL ENGINEER OF RECORD: Krunal Patel, Total Engineers

ELECTRICAL ENGINEER OF RECORD: Jeff McGee, Electrical Design Consultants, Inc.

REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE: Brandon Fairbanks, WM2A Architects

This Statement of Special Inspections is submitted in accordance with Section 1704.3 of the 2018 International Building Code. It includes a *Schedule of Special Inspection Services* applicable to the above-referenced Project as well as the identity of the individuals, agencies, or firms intended to be retained for conducting these inspections. If applicable, it includes *Special Inspections for Seismic Resistance* and/or *Special Inspections for Wind Resistance*.

Are *Special Inspections for Seismic Resistance* included in the *Statement of Special Inspections*?

☐ Yes ☒ No

Are *Special Inspections for Wind Resistance* included in the *Statement of Special Inspections*?

☐ Yes ☒ No

The Special Inspector(s) shall keep records of all inspections and shall furnish interim inspection reports to the Building Official and to the Registered Design Professional in Responsible Charge at a frequency agreed upon by the Design Professional and the Building Official prior to the start of work. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge prior to completion of that phase of work. A *Final Report of Special Inspections* documenting required special inspections and corrections of any discrepancies noted in the inspections shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge at the conclusion of the project.

Frequency of interim report submittals to the Registered Design Professional in Responsible Charge:

☐ Weekly

☐ Bi-Weekly

☒ Monthly

Other; specify: _____

The Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract Documents. Jobsite safety and means and methods of construction are solely the responsibility of the Contractor.

Statement of Special Inspections Prepared by:

Matt Ellis

Type or print name

Matt Ellis

Signature

10/30/24

Date

Building Official's Acceptance:

Signature

Date

Permit Number:

Frequency of interim report submittals to the Building Official:

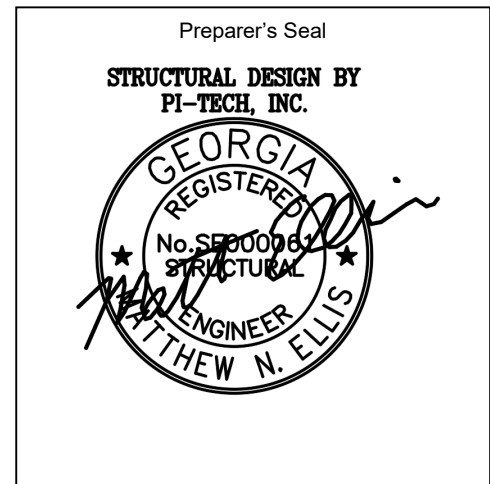
☐ Monthly

☐ Bi- Monthly

☐ Upon Completion

Other; specify: _____

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Special Inspections for Wind Resistance

See the Schedule of Special Inspections for inspection and testing requirements

Allowable Stress Design Wind Speed, V_{asd} : 85 m.p.h.

Wind Exposure Category: C

Special Inspection for Wind Resistance Required (Yes/No): NO

(Required in wind exposure Category B, where the allowable stress design wind speed, V_{asd} , is 120 miles per hour or greater. Required in wind exposure Category C or D, where the allowable stress design wind speed, V_{asd} , is 110 miles per hour or greater.)

Description of structural wood and cold-formed steel light frame construction main windforce-resisting system subject to special inspections for wind resistance:

(Required for systems noted in IBC Section 1705.11.1 and 1705.11.2).

N/A

Description of windforce-resisting components subject to special inspections for wind resistance:

(Required for systems and components noted in IBC Section 1705.11.3)

N/A

Statement of Responsibility:

Each contractor responsible for the construction or fabrication of a system or component described above must submit a Statement of Responsibility.

Special Inspections for Seismic Resistance

See the Schedule of Special Inspections for inspection and testing requirements

Seismic Design Category: B

Special Inspections for Seismic Resistance Required (Yes/No): NO

Description of seismic force-resisting system subject to special inspection and testing for seismic resistance:

(Where required per IBC Sections 1705.12.1, 1705.12.2, and 1705.12.3) (Special inspections for seismic resistance of structural steel, where required, shall be in accordance with AISC 341)

N/A

Description of designated seismic systems subject to special inspection and testing for seismic resistance:

(Required for architectural, electrical and mechanical systems and their components that require design in accordance with Chapter 13 of ASCE 7, have a component importance factor, I_p , greater than one and are in Seismic Design Categories C, D, E or F.)

N/A

Description of additional seismic systems and components requiring special inspections:

(Required for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)

N/A

Description of additional seismic systems and components requiring testing:

(Where required per IBC Section 1705.13)

N/A

Statement of Responsibility:

Each contractor responsible for the construction or fabrication of a system or component described above must submit a Statement of Responsibility.

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.1.1 Special Cases (work unusual in nature, including but not limited to alternative materials and systems, unusual design applications, materials and systems with special manufacturer's requirements - add additional rows as needed.)	Submittal review, shop (3) and/or field inspection				
1. Inspection of anchors post-installed in solid grouted masonry: Per research reports including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, masonry unit, grout, masonry compressive strength, anchor embedment and tightening torque	Field inspection	N	Periodic or as required by the research report issued by an approved source	N/A	
2. Aggregate Pier Inspection: The special inspector's responsibilities include, but are not limited to, review of the aggregate pier designer's use of soil parameters as presented in the project soils report, and during construction, verification of aggregate properties, type and number of lifts of aggregate, hole size and depths and top elevations of the pier elements, and applied energy. Additionally, results of qualitative tests on production aggregate pier elements such as modulus load testing, uplift pull-out testing, bottom stabilization tests and dynamic cone penetration tests, shall be reviewed to verify compliance with design specifications.	Field inspection	N	Periodic or as required by the research report issued by an approved source	N/A	
1705.2.1 Structural Steel Construction					
1. Fabricator and erector documents (Verify reports and certificates as listed in AISC 360, Section N 3.2 for compliance with construction documents)	Submittal Review	N	Each submittal	N/A	
2. Material verification of structural steel	Shop (3) and field inspection	N	Periodic	N/A	
3. Structural steel welding:					
a. Inspection tasks Prior to Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-1)	Shop (3) and field inspection	N	Observe or Perform as noted (4)	N/A	
b. Inspection tasks During Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-2)	Shop (3) and field inspection	N	Observe (4)	N/A	
c. Inspection tasks After Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-3)	Shop (3) and field inspection	N	Observe or Perform as noted (4)	N/A	
d. Nondestructive testing (NDT) of welded joints: <i>see Commentary</i>					
1) Complete penetration groove welds 5/16" or greater in <i>risk category III</i> or <i>IV</i>	Shop (3) or field ultrasonic testing - 100%	N	Periodic	N/A	
2) Complete penetration groove welds 5/16" or greater in <i>risk category II</i>	Shop (3) or field ultrasonic testing - 10% of welds minimum	N	Periodic	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
3) Welded joints subject to fatigue when required by AISC 360, Appendix 3, Table A-3.1	Shop (3) or field radiographic or Ultrasonic testing	N	Periodic	N/A	
4) Fabricator's NDT reports when fabricator performs NDT	Verify reports	N	Each submittal (5)	N/A	
4. Structural steel bolting:	Shop (3) and field inspection				
a. Inspection tasks Prior to Bolting (Observe, or perform tasks for each bolted connection, in accordance with QA tasks listed in AISC 360, Table N5.6-1)		N	Observe or Perform as noted (4)	N/A	
b. Inspection tasks During Bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2)		N	Observe (4)	N/A	
1) Pre-tensioned and slip-critical joints					
a) Turn-of-nut with matching markings		N	Periodic	N/A	
b) Direct tension indicator		N	Periodic	N/A	
c) Twist-off type tension control bolt		N	Periodic	N/A	
d) Turn-of-nut without matching markings		N	Continuous	N/A	
e) Calibrated wrench		N	Continuous	N/A	
2) Snug-tight joints		N	Periodic	N/A	
c. Inspection tasks After Bolting (Perform tasks for each bolted connection in accordance with QA tasks listed in AISC 360, Table N5.6-3)		N	Perform (4)	N/A	
5. Visual inspection of exposed cut surfaces of galvanized structural steel main members and exposed corners of the rectangular HSS for cracks subsequent to galvanizing	Shop (3) or field inspection	N	Periodic	N/A	
6. Embedments (Verify diameter, grade, type, length, embedment. See 1705.3 for anchors)	Field inspection	N	Periodic	N/A	
7. Verify member locations, braces, stiffeners, and application of joint details at each connection comply with construction documents	Field inspection	N	Periodic	N/A	
1705.2.2 Cold-Formed Steel Deck					
1. Manufacturer documents (Verify reports and certificates as listed in SDI QA/QC, Section 2, Paragraphs 2.1 and 2.2 for compliance with construction documents)	Submittal Review	N	Each submittal	N/A	
2. Material verification of steel deck, mechanical fasteners and welding materials	Shop (3) and field inspection	N	Periodic	N/A	
3. Cold-formed steel deck placement:	Shop (3) and field inspection				
a. Inspection tasks Prior to Deck Placement (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.1)		N	Perform (4)	N/A	
b. Inspection tasks After Deck Placement (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.2)		N	Perform (4)	N/A	
4. Cold-formed steel deck welding:	Shop (3) and field inspection				
a. Inspection tasks Prior to Welding (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.3)		N	Observe (4)	N/A	
b. Inspection tasks During Welding (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.4)		N	Observe (4)	N/A	
c. Inspection tasks After Welding (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.5)		N	Perform (4)	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
5. Cold-formed steel deck mechanical fastening:	Shop (3) and field inspection				
a. Inspection tasks Prior to Mechanical Fastening (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.6)		N	Observe (4)	N/A	
b. Inspection tasks During Mechanical Fastening (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.7)		N	Observe (4)	N/A	
c. Inspection tasks After Mechanical Fastening (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.8)		N	Perform (4)	N/A	
1705.2.3. Open-Web Steel Joists and Joist Girders					
1. Installation of open-web steel joists and joist girders.					
a. End connections - welding or bolted.	per SJI CJ or SJI 100	N	Periodic	N/A	
b. Bridging - horizontal or diagonal.					
1) Standard bridging.	per SJI CJ or SJI 100	N	Periodic	N/A	
2) Bridging that differs from the specifications listed in SJI CJ or SJI 100.		N	Periodic	N/A	
1705.2.4. Cold-Formed Steel Trusses Spanning 60 feet or Greater					
Verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection	N	Periodic	N/A	
1705.3 Concrete Construction					
1. Inspection and placement verification of reinforcing steel and prestressing tendons.	Shop (3) and field inspection	Y	Periodic	3	
2. Reinforcing bar welding:		N		N/A	
a. Verification of weldability of bars other than ASTM A706.			Periodic		
b. Inspection of single-pass fillet welds 5/16 or less in size.			Periodic		
c. Inspection of all other welds.			Continuous		
3. Inspection of anchors cast in concrete.	Shop (3) and field inspection	Y	Periodic	3	
4. Inspection of anchors post-installed in hardened concrete members per research reports, or, if no specific requirements are provided, requirements shall be provided by the registered design professional and approved by the building official, including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque	Field inspection	Y	Periodic or as required by the research report issued by an approved source	3	
a. Adhesive anchors installed in horizontal or upward-inclined orientation that resist sustained tension loads.		N	Continuous	N/A	
b. Mechanical and adhesive anchors not defined in 4a.		Y	Periodic	3	
5. Verify use of approved design mix	Shop (3) and field inspection	Y	Periodic	3	
6. Prior to placement, fresh concrete sampling, perform slump and air content tests and determine temperature of concrete and perform any other tests as specified in construction documents.	Shop (3) and field inspection	Y	Continuous	3	
7. Inspection of concrete and shotcrete placement for proper application techniques	Shop (3) and field inspection	Y	Continuous	3	
8. Verify maintenance of specified curing temperature and techniques	Shop (3) and field inspection	Y	Periodic	3	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
9. Inspection of prestressed concrete:	Shop (3) and field inspection	N		N/A	
a. Application of prestressing force		N	Continuous	N/A	
b. Grouting of bonded prestressing tendons		N	Continuous	N/A	
10. Inspect erection of precast concrete members		N	Periodic	N/A	
11. Verification of in-situ concrete strength, prior to stressing of tendons in post tensioned concrete and prior to removal of shores and forms from beams and structural slabs	Review field testing and laboratory reports	N	Periodic	N/A	
12. Inspection of formwork for shape, lines, location and dimensions	Field inspection	Y	Periodic	3	
13. Concrete strength testing and verification of compliance with construction documents	Field testing and review of laboratory reports	Y	Periodic	3	
1705.4 Masonry Construction					
MINIMUM VERIFICATION REQUIREMENTS					
(A) Level 1, 2 and 3 Quality Assurance:					
1. Prior to construction, verification of compliance of submittals	Submittal Review	N	Prior to Construction	N/A	
(B) Level 2 & 3 Quality Assurance:					
1. Prior to construction verification of f_m and f_{AAC} except where specifically required by the code	Testing by unit strength method or prism test method	N	Prior to Construction	N/A	
2. During construction, verification of Slump Flow and Visual Stability Index (VSI) when self-consolidating grout is delivered to project site.	Testing by unit strength method or prism test method	N	Periodic	N/A	
(C) Level 3 Quality Assurance:					
1. During construction, verification of f_m and f_{AAC} for every 5,000 SF	Testing by unit strength method or prism test method	N	Periodic	N/A	
2. During construction, verification of proportions of materials as delivered to the project site for premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout.	Field inspection	N	Periodic	N/A	
MINIMUM SPECIAL INSPECTION REQUIREMENTS					
(D) Levels 2 and 3 Quality Assurance:					
1. As masonry construction begins, verify that the following are					
a. Proportions of the site-prepared mortar	Field inspection	N	Periodic	N/A	
b. Grade and size of prestressing tendons and anchorages	Field Inspection	N	Periodic	N/A	
c. Grade, type, and size of reinforcement, anchor bolts, and prestressing tendons and anchorages	Field Inspection	N	Periodic	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
d. Prestressing technique	Field Inspection	N	Periodic	N/A	
e. Properties of thin-bed mortar for AAC masonry	Field Inspection	N	Level 2 - Continuous ^(b) Level 2 - Periodic ^(c)	N/A	
(b) Required for the first 5,000 square feet (c) Required after the first 5,000 square feet		N	Level 3 - Continuous	N/A	
f. Sample panel construction	Field Inspection	N	Level 2 - Periodic	N/A	
		N	Level 3 - Continuous	N/A	
2. Prior to grouting, verify that the following are in compliance:					
a. Grout space	Field Inspection	N	Level 2 - Periodic	N/A	
		N	Level 3 - Continuous	N/A	
b. Placement of prestressing tendons and anchorages	Field Inspection	N	Periodic	N/A	
c. Placement of reinforcement, connectors, and anchor bolts	Field inspection	N	Level 2 - Periodic	N/A	
		N	Level 3 - Continuous	N/A	
d. Proportions of site-prepared grout and prestressing grout for bonded tendons	Field Inspection	N	Periodic	N/A	
3. Verify compliance of the following during construction:					
a. Materials and procedures with the approved submittals	Field inspection	N	Periodic	N/A	
b. Placement of masonry units and mortar joint construction	Field Inspection	N	Periodic	N/A	
c. Size and location of structural members	Field inspection	N	Periodic	N/A	
d. Type, size, location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction	Field inspection	N	Level 2 - Periodic	N/A	
		N	Level 3 - Continuous	N/A	
e. Welding of reinforcement	Field inspection	N	Continuous	N/A	
f. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F)	Field inspection	N	Periodic	N/A	
g. Application and measurement of prestressing force	Field testing	N	Continuous	N/A	
h. Placement of grout and prestressing grout for bonded tendons is in compliance	Field inspection	N	Continuous	N/A	
i. Placement of AAC masonry units and construction of thin-bed mortar joints	Field inspection	N	Level 2 - Continuous ^(b) Level 2 - Periodic ^(c)	N/A	
(b) Required for the first 5,000 square feet (c) Required after the first 5,000 square feet		N	Level 3 - Continuous	N/A	
4. Observe preparation of grout specimens, mortar specimens, and/or prisms	Field inspection	N	Level 2 - Periodic	N/A	
		N	Level 3 - Continuous	N/A	
1705.5 Wood Construction					
1. For prefabricated wood structural elements, inspection of the fabrication process and assemblies in accordance with Section 1704.2.5.	In-plant review (3)	N	Periodic	N/A	
2. For high-load diaphragms, verify grade and thickness of structural panel sheathing agree with approved building plans.	Field inspection	N	Periodic	N/A	
3. For high-load diaphragms, verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, number of fastener lines, and that spacing between fasteners in each line and at edge margins agree with approved building plans	Field inspection	N	Periodic	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
4. Metal-plate-connected wood trusses:		N		N/A	
a. Verification that permanent individual truss member restraint/bracing has been installed in accordance with the approved truss submittal package when the truss height is greater than or equal to 60".	Field inspection		Periodic		
b. For trusses spanning 60 feet or greater: verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection		Periodic		
1705.6 Soils					
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Field inspection	Y	Periodic	3	
2. Verify excavations are extended to proper depth and have reached proper material.	Field inspection	Y	Periodic	3	
3. Perform classification and testing of compacted fill materials.	Field inspection	Y	Periodic	3	
4. Verify use of proper materials, densities, and lift thicknesses during placement and compaction of controlled fill	Field inspection	Y	Continuous	3	
5. Prior to placement of controlled fill, inspect subgrade and verify that site has been prepared properly	Field inspection	Y	Periodic	3	
1705.7 Driven Deep Foundations					
1. Verify element materials, sizes and lengths comply with requirements	Field inspection	N	Continuous	N/A	
2. Determine capacities of test elements and conduct additional load tests, as required	Field inspection	N	Continuous	N/A	
3. Inspect driving operations and maintain complete and accurate records for each element	Field inspection	N	Continuous	N/A	
4. Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element	Field inspection	N	Continuous	N/A	
5. For steel elements, perform additional inspections per Section 1705.2	See Section 1705.2	N	See Section 1705.2	N/A	
6. For concrete elements and concrete-filled elements, perform tests and additional inspections per Section 1705.3	See Section 1705.3	N	See Section 1705.3	N/A	
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge	Field inspection	N	In accordance with construction documents	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.8 Cast-in-Place Deep Foundations					
1. Inspect drilling operations and maintain complete and accurate records for each element	Field inspection	N	Continuous	N/A	
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes	Field inspection	N	Continuous	N/A	
3. For concrete elements, perform tests and additional inspections in accordance with Section 1705.3	See Section 1705.3	N	See Section 1705.3	N/A	
1705.9 Helical Pile Foundations					
Verify installation equipment, pile dimensions, tip elevations, final depth, final installation torque and other installation data as required by construction documents.	Field inspection	N	Continuous	N/A	
1705.10 Fabricated items					
1. List of fabricated items requiring special inspection during fabrication:	Shop inspection		As noted in each applicable shop activity		
2. List of fabricated items to be fabricated on the premises of a fabricator approved to perform such work without special inspection (including name of approved agency providing periodic auditing):		N		N/A	
1705.11.1 Structural Wood Special Inspections For Wind Resistance					
1. Inspection of field gluing operations of elements of the main windforce-resisting system	Field inspection	N	Continuous	N/A	
2. Inspection of nailing, bolting, anchoring and other fastening of components within the main windforce-resisting system, including wood shear walls, wood diaphragms, drag struts, braces and hold-downs.	Shop (3) and field inspection	N	Periodic	N/A	
1705.11.2 Cold-formed Steel Special Inspections For Wind Resistance					
1. Inspection during welding operations of elements of the main windforce-resisting system	Shop (3) and field inspection	N	Periodic	N/A	
2. Inspection of screw attachment, bolting, anchoring and other fastening of components within the main windforce-resisting system, including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs.	Shop (3) and field inspection	N	Periodic	N/A	
1705.11.3 Wind-resisting Components					
1. Roof covering, roof deck and roof framing connections.	Shop (3) and field inspection	N	Periodic	N/A	
2. Exterior wall covering and wall connections to roof and floor diaphragms.	Shop (3) and field inspection	N	Periodic	N/A	
1705.12.1 Structural Steel Special Inspections for Seismic Resistance					
1. Seismic force-resisting systems in SDC B, C, D, E, or F.	Shop (3) and field inspection	N	In accordance with AISC 341	N/A	
2. Structural steel elements in SDC B, C, D, E, or F other than those in Item 1. including struts, collectors, chords and foundation elements.	Shop (3) and field inspection	N	In accordance with AISC 341	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.12.2 Structural Wood Special Inspections for Seismic Resistance					
1. Field gluing operations of elements of the seismic-force resisting system for SDC C, D, E or F.	Field inspection	N	Continuous	N/A	
2. Nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system including wood shear walls, wood diaphragms, drag struts, shear panels and hold-downs for SDC C, D, E or F.	Shop (3) and field inspection	N	Periodic	N/A	
1705.12.3 Cold-formed Steel Light-Frame Construction Special Inspections for Seismic Resistance					
1. During welding operations of elements of the seismic-force-resisting system for SDC C, D, E or F.	Shop (3) and field inspection	N	Periodic	N/A	
2. Screw attachment, bolting, anchoring and other fastening of components within the seismic-force-resisting system including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs for SDC C, D, E or F.	Shop (3) and field inspection	N	Periodic	N/A	
1705.12.4 Designated Seismic Systems Verification Special Inspections for Seismic Resistance					
For SDC C, D, E or F, inspect and verify that that the component label, anchorage or mounting conforms to the certificate of compliance in accordance with ASCE 7 Section 13.2.2.	Field inspection	N	Periodic	N/A	
1705.12.5 Architectural Components Special Inspections for Seismic Resistance					
1. For SDC D, E or F, inspection during the erection and fastening of exterior cladding and interior or exterior veneer more than 30 feet above grade or walking surface and weighing more than 5 psf.	Field inspection	N	Periodic	N/A	
2. For SDC D, E or F, inspection during the erection and fastening of interior nonbearing walls more than 30 feet above grade or walking surface and weighing more than 15 psf.	Field inspection	N	Periodic	N/A	
3. For SDC D, E or F, inspection during the erection and fastening of exterior nonbearing walls more than 30 feet above grade or walking surface.		N		N/A	
4. For SDC D, E or F, inspection during anchorage of access floors	Field inspection	N	Periodic	N/A	
1705.12.6 Plumbing, Mechanical and Electrical Components Special Inspections for Seismic Resistance					
1. Inspection during the anchorage of electrical equipment for emergency or standby power systems in SDC C, D, E or F	Field inspection	N	Periodic	N/A	
2. Inspection during the anchorage of other electrical equipment in SDC E or F	Field inspection	N	Periodic	N/A	
3. Inspection during installation and anchorage of piping systems designed to carry hazardous materials, and their associated mechanical units in SDC C, D, E or F	Field inspection	N	Periodic	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
4. Inspection during the installation and anchorage of HVAC ductwork designed to contain hazardous materials in SDC C, D, E or F.	Field inspection	N	Periodic	N/A	
5. Inspection during the installation and anchorage of vibration isolation systems in SDC C, D, E or F where nominal clearance of 1/4 inch or less is required by the approved construction documents	Field inspection	N	Periodic	N/A	
6. Inspection during installation of mechanical and electrical equipment, including duct work, piping systems and their structural supports, where automatic fire sprinkler systems are installed in structures assigned to SDC C, D, E, or F to verify one of the following unless flexible sprinkler hose fittings are used:		N		N/A	
a. ASCE/SEI 7, Section 13.2.3 minimum required clearances have been provided.	Field inspection		Periodic		
b. A three inch or greater nominal clearance has been provided between fire protection sprinkler system drops and sprigs and: structural members not used collectively or independently to support the sprinklers; equipment attached to the building structure; and other systems' piping.	Field inspection		Periodic		
1705.12.7 Storage Racks Special Inspections for Seismic Resistance					
Inspection during the anchorage of storage racks 8 feet or greater in height in structures assigned to SDC D, E or F.	Field inspection	N	Periodic	N/A	
1705.12.8 Seismic Isolation Systems					
Inspection during the fabrication and installation of isolator units and energy dissipation devices used as part of the seismic isolation system in structures assigned to SDC B, C, D, E or F.	Shop and field inspection	N	Periodic	N/A	
1705.12.9 Cold-formed Steel Special Bolted Moment Frames					
Inspection of installation of cold-formed steel special bolted moment frames in the seismic force-resisting systems in structures assigned to SDC D, E or F.	Field inspection	N	Periodic	N/A	
1705.13.1 Structural Steel Testing for Seismic Resistance					
1. Nondestructive testing of structural steel in the seismic force-resisting systems in accordance with AISC 341 in structures assigned to SDC B, C, D, E or F.	Field test	N	Periodic	N/A	
2. Nondestructive testing of structural steel elements in the seismic force-resisting systems not covered in 1 above including struts, collectors, chords and foundation elements in accordance with AISC 341 in structures assigned to SDC B, C, D, E or F.	Field test	N	Periodic	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.13.2 Seismic Certification of Nonstructural Components					
Review certificate of compliance for designated seismic system components in structures assigned to SDC B, C, D, E or F.	Certificate of compliance review	N	Each submittal	N/A	
1705.13.3 Seismic Certification of Designated Seismic Systems					
Review certificate of compliance for designated seismic system components in structures assigned to SDC C, D, E or F	Certificate of compliance review	N	Each submittal	N/A	
1705.13.4 Seismic Isolation Systems					
Test seismic isolation system in accordance with ASCE 7 Section 17.8 in structures assigned to SDC B, C, D, E or F.	Prototype testing	N	Per ASCE 7	N/A	
1705.14 Sprayed Fire-resistant Materials					
1. Verify surface condition preparation of structural members	Field inspection	N	Periodic	N/A	
2. Verify minimum thickness of sprayed fire-resistant materials applied to structural members	Field inspection	N	Periodic	N/A	
3. Verify density of the sprayed fire-resistant material complies with approved fire-resistant design	Field inspection and testing	N	Per IBC Section 1705.14.5	N/A	
4. Verify the cohesive/adhesive bond strength of the cured sprayed fire-resistant material	Field inspection and testing	N	Per IBC Section 1705.14.6	N/A	
5. Condition of finished application	Field inspection	N	Periodic	N/A	
1705.15 Mastic and Intumescent Fire-Resistant Coatings					
Inspect and test mastic and intumescent fire-resistant coatings applied to structural elements and decks per AWCI 12-B	Field inspection and testing	N	Periodic	N/A	
1705.16 Exterior Insulation and Finish Systems (EIFS)					
Inspection of water-resistive barrier over sheathing substrate	Field inspection	N	Periodic	N/A	
1705.17 Fire-Resistant Penetrations and Joints					
1. Inspect penetration firestop	Field testing	N	Per ASTM E2174	N/A	
2. Inspect fire-resistant joint systems	Field testing	N	Per ASTM E2393	N/A	
1705.18 Smoke Control Systems					
1. Leakage testing and recording of device locations prior to concealment	Field testing	N	Periodic	N/A	
2. Prior to occupancy and after sufficient completion, pressure difference testing, flow measurements, and detection and control verification	Field testing	N	Periodic	N/A	
* INSPECTION AGENTS					
FIRM	ADDRESS			TELEPHONE NO.	
1. Pi-Tech, Inc.	115 Forest Hill Road, Macon GA 31210			478-743-5600	
2. WM2A Architects	348 Cotton Avenue, Macon, GA , 31210			478-745-4945	
3. Geotechnical & Environmental Consultants, Inc., A Terracon Company	514 Hillcrest Industrial Blvd			(478) 757-1606	
4.	Macon, GA 31204				
Notes: 1. The inspection and testing agent(s) shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work. The qualifications of the Special Inspector(s) and/or testing agencies may be subject to the approval of the Building Official and/or the Design Professional. 2. The list of Special Inspectors may be submitted as a separate document, if noted so above. 3. Shop inspections of fabricated items are not required where the fabricator is approved in accordance with IBC Section 1704.2.5.1 and listed in activity 1709.2. 4. Observe: Observe on a random basis, operations need not be delayed pending these inspections. Perform: These tasks shall be performed for each welded joint, bolted connection, or steel element. 5. NDT of welds completed in an approved fabricator's shop may be performed by that fabricator when approved by the AHJ. Refer to AISC 360, N6.					
Are Special Inspections for Seismic Resistance included in the Statement of Special Inspections?				No	
Are Special Inspections for Wind Resistance included in the Statement of Special Inspections?				No	
DATE:				10/30/2024	

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.
- B. Sewer Service: Pay sewer-service use charges for sewer usage by all entities for construction operations.
- C. Water Service: Pay water-service use charges for water used by all entities for construction operations.
- D. Electric Power Service: Pay electric-power-service use charges for electricity used by all entities for construction operations.
- E. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.4 INFORMATIONAL SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- B. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines.

1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Chain-Link Fencing: Minimum 2-inch, 0.148-inch- thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet high with galvanized-steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1-5/8-inch- OD top rails.
- B. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil minimum thickness, with flame-spread rating of 15 or less per ASTM E 84 and passing NFPA 701 Test Method 2.
- C. Insulation: Un-faced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

2.2 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Common-Use Field Office: Of sufficient size to accommodate needs of Owner, Architect, and construction personnel office activities and to accommodate Project

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

meetings specified in other Division 01 Sections. Keep office clean and orderly. Furnish and equip offices as follows:

1. Furniture required for Project-site documents including file cabinets, plan tables, plan racks, and bookcases.
2. Conference room of sufficient size to accommodate meetings of individuals. Provide electrical power service and 120-V ac duplex receptacles, with no fewer than one receptacle on each wall. Furnish room with conference table, chairs, and 4-foot- square tack and marker boards.
3. Drinking water and private toilet.
4. Coffee machine and supplies.
5. Heating and cooling equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg F.
6. Lighting fixtures capable of maintaining average illumination of 20 fc at desk height.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 2. Heating Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return-air grille in system and remove at end of construction and clean HVAC system as required in Section 01 7700 "Closeout Procedures".

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

1. Locate facilities to limit site disturbance as specified in Section 01 1000 "Summary."

- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.

1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.

- C. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

1. Toilets: Use of Owner's existing toilet facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

- E. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.

- F. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.

1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

- a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
 - b. Maintain negative air pressure within work area using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
 2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
 3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- G. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
1. Provide dehumidification systems when required to reduce substrate moisture levels to level required to allow installation or application of finishes.
- H. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
1. Install electric power service overhead unless otherwise indicated.
 2. Connect temporary service to Owner's existing power source, as directed by Owner.
- I. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
1. Provide construction for temporary offices, shops, and sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
 2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

- B. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
 - 1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
 - 2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Section 31 2000 "Earth Moving."
 - 3. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course according to Section 32 1216 "Asphalt Paving."
- C. Parking: Provide temporary parking areas for construction personnel.
- D. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
 - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
 - 2. Remove snow and ice as required to minimize accumulations.
- E. Waste Disposal Facilities: Comply with requirements specified in Section 01 7419 "Construction Waste Management and Disposal."

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings.
 - 1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant- protection zones.
 - 2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- C. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- D. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- E. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.
- F. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
- G. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- H. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- I. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- J. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

- K. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from fumes and noise.
1. Construct dustproof partitions with gypsum wallboard with joints taped on occupied side, and fire-retardant-treated plywood on construction operations side.
 2. Where fire-resistance-rated temporary partitions are indicated or are required by authorities having jurisdiction, construct partitions according to the rated assemblies.
 3. Insulate partitions to control noise transmission to occupied areas.
 4. Seal joints and perimeter. Equip partitions with gasketed dustproof doors and security locks where openings are required.
 5. Protect air-handling equipment.
 6. Provide walk-off mats at each entrance through temporary partition.
- L. "Temporary Fire Protection" Paragraph below specifies currently accepted requirements; revise to suit local conditions. More detailed provisions for temporary fire protection in existing occupied facilities may be inserted here; refer to Section 013591 "Historic Treatment Procedures" for sample text. See Evaluations.

3.5 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Controlled Construction Phase of Construction: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
 2. Use permanent HVAC system to control humidity.
 3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.
 - a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for 48 hours are considered defective.
 - b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for 48 hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Architect.
 - c. Remove materials that can not be completely restored to their manufactured moisture level within 48 hours.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 01 7700 "Closeout Procedures."

END OF SECTION 01 5000

SECTION 01 6000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

1.3 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

SECTION 01 6000 - PRODUCT REQUIREMENTS

1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
 2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Form of Approval: As specified in Section 01 3300 "Submittal Procedures."
 - b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 01 3300 "Submittal Procedures." Show compliance with requirements.
- 1.5 QUALITY ASSURANCE
- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
- 1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING
- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.
- C. Storage:
1. Store products to allow for inspection and measurement of quantity or counting of units.

SECTION 01 6000 - PRODUCT REQUIREMENTS

2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Protect stored products from damage and liquids from freezing.
5. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 2. See other Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 01 7700 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.

SECTION 01 6000 - PRODUCT REQUIREMENTS

2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures:

1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
3. Products:
 - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
4. Manufacturers:
 - a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

- C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

SECTION 01 6000 - PRODUCT REQUIREMENTS

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 01 2500 "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
 1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 3. Evidence that proposed product provides specified warranty.
 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 6000

SECTION 01 7300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. Installation of the Work.
 - 4. Cutting and patching.
 - 5. Coordination of Owner-installed products.
 - 6. Progress cleaning.
 - 7. Starting and adjusting.
 - 8. Protection of installed construction.

1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For land surveyor.
- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- C. Cutting and Patching Plan: Submit plan describing procedures at least 10 days prior to the time cutting and patching will be performed. Include the following information:
 - 1. Extent: Describe reason for and extent of each occurrence of cutting and patching.

SECTION 01 7300 - EXECUTION

2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.
 3. Products: List products to be used for patching and firms or entities that will perform patching work.
 4. Dates: Indicate when cutting and patching will be performed.
 5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate length of time permanent services and systems will be disrupted.
 - a. Include description of provisions for temporary services and systems during interruption of permanent services and systems.
- D. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.5 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 1. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operational elements include the following:
 - a. Primary operational systems and equipment.
 - b. Fire separation assemblies.
 - c. Air or smoke barriers.
 - d. Fire-suppression systems.
 - e. Mechanical systems piping and ducts.
 - f. Control systems.
 - g. Communication systems.
 - h. Fire-detection and -alarm systems.
 - i. Electrical wiring systems.
 2. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.[Other construction elements include but are not limited to the following:]

SECTION 01 7300 - EXECUTION

- a. Water, moisture, or vapor barriers.
 - b. Membranes and flashings.
 - c. Equipment supports.
 - d. Piping, ductwork, vessels, and equipment.
 - e. Noise- and vibration-control elements and systems.
3. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

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- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - 1. Description of the Work.
 - 2. List of detrimental conditions, including substrates.
 - 3. List of unacceptable installation tolerances.
 - 4. Recommended corrections.
- D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 01 3100 "Project Management and Coordination."

SECTION 01 7300 - EXECUTION

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish limits on use of Project site.
 - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 4. Inform installers of lines and levels to which they must comply.
 - 5. Check the location, level and plumb, of every major element as the Work progresses.
 - 6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
 - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

3.4 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect. Report lost or destroyed permanent benchmarks

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- or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect before proceeding.
2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- D. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- E. Final Property Survey: Engage a land surveyor to prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.
 2. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
1. Make vertical work plumb and make horizontal work level.
 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
 4. Maintain minimum headroom clearance of 96 inches in occupied spaces and 90 inches in unoccupied spaces.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

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- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore

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surfaces to their original condition.

- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Section 01 1000 "Summary."
- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
 - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 6. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.

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2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction personnel.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction personnel.
 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
 2. Preinstallation Conferences: Include Owner's construction personnel at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction personnel if portions of the Work depend on Owner's construction.

SECTION 01 7300 - EXECUTION

3.8 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials of type to be stored.
 - 4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 01 5000 "Temporary Facilities and Controls."
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

SECTION 01 7300 - EXECUTION

- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.9 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components with requirements in Section 01 9113 "General Commissioning Requirements."
- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: Comply with qualification requirements in Section 01 4000 "Quality Requirements."

3.10 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 01 7300

SECTION 01 7700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.

1.3 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.

1.4 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest control inspection.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on

SECTION 01 7700 - CLOSEOUT PROCEDURES

the list and reasons why the Work is incomplete.

- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number where applicable.
 - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Architect's signature for receipt of submittals.
5. Submit test/adjust/balance records.
6. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.

- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Advise Owner of pending insurance changeover requirements.
2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
3. Complete startup and testing of systems and equipment.
4. Perform preventive maintenance on equipment used prior to Substantial Completion.
5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 01 7900 "Demonstration and Training."
6. Advise Owner of changeover in heat and other utilities.
7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.

SECTION 01 7700 - CLOSEOUT PROCEDURES

8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 9. Complete final cleaning requirements, including touchup painting.
 10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect and Construction Manager will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for final completion.
- 1.7 FINAL COMPLETION PROCEDURES
- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Section 01 2900 "Payment Procedures."
 2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

SECTION 01 7700 - CLOSEOUT PROCEDURES

1.8 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use CSI Form 14.1A.
1. Organize list of spaces in sequential order, starting with exterior areas first.
 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Page number.
 4. Submit list of incomplete items in the following format:
 - a. MS Excel electronic file. Architect will return annotated file.
 - b. PDF electronic file. Architect will return annotated file.
 - c. Three paper copies. Architect will return two copies.

1.9 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.

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4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.

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- d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.
 - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - h. Sweep concrete floors broom clean in unoccupied spaces.
 - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
 - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - k. Remove labels that are not permanent.
 - l. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - m. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - n. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - o. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
 - 1) Clean HVAC system in compliance with NADCA Standard 1992-01. Provide written report on completion of cleaning.
 - p. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
 - q. Leave Project clean and ready for occupancy.
- C. Pest Control: Comply with pest control requirements in Section 01 5000 "Temporary Facilities and Controls." Prepare written report.
- D. Construction Waste Disposal: Comply with waste disposal requirements in Section 01 7419 "Construction Waste Management and Disposal."

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.

SECTION 01 7700 - CLOSEOUT PROCEDURES

- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
 3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
 4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION 01 7700

SECTION 01 7823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Operation manuals for systems, subsystems, and equipment.
 - 4. Product maintenance manuals.
 - 5. Systems and equipment maintenance manuals.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Architect will comment on whether content of operations and maintenance submittals are acceptable.
 - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:
 - 1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.

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- a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
 - b. Enable inserted reviewer comments on draft submittals.
- C. Initial Manual Submittal: Submit draft copy of each manual at least 30 days before commencing demonstration and training. Architect will comment on whether general scope and content of manual are acceptable.
- D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.
 1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's comments and prior to commencing demonstration and training.

PART 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information. Include a section in the directory for each of the following:
 1. List of documents.
 2. List of systems.
 3. List of equipment.
 4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

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2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- B. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name and contact information for Contractor.
 - 6. Name and contact information for Architect.
 - 7. Name and contact information for Commissioning Authority.
 - 8. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
 - 9. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
 - 1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
 - 1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 - 2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group

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documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.

2.3 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
 - 1. Type of emergency.
 - 2. Emergency instructions.
 - 3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
 - 1. Fire.
 - 2. Flood.
 - 3. Gas leak.
 - 4. Water leak.
 - 5. Power failure.
 - 6. Water outage.
 - 7. System, subsystem, or equipment failure.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include the following, as applicable:
 - 1. Instructions on stopping.
 - 2. Shutdown instructions for each type of emergency.
 - 3. Operating instructions for conditions outside normal operating limits.
 - 4. Required sequences for electric or electronic systems.
 - 5. Special operating instructions and procedures.

2.4 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
 - 1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.

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2. Performance and design criteria if Contractor has delegated design responsibility.
3. Operating standards.
4. Operating procedures.
5. Operating logs.
6. Wiring diagrams.
7. Control diagrams.
8. Piped system diagrams.
9. Precautions against improper use.
10. License requirements including inspection and renewal dates.

B. Descriptions: Include the following:

1. Product name and model number. Use designations for products indicated on Contract Documents.
2. Manufacturer's name.
3. Equipment identification with serial number of each component.
4. Equipment function.
5. Operating characteristics.
6. Limiting conditions.
7. Performance curves.
8. Engineering data and tests.
9. Complete nomenclature and number of replacement parts.

C. Operating Procedures: Include the following, as applicable:

1. Startup procedures.
2. Equipment or system break-in procedures.
3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Seasonal and weekend operating instructions.
8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.5 PRODUCT MAINTENANCE MANUALS

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

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- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 - 1. Inspection procedures.
 - 2. Types of cleaning agents to be used and methods of cleaning.
 - 3. List of cleaning agents and methods of cleaning detrimental to product.
 - 4. Schedule for routine cleaning and maintenance.
 - 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of

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equipment:

1. Standard maintenance instructions and bulletins.
 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 3. Identification and nomenclature of parts and components.
 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
1. Test and inspection instructions.
 2. Troubleshooting guide.
 3. Precautions against improper maintenance.
 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 5. Aligning, adjusting, and checking instructions.
 6. Demonstration and training video recording, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
1. Include procedures to follow and required notifications for warranty claims.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that

SECTION 01 7823 - OPERATION AND MAINTENANCE DATA

provides an organized reference to emergency, operation, and maintenance manuals.

- B. **Emergency Manual:** Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. **Product Maintenance Manual:** Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. **Operation and Maintenance Manuals:** Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
 - 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
 - 2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. **Manufacturers' Data:** Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - 1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F. **Drawings:** Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
 - 1. Do not use original project record documents as part of operation and maintenance manuals.
 - 2. Comply with requirements of newly prepared record Drawings in Section 01 7839 "Project Record Documents."
- G. Comply with Section 01 7700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 01 7823

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
 - 4. Miscellaneous record submittals.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit copies of record Drawings as follows:
 - a. Initial Submittal:
 - 1) Submit PDF electronic files of scanned record prints and one of file prints.
 - b. Final Submittal:
 - 1) Submit PDF electronic files of scanned record prints on three thumb drives and one set(s) of prints.
- B. Record Specifications: Submit one paper copy and three annotated PDF electronic files of Project's Specifications, including addenda and contract modifications (on submitted thumb drives).
- C. Record Product Data: Submit one paper copy and three annotated PDF electronic files and directories of each submittal (on submitted thumb drives).
 - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.
- D. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

record-keeping requirements and submittals in connection with various construction activities. Submit one paper copy and three annotated PDF electronic files and directories of each submittal (on submitted thumb drives).

- E. Reports: Submit written report weekly indicating items incorporated into project record documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - e. Cross-reference record prints to corresponding archive photographic documentation.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - l. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

- n. Record information on the Work that is shown only schematically.
 - 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 - 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 - 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect and Construction Manager. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
- 1. Format: Same digital data software program, version, and operating system as the original Contract Drawings.
 - 2. Format: DWG, Version , Microsoft Windows operating system.
 - 3. Format: Annotated PDF electronic file with comment function enabled.
 - 4. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
 - 5. Refer instances of uncertainty to Architect for resolution.
 - 6. Architect will furnish Contractor one set of digital data files of the Contract Drawings for use in recording information.
 - a. See Section 01 3300 "Submittal Procedures" for requirements related to use of Architect's digital data files.
 - b. Architect will provide data file layer information. Record markups in separate layers.
- C. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
- 1. Consult Architect for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared record Drawings into record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- D. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
- 1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable mylar cover sheets. Include identification on cover sheets.

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

2. Format: One set of reverse reading, full size, mylar sheets and three sets of Annotated PDF electronic files, with comment function enabled, on thumb drives.
3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 5. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as one paper copy in a three ring binder and three scanned PDF electronic file(s) of marked-up paper copy of Specifications on thumb drives.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as one paper copy in a three ring binder and three scanned PDF electronic file(s) of marked-up paper copy of Product Data on thumb drives.
 1. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as scanned PDF electronic file(s) of marked-up miscellaneous record submittals.
 1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's and Construction Manager's reference during normal working hours.
- C. As-Built Record Drawings shall be kept up-to-date at all times. The Contractor shall schedule a time once a week to review the drawings with the Owner and the Architect.
- D. As-Built Drawings for ALL underground utilities shall comply with the following requirements:

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

1. Dimensions shall be shown to two (2) fixed objects on the surface at intervals not to exceed 50' along the entire length of the buried utility. The depth to the top of the buried item, (i.e., conduit, water pipe, etc.) shall also be identified at the same intervals.
2. Dimensions shall be shown to two (2) fixed objects on the surface at every change of direction of the utility.
3. Dimensions shall be shown to two (2) fixed objects to show the location of all surface or underground components such as valves, manholes, drop inlets, clean-outs, pull boxes, meters, etc.
4. A full description of the utility shall be given, and the actual size, quantity and material used shall be provided.
5. To the maximum extent possible, all utilities shall be buried a minimum of eighteen (18) inches below the surface. A tracer wire shall be placed in the trench or excavation of all utilities at a minimum depth of six (6) inches. Exception: Storm drain lines shall have a caution tape provided in the excavation at an approximate depth of twelve (12) inches in lieu of a tracer wire.

END OF SECTION 01 7839

SECTION 01 7900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
- B. Allowances: Furnish demonstration and training instruction time under the Demonstration and Training Allowance as specified in Section 01 2100 "Allowances."

1.3 INFORMATIONAL SUBMITTALS

- A. Instruction Program: Submit outline of instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
 - 1. Indicate proposed training modules using manufacturer-produced demonstration and training video recordings for systems, equipment, and products in lieu of video recording of live instructional module.
- B. Qualification Data: For instructor.
- C. Attendance Record: For each training module, submit list of participants and length of instruction time.
- D. Evaluations: For each participant and for each training module, submit results and documentation of performance-based test.

1.4 CLOSEOUT SUBMITTALS

- A. Demonstration and Training Video Recordings: Submit two copies within seven days of end of each training module.

SECTION 01 7900 - DEMONSTRATION AND TRAINING

1. Identification: On each copy, provide an applied label with the following information:
 - a. Name of Project.
 - b. Name of Contractor.
 - c. Date of video recording.
2. At completion of training, submit complete training manual(s) for Owner's use prepared and bound in format matching operation and maintenance manuals.

1.5 QUALITY ASSURANCE

- A. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Section 01 4000 "Quality Requirements," experienced in operation and maintenance procedures and training.
- B. Videographer Qualifications: A professional videographer who is experienced photographing demonstration and training events similar to those required.
- C. Preinstruction Conference: Conduct conference at Project site to comply with requirements in Section 01 3100 "Project Management and Coordination." Review methods and procedures related to demonstration and training including, but not limited to, the following:
 1. Inspect and discuss locations and other facilities required for instruction.
 2. Review and finalize instruction schedule and verify availability of educational materials, instructors' personnel, audiovisual equipment, and facilities needed to avoid delays.
 3. Review required content of instruction.
 4. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

1.6 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

SECTION 01 7900 - DEMONSTRATION AND TRAINING

PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:
 - 1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions.
 - b. Performance and design criteria if Contractor is delegated design responsibility.
 - c. Operating standards.
 - d. Regulatory requirements.
 - e. Equipment function.
 - f. Operating characteristics.
 - g. Limiting conditions.
 - h. Performance curves.
 - 2. Documentation: Review the following items in detail:
 - a. Emergency manuals.
 - b. Operations manuals.
 - c. Maintenance manuals.
 - d. Project record documents.
 - e. Identification systems.
 - f. Warranties and bonds.
 - g. Maintenance service agreements and similar continuing commitments.
 - 3. Emergencies: Include the following, as applicable:
 - a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping.
 - c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.

SECTION 01 7900 - DEMONSTRATION AND TRAINING

4. Operations: Include the following, as applicable:
 - a. Startup procedures.
 - b. Equipment or system break-in procedures.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.
 - e. Control sequences.
 - f. Safety procedures.
 - g. Instructions on stopping.
 - h. Normal shutdown instructions.
 - i. Operating procedures for emergencies.
 - j. Operating procedures for system, subsystem, or equipment failure.
 - k. Seasonal and weekend operating instructions.
 - l. Required sequences for electric or electronic systems.
 - m. Special operating instructions and procedures.
5. Adjustments: Include the following:
 - a. Alignments.
 - b. Checking adjustments.
 - c. Noise and vibration adjustments.
 - d. Economy and efficiency adjustments.
6. Troubleshooting: Include the following:
 - a. Diagnostic instructions.
 - b. Test and inspection procedures.
7. Maintenance: Include the following:
 - a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Procedures for routine cleaning
 - e. Procedures for preventive maintenance.
 - f. Procedures for routine maintenance.
 - g. Instruction on use of special tools.
8. Repairs: Include the following:
 - a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

SECTION 01 7900 - DEMONSTRATION AND TRAINING

PART 3 - EXECUTION

3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a training manual organized in coordination with requirements in Section 01 7823 "Operation and Maintenance Data."
- B. Set up instructional equipment at instruction location.

3.2 INSTRUCTION

- A. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. Architect will furnish an instructor to describe basis of system design, operational requirements, criteria, and regulatory requirements.
 - 2. Owner will furnish an instructor to describe Owner's operational philosophy.
 - 3. Owner will furnish Contractor with names and positions of participants.
- B. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 - 1. Schedule training with Owner with at least seven days' advance notice.
- C. Training Location and Reference Material: Conduct training on-site in the completed and fully operational facility using the actual equipment in-place. Conduct training using final operation and maintenance data submittals.
- D. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of a demonstration performance-based test.
- E. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

END OF SECTION 01 7900

SECTION 02 4116 - STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Disconnecting, capping or sealing, and removing site utilities.

1.2 MATERIALS OWNERSHIP

1.3 INFORMATIONAL SUBMITTALS

- A. Schedule of building demolition with starting and ending dates for each activity.
- B. Pre-demolition photographs or video.

1.4 QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.
- D. Pre-demolition Conference: Conduct conference at Project site.

1.5 PROJECT CONDITIONS

- A. Buildings to be demolished will be vacated and their use discontinued before start of the Work.
- B. Buildings immediately adjacent to demolition area will be occupied. Conduct building demolition so operations of occupied buildings will not be disrupted.
 1. Provide not less than 72 hours' notice of activities that will affect operations of adjacent occupied buildings.
 2. Maintain access to existing walkways, exits, and other facilities used by occupants of adjacent buildings.

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- a. Do not close or obstruct walkways, exits, or other facilities used by occupants of adjacent buildings without written permission from authorities having jurisdiction.
- C. Owner assumes no responsibility for buildings and structures to be demolished.
 - 1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - 1. Hazardous materials will be removed by Owner before start of the Work.
 - 2. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- E. On-site storage or sale of removed items or materials is not permitted.
- F. Arrange demolition schedule so as not to interfere with or operations of adjacent occupied buildings.

PART 2 - PRODUCTS[(Not Used)]

2.1 SOIL MATERIALS

- A. Satisfactory Soils: Comply with requirements in Section 31 2300 "Earthwork."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting demolition operations.
- B. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during building demolition operations.

3.2 PREPARATION

- A. Refrigerant: Remove refrigerant from mechanical equipment according to 40 CFR 82 and regulations of authorities having jurisdiction before starting demolition.

SECTION 02 4116 - STRUCTURE DEMOLITION

- B. Existing Utilities: Locate, identify, disconnect, and seal or cap off indicated utilities serving buildings and structures to be demolished.
 - 1. Owner will arrange to shut off indicated utilities when requested by Contractor.
 - 2. If removal, relocation, or abandonment of utility services will affect adjacent occupied buildings, then provide temporary utilities that bypass buildings and structures to be demolished and that maintain continuity of service to other buildings and structures.
 - 3. Cut off pipe or conduit a minimum of 24 inches below grade. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing according to requirements of authorities having jurisdiction.
- C. Temporary Shoring: Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent unexpected movement or collapse of construction being demolished.

3.3 PROTECTION

- A. Existing Facilities: Protect adjacent walkways, loading docks, building entries, and other building facilities during demolition operations. Maintain exits from existing buildings.
- B. Existing Utilities: Maintain utility services to remain and protect from damage during demolition operations. Do not interrupt existing utilities serving adjacent occupied or operating facilities unless authorized in writing by Owner and authorities having jurisdiction.
- C. Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction and as indicated. Comply with requirements in Section 01 5000 "Temporary Facilities and Controls."
 - 1. Protect adjacent buildings and facilities from damage due to demolition activities.
 - 2. Protect existing site improvements, appurtenances, and landscaping to remain.
 - 3. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 4. Provide protection to ensure safe passage of people around building demolition area and to and from occupied portions of adjacent buildings and structures.
 - 5. Protect walls, windows, roofs, and other adjacent exterior construction that are to remain and that are exposed to building demolition operations.
 - 6. Erect and maintain dustproof partitions and temporary enclosures to limit dust, noise, and dirt migration to occupied portions of adjacent buildings.
- D. Remove temporary barriers and protections where hazards no longer exist. Where open excavations or other hazardous conditions remain, leave temporary barriers and protections in place.

SECTION 02 4116 - STRUCTURE DEMOLITION

3.4 DEMOLITION

- A. Site Access and Temporary Controls: Conduct building demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
 - 2. Use water mist and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations.
- B. Explosives: Use of explosives is not permitted.
- C. Proceed with demolition of structural framing members systematically, from higher to lower level. Complete building demolition operations above each floor or tier before disturbing supporting members on the next lower level.
- D. Remove debris from elevated portions of the building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- E. Demolish foundation walls and other below-grade construction.
 - 1. Remove below-grade construction, including basements, foundation walls, and footings, completely.
- F. Existing Utilities: Demolish existing utilities and below-grade utility structures . Cut utilities flush with grade.
- G. Below-Grade Areas: Completely fill below-grade areas and voids resulting from building demolition operations with satisfactory soil materials according to backfill requirements in Section 31 2000 "Earth Moving."
- H. Site Grading: Uniformly rough grade area of demolished construction to a smooth surface, free from irregular surface changes. Provide a smooth transition between adjacent existing grades and new grades.
- I. Promptly repair damage to adjacent buildings caused by demolition operations.

3.5 CLEANING

- A. Remove demolition waste materials from Project site and legally dispose of them in an EPA-approved landfill acceptable to authorities having jurisdiction. See Section 01 7419 "Construction Waste Management and Disposal" for recycling and disposal of demolition waste.
- B. Do not burn demolished materials.

SECTION 02 4116 - STRUCTURE DEMOLITION

- C. Clean adjacent structures and improvements of dust, dirt, and debris caused by building demolition operations. Return adjacent areas to condition existing before building demolition operations began.

END OF SECTION 02 4116

SECTION 02 4119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Salvage of existing items to be reused or recycled.

1.2 DEFINITIONS

- A. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.
- B. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

1.3 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.

1.4 INFORMATIONAL SUBMITTALS

- A. Predemolition Photographs or Video: Submit before Work begins.

1.5 CLOSEOUT SUBMITTALS

- A. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.6 QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

1.7 FIELD CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

SECTION 02 4119 - SELECTIVE DEMOLITION

- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: Hazardous materials are present in buildings and structures to be selectively demolished. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.
 - 1. Hazardous material remediation is specified elsewhere in the Contract Documents.
 - 2. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

SECTION 02 4119 - SELECTIVE DEMOLITION

- D. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
 - 1. Comply with requirements for existing services/systems interruptions specified in Section 01 1000 "Summary."
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
 - 2. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - 3. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated to be removed.
 - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material.
 - c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
 - e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
 - f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
- C. Refrigerant: Remove refrigerant from mechanical equipment to be selectively demolished according to 40 CFR 82 and regulations of authorities having jurisdiction.

SECTION 02 4119 - SELECTIVE DEMOLITION

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Section 01 5000 "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
 - 4. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 5. Dispose of demolished items and materials promptly. Comply with requirements in Section 01 7419 "Construction Waste Management and Disposal."
- B. Reuse of Building Elements: Project has been designed to result in end-of-Project rates for reuse of building elements as follows. Do not demolish building elements beyond what is indicated on Drawings without Architect's approval.
- C. Removed and Salvaged Items:
 - 1. Clean salvaged items.

SECTION 02 4119 - SELECTIVE DEMOLITION

2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

D. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
1. Do not allow demolished materials to accumulate on-site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
 4. Comply with requirements specified in Section 01 7419 "Construction Waste Management and Disposal."
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.6 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 02 4119

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Cast-in-place concrete for foundations and slabs on grade.
 - 2. Equipment pads.
 - 3. Bases for lighting fixtures.

1.2 REFERENCES

- A. American Concrete Institute (ACI)
 - 1. 301 - Structural Concrete for Buildings.
 - 2. 305R - Hot Weather Concreting.
 - 3. 306R - Cold Weather Concreting.
 - 4. 308 - Standard Practice for Curing Concrete.
 - 5. 318 - Building Code Requirements for Structural Concrete.
 - 6. ACI 117 – Specification for Tolerances for Concrete Construction and Materials.
 - 7. ACI 302 – Guidelines for Layout of Construction, Isolation and Contraction Joints.
- B. ASTM International (ASTM)
 - 1. C31 - Standard Test Method for Method of Making and Curing Concrete Test Specimens in the Field.
 - 2. C33 - Standard Specification for Concrete Aggregates.
 - 3. C39 - Standard Test Method for Test Method for Compressive Strength of Cylindrical Concrete Specimens.
 - 4. C94 - Standard Specification for Ready-Mixed Concrete.
 - 5. C143 - Standard Test Method for Slump of Portland Cement Concrete.
 - 6. C150 - Standard Specification for Portland Cement.
 - 7. C171 - Standard Specification for Sheet Materials for Curing Concrete.
 - 8. C172 - Standard Test Method for Method of Sampling Freshly Mixed Concrete.
 - 9. C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
 - 10. C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
 - 11. C330 - Standard Specification for Lightweight Aggregates for Structural Concrete.
 - 12. C494 - Standard Specification for Chemical Admixtures for Concrete.
 - 13. C1116/1116M - Standard Specification for Fiber-Reinforced Concrete.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Concrete and Grout Mix Designs: Include:
 - a. Proportions of cement, fine and coarse aggregates, fibrous reinforcing, and water.
 - b. Combined aggregate gradation.
 - c. Aggregate specific gravities and gradations.
 - d. Water/cement ratio, design strength, slump, and air content.
 - e. Type of cement and aggregates.
 - f. Air dry density and split cylinder ratio for lightweight concrete.

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- g. Type and proportion of admixtures.
 - h. Special requirements for pumping.
 - i. Range of ambient temperature and humidity for which design is valid.
 - j. Special characteristics of mix requiring precautions in mixing, placing, or finishing techniques to achieve finished product.
- 2. Submit one manufacturer's labeled package of fiber reinforcing to be used in concrete mix and documentation indicating compliance with specification.
 - 3. Jointing and Pour Sequence Plan: If Contractor proposes a different jointing layout than that shown on drawings, provide a new proposed layout of construction, control, saw-cut, and isolation joints. Clearly delineate the different joint types.
 - 4. Shop drawing re-submittals: Contractor shall thoroughly review Shop Drawings prior to submittal to the A/E Team.

1.4 QUALITY ASSURANCE

- A. Concrete Mix Design: In accordance with ACI 301, Method 1 or 2.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Mix and deliver concrete to project ready mixed in accordance with ASTM C94. Fiber reinforcing shall be placed in the concrete mix only at the batch plant.
- B. Schedule delivery so that pours will not be interrupted for over 20 minutes.
- C. Place concrete on site within 90 minutes after proportioning materials at batch plant.

1.6 PROJECT CONDITIONS

- A. Cold Weather Placement - Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures. Comply with ACI 306R and following requirements:
 - 1. Air temperature at or expected to fall below 40 degrees F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 degrees F and not more than 80 degrees F at point of placement.
 - 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 - 3. Do not use calcium chloride, salt, and other materials containing antifreeze agents or chemical accelerators unless otherwise accepted in mix designs.
- B. Hot Weather Placement - Place concrete in accordance with ACI 305R and following requirements:
 - 1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 degrees F. Use chilled mixing water or chopped ice if water equivalent of ice is calculated in total amount of mixing water.
 - 2. If required, cover reinforcing steel with water soaked burlap so that steel temperature will not exceed ambient air temperature.
 - 3. Fog spray forms, reinforcing steel, and subgrade just before concrete is placed.
 - 4. Do not use water-reducing retarding admixture when required by high temperatures, low humidity, or other adverse placing conditions without prior approval of architect.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Concrete Chemicals:
 - 1. BASF Corporation. (www.buildingsystems.basf.com)
 - 2. Dayton Superior. (www.daytonsuperior.com)
 - 3. W. R. Meadows, Inc. (www.wrmeadows.com)
 - 4. Meadow Burke. (www.meadowburke.com)
 - 5. Nox-Crete Products Group. (www.nox-crete.com)

2.2 MATERIALS

- A. Portland Cement: ASTM C150, Type I, gray color.
- B. Normal-Weight Aggregates: ASTM C 33, coarse aggregate or better, graded. Provide aggregates from a single source with documented service record data of at least 10 years' satisfactory service in similar applications and service conditions using similar aggregates and cementitious materials.
 - 1. Fine: ASTM C33, clean, hard, durable, uncoated natural sand, free from silt, loam, and clay.
 - 2. Coarse: ASTM C33, clean, hard, durable, uncoated crushed stone, maximum 1 ½" Nominal.
 - 3. Aggregate shall be provided and classified as follows:
 - a. Footings, foundations, columns and beams not exposed to weather. Interior floor slabs with floor coverings: Class 1M.
 - b. Foundation walls above grade, retaining walls, piers and beams exposed to weather: Class 3M.
 - c. Pavements, driveways, curbs, walks: Class 4M
- C. Lightweight: ASTM C330, expanded shale or clay produced by rotary kiln method. 1" Nominal Maximum Aggregate size.
- D. Fibrous Reinforcing: ASTM C1116/1116M, Type III, 1 to 2-1/4 inches long, fibrillated polypropylene micro-fibers engineered and designed for use in concrete. Fiber manufacturer shall document compliance with above requirements.
 - 1. Manufacturers:
 - a. Fibermesh 300 by Propex Concrete Systems
 - b. FORTA ECONO-NET by Forta Corp.
 - c. Grace Fibers by W.R. Grace Co.

2.3 ACCESSORIES

- A. Water: Clean and potable.
- B. Admixtures:

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1. Air entraining: ASTM C260. Provide in all concrete and Coarse Grout
 2. No other admixtures (ie: water reducing agents and accelerators) will be permitted without prior approval of architect.
- C. Premolded Expansion Joint Filler: ASTM D1751, non-extruding type, interior – 1/2 inch, exterior - 1/4 inch.
- D. Premolded Expansion Joint Filler: ASTM D1752, non-asphaltic type, 1/4 inch.
- E. Non-Shrink Grout: Premixed, consisting of non-metallic aggregate, cement, water reducing and plasticizing agents; minimum 7,000 psi compressive strength at 28 days.
- F. Bonding Agent: ASTM C 1059/C 1059M, Type II, non-redispersible, acrylic emulsion or styrene butadiene.
- G. Epoxy Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade to suit requirements, and as follows:
1. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.
- H. Curing Compound: ASTM C309, water based type.
- I. Curing Paper: ASTM C171, waterproof paper or polyethylene film, 6 mil.
- J. Drainage fill under slabs on grade: Clean, uncoated gravel or crushed stone (No. 57 stone), free from shale or other soft material, ranging from 3/4 inch to 1 1/2 inches in size and screened of all fines.
- K. Flex Waterstop: Non-swelling preformed joint sealant, for embedding in concrete to prevent passage of fluids through joints. It is a single component, self-sealing adhesive compound, extruded in a square cross-section.
1. Profile: Square cross-section between two quick-release protective wrappers.
 2. Size: 1 inch x 1 inch
 3. Products:
 - a. Henry; SF302 Synko-Flex
 - b. Other products by Greenstreak, CETCO and JP Specialties meeting product description is acceptable.

2.4 VAPOR RETARDERS

- A. Plastic Vapor Retarder: Vapor Retarder membrane must meet or exceed all requirements of ASTM E1745 Class A.
1. Water Vapor Permeance: 0.05 Perms.
 2. Water Vapor Transmission Rate ASTM F1249 calibrated to ASTM E96 (water method): 0.01 grains/ft²/hr.
 3. Resistance to Organisms and Substrates in Contact with Soil ASTM E154, Sections 13:0.1 Perms.
 4. Tensile Strength ASTM E154, Section 9: 45 lbs/in.

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5. Puncture Resistance ASTM D1709, Method B: 2200 g.
 6. Thickness of Retarder (plastic): Not less than 10 mils.
- B. Seam Tape: High Density Polyethylene Tape with pressure sensitive adhesive. Minimum width to be 4”.
1. Tensile Strength ASTM D1000: 24 lbs/in.
 2. Elongation ASTM D1000: 70%.
 3. Total thickness (not including liner): 7.5 mils.
 4. Adhesive Thickness: 3 mils.
- C. Pipe Boots: Construct pipe boots from vapor barrier material and pressure sensitive tape per manufacturer’s instructions or use manufacturer’s standard premanufactured pipe boots.
- D. All components of vapor retarder system shall be manufactured by a single source and marketed as a complete system. Acceptable manufacturers include:
1. Fortafiber Building Systems Group (Moistop Ultra 10)
 2. Insulation Solutions, Inc. (Viper VaporCheck II)
 3. Reef Industries (Griffolyn)
 4. Stego Industries (Stego Wrap)
 5. W.R. Meadows (Perminator)
- E. Granular Fill: Clean mixture of crushed stone or uncrushed gravel; ASTM D448, Size 57, with 100% passing a 1½”(37.5 mm) sieve and 0 % passing a No. 8 (2.36 mm) sieve.

2.5 LIQUID FLOOR TREATMENTS

- A. Penetrating Liquid Floor Treatment: Clear, chemically reactive, waterborne solution of inorganic silicate or silicate materials and proprietary components; odorless; that penetrates, hardens, and densifies concrete surfaces.
1. Products: Provide one of the following:
 - a. Dayton Superior Corporation; Day-Chem Sure Hard (J-17).
 - b. Euclid Chemical Company (The), an RPM company; Euco Diamond Hard.
 - c. Meadows, W.R., Inc.; LIQUI-HARD.
 - d. BASF Sonneborn Building Products; Lapidolith.
 - e. Davidson Chemicals; Concrete Hardener.

2.6 REPAIR MATERIALS

- A. Repair Underlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch (3.2 mm) to 1/2 inch (12.7 mm) and that can be feathered at edges to match adjacent floor elevations.
1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
 2. Primer: Product of underlayment manufacturer recommended for substrate, conditions, and application.
 3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand as recommended by underlayment manufacturer.
 4. Compressive Strength: Not less than 5000 psi at 7 days when tested according to ASTM C 109/C 109M.

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- B. Repair Overlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/4 inch (6.4 mm) and that can be filled in over a scarified surface to match adjacent floor elevations.
 - 1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
 - 2. Primer: Product of topping manufacturer recommended for substrate, conditions, and application.
 - 3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand as recommended by topping manufacturer.
 - 4. Compressive Strength: Not less than 5000 psi at 7 days when tested according to ASTM C 109/C 109M.

2.7 CONCRETE MIXTURES, GENERAL

- A. Prepare design mixtures for each type and strength of concrete, propositioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
 - 1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.
- B. Admixtures: Use admixtures according to manufacturer's written instructions.

2.8 CONCRETE MIXTURES FOR BUILDING ELEMENTS

- A. Footings: Proportion normal-weight concrete mixture as follows:
 - 1. Minimum Compressive Strength: 3000 psi at 28 days.
 - 2. Slump Limit: 4 inches plus or minus 1 inch.
 - 3. Air Content: 4.5 percent, plus or minus 1.5 percent at point of delivery for 1-1/2-inch nominal maximum aggregate size.
 - 4. Exposure Class: F1.
- B. Slabs-on-Grade and thickened turndown slabs: Proportion normal-weight concrete mixture as follows:
 - 1. Minimum Compressive Strength: 3000 psi at 28 days.
 - 2. Slump Limit: 4 inches, plus or minus 1 inch.
 - 3. Air Content: 4.5 percent, plus or minus 1.5 percent at point of delivery for 1-1/2-inch nominal maximum aggregate size. Except do not allow air content of trowel-finished floors to exceed 3 percent.
 - 4. Synthetic Micro-Fiber: Uniformly disperse in concrete mixture at manufacturer's recommended rate, but not less than 1.5 lb/cu. Yd.
 - 5. Exposure Class: F1
- C. The concrete supplier shall indicate on each batch ticket the amount of water that has been omitted from each load. No water may be added to the design mix on-site without first performing a slump test. Under any circumstances not more than 20 gallons of water may be added to a full 10 cubic yard load (or same proportion for other size loads) to obtain the required slump. No water may be added to the design mix at the site unless the digital water meter on the delivery vehicle is readable and functioning correctly except by use of a 5 gallon bucket. Ball and water column method not acceptable.

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- D. Coarse Grout: Coarse grout shall be normal weight (150 psf) and shall develop 2500 psi compressive strength at 7 days on a standard 2 inch cube and shall develop 4000 psi compressive strength at 28 days.
 - 1. Proportioning shall be in accordance with “Mortar and Grout for Reinforced Masonry (ASTM C476-02).”
 - 2. Slump shall be a maximum of 8 inches when measured using a 12 inch cone in accordance with “Slump of Portland Cement Concrete (ASTM C143).”
 - 3. Sand, if used, shall conform to “Standard Specification for Aggregate for Masonry Mortar (ASTM C144)” except that gradation may be modified as necessary to obtain workability. Maximum size of aggregate shall be limited to 3/8 inch diameter.
- E. Use accelerating admixture in cold weather only when approved by Architect. Use of admixtures will not reduce cold weather placement requirements.

2.9 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice"

2.10 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.
 - 1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 EXECUTION

3.1 PREPARATION

- A. Notify Architect and Testing Laboratory minimum 24 hours prior to placing concrete.
- B. Remove water and debris from forms and excavations.
- C. Close openings left in forms for cleaning and inspection.
- D. Prepare previously placed and existing concrete surfaces by cleaning with steel wire brush and when necessary, applying bonding agent in accordance with manufacturer's instructions.
- E. Drainage fill: Roll thoroughly and tamp to level of at least the thickness shown. (min. 4") Cover with polyethylene film placed in greatest practicable lengths and lapped at least 12" min. All joints and penetrations shall be securely taped.
- F. Premolded expansion joint filler: Provide at intersections of grade slabs and masonry walls, grade slabs and steel columns, exterior concrete walks and elsewhere as shown, detailed or specified. Exterior PEJ shall be located 1/4 inch below finished surface of slab.

3.2 EMBEDDED ITEMS

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- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 1. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC's "Code of Standard Practice for Steel Buildings and Bridges."
 - 2. Post installed anchors, where permitted on drawings, shall comply with and meet requirements of ICC-ES AC308.
 - 3. Do not cut reinforcing steel to facilitate installation of inserts or accessories.

3.3 PLACEMENT OF CONCRETE

- A. Place concrete in accordance with ACI 301 and ACI 318.
- B. Ensure reinforcement, inserts, and embedded parts are not disturbed during concrete placement.
- C. Deposit concrete as nearly as possible in its final position to minimize handling and flowing.
- D. Place concrete continuously between predetermined expansion, control, and construction joints.
- E. Do not place partially hardened, contaminated, or retempered concrete.
- F. Do not allow concrete to free fall over 5 feet; provide tremies, chutes, or other means of conveyance.
- G. Consolidate concrete with mechanical vibrating equipment. Hand compact in corners and angles of forms.
- H. Screed slabs level, to flatness tolerance of 1/4 inch in 10 feet.
- I. Concrete in footings and slabs shall not be vibrated unless slump is less than 4". Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations.
- J. All exterior concrete walks shall have rounded edges. Edges of scored and expansion joints shall be rounded.
- K. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.

3.4 FINISHING FLOORS AND SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraighening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power driven floats. Restraighten, cut down high spots, and fill low spots.

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Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture.

1. Apply float finish to surfaces indicated to receive trowel finish.
- C. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
 1. Apply a trowel finish to surfaces to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
- D. Broom Finish: Apply a broom finish to exterior concrete walks, steps, ramps, and elsewhere as indicated.
 1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

3.5 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Design Professional.
 1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of strip placements of floors and slabs.
 2. Form keyed joints as indicated. Embed keys at least 1-1/2 inches into concrete.
 3. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

3.6 FINISHING FORMED SURFACES

- A. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed the specified limits on formed surface irregularities.
 1. Apply to concrete surfaces exposed to public view.
- B. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.7 PLACEMENT OF COARSE GROUT

- A. Remove loose and foreign matter from concrete; lightly roughen bonding surface.
- B. Just prior to grouting, thoroughly wet concrete surfaces; remove excess water.

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- C. Mix grout in accordance with manufacturer's instructions. Do not retemper.
- D. Place grout continuously, by most practical means; avoid entrapped air. Do not vibrate grout.

3.8 MISCELLANEOUS CONCRETE ITEMS

- A. Filling In: Fill in holes and openings left in concrete structures after work of other trades is in place unless otherwise indicated. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete the Work.
- B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.
- C. Equipment Bases and Foundations: Provide machine and equipment bases and foundations as shown on Drawings. Set anchor bolts for machines and equipment at correct elevations, complying with diagrams or templates from manufacturer furnishing machines and equipment.

3.9 PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Provide artificial heat to maintain temperature of concrete above minimum specified temperature for duration of curing period.
- D. Keep forms sufficiently wet to prevent cracking of concrete or loosening of form joints.
- E. Hardener: After final curing, unless otherwise noted, treat interior floors noted in finish schedule as “exposed concrete with trowel finish”, with three full even applications of liquid floor hardener applied in strict accordance with the manufacturer’s written instructions.
- F. Concrete slabs used as substrate for resilient tile, wood and seamless flooring shall remain exposed (without applied finish floor covering) for a minimum of 45 days after placement. Curing components or hardeners shall not be applied to these areas.

3.10 CURING

- A. Cure concrete in accordance with ACI 308:
 - 1. Horizontal surfaces:
 - a. Use of curing compounds is prohibited for initial curing.

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- b. Initial curing shall be by ponding, continuous sprinkling, sand, burlap kept moist or moisture retaining cover (poly). Initial curing procedure shall continue for at least 7 days after concrete is placed.
- 2. Vertical surfaces: Use either wet curing or curing compound method.
- B. Curing Compound Method (Do not use unless approved by finish floor manufacturer.):
 - 1. Spray compound on surfaces in two coats, applying second at right angle to first, at minimum rate recommended by manufacturer.
 - 2. Restrict traffic on surfaces during curing.
- C. Curing Paper Method:
 - 1. Spread curing paper over surfaces, lapping ends and sides minimum 4 inches; maintain in place by use of weights.
 - 2. Remove paper after curing.
- D. Wet Curing Method: Spray water over surfaces and maintain wet for 7 days.
- E. Initial Curing may be by ponding, kept moist with sand or a moisture retaining cover.
- F. Concrete slabs used as substrate for ceramic, quarry and resilient tile flooring shall be cured for a minimum of 30 days prior to installation of flooring system. Curing compounds and hardeners shall not be applied to those areas.
- G. Final curing is defined as the point at which the concrete reaches its' specified 3,000 psi compressive strength confirmed by a cylinder break at 28 days.

3.11 CLEANING

- A. Remove efflorescence, stains, oil, grease, and foreign materials from exposed surfaces.

3.12 JOINT FILLING

- A. Prepare, clean, and install joint filler according to manufacturer's written instructions.
 - 1. Defer joint filling until concrete has aged at least one month. Do not fill joints until construction traffic has permanently ceased.
- B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joint clean and dry.

3.13 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.
- B. Patching Mortar: Mix dry-pack patching mortar, consisting of one part portland cement to two and one-half parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.

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- C. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
 2. After concrete has cured at least 14 days, correct high areas by grinding.
 3. Correct other low areas scheduled to receive floor coverings with a repair underlayment. Prepare, mix, and apply repair underlayment and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface. Feather edges to match adjacent floor elevations.
 4. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
 5. Repair defective areas, except random cracks and single holes 1 inch or less in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose steel reinforcement with at least a 3/4-inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials and mixture as original concrete except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.
 6. Repair random cracks and single holes 1 inch or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.
- D. Perform structural repairs of concrete, subject to Architect's approval, using epoxy adhesive and patching mortar.
- E. Repair materials and installation not specified above may be used, subject to Architect's approval.

3.14 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Owner will engage a qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Inspections per IBC 2012, including:
1. Steel reinforcement placement.
 2. Headed bolts and studs.
 3. Verification of use of required design mixture.
 4. Concrete placement, including conveying and depositing.
 5. Curing procedures and maintenance of curing temperature.

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- C. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd. , plus one set for each additional 50 cu. yd. or fraction thereof.
 2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
 3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; ASTM C 173/C 173M, volumetric method, for structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
 5. Unit Weight: ASTM C 567, fresh unit weight of structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 6. Compression Test Specimens: ASTM C 31/C 31M.
 - a. Cast and laboratory cure two sets of two standard cylinder specimens for each composite sample.
 7. Compressive-Strength Tests: ASTM C 39/C 39M.
 - a. Test one laboratory-cured specimen at 7 days and one set of two specimens @ 28 days.
 - b. When two specimens are tested, the compressive strength test shall be the average compressive strength from a set of two specimens obtained from the same composite sample and tested at the age indicated.
 - c. Retain one specimen for additional testing if requested by the Design Professional.
 8. Strength of each concrete mixture will be satisfactory if concrete has achieved the specified 28-day compressive strength.
 9. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
 10. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
 11. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42/C 42M or by other methods as directed by Architect.
 12. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
 13. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

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- D. Measure floor and slab flatness and levelness according to ASTM E 1155 within 48 hours of finishing.

3.15 CONCRETE ADJUSTMENTS

- A. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant, as accepted by Architect. Laboratory test data for revised mix design and strength results must be submitted to and accepted by Architect before using in Work.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Structural steel.
 - 2. Grout.
- B. Related Sections:
 - 1. Division 01 Section "Quality Requirements" for independent testing agency procedures and administrative requirements.
 - 2. Division 05 Section "Metal Fabrications" for steel lintels and shelf angles not attached to structural-steel frame miscellaneous steel fabrications and other metal items not defined as structural steel.

1.3 DEFINITIONS

- A. Structural Steel: Elements of structural-steel frame, as classified by AISC 303, "Code of Standard Practice for Steel Buildings and Bridges."

1.4 PERFORMANCE REQUIREMENTS

- A. Connections: As indicated on structural drawings.
- B. Moment Connections: As indicated on structural drawings.

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. For each approved fabricator that is exempt from Special Inspections of shop fabrications and implementation procedures in accordance with Section 1704.2.5.2 of the International Building Code, the contractor shall submit "Fabricator's Certificate of Compliance". Contractor shall provide copies of fabricator's certification or building code evaluation services report and fabricator's quality control manual.
- C. Shop Drawings: Show fabrication of structural-steel components.
 - 1. Include details of cuts, connections, splices, camber, holes, and other pertinent data.
 - 2. Include embedment drawings.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

3. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld. Show backing bars that are to be removed and supplemental fillet welds where backing bars are to remain.
 4. Elements designed by the fabricator must be signed and sealed by professional engineer licensed in State of Georgia. As an alternate, a signed and sealed cover letter shall be submitted with the shop drawings substantiating the design information. The fabricator's design engineer must review and confirm in writing that the shop and erection drawings properly incorporate his design.
- D. Welding certificates.
- E. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers, certifying that shop primers are compatible with topcoats.
- F. Mill test reports for structural steel, including chemical and physical properties.
- G. Product Test Reports: For the following:
1. Bolts, nuts, and washers including mechanical properties and chemical analysis.
 2. Direct-tension indicators.
 3. Tension-control, high-strength bolt-nut-washer assemblies.
 4. Shear stud connectors.
 5. Shop primers.
 6. Nonshrink grout.

1.6 QUALITY ASSURANCE

- A. Fabricator Qualifications: A qualified fabricator that participates in the AISC Quality Certification Program and is designated an AISC-Certified Plant, Category STD.
- B. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- C. Comply with applicable provisions of the following specifications and documents:
1. AISC 303.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to permit easy access for inspection and identification. Keep steel members off ground and spaced by using pallets, dunnage, or other supports and spacers. Protect steel members and packaged materials from corrosion and deterioration.
1. Do not store materials on structure in a manner that might cause distortion, damage, or overload to members or supporting structures. Repair or replace damaged materials or structures as directed.
- B. Store fasteners in a protected place in sealed containers with manufacturer's labels intact.
1. Fasteners may be repackaged provided Design Professional's testing and inspecting agency observes repackaging and seals containers.
 2. Clean and relubricate bolts and nuts that become dry or rusty before use.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

3. Comply with manufacturers' written recommendations for cleaning and lubricating ASTM F 1852 fasteners and for retesting fasteners after lubrication.

1.8 COORDINATION

- A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' recommendations to ensure that shop primers and topcoats are compatible with one another.
- B. Coordinate installation of anchorage items to be embedded in or attached to other construction without delaying the Work. Provide setting diagrams, sheet metal templates, instructions, and directions for installation.

PART 2 - PRODUCTS

2.1 STRUCTURAL-STEEL MATERIALS

- A. W-Shapes: ASTM A 992/Am 992M, Grade 50
- B. Channels, Angles, M, S-Shapes: ASTM A 36/A 36M
- C. Plate and Bar: ASTM A 36/A 36M, ASTM A 572/A 572M, Grade 50, as noted on drawings.
- D. Cold-Formed Hollow Structural Sections: ASTM A 500, Grade B, structural tubing.
- E. Steel Pipe: ASTM A 53/A 53M, Type E or S, Grade B.
 1. Weight Class: Standard.
 2. Finish: Black.
- F. Steel Castings: ASTM A 216/A 216M, Grade WCB with supplementary requirement S11.
- G. Steel Forgings: ASTM A 668/A 668M.
- H. Welding Electrodes: Comply with AWS requirements, E70XX.

2.2 BOLTS, CONNECTORS, AND ANCHORS

- A. Tension-Control, High-Strength Bolt-Nut-Washer Assemblies: ASTM F 1852, Type 1, round head assemblies consisting of steel structural bolts with splined ends, heavy-hex carbon-steel nuts, and hardened carbon-steel washers.
 1. Finish: Plain.
- B. Shear Connectors: ASTM A 108, Grades 1015 through 1020, headed-stud type, cold-finished carbon steel; AWS D1.1/D1.1M, Type B.
- C. Unheaded Anchor Rods: ASTM F 1554, Grade 55.
 1. Configuration: Straight.
 2. Nuts: ASTM A 563 heavy-hex carbon steel.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

3. Plate Washers: ASTM A 36/A 36M carbon steel.
 4. Washers: ASTM F 436, Type 1, hardened carbon steel.
 5. Finish: Plain
- D. Threaded Rods: ASTM A 36/A 36M
1. Nuts: ASTM A 563 heavy-hex carbon steel.
 2. Washers: ASTM A 36/A 36M carbon steel.
 3. Finish: Plain
- E. Clevises and Turnbuckles: Made from cold-finished carbon steel bars, ASTM A 108, Grade 1035.
- F. Eye Bolts and Nuts: Made from cold-finished carbon steel bars, ASTM A 108, Grade 1030.
- G. Sleeve Nuts: Made from cold-finished carbon steel bars, ASTM A 108, Grade 1018.

2.3 PRIMER

- A. Primer: SSPC-Paint 25, Type II, alkyd primer.

2.4 GROUT

- A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, nonmetallic aggregate grout, noncorrosive and nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

2.5 FABRICATION

- A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate according to AISC's "Code of Standard Practice for Steel Buildings and Bridges" and AISC 360.
1. Camber structural-steel members where indicated.
 2. Fabricate beams with rolling camber up.
 3. Identify high-strength structural steel according to ASTM A 6/A 6M and maintain markings until structural steel has been erected.
 4. Mark and match-mark materials for field assembly.
 5. Complete structural-steel assemblies, including welding of units, before starting shop-priming operations.
- B. Thermal Cutting: Perform thermal cutting by machine to greatest extent possible.
1. Plane thermally cut edges to be welded to comply with requirements in AWS D1.1/D1.1M.
- C. Bolt Holes: Drill or punch standard bolt holes perpendicular to metal surfaces.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

- D. Finishing: Accurately finish ends of columns and other members transmitting bearing loads.
- E. Connection Holes: Provide holes required for securing other work to structural steel.
 - 1. Drill, or punch holes perpendicular to steel surfaces.
 - 2. Baseplate Holes: Drill or punch holes perpendicular to steel surfaces.
 - 3. Weld threaded nuts to framing and other specialty items indicated to receive other work.

2.6 SHOP CONNECTIONS

- A. High-Strength Bolts: Shop install high-strength bolts according to RCSC's "Specification for Structural Joints Using High-Strength Bolts" dated June 11, 2020 for type of bolt and type of joint specified.
 - 1. Joint Type: Snug Tight
- B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
 - 1. Assemble and weld built-up sections by methods that will maintain true alignment of axes without exceeding tolerances in AISC 303 for mill material.

2.7 SHOP PRIMING

- A. Shop prime steel surfaces except the following:
 - 1. Surfaces embedded in concrete or mortar. Extend priming of partially embedded members to a depth of 2 inches.
 - 2. Surfaces to be field welded.
 - 3. Surfaces to be coated with bituminous material.
- B. Surface Preparation: Clean surfaces to be painted. Remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces according to the following specifications and standards:
 - 1. SSPC-SP 3 "Power Tool Cleaning" for other steel.
- C. Priming: Immediately after surface preparation, apply primer according to manufacturer's written instructions and at rate recommended by SSPC to provide a minimum dry film thickness of 1.5 mils. Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.
 - 1. Stripe paint corners, crevices, bolts, welds, and sharp edges.
 - 2. Apply two coats of shop paint to surfaces that are inaccessible after assembly or erection. Change color of second coat to distinguish it from first.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Before erection proceeds, survey elevations and locations of concrete and masonry-bearing surfaces and locations of anchor rods, bearing plates and other embedments to receive structural framing, with Erector present, for compliance with requirements and specified tolerances.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Provide temporary shores, guys, braces, and other supports during erection to keep structural steel secure, plumb, and in alignment against temporary construction loads and loads equal in intensity to design loads. Remove temporary supports when permanent structural steel, connections, and bracing are in place unless otherwise indicated.

3.3 ERECTION

- A. Set structural steel accurately in locations and to elevations indicated and according to AISC 303 and AISC 360.
- B. Base Plates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.
 - 1. Set plates for structural members on wedges, shims, or setting nuts as required.
 - 2. Snug-tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.
 - 3. Promptly pack grout solidly between bearing surfaces and plates so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for shrinkage-resistant grouts.
- C. Maintain erection tolerances of structural steel within AISC's "Code of Standard Practice for Steel Buildings and Bridges."
- D. Align and adjust various members that form part of complete frame or structure before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that will be in permanent contact with members. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.
 - 1. Level and plumb individual members of structure.
- E. Splice members only where indicated.
- F. Coat columns and base plates below floor slab with ultra-high build, single component coal tar mastic for protecting steel and concrete substrates subject to aggressive conditions and below grade damp proofing in strict accordance with manufacturer's published instructions.
- G. Do not use thermal cutting during erection unless approved by Architect. Finish approved thermally cut sections within smoothness limits in AWS D1.1/D1.1M.
- H. Do not enlarge unfair holes in members by burning or using drift pins. Ream holes that must be enlarged to admit bolts.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

- I. Shear Connectors: Prepare steel surfaces as recommended by manufacturer of shear connectors. Use automatic end welding of headed-stud shear connectors according to AWS D1.1/D1.1M and manufacturer's written instructions.

3.4 FIELD CONNECTIONS

- A. High-Strength Bolts: Install high-strength bolts according to RCSC's "Specification for Structural Joints Using High-Strength Bolts" dated December 31, 2009 for type of bolt and type of joint specified.
 - 1. Joint Type: Snug tightened
 - 2. Bolt Type: Tension Control of size, quantity and style noted on drawings.
- B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
 - 1. Comply with AISC 303 and AISC 360 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.
 - 2. Remove backing bars or runoff tabs, back gouge, and grind steel smooth.
 - 3. Assemble and weld built-up sections by methods that will maintain true alignment of axes without exceeding tolerances in AISC's "Code of Standard Practice for Steel Buildings and Bridges" for mill material.

3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Design Professional will engage a qualified independent testing and inspecting agency to inspect field welds and high-strength bolted connections.
- B. Bolted Connections: Bolted connections will be inspected according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- C. Welded Connections: Field welds will be visually inspected according to AWS D1.1/D1.1M.
- D. In addition to visual inspection, test and inspect field-welded shear connectors according to requirements in AWS D1.1/D1.1M for stud welding and as follows:
 - 1. Perform bend tests if visual inspections reveal either a less-than-continuous 360-degree flash or welding repairs to any shear connector.
 - 2. Conduct tests on additional shear connectors if weld fracture occurs on shear connectors already tested, according to requirements in AWS D1.1/D1.1M.
- E. Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents.

3.6 REPAIRS AND PROTECTION

- A. Touchup Painting: Immediately after erection, clean exposed areas where primer is damaged or missing and paint with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

1. Clean and prepare surfaces by SSPC-SP 2 hand-tool cleaning or SSPC-SP 3 power-tool cleaning.

END OF SECTION

SECTION 05 3100 - STEEL DECKING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Acoustical roof deck.
 - 2. Noncomposite form deck.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of deck, accessory, and product indicated.
- B. Shop Drawings:
 - 1. Include layout and types of deck panels, anchorage details, reinforcing channels, pans, cut deck openings, special jointing, accessories, and attachments to other construction.

1.4 INFORMATIONAL SUBMITTALS

- A. Welding certificates.
- B. Product Certificates: For each type of steel deck.
- C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, indicating that each of the following complies with requirements:
 - 1. Power-actuated mechanical fasteners.
 - 2. Acoustical roof deck.
- D. Evaluation Reports: For steel deck.

1.5 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to AWS D1.3, "Structural Welding Code - Sheet Steel."

SECTION 05 3100 - STEEL DECKING

- B. FM Global Listing: Provide steel roof deck evaluated by FM Global and listed in its "Approval Guide, Building Materials" for Class 1 fire rating and Class 1-90 windstorm ratings.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect steel deck from corrosion, deformation, and other damage during delivery, storage, and handling.
- B. Stack steel deck on platforms or pallets and slope to provide drainage. Protect with a waterproof covering and ventilate to avoid condensation.

PART 2 - PRODUCTS

2.1 NONCOMPOSITE FORM DECK

- A. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - 1. Nucor Corp.; Vulcraft Group
 - 2. New Millennium Building Systems
 - 3. Canam Steel Corporation
- B. Noncomposite Form Deck: Fabricate ribbed-steel sheet noncomposite form-deck panels to comply with "SDI Specifications and Commentary for Noncomposite Steel Form Deck," in SDI Publication No. 31, with the minimum section properties indicated, and with the following:
 - 1. Galvanized-Steel Sheet: ASTM A 653/A 653M, Structural Steel (SS), Grade 33, G60 zinc coating.
 - 2. Profile Depth: 9/16 inch.
 - 3. Design Uncoated-Steel Thickness: 0.0179 inch .
 - 4. Span Condition: As indicated.
 - 5. Side Laps: Overlapped.

2.2 ACCESSORIES

- A. General: Provide manufacturer's standard accessory materials for deck that comply with requirements indicated.
- B. Mechanical Fasteners: Corrosion-resistant, low-velocity, power-actuated or pneumatically driven carbon-steel fasteners; or self-drilling, self-threading screws.
- C. Side-Lap Fasteners: Corrosion-resistant, hexagonal washer head; self-drilling, carbon-steel screws, No. 10 minimum diameter.

SECTION 05 3100 - STEEL DECKING

- D. Flexible Closure Strips: Vulcanized, closed-cell, synthetic rubber.
- E. Miscellaneous Sheet Metal Deck Accessories: Steel sheet, minimum yield strength of 33,000 psi, not less than 0.0359-inch design uncoated thickness, of same material and finish as deck; of profile indicated or required for application.
- F. Column Closures, End Closures, Z-Closures, and Cover Plates: Steel sheet, of same material, finish, and thickness as deck unless otherwise indicated.
- G. Weld Washers: Uncoated steel sheet, shaped to fit deck rib, 0.0598 inch thick, with factory-punched hole of 3/8-inch minimum diameter.
- H. Galvanizing Repair Paint: ASTM A 780.
- I. Repair Paint: Manufacturer's standard rust-inhibitive primer of same color as primer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine supporting frame and field conditions for compliance with requirements for installation tolerances and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Install deck panels and accessories according to applicable specifications and commentary in SDI Publication No. 31, manufacturer's written instructions, and requirements in this Section.
- B. Install temporary shoring before placing deck panels if required to meet deflection limitations.
- C. Locate deck bundles to prevent overloading of supporting members.
- D. Place deck panels on supporting frame and adjust to final position with ends accurately aligned and bearing on supporting frame before being permanently fastened. Do not stretch or contract side-lap interlocks.
- E. Place deck panels flat and square and fasten to supporting frame without warp or deflection.
- F. Cut and neatly fit deck panels and accessories around openings and other work projecting through or adjacent to deck.

SECTION 05 3100 - STEEL DECKING

- G. Provide additional reinforcement and closure pieces at openings as required for strength, continuity of deck, and support of other work.
- H. Comply with AWS requirements and procedures for manual shielded metal arc welding, appearance and quality of welds, and methods used for correcting welding work.
- I. Mechanical fasteners may be used in lieu of welding to fasten deck. Locate mechanical fasteners and install according to deck manufacturer's written instructions.

3.3 ROOF-DECK INSTALLATION

- A. Fasten roof-deck panels to steel supporting members by arc spot (puddle) welds of the surface diameter indicated or arc seam welds with an equal perimeter that is not less than 1-1/2 inches long, and as follows:
 - 1. Weld Diameter: 5/8 inch, nominal.
 - 2. Weld Spacing: Weld edge and interior ribs of deck units with a minimum of two welds per deck unit at each support. Space welds 18 inches apart, maximum 12 inches apart in the field of roof and 6 inches apart in roof corners and perimeter, based on roof-area definitions in FMG Loss Prevention Data Sheet 1-28.
- B. Side-Lap and Perimeter Edge Fastening: Fasten side laps and perimeter edges of panels between supports, at intervals not exceeding the lesser of 1/2 of the span or 18 inches, and as follows:
 - 1. Mechanically fasten with self-drilling, No. 10 diameter or larger, carbon-steel screws.
 - 2. Fasten with a minimum of 1-1/2-inch- long welds.
- C. End Bearing: Install deck ends over supporting frame with a minimum end bearing of 1-1/2 inches, with end joints as follows:
 - 1. End Joints: Lapped 2 inches minimum.
- D. Miscellaneous Roof-Deck Accessories: Install ridge and valley plates, finish strips, end closures, and reinforcing channels according to deck manufacturer's written instructions. Weld to substrate to provide a complete deck installation.
 - 1. Weld cover plates at changes in direction of roof-deck panels unless otherwise indicated.
- E. Flexible Closure Strips: Install flexible closure strips over partitions, walls, and where indicated. Install with adhesive according to manufacturer's written instructions to ensure complete closure.

SECTION 05 3100 - STEEL DECKING

- F. Sound-Absorbing Insulation: Installation into topside ribs of deck as specified in this Section.

3.4 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Field welds will be subject to inspection.
- C. Testing agency will report inspection results promptly and in writing to Contractor and Architect.
- D. Remove and replace work that does not comply with specified requirements.
- E. Additional inspecting, at Contractor's expense, will be performed to determine compliance of corrected work with specified requirements.

3.5 PROTECTION

- A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on both surfaces of deck with galvanized repair paint according to ASTM A 780 and manufacturer's written instructions.
- B. Repair Painting: Wire brush and clean rust spots, welds, and abraded areas on [both surfaces] [top surface] of prime-painted deck immediately after installation, and apply repair paint.
 - 1. Apply repair paint, of same color as adjacent shop-primed deck, to bottom surfaces of deck exposed to view.
 - 2. Wire brushing, cleaning, and repair painting of bottom deck surfaces are included in Section 09 9113 "Exterior Painting" and Section 09 9123 "Interior Painting."
- C. Repair Painting: Wire brushing, cleaning, and repair painting of rust spots, welds, and abraded areas of both deck surfaces are included in Section 09 9113 "Exterior Painting" and Section 09 9123 "Interior Painting."
- D. Provide final protection and maintain conditions to ensure that steel deck is without damage or deterioration at time of Substantial Completion.

END OF SECTION 05 3100

SECTION 05 5000 - METAL FABRICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Steel framing and supports for countertops.
- 2. Steel framing and supports for applications where framing and supports are not specified in other Sections.

- B. Products furnished, but not installed, under this Section:

- 1. Loose steel lintels.

1.3 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design ladders, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Structural Performance of Aluminum Ladders: Aluminum ladders shall withstand the effects of loads and stresses within limits and under conditions specified in ANSI A14.3.

1.4 ACTION SUBMITTALS

- A. Product Data: For the following:
 - 1. Paint products.
 - 2. Grout.
- B. Shop Drawings: Show fabrication and installation details for metal fabrications.
 - 1. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.

SECTION 05 5000 - METAL FABRICATIONS

1.5 INFORMATIONAL SUBMITTALS

- A. Welding certificates.

1.6 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Welding Qualifications: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
 - 2. AWS D1.2/D1.2M, "Structural Welding Code - Aluminum."

1.7 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

1.8 COORDINATION

- A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.
- B. Coordinate installation of anchorages and steel weld plates and angles for casting into concrete. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

PART 2 - PRODUCTS

2.1 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

2.2 FERROUS METALS

- A. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

SECTION 05 5000 - METAL FABRICATIONS

- B. Steel Tubing: ASTM A 500, cold-formed steel tubing.

2.3 NONFERROUS METALS

- A. Aluminum Plate and Sheet: ASTM B 209, Alloy 6061-T6.
- B. Aluminum Extrusions: ASTM B 221, Alloy 6063-T6.
- C. Aluminum-Alloy Rolled Tread Plate: ASTM B 632/B 632M, Alloy 6061-T6.
- D. Aluminum Castings: ASTM B 26/B 26M, Alloy 443.0-F.
- E. Bronze Plate, Sheet, Strip, and Bars: ASTM B 36/B 36M, Alloy UNS No. C28000 (muntz metal, 60 percent copper).

2.4 FASTENERS

- A. General: Unless otherwise indicated, provide Type 304 stainless-steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B 633 or ASTM F 1941, Class Fe/Zn 5, at exterior walls. Select fasteners for type, grade, and class required.
- B. Steel Bolts and Nuts: Regular hexagon-head bolts, ASTM A 307, Grade A; with hex nuts, ASTM A 563; and, where indicated, flat washers.
- C. Steel Bolts and Nuts: Regular hexagon-head bolts, ASTM A 325, Type 3; with hex nuts, ASTM A 563, Grade C3; and, where indicated, flat washers.
- D. Stainless-Steel Bolts and Nuts: Regular hexagon-head annealed stainless-steel bolts, ASTM F 593; with hex nuts, ASTM F 594; and, where indicated, flat washers; Alloy Group 1.
- E. Eyebolts: ASTM A 489.
- F. Machine Screws: ASME B18.6.3.
- G. Lag Screws: ASME B18.2.1.
- H. Wood Screws: Flat head, ASME B18.6.1.
- I. Plain Washers: Round, ASME B18.22.1.
- J. Lock Washers: Helical, spring type, ASME B18.21.1.
- K. Anchors, General: Anchors capable of sustaining, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed

SECTION 05 5000 - METAL FABRICATIONS

when installed in concrete, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.

- L. Post-Installed Anchors: Torque-controlled expansion anchors.
 - 1. Material for Interior Locations: Carbon-steel components zinc plated to comply with ASTM B 633 or ASTM F 1941, Class Fe/Zn 5, unless otherwise indicated.
 - 2. Material for Exterior Locations and Where Stainless Steel is Indicated: Alloy Group 1 stainless-steel bolts, ASTM F 593, and nuts, ASTM F 594.

2.5 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- B. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible with topcoat.
- C. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.
- D. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.
- E. Nonshrink, Metallic Grout: Factory-packaged, ferrous-aggregate grout complying with ASTM C 1107, specifically recommended by manufacturer for heavy-duty loading applications.
- F. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.

2.6 FABRICATION, GENERAL

- A. Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.
- B. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- C. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

SECTION 05 5000 - METAL FABRICATIONS

- D. Form exposed work with accurate angles and surfaces and straight edges.
- E. Weld corners and seams continuously to comply with the following:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove welding flux immediately.
 - 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- F. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) fasteners unless otherwise indicated. Locate joints where least conspicuous.
- G. Fabricate seams and other connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.
- H. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.
- I. Provide for anchorage of type indicated; coordinate with supporting structure. Space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.
 - 1. Where units are indicated to be cast into concrete or built into masonry, equip with integrally welded steel strap anchors, 1/8 by 1-1/2 inches, with a minimum 6-inch embedment and 2-inch hook, not less than 8 inches from ends and corners of units and 24 inches o.c., unless otherwise indicated.

2.7 MISCELLANEOUS FRAMING AND SUPPORTS

- A. General: Provide steel framing and supports not specified in other Sections as needed to complete the Work.
- B. Fabricate units from steel shapes, plates, and bars of welded construction unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction.
- C. Fabricate steel girders for wood frame construction from continuous steel shapes of sizes indicated.
 - 1. Provide bearing plates welded to beams where indicated.
 - 2. Drill or punch girders and plates for field-bolted connections where indicated.

SECTION 05 5000 - METAL FABRICATIONS

3. Where wood nailers are attached to girders with bolts or lag screws, drill or punch holes at 24 inches o.c.

D. Prime miscellaneous framing and supports with where indicated.

2.8 MISCELLANEOUS STEEL TRIM

- A. Unless otherwise indicated, fabricate units from steel shapes, plates, and bars of profiles shown with continuously welded joints and smooth exposed edges. Miter corners and use concealed field splices where possible.
- B. Galvanize exterior miscellaneous steel trim.
- C. Prime exterior miscellaneous steel trim with zinc-rich primer.

2.9 LOOSE STEEL LINTELS

- A. Fabricate loose steel lintels from steel angles and shapes of size indicated for openings and recesses in masonry walls and partitions at locations indicated. Fabricate in single lengths for each opening unless otherwise indicated. Weld adjoining members together to form a single unit where indicated.
- B. Galvanize loose steel lintels located in exterior walls.

2.10 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Finish metal fabrications after assembly.
- C. Finish exposed surfaces to remove tool and die marks and stretch lines, and to blend into surrounding surface.

2.11 STEEL AND IRON FINISHES

- A. Galvanizing: Hot-dip galvanize items as indicated to comply with ASTM A 153/A 153M for steel and iron hardware and with ASTM A 123/A 123M for other steel and iron products.
 1. Do not quench or apply post galvanizing treatments that might interfere with paint adhesion.
- B. Shop prime iron and steel items not indicated to be galvanized unless they are to be

SECTION 05 5000 - METAL FABRICATIONS

embedded in concrete, sprayed-on fireproofing, or masonry, or unless otherwise indicated.

1. Shop prime with universal shop primer unless zinc-rich primer is indicated.

2.12 ALUMINUM FINISHES

- A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- B. Class I, Clear Anodic Finish: AA-M12C22A41 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.
- B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.
- C. Field Welding: Comply with the following requirements:
 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 2. Obtain fusion without undercut or overlap.
 3. Remove welding flux immediately.
 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- D. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag screws, wood screws, and other connectors.

SECTION 05 5000 - METAL FABRICATIONS

- E. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.

3.2 INSTALLING MISCELLANEOUS FRAMING AND SUPPORTS

- A. General: Install framing and supports to comply with requirements of items being supported, including manufacturers' written instructions and requirements indicated on Shop Drawings.
- B. Install pipe columns on concrete footings with grouted baseplates. Position and grout column baseplates as specified in "Installing Bearing and Leveling Plates" Article.
 - 1. Grout baseplates of columns supporting steel girders after girders are installed and leveled.

3.3 INSTALLING METAL BOLLARDS

- A. Fill metal-capped bollards solidly with concrete and allow concrete to cure seven days before installing.
- B. Anchor bollards in concrete in formed or core-drilled holes not less than 8 inches deep and 3/4 inch larger than OD of bollard. Fill annular space around bollard solidly with nonshrink, nonmetallic grout; mixed and placed to comply with grout manufacturer's written instructions. Slope grout up approximately 1/8 inch toward bollard.
- C. Place removable bollards over internal sleeves and secure with 3/4-inch machine bolts and nuts. After tightening nuts, drill holes in bolts for inserting padlocks. Owner will furnish padlocks.
- D. Fill bollards solidly with concrete, mounding top surface to shed water.
 - 1. Do not fill removable bollards with concrete.

3.4 ADJUSTING AND CLEANING

- A. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas. Paint uncoated and abraded areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
 - 1. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.
- B. Touchup Painting: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint are specified in Section 09 9113 "Exterior Painting."

SECTION 05 5000 - METAL FABRICATIONS

END OF SECTION 05 5000

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Wood blocking and furring.
 - 2. Wood framing and sheathing.
- B. Related Sections:
 - 1. Division 01: Administrative and procedural work requirements.

1.2 REFERENCES

- A. American Wood Protection Association (AWPA) U1 - Use Category System - User Specification for Treated Wood.
- B. ASTM International (ASTM):
 - 1. A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 - 2. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 3. F593 - Standard Specification for Stainless Steel Bolts, Hex Cap Screws and Studs.
- C. National Institute of Standards and Technology (NIST) - Product Standard PS 20 - American Softwood Lumber Standard.
- D. Southern Pine Inspection Bureau (SPIB) - Standard Grading Rules for Southern Pine Lumber.
- E. Engineered Wood Association (APA) PRP-108 - Performance Standards and Qualification Policy for Structural-Use Panels.

1.3 QUALITY ASSURANCE

- A. Lumber Grading Agency: Certified to NIST PS 20.
- B. Identify lumber and sheet products by official grade mark.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Store materials minimum 6 inches above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation.
- B. Do not store seasoned or treated materials in damp location.
- C. Protect edges and corners of sheet materials from damage.

1.5 SUBMITTALS

- A. Shop Drawings – Required for trusses. Include engineer's stamp, certification and design criteria. A registered engineer must also stamp truss layout. See drawings for wood truss notes.
 - 1. Shop Drawings shall include all truss-to-truss connection details and shall comply with all bracing and requirements specified in the structural drawings and specifications.
 - 2. General Contractor responsible for review of shop drawing construction dimensions.
 - 3. General Contractor to coordinate wood truss layout with any conflicting elements.
 - 4. General Contractor must fully review and approve wood truss shop drawings and dimensions prior to submitting to Architect and Engineer for review.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Lumber: Grading rules: SPIB.
 - 1. Species: Southern Yellow Pine.
 - 2. Grade: marked No. 2 or better, see drawings.
 - 3. Surfacing: Surfaced four sides (S4S) unless otherwise indicated.
 - 4. Maximum moisture content: 19 percent.
- B. Sheet Products:
 - 1. Type: CDX Plywood. Size as indicated.
 - 2. Panel grade: CDX, grade stamped, plugged EXT-DFPA
 - 3. Exposure:
 - a. Exterior applications: Exterior.
 - 4. Plywood clips shall be 18 ga. galvanized steel.
 - 5. Wall sheathing shall be 5/8" CDX plywood.
 - 6. Roof sheathing shall be 5/8" CDX plywood
 - 7. At contractor's option, OSB (oriented strand board) may be substituted for plywood.
- C. LVL framing: Properties shall be greater than or equal to $F_b=2600$ psi and $E = 2.0E6$ psi.

2.2 ACCESSORIES

- A. Fasteners:
 - 1. Type and size: As required by conditions of use.
 - 2. Exterior locations and treated products: Hot-dip galvanized steel, ASTM A153/A153M, G90 coating class.
 - 3. Other interior locations: Plain steel.
 - 4. Hurricane clips will be specified pending receipt of truss shop drawings.
- B. Framing Accessories: Accessories such as joist hangers, hurricane anchors, framing anchors, sheathing clips and similar items shall be equal to products manufactured by Simpson (Strong-Tie Connectors), San Leandro, CA of types, gauges and finishes best suited for intended use.

2.3 FABRICATION

A. Preservative Treatment:

1. Treat lumber and sheet products in accordance with AWP A U1:
 - a. Interior locations protected from moisture sources: Category UC1 - Interior/Dry.
 - b. Interior locations subject to sources of moisture: Category UC2 - Interior/Damp.
 - c. Exterior locations above ground: Category UC3B - Above Ground/Exposed.
 - d. Exterior locations in contact with ground: Category UC4A - Ground Contact/General
2. Treatment process: Type CCA - Chromated Copper Arsenate or Type ACQ - Ammoniacal Copper Quaternary (ACQ); free from arsenic, chromium, and other EPA classified hazardous preservatives.

PART 3 EXECUTION

3.1 INSTALLATION

- ### A. Workmanship:
- All rough carpentry shall produce joints that are true, tight and well fastened and with all members assembled in accordance with the drawings. Carefully layout, cut and erect accurately to required dimensions, fitting closely and securing in place with sufficient and proper anchorage. Do not shim sills, joist, short studs, trimmers, headers, lintels or other framing components. Where members are cut for electrical or mechanical work, properly reinforce with headers, full depth of members cut.

1. Do all cutting and patching customarily performed by the carpentry trade to end results of providing adequate strength in a neat and workmanlike manner and install miscellaneous items for which the carpentry trade is customarily responsible such as “template” setting of anchor bolts, providing frames for openings through concrete and/or masonry and like items.
2. Carefully select all members; select individual pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing or making proper connections.
3. Cut out and discard all defects which will render a piece unable to serve its intended function; lumber may be rejected by the Architect, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper cutting and fitting.

B. General Framing:

1. Comply with sizes, spacing, and configurations indicated. Where not specifically indicated, comply with applicable codes and NFPA “Manual for Wood Frame Construction”. Splice members only where specifically indicated or approved.
2. Space fasteners as indicated. Where not specifically indicated, comply with applicable codes and the “Recommended Nailing Schedule” of NFPA “Manual for Wood Frame Construction” and “National Design Specifications for Wood Construction”.

SECTION 06 1000 – ROUGH CARPENTRY

3. In addition to all framing operations normal to the fabrication and erection indicated on the drawings, install all backing required for the work of other trades.
 4. Set all horizontal or sloped members with crown up.
 5. Do not notch, bore or cut members for pipes, ducts, conduits or other reasons except as shown on the drawings or as specifically approved in advance by the Architect.
 6. Make all bearings full unless otherwise indicated on the drawings.
 7. Finish all bearing surfaces on which structural members are to rest or as to give sure and even support; where framing members slope, cut or notch the ends as required to give uniform bearing surface.
 8. Install all blocking, furring and similar items as shown on the drawings.
 9. Install roof edges and curbs in the locations shown on the drawings and in accordance with the details shown thereon.
 10. Set members level, plumb, and rigid.
 11. All wood in contact with concrete or masonry shall be pressure treated
- C. Roof Decking: Install over wood framing, as shown on the drawings, securely anchored in place in accordance with APA, utilizing sheathing clips (plyclips) or solid blocking as recommended by APA.
- D. Sheathing: Install over studs under all siding and in other locations shown on the drawings and in strict accordance with the Standard Specifications of American Plywood Association's Publication Design/Construction Guide, Residential and Commercial.
- E. Nailing: Using only the proper nails; do all nailing without splitting wood members, preboring as required, replace all split members.
- F. Bolting:
1. Drill holes 1/16-inch larger in diameter than the bolts being used; drill straight and true from one side only.
 2. Bolt threads must not bear on wood; use washers under head and nut where both bear on wood; use washers under all nuts.
- G. Screws:
1. For lag screws and wood screws, prebore holes same diameter as root of thread; enlarge holes to shank diameter for length of shank.

SECTION 06 1000 – ROUGH CARPENTRY

2. Screw, do not drive, all lag screws and wood screws.

3.2 Field Quality Control:

- A. Wood Preservative: Apply two brush coats of the approved preservative chemical all field cuts of treated lumber.
- B. Clean Up:
 1. At the end of each working day, or more often if necessary, thoroughly sweep all surfaces where refuse from this portion of the work has settled.
 2. Remove the refuse to the area of the job set aside for its storage.
 3. Upon completion of this portion of the work, thoroughly broom clean all surfaces.

END OF SECTION

SECTION 06 1300 - HEAVY TIMBER CONSTRUCTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Timber.
2. Timber connectors.
3. Miscellaneous materials.

B. Related Requirements:

1. Section 06 1000 "Rough Carpentry" for dimension lumber items associated with heavy timber framing.
2. Section 06 1516 "Wood Roof Decking."

1.2 DEFINITIONS

A. Timbers: Lumber of 5 inches nominal or greater in least dimension.

B. Inspection agencies, and the abbreviations used to reference them, include the following:

1. NeLMA: Northeastern Lumber Manufacturers' Association.
2. NHLA: National Hardwood Lumber Association.
3. NLGA: National Lumber Grades Authority.
4. SPIB: Southern Pine Inspection Bureau (The).
5. WCLIB: West Coast Lumber Inspection Bureau.
6. WWPA: Western Wood Products Association.

1.3 ACTION SUBMITTALS

A. Shop Drawings: For heavy timber framing. Show layout, dimensions of each member, and details of connections.

1.4 INFORMATIONAL SUBMITTALS

A. Material Certificates:

1. For timbers specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by ALSC's Board of Review.

B. Certificates of Inspection: Issued by lumber-grading agency for exposed timber not marked with grade stamp.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Schedule delivery of materials to avoid extended on-site storage and to avoid delaying the Work.

B. Store materials under cover and protected from weather and contact with damp or wet surfaces. Provide for air circulation within and around stacks and under temporary coverings.

SECTION 06 1300 - HEAVY TIMBER CONSTRUCTION

PART 2 - PRODUCTS

2.1 TIMBER

A. Comply with DOC PS 20 and with grading rules of lumber-grading agencies certified by ALSC's Board of Review as applicable.

1. At all members, apply grade stamps to surfaces that are not exposed to view, or omit grade stamps and provide certificates of grade compliance issued by grading agency.

B. Timber Species and Grade:

1. Southern pine; No. 1, SPIB.

C. Structural Properties: Provide any species and grade that, for moisture content provided, complies with required structural properties.

1. Allowable Stress Ratings for 5x5 and larger: Fb 1350 psi and E 1,500,000 psi

D. Moisture Content: Provide timber with 19 percent maximum moisture content at time of dressing.

2.2 TIMBER CONNECTORS

A. See structural drawings for connections.

2.3 MISCELLANEOUS MATERIALS

A. End Sealer: Manufacturer's standard, transparent, colorless wood sealer that is effective in retarding the transmission of moisture at cross-grain cuts and is compatible with indicated finish.

B. Penetrating Sealer: Manufacturer's standard, transparent, penetrating wood sealer that is compatible with indicated finish.

2.4 FABRICATION

A. Shop fabricate members by cutting and restoring exposed surfaces to match specified surfacing. Finish exposed surfaces to remove planing or surfacing marks, and to provide a finish equivalent to that produced by machine sanding with No. 120 grit sandpaper.

B. Predrill for fasteners and assembly of units.

C. Coat crosscuts with end sealer.

D. Seal Coat: After fabricating and surfacing each unit, apply a saturation coat of penetrating sealer on surfaces of each unit except for treated wood where the treatment included a water repellent.

SECTION 06 1300 - HEAVY TIMBER CONSTRUCTION

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Erect heavy timber framing true and plumb. Provide temporary bracing to maintain lines and levels until permanent supporting members are in place.

1. Install horizontal and sloping members with crown edge up, and provide not less than 4 inches (102 mm) of bearing on supports. Provide continuous members unless otherwise indicated; tie together over supports with metal strap ties if not continuous.
2. Handle and temporarily support heavy timber framing to prevent surface damage, compression, and other effects that might interfere with indicated finish.

B. Cutting: Avoid extra cutting after fabrication. Where field fitting is unavoidable, comply with requirements for shop fabrication.

C. Fitting: Fit members by cutting and restoring exposed surfaces to match specified surfacing.

1. Predrill for fasteners using timber connectors as templates.
2. Finish exposed surfaces to remove planing or surfacing marks, and to provide a finish equivalent to that produced by machine sanding with No. 120 grit sandpaper.
3. Coat crosscuts with end sealer.

D. Install timber connectors as indicated.

1. Unless otherwise indicated, install bolts with same orientation within each connection and in similar connections.
2. Install bolts with orientation as indicated or, if not indicated, as directed by Architect.

3.2 ADJUSTING

A. Repair damaged surfaces and finishes after completing erection. Replace damaged heavy timber framing if repairs are not approved by Architect.

END OF SECTION 06 1300

SECTION 06 1600 - SHEATHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Wall sheathing.
 - 2. Sheathing joint and penetration treatment.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WALL SHEATHING

- A. Glass-Mat Gypsum Wall Sheathing: ASTM C 1177/1177M.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. CertainTeed Corporation; GlasRoc.
 - b. G-P Gypsum Corporation; Dens-Glass Gold.
 - c. National Gypsum Company; Gold Bond e(2)XP.
 - d. Temple-Inland Inc.; GreenGlass
 - e. United States Gypsum Co.; Securock.
 - 2. Type and Thickness: Type X, 5/8 inch thick.
 - 3. Size: 48 by 96 inches for vertical installation.

SECTION 06 1600 - SHEATHING

2.2 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
 - 1. For roof and wall sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- B. Screws for Fastening Gypsum Sheathing to Cold-Formed Metal Framing: Steel drill screws, in length recommended by sheathing manufacturer for thickness of sheathing to be attached, with organic-polymer or other corrosion-protective coating having a salt-spray resistance of more than 800 hours according to ASTM B 117.
 - 1. For steel framing less than 0.0329 inch thick, use screws that comply with ASTM C 1002.
 - 2. For steel framing from 0.033 to 0.112 inch thick, use screws that comply with ASTM C 954.

2.3 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIALS

- A. Sealant for Glass-Mat Gypsum Sheathing: Silicone emulsion sealant complying with ASTM C 834, compatible with sheathing tape and sheathing and recommended by tape and sheathing manufacturers for use with glass-fiber sheathing tape and for covering exposed fasteners.
 - 1. Sheathing Tape: Self-adhering glass-fiber tape, minimum 2 inches wide, 10 by 10 or 10 by 20 threads/inch, of type recommended by sheathing and tape manufacturers for use with silicone emulsion sealant in sealing joints in glass-mat gypsum sheathing and with a history of successful in-service use.

2.4 MISCELLANEOUS MATERIALS

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.
- B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.
- C. Securely attach to substrate by fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.

SECTION 06 1600 - SHEATHING

2. Table 2304.9.1, "Fastening Schedule," in ICC's "International Building Code."
 3. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's "International Residential Code for One- and Two-Family Dwellings."
- D. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.
- E. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
- F. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

3.2 GYPSUM SHEATHING INSTALLATION

- A. Comply with GA-253 and with manufacturer's written instructions.
1. Fasten gypsum sheathing to cold-formed metal framing with screws.
 2. Install boards with a 3/8-inch gap where non-load-bearing construction abuts structural elements.
 3. Install boards with a 1/4-inch gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.
- B. Apply fasteners so heads bear tightly against face of sheathing, but do not cut into facing.
- C. Horizontal Installation: Install sheathing with V-grooved edge down and tongue edge up. Interlock tongue with groove to bring long edges in contact with edges of adjacent boards without forcing. Abut ends of boards over centers of studs, and stagger end joints of adjacent boards not less than one stud spacing. Attach boards at perimeter and within field of board to each steel stud.
1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards.
 2. For sheathing under stucco cladding, boards may be initially tacked in place with screws if overlying self-furring metal lath is screw-attached through sheathing to studs immediately after sheathing is installed.
- D. Vertical Installation: Install board vertical edges centered over studs. Abut ends and edges of each board with those of adjacent boards. Attach boards at perimeter and within field of board to each stud.
1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards.

SECTION 06 1600 - SHEATHING

2. For sheathing under stucco cladding, boards may be initially tacked in place with screws if overlying self-furring metal lath is screw-attached through sheathing to studs immediately after sheathing is installed.
- E. Seal sheathing joints according to sheathing manufacturer's written instructions.
1. Apply elastomeric sealant to joints and fasteners and trowel flat. Apply sufficient amount of sealant to completely cover joints and fasteners after troweling. Seal other penetrations and openings.
 2. Apply glass-fiber sheathing tape to glass-mat gypsum sheathing joints and apply and trowel silicone emulsion sealant to embed entire face of tape in sealant. Apply sealant to exposed fasteners with a trowel so fasteners are completely covered. Seal other penetrations and openings.

END OF SECTION 06 1600

SECTION 071900 - WATER REPELLENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes penetrating water-repellent treatments for the following vertical and horizontal surfaces:
 - 1. Concrete unit masonry for single wythe walls.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each type of water repellent and substrate indicated.
- C. Product certificates.

1.3 QUALITY ASSURANCE

- A. Preinstallation Conference: Conduct conference at **Project site**.

PART 2 - PRODUCTS

2.1 PENETRATING WATER REPELLENTS

- A. Silane, Penetrating Water Repellent: Clear, containing **20** percent or more solids of alkyltrialkoxysilanes; with alcohol, mineral spirits, water, or other proprietary solvent carrier; and with 400 g/L or less of VOCs.
 - 1. Products: Subject to compliance with requirements, **provide one of the following**:
 - a. BASF Construction Chemicals, LLC; **Hydrozo 100**.
 - b. Degussa Corp; **Protectosil Chem-Trete PB 100**.
 - c. Fox Industries, Inc.; **FX-425**.

SECTION 071900 - WATER REPELLENTS

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements and conditions affecting performance of the Work.
 - 1. Verify that surfaces are clean and dry according to water-repellent manufacturer's requirements. Check moisture content in representative locations by method recommended by manufacturer.
 - 2. Inspect for previously applied treatments that may inhibit penetration or performance of water repellents.
 - 3. Verify that there is no efflorescence or other removable residues that would be trapped beneath the application of water repellent.
 - 4. Verify that required repairs are complete, cured, and dry before applying water repellent.
- B. Test pH level according to water-repellent manufacturer's written instructions to ensure chemical bond to silica-containing or siliceous minerals.

3.2 PREPARATION

- A. Cleaning: Before application of water repellent, clean substrate of substances that could impair penetration or performance of product according to water-repellent manufacturer's written instructions.
- B. Coordination with Mortar Joints: Do not apply water repellent until pointing mortar for joints adjacent to surfaces receiving water-repellent treatment has been installed and cured.
- C. Coordination with Sealant Joints: Do not apply water repellent until sealants for joints adjacent to surfaces receiving water-repellent treatment have been installed and cured.
 - 1. Water-repellent work may precede sealant application only if sealant adhesion and compatibility have been tested and verified using substrate, water repellent, and sealant materials identical to those required.

3.3 APPLICATION

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect the substrate before application of water repellent and to instruct Applicator on the product and application method to be used.
- B. Apply a heavy-saturation coating of water repellent, on surfaces indicated for treatment, using low-pressure spray to the point of saturation. Remove excess material; do not allow material to puddle beyond saturation. Comply with manufacturer's written instructions for application procedure unless otherwise indicated.

SECTION 071900 - WATER REPELLENTS

- C. Apply a second saturation coating, repeating first application. Comply with manufacturer's written instructions for limitations on drying time between coats and after rainstorm wetting of surfaces between coats. Consult manufacturer's technical representative if written instructions are not applicable to Project conditions.

3.4 CLEANING

- A. Immediately clean water repellent from adjoining surfaces and surfaces soiled or damaged by water-repellent application as work progresses. Correct damage to work of other trades caused by water-repellent application.
- B. Comply with manufacturer's written cleaning instructions.

END OF SECTION 071900

SECTION 07 2100 - THERMAL INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Foam-plastic board insulation for foundation insulation.
2. Foil faced polyisocyanurate board insulation at gym roof.
3. Continuous roof insulation above metal deck.
4. Extruded polyiso board behind metal wall panels.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

1.4 QUALITY ASSURANCE

- A. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect insulation materials from physical damage and from deterioration due to moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.
- B. Protect foam-plastic board insulation as follows:
 1. Do not expose to sunlight except to necessary extent for period of installation and concealment.
 2. Protect against ignition at all times. Do not deliver foam-plastic board materials to Project site before installation time.
 3. Quickly complete installation and concealment of foam-plastic board insulation in each area of construction.

SECTION 07 2100 - THERMAL INSULATION

PART 2 - PRODUCTS

2.1 FOAM-PLASTIC BOARD INSULATION

- A. Extruded-Polystyrene Board Insulation: ASTM C 578, of type and minimum compressive strength indicated below, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E 84.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. DiversiFoam Products.
 - b. Dow Chemical Company (The).
 - c. Owens Corning.
 - 2. Type IV, 25 psi.
- B. Adhesive for Bonding Insulation: Product with demonstrated capability to bond insulation securely to substrates without damaging insulation and substrates.
- C. Fasteners for Bonding Insulation to Acoustical Deck: Factory Mutual Approved.

2.2 GLASS-FIBER BLANKET INSULATION

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. CertainTeed Corporation.
 - 2. Guardian Building Products, Inc.
 - 3. Johns Manville.
 - 4. Knauf Insulation.
 - 5. Owens Corning.
 - 6. Simple Saver System (basis of design).
- B. Glass-Fiber-Blanket Insulation: ASTM C 665, type indicated below; consisting of fibers manufactured from glass, slag wool, or rock wool.
 - 1. Nonreflective Faced: Type II (blankets with nonreflective membrane covering), Category 1 (membrane is a vapor retarder), Class A (membrane-faced surface with a flame-spread index of 25 or less).
 - 2. Unfaced: Type I (blankets without membrane covering), passing ASTM E 136 for combustion characteristics.
 - a. Vapor-Retarder Facing: ASTM C 1136, with permeance not greater than

SECTION 07 2100 - THERMAL INSULATION

0.02 perm (1.15 ng/Pa x s x sq. m) when tested according to ASTM E 96/E 96M, Desiccant Method.

- 1) Composition: White polypropylene film facing and fiberglass-polyester blend fabric backing.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean substrates of substances that are harmful to insulation or vapor retarders, including removing projections capable of puncturing vapor retarders, or that interfere with insulation attachment.

3.2 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products and applications indicated.
- B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.
- C. Extend insulation to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- D. Provide sizes to fit applications indicated and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units to produce thickness indicated unless multiple layers are otherwise shown or required to make up total thickness.

3.3 INSTALLATION OF BELOW-GRADE INSULATION TYPE 1

- A. On vertical surfaces, set insulation units loosely laid according to manufacturer's written instructions.
 1. If not otherwise indicated, extend insulation a minimum of 24 inches below exterior grade line.
- B. On horizontal surfaces, loosely lay insulation units according to manufacturer's written instructions. Stagger end joints and tightly abut insulation units.
 1. If not otherwise indicated, extend insulation a minimum of 24 inches in from exterior walls.

SECTION 07 2100 - THERMAL INSULATION

3.4 PROTECTION

- A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 07 2100

SECTION 07 4113.16 - STANDING-SEAM METAL ROOF PANELS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes standing-seam metal roof panels.

1.2 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
- C. Samples: For each type of metal panel indicated.

1.4 INFORMATIONAL SUBMITTALS

- A. Product test reports.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance data.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Two years from date of Substantial Completion.

SECTION 07 4113.16 - STANDING-SEAM METAL ROOF PANELS

- B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Finish Warranty Period: 20 years from date of Substantial Completion.
- C. Special Weathertightness Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that fail to remain weathertight, including leaks, within specified warranty period.
 - 1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E 1592:
 - 1. Wind Loads: As indicated on Drawings.
 - 2. Other Design Loads: As indicated on Drawings.
 - 3. Deflection Limits: For wind loads, no greater than 1/240 of the span.
- B. Air Infiltration: Air leakage of not more than 0.06 cfm/sq. ft. when tested according to ASTM E 1680 or ASTM E 283 at the following test-pressure difference:
 - 1. Test-Pressure Difference: 1.57 lbf/sq. ft..
- C. Water Penetration under Static Pressure: No water penetration when tested according to ASTM E 1646 or ASTM E 331 at the following test-pressure difference:
 - 1. Test-Pressure Difference: 2.86 lbf/sq. ft..
- D. Hydrostatic-Head Resistance: No water penetration when tested according to ASTM E 2140.
- E. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for wind-uplift-resistance class indicated.
 - 1. Uplift Rating: UL 60.

2.2 STANDING-SEAM METAL ROOF PANELS

- A. General: Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and

SECTION 07 4113.16 - STANDING-SEAM METAL ROOF PANELS

mechanically attaching panels to supports using concealed clips in side laps. Include clips, cleats, pressure plates, and accessories required for weathertight installation.

1. Steel Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E 1514.
 2. Aluminum Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E 1637.
- B. Vertical-Rib, Seamed-Joint, Standing-Seam Metal Roof Panels : Formed with vertical ribs at panel edges and between ribs; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels, engaging opposite edge of adjacent panels, and mechanically seaming panels together.
1. Basis-of-Design Product: Subject to compliance with requirements, provide AIM-LOK; Architectural Integrated Metals, Inc. or comparable product by one of the following:
 - a. AEP Span; a BlueScope Steel company.
 - b. Berridge Manufacturing Company.
 - c. MBCI; a division of NCI Building Systems, L.P.
 2. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with ASTM A 653/A 653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A 792/A 792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
 - a. Nominal Thickness: 0.022 inch.
 - b. Exterior Finish: Two-Coat SMP Resin System with a total Dry Film Thickness (DFT) of 0.9 to 1.1 mils.
 - c. Color: selected by Architect from standard colors.
 3. Clips: Two-piece floating to accommodate thermal movement.
 - a. Material: 0.064-inch- nominal thickness, zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet.
 4. Joint Type: As standard with manufacturer.
 5. Panel Coverage: 16 inches.
 6. Panel Height: 1.5 inches.

2.3 UNDERLAYMENT MATERIALS

- A. Self-Adhering, High-Temperature Underlayment: Provide self-adhering, cold-applied, sheet underlayment, a minimum of 30 mils thick, consisting of slip-resistant, polyethylene-film top surface laminated to a layer of butyl or SBS-modified asphalt

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adhesive, with release-paper backing. Provide primer when recommended by underlayment manufacturer.

1. Thermal Stability: Stable after testing at 240 deg F; ASTM D 1970.
2. Low-Temperature Flexibility: Passes after testing at minus 20 deg F; ASTM D 1970.
3. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Grace Construction Products, a unit of W. R. Grace & Co.; Grace Ice and Water Shield HT.
 - b. Henry Company; Blueskin PE200 HT.
 - c. Owens Corning; WeatherLock Metal High Temperature Underlayment.
 - d. Mid State Asphalt - Quick-Stick HT

2.4 MISCELLANEOUS MATERIALS

- A. Miscellaneous Metal Subframing and Furring: ASTM C 645; cold-formed, metallic-coated steel sheet, ASTM A 653/A 653M, G90 coating designation or ASTM A 792/A 792M, Class AZ50 coating designation unless otherwise indicated. Provide manufacturer's standard sections as required for support and alignment of metal panel system.
- B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fascia, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.
 1. Closures: Provide closures at eaves and ridges, fabricated of same metal as metal panels.
 2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
- C. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fascia, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.
- D. Gutters and Downspouts: Formed from same material as roof panels according to SMACNA's "Architectural Sheet Metal Manual." Finish to match roof fascia and rake trim.
- E. Panel Fasteners: Self-tapping screws designed to withstand design loads.
- F. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.

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1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing; 1/2 inch wide and 1/8 inch thick.
2. Joint Sealant: ASTM C 920; as recommended in writing by metal panel manufacturer.

2.5 FABRICATION

- A. General: Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.
- B. On-Site Fabrication: Subject to compliance with requirements of this Section, metal panels may be fabricated on-site using UL-certified, portable roll-forming equipment if panels are of same profile and warranted by manufacturer to be equal to factory-formed panels. Fabricate according to equipment manufacturer's written instructions and to comply with details shown.
- C. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.
- D. Fabricate metal panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.
- E. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.

2.6 FINISHES

- A. Panels and Accessories:
 1. Two-Coat SMP Resin System with a total Dry Film Thickness (DFT) of 0.9 to 1.1 mils. Basis of Design is WeatherX Coil Coating System by Valspar.
 2. Concealed Finish: White or light-colored acrylic or polyester backer finish.

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PART 3 - EXECUTION

3.1 PREPARATION

- A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C 754 and metal panel manufacturer's written recommendations.

3.2 UNDERLAYMENT INSTALLATION

- A. Self-Adhering Sheet Underlayment: Apply primer if required by manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation. Apply at locations indicated below, wrinkle free, in shingle fashion to shed water, and with end laps of not less than 6 inches staggered 24 inches between courses. Overlap side edges not less than 3-1/2 inches. Extend underlayment into gutter trough. Roll laps with roller. Cover underlayment within 14 days.
 - 1. Apply over the entire roof surface.
 - 2. Apply over the roof area indicated below:
 - a. Roof perimeter for a distance up from eaves of 24 inches beyond interior wall line.
 - b. Rake edges for a distance of 18 inches.
 - c. Hips and ridges for a distance on each side of 12 inches.
 - d. Roof-to-wall intersections for a distance from wall of 18 inches.
 - e. Around dormers, chimneys, skylights, and other penetrating elements for a distance from element of 18 inches.
- B. Flashings: Install flashings to cover underlayment to comply with requirements specified in Section 07 6200 "Sheet Metal Flashing and Trim."

3.3 METAL PANEL INSTALLATION

- A. Standing-Seam Metal Roof Panel Installation: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended in writing by manufacturer.
 - 1. Install clips to supports with self-tapping fasteners.
 - 2. Install pressure plates at locations indicated in manufacturer's written installation instructions.
 - 3. Snap Joint: Nest standing seams and fasten together by interlocking and completely engaging factory-applied sealant.
 - 4. Seamed Joint: Crimp standing seams with manufacturer-approved, motorized seamer tool so clip, metal roof panel, and factory-applied sealant are completely engaged.
 - 5. Watertight Installation:

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- a. Apply a continuous ribbon of sealant or tape to seal joints of metal panels, using sealant or tape as recommend in writing by manufacturer as needed to make panels watertight.
 - b. Provide sealant or tape between panels and protruding equipment, vents, and accessories.
 - c. At panel splices, nest panels with minimum 6-inch end lap, sealed with sealant and fastened together by interlocking clamping plates.
- B. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.
- C. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.

3.4 CLEANING AND PROTECTION

- A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.

END OF SECTION 07 4113.16

SECTION 074646 - FIBER-CEMENT SIDING

SECTION 074646 - FIBER-CEMENT SIDING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Fiber-cement siding.
2. Fiber-cement soffit.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood furring, grounds, nailers, and blocking.
2. Section 072500 "Weather Barriers" for weather-resistive barriers.

1.2 COORDINATION

- ###### A. Coordinate siding installation with flashings and other adjoining construction to ensure proper sequencing.

1.3 ACTION SUBMITTALS

A. Product Data:

1. Fiber-cement siding.

- ###### B. Product Data Submittals: For each type of fiber-cement siding. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

- ###### C. Samples for Initial Selection: For fiber-cement siding including related accessories.

- ###### D. Samples for Verification: For each type, color, texture, and pattern required.

1.4 INFORMATIONAL SUBMITTALS

- ###### A. Product Certificates: For each type of fiber-cement siding.

- ###### B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for fiber-cement siding.

- ###### C. Research/Evaluation Reports: For each type of fiber-cement siding required, from ICC-ES.

- ###### D. Sample Warranty: For special warranty.

1.5 CLOSEOUT SUBMITTALS

- ###### A. Maintenance Data: For each type of fiber-cement siding, including related accessories, to include in maintenance manuals.

SECTION 074646 - FIBER-CEMENT SIDING

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Furnish full lengths of fiber-cement siding including related accessories, in a quantity equal to 2 percent of amount installed.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with labels intact until time of use.
- B. Store materials on elevated platforms, under cover, and in a dry location.

1.8 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace products that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including cracking and deforming.
 - b. Deterioration of materials beyond normal weathering.
 - 2. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 FIBER-CEMENT SIDING

- A. Fiber-Cement Siding: ASTM C1186, Type A, Grade II, fiber-cement board, noncombustible when tested in accordance with ASTM E136; with a flame-spread index of 25 or less when tested in accordance with ASTM E84.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Allura
 - b. American Fiber Cement Corporation
 - c. CertainTeed; SAINT-GOBAIN
 - d. GAF
 - e. James Hardie Building Products, Inc.
 - f. Nichiha USA, Inc.
- B. Labeling: Provide fiber-cement siding that is tested and labeled in accordance with ASTM C1186 by a qualified testing agency acceptable to authorities having jurisdiction.
- C. Nominal Thickness: Not less than **5/16 inch**.
- D. Panel Texture: **48-inch-** wide sheets with stucco texture.

SECTION 074646 - FIBER-CEMENT SIDING

- E. Factory Priming: Manufacturer's standard acrylic primer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of fiber-cement siding and related accessories.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrates of projections and substances detrimental to application.

3.3 INSTALLATION

- A. General: Comply with manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.
 - 1. Do not install damaged components.
 - 2. Install fasteners no more than **24 inches** o.c.
- B. Install joint sealants as specified in Section 079200 "Joint Sealants" and to produce a weathertight installation.

3.4 ADJUSTING AND CLEANING

- A. Remove damaged, improperly installed, or otherwise defective materials and replace with new materials complying with specified requirements.
- B. Clean finished surfaces according to manufacturer's written instructions and maintain in a clean condition during construction.

END OF SECTION 074646

SECTION 07 5423 - THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Mechanically fastened thermoplastic polyolefin (TPO) roofing system.
 - 2. Roof insulation.
- B. Section includes the installation of insulation strips in ribs of roof deck. Insulation strips are furnished under Section 05 3100 "Steel Decking."

1.3 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work, including:
 - 1. Base flashings and membrane terminations.
 - 2. Tapered insulation, including slopes.
 - 3. Roof plan showing orientation of steel roof deck and orientation of roofing, fastening spacings, and patterns for mechanically fastened roofing.
 - 4. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.

1.5 INFORMATIONAL SUBMITTALS

- A. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
 - 1. Submit evidence of compliance with performance requirements.

SECTION 07 5423 - THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For roofing system to include in maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
 - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.9 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.10 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.
 - 1. Special warranty includes roofing, base flashings, roof insulation, cover boards, and other components of roofing system.
 - 2. Warranty Period: 15 years from date of Substantial Completion.

SECTION 07 5423 - THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

- B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering the Work of this Section, including all components of roofing system such as roofing, base flashing, roof insulation, fasteners, cover boards, substrate boards, vapor retarders, roof pavers, and walkway products, for the following warranty period:

1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Carlisle SynTec Incorporated.
2. Cooley Engineered Membranes.
3. Custom Seal Roofing.
4. Firestone Building Products.
5. Flex Roofing Systems.
6. GAF Materials Corporation.
7. GenFlex Roofing Systems.
8. Johns Manville.
9. Mule-Hide Products Co., Inc.
10. Versico Incorporated.

- B. Source Limitations: Obtain components including roof insulation fasteners for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and base flashings shall remain watertight.
1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
 2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 3746 or ASTM D 4272.
- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.

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- C. FM Global Listing: Roofing, base flashings, and component materials shall comply with requirements in FM Global 4450 or FM Global 4470 as part of a built-up roofing system, and shall be listed in FM Global's "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Global markings.
 - 1. Fire/Windstorm Classification: Class 1A-60 .
 - 2. Hail-Resistance Rating: MH.
- D. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- E. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings of applicable testing agency.

2.3 TPO ROOFING

- A. Fabric-Reinforced TPO Sheet: ASTM D 6878, internally fabric- or scrim-reinforced, uniform, flexible fabric-backed TPO sheet.
 - 1. Thickness: 60 mils, nominal.
 - 2. Exposed Face Color: White.

2.4 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured[or approved] by TPO roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated and that produce FM Global-approved roof insulation.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2, felt or glass-fiber mat facer on both major surfaces.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Atlas Roofing Corporation.
 - b. Carlisle SynTec Incorporated.
 - c. Dyplast Products.
 - d. Firestone Building Products.
 - e. GAF Materials Corporation.
 - f. Hunter Panels.
 - g. Insulfoam LLC; a Carlisle company.
 - h. Johns Manville.
 - i. Rmax, Inc.

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- C. Tapered Insulation: Provide factory-tapered insulation boards fabricated to slope of 1/4 inch per 12 inches unless otherwise indicated.
- D. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.

2.5 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with roofing.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
- C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
 - 1. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.
- D. Cover Board: ASTM C 1177/C 1177M, glass-mat, water-resistant gypsum substrate, 5/8 inch thick, factory primed.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. CertainTeed Corporation; GlasRoc Sheathing.
 - b. Georgia-Pacific Corporation; Dens Deck.
 - c. National Gypsum Company; Gold Bond eXP Extended Exposure Sheathing.
 - d. Temple-Inland, Inc; GreenGlass Exterior Sheathing.
 - e. USG Corporation; Securock Glass Mat Roof Board.

2.6 ASPHALT MATERIALS

- A. Roofing Asphalt: ASTM D 312, Type III or Type IV.
- B. Asphalt Primer: ASTM D 41/D 41M.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:

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1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
 3. Verify that surface plane flatness and fastening of steel roof deck complies with requirements in Section 05 3100 "Steel Decking."
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Install insulation strips according to acoustical roof deck manufacturer's written instructions.

3.3 ROOFING INSTALLATION, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.
- C. Install roofing and auxiliary materials to tie in to existing roofing to maintain weathertightness of transition.

3.4 INSULATION INSTALLATION

- A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Install tapered insulation under area of roofing to conform to slopes indicated.
- D. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches or greater, install two or more layers with joints of

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each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.

1. Where installing composite and noncomposite insulation in two or more layers, install noncomposite board insulation for bottom layer and intermediate layers, if applicable, and install composite board insulation for top layer.
 - E. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
 - F. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch with insulation.
 1. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
 - G. Mechanically Fastened and Adhered Insulation: Install each layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
 1. Fasten first layer of insulation according to requirements in FM Global's "RoofNav" for specified Windstorm Resistance Classification.
 2. Fasten first layer of insulation to resist uplift pressure at corners, perimeter, and field of roof.
 3. Set each subsequent layer of insulation in a solid mopping of hot roofing asphalt, applied within plus or minus 25 deg F of equiviscous temperature.
 4. Set each subsequent layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
 5. Set each subsequent layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
 - H. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction. Loosely butt cover boards together and fasten to roof deck.
 1. Fasten cover boards according to requirements in FM Global's "RoofNav" for specified Windstorm Resistance Classification.
 2. Fasten cover boards to resist uplift pressure at corners, perimeter, and field of roof.
- 3.5 BASE FLASHING INSTALLATION
- A. Install sheet flashings and preformed flashing accessories, and adhere to substrates according to roofing system manufacturer's written instructions.
 - B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area of flashing.

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- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.6 FIELD QUALITY CONTROL

- A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
- B. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.
- C. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

3.7 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

3.8 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS _____ of _____, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
 - 1. Owner: <Insert name of Owner>.
 - 2. Address: <Insert address>.
 - 3. Building Name/Type: <Insert information>.
 - 4. Address: <Insert address>.
 - 5. Area of Work: <Insert information>.

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6. Acceptance Date: _____.
 7. Warranty Period: <Insert time>.
 8. Expiration Date: _____.
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a. lightning;
 - b. peak gust wind speed exceeding 120 mph;
 - c. fire;
 - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f. vapor condensation on bottom of roofing; and
 - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
 2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
 3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
 4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.

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5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.

1. Authorized Signature: _____.
2. Name: _____.
3. Title: _____.

END OF SECTION 07 5423

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Formed roof-drainage sheet metal fabrications.
2. Formed low-slope roof sheet metal fabrications.
3. Formed steep-slope roof sheet metal fabrications.
4. Formed wall sheet metal fabrications.
5. Formed equipment support flashing.

1.3 COORDINATION

- A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.
- B. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leakproof, secure, and noncorrosive installation.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 1. Review construction schedule. Verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 2. Review special roof details, roof drainage, roof-penetration flashing, equipment curbs, and condition of other construction that affect sheet metal flashing and trim.
 3. Review requirements for insurance and certificates if applicable.
 4. Review sheet metal flashing observation and repair procedures after flashing installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.
- B. Shop Drawings: For sheet metal flashing and trim.
1. Include plans, elevations, sections, and attachment details.
 2. Detail fabrication and installation layouts, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work.
 3. Include identification of material, thickness, weight, and finish for each item and location in Project.
 4. Include details for forming, including profiles, shapes, seams, and dimensions.
 5. Include details for joining, supporting, and securing, including layout and spacing of fasteners, cleats, clips, and other attachments. Include pattern of seams.
 6. Include details of termination points and assemblies.
 7. Include details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction from fixed points.
 8. Include details of roof-penetration flashing.
 9. Include details of edge conditions, including eaves, ridges, valleys, rakes, crickets, and counterflashings as applicable.
 10. Include details of special conditions.
 11. Include details of connections to adjoining work.
 12. Detail formed flashing and trim at scale of not less than 3 inches per 12 inches.
- C. Samples for Initial Selection: For each type of sheet metal and accessory indicated with factory-applied finishes.
- D. Samples for Verification: For each type of exposed finish.
1. Sheet Metal Flashing: 12 inches long by actual width of unit, including finished seam and in required profile. Include fasteners, cleats, clips, closures, and other attachments.
- 1.6 INFORMATIONAL SUBMITTALS
- A. Qualification Data: For fabricator.
- B. Product Certificates: For each type of coping and roof edge flashing that is FM Approvals approved.
- C. Product Test Reports: For each product, for tests performed by a qualified testing agency.
- D. Sample Warranty: For special warranty.

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For sheet metal flashing and trim, and its accessories, to include in maintenance manuals.

1.8 QUALITY ASSURANCE

- A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.
 - 1. For copings and roof edge flashings that are FM Approvals approved, shop shall be listed as able to fabricate required details as tested and approved.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.

1.10 WARRANTY

- A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 20 years from date of Substantial Completion.

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- C. FM Approvals Listing: Manufacture and install roof edge flashings that are listed in FM Approval's "RoofNav" and approved for windstorm classification, Class 1-60. Identify materials with name of fabricator and design approved by FM Approvals.
- D. SPRI Wind Design Standard: Manufacture and install copings and roof edge flashings capable of resisting the following design pressure:
 - 1. Design Pressure: As indicated on Drawings.
- E. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 - 1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Stainless-Steel Sheet: ASTM A 240/A 240M or ASTM A 666, Type 304, dead soft, fully annealed; with smooth, flat surface.
 - 1. Finish: 2D (dull, cold rolled).
- C. Metallic-Coated Steel Sheet: Provide aluminum-zinc alloy-coated steel sheet according to ASTM A 792/A 792M, Class AZ50 coating designation, Grade 40; prepainted by coil-coating process to comply with ASTM A 755/A 755M.
 - 1. Surface: Smooth, flat .

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

2. Exposed Coil-Coated Finish:
 - a. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
3. Color: Match standing seam roofing.
4. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with minimum total dry film thickness of 0.5 mil.

2.3 UNDERLAYMENT MATERIALS

- A. Felt: ASTM D 226/D 226M, Type II (No. 30), asphalt-saturated organic felt; nonperforated.
- B. Slip Sheet:
 1. Products: Subject to compliance with requirements, provide one of the following
 - a. Carlisle Residential, a division of Carlisle Construction Materials; WIP 300HT.
 - b. Grace Construction Products, a unit of W. R. Grace & Co.-Conn.; Grace Ice and Water Shield HT.
 - c. Henry Company; Blueskin PE200 HT.
 - d. Kirsch Building Products, LLC; Sharkskin Ultra SA.
 - e. Lexsuo 20 mil vapor barrier.
 - f. Metal-Fab Manufacturing, LLC; MetShield.
 - g. Owens Corning; WeatherLock Specialty Tile & Metal Underlayment.
 - h. Polyguard Products, Inc.; Deck Guard HT.
 - i. Protecto Wrap Company; Protecto Jiffy Seal Ice & Water Guard HT.

2.4 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.
 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

head.

- a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
 - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
 - c. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
2. Fasteners for Stainless-Steel Sheet: Series 300 stainless steel.
 3. Fasteners for Aluminum-Zinc Alloy-Coated Steel Sheet: Series 300 stainless steel or hot-dip galvanized steel according to ASTM A 153/A 153M or ASTM F 2329.
- C. Solder:
1. For Stainless Steel: ASTM B 32, Grade Sn60, with acid flux of type recommended by stainless-steel sheet manufacturer.
 2. For Zinc-Coated (Galvanized) Steel: ASTM B 32, Grade Sn50, 50 percent tin and 50 percent lead or Grade Sn60, 60 percent tin and 40 percent lead with maximum lead content of 0.2 percent.
- D. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
- E. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- F. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.
- G. Epoxy Seam Sealer: Two-part, noncorrosive, aluminum seam-cementing compound, recommended by aluminum manufacturer for exterior nonmoving joints, including riveted joints.
- H. Bituminous Coating: Cold-applied asphalt emulsion according to ASTM D 1187.
- I. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

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2.5 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.
 - 1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
 - 2. Obtain field measurements for accurate fit before shop fabrication.
 - 3. Form sheet metal flashing and trim to fit substrates without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
 - 4. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.
- B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- C. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."
- D. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.
 - 1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
 - 2. Use lapped expansion joints only where indicated on Drawings.
- E. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal to provide for proper installation of elastomeric sealant according to cited sheet metal standard.
- F. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- G. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard and by FM Global Property Loss Prevention Data Sheet 1-49 for application, but not less than thickness of metal being secured.
- H. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use.

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- I. Do not use graphite pencils to mark metal surfaces.

2.6 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

- A. Roof-to-Wall Transition Expansion-Joint Cover: Fabricate from the following materials:

- 1. Aluminum-Zinc Alloy-Coated Steel: 0.034 inch thick.

2.7 STEEP-SLOPE ROOF SHEET METAL FABRICATIONS

- A. Roof-to-Wall Transition Expansion-Joint Cover: Fabricate from the following materials:

- 1. Aluminum-Zinc Alloy-Coated Steel: 0.034 inch thick

2.8 WALL SHEET METAL FABRICATIONS

- A. Through-Wall Flashing: Fabricate continuous flashings in minimum 96-inch-long, but not exceeding 12-foot- long, sections, under copings, and at shelf angles. Fabricate discontinuous lintel, sill, and similar flashings to extend 6 inches beyond each side of wall openings; and form with 2-inch- high, end dams. Fabricate from the following materials:

- 1. Stainless Steel: 0.016 inch thick.

- B. Opening Flashings in Frame Construction: Fabricate head, sill, jamb, and similar flashings to extend 4 inches beyond wall openings. Form head and sill flashing with 2-inch- high, end dams. Fabricate from the following materials:

- 1. Stainless Steel: 0.016 inch thick. Aluminum: 0.032 inch thick.

- C. Wall Expansion-Joint Cover: Fabricate from the following materials:

- 1. Aluminum-Zinc Alloy-Coated Steel: 0.028 inch thick.

2.9 MISCELLANEOUS SHEET METAL FABRICATIONS

- A. Equipment Support Flashing: Fabricate from the following materials:

- 1. Stainless Steel: 0.019 inch thick.

- B. Overhead-Piping Safety Pans: Fabricate from the following materials:

- 1. Stainless Steel: 0.025 inch thick.

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.
 - 1. Verify compliance with requirements for installation tolerances of substrates.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
 - 3. Verify that air- or water-resistant barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

- A. Felt Underlayment: Install felt underlayment, wrinkle free, using adhesive to minimize use of mechanical fasteners under sheet metal flashing and trim. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.
- B. Synthetic Underlayment: Install synthetic underlayment, wrinkle free, according to manufacturers' written instructions, and using adhesive where possible to minimize use of mechanical fasteners under sheet metal.
- C. Self-Adhering Sheet Underlayment: Install self-adhering sheet underlayment, wrinkle free. Prime substrate if recommended by underlayment manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation; use primer for installing underlayment at low temperatures. Apply in shingle fashion to shed water, with end laps of not less than 6 inches staggered 24 inches between courses. Overlap side edges not less than 3-1/2 inches. Roll laps and edges with roller. Cover underlayment within 14 days.
- D. Apply slip sheet, wrinkle free, directly on substrate before installing sheet metal flashing and trim.

3.3 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.

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1. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
 2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 3. Space cleats not more than 12 inches apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
 4. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
 5. Torch cutting of sheet metal flashing and trim is not permitted.
 6. Do not use graphite pencils to mark metal surfaces.
- B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
1. Coat concealed side of stainless-steel sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
 2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.
1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.
 2. Use lapped expansion joints only where indicated on Drawings.
- D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws.
- E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
- F. Seal joints as required for watertight construction.
1. Use sealant-filled joints unless otherwise indicated. Embed hooked flanges of joint members not less than 1 inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F.
 2. Prepare joints and apply sealants to comply with requirements in Section 07 9200 "Joint Sealants."

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- G. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter. Pre-tin edges of sheets with solder to width of 1-1/2 inches; however, reduce pre-tinning where pre-tinned surface would show in completed Work.
1. Do not solder metallic-coated steel and aluminum sheet.
 2. Do not use torches for soldering.
 3. Heat surfaces to receive solder, and flow solder into joint. Fill joint completely. Completely remove flux and spatter from exposed surfaces.
 4. Stainless-Steel Soldering: Tin edges of uncoated sheets, using solder for stainless steel and acid flux. Promptly remove acid flux residue from metal after tinning and soldering. Comply with solder manufacturer's recommended methods for cleaning and neutralization.
 5. Copper Soldering: Tin edges of uncoated sheets, using solder for copper.
 6. Copper-Clad Stainless-Steel Soldering: Tin edges of uncoated sheets, using solder for copper-clad stainless steel.
- H. Rivets: Rivet joints in uncoated aluminum where necessary for strength.

3.4 ROOF-DRAINAGE SYSTEM INSTALLATION

- A. General: Install sheet metal roof-drainage items to produce complete roof-drainage system according to cited sheet metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of roof-drainage system.
- B. Hanging Gutters: Join sections with riveted and soldered joints or joints sealed with sealant]. Provide for thermal expansion. Attach gutters at eave or fascia to firmly anchor them in position. Provide end closures and seal watertight with sealant. Slope to downspouts.
1. Fasten gutter spacers to front and back of gutter.
 2. Anchor and loosely lock back edge of gutter to continuous cleat.
 3. Anchor back of gutter that extends onto roof deck with cleats spaced not more than 24 inches apart.
 4. Anchor gutter with gutter brackets spaced not more than 24 inches apart to roof deck, unless otherwise indicated, and loosely lock to front gutter bead.
 5. Install gutter with expansion joints at locations indicated, but not exceeding, 50 feet apart. Install expansion-joint caps.
 6. Install continuous gutter screens on gutters with noncorrosive fasteners, hinged to swing open for cleaning gutters.
- C. Downspouts: Join sections with 1-1/2-inch telescoping joints.
1. Provide hangers with fasteners designed to hold downspouts securely to walls. Locate hangers at top and bottom and at approximately 60 inches o.c.
 2. Provide elbows at base of downspout to direct water away from building.
 3. Connect downspouts to underground drainage system.

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

- D. Expansion-Joint Covers: Install expansion-joint covers at locations and of configuration indicated. Lap joints minimum of 4 inches in direction of water flow.

3.5 WALL FLASHING INSTALLATION

- A. General: Install sheet metal wall flashing to intercept and exclude penetrating moisture according to cited sheet metal standard unless otherwise indicated. Coordinate installation of wall flashing with installation of wall-opening components such as windows, doors, and louvers.
- B. Through-Wall Flashing: Installation of through-wall flashing is specified in Section 04 2000 "Unit Masonry."
- C. Opening Flashings in Frame Construction: Install continuous head, sill, jamb, and similar flashings to extend 4 inches beyond wall openings.

3.6 MISCELLANEOUS FLASHING INSTALLATION

- A. Equipment Support Flashing: Coordinate installation of equipment support flashing with installation of roofing and equipment. Weld or seal flashing with elastomeric sealant to equipment support member.
- B. Overhead-Piping Safety Pans: Suspend pans from structure above, independent of other overhead items such as equipment, piping, and conduit, unless otherwise indicated on Drawings. Pipe and install drain line to plumbing waste or drainage system.

3.7 ERECTION TOLERANCES

- A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- B. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."

3.8 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.
- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation

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instructions. On completion of sheet metal flashing and trim installation, remove unused materials and clean finished surfaces as recommended by sheet metal flashing and trim manufacturer. Maintain sheet metal flashing and trim in clean condition during construction.

- E. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 07 6200

SECTION 07 9200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Silicone joint sealants.
2. Urethane joint sealants.
3. Latex joint sealants.

1.2 ACTION SUBMITTALS

A. Product Data: For each joint-sealant product indicated.

B. Joint-Sealant Schedule: Include the following information:

1. Joint-sealant application, joint location, and designation.
2. Joint-sealant manufacturer and product name.
3. Joint-sealant formulation.
4. Joint-sealant color.

1.3 INFORMATIONAL SUBMITTALS

A. Product test reports.

1.4 WARRANTY

A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

A. Special Manufacturer's Warranty: Manufacturer's standard form in which joint-sealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period:
 - a. Typical: 20 years from date of Substantial Completion.
 - b. Urethane Joint Sealants: 10 years from date of Substantial Completion.

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PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
 - 1. Suitability for Immersion in Liquids. Where sealants are indicated for Use I for joints that will be continuously immersed in liquids, provide products that have undergone testing according to ASTM C 1247. Liquid used for testing sealants is deionized water, unless otherwise indicated.
- B. Stain-Test-Response Characteristics: Where sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- C. Suitability for Contact with Food: Where sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.

2.2 SILICONE JOINT SEALANTS

- A. Mildew-Resistant Silicone Joint Sealant SS-1: ASTM C 920.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Dow Corning 786 or comparable product by one of the following:
 - a. BASF Building Systems.
 - b. GE Advanced Materials - Silicones.
 - c. Pecora Corporation.
 - d. Tremco Incorporated.
 - 2. Type: Single component (S).
 - 3. Grade: nonsag (NS).
 - 4. Class: 25.
 - 5. Uses Related to Exposure: Nontraffic (NT).
- B. Neutral-Curing Silicone Joint Sealant SS-2: ASTM C 920.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Dow Corning 790 or comparable product by one of the following:
 - a. BASF Building Systems.
 - b. GE Advanced Materials - Silicones.
 - c. Pecora Corporation.

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- d. Tremco Incorporated.
 - 2. Type: Single component (S).
 - 3. Grade: nonsag (NS).
 - 4. Class: 100/50.
 - 5. Uses Related to Exposure: Nontraffic (NT).
- C. Neutral-Curing Silicone Joint Sealant SS-3: ASTM C 920.
- 1. Basis-of-Design Product: Subject to compliance with requirements, provide Dow Corning 795 or comparable product by one of the following:
 - a. BASF Building Systems.
 - b. GE Advanced Materials - Silicones.
 - c. Pecora Corporation.
 - d. Tremco Incorporated.
 - 2. Type: Single component (S).
 - 3. Grade: nonsag (NS).
 - 4. Class: 50.
 - 5. Uses Related to Exposure: Nontraffic (NT).

2.3 URETHANE JOINT SEALANTS

- A. Urethane Joint Sealant US-1: ASTM C 920.
- 1. Basis-of-Design Product: Subject to compliance with requirements, provide Masterseal NP100; BASF Building Systems or comparable product by one of the following:
 - a. Pecora Corporation.
 - b. Tremco Incorporated.
 - 2. Type: Single component (S).
 - 3. Grade: nonsag (NS).
 - 4. Class: 25.
 - 5. Uses Related to Exposure: Nontraffic (NT).

2.4 LATEX JOINT SEALANTS

- A. Latex Joint Sealant LS-1: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
- 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. BASF Building Systems.

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- b. Pecora Corporation.
- c. Tremco Incorporated.

2.5 JOINT SEALANT BACKING

- A. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance. Backer rod at joints beyond 3/8" or less than 3 points of direct contact 3/8" into the cavity.

2.6 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions.
 - 1. Remove laitance and form-release agents from concrete.
 - 2. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

SECTION 07 9200 - JOINT SEALANTS

3.2 INSTALLATION

- A. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - 1. Do not leave gaps between ends of sealant backings.
 - 2. Do not stretch, twist, puncture, or tear sealant backings.
 - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- C. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 - 1. Place sealants so they directly contact and fully wet joint substrates.
 - 2. Completely fill recesses in each joint configuration.
 - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- D. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 - 1. Remove excess sealant from surfaces adjacent to joints.
 - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 - 3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
- E. Acoustical Sealant Installation: Comply with ASTM C 919 and with manufacturer's written recommendations.
- F. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.3 JOINT-SEALANT SCHEDULE

- A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces SS-2.
 - 1. Joint Locations:
 - a. Joints in exterior insulation finish systems.

SECTION 07 9200 - JOINT SEALANTS

2. Joint Sealant: Silicone.
 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.
- B. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces SS-3.
1. Joint Locations:
 - a. Joints between exterior insulation finish systems and masonry.
 2. Joint Sealant: Silicone.
 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.
- C. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces US-1.
1. Joint Locations:
 - a. Control and expansion joints in unit masonry.
 - b. Joints between different materials listed above.
 - c. Perimeter joints between materials listed above and frames of doors and windows.
 2. Joint Sealant: Urethane.
 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.
- D. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces US-1.
1. Joint Locations:
 - a. Control and expansion joints on exposed interior surfaces of exterior walls.
 - b. Perimeter joints of exterior openings where indicated.
 - c. Vertical joints on exposed surfaces of interior unit masonry walls and partitions.
 2. Joint Sealant: Urethane.
 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.
- E. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces LS-1.
1. Joint Locations:
 - a. Vertical joints on exposed surfaces of interior unit masonry walls and partitions.

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- b. Perimeter joints between interior wall surfaces and frames of interior doors and windows .
 - 2. Joint Sealant: Latex.
 - 3. Joint-Sealant Color: White, paintable color. Latex Joint Sealant shall be painted to match the adjacent wall.
- F. Joint-Sealant Application: Mildew-resistant interior joints in vertical surfaces and horizontal nontraffic surfaces SS-1.
- 1. Joint Sealant Location:
 - a. Joints between plumbing fixtures and adjoining walls, floors, and counters.
 - 2. Joint Sealant: Silicone.
 - 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

END OF SECTION 07 9200

SECTION 084126 - ALL-GLASS ENTRANCES AND STOREFRONTS

PART 1 - GENERAL

1.1 SUMMARY

A. Related Requirements:

1. Section 055000 "Metal Fabrications" for overhead-steel support for all-glass systems.

1.2 ACTION SUBMITTALS

A. Product Data:

1. Exterior all-glass entrance and storefront systems.

B. Product Data Submittals: For each product.

1. Construction details, material descriptions, dimensions of individual components and profiles, and finishes for all-glass system.

C. Shop Drawings: For exterior all-glass entrance and storefront systems.

1. Plans, elevations, and sections.
2. Details of fittings and glazing, including isometric drawings of fittings.
3. Door hardware locations, mounting heights, and installation requirements.
4. Signed and sealed by the qualified professional engineer responsible for their preparation.

D. Samples for Initial Selection: Manufacturer's standard color sheets, showing full range of available colors for each type of fitting, accessory fitting, glass, and door hardware.

E. Samples for Verification: Actual sample of finished products for each type of fitting, accessory fitting, glass showing exposed edge finish, and door hardware.

1. Size: Manufacturers' standard size.

F. Entrance Door Hardware Schedule: Prepared by or under supervision of supplier, detailing fabrication and assembly of entrance door hardware, as well as procedures and diagrams. Coordinate final entrance door hardware schedule with all-glass entrance-system components, assemblies, and related work to ensure proper size, thickness, hand, function, and finish of entrance door hardware.

G. Delegated Design Submittals: For exterior all-glass entrance and storefront systems, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

SECTION 084126 - ALL-GLASS ENTRANCES AND STOREFRONTS

1.3 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: For each exterior all-glass entrance and storefront system, for tests performed by a qualified testing agency.
- B. Field Quality-Control Reports: For exterior all-glass entrance and storefront systems.
- C. Qualification Statements:
 - 1. For Installer and testing agency.
- D. Delegated Design Engineer Qualifications: For exterior all-glass entrance and storefront systems.
- E. Sample Warranties: For exterior all-glass entrance and storefront systems.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For exterior all-glass entrance and storefront systems.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications:
 - 1. Fabricator of products.
 - 2. Entity that employs installers and supervisors who are trained and approved by manufacturer.
 - 3. Authorized representative who is trained and approved by manufacturer.
- B. Product Options: Information on Drawings and in Specifications establishes requirements for aesthetic effects and performance characteristics of assemblies. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction.
 - 1. Do not change intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If changes are proposed, submit comprehensive explanatory data to Architect for review.

1.6 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of exterior all-glass entrance and storefront systems that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including excessive deflection, air leakage, or water penetration.
 - b. Deterioration of metals, metal finishes, and other materials beyond normal

SECTION 084126 - ALL-GLASS ENTRANCES AND STOREFRONTS

weathering.

2. Warranty Period: Two years from date of Substantial Completion.
 - a. Concealed Floor Closers: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

- A. Obtain all components of exterior all-glass entrance and storefront systems, including framing and accessories, from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design exterior all-glass entrance and storefront systems.
- B. General Performance: Comply with performance requirements specified, as determined by testing of exterior all-glass entrance and storefront systems representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.
- C. Structural Loads:
 1. Wind Loads: As indicated on Drawings.
 2. Deflection Limits: Deflection normal to glazing plane is limited to 1/175 of clear span or **3/4 inch**, whichever is smaller.
- D. Seismic Performance: All-glass entrance and storefront systems to withstand the effects of earthquake motions determined in accordance with ASCE/SEI 7.
- E. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes.
 1. Temperature Change: **120 deg F**, ambient; **180 deg F**, material surfaces.

2.3 GLASS

- A. Glass: ASTM C1048, Kind FT (fully tempered), Condition A (uncoated surfaces), Type I (transparent), Quality-Q3, tested for surface and edge compression in accordance with ASTM C1048 and for impact strength in accordance with 16 CFR 1201 for Category II materials.
 1. Class 1: Clear monolithic.
 - a. Thickness: 12 16 mm.

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2. Class 2: Tinted monolithic.
 - a. Color: Gray.
 - b. Thickness: 12 mm.
3. Exposed Edges: Machine ground and flat polished.
4. Butt Edges: Flat ground.
5. Corner Edges: Lap-joint corners with exposed edges polished.

2.4 ENTRANCE DOOR HARDWARE

- A. General: Entrance door hardware units in sizes, quantities, and types recommended by manufacturer for all-glass entrance systems indicated. For exposed parts, match metal and finish of fittings.
- B. Concealed Floor Closers and Top Pivots: Center hung; ANSI/BHMA A156.4, Grade 1; including cases, bottom arms, top walking beam pivots, plates, and accessories required for complete installation.
 1. Swing: Single acting.
 - a. Positive Dead Stop: Coordinated with hold-open angle if any, or at angle selected.
 2. Hold Open: Automatic, at angle selected.
 3. Opening-Force Requirements:
 - a. Egress Doors: Not more than **15 lbf** to release the latch and not more than **30 lbf** to set the door in motion and not more than **15 lbf** to open the door to its minimum required width.
- C. Concealed Overhead Holder: ANSI/BHMA A156.8, Grade 1, with dead-stop setting coordinated with concealed floor closer.
- D. Push-Pull Set: As selected from manufacturer's full range.
- E. Single-Door and Active-Leaf Locksets: Center-housing deadbolt with pulls.
 1. Deadbolt operated by key outside and thumbturn inside.
- F. Inactive-Leaf Locksets: Bottom-fitting or bottom-rail deadbolt.
 1. Deadbolt operated by key outside and thumbturn inside.
- G. Cylinders: As specified in Section 087100 "Door Hardware."
- H. Exit Devices: UL 305.
 1. Function: Operation by push-pull when inside operator is locked down (dogged).
 2. Latching: At threshold or floor plate and door head.
 3. Style: Exposed vertical rod.

SECTION 084126 - ALL-GLASS ENTRANCES AND STOREFRONTS

4. Provide exit devices on both leaves of pairs of doors.

I. Threshold: Not more than **1/2 inch** high.

2.5 FABRICATION

A. Provide holes and cutouts in glass to receive hardware, fittings, and accessory fittings before tempering glass. Do not cut, drill, or make other alterations to glass after tempering.

1. Fully temper glass using horizontal (roller-hearth) process, and fabricate so that when glass is installed, roll-wave distortion is parallel with bottom edge of door or lite.

B. Factory assemble components and factory install hardware and fittings to greatest extent possible.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 FIELD QUALITY CONTROL

A. Testing Agency: **[Owner will engage][Engage]** a qualified testing agency to perform tests.

B. Tests: Perform the following tests on **[representative areas of exterior all-glass storefront systems][mockups]<Insert requirements>**.

1. Water-Spray Test: After completion of all-glass storefront installation and nominal curing of sealant and glazing compounds, but before installation of interior finishes, test storefront for water leaks in accordance with AAMA 501.2.

a. Perform test for total areas **[as designated by Architect]<Insert description>**.

C. Inspection Agency: **[Owner will engage][Engage]** a qualified inspector to perform inspections.

D. Inspections:

1. Egress Door Inspections: Inspect each exterior all-glass entrance door equipped with panic hardware, located in an exit enclosure, electrically controlled, and equipped with special locking arrangements, in accordance with NFPA 101, Ch. 7 "Means of Egress," Section "Means of Egress Components," Article "Inspection of Door Openings."

E. Exterior all-glass entrance and storefront systems will be considered defective if they do not

SECTION 084126 - ALL-GLASS ENTRANCES AND STOREFRONTS

pass tests and inspections.

- F. Prepare test and inspection reports.

3.3 ADJUSTING AND CLEANING

- A. Adjust all-glass entrance doors and hardware to function smoothly and fit tightly at contact points and weather stripping.
 - 1. For exterior all-glass entrance doors accessible to people with disabilities, adjust closers to provide a three-second closer sweep period for doors to move from a 70-degree open position to **3 inches** from the latch measured to the leading door edge.
- B. Remove excess sealant and glazing compounds and dirt from surfaces.

END OF SECTION 084126

SECTION 09 2900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Interior gypsum board.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For the following products:
 - 1. Trim Accessories: Full-size Sample in 12-inch- long length for each trim accessory indicated.

1.4 QUALITY ASSURANCE

- A. Mockups: Before beginning gypsum board installation, install mockups of at least 100 sq. ft. in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Install mockups for the following:
 - a. Each level of gypsum board finish indicated for use in exposed locations.
 - b. Each texture finish indicated.
 - 2. Apply or install final decoration indicated, including painting and wallcoverings, on exposed surfaces for review of mockups.
 - 3. Simulate finished lighting conditions for review of mockups.
 - 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

SECTION 09 2900 - GYPSUM BOARD

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.6 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.
- C. Low-Emitting Materials: For ceiling and wall assemblies, provide materials and construction identical to those tested in assembly and complying with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

SECTION 09 2900 - GYPSUM BOARD

2.2 GYPSUM BOARD, GENERAL

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.3 INTERIOR GYPSUM BOARD

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. American Gypsum.
2. CertainTeed Corp.
3. Georgia-Pacific Gypsum LLC.
4. Lafarge North America Inc.
5. National Gypsum Company.
6. PABCO Gypsum.
7. Temple-Inland.
8. USG Corporation.

- B. Gypsum Board, Type X: ASTM C 1396/C 1396M.

1. Thickness: 5/8 inch.
2. Long Edges: Tapered.

- C. Gypsum Ceiling Board: ASTM C 1396/C 1396M.

1. Thickness: 1/2 inch.
2. Long Edges: Tapered.

2.4 TRIM ACCESSORIES

- A. Interior Trim: ASTM C 1047.

1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized steel sheet.
2. Shapes:
 - a. Cornerbead.
 - b. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - c. L-Bead: L-shaped; exposed long flange receives joint compound.
 - d. Expansion (control) joint.

2.5 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C 475/C 475M.

SECTION 09 2900 - GYPSUM BOARD

- B. Joint Tape:
 - 1. Interior Gypsum Board: Paper.
 - 2. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
- C. Joint Compound for Interior Gypsum Board: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
 - 1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
 - 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
 - a. Use setting-type compound for installing paper-faced metal trim accessories.
 - 3. Fill Coat: For second coat, use setting-type, sandable topping compound.
 - 4. Finish Coat: For third coat, use setting-type, sandable topping compound.

2.6 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.
- B. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
 - 1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch thick.
 - 2. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.
- C. Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Accumetric LLC; BOSS 824 Acoustical Sound Sealant.
 - b. Grabber Construction Products; Acoustical Sealant GSC.
 - c. Pecora Corporation; AC-20 FTR.
 - d. Specified Technologies, Inc.; Smoke N Sound Acoustical Sealant.
 - e. USG Corporation; SHEETROCK Acoustical Sealant.
 - 2. Acoustical joint sealant shall have a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

SECTION 09 2900 - GYPSUM BOARD

- D. Thermal Insulation: As specified in Section 07 2100 "Thermal Insulation."
- E. Vapor Retarder: As specified in Section 07 2100 "Thermal Insulation."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and framing, with Installer present, for compliance with requirements and other conditions affecting performance.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
 - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
 - 2. Fit gypsum panels around ducts, pipes, and conduits.

SECTION 09 2900 - GYPSUM BOARD

3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- wide joints to install sealant.
- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide 1/4- to 1/2-inch- wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- I. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C 919 and with manufacturer's written recommendations for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.
- J. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

3.3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
 1. Type X: Where required for fire-resistance-rated assembly.
 2. Ceiling Type: Ceiling surfaces.
- B. Single-Layer Application:
 1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
 2. On partitions/walls, apply gypsum panels vertically (parallel to framing) unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
 - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
 - b. At stairwells and other high walls, install panels horizontally unless otherwise indicated or required by fire-resistance-rated assembly.
 3. On Z-furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
 4. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

SECTION 09 2900 - GYPSUM BOARD

3.4 APPLYING EXTERIOR GYPSUM PANELS FOR CEILINGS AND SOFFITS

- A. Apply panels perpendicular to supports, with end joints staggered and located over supports.
 - 1. Install with 1/4-inch open space where panels abut other construction or structural penetrations.
 - 2. Fasten with corrosion-resistant screws.

3.5 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect.
- C. Interior Trim: Install in the following locations:
 - 1. Cornerbead: Use at outside corners unless otherwise indicated.
 - 2. LC-Bead: Use at exposed panel edges.
 - 3. L-Bead: Use where indicated.

3.6 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
 - 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
 - 2. Level 2: Panels that are substrate for tile.
 - 3. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.
 - a. Primer and its application to surfaces are specified in Section 09 9123 "Interior Painting."

SECTION 09 2900 - GYPSUM BOARD

3.7 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 09 2900

SECTION 09 3000 - TILING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Ceramic tile.
 - 2. Stone thresholds.
 - 3. Waterproof membrane.
 - 4. Crack isolation membrane.
 - 5. Tile backing panels.
 - 6. Metal edge strips.

1.3 DEFINITIONS

- A. General: Definitions in the ANSI A108 series of tile installation standards and in ANSI A137.1 apply to Work of this Section unless otherwise specified.
- B. Face Size: Actual tile size, excluding spacer lugs.

1.4 PERFORMANCE REQUIREMENTS

- A. Static Coefficient of Friction: For tile installed on walkway surfaces, provide products with the following values as determined by testing identical products per ASTM C 1028.

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of tile and grout indicated. Include Samples of accessories involving color selection.
- C. Qualification Data: For qualified Installer.
- D. Master Grade Certificates: For each shipment, type, and composition of tile, signed by tile manufacturer and Installer.

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- E. Product Certificates: For each type of product, signed by product manufacturer.
- F. Material Test Reports: For each tile-setting and -grouting product and special purpose tile.

1.6 QUALITY ASSURANCE

- A. Source Limitations for Tile: Obtain tile of each color or finish from one source or producer.
 - 1. Obtain tile of each type and color or finish from same production run and of consistent quality in appearance and physical properties for each contiguous area.
- B. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from one manufacturer and each aggregate from one source or producer.
- C. Source Limitations for Other Products: Obtain each of the following products specified in this Section from a single manufacturer for each product:
 - 1. Stone thresholds.
 - 2. Waterproof membrane.
 - 3. Crack isolation membrane.
 - 4. Joint sealants.
 - 5. Cementitious backer units.
 - 6. Metal edge strips.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements in ANSI A137.1 for labeling tile packages.
- B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination can be avoided.
- D. Store liquid materials in unopened containers and protected from freezing.
- E. Handle tile that has temporary protective coating on exposed surfaces to prevent coated surfaces from contacting backs or edges of other units. If coating does contact bonding surfaces of tile, remove coating from bonding surfaces before setting tile.

1.8 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.

SECTION 09 3000 - TILING

1.9 EXTRA MATERIALS

- A. Furnish extra materials that match and are from same production runs as products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Tile and Trim Units: Furnish quantity of full-size units equal to 3 percent of amount installed for each type, composition, color, pattern, and size indicated.
 - 2. Grout: Furnish quantity of grout equal to 3 percent of amount installed for each type, composition, and color indicated.

PART 2 - PRODUCTS

2.1 PRODUCTS, GENERAL

- A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.
 - 1. Provide tile complying with Standard grade requirements unless otherwise indicated.
- B. ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI A108.02, ANSI standards referenced in other Part 2 articles, ANSI standards referenced by TCA installation methods specified in tile installation schedules, and other requirements specified.
- C. Factory Blending: For tile exhibiting color variations within ranges, blend tile in factory and package so tile units taken from one package show same range in colors as those taken from other packages and match approved Samples.
- D. Mounting: For factory-mounted tile, provide back- or edge-mounted tile assemblies as standard with manufacturer unless otherwise indicated.
 - 1. Where tile is indicated for installation in wet areas, do not use back- or edge-mounted tile assemblies unless tile manufacturer specifies in writing that this type of mounting is suitable for installation indicated and has a record of successful in-service performance.
- E. Factory-Applied Temporary Protective Coating: Where indicated under tile type, protect exposed surfaces of tile against adherence of mortar and grout by precoating with continuous film of petroleum paraffin wax, applied hot. Do not coat unexposed tile surfaces.

2.2 TILE PRODUCTS

- A. Tile Type : Factory-mounted glazed ceramic mosaic tile.

SECTION 09 3000 - TILING

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
2. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
 - a. American Olean; Division of Dal-Tile International Inc.
 - b. Daltile; Division of Dal-Tile International Inc.
 - c. Trinity.
3. Composition: Porcelain
4. Module Size: 6x24, 12x12, 12x24.
5. Thickness: 1/4 inch (6.35 mm).
6. Face: Pattern of design indicated, with cushion edges.
7. Surface: Slip-resistant, with abrasive admixture.
8. Finish: Specific to the selection.
9. Tile Color and Pattern: As indicated by manufacturer's designations.
10. Grout Color: As indicated by manufacturer's designations.
11. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable[and matching characteristics of adjoining flat tile. Provide shapes as follows, selected from manufacturer's standard shapes:
 - a. Base Cove: Cove, module size [1 by 1 inch (25.4 by 25.4 mm)] [2 by 1 inch (50.8 by 25.4 mm)] <Insert size>.
 - b. Base Cap for Portland Cement Mortar Installations: Bead (bullnose), module size 2 by 1 inch.
 - c. Base Cap for Thin-Set Mortar Installations: Surface bullnose, module size 2 by 2 inches.
 - d. Wainscot Cap for Portland Cement Mortar Installations: Bead (bullnose), module size 2 by 1 inch.
 - e. Wainscot Cap for Thin-Set Mortar Installations: Surface bullnose, module size 2 by 2 inches.
 - f. Wainscot Cap for Flush Conditions: Regular flat tile for conditions where tile wainscot is shown flush with wall surface above it, same size as adjoining flat tile.
 - g. External Corners for Portland Cement Mortar Installations: Bead (bullnose), module size 2 by 1 inch.
 - h. External Corners for Thin-Set Mortar Installations: Surface bullnose, module size 2 by 2 inches.
 - i. Internal Corners: Cove, module size 2 by 1 inch.
 - j. Internal Corners: Field-buttet square corners. For coved base and cap, use angle pieces designed to fit with stretcher shapes.
 - k. Tapered Transition Tile: Shape designed to effect transition between thickness of tile floor and adjoining floor finishes of different thickness, tapered to provide reduction in thickness from 1/2 to 1/4 inch (12.7 to 6.35 mm) across nominal 4-inch (100-mm) dimension.

B. Tile Type Glazed square-edged quarry tile.

SECTION 09 3000 - TILING

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following
2. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
 - a. Daltile; Division of Dal-Tile International Inc.
 - b. Florida Tile Industries, Inc.
 - c. Summitville Tiles, Inc.
3. Face Size **6 by 6**.
4. Thickness: **3/4 inch**.
5. Wearing Surface: Abrasive aggregate embedded in surface.
6. Finish: Mat, opaque glaze.
7. Tile Color and Pattern: As indicated by manufacturer's designations.
8. Grout Color: As selected by Architect from manufacturer's full range.
9. For furan-grouted quarry tile, precoat with temporary protective coating.
10. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile. Provide shapes as follows, selected from manufacturer's standard shapes:
 - a. Base: Coved with surface bullnose top edge, face size **6 by 6 inches**.
 - b. Wainscot Cap: Surface bullnose, face size **8 by 3-7/8 inches**.
 - c. Wainscot Cap for Flush Conditions: Regular flat tile for conditions where tile wainscot is shown flush with wall surface above it, same size as adjoining flat tile.
- 11.

2.3 THRESHOLDS

- A. Marble Thresholds: ASTM C 503, with a minimum abrasion resistance of 12 per ASTM C 1353 or ASTM C 241 and with honed finish.
 1. Description: Uniform, fine- to medium-grained white stone with gray veining.

2.4 TILE BACKING PANELS

- A. Cementitious Backer Units: ANSI A118.9 or ASTM C 1325, in maximum lengths available to minimize end-to-end butt joints.
 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. C-Cure; C-Cure Board 990.
 - b. Custom Building Products; Wonderboard.
 - c. FinPan, Inc.; Util-A-Crete Concrete Backer Board.
 - d. USG Corporation; DUROCK Cement Board.
 2. Thickness: **5/8 inch**.

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- B. Fiber-Cement Underlayment: ASTM C 1288, in maximum lengths available to minimize end-to-end butt joints.
 - 1. Products: Subject to compliance with requirements, provide one of the following [available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. CertainTeed Corp.; FiberCement BackerBoard.
 - b. James Hardie; Hardiebacker 500.
 - 2. Thickness: 1/2 inch.

2.5 WATERPROOF MEMBRANE

- A. General: Manufacturer's standard product, selected from the following, that complies with ANSI A118.10 and is recommended by the manufacturer for the application indicated. Include reinforcement and accessories recommended by manufacturer.
- B. PVC Sheet: Two layers of PVC sheet heat-fused together and to facings of nonwoven polyester; 0.040-inch (1.01-mm) nominal thickness.
 - 1. Products: Subject to compliance with requirements, provide the following:
 - a. Compotite Corporation; Composeal Gold..
- C. Polyethylene Sheet: Polyethylene faced on both sides with fleece webbing; 0.008-inch (0.203-mm) nominal thickness.
 - 1. Products: Subject to compliance with requirements, provide the following:
 - a. Schluter Systems L.P.; KERDI.
- D. Urethane Waterproofing and Tile-Setting Adhesive: One-part, liquid-applied urethane, with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24), in a consistency suitable for trowel application and intended for use as both waterproofing and tile-setting adhesive in a two-step process.
 - 1. Products: Subject to compliance with requirements, provide the following:
 - a. Bostik, Inc.; Hydroment Ultra-Set Advanced.

2.6 CRACK ISOLATION MEMBRANE

- A. General: Manufacturer's standard product, selected from the following, that complies with ANSI A118.12 for standard performance and is recommended by the manufacturer for the application indicated. Include reinforcement and accessories recommended by manufacturer.

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- B. PVC Sheet: Two layers of PVC sheet heat-fused together and to facings of nonwoven polyester; 0.040-inch (1.01-mm) nominal thickness.
 - 1. Products: Subject to compliance with requirements, provide the following:
 - a. Compotite Corporation; Composeal Gold.
- C. Polyethylene Sheet: Polyethylene faced on both sides with fleece webbing; 0.008-inch (0.203-mm) nominal thickness.
 - 1. Products: Subject to compliance with requirements, provide the following:
 - a. Schluter Systems L.P.; KERDI.

2.7 SETTING MATERIALS

- A. Portland Cement Mortar (Thickset) Installation Materials: ANSI A108.02.
 - 1. Cleavage Membrane: Asphalt felt, ASTM D 226, Type I (No. 15); or polyethylene sheeting, ASTM D 4397, 4.0 mils (0.1 mm) thick.
 - 2. Reinforcing Wire Fabric: Galvanized, welded wire fabric, 2 by 2 inches (50.8 by 50.8 mm) by 0.062-inch (1.57-mm) diameter; comply with ASTM A 185 and ASTM A 82 except for minimum wire size.
 - 3. Expanded Metal Lath: Diamond-mesh lath complying with ASTM C 847.
 - a. Base Metal and Finish for Interior Applications: Uncoated or zinc-coated (galvanized) steel sheet, with uncoated steel sheet painted after fabrication into lath.
 - b. Base Metal and Finish for Exterior Applications: Zinc-coated (galvanized) steel sheet.
 - c. Configuration over Studs and Furring: Flat.
 - d. Configuration over Solid Surfaces: Self furring.
 - e. Weight: 3.4 lb/sq. yd. (1.8 kg/sq. m).
 - 4. Latex Additive: Manufacturer's standard water emulsion, serving as replacement for part or all of gaging water, of type specifically recommended by latex-additive manufacturer for use with field-mixed portland cement and aggregate mortar bed.

2.8 GROUT MATERIALS

- A. Sand-Portland Cement Grout: ANSI A108.10, composed of white or gray cement and white or colored aggregate as required to produce color indicated.
- B. Standard Cement Grout: ANSI A118.6.

SECTION 09 3000 - TILING

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Boiardi Products; a QEP company.
 - b. Bonsal American; an Oldcastle company.
 - c. Bostik, Inc.
 - d. C-Cure.
 - e. Custom Building Products.
 - f. Jamo Inc.
 - g. Laticrete International, Inc.
 - h. MAPEI Corporation.
 - i. Southern Grouts & Mortars, Inc.
 - j. Summitville Tiles, Inc.
 - k. TEC; a subsidiary of H. B. Fuller Company

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of installed tile.
 1. Verify that substrates for setting tile are firm, dry, clean, free of coatings that are incompatible with tile-setting materials including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.
 2. Verify that concrete substrates for tile floors installed with bonded mortar bed comply with surface finish requirements in ANSI A108.01 for installations indicated.
 - a. Verify that surfaces that received a steel trowel finish have been mechanically scarified.
 - b. Verify that protrusions, bumps, and ridges have been removed by sanding or grinding.
 3. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed.
 4. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

SECTION 09 3000 - TILING

3.2 PREPARATION

- A. Fill cracks, holes, and depressions in concrete substrates for tile floors installed with thin-set mortar with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.
- B. Where indicated, prepare substrates to receive waterproofing by applying a reinforced mortar bed that complies with ANSI A108.1A and is sloped **1/4 inch per foot (1:50)** toward drains.
- C. Blending: For tile exhibiting color variations, verify that tile has been factory blended and packaged so tile units taken from one package show same range of colors as those taken from other packages and match approved Samples. If not factory blended, either return to manufacturer or blend tiles at Project site before installing.
- D. Field-Applied Temporary Protective Coating: If indicated under tile type or needed to prevent grout from staining or adhering to exposed tile surfaces, precoat them with continuous film of temporary protective coating, taking care not to coat unexposed tile surfaces.

3.3 TILE INSTALLATION

- A. Comply with TCA's "Handbook for Ceramic Tile Installation" for TCA installation methods specified in tile installation schedules. Comply with parts of the ANSI A108 Series "Specifications for Installation of Ceramic Tile" that are referenced in TCA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.
 - 1. For the following installations, follow procedures in the ANSI A108 Series of tile installation standards for providing 95 percent mortar coverage:
 - a. Exterior tile floors.
 - b. Tile floors in wet areas.
 - c. Tile swimming pool decks.
 - d. Tile floors in laundries.
 - e. Tile floors composed of tiles **8 by 8 inches (200 by 200 mm)** or larger.
 - f. Tile floors composed of rib-backed tiles.
- B. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- C. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.
- D. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work and center tile fields in both directions in each space or on each wall area. Lay out tile work to

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minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.

1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.
2. Where adjoining tiles on floor, base, walls, or trim are specified or indicated to be same size, align joints.
3. Where tiles are specified or indicated to be whole integer multiples of adjoining tiles on floor, base, walls, or trim, align joints unless otherwise indicated.

E. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:

1. Ceramic Mosaic Tile: 1/16 inch (1.6 mm).
2. Quarry Tile: 3/8 inch (9.5 mm).
3. Glazed Wall Tile: 1/16 inch (1.6 mm).
4. Decorative Thin Wall Tile: 1/16 inch (1.6 mm).

F. Lay out tile wainscots to dimensions indicated or to next full tile beyond dimensions indicated.

G. Expansion Joints: Provide expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, where indicated. Form joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.

1. Where joints occur in concrete substrates, locate joints in tile surfaces directly above them.
2. Prepare joints and apply sealants to comply with requirements in Division 07 Section "Joint Sealants."

H. Stone Thresholds: Install stone thresholds in same type of setting bed as adjacent floor unless otherwise indicated.

1. At locations where mortar bed (thickset) would otherwise be exposed above adjacent floor finishes, set thresholds in latex-portland cement mortar (thin set).

I. Metal Edge Strips: Install where exposed edge of tile flooring meets carpet, wood, or other flooring that finishes flush with top of tile.

J. Grout Sealer: Apply grout sealer to cementitious grout joints in tile floors according to grout-sealer manufacturer's written instructions. As soon as grout sealer has penetrated grout joints, remove excess sealer and sealer from tile faces by wiping with soft cloth.

3.4 TILE BACKING PANEL INSTALLATION

A. Install cementitious backer units and fiber-cement underlayment and treat joints according to ANSI A108.11 and manufacturer's written instructions for type of application indicated. Use latex-portland cement mortar for bonding material unless otherwise directed in manufacturer's written instructions.

SECTION 09 3000 - TILING

3.5 WATERPROOFING INSTALLATION

- A. Install waterproofing to comply with ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness and bonded securely to substrate.
- B. Do not install tile or setting materials over waterproofing until waterproofing has cured and been tested to determine that it is watertight.

3.6 CRACK ISOLATION MEMBRANE INSTALLATION

- A. Install crack isolation membrane to comply with ANSI A108.17 and manufacturer's written instructions to produce membrane of uniform thickness and bonded securely to substrate.
- B. Do not install tile or setting materials over crack isolation membrane until membrane has cured.

3.7 CLEANING AND PROTECTING

- A. Cleaning: On completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.
 - 1. Remove latex-portland cement grout residue from tile as soon as possible.
 - 2. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions but no sooner than 10 days after installation. Use only cleaners recommended by tile and grout manufacturers and only after determining that cleaners are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.
 - 3. Remove temporary protective coating by method recommended by coating manufacturer and that is acceptable to tile and grout manufacturer. Trap and remove coating to prevent drain clogging.
- B. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage, and wear. If recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile walls and floors.
- C. Prohibit foot and wheel traffic from tiled floors for at least seven days after grouting is completed.
- D. Before final inspection, remove protective coverings and rinse neutral protective cleaner from tile surfaces.

END OF SECTION 093000

SECTION 09 6466 - WOOD ATHLETIC FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes wood athletic flooring.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for wood athletic flooring.
- B. Shop Drawings: For each type of floor assembly and accessory. Include plans, elevations, sections, details, and attachments to other work. Include the following:
 - 1. Expansion provisions and trim details.
 - 2. Layout, colors, widths, and dimensions of game lines and markers.
 - 3. Locations of floor inserts for athletic equipment installed through flooring assembly.
- C. Samples for Initial Selection: Manufacturer's color charts showing colors and glosses available for the following:
 - 1. Floor finish.
 - 2. Game-line and marker paint.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for wood athletic flooring system.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For wood athletic flooring and finish systems to include in maintenance manuals.

SECTION 09 6466 - WOOD ATHLETIC FLOORING

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is certified for chain-of-custody certification by an FSC-accredited certification body.
- B. Installer Qualifications: A firm or individual that has been approved by MFMA as an accredited Installer according to the MFMA Accreditation Program.
- C. Installer Qualifications: An experienced Installer who has completed wood athletic flooring installations similar in material, design, and extent to that indicated for this Project and whose work has resulted in installations with a record of successful in-service performance.
 - 1. Installer responsibilities include installation and field finishing of wood athletic flooring components and accessories, and application of game lines and markers.
- D. Maple Flooring: Comply with MFMA grading rules for species, grade, and cut.
 - 1. Certification: Provide flooring that carries MFMA mark on each bundle or piece.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver assembly materials in unopened cartons or bundles.
- B. Protect wood from exposure to moisture. Do not deliver wood components until after concrete, masonry, plaster, ceramic tile, and similar wet work is complete and dry.
- C. Store wood components in a dry, warm, well-ventilated, weathertight location and in a horizontal position.

1.8 FIELD CONDITIONS

- A. Conditioning period begins not less than seven days before wood athletic flooring installation, is continuous through installation, and continues not less than seven days after installation.
 - 1. Environmental Conditioning: Maintain an ambient temperature between 65 and 75 deg F and relative humidity planned for building occupants, but not less than 35 percent or more than 50 percent, in spaces to receive wood athletic flooring during the conditioning period.
 - 2. Wood Conditioning: Move wood components into spaces where they will be installed, no later than beginning of the conditioning period.

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- a. Do not install wood athletic flooring until wood components adjust to relative humidity of, and are at same temperature as, spaces where they are to be installed.
 - b. Open sealed packages to allow wood components to acclimatize immediately on moving wood components into spaces in which they will be installed.
- B. After conditioning period, maintain relative humidity and ambient temperature planned for building occupants.
- C. Install wood athletic flooring after other finishing operations, including painting, have been completed.

1.9 COORDINATION

- A. Coordinate layout and installation of wood athletic flooring systems with floor inserts for gymnasium equipment.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Aacer Flooring, LLC; AacerChannel VLP or comparable product by one of the following:
- 1. Action Floor Systems, LLC.
 - 2. Connor Floor; Subsidiary of Connor Sport Court International.
 - 3. Horner Flooring Company, Inc.
 - 4. Mondo.
 - 5. Robbins Sports Surfaces.
 - 6. WD Flooring, LLC.

2.2 DESCRIPTION

- A. System Type: Fixed.
- B. Overall System Height: 1 7/8 inches.

2.3 PERFORMANCE REQUIREMENTS

- A. Provide wood athletic flooring systems tested by a qualified testing agency according to DIN V 18032-2 and shown to meet the following requirements:
- 1. Shock Absorption: Minimum 53 percent.

SECTION 09 6466 - WOOD ATHLETIC FLOORING

2. Vertical Deflection: Minimum 0.09 inch.
3. Area of Deflection: Maximum 15 percent.
4. Ball Bounce: Minimum 90 percent.
5. Surface Friction: Not less than 0.5 or more than 0.7.
6. Rolling Loads: No damage when subjected to 337 lbf applied through a single wheel.

2.4 FLOORING MATERIALS

- A. Random-Length Strip Flooring: Northern hard maple (*Acer saccharum*), kiln dried, random length, tongue and groove, and end matched.
 1. Grade: MFMA-RL Second and Better.
 2. Cut: Flat.
 3. Thickness: 25/32 inch .
 4. Face Width: 2-1/4 inches .

2.5 SUBFLOOR MATERIALS

- A. Plywood Underlayment: APA rated, C-D plugged, exterior glue, tongue and groove, 15/32 inch thick.
- B. Channels: Manufacturer's standard as indicated by product designation above.
 1. Channel Anchors: Manufacturer's standard, but not less than modified steel drive pins recommended by anchor manufacturer to achieve minimum 900-lbf pullout strength.
 2. Clips: Manufacturer's standard as indicated by product designation above.
- C. Resilient Underlayment: Flexible, multicellular, closed-cell, expanded polyethylene-foam sheet; nominal 2-lb/cu. ft. density.
 1. Thickness: 7/16 inch.

2.6 FINISHES

- A. Floor-Finish System: System of compatible components recommended in writing by flooring manufacturer, and MFMA approved.
 1. Floor-Sealer Formulation: Pliable, penetrating type. MFMA Group 1, Sealers.
 2. Finish-Coat Formulation: Formulated for gloss finish indicated and multicoat application.
 - a. Type: MFMA Group 3, Gymnasium-Type Surface Finishes.

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3. Game-Line and Marker Paint: Industrial enamel compatible with finish coats and recommended in writing by manufacturers of finish coats, and paint for this use.

2.7 ACCESSORIES

- A. Vapor Retarder: ASTM D 4397, polyethylene sheet not less than 6 milsthick.
- B. Resilient Wall Base: Molded, vented, rubber or vinyl cove base; 4 by 3 by 48 inches; with premolded outside corners.
 1. Color: Brown.
- C. Thresholds: As indicated on drawings.
- D. Fasteners: Type and size recommended by manufacturer, but not less than those recommended by MFMA for application indicated.
- E. Trowelable Leveling and Patching Compound: Latex-modified, hydraulic-cement-based formulation approved by wood athletic flooring manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, installation tolerances, and other conditions affecting performance of wood athletic flooring.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Concrete Slabs: Verify that concrete substrates are dry and moisture-vapor emissions are within acceptable levels according to manufacturer's written instructions.
 1. Moisture Testing: Perform tests so that each test area does not exceed 200 sq. ft., and perform no fewer than two tests in each installation area and with test areas evenly spaced in installation areas.
 - a. Perform anhydrous calcium chloride test per ASTM F 1869, as follows:
 - 1) Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
 - b. Perform plastic sheet test, ASTM D 4263. Proceed with installation only after testing indicates absence of moisture in substrates.

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- 1) Proceed with installation only if there is no evidence of condensation or clouding in 24 hours.
- c. Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.

3.2 PREPARATION

- A. Grind high spots and fill low spots on concrete substrates to produce a maximum 1/8-inch deviation in any direction when checked with a 10-foot straight edge.
 1. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, and depressions in substrates.
- B. Remove coatings including curing compounds and other substances on substrates that are incompatible with installation adhesives and that contain soap, wax, oil, or silicone; use mechanical methods recommended by manufacturer. Do not use solvents.
- C. Broom and vacuum clean substrates to be covered immediately before product installation. After cleaning, examine substrates for moisture, alkaline salts, carbonation, or dust. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 INSTALLATION

- A. General: Comply with wood athletic flooring manufacturer's written instructions, but not less than written recommendations of MFMA applicable to flooring type indicated.
- B. Pattern: Lay flooring parallel with long dimension of space to be floored unless otherwise indicated.
- C. Expansion Spaces: Provide as indicated, but not less than that required by manufacturer's written instructions and MFMA's written recommendations at walls and other obstructions, and at interruptions and terminations of flooring.
 1. Cover expansion spaces with base molding, trim, and saddles, as indicated on Drawings.
- D. Vapor Retarder: Cover entire slab area beneath wood flooring. Install with joints lapped a minimum of 6 inches and sealed.
- E. Channels: Anchor channels to substrate according to manufacturer's written instructions.
 1. Install wood strip flooring across channels.
 2. Insert steel clip at each intersection of a flooring strip with a channel.

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- F. Strip Flooring: Mechanically fasten perpendicular to supports.
- G. Installation Tolerances: 1/8 inch in 10 feet of variance from level.

3.4 SANDING AND FINISHING

- A. Allow installed flooring to acclimate to ambient conditions before sanding.
- B. Follow applicable recommendations in MFMA's "Industry Recommendations for Sanding, Sealing, Court Lining, Finishing, and Resurfacing of Maple Gym Floors."
- C. Machine sand with coarse, medium, and fine grades of sandpaper to achieve a level, smooth, uniform surface without ridges or cups. Remove sanding dust by tack or vacuum.
- D. Finish: Apply seal and finish coats of finish system according to finish manufacturer's written instructions. Provide no fewer than four coats total and no fewer than two finish coats.
 - 1. Water-Based Finishes: Use finishing methods recommended by finish manufacturer to reduce grain raise and sidebonding effect.
 - 2. Game-Line and Marker Paint: Apply game-line and marker paint between final seal coat and first finish coat according to paint manufacturer's written instructions.
 - a. Mask flooring at game lines and markers, and apply paint to produce lines and markers with sharp edges.
 - b. Where game lines cross, break minor game line at intersection; do not overlap lines.
 - c. Apply game lines and markers in widths and colors according to requirements indicated on Drawings.
 - d. Apply finish coats after game-line and marker paint is fully cured.

3.5 PROTECTION

- A. Protect wood athletic flooring during remainder of construction period to allow finish to cure and to ensure that flooring and finish are without damage or deterioration at time of Substantial Completion.
 - 1. Do not cover flooring after finishing until finish reaches full cure and not before seven days after applying last finish coat.
 - 2. Do not move heavy and sharp objects directly over flooring. Protect fully cured floor finishes and surfaces with plywood or hardboard panels to prevent damage from storing or moving objects over flooring.

SECTION 09 6466 - WOOD ATHLETIC FLOORING

END OF SECTION 09 6466

SECTION 09 6500 - RESILIENT FLOOR TILE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Luxury vinyl floor tile.
 - 2. Rubber floor tile.
 - 3. Vinyl composition floor tile.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of floor tile indicated.
- C. Product Schedule: For floor tile.
- D. Qualification Data: For qualified Installer.
- E. Maintenance Data: For each type of floor tile to include in maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor tile installation indicated.
 - 1. Engage an installer who employs workers for this Project who are trained or certified by manufacturer for installation techniques required.
- B. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

SECTION 09 6500 - RESILIENT FLOOR TILE

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store floor tile and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than **50 deg F (10 deg C)** or more than **90 deg F (32 deg C)**. Store floor tiles on flat surfaces.

1.6 PROJECT CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than **70 deg F (21 deg C)** or more than **95 deg F (35 deg C)**, in spaces to receive floor tile during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than **55 deg F (13 deg C)** or more than **95 deg F (35 deg C)**.
- C. Close spaces to traffic during floor tile installation.
- D. Close spaces to traffic for 48 hours after floor tile installation.
- E. Install floor tile after other finishing operations, including painting, have been completed.

1.7 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Floor Tile: Furnish 1 box for every **50** boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

PART 2 - PRODUCTS

2.1 LUXURY VINYL FLOOR TILE

- A. Products: Subject to compliance with requirements, **provide the following:**
 - 1. Basis of Design: Armstrong Natural Creations, Armstrong World Industries, Inc
 - 2. Johnsonite.
 - 3. Roppe Corporation, USA.
- B. Tile Standard: ASTM F 1700.

SECTION 09 6500 - RESILIENT FLOOR TILE

1. Class: **As indicated by product designations.**
 2. Type: **Type A, smooth surface.**
- C. Thickness: **0.125 inch (3.2 mm).**
- D. Size: **4 by 36 inches .**
- E. Seaming Method: **Standard.**
- F. Colors and Patterns: **As indicated by manufacturer's designations.**

2.2 RUBBER FLOOR TILE

- A. Products: Subject to compliance with requirements, **provide the following:**
1. Burke Mercer Flooring Products, Division of Burke Industries Inc
 2. Johnsonite.
 3. Basis of design: Roppe Corporation, USA.
- B. Tile Standard: ASTM F 1344, **Class II-B, laminated rubber tile, mottled wear layer.**
- C. Hardness: **Manufacturer's standard hardness.**
- D. Wearing Surface: **Smooth.**
- E. Thickness: **0.125 inch.**
- F. Size: **24 by 24 inches.**
- G. Seaming Method: **Standard.**
- H. Colors and Patterns: **As indicated by manufacturer's designations.**

2.3 VINYL COMPOSITION FLOOR TILE

- A. Products: Subject to compliance with requirements, **provide one of the following:**
1. Basis of Design, Armstrong Standard Excellon, Armstrong World Industries, Inc.
 2. Congoleum Corporation.
 3. Mannington Mills, Inc
- B. Tile Standard: ASTM F 1066, **Class 2, through-pattern tile.**
- C. Wearing Surface: **Smooth.**
- D. Thickness: **0.125 inch.**
- E. Size: **12 by 12 inches (305 by 305 mm).**

SECTION 09 6500 - RESILIENT FLOOR TILE

- F. Colors and Patterns: **As indicated by manufacturer's designations.**

2.4 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit floor tile and substrate conditions indicated.
1. Use adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - a. VCT and Asphalt Tile Adhesives: Not more than 50 g/L.
 - b. Rubber Floor Adhesives: Not more than 60 g/L.
- C. Floor Polish: Provide protective liquid floor polish products as recommended by manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor tile.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates: Prepare according to ASTM F 710.
1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.

SECTION 09 6500 - RESILIENT FLOOR TILE

4. Moisture Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
 - a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of **3 lb of water/1000 sq. ft.** in 24 hours.
 - b. Perform relative humidity test using in situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum **75%** relative humidity level measurement.
- C. Access Flooring Panels: Remove protective film of oil or other coating using method recommended by access flooring manufacturer.
- D. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.
- E. Do not install floor tiles until they are same temperature as space where they are to be installed.
 1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- F. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.3 FLOOR TILE INSTALLATION

- A. Comply with manufacturer's written instructions for installing floor tile.
- B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.
 1. Lay tiles **in pattern indicated.**
- C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.
 1. Lay tiles **with grain direction alternating in adjacent tiles (basket-weave pattern).**
- D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.
- E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.

SECTION 09 6500 - RESILIENT FLOOR TILE

- F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent, nonstaining marking device.
- G. Install floor tiles on covers for telephone and electrical ducts, building expansion-joint covers, and similar items in finished floor areas. Maintain overall continuity of color and pattern between pieces of tile installed on covers and adjoining tiles. Tightly adhere tile edges to substrates that abut covers and to cover perimeters.
- H. Adhere floor tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.
- I. Seamless Installation:
 - 1. Heat-Welded Seams: Comply with ASTM F 1516. Rout joints and heat weld with welding bead to permanently fuse sections into a seamless floor covering. Prepare, weld, and finish seams to produce surfaces flush with adjoining floor covering surfaces.
 - 2. Chemically Bonded Seams: Bond seams with chemical-bonding compound to permanently fuse sections into a seamless floor covering. Prepare seams and apply compound to produce tightly fitted seams without gaps, overlays, or excess bonding compound on floor covering surfaces.

3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of floor tile.
- B. Perform the following operations immediately after completing floor tile installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.
- C. Protect floor tile products from marks, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Floor Polish: Remove soil, visible adhesive, and surface blemishes from floor tile surfaces before applying liquid floor polish.
 - 1. Apply **three** coat(s).
- E. Joint Sealant: Apply sealant to resilient terrazzo floor tile perimeter and around columns, at door frames, and at other joints and penetrations.
- F. Sealers and Finish Coats: Remove soil, visible adhesive, and surface blemishes from resilient terrazzo floor tile surfaces before applying liquid cleaners, sealers, and finish products.
 - 1. Sealer: Apply two base coats of liquid sealer.

SECTION 09 6500 - RESILIENT FLOOR TILE

2. Finish: Apply **three** coats of liquid floor finish.

G. Cover floor tile until Substantial Completion.

END OF SECTION 09651

SECTION 09 6513 - RESILIENT BASE AND ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Resilient base.
 - 2. Resilient molding accessories.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of product indicated.
- C. Samples for Verification: For each type of product indicated, in manufacturer's standard-size Samples but not less than 12 inches long, of each resilient product color, texture, and pattern required.
- D. Product Schedule: For resilient products. Use same designations indicated on Drawings.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Furnish not less than 10 linear feet for every 500 linear feet or fraction thereof, of each type, color, pattern, and size of resilient product installed.

1.5 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

SECTION 09 6513 - RESILIENT BASE AND ACCESSORIES

- B. Mockups: Provide resilient products with mockups specified in other Sections.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F.

1.7 PROJECT CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive resilient products during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Install resilient products after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 RESILIENT BASE

- A. Resilient Base:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Armstrong World Industries, Inc.
 - b. Flexco, Inc.
 - c. Johnsonite.
 - d. Mondo Rubber International, Inc.
 - e. Roppe Corporation, USA.
- B. Resilient Base Standard: ASTM F 1861.
 - 1. Material Requirement: Type TV (vinyl, thermoplastic) Type TS (rubber, vulcanized thermoset) or Type TP (rubber, thermoplastic).
 - 2. Manufacturing Method: Group I (solid, homogeneous) .

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- 3. Style: Cove (base with toe) .
- C. Minimum Thickness: 0.125 inch.
- D. Height: 6 inches.
- E. Lengths: Coils in manufacturer's standard length.
- F. Outside Corners: Preformed.
- G. Inside Corners: Preformed.
- H. Finish: Satin As selected by Architect from manufacturer's full range.
- I. Colors and Patterns: As indicated by manufacturer's designations.

2.2 RESILIENT MOLDING ACCESSORY

- A. Resilient Molding Accessory:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Flexco, Inc.
 - b. Johnsonite.
 - c. Roppe Corporation, USA.
- B. Description: , Nosing for carpet, , , and Transition strips.
- C. Material: Vinyl.
- D. Profile and Dimensions: As indicated.
- E. Colors and Patterns: As indicated by manufacturer's designations.

2.3 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.
 - 1. Adhesives shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24)[, except that adhesive for rubber stair

SECTION 09 6513 - RESILIENT BASE AND ACCESSORIES

treads shall have a VOC content of 60 g/L or less].

- C. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to protect exposed edges of tiles, and in maximum available lengths to minimize running joints.
- D. Floor Polish: Provide protective liquid floor polish products as recommended by resilient stair tread manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates for Resilient Accessories: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer.
 - 4. Moisture Testing: Perform tests recommended by manufacturer and as follows. Proceed with installation only after substrates pass testing.
 - a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
 - b. Perform relative humidity test using in situ probes, ASTM F 2170. Proceed with installation only after substrates have maximum 75 percent relative humidity level measurement.

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- C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.
- D. Do not install resilient products until they are same temperature as the space where they are to be installed.
 - 1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- E. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.3 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- C. Install resilient base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.
- D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.
- F. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material.
- G. Preformed Corners: Install preformed corners before installing straight pieces.
- H. Job-Formed Corners:
 - 1. Outside Corners: Use straight pieces of maximum lengths possible. Form without producing discoloration (whitening) at bends.
 - 2. Inside Corners: Use straight pieces of maximum lengths possible.

3.4 RESILIENT ACCESSORY INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient accessories.
- B. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of carpet resilient floor covering that would otherwise be exposed.

SECTION 09 6513 - RESILIENT BASE AND ACCESSORIES

3.5 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of resilient products.
- B. Perform the following operations immediately after completing resilient product installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.
- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Floor Polish: Remove soil, visible adhesive, and surface blemishes from resilient stair treads before applying liquid floor polish.
 - 1. Apply two coat(s).
- E. Cover resilient products until Substantial Completion.

END OF SECTION 09 6513

SECTION 09 9113 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following exterior substrates:

- 1. Steel.

1.2 DEFINITIONS

- A. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples: For each type of paint system and each color and gloss of topcoat.
- C. Product List: For each product indicated. Include printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.
 - 2. Provide a list of paint products used (manufacturer), and color codes (mix proportions) to the maintenance paint department at the end of the project.

SECTION 09 9113 - EXTERIOR PAINTING

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in other Part 2 articles for the paint category indicated.
- B. Painting Systems Schedule: All trade names and numbers listed hereinafter are in the following order, unless specifically shown otherwise:
 - 1. ICI ICI/GLIDDEN AND DEVOE
 - 2. MS Martin Senour
 - 3. PL Pratt and Lambert
 - 4. BM Benjamin Moore
 - 5. SW Sherwin Williams

2.2 PAINT, GENERAL

- A. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. VOC Content: Provide materials that comply with VOC limits of authorities having jurisdiction.
- C. Colors: As indicated in a color schedule.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

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- C. Proceed with coating application only after unsatisfactory conditions have been corrected.

- 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.
- B. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

3.3 APPLICATION

- A. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 CLEANING AND PROTECTION

- A. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- B. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.5 EXTERIOR PAINTING SCHEDULE

- A. Steel Substrates:
 - 1. Prime Coat – Alkyd MultiPurpose Metal Primer:
 - a. ICI 4160 Devguard Multi-Purpose Tank and Structural Primer
 - b. MS Tough Coat® Rust Control Universal Metal Primer
 - c. PL S45XX Steeltech® Rust Inhibitive Metal Primer
 - d. BM Super Spec HP Universal Alkyd Metal Primer P07
 - e. SW B66W00001 - DTM Acrylic Primer/Finish
 - 2. Prime Coat: Shop primer specified in Section where substrate is specified.

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3. Intermediate Coat: Exterior alkyd enamel, matching topcoat.
4. Top Coat - Alkyd Industrial Enamel
 - a. ICI 4308 Devguard 4308 Alkyd Industrial Gloss Enamel
 - b. MS Tough Coat® Heavy Duty Alkyd Enamel
 - c. PL S45XX Techgard Maintenance Gloss Enamel
 - d. BM Benjamin Moore® Super Spec HP® D.T.M. Aklyd Gloss Enamel P26
 - e. SW B66W00111 - DTM Acrylic Gloss Acrylic Coating

END OF SECTION 09 9113

SECTION 09 9123 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on interior substrates.
 - 1. Concrete masonry units (CMU).
 - 2. Steel.
 - 3. Galvanized metal.
 - 4. Gypsum board.

1.3 DEFINITIONS

- A. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- C. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. VOC content.

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1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials[, from the same product run,] that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide product listed in other Part 3 articles for the paint category indicated.
- B. Painting Systems Schedule: All trade names and numbers listed hereinafter are in the following order, unless specifically shown otherwise:
 - 1. ICI ICI/GLIDDEN AND DEVOE
 - 2. MS Martin Senour
 - 3. PL Pratt and Lambert
 - 4. BM Benjamin Moore
 - 5. SW Sherwin Williams

2.2 PAINT, GENERAL

- A. Material Compatibility:

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1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. VOC Content: Products shall comply with VOC limits of authorities having jurisdiction.
1. Nonflat Paints and Coatings: 150 g/L.
 2. Primers, Sealers, and Undercoaters: 200 g/L.
 3. Anticorrosive and Antirust Paints Applied to Ferrous Metals: 250 g/L.
 4. Zinc-Rich Industrial Maintenance Primers: 340 g/L.
- C. Colors: As indicated in a color schedule.
1. 30 percent of surface area will be painted with deep tones.

2.3 SOURCE QUALITY CONTROL

- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:
1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
 2. Testing agency will perform tests for compliance with product requirements.
 3. Owner may direct Contractor to stop applying coatings if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic

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moisture meter as follows:

1. Concrete: 12 percent.
 2. Masonry (Clay and CMU): 12 percent.
 3. Gypsum Board: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- E. Proceed with coating application only after unsatisfactory conditions have been corrected.
1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceed that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer but not less than the following:

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1. SSPC-SP 2, "Hand Tool Cleaning."
 2. SSPC-SP 3, "Power Tool Cleaning."
 3. SSPC-SP 7/NACE No. 4, "Brush-off Blast Cleaning."
 4. SSPC-SP 11, "Power Tool Cleaning to Bare Metal."
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- 3.3 APPLICATION
- A. Apply paints according to manufacturer's written instructions.
1. Use applicators and techniques suited for paint and substrate indicated.
 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
1. Paint the following work where exposed in equipment rooms:
 - a. Equipment, including panelboards.
 - b. Uninsulated metal piping.

SECTION 09 9123 - INTERIOR PAINTING

- c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Tanks that do not have factory-applied final finishes.
 - h. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
2. Paint the following work where exposed in occupied spaces:
- a. Equipment, including panelboards.
 - b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
 - h. Other items as directed by Architect.
3. Paint portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets that are visible from occupied spaces.

3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
- 1. Contractor shall touch up and restore painted surfaces damaged by testing.
 - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

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- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE

A. CMU Substrates:

1. Block Filler -Heavy Duty Interior/Exterior Heavy Duty Block Filler
 - a. BM Super Spec® HP Latex Block Filler 160
 - b. ICI 4000 Blok-Fill Int/Ext Heavy Duty Acrylic Block Filler
 - c. MS ProLine® Premium Int/Ext Heavy Duty Block Filler
 - d. PL Z8465 Enducryl Int/Ext Heavy Duty Latex Block Filler
 - e. SW B25W00025 - Preprite Interior/Exterior Latex Block Filler
2. Intermediate Coat - Waterborne Polyamide High Performance Acrylic Semi-Gloss Epoxy matching top coat
3. Top Coat – Waterborne Polyamide High Performance Acrylic Semi-Gloss Epoxy
 - a. BM Polyamide Epoxy Semi-Gloss Coating M36/M38
 - b. ICI 4406 Devoe Tru-Glaze-WB Waterborne Polyamide Semi Gloss Epoxy
 - c. MS Super Tough Coat® Acrylic Water Based Epoxy
 - d. PL Enducryl® HP (High Performance) Water-Based Epoxy
 - e. SW B70W00211 - Waterbased Catalyzed Epoxy (Part A), Two-part epoxy - Part B B60V25

B. Steel Substrates:

1. Prime Coat – Alkyd MultiPurpose Metal
 - a. BM Super Spec HP Universal Alkyd Metal Primer P07
 - b. ICI 4160 Devguard Multi-Purpose Tank and Structural Primer
 - c. MS Tough Coat® Rust Control Universal Metal Primer
 - d. PL S45XX Steeltech® Rust Inhibitive Metal Primer
 - e. SW
2. Intermediate Coat: Alkyd Industrial Enamel, matching topcoat.
3. Top Coat - Alkyd Industrial Enamel
 - a. BM Benjamin Moore® Super Spec HP® D.T.M. Aklyd Gloss Enamel P26
 - b. ICI 4308 Devguard 4308 Alkyd Industrial Enamel
 - c. MS Tough Coat® Heavy Duty Alkyd Enamel
 - d. PL S45XX Techgard Maintenance Gloss Enamel
 - e. SW

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C. Galvanized-Metal Substrates:

1. Primer-Waterborne Acrylic DTM Metal Primer
 - a. BM SuperSpec Acrylic Metal Primer 004
 - b. ICI 4020 Devflex DTM Flat Interior/Exterior Waterborne Primer Finish
 - c. MS Super Tough Coat® Acrylic Prime & Finish
 - d. PL Z190 Steeltech® Acrylic Prime or Finish
 - e. SW
2. Intermediate Coat: Waterborne Int/Ext Waterborne Acrylic Semi-Gloss, matching topcoat.
3. Top coat-Waterborne Int/Ext Waterborne Acrylic Semi-Gloss
 - a. BM DTM Acrylic Semi-Gloss M29
 - b. ICI 4206 Devflex Interior/Exterior Waterborne Acrylic Semi-Gloss
 - c. MS Super Tough Coat® Acrylic Semi-Gloss Enamel
 - d. PL 6620 Enducryl® Acrylic Semi-Gloss Enamel
 - e. SW

D. Gypsum Board Substrates:

1. Prime Coat - Waterborne Acrylic Latex
 - a. BM: Super Spec® Latex Enamel Undercoater & Primer Sealer 253
 - b. ICI: Prep&Prime Gripper Multi-Purpose Primer 3210
 - c. MS: T.P.S.® Interior Multi-Surface Latex Enamel Undercoater
 - d. PL: Z1013 SUPRIME® Interior Latex Enamel Undercoater
 - e. SW: B28W02600 - ProMar 200 Zero VOC Interior Latex primer
2. Intermediate Coat: Waterborne Polyamide High Performance Acrylic Semi-Gloss Epoxy, matching topcoat.
3. Top Coat – Waterborne Polyamide High Performance Acrylic Semi-Gloss Epoxy
 - a. BM: Polyamide Epoxy Semi-Gloss Coating M36/M38
 - b. ICI: 4406 Devoe Tru-Glaze-WB Waterborne Polyamide Semi-Gloss Epoxy
 - c. MS: Super Tough Coat® Acrylic Water Based Epoxy
 - d. PL: Enducryl® HP (High Performance) Water-Based Epoxy
 - e. SW: B70W00211 - Waterbased Catalyzed Epoxy (Part A), Two-part epoxy - Part B B60V25

END OF SECTION 09 9123

SECTION 10 2800 – TOILET ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Public-use washroom accessories.
 - 2. Public-use shower room accessories.
 - 3. Underlavatory guards.
 - 4. Custodial accessories.
- B. Owner-Furnished Material: Soap Dispensers.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include the following:
 - 1. Construction details and dimensions.
 - 2. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
 - 3. Material and finish descriptions.
 - 4. Features that will be included for Project.
 - 5. Manufacturer's warranty.
- B. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.
 - 1. Identify locations using room designations indicated.
 - 2. Identify products using designations indicated.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For toilet and bath accessories to include in maintenance manuals.

SECTION 10 2800 – TOILET ACCESSORIES

1.5 QUALITY ASSURANCE

- A. Source Limitations: For products listed together in the same Part 2 articles, obtain products from single source from single manufacturer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

1.6 COORDINATION

- A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.
- B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.7 WARRANTY

- A. Special Mirror Warranty: Manufacturer's standard form in which manufacturer agrees to replace mirrors that develop visible silver spoilage defects and that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Stainless Steel: ASTM A 666, Type 304, 0.031-inch minimum nominal thickness unless otherwise indicated.
- B. Steel Sheet: ASTM A 1008/A 1008M, Designation CS (cold rolled, commercial steel), 0.036-inch minimum nominal thickness.
- C. Galvanized-Steel Sheet: ASTM A 653/A 653M, with G60 hot-dip zinc coating.
- D. Galvanized-Steel Mounting Devices: ASTM A 153/A 153M, hot-dip galvanized after fabrication.
- E. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.

SECTION 10 2800 – TOILET ACCESSORIES

- F. Mirrors: ASTM C 1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.

2.2 PUBLIC-USE WASHROOM ACCESSORIES

- A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated or comparable product by one of the following:

- 1. American Specialties, Inc.
- 2. Bobrick Washroom Equipment, Inc.
- 3. Bradley Corporation.

- B. Changing stations:

- 1. KB-200SS

- C. Roll towel dispenser:

- 1. Bobrick B-2974

- D. Toilet Tissue (Roll) Dispenser :

- 1. Basis-of-Design Product: TP Series by Royce Rolls Ringer, SS.
- 2. Mounting: Surface mounted.

- E. Liquid-Soap Dispenser :

- 1. Description: Provided by Owner and designed for dispensing soap in liquid or lotion form.
- 2. Mounting: Vertically oriented, surface mounted.

- F. Grab Bar :

- 1. Basis-of-Design Product: Bobrick; B6806 x 36, B6806 x 42 .
- 2. Mounting: Flanges with concealed fasteners.
- 3. Material: Stainless steel, 0.05 inch thick.
 - a. Finish: Smooth, No. 4 finish (satin) on ends and slip-resistant texture in grip area.
- 4. Outside Diameter: 1-1/4 inches.
- 5. Configuration and Length: As indicated on Drawings.

- G. Mirror Unit :

- 1. Basis-of-Design Product: Bobrick B2908.
- 2. Frame: Stainless-steel channel.

SECTION 10 2800 – TOILET ACCESSORIES

- a. Corners: Welded and ground smooth.
3. Hangers: Produce rigid, tamper- and theft-resistant installation, using method indicated below.
 - a. One-piece, galvanized-steel, wall-hanger device with spring-action locking mechanism to hold mirror unit in position with no exposed screws or bolts.
4. Size: As indicated on Drawings.

2.3 UNDERLAVATORY GUARDS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated or comparable product by one of the following:

1. Plumberex Specialty Products, Inc.
2. Truebro by IPS Corporation.
3. TCI Products

- B. Underlavatory Guard :

1. Basis-of-Design Product: Truebo Lav Guard 2.
2. Description: Insulating pipe covering for supply and drain piping assemblies that prevent direct contact with and burns from piping; allow service access without removing coverings.
3. Material and Finish: Antimicrobial, molded plastic, white.

2.4 FABRICATION

- A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.
- B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.

SECTION 10 2800 – TOILET ACCESSORIES

- B. Grab Bars: Install to withstand a downward load of at least 250 lbf, when tested according to ASTM F 446.

3.2 ADJUSTING AND CLEANING

- A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
- B. Remove temporary labels and protective coatings.
- C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

END OF SECTION 10 2800

SECTION 10 5300 – ALUMINUM CANOPIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-I Specification Sections, shall apply to work specified in this Section.

1.2 GENERAL DESCRIPTION OF WORK

- A. Work in this section shall include design, fabrication and installation of complete welded, extruded aluminum (and acrylic) protective cover system. All work shall be in complete accordance with the drawings and this specification.

1.3 REFERENCES

- A. Specifications for Aluminum Structures, Sixth Edition, 1994.
- B. ASCE 7-95, Minimum Design Loads for Buildings and Other Structures, December 1995.
- C. American Architectural Manufacturers Association (AAMA)
- D. American Society for Testing and Materials (ASTM)

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's product information, specifications and installation instructions for building components and accessories.
- B. Shop Drawings: Submit complete shop drawings including all necessary plan dimensions, elevations and details. General Contractor shall verify all dimensions and provide elevations at each column, finish floor, and related soffit before releasing to manufacturer for fabrication.
- C. Certification: Submit design calculations signed by a Registered Professional Engineer, licensed in the project state. Design calculations shall state that the protective cover system design complies with the wind requirements of ASCE 7-95, the stability criteria of applicable building code, and all other governing criteria.

SECTION 10 5300 – ALUMINUM CANOPIES

1.5 QUALITY ASSURANCE

- 1.6 Protective Cover shall be wholly produced by a recognized manufacturer with at least five years experience in the design and fabrication of extruded aluminum walkway cover systems. Components shall be assembled in shop to greatest extent possible to minimize field assembly. Protective cover shall be installed by manufacturer. Third party installation is not acceptable. Protective cover system, including material and workmanship, shall be warranted from defects for a period of one year from substantial completion of installation.

PART 2 - PRODUCT

2.1 MANUFACTURERS

- A. BASIS OF DESIGN: Contract documents are based on products manufactured by

1. Peachtree Protective Covers, Inc.,
1477 Rosedale Drive, Hiram, GA 30141
770/439-2120, fax 770/439-2122
800/341-3325, ppc@peachtreecovers.com,

- B. <http://www.peachtreecovers.com> Or comparable products by:

1. E.L. Burns Company, Shreveport, LA
2. Dittmer Architectural Aluminum, Winter Springs, FL
3. Avadek Walkway Cover Systems
4. Mitchell Metals

- C. Other manufacturers will be considered for substitution only when the following conditions are met:

1. Other manufacturers must qualify to bid not less than 10 days prior to bid closing date.
2. Complete details, including sizes of all members and structural calculations showing loads applied in accordance with the specification must be submitted to the architect for review.

2.2 DESIGN

Protective cover shall be all welded extruded aluminum system complete with internal drainage. Non-welded systems are not acceptable

- A. Roll formed deck is not acceptable. Expansion joints shall be included to accommodate temperature changes of 120 F. Expansion joints shall have no metal to metal contact.

SECTION 10 5300 – ALUMINUM CANOPIES

2.3 MATERIALS

- A. Aluminum Members: All sections shall be extruded aluminum 6063 alloy, heat treated to T-6 temper.
- B. Fasteners: Fasteners shall be aluminum, 18-8 stainless steel or 300 series stainless steel.
- C. Protective Coating: Aluminum columns embedded in concrete shall be protected by clear acrylic.
- D. Grout: Grout shall be 2000 p.s.i. compressive strength, 1 part Portland cement and 3 parts masonry sand. Add water to produce pouring consistency.
- E. Gaskets: Gaskets shall be dry seal santoprene pressure type.

2.4 COMPONENTS

- A. Beams: Beams shall be open-top tubular extrusion of size and shape shown on drawings, top edges thickened for strength and designed to receive deck members in self-flashing manner. Structural ties shall be installed in tops of all beams.
- B. Deck: Deck shall be extruded self-flashing sections interlocking into a composite unit. Closures at deck ends shall be welded plates.
- C. Fascia: Fascia shall be manufacturer's standard shape. Size as indicated on drawings.
- D. Flashing: Flashing shall be .040 aluminum (min.). All thru-wall flashing by others.

2.5 FABRICATION

- A. Bent Construction: Beams and columns shall be factory welded with neatly mitered corners into one-piece rigid bents. All welds shall be smooth and uniform using an inert gas shielded arc. Suitable edge preparation shall be performed to assure 100% penetration. Grind welds only where interfering with adjoining structure to allow for flush connection. Field welding is not permitted. Rigid mechanical joints shall be used when shipping limitations prohibit the shipment of fully welded bents.
- B. Deck Construction: Deck shall be manufactured of extruded modules that interlock in a self-flashing manner. Interlocking joints shall be positively fastened at 8" O.C. creating a monolithic structural unit capable of developing the full strength of the sections. The fastenings must have minimum shear strength of 350 pounds each. Deck shall be assembled with sufficient camber to offset dead load deflection.

2.6 FACTORY FINISHING

- A. Baked-Enamel Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating;

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**MEMORIAL PARK
RECREATION CENTER
MACON, GA**

SECTION 10 5300 – ALUMINUM CANOPIES

Organic Coating: Thermosetting, modified-acrylic enamel primer/topcoat system, except with a minimum dry film thickness of 1.5 mils (0.04 mm), medium gloss), complying with AAMA 2603. Apply baked enamel complying with paint manufacturer's specifications for cleaning, conversion coating, and painting.

1. Color:
 - a. Building Canopy – Match Metal roofing color.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Erection shall be performed after all concrete, masonry, and roofing work in the vicinity is complete and cleaned.

3.2 INSTALLATION

- A. Column Sleeves: Column sleeves (Styrofoam blockouts) or anchor bolts (if required) shall be furnished by Peachtree Protective Covers, Inc. and installed by the General Contractor.
- B. Erection: Protective cover shall be erected true to line, level and plumb. Aluminum columns embedded in concrete shall be protected by clear acrylic. Downspout columns shall be filled with grout to the discharge level to prevent standing water. Non-draining columns shall have weep holes installed at top of concrete to remove condensation.

3.3 CLEANING

- A. All protective cover components shall be cleaned promptly after installation.

3.4 PROTECTION

- A. Extreme care shall be taken to protect materials during and after installation.

END OF SECTION 10 5300

SECTION 11 6623 - GYMNASIUM EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Basketball equipment.
 - 2. Volleyball equipment.
 - 3. Safety pads.
 - 4. Scoreboard and controller.
 - 5. Exercise equipment.

1.3 DEFINITIONS

- A. BWF: Badminton World Federation.
- B. FIBA: Federation Internationale de Basketball Amateur (The International Basketball Federation).
- C. FIVB: Federation Internationale de Volleyball (The International Volleyball Federation).
- D. NCAA: The National Collegiate Athletic Association.
- E. NFHS: National Federation of State High School Associations.
- F. USAV: USA Volleyball.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. If applicable, include assembly, disassembly, and storage instructions for removable equipment.
 - 2. Motors: Show nameplate data, ratings, characteristics, and mounting arrangements.

SECTION 11 6623 - GYMNASIUM EQUIPMENT

B. Shop Drawings: For gymnasium equipment.

1. Include plans, elevations, sections, details, and attachments to other work.
2. Include details of field assembly for removable equipment, connections, installation, mountings, floor inserts, attachments to other work, and operational clearances.
3. Include transport and storage accessories for removable equipment.

1.5 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Court layout plans, drawn to scale, and coordinated with floor inserts, game lines, and markers applied to finished flooring.
- B. Qualification Data: For Installer.
- C. Product Certificates: For each type of gymnasium equipment.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For gymnasium equipment to include in emergency, operation, and maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

1.8 FIELD CONDITIONS

- A. Environmental Limitations: Do not install gymnasium equipment until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Field Measurements: Verify position and elevation of floor inserts and layout for gymnasium equipment.

1.9 COORDINATION

- A. Coordinate installation of floor inserts with structural floors and finish flooring installation and with court layout and game lines and markers on finish flooring.

SECTION 11 6623 - GYMNASIUM EQUIPMENT

- B. Coordinate layout and installation of overhead-supported gymnasium equipment and suspension-system components with other construction including light fixtures, HVAC equipment, fire-suppression-system components, and partition assemblies.

PART 2 - PRODUCTS

2.1 MANUFACTURERS, GENERAL

- A. Source Limitations: Obtain basketball, volleyball and safety pad equipment from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Basketball backstops and anchors shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

2.3 BASKETBALL EQUIPMENT

- A. Basis-of-Design Product: Subject to compliance with requirements, provide TF 20 Ceiling Suspended, Forward Folding Backstop by Draper or comparable product by one of the following:
 - 1. AALCO Manufacturing.
 - 2. ADP Lemco.
 - 3. Arizona Courtlines, Inc.
 - 4. Bison, Inc.
 - 5. Douglas Industries, Inc.
 - 6. Institutional Products, Inc.
 - 7. Jaypro Sports Construction Group.
 - 8. L. A. Steelcraft.
 - 9. Performance Sports Systems; a Gared Holdings company.
 - 10. Porter Athletic, Inc.
 - 11. Schelde North America.
 - 12. Spalding Equipment.
- B. General: Provide equipment complying with requirements in NFHS's "NFHS Basketball Rules Book."
- C. Protruding fasteners or exposed bolt heads on front face of backboards are not permitted.
- D. Provide manufacturer's recommended connections complying with Section 05 5000 "Metal Fabrications" of size and type required to transfer loads to building structure.

SECTION 11 6623 - GYMNASIUM EQUIPMENT

- A. Wall-Mounted Backstops: Complete assembly extending from wall, including support framing to building structure, bracing, cables, support chains, pulleys, fittings, hardware, pipe anchors, equipment pads, and fasteners.
1. Stationary Type: Manufacturer's standard assembly for stationary backstop.
 2. Framing: Steel pipe, tubing, and shapes designed to minimize vibration during play.
 - a. Finish: Manufacturer's standard primer for field finishing.
 3. Goal Height Adjuster: Adjustable from **8 to 10 feet** to top of ring with gear-drive mechanism, locking in any position within adjustment range, with visible height scale attached to side of framing.
 - a. Operation:
 - 1) Manual: Manual operation with detachable crank handle.
- B. Basketball Backboards:
1. Shape and Size:
 - a. Rectangular, 72 by 48 inches width by height, with rounded corners.
 2. Backboard Material: With predrilled holes or preset inserts for mounting goals, and as follows:
 - a. Glass: Not less than 1/2-inch- thick, transparent tempered glass complying with ASTM C 1048 Kind FT (fully tempered) and with impact testing requirements in 16 CFR 1201 Category II or ANSI Z97.1 Class A for safety glazing. Provide glass and framing system manufactured to comply with FIBA Level 1 or Level 2 requirement that glass does not split off if broken. Provide glass with impact-absorbing resilient rubber or PVC gasket around perimeter in a fully welded, painted steel frame, with steel subframe, reinforcement, bracing, and mounting slots for mounting backboard frame to backboard support framing.
 - 1) Standard Mount: Provide steel corner reinforcement with mounting slots for mounting backboard frame to backstop at standard mounting centers. Provide center-strut frame reinforcement.
 - 2) Rim-Restraining Device: Complying with NCAA and NFHS rules and designed to ensure that basket remains attached if glass backboard breaks.

SECTION 11 6623 - GYMNASIUM EQUIPMENT

3. Target Area and Border Markings: Permanently etched in white color, marked in pattern and stripe width according to referenced rules.
- C. Goal Mounting Assembly: Compatible with goal, backboard, and support framing; with hole pattern 5 inches o.c. horizontally and vertically for goal attachment.
 1. Glass Backboard Goal Mounting Assembly: Goal support framing and reinforcement designed to transmit load from goal to backboard frame and to minimize stresses on glass backboard.
- D. Basketball Goals: Complete with flanges, braces, attachment plate, and evenly spaced loops welded around underside of ring.
 1. Single-Rim Basket Ring Competition Goal: Materials, dimensions, and fabrication complying with referenced rules.
 2. Type: Movable, breakaway design with manufacturer's standard breakaway mechanism and rebound characteristics identical to those of fixed, nonmovable ring.
 3. Breakaway Characteristics: Positive-lock movable breakaway design, with manufacturer's standard breakaway mechanism including preset pressure release, set to release at 180- and 230-lb load, and automatic reset. Provide movable ring with rebound characteristics identical to those of fixed, nonmovable ring.
 4. Field Adjustment: Provide rim that is field-adjustable for rebound elasticity without being removed from the backboard.
 5. Mount: Front.
 6. Net Attachment: No-tie loops for attaching net to rim without tying.
 7. Finish: Manufacturer's standard finish.
- E. Basketball Nets: 12-loop-mesh net, between 15 and 18 inches long, sized to fit rim diameter, and as follows:
 1. Competition Cord: Antiwhip, made from white nylon cord not less than 120-gm thread and not more than 144-gm thread.
- F. Backboard Safety Pads: Designed for backboard thickness indicated and extending continuously along bottom and up sides of backboard and over goal mounting and backboard supports as indicated.
 1. Attachment: Bolt on.
 2. Color: Manufacturer's standard color.

1.2 SAFETY PADS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:

SECTION 11 6623 - GYMNASIUM EQUIPMENT

1. AALCO Manufacturing.
 2. ADP Lemco.
 3. Draper, Inc.
 4. Institutional Products, Inc.
 5. Jaypro Sports Construction Group.
 6. Performance Sports Systems; a Gared Holdings company.
 7. Porter Athletic, Inc.
 8. Spalding Equipment.
- B. Safety Pad Surface-Burning Characteristics: ASTM E 84 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
1. Flame-Spread Index: 76 to 200.
 2. Smoke-Developed Index: 450 or less.
- C. Pad Coverings: Provide safety pad fabric covering that is fabricated from puncture- and tear-resistant, PVC-coated polyester or nylon-reinforced PVC fabric, not less than 14-oz./sq. yd and treated with fungicide for mildew resistance; with surface-burning characteristics indicated, and lined with fire-retardant liner.
- D. Pad Sizes: (9) 24"x72" sections & (2) corner sections 12"x72" w/ 8" return on corners.
- E. Wall Safety Pads: Padded wall wainscot panels designed to be attached in a continuous row; each panel section consisting of fill laminated to backer board with visible surfaces fully covered by seamless fabric covering, free of sag and wrinkles and firmly attached to back of backer board.
1. Backer Board: Not less than 3/8-inch- thick plywood, mat formed, or composite panel.
 2. Fire-Resistive Fill: Multiple-impact-resistant foam not less than 1-1/2-inch-thick, fire-resistive neoprene; 6.0-lb/cu. ft. density.
 3. Size: Each panel section, 24 inches wide by not less than 72 inches long.
 4. Number of Modular Panel Sections: 14.
 5. Installation Method: Manufacturer's standard.
 6. Fabric Covering Color(s): As selected by Architect from manufacturer's full range for two color(s).
 7. Graphics: Custom graphics as indicated.
- F. Corner Wall Safety Pads: Wall corner pad consisting of not less than 1-1/4-inch-thick, multiple-impact-resistant, closed-cell, polyethylene-foam filler, covered on both sides and all edges by fabric covering with backer board and manufacturer's standard anchorage to wall.
1. Length: Each pad not less than 72 inches.
 2. Fabric Covering Color(s): As selected by Architect from manufacturer's full range for two color(s).

SECTION 11 6623 - GYMNASIUM EQUIPMENT

- G. Cut-out Trim: Provide manufacturer's standard flanged cut-out trim kits for fitting pads around switches, receptacles, and other obstructions.

1. Color: Black.

1.3 MATERIALS

- A. Aluminum: Alloy and temper recommended by manufacturer for use and finish type indicated.
1. Extruded Bars, Profiles, and Tubes: ASTM B 221.
 2. Cast Aluminum: ASTM B 179.
 3. Flat Sheet: ASTM B 209.
- B. Steel: Comply with the following:
1. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
 2. Steel Tubing: ASTM A 500/A 500M or ASTM A 513, cold formed.
- C. Support Cable: Manufacturer's standard galvanized-stranded-steel wire rope with a breaking strength of 7000 lb. Provide fittings complying with wire rope manufacturer's written instructions for size, number, and installation method.
- D. Support Chain and Fittings: For chains used for overhead lifting, provide Grade 80 heat-treated alloy steel chains, complying with ASTM A 391/A 391M, with commercial-quality, hot-dip galvanized steel connectors and hangars.
- E. General-Purpose Chain: For chains not used for overhead lifting, provide carbon steel chain, complying with ASTM A 413/A 413M, Grade 30 proof coil chain or other grade recommended by gymnasium equipment manufacturer. Provide coating type, chain size, number, and installation method complying with manufacturer's written instructions.
- F. Castings and Hangers: Malleable iron, complying with ASTM A 47/A 47M; grade required for structural loading.
- G. Anchors, Fasteners, Fittings, and Hardware: Manufacturer's standard corrosion-resistant or noncorrodible units; concealed; tamperproof, vandal- and theft-resistant design.
- H. Grout: Nonshrink, nonmetallic, premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout, complying with ASTM C 1107/C 1107 with minimum strength recommended in writing by gymnasium equipment manufacturer.

SECTION 11 6623 - GYMNASIUM EQUIPMENT

PART 2 - EXECUTION

2.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for play court layout, alignment of mounting substrates, installation tolerances, operational clearances, accurate locations of connections to building electrical system, and other conditions affecting performance of the Work.
 - 1. Verify critical dimensions.
 - 2. Examine supporting structure, subgrades, subfloors, and footings below finished floor.
 - 3. Examine wall assemblies, where reinforced to receive anchors and fasteners, to verify that locations of concealed reinforcements are clearly marked. Locate reinforcements and mark locations.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

2.2 INSTALLATION, GENERAL

- A. General: Comply with manufacturer's written installation instructions and competition rules indicated for each type of gymnasium equipment. Complete equipment field assembly where required.
- B. Unless otherwise indicated, install gymnasium equipment after other finishing operations, including painting, are completed.
- C. Permanently Placed Gymnasium Equipment and Components: Install rigid, level, plumb, square, and true; anchored securely to supporting structure; positioned at locations and elevations indicated; in proper relation to adjacent construction; and aligned with court layout.
 - 1. Floor Insert Location: Coordinate location with application of game lines and markers, and core drill floor for inserts after game lines are applied.
 - 2. Floor Insert Elevation: Coordinate installed heights of floor insert with installation and field finishing of finish flooring and floor-plate type.
 - 3. Operating Gymnasium Equipment: Verify clearances for movable components of gymnasium equipment throughout entire range of operation and for access to operating components.
- D. Floor Insert Setting: Position sleeve in oversized, recessed voids in concrete slabs. Clean voids of debris. Fill void around sleeves with grout, mixed and placed to comply with grout manufacturer's written instructions. Protect portion of sleeve above subfloor from splatter. Verify that sleeves are set plumb, aligned, and at correct height and spacing; hold in position during placement and finishing operations until grout is

SECTION 11 6623 - GYMNASIUM EQUIPMENT

sufficiently cured. Set insert so top surface of completed unit is flush with finished flooring surface.

- E. Wall Corner Safety Pads: Mount with bottom edge at dimension indicated on Drawings above finished floor.
- F. Cut-out Trim: Limit cuts in face of padding from trim unit's corner-to-corner outside dimensions. Install with ends of cuts concealed behind trim flange.
- G. Anchoring to In-Place Construction: Use anchors and fasteners where necessary to secure built-in and permanently placed gymnasium equipment to structural support and to properly transfer load to in-place construction.
- H. Connections: Connect electric operators to building electrical system.

2.3 ADJUSTING

- A. Adjust movable components of gymnasium equipment to operate safely, smoothly, easily, and quietly, free from binding, warp, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Lubricate hardware and moving parts.

2.4 CLEANING

- A. After completing gymnasium equipment installation, inspect components. Remove spots, dirt, and debris and touch up damaged shop-applied finishes according to manufacturer's written instructions.
- B. Replace gymnasium equipment and finishes that cannot be cleaned and repaired, in a manner approved by Architect, before time of Substantial Completion.

2.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain gymnasium equipment.

END OF SECTION 11 6623

SECTION 126313 - STADIUM AND ARENA BENCH SEATING

SECTION 126313 - STADIUM AND ARENA BENCH SEATING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes fixed, continuous bench- or plank-type metal seating.
- B. Related Requirements:
 - 1. Section 127600 "Telescoping Stands" for multiple-tiered benches on interconnected folding platforms that close for storing.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of components, and finishes for seating.
- B. Shop Drawings: For bench seating.
 - 1. Include plans, elevations, sections, details, and attachments to other work.
 - 2. Seating Layout: Show seating layout, aisle widths, aisle-end alignment or stepping, and row-lettering scheme.
- C. Samples for Initial Selection: For each type of exposed material, color, finish, and texture indicated.
 - 1. Include Samples of accessories involving color and finish selection.
- D. Samples for Verification: For each type of exposed finish, prepared on Samples of size indicated below:
 - 1. Aluminum Finishes: Manufacturer's standard-size unit, not less than **3 inches** square.
 - 2. Baked-on Coating Finishes: Manufacturer's standard-size unit, not less than **3 inches** square.
 - 3. Row-Letter Plates: Full-size units with characters marked.
 - 4. Seat-Number Plates: Full-size units with characters marked.
 - 5. Donor Plates: Full-size units.
 - 6. Exposed Fasteners: Full-size units of each type.

SECTION 126313 - STADIUM AND ARENA BENCH SEATING

1.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Product Certificates: For each type of bench seating.
- C. Sample Warranty: For special warranty.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For bench seating to include in maintenance manuals.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

1.6 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of bench seating that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Periods: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 BENCH SEATING

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Bleachers International
 - 2. Dant Clayton Corporation
 - 3. E & D Specialty Stands, Inc.
 - 4. National Recreation Systems, A Playcore Company
 - 5. Southern Bleacher Company Inc.
 - 6. Sturdisteel; a division of Schultz Industries, Inc.
- B. Seat Planks: Horizontal, continuous bench components on which spectators sit.
 - 1. Material: One-piece fluted and contoured aluminum extrusion, approximately 12 inches wide by 1-1/2 inches thick.
 - 2. Finish: Clear anodic finish.
 - 3. End-Cap Finish: Clear anodic finish.

SECTION 126313 - STADIUM AND ARENA BENCH SEATING

- C. Seat-Plank Support Brackets: Manufacturer's standard one-piece, welded-aluminum brackets that support and raise the seating off the supporting substrate, as indicated on Drawings.
 - 1. Type: Floor-attached brackets.
 - 2. Finish of Visible Surfaces: Match seat planks.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine floors, risers, and other adjacent work and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install seating in locations indicated and fasten to substrates according to manufacturer's written installation instructions unless otherwise indicated.
- B. Install seating level, with uniform bench height above walking surface, and without sharp edges.
- C. Attach end caps tightly abutting ends of seat planks, with exposed end-cap contour aligned with contour of seat planks.
- D. Space and attach seat-plank support brackets only to substrate concrete or structural components of metal substrates.
- E. Install individual seat and backrest pads equally spaced along length of bench seating.
- F. Install accessories in visual alignment.

3.3 ADJUSTING

- A. Repair minor abrasions and imperfections in finishes with coating that matches factory-applied finish.
- B. Replace damaged and malfunctioning components that cannot be acceptably repaired.

END OF SECTION 126313

RENOVATIONS TO MEMORIAL PARK RECREATION CENTER

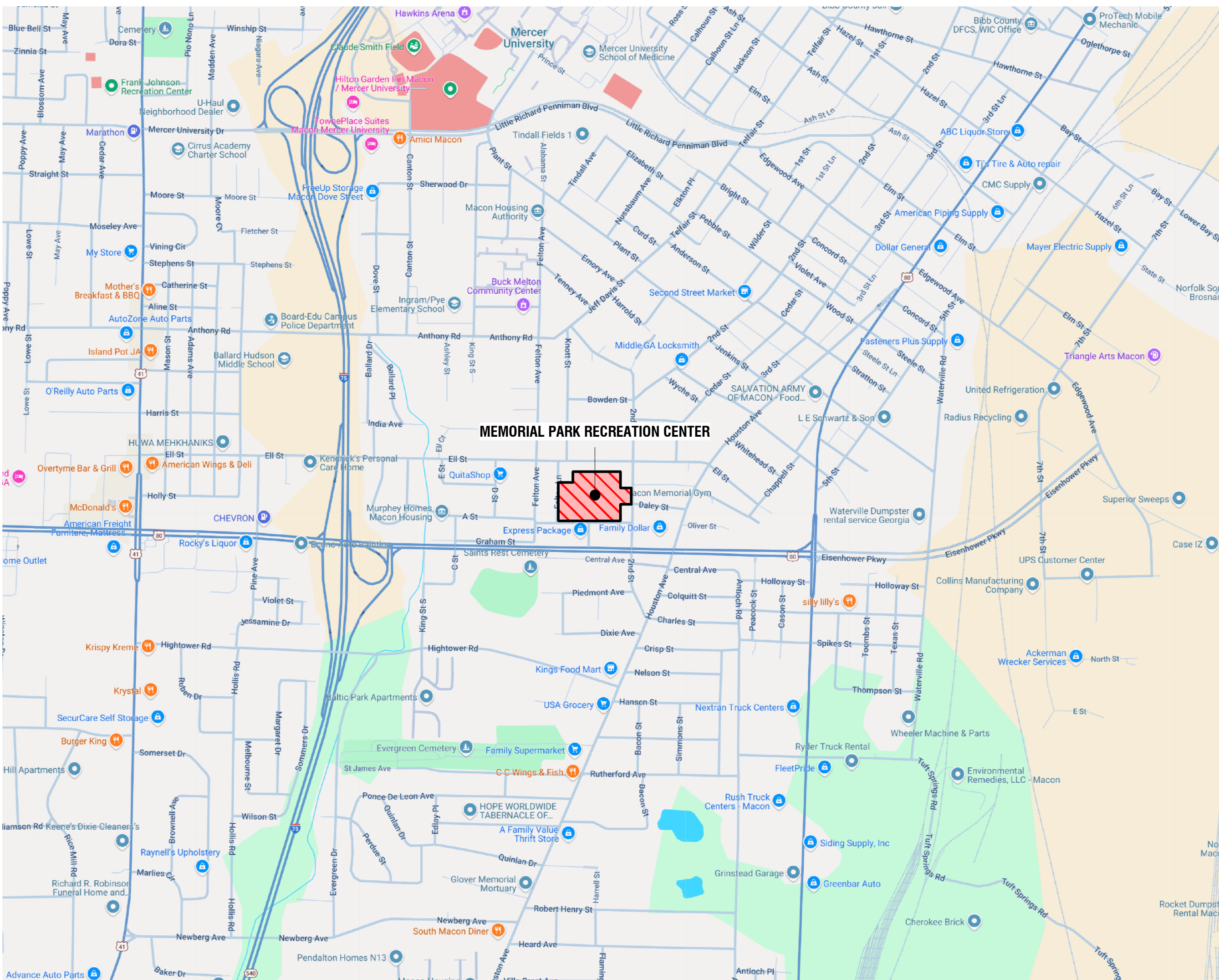
OWNER: **MBC PARKS AND RECREATION**
150 WILLIE SMOKIE GLOVER DRIVE,
MACON, GA 31201

FACILITY: **MEMORIAL PARK RECREATION CENTER**
2465 2ND ST, MACON, GA 31206

30 OCTOBER 2024 - ISSUED FOR PERMIT



MACON-BIBB COUNTY PARKS
AND RECREATION
**MEMORIAL PARK RECREATION
CENTER RENOVATION**
2465 2ND ST, MACON, GA 31206



VICINITY MAP



SITE MAP



LIST OF DRAWINGS

Sheet Number	Sheet Name
General	
G101	COVERSHEET
G102	GENERAL REQUIREMENTS
Life Safety	
LS101	LIFE SAFETY PLAN
Civil	
C101	EXISTING CONDITIONS AND DEMOLITION PLAN
C201	SITE LAYOUT
C301	GRADING AND DRAINAGE PLAN
C401	ESPC PHASE 1
Structural	
S101	GENERAL NOTES AND DETAILS
S102	FOUNDATION AND FRAMING PLAN
S103	BUILDING ELEVATIONS
S104	TRUSS DIAGRAMS
Architectural Sitework	
AS101	ARCHITECTURAL SITE PLAN - DEMO WORK
AS102	ARCHITECTURAL SITE PLAN - NEW WORK
Architecture	
A101	OVERALL FLOOR PLAN
A102	RESTROOM - FLOOR PLANS
A104	RESTROOM - ELEVATIONS
A106	PAVILION PLAN, ELEVATIONS AND SECTIONS
A201	BUILDING ELEVATIONS
A501	INTERIOR ELEVATIONS
A502	INTERIOR ELEVATIONS
A701	FINISH PLAN, SCHEDULE, AND LEGEND
A702	INTERIOR 3D VIEWS
Mechanical	
M101	MECHANICAL PLAN
Electrical	
E101	FLOOR PLAN - ELECTRICAL
Plumbing	
P101	PLUMBING PLANS

CONTACT INFORMATION

CIVIL TRAVERSE LAND SERVICES, LLC 253 CARL VINSON PARKWAY WARNER ROBINS, GA. 31088 478-922-7724 CONTACT: MICHAEL CLARKE	MECHANICAL TOTAL ENGINEERS 169 NEW STREET, MACON, GA 31201 478-741-4632 CONTACT: KRUNAL PATEL
STRUCTURAL PI-TECH, INC. 115 FOREST HILL RD, MACON, GA 31210 478.743.5600 CONTACT: MATT ELLIS	PLUMBING TOTAL ENGINEERS 169 NEW STREET, MACON, GA 31201 478-741-4632 CONTACT: KRUNAL PATEL
ARCHITECTURAL WM2A ARCHITECTS 348 COTTON AVENUE SUITE 500 MACON, GA 31201 478-745-4945 CONTACT: BRANDON FAIRBANKS	ELECTRICAL ELECTRICAL DESIGN CONSULTANTS 175 NEW STREET, SUITE 1 MACON, GA 31201 478-781-1833 CONTACT: JEFF MCGEE

These drawings convey certain contractual information through the use of color. Do NOT use drawings printed in black and white or grayscale.
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Project Status: Issued for Permit
Revision No (if any): Revision Date:
Project No: 2024-079 Current Date: 10/30/24
Drawing Name:

COVERSHEET
Drawing No:

G101

PERMITS & STANDARDS

1.

ALL NECESSARY FEDERAL, STATE AND LOCAL PERMITS REQUIRED TO PERFORM THE WORK SHOWN AND NOTED HEREON SHALL BE OBTAINED FROM THE ISSUING AUTHORITY, PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.
2.

ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE RULES, REGULATIONS, STANDARDS & SPECIFICATIONS OF THE CITY MACON, GEORGIA , REGARDLESS OF THE ABGENCE OF "REVIEWINGSECTION COMMENTS".
3.

THE CONTRACTOR IS REQUIRED TO NOTIFY THE LOCAL INSPECTOR 24 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
4.

THE PROJECT SITE IS SUBJECT TO ALL RIGHT-OF-WAYS & EASEMENTS SHOWN AND/OR RECORDED, AND MAY BE SUBJECT TO ADDITIONAL RIGHT-OF-WAYS/EASEMENTS NOT SHOWN OR RECORDED HEREON.
5.

THE CONTRACTOR SHALL PERFORM A SITE INSPECTION PRIOR TO ANY CONSTRUCTION ACTIVITY, TO IDENTIFY ANY DISCREPANCIES BETWEEN THE APPROVED CONSTRUCTION DOCUMENTS AND EXISTING SITE CONDITIONS. IF DISCREPANCIES EXIST, THE CONTRACTOR SHALL NOTIFY IN WRITING TO THE OWNER AND TRAVERSE LAND SERVICES PRIOR TO WORK COMMENCEMENT.
6.

THE LIMITS OF CONSTRUCTION HAVE BEEN DELINEATED ON THE SITE PLAN. REFER TO SPECIFICATIONS FOR PERIMETER FENCING. THE CONTRACTOR SHALL CONTAIN ALL CONSTRUCTION ACTIVITIES WITHIN THESE LIMITS. ANY REPAIR OR RECONSTRUCTION OF DAMAGE TO ADJACENT PROPERTIES SHALL BE REPAIRED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS INCURRED FOR SAID REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED.
7.

UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL USE THE GEOMETRY PROVIDED ON THE CONSTRUCTION DOCUMENTS. ALL DIMENSIONS SHOWN ARE PERPENDICULAR/RADIAL AND ARE MEASURED FACE TO FACE OF CURB & BUILDINGS OR FROM THE EDGE OF PAVEMENT IN THE ABGENCE OF CURBING.
8.

ALL GRADED AREAS SHALL PROVIDE POSITIVE DRAINAGE IN THE DIRECTION INDICATED ON THE CONSTRUCTION DOCUMENTS SO AS TO PROVIDE A SMOOTH TRANSITION BETWEEN SURFACES WITH NO SHARP BREAKS IN GRADE AND NO STEEP OR REVERSE CROSS SLOPES. MINOR FIELD ADJUSTMENTS TO PROPOSED GRADES MAY BE NECESSARY TO CONSTRUCT THE DESIGN INTENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH THE ABOVE.
9.

CONTRACTOR SHALL VERIFY INVERTS & SPOT ELEVATIONS OF ALL TIE-INS TO EXISTING INFRASTRUCTURE & PAVEMENT PRIOR TO INSTALLATION.
10.

ALL PAVEMENT TO BE REMOVED SHALL BE SAW CUT.
11.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE PRIOR TO ORDERING PROJECT MATERIALS, THE MOST CURRENT SET OF "APPROVED" CONSTRUCTION DOCUMENTS FROM TRAVERSE LAND SERVICES INCLUDING BUT NOT LIMITED TO, PERMITTED SET(S) FROM ALL APPLICABLE AGENCIES AS APPROPRIATE. TRAVERSE LAND SERVICES SHALL ACCEPT NO RESPONSIBILITY FOR IMPROPER ORDERING OF MATERIALS.
12.

DO NOT SCALE FROM THESE DRAWINGS. " DIFFERENTIAL STRETCHING" OCCURS DURING THE REPRODUCTION PROCESS.
13.

AN AS-BUILT SITE SURVEY AND REVISED HYDROLOGY/HYDRAULIC ANALYSIS SHALL BE SUBMITTED TO THE LOCAL CITY OR COUNTY GOVERNMENTAL AGENCY PRIOR TO FINAL APPROVAL AND ISSUANCE OF "CERTIFICATE OF OCCUPANCY" FOR THIS PROJECT.

UTILITIES

1.

ALL WATER & SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MACON WATER AUTHORITY UTILITY DEPARTMENT WATER & SEWER STANDARDS, LATEST ADDITION.
2.

ALL UTILITY WORK MEETING THE DEFINITION OF "UTILITY CONTRACTING" AS DESCRIBED IN THE OFFICIAL CODE OF THE STATE OF GEORGIA, SECTION 43-1-4-2 SHALL ADHERE TO THE PRESCRIBED SECTIONS REGARDING "UTILITY CONTRACTOR" LICENSING REQUIREMENTS.
3.

ALL UTILITIES, STORM DRAIN & SERVICE LINES SHALL BE MARKED WITH LOCATOR WIRE.
4.

CAUTION! UNDERGROUND UTILITY SERVICE ALERT ! THE CONTRACTOR SHALL CALL THE TOLL FREE NUMBER- 1.800.282.7411 , A MINIMUM OF 48 HOURS PRIOR TO THE START OF ANY EXCAVATION AS SHOWN AND NOTED ON THE APPROVED PLANS.
5.

INFRASTRUCTURE AND/OR UTILITIES SHOWN ON THESE PLANS ARE FROM GROUND LOCATION OF IDENTIFIABLE STRUCTURES AND "SURFACE DELINEATIONS" OF UNDERGROUND INFRASTRUCTURE (UPC) AVAILABLE AT THE TIME OF THE DESIGN SURVEY. ADDITIONAL SURFACE & SUB-SURFACE INFRASTRUCTURE MAY EXIST. TRAVERSE LAND SERVICES ACCEPTS NO RESPONSIBILITY FOR THE COMPLETENESS OF THIS INFORMATION.
6.

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ANY SAID UTILITIES PRIOR TO WORK COMMENCEMENT AND TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL DAMAGES TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY TRAVERSE LAND SERVICES IMMEDIATELY IF ANY EXISTING UTILITY LOCATIONS WILL EFFECT OR IMPEDE THE PROGRESSION OR COMPLETION OF THE DESIGN INTENT AS SHOWN HEREON.
7.

THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY ENTITY WITH ANY REQUIRED RELOCATION OF EXISTING UTILITIES, PRIOR TO THE START OF ANY CONSTRUCTION.
8.

THE CONTRACTOR SHALL REMOVE SAID UTILITIES ONLY, AFTER APPROVAL FROM ALL INTERESTED PARTIES. THE CONTRACTOR SHALL COORDINATE ABANDONMENT AND/OR RELOCATION WITH THE APPROPRIATE UTILITY COMPANY OR ENTITY. ANY DISPOSAL OF SAID FACILITIES SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL UTILITY AND OR GOVERNMENTAL REGULATIONS. ANY COSTS INCURRED IN THE REMOVAL/ABANDONMENT OF SAID INFRASTRUCTURE SHALL BE THE RESPONSIBILITY OF THE OWNER/CONTRACTOR.

CLEARING & GRADING

1.

THE CONTRACTOR SHALL EXORCISE EXTREME CAUTION IN PROTECTING EXISTING TRESS/VEGETATION AND COORDINATE ALL TREE REMOVAL WITH THE OWNER PRIOR TO THE START OF ANY CONSTRUCTION.
2.

THE CONTRACTOR SHALL REMOVE ALL WASTE MATERIAL EXCAVATED FROM THE SITE AND DISPOSED OF PROPERLY OFF-SITE.
3.

STRUCTURAL FILL MATERIAL REQUIRED TO BRING THE SITE TO GRADE SHALL BE LIMITED TO SOILS CLASSIFIED IN ACCORDANCE WITH ASTM D2487. ON-SITE SOILS FROM CUT AREAS MAY BE SUITABLE FOR FILL MATERIAL.
4.

THE CONTRACTOR SHALL STOCKPILE AND LATER SPREAD A MINIMUM OF 6 INCHES OF TOPSOIL IN AREAS TO BE LANDSCAPED, SODDED OR SEEDED.
5.

AT THE END OF EACH DAY, THE CONTRACTOR SHALL HAVE THE SITE GRADED IN SUCH A WAY SO AS NOT TO CAUSE ADVERSE IMPACT FROM RUN-OFF OR SILTATION TO ANY ADJACENT PROPERTIES. SILT BARRIERS SHALL BE MAINTAINED AND REPAIRED IF REQUIRED AT THE END OF EACH WORKING DAY.
6.

GROUND SURFACE PREPARATION:

6.1.

REMOVE VEGETATION INCLUDING GRASS, ROOTS, AND SURFICIAL ORGANICS, DEBRIS, UNSATISFACTORY SOILS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF FILL MATERIAL. FLOW STRIP, BREAKUP SLOPED SURFACES STEEPER THAN 2:1 SO THAT FILL MATERIAL WILL BOND WITH THE EXISTING SOILS. WHEN EXISTING GROUND SURFACE HAS A DENSITY LESS THAN THAT SPECIFIED UNDER COMPACTION FOR PARTICULAR AREA CLASSIFICATION, BREAKUP GROUND SURFACE, PULVERIZE, MOISTURE CONDITION TO OPTIMUM MOISTURE CONTENT, AND COMPACT TO REQUIRED DEPTH AND PERCENTAGE OF MAXIMUM DENSITY.

6.2.

PLACE BACKFILL AND FILL MATERIAL IN LAYERS NOT MORE THAN 6 INCHES IN LOOSE FILL LIFTS COMPACTED BY HEAVY EQUIPMENT AND NOT MORE THAN 3 INCHES IN LOOSE FILL LIFTS COMPACTED BY HAND-OPERATED TAMPERS.

6.3.

BEFORE COMPACTION, MOISTEN AND AERATE EACH LAYER AS NECESSARY TO PROVIDE OPTIMUM MOISTURE CONTENT. COMPACT EACH LAYER TO REQUIRED PERCENTAGE OF MAXIMUM DRY DENSITY OR RELATIVE DRY DENSITY FOR EACH AREA CLASSIFICATION. DO NOT PLACE BACKFILL OR FILL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAINS FROST OR ICE.

6.4.

UNLESS OTHERWISE INDICATED OR DIRECTED BY GEOTECHNICAL CONSULTANT, COMPACT ALL BUILDING PADS & PAVEMENT SUBGRADE MATERIAL TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTMD698 CURRENT ADDITION). OTHER GRADED AREAS SHALL BE COMPACTED TO 95% STANDARD PROCTOR DRY DENSITY (+/- 2%) UNLESS OTHERWISE SPECIFIED.

6.5.

ALL GRADED AREAS SHALL BE PROOFROLLED WITH A 20 TON DUMP TRUCK. UNDERCUT ALL AREAS THAT PUMP AND REPLACE WITH SUITABLE FILL MATERIAL AS SPECIFIED.
7.

MOISTURE CONTROL:

7.1.

WHERE SUBSURFACE OR LAYER OF SOIL MATERIAL MUST BE MOISTURE CONDITIONED BEFORE COMPACTION, UNIFORMLY APPLY WATER TO SURFACE OF SUBGRADE OR SOIL LAYER. APPLY WATER IN MINIMUM QUANTITIES AS NECESSARY TO PREVENT FREE WATER FROM APPEARING ON THE SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS.

7.2.

REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, SOIL MATERIAL THAT IS TOO WET TO ALLOW FOR REQUIRED SPECIFIED DENSITY.

7.3.

SPREAD SOIL MATERIAL THAT HAS BEEN REMOVED DUE TO EXCESSIVE MOISTURE CONTENT. ASSIST THE DRYING PROCESS BY DISKING, HARROWING, OR PULVERIZING UNTIL MOISTURE CONTENT IS REDUCED TO A SATISFACTORY VALUE.

7.4.

THE CONTRACTOR SHALL NOTIFY TRAVERSE LAND SERVICES & OWNER IMMEDIATELY UPON THE DISCOVERY OF ANY GROUNDWATER, SUB-SURFACE SEEPAGE, OR SPRINGS DURING THE COURSE OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO CONSULT WITH A REGISTERED GEOTECHNICAL ENGINEER FOR SITE INSPECTION, AND TO MAKE RECOMMENDATIONS REGARDING THE EVIDENCE AND REMEDIATION OF SUBSURFACE WATERS.
8.

QUALITY CONTROL TESTING DURING CONSTRUCTION:

8.1.

ALLOW GEOTECHNICAL TESTING SERVICE TO INSPECT AND APPROVE EACH SUBGRADE, BACKFILL OR FILL LAYER BEFORE FURTHER FILL OR CONSTRUCTION WORK IS CONTINUED. TESTING SHALL BE PERFORMED EVERY 10,000 SF OF AREA PER ONE FOOT LIFT OR AS DIRECTED BY A REGISTERED GEOTECHNICAL ENGINEER.

8.2.

GEOTECHNICAL SPECIFICATIONS DESCRIBED HEREIN ARE GUIDELINES ONLY AND SHOULD BE VERIFIED BY A REGISTERED GEOTECHNICAL ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. RECOMMENDATIONS FROM A REGISTERED GEOTECHNICAL ENGINEER SHALL SUPERSEDE THE ABOVE RECOMMENDATIONS.

MATERIALS

1.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE PRIOR TO ORDERING PROJECT MATERIALS, THE MOST CURRENT SET OF "APPROVED" CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO, PERMITTED SET(S) FROM ALL APPLICABLE AGENCIES AS APPROPRIATE. TRAVERSE LAND SERVICES SHALL ACCEPT NO RESPONSIBILITY FOR IMPROPER ORDERING OF MATERIALS.
2.

WATER, SEWER & STORM PIPE MATERIALS SHALL CONFORM TO THE FOLLOWING STANDARDS.

2.1.

WATER MAINS

DUCTILE IRON PIPE CLASS 350 (AWWA C 151)

PVC C-900

SDR-21 WITH UTILITY AUTHORITY APPROVAL

2.2.

SERVICE LINES

PVC SCHEDULE 40

HDPE SDR 9 (ASTM D3035)

2.3.

IRRIGATION:

PURPLE PIPE (ASTM 2737)

2.4.

SANITARY SEWER:

DUCTILE IRON PIPE CLASS 350 (AWWA C 151)

PVC SDR 35 (ASTM D-3034)

2.5.

STORM SYSTEM:

RCP CLASS III (ASTM C76)

CORRUGATED HDPE INTEGRALLY FORMED SMOOTH INTERIOR (ASHTO M-294 TYPE 'S')

VICINITY MAP

NFIP MAP FIRMETTE #13225C0130C

USGS QUADRANGLE

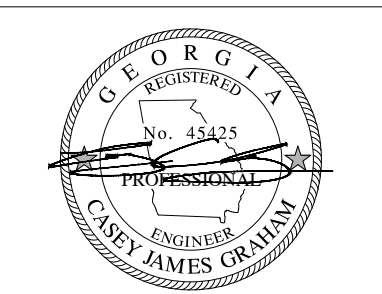
NATIONAL WETLANDS INVENTORY

LEGEND	
	IPS = PROPERTY CORNER SET (REBAR)
	IPF = PROPERTRY CORNER FOUND
	CMF = CONCRETE MONUMENT FOUND
	CMS = CONCRETE MONUMENT SET
	CP = SURVEY CONTROL POINT
	"X" = CHISELED "X"
	LLL = LAND LOT LINE
	BSL = BUILDING SETBACK LINE
	SSE = SANITARY SEWER EASEMENT
	UE = UTILITY EASEMENT
	DE = DRAINAGE EASEMENT
	DUE = DRAINAGE & UTILITY EASEMENT
	LL = LAND LOT
	POB = POINT OF BEGINNING

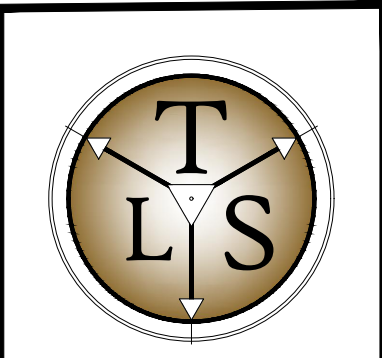
GENERAL SITE INFORMATION	
1	LEGAL DESCRIPTION: N/A
	N/A N/A MACON-BIBB GEORGIA
2	PHYSICAL ADDRESS: 2465 SECOND ST
3	ZONING-USE: EXISTING: R-2 PROPOSED: R-2
4	SETBACK LINES: FRONT= N/A SIDE= N/A REAR= N/A
5	PROJECT AREA: SITE= 6.3 ACRES DISTURBED= 0.55 ACRES
6	THIS PROPERTY IS NOT IN A SPECIAL FLOOD HAZARD DISTRICT PER NFIP FIRM PANEL No. 13021C0134G EFFECTIVE DATE 06.07.2017.
7	"STATE WATERS" DO NOT LIE ON OR WITHIN 200' OF THE PROJECT SITE.



ARCHITECTS
WM2A.COM
348 COTTON AVENUE
SUITE 500, PO BOX 110
MACON, GEORGIA 31201



GEORGIA
REGISTERED PROFESSIONAL ENGINEER
JAMES GRAHAM
No. 34475
Exp. 12/31/2024
GSWCC License Professional
Certification No. 0000



TRAVERSE
LAND SERVICES, LLC
SURVEY • PLAN • DESIGN
253 CARL VINSON PARKWAY
WARNER ROBINS, GA 31088
478.922.7724 www.traverse-ls.com



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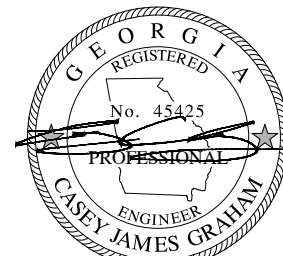
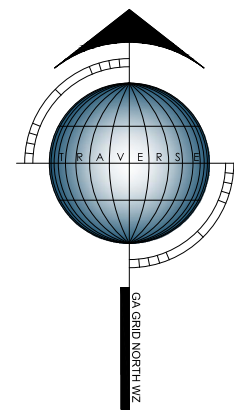
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Project No:	Current Date:
2024-079	10/30/24
Drawing Name:	

Drawing No:

C001

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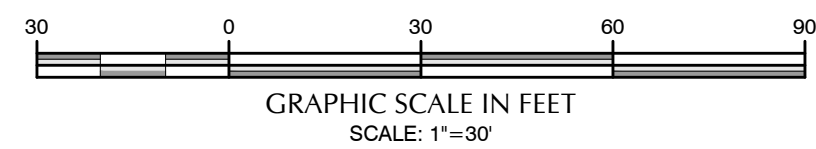
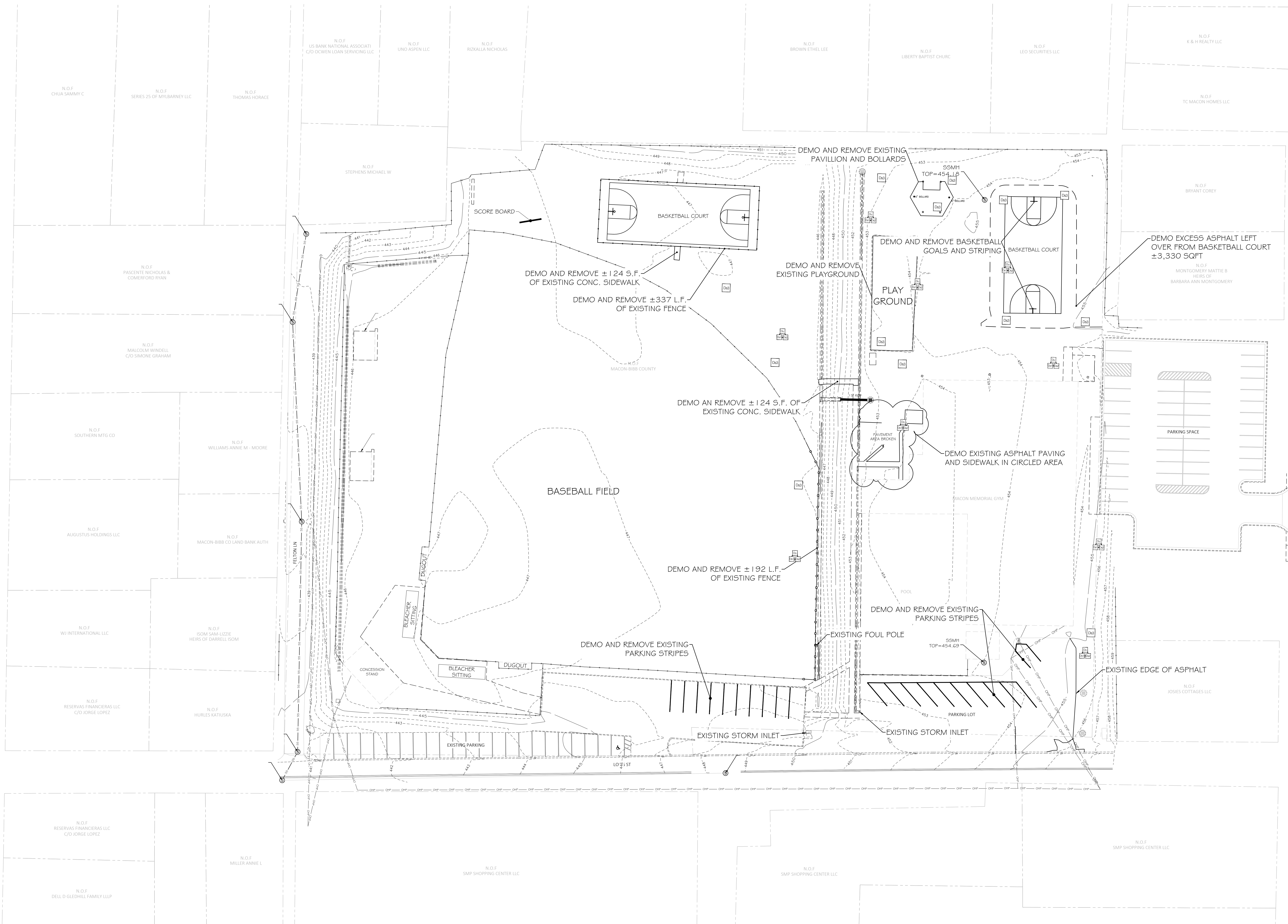
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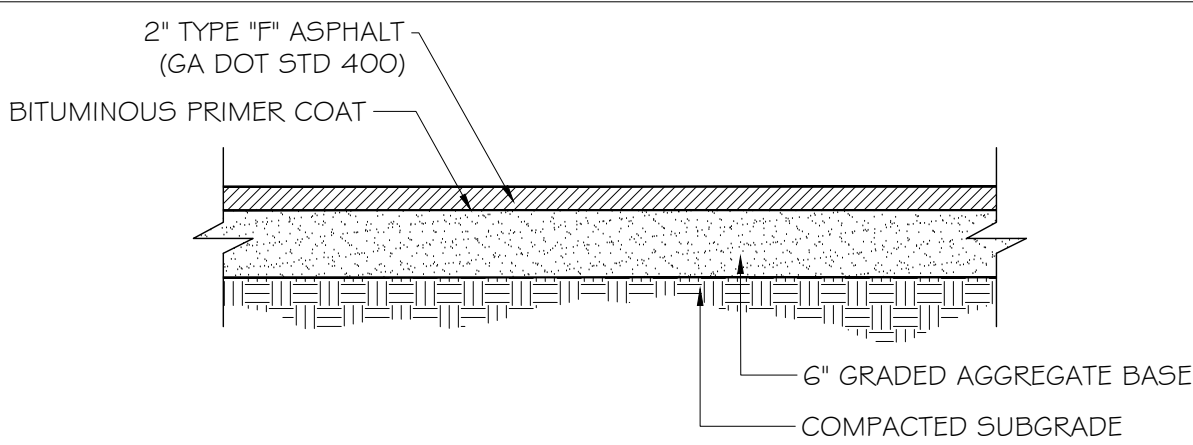
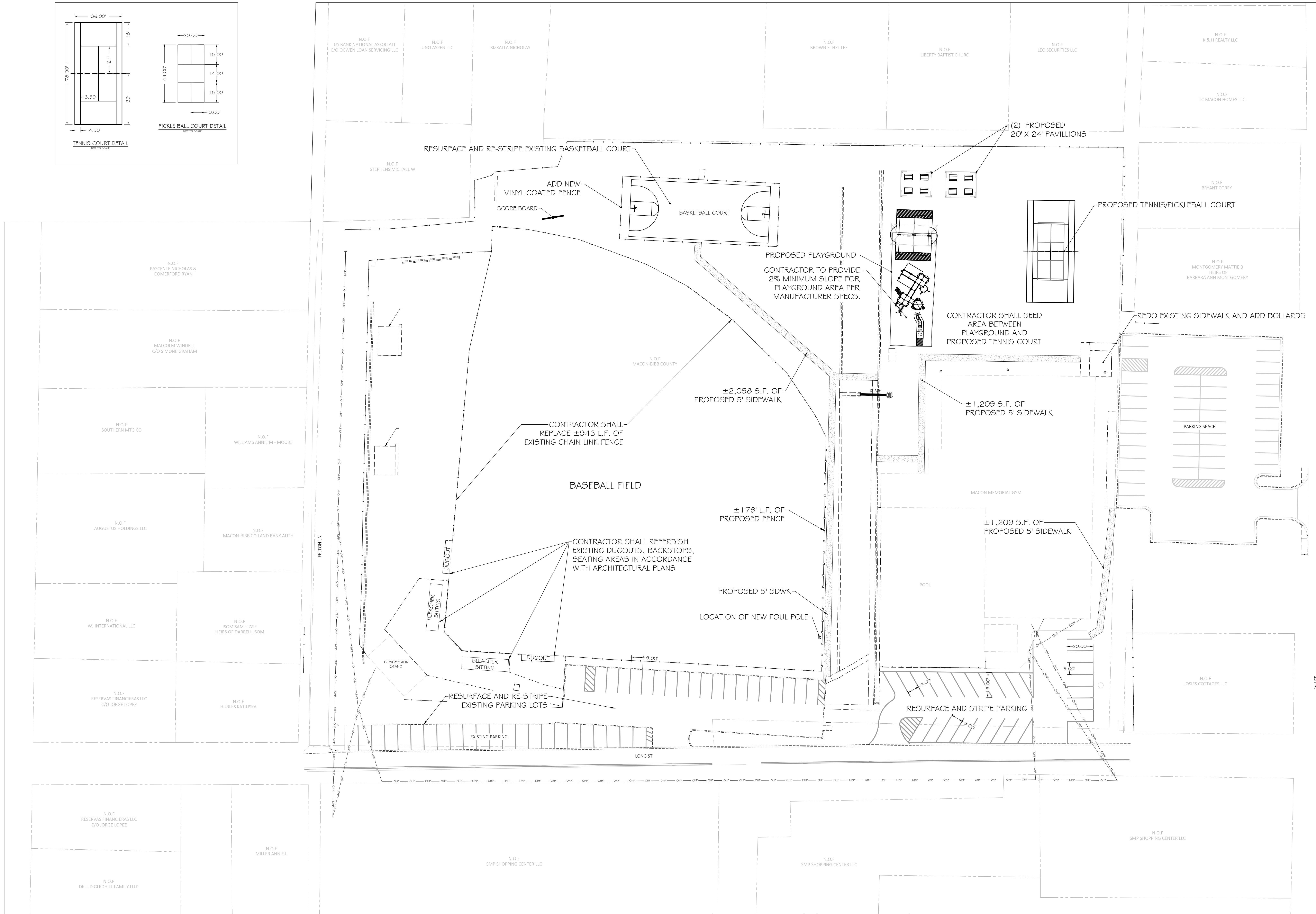
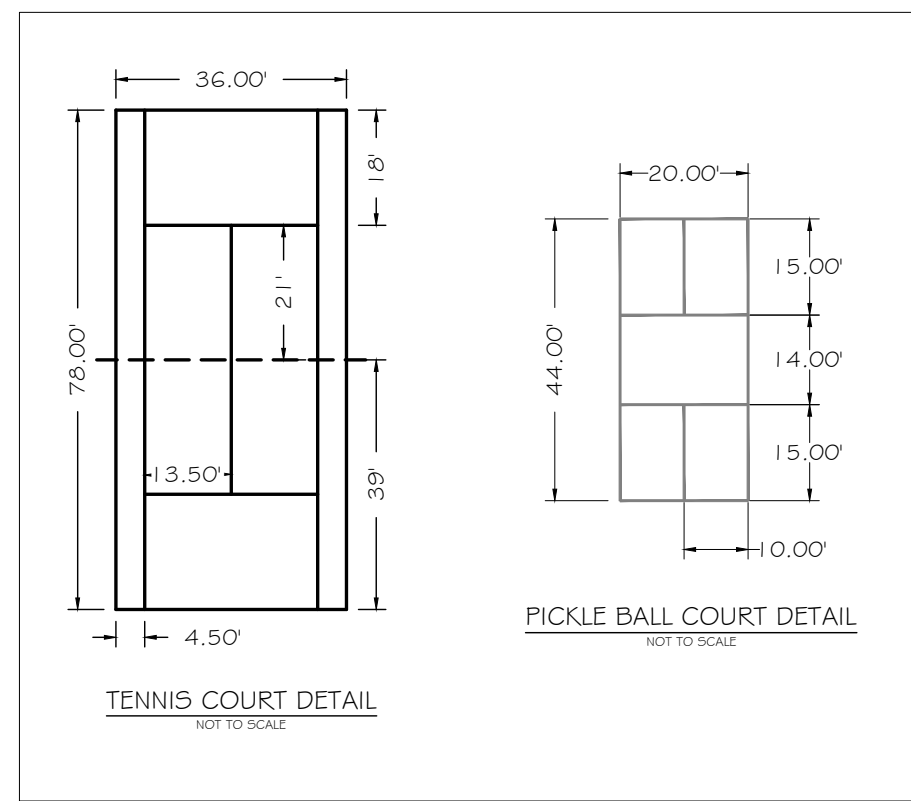
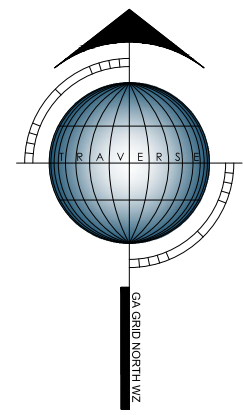
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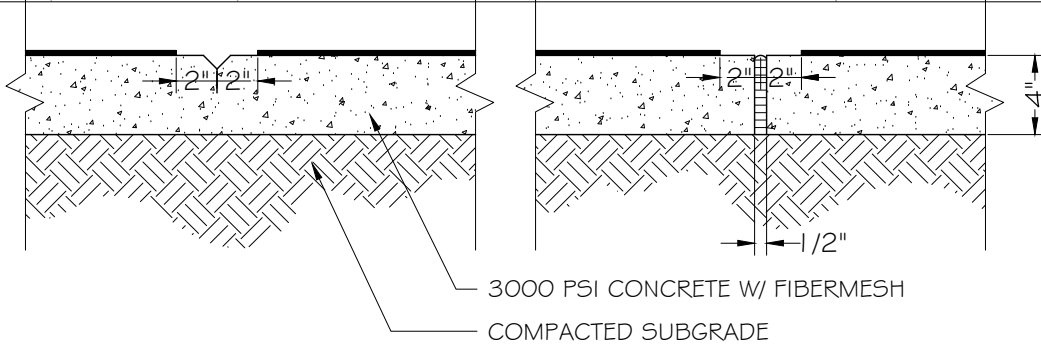
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EXISTING CONDITIONS
& DEMOLITION PLAN

Drawing No: **C101**

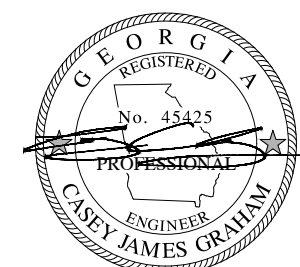
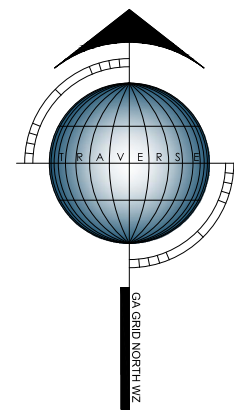


STD ASPHALT PAVING DETAIL



CONCRETE SIDEWALK DETAIL

IMPERVIOUS AREA	
IMPERVIOUS AREA DEMOED	±3,837 S.F.
IMPERVIOUS AREA ADDED	±4,737 S.F.



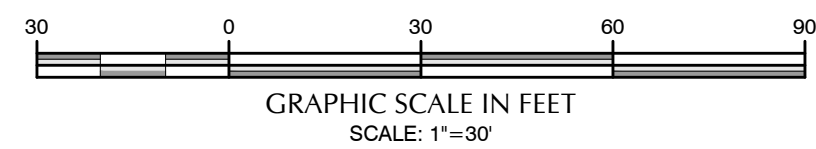
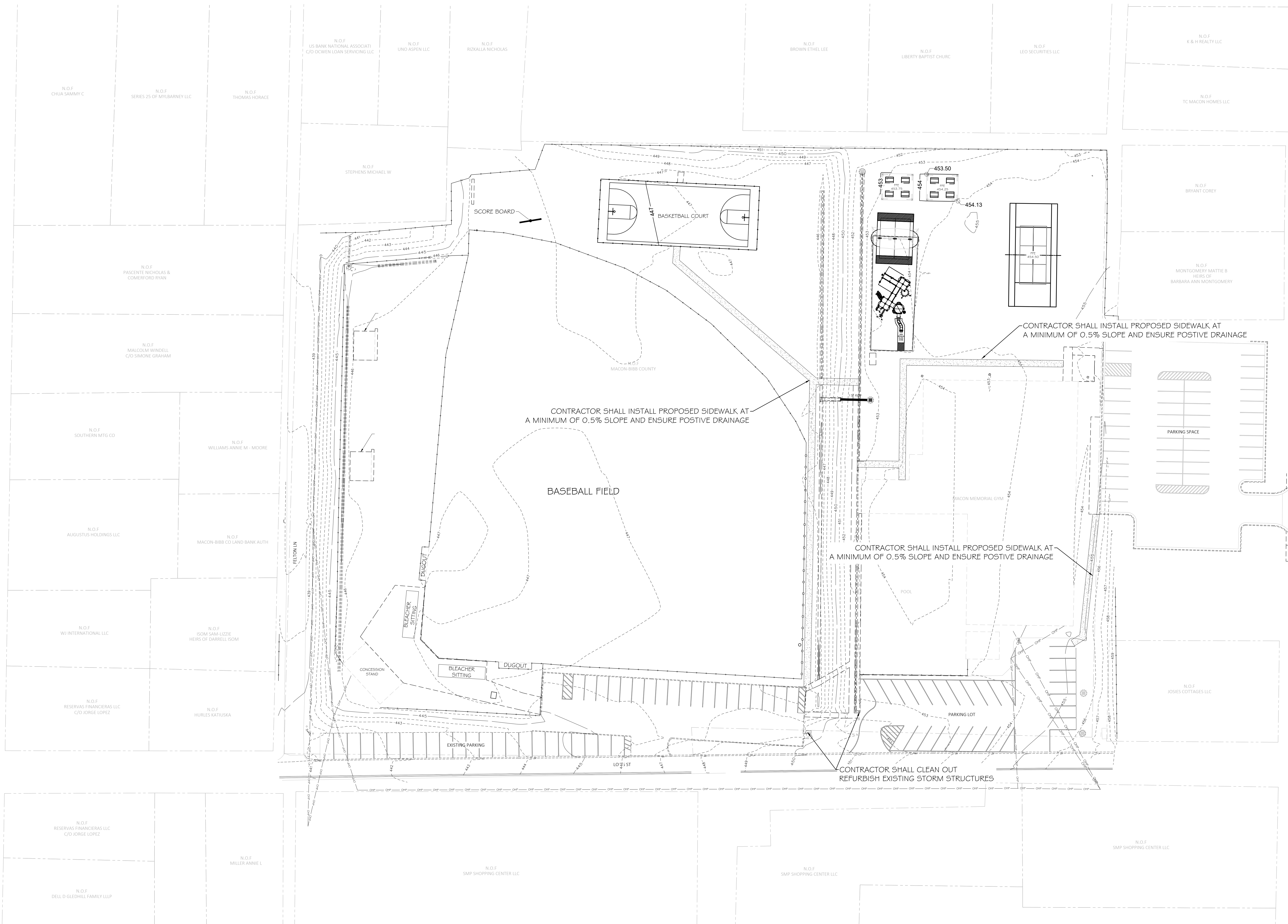
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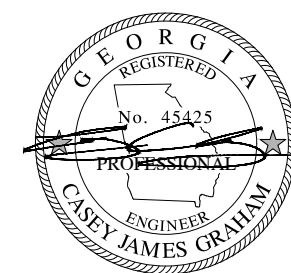
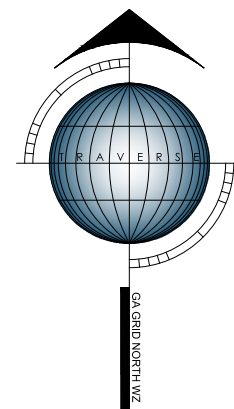
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Drawing Name:

GRADING AND DRAINAGE PLAN

Drawing No:

C301



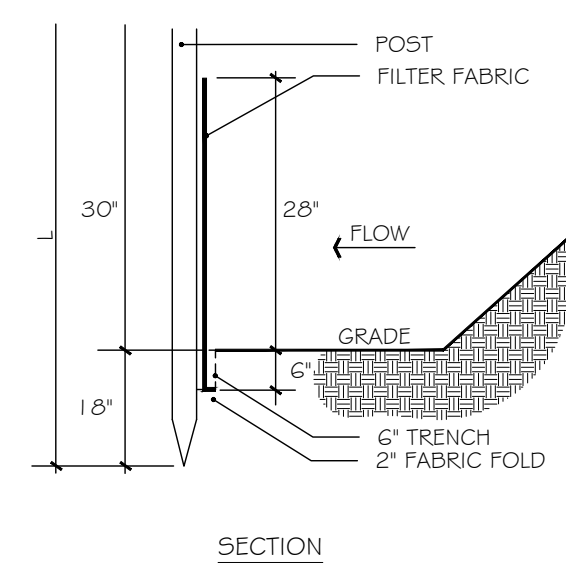
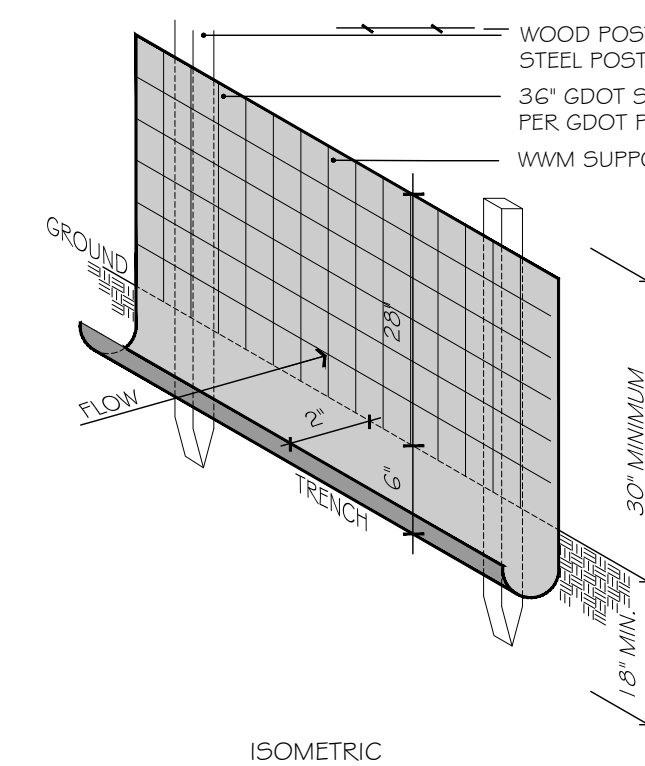
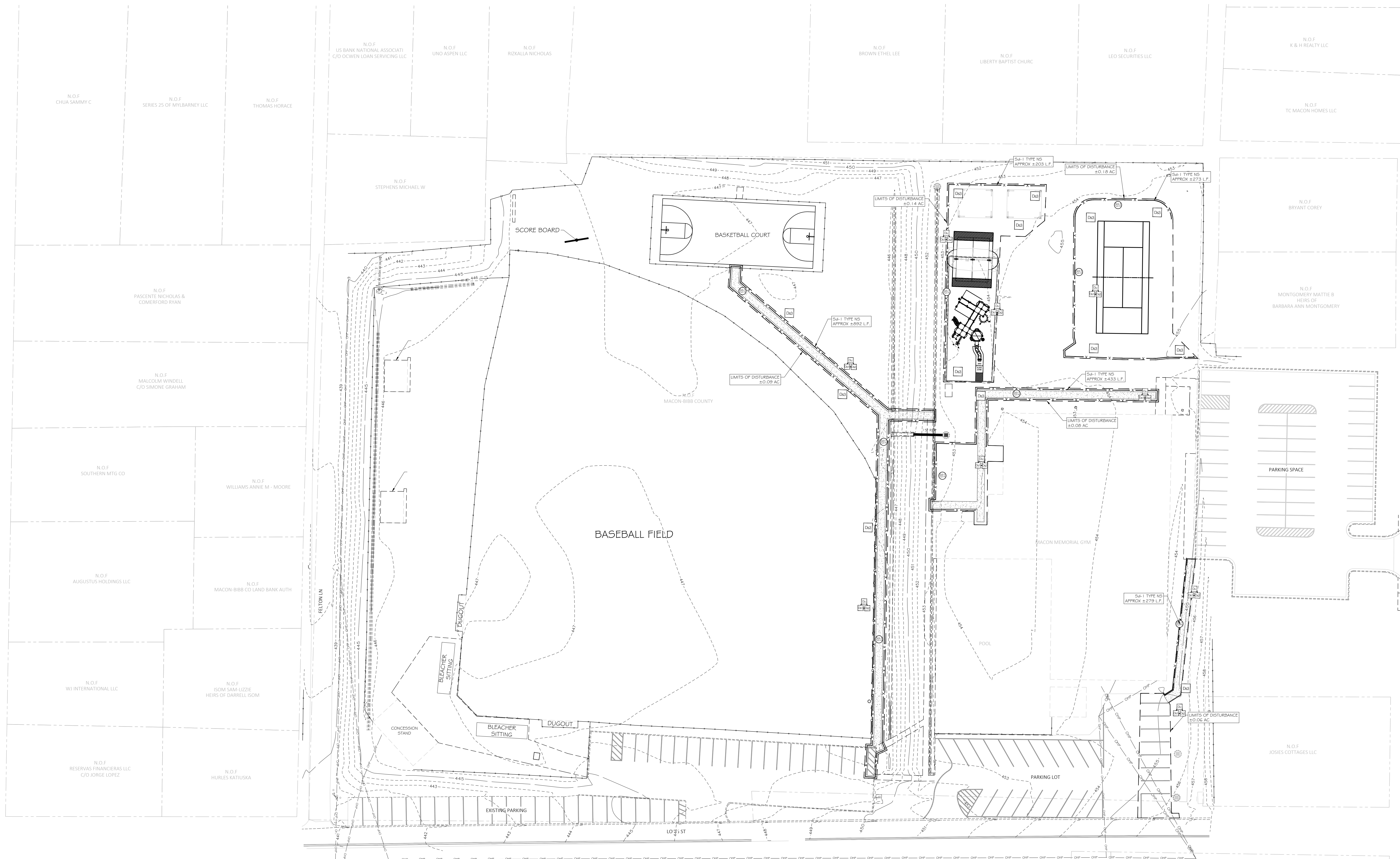
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FENCE SPECIFICATIONS			
FENCE TYPE	FABRIC	POST	
TYPE 'NS'	34" PER GOOT POL-36	SOFT WOOD: 3" DIA OR 2x4 HARD WOOD: 1 1/2" DIA STEEL: U, T, OR C SHAPED @ 1.15M	
TYPE 'S'	36" PER GOOT POL-36 WWM SUPPORT	STEEL: U, T, OR C SHAPED @ 1.15M	

* 'C' POST MAY BE SUBSTITUTED FOR TYPE 'U' WITH REVIEW AUTHORITY APPROVAL

INSTALLATION:
A SIX INCH TRENCH IS DUG WHERE FENCE IS TO BE PLACED. POSTS ARE DRIVEN INTO THE GROUND AT A DEPTH THAT ALLOWS THE FIRST MARKER LINE TO REACH THE TOP OF TRENCH. CONTINUE TO DRIVE ALL POSTS TO THE SAME DEPTH, KEEPING FABRIC STRETCHED TIGHT. BACKFILL THE TRENCH WITH REMAINING SOIL.

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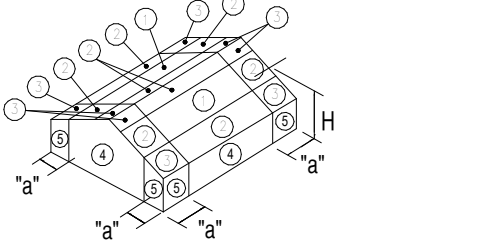
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GENERAL NOTES

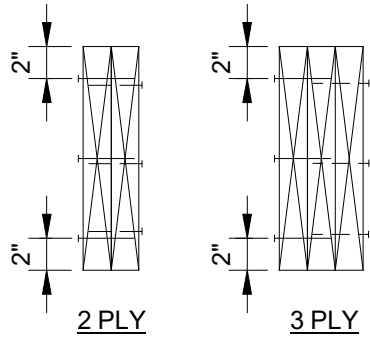
- LOADS
A. ROOF (LL_r)..... 20 PSF
B. DEAD..... 15 PSF
- DESIGN WIND LOADS
A. BASIC WIND SPEED (V_{ult})..... 109 MPH
B. NOMINAL WIND SPEED (V_{std})..... 84.5 MPH
C. RISK CATEGORY..... II
D. WIND EXPOSURE CATEGORY "C"
E. INTERNAL PRESSURE COEFFICIENT..... "GC_{wf}" = ±0
F. COMPONENTS AND CLADDING DESIGN WIND PRESSURES:

ZONE	A=EFFECTIVE WIND AREA (FT ²)					
	A=10	A=20	A=50	A=100		
ROOF	1, 2e	+16	+16	+16	+16	+16
		-33	-33	-33	-28	-24
	2n, 2r, 3e	+16	+16	+16	+16	+16
		-55	-48	-38	-31	-24
OVERHANG	1, 2e	+16	+16	+16	+16	+16
		-65	-54	-40	-31	-24
	2n, 2r	+16	+16	+16	+16	+16
		-66	-61	-55	-51	-40
3e		-79	-68	-53	-53	-40
	3r	-87	-74	-57	-45	-40



ALL PRESSURES ARE INTENDED TO BE APPLIED AND INTERPRETED IN STRICT ACCORDANCE WITH ASCE 7-16. FOR THE PURPOSES OF APPLYING THESE LOADS IN ACCORDANCE WITH COMPONENTS & CLADDING FIGURES IN ASCE 7-16, a=3 FT.

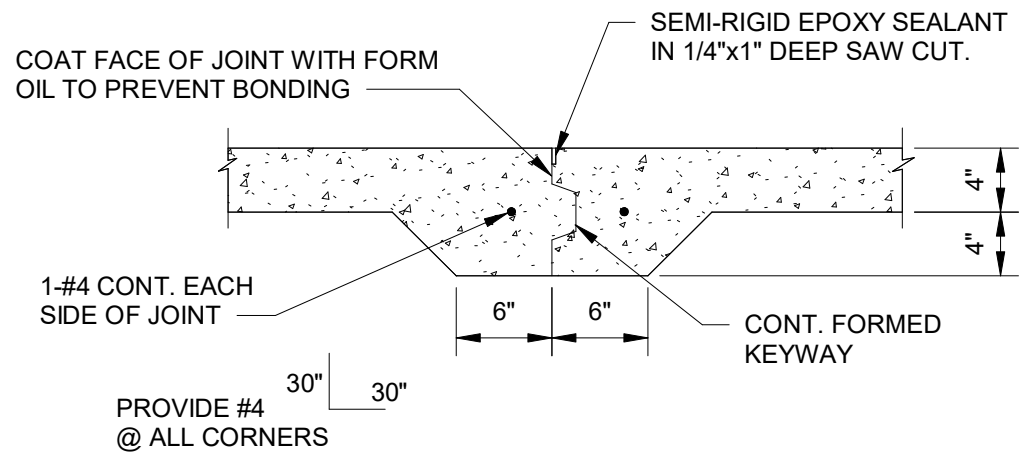
- SEISMIC DESIGN
A. SEISMIC IMPORTANCE FACTOR..... I = 1.00
B. MAPPED SPECTRAL RESPONSE ACCELERATIONS..... S₁ = 0.178
S₂ = 0.077
C. SITE CLASS "D" ASSUMED
D. SPECTRAL RESPONSE COEFFICIENTS..... S_{DS} = 0.19
S_{1S} = 0.123
E. SEISMIC DESIGN CATEGORY "B"
F. BASIC LATERAL FORCE RESISTING SYSTEM:
TIMBER FRAMES
G. DESIGN BASE SHEAR..... 2.2 KIPS
H. SEISMIC RESPONSE COEFFICIENT..... C_s = 0.127
I. RESPONSE MODIFICATION FACTOR..... R = 1.5
J. ANALYSIS PROCEDURE USED:
a. FORCE PROCEDURE FOR SEISMIC DESIGN OF BUILDINGS
- CODES
A. INTERNATIONAL BUILDING CODE, 2018 ED. WITH LATEST GEORGIA AMENDMENTS
B. REINFORCED CONCRETE: ACI 318-14
C. ALL STEEL WORK SHALL COMPLY WITH APPLICABLE STANDARDS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INCLUDING THE SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, LATEST EDITION AND THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE, AWS D1.1 LATEST EDITION
- PROVIDE TEMPORARY BRACING OF STRUCTURAL FRAMING UNTIL ALL PERMANENT BRACING, ANCHORS, AND FRAMING ARE COMPLETELY INSTALLED. THE STRUCTURAL ELEMENTS ARE UNSTABLE UNTIL THE STRUCTURE IS COMPLETED IN ACCORDANCE WITH THE PLANS.
- SHOP DRAWINGS GENERAL NOTE: THE PLANS, SECTIONS, AND DETAILS PROVIDED AS PART OF THE CONTRACT DOCUMENTS SHALL NOT BE USED IN A REPRODUCIBLE FORM AS PART OF THE SHOP DRAWINGS.



2-PLY MEMBERS ARE TO BE ATTACHED WITH 3 ROWS OF 16D NAILS AT 8" O.C. FROM EACH SIDE. STAGGER ROWS 4" ON OPPOSITE FACES. ROWS TO BE EQUALLY SPACED WITH A 2" MINIMUM EDGE DISTANCE.

3-PLY MEMBERS ARE TO BE ATTACHED WITH 3 ROWS OF 16D NAILS AT 4" O.C. ROWS TO BE EQUALLY SPACED. TOP AND BOTTOM ROWS SHALL BE 2" FROM EDGE.

② TYP. MULTI-PLY BEAM ATTACHMENT
1" = 1'-0"



TYPICAL CONSTRUCTION JOINT (CJ) DETAIL

THIS DETAIL MAY BE USED AT THE CONTRACTOR'S DISCRETION WHERE A CONSTRUCTION JOINT IN THE SLAB IS REQUIRED.

SAWCUT FLOOR JOINT (SCJ) DETAIL

THE SLAB MAY BE POURED MONOLITHICALLY (IN LIEU OF KEYS JOINTS) PROVIDED THAT THE JOINTS ARE CUT AS SOON AS THE SLAB CAN SUPPORT AN OPERATOR AND EQUIPMENT (BUT NO MORE THAN 4 HOURS AFTER THE POUR). SAW CUT JOINTS SHOULD BE A MIN. OF 1" DEEP FOR A 4" THICK SLAB AND SHALL BE LOCATED AT 15'-0" MAX. ON CENTER. JOINTS SHOULD BE LOCATED SUCH THAT THE SIDE RATIO OF EACH AREA DOES NOT EXCEED 3:2. HOWEVER A RATIO OF 1:1 IS PREFERRED. PROVIDE EITHER A SAW CUT JOINT OR 2-#5'S x 6'-0" AT ALL INTERIOR CORNERS. A CONT. CONSTRUCTION JOINT (KEYED) SHALL BE PROVIDED AT THE END OF EACH DAY'S POURING SEQUENCE.

CONCRETE SLAB ON GRADE JOINTING
GENERAL NOTES AND DETAILS
① 1" = 1'-0"

SOIL PARAMETERS

- SOIL PARAMETERS
A. FOOTINGS ARE DESIGNED FOR A MINIMUM ALLOWABLE SOIL BEARING PRESSURE OF 2500 POUNDS PER SQUARE FOOT. SPECIFIC SITE PREPARATION GUIDELINES MAY BE REQUIRED TO ACHIEVE THIS SOIL BEARING PRESSURE.
- IF SITE CONDITIONS DIFFER FROM THOSE INDICATED, THE DESIGN PROFESSIONAL SHALL BE NOTIFIED IMMEDIATELY.
- REFERENCE CIVIL GRADING AND DRAINAGE PLANS, DETAILS, AND SPECIFICATIONS.
- ALL FOUNDATION WORK SHALL BE DONE "IN THE DRY." SEE REFERENCED SOILS REPORT FOR PRE-CONSTRUCTION DRAINAGE REQUIREMENTS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL EXISTING SITE CONDITIONS THROUGH AN INDEPENDENT SITE INVESTIGATION PRIOR TO COMMENCING WORK.
- COMPACTED FILL TO BE 4" OF COMPACTED GRADED AGGREGATE BASE.

WOOD FRAMING GENERAL NOTES

- ALL WOOD FRAMING SHALL BE S.Y.P. NO. 2 OR BETTER, EXCEPTIONS NOTED.
- LVL FRAMING SHALL HAVE PROPERTIES EQUAL TO OR BETTER THAN E=2800 PSI, E=2,060 PSI.
- ALL MEMBERS IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.
- WOOD CONSTRUCTION CONNECTORS SHALL BE ANCHOR TYPE/SIZE SPECIFIED HEREIN OR EQUIVALENT ANCHOR WITH EQUAL OR BETTER ALLOWABLE CAPACITY FROM USP OR T&L YN.
- WOOD CONSTRUCTION CONNECTORS SHALL HAVE THE MINIMUM SIZE AND NUMBER OF FASTENERS AS REQUIRED IN CHAPTER 23 OF THE INTERNATIONAL BUILDING CODE, 2018 ED. WITH LATEST GA AMENDMENTS.

STRUCTURAL STEEL GENERAL NOTES

- ALL STRUCTURAL STEEL CONSTRUCTION SHALL CONFORM TO AISC 360-16 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- UNLESS NOTED OTHERWISE:
A. ALL PLATE STEEL SHALL CONFORM TO ASTM A572 GR.50 (50 KSI YIELD STRENGTH).
- BOLTS JOINING STEEL TO WOOD AND WOOD TO WOOD SHALL CONFORM TO ASTM A307.
- SHOP DRAWINGS PREPARED IN ACCORDANCE WITH THE LATEST "STRUCTURAL STEEL DETAILING MANUAL" OF AISC SHALL BE SUBMITTED FOR APPROVAL. NO FABRICATION SHALL BEGIN UNTIL SHOP DRAWINGS ARE COMPLETED AND APPROVED.
- PROVIDE TEMPORARY BRACING OF STRUCTURAL FRAMING UNTIL ALL PERMANENT BRACING, ANCHORS, AND FRAMING ARE COMPLETELY INSTALLED. THE STRUCTURAL ELEMENTS ARE UNSTABLE UNTIL THE STRUCTURE IS COMPLETED IN ACCORDANCE WITH THE PLANS.

REINFORCED CONCRETE GENERAL NOTES

- ALL CONCRETE WORK SHALL CONFORM TO ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS". DESIGN IS BASED ON ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
- CONCRETE SHALL BE NORMAL WEIGHT (150 PCF) AND SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- SUBMIT CONCRETE MIX DESIGNS FOR REVIEW, IN ACCORDANCE WITH ACI 301 & 318 TO THE ARCHITECT AND TESTING AGENCY.
- THE PROPOSED MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND REVIEWED. RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTOR'S.
- USE OF CALCIUM CHLORIDE, CHLORIDE IONS, OR OTHER SALTS IN CONCRETE IS NOT PERMITTED.
- THE AIR CONTENT AT THE POINT OF PLACEMENT SHALL BE PER ACI 318 TABLE 19.3.3.1 FOR MODERATE EXPOSURE (F1). HARD TROWELED SLABS OR SLABS ON GRADE THAT WILL RECEIVE TOPPING SHALL NOT RECEIVE AIR ENTRAINMENT UNLESS PERMITTED BY TOPPING MANUFACTURER.
- THE TESTING AGENCY SHALL SAMPLE AND TEST EACH 100 CU. YARDS OR FRACTION THEREOF OF EACH CLASS OF CONCRETE PLACED EACH DAY. SAMPLE CONCRETE IN ACCORDANCE WITH ASTM C172. PERFORM THE FOLLOWING TESTS IN ACCORDANCE WITH THE INDICATED STANDARD:

SLUMP: ASTM C143
AIR CONTENT: ASTM C231 (NORMAL WEIGHT CONCRETE)
COMPRESSIVE STRENGTH: ASTM C39, WITH ONE CYLINDER AT 7 DAYS, 2 CYLINDERS AT 28 DAYS, AND ONE SPECIMEN HELD IN RESERVE.
CONCRETE TEMPERATURE: ASTM C1064
UNIT WEIGHT: ASTM C567

- MOIST CURE CONCRETE WITH MOISTURE PROTECTIVE COVER FOR A MINIMUM OF 7 DAYS.
- HORIZONTAL CONSTRUCTION JOINTS ARE PERMITTED ONLY WHERE INDICATED. THE LOCATION OF VERTICAL CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ARCHITECT. CONSTRUCTION JOINTS SHALL BE THOROUGHLY ROUGHENED BY MECHANICAL MEANS, CLEANED AND CAULKED.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
- TIE ALL REINFORCING STEEL AND EMBEDMENTS SECURELY IN PLACE PRIOR TO PLACING CONCRETE. PROVIDE SUFFICIENT SUPPORTS TO MAINTAIN THE POSITION OF REINFORCEMENT WITHIN SPECIFIED TOLERANCES DURING ALL CONSTRUCTION ACTIVITIES. "STICKING" DOWELS INTO WET CONCRETE IS NOT PERMITTED.
- REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER UNLESS NOTED OTHERWISE:

CONCRETE CAST AGAINST EARTH (NOT FORMED): 3"
FORMED CONCRETE EXPOSED TO EARTH OR WEATHER
#6 BARS THROUGH #12 BARS 2"
#6 BARS AND SMALLER 1 1/2"

- DO NOT PLACE PIPES EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS WITHIN THE SLAB OR WALL UNLESS SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
- DO NOT WELD OR TACK WELD REINFORCING STEEL UNLESS APPROVED OR DIRECTED BY THE STRUCTURAL ENGINEER.
- EXTERIOR SLABS SHALL DRAIN FREELY WITH A MAXIMUM VARIATION FROM THE INDICATED PLANE OF 1/4" PER 1'-0".

PREFABRICATED WOOD TRUSSES GENERAL NOTES

- TRUSS DIAGRAMS AND ROOF FRAMING PLAN ARE TO BE FOLLOWED FOR OVERALL DIMENSIONS AND GENERAL CONFIGURATION. SPECIFICS OF CONFIGURATION AND MEMBER SIZES ARE TO BE DETERMINED BY TRUSS MANUFACTURER'S ENGINEER, WITH MINIMUM SIZES AS SPECIFIED BELOW.
- TRUSS DESIGN SHALL BE PERFORMED BY AN ENGINEER, EMPLOYED BY THE TRUSS MANUFACTURER AND LICENSED TO PRACTICE IN THE STATE OF GEORGIA. DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BEAR SAID ENGINEER'S SEAL.
- CONFORM TO APPLICABLE STANDARDS OF THE 2018 INTERNATIONAL BUILDING CODE, WITH LATEST GEORGIA AMENDMENTS, AND THE TRUSS PLATE INSTITUTE, INCLUDING THE NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION.
- DEAD LOADS, SNOW LOADS, LIVE LOADS, ROOF LIVE LOADS, SEISMIC LOADS AND WIND LOADS (AND THEIR COMBINATIONS) ARE TO BE IN ACCORDANCE WITH THE ABOVE REFERENCED CODE.
TRUSS TOP CHORD DL: 15 PSF
TRUSS BOTTOM CHORD DL: 10 PSF
TRUSS BOTTOM CHORD LL: 0 PSF
TRUSS TOP CHORD LL: 20 PSF
- MEMBER SIZES ARE TO BE DETERMINED BY TRUSS ENGINEER'S CALCULATIONS, BUT MINIMUM SIZES FOR TOP AND BOTTOM CHORDS AND SOME OTHER NOTED MEMBERS TO BE 2"x6". ALL MEMBERS FOR ALL TRUSSES TO BE SOUTHERN YELLOW PINE, #2 OR BETTER GRADE.
- MINIMUM SIZES SHOWN ABOVE SHALL NOT PRECLUDE A COMPLETE DESIGN AND ANALYSIS OF THE ROOF SYSTEM AND INDIVIDUAL TRUSSES. MEMBER SIZES LARGER THAN THOSE SHOWN ABOVE SHALL BE USED IF INDICATED BY TRUSS ENGINEER'S CALCULATIONS.
- ALL TRUSSES SHALL BE FABRICATED IN THE MANUFACTURER'S SHOP AND DELIVERED ASSEMBLED TO THE JOB SITE. TRUSSES SHALL BE LOADED AND UNLOADED ACCORDING TO LIFTING DIRECTIONS GIVEN BY THE TRUSS ENGINEER. "DUMPING" OF TRUSSES SHALL BE GROUNDS FOR REJECTION, AS WILL ANY OTHER DAMAGE CAUSED BY FABRICATION, TRANSPORTING OR HANDLING OF TRUSSES.
- TRUSSES SHALL BE ERECTED BY THE MANUFACTURER'S REPRESENTATIVE AT THE DIRECTION OF THE TRUSS ENGINEER, EITHER IN PERSON OR BY SPECIFIC DIRECTIONS SHOWN ON SHOP DRAWINGS.
- SHOP DRAWINGS MUST BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO COMMENCEMENT OF ANY FABRICATION. SHOP DRAWINGS SHALL SHOW ALL DETAILS, DIMENSIONS, SIZES AND DESIGN CALCULATIONS NECESSARY TO FABRICATE AND ERECT TRUSSES AND ALL ASSOCIATED ACCESSORIES.
- ALL TRUSSES SHALL BE ANCHORED TO RESIST UPLIFT AND HORIZONTAL FORCES COMPUTED BY TRUSS ENGINEER AS SHOWN ON SHOP DRAWINGS. ALL ACCESSORIES AND ANCHORAGE TO BE FURNISHED & INSTALLED BY TRUSS MANUFACTURER.



MACON-BIBB COUNTY PARKS
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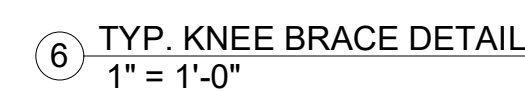
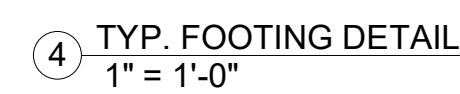
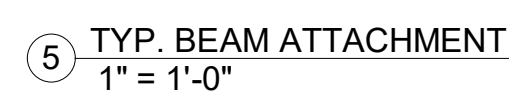


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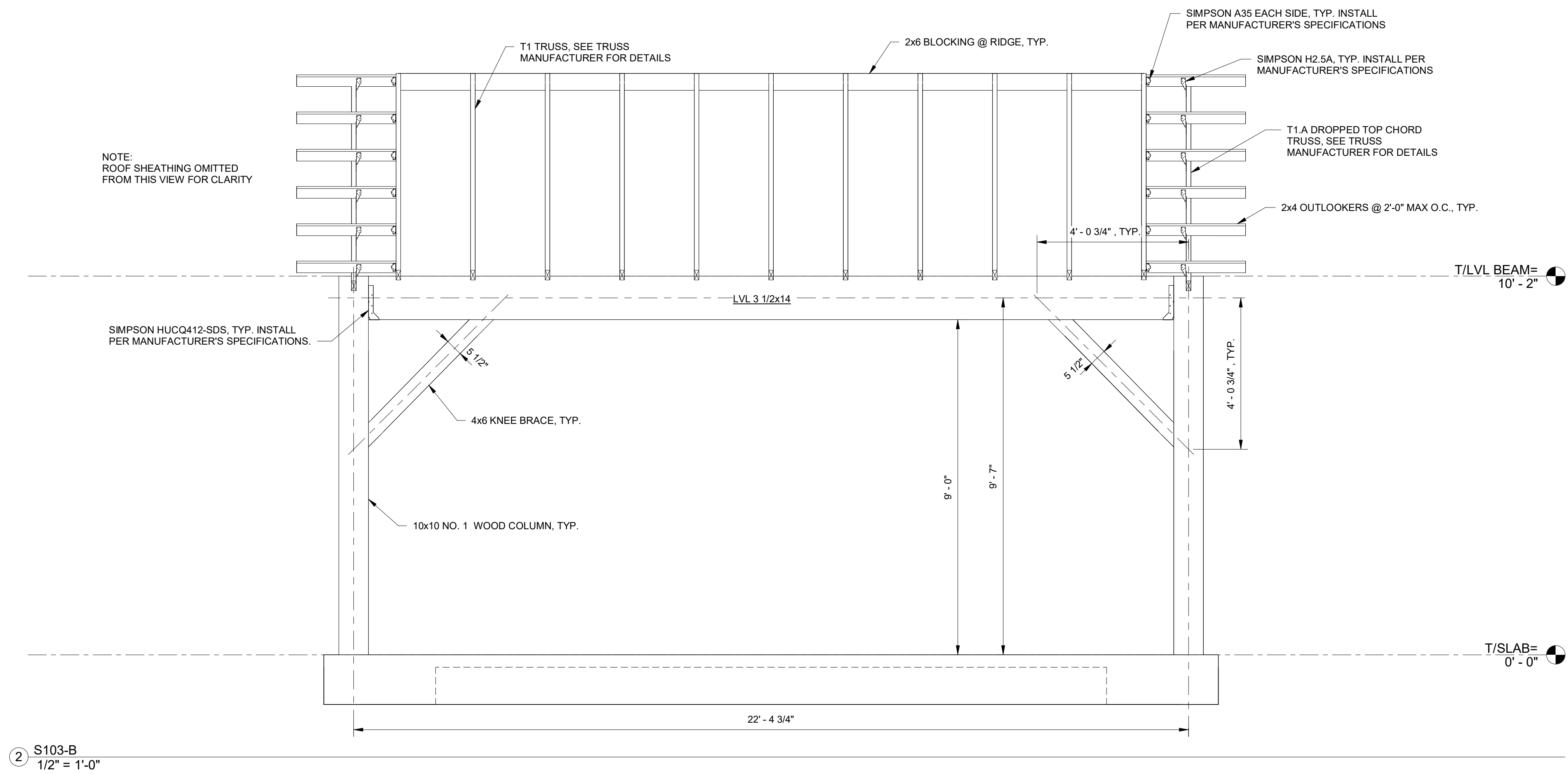
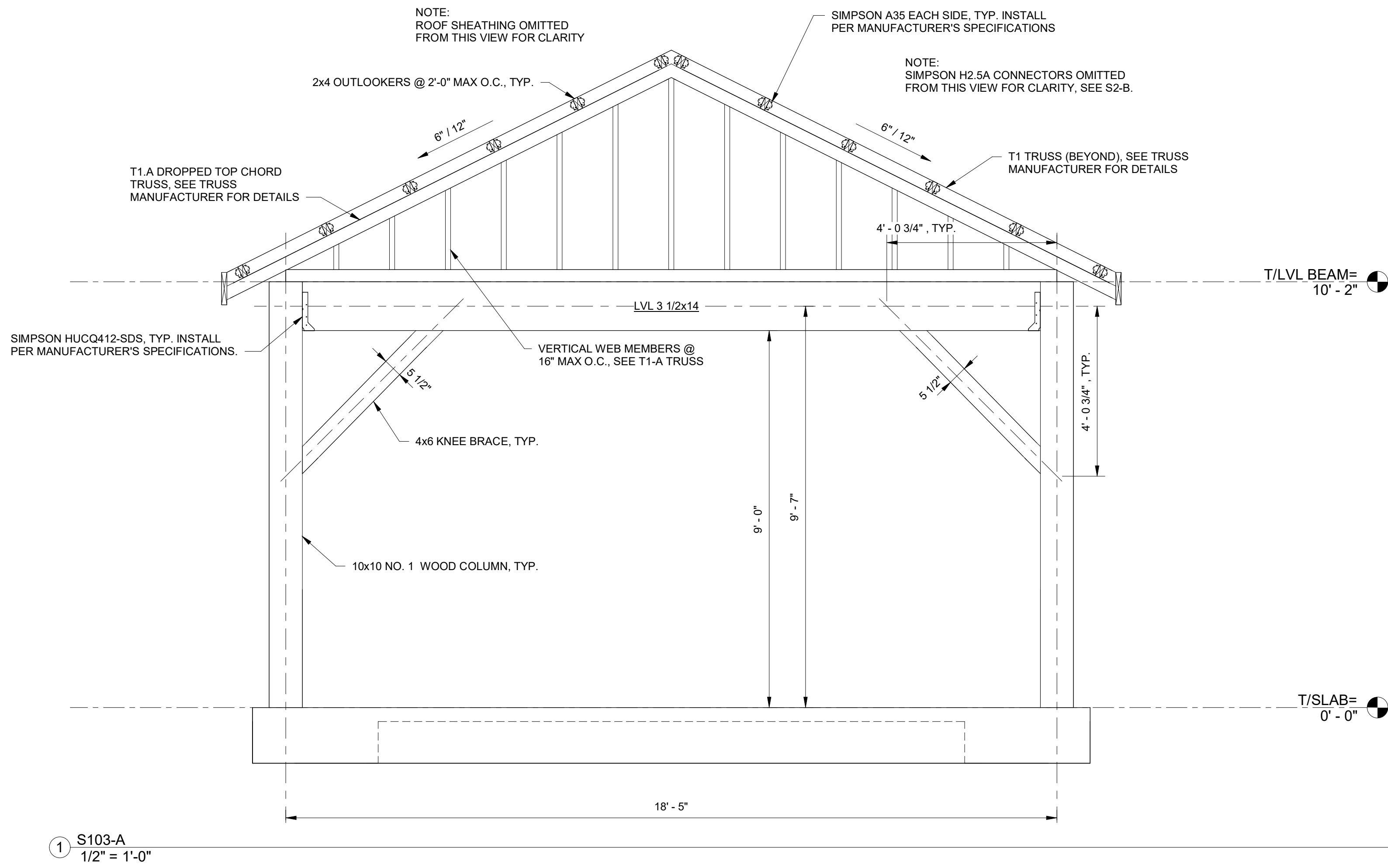
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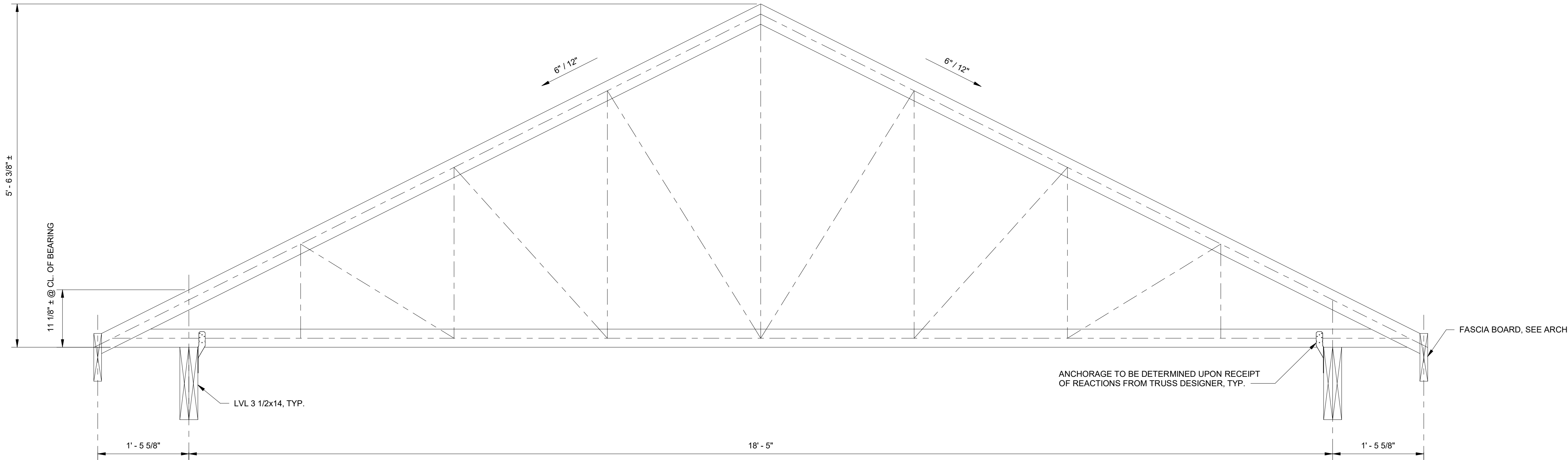
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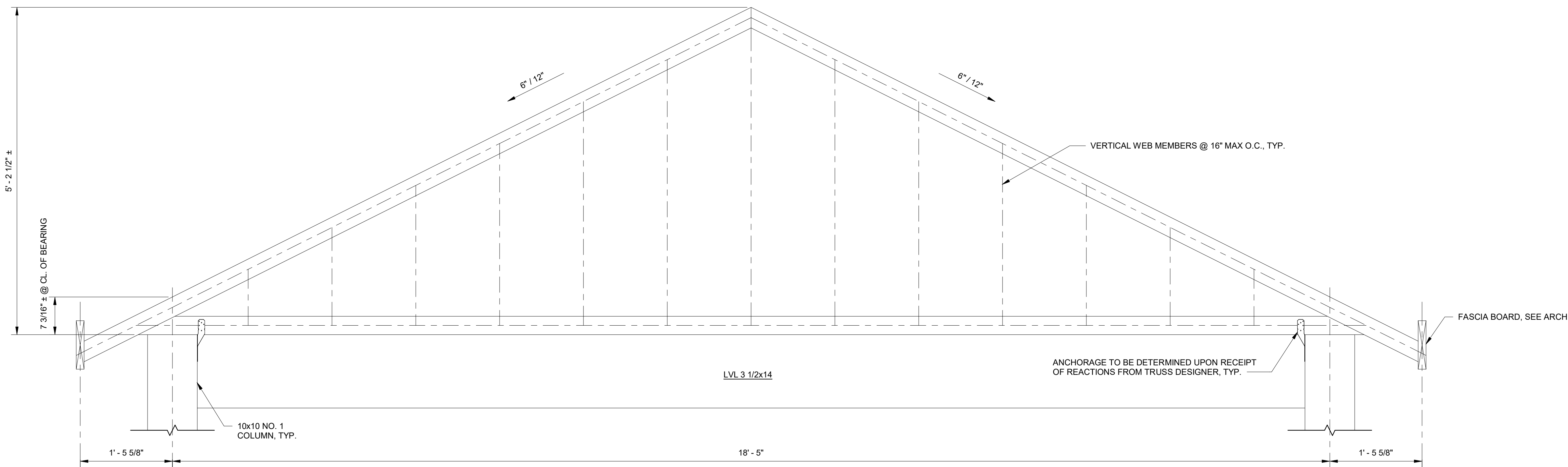
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① T1 TRUSS
1" = 1'-0"



② T1-A DROPPED TOP CHORD TRUSS
1" = 1'-0"

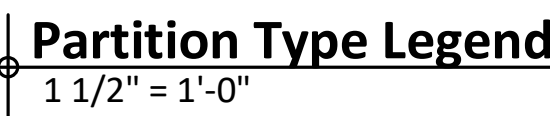


MACON-BIBB COUNTY PARKS
AND RECREATION

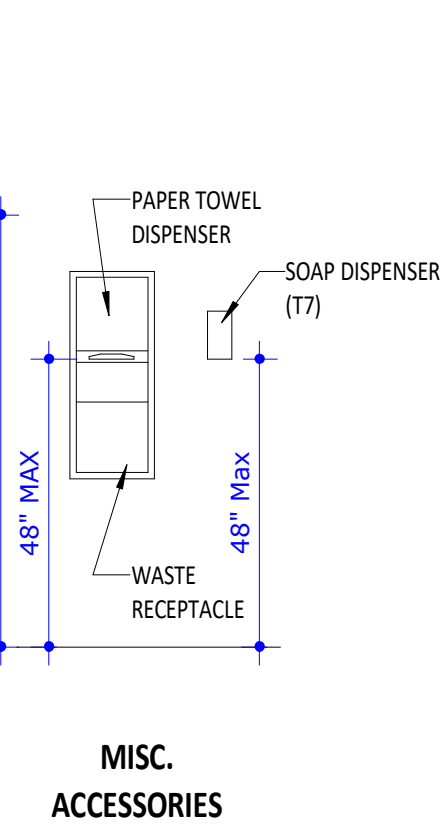
MEMORIAL PARK RECREATION
CENTER RENOVATION

2465 2ND ST, MACON, GA 31206

ABBREV	TERM	ABBREV	TERM	ABBREV	TERM	ABBREV	TERM
A	AND	DWR	DRAWER	KIT	KITCHEN	RTD	RATED
&, +		E	EAST	KO	KNOCK OUT	RTG	RATING
@	AT	E	EAST	KP	KICK PLATE	RTU	ROOF TOP UNIT
A/C	AIR CONDITIONING	EACH	EACH	KSF	KIPS PER SQUARE FOOT	S	SOUTH
A/V	AUDIO/VISUAL	EB	EXPANSION BOLT	L	L	SA	SUPPLY AIR
AB	ANCHOR BOLT	EJ	EXPANSION JOINT	LAM	LAMINATE	SAF	SELF-ADHERED FLASHING
ACC	ACCESSIBLE	EL	ELEVATION	LAV	LAVATORY	SCHED	SCHEDULE
ACUST	ACOUSTICAL	ELEC	ELECTRICAL	LB	POUNDS	SCW	SOLID CORE WOOD
ACT	ACOUSTIC CEILING TILE	ELEV	ELEVATOR, ELEVATION	LGMS	LIGHT GAUGE METAL STUD (DIV 5)	SD	STORM DRAIN
AD	AREA DRAIN	EMER	EMERGENCY	LLH	LONG LEG HORIZONTAL	SECT	SECTION
ADI	ADJACENT, ADJUSTABLE	ENCL	ENCLOSURE	LLV	LONG LEG VERTICAL	SF	SQUARE FEET; SQUARE FOOT
AFF	ABOVE FINISHED FLOOR	ENGR	ENGINEER	LVT	LIGHT	SH	SPRINKLER HEAD
AFG	ABOVE FINISHED GRADE	EP	ELECTRICAL PANEL	LVT	LUXURY VINYL TILE	SHR	SHOWER
AGGR	AGGREGATE	EQM	ETHYLENE PROPYLENE DIENE M-CLASS (ROOFING)	M	MASONRY	SHT	SHEET
ALT	ALTERNATE	EQU	EQUAL	MAS	MASONRY	SIM	SIMILAR
ALUM	ALUMINUM	EQUIP	EQUIPMENT	MAX	MAXIMUM	SM	SHEET METAL; SURFACE-MOUNTED
ANOD	ANODIZED	EVS	ENVIRONMENTAL SERVICES	MB	MODIFIED BITUMEN (ROOFING)	SP	STANDPIPE
APC	ACOUSTICAL PANEL CEILING	EXH	EXHAUST	MECH	MECHANICAL	SPEC	SPECIFICATION; SPECIFIED
APPROX	APPROXIMATE	EXIST	EXISTING	MED	MEDIUM	SPK	SPEAKER OR SPEAKER
ARCH	ARCHITECTURAL	EXP	EXPANSION	MEMB	MEMBRANE	SPKR	SPEAKER
ASPH	ASPHALT	EXT	EXTERIOR	MFR	MANUFACTURER	SQ	SQUARE
ATTN	ATTENTION	F	FIRE	MH	MANHOLE	SS	STAINLESS STEEL
AUTO	AUTOMATIC	FA	FIRE ALARM	MIN	MINIMUM	SSK	SERVICE SINK
B		FB	FACE BRICK	MISC	MISCELLANEOUS	STA	STATION
BCAB	BASE CABINET	FD	FLOOR DRAIN; FIRE DEPARTMENT	MO	MASONRY OPENING	STC	SOUND TRANSMISSION COEFFICIENT
BD	BOARD	FOC	FIRE DEPARTMENT CONNECTION	MR	MOISTURE RESISTANT	STL	STEEL
BG	BARRIER GUARD	FE	FIRE EXTINGUISHER	MTD	MOUNTED	STOR	STORAGE
BIT	BITUMINOUS	FEC	FIRE EXTINGUISHER CABINET	MTG	MOUNTING	STRG	STRINGER
BL	BED LOCATOR; BUILDING LINE	FFBE	FURNITURE, FIXTURES AND EQUIPMENT	MTL	METAL	STRUCT	STRUCTURE; STRUCTURAL
BLDG	BUILDING	FFB	FLUSH FLOOR BOX	MULL	MULLION	SUBCAT	SUBCATEGORY
BLK	BLOCK	FPE	FINISH FLOOR ELEVATION	N	NOTE	SUSP	SUSPENDED
BLKG	BLOCKING	FI	FLAT HEAD, FIRE HYDRANT	N/A	NOT APPLICABLE	SYM	SYMMETRICAL
BM	BEAM	FHC	FIRE HOSE CABINET	NC	NOISE CRITERIA	SYS	SYSTEM
BO	BOTTOM OF	FIN	FINISH	NIC	NOT IN CONTRACT	T	TREAD
BOT	BOTTOM	FIXT	FIXTURE	NO	NUMBER	T&B	TOP AND BOTTOM
BRG	BEARING	FLASH	FLASHING	NOM	NOMINAL	T&G	TONGUE AND GROOVE
BRK	BRICK	FLR	FLOOR	NRS	NOT (PIRE) RATED	TB	TOWEL BAR
BRKT	BRACKET	FLUOR	FLUORESCENT	NTS	NOT TO SCALE	TCAB	TALL CABINET
BSMT	BASEMENT	FO	FOUNDATION	O	OWNER-FURNISHED, CONTRACTOR-INSTALLED	TEL	TELEPHONE; TELECOM
BUR	BUILT-UP ROOFING	FOD	FACE OF	O.C	OWNER-FURNISHED, OWNER-INSTALLED	TELE	TELEPHONE
C	CHANNEL	FP	FIRE PROTECTION	O/C	ON CENTER	TEMP	TEMPERATURE; TEMPORARY
C,C	CONTRACTOR-FURNISHED, CONTRACTOR-INSTALLED	FR	FIRE RESISTANT	OA	ON SIDE	TEMP	TEMPORARY
CAB	CABINET	FR	FIBER REINFORCED CONCRETE	OD	OUTSIDE DIAMETER; OVERFLOW DRAIN	THK	THICKNESS
CAT	CATEGORY	FRP	FIBER REINFORCED PATEL	OFF	OFFICE	THRU	THROUGH
CATV	CABLE TELEVISION	FRT	FIRE RETARDANT TREATED	OH	OVERHEAD, OPPOSITE HAND	TKBD	TACK BOARD
CB	CATCH BASIN, CEMENT BOARD	FT	FEET; FOOT	OPNG	OPENING	TLT	TOILET
CBU	CEMENTITIOUS BACKER UNIT	FTG	FOOTING	OPP	OPPOSITE	TMPD	TEMPERED
CC	CENTER-TO-CENTER	FURN	FURNITURE	ORD	OVERFLOW ROOF DRAIN	TO	TOP OF
CCTV	CLOSED-CIRCUIT TELEVISION	FURN	FURNITURE	P	PAINT	TOB	TOP OF BEAM
CEN	CEMENT	FWC	FABRIC WALL COVERING	P	PAINT	TOC	TOP OF CONCRETE
CER	CERAMIC	FWP	FABRIC WRAPPED PANEL	PAV	PAVING	TOS	TOP OF STEEL
CG	CORNER GUARD	G	GAUGE	PB	PARTICLE BOARD	TV	TELEVISION
CH	CHILLER	GALV	GALVANIZED	PC	PRECAST	TYP	TYPICAL
CI	CAST IRON	GB	GRAB BAR	PDF	POWER DRIVEN FASTENER	U	UNFIN
CIP	CAST-IN-PLACE	GB, GWB	GYPSPUM (WALL) BOARD	PEMB	PRE-ENGINEERED METAL BUILDING	UNFIN	UNFINISHED
CL	CENTERLINE	GC	GENERAL CONTRACT(OR)	PERF	PERFORATED	UNO	UNLESS NOTED OTHERWISE
CLG	CEILING	GEN	GENERAL	PERIM	PERIMETER	UON	UNLESS OTHERWISE NOTED
CLR	CONCRETE MASONRY UNIT	GFR	GLASS FIBER REINFORCED CONCRETE	PERP	PERPENDICULAR	URNL	UNLESS OTHERWISE NOTED
CMU	CENTER, COUNTER	GL	GLASS	PL	PLATE	V	VARIABLES
CONTR	CASED OPENING; CLEANOUT	GLAZ	GLAZING	PLAM	PLASTIC LAMINATE	VAR	VARIABLES
COL	COLUMN	GRAN	GRANULAR	PLAS	PLASTER	VCT	VINYL COMPOSITION TILE
CONC	CONCRETE	GRD	GROUND	PLBG	PLUMBING	VERT	VERTICAL
COND	CONDITION	GRFG	GLASS FIBER REINFORCED GYPSUM	PLF	POUNDS PER LINEAL FOOT	VEST	VESTIBULE
CONN	CONNECTION						



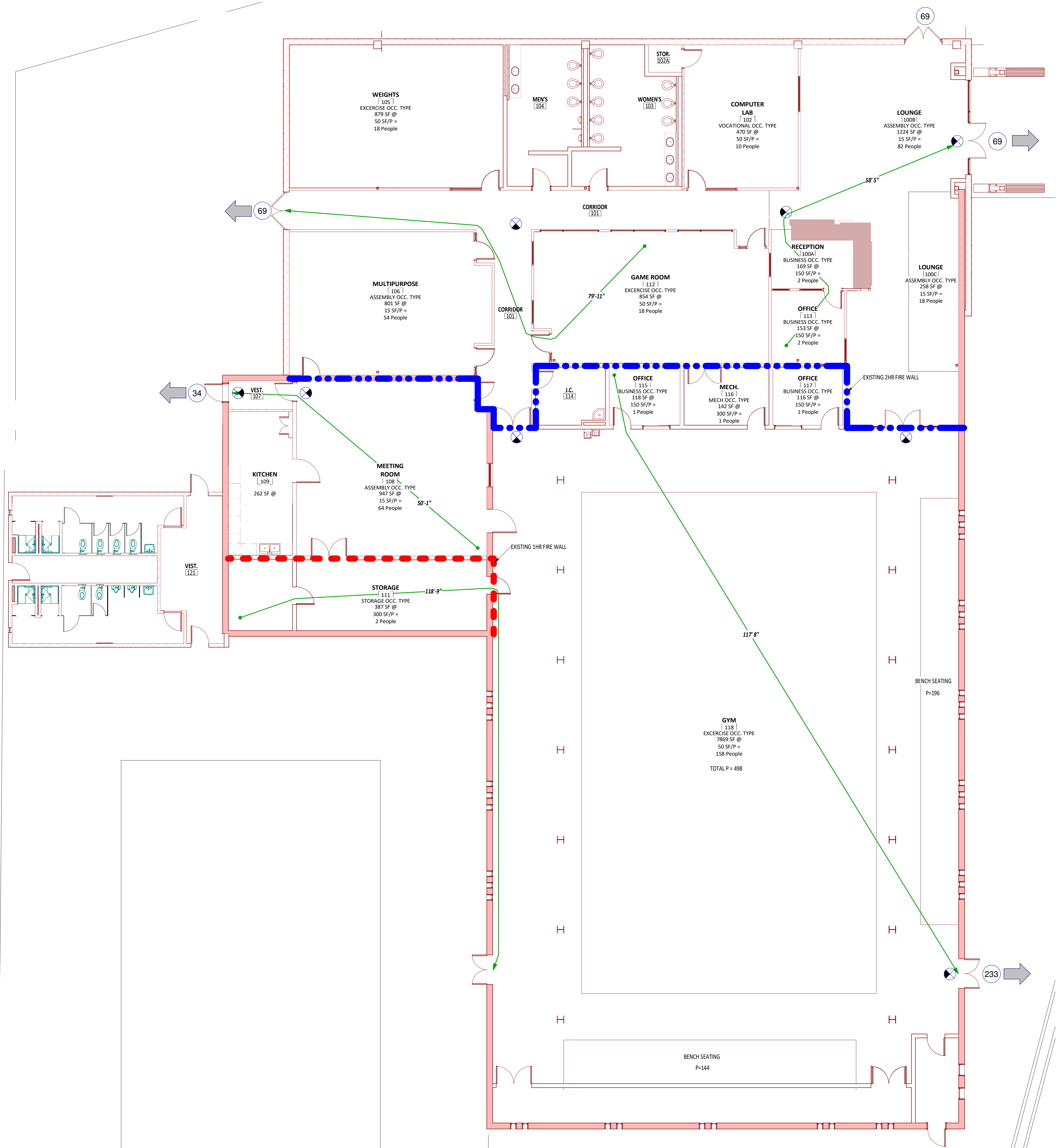
- General Notes - Demolition**
3/8" = 1'-0"



ADA Accessible Fixtures



01 LIFE SAFETY PLAN
LS101 1/8" = 1'-0"



NOTE: LEVEL 1 ALTERATION SCOPE FOR MAIN BUILDING
ALL WORK CONDUCTED WITHIN THE MAIN BUILDING IS CLASSIFIED STRICTLY AS A LEVEL 1 ALTERATION THE SCOPE OF WORK IS LIMITED TO MINOR UPDATES AND REPAIRS AND NO STRUCTURAL MODIFICATIONS AND RECONFIGURATIONS THAT WOULD IMPACT THE EXISTING STRUCTURAL, FIRE PROTECTION, OR EGRESS SYSTEMS.

LIFE SAFETY INFORMATION

BUILDING INFORMATION :
PROJECT NAME: MEMORIAL PARK RECREATION CENTER
ADDRESS: 2465 2ND ST,
MACON, GA 31206
USE: ASSEMBLY
OWNER: MACON-BIBB COUNTY

CODE ANALYSIS :

- I. APPLICABLE CODES:
- NFPA 101 - LIFE SAFETY CODE (2018)
 - RULES AND REGULATIONS FOR THE STATE MINIMUM FIRE SAFETY: CH. 120-3-30 MODIFICATIONS (2020)
 - GEORGIA ACCESSIBILITY CODE FOR BUILDINGS AND FACILITIES; (GAC) - CH. 120-3-20
 - INTERNATIONAL FIRE CODE (IFC) (2018), NO GEORGIA AMENDMENTS.
 - INTERNATIONAL EXISTING BUILDING CODE (IEBC) (2018), with GEORGIA AMENDMENTS 2021.
 - INTERNATIONAL BUILDING CODE (IBC) (2018), with GEORGIA AMENDMENTS 2020, 2022.
 - INTERNATIONAL MECHANICAL CODE (IMC) (2018), with GEORGIA AMENDMENTS 2020.
 - NATIONAL ELECTRICAL CODE, (NEC) (2020), with GEORGIA AMENDMENTS 2021.
 - INTERNATIONAL ENERGY CONSERVATION CODE, (IECC) (2015), with GEORGIA SUPPLEMENTS AND AMENDMENTS 2022

- II. OCCUPANCY TYPE:
- ASSEMBLY (LSC 6.1.2)

- III. EXISTING BUILDING CONSTRUCTION TYPE:
- TYPE IIB (IBC TABLE 602.2)
 - TYPE II(0,0,0) (LSC TABLE A.8.2.1)

- IV. BUILDING AREA:
- ALLOWABLE: 3 STORIES @ 38,000 SF (IBC TABLE 506.2)
 - ACTUAL: 1 STORY @ 19,966 SF

- V. HOURLY FIRE RATINGS (IBC TABLE 601, LSC TABLE A.8.2.1):
- STRUCTURAL FRAME: 0 HOURS
 - BEARING WALLS, EXT.: 2 HOURS
 - BEARING WALLS, INT.: 0 HOURS
 - NON-BEARING WALLS, EXT.: 0 HOURS
 - NON-BEARING WALLS, INT.: 0 HOURS
 - FLOOR CONSTRUCTION: 0 HOURS
 - ROOF CONSTRUCTION: 0 HOURS

- VI. FIRE SUPPRESSION SYSTEM:
- PORTABLE FIRE EXTINGUISHERS
 - AUTOMATIC SPRINKLER SYSTEM

- VII. RENOVATION AREA: ALTERATIONS-LEVEL1
- 1 STORY @ 13,709 GSF TOTAL

- VIII. FIRE SAFETY CONCEPT:
- BUILDING IS FULLY SPRINKLERED WITH AN AUTOMATIC SPRINKLER SYSTEM
 - EXISTING 1HR AND 2HR FIRE BARRIERS TO REMAIN. SEE LIFE SAFETY PLAN.

- IX. OTHER LIFE SAFETY CONSIDERATIONS (MOST STRINGENT OF APPLICABLE CODES GOVERNS):

A. OCCUPANT LOAD: (IBC TABLE 1004.1.1, LSC 7.3.1.2)

ASSEMBLY: 3,230 GSF
15 GSF/OCCUPANT = 219 OCCUPANTS
EXERCISE: 9,602 GSF
50 GSF/OCCUPANT = 194 OCCUPANTS
BENCH SEATING = 340 OCCUPANTS
BUSINESS OFFICE: 556 GSF
150 GSF/OCCUPANT = 6 OCCUPANTS
MECH: 142 GSF
300 GSF/OCCUPANT = 1 OCCUPANTS
VOCATIONAL: 470 GSF
50 GSF/OCCUPANT = 10 OCCUPANTS
STORAGE: 387 GSF
300 GSF/OCCUPANT = 2 OCCUPANTS

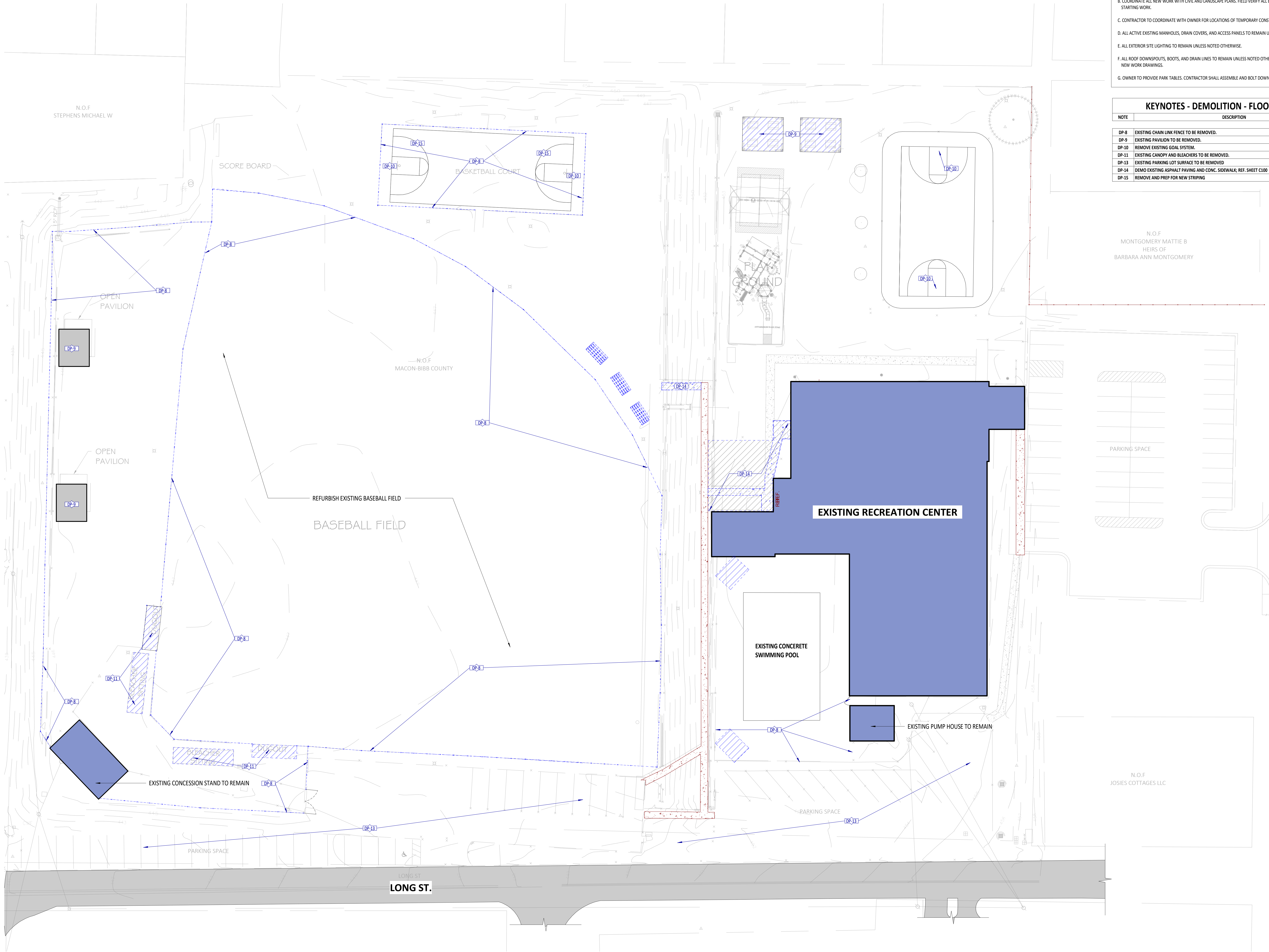
TOTAL = 431 OCCUPANTS

- B. EXIT DOOR CAPACITY (IBC TABLE 1005.1, LSC TABLE 7.3.3.1)
- 0.2" EGRESS WIDTH PER OCCUPANT SERVED IN UNSPRINKLERED FACILITY
 - SEE LIFE SAFETY PLAN FOR REQUIRED AND PROVIDED EGRESS WIDTHS

- D. DEAD END (IBC 1017.3) = 20 FEET
- LSC TABLE A.7.6.1 ALLOWS 50', THEREFORE IBC 20' LIMITATION GOVERNS

- E. TRAVEL DISTANCE (IBC TABLE 1016.1) = 200 FEET ALLOWABLE
- LSC TABLE A.7.6.1 ALLOWS 200' FROM ANY POINT IN A ROOM TO EXIT
 - MAXIMUM ACTUAL EXIT DISTANCE = 117' 8"

- F. INTERIOR FINISH
- INTERIOR WALL AND CEILING FINISH (IBC TABLE 803.5, LSC 38.3.3.2)
INTERIOR WALL AND CEILING FINISH COMPLYING WITH 10.2.3 SHALL BE AT A MINIMUM REQUIREMENT CLASS A IN EXIT ENCLOSURES AND PASSAGEWAYS, CLASS B IN CORRIDORS, AND CLASS C IN OFFICE AREAS.
 - INTERIOR FLOOR FINISH (IBC 804.4.1) - CLASS II



GENERAL SITE NOTES

- A. ARCHITECTURAL SITE PLAN IS A SCHEMATIC REPRESENTATION. REFER TO CIVIL DRAWINGS FOR SITE SURVEY, DRAINAGE, AND LOCATIONS OF EXISTING UTILITIES. COORDINATE WITH CAMPUS FACILITIES PLAN.
- B. COORDINATE ALL NEW WORK WITH CIVIL AND LANDSCAPE PLANS. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING WORK.
- C. CONTRACTOR TO COORDINATE WITH OWNER FOR LOCATIONS OF TEMPORARY CONSTRUCTION AND STAGING.
- D. ALL ACTIVE EXISTING MANHOLES, DRAIN COVERS, AND ACCESS PANELS TO REMAIN UNLESS NOTED OTHERWISE.
- E. ALL EXTERIOR SITE LIGHTING TO REMAIN UNLESS NOTED OTHERWISE.
- F. ALL ROOF DOWNSPOUTS, BOOTS, AND DRAIN LINES TO REMAIN UNLESS NOTED OTHERWISE. REFER TO CIVIL AND NEW WORK DRAWINGS.
- G. OWNER TO PROVIDE PARK TABLES. CONTRACTOR SHALL ASSEMBLE AND BOLT DOWN

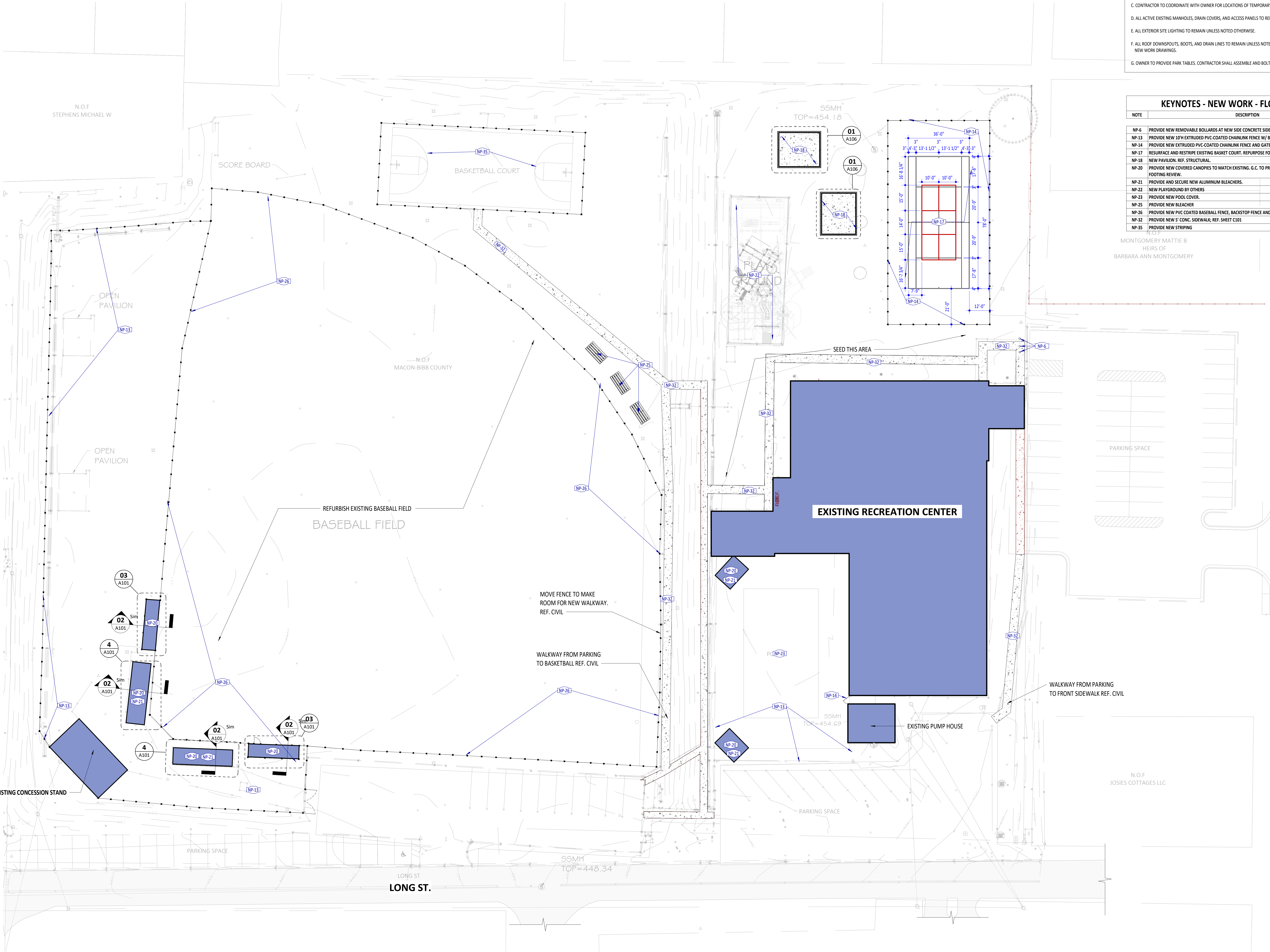
KEYNOTES - DEMOLITION - FLOOR PLANS

NOTE	DESCRIPTION
DP-8	EXISTING CHAIN LINK FENCE TO BE REMOVED.
DP-9	EXISTING PAVILION TO BE REMOVED.
DP-10	REMOVE EXISTING GOAL SYSTEM.
DP-11	EXISTING CANOPY AND BLEACHERS TO BE REMOVED.
DP-13	EXISTING PARKING LOT SURFACE TO BE REMOVED
DP-14	DEMO EXISTING ASPHALT PAVING AND CONC. SIDEWALK; REF. SHEET C100
DP-15	REMOVE AND PREP FOR NEW STRIPING

WM 2A
ARCHITECTS
WM2A.COM
348 COTTON AVENUE
SUITE 500, PO BOX 110
MACON, GEORGIA 31201

Seal
STATE OF GEORGIA
10/30/24
BRANDON A. FAIRBANKS
EXPIRATION DATE NO. 0000000000
REGISTERED ARCHITECT

MBC
MACON-BIBB COUNTY PARKS
AND RECREATION
MEMORIAL PARK RECREATION
CENTER RENOVATION
2465 2ND ST, MACON, GA 31206



GENERAL SITE NOTES

- A. ARCHITECTURAL SITE PLAN IS A SCHEMATIC REPRESENTATION. REFER TO CIVIL DRAWINGS FOR SITE SURVEY, DRAINAGE, AND LOCATIONS OF EXISTING UTILITIES. COORDINATE WITH CAMPUS FACILITIES PLAN.
- B. COORDINATE ALL NEW WORK WITH CIVIL AND LANDSCAPE PLANS. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING WORK.
- C. CONTRACTOR TO COORDINATE WITH OWNER FOR LOCATIONS OF TEMPORARY CONSTRUCTION AND STAGING.
- D. ALL ACTIVE EXISTING MANHOLES, DRAIN COVERS, AND ACCESS PANELS TO REMAIN UNLESS NOTED OTHERWISE.
- E. ALL EXTERIOR SITE LIGHTING TO REMAIN UNLESS NOTED OTHERWISE.
- F. ALL ROOF DOWNSPOUTS, BOOTS, AND DRAIN LINES TO REMAIN UNLESS NOTED OTHERWISE. REFER TO CIVIL AND NEW WORK DRAWINGS.
- G. OWNER TO PROVIDE PARK TABLES. CONTRACTOR SHALL ASSEMBLE AND BOLT DOWN

KEYNOTES - NEW WORK - FLOOR PLANS

NOTE	DESCRIPTION
NP-6	PROVIDE NEW REMOVABLE BOLLARDS AT NEW SIDE CONCRETE SIDEWALK. REF CIVIL FOR EXACT LOCATION.
NP-13	PROVIDE NEW 10'H EXTRUDED PVC-COATED CHAINLINK FENCE W/ BARBED WIRE
NP-14	PROVIDE NEW EXTRUDED PVC-COATED CHAINLINK FENCE AND GATE
NP-17	RESURFACE AND RESTRIPE EXISTING BASKET COURT. REPURPOSE FOR TENNIS AND PICKLEBALL
NP-18	NEW PAVILION. REF. STRUCTURAL.
NP-20	PROVIDE NEW COVERED CANOPIES TO MATCH EXISTING. G.C. TO PROVIDE MANUFACTURER'S REACTIONS FOR FOOTING REVIEW.
NP-21	PROVIDE AND SECURE NEW ALUMINUM BLEACHERS.
NP-22	NEW PLAYGROUND BY OTHERS
NP-23	PROVIDE NEW POOL COVER.
NP-25	PROVIDE NEW BLEACHER
NP-26	PROVIDE NEW PVC COATED BASEBALL FENCE, BACKSTOP FENCE AND FOUL POLES. REF. SPECS
NP-32	PROVIDE NEW 5' CONC. SIDEWALK; REF. SHEET C101
NP-35	PROVIDE NEW STRIPING

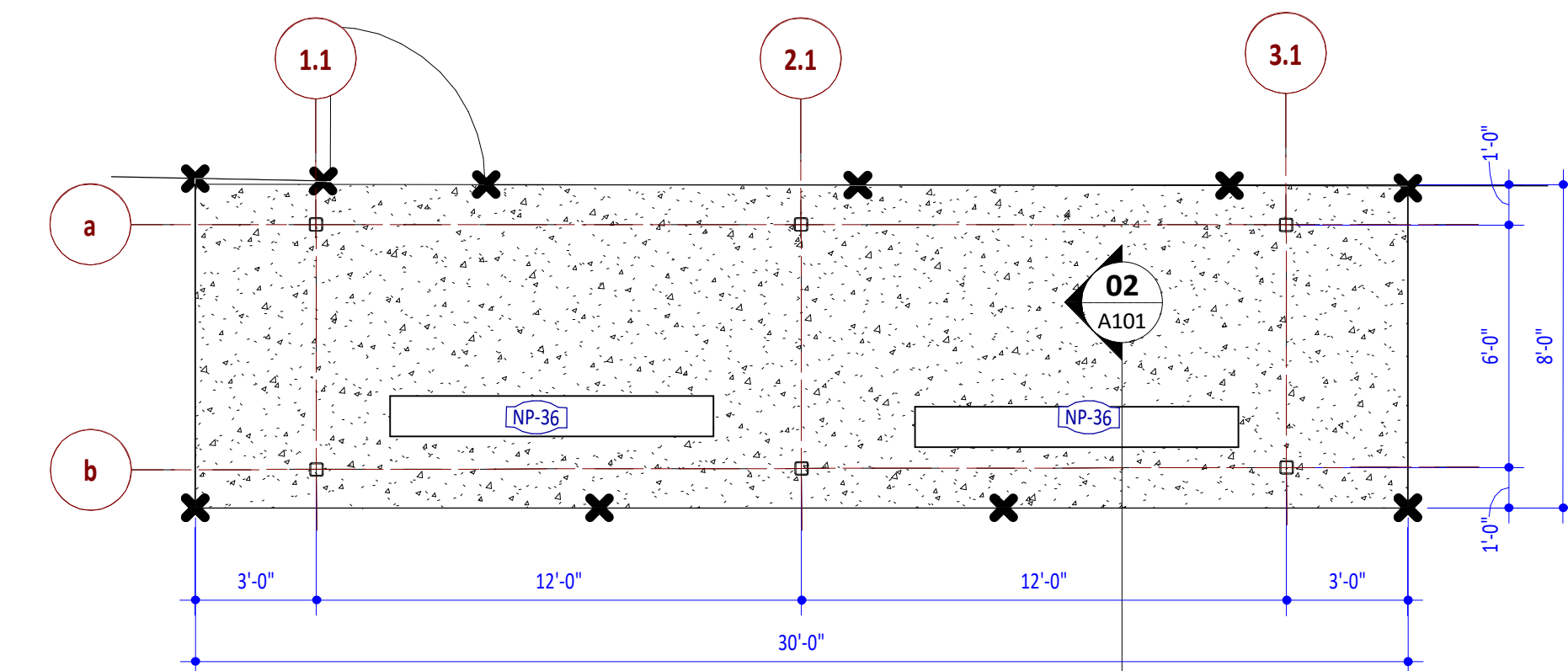
MONTGOMERY MATTIE B
HEIRS OF
BARBARA ANN MONTGOMERY

1 SITE PLAN - NEW WORK

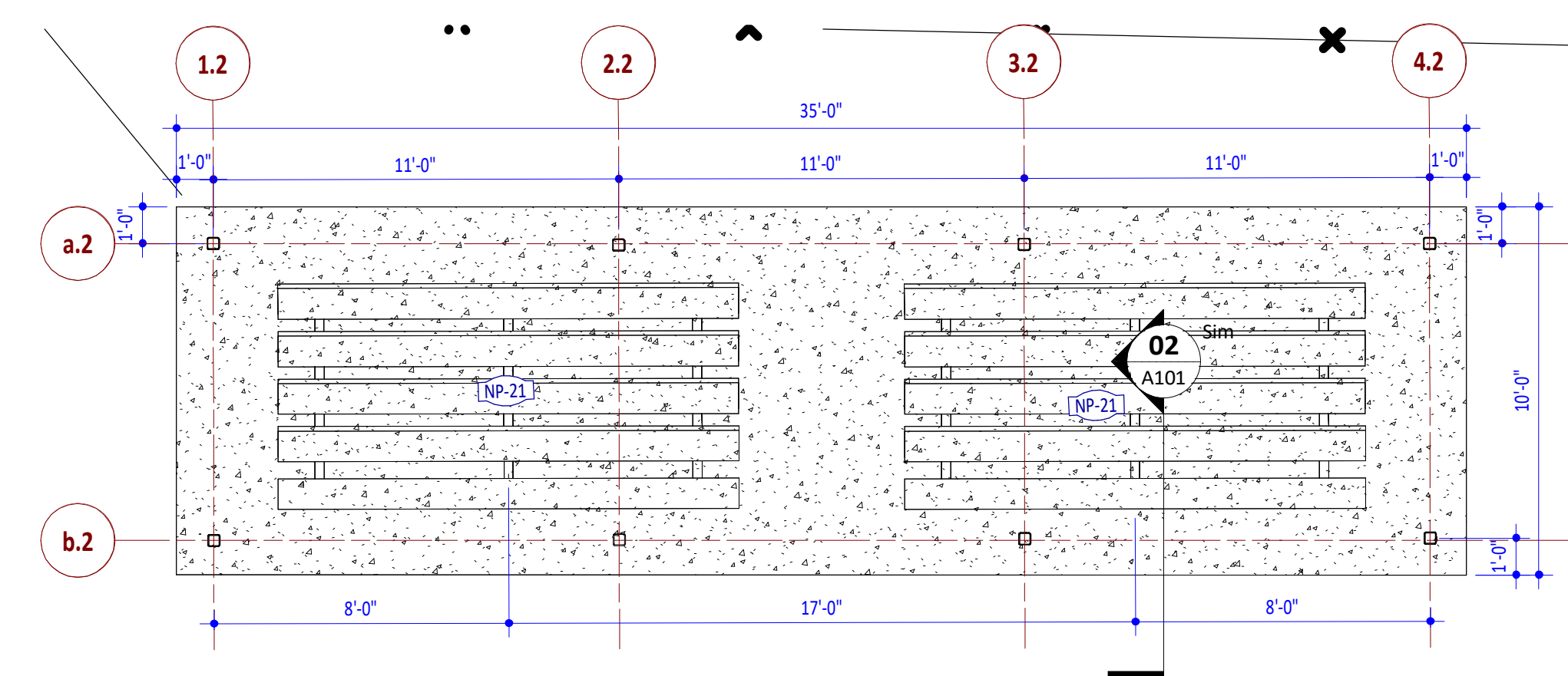
AS102 3/64" = 1'-0"



02 CANOPY SECTION
A101 3/4" = 1'-0"



03 DUGOUT PLAN
A101 1/4" = 1'-0"



4 BLEACHER CONCRETE PAD PLAN
A101 | 1/4" = 1'-0"

KEYNOTES - DEMOLITION - FLOOR PLANS	
NOTE	DESCRIPTION
DP-1	EXISTING WALL FINISH TO BE REMOVED
DP-2	EXISTING FLOORING TO BE DEMOLISHED
DP-3	PLUMBING FIXTURE TO BE DEMOLISHED
DP-4	TOILET ACCESSORY TO BE REMOVED
DP-5	SHOW REMOVAL BY OWNER FOR DURATION OF WORK
DP-6	SURFACE-MOUNTED CONDUIT TO BE REMOVED

KEYNOTES - NEW WORK - FLOOR PLANS	
NOTE	DESCRIPTION
NP-1	PROVIDE NEW EPOXY FLOOR FINISH, REF. FINISH PLAN FOR COLOR.
NP-2	PROVIDE NEW EMERGENCY PHONE, REF. ELEC.
NP-3	CLEAN EXISTING EPOXY FLOOR.
NP-7	PROVIDE NEW FIBER REINFORCED PLASTIC PANELS.
NP-9	PREP AND REPAINT DOOR FRAME AND PANEL, REF FINISH LEGEND FOR COLOR
NP-24	PROVIDE NEW SOLID PHENOLIC TOILET PARTITIONS, COLOR TO BE CHOSEN BY OWNER
NP-30	PROVIDE NEW FIBERGLASS SHOWER INSERT
NP-34	PROVIDE NEW LIGHT FIXTURES, REF. ELEC.

KEYNOTES - NEW WORK - CEILINGS	
NOTE	DESCRIPTION
NC-1	EXISTING BEAMS TO BE REPAINTED AND LEFT EXPOSED, COLOR: P-6
NC-2	PROVIDE NEW GYPBOARD CEILING, MATCH EXISTING CEILING HEIGHT.
NC-4	PROVIDE NEW LIGHT FIXTURES, REF. ELEC.

KEYNOTES - DEMOLITION - CEILING	
NOTE	DESCRIPTION
DC-1	DEMOLISH EXISTING CEILING
DC-2	DEMOLISH EXISTING CEILING LIGHT

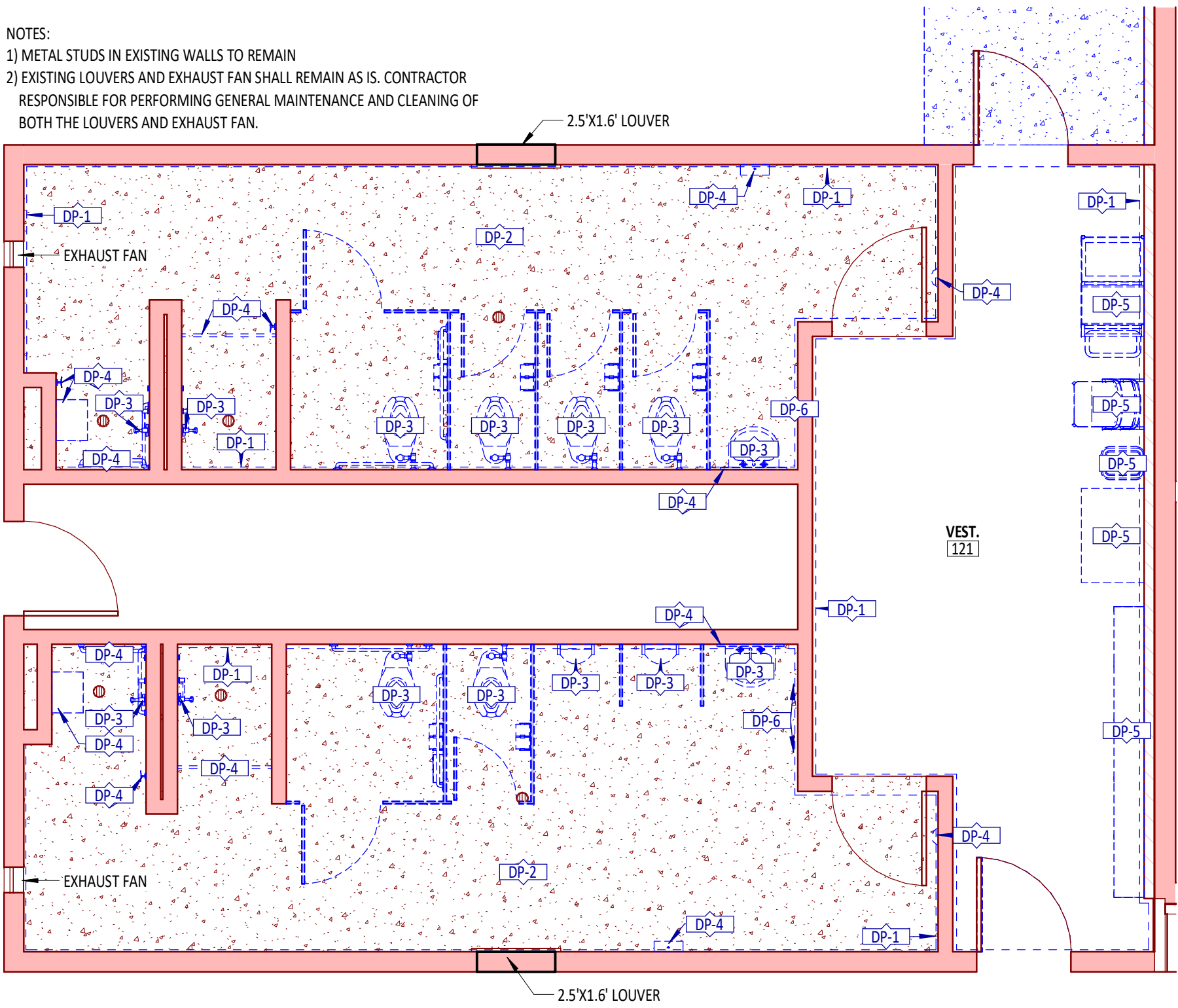
Ceiling Gb1
Moisture Resistant Gyp
Board
Paint P-6

LIGHTING - SURFACE MOUNTED FIXTURE

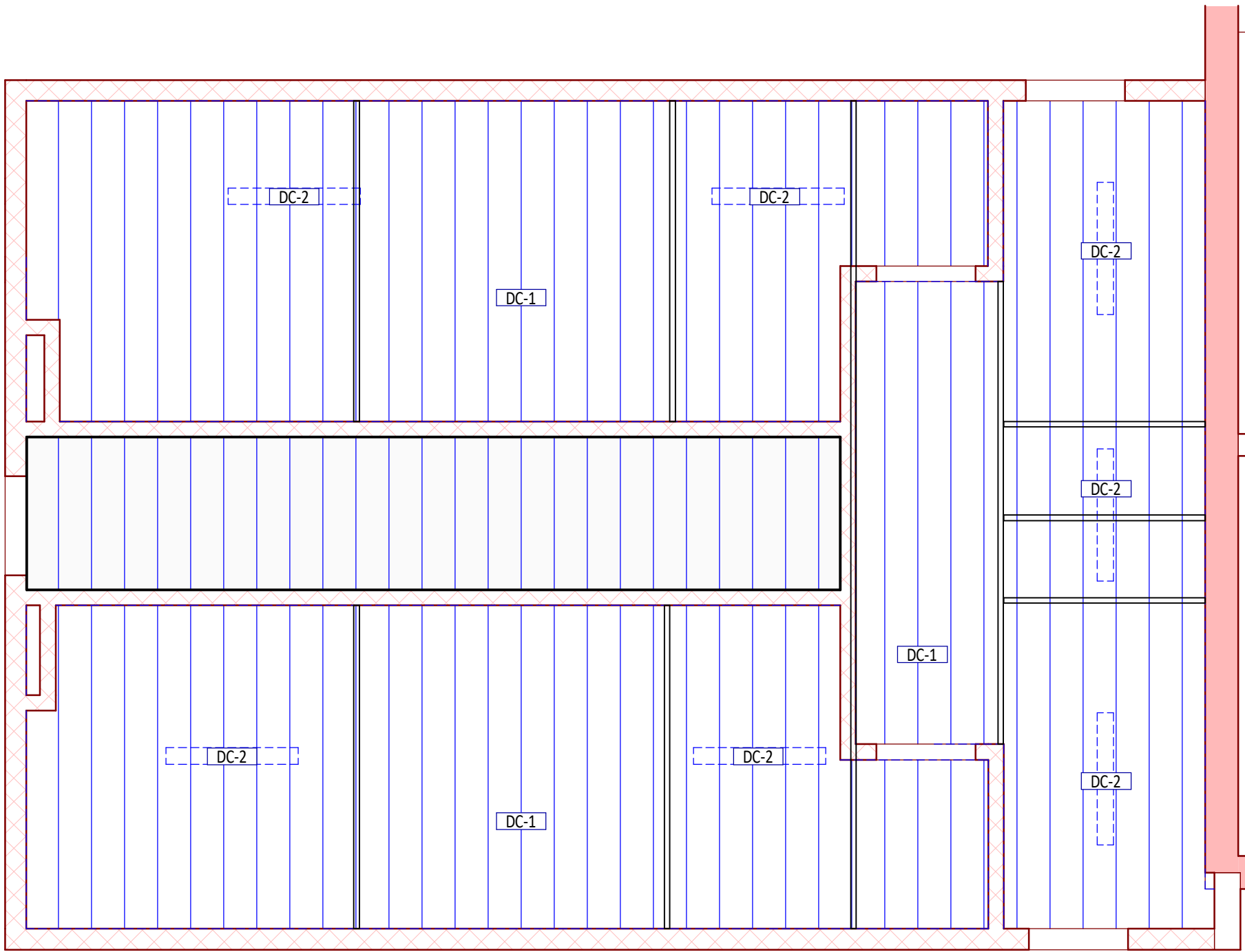
Note:
Reflected ceiling plan(s) on architectural drawings often do NOT indicate all ceiling-mounted items. See drawings of other disciplines for additional items. Coordinate installation of all required ceiling items.

Color shades used on reflected ceiling plans and legends are provided to help the Contractor identify types of ceilings. These shades do NOT indicate finish colors.

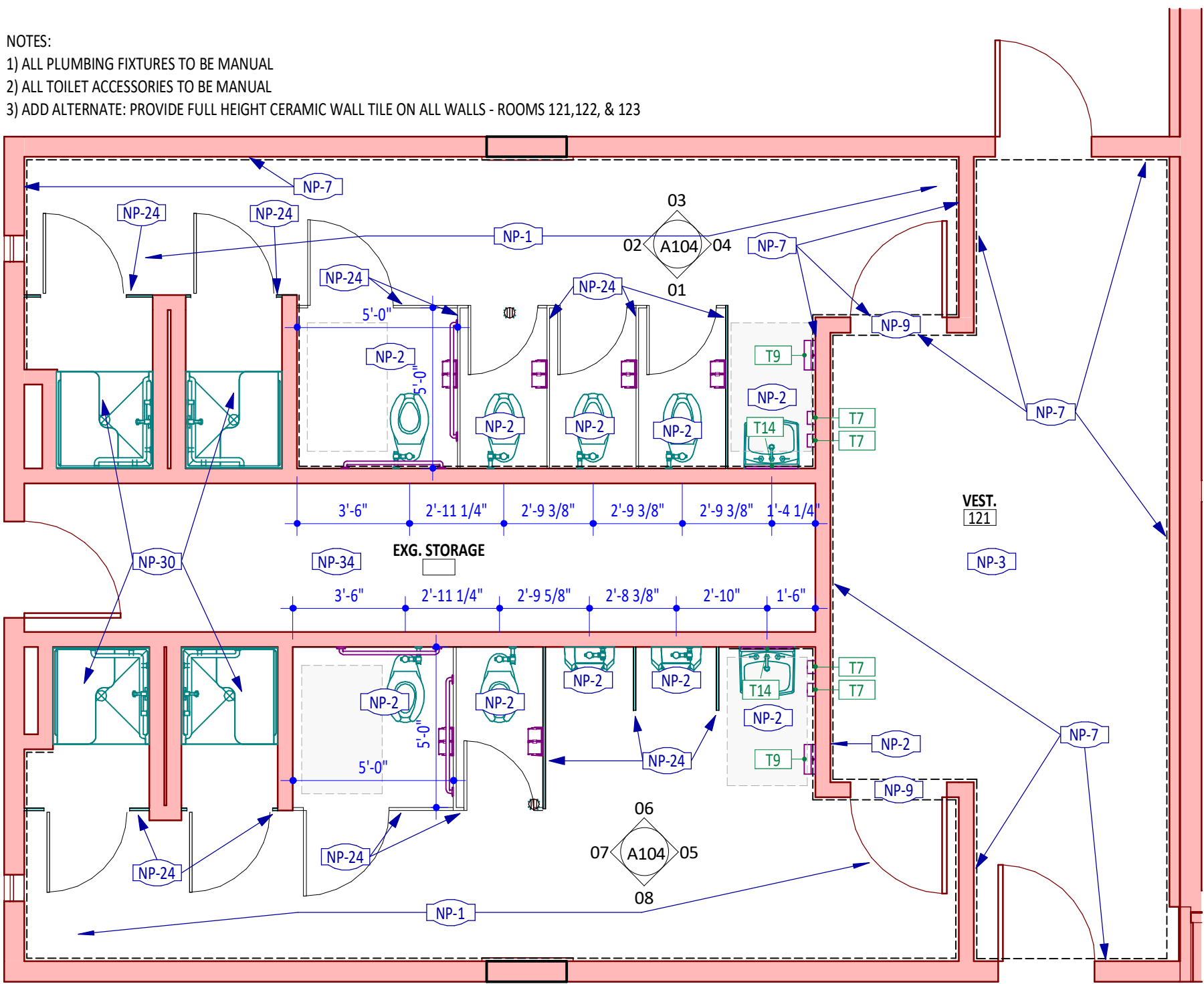
LEGEND - REFLECTED CEILING PLAN
1/8" = 1'-0"



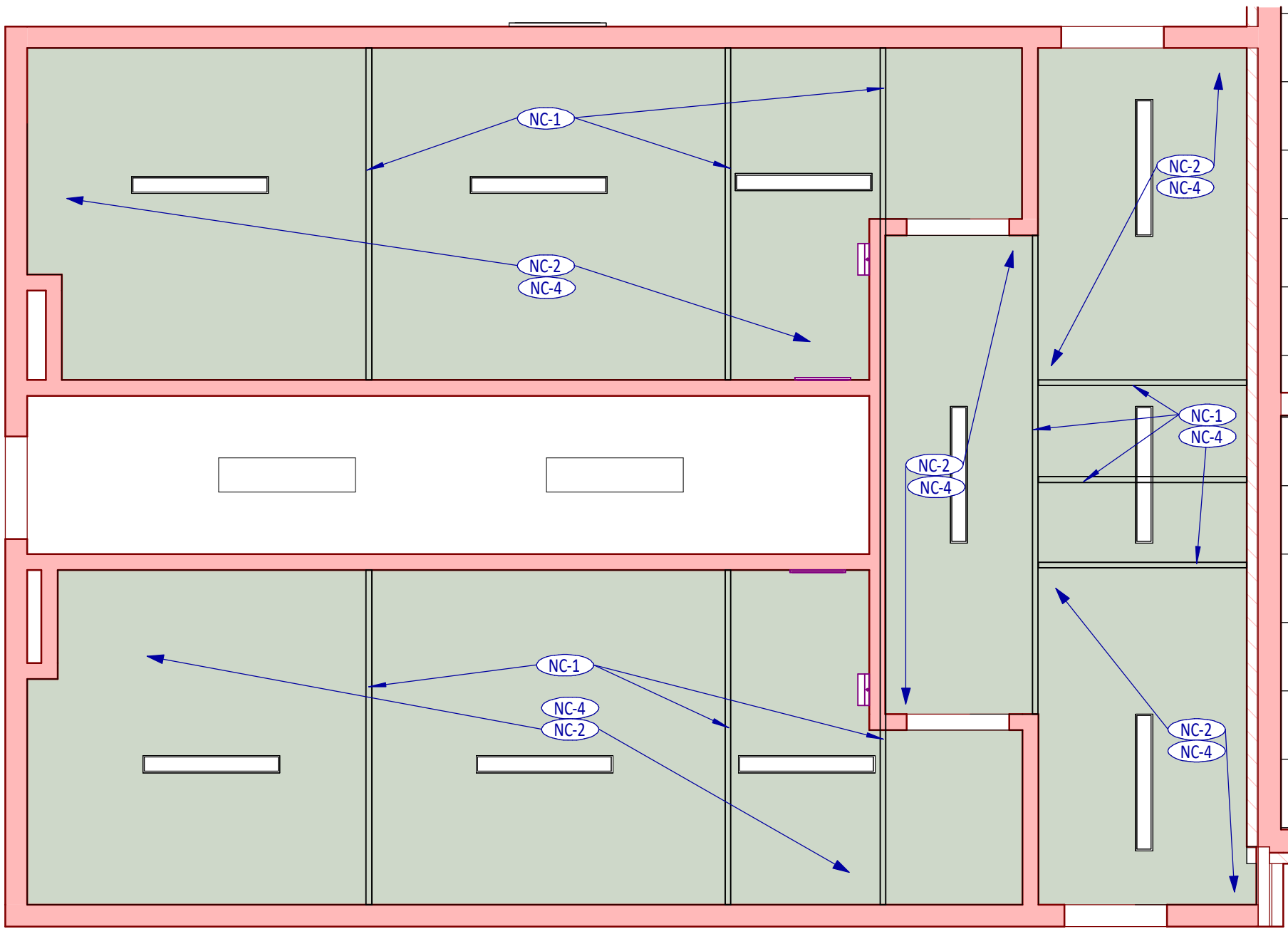
01 | RESTROOMS FLOOR PLAN - DEMOLITION
A102 | 1/4" = 1'-0"



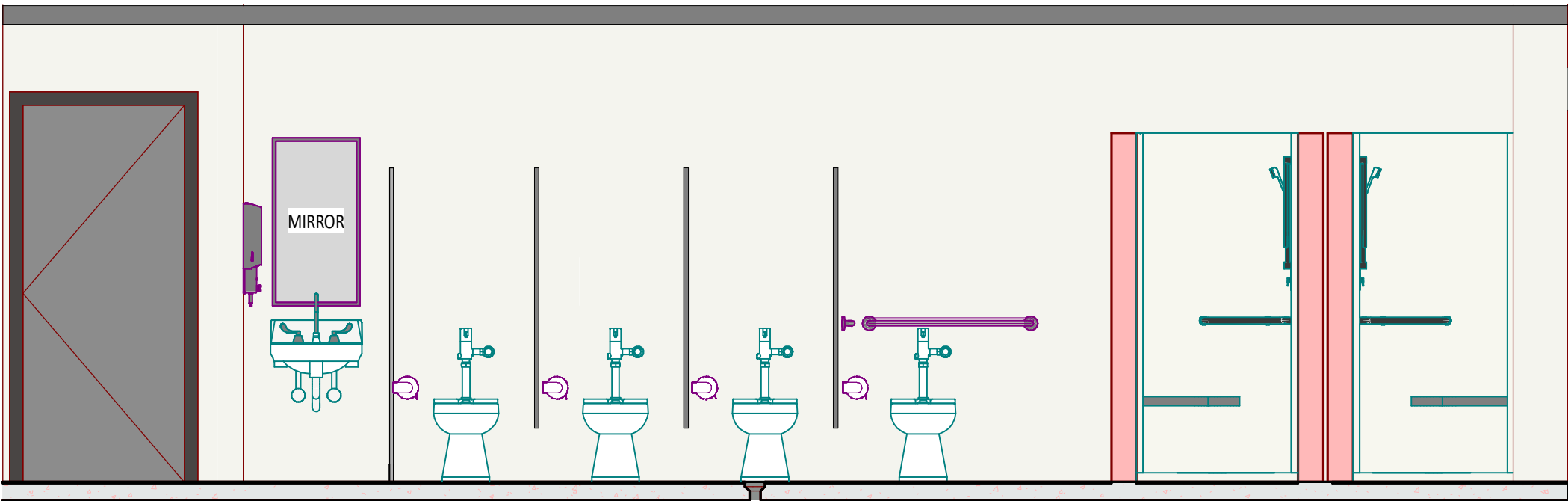
02 | RESTROOM RCP - DEMOLITION PLAN
A102 | 1/4" = 1'-0"



03 | RESTROOMS FLOOR PLAN - NEW WORK
A102 | 1/4" = 1'-0"

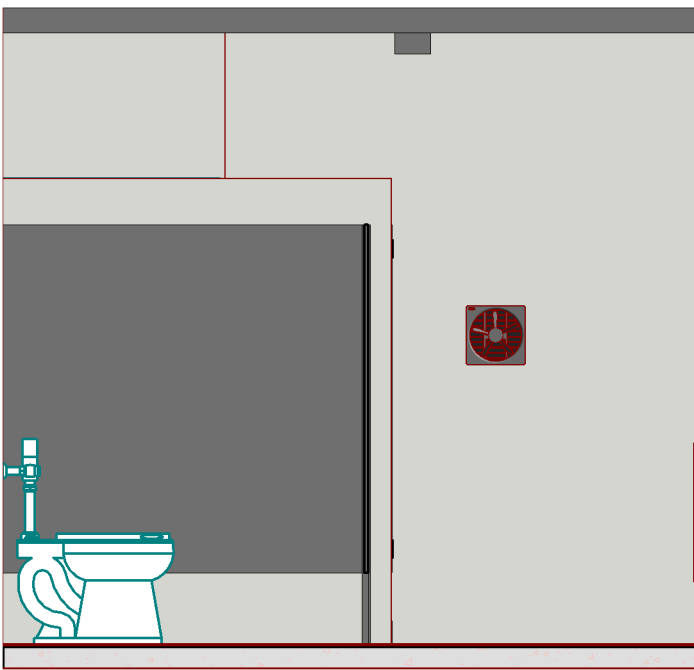


04 | RESTROOM RCP - NEW WORK PLAN
A102 | 1/4" = 1'-0"



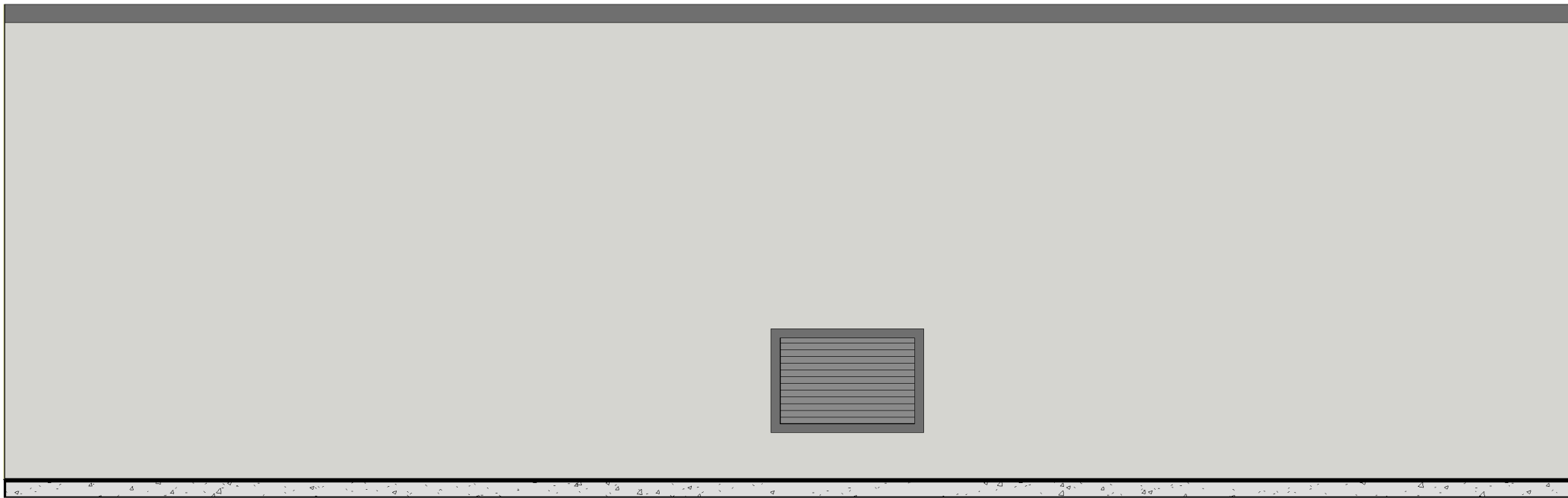
01 | LADIES WASHROOM 1 - A

A104 | 3/8" = 1'-0"



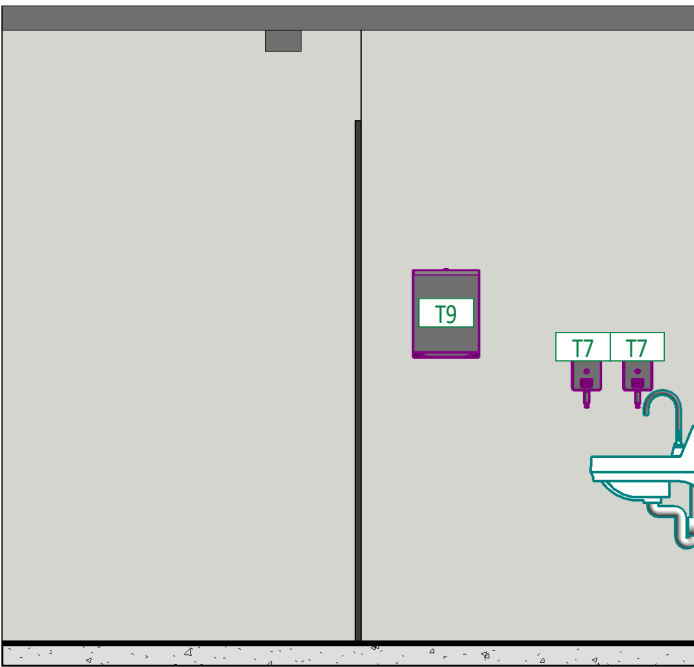
02 | LADIES WASHROOM 1 - B

A104 | 3/8" = 1'-0"



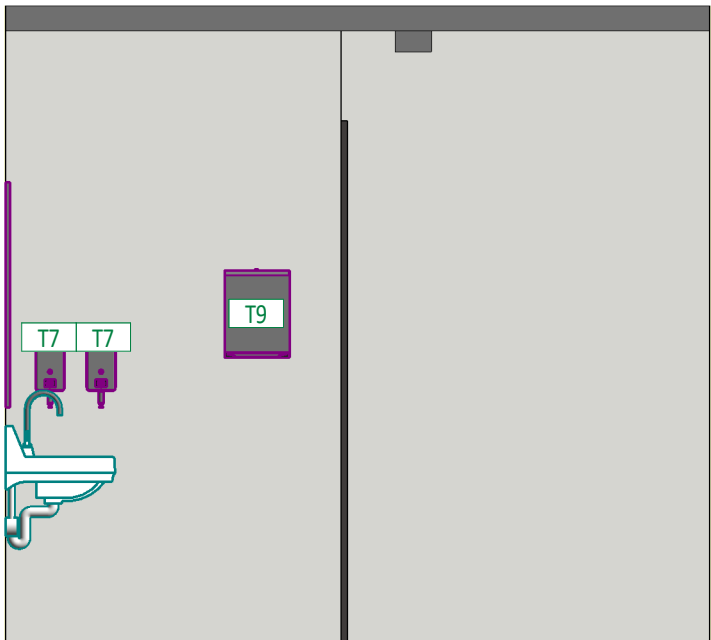
03 | LADIES WASHROOM 1 - C

A104 | 3/8" = 1'-0"



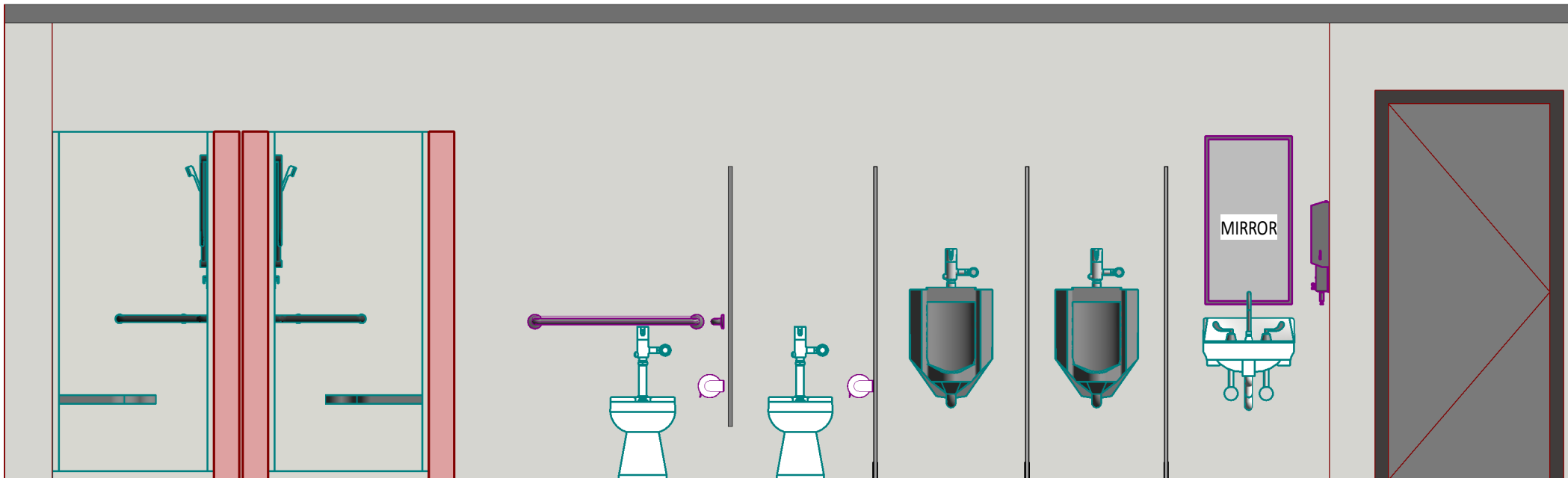
04 | LADIES WASHROOM 1 - D

A104 | 3/8" = 1'-0"



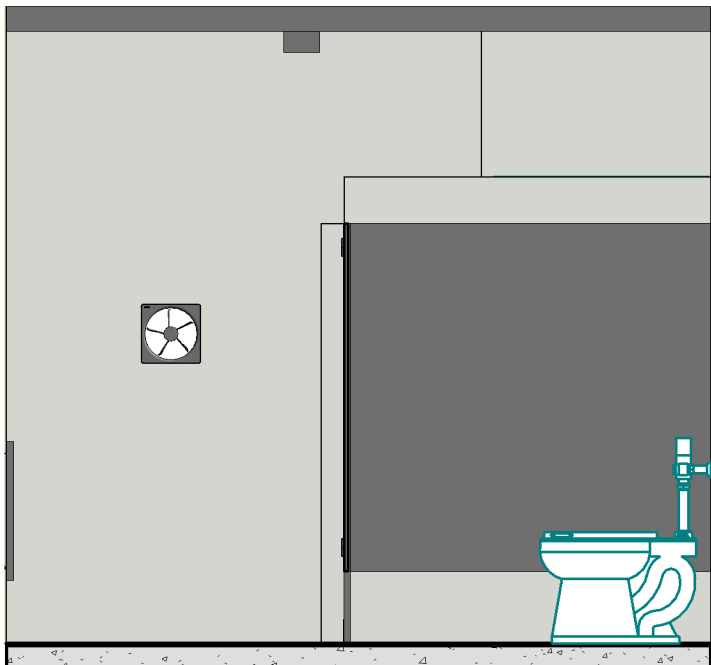
05 | GENTS WASHROOM 1 - A

A104 | 3/8" = 1'-0"



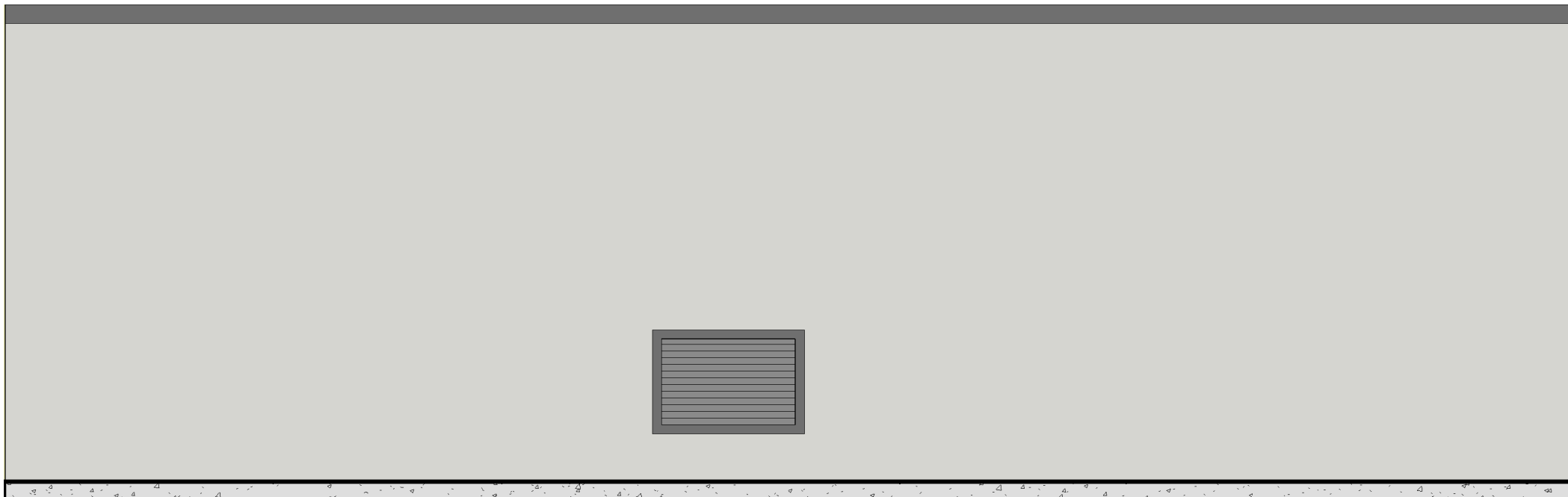
06 | GENTS WASHROOM 1 - B

A104 | 3/8" = 1'-0"



07 | GENTS WASHROOM 1 - C

A104 | 3/8" = 1'-0"



08 | GENTS WASHROOM 1 - D

A104 | 3/8" = 1'-0"

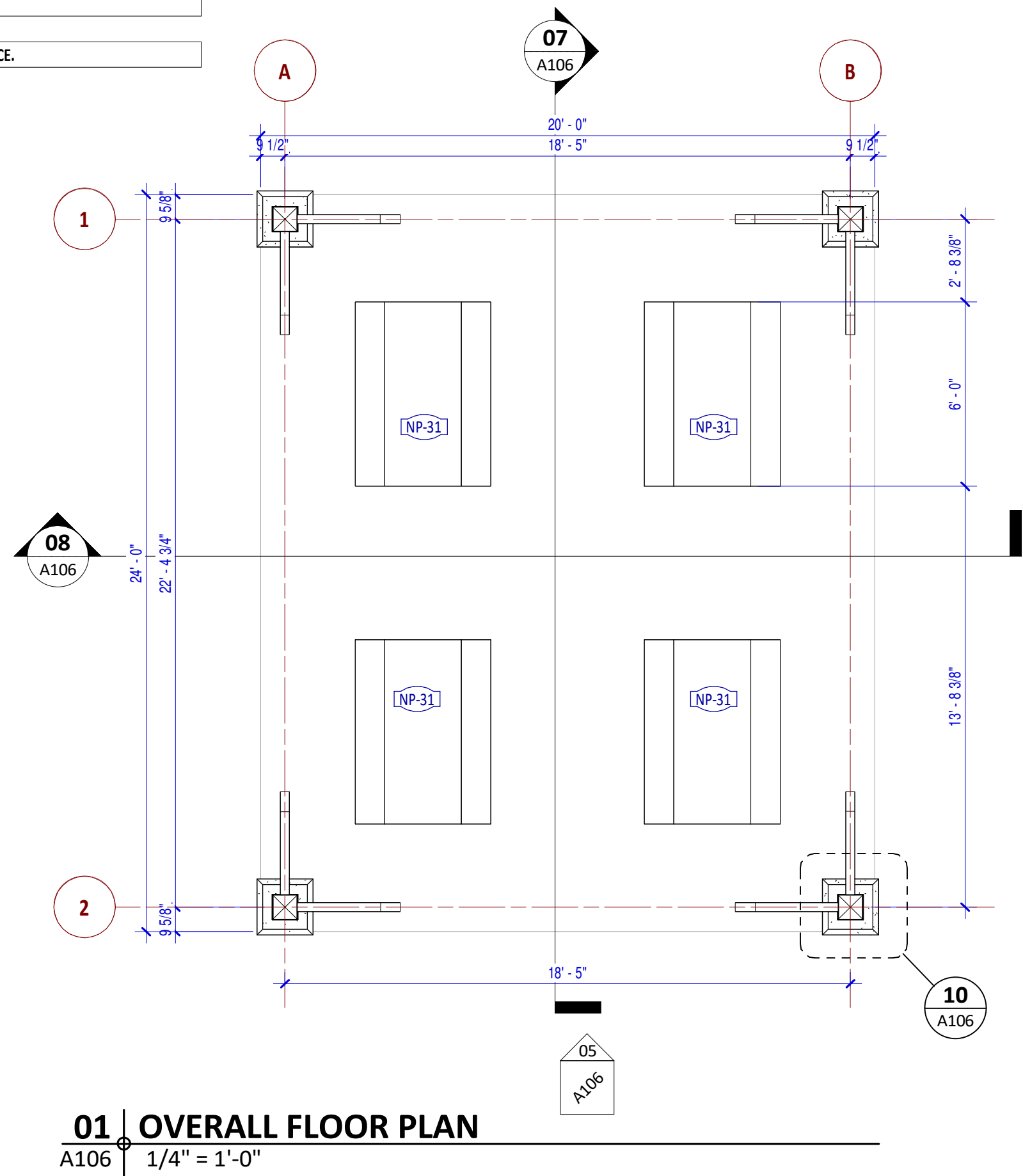
TOILET ACCESSORIES BY ROOM

ROOM NO.	ROOM NAME	TYPE MARK	DESCRIPTION	COUNT	O.C. / C.C. / O.O
		T3	36" Grab Bar	2	C.C
		T4	42" Grab Bar	2	C.C
		T7	Soap Dispenser	4	C.C
		T9	Paper Towel Dispenser, surface-mounted.	2	C.C
		T10	Toilet Paper Dispenser.	6	C.C
		T14	18 X 36-inch Mirror.	2	C.C

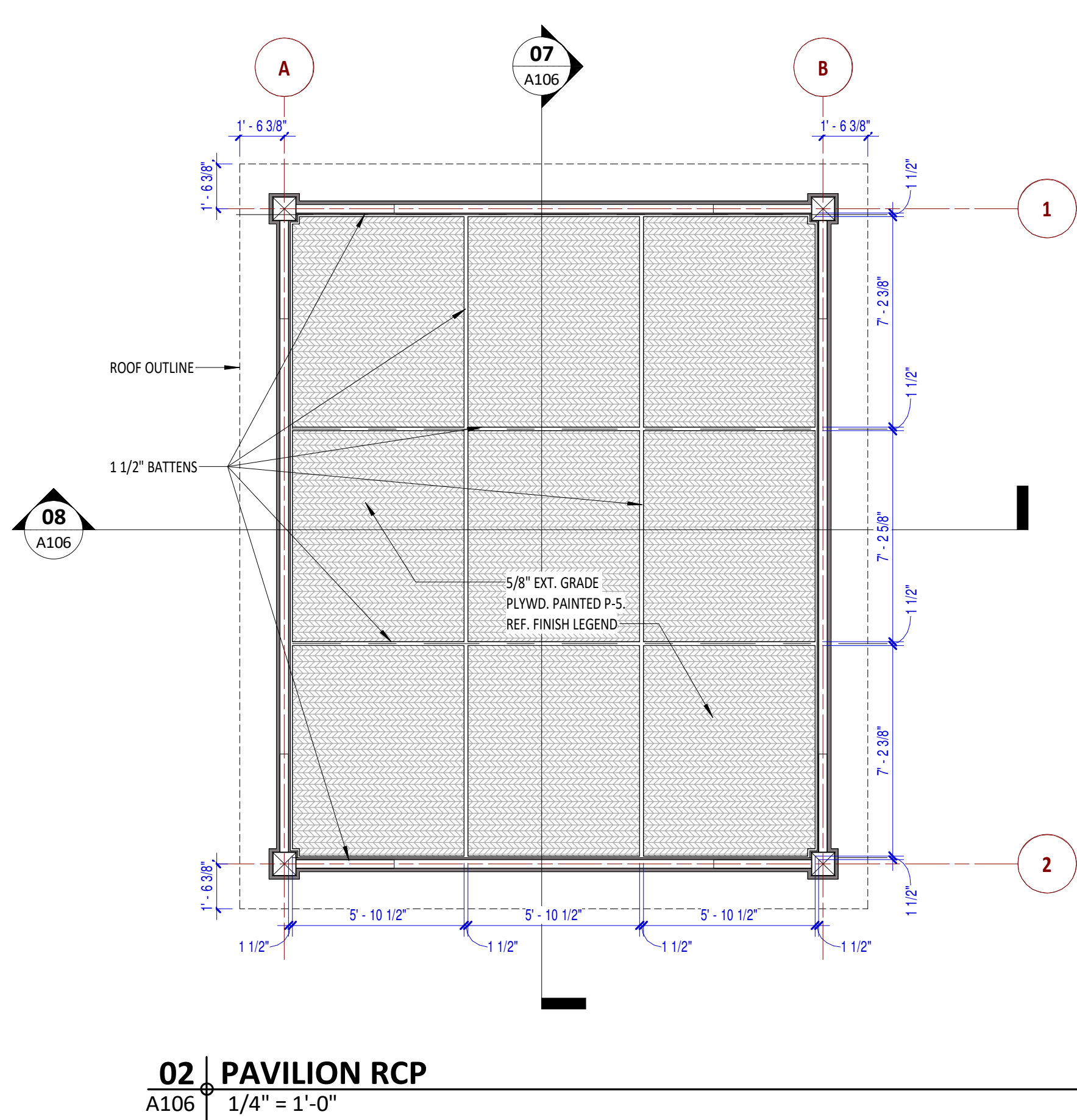
TOILET ACCESSORY SCHEDULE

Type Mark	Item	Image	Description	Model
T3	36" Grab Bar		1 1/4" diameter, heavy-duty satin-finish stainless steel, concealed mounting.	ASI 3700 series, Bobrick B-5806, Bradley 832.
T4	42" Grab Bar		1 1/4" diameter, heavy-duty satin-finish stainless steel, concealed mounting.	ASI 3700 series, Bobrick B-5806, Bradley 832.
T7	Soap Dispenser		Surface-mtd, vertical, manual dispenser.	ASI 0347, Bobrick B-2111, Bradley 6562.
T9	Paper Towel Dispenser, surface-mounted.		Satin-finish stainless steel, dispenses 400 C-fold or 525 multi-fold, surface mounting.	ASI 0210, Bobrick B-262, Bradley 250-15.
T10	Toilet Paper Dispenser.		Dual-roll dispenser, cast aluminum, non-controlled delivery.	ASI 0264-1A, Bobrick B-2740, Bradley 5241-50.
T14	18 X 36-inch Mirror.		Mirror with channel frame.	ASI 0620 series, Bobrick B-165, Bradley 781.

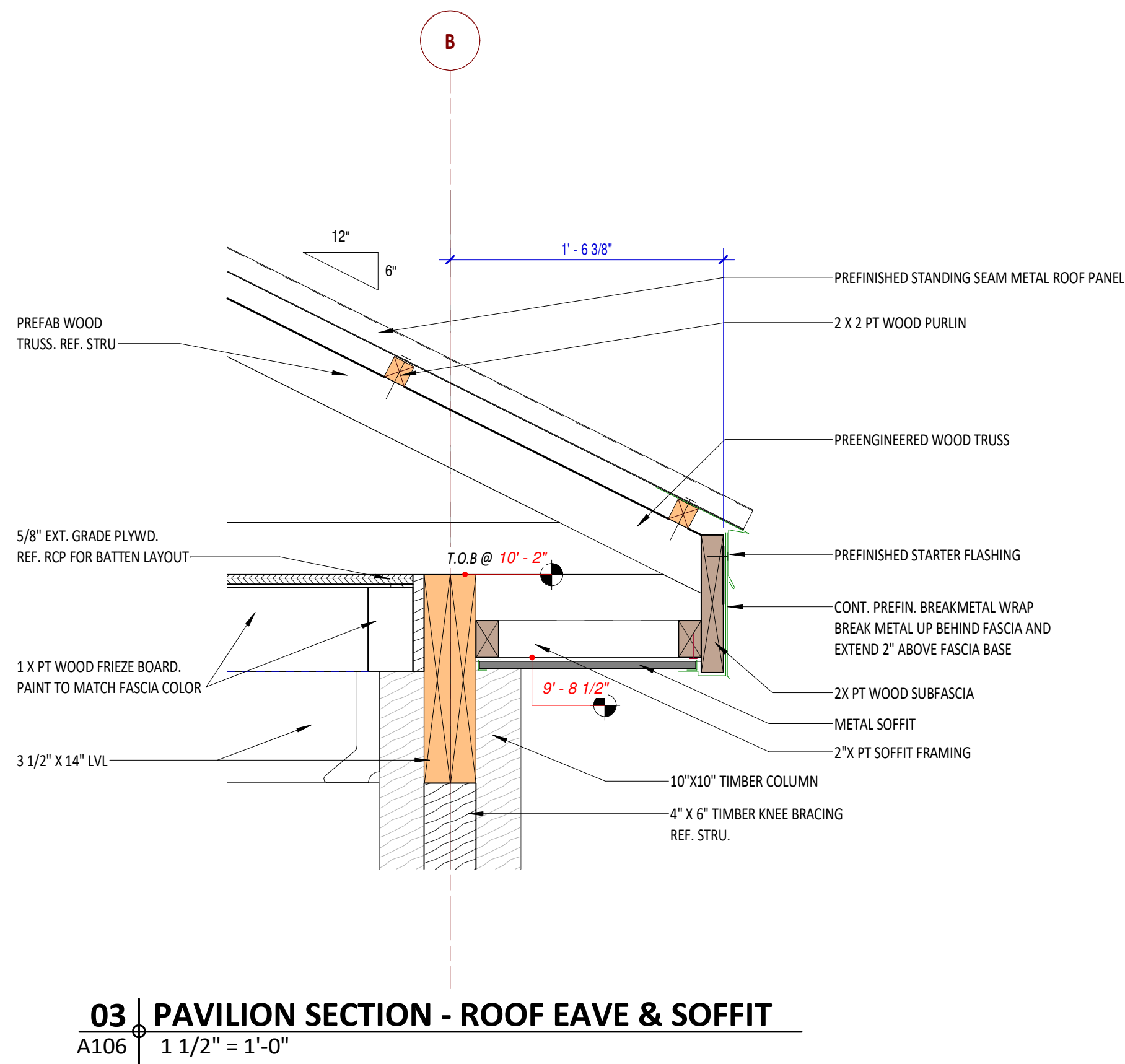
KEYNOTES - NEW WORK - FLOOR PLANS	
NOTE	DESCRIPTION
NP-31	OWNER PROVIDED PICNIC TABLES. GC TO ASSEMBLE AND BOLT IN PLACE.



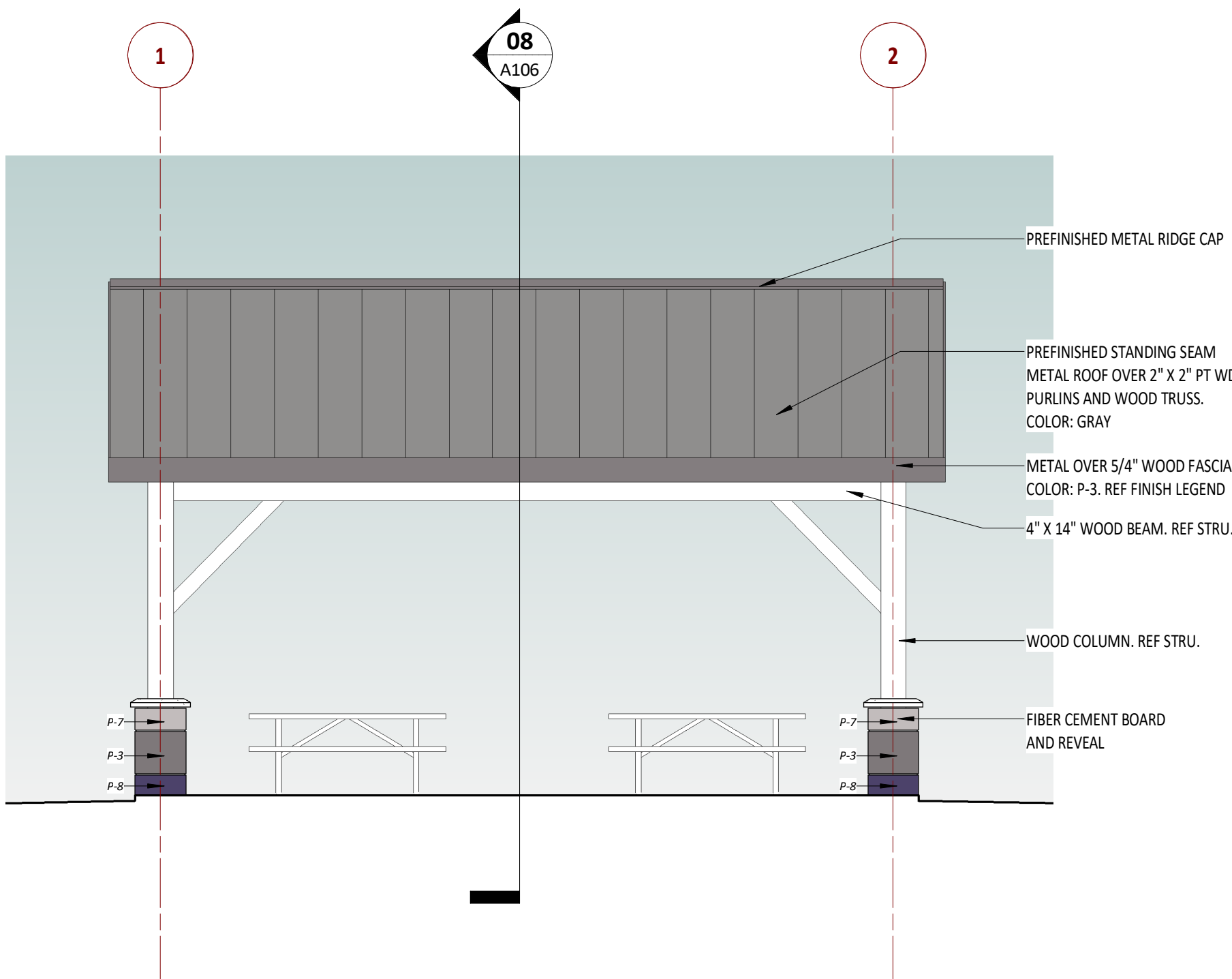
01 | OVERALL FLOOR PLAN
A106 | 1/4" = 1'-0"



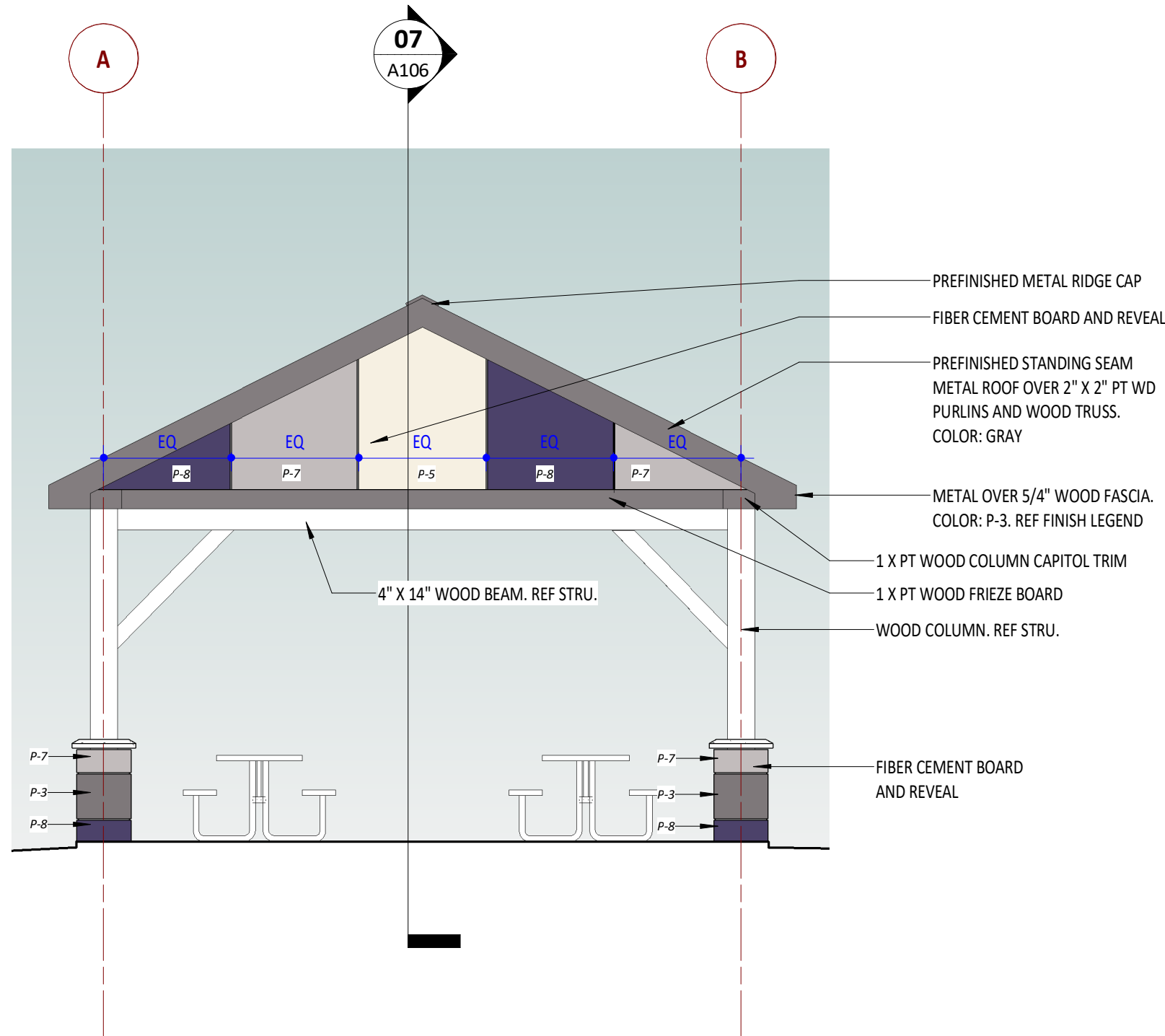
02 | PAVILION RCP
A106 | 1/4" = 1'-0"



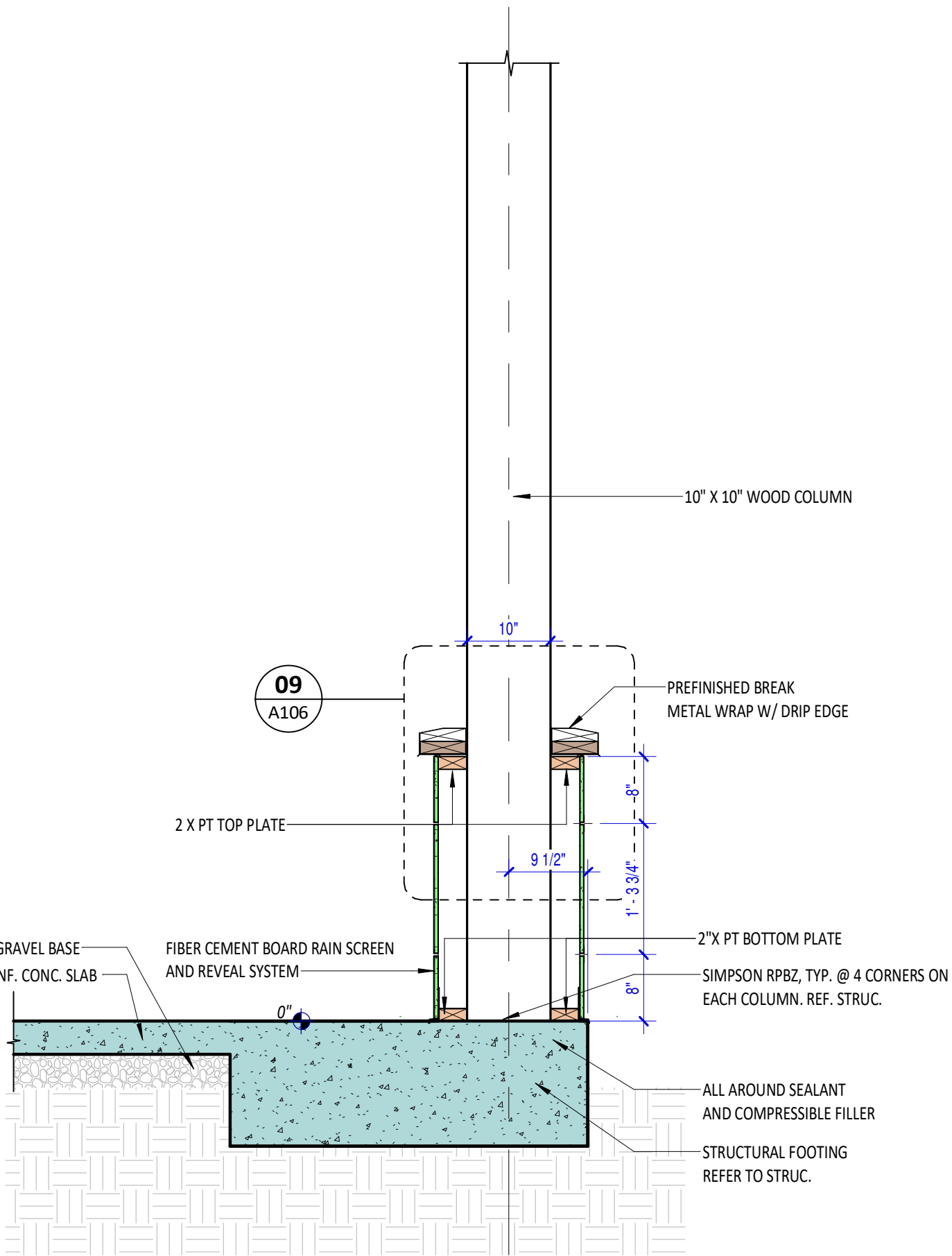
03 | PAVILION SECTION - ROOF EAVE & SOFFIT
A106 | 1 1/2" = 1'-0"



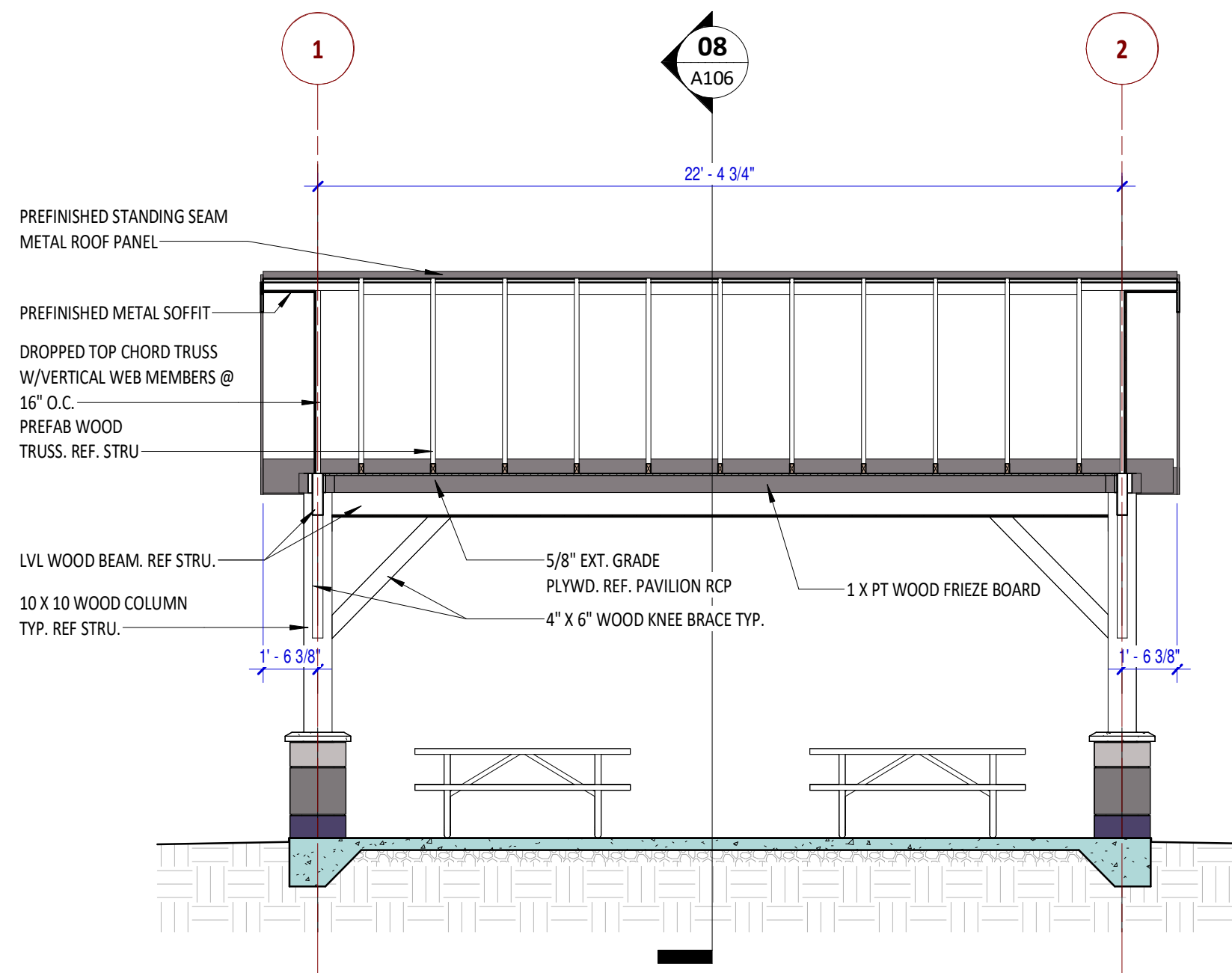
04 | WEST PAVILION ELEVATION
A106 | 1/4" = 1'-0"



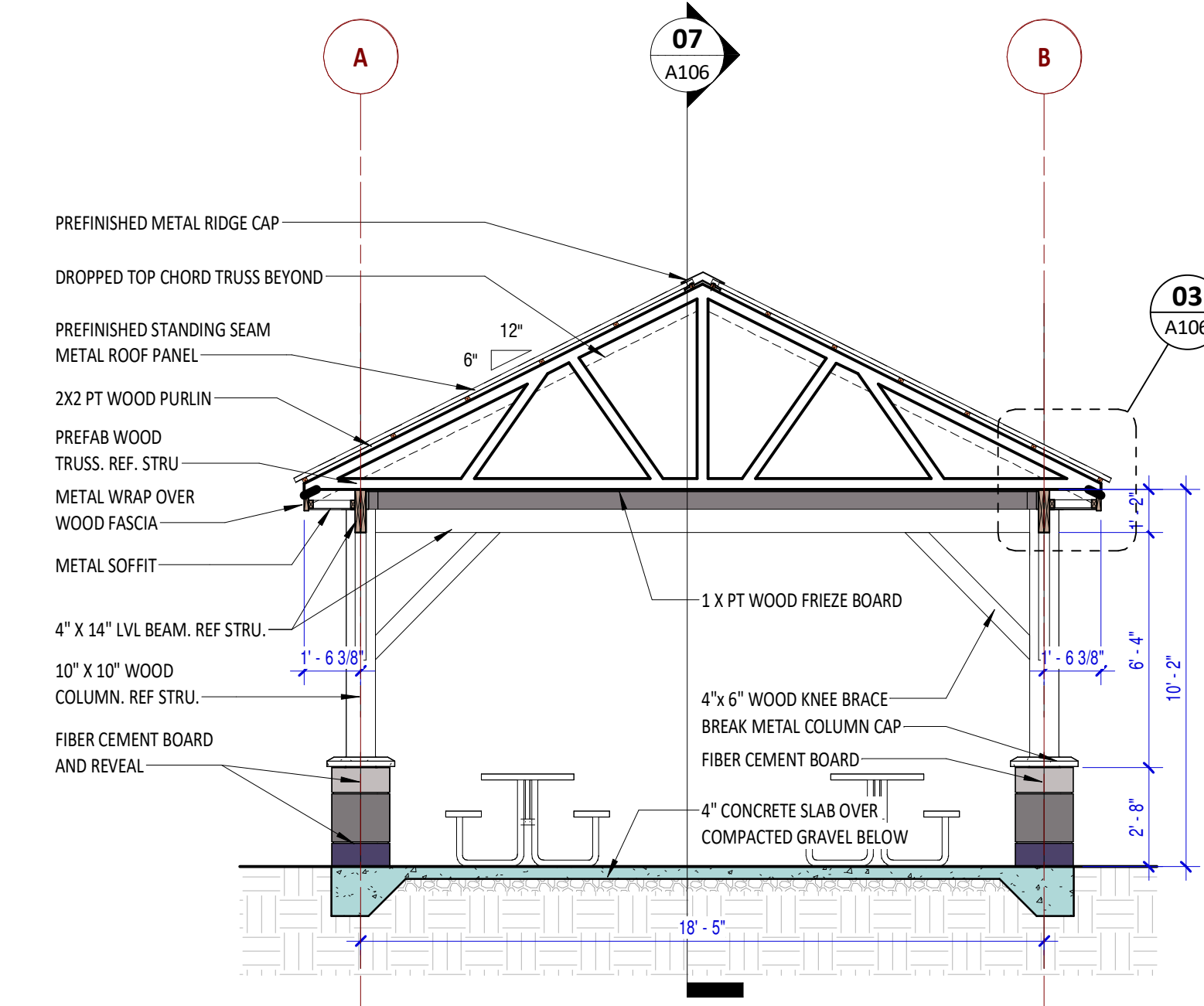
05 | SOUTH PAVILION ELEVATION
A106 | 1/4" = 1'-0"



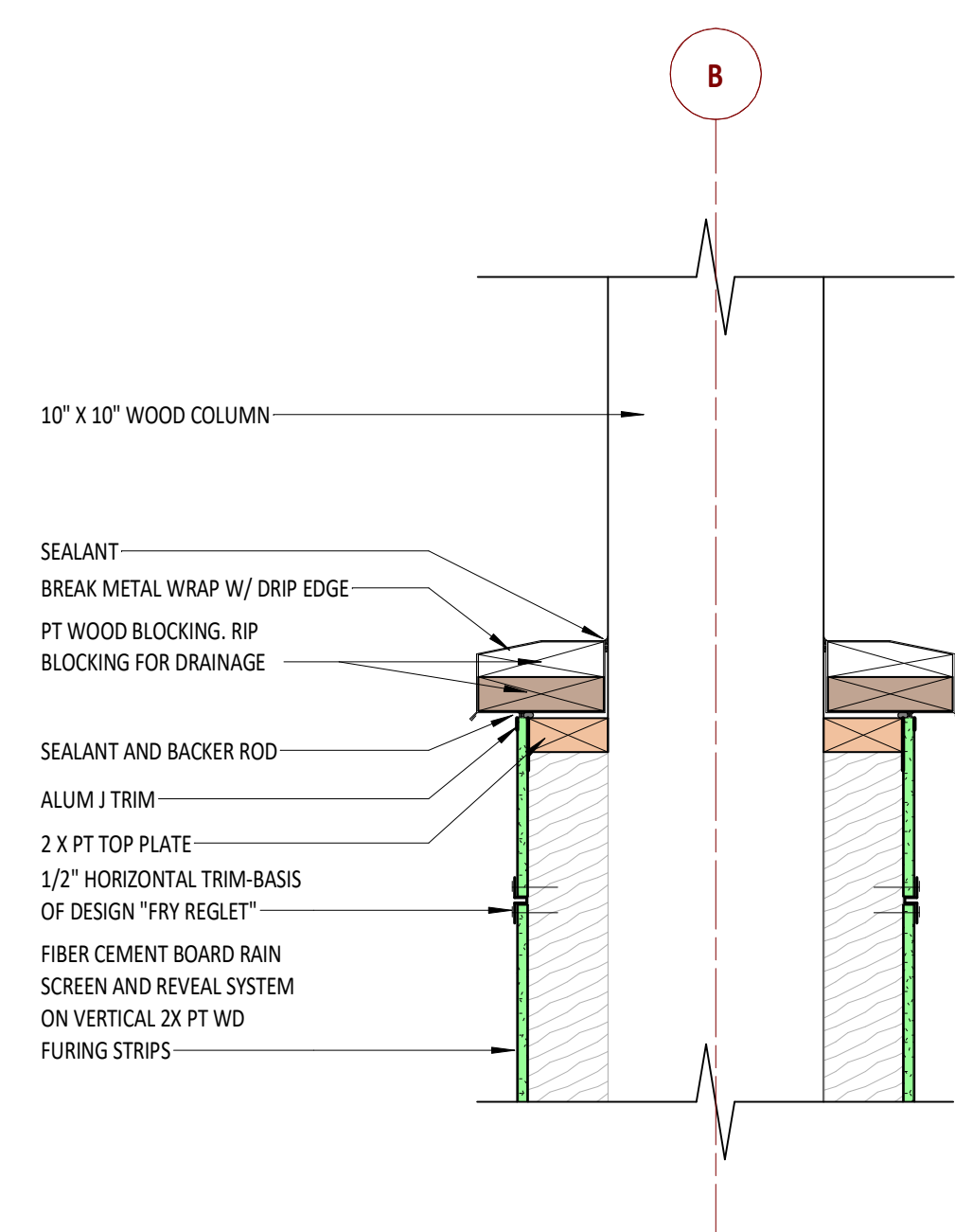
06 | PAVILION COLUMN SECTION TYP.
A106 | 3/4" = 1'-0"



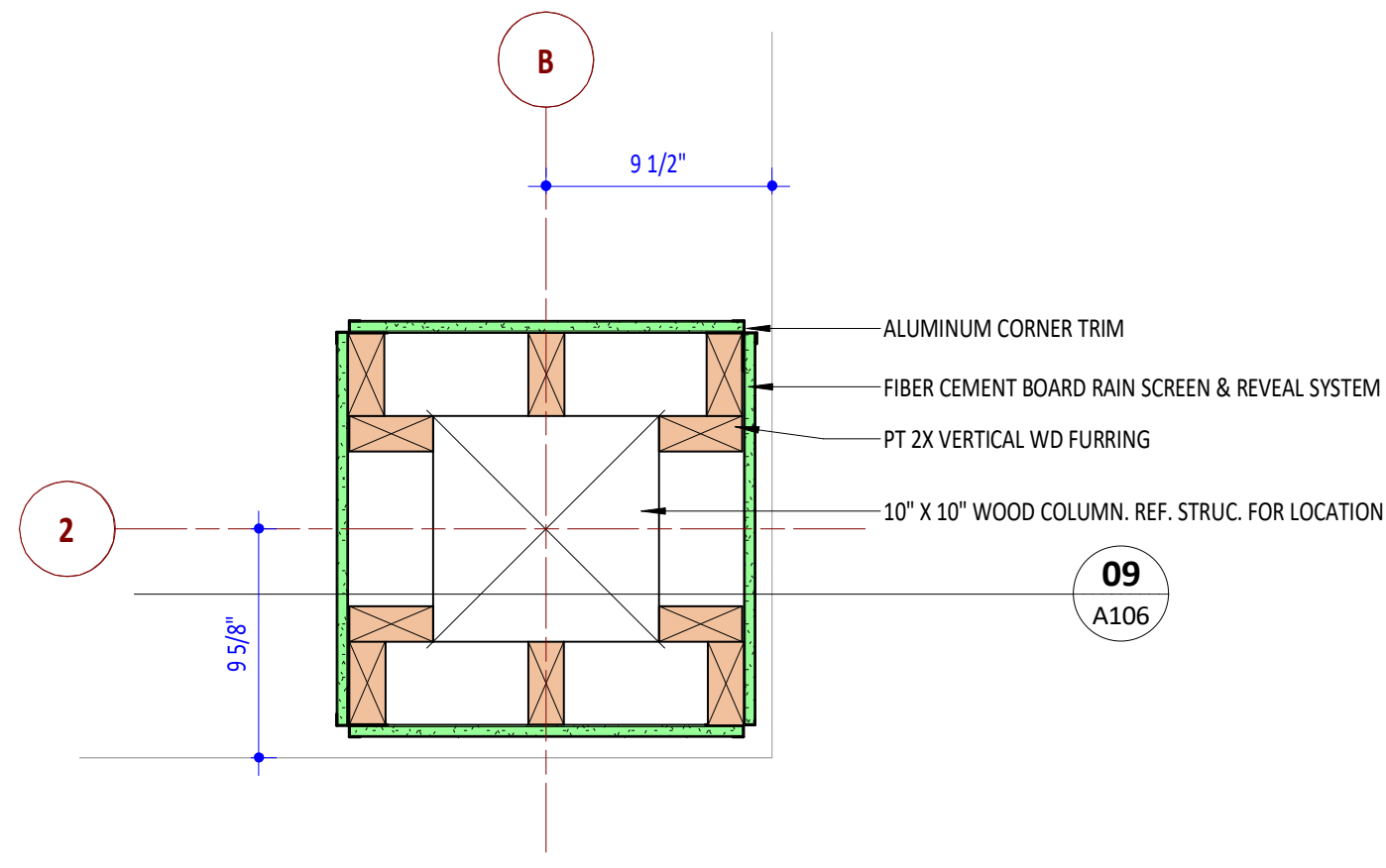
07 | PAVILION SECTION 2
A106 | 1/4" = 1'-0"



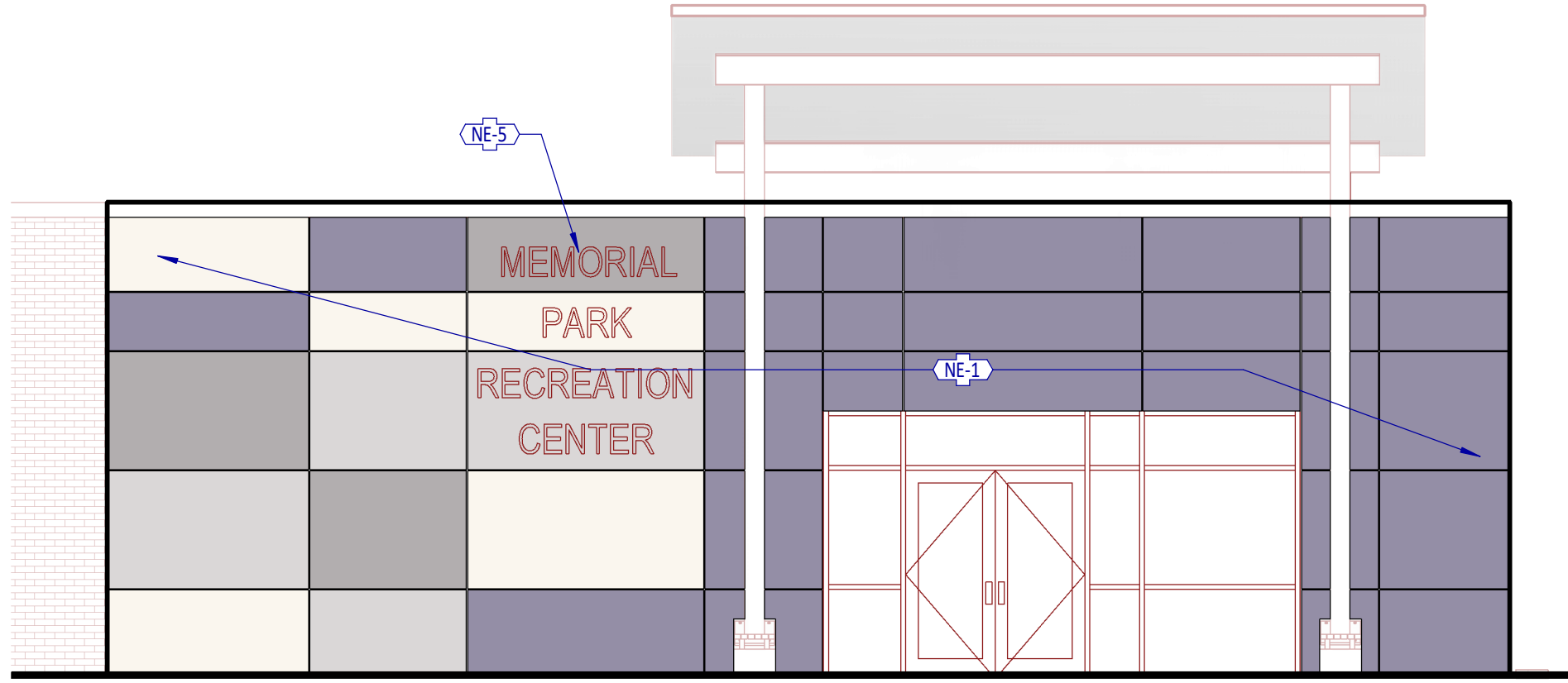
08 | PAVILION SECTION
A106 | 1/4" = 1'-0"



09 | Detail 0
A106 | 1 1/2" = 1'-0"

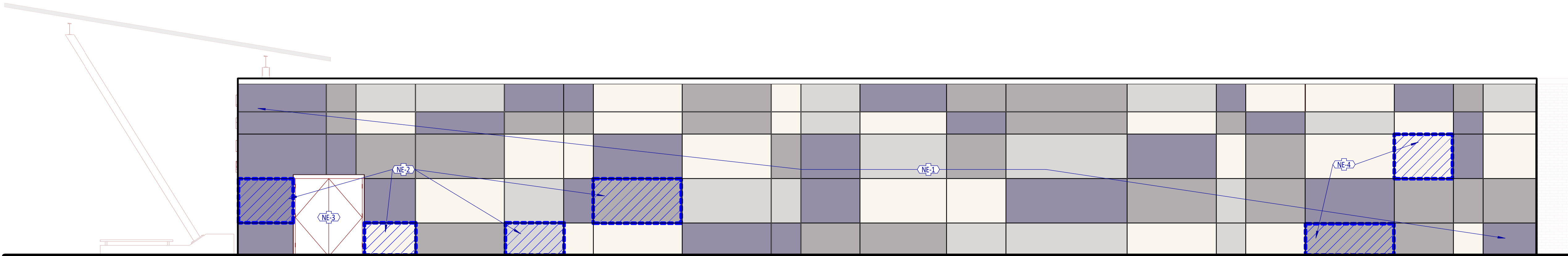


10 | PAVILION COLUMN PLAN DETAIL
A106 | 1 1/2" = 1'-0"



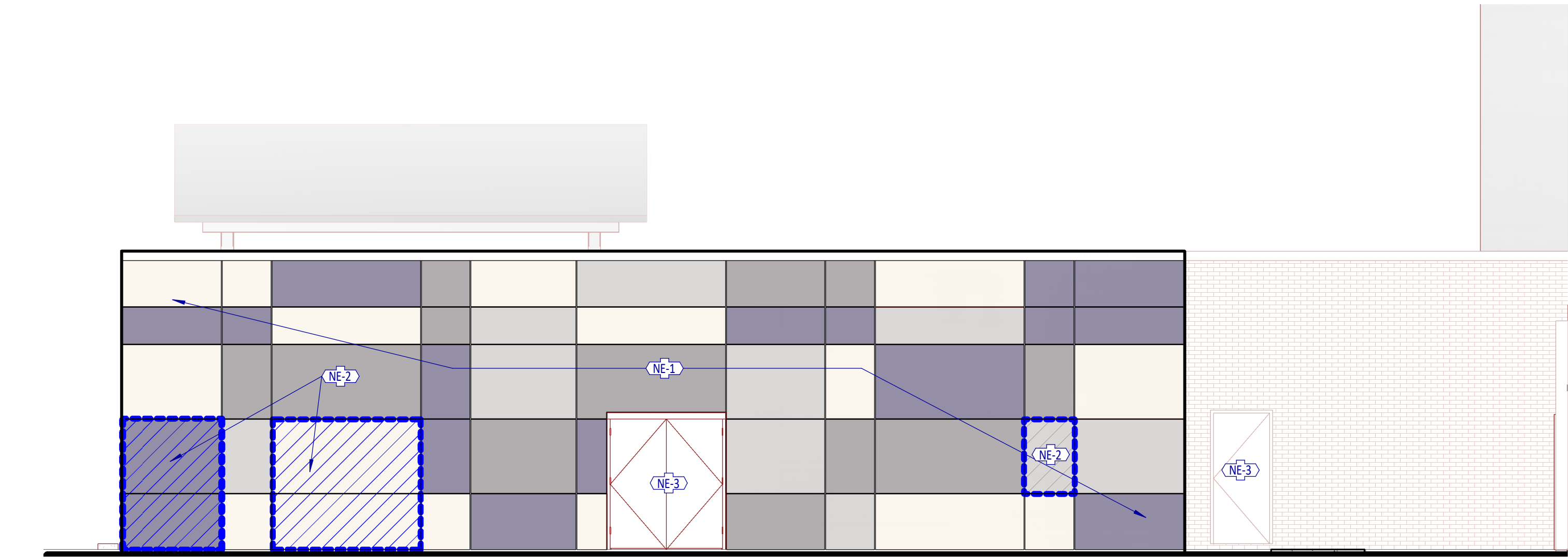
01 | ELEVATION 1

A201 3/16" = 1'-0"



02 | ELEVATION 2

A201 3/16" = 1'-0"



03 | ELEVATION 3

A201 3/16" = 1'-0"

- P-3 - SW 7081 SENSUOUS GRAY
- P-5 - SW 7562 ROMAN COLUMN
- P-7 - SW 7080 QUEST GRAY
- P-8 - SW 6825 IZMIR PURPLE

EXTERIOR PAINT LEGEND

3/8" = 1'-0"

KEYNOTES - NEW WORK - ELEVATIONS	
NOTE	DESCRIPTION
NE-1	PREP AND PAINT ALL EXISTING WALL PANELS. MATCH EXISTING PANEL COLORS.
NE-2	REPLACE DAMAGED WALL PANEL. MATCH EXISTING COLOR. REF. 4/A201.
NE-3	PREP AND PAINT DOOR PANEL AND FRAME. MATCH EXISTING COLOR. ROLLER FINISH.
NE-4	REPLACE DAMAGED WALL PANEL. MATCH EXISTING COLOR. REF. 8/A201.
NE-5	REMOVE AND REINSTALL SIGNAGE AS NEEDED TO REPAINT.



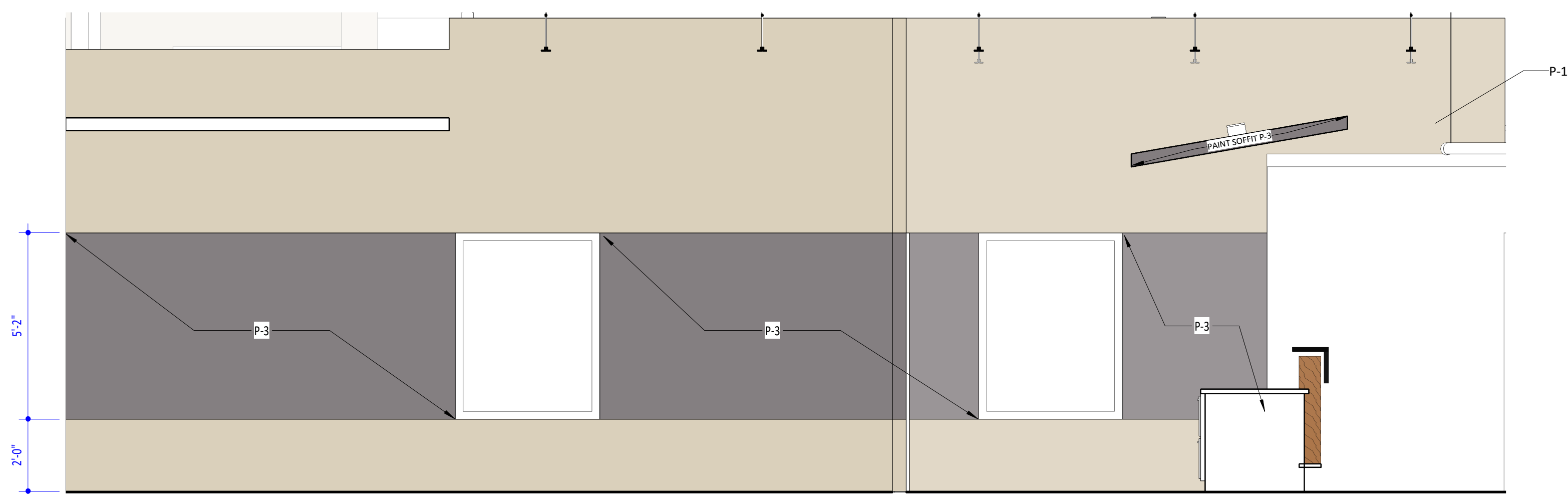
A | ELEVATION 2 - PHOTOS

A201 3/16" = 1'-0"

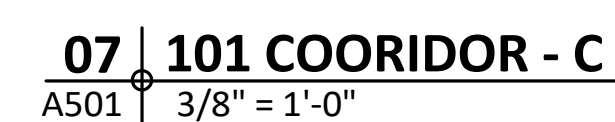
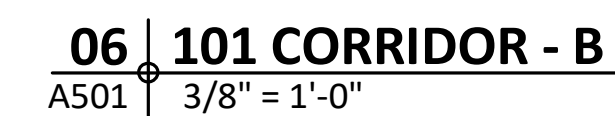
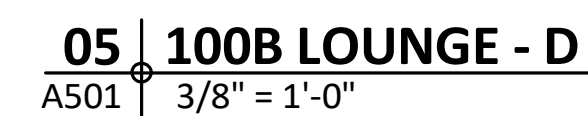
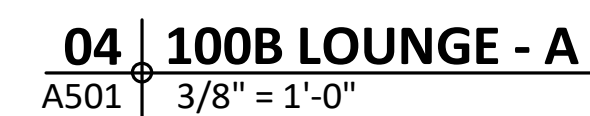
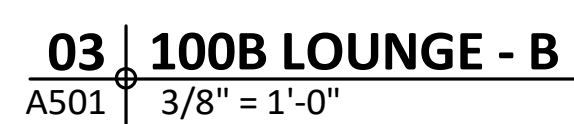


B | ELEVATION 3 - PHOTO

A201 3/16" = 1'-0"



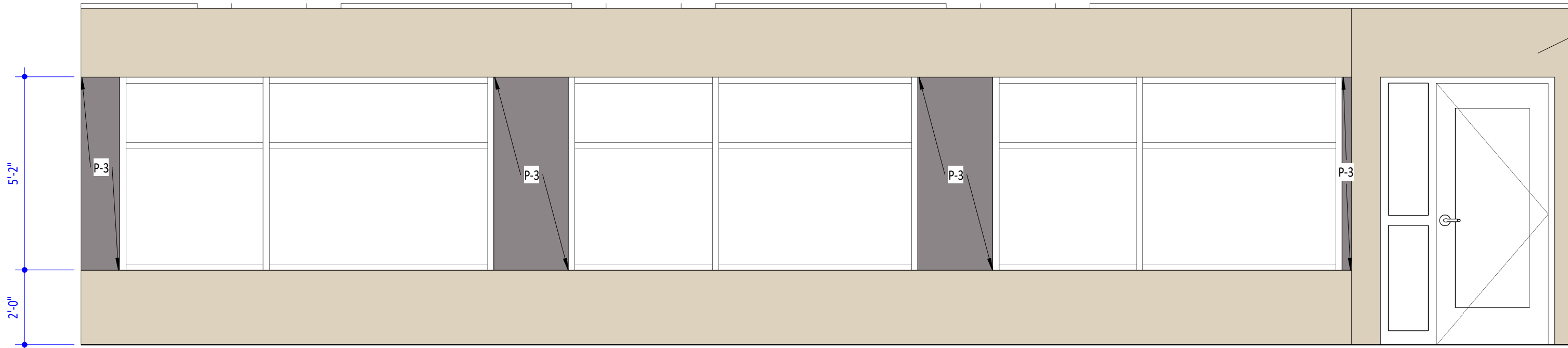
02 | 100A RECEPTION - D
A501 | 3/8" = 1'-0"



INTERIOR ELEVATIONS

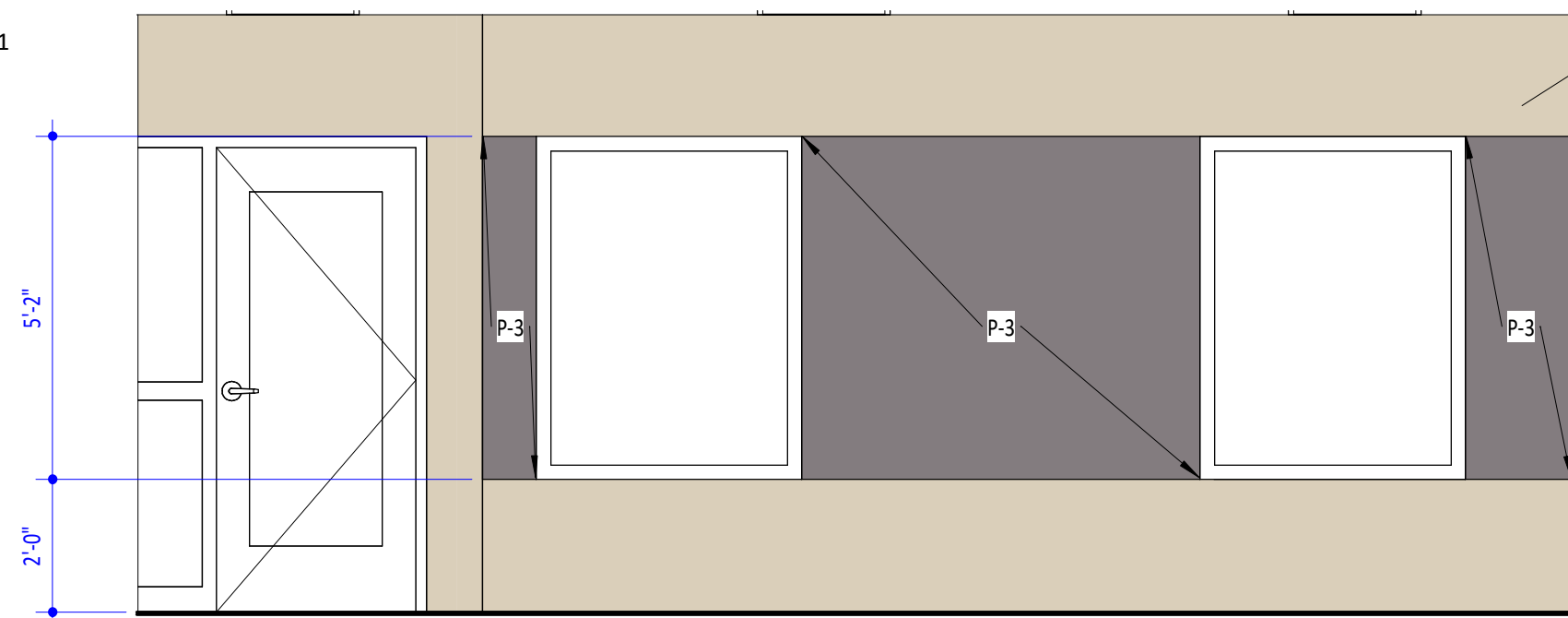
Drawing No: _____

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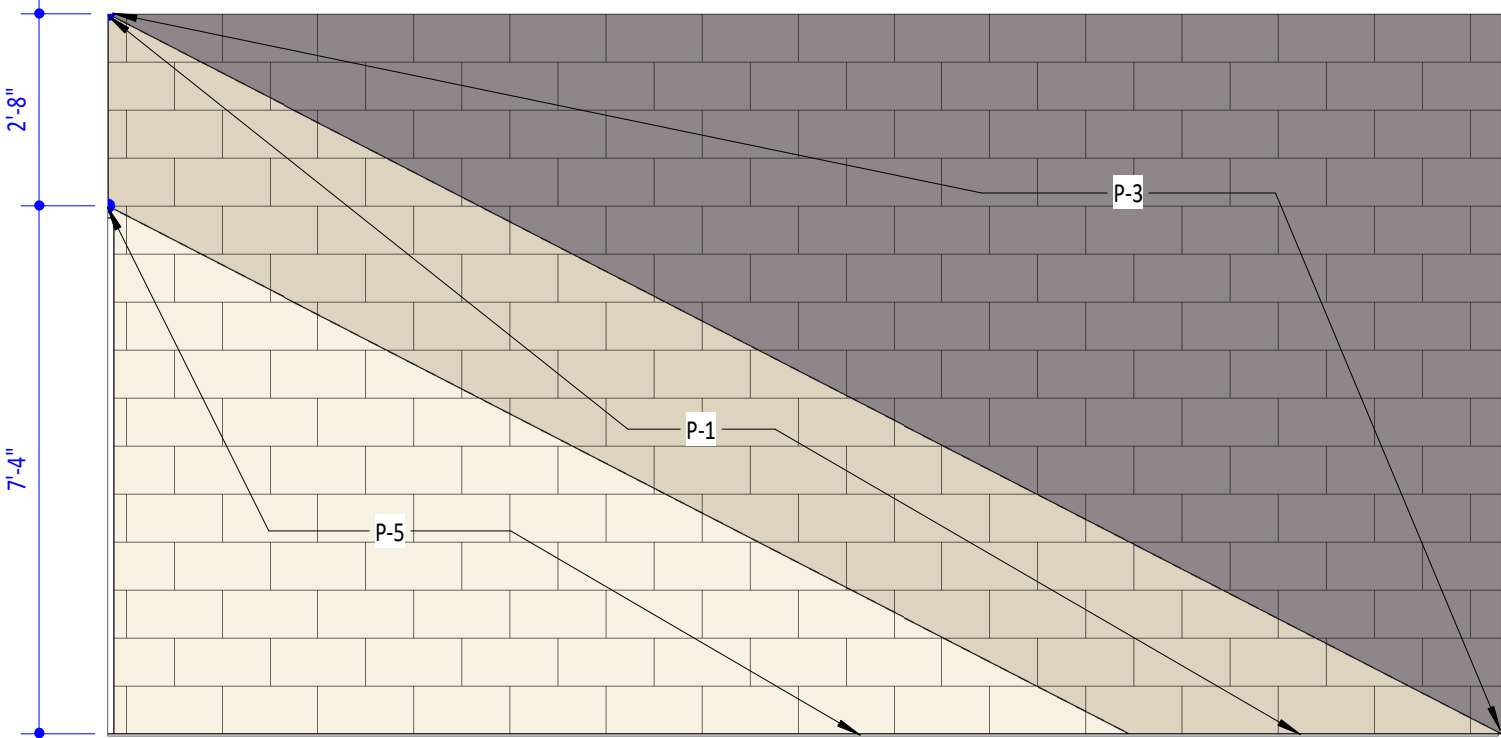
01 | 112 GAMEROOM - A

A502 | 3/8" = 1'-0"



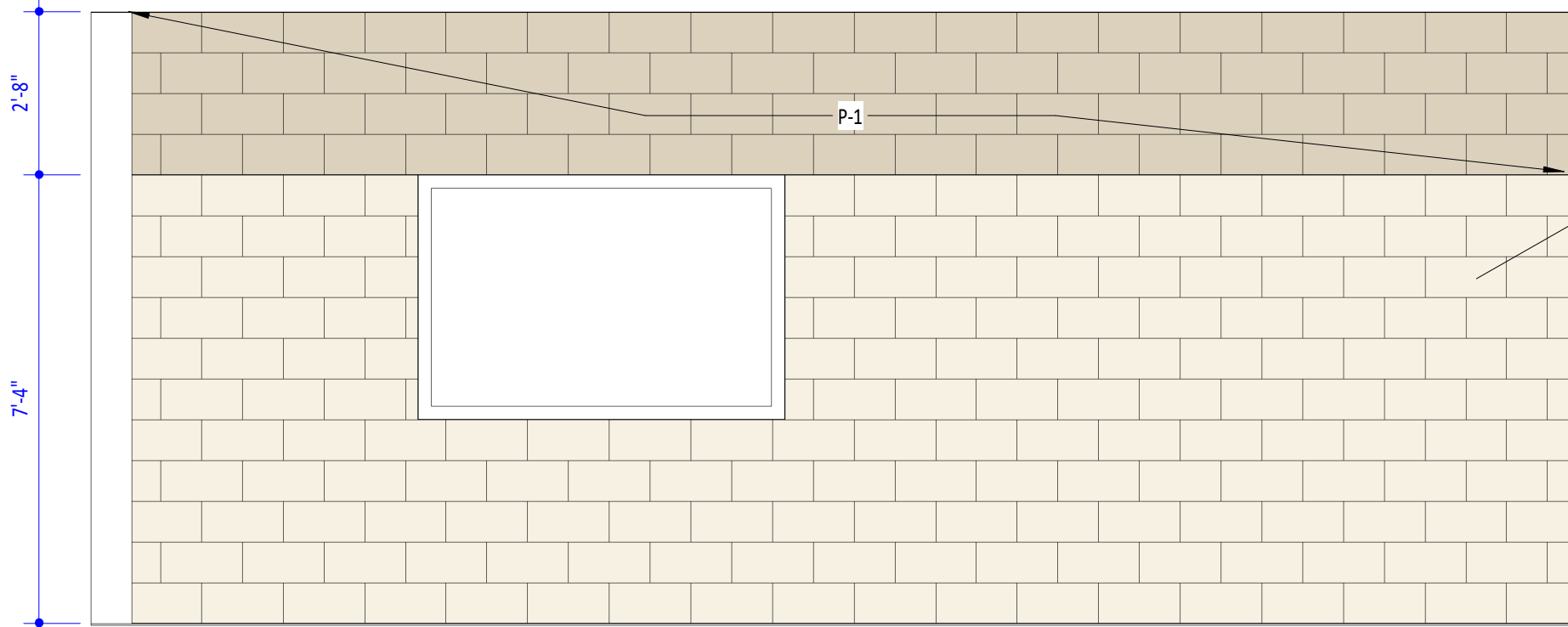
02 | 112 GAMEROOM - D

A502 | 3/8" = 1'-0"



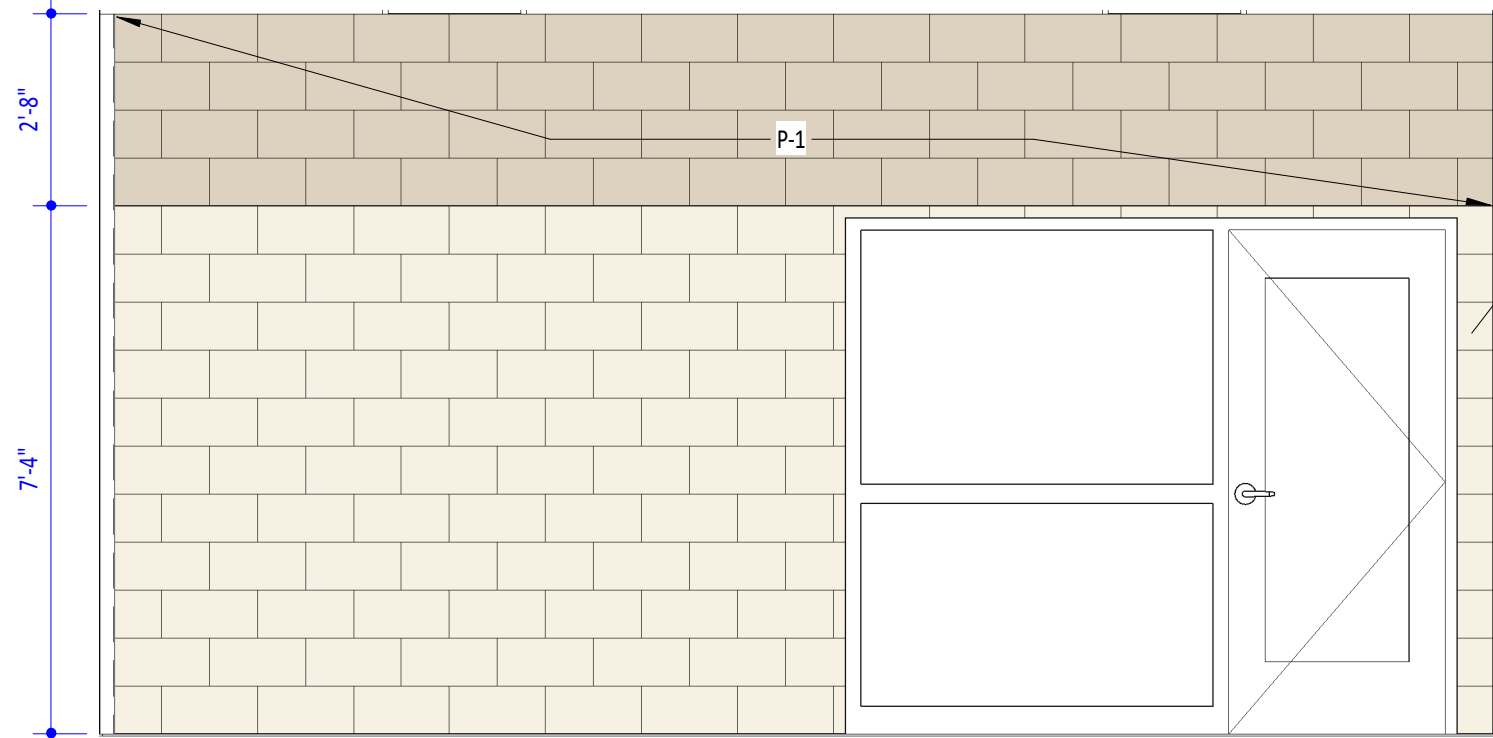
03 | 102 COMPUTER LAB - A

A502 | 3/8" = 1'-0"



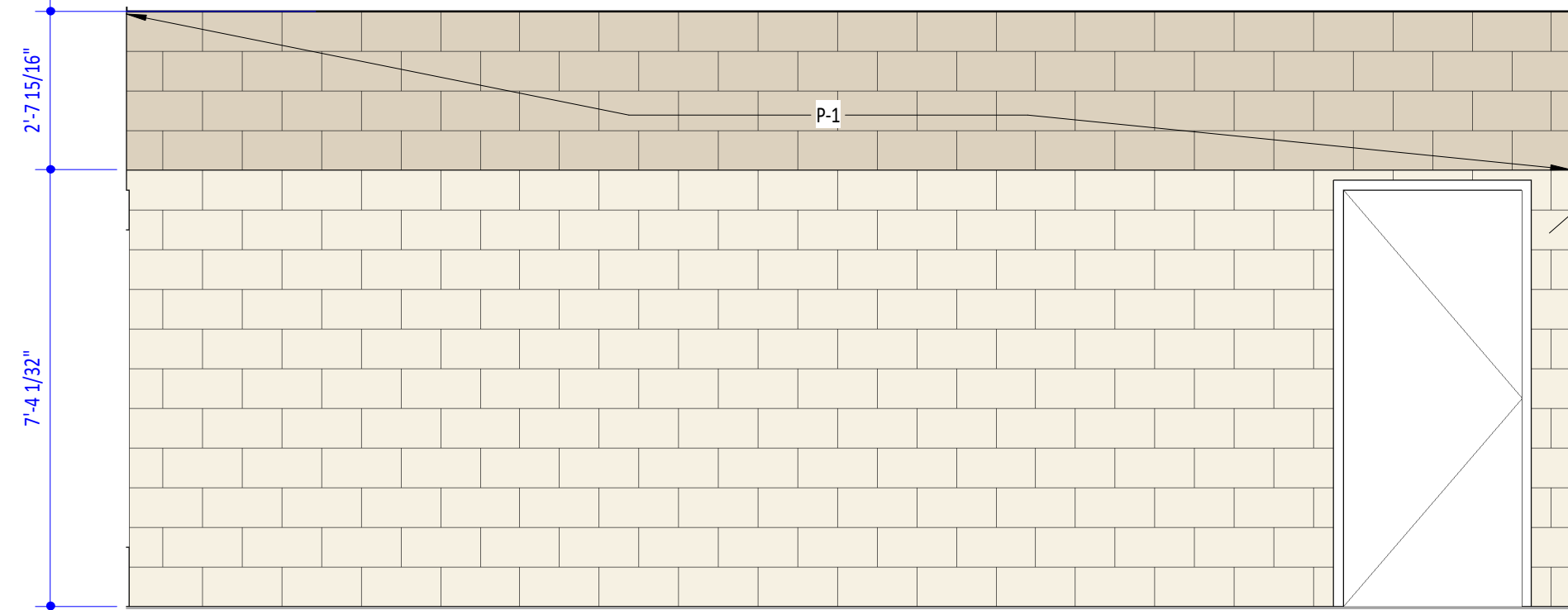
04 | 102 COMPUTER LAB - B

A502 | 3/8" = 1'-0"



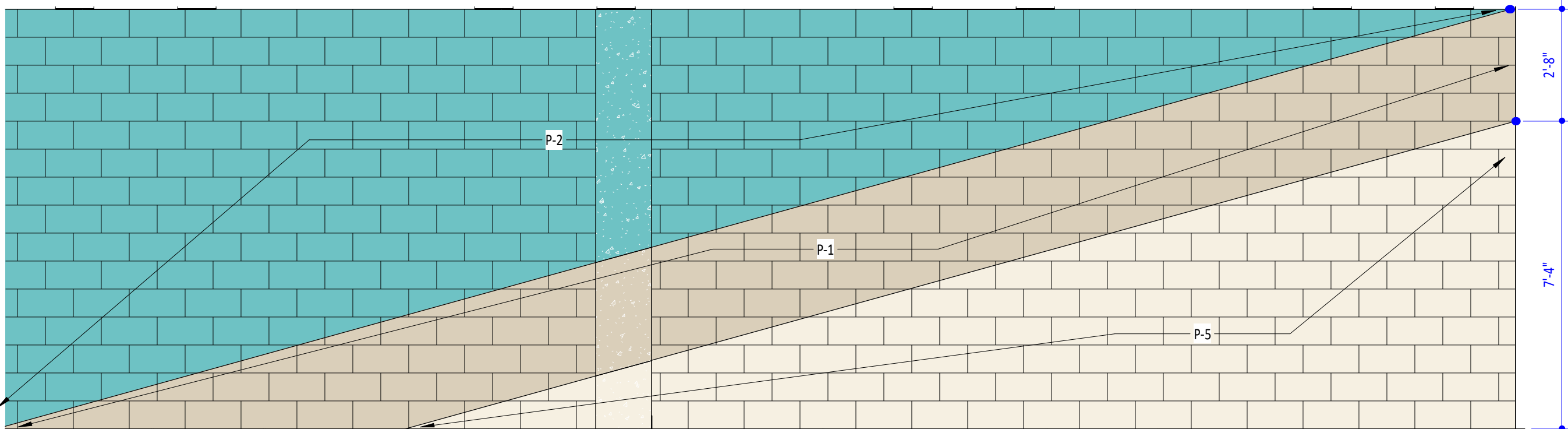
05 | 102 COMPUTER LAB - C

A502 | 3/8" = 1'-0"



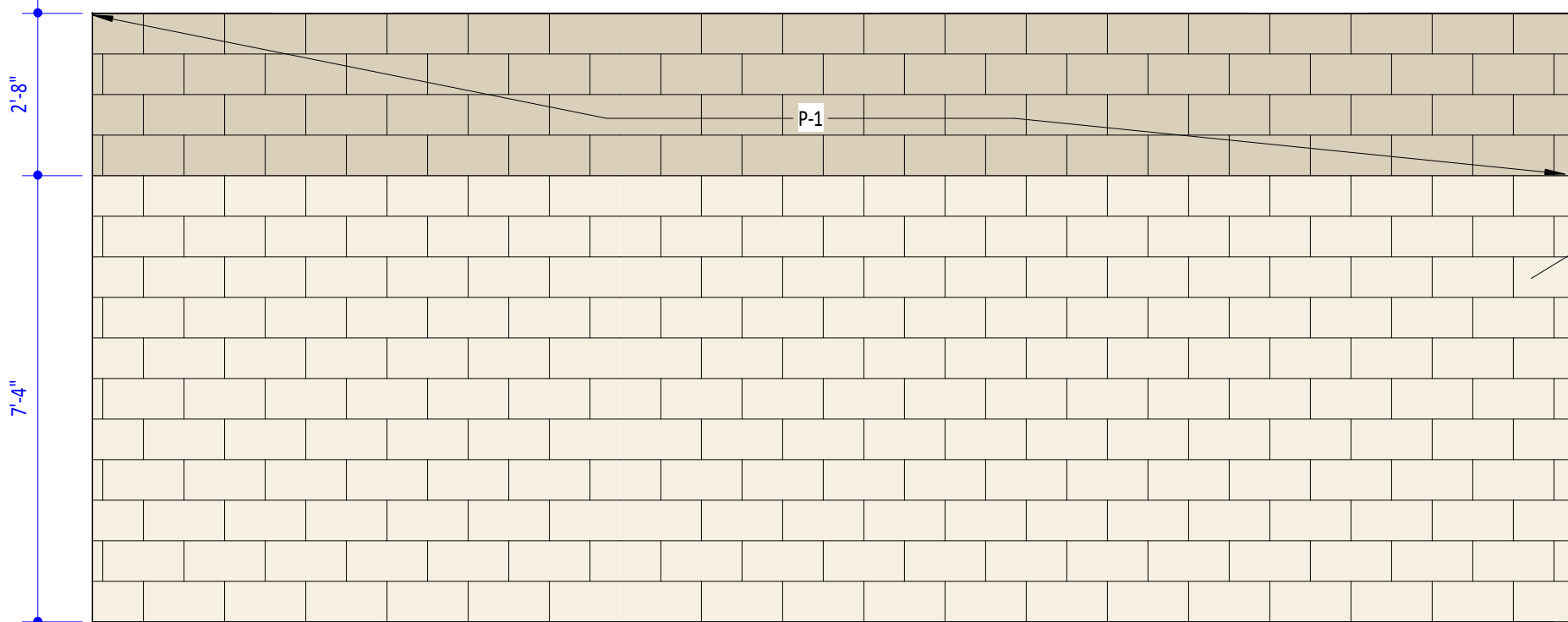
06 | 102 COMPUTER LAB - D

A502 | 3/8" = 1'-0"



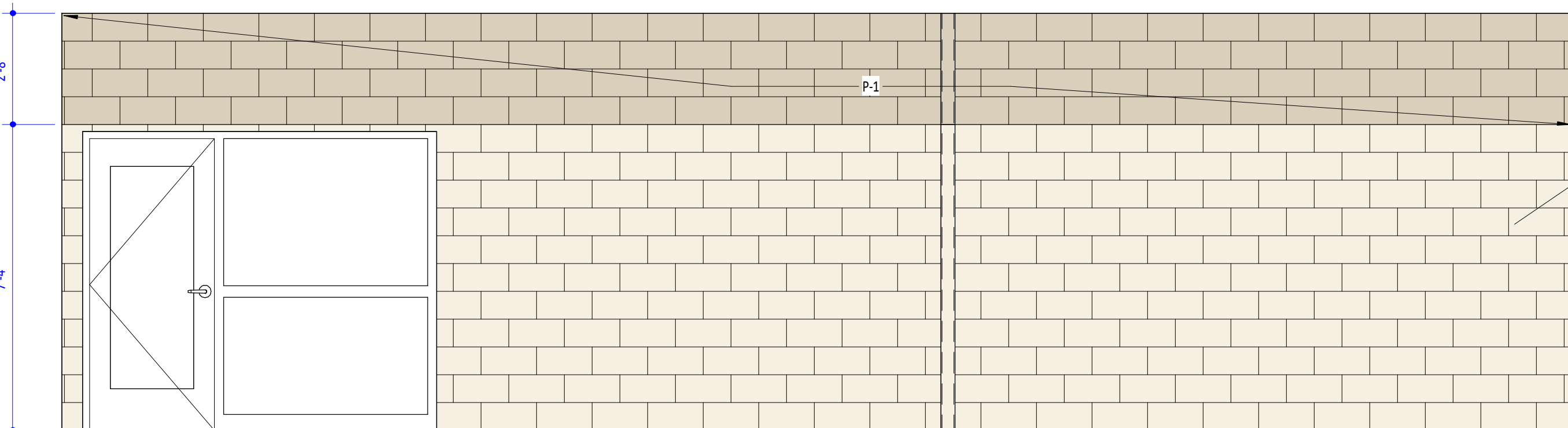
07 | 105 WEIGHTS - A

A502 | 3/8" = 1'-0"



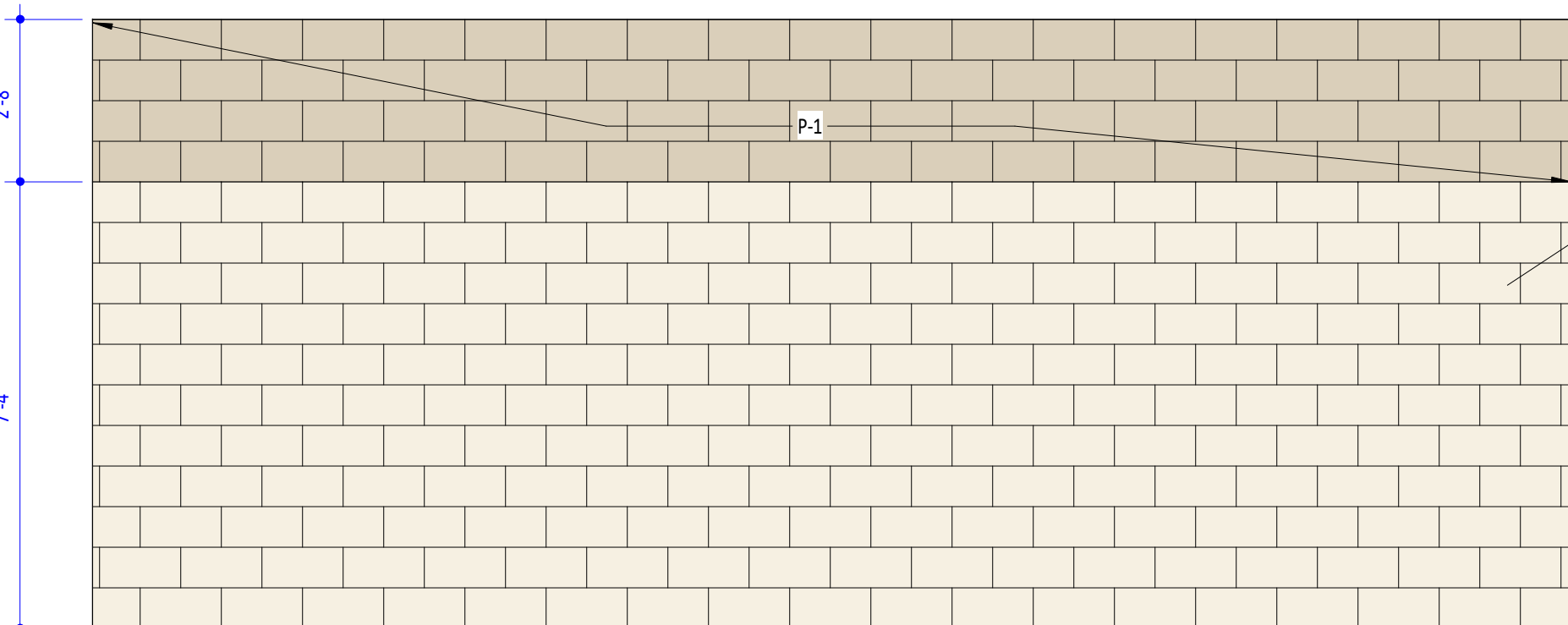
08 | 105 WEIGHTS - B

A502 | 3/8" = 1'-0"



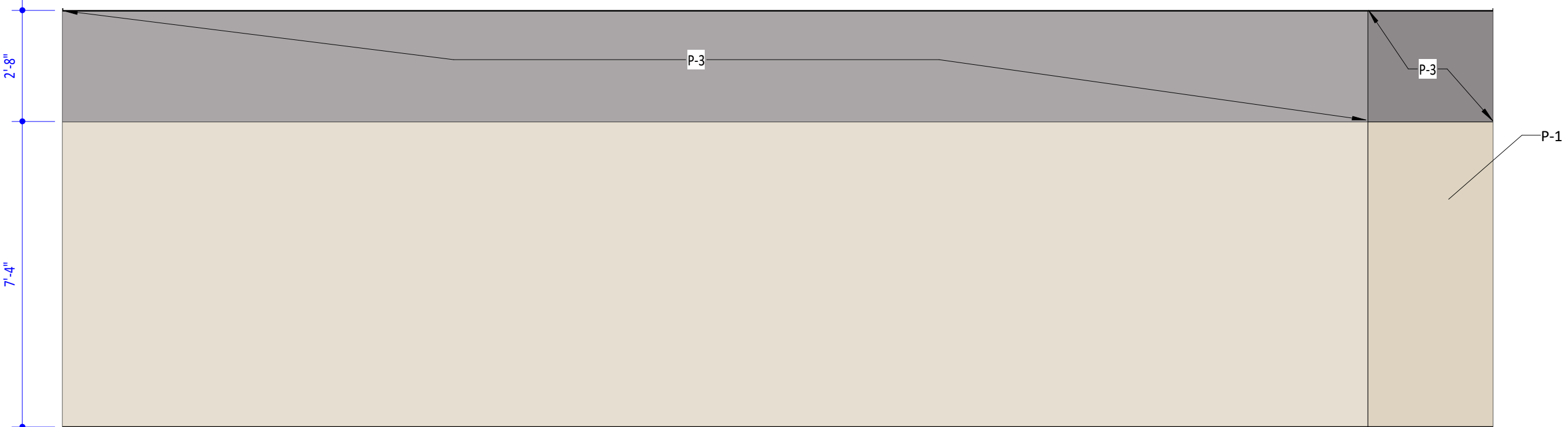
09 | 105 WEIGHTS - C

A502 | 3/8" = 1'-0"



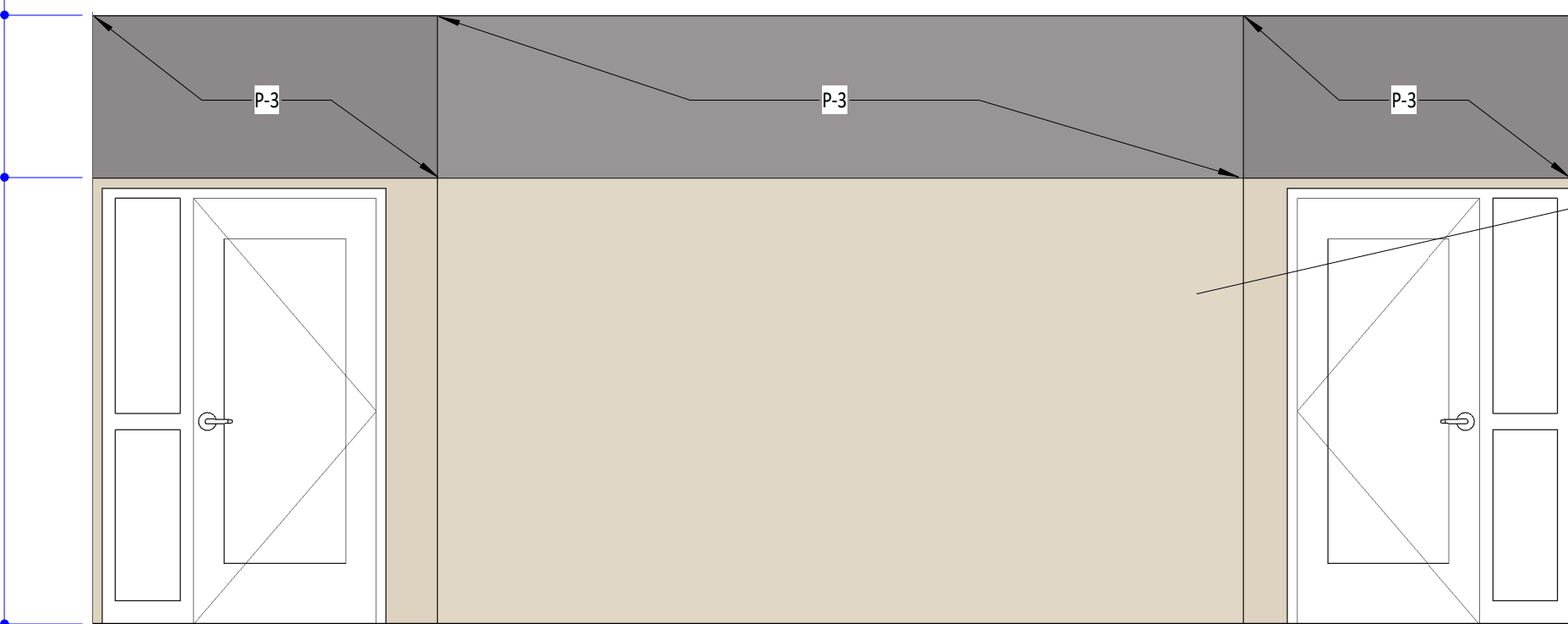
10 | 105 WEIGHTS - D

A502 | 3/8" = 1'-0"



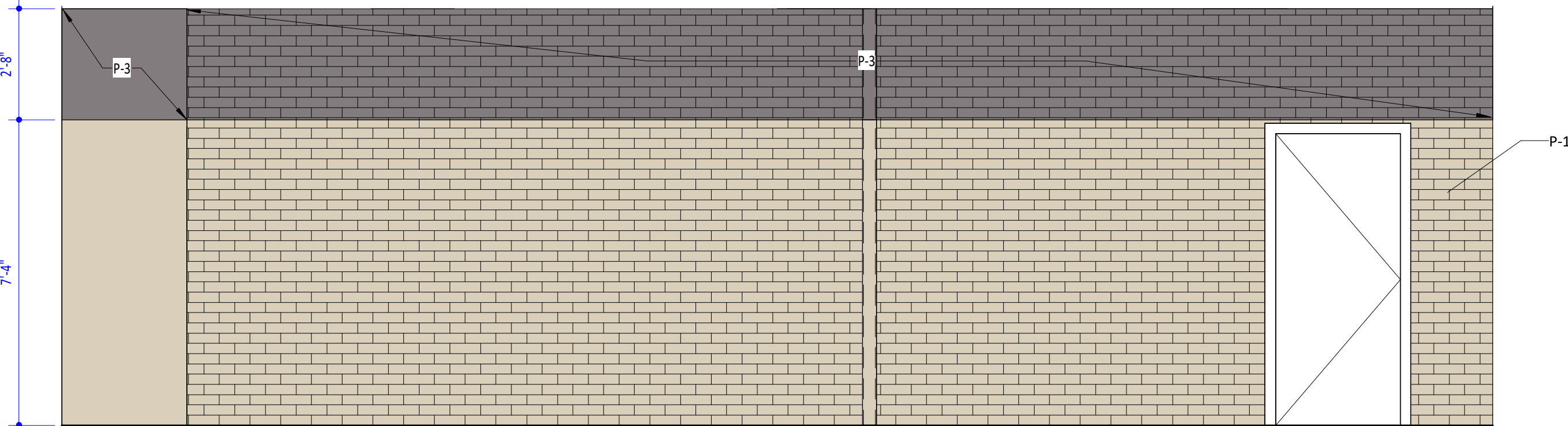
11 | 106 MULTIPURPOSE - A

A502 | 3/8" = 1'-0"



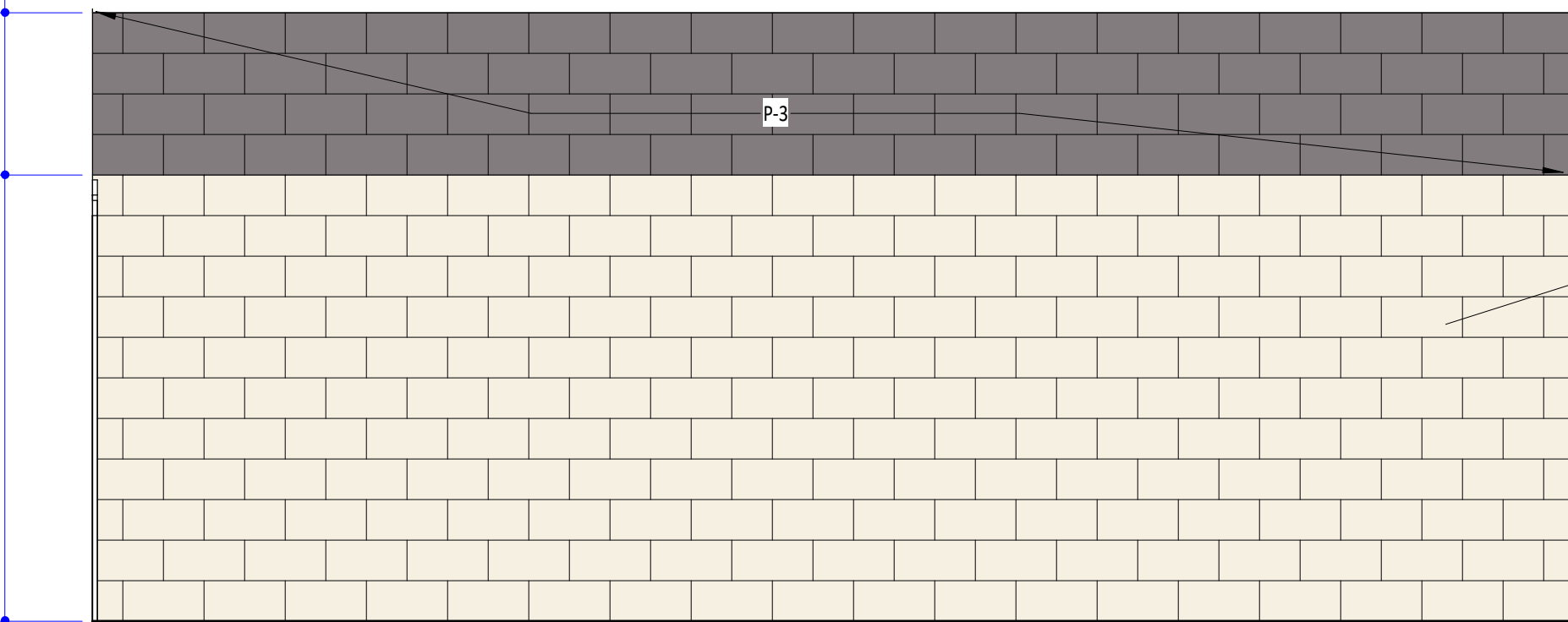
12 | 106 MULTIPURPOSE - B

A502 | 3/8" = 1'-0"



13 | 106 MULTIPURPOSE - C

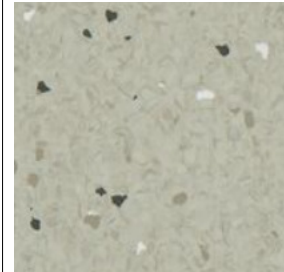
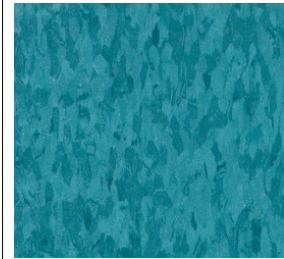
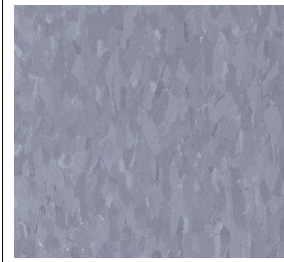
A502 | 3/8" = 1'-0"

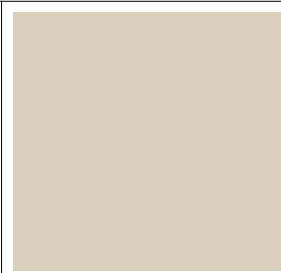
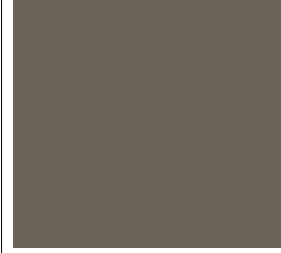
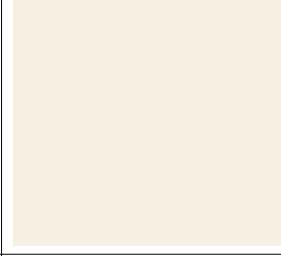
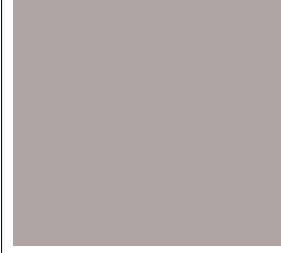


14 | 106 MULTIPURPOSE - D

A502 | 3/8" = 1'-0"

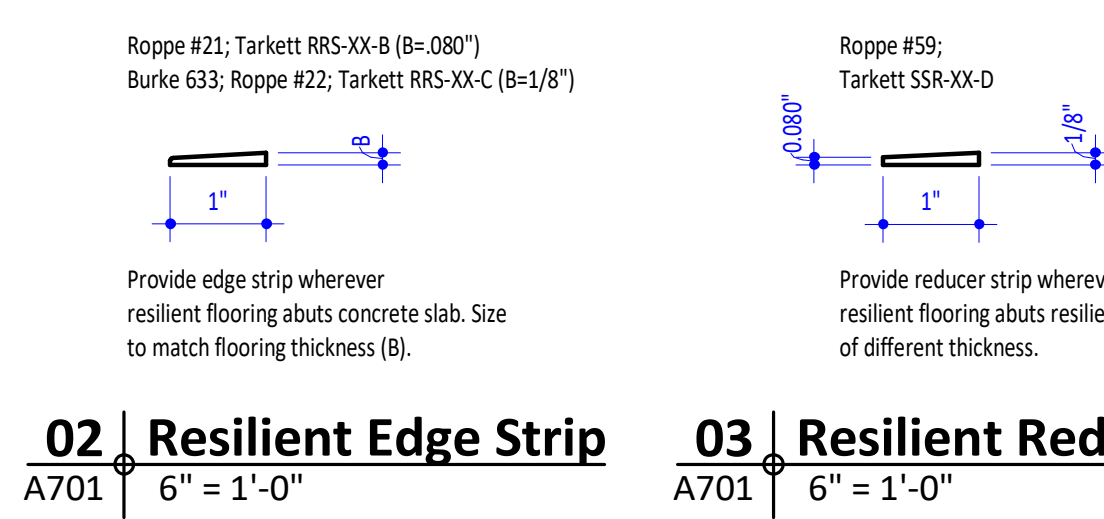
ROOM SCHEDULE						
ROOM NUMBER	ROOM NAME	Floor Finish	Base Finish	Wall Finish	Ceiling Finish	COMMENTS
100A	RECEPTION	VCT-4,5	WB-1	P-1,3	P-3	P-3 PART FLOATING SOFFIT FACE. SEE FINISH PLAN/INTERIOR ELEVATIONS FOR PAINT LOCATIONS.
100B	LOUNGE	VCT-1,2,4,6	WB-1	P-1,5		SEE FINISH PLAN/INTERIOR ELEVATIONS FOR PAINT LOCATIONS.
100C	LOUNGE	VCT-1,2,6	WB-1	P-1,5		SEE FINISH PLAN/INTERIOR ELEVATIONS FOR PAINT LOCATIONS.
101	CORRIDOR	VCT-1,2,3,4,5,6	WB-1	P-1,2,3		SEE FINISH PLAN/INTERIOR ELEVATIONS FOR PAINT LOCATIONS.
102	COMPUTER LAB	VCT-1	WB-1	P-1,3,5		SEE FINISH PLAN/INTERIOR ELEVATIONS FOR PAINT LOCATIONS.
102A	STOR.	VCT-1	WB-1	P-1		-
103	WOMEN'S	EXG	EXG	P-1		-
104	MEN'S	EXG	EXG	P-1		-
105	WEIGHTS	EXG	EXG	P-1,2,5		FLOORING TO REMAIN. SEE FINISH PLAN/INTERIOR ELEVATIONS FOR PAINT LOCATIONS.
106	MULTIPURPOSE	F-1	F-1	P-1,3		SEE FINISH PLAN/INTERIOR ELEVATIONS FOR PAINT LOCATION.
107	VEST.	VCT-2	WB-1	P-1		-
108	MEETING ROOM	VCT-1,2,4,6	WB-1	P-1,3,5		
109	KITCHEN	VCT-2	WB-1	P-1		SEE FINISH PLAN/INTERIOR ELEVATIONS FOR PAINT LOCATION.
112	GAME ROOM	VCT-1,2,4,6	WB-1	P-1,3		SEE FINISH PLAN/INTERIOR ELEVATIONS FOR PAINT LOCATIONS.
113	OFFICE	VCT-2	WB-1	P-1		
115	OFFICE	VCT-2	WB-1	P-1		-
117	OFFICE	VCT-2	WB-1	P-1		-

FINISHES - FLOORS					
Floor Finish	FloorType	Manufacturer	Style and Color	Image	Comments
EPOXY					
EPOXY-1	EPOXY	Sherwin Williams	SW DECO QUARTZ - PEPPERED GRANITE		
Resilient					
F-1	Resilient	Armstrong Homogenous	Natrals Meadow		Install per manufacturers specifications.
Vinyl Composition Tile					
VCT-1	Vinyl Composition Tile	Armstrong	Desert Dust S2128		Install per manufacturers specifications.
VCT-2	Vinyl Composition Tile	Armstrong	Linseed SC236		Install per manufacturers specifications.
VCT-3	Vinyl Composition Tile	Armstrong	Bay Blue 57541		Install per manufacturers specifications.
VCT-4	Vinyl Composition Tile	Armstrong	Blueberry 51881		Install per manufacturers specifications.
VCT-5	Vinyl Composition Tile	Armstrong	Tiger Eyes 57533		Install per manufacturers specifications.
VCT-6	Vinyl Composition Tile	Armstrong	56790 Black		2" x 24" Strip

FINISHES - WALLS				
Wall Finish	Manufacturer	Style and Color	Image	Comments
WT-1	Daltile	AC23 Coconut Rectangle Hancrafted Glossy, Rectangle 3"x12" - Offset Pattern Install		Alternative design choice for Dressing Rooms 122 & 123: WT-1
Paint				
P-1 General	Sherwin Williams	OYSTER BAR SW 7565		Provide two coats.
P-2	Sherwin Williams	MARINER SW 6766		Accent Paint
P-3	Sherwin Williams	SENSUOUS GRAY SW 7081		Accent Paint
P-4	Sherwin Williams	PORPOISE SW 7047		Trim, Frame & Door Paint
P-5	Sherwin Williams	ROMAN COLUMNS SW7562		
P-7	Sherwin Williams	QUEST GRAY SW 7080		
P-8	Sherwin Williams	IZMIR PURPLE SW 6825		

FINISHES - BASE				
Base Finish	Manufacturer	Style and Color	Image	Comments
Resilient				
WB-1	Roppe	114 LUNAR DUST		

FINISHES - CEILING				
Ceiling Finish	Manufacturer	Style and Color	Image	Comments
Paint				
P-6	SHERWIN WILLIAMS	SW 7007 CEILING BRIGHT WHITE		PAIN'T NEW CEILINGS





ENTRY/ LOUNGE



COORIDOR



LOUNGE



RECEPTION



COORIDOR



GAME ROOM



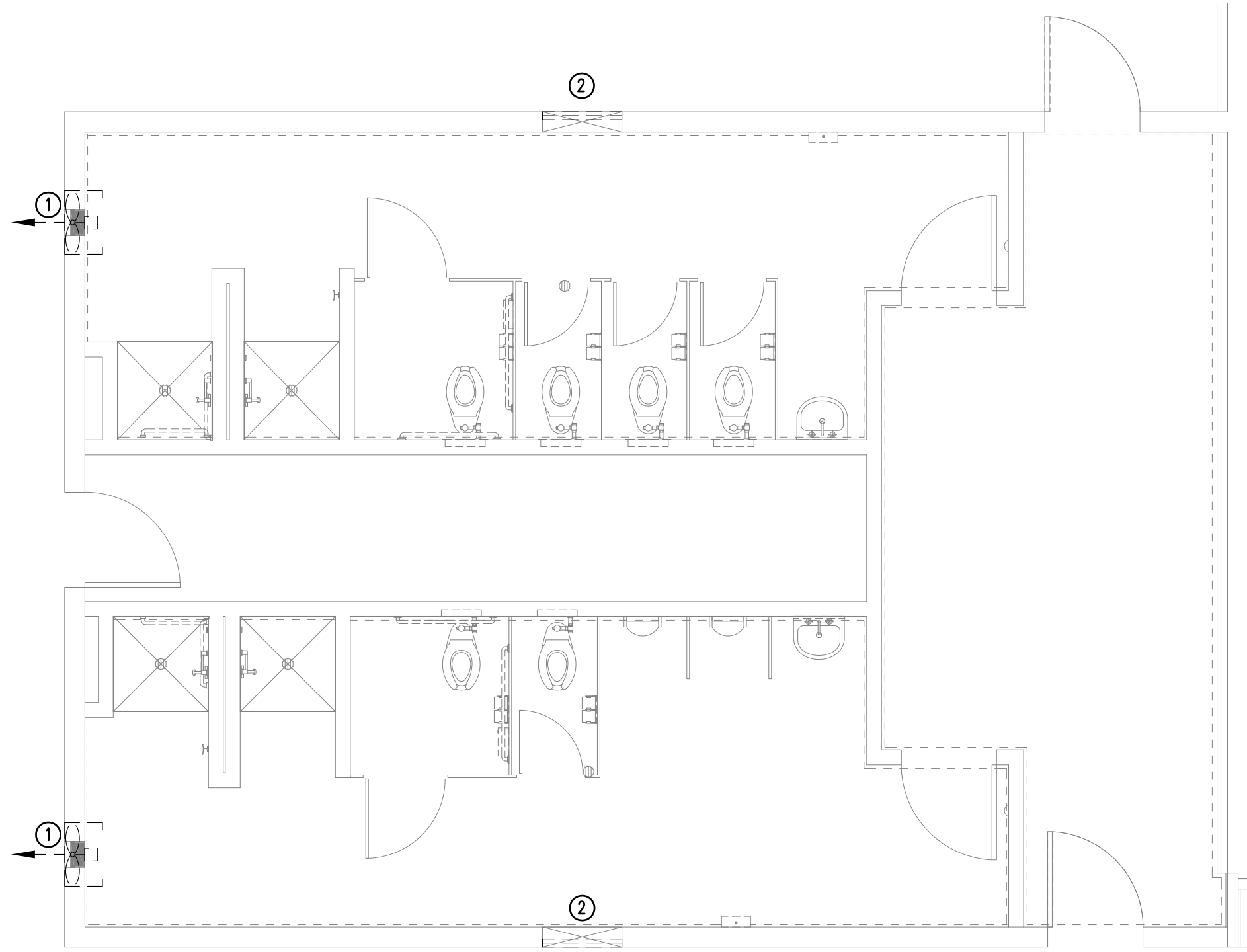
COMPUTER LAB



WEIGHT ROOM



MEETING ROOM



1 RESTROOM MECHANICAL PLAN
SCALE: 1/4"=1'-0"

LINE LEGEND	
	DEMOLITION
	EXISTING TO REMAIN
	CONNECT TO EXISTING

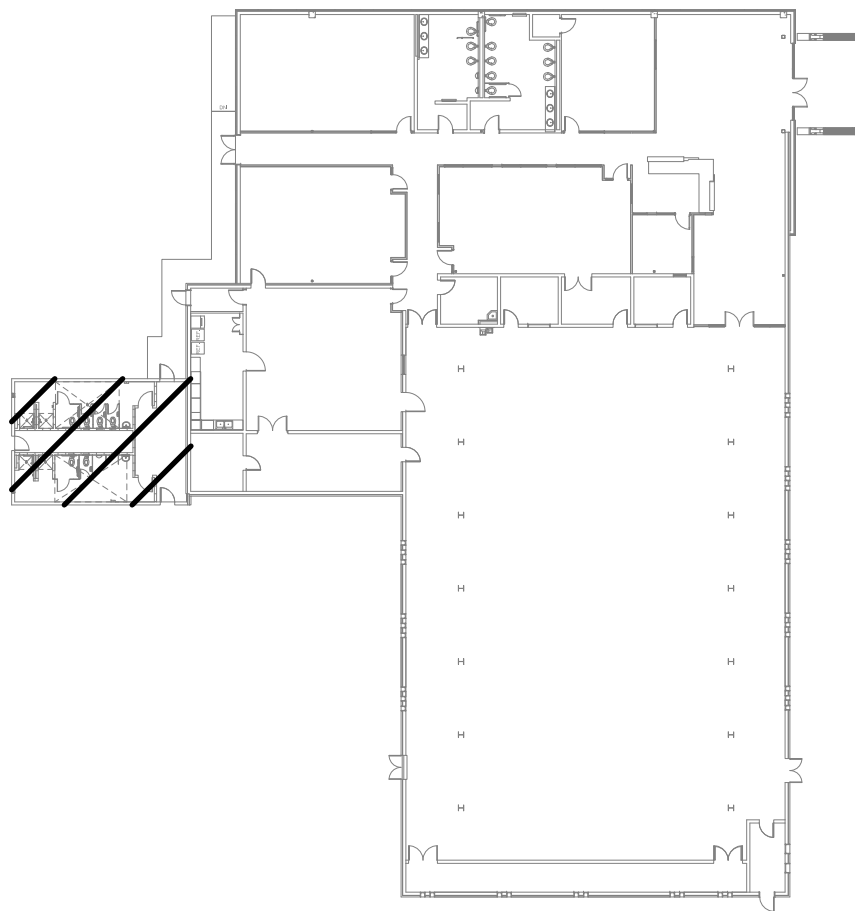
KEY NOTES(THIS SHEET ONLY):

- ① EXISTING EXHAUST FAN SHALL REMAIN AS IS. CONTRACTOR SHALL PERFORM GENERAL MAINTENANCE WORK. REPLACE APPARENT DEFECTIVE PARTS. CONTRACTOR SHALL CLEAN EXISTING FAN AND IT ACCESSORIES.
- ② EXISTING LOUVER SHALL REMAIN AS IS. CONTRACTOR SHALL DO GENERAL MAINTAIN WORK ON LOUVER. CONTRACTOR SHALL CLEAN EXISTING LOUVER.

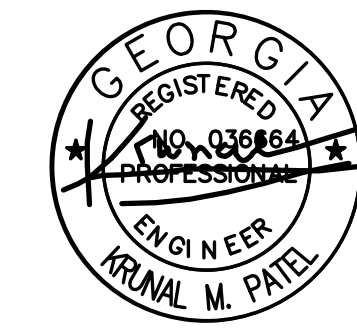
GENERAL DEMOLITION NOTES

- A)DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL PROXIMITY OF EQUIPMENT, PIPES, DUCTWORK ETC., ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR AT BUILDING SITE.
- B)THE DEMOLITION PLANS HAVE BEEN PREPARED TO ASSIST THE CONTRACTOR IN DETERMINING THE SCOPE OF DEMOLITION WORK AND SHOULD NOT BE CONSTRUED TO BE ALL OF DEMOLITION REQUIRED. THE CONTRACTOR SHALL VISIT JOB SITE (AFTER CAREFULLY REVIEWING THE CONTRACT DOCUMENTS) AND DETERMINE EXACT AREAS AND QUANTITIES OF EXISTING MATERIALS TO BE REMOVED TO ACCOMPLISH NEW CONSTRUCTION.
- C)WHERE THE DOCUMENTS INDICATE EQUIPMENT TO BE REMOVED OR DEMOLISHED. CONTRACTOR SHALL REMOVE ALL ASSOCIATED MATERIALS INCLUDING SUPPORT, HANGERS, AND ASSOCIATED ACCESSORIES.

- D)CONTRACTOR SHALL DISPOSE OF ANY MATERIAL TO BE DISCARDED IN ACCORDANCE WITH ALL LAWS AND REGULATIONS.
- E)WE RECOMMEND QUALIFIED FIRM TO EVALUATE THE EXISTING UNITS AND PROVIDE A DEFICIENCY REPORT FOR EACH EQUIPMENT TO OWNER. CONTRACTOR SHALL PERFORM GENERAL MAINTENANCE WORK ON UNITS. THESE WORK INCLUDES PROVIDING NEW BELTS ON MOTORS, CLEAN FANS AND DUCTWORK.
- F)UNUSED SLEEVES LEFT OPEN BY REMOVAL OF PIPING SHALL BE CUT FLUSH WITH THE FINISHED SLAB OR WALL, FILLED WITH NON-SHRINKING GROUT AND/OR FIRE RATED FOAM FLUSH WITH BOTH SIDES OF SLAB OR WALL TO MAINTAIN SLAB OR WALL FIRE RATING.
- G)ALL EXISTING EQUIPMENT REMOVED OR DEMOLISHED SHALL BE A PROPERTY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED AND SHALL BE REMOVED FROM THE FACILITY AS REQUIRED BY CODES AND REGULATIONS.



KEYED PLAN
SCALE: N.T.S.



These drawings convey certain contractual information through the use of color. Do NOT use drawings printed in black-and-white or grayscale.

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Project Status:

Revision No (if any): Revision Date:

Project No: 2024-079 Current Date: 10/30/2024

Drawing Name:

MECHANICAL PLAN

Drawing No:

M101

PLUMBING SPECIFICATIONS

Provide all plumbing items indicated on the drawings, described herein or otherwise required for a complete and proper installation, including:

- A. Plumbing fixtures, fittings and equipment.
- B. Hot and cold water systems.
- C. Drain waste and vent piping systems.
- D. Indirect waste piping, including all valves, traps, piping and accessories for all equipment. Size per equipment requirements.

Comply with all applicable codes, standards and ordinances, including requirements of the Georgia State Minimum Standard Plumbing Code (2018 International Plumbing Code with all Georgia State Amendments), Georgia State Minimum Standard Energy Code (2015 International Energy Conservation Code with all Georgia State supplements and Amendments), and the DOJ 2010 ADA Standards for Accessible Design with Georgia Amendments of Rule 120-3-20.

The contractor shall not attempt to precisely scale dimensions from these drawings to obtain construction dimensions and clearance. The contractor shall verify all actual dimensions and clearances. Although these plans are diagrammatic in nature, they shall be followed as closely as site conditions, new construction, and work by other trades shall permit. Deviations from these drawings, which are required to conform to the available space or to actual building construction, shall be made at no additional cost to the owner.

The submission of a bid or proposal will be construed as evidence that the contractor has familiarized himself with the plans and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless these difficulties could not have been foreseen, even though proper examination had been made.

Fabrication or ordering of any material or equipment prior to verification of site conditions shall be done at the contractor's risk.

All equipment and material shall be new and of first quality. Equipment and material shall be the same or equal to the basis of design listed on these drawings.

Coordinate with all trades and verify all equipment rough-in items and locations with the equipment supplier or contractor. All re-work and corrections required due to lack of coordination shall be the contractor's responsibility, and done at no cost to the owner.

Submit shop drawings and material data submittals to the engineer for approval before installation. No substitutions shall be allowed without prior approval by the engineer. Product data for piping, insulation, valves, specialties and all fixtures and equipment scheduled and specified here. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.

All equipment and flue materials shall be U.L. listed.

Installation shall comply with manufacturer requirements including all clearances recommended for proper operation of service. All serviceable parts shall be readily accessible.

Below ground sanitary drain and vent piping shall be solid-wall ASTM D2685 schedule 40 PVC. Install underground, PVC plastic drainage piping according to ASTM D2237. Above ground sanitary drain, roof drainage, overflow roof drainage, and vent piping shall be cellular-core ASTM F891 schedule 40 PVC. Install aboveground PVC piping according to ASTM D 2665.

All aboveground piping shall be adequately supported. Sanitary drain and vent piping shall have PVC Socket Fittings (ASTM D 2665, made to ASTM D 3511, drain, waste, and vent patterns and to fit Schedule 40 pipe). Slope pipe sizes 6" and under at 1/8 inch per foot continuously toward public sewer. Slope pipe sizes 8" and larger at 1/16 inch per foot continuously toward public sewer.

All above ground domestic water distribution piping shall be ASTM D 2846, SDR11, schedule 40 CPVC with socket fittings. All piping shall be adequately supported. Disinfect all piping after installation. All underground domestic water distribution piping 1" and smaller shall be ASTM D 876 & ASTM F 877 PEX with no fittings underground. All underground domestic water distribution piping 1-1/4" and larger shall be ASTM D 1785 schedule 40 PVC with ASTM D 2466 PVC socket fittings.

DOMESTIC WATER PIPING CLEANING

A. Clean and disinfect potable domestic water piping as follows:

1. Purge new piping and parts of existing piping that have been altered, extended, or repaired before using.
2. Use purging and disinfecting procedures prescribed by authorities having jurisdiction; if methods are not prescribed, use procedures described in either AWWA C651 or AWWA C652 or follow procedures described below:
 - a. Flush piping system with clean, potable water until dirty water does not appear at outlets.
 - b. Fill and isolate system according to either of the following:
 - 1) Fill system or part thereof with water/chlorine solution with at least 50 ppm (50 mg/L) of chlorine. Isolate with valves and allow to stand for 24 hours.
 - 2) Fill system or part thereof with water/chlorine solution with at least 200 ppm (200 mg/L) of chlorine. Isolate and allow to stand for three hours.
 - c. Flush system with clean, potable water until no chlorine is in water coming from system after the standing time.
 - d. Repeat procedures if biological examination shows contamination.
 - e. Submit water samples in sterile bottles to authorities having jurisdiction.

B. Prepare and submit reports of purging and disinfecting activities. Include copies of water-sample approvals from authorities having jurisdiction.

C. Clean interior of domestic water piping system. Remove dirt and debris as work progresses.

Domestic water piping shall be insulated with Owens Corning type ASJ/SSL-II heavy density fiber glass with all service jacket. Insulation shall have a flame spread rating not to exceed 25 and a smoke density not to exceed 50 when tested in accordance with U.S.C. standard 42-1. Provide mastic on all joints and exposed ends of insulation. Insulate domestic cold water piping in unconditioned spaces such as exterior corridors, attic, basements, etc with 1/2" thick insulation for piping 1-1/4" & smaller and 1" thick insulation for piping 1-1/2" & larger. Insulate all domestic hot water supply and return piping with 1" thick insulation for piping 1-1/4" & smaller and 1-1/2" thick insulation for piping 1-1/2" & larger.

HW & CW Valves: Use pipe size valves, as shown below:

- A. Ball: Watts LFFBV-3C.
- B. Check: Watts #600 or #601S.

Fixture tailpieces, wall escutcheon, and traps for lavatories and sinks shall be brass tubing, semi-cast, or cast iron: All brass tubing shall be 17 gage, chrome plated. Grid drains for public lavatories.

Water Hammer Arresters shall comply with standard ASSE 1010, metal bellows type or copper piston type.

Lavatory Supports shall be type II, lavatory carrier with concealed arms and tie rod for wall-mounting, lavatory-type fixture. Include steel uprights with feet. For accessible-fixture support include rectangular steel uprights.

Lavatory/ Sink supply fittings: NSF Standard: Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components – Health Effects," for supply-fitting materials that will be in contact with potable water. Standard: ASME A112.18.1/CSA B125.1. Supply Slope: Chrome-plated-brass, one-quarter-turn, ball-type valve with inlet connection matching supply piping. Wheel handle operation. Risers: Chrome-plated, soft-copper flexible tube for exposed applications and ASME A112.18.6, braided- or corrugated-stainless-steel, flexible hose for conceal behind cabinet applications.

Provide ADA Supply and Drain Protective Shielding Guards on ADA fixtures that piping is exposed. Supply and Drain Protective Shielding Guards shall comply with ICC A117.1 and Americans with Disabilities Act (ADA) requirements. Manufactured plastic wraps shall cover hot and cold water supplies, trap, and drain piping.

All pipe hangers, clamps and channels shall be adequately sized to carry pipe loads and prevent sagging.

All other materials not specifically described but required for a complete and proper installation of work of this section, shall be new, first quality of their respective kinds, and as selected by the contractor subject to acceptance by the engineer.

Lay out the plumbing system in careful coordination with the drawings, determining proper elevations for all components of the system and using only the minimum number of bends to produce a satisfactory functioning system. Follow the general layout shown on the drawings in all cases except where other work may interfere. Unless shown otherwise, lay out all pipes to fall within partition, wall floor, or roof cavities, and to not require furring other than as shown on the drawings.

Do not cut into or reduce the size of any load-carrying member without the prior approval of the architect. Install all pipes to clear all beams and obstructions.

Permanently close and make weatherproof any openings or penetrations of the building envelope made for plumbing systems. All wall and floor penetrations shall be sleeved. All exterior wall or foundation wall penetrations shall use a mechanical seal.

Coordinate all roof penetrations with architectural plans and building and roofing trades.

Provide shut-off balls valves and unions at all water connections to equipment and appliances.

Isolate all dissimilar metals with "EPOC" dielectric unions, except for brass or bronze valves with steel pipe.

Protect the potable water supply against backflow and siphonage from equipment, fixtures, etc., using approved backflow and anti-siphon devices.

Thoroughly clean all piping and equipment. Removing all dirt, rust, oil, and plaster.

Test Sanitary drainage piping by plugging all openings and filling with water to a height equal to a 10 foot head. Allow to stand one hour or longer as required. Repair leaking joints and then re-test.

No work shall be covered until it has been inspected and accepted by the local authority.

Domestic water piping tests: Fill domestic water piping. Check components to determine that they are not air bound and that piping is full of water. Test for leaks and defects in new piping and parts of existing piping that have been altered, extended, or repaired. Leave new, altered, extended, or replaced domestic water piping uncovered and unconnected until it has been tested and approved. Expose work that was covered or concealed before it was tested. Cap and subject piping to static water pressure of 50 psig (345 kPa) above operating pressure, without exceeding pressure rating of piping system materials. Isolate test source and allow it to stand for four hours. Leaks and loss in test pressure constitute defects that must be repaired. Repair leaks and defects with new materials, and retest piping or portion thereof until satisfactory results are obtained.

The entire system shall be warranted for a period of one (1) year beginning with Owner's acceptance of the work. All labor and materials necessary to repair or replace the system, or portions thereof, during that time shall be warranted for a period of one (1) year from the repair or replacement.

Install piping in concealed locations, unless otherwise indicated and except in equipment rooms, and service areas. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal. Install piping to permit valve servicing. Install piping at indicated slopes. Install piping free of sags and bends. Install fittings for changes in direction and branch connections. Install piping to allow application of insulation. Select system components with pressure rating equal to or greater than system operating pressure. Install escutcheons for penetrations of walls, ceilings, and floors. Verify final equipment locations for roughing-in.

Confirm that millwork is constructed with adequate provision for the installation of counter top lavatories and sinks.

Seal fixtures to wall and floor surfaces with sealant, color to match fixture.

All vents thru roof (VTR) shall be offset a minimum of 10'-0" from all outside air intakes.

Provide a complete through penetration fire stopping assembly for fire resistance rated wall assemblies. The through penetration assembly must be listed by an approved third-party test agency (UL), and include the entire listed assembly with all notations. Refer to architectural drawings for fire wall locations.

Approved manufacturers: (Items submitted shall be approved by architect and engineer. Architect and engineer reserve the right to reject any item substituted for basis of design item for any reason.)

China Fixtures: American Standard, Kohler, Toto, Zurn, Sloan

Faucets: Delta, 1&S Brass, Chicago Faucets, Zurn, Kohler, Grohe, Moen, Speakman, Symmons

Supplies & Traps: Engineered Brass CO., McGuire, Charlotte Pipe, Brasscraft, IPS, Watts, Zurn

Flush Valves: Sloan, Delany, Zurn, American Standard

Floor Drains & Cleanouts: Zurn, Jay R. Smith, Proset, Watts, Milab, Wade, Josam, Sioux Chief, Oatey

Tankless Electric Water Heaters: A.O. Smith, Rheem, Eemax, Chromalife

Toilet Seats: Bemis, Centoc, Church Seats, Olssonite, Benske, Zurn, Mainline

ADA Protective Shielding Pipe Covers: Engineered Brass, McGuire, Plumberex, TRUEBRO, Zurn, Oatey

Fixture Supports: MIFAB, Jay R. Smith, Wade, Watts, Zurn

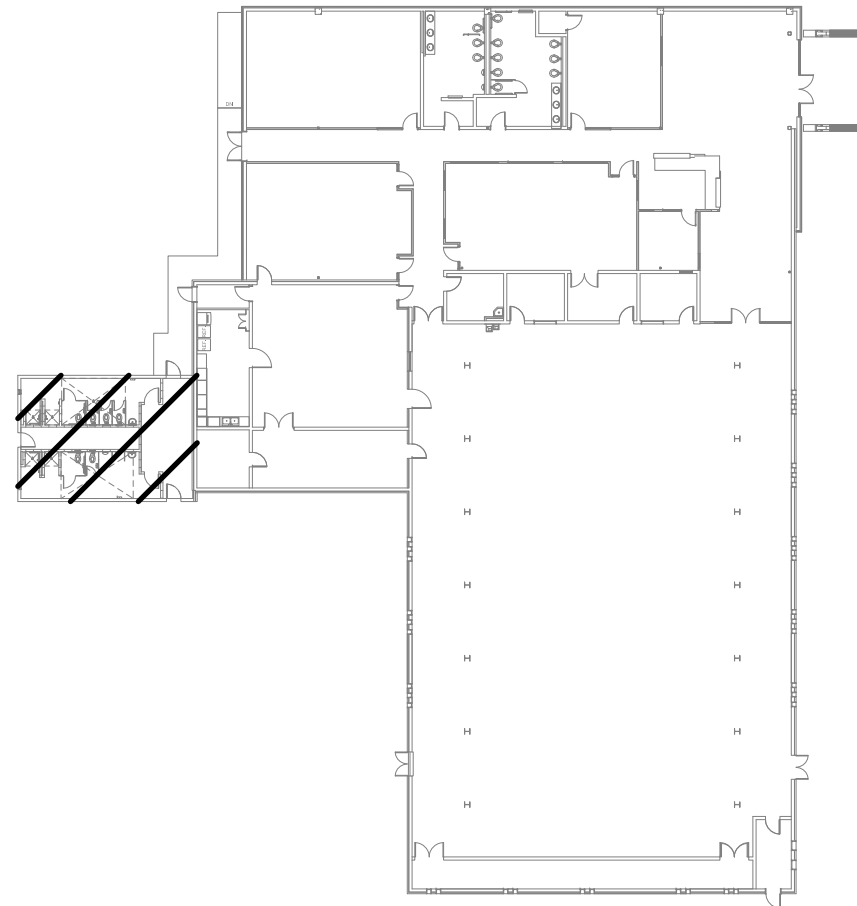
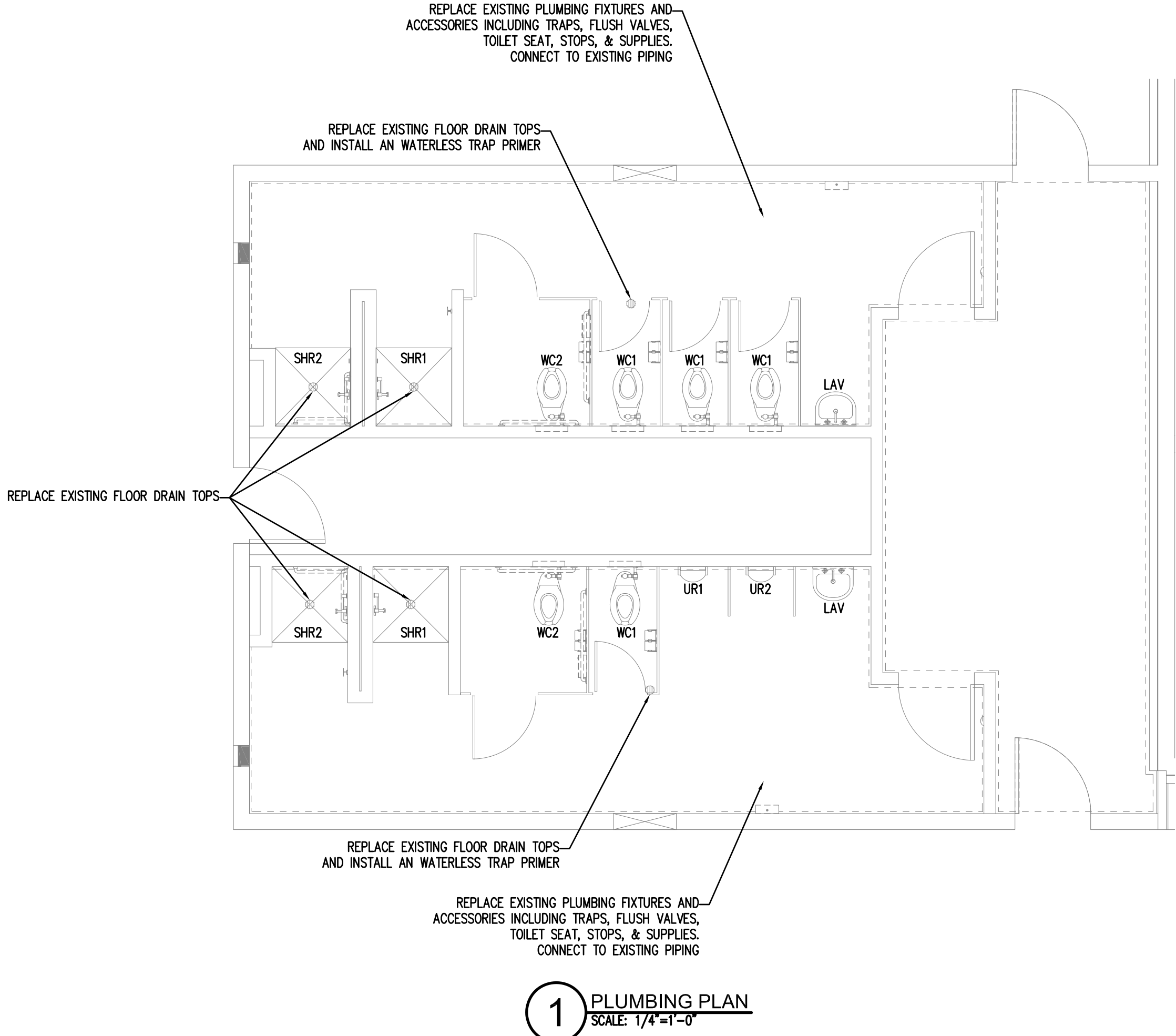
Wall Hydrants/ Hose Bibles: MIFAB, Jay R. Smith, Wade, Watts, Woodford, Zurn

Water Hammer Arresters: AMTROL, Josam, MIFAB, PPP, Sioux Chief, Jay R. Smith, Wade, Watts, Zurn

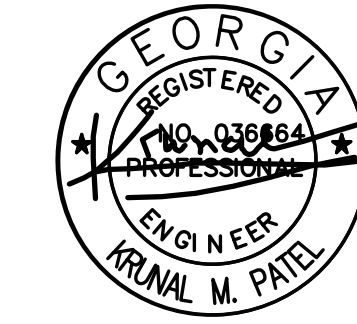
Brass Valves: American, Crane, Watts, Apollo

FIXTURE AND EQUIPMENT SCHEDULE									
#	FIXTURE TYPE	WASTE		WATER SUPPLY		WATER FIX. CONN.		MANUFACTURE AND NOTES	
		BELOW FLOOR	FIXTURE CONN.	COLD	HOT	COLD	HOT		
WC1	WATER CLOSET 1.28 GPF	3"	3"	1"		1"			KOHLER K-96063 WATER CLOSET. SLOAN REGAL 111 SFSM-1.28 FLUSH VALVE. BEMIS 1655SSCT SEAT.
WC2	ADA WATER CLOSET 1.28 GPF	3"	3"	1"		1"			KOHLER K-96057-B WATER CLOSET. SLOAN REGAL 111 SFSM-1.28 FLUSH VALVE. BEMIS 1655SSCT SEAT.
UR1	URNAL 0.125 GPF	2"	2"	3/4"		3/4"			KOHLER K-5452-ET URINAL. SLOAN REGAL 186-0.125 FLUSH VALVE.
UR2	ADA URINAL 0.125 GPF	2"	2"	3/4"		3/4"			KOHLER K-5452-ET URINAL. SLOAN REGAL 186-0.125 FLUSH VALVE.
LAV	ADA WALL-HUNG LAVATORY 0.5 GPM	2"	1-1/4"	1/2"	1/2"	1/2"	1/2"		KOHLER K-2005 LAVATORY. MOEN B413F05 FAUCET.
SHR1	SHOWER	2"	2"	1/2"	1/2"	1/2"	1/2"		BRADLEY WS-TWCA-6'-0"-HD-S15-AKV-LBJ-ST-SD-SHH-VS.
SHR2	ADA SHOWER	2"	2"	1/2"	1/2"	1/2"	1/2"		BRADLEY WS-TWCA-ADA-HD-ST-RSS-GB2-SB-SHH-VS.

LEGEND							
	SHUTOFF VALVE	-----	COLD WATER	(TYP)	TYPICAL	VTR	VENT THRU ROOF
	BALANCING VALVE	--- -- -- --	TEMPERED HOT WATER	C.T.	COUNTER-TOP	AFF	ABOVE FINISHED FLOOR
	CHECK VALVE	140"	140" HOT WATER	DN	DOWN	CW	COLD WATER
	PIPE UP	-----	HOT WATER RETURN	CONN.	CONNECTION	HW	HOT WATER
	PIPE DOWN	--- G ---	GAS	NTS	HOT TO SCALE	HWR	HOT WATER RETURN
	PDI UNIT	--- R ---	ROOF DRAINAGE PIPING	VT	VENT	B.F.F.	BELOW FINISH FLOOR
	DWSS. DRAWINGS	-----	SEWER VENT	FFE	FINISHED FLOOR ELEVATION	CV	CLOSED VALVE
	IW INDIRECT WASTE	-----	SEWER	FLR			
	DOWNSPOUT	--- C ---	CONDENSATE	--- GREASE ---	GREASE LADEN SEWER		
		--- O ---	OVERFLOW ROOF DRAINAGE PIPING				



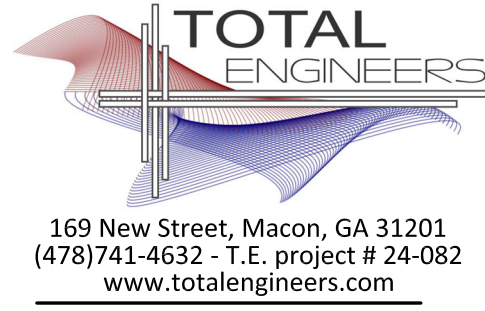
KEYED PLAN
SCALE: N.T.S.



MACON-BIBB COUNTY
PARKS AND RECREATION

MEMORIAL PARK REC. CENTER
RENOVATION PROJECT

2465 2ND ST, MACON, GA 31206



These drawings convey certain contractual information through the use of color. Do NOT use drawings printed in black and white or grayscale.

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Project Status:

Revision No (if any): Revision Date:

Project No: 2024-079 Current Date: 10/30/2024

Drawing Name: PLUMBING PLANS

Drawing No:

SECTION D: TELEPHONE/DATA SYSTEMS (RACEWAY ONLY)

WORK INCLUDED:

1. PROVIDE 1IN. EMT FROM EACH OUTLET TO ABOVE 12 INCHES ABOVE ACCESSIBLE CEILING. PROVIDE 4 IN. SQUARE BACKBOX WITH SINGLE GANG PLASTER RING FOR EACH TV/ TELEPHONE/DATA OUTLET. ALL CONDUIT SHALL BE CONCEALED. PROVIDE FACEPLATE WITH MODULAR JACKS. PROVIDE PULL STRING IN ALL EMPTY CONDUITS.

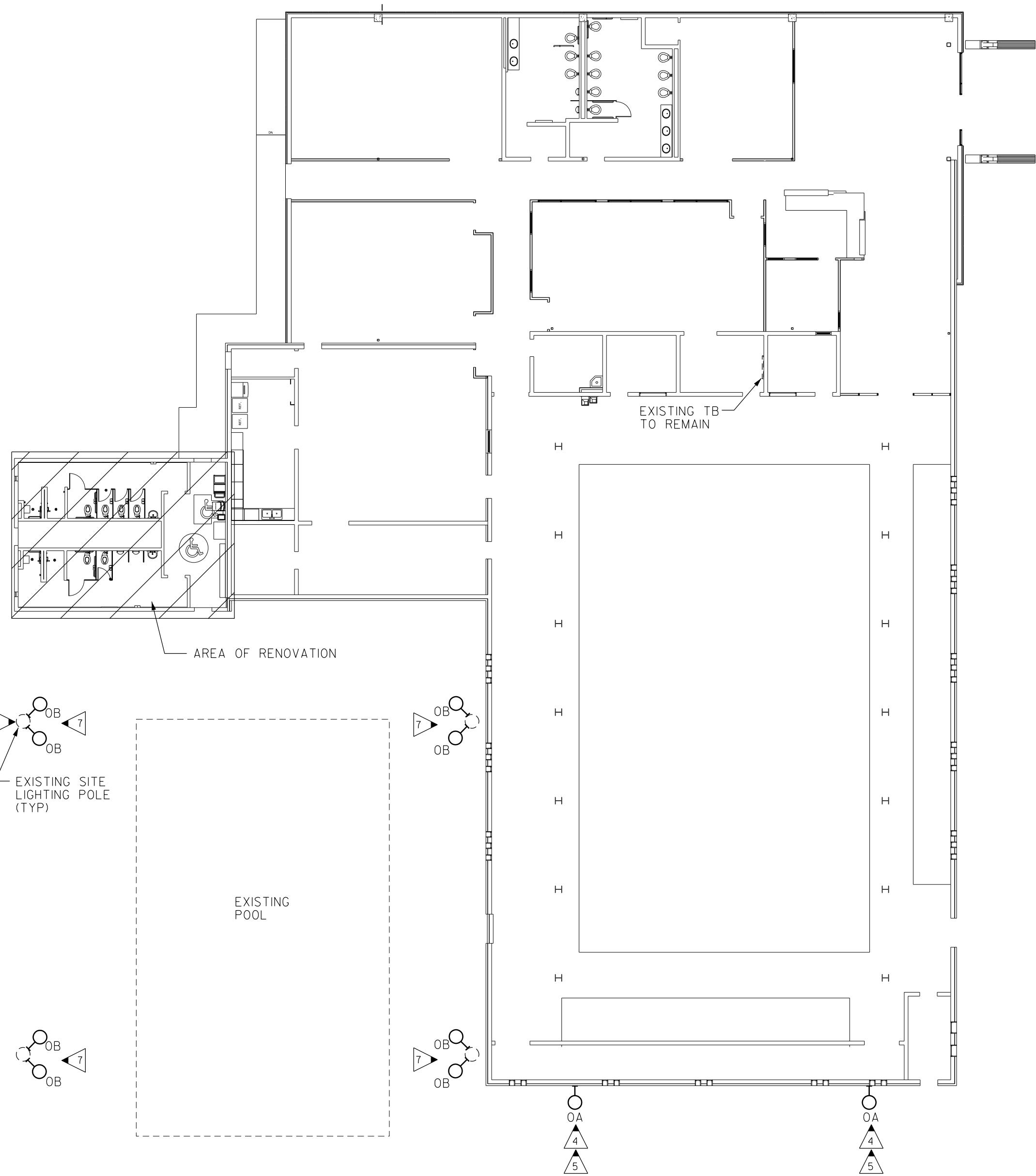
PROVIDE ALL BRANCH CIRCUIT CONDUIT/CONDUCTORS AS NECESSARY TO CONNECT ALL DEVICES SHOWN ON THE CIRCUIT. PROVIDE DEDICATED NEUTRALS FOR ALL CIRCUITS.

NOTE:
1. ALL MOUNTING HEIGHTS ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET OR DEVICE.
2. ALL RECEPTACLES SHALL BE TAMPER RESISTANT (TYPE 'TR').

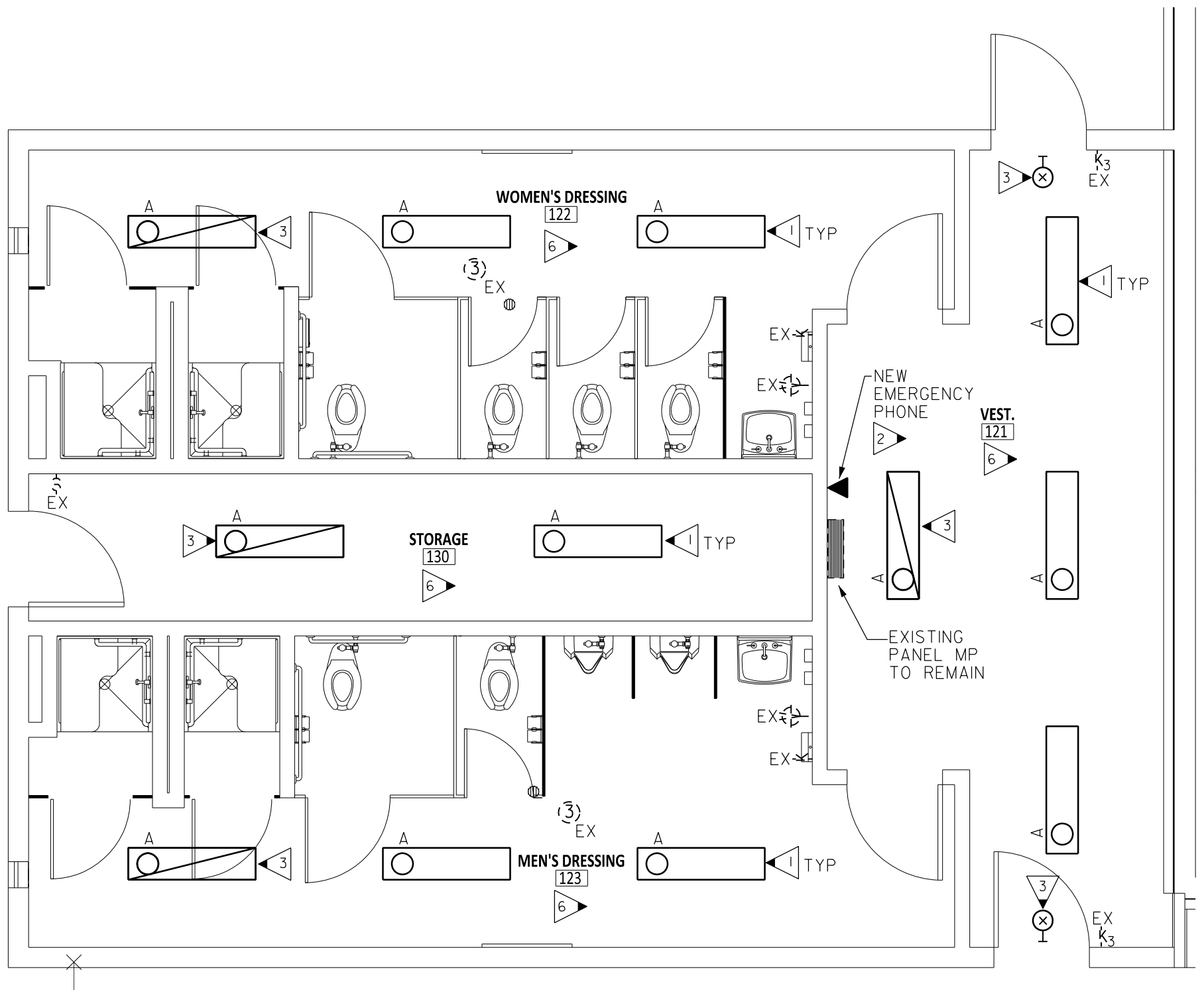
- EXISTING ELECTRICAL LIGHTING FIXTURES TO BE REPLACED IN SAME LOCATION, REUSE EXISTING BRANCH CIRCUIT SERVING EXISTING LIGHTING FIXTURES.
- EXTEND TELEPHONE CABLEING TO EXISTING TELEPHONE HEAD END EQUIPMENT, FIELD LOCATE LOCATION OF EXISTING HEAD END EQUIPMENT LOCATION PRIOR TO RIGGING.
- NEW LIGHTING FIXTURE WITH NEW BATTERY PACK IS TO REPLACE EXISTING LIGHTING FIXTURE WITH BATTERY PACK, INSURE TO CIRCUIT IN SAME MANNER AS EXISTING LIGHTING FIXTURE.
- COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECT PRIOR TO RIGGING LIGHTING FIXTURE PROVIDED WITH PHOTOCELL, SEE LIGHTING FIXTURE SCHEDULE.
- CIRCUIT LIGHTING FIXTURE TO NEAREST EXISTING LIGHTING BRANCH CIRCUIT, PROVIDE AN UNCHANGED HOT, INSURE NOT TO EXCEED ALLOWABLE WATTAGE FOR BRANCH CIRCUIT.
- ELECTRICAL ITEMS NOT SHOWN (SMOKE DETECTORS, ETC), SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION.
- EXISTING POOL SITE LIGHTING IS TO BE REPLACED WITH NEW LIGHTING FIXTURE(S), PROVIDE POOL POLE(S) TO BE REMAINED IN PLACE (REUSE EXISTING BRANCH CIRCUIT) AND EXISTING CONTROL MOUNTING TO SERVE NEW LIGHTING FIXTURES, PROVIDE A BULLHORN FOR MOUNTING NEW LIGHTING FIXTURES ON TOP OF EXISTING POLES.

- A. PROVIDE UNSWITCHED HOT CONDUCTOR TO ALL EMERGENCY AND EXIT LIGHTS.
- B. FIRE SEAL ALL FIREWALL PENETRATIONS.

EX	EXISTING DEVICE TO BE REPLACED WITH NEW INCLUDING FACEPLATE.
----	--



SCALE: 1/16" = 1'-0"



SCALE: 1/4" = 1'-0"



Macon-Bibb County Government

Procurement Department

City Hall

700 Poplar Street, Suite 308

Macon, Georgia 31201

(478) 803-0550

Fax (478) 751-7252

Laura Hardwick
Director of Procurement

December 11, 2024

ADDENDUM # 1

To: ALL PROSPECTIVE FIRMS

Re: INVITATION FOR BIDS: 25-023-LH, Renovations to Memorial Recreation Center

The Invitation for Bids, referenced above, is modified as follows:

1. In reference to section II, paragraph D, "Document Discrepancy" states request can be made for specifications/drawing in writing to the Macon-Bibb County Procurement Department not later than seven (7) days prior to receipt of Bid. This statement is no longer applicable to this solicitation. If requesting drawings/specifications, request must be made by the question deadline, which is Friday, December 13, 2024, by 3:00 p.m.

Please incorporate this change into the Invitation for Bid and acknowledge receipt of this addendum on your bid form.

Sincerely,

Laura Hardwick



Macon-Bibb County Government

Procurement Department

City Hall

700 Poplar Street, Suite 308

Macon, Georgia 31201

(478) 803-0550

Fax (478) 751-7252

Laura Hardwick
Director of Procurement

December 18, 2024

ADDENDUM # 2

To: ALL PROSPECTIVE FIRMS

Re: INVITATION FOR BIDS: 25-023-LH, Renovations to Memorial Recreation Center

The Invitation for Bids, referenced above, is modified as follows:

1. What is the substantial completion date? I really need this information for our manufacturer.
manufacturer?

Answer: Macon-Bibb Splost Manager has not yet determined the substantial date of completion.

2. I don't see the location and quantity of the wall mounted backstops or safety pads on the architectural drawings.

Answer: Note 29 on sheet A101 references the location of wall pads to be replaced. Quantity and color are to match existing.

3. Gymnasium equipment spec calls for Volleyball Equipment, Scoreboard and Exercise Equipment which are not detailed in the spec, and I can't locate on them drawings. Are these items in contract?

Answer: These individual items were removed from the specifications Part 2 Product and the only references are in the summary. These items are not required.

4. In reference to section II, paragraph D, "Document Discrepancy" states request can be made for specifications/drawing in writing to the Macon-Bibb County Procurement Department not later than seven (7) days prior to receipt of Bid. This statement is not applicable to this solicitation.

5. There is a bidder qualification form in the documents for this bid project. I am a Subcontractor. Do I need to prequal or is this only for General Contractors that will be bidding? Same question for the pre-bid meeting.

Answer: Please refer to the solicitation for response to your question.

6. The specs and drawings are non-compliant with code. Specs are saying telescoping and these are not. They are fixed. They don't indicate double footboards or risers or fencing. With five rows, the height requires fencing. We would deviate by providing our alum-a-stand, which is all aluminum but not welded angles. Those become brittle with welding and have a tendency to fracture. The benches we use are 9.5" wide. I would also suggest using one bank of seating with an aisle (33' wide).

Answer: Exterior bleachers will be reduced to 3 rows to eliminate the need for footboards and fencing, reference spec section 126313. Section 127600 (telescoping is not included in the specs as it is not required for this project.)

7. We can't find any gymnasium equipment mentioned. The specifications indicate both ceiling-mounted backstops and wall-mounted backstops, no quantities are provided. The only item with specified quantities is the wall pads.

Answer: There are no interior backstops in the scope of this project. All goal posts included in the scope are exterior and are fixed. The (2) existing goal posts are to be replaced. Basis of design is Draper Heavy-Duty Fixed Height Post with Steel Backboard-506997.

8. Can we get clarification on the scope of the bleacher designs? I need to confirm the size bleacher they want; the specs don't seem to match what they want on the project. Will there be a total of (5) sets of bleachers?

Answer: Fixed aluminum seating quantities are as follows:

- Each concrete pad (4/A101) should receive (2) 3-row bleachers, 12'-6" in length.
- Each covered canopy at the pool deck should receive (1) 3-row bleachers, 12'-6" in length.
- (3) new 3-row bleachers, 12'-6" in length will be provided in the outfield.
- Each Dugout should receive (2) single aluminum benches, 10' in length.

9. Basketball Court: black vinyl fencing, what is the height? Any Gates?

Answer: Typical fence height for basketball court, tennis court and pool is 10'. There will be 1x4' wide gate into the basketball court.

10. Baseball Field: Syler of fence? Galvanized or Black Vinyl? Height? What about changes at backstop? Please provide details.

Answer: All chain fencing in this project is to be black vinyl coated. The sideline and outfield fences should be 5'. The backstop will be new fencing in a configuration to match existing.

11. Perimeter: C001 mentions a perimeter fence. It's found in #6. Is there a perimeter fence going up?

Answer: This was a standard project note regarding perimeter construction fencing. I do not believe this will be necessary.

Please incorporate this change into the Invitation for Bid and acknowledge receipt of this addendum on your bid form.

Sincerely,

Laura Hardwick

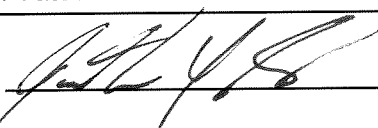
For

25-023-LH Renovations to Memorial Park

Total Bid Price	1,081,000.00 99 \$974,000.00 Alternate: \$29,000.00
Timeline for Project	154 Calendar Days

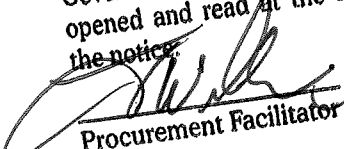
I certify that my bid meets these minimum specifications. This bid shall be valid and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving bids.

Printed Name: Jonathan Yates

Authorized Signature: 

Date: 01/09/2025

Company Name: Turner Construction Management, LLC

I, Jack Williams
Procurement Representative of Macon-Bibb County
Government, do certify this solicitation was publicly
opened and read at the time and place stated in
the notice.
 Procurement Facilitator
 Witness

BID FORM

8. We hereby certify that we have not, nor has any member of the firm(s) or corporation(s), either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this submitted bid.
3. We understand the total bid price listed below to be inclusive of all materials, labor, equipment, and other provisions necessary to provide the services in accordance with the associated specification.

Bid Price Form

Attachment "A"
Required Submission Documents

BIDDER QUALIFICATION FORM

Company Name: Turner Construction Management, LLC
Address: 5253 Columbus Rd, Macon, GA 31206
When Organized: 05/2022 Where Incorporated: Georgia
How many years have you engaged in business under the present firm name? 3 years
Credit available for this contract? 1 million
Contracts now in hand? 8 million
Has bidder ever refused to execute a contract at the original bid amount? No
Has bidder ever been declared in default on a contract? No
Comments: Turner Construction Management, LLC has completed all contracted all projects as scheduled and as priced

Company Name: Turner Construction Management, LLC
Authorized By (typed name): Mitchell Turner
Authorized Signature: [Signature]
Title: Owner/President Date: 01/08/2025

References

Following is a reference list of contracts that are similar to this project:

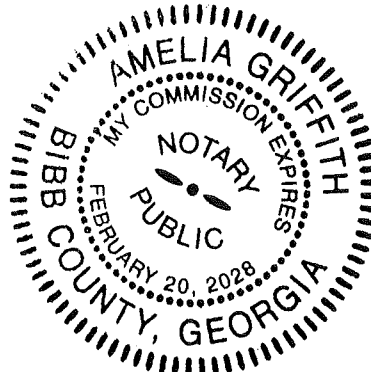
NAME OF PROJECT/DATE	LOCATION	CONTACT	PHONE #
MAS Pavilions	Museum of Arts & Sciences	Susan Welsh	(478) 477-3232 x 302
Tattnall Playground	Tattnall Square Academy	Mark Rowland	478.477.6760 ext. 184
MGSU Cross Country Facility	MGSU Fulton Mill Rd	Laura Gay	478.471.5373
Mercer Guest Fieldhouse	Mercer 5-Star Stadium	Jim Cole	(478) 301-2737

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

8 DAY OF January, 2025
[Signature]
Notary Public

My Commission Expires: Feb 20, 2028

[NOTARY SEAL]



Attachment "A"
Required Submission Documents

LIST OF SUB-CONTRACTORS

I do ☒ do not ☐ propose to sub-contract some of the work on this project. I propose to sub-contract work to the following contractors.

NAME/ADDRESS	TYPE OF WORK	% of Contract
Russell Land Management Julliette, GA	Site Demoliton	5%
Precision Land Mgmt 122 County Rd, Macon, GA 31220	Sitework & Paving/Concrete	40%
Quality Renovations 112 Bonita Way, Byron, GA 31008	Interior Demo	3%
Birdsong Exteriors 137 Waterford Pl., Macon, GA 31210	Roofing/Carpentry	4%
Elite Flooring PO Box 208, Macon, GA 31202	Flooring	20%
Quality Renovations 112 Bonita Way, Byron, GA 31008	Drywall, Paint, Insulation	20%
Pyles Plumbing 835 Hillcrest Pkwy, Macon, GA 31204	Plumbing	4%
GEA Electrical 157 Gateway Dr, Macon, GA 31210	Electrical	6%
GHC Mechanical PO Box 20815, Macon, GA 31206	HVAC	1%
MSSW, Inc PO Box 20815, Maconm, GA 31206	E.I.F.S.	5%
Turner Construction Management, LLC	Division 10	2%

Type text here

Turner Construction Management LLC
Contractor Name

BIDDER MINORITY PARTICIPATION GOAL
(Attach additional pages if required.)

NAME/ADDRESS	TYPE OF WORK	% of Contract
Quality Renovations 112 Bontia Way, Byron, GA 31008	Interior demo, Painting & Insulation	23%

Page 605 of 1386

Attachment "A"
Required Submission Documents

FINANCIAL & LEGAL STABILITY STATEMENT

Please check appropriate item(s):

☒ Firm has the financial capability to undertake the work and assume the liability required if awarded this solicitation.

☒ Firm has the legal capability to undertake the work and assume the responsibilities required if awarded this solicitation.

Pending litigations (if any) will not affect the firm's ability to perform on this contract, if awarded.

Company Name: Turner Construction Management, LLC

Authorized By (typed name): Mitchell Turner

Authorized Signature: _____

Title: Owner/President

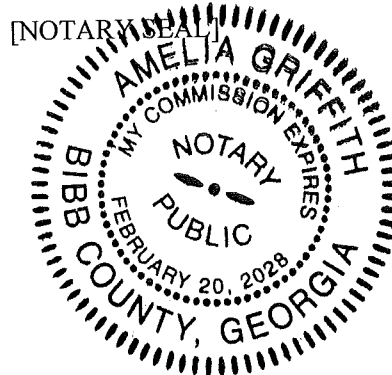
Date: 01/08/2025

SUBSCRIBED AND SWORN

BEFORE ME ON THIS THE

8 DAY OF January, 2025 My Commission Expires: Feb 20, 2028

[Signature]
Notary Public



Attachment "A"
Required Submission Documents

INSURABILITY STATEMENT

Please check appropriate item(s):

☒ By submission of this form, this firm confirms the ability to acquire and maintain the required levels of insurance as outlined in the bid document. It is the understanding of this firm that proof of Insurance must be provided prior to contract execution and maintained throughout the entire term of the contract.

Company Name: Turner Construction Management, LLC

Authorized By (typed name): Mitchell Turner

Authorized Signature: _____

Title: Owner/President

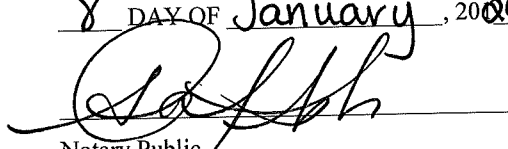
Date: _____

SUBSCRIBED AND SWORN

BEFORE ME ON THIS THE

8 DAY OF January, 2025

My Commission Expires: Feb 20, 2028


Notary Public



Attachment "A"
Required Submission Documents



Macon-Bibb County
Procurement Department
700 Poplar Street, Suite 308
Macon, Georgia 31202-0247
Tel: (478) 803-0550 • Fax: (478) 751-7252
www.maconbibb.us

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION
INELIGIBILITY AND VOLUNTARY EXCLUSION**

The Bidder/offer certifies, by submission of this Proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier, transactions, proposals, contracts, and subcontracts. Where the Bidder/offeror or any lower tier participant is unable to certify to this statement, it shall attach an explanation of this solicitation/proposal.

Dated at this 9th day of January, 2025.

Signature of Contractor: _____

Title: Owner/President

For Macon Bibb County Personnel Only:

Macon Bibb County Procurement Department will verify that the above bidder/offer certifies, by submission of this Proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from participation in this transaction by any Federal department or agency.

Signature of Procurement Officer _____ Date _____

Printed Name _____

Attachment "A"
Required Submission Documents

NON COLLUSION AFFIDAVIT

Date:	01/08/2025
Project:	Bibb County, Georgia
Project #:	25-023-LH
Project Description:	Memorial Park Recreation Center Renovations
Services Provided:	General Contracting
State of:	Georgia
County of:	Bibb

I, Mitchell Turner having first been duly sworn, deposes and states as follows:

I am the party making the foregoing Proposal or Bid; that such Proposal or Bid is genuine and not collusive or sham; that said Proposer or Bidder has not colluded, conspired, connived, or agreed, directly or indirectly, with any Proposer or Bidder or person, to put in a sham Proposal or Bid, or that such other person refrain from proposing or bidding, and has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the Proposal Fee or Bid Price of affiant or any other Proposer or Bidder, or to fix any overhead, profit or cost element of said Proposal Fee or Bid Price, or that of any other Proposer or Bidder, or to secure any advantage against Bibb County, Georgia or any person interested in the proposed Contract; and that all statements in said Proposal or Bid are true; and further, that such Proposer or Bidder has not directly or indirectly submitted this Proposal or Bid, or the contents thereof, or divulged information or data relative thereto to any association or to any member or agent thereof.

Contractor: Turner Construction Management, LLC



(Signature)

(Seal)



Attachment "A"
Required Submission Documents
MACON-BIBB COUNTY
Vendor Application

Date Submitted: 01/08/2025

☒ New Application

☐ Revised Application

RETURN THIS COMPLETED FORM TO:

Macon-Bibb County Procurement Department
700 Poplar Street, Ste. 308
Macon, GA 31201

Phone: 478-803-0550
Fax: 478-751-7252
Email: procurement@maconbibb.us

GENERAL VENDOR INFORMATION

Company Name: Turner Construction Management, LLC
Company Address: 5253 Columbus Rd., Macon, GA 31206
Authorized By (Name): Mitchell Turner
Title: Owner/President
Authorized Signature: _____ Date: _____
Telephone Number: 478-259-5714 cell, 478-812-3100 Office Fax Number: 478-210-0020
Email Address: mitchell@turnercmlc.com

REMITTANCE INFORMATION (where payments should be sent)

Remit to Name: Turner Construction Management, LLC
Remit to Address: admin@turnercmlc.com
Phone: 478-812-3100 Fax: 478-210-0020 Toll Free: _____
Contact: Amy Griffith Email: amy@turnercmlc.com
Business Type (choose one):

☐ Individual/Sole Proprietor	☐ Single member LLC
☐ Business - incorporated	☐ Business - not incorporated/partnership
☒ LLC: C ☒ S ☐ P (circle one)	☐ Other (Specify): _____

Social Security #: _____ Federal Tax ID #: 88-8010306

PURCHASE ORDER INFORMATION (where purchase orders should be sent)

Purchase Order Name: Turner Construction Management, LLC
Purchase Order Address: 5253 Columbus Rd., Macon, GA 31206
Phone: 478-812-3100 Fax: 478-210-0020 Toll Free: _____
Contact: Amy Griffith Email: amy@turnercmlc.com
Payment Terms: Discount % # Days Net Due Net 15
Freight Terms: Ship Via FOB

E-Verify Information

Private Employer Affidavit is attached :
With E-Verify # _____ With E-Verify exemption selected _____
Contractor Affidavit is attached: (additional affidavit, if applicable)
With E-Verify # 2133786 Without E-Verify # but a copy of my driver's license is attached since
I have no employees and no intent to hire employees _____

MBE/DBE/WBE STATUS (Select at least one)

Minority Owned (African American, Hispanic, Native American, Asian American) circle one _____
Woman Owned _____ Disabled _____ Veteran _____ Not Applicable ☒

Do you maintain a local office in Macon-Bibb County? Yes ☒ No _____

Request for Taxpayer Identification Number and Certification

Give Form to the
requester. Do not
send to the IRS.

► Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type.
See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

TURNER CONSTRUCTION MANAGEMENT LLC

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☒ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► S
Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ►

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) _____

Exemption from FATCA reporting code (if any) _____

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

PO BOX 27360

6 City, state, and ZIP code

MACON, GA 31221

7 List account number(s) here (optional)

Requester's name and address (optional)

Macon-Bibb County

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

____ - ____ - ____

or

Employer identification number

8 8 - 2 3 5 0 3 0 6

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign
Here

Signature of
U.S. person ►

Date ► 01/08/2025

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

Attachment "A"
Required Submission Documents

E-VERIFY AND PRIVATE EMPLOYER AFFIDAVIT

Pursuant To O.C.G.A. § 36-60-6(d)

By executing this affidavit, the undersigned private employer verifies one of the following with respect to its application for an occupational tax certificate, alcohol license, or other document required to operate a business as referenced in O.C.G.A. § 36-60-6(d):

Business Name: _____

SECTION 1 (Choose ONE of the following)

- (A) ☒ On January 1 of the below-signed year, the individual, firm, or corporation employed **ten (10) or less employees.** (Proceed to Section 3)
- (B) ☐ On January 1 of the below-signed year, the individual, firm, or corporation employed **more than ten (10) employees** and has registered with the E-Verify program. (Proceed to Section 2)

SECTION 2

The employer has registered with and utilizes the Federal Work Authorization program commonly known as E-Verify, in accordance with the applicable provisions and deadlines established in O.C.G.A. §36-60-6. The undersigned private employer also attests that its E-Verify number and date of authorization are as follows:

E-Verify Number: 2133786

Date of Authorization: 04/24/2023 (Proceed to Section 3)

SECTION 3

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on January, 8, 2025 in Macon (city), GA (state)

Printed Name of Authorized Officer or Agent: Mitchell Turner

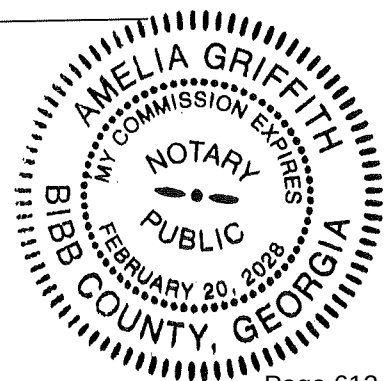
Title of Authorized Officer or Agent: Owner/President

Signature of Authorized Officer or Agent: _____

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE 8 DAY OF January, 2025

NOTARY PUBLIC

My Commission Expires: Feb 20, 2028





TURN-4

OP ID: AC

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

12/19/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Tidwell & Hilburn Insurance 5082 Forsyth Rd Macon, GA 31210 Adam English	478-743-9318	CONTACT NAME: Adam English	PHONE (A/C, No, Ext): 478-743-9318	FAX (A/C, No): 478-742-5688
		E-MAIL ADDRESS: adame@th-ins.com		
INSURED Turner Construction Management PO Box 27360 Macon, GA 31221	INSURER(S) AFFORDING COVERAGE			NAIC #
	INSURER A : Central Insurance Companies			20230
	INSURER B : Ohio Casualty Ins Co			24074L
	INSURER C : Progressive Mountain Ins Co			35190
	INSURER D : CM Vantage Specialty Ins Co			15872
	INSURER E :			
INSURER F :				

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PROJECT ☐ LOC OTHER:		3AA568166	05/18/2024	05/18/2025	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
C	AUTOMOBILE LIABILITY ☒ ANY AUTO OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY		960181047 (8/4/23-24)	08/04/2024	08/04/2025	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
D	UMBRELLA LIAB ☒ EXCESS LIAB ☒ OCCUR CLAIMS-MADE DED RETENTION \$		CMV-EXL-0052693-01	07/24/2024	07/24/2025	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) ☐ Y / N N / A If yes, describe under DESCRIPTION OF OPERATIONS below		WC5-33S-B23P6F-024	03/20/2024	03/17/2025	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
B	Equipment Leased or Rented		BMO67008425	11/14/2023	11/14/2024	L/R 25,000 Deduct 1,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

CANCELLATION

Macon-Bibb County Attn: Procurement Office 700 Poplar Street Macon, GA 31201	BIBBCO1	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
		AUTHORIZED REPRESENTATIVE <i>Adam M. English</i>



AIA® Document A310™ – 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)
Turner Construction Management LLC
5253 Columbus Rd
Macon, GA 31206

SURETY:

(Name, legal status and principal place of business)
Nationwide Mutual Insurance Company
1100 Locust Street- Dept. 2006
Des Moines, IA 50391-2006

OWNER:

(Name, legal status and address) Macon-Bibb County
700 Poplar Street Suite 308
Macon, GA 31201

BOND AMOUNT: \$ 5% (five percent)

PROJECT:

(Name, location or address, and Project number, if any)
Uninterruptible Power Supply (UPS)
Bid 25-023-LH –Renovations to Memorial Park Recreation Center
2465 2nd Street Macon, GA 31201

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

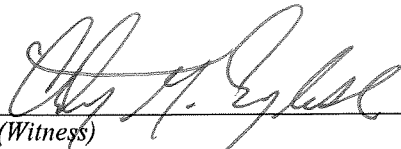
ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

Signed and sealed this 8th day of , January 2025


(Witness)


(Witness)



(Contractor as Principal)

(Seal)

President
(Title)


(Surety)

(Seal)

Attorney In Fact
(Title)

Init.

Additions and Deletions Report for

AIA[®] Document A310[™] – 2010

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 14:55:14 on 01/10/2013.

PAGE 1

Uninterruptible Power Supply (UPS)

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, , hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 14:55:14 on 01/10/2013 under Order No. 6871475021_1 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A310™ – 2010, Bid Bond, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.


(Signed)

Attorney In Fact
(Title)

January 8 2025
(Dated)

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS THAT:

Nationwide Mutual Insurance Company, an Ohio corporation

hereinafter referred to severally as the "Company" and collectively as "the Companies" does hereby make, constitute and appoint:

JOHN COLEMAN TIDWELL, JR.; ADAM MICHAEL ENGLISH

each in their individual capacity, its true and lawful attorney-in-fact, with full power and authority to sign, seal, and execute on its behalf any and all bonds and undertakings, and other obligatory instruments of similar nature, in penalties not exceeding the sum of

UNLIMITED

and to bind the Company thereby, as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Company; and all acts of said Attorney pursuant to the authority given are hereby ratified and confirmed.

This power of attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the board of directors of the Company:

"RESOLVED, that the president, or any vice president be, and each hereby is, authorized and empowered to appoint attorneys-in-fact of the Company, and to authorize them to execute and deliver on behalf of the Company any and all bonds, forms, applications, memorandums, undertakings, recognizances, transfers, contracts of indemnity, policies, contracts guaranteeing the fidelity of persons holding positions of public or private trust, and other writings obligatory in nature that the business of the Company may require; and to modify or revoke, with or without cause, any such appointment or authority; provided, however, that the authority granted hereby shall in no way limit the authority of other duly authorized agents to sign and countersign any of said documents on behalf of the Company."

"RESOLVED FURTHER, that such attorneys-in-fact shall have full power and authority to execute and deliver any and all such documents and to bind the Company subject to the terms and limitations of the power of attorney issued to them, and to affix the seal of the Company thereto; provided, however, that said seal shall not be necessary for the validity of any such documents."

This power of attorney is signed and sealed under and by the following bylaws duly adopted by the board of directors of the Company.

Execution of Instruments. Any vice president, any assistant secretary or any assistant treasurer shall have the power and authority to sign or attest all approved documents, instruments, contracts, or other papers in connection with the operation of the business of the company in addition to the chairman of the board, the chief executive officer, president, treasurer or secretary; provided, however, the signature of any of them may be printed, engraved, or stamped on any approved document, contract, instrument, or other papers of the Company.

IN WITNESS WHEREOF, the Company has caused this instrument to be sealed and duly attested by the signature of its officer the 1st day of April, 2024.

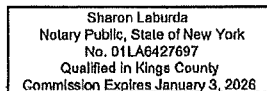


Antonio C. Albanese, Vice President of Nationwide Mutual Insurance Company

ACKNOWLEDGMENT

STATE OF NEW YORK COUNTY OF KINGS: ss

On this 1st day of April, 2024, before me came the above-named officer for the Company aforesaid, to me personally known to be the officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, deposes and says, that he is the officer of the Company aforesaid, that the seal affixed hereto is the corporate seal of said Company, and the said corporate seal and his signature were duly affixed and subscribed to said instrument by the authority and direction of said Company.

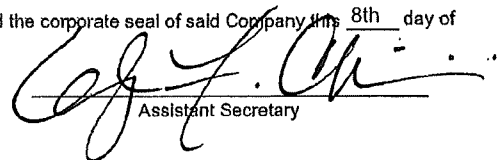


Notary Public
My Commission Expires
January 3, 2026

CERTIFICATE

I, Lezlie F. Chimienti, Assistant Secretary of the Company, do hereby certify that the foregoing is a full, true and correct copy of the original power of attorney issued by the Company; that the resolution included therein is a true and correct transcript from the minutes of the meetings of the boards of directors and the same has not been revoked or amended in any manner; that said Antonio C. Albanese was on the date of the execution of the foregoing power of attorney the duly elected officer of the Company, and the corporate seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority of said board of directors; and the foregoing power of attorney is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of said Company this 8th day of January, 2025.


Assistant Secretary

BDJ 1(08-21)00

BID FORM

Macon-Bibb County Government
Macon-Bibb County, Procurement Dept.
700 Poplar Street, Suite 308
Macon, Georgia 31201

DATE: January 9, 2025

Re: **25-023-LH Renovations to Memorial Park Recreation Center**
Macon-Bibb County
Bibb County, Georgia

Dear Ms. Hardwick:

1. We have examined the Specifications, related documents and the site of the proposed Work, and are familiar with all the conditions surrounding this project, including the availability of materials and labor, and hereby bid to furnish all materials and labor, and to complete the project in accordance with the Contract Documents, within the time set forth herein, and at the prices stated below. These prices are to cover all expenses incurred in performing the Work required under these Specifications, of which this bid is part.

2. **ADDENDUM RECEIPT:**

- a. We acknowledge our responsibility to ensure that all addenda have been received prior to the submission of a bid.

- b. Bidder acknowledges receipt of the following addenda:

Addendum No. 1 Dated December 11, 2024

Addendum No. 2 Dated Decembr 18, 2024

We agree to commence actual physical work on site, with an adequate force and equipment within the timeframe presented in the specifications and to complete fully all work within the stated timeframe following notice to proceed.

We agree that this bid may not be revoked or withdrawn after the time set for the opening of bids and shall remain open for acceptance for a period of ninety (90) days following such time.

5. In case of written notification by mail, telegraph, or delivery of the acceptance of this bid within ninety (90) days after the time set for the opening of bids, the undersigned agrees to execute within ten (10) days a Contract for the Work for the below stated compensation and at the same time to furnish and deliver to the Owner a Performance Bond and a Payment Bond, both in an amount equal to one hundred percent (100%) of the Contract Sum.
6. Enclosed herewith is a Bid Bond in the amount of five percent (5%) of the total base bid. We agree that the above stated amount is the proper measure of liquidated damages that the Owner will sustain by the failure of the undersigned to execute the Contract and to furnish the Performance Bond and the Payment Bond.
7. If this bid is accepted within ninety (90) days after the date set for the opening of bids and we fail to execute the Contract within ten (10) days after written notice of such acceptance or if we fail to furnish both a Performance Bond and a Payment Bond, the obligation of the bond will remain in full force and affect and the money payable thereon shall be paid into the funds of the Owner as liquidated damages for such failure; otherwise, the obligation of the bond will be null and void.



SURETY BOND SEAL ADDENDUM

Nationwide Mutual Insurance Company

Due to logistical issues associated with the use of traditional seals during the COVID-19 pandemic, Nationwide Mutual Insurance Company has authorized its Attorneys-in-Fact to affix Nationwide Mutual Insurance Company's corporate seal to any bond executed on behalf of Nationwide Mutual Insurance Company by any such Attorney-in-Fact by attaching this Addendum to said bond.

To the extent this Addendum is attached to a bond that is executed on behalf of Nationwide Mutual Insurance Company by its Attorney-in-Fact, Nationwide Mutual Insurance Company hereby agrees that the seal below shall be deemed affixed to said bond to the same extent as if its raised corporate seal was physically affixed to the face of the bond.

Dated this 2nd day of April, 2020.

Nationwide Mutual Insurance Company



By

Antonio C. Albanese, Vice President – Surety
Nationwide Mutual Insurance Company

TURNER

CONSTRUCTION
— MANAGEMENT LLC —



STATE OF GEORGIA

BRAD RAFFENSPERGER, Secretary of State

State Licensing Board for Residential and General Contractors

LICENSE NO.

GCQA007792

Mitchell Stephen Turner

224 Peninsula Ave

Macon GA 31220

Company Name: Turner Construction Management LLC

Company License NO: GCCO007792

General Contractor Qualifying Agent

EXP DATE - 06/30/2026 Status: Active

Issue Date: 06/14/2022



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR TO EXECUTE AN AGREEMENT WITH PRO CONSTRUCTION OF GA, LLC FOR THE RENOVATION OF FILMORE THOMAS PARK, IN THE AMOUNT OF \$506,535.00, TO BE PAID FROM THE SPLOST 2018 FUND – RECREATION – FILMORE THOMAS – PROPERTY LINE ITEM; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, Macon-Bibb County has been planning to perform renovations at Filmore Thomas Park with SPLOST proceeds; and

WHEREAS, Invitation for Bids (IFB) No. 25-024-LH was published on November 22, 2024, advertised on the Macon-Bibb County Procurement page, and posted to the Georgia Procurement Registry; and

WHEREAS, three hundred fifty-three (353) vendors were notified of the IFB, of whom twelve (12) were African American, one (1) was Asian American, five (5) were Native American, and three (3) were Hispanic/Latino; and

WHEREAS, on the published due date of January 30, 2025, six (6) responses were received in Procurement, tabulated for responsiveness, and provided to the user department for specification requirement review; and

WHEREAS, after review of the bids, Pro Construction of GA, LLC, whose bid was the lowest responsive and responsible bid, is recommended for award of a contract for the required renovation; and

WHEREAS, Procurement concurs with the recommendation of award of a contract to Pro Construction of GA, LLC; and

WHEREAS, the Macon-Bibb County Commission desires to authorize the Mayor to execute an agreement with Pro Construction of GA, LLC, for the renovations to occur at Filmore

Thomas Park, in the amount of \$506,535.00, in substantially the same form as Exhibit A, attached hereto and incorporated herein by reference; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that the Mayor is authorized to execute an agreement with Pro Construction of GA, LLC for renovations at Filmore Thomas Park, in the amount of \$506,535.00, to be paid from the SPLOST 2018 Fund – Recreation – Filmore Thomas – Property line item, in substantially the same form as Exhibit A.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it

is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this _____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL)

Attest: _____
JANICE S. ROSS, Clerk of the Commission

*Q:\RES MACON-BIBB\2025 Miller Authorizing Agreement with Pro Construction of GA LLC for Filmore Thomas
Park Renos - \$506,535.00.docx*

EXHIBIT A

**FILMORE THOMAS PARK
RENOVATIONS AGREEMENT BETWEEN
MACON-BIBB COUNTY AND
PRO CONSTRUCTION OF GA, LLC**

This Filmore Thomas Park Renovations Agreement ("Agreement") is made and entered into by and between Macon-Bibb County, a political subdivision of the State of Georgia ("County"), and Pro Construction of GA, LLC ("Contractor"), a Georgia limited liability company with a principal place of business at 7420 Cochran Street, Macon, GA 31216, each individually a "Party" and collectively the "Parties."

NOW THEREFORE, in consideration of the mutual promises and obligations contained in this Agreement, the Parties agree as follows:

1. Term and Compensation

1.1 Term

This Agreement shall be effective as of the date it is fully executed by the Parties. Contractor shall commence performance of services within ten (10) days from receipt of Notice to Proceed. All work, including clean up, demobilization, and restoration of the area to its final state, shall be completed within one hundred twenty (120) calendar days from the issuance of Notice to Proceed, but may be extended in writing upon mutual consent of the Parties.

1.2 Compensation

County shall pay to Contractor a total amount of FIVE HUNDRED SIX THOUSAND FIVE HUNDRED THIRTY-FIVE DOLLARS AND 00/100 CENTS (\$506,535.00) for the services to be performed pursuant to this Agreement. Payment of all amounts due are to be made upon presentation of an invoice to the County and will be considered past due thirty (30) days from County's receipt of invoice.

A five percent (5%) retainage will be withheld from each payment until substantial completion of the project, consistent with O.C.G.A. §13-10-80. The County will only pay for items used and actual work performed. Change orders will be issued for any variance from this Agreement. Any unauthorized work or material change will not be compensated unless a change order or amendment has been approved in writing by the County.

County shall not pay any interest, penalties, or other amount claimed beyond the amount authorized by the County Commission or agreed to in writing by the County, consistent with Chapter 19 of the Macon-Bibb County Code of Ordinances. County is tax exempt and cannot agree to pay State or Federal taxes.

Prior to the issuance of final payment, Contractor shall certify in a form satisfactory to County that all subcontractors, staff, materialmen, suppliers, and other persons engaged by Contractor in connection with this Agreement have been paid in full or will be paid in full utilizing the funds constituting final payment to Contractor.

2. Services and Obligations of Independent Contractor

2.1 Scope of Services

Contractor shall commence, diligently pursue, and complete the renovations of Filmore Thomas Park as set forth in this Agreement and as specifically provided in Exhibit A – Invitation for Bids for Renovations to Filmore Thomas Park and Contractor's Response Thereto ("Exhibit A") ("Services"). All Services will be performed in accordance with the specifications provided in Exhibit A, and with all federal, state, and local laws, regulations, and standard codes, including but not limited to International Building Code, State and Local Building Code, Georgia Department of Transportation requirements, and Occupational Safety and Health Administration requirements. Contractor shall maintain current licenses and permits as required for Services provided to the County.

Any changes to the scope of services shall be made in writing in the form of a change order or amendment and must be mutually agreed upon by the Parties. Contractor is not obligated to perform any services beyond what is contemplated in this Agreement.

2.2 Schedule

Contractor shall commence work as soon as practicable upon receipt of the Notice to Proceed. Time is of the essence; therefore, Contractor shall execute all work diligently, completing all work within the timeframe established between County and Contractor, with all work to be completed as provided in Section 1.1 of this Agreement, unless such time is extended in writing by mutual consent of the Parties. This Schedule includes all clean up, demobilization, and other work necessary to return the project area to its final state.

The County may charge Contractor ONE HUNDRED DOLLARS AND 00/100 CENTS (\$100.00) per day as liquidated damages for each day that the project is delayed beyond the date work is to be completed pursuant to this Agreement.

2.3. Method of Performing Services

(a) General

All work to be performed under this Agreement shall comply with all applicable codes, ordinances, and regulations. Contractor shall obtain all permits and licenses and pay all fees as required. Contractor shall also arrange for all required and necessary inspections required by authorities having jurisdiction over the project and submit certificates of approval to the County.

(b) Layout of Work

Contractor shall verify all existing conditions and contiguous work to form a designated worksite, providing all necessary measurements, lines, and levels. Contractor shall assume full responsibility for the accuracy of the work layout.

(c) Work Area

- (i) Contractor shall confine operations to as small an area as possible, using only the areas designated for on-site storage.
- (ii) Contractor shall protect all surrounding and adjoining private and public property, taking every precaution to prevent damage or injury to trees, shrubs, curbs, sidewalks, driveways, and fences along or adjacent to work. Should damage occur, Contractor shall restore, at Contractor's own expense, any such property damage or injuries to a condition equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring to the satisfaction of the County.
- (iii) In case of failure on part of Contractor to restore property and repair damages or injury, County may, after forty-eight (48) hours written notice, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof shall be deducted from any compensation due or which may become due to Contractor under this Agreement.
- (iv) Contractor shall verify all underground utilities and their locations prior to commencing any work under this Agreement. Damages to underground utilities and costs to repair same shall be the sole responsibility of Contractor.

(d) Traffic Control

If required by the project, the Contractor shall maintain traffic by utilizing adequate construction signs and flagmen. Contractor shall furnish, install, maintain, and upon completion of work remove all traffic control devices necessary to properly protect and divert traffic during the term of this Agreement. Contractor shall pay all costs associated with traffic control necessary for the performance of this Agreement and shall assume responsibility for damages resulting from failure to properly protect and divert traffic.

(e) Vandalism

The Contractor shall take every precaution not to leave equipment and materials where they can be reached and used for defacing new or existing work at any time.

(f) Material Disposal

Contractor shall not allow trash, or excess material to accumulate and shall be responsible for removing same from the premises. Such items shall be disposed of off premises. All costs of removing trash shall be the responsibility of Contractor. Contractor shall be responsible for the place and method of proper disposal.

(g) Inspection

- (i) Inspectors may be appointed by the County to inspect all materials used and all work performed. Such inspection may extend to all or any part of the work and to the preparation and manufacture of the materials to be used. The inspectors will not be authorized to revoke, alter, enlarge, or relax the provisions of the specification, nor will they be authorized to approve or accept any portion of the completed work or to issue instruction contrary to the plans and specifications.

The inspector shall have authority to reject defective material and to suspend work that is being improperly done, subject to the final decision of the inspector.

(ii) It is mutually agreed between the Parties to this Agreement to prevent all disputes and misunderstandings between them in relation to the Scope of Services, as such is defined in Sec. 2.1 of this Agreement. In the event of a dispute, the County shall serve as the initial decision maker with regards to all matters related to design, specifications, and project terms of this Agreement. Contractor shall proceed in accordance with the County's decisions, subject to Contractor's right to seek additional compensation and time as a result of such decision. County does not agree to waive any rights to trial by jury.

(iii) County and its designated inspectors shall have free access to all parts of the work site and to all material intended for use in the project. Work will be inspected as it progresses, but failure to reject or condemn defective work at the time it is performed will in no way prevent its rejection whenever it is discovered before the work is finally accepted and approved, nor will final acceptance and approval constitute waiver by the County of any right of action for defective work or the failure to perform this Agreement according to its terms.

2.4 Resources

All equipment, personnel, and materials required for the proper performance of services shall be furnished by and shall remain under the control of Contractor. Contractor shall be responsible, at its sole cost, for procuring and using such resources in proper and qualified, professional and high-quality working and performing order.

2.5 Warranty

Contractor shall guarantee all labor and workmanship for all Services provided for a minimum of one (1) year from the date of completion.

3. Non-Employment Relationship between County and Contractor

3.1 Independent Contractor Relationship

Contractor is an independent contractor, and neither Contractor, nor any employee or agent thereof, shall be deemed for any reason to be an employee or agent of County. County shall not have any liability or responsibility for any direct payments of any salaries, wages, payroll taxes, or any and all other forms or types of compensation or benefits to any personnel performing services for County under this Agreement. Contractor will be responsible for and compensation paid under this Agreement shall include, the cost of obtaining, maintaining, and complying with, and paying all fees and taxes associated with all applicable licenses, authorizations, consents, approvals, and permits required of Contractor in performing Services and complying with this Agreement. Contractor will not make any representations, warranties, or commitments binding the County without the County's written consent. The compensation set forth in this Agreement shall be the sole payment for Services rendered. Contractor shall provide county with a W-9 form for each contract term for which services are performed. Contractor and County agree that Contractor will be free to contract for similar services to be performed for other employers while under Contract with County.

4. Contractor Representations and Warranties

4.1 Authority

Contractor has all the necessary power and authority to enter into and perform its obligations under this Agreement, and the execution and delivery of this Agreement and the consummation of the transactions contemplated by this Agreement have been duly authorized by all necessary actions on its part. This Agreement constitutes a legal, valid and binding obligation of Contractor, enforceable against it in accordance with its terms. No action, suit or proceeding in which Contractor is a party that may restrain or question this Agreement or the provision of services by Contractor is pending or threatened. Agreement does not violate the terms of any agreement between Contractor and any third party.

4.2 Professional Standards

Contractor shall perform the Services using that degree of care, skill, and professionalism ordinarily exercised under similar circumstances by members of the same profession practicing or performing the substantially same or similar services. Contractor represents to County that Contractor retains employees that possess the skills, knowledge, and abilities to competently, timely, and professionally perform Services in accordance with this Agreement.

4.3 Conformity

The development, creation, delivery, provision, implementation, maintenance, and support of all services shall conform in all material respects to the description of services in this Agreement, including all Exhibits attached hereto.

4.4 Representations and Warranties

Contractor will make no representations, warranties, or commitments binding the County without the County's prior written consent.

4.5 Compliance with Laws

Contractor will perform all services in compliance with all applicable local, state, and Federal laws. Contractor will be responsible for, and compensation paid under this Agreement shall include, the cost of obtaining, maintaining and complying with, and paying all fees and taxes associated with all applicable licenses, authorizations, consents, approvals, and permits required of Contractor in performing services and complying with this Agreement.

5. Personnel, Subcontracting, and Conflicts

5.1 Personnel

Contractor shall be responsible, at its own cost, for all recruiting, hiring, training, educating, and orienting of all Contractor's personnel, all of whom shall be fully qualified and shall be authorized under applicable law to perform the Services.

5.2 Subcontracting and Assignments

Should Contractor elect to subcontract any services under this Agreement, Contractor shall remain responsible for the performance of the subcontractors, remain County's sole point of contact for the services, and be responsible for the payment of any subcontractors. Subject to the foregoing, the terms, covenants, and conditions of this Agreement shall be binding on the successors and assigns of either party. Notwithstanding the terms of any subcontractor's agreement, in no circumstances shall any subcontractor have any greater rights as against the County than the Contractor has under this Agreement; and in no circumstances shall the County's responsibilities towards subcontractor be greater than County's responsibilities to Contractor under this Agreement.

Contractor shall submit a "Subcontractor/Supplier Participation Report" on this contract quarterly to the Macon-Bibb County Office of Small Business Affairs which shall include the following:

1. The name of each subcontractor or supplier participating in the contract.
2. A description of the work to be performed, materials, supplies, and services provided by each subcontractor or supplier.
3. Whether each subcontractor or supplier is a minority owned, woman owned, LGBTQIA+ owned, veteran owned, disabled-person owned, Certified Disadvantaged Business Entity, non-profit, or local business.
4. Whether each subcontractor is a supplier, subcontractor, or other.
5. The dollar value of each subcontract or supply agreement.
6. The actual payment to date of each subcontractor or supplier participating in the contract.

The report shall be updated during the applicable quarter by the Contractor whenever any of the approved subcontractors or suppliers have completed the portion of the work they were contracted to perform. Copies of this report should be transmitted promptly to the Macon-Bibb County Office of Small Business Affairs.

The County may withhold any payment due to the Contractor on any project for failure to submit the Subcontractor/Supplier Report within thirty (30) days following the end of the calendar quarter or for the failure to submit updates to the quarterly report within thirty (30) days of any subcontractor or supplier having complete the portion of work they were contracted to perform.

5.3 Conflicts of Interest

Contractor and all subcontractors thereof shall immediately notify County in writing, specifically disclosing any and all potential or actual conflicts of interest, which arise or may arise during the execution of its work in the fulfillment of the requirements of the Agreement. County shall make a written determination as to whether a conflict of interest exists and the actions to be taken to resolve the conflict of interest. Failure to properly disclose any conflicts of interest shall result in immediate termination of this Agreement. Upon termination, Contractor shall be entitled to compensation for services performed prior to the date of termination, on a pro rata basis, provided such services are reasonably satisfactory to the County.

6. Company Prohibitions to Create a Safe Work Environment

6.1 Drug Free Workplace

Contractor, employees and subcontractors shall not be in possession of or use a controlled substance or marijuana during the performance of this Agreement, except for those controlled substances prescribed by a licensed medical provider. County has a no tolerance policy for violation of this rule.

6.2 Discrimination and ADA Compliance

Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, age, sex, disability, national origin, or any other category protected by applicable federal or state law. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notice to be provided by an agency of the federal government, setting forth the provisions of Equal Opportunity laws. Contractor shall comply with the appropriate provisions of the Americans with Disabilities Act (the "ADA"), as enacted and as from time to time amended, and any other applicable federal regulations. A signed certificate confirming compliance with the ADA may be requested by County at any time during the term of this Agreement.

6.3 Equal Employment Opportunity

During the performance of this Agreement, Contractor shall not discriminate against any employee, or applicant for employment, because of race, color, creed, religion, sex, domestic relationship status, parental status, familial status, sexual orientation, national origin, gender identity, age, disability, or political affiliation. As used herein, the words "shall not discriminate" shall mean and include without limitation the following: recruited, whether by advertising or other means; compensated, whether in the form of rates of pay, or other forms of compensation; selected for training, including apprenticeship; promoted; upgraded; demoted; downgraded; transferred; laid off; and terminated.

6.4 Prohibition Against Employing Illegal Immigrants

Contractor is registered with and is authorized to use and uses the federal work authorization program commonly known as E-Verify. Contractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement and will verify immigration status to confirm employment eligibility. Contractor shall not enter into an agreement with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement. Contractor is prohibited from using the E-Verify program procedures to undertake pre-employment screening of job applicants while this Agreement is being performed.

7. Termination

7.1 Termination for Convenience

In addition to the other methods of termination provided for in this Agreement, either Party may terminate this Agreement, or any part of this Agreement upon 15 days written notice with or without cause and with no penalty or additional cost beyond the rates stated in this Agreement. In the event of such termination, Contractor shall be entitled to receive payment only for work completed up to and including the date of termination.

7.2 Fiscal Non-Appropriation Clause

Financial obligations of County payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available in accordance with the rules, regulations, and resolutions of County, and other applicable law. Upon the failure to appropriate such funds, this Agreement shall be terminated immediately and without further obligation on the part of the County.

8. Notices

All notices required or permitted to be given under this Agreement shall be in writing (the "Notice") and deemed given when (a) hand delivered by the sender and properly receipted for by a responsible person of the receiving party, (b) deposited in the United States Mail, properly addressed, with sufficient postage affixed, via first class mail, return receipt requested, (c) via Federal Express, UPS or similar national overnight courier service with delivery charges prepaid; or (d) via facsimile with a copy sent that same day via (a), (b), or (c). All Notices shall be addressed as follows:

For County:

Macon-Bibb County, Georgia
Attn: Mayor
700 Poplar Street
Macon, GA 31202-0247

For Contractor:

Pro Construction of GA, LLC
Attn: Stephen Keys
7420 Cochran Street
Macon, Georgia 31216
ashley@proconstructionofga.com

With Copy To:
Macon-Bibb County Attorney's Office
700 Poplar Street
Macon, Georgia 31202

Either Party has the right to designate in writing, served as provided above, a different address to which any notice, demand or communication is to be mailed.

9. Indemnification

To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless County, its elected and appointed officials, employees and volunteers, and others working on behalf of County, from and against any and all third-party claims, demands, suits, costs (including reasonable legal costs), expenses, and liabilities ("Claims") alleging personal injury, including bodily injury or death, and/or property damage, but only to the extent that any such Claims are caused by the negligence of Contractor any Officer, employee, representative, or agent of Contractor. Contractor shall

have no obligations under this section to the extent that any Claim arises as a result of Contractor's compliance with all applicable law, ordinances, rules, regulations, resolution, executive orders, or other instructions received from County.

10. Insurance Requirements

10.1 General Terms

Contractor shall procure and maintain, and shall cause any subcontractor of Contractor to procure and maintain, the minimum insurance coverages listed in the "Invitation for Bids" document included in Exhibit A throughout the term of this Agreement. Such coverages shall be procured and maintained with forms and insurers acceptable to County. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

All liability policies obtained by Contractor in satisfaction of this Agreement shall be primary and noncontributory, shall list Macon-Bibb County and all elected officials, officers, agents, and employees thereof as additional insureds, and all such policies shall apply separately to each insured against whom any claim is made or suit is brought, except with respect to limits of insurance provided. All coverage shall be provided on a "pay on behalf" basis, with defense costs paid in addition to policy limits and there shall be no cross liability performed by Contractor. Contractor shall provide current certificates of insurance for all insurance types required under this Agreement and shall provide updated certificates of insurance no later than thirty (30) days prior to the renewal or amendment of any required insurance policy. Contractor shall provide complete copies of any or all insurance policies upon written demand. No policy shall be cancelled, non-renewed, or have policy limits reduced outside of this Agreement unless County is given thirty (30) days advance notice from Contractor. Contractor shall further require that no insurer shall cancel, non-renew, or reduce the policy limits of any policy required under this Agreement without first giving thirty (30) days written notice to County.

Contractor agrees to purchase and have the authorized agent state on the insurance certificate that Contractor has purchased the following types of insurance coverages, consistent with the policies and requirements of O.C.G.A. §50-21-37.

10.2 Evidence of Insurance

Contractor shall provide County with certificates of insurance evidencing the insurance required above, and satisfactory to the County, prior to commencing work under this Agreement. Each insurance policy required above shall be issued by a company licensed by the Insurance Commissioner of the State of Georgia to transact the business of insurance in the State of Georgia for the applicable line of insurance and, except otherwise stated in this Agreement, shall be an insurer with a Best Policyholders Rating of "B+" or better and with a financial size rating of Class V or larger. One original certificate of insurance with all endorsements attached must be deposited with County for each insurance policy required. Contractor is responsible for any delay resulting from the failure of its insurance carriers to furnish proof of proper coverage in the prescribed form.

10.3 County's Obligation

The County shall be under no obligation to ensure that Contractor, or any subcontractor, complies with the insurance requirements of this Agreement, and Contractor assumes all

liability arising from its, or its subcontractor's failure, to acquire and/or maintain adequate insurance to cover its operations and business. Contractor further agrees to indemnify and hold harmless the County for any claims arising from Contractor's, or any subcontractor's, failure to acquire and/or maintain adequate insurance.

11. Force Majeure

Neither Party shall be liable for any loss or damage suffered by the other Party, directly or indirectly, as a result of the first Party's failure to perform, or delay in performing, any of its obligations contained in this Agreement (except any obligations to make payments hereunder), where such failure or delay is caused by circumstances beyond the first Party's control or which makes performance commercially impracticable, including but not limited to fire, flood, storm or other natural disaster, explosion, accident, war, riot, civil disorder, government regulations or restrictions of any kind or any acts of any government, judicial action, power failure, acts of God or other natural circumstances.

12. Arbitration and Jury Trial

Disputes arising under this Agreement shall be governed by and interpreted in accordance with the laws of the State of Georgia. Exclusive jurisdiction and venue for any legal proceeding related to this Agreement shall be in Bibb County Superior Court or the Federal District Court in the Middle District of Georgia (Macon Division.) County does not agree to arbitration nor waive its right to a jury trial. Nothing in this Agreement shall be construed as waiving any immunity held by the County under the Eleventh Amendment of the United States Constitution.

13. Attorney's Fees

In the event of dispute resolution or litigation to enforce any of the terms herein, each Party shall pay all its own costs and attorney's fees.

14. Publicity

Contractor shall not release without prior written approval from County, any publicity regarding services provided by the County, including but not limited to notices, information pamphlets, press releases, research, reports, signs and similar public notices prepared by or for Contractor, identifying County receiving goods or services under this Agreement.

15. Work Product, Intellectual Property, and Information

Except as expressly provided in this Agreement, County shall retain ownership of all work product and deliverables created by Contractor pursuant to this Agreement and all records, documents, notes, data and other materials required for or resulting from the performance of Services hereunder shall not be used by Contractor for any purpose other than the performance of Services hereunder without the express prior written consent of County. All such records, documents, notes, data, and other materials shall be considered "work for hire" and shall become the exclusive property of County when Contractor has been compensated for the same as set forth herein, and County shall thereafter retain sole and exclusive rights to receive and use such materials in such manner and for such purposes as determined by it.

16. Confidential Information and Open Records

County is subject to the Georgia Open Records Act and cannot agree to protect confidential information from public disclosure unless that information is subject to an exception. Contractor shall cooperate fully with County in response to all requests made under the Georgia Open Records Act.

The Parties acknowledge that both Contractor and County are required to comply with the Georgia Open Records Act, O.C.G.A. § 50-18-70, et seq. See, *Milliron v. Antonakakis*, 905 S.E.2d 657 (Ga. 2024). As a result, Contractor acknowledges and agrees that County may make such disclosures as are authorized or required under the Georgia Open Records Act, notwithstanding any claims of confidentiality asserted by Contractor as to any records or data in the County's possession.

Upon execution of this Agreement, Contractor shall designate in writing that one or more of its officers shall be the open records officer for Contractor in accordance with the Open Records Act. In the event that Contractor receives a request for records under the Open Records Act, Contractor shall notify County within two business days by sending an email, return receipt requested, to OpenRecordsNotices@maconbibb.onmicrosoft.com. Contractor shall provide County with copies of all records proposed for production prior to responding to such request. Contractor shall assert all exemptions and exceptions available to the fullest extent of the law and shall not produce any records which are subject to withholding under the Open Records Act or any other state or federal law. Contractor shall have a duty to consult with independent legal counsel concerning which records are or are not subject to production prior to making any production, and shall certify to County at the time the proposed production is provided to County that the records contained therein have been reviewed by counsel for responsiveness and that all information that is protected or protectable from release under the law has been redacted therefrom. Contractor shall be responsible for calculating response costs and billing requestors for all requests sent in accordance with the Open Records Act, and Contractor's complete compliance with the provisions of this section shall be performed at no cost to County.

Contractor assumes all civil and criminal liability for its own compliance with the Open Records Act. In the event that Contractor produces material records that are subject to withholding under the Open Records Act, and it would be impossible or very difficult to accurately estimate the damages and harm caused to County by such production, then Contractor shall pay County the sum of \$10,000.00 per request as liquidated damages. The Parties intend that these liquidated damages shall constitute compensation, and not a penalty, and that the liquidated damages are a reasonable estimate of the anticipated or actual harm that might arise from a breach by Contractor. Where actual damages are calculable, then County shall reserve the right to seek actual damages for the harm caused by such production instead of liquidated damages. Nothing herein shall be construed as limiting in any way the County's right to seek injunctive, declaratory, or other relief to prevent the release of protected information prior to any such production being made.

17. General Terms

17.1 Waiver

Any waiver by the Parties or failure to enforce their rights under this Agreement shall be deemed applicable only to the specific matter and shall not be deemed a waiver or failure

to enforce any other rights under this Agreement, and this Agreement shall continue in full force and effect as though such previous waiver or failure to enforce any rights had not occurred. No supplement, modification, amendment, or waiver of this Agreement will be binding on County unless executed in writing by the County.

17.2 Severability

If any provision of this Agreement is declared invalid, unenforceable, or unlawful, such provision shall be deemed omitted and shall not affect the validity of other provisions of this Agreement.

17.3 Titles, Captions and Headings

The titles, captions and paragraph headings are inserted for convenience only and are in no way intended to interpret, define, or limit the scope or content of this Agreement or any provision hereof.

17.4 No Drafting Presumption

No presumption of any applicable law relating to the interpretation of contracts against the drafter shall apply to this Agreement.

17.5 Survival

Any provision of this Agreement which contemplates performance or observance subsequent to any termination or expiration of this Agreement or which must survive in order to give effect to its meaning, shall survive the expiration or termination of this Agreement.

17.6 Previous Agreements

Any services authorized by County under previous "quote(s)" for services, and any related contract documents, shall be governed by and subject to this Agreement.

17.7 Counterparts

This Agreement may be executed in two or more counterparts, each of which taken together shall constitute one and the same instrument. This Agreement shall be fully executed when each Party whose signature is required has signed at least one counterpart, even though no one counterpart contains all the signatures of all the Parties to this Agreement. Reproduced or electronic signatures shall be considered the same as an original signature. Delivery of a copy of this Agreement bearing an original signature by facsimile transmission, by electronic mail or by any other electronic means will have the same effect as physical delivery of the paper document bearing the original signature.

17.8 Entire Agreement

The Parties acknowledge that this Agreement sets forth the entire agreement and understanding between the Parties and fully supersedes all previous communications, representations or agreements, oral or written, between the Parties pertaining to the same subject matter. This Agreement may only be amended or modified in writing by consent of both Parties. Contractor may not unilaterally amend or modify this Agreement by

including provisions in its invoices, or other business forms, which shall be deemed objected to by the County and of no force or effect.

17.9 Electronic Representation and Records

The Parties agree to regard electronic representations of original signatures as legally sufficient for executing this Agreement and scanned signatures emailed by PDF or otherwise shall be as valid as the original. Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

17.10 Authority to Execute

The person or persons executing this Agreement represent and warrant that they are fully authorized to sign and so execute this Agreement and to bind their respective entities to the performance of its obligations hereunder.

17.11 Precedence of Documents

In the event of any express conflict between the body of this Agreement and any Exhibit or Attachment hereto, the terms and conditions of the body of this Agreement shall control and take precedence over the terms and conditions expressed within the Exhibit or Attachment. Furthermore, any terms or conditions contained within any Exhibit or Attachment hereto which purport to modify the allocation of risk between the parties, provided for within the body of this Agreement, shall be null and void.

[Signatures on following page.]

IN WITNESS WHEREOF, the parties have executed this Agreement to be effective as of the date executed by both parties.

MACON-BIBB COUNTY:

By: _____
Lester M. Miller, Mayor Date

Attested: _____
Janice S. Ross, Clerk of Commission Date

PRO CONSTRUCTION OF GA, LLC:

By: _____

(Printed Name & Title) Date

Attested: _____

(Printed Name & Title) Date

Q:\CONTRACTS\25-024-LH Pro Construction Of GA LLC Filmore Thomas Park Renos - \$506,535.00.Docx

EXHIBIT A



Macon-Bibb County, Georgia

INVITATION FOR BIDS

FOR

Renovations to Filmore Thomas Park

98863

BID NUMBER: 25-024-LH

ISSUED: 11-21-2024

BIDS DUE NO LATER THAN 12:00 NOON ON THURSDAY, JANUARY 9, 2025

**Macon-Bibb County Procurement Department
700 Poplar Street
Suite 308
Macon-Bibb County City Hall
Macon, Georgia 31201**

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BID FORM

BIDDER QUALIFICATION FORM

FINANCIAL & LEGAL STABILITY STATEMENT

LIST OF SUB-CONTRACTORS

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GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT (E-VERIFY) AFFIDAVIT

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A – REQUIRED SUBMISSION DOCUMENTS

B - SPECIFICATIONS

C – PLANS & DRAWINGS

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Renovations to Filmore Thomas Park

I. GENERAL

A. Invitation

1. Notice is hereby given that the Macon-Bibb County Board of Commissioners will receive **(1 original and Flash Drive)** sealed bids in the Procurement Department, Suite 308, Macon-Bibb Government Center Annex, 700 Poplar Street, Macon, Georgia 31201, until **12:00 o'clock NOON** at the time legally prevailing in Macon, Georgia on **Thursday, January 9, 2025**, for Renovations to Filmore Thomas Park for Macon, Bibb County, Georgia.
2. **NO BIDS WILL BE ACCEPTED AFTER THIS DESIGNATED TIME.**
3. Bids will be publicly opened in the Macon-Bibb County Procurement Department Conference Room on **Thursday, January 9, 2025, at 2:00 pm.**
4. Minority, Women Owned, and other Disadvantaged Business Enterprises are encouraged to participate in the solicitation process. Additionally, respondents are encouraged to use M/W/DBE subcontractors where possible. Small and other disadvantaged businesses requiring assistance with the competitive process can contact Charise Stephens, Director of Small Business Affairs at (478) 300-2297 or cstephens2@maconbibb.us.

B. Bid Documents

1. Bid documents may be examined and obtained at the Macon-Bibb County Procurement Department, Suite 308, Macon City Hall, 700 Poplar Street, Macon, Georgia 31201, by calling (478) 803-0550, or may be viewed and downloaded from one of the links included below:
Georgia Procurement Registry website
http://ssl.doas.state.ga.us/PRSapp/PR_custom_index.jsp?agency=61100
Macon-Bibb County Procurement Page www.maconbibb.us/purchasing

C. Pre-Bid

1. A mandatory-pre-bid conference is scheduled for **10:00 o'clock a.m., Wednesday, December 18, 2024**, in the Procurement Department Conference Room, Suite 308, City Hall, 700 Poplar Street, Macon, Georgia 31201. **The deadline to submit questions Friday, December 20, 2024, by 3:00 PM. All questions must be submitted by email only to Lhardwick@maconbibb.us**

D. Bid Bond

1. Bids, in order to be considered, shall be accompanied by a bid bond, payable to the Owner, in an amount not less than five percent (5%) of the total base bid.
 - a) This bid security shall become payable to the Owner only if the bidder, to whom award is made, should fail to execute a contract with the Owner and furnish bond and insurance in accordance with terms of the contract within ten (10) days after notification of award.

E. Sealed Bids

1. Envelopes shall be identified on the outside as
“Bid 25-024-LH –Renovations to Filmore Park”
and delivered by hand or mailed to:
Macon-Bibb County Procurement Department
Suite 308, 700 Poplar Street
Macon, Georgia 31201

F. Responsiveness

In order to be considered “*responsive*” the submission must include completed copies of the following documents:

- Price Proposal Form
- Proposer Qualification Form
- List of Sub-Consultants
- Minority Participation Goal
- Financial & Legal Stability Statement
- Georgia Security and Immigration Compliance Act (E-Verify) Affidavit
- Non-Collusion Affidavit

G. Responsibility

In order to be considered “*responsible*” the submitting firm must meet the following minimum qualifications:

- Three (3) years of experience providing the services included herein
- Licensed to do business in the State of Georgia
- Financially and legally responsible to perform the services included herein

H. Validity

1. No bid may be withdrawn for a period of sixty (60) days after time has been called on date of bid opening.

I. **Local Preference**

1. Macon-Bibb County reserves the right to award bids to County businesses and merchants whose bid is within **5% (five percent)** of the lowest responsive and responsible bid which conforms to the Invitation to Bid.

J. Contract Award

1. The contract, if awarded, will be based on Identify the basis of award (Total Bid Price, by location, per line item, etc).
2. Guidelines in the award of this contract will be Section 36-10-2.2, Official Code of Georgia Annotated.
3. Upon award of the Contract, a pre-construction meeting will be held to discuss the project and to establish a schedule of work.

K. Surety

1. Whereas the anticipated contracted price exceeds \$5,000.00 the bidder to whom the award is made shall submit a Payment Bond and a Performance Bond, both in the amount of one hundred percent (100%) of the contract price.
 - a) Bonding company/Surety shall be:
 - (1) Rated B+ or better in the current Key Rating Guide as issued by A.M. Best Company, Oldwick, NJ.
 - (2) Licensed to do business in the State of Georgia.

L. Payment Conditions

1. The County Inspector will collect material tickets, measure, and inspect work completed to date on said job and report to the Project Manager for payment.
2. A 5% retainage will be withheld from each payment until the final payment is made. The Owner will only pay for items used and actual work performed.
3. Change orders are issued for any variance from contract or plan sheets.
4. Any unauthorized work or material change will not be paid for unless a change order has been issued.

M. Excise Taxes

1. Any material that is to be incorporated into the work of this project may be consigned to Macon-Bibb County in the care of the contractor. If the shipping papers show clearly that any such materials are so consigned, the shipment shall be exempt from the tax on transportation of property under the provisions of Section 3478(b) of the Internal Revenue Code, as amended by Public Law 180-78th Congress.
2. The Contractor shall pay all transportation charges.
3. Each bidder shall take this exemption into account in calculating his bid.

N. Insurance

1. Insurance coverage shall be carried with an insurance company licensed to do business in the State of Georgia.
2. Insurance shall be obtained prior to commencement of work and shall remain in force throughout the period of the contract.
3. Macon-Bibb County shall be named as additional insured on the policy.
4. Coverage shall include water damage.
5. Contractor is responsible for any and all deductibles.
6. Required coverage:
 - a) Worker's Compensation: Statutory
 - b) General Liability:
 - (1) \$1,000,000.00 combined single limit for B.I., P.D.
 - (2) Maximum deductible: \$5,000.00
 - (3) To include:
 - (a) Premises – Operations
 - (b) Products & Completed Operations
 - (c) Broad form Contractual
 - (d) Independent Contractor and Subcontractor
 - (e) Underground explosion and collapse
 - c) Automobile Liability:
 - (1) \$1,000,000.00 combined single limit for B.I. and P.D.
 - (2) Maximum deductible: \$5,000.00
 - (3) To include:
 - (a) Owned Automobiles
 - (b) Hired Automobiles
 - (c) Non-Owned Automobiles

II. INSTRUCTIONS TO BIDDERS

A. Definitions

1. Wherever the term “Owner”, “County”, or “Macon-Bibb County” occur in these specifications, it shall mean Macon-Bibb County, a political subdivision of the State of Georgia acting through the Macon-Bibb County Board of Commissioners.
2. Wherever the term “Engineer” occurs in these specifications, it shall mean the engineer of the Owner, the County Engineer, or his representative.
3. Wherever the term “work” occurs in these specifications, it shall mean the work as defined herein, including, all labor, materials, equipment, transportation, and supervision necessary to complete the contract.
4. Wherever the term “D.O.T.” occurs in these specifications, it shall mean the Georgia Department of Transportation.

B. Related Documents

1. Specifications (Attachment “A”)
2. Bid Form
3. Bidder’s Qualification Form
4. Financial & Legal Stability Statement
5. Bidder MBE Plan Form
6. List of Sub-contractors
7. Bond Forms
8. E-Verify Affidavit
9. Title VI non-discrimination Notice

C. Bidder’s Representation

1. Each bidder, by making his bid, represents that he has:
 - a) Read and understands the bidding documents; and,
 - b) Visited the site and became familiar with the local conditions under which the work is to be performed.
- (1) Bidders shall examine the areas wherein work of this project is to be carried out and shall take into consideration all conditions that might affect his work.
 - (a) The failure of the bidder to inspect firsthand the areas affected by work in this project shall not relieve him of the obligation to comply fully with the scope of the work as defined herein.
 - (b) No consideration will be given any claim based on lack of knowledge of existing conditions, except where the Contract Documents make definite provisions for adjustment of cost or extension of time due to existing conditions that cannot be readily ascertained.

D. Document Discrepancies

1. Should the bidder find discrepancies in, or omissions from the documents, he shall at once

notify the Macon-Bibb County Procurement Department.

2. Requests for Interpretations of Drawings and Specifications shall be made in writing to the Macon-Bibb County Procurement Department not later than seven (7) days prior to receipt of bids, email preferred to Lhardwick@maconbibb.us
3. Any subsequent instructions to bidders will be issued in the form of addenda to the specifications and sent to the bidder. All addenda shall be enumerated in the Bid Form.
4. All definitions set forth in the specifications are applicable to this Instruction to Bidders, the Bid Form and the proposed Contract Documents including, but not limited to, drawings, project manual, and any addenda issued prior to receipt of bids.
 - a) Addenda are written or graphic instruments issued prior to the execution of the Contract that may modify or interpret the bidding documents by deletion, additions, clarifications or corrections.
 - b) Addenda will become part of the Contract Documents when the Construction Contract is executed.

E. Reservations

Macon-Bibb County will not provide compensation to Respondents for any expenses incurred by the Respondent(s) for submittal preparation or for any demonstrations that may be made, unless otherwise expressly stated or required by law.

Each submission should be prepared simply and economically, providing a straightforward, concise description of your firm's ability to meet the requirements of this RPS. Emphasis should be on completeness, clarity of content, responsiveness to the requirements, and an understanding of the Owner's needs.

Macon-Bibb County makes no guarantee that an award will be made as a result of this RPS and reserves the right to accept or reject any or all submittals, with or without cause, waive any formalities or minor technical inconsistencies, or delete any item/requirement from this RPS or contract when deemed to be in the Owner's best interest.

Macon-Bibb County will consider only representations made within the submission in response to this RPS. Owner will not be bound to act by any previous knowledge, communication, or submission by the firms other than this RPS.

Failure to comply with the requirements contained herein may result in the submission being deemed "non-responsive" or "non-responsible". Nonresponsive submissions will not be reviewed for potential award.

F. Surety and Insurance Companies

1. The Contract provides that the surety and insurance companies must be acceptable to the Owner. The bidder shall require the attorney in fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of his power of attorney indicating the monetary limit of such power.

III. SPECIAL CONDITIONS

A. General

1. All work to be performed as part of this specification shall comply with all codes, ordinances, and regulations applicable to the contract, including, but not limited to:
 - a) International Building Code
 - b) State and Local Building Code
 - c) Georgia Department of Transportation (D.O.T.)
 - d) Occupational Safety and Health Administration (OSHA)
 - e) Other Federal, State, or Local Codes

B. Permits and Licenses

1. Contractor shall obtain all permits and licenses, paying all fees as required, for execution of the Contract. In addition, the Contractor shall arrange for necessary inspections required by the City, County, State and other authorities having jurisdiction, and submit certificates of approval to the Owner or his designated representative.

C. Layout of Work

1. The Contractor shall verify all existing conditions and contiguous work and lay out his work there from, providing for himself all other necessary measurements, lines and levels, and shall assume the responsibility for the correctness of the layout of the work.

D. Work Area

1. The Contractor shall confine his operations to as small an area as possible, using only the areas designated for on-site storage.
2. The Contractor shall protect all surrounding adjoining private and public property, taking every precaution to prevent damage or injury to trees, shrubs, curbs, sidewalks, driveways and fences along or adjacent to the work. Should damage occur, the Contractor shall restore, at his expense, any such property damage or injuries by his operations to a condition equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring as may be directed by, and to the satisfaction of the Owner.
3. In case of failure on the part of the Contractor to restore such property, or make good such damages or injury, the Owner may, after forty-eight (48) hours written notice, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof shall be deducted from any monies due or which may become due the contractor under this contract.

E. Underground Utilities

1. The Contractor shall verify all underground utilities and their locations prior to commencing any work under this contract. Damages to underground utilities, and costs to repair same, shall be the responsibility of the Contractor.

F. Traffic Control

1. It shall be the responsibility of the Contractor to maintain traffic by utilizing adequate construction signs and flagmen at all times.

2. The Contractor shall furnish, install, maintain, and eventually remove all traffic control devices necessary to properly protect and divert traffic. Such barricades and detour signs shall be illuminated at night.
 3. All costs associated with traffic control shall be the responsibility of the Contractor.
 4. The Contractor shall assume all responsibility for damages resulting from the failure of the signs and/or barricades to properly protect the work from traffic.
- G. Erosion Control
1. The Contractor shall control all erosion by incorporating temporary grassing, mulch, baled straw, or silt fencing wherever required.
- H. Vandalism
1. The Contractor shall take every precaution not to leave equipment and materials where they can be reached and used for defacing new or existing work at any time.
- I. Material Disposal
1. The Contractor shall allow no trash, dirt, stumps, tree trunks, or excess material to accumulate and shall be responsible for removing same from the premises.
 - a) Such items shall be disposed of off the premises.
 - b) Burning material on the site will not be permitted.
 - c) All costs of removing trash shall be the responsibility of the Contractor.
 - d) The place and method of disposal shall be the responsibility of the Contractor.
- J. Extension of Time
1. In the event the work under this project is delayed by neglect, delay, or default of any other Contractor or the Owner, or by any damage which is the result of an Act of God, or by a general strike of the employees, the Contractor shall have reason to claim for delay and request an extension of time to complete the contract.
- K. Liquidated Damages
1. Liquidated damages in the amount of \$100 dollar amount for liquidated damages shall be charged to the contractor for each day that the project is delayed beyond the completion date of the contract. These charges are to defray the cost of inspection by Macon-Bibb employees assigned to the project.
- L. Inspection
1. The Engineer may appoint inspectors to inspect all materials used and all work performed. Such inspection may extend to all or any part of the work and to the preparation of manufacture of the materials to be used. The inspectors will not be authorized to revoke, alter, enlarge or relax the provisions of this specification, nor will they be authorized to

approve or accept any portion of the completed work or to issue instruction contrary to the plans and specifications. The inspector shall have authority to reject defective material and to suspend work that is being improperly done, subject to the final decision of the Engineer.

2. It is mutually agreed between the parties to the contract that to prevent all disputes and misunderstandings between them in relation to any of the provisions contained in these specifications, or their performance by either of said parties, the Engineer shall serve as the referee to decide all matters of construction of the specifications and of the terms of the contract, and as to all matters arising or growing out of said contract and his decision shall be final and binding upon both parties.
3. The Engineer and his inspectors shall have free access to all parts of the work, and to all material intended for use in the work. The work will be inspected as it progresses, but failure to reject or condemn defective work at the time it is done will in no way prevent its rejection whenever it is discovered before the work is finally accepted and approved, nor will final acceptance and approval constitute waiver by the County of any right of action for defective work or the failure to perform the contract according to its terms.

IV. EXECUTION

A. General

1. It is the intent of this specification to provide for the **Renovations to Filmore Park**, for the Macon-Bibb County Engineering Department, Macon, Georgia.

B. Specifications

1. The Contractor shall provide all services as outlined in Attachment "B"- Specifications, and Attachment "C" Diagram/Drawings attached hereto and incorporated herein.

C. Schedule

1. The contractor shall commence work within 10 calendar days following issuance of notice to proceed, shall execute the work diligently, and shall complete all work requirements within 30 calendar days following the Notice to Proceed. This time includes weather delays of 3 workdays. This time shall include all clean up, demobilization, and other work necessary to return the project area to its final state.

V. WARRANTY

- A. The Contractor shall guarantee all labor and workmanship for minimum of one (1) year from date of completion.

X. CONFIDENTIALITY AND OPEN RECORDS

In order to ensure compliance with Georgia's Open Records Act, the following language must be included in all Macon-Bibb County contracts and will be a required term for any contract entered into as a result of this solicitation.

The Parties acknowledge that both Vendor and County are required to comply with the Georgia Open Records Act, O.C.G.A. § 50-18-70, et seq. See, *Milliron v. Antonakakis*, 905 S.E.2d 657 (Ga. 2024). As a result, Vendor acknowledges and agrees that County may make such disclosures as are authorized or required under the Georgia Open Records Act, notwithstanding any claims of confidentiality asserted by Vendor as to any records or data in the County's possession.

Upon execution of this Agreement, Vendor shall designate in writing that one or more of its officers shall be the open records officer for Vendor in accordance with the Open Records Act. In the event that Vendor receives a request for records under the Open Records Act, Vendor shall notify County within two business days by sending an email, return receipt requested, to OpenRecordsNotices@maconbibb.onmicrosoft.com. Vendor shall provide County with copies of all records proposed for production prior to responding to such request. Vendor shall fully assert all exemptions and exceptions available of the law and shall not produce any records which are subject to withholding under the Open Records Act or any other state or federal law. Vendor shall have a duty to consult with independent legal counsel concerning which records are or are not subject to production prior to making any production and shall certify to County at the time the proposed production is provided to County that the records contained therein have been reviewed by counsel for responsiveness and that all information that is protected or protectable from release under the law has been redacted therefrom. Vendor shall be responsible for calculating response costs and billing requestors for all requests sent in accordance with the Open Records Act, and Vendor's complete compliance with the provisions of this section shall be performed at no cost to County.

Vendor assumes all civil and criminal liability for its own compliance with the Open Records Act. In the event that Vendor produces material records that are subject to withholding under the Open Records Act, and it would be impossible or very difficult to accurately estimate the damages and harm caused to County by such production, then Vendor shall pay County the sum of \$10,000.00 per request as liquidated damages. The Parties intend that these liquidated damages shall constitute compensation, and not a penalty, and that the liquidated damages are a reasonable estimate of the anticipated or actual harm that might arise from a breach by Vendor. Where actual damages are calculable, then County shall reserve the right to seek actual damages for the harm caused by such production instead of liquidated damages. Nothing herein shall be construed as limiting in any way the County's right to seek injunctive, declaratory, or other relief to prevent the release of protected information prior to any such production being made.

XI. SUBCONTRACTOR REPORTING REQUIREMENTS

A. Contractor shall submit a "Subcontractor/Supplier Participation Report" on this contract quarterly to the Macon-Bibb County Office of Small Business Affairs which shall include the following:

1. The name of each subcontractor or supplier participating in the contract.
2. A description of the work to be performed, materials, supplies, and services provided by each subcontractor or supplier.
3. Whether each subcontractor or supplier is a minority owned, woman owned, LGBTQIA+ owned, veteran owned, disabled person owned, Certified Disadvantaged Business Entity, non-profit, or local business.
4. Whether each subcontractor is a supplier, subcontractor, or other.
5. The dollar value of each subcontract or supply agreement.
6. The actual payment to date of each subcontractor or supplier participating in the contract

B. The report shall be updated during the applicable quarter by the Contractor whenever any of the approved subcontractors or suppliers have completed the portion of the work they were contracted to perform. Copies of this report should be transmitted promptly to the Macon-Bibb County Office of Small Business Affairs.

C. The County may withhold any payment due to the Contractor on any project for failure to submit the Subcontractor/Supplier Report within thirty (30) days following the end of the calendar quarter or for the failure to submit updates to the quarterly report within thirty (30) days of any subcontractor or

supplier having complete the portion of work they were contracted to perform.

BID FORM

Macon-Bibb County Government
Macon-Bibb County, Procurement Dept.
700 Poplar Street, Suite 308

Macon, Georgia 31201

DATE: _____

Re: **25-024-LH Renovations to Filmore Park**
Macon-Bibb County
Bibb County, Georgia

Dear Ms. Hardwick:

1. We have examined the Specifications, related documents and the site of the proposed Work, and are familiar with all the conditions surrounding this project, including the availability of materials and labor, and hereby bid to furnish all materials and labor, and to complete the project in accordance with the Contract Documents, within the time set forth herein, and at the prices stated below. These prices are to cover all expenses incurred in performing the Work required under these Specifications, of which this bid is part.

2. ADDENDUM RECEIPT:

a. We acknowledge our responsibility to ensure that all addenda have been received prior to the submission of a bid.

b. Bidder acknowledges receipt of the following addenda:

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

We agree to commence actual physical work on site, with an adequate force and equipment within the timeframe presented in the specifications and to complete fully all work within the stated timeframe following notice to proceed.

We agree that this bid may not be revoked or withdrawn after the time set for the opening of bids and shall remain open for acceptance for a period of ninety (90) days following such time.

5. In case of written notification by mail, telegraph, or delivery of the acceptance of this bid within ninety (90) days after the time set for the opening of bids, the undersigned agrees to execute within ten (10) days a Contract for the Work for the below stated compensation and at the same time to furnish and deliver to the Owner a Performance Bond and a Payment Bond, both in an amount equal to one hundred percent (100%) of the Contract Sum.

6. Enclosed herewith is a Bid Bond in the amount of five percent (5%) of the total base bid. We agree that the above stated amount is the proper measure of liquidated damages that the Owner will sustain by the failure of the undersigned to execute the Contract and to furnish the Performance Bond and the Payment Bond.

7. If this bid is accepted within ninety (90) days after the date set for the opening of bids and we fail to execute the Contract within ten (10) days after written notice of such acceptance or if we fail to furnish both a Performance Bond and a Payment Bond, the obligation of the bond will remain in full force and affect and the money payable thereon shall be paid into the funds of the Owner as liquidated damages for such failure; otherwise, the obligation of the bond will be null and void.

8. We hereby certify that we have not, nor has any member of the firm(s) or corporation(s), either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this submitted bid.

3. We understand the total bid price listed below to be inclusive of all materials, labor, equipment, and other provisions necessary to provide the services in accordance with the associated specification.

Bid Price Form
For

25-024-LH Renovations to Filmore Park

Total Bid Price	\$ _____
Timeline for Project	_____ Calendar Days

I certify that my bid meets these minimum specifications. This bid shall be valid and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving bids.

Printed Name: _____

Authorized Signature: _____ **Date:** _____

Company Name: _____

PROJECT MANUAL

FILMORE THOMAS PARK

For MBC PARKS AND RECREATION

3793 Log Cabin Dr, Macon, GA 31204

Project No: 2024-081

November 1st 2024

100% CDs
FOR CONSTRUCTION

PREPARED BY:

WM2A Architects
348 Cotton Avenue, Suite 500
Macon, GA 31201

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SECTION 00 0015 - LIST OF DRAWINGS

END OF SECTION 00 0015

SECTION 00 0060 - GUARANTY BONDS

PART 1 - GENERAL

1.1 GUARANTY BOND FORMS

- A. Guaranty Bonds shall be executed on the AIA Standard Performance Bond and Payment Bond.

1.2 AMOUNT OF BOND

- A. Amount shown in each part of Guaranty Bond shall be equal to 100% of the contract sum.

1.3 SURETY

- A. Surety shall be a company licensed to do business in the State of Georgia and acceptable to the Owner.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 00 0060

SECTION 00 0100 - GENERAL CONDITIONS

PART 1 - GENERAL

1.1 GENERAL CONDITIONS

- A. The AIA, ***STANDARD AGREEMENT AND GENERAL CONDITIONS BETWEEN OWNER AND GENERAL CONTRACTOR***, inclusive, hereinafter referred to as General Conditions, are hereby made a part of these Specifications and shall apply to all work executed under this contract. A copy of this document is on file at the office of the Architect. Copies can be obtained by General Contractors and Subcontractors, submitting bona fide bids on this project, upon receipt of written request submitted to the Architect.

1.2 DEFINITIONS

- A. The use of the term "General Contractor" within these specifications shall refer to the "Contractor" as defined in the agreement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 00 0100

SECTION 00 0120 - SPECIAL CONDITIONS

PART 1 - GENERAL

1.1 SCOPE

- A. These special conditions apply equally to all sections of these specifications.
- B. Nothing in any of the Contract Documents shall be interpreted as being contrary to law or local and state ordinances and all codes and laws of governing agencies (local and state) shall be followed as though they were herein bound.

1.2 SPECIAL CONDITIONS

- A. **CONSTRUCTION LIMITS:** The Contractor shall conduct all his activities within an area defined as the project site. Any damage to public or private property beyond this area shall be repaired at the Contractor's cost and in a manner satisfactory to the Owner.
 - 1. The Owner will establish areas for storage of materials, staging and other construction activities that take place outside of the building.
- B. **SAFETY CODE COMPLIANCE:** Rules and regulations governing construction, demolition and all excavation shall comply with the rules and regulations for the prevention of accidents as issued by the local city or county having jurisdiction.
- C. **STANDARDS:**
 - 1. Wherever reference is made to the standard specifications of nationally known organizations, the latest edition in effect on the date of this specification, shall govern unless otherwise stated herein. Where specific articles, sections, divisions or headings are not given, such specifications shall apply in full. Standard specifications when included herein, by abbreviation, or otherwise, shall form a part of this specification the same as if quoted in full.
- D. The Architect may require, and the Contractor shall furnish, if required to do so, certificates from manufacturers to the effect that the products or materials furnished by them for use in the work comply with applicable specified requirements of the materials or products being furnished.
- E. **GENERAL EQUIPMENT REQUIREMENTS - FIELD DIMENSIONS:** The drawings accompanying these Specifications generally indicate the design and arrangement of all equipment, apparatus, fixtures, accessories, etc., as necessary to complete the installation of all systems. The exact location or arrangement of equipment, unless otherwise dimensioned, is subject to minor changes necessitated by

SECTION 00 0120 - SPECIAL CONDITIONS

field conditions and shall be made as required without additional cost to the Owner. Measurements shall be verified by actual observation at construction site and each respective Contractor shall be responsible for all of his work fitting into place in a satisfactory and workmanlike manner to the approval of the Owner.

- F. **RULES AND REGULATIONS - CODE COMPLIANCE:** The Contractor and Subcontractor shall comply with all local, state, and applicable Federal agencies in regards to Code requirements, Ordinances, and Laws.
- G. **FIRE EXTINGUISHERS:** The Contractor shall furnish, during all phases of construction, fire extinguishers in accordance with OSHA and the local Fire Marshal's requirements.
- H. **PERMITS:** The Contractor and his Subcontractors shall be responsible for obtaining all building permits and pay all fees as required to complete their work shown on the drawings and as specified herein.
- I. **WEATHER PROTECTION:** The Contractor or his subcontractors shall furnish and install any temporary enclosures, doors, and plastic covered windows and openings to protect the construction from weather. All openings through roof shall be protected.
- J. **SPECIFICATION EXPLANATION:**
 - 1. Attention is directed to the fact that the detailed specification and separate sections may be written in short or abridged form. In regard to every section of the specifications and all parts thereof, mention therein or indications on the drawings of articles, materials, operations, or methods required that the Contractor: Provide each item mentioned and indicated; Perform each operation prescribed; Provide therefore all necessary labor, equipment and incidentals.
 - 2. Whenever in these specifications or on the drawings the words "directed", "required", "permitted", "ordered", or words of like import are used, it shall be understood that the direction, requirements, permission or order of the Architect is intended; and similar words "approved", "acceptable", "satisfactory", or words of like shall mean approved by, or acceptable to, or satisfactory to the Architect.
 - 3. For convenience of reference and to facilitate the letting of contracts and subcontracts, these specifications are separated into titled sections. Such separation shall not, however, operate to make the Architect an arbiter to establish limits to the contracts between the Contractor and Subcontractor, nor shall such separation be interpreted as superseding normal union jurisdiction.
- K. **SCAFFOLDING:** Erect and maintain scaffolding, ramps, runways, platforms, guards, rails, stairs and ladders as necessary to protect the safety of all those involved with this work.
- L. **MATERIAL STORAGE:** Store materials in a secure and dry manner. Do not leave any materials exposed to weather.

SECTION 00 0120 - SPECIAL CONDITIONS

1.3 TESTING

- A. **GENERAL:** The Owner shall employ an independent Testing Agency to inspect the materials and workmanship and perform as a minimum the tests described herein. The Agency shall submit inspection reports, certification and instances of noncompliance to the Architect, Owner and Structural Engineer. The Testing Agency shall immediately notify the Architect whenever the materials or the workmanship is not in compliance with the construction documents.
- B. **QUANTITIES:** The Owner shall furnish to the Testing Agency the anticipated volume of earthwork, material quantities and construction schedule for the project. The Agency shall use this information as a basis to establish a scope of work and cost proposal to the Owner.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 00 0120

SECTION 01 1000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Owner-furnished products.
 - 4. Contractor-furnished, Owner-installed products.
 - 5. Access to site.
 - 6. Work restrictions.
 - 7. Specification and drawing conventions.
 - 8. Miscellaneous provisions.

- B. Related Requirements:

- 1. Section 01 5000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

- A. Project Identification: Memorial Park Recreation

- 1. Project Location: 2465 2ND ST, MACON, GA 31206

- B. Owner: Macon-Bibb County.

- C. Architect: WM2A Architects; 348 Cotton Avenue, Suite 500; Macon, GA 31201; 478-745-4945

- D. Architect's Consultants: The Architect has retained the following design professionals who have prepared designated portions of the Contract Documents:

- 1. MEP Engineering: Total Engineers -478-741-4632/ EDC – 478-781-1833
 - 2. Structural Engineering: Pi Tech 478-743-5600
 - 3. Civil Engineering: Traverse Land Services 478-922-7724

SECTION 01 1000 - SUMMARY

- E. Contractor: Will be engaged after award.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. Site upgrades, pavilion and Pump house. The scope of work is as indicated within the contract documents for the project.
- B. Type of Contract:
 - 1. Project will be constructed under a single prime contract.

1.5 PHASED CONSTRUCTION

- A. The Work shall be conducted in a Single phase:
- B. Before commencing Work, submit an updated copy of Contractor's construction schedule showing the sequence, commencement and completion dates, and move-out and -in dates of Owner's personnel for all phases of the Work.

1.6 WORK BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

1.7 WORK UNDER SEPARATE CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.

1.8 OWNER-FURNISHED PRODUCTS

- A. Owner will furnish products indicated. The Work includes receiving, unloading, handling, storing, protecting, and installing Owner-furnished products.
- B. Owner-Furnished Products:
 - 1. As indicated within the drawings.

SECTION 01 1000 - SUMMARY

1.9 CONTRACTOR-FURNISHED, OWNER-INSTALLED PRODUCTS

- A. Contractor shall furnish products indicated. The Work includes unloading, handling, storing, and protecting Contractor-furnished products as directed and turning them over to Owner at Project closeout.

1.10 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Limit site disturbance, including earthwork and clearing of vegetation, to 40 feet beyond building perimeter; 10 feet beyond surface walkways, patios, surface parking, and utilities less than 12 inches in diameter; 15 feet beyond primary roadway curbs and main utility branch trenches; and 25 feet beyond constructed areas with permeable surfaces (such as pervious paving areas, stormwater detention facilities, and playing fields) that require additional staging areas in order to limit compaction in the constructed area.
 - 2. Driveways, Walkways and Entrances: Keep driveways loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.

1.11 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site and existing adjacent building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or

SECTION 01 1000 - SUMMARY

used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.

2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.12 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 6 a.m. to 8 p.m., Monday through Friday, unless otherwise indicated.
 1. Weekend Hours: Same as times permitted for weekday work.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 1. Notify Owner not less than two days in advance of proposed utility interruptions.
 2. Obtain Owner's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 1. Notify Owner not less than two days in advance of proposed disruptive operations.
 2. Obtain Owner's written permission before proceeding with disruptive operations.
- E. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor-air intakes.
- F. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.
- G. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.
- H. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
 1. Maintain list of approved screened personnel with Owner's representative.

SECTION 01 1000 - SUMMARY

1.13 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.
 - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 1000

SECTION 01 2100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
 - 1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances.
 - 2. Quantity allowances.
 - 3. Testing and inspecting allowances.
- C. Related Requirements:
 - 1. Section 01 4000 "Quality Requirements" for procedures governing the use of allowances for testing and inspecting.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.

1.4 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the

form specified for Change Orders.

1.5 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.6 COORDINATION

- A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.7 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.8 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.

- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.
- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.9 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
 - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
 - 3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
 - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES:

- A. Allowance **No. 1:** Provide cost allowance for relocation of existing water line if 811 shows the existing location is under the new proposed footprint. Re routing should be done in a was that allows the water line to be accessed. Refer to note on civil plans.

END OF SECTION 01 2100

SECTION 01 2100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
 - 1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances.
 - 2. Quantity allowances.
 - 3. Testing and inspecting allowances.
- C. Related Requirements:
 - 1. Section 01 4000 "Quality Requirements" for procedures governing the use of allowances for testing and inspecting.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.

1.4 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the

form specified for Change Orders.

1.5 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.6 COORDINATION

- A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.7 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.8 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.

- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.
- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.9 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
 - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
 - 3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
 - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES:

- A. Allowance **No. 1:** Quantity Allowance: Include in the base bid, 2000 cu. yd. of unsatisfactory soil excavation and disposal off-site and replacement with satisfactory structural soil material from off-site, as specified in Section 31 2300 "Earthwork."
 - 1. Coordinate quantity allowance adjustment with unit-price requirements in Section 01 2200 "Unit Prices."

END OF SECTION 01 2100

SECTION 01 2200 - UNIT PRICES

SECTION 01 2200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.

1.3 DEFINITIONS

- A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

SECTION 01 2200 - UNIT PRICES

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

- A. Unit Price 1: Removal of unsatisfactory soil and replacement with satisfactory soil material. Per cubic yard price \$_____.
1. Description: Unsatisfactory soil excavation and disposal off site and replacement with satisfactory fill material or engineered fill from off site, as required, according to Section 31 2300 "Earthwork"
 2. Unit of Measurement: Cubic yard of soil excavated, based on survey of volume removed.
 3. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in Section 01 2100 "Allowances."

END OF SECTION 01 2200

SECTION 01 2500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use CSI Form 13.1A.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as

SECTION 01 2500 - SUBSTITUTION PROCEDURES

- performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

SECTION 01 2500 - SUBSTITUTION PROCEDURES

1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
 - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Requested substitution provides sustainable design characteristics that specified product provided.
 - c. Substitution request is fully documented and properly submitted.
 - d. Requested substitution will not adversely affect Contractor's construction schedule.
 - e. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - f. Requested substitution is compatible with other portions of the Work.
 - g. Requested substitution has been coordinated with other portions of the Work.
 - h. Requested substitution provides specified warranty.
 - i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Architect will consider requests for substitution if received 10 days or more prior to bid date. Requests received after that time shall be rejected by the Architect. Approval of such requests shall be issued as an addendum to all bidders prior to bid date.
 - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

SECTION 01 2500 - SUBSTITUTION PROCEDURES

- a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
- b. Requested substitution does not require extensive revisions to the Contract Documents.
- c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- d. Substitution request is fully documented and properly submitted.
- e. Requested substitution will not adversely affect Contractor's construction schedule.
- f. Requested substitution has received necessary approvals of authorities having jurisdiction.
- g. Requested substitution is compatible with other portions of the Work.
- h. Requested substitution has been coordinated with other portions of the Work.
- i. Requested substitution provides specified warranty.
- j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 2500

SECTION 01 2600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time.

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request or 10 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - e. Quotation Form: Use CSI Form 13.6D, "Proposal Worksheet Summary," and Form 13.6C, "Proposal Worksheet Detail."

SECTION 01 2600 - CONTRACT MODIFICATION PROCEDURES

- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 4. Include costs of labor and supervision directly attributable to the change.
 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 6. Comply with requirements in Section 01 2500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
 7. Proposal Request Form: Use CSI Form 13.6A, "Change Order Request (Proposal)," with attachments CSI Form 13.6D, "Proposal Worksheet Summary," and Form 13.6C, "Proposal Worksheet Detail."

1.5 ADMINISTRATIVE CHANGE ORDERS

- A. Allowance Adjustment: See Section 01 2100 "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.
- B. Unit-Price Adjustment: See Section 01 2200 "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit-price work.

1.6 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Changes Proposal Request, Construction Manager will issue a Change Order for signatures of Architect and Contractor on ConsensusDocs 525.

1.7 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

SECTION 01 2600 - CONTRACT MODIFICATION PROCEDURES

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 2600

SECTION 01 2900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
 - 1. Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the schedule of values to Architect at earliest possible date, but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
 - 3. Subschedules for Phased Work: Where the Work is separated into phases requiring separately phased payments, provide subschedules showing values coordinated with each phase of payment.
 - 4. Subschedules for Separate Elements of Work: Where the Contractor's construction schedule defines separate elements of the Work, provide subschedules showing values coordinated with each element.

SECTION 01 2900 - PAYMENT PROCEDURES

5. Subschedules for Separate Design Contracts: Where the Owner has retained design professionals under separate contracts who will each provide certification of payment requests, provide subschedules showing values coordinated with the scope of each design services contract as described in Section 01 1000 "Summary."
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
 1. Arrange schedule of values consistent with format of AIA Document G702.
 2. Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
 - a. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 - 1) Labor.
 - 2) Materials.
 - 3) Equipment.
 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
 - a. Include separate line items under Contractor and principal subcontracts for Project closeout requirements in an amount totaling five percent of the Contract Sum and subcontract amount.
 4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
 6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
 7. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.

SECTION 01 2900 - PAYMENT PROCEDURES

8. Purchase Contracts: Provide a separate line item in the schedule of values for each purchase contract. Show line-item value of purchase contract. Indicate owner payments or deposits, if any, and balance to be paid by Contractor.
9. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
10. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C. Application for Payment Forms: Use AIA Document G702 as form for Applications for Payment.
- D. Application for Payment Forms: Use forms acceptable to Architect and Owner for Applications for Payment. Submit forms for approval with initial submittal of schedule of values.
- E. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.

SECTION 01 2900 - PAYMENT PROCEDURES

3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- F. **Stored Materials:** Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- G. **Transmittal:** Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- H. **Waivers of Mechanic's Lien:** With each Application for Payment, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 2. When an application shows completion of an item, submit conditional final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 5. **Waiver Forms:** Submit executed waivers of lien on forms, acceptable to Owner.
- I. **Initial Application for Payment:** Administrative actions and submittals that must

SECTION 01 2900 - PAYMENT PROCEDURES

precede or coincide with submittal of first Application for Payment include the following:

1. List of subcontractors.
 2. Schedule of values.
 3. Contractor's construction schedule (preliminary if not final).
 4. Combined Contractor's construction schedule (preliminary if not final) incorporating Work of multiple contracts, with indication of acceptance of schedule by each Contractor.
 5. Products list (preliminary if not final).
 6. Schedule of unit prices.
 7. Submittal schedule (preliminary if not final).
 8. List of Contractor's staff assignments.
 9. List of Contractor's principal consultants.
 10. Copies of building permits.
 11. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 12. Initial progress report.
 13. Report of preconstruction conference.
 14. Certificates of insurance and insurance policies.
 15. Performance and payment bonds.
 16. Data needed to acquire Owner's insurance.
- J. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- K. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 6. AIA Document G707, "Consent of Surety to Final Payment."
 7. Evidence that claims have been settled.
 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.

SECTION 01 2900 - PAYMENT PROCEDURES

9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 2900

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. Requests for Information (RFIs).
 - 4. Project meetings.

1.3 DEFINITIONS

- A. RFI: Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use CSI Form 1.5A. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.
 - 1. Post copies of list in project meeting room, in temporary field office, and by each

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

temporary telephone. Keep list current at all times.

1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's construction schedule.
 - 2. Preparation of the schedule of values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Preinstallation conferences.
 - 7. Project closeout activities.
 - 8. Startup and adjustment of systems.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

1.6 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
 - b. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - c. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
 - d. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
 - e. Indicate required installation sequences.
 - f. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:
1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
 2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within ceiling plenum to accommodate layout of light fixtures indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
 3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
 4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
 5. Mechanical and Plumbing Work: Show the following:

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

- a. Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems.
 - b. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment.
 - c. Fire-rated enclosures around ductwork.
 6. Electrical Work: Show the following:
 - a. Runs of vertical and horizontal conduit 1-1/4 inches in diameter and larger.
 - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire-alarm locations.
 - c. Panel board, switch board, switchgear, transformer, busway, generator, and motor control center locations.
 - d. Location of pull boxes and junction boxes, dimensioned from column center lines.
 7. Fire-Protection System: Show the following:
 - a. Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.
 8. Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will so inform Contractor, who shall make changes as directed and resubmit.
 9. Coordination Drawing Prints: Prepare coordination drawing prints according to requirements in Section 01 3300 "Submittal Procedures."
- C. Coordination Digital Data Files: Prepare coordination digital data files according to the following requirements:
1. File Preparation Format: DWG, Version , operating in Microsoft Windows operating system.
 2. File Submittal Format: Submit or post coordination drawing files using Portable Data File (PDF) format.
 3. Architect will furnish Contractor one set of digital data files of Drawings for use in preparing coordination digital data files.
 - a. Architect makes no representations as to the accuracy or completeness of digital data files as they relate to Drawings.
 - b. Digital Data Software Program: Drawings are available in Revit and Autocad.

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

1.7 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 - 1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
 - 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 - 1. Project name.
 - 2. Project number.
 - 3. Date.
 - 4. Name of Contractor.
 - 5. Name of Architect.
 - 6. RFI number, numbered sequentially.
 - 7. RFI subject.
 - 8. Specification Section number and title and related paragraphs, as appropriate.
 - 9. Drawing number and detail references, as appropriate.
 - 10. Field dimensions and conditions, as appropriate.
 - 11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 - 12. Contractor's signature.
 - 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: ConsensusDocs 204 Software-generated form with substantially the same content as indicated above, acceptable to Architect.
 - 1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
 - 1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.

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- b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Architect's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 01 2600 "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
 - E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Use CSI Log Form 13.2B. Include the following:
 1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Architect.
 4. RFI number including RFIs that were returned without action or withdrawn.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Architect's response was received.
 - F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.
 1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
 2. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.
- 1.8 PROJECT MEETINGS
- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

- Architect of scheduled meeting dates and times.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
- 1. Conduct the conference to review responsibilities and personnel assignments.
 - 2. Attendees: Authorized representatives of Owner Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 3. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Lines of communications.
 - f. Procedures for processing field decisions and Change Orders.
 - g. Procedures for RFIs.
 - h. Procedures for testing and inspecting.
 - i. Procedures for processing Applications for Payment.
 - j. Distribution of the Contract Documents.
 - k. Submittal procedures.
 - l. Preparation of record documents.
 - m. Use of the premises and existing building.
 - n. Work restrictions.
 - o. Working hours.
 - p. Owner's occupancy requirements.
 - q. Responsibility for temporary facilities and controls.
 - r. Procedures for moisture and mold control.
 - s. Procedures for disruptions and shutdowns.
 - t. Construction waste management and recycling.
 - u. Parking availability.
 - v. Office, work, and storage areas.
 - w. Equipment deliveries and priorities.
 - x. First aid.
 - y. Security.
 - z. Progress cleaning.

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4. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect, Construction Manager of scheduled meeting dates.
 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility requirements.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written instructions.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.
 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.

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5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Project Closeout Conference: Schedule and conduct a project closeout conference, at a time convenient to Owner and Architect, but no later than 90 days prior to the scheduled date of Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
 2. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of record documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Submittal of written warranties.
 - d. Requirements for preparing operations and maintenance data.
 - e. Requirements for delivery of material samples, attic stock, and spare parts.
 - f. Requirements for demonstration and training.
 - g. Preparation of Contractor's punch list.
 - h. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
 - i. Submittal procedures.
 - j. Coordination of separate contracts.
 - k. Owner's partial occupancy requirements.
 - l. Installation of Owner's furniture, fixtures, and equipment.
 - m. Responsibility for removing temporary facilities and controls.
 4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- E. Progress Meetings: Conduct progress meetings at weekly intervals.
1. Coordinate dates of meetings with preparation of payment requests.
 2. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.

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3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Resolution of BIM component conflicts.
 - 4) Status of submittals.
 - 5) Deliveries.
 - 6) Off-site fabrication.
 - 7) Access.
 - 8) Site utilization.
 - 9) Temporary facilities and controls.
 - 10) Progress cleaning.
 - 11) Quality and work standards.
 - 12) Status of correction of deficient items.
 - 13) Field observations.
 - 14) Status of RFIs.
 - 15) Status of proposal requests.
 - 16) Pending changes.
 - 17) Status of Change Orders.
 - 18) Pending claims and disputes.
 - 19) Documentation of information for payment requests.
 4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
 - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
- F. Coordination Meetings: Conduct Project coordination meetings at weekly intervals.

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.

1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
 - c. Review present and future needs of each contractor present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Resolution of BIM component conflicts.
 - 4) Status of submittals.
 - 5) Deliveries.
 - 6) Off-site fabrication.
 - 7) Access.
 - 8) Site utilization.
 - 9) Temporary facilities and controls.
 - 10) Work hours.
 - 11) Hazards and risks.
 - 12) Progress cleaning.
 - 13) Quality and work standards.
 - 14) Change Orders.
3. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 3100

SECTION 01 3200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's construction schedule.
 - 2. Construction schedule updating reports.
 - 3. Material location reports.
 - 4. Site condition reports.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- C. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:

WM2A Architects
WM2A Project No. 2024-081

01 3200 - 1

FILMORE THOMAS
PARK MACON, GA

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1. Working electronic copy of schedule file, where indicated.
2. PDF electronic file.

B. Qualification Data: For scheduling consultant.

1.5 QUALITY ASSURANCE

- A. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Section 01 3100 "Project Management and Coordination." Review methods and procedures related to the preliminary construction schedule and Contractor's construction schedule, including, but not limited to, the following:
1. Discuss constraints, including phasing work stages interim milestones and partial Owner occupancy.

1.6 COORDINATION

- A. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
1. Secure time commitments for performing critical elements of the Work from entities involved.
 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for commencement of the Work to date of final completion.
1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each story or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.

SECTION 01 3200 - CONSTRUCTION PROGRESS DOCUMENTATION

3. Submittal Review Time: Include review and resubmittal times indicated in Section 01 3300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
 4. Startup and Testing Time: Include no fewer than 15 days for startup and testing.
 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
 6. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and final completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
 2. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Section 01 1000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 3. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Subcontract awards.
 - b. Submittals.
 - c. Fabrication.
 - d. Installation.
 - e. Tests and inspections.
 - f. Startup and placement into final use and operation.
 4. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
 - a. Structural completion.
 - b. Permanent space enclosure.
 - c. Completion of mechanical installation.
 - d. Completion of electrical installation.
 - e. Substantial Completion.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion, and the following interim milestones:
1. Temporary enclosure and space conditioning.
- E. Cost Correlation: Superimpose a cost correlation timeline, indicating planned and actual costs. On the line, show planned and actual dollar volume of the Work performed as of planned and actual dates used for preparation of payment requests.

SECTION 01 3200 - CONSTRUCTION PROGRESS DOCUMENTATION

1. See Section 01 2900 "Payment Procedures" for cost reporting and payment procedures.
- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
 1. Unresolved issues.
 2. Unanswered Requests for Information.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.
 5. Pending modifications affecting the Work and Contract Time.
- G. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
 1. Use Microsoft Project, for Windows operating system.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's construction schedule within 30 days of date established for commencement of the Work. Base schedule on the startup construction schedule and additional information received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.3 REPORTS

- A. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site. Indicate the following categories for stored materials:

SECTION 01 3200 - CONSTRUCTION PROGRESS DOCUMENTATION

1. Material stored prior to previous report and remaining in storage.
 2. Material stored prior to previous report and since removed from storage and installed.
 3. Material stored following previous report and remaining in storage.
- B. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate final completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Architect Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 3200

SECTION 01 3300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."
- C. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.
 - 1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - 2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those

SECTION 01 3300 - SUBMITTAL PROCEDURES

submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.

3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
4. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category: Action; informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's final release or approval.
 - g. Scheduled date of fabrication.
 - h. Scheduled dates for purchasing.
 - i. Scheduled dates for installation.
 - j. Activity or event number.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
 1. Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings and Project record drawings.
 - a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
 - b. The following digital data files will be furnished for each appropriate discipline:
 - 1) Floor plans.
 - 2) Reflected ceiling plans.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.

SECTION 01 3300 - SUBMITTAL PROCEDURES

3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 10 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 10 days for review of each resubmittal.
 4. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 10 days for review of each submittal. Submittal will be returned to Architect before being returned to Contractor.
- D. Paper Submittals: Place a permanent label or title block on each submittal item for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 3. Include the following information for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Name of subcontractor.
 - f. Name of supplier.
 - g. Name of manufacturer.
 - h. Submittal number or other unique identifier, including revision identifier.
- 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01).

SECTION 01 3300 - SUBMITTAL PROCEDURES

Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).

- i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 - k. Location(s) where product is to be installed, as appropriate.
4. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
- a. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.
5. Transmittal for Paper Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return without review submittals received from sources other than Contractor.
- a. Transmittal Form for Paper Submittals: Provide locations on form for the following information:
 - 1) Project name.
 - 2) Date.
 - 3) Destination (To:).
 - 4) Source (From:).
 - 5) Name and address of Architect.
 - 6) Name of Contractor.
 - 7) Name of firm or entity that prepared submittal.
 - 8) Names of subcontractor, manufacturer, and supplier.
 - 9) Category and type of submittal.
 - 10) Submittal purpose and description.
 - 11) Specification Section number and title.
 - 12) Specification paragraph number or drawing designation and generic name for each of multiple items.
 - 13) Drawing number and detail references, as appropriate.
 - 14) Indication of full or partial submittal.
 - 15) Transmittal number, numbered consecutively.
 - 16) Remarks.
 - 17) Signature of transmitter.
- E. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
- 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.

SECTION 01 3300 - SUBMITTAL PROCEDURES

2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Owner, containing the following information:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Contractor.
 - e. Name of firm or entity that prepared submittal.
 - f. Names of subcontractor, manufacturer, and supplier.
 - g. Category and type of submittal.
 - h. Submittal purpose and description.
 - i. Specification Section number and title.
 - j. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - k. Drawing number and detail references, as appropriate.
 - l. Location(s) where product is to be installed, as appropriate.
 - m. Related physical samples submitted directly.
 - n. Indication of full or partial submittal.
 - o. Transmittal number, numbered consecutively.
 - p. Submittal and transmittal distribution record.
 - q. Remarks.
- F. Options: Identify options requiring selection by Architect.
- G. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.

SECTION 01 3300 - SUBMITTAL PROCEDURES

3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, and installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 1. Post electronic submittals as PDF electronic files directly to Architect's shared folder site specifically established for Project.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 2. Submit electronic submittals via email as PDF electronic files.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 3. Action Submittals: Submit three paper copies of each submittal unless otherwise indicated. Architect will return two copies.
 4. Informational Submittals: Submit two paper copies of each submittal unless otherwise indicated. Architect will not return copies.
 5. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
 - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.

SECTION 01 3300 - SUBMITTAL PROCEDURES

- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 5. Submit Product Data before or concurrent with Samples.
 6. Submit Product Data in the following format:
 - a. PDF electronic file.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal based on Architect's digital data drawing files is otherwise permitted.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.

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2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches.
 3. Submit Shop Drawings in the following format:
 - a. PDF electronic file.
 - b. Two opaque (bond) copies of each submittal. Architect will return one copy(ies).
 - c. Three opaque copies of each submittal. Architect will retain two copies; remainder will be returned.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 - e. Specification paragraph number and generic name of each item.
 3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with

SECTION 01 3300 - SUBMITTAL PROCEDURES

options selected.

6. **Samples for Verification:** Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. **Number of Samples:** Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record sample.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. **Product Schedule:** As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
 2. Manufacturer and product name, and model number if applicable.
 3. Number and name of room or space.
 4. Location within room or space.
 5. Submit product schedule in the following format:
 - a. PDF electronic file.
 - b. Three paper copies of product schedule or list unless otherwise indicated. Architect will return two copies.
- F. **Coordination Drawing Submittals:** Comply with requirements specified in Section 01 3100 "Project Management and Coordination."
- G. **Contractor's Construction Schedule:** Comply with requirements specified in Section 01 3200 "Construction Progress Documentation."
- H. **Application for Payment and Schedule of Values:** Comply with requirements specified in Section 01 2900 "Payment Procedures."

SECTION 01 3300 - SUBMITTAL PROCEDURES

- I. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Section 01 4000 "Quality Requirements."
- J. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 01 7700 "Closeout Procedures."
- K. Maintenance Data: Comply with requirements specified in Section 01 7823 "Operation and Maintenance Data."
- L. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- M. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- N. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- O. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- P. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- Q. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- R. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- S. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- T. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization.

SECTION 01 3300 - SUBMITTAL PROCEDURES

2. Date of evaluation.
 3. Time period when report is in effect.
 4. Product and manufacturers' names.
 5. Description of product.
 6. Test procedures and results.
 7. Limitations of use.
- U. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- V. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- W. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- X. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file and three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

SECTION 01 3300 - SUBMITTAL PROCEDURES

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 01 7700 "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may be returned by the Architect without action.

END OF SECTION 01 3300

SECTION 01 4000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
 - 4. Specific test and inspection requirements are not specified in this Section.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Mockups: Full-size physical assemblies that are constructed on-site per 5/A2-1. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances.

SECTION 01 4000 - QUALITY REQUIREMENTS

Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.

1. Integrated Exterior Mockups: Mockups of the exterior envelope erected separately from the building but on Project site, consisting of multiple products, assemblies, and subassemblies. See detail on drawings.
- D. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- E. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
- F. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- I. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated

SECTION 01 4000 - QUALITY REQUIREMENTS

numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 ACTION SUBMITTALS

- A. Shop Drawings: For integrated exterior mockups, provide plans, sections, and elevations, indicating materials and size of mockup construction.
 - 1. Indicate manufacturer and model number of individual components.
 - 2. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.

1.6 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Qualification Data: For Contractor's quality-control personnel.
- C. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility sent to authorities having jurisdiction before starting work on the following systems:
 - 1. Seismic-force-resisting system, designated seismic system, or component listed in the designated seismic system quality-assurance plan prepared by Architect.
 - 2. Main wind-force-resisting system or a wind-resisting component listed in the wind-force-resisting system quality-assurance plan prepared by Architect.
- D. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

1.7 CONTRACTOR'S QUALITY-CONTROL PLAN

- A. Quality-Control Plan, General: Submit quality-control plan within 10 days of Notice to Proceed, and not less than five days prior to preconstruction conference. Submit in format acceptable to Architect. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities. Coordinate with Contractor's construction schedule.
- B. Quality-Control Personnel Qualifications: Engage qualified full-time personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.

SECTION 01 4000 - QUALITY REQUIREMENTS

1. Project quality-control manager may also serve as Project superintendent.
- C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- D. Testing and Inspection: In quality-control plan, include a comprehensive schedule of Work requiring testing or inspection, including the following:
 1. Contractor-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections.
 2. Special inspections required by authorities having jurisdiction and indicated on the "Statement of Special Inspections."
 3. Owner-performed tests and inspections indicated in the Contract Documents.
- E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Architect has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

1.8 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
 1. Date of issue.
 2. Project title and number.
 3. Name, address, and telephone number of testing agency.
 4. Dates and locations of samples and tests or inspections.
 5. Names of individuals making tests and inspections.
 6. Description of the Work and test and inspection method.
 7. Identification of product and Specification Section.
 8. Complete test or inspection data.
 9. Test and inspection results and an interpretation of test results.
 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 12. Name and signature of laboratory inspector.

SECTION 01 4000 - QUALITY REQUIREMENTS

13. Recommendations on retesting and re-inspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of technical representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products, and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement that equipment complies with requirements.
 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 4. Statement whether conditions, products, and installation will affect warranty.
 5. Other required items indicated in individual Specification Sections.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.
- 1.9 QUALITY ASSURANCE
- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

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- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.
- F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
 - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Pre-construction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
 - 1. Testing Agency Responsibilities: Submit a certified written report of each test,

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inspection, and similar quality-assurance service to Architect, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

- K. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
1. Build mockups in location and of as directed by the drawings. [See 5/A2-1.](#)
 2. Notify Architect days in advance of dates and times when mockups will be constructed.
 3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at Project.
 4. Demonstrate the proposed range of aesthetic effects and workmanship.
 5. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
 - a. Allow seven days for initial review and each re-review of each mockup.
 6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 7. Demolish and remove mockups when directed unless otherwise indicated.
- L. Integrated Exterior Mockups: Construct integrated exterior mockup according to approved Shop Drawings. Coordinate installation of exterior envelope materials and products for which mockups are required in individual Specification Sections, along with supporting materials.

1.10 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 2. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.
 3. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 01 3300 "Submittal Procedures."

SECTION 01 4000 - QUALITY REQUIREMENTS

- C. **Manufacturer's Technical Services:** Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in pre-installation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- D. **Retesting/Re-inspecting:** Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- E. **Testing Agency Responsibilities:** Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Architect, Commissioning Authority, Construction Manager, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 - 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 - 6. Do not perform any duties of Contractor.
- F. **Associated Services:** Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 - 1. Access to the Work.
 - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - 4. Facilities for storage and field curing of test samples.
 - 5. Delivery of samples to testing agencies.
 - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- G. **Coordination:** Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

SECTION 01 4000 - QUALITY REQUIREMENTS

1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- H. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents as a component of Contractor's quality-control plan. Coordinate and submit concurrently with Contractor's construction schedule. Update as the Work progresses.
 1. Distribution: Distribute schedule to Owner, Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.11 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specification Sections and in Statement of Special Inspections attached to this Section, and as follows:
 1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviews the completeness and adequacy of those procedures to perform the Work.
 2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
 4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 6. Retesting and re-inspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
 1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. Date test or inspection results were transmitted to Architect.
 4. Identification of testing agency or special inspector conducting test or inspection.

SECTION 01 4000 - QUALITY REQUIREMENTS

- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 01 7300 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 4000

SECTION 01 4100 - SPECIAL STRUCTURAL TESTING AND INSPECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 INTENT AND CONDITIONS

A. Intent

1. Define and coordinate structural testing and special inspection services.
2. Define and coordinate conventional testing and inspection services.
3. Provide greater confidence that the specified work is constructed in compliance with the contract documents and Chapter 17 of the 2018 International Building Code.
4. Testing and Inspection services are intended to assist in determining probable compliance of the work with requirements specified. These services do not relieve the Contractor of responsibility for compliance with the requirements of the contract documents.

B. Conditions

1. Special inspection reports and a final report in the accordance with Section 1704.1.2 of the Georgia State Minimum Standard Building Code shall be available at the time the building is approved for occupancy.
2. If inspection of fabricator's work is required, the Owner's representative may require testing and inspection of the work at the plant, before shipment. Owner, Architect and Structural Engineer of Record (SER) reserve the right to reject material not complying with the contract documents.
3. Testing and inspection shall be performed in accordance with the industry standard used as the reference for the specific material or procedure unless other criteria are specified. In the absence of a referenced standard, tests shall be accomplished in accordance with generally accepted industry standards.
4. Work shall be checked as it progresses, but failure to detect any defective work or materials shall in no way prevent later rejection if defective work or materials are discovered, nor shall it obligate Owner to accept such work.

1.3 Related Requirements

- A. Refer to PART 2 for technical scope sections regarding specific qualifications, inspections, tests, frequency and standards required.

SECTION 01 4100 - SPECIAL STRUCTURAL TESTING AND INSPECTION

1.4 Definitions

- A. Testing – Evaluation of systems, primarily requiring physical manipulation and analysis of materials, in accordance with approved standards.
- B. Inspection – Evaluation of systems, primarily requiring observation and engineering judgment.
- C. Structural Testing and Special Inspection – Structural Testing and Special Inspection Services herein include items required by the 2018 IBC as adopted by the current Georgia State Building Code, and other items which in the professional judgment of the Structural Engineer of Record, are critical to the integrity of the building structure.
- D. Conventional Testing and Inspection – Conventional Testing and Inspection Services herein describe those items not specially required by Code but may be considered essential to the proper performance of the building systems.
- E. Architect of Record – The prime consultant in charge of overall design and coordination of the project.
- F. Structural Engineer of Record (SER) – The Licensed Engineer in responsible charge of the structural design for the project.
- G. Licensed Structural Engineer: – A professional engineer with education and experience in the design of structures similar to this project licensed to practice in the state in which the project is located.
- H. Testing Agency (TA) – The properly qualified firm performing testing services.
- I. Special Inspector (SI) – A properly qualified individual or firm performing special inspections.
- J. Building Official – The Officer or his duly authorized representative charged with the administration and enforcement of the Georgia State Building Code.
- K. Continuous –The full-time observation of work requiring special inspection by an approved special inspector who is present in the area where the work is being performed.
- L. Periodic –The part-time or intermittent observation of work requiring special inspection by an approved special inspector who is present in the area where the work is being performed.

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1.5 References

- A. ASTM E329-02 - Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.
- B. ASTM E43-02 - Standard Practice for Agencies Performing Nondestructive Testing.
- C. ASTM C1077-02 - Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation.
- D. ASTM C1093-95 - Practice for Accreditation of Testing Agencies for Unit Masonry.
- E. ASTM D3740-01 - Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- F. SBCCI Standard Building Code (International Building Code), 2006 Edition, with Georgia Amendments referred herein as the Georgia State Building Code
- G. See technical sections of PART 2 for specific references.

1.6 Qualifications

- A. Testing Agency (TA) – The testing agency shall be an approved independent testing agency acceptable to the Owner, Architect, SER and as noted below:
 - 1. Authorized to operate in the state in which the project is located and experienced with the requirements and testing methods specified in the technical scope sections of PART 2.
 - 2. Meeting applicable requirements of Section 1.04 "References".
 - 3. Testing equipment shall be calibrated at reasonable intervals by devices of accuracy traceable to either the National Bureau of Standards, or to accepted values of natural physical constants.
- B. Guidelines for Qualifications of Special Inspectors:
 - 1. Any individual offering to perform special inspections or testing shall submit a registration or for approval by the building official.
 - 2. Except for professional engineers and architects registered in the state of the project, special inspectors shall meet the following criteria. Work experience shall be related to the field for which the inspector is being qualified and may be obtained by for an engineering firm specializing in the field in which registration is being sought.
 - 3. An individual shall meet a minimum of one of the requirements identified below, for each category in which approval is sought.

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- a. Reinforced Concrete (RC)
 - 1) Current International Code Council (ICC) Reinforced Concrete Special Inspector, or,
 - 2) Engineer in Training (EIT) with one year related experience under supervision of a Licensed PE
- b. Prestressed Concrete (PC), Pretension tendons (PC1)
 - 1) Current ICC Prestressed Concrete Special Inspector Certification
 - 2) EIT with one year related experience including plan reading under supervision of a Licensed PE
- c. Post-tension tendons (PC2)
 - 1) Current Post-Tensioning Institute (PTI) Certification Level 1
- d. Post-Tension Slabs-on-Ground (PTS)
 - 1) Current PTI Certification Level 1
- e. Welding (SW)
 - 1) Current American Welding Society (AWS) Certified Welding Inspector
 - 2) Current Canadian Welding Bureau Certified Welding Inspector
- f. Nondestructive Testing of Welds (SN), Nondestructive Testing of Welds (SN)
 - 1) Current Nondestructive Testing Level II and/or Level III (MT, PT & UT)
 - a) The applicant must be Level II certified by the American Society of Nondestructive Testing (ASNT) to perform Magnetic Particle Testing (MT) Liquid Penetrant Testing (PT) and Ultrasonic Testing (UT), or
 - 2) The applicant must be Level II certified by an ASNT Level III examiner to perform MT, PT and UT.
 - a) The Level III examiner shall be certified by ASNT and must submit a copy of his certification with the Level II certification.
- g. High-Strength Bolting/ Steel Frame (SS)
 - 1) Current ICC Structural Steel and Bolting Special Inspector

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- h. Structural Masonry (SM)
 - 1) EIT with one year related experience including plan reading under supervision of a Licensed PE
 - 2) Current ICC Structural Masonry Special Inspection
- i. Sprayed Fire-Resistant Materials (FP)
 - 1) Current ICC Spray-Applied Fireproofing Special Inspector
- j. Deep Foundations (PDP)
 - 1) Current National Institute for Certification in Engineering Technologies (NICET) Level II certification in geotechnical engineering technology/construction
 - 2) EIT with one year related experience under supervision of a Licensed PE
 - 3) Current SCDOT Foundation Inspector Certification
- k. Excavation and Filling (EF)/Verification of Soils (VS)
 - 1) Current NICET Level II certification in geotechnical engineering technology/construction
 - 2) Current NICET Level II in Soils
 - 3) EIT with one year related experience under supervision of a Licensed PE
 - 4) Soils Special Inspector
 - 5) Current SCDOT Earthwork, Drainage and Base Certification
- l. Modular Retaining Walls (MRW)
 - 1) EIT with one year related experience under supervision of a Licensed PE
- m. Precast Concrete Erection (PCE) (Not a separate registration)
 - 1) The special inspector shall be registered for Reinforced Concrete (RC) or Welding (SW) as required based on the type of inspection being performed.
- n. Exterior Insulation and Finish System (EIFS)
 - 1) EIT with one year related experience
- o. Smoke Control (SC)
 - 1) Current NICET N-II-FPAS

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- 2) Current NICET N-II-FPFA
- 3) Current National Environmental Balancing Bureau
- 4) Current Associated Air Balance Council

p. Inspection of Fabricators

- 1) Precast
 - a) Current ICC Reinforced Concrete Certification
 - b) Precast/Prestressed Concrete Institute Level II
- 2) Bar Joist
 - a) See welding/bolting requirements
- 3) Metal Building
 - a) See welding/bolting requirements
- 4) Structural Steel
 - a) See welding/bolting requirements
- 5) Lateral Force Resistance (SR)
 - a) EIT with two years related experience under supervision of a Licensed PE
- 6) Detention Basin (DB)
 - a) Professional land surveyor
 - b) EIT with two years related experience under supervision of a Licensed PE
- 7) Special Cases (XX)
 - a) BCC registration is limited to categories listed above. Special inspectors for special cases shall be approved by the jurisdictional building official.

1.7 Responsibilities

A. Structural Testing and Special Inspection

1. Special Inspectors:

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- a. Sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencement of construction.
 - b. If requested, attend a pre-construction meeting to review the scope of structural testing and special inspection.
 - c. Use the approved design drawings and specifications, supplemented by the approved shop drawings for review of the work.
 - d. Test and/or inspect the work assigned for conformance with the building department approved design drawings, specifications and applicable material and workmanship provisions of the Code. Perform testing and inspection in a timely manner to avoid delay of work.
 - e. Bring discrepancies to the immediate attention of the contractor for correction, confirm that they are corrected and, if uncorrected after a reasonable period of time, bring to the attention of the Structural Engineer of Record, the Building Official, and to the Architect.
 - 1) A "SPECIAL INSPECTION DISCREPANCY NOTICE" form is included at the end of this section.
 - f. Submit test and/or inspection reports to the Building Official, Contractor, the Structural Engineer of Record, and other designated persons in accordance with the Schedule of Special Inspection Services.
 - 1) A "SPECIAL INSPECTION DAILY REPORT" form is included at the end of this section.
 - 2) A "SPECIAL INSPECTION INTERIM REPORT " form is included at the end of this section.
 - g. Submit a final signed report stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans, specifications and the applicable workmanship provisions of the Code.
 - 1) The "FINAL REPORT OF SPECIAL INSPECTIONS" form is included at the end of this section.
2. Testing Agency:
- a. Sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencement of construction.
 - b. If requested, attend a pre-construction meeting to review the scope of structural testing and special inspection.
 - c. When engaged as a special inspector, provide structural testing and special inspection services as previously described.
3. Architect of Record (or other prime consultant):

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- a. Complete and sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencement of construction. Provide a completed copy of the schedule to all signed parties including Building Official.
 - 1) The " STATEMENT OF SPECIAL INSPECTIONS " form is included at the end of this section.
 - b. If appropriate, arrange and attend a pre-construction meeting to review the scope of structural testing and special inspection. Include Contractor, Building Official, SER, Testing Agency and other parties concerned.
 - c. Coordinate the flow of reports and related information to expedite resolution of construction issues.
4. Structural Engineer of Record (SER):
- a. Identify items requiring structural testing and special inspection including special cases.
 - b. Define "type" of special inspector required for "description" of work indicated on the structural testing and special inspection schedule.
 - c. Complete and sign the Schedule of Special Inspection Services prior to commencement of construction.
 - d. If requested, attend a pre-construction meeting to review the scope of structural testing and special inspection.
 - e. Review reports submitted by special inspectors.
 - f. If engaged as a special inspector, provide structural testing and special inspection services as previously described.
5. Contractor:
- a. Sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencement of construction.
 - b. Sign the Contractor's Statement Of Responsibility.
 - 1) The " CONTRACTOR'S STATEMENT OF RESPONSIBILITY " form is included at the end of this section.
 - c. If requested, attend a pre-construction meeting to review the scope of structural testing and special inspection.
 - d. Post or make available the Schedule of Special Inspection Services within its office at the job site. Also, provide adequate notification to those parties designated on the schedule so they may properly prepare for and schedule their work.
 - e. Provide the special inspectors access to the approved design drawings, approved shop drawings and specifications at the job site.
 - f. Review reports submitted by special inspectors.

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- g. Retain at the job site all reports submitted by the special inspectors for review by the building official upon request.
 - h. Correct in a timely manner, deficiencies identified in inspection and/or testing reports.
 - i. Provide the special inspector safe access to the work requiring inspection and/or testing.
 - j. Provide labor and facilities to provide access to the work and to obtain, handle and deliver samples, to facilitate testing and inspection and for storage and curing of test samples.
 - k. Verification of conformance of the work within specified construction tolerances is solely the Contractor's responsibility.
- 6. Fabricator:
 - a. Sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencing construction.
 - b. Sign the Fabricator's Certificate Of Compliance.
 - 1) The " FABRICATOR'S CERTIFICATE OF COMPLIANCE " form is included at the end of this section.
 - c. Submit a Certificate of Compliance to the Building Official, Special Inspector, and Structural Engineer of Record that the work was performed in accordance with the approved plans and specifications.
- 7. Building Official (Typical responsibilities noted for information only):
 - a. Determine work, which in the Building Officials opinion, involves unusual hazards or conditions in accordance with the IBC.
 - b. Review special inspector qualifications.
 - c. Accept and sign the completed Schedule of Special Inspection Services.
 - d. Review all fabricators who perform work in their shop, which requires special inspection.
 - e. Review reports and recommendations submitted by the special inspectors.
 - f. Review the "final signed reports" submitted by the special inspector(s). These documents should be accepted and approved by the building department prior to issuance of a Certificate of Occupancy.
- 8. Owner:
 - a. Establish direct funding to provide for cost of structural testing and special inspection services.
 - b. Provide special inspector with approved design drawings, specifications and approved shop drawings.
 - c. Provide special inspectors and testing agencies with full access to site at all times.

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- d. Sign the Schedule of Special Inspection Services in conjunction with other responsible parties prior to commencement of construction.

B. Conventional Testing and Inspection

1. Testing Agency:

- a. Test or inspect the work assigned, for conformance with building department approved plans, specifications and applicable workmanship provisions of the IBC.
- b. Bring non-conforming items to the immediate attention of the Contractor, and if uncorrected to the Architect of Record.
- c. Submit test and/or inspection reports to the Architect of Record, the Contractor and other designated persons.

2. Contractor:

- a. Provide adequate notification to testing agency so they may properly prepare for and schedule their work.
- b. Provide testing agency with access to the approved design drawings, approved shop drawings and specifications at the job site.
- c. Correct in a timely manner, deficiencies identified in test and/or inspection reports.
- d. Provide testing agency with safe access to the work requiring testing and inspection.
- e. Provide labor and facilities to provide access to the work and to obtain and handle samples, to facilitate testing and inspection and for storage and curing of test samples.
- f. Verification of conformance of the work within specified construction tolerances is solely the Contractor's responsibility.

3. Architect of Record (or other prime consultant):

- a. Coordinate the flow of reporting and related information to expedite resolution of construction issues.

C. Inspections by Building Official

1. Contractor shall provide adequate notice for inspections performed by the Building Official, as required by the 2012 IBC, the Georgia State Building Code, and local ordinance.

D. Periodic Site Observations by Design Consultant

1. Special structural testing and inspection, conventional testing and inspection, and periodic inspections by the Building Official do not preclude the normal field involvement and site observations by Architect or Structural Engineer of Record,

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nor shall it relieve the Contractor of any responsibility to complete the work in accordance with the approved drawings and specifications.

E. Limits of Authority

1. Testing agents and/or special inspectors may not waive or alter contract requirements, or approve or accept any portion of the work unless specifically authorized by the Architect or Structural Engineer of Record. They may not assume any duties of the Contractor, and they have no authority to stop or reject "Work".

1.8 Payment

- A. Owner shall directly employ and pay for services of the special inspectors to perform required Structural Testing and Special Inspection.
- B. Owner shall employ and pay for services of the testing agency to perform required Conventional Testing and Inspection.
- C. Unless noted otherwise, the Contractor shall provide and pay for all materials, samples, mock-ups, and assemblies required for testing and inspection and shall pay for all shipping costs related to delivery of this work. Testing agency will pay for shipping costs of samples transported from site to lab.
- D. If exploratory work is required to determine the cause of defects, the cost of such work shall be paid by the Contractor, if the work is found to be defective, in the judgment of the Architect/Engineer. Contractor shall reimburse the Owner for all costs incurred in this event.
- E. Any tests required to qualify the Contractor, or the workmen for any phase of the work, shall be performed at no additional cost to the Owner.

1.9 Inspection Notice

- A. Contractor shall provide minimum of 24 hours notice for all items requiring testing or inspection. Items requiring testing and inspection services prior to or during placement shall not be placed until testing and inspection services are available. Items requiring testing and inspection services after placement shall not be enclosed or obscured until testing and inspection services are performed.

1.10 Reports

- A. Testing agency and/or special inspectors shall submit reports in accordance with the Schedule of Special Inspection Services and shall conduct and interpret tests and

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inspections and state in each report whether; (1) test specimens and observations comply with Contract Documents, and specifically state any deviations, (2) record types and locations of defects found in work, (3) record work required and performed, to correct deficiencies.

- B. Reports for structural testing and special inspection, shall be submitted in timely manner to the Contractor, Building Official, SER, and Architect of Record.
 - 1. Submit a final signed report stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans, specifications and the applicable workmanship provisions of the code.
- C. Reports for conventional testing and inspection shall be submitted in a timely manner to the Contractor and the Architect of Record.

1.11 Frequency of Testing and Inspection

- A. For detailed requirements see Schedule of Special Inspection Services.

1.12 Protection and Repair

- A. Upon completion of testing, sample-taking, or inspection, the Contractor shall repair damaged work and restore substrates and finishes to eliminate deficiencies, including deficiencies in the visual qualities of exposed surfaces, as judged solely by the Architect/Engineer of Record. Protect work exposed by or for testing and/or inspection and protect repaired work. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for testing and/or inspection.

1.13 Tests to Demonstrate Qualification

- A. If the Contractor proposes a product material, method, or other system that has not been pre-qualified, the Architect may require applicable tests, to establish a basis for acceptance or rejection. These tests will be paid for by the Contractor.
- B. The Architect/Engineer of Record reserves the right to require certification or other proof that the system proposed, is in compliance with any tests, criteria or standards called for. The certificate shall be signed by a representative of an independent testing agency.

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PART 2 - MATERIALS (NOT USED)

PART 3 - SCOPE OF TESTING AND INSPECTION

3.1 Schedule of Special Inspection Services

- A. The parties involved shall complete and sign the Schedule of Special Inspection Services. The Program, including Summary Schedule, shall be submitted to the building official for approval prior to issuance of a building permit. The completed schedule includes the following:
1. A specific listing of the items requiring inspection and testing.
 2. The associated technical scope sections that define the applicable standards by which to judge conformance with the approved plans and specifications in accordance with the IBC, as adopted by the Georgia State Building Code. The technical scope sections should also include the degree or basis of inspection and testing; i.e., intermittent/will-call or full-time/continuous.
 3. The frequency of reporting, i.e., weekly, monthly, per test/inspection, per floor, etc.
 4. The parties responsible for performing the inspection and testing work.
 5. The required acknowledgments by each designated party.

3.2 Conventional Testing and Inspection

- A. Schedule of Special Inspection Services
1. See attached form at end of section.

3.3 Technical Sections

- A. Section 02080 - Trench Excavation, Bedding, Backfill And Compaction
1. IBC Code Section 1704.7 Soils
 2. Definitions
 - a. Refer to PART 1 for standard definitions.
 - b. Refer to PART 1 for Guidelines for Qualifications of Special Inspectors.
 3. Structural Testing and Special Inspection Requirement
Item and Frequency
 - a. Classification of materials used and encountered during construction per ASTM:D2488 and ASTM:D2487.

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- b. Performance of laboratory testing of materials, as needed (Proctor, Sieve Analysis, Atterberg Limits, Consolidation Test, etc.).
 - c. Field Density Tests:
 - d. Provide periodic results of field compaction and laboratory work for general compliance with Contract Documents and Geotechnical Reports.
 - e. Observe all subgrades/excavation bases below footings and slabs and verify design bearing capacity is achieved.
 - f. Document presence of groundwater within excavations.
 - g. Provide reports of subgrade observations for general compliance with Contract Documents and Geotechnical Report.
 - h. Verify cut and fill slopes as specified in the contract documents.
4. Conventional Testing and Inspections Requirements
- a. Contractor shall verify that footings comply with frost depth requirements and shall report any variances to the SER in a timely manner.

B. Section 03 3000 - Concrete

- 1. IBC Code Section 1704.4 Concrete Construction
- 2. General
 - a. Refer to Section 05 1200 - Structural Steel for inspections involving welding reinforcing steel.
- 3. Definitions
 - a. Refer to PART 1 for standard definitions.
 - b. Refer to PART 1 for Guidelines for Qualifications of Special Inspectors.
- 4. Structural Testing and Special Inspection Requirements
 - a. Verify formwork dimensions for all concrete, excluding:
 - 1) Isolated spread footings of buildings three stories or less in height that are fully supported on earth or rock
 - 2) Strip footings of buildings three stories or less in height that are fully supported on earth or rock, where the footings support walls of light frame construction, the footings are designed in accordance with Table 1805.4.2, or the footing structural design is based on a f'_c no greater than 2500 psi.
 - 3) Non-structural slabs on grade, including prestressed slabs on grade when effective prestress in concrete is less than 150 pounds per square inch.

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- 4) Concrete foundation walls constructed in accordance with Table 1805.5(2), Table 1805.5(3) or Table 1805.5(4).
 - 5) Concrete patios, driveways and sidewalks on grade.
- b. Inspect reinforcement in all cast in place concrete, excluding:
- 1) Isolated spread footings of buildings three stories or less in height that are fully supported on earth or rock
 - 2) Strip footings of buildings three stories or less in height that are fully supported on earth or rock, where the footings support walls of light frame construction, the footings are designed in accordance with Table 1805.4.2, or the footing structural design is based on a f'_c no greater than 2500 psi.
 - 3) Non-structural slabs on grade, including prestressed slabs on grade when effective prestress in concrete is less than 150 pounds per square inch.
- c. Verify the following:
- 1) Verify reinforcing bar grade.
 - 2) Verify reinforcing bars are free of dirt, excessive rust, and damage.
 - 3) Verify reinforcing bars are adequately tied, chaired, and supported to prevent displacement during concrete placement.
 - 4) Verify proper clear distances between bars and to surfaces of concrete.
 - 5) Verify reinforcing bar size and placement.
 - 6) Verify bar laps for proper length and stagger.
 - 7) Verify mechanical splices are placed in accordance with the plans, specifications and reviewed shop drawings.
 - 8) Verify weldability of reinforcing steel, other than ASTM A706. Verify welding of reinforcing bars meets requirements set forth in Section 05100.
 - 9) Verify epoxy coating is present at locations noted on the plans and specifications, include tie wires, chairs, bolsters, etc. Verify coating damage is repaired in accordance with the contract documents.
- d. Sample and test all cast in place concrete.
- 1) Prepare compression test specimens (ASTM C31), one set of four standard cylinders of concrete for each compressive strength test, mold and store cylinders for laboratory-cured specimens.
 - 2) Perform compressive strength tests (ASTM C39). One set of four cylinders for each day's pour between one and 25 cubic yards. If a day's pour exceeds 25 cubic yards, one set of four cylinders for each additional 50 cubic yards, or fraction thereof. One specimen at seven days, two at 28 days, and one specimen retained in reserve

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for later testing if required. For post tensioned concrete, make and test an additional cylinder at three days to verify strength prior to stressing. (When frequency of testing will provide less than five strength tests for a given class of concrete, conduct at least five strength tests from randomly selected batches. If fewer than five batches are used, conduct one test from each batch.)

- 3) Slump (ASTM C143): One test at point of discharge for each set of compression test specimens; additional tests when concrete consistency appears to have changed.
 - 4) Air entrainment (ASTM C231): Test the first batch of air entrained concrete and one additional test for each set of compression test specimens.
 - 5) Concrete Temperature: Test concrete temperature hourly when air temperature is 40F and below and when 80F and above, and each time a set of compression test specimens is made.
- e. Perform concrete mix verification.
- 1) Verify mixer truck trip ticket conforms to approved mix design.
 - 2) Verify that total water added to mix on site does not exceed that allowed by concrete mix design.
 - 3) Verify that concrete quality is indicative of adequate mixing time, consistency, and relevant time limits.
- f. Inspect preparation and placement of all concrete, excluding:
- 1) Isolated spread footings of buildings three stories or less in height that are fully supported on earth or rock
 - 2) Strip footings of buildings three stories or less in height that are fully supported on earth or rock, where the footings support walls of light frame construction, the footings are designed in accordance with Table 1805.4.2, or the footing structural design is based on a f'_c no greater than 2500 psi.
 - 3) Non-structural slabs on grade, including prestressed slabs on grade when effective prestress in concrete is less than 150 pounds per square inch.
 - 4) Concrete foundation walls constructed in accordance with Table 1805.5(2), Table 1805.5(3) or Table 1805.5(4).
 - 5) Verify the following:
 - a) Verify acceptable general condition of concrete base prior to placement.
 - b) Verify that concrete conveyance and depositing avoids segregation and contamination.
 - c) Verify that concrete is properly consolidated.

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- d) Verify reinforcement remains at proper location.
 - g. Observe protection and curing methods for all concrete, excluding:
 - 1) Isolated spread footings of buildings three stories or less in height that are fully supported on earth or rock
 - 2) Strip footings of buildings three stories or less in height that are fully supported on earth or rock, where the footings support walls of light frame construction, the footings are designed in accordance with Table 1805.4.2, or the footing structural design is based on a f'_c no greater than 2500 psi.
 - 3) Non-structural slabs on grade, including prestressed slabs on grade when effective prestress in concrete is less than 150 pounds per square inch.
 - 4) Concrete foundation walls constructed in accordance with Table 1805.5(2), Table 1805.5(3) or Table 1805.5(4).
 - 5) Verify the following:
 - a) Verify specified curing procedures are followed.
 - b) Verify that specified hot and cold weather procedures are followed.
 - h. Inspect all bolts installed in concrete.
 - 1) Verify specified size, type, spacing, configuration, embedment, and quantity.
 - 2) Verify proper concrete placement and means have been taken to achieve consolidation around all bolts.
5. Conventional Testing and Inspection Requirements
- a. (Not Used)
- C. Section 05 1200 - Structural Steel
- 1. IBC Code Section 1704.3 Steel Construction
 - 2. General
 - a. If special inspection of fabricators work is required, testing agent may test and inspect structural steel at plant before shipment. Owner and SER reserve right to reject material not complying with Contract Documents at any time before final acceptance.
 - 3. Definitions
 - a. Refer to PART 1 for standard definitions.

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- b. Refer to PART 1 for Guidelines for Qualifications of Special Inspectors.
 - c. A.S.N.T: The American Society for Non-destructive Testing.
 - d. N.D.E.: Non-destructive Evaluation.
 - e. A.W.S./C.A.W.I. : American Welding Society/Certified Associate Weld Inspector.
 - f. A.W.S./C.W.I.: American Welding Society/Certified Weld Inspector.
 - g. R.C.S.C: Research Council On Structural Connections
4. Structural Testing and Special Inspection Requirements
- Item and Frequency
- a. High Strength Bolting (Field Installed):
 - 1) General
 - a) On a periodic basis, visually inspect mating surfaces and bolt type for all slip-critical bolted connections for general conformance with the contract documents prior to bolting.
 - b) Determine the requirements for bolts, nuts, washers, paint and installation/tightening standards are met.
 - c) Observe calibration procedures when such procedures are required in the contract documents and verify that selected procedure is used to tighten bolts.
 - 2) Slip Critical Bolts and Tension Bolts
 - a) Test bolt tightening in 10% of all bolts. Test a minimum of two bolts in each connection. Verify that all plies of connected elements have been brought into contact, at 100% of connections. Verify all tips are removed from "twist"-off bolts.
 - 3) Bearing Bolts
 - a) On a periodic basis, visually inspect to confirm all plies of connected elements have been brought into contact, at 100% of connections. (Applies only to bolts designed for values not requiring exclusion of threads from failure plane, all other bolts require testing as for tension bolts.)
 - 4) Standard
 - a) Test High Strength bolted connections per R.C.S.C. "Specifications for Structural Joints Using ASTM A325 or A490 Bolts."

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- b) High Strength Bolting (Shop Installed): For shop fabricated work, perform tests required for field installation, except that bolt testing may be reduced or deleted, if fabrication shop satisfies AISC Quality Certification Program - Category I, or more stringent criteria, or is approved by building official and SER.
- c) Welding (General): The Special Inspector shall perform the following on a periodic basis:
 - 1)) Prior to start of fabrication determine if fabrication shop meets the criteria for exempting shop welds from inspection and confirm in writing to building official and SER.
 - 2)) Verify qualifications of all welders as AWS certified.
 - 3)) Verify Manufacturer's certificate of compliance for weld filler materials.
 - 4)) Verify proposed welding procedures and materials.
 - 5)) Verify adequate preparation of faying surfaces.
 - 6)) Verify preheat and interpass temperatures of steel, proper technique and sequence of welding, and cleaning and number of passes are provided as required.
- d) Welding (Field):
 - 1)) Fillet Welds: On a periodic basis, visually inspect 100% of all fillet welds, for size, length, and quality, per AWS D1.1.
 - 2)) Partial Penetration Welds: Test 100% of all partial penetration welds exceeding 5/16inch, using Ultrasonic Testing per A.W.S. D1.1. Test 25% of all partial penetration welds less than 5/16 inch, using Magnetic Particle Testing per ASTM E-109, performed on root pass and on finished weld.
 - 3)) Welding (Exceptions): Refer to IBC 1704.3, exception 2) for exceptions to continuous inspection for items including:
 - a)) Single pass fillet welds not exceeding 5/16" size.
 - b)) Welded studs when used for structural diaphragm.
 - c)) Sheet metal or cold formed framing.
 - d)) Stairs and railing systems.
 - 4)) Full Penetration Welds: Test 100% of all full penetration welds exceeding 5/16 inch, using Ultrasonic Testing per A.W.S. D1.1 Test 25% of all full penetration welds less than 5/16 inch, using Magnetic Particle testing per ASTM E-109, performed on root pass and on finished weld.
 - 5)) Stud Shear Connector Welds: Visually inspect 100% of installed studs for full 360° flash. Test all questionable studs, not showing full 360° flash by bending studs to 15°

SECTION 01 4100 - SPECIAL STRUCTURAL TESTING AND INSPECTION

from vertical, away from welds continuity, per AWS D1.1. All ceramic welding ferrules shall be removed by contractor. Randomly test all other studs by bending to 15° from vertical as noted:

- a)) Studs welded thru deck 15%
- b)) Studs welded to bare steel 5%. Alternatively, sound 100% of installed studs, for full penetration weld, using an 8 lb. maul. Test questionable studs as noted above. Welding ferrules need not be removed.
- 6)) Steel Joist/Joist Girder Welds: Provide testing and inspection for field welds previously described.
- 7)) Deck Welds: On a periodic basis, visually inspect size, location, length and burn thru for 100% of puddle welds on metal deck designed as a structural element, per AWS D1.3.
- 8)) Cold Formed Metal Framing Welds: On a periodic basis, visually inspect 100% of welds for specified length, size, and continuity in accordance with AWS D1.3 for metal less than 1/8" in thickness, for work designed as a structural element.
- 9)) Welding of Reinforcing Bars: Visually inspect 100% of all reinforcing bar welds as the welding is performed, per AWS D1.4.
 - a)) Verify weldability of reinforcing steel other than ASTM A706.
 - b)) Verify proper joint preparation is provided and proper electrodes are used and properly stored and dried.
- 10)) Miscellaneous Metals, Inserts and Prefabricated Components: Where integrity of the connections impact life safety or performance of the building structure, provide testing and inspection as for typical welds previously specified.
- e) Welding (Shop):
 - 1)) Perform inspections as for field welding except weld testing may be reduced or deleted, if fabrication shop satisfies AISC Quality Certification Program - Category I, or more stringent criteria, and is approved by building official and SER.
- f) Mechanical Fasteners (Misc.):
 - 1)) Fasteners: Visually inspect specified size, spacing, embedment, and location.
- g) Structural Configuration:
 - 1)) Submittals: Verify mill test reports and other submitted documentation, for compliance with contract document.
 - 2)) Materials: Verify materials delivered to site comply with contract documents and approved shop drawings. Materials include:

SECTION 01 4100 - SPECIAL STRUCTURAL TESTING AND INSPECTION

- a)) Structural Steel
 - b)) Bolts
 - c)) Electrodes
 - d)) Mechanical fasteners
 - e)) Deck gauge
 - 3)) Detail Compatibility. On a periodic basis:
 - a)) Review project documents affecting integrity of the structure, including contract documents and pertinent submittals (approved shop drawings).
 - b)) Visit site, at intervals appropriate to the stage of construction, to perform review of the structure and visually confirm general compliance with the project documents.
 - c)) Inspect the following to verify member orientation, configuration, type, and size complies with details indicated on the contract documents an approved shop drawings:
 - 1))) Bracing and stiffening members.
 - 2))) Proper applications of joint details at connections for structural members.
 - 3))) Other work critical to the integrity of the building structure.
 - 4)) Conventional Testing and Inspection Requirements
 - a)) High Strength Bolting
 - 1))) Bolt Material Test: Test a minimum of two bolts of each ASTM class specified, for bolt hardness and tensile properties.
 - 2))) Fabrication and Erection Tolerances: Verify in-place structure satisfies specified tolerances.
- 3.4 Refer to attached Appendix – Section 01 4100 Schedule of Special Inspections Schedule.

STATEMENT OF SPECIAL INSPECTIONS

PROJECT: Filmore Thomas Park Renovation

LOCATION: 3793 Log Cabin Dr. Macon, GA 31204-3753

PERMIT APPLICANT: _____

APPLICANT'S ADDRESS: _____

ARCHITECT OF RECORD: Brandon Fairbanks, WM2A Architects, GA License #RA016919

STRUCTURAL ENGINEER OF RECORD: Matt Ellis, GA SE License #SE000061

MECHANICAL ENGINEER OF RECORD: Krunal Patel, Total Engineers

ELECTRICAL ENGINEER OF RECORD: Jeff McGee, Electrical Design Consultants, Inc.

REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE: Brandon Fairbanks, WM2A Architects

This Statement of Special Inspections is submitted in accordance with Section 1704.3 of the 2018 International Building Code. It includes a *Schedule of Special Inspection Services* applicable to the above-referenced Project as well as the identity of the individuals, agencies, or firms intended to be retained for conducting these inspections. If applicable, it includes *Special Inspections for Seismic Resistance* and/or *Special Inspections for Wind Resistance*.

Are *Special Inspections for Seismic Resistance* included in the *Statement of Special Inspections*? ☐ Yes ☒ No

Are *Special Inspections for Wind Resistance* included in the *Statement of Special Inspections*? ☐ Yes ☒ No

The Special Inspector(s) shall keep records of all inspections and shall furnish interim inspection reports to the Building Official and to the Registered Design Professional in Responsible Charge at a frequency agreed upon by the Design Professional and the Building Official prior to the start of work. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge prior to completion of that phase of work. A *Final Report of Special Inspections* documenting required special inspections and corrections of any discrepancies noted in the inspections shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge at the conclusion of the project.

Frequency of interim report submittals to the Registered Design Professional in Responsible Charge:

___ Weekly ___ Bi-Weekly x Monthly Other; specify: _____

The Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract Documents. Jobsite safety and means and methods of construction are solely the responsibility of the Contractor.

Statement of Special Inspections Prepared by:

Matt Ellis

Type or print name

Matt Ellis

Signature

10/30/24

Date

Building Official's Acceptance:

Signature

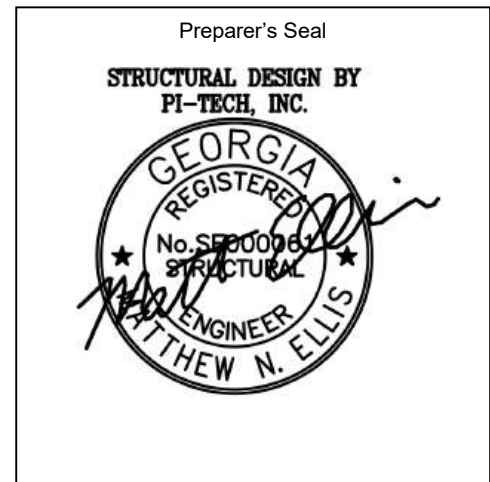
Date

Permit Number:

Frequency of interim report submittals to the Building Official:

___ Monthly ___ Bi- Monthly ___ Upon Completion Other; specify: _____

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Special Inspections for Wind Resistance

See the Schedule of Special Inspections for inspection and testing requirements

Allowable Stress Design Wind Speed, V_{asd} : 85 m.p.h.

Wind Exposure Category: C

Special Inspection for Wind Resistance Required (Yes/No): NO

(Required in wind exposure Category B, where the allowable stress design wind speed, V_{asd} , is 120 miles per hour or greater. Required in wind exposure Category C or D, where the allowable stress design wind speed, V_{asd} , is 110 miles per hour or greater.)

Description of structural wood and cold-formed steel light frame construction main windforce-resisting system subject to special inspections for wind resistance:

(Required for systems noted in IBC Section 1705.11.1 and 1705.11.2).

N/A

Description of windforce-resisting components subject to special inspections for wind resistance:

(Required for systems and components noted in IBC Section 1705.11.3)

N/A

Statement of Responsibility:

Each contractor responsible for the construction or fabrication of a system or component described above must submit a Statement of Responsibility.

Special Inspections for Seismic Resistance

See the Schedule of Special Inspections for inspection and testing requirements

Seismic Design Category: B

Special Inspections for Seismic Resistance Required (Yes/No): NO

Description of seismic force-resisting system subject to special inspection and testing for seismic resistance:

(Where required per IBC Sections 1705.12.1, 1705.12.2, and 1705.12.3) (Special inspections for seismic resistance of structural steel, where required, shall be in accordance with AISC 341)

N/A

Description of designated seismic systems subject to special inspection and testing for seismic resistance:

(Required for architectural, electrical and mechanical systems and their components that require design in accordance with Chapter 13 of ASCE 7, have a component importance factor, I_p , greater than one and are in Seismic Design Categories C, D, E or F.)

N/A

Description of additional seismic systems and components requiring special inspections:

(Required for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)

N/A

Description of additional seismic systems and components requiring testing:

(Where required per IBC Section 1705.13)

N/A

Statement of Responsibility:

Each contractor responsible for the construction or fabrication of a system or component described above must submit a Statement of Responsibility.

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.1.1 Special Cases (work unusual in nature, including but not limited to alternative materials and systems, unusual design applications, materials and systems with special manufacturer's requirements - add additional rows as needed.)	Submittal review, shop (3) and/or field inspection				
1. Inspection of anchors post-installed in solid grouted masonry: Per research reports including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, masonry unit, grout, masonry compressive strength, anchor embedment and tightening torque	Field inspection	N	Periodic or as required by the research report issued by an approved source	N/A	
2. Aggregate Pier Inspection: The special inspector's responsibilities include, but are not limited to, review of the aggregate pier designer's use of soil parameters as presented in the project soils report, and during construction, verification of aggregate properties, type and number of lifts of aggregate, hole size and depths and top elevations of the pier elements, and applied energy. Additionally, results of qualitative tests on production aggregate pier elements such as modulus load testing, uplift pull-out testing, bottom stabilization tests and dynamic cone penetration tests, shall be reviewed to verify compliance with design specifications.	Field inspection	N	Periodic or as required by the research report issued by an approved source	N/A	
1705.2.1 Structural Steel Construction					
1. Fabricator and erector documents (Verify reports and certificates as listed in AISC 360, Section N 3.2 for compliance with construction documents)	Submittal Review	N	Each submittal	N/A	
2. Material verification of structural steel	Shop (3) and field inspection	N	Periodic	N/A	
3. Structural steel welding:					
a. Inspection tasks Prior to Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-1)	Shop (3) and field inspection	N	Observe or Perform as noted (4)	N/A	
b. Inspection tasks During Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-2)	Shop (3) and field inspection	N	Observe (4)	N/A	
c. Inspection tasks After Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-3)	Shop (3) and field inspection	N	Observe or Perform as noted (4)	N/A	
d. Nondestructive testing (NDT) of welded joints: <i>see Commentary</i>					
1) Complete penetration groove welds 5/16" or greater in <i>risk category III or IV</i>	Shop (3) or field ultrasonic testing - 100%	N	Periodic	N/A	
2) Complete penetration groove welds 5/16" or greater in <i>risk category II</i>	Shop (3) or field ultrasonic testing - 10% of welds minimum	N	Periodic	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
3) Welded joints subject to fatigue when required by AISC 360, Appendix 3, Table A-3.1	Shop (3) or field radiographic or Ultrasonic testing	N	Periodic	N/A	
4) Fabricator's NDT reports when fabricator performs NDT	Verify reports	N	Each submittal (5)	N/A	
4. Structural steel bolting:	Shop (3) and field inspection				
a. Inspection tasks Prior to Bolting (Observe, or perform tasks for each bolted connection, in accordance with QA tasks listed in AISC 360, Table N5.6-1)		N	Observe or Perform as noted (4)	N/A	
b. Inspection tasks During Bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2)		N	Observe (4)	N/A	
1) Pre-tensioned and slip-critical joints					
a) Turn-of-nut with matching markings		N	Periodic	N/A	
b) Direct tension indicator		N	Periodic	N/A	
c) Twist-off type tension control bolt		N	Periodic	N/A	
d) Turn-of-nut without matching markings		N	Continuous	N/A	
e) Calibrated wrench		N	Continuous	N/A	
2) Snug-tight joints		N	Periodic	N/A	
c. Inspection tasks After Bolting (Perform tasks for each bolted connection in accordance with QA tasks listed in AISC 360, Table N5.6-3)		N	Perform (4)	N/A	
5. Visual inspection of exposed cut surfaces of galvanized structural steel main members and exposed corners of the rectangular HSS for cracks subsequent to galvanizing	Shop (3) or field inspection	N	Periodic	N/A	
6. Embedments (Verify diameter, grade, type, length, embedment. See 1705.3 for anchors)	Field inspection	N	Periodic	N/A	
7. Verify member locations, braces, stiffeners, and application of joint details at each connection comply with construction documents	Field inspection	N	Periodic	N/A	
1705.2.2 Cold-Formed Steel Deck					
1. Manufacturer documents (Verify reports and certificates as listed in SDI QA/QC, Section 2, Paragraphs 2.1 and 2.2 for compliance with construction documents)	Submittal Review	N	Each submittal	N/A	
2. Material verification of steel deck, mechanical fasteners and welding materials	Shop (3) and field inspection	N	Periodic	N/A	
3. Cold-formed steel deck placement:	Shop (3) and field inspection				
a. Inspection tasks Prior to Deck Placement (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.1)		N	Perform (4)	N/A	
b. Inspection tasks After Deck Placement (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.2)		N	Perform (4)	N/A	
4. Cold-formed steel deck welding:	Shop (3) and field inspection				
a. Inspection tasks Prior to Welding (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.3)		N	Observe (4)	N/A	
b. Inspection tasks During Welding (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.4)		N	Observe (4)	N/A	
c. Inspection tasks After Welding (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.5)		N	Perform (4)	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
5. Cold-formed steel deck mechanical fastening:	Shop (3) and field inspection				
a. Inspection tasks Prior to Mechanical Fastening (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.6)		N	Observe (4)	N/A	
b. Inspection tasks During Mechanical Fastening (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.7)		N	Observe (4)	N/A	
c. Inspection tasks After Mechanical Fastening (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.8)		N	Perform (4)	N/A	
1705.2.3. Open-Web Steel Joists and Joist Girders					
1. Installation of open-web steel joists and joist girders.					
a. End connections - welding or bolted.	per SJI CJ or SJI 100	N	Periodic	N/A	
b. Bridging - horizontal or diagonal.					
1) Standard bridging.	per SJI CJ or SJI 100	N	Periodic	N/A	
2) Bridging that differs from the specifications listed in SJI CJ or SJI 100.		N	Periodic	N/A	
1705.2.4. Cold-Formed Steel Trusses Spanning 60 feet or Greater					
Verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection	N	Periodic	N/A	
1705.3 Concrete Construction					
1. Inspection and placement verification of reinforcing steel and prestressing tendons.	Shop (3) and field inspection	Y	Periodic	3	
2. Reinforcing bar welding:		N		N/A	
a. Verification of weldability of bars other than ASTM A706.			Periodic		
b. Inspection of single-pass fillet welds 5/16 or less in size.			Periodic		
c. Inspection of all other welds.			Continuous		
3. Inspection of anchors cast in concrete.	Shop (3) and field inspection	Y	Periodic	3	
4. Inspection of anchors post-installed in hardened concrete members per research reports, or, if no specific requirements are provided, requirements shall be provided by the registered design professional and approved by the building official, including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque	Field inspection	Y	Periodic or as required by the research report issued by an approved source	3	
a. Adhesive anchors installed in horizontal or upward-inclined orientation that resist sustained tension loads.		N	Continuous	N/A	
b. Mechanical and adhesive anchors not defined in 4a.		Y	Periodic	3	
5. Verify use of approved design mix	Shop (3) and field inspection	Y	Periodic	3	
6. Prior to placement, fresh concrete sampling, perform slump and air content tests and determine temperature of concrete and perform any other tests as specified in construction documents.	Shop (3) and field inspection	Y	Continuous	3	
7. Inspection of concrete and shotcrete placement for proper application techniques	Shop (3) and field inspection	Y	Continuous	3	
8. Verify maintenance of specified curing temperature and techniques	Shop (3) and field inspection	Y	Periodic	3	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
9. Inspection of prestressed concrete:	Shop (3) and field inspection	N		N/A	
a. Application of prestressing force		N	Continuous	N/A	
b. Grouting of bonded prestressing tendons		N	Continuous	N/A	
10. Inspect erection of precast concrete members		N	Periodic	N/A	
11. Verification of in-situ concrete strength, prior to stressing of tendons in post tensioned concrete and prior to removal of shores and forms from beams and structural slabs	Review field testing and laboratory reports	N	Periodic	N/A	
12. Inspection of formwork for shape, lines, location and dimensions	Field inspection	Y	Periodic	3	
13. Concrete strength testing and verification of compliance with construction documents	Field testing and review of laboratory reports	Y	Periodic	3	
1705.4 Masonry Construction					
MINIMUM VERIFICATION REQUIREMENTS					
(A) Level 1, 2 and 3 Quality Assurance:					
1. Prior to construction, verification of compliance of submittals	Submittal Review	Y	Prior to Construction	3	
(B) Level 2 & 3 Quality Assurance:					
1. Prior to construction verification of f_m and f_{AAC} except where specifically required by the code	Testing by unit strength method or prism test method	Y	Prior to Construction	3	
2. During construction, verification of Slump Flow and Visual Stability Index (VSI) when self-consolidating grout is delivered to project site.	Testing by unit strength method or prism test method	Y	Periodic	3	
(C) Level 3 Quality Assurance:					
1. During construction, verification of f_m and f_{AAC} for every 5,000 SF	Testing by unit strength method or prism test method	N	Periodic	N/A	
2. During construction, verification of proportions of materials as delivered to the project site for premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout.	Field inspection	N	Periodic	N/A	
MINIMUM SPECIAL INSPECTION REQUIREMENTS					
(D) Levels 2 and 3 Quality Assurance:					
1. As masonry construction begins, verify that the following are					
a. Proportions of the site-prepared mortar	Field inspection	Y	Periodic	3	
b. Grade and size of prestressing tendons and anchorages	Field Inspection	N	Periodic	N/A	
c. Grade, type, and size of reinforcement, anchor bolts, and prestressing tendons and anchorages	Field Inspection	Y	Periodic	3	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
d. Prestressing technique	Field Inspection	N	Periodic	N/A	
e. Properties of thin-bed mortar for AAC masonry	Field Inspection	N	Level 2 - Continuous ^(b) Level 2 - Periodic ^(c)	N/A	
(b) Required for the first 5,000 square feet (c) Required after the first 5,000 square feet		N	Level 3 - Continuous	N/A	
f. Sample panel construction	Field Inspection	N	Level 2 - Periodic	N/A	
		N	Level 3 - Continuous	N/A	
2. Prior to grouting, verify that the following are in compliance:					
a. Grout space	Field Inspection	Y	Level 2 - Periodic	3	
		N	Level 3 - Continuous	N/A	
b. Placement of prestressing tendons and anchorages	Field Inspection	N	Periodic	N/A	
c. Placement of reinforcement, connectors, and anchor bolts	Field inspection	Y	Level 2 - Periodic	3	
		N	Level 3 - Continuous	N/A	
d. Proportions of site-prepared grout and prestressing grout for bonded tendons	Field Inspection	Y	Periodic	3	
3. Verify compliance of the following during construction:					
a. Materials and procedures with the approved submittals	Field inspection	Y	Periodic	3	
b. Placement of masonry units and mortar joint construction	Field Inspection	Y	Periodic	3	
c. Size and location of structural members	Field inspection	N	Periodic	N/A	
d. Type, size, location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction	Field inspection	Y	Level 2 - Periodic	3	
		N	Level 3 - Continuous	N/A	
e. Welding of reinforcement	Field inspection	N	Continuous	N/A	
f. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F)	Field inspection	Y	Periodic	3	
g. Application and measurement of prestressing force	Field testing	N	Continuous	N/A	
h. Placement of grout and prestressing grout for bonded tendons is in compliance	Field inspection	Y	Continuous	3	
i. Placement of AAC masonry units and construction of thin-bed mortar joints	Field inspection	N	Level 2 - Continuous ^(b) Level 2 - Periodic ^(c)	N/A	
(b) Required for the first 5,000 square feet (c) Required after the first 5,000 square feet		N	Level 3 - Continuous	N/A	
4. Observe preparation of grout specimens, mortar specimens, and/or prisms	Field inspection	Y	Level 2 - Periodic	3	
		N	Level 3 - Continuous	N/A	
1705.5 Wood Construction					
1. For prefabricated wood structural elements, inspection of the fabrication process and assemblies in accordance with Section 1704.2.5.	In-plant review (3)	N	Periodic	N/A	
2. For high-load diaphragms, verify grade and thickness of structural panel sheathing agree with approved building plans.	Field inspection	N	Periodic	N/A	
3. For high-load diaphragms, verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, number of fastener lines, and that spacing between fasteners in each line and at edge margins agree with approved building plans	Field inspection	N	Periodic	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
4. Metal-plate-connected wood trusses:		N		N/A	
a. Verification that permanent individual truss member restraint/bracing has been installed in accordance with the approved truss submittal package when the truss height is greater than or equal to 60".	Field inspection		Periodic		
b. For trusses spanning 60 feet or greater: verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection		Periodic		
1705.6 Soils					
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Field inspection	Y	Periodic	3	
2. Verify excavations are extended to proper depth and have reached proper material.	Field inspection	Y	Periodic	3	
3. Perform classification and testing of compacted fill materials.	Field inspection	Y	Periodic	3	
4. Verify use of proper materials, densities, and lift thicknesses during placement and compaction of controlled fill	Field inspection	Y	Continuous	3	
5. Prior to placement of controlled fill, inspect subgrade and verify that site has been prepared properly	Field inspection	Y	Periodic	3	
1705.7 Driven Deep Foundations					
1. Verify element materials, sizes and lengths comply with requirements	Field inspection	N	Continuous	N/A	
2. Determine capacities of test elements and conduct additional load tests, as required	Field inspection	N	Continuous	N/A	
3. Inspect driving operations and maintain complete and accurate records for each element	Field inspection	N	Continuous	N/A	
4. Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element	Field inspection	N	Continuous	N/A	
5. For steel elements, perform additional inspections per Section 1705.2	See Section 1705.2	N	See Section 1705.2	N/A	
6. For concrete elements and concrete-filled elements, perform tests and additional inspections per Section 1705.3	See Section 1705.3	N	See Section 1705.3	N/A	
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge	Field inspection	N	In accordance with construction documents	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.8 Cast-in-Place Deep Foundations					
1. Inspect drilling operations and maintain complete and accurate records for each element	Field inspection	N	Continuous	N/A	
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes	Field inspection	N	Continuous	N/A	
3. For concrete elements, perform tests and additional inspections in accordance with Section 1705.3	See Section 1705.3	N	See Section 1705.3	N/A	
1705.9 Helical Pile Foundations					
Verify installation equipment, pile dimensions, tip elevations, final depth, final installation torque and other installation data as required by construction documents.	Field inspection	N	Continuous	N/A	
1705.10 Fabricated items					
1. List of fabricated items requiring special inspection during fabrication:	Shop inspection		As noted in each applicable shop activity		
2. List of fabricated items to be fabricated on the premises of a fabricator approved to perform such work without special inspection (including name of approved agency providing periodic auditing):		N		N/A	
1705.11.1 Structural Wood Special Inspections For Wind Resistance					
1. Inspection of field gluing operations of elements of the main windforce-resisting system	Field inspection	N	Continuous	N/A	
2. Inspection of nailing, bolting, anchoring and other fastening of components within the main windforce-resisting system, including wood shear walls, wood diaphragms, drag struts, braces and hold-downs.	Shop (3) and field inspection	N	Periodic	N/A	
1705.11.2 Cold-formed Steel Special Inspections For Wind Resistance					
1. Inspection during welding operations of elements of the main windforce-resisting system	Shop (3) and field inspection	N	Periodic	N/A	
2. Inspection of screw attachment, bolting, anchoring and other fastening of components within the main windforce-resisting system, including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs.	Shop (3) and field inspection	N	Periodic	N/A	
1705.11.3 Wind-resisting Components					
1. Roof covering, roof deck and roof framing connections.	Shop (3) and field inspection	N	Periodic	N/A	
2. Exterior wall covering and wall connections to roof and floor diaphragms.	Shop (3) and field inspection	N	Periodic	N/A	
1705.12.1 Structural Steel Special Inspections for Seismic Resistance					
1. Seismic force-resisting systems in SDC B, C, D, E, or F.	Shop (3) and field inspection	N	In accordance with AISC 341	N/A	
2. Structural steel elements in SDC B, C, D, E, or F other than those in Item 1. including struts, collectors, chords and foundation elements.	Shop (3) and field inspection	N	In accordance with AISC 341	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.12.2 Structural Wood Special Inspections for Seismic Resistance					
1. Field gluing operations of elements of the seismic-force resisting system for SDC C, D, E or F.	Field inspection	N	Continuous	N/A	
2. Nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system including wood shear walls, wood diaphragms, drag struts, shear panels and hold-downs for SDC C, D, E or F.	Shop (3) and field inspection	N	Periodic	N/A	
1705.12.3 Cold-formed Steel Light-Frame Construction Special Inspections for Seismic Resistance					
1. During welding operations of elements of the seismic-force-resisting system for SDC C, D, E or F.	Shop (3) and field inspection	N	Periodic	N/A	
2. Screw attachment, bolting, anchoring and other fastening of components within the seismic-force-resisting system including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs for SDC C, D, E or F.	Shop (3) and field inspection	N	Periodic	N/A	
1705.12.4 Designated Seismic Systems Verification Special Inspections for Seismic Resistance					
For SDC C, D, E or F, inspect and verify that that the component label, anchorage or mounting conforms to the certificate of compliance in accordance with ASCE 7 Section 13.2.2.	Field inspection	N	Periodic	N/A	
1705.12.5 Architectural Components Special Inspections for Seismic Resistance					
1. For SDC D, E or F, inspection during the erection and fastening of exterior cladding and interior or exterior veneer more than 30 feet above grade or walking surface and weighing more than 5 psf.	Field inspection	N	Periodic	N/A	
2. For SDC D, E or F, inspection during the erection and fastening of interior nonbearing walls more than 30 feet above grade or walking surface and weighing more than 15 psf.	Field inspection	N	Periodic	N/A	
3. For SDC D, E or F, inspection during the erection and fastening of exterior nonbearing walls more than 30 feet above grade or walking surface.		N		N/A	
4. For SDC D, E or F, inspection during anchorage of access floors	Field inspection	N	Periodic	N/A	
1705.12.6 Plumbing, Mechanical and Electrical Components Special Inspections for Seismic Resistance					
1. Inspection during the anchorage of electrical equipment for emergency or standby power systems in SDC C, D, E or F	Field inspection	N	Periodic	N/A	
2. Inspection during the anchorage of other electrical equipment in SDC E or F	Field inspection	N	Periodic	N/A	
3. Inspection during installation and anchorage of piping systems designed to carry hazardous materials, and their associated mechanical units in SDC C, D, E or F	Field inspection	N	Periodic	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
4. Inspection during the installation and anchorage of HVAC ductwork designed to contain hazardous materials in SDC C, D, E or F.	Field inspection	N	Periodic	N/A	
5. Inspection during the installation and anchorage of vibration isolation systems in SDC C, D, E or F where nominal clearance of 1/4 inch or less is required by the approved construction documents	Field inspection	N	Periodic	N/A	
6. Inspection during installation of mechanical and electrical equipment, including duct work, piping systems and their structural supports, where automatic fire sprinkler systems are installed in structures assigned to SDC C, D, E, or F to verify one of the following unless flexible sprinkler hose fittings are used:		N		N/A	
a. ASCE/SEI 7, Section 13.2.3 minimum required clearances have been provided.	Field inspection		Periodic		
b. A three inch or greater nominal clearance has been provided between fire protection sprinkler system drops and sprigs and: structural members not used collectively or independently to support the sprinklers; equipment attached to the building structure; and other systems' piping.	Field inspection		Periodic		
1705.12.7 Storage Racks Special Inspections for Seismic Resistance					
Inspection during the anchorage of storage racks 8 feet or greater in height in structures assigned to SDC D, E or F.	Field inspection	N	Periodic	N/A	
1705.12.8 Seismic Isolation Systems					
Inspection during the fabrication and installation of isolator units and energy dissipation devices used as part of the seismic isolation system in structures assigned to SDC B, C, D, E or F.	Shop and field inspection	N	Periodic	N/A	
1705.12.9 Cold-formed Steel Special Bolted Moment Frames					
Inspection of installation of cold-formed steel special bolted moment frames in the seismic force-resisting systems in structures assigned to SDC D, E or F.	Field inspection	N	Periodic	N/A	
1705.13.1 Structural Steel Testing for Seismic Resistance					
1. Nondestructive testing of structural steel in the seismic force-resisting systems in accordance with AISC 341 in structures assigned to SDC B, C, D, E or F.	Field test	N	Periodic	N/A	
2. Nondestructive testing of structural steel elements in the seismic force-resisting systems not covered in 1 above including struts, collectors, chords and foundation elements in accordance with AISC 341 in structures assigned to SDC B, C, D, E or F.	Field test	N	Periodic	N/A	

SCHEDULE OF SPECIAL INSPECTIONS SERVICES					
PROJECT					
MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.13.2 Seismic Certification of Nonstructural Components					
Review certificate of compliance for designated seismic system components in structures assigned to SDC B, C, D, E or F.	Certificate of compliance review	N	Each submittal	N/A	
1705.13.3 Seismic Certification of Designated Seismic Systems					
Review certificate of compliance for designated seismic system components in structures assigned to SDC C, D, E or F	Certificate of compliance review	N	Each submittal	N/A	
1705.13.4 Seismic Isolation Systems					
Test seismic isolation system in accordance with ASCE 7 Section 17.8 in structures assigned to SDC B, C, D, E or F.	Prototype testing	N	Per ASCE 7	N/A	
1705.14 Sprayed Fire-resistant Materials					
1. Verify surface condition preparation of structural members	Field inspection	N	Periodic	N/A	
2. Verify minimum thickness of sprayed fire-resistant materials applied to structural members	Field inspection	N	Periodic	N/A	
3. Verify density of the sprayed fire-resistant material complies with approved fire-resistant design	Field inspection and testing	N	Per IBC Section 1705.14.5	N/A	
4. Verify the cohesive/adhesive bond strength of the cured sprayed fire-resistant material	Field inspection and testing	N	Per IBC Section 1705.14.6	N/A	
5. Condition of finished application	Field inspection	N	Periodic	N/A	
1705.15 Mastic and Intumescent Fire-Resistant Coatings					
Inspect and test mastic and intumescent fire-resistant coatings applied to structural elements and decks per AWCI 12-B	Field inspection and testing	N	Periodic	N/A	
1705.16 Exterior Insulation and Finish Systems (EIFS)					
Inspection of water-resistive barrier over sheathing substrate	Field inspection	N	Periodic	N/A	
1705.17 Fire-Resistant Penetrations and Joints					
1. Inspect penetration firestop	Field testing	N	Per ASTM E2174	N/A	
2. Inspect fire-resistant joint systems	Field testing	N	Per ASTM E2393	N/A	
1705.18 Smoke Control Systems					
1. Leakage testing and recording of device locations prior to concealment	Field testing	N	Periodic	N/A	
2. Prior to occupancy and after sufficient completion, pressure difference testing, flow measurements, and detection and control verification	Field testing	N	Periodic	N/A	
* INSPECTION AGENTS					
FIRM	ADDRESS			TELEPHONE NO.	
1. Pi-Tech, Inc.	115 Forest Hill Road, Macon GA 31210			478-743-5600	
2. WM2A Architects	348 Cotton Avenue, Macon, GA, 31210			478-745-4945	
3. Geotechnical & Environmental Consultants, Inc., A Terracon Company	514 Hillcrest Industrial Blvd			(478) 757-1606	
4.	Macon, GA 31204				
Notes: 1. The inspection and testing agent(s) shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work. The qualifications of the Special Inspector(s) and/or testing agencies may be subject to the approval of the Building Official and/or the Design Professional. 2. The list of Special Inspectors may be submitted as a separate document, if noted so above. 3. Shop inspections of fabricated items are not required where the fabricator is approved in accordance with IBC Section 1704.2.5.1 and listed in activity 1709.2. 4. Observe: Observe on a random basis, operations need not be delayed pending these inspections. Perform: These tasks shall be performed for each welded joint, bolted connection, or steel element. 5. NDT of welds completed in an approved fabricator's shop may be performed by that fabricator when approved by the AHJ. Refer to AISC 360, N6.					
Are Special Inspections for Seismic Resistance included in the Statement of Special Inspections?				No	
Are Special Inspections for Wind Resistance included in the Statement of Special Inspections?				No	
DATE:				10/30/2024	

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.
- B. Sewer Service: Pay sewer-service use charges for sewer usage by all entities for construction operations.
- C. Water Service: Pay water-service use charges for water used by all entities for construction operations.
- D. Electric Power Service: Pay electric-power-service use charges for electricity used by all entities for construction operations.
- E. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.4 INFORMATIONAL SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- B. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines.

1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Chain-Link Fencing: Minimum 2-inch, 0.148-inch- thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet high with galvanized-steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1-5/8-inch- OD top rails.
- B. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil minimum thickness, with flame-spread rating of 15 or less per ASTM E 84 and passing NFPA 701 Test Method 2.
- C. Insulation: Un-faced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

2.2 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Common-Use Field Office: Of sufficient size to accommodate needs of Owner, Architect, and construction personnel office activities and to accommodate Project

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

meetings specified in other Division 01 Sections. Keep office clean and orderly. Furnish and equip offices as follows:

1. Furniture required for Project-site documents including file cabinets, plan tables, plan racks, and bookcases.
2. Conference room of sufficient size to accommodate meetings of individuals. Provide electrical power service and 120-V ac duplex receptacles, with no fewer than one receptacle on each wall. Furnish room with conference table, chairs, and 4-foot- square tack and marker boards.
3. Drinking water and private toilet.
4. Coffee machine and supplies.
5. Heating and cooling equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg F.
6. Lighting fixtures capable of maintaining average illumination of 20 fc at desk height.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 2. Heating Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return-air grille in system and remove at end of construction and clean HVAC system as required in Section 01 7700 "Closeout Procedures".

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

1. Locate facilities to limit site disturbance as specified in Section 01 1000 "Summary."
 - B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.
- 3.2 TEMPORARY UTILITY INSTALLATION
- A. General: Install temporary service or connect to existing service.
 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
 - B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
 1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.
 - C. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
 - D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
 1. Toilets: Use of Owner's existing toilet facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
 - E. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
 - F. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

- a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
 - b. Maintain negative air pressure within work area using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
 2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
 3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- G. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
1. Provide dehumidification systems when required to reduce substrate moisture levels to level required to allow installation or application of finishes.
- H. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
1. Install electric power service overhead unless otherwise indicated.
 2. Connect temporary service to Owner's existing power source, as directed by Owner.
- I. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
1. Provide construction for temporary offices, shops, and sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
 2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

- B. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
 - 1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
 - 2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Section 31 2000 "Earth Moving."
 - 3. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course according to Section 32 1216 "Asphalt Paving."
- C. Parking: Provide temporary parking areas for construction personnel.
- D. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
 - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
 - 2. Remove snow and ice as required to minimize accumulations.
- E. Waste Disposal Facilities: Comply with requirements specified in Section 01 7419 "Construction Waste Management and Disposal."

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings.
 - 1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant- protection zones.
 - 2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- C. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- D. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- E. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.
- F. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
- G. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- H. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- I. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- J. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

- K. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from fumes and noise.
1. Construct dustproof partitions with gypsum wallboard with joints taped on occupied side, and fire-retardant-treated plywood on construction operations side.
 2. Where fire-resistance-rated temporary partitions are indicated or are required by authorities having jurisdiction, construct partitions according to the rated assemblies.
 3. Insulate partitions to control noise transmission to occupied areas.
 4. Seal joints and perimeter. Equip partitions with gasketed dustproof doors and security locks where openings are required.
 5. Protect air-handling equipment.
 6. Provide walk-off mats at each entrance through temporary partition.
- L. "Temporary Fire Protection" Paragraph below specifies currently accepted requirements; revise to suit local conditions. More detailed provisions for temporary fire protection in existing occupied facilities may be inserted here; refer to Section 013591 "Historic Treatment Procedures" for sample text. See Evaluations.

3.5 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Controlled Construction Phase of Construction: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
 2. Use permanent HVAC system to control humidity.
 3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.
 - a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for 48 hours are considered defective.
 - b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for 48 hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Architect.
 - c. Remove materials that can not be completely restored to their manufactured moisture level within 48 hours.

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 01 7700 "Closeout Procedures."

END OF SECTION 01 5000

SECTION 01 6000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

1.3 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

SECTION 01 6000 - PRODUCT REQUIREMENTS

1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
 2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Form of Approval: As specified in Section 01 3300 "Submittal Procedures."
 - b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 01 3300 "Submittal Procedures." Show compliance with requirements.
- 1.5 QUALITY ASSURANCE
- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
- 1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING
- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.
- C. Storage:
1. Store products to allow for inspection and measurement of quantity or counting of units.

SECTION 01 6000 - PRODUCT REQUIREMENTS

2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Protect stored products from damage and liquids from freezing.
5. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 2. See other Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 01 7700 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.

SECTION 01 6000 - PRODUCT REQUIREMENTS

2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures:

1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
3. Products:
 - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
4. Manufacturers:
 - a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

- C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

SECTION 01 6000 - PRODUCT REQUIREMENTS

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 01 2500 "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
 1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 3. Evidence that proposed product provides specified warranty.
 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 6000

SECTION 01 7300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. Installation of the Work.
 - 4. Cutting and patching.
 - 5. Coordination of Owner-installed products.
 - 6. Progress cleaning.
 - 7. Starting and adjusting.
 - 8. Protection of installed construction.

1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For land surveyor.
- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- C. Cutting and Patching Plan: Submit plan describing procedures at least 10 days prior to the time cutting and patching will be performed. Include the following information:
 - 1. Extent: Describe reason for and extent of each occurrence of cutting and patching.

SECTION 01 7300 - EXECUTION

2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.
 3. Products: List products to be used for patching and firms or entities that will perform patching work.
 4. Dates: Indicate when cutting and patching will be performed.
 5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate length of time permanent services and systems will be disrupted.
 - a. Include description of provisions for temporary services and systems during interruption of permanent services and systems.
- D. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.5 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 1. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operational elements include the following:
 - a. Primary operational systems and equipment.
 - b. Fire separation assemblies.
 - c. Air or smoke barriers.
 - d. Fire-suppression systems.
 - e. Mechanical systems piping and ducts.
 - f. Control systems.
 - g. Communication systems.
 - h. Fire-detection and -alarm systems.
 - i. Electrical wiring systems.
 2. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.[Other construction elements include but are not limited to the following:]

SECTION 01 7300 - EXECUTION

- a. Water, moisture, or vapor barriers.
 - b. Membranes and flashings.
 - c. Equipment supports.
 - d. Piping, ductwork, vessels, and equipment.
 - e. Noise- and vibration-control elements and systems.
3. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

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- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - 1. Description of the Work.
 - 2. List of detrimental conditions, including substrates.
 - 3. List of unacceptable installation tolerances.
 - 4. Recommended corrections.
- D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 01 3100 "Project Management and Coordination."

SECTION 01 7300 - EXECUTION

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish limits on use of Project site.
 - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 4. Inform installers of lines and levels to which they must comply.
 - 5. Check the location, level and plumb, of every major element as the Work progresses.
 - 6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
 - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

3.4 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect. Report lost or destroyed permanent benchmarks

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- or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect before proceeding.
2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- D. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- E. Final Property Survey: Engage a land surveyor to prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.
 2. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
1. Make vertical work plumb and make horizontal work level.
 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
 4. Maintain minimum headroom clearance of 96 inches in occupied spaces and 90 inches in unoccupied spaces.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

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- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore

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surfaces to their original condition.

- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Section 01 1000 "Summary."
- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
 - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 6. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.

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2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction personnel.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction personnel.
 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
 2. Preinstallation Conferences: Include Owner's construction personnel at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction personnel if portions of the Work depend on Owner's construction.

SECTION 01 7300 - EXECUTION

3.8 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials of type to be stored.
 - 4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 01 5000 "Temporary Facilities and Controls."
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

SECTION 01 7300 - EXECUTION

- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.9 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components with requirements in Section 01 9113 "General Commissioning Requirements."
- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: Comply with qualification requirements in Section 01 4000 "Quality Requirements."

3.10 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 01 7300

SECTION 01 7700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.

1.3 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.

1.4 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest control inspection.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on

SECTION 01 7700 - CLOSEOUT PROCEDURES

the list and reasons why the Work is incomplete.

- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number where applicable.
 - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Architect's signature for receipt of submittals.
 5. Submit test/adjust/balance records.
 6. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 01 7900 "Demonstration and Training."
 6. Advise Owner of changeover in heat and other utilities.
 7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.

SECTION 01 7700 - CLOSEOUT PROCEDURES

8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 9. Complete final cleaning requirements, including touchup painting.
 10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect and Construction Manager will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for final completion.
- 1.7 FINAL COMPLETION PROCEDURES
- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Section 01 2900 "Payment Procedures."
 2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

SECTION 01 7700 - CLOSEOUT PROCEDURES

1.8 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use CSI Form 14.1A.
1. Organize list of spaces in sequential order, starting with exterior areas first.
 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Page number.
 4. Submit list of incomplete items in the following format:
 - a. MS Excel electronic file. Architect will return annotated file.
 - b. PDF electronic file. Architect will return annotated file.
 - c. Three paper copies. Architect will return two copies.

1.9 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.

SECTION 01 7700 - CLOSEOUT PROCEDURES

4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.

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- d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.
 - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - h. Sweep concrete floors broom clean in unoccupied spaces.
 - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
 - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - k. Remove labels that are not permanent.
 - l. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - m. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - n. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - o. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
 - 1) Clean HVAC system in compliance with NADCA Standard 1992-01. Provide written report on completion of cleaning.
 - p. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
 - q. Leave Project clean and ready for occupancy.
- C. Pest Control: Comply with pest control requirements in Section 01 5000 "Temporary Facilities and Controls." Prepare written report.
- D. Construction Waste Disposal: Comply with waste disposal requirements in Section 01 7419 "Construction Waste Management and Disposal."

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.

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- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
 3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
 4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION 01 7700

SECTION 01 7823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Operation manuals for systems, subsystems, and equipment.
 - 4. Product maintenance manuals.
 - 5. Systems and equipment maintenance manuals.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Architect will comment on whether content of operations and maintenance submittals are acceptable.
 - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:
 - 1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.

SECTION 01 7823 - OPERATION AND MAINTENANCE DATA

- a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
 - b. Enable inserted reviewer comments on draft submittals.
- C. Initial Manual Submittal: Submit draft copy of each manual at least 30 days before commencing demonstration and training. Architect will comment on whether general scope and content of manual are acceptable.
- D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.
 1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's comments and prior to commencing demonstration and training.

PART 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information. Include a section in the directory for each of the following:
 1. List of documents.
 2. List of systems.
 3. List of equipment.
 4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

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2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- B. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name and contact information for Contractor.
 - 6. Name and contact information for Architect.
 - 7. Name and contact information for Commissioning Authority.
 - 8. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
 - 9. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
 - 1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
 - 1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 - 2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group

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documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.

2.3 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
 - 1. Type of emergency.
 - 2. Emergency instructions.
 - 3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
 - 1. Fire.
 - 2. Flood.
 - 3. Gas leak.
 - 4. Water leak.
 - 5. Power failure.
 - 6. Water outage.
 - 7. System, subsystem, or equipment failure.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include the following, as applicable:
 - 1. Instructions on stopping.
 - 2. Shutdown instructions for each type of emergency.
 - 3. Operating instructions for conditions outside normal operating limits.
 - 4. Required sequences for electric or electronic systems.
 - 5. Special operating instructions and procedures.

2.4 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
 - 1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.

SECTION 01 7823 - OPERATION AND MAINTENANCE DATA

2. Performance and design criteria if Contractor has delegated design responsibility.
 3. Operating standards.
 4. Operating procedures.
 5. Operating logs.
 6. Wiring diagrams.
 7. Control diagrams.
 8. Piped system diagrams.
 9. Precautions against improper use.
 10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
1. Product name and model number. Use designations for products indicated on Contract Documents.
 2. Manufacturer's name.
 3. Equipment identification with serial number of each component.
 4. Equipment function.
 5. Operating characteristics.
 6. Limiting conditions.
 7. Performance curves.
 8. Engineering data and tests.
 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
1. Startup procedures.
 2. Equipment or system break-in procedures.
 3. Routine and normal operating instructions.
 4. Regulation and control procedures.
 5. Instructions on stopping.
 6. Normal shutdown instructions.
 7. Seasonal and weekend operating instructions.
 8. Required sequences for electric or electronic systems.
 9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.5 PRODUCT MAINTENANCE MANUALS

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

SECTION 01 7823 - OPERATION AND MAINTENANCE DATA

- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 - 1. Inspection procedures.
 - 2. Types of cleaning agents to be used and methods of cleaning.
 - 3. List of cleaning agents and methods of cleaning detrimental to product.
 - 4. Schedule for routine cleaning and maintenance.
 - 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of

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equipment:

1. Standard maintenance instructions and bulletins.
 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 3. Identification and nomenclature of parts and components.
 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
1. Test and inspection instructions.
 2. Troubleshooting guide.
 3. Precautions against improper maintenance.
 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 5. Aligning, adjusting, and checking instructions.
 6. Demonstration and training video recording, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
1. Include procedures to follow and required notifications for warranty claims.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that

SECTION 01 7823 - OPERATION AND MAINTENANCE DATA

provides an organized reference to emergency, operation, and maintenance manuals.

- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
 - 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
 - 2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - 1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
 - 1. Do not use original project record documents as part of operation and maintenance manuals.
 - 2. Comply with requirements of newly prepared record Drawings in Section 01 7839 "Project Record Documents."
- G. Comply with Section 01 7700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 01 7823

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
 - 4. Miscellaneous record submittals.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit copies of record Drawings as follows:
 - a. Initial Submittal:
 - 1) Submit PDF electronic files of scanned record prints and one of file prints.
 - b. Final Submittal:
 - 1) Submit PDF electronic files of scanned record prints on three thumb drives and one set(s) of prints.
- B. Record Specifications: Submit one paper copy and three annotated PDF electronic files of Project's Specifications, including addenda and contract modifications (on submitted thumb drives).
- C. Record Product Data: Submit one paper copy and three annotated PDF electronic files and directories of each submittal (on submitted thumb drives).
 - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.
- D. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

record-keeping requirements and submittals in connection with various construction activities. Submit one paper copy and three annotated PDF electronic files and directories of each submittal (on submitted thumb drives).

- E. Reports: Submit written report weekly indicating items incorporated into project record documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - e. Cross-reference record prints to corresponding archive photographic documentation.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - l. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

- n. Record information on the Work that is shown only schematically.
 - 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 - 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 - 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect and Construction Manager. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
- 1. Format: Same digital data software program, version, and operating system as the original Contract Drawings.
 - 2. Format: DWG, Version , Microsoft Windows operating system.
 - 3. Format: Annotated PDF electronic file with comment function enabled.
 - 4. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
 - 5. Refer instances of uncertainty to Architect for resolution.
 - 6. Architect will furnish Contractor one set of digital data files of the Contract Drawings for use in recording information.
 - a. See Section 01 3300 "Submittal Procedures" for requirements related to use of Architect's digital data files.
 - b. Architect will provide data file layer information. Record markups in separate layers.
- C. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
- 1. Consult Architect for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared record Drawings into record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- D. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
- 1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable mylar cover sheets. Include identification on cover sheets.

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

2. Format: One set of reverse reading, full size, mylar sheets and three sets of Annotated PDF electronic files, with comment function enabled, on thumb drives.
3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 5. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as one paper copy in a three ring binder and three scanned PDF electronic file(s) of marked-up paper copy of Specifications on thumb drives.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as one paper copy in a three ring binder and three scanned PDF electronic file(s) of marked-up paper copy of Product Data on thumb drives.
 1. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as scanned PDF electronic file(s) of marked-up miscellaneous record submittals.
 1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's and Construction Manager's reference during normal working hours.
- C. As-Built Record Drawings shall be kept up-to-date at all times. The Contractor shall schedule a time once a week to review the drawings with the Owner and the Architect.
- D. As-Built Drawings for ALL underground utilities shall comply with the following requirements:

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

1. Dimensions shall be shown to two (2) fixed objects on the surface at intervals not to exceed 50' along the entire length of the buried utility. The depth to the top of the buried item, (i.e., conduit, water pipe, etc.) shall also be identified at the same intervals.
2. Dimensions shall be shown to two (2) fixed objects on the surface at every change of direction of the utility.
3. Dimensions shall be shown to two (2) fixed objects to show the location of all surface or underground components such as valves, manholes, drop inlets, clean-outs, pull boxes, meters, etc.
4. A full description of the utility shall be given, and the actual size, quantity and material used shall be provided.
5. To the maximum extent possible, all utilities shall be buried a minimum of eighteen (18) inches below the surface. A tracer wire shall be placed in the trench or excavation of all utilities at a minimum depth of six (6) inches. Exception: Storm drain lines shall have a caution tape provided in the excavation at an approximate depth of twelve (12) inches in lieu of a tracer wire.

END OF SECTION 01 7839

SECTION 01 7900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
- B. Allowances: Furnish demonstration and training instruction time under the Demonstration and Training Allowance as specified in Section 01 2100 "Allowances."

1.3 INFORMATIONAL SUBMITTALS

- A. Instruction Program: Submit outline of instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
 - 1. Indicate proposed training modules using manufacturer-produced demonstration and training video recordings for systems, equipment, and products in lieu of video recording of live instructional module.
- B. Qualification Data: For instructor.
- C. Attendance Record: For each training module, submit list of participants and length of instruction time.
- D. Evaluations: For each participant and for each training module, submit results and documentation of performance-based test.

1.4 CLOSEOUT SUBMITTALS

- A. Demonstration and Training Video Recordings: Submit two copies within seven days of end of each training module.

SECTION 01 7900 - DEMONSTRATION AND TRAINING

1. Identification: On each copy, provide an applied label with the following information:
 - a. Name of Project.
 - b. Name of Contractor.
 - c. Date of video recording.
2. At completion of training, submit complete training manual(s) for Owner's use prepared and bound in format matching operation and maintenance manuals.

1.5 QUALITY ASSURANCE

- A. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Section 01 4000 "Quality Requirements," experienced in operation and maintenance procedures and training.
- B. Videographer Qualifications: A professional videographer who is experienced photographing demonstration and training events similar to those required.
- C. Preinstruction Conference: Conduct conference at Project site to comply with requirements in Section 01 3100 "Project Management and Coordination." Review methods and procedures related to demonstration and training including, but not limited to, the following:
 1. Inspect and discuss locations and other facilities required for instruction.
 2. Review and finalize instruction schedule and verify availability of educational materials, instructors' personnel, audiovisual equipment, and facilities needed to avoid delays.
 3. Review required content of instruction.
 4. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

1.6 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

SECTION 01 7900 - DEMONSTRATION AND TRAINING

PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:
 - 1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions.
 - b. Performance and design criteria if Contractor is delegated design responsibility.
 - c. Operating standards.
 - d. Regulatory requirements.
 - e. Equipment function.
 - f. Operating characteristics.
 - g. Limiting conditions.
 - h. Performance curves.
 - 2. Documentation: Review the following items in detail:
 - a. Emergency manuals.
 - b. Operations manuals.
 - c. Maintenance manuals.
 - d. Project record documents.
 - e. Identification systems.
 - f. Warranties and bonds.
 - g. Maintenance service agreements and similar continuing commitments.
 - 3. Emergencies: Include the following, as applicable:
 - a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping.
 - c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.

SECTION 01 7900 - DEMONSTRATION AND TRAINING

4. Operations: Include the following, as applicable:
 - a. Startup procedures.
 - b. Equipment or system break-in procedures.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.
 - e. Control sequences.
 - f. Safety procedures.
 - g. Instructions on stopping.
 - h. Normal shutdown instructions.
 - i. Operating procedures for emergencies.
 - j. Operating procedures for system, subsystem, or equipment failure.
 - k. Seasonal and weekend operating instructions.
 - l. Required sequences for electric or electronic systems.
 - m. Special operating instructions and procedures.
5. Adjustments: Include the following:
 - a. Alignments.
 - b. Checking adjustments.
 - c. Noise and vibration adjustments.
 - d. Economy and efficiency adjustments.
6. Troubleshooting: Include the following:
 - a. Diagnostic instructions.
 - b. Test and inspection procedures.
7. Maintenance: Include the following:
 - a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Procedures for routine cleaning
 - e. Procedures for preventive maintenance.
 - f. Procedures for routine maintenance.
 - g. Instruction on use of special tools.
8. Repairs: Include the following:
 - a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

SECTION 01 7900 - DEMONSTRATION AND TRAINING

PART 3 - EXECUTION

3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a training manual organized in coordination with requirements in Section 01 7823 "Operation and Maintenance Data."
- B. Set up instructional equipment at instruction location.

3.2 INSTRUCTION

- A. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. Architect will furnish an instructor to describe basis of system design, operational requirements, criteria, and regulatory requirements.
 - 2. Owner will furnish an instructor to describe Owner's operational philosophy.
 - 3. Owner will furnish Contractor with names and positions of participants.
- B. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 - 1. Schedule training with Owner with at least seven days' advance notice.
- C. Training Location and Reference Material: Conduct training on-site in the completed and fully operational facility using the actual equipment in-place. Conduct training using final operation and maintenance data submittals.
- D. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of a demonstration performance-based test.
- E. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

END OF SECTION 01 7900

SECTION 02 4119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Salvage of existing items to be reused or recycled.

1.2 DEFINITIONS

- A. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.
- B. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

1.3 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.

1.4 INFORMATIONAL SUBMITTALS

- A. Predemolition Photographs or Video: Submit before Work begins.

1.5 CLOSEOUT SUBMITTALS

- A. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.6 QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

1.7 FIELD CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

SECTION 02 4119 - SELECTIVE DEMOLITION

- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: Hazardous materials are present in buildings and structures to be selectively demolished. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.
 - 1. Hazardous material remediation is specified elsewhere in the Contract Documents.
 - 2. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

SECTION 02 4119 - SELECTIVE DEMOLITION

- D. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
 - 1. Comply with requirements for existing services/systems interruptions specified in Section 01 1000 "Summary."
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
 - 2. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - 3. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated to be removed.
 - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material.
 - c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
 - e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
 - f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
- C. Refrigerant: Remove refrigerant from mechanical equipment to be selectively demolished according to 40 CFR 82 and regulations of authorities having jurisdiction.

SECTION 02 4119 - SELECTIVE DEMOLITION

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Section 01 5000 "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
 - 4. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 5. Dispose of demolished items and materials promptly. Comply with requirements in Section 01 7419 "Construction Waste Management and Disposal."
- B. Reuse of Building Elements: Project has been designed to result in end-of-Project rates for reuse of building elements as follows. Do not demolish building elements beyond what is indicated on Drawings without Architect's approval.
- C. Removed and Salvaged Items:
 - 1. Clean salvaged items.

SECTION 02 4119 - SELECTIVE DEMOLITION

2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

D. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
1. Do not allow demolished materials to accumulate on-site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
 4. Comply with requirements specified in Section 01 7419 "Construction Waste Management and Disposal."
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.6 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 02 4119

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Cast-in-place concrete for foundations and slabs on grade.
 - 2. Equipment pads.
 - 3. Bases for lighting fixtures.

1.2 REFERENCES

- A. American Concrete Institute (ACI)
 - 1. 301 - Structural Concrete for Buildings.
 - 2. 305R - Hot Weather Concreting.
 - 3. 306R - Cold Weather Concreting.
 - 4. 308 - Standard Practice for Curing Concrete.
 - 5. 318 - Building Code Requirements for Structural Concrete.
 - 6. ACI 117 – Specification for Tolerances for Concrete Construction and Materials.
 - 7. ACI 302 – Guidelines for Layout of Construction, Isolation and Contraction Joints.
- B. ASTM International (ASTM)
 - 1. C31 - Standard Test Method for Method of Making and Curing Concrete Test Specimens in the Field.
 - 2. C33 - Standard Specification for Concrete Aggregates.
 - 3. C39 - Standard Test Method for Test Method for Compressive Strength of Cylindrical Concrete Specimens.
 - 4. C94 - Standard Specification for Ready-Mixed Concrete.
 - 5. C143 - Standard Test Method for Slump of Portland Cement Concrete.
 - 6. C150 - Standard Specification for Portland Cement.
 - 7. C171 - Standard Specification for Sheet Materials for Curing Concrete.
 - 8. C172 - Standard Test Method for Method of Sampling Freshly Mixed Concrete.
 - 9. C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
 - 10. C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
 - 11. C330 - Standard Specification for Lightweight Aggregates for Structural Concrete.
 - 12. C494 - Standard Specification for Chemical Admixtures for Concrete.
 - 13. C1116/1116M - Standard Specification for Fiber-Reinforced Concrete.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Concrete and Grout Mix Designs: Include:
 - a. Proportions of cement, fine and coarse aggregates, fibrous reinforcing, and water.
 - b. Combined aggregate gradation.
 - c. Aggregate specific gravities and gradations.
 - d. Water/cement ratio, design strength, slump, and air content.
 - e. Type of cement and aggregates.
 - f. Air dry density and split cylinder ratio for lightweight concrete.

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- g. Type and proportion of admixtures.
 - h. Special requirements for pumping.
 - i. Range of ambient temperature and humidity for which design is valid.
 - j. Special characteristics of mix requiring precautions in mixing, placing, or finishing techniques to achieve finished product.
- 2. Submit one manufacturer's labeled package of fiber reinforcing to be used in concrete mix and documentation indicating compliance with specification.
 - 3. Jointing and Pour Sequence Plan: If Contractor proposes a different jointing layout than that shown on drawings, provide a new proposed layout of construction, control, saw-cut, and isolation joints. Clearly delineate the different joint types.
 - 4. Shop drawing re-submittals: Contractor shall thoroughly review Shop Drawings prior to submittal to the A/E Team.

1.4 QUALITY ASSURANCE

- A. Concrete Mix Design: In accordance with ACI 301, Method 1 or 2.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Mix and deliver concrete to project ready mixed in accordance with ASTM C94. Fiber reinforcing shall be placed in the concrete mix only at the batch plant.
- B. Schedule delivery so that pours will not be interrupted for over 20 minutes.
- C. Place concrete on site within 90 minutes after proportioning materials at batch plant.

1.6 PROJECT CONDITIONS

- A. Cold Weather Placement - Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures. Comply with ACI 306R and following requirements:
 - 1. Air temperature at or expected to fall below 40 degrees F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 degrees F and not more than 80 degrees F at point of placement.
 - 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 - 3. Do not use calcium chloride, salt, and other materials containing antifreeze agents or chemical accelerators unless otherwise accepted in mix designs.
- B. Hot Weather Placement - Place concrete in accordance with ACI 305R and following requirements:
 - 1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 degrees F. Use chilled mixing water or chopped ice if water equivalent of ice is calculated in total amount of mixing water.
 - 2. If required, cover reinforcing steel with water soaked burlap so that steel temperature will not exceed ambient air temperature.
 - 3. Fog spray forms, reinforcing steel, and subgrade just before concrete is placed.
 - 4. Do not use water-reducing retarding admixture when required by high temperatures, low humidity, or other adverse placing conditions without prior approval of architect.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Concrete Chemicals:
1. BASF Corporation. (www.buildingsystems.basf.com)
 2. Dayton Superior. (www.daytonsuperior.com)
 3. W. R. Meadows, Inc. (www.wrmeadows.com)
 4. Meadow Burke. (www.meadowburke.com)
 5. Nox-Crete Products Group. (www.nox-crete.com)

2.2 MATERIALS

- A. Portland Cement: ASTM C150, Type I, gray color.
- B. Normal-Weight Aggregates: ASTM C 33, coarse aggregate or better, graded. Provide aggregates from a single source with documented service record data of at least 10 years' satisfactory service in similar applications and service conditions using similar aggregates and cementitious materials.
1. Fine: ASTM C33, clean, hard, durable, uncoated natural sand, free from silt, loam, and clay.
 2. Coarse: ASTM C33, clean, hard, durable, uncoated crushed stone, maximum 1 ½" Nominal.
 3. Aggregate shall be provided and classified as follows:
 - a. Footings, foundations, columns and beams not exposed to weather. Interior floor slabs with floor coverings: Class 1M.
 - b. Foundation walls above grade, retaining walls, piers and beams exposed to weather: Class 3M.
 - c. Pavements, driveways, curbs, walks: Class 4M
- C. Lightweight: ASTM C330, expanded shale or clay produced by rotary kiln method. 1" Nominal Maximum Aggregate size.
- D. Fibrous Reinforcing: ASTM C1116/1116M, Type III, 1 to 2-1/4 inches long, fibrillated polypropylene micro-fibers engineered and designed for use in concrete. Fiber manufacturer shall document compliance with above requirements.
1. Manufacturers:
 - a. Fibermesh 300 by Propex Concrete Systems
 - b. FORTA ECONO-NET by Forta Corp.
 - c. Grace Fibers by W.R. Grace Co.

2.3 ACCESSORIES

- A. Water: Clean and potable.
- B. Admixtures:

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1. Air entraining: ASTM C260. Provide in all concrete and Coarse Grout
 2. No other admixtures (ie: water reducing agents and accelerators) will be permitted without prior approval of architect.
- C. Premolded Expansion Joint Filler: ASTM D1751, non-extruding type, interior – 1/2 inch, exterior - 1/4 inch.
- D. Premolded Expansion Joint Filler: ASTM D1752, non-asphaltic type, 1/4 inch.
- E. Non-Shrink Grout: Premixed, consisting of non-metallic aggregate, cement, water reducing and plasticizing agents; minimum 7,000 psi compressive strength at 28 days.
- F. Bonding Agent: ASTM C 1059/C 1059M, Type II, non-redispersible, acrylic emulsion or styrene butadiene.
- G. Epoxy Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade to suit requirements, and as follows:
1. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.
- H. Curing Compound: ASTM C309, water based type.
- I. Curing Paper: ASTM C171, waterproof paper or polyethylene film, 6 mil.
- J. Drainage fill under slabs on grade: Clean, uncoated gravel or crushed stone (No. 57 stone), free from shale or other soft material, ranging from 3/4 inch to 1 1/2 inches in size and screened of all fines.
- K. Flex Waterstop: Non-swelling preformed joint sealant, for embedding in concrete to prevent passage of fluids through joints. It is a single component, self-sealing adhesive compound, extruded in a square cross-section.
1. Profile: Square cross-section between two quick-release protective wrappers.
 2. Size: 1 inch x 1 inch
 3. Products:
 - a. Henry; SF302 Synko-Flex
 - b. Other products by Greenstreak, CETCO and JP Specialties meeting product description is acceptable.

2.4 VAPOR RETARDERS

- A. Plastic Vapor Retarder: Vapor Retarder membrane must meet or exceed all requirements of ASTM E1745 Class A.
1. Water Vapor Permeance: 0.05 Perms.
 2. Water Vapor Transmission Rate ASTM F1249 calibrated to ASTM E96 (water method): 0.01 grains/ft²/hr.
 3. Resistance to Organisms and Substrates in Contact with Soil ASTM E154, Sections 13:0.1 Perms.
 4. Tensile Strength ASTM E154, Section 9: 45 lbs/in.

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5. Puncture Resistance ASTM D1709, Method B: 2200 g.
 6. Thickness of Retarder (plastic): Not less than 10 mils.
- B. Seam Tape: High Density Polyethylene Tape with pressure sensitive adhesive. Minimum width to be 4”.
1. Tensile Strength ASTM D1000: 24 lbs/in.
 2. Elongation ASTM D1000: 70%.
 3. Total thickness (not including liner): 7.5 mils.
 4. Adhesive Thickness: 3 mils.
- C. Pipe Boots: Construct pipe boots from vapor barrier material and pressure sensitive tape per manufacturer’s instructions or use manufacturer’s standard premanufactured pipe boots.
- D. All components of vapor retarder system shall be manufactured by a single source and marketed as a complete system. Acceptable manufacturers include:
1. Fortafiber Building Systems Group (Moistop Ultra 10)
 2. Insulation Solutions, Inc. (Viper VaporCheck II)
 3. Reef Industries (Griffolyn)
 4. Stego Industries (Stego Wrap)
 5. W.R. Meadows (Perminator)
- E. Granular Fill: Clean mixture of crushed stone or uncrushed gravel; ASTM D448, Size 57, with 100% passing a 1½”(37.5 mm) sieve and 0 % passing a No. 8 (2.36 mm) sieve.

2.5 LIQUID FLOOR TREATMENTS

- A. Penetrating Liquid Floor Treatment: Clear, chemically reactive, waterborne solution of inorganic silicate or silicate materials and proprietary components; odorless; that penetrates, hardens, and densifies concrete surfaces.
1. Products: Provide one of the following:
 - a. Dayton Superior Corporation; Day-Chem Sure Hard (J-17).
 - b. Euclid Chemical Company (The), an RPM company; Euco Diamond Hard.
 - c. Meadows, W.R., Inc.; LIQUI-HARD.
 - d. BASF Sonneborn Building Products; Lapidolith.
 - e. Davidson Chemicals; Concrete Hardener.

2.6 REPAIR MATERIALS

- A. Repair Underlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch (3.2 mm) to ½ inch (12.7 mm) and that can be feathered at edges to match adjacent floor elevations.
1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
 2. Primer: Product of underlayment manufacturer recommended for substrate, conditions, and application.
 3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand as recommended by underlayment manufacturer.
 4. Compressive Strength: Not less than 5000 psi at 7 days when tested according to ASTM C 109/C 109M.

SECTION 03 3000 – CAST-IN-PLACE CONCRETE

- B. Repair Overlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/4 inch (6.4 mm) and that can be filled in over a scarified surface to match adjacent floor elevations.
 - 1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
 - 2. Primer: Product of topping manufacturer recommended for substrate, conditions, and application.
 - 3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand as recommended by topping manufacturer.
 - 4. Compressive Strength: Not less than 5000 psi at 7 days when tested according to ASTM C 109/C 109M.

2.7 CONCRETE MIXTURES, GENERAL

- A. Prepare design mixtures for each type and strength of concrete, propositioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
 - 1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.
- B. Admixtures: Use admixtures according to manufacturer's written instructions.

2.8 CONCRETE MIXTURES FOR BUILDING ELEMENTS

- A. Footings: Proportion normal-weight concrete mixture as follows:
 - 1. Minimum Compressive Strength: 3000 psi at 28 days.
 - 2. Slump Limit: 4 inches plus or minus 1 inch.
 - 3. Air Content: 4.5 percent, plus or minus 1.5 percent at point of delivery for 1-1/2-inch nominal maximum aggregate size.
 - 4. Exposure Class: F1.
- B. Slabs-on-Grade and thickened turndown slabs: Proportion normal-weight concrete mixture as follows:
 - 1. Minimum Compressive Strength: 3000 psi at 28 days.
 - 2. Slump Limit: 4 inches, plus or minus 1 inch.
 - 3. Air Content: 4.5 percent, plus or minus 1.5 percent at point of delivery for 1-1/2-inch nominal maximum aggregate size. Except do not allow air content of trowel-finished floors to exceed 3 percent.
 - 4. Synthetic Micro-Fiber: Uniformly disperse in concrete mixture at manufacturer's recommended rate, but not less than 1.5 lb/cu. Yd.
 - 5. Exposure Class: F1
- C. The concrete supplier shall indicate on each batch ticket the amount of water that has been omitted from each load. No water may be added to the design mix on-site without first performing a slump test. Under any circumstances not more than 20 gallons of water may be added to a full 10 cubic yard load (or same proportion for other size loads) to obtain the required slump. No water may be added to the design mix at the site unless the digital water meter on the delivery vehicle is readable and functioning correctly except by use of a 5 gallon bucket. Ball and water column method not acceptable.

SECTION 03 3000 – CAST-IN-PLACE CONCRETE

- D. Coarse Grout: Coarse grout shall be normal weight (150 psf) and shall develop 2500 psi compressive strength at 7 days on a standard 2 inch cube and shall develop 4000 psi compressive strength at 28 days.
 - 1. Proportioning shall be in accordance with “Mortar and Grout for Reinforced Masonry (ASTM C476-02).”
 - 2. Slump shall be a maximum of 8 inches when measured using a 12 inch cone in accordance with “Slump of Portland Cement Concrete (ASTM C143).”
 - 3. Sand, if used, shall conform to “Standard Specification for Aggregate for Masonry Mortar (ASTM C144)” except that gradation may be modified as necessary to obtain workability. Maximum size of aggregate shall be limited to 3/8 inch diameter.
- E. Use accelerating admixture in cold weather only when approved by Architect. Use of admixtures will not reduce cold weather placement requirements.

2.9 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice"

2.10 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.
 - 1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 EXECUTION

3.1 PREPARATION

- A. Notify Architect and Testing Laboratory minimum 24 hours prior to placing concrete.
- B. Remove water and debris from forms and excavations.
- C. Close openings left in forms for cleaning and inspection.
- D. Prepare previously placed and existing concrete surfaces by cleaning with steel wire brush and when necessary, applying bonding agent in accordance with manufacturer's instructions.
- E. Drainage fill: Roll thoroughly and tamp to level of at least the thickness shown. (min. 4") Cover with polyethylene film placed in greatest practicable lengths and lapped at least 12" min. All joints and penetrations shall be securely taped.
- F. Premolded expansion joint filler: Provide at intersections of grade slabs and masonry walls, grade slabs and steel columns, exterior concrete walks and elsewhere as shown, detailed or specified. Exterior PEJ shall be located 1/4 inch below finished surface of slab.

3.2 EMBEDDED ITEMS

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- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 1. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC's "Code of Standard Practice for Steel Buildings and Bridges."
 - 2. Post installed anchors, where permitted on drawings, shall comply with and meet requirements of ICC-ES AC308.
 - 3. Do not cut reinforcing steel to facilitate installation of inserts or accessories.

3.3 PLACEMENT OF CONCRETE

- A. Place concrete in accordance with ACI 301 and ACI 318.
- B. Ensure reinforcement, inserts, and embedded parts are not disturbed during concrete placement.
- C. Deposit concrete as nearly as possible in its final position to minimize handling and flowing.
- D. Place concrete continuously between predetermined expansion, control, and construction joints.
- E. Do not place partially hardened, contaminated, or retempered concrete.
- F. Do not allow concrete to free fall over 5 feet; provide tremies, chutes, or other means of conveyance.
- G. Consolidate concrete with mechanical vibrating equipment. Hand compact in corners and angles of forms.
- H. Screed slabs level, to flatness tolerance of 1/4 inch in 10 feet.
- I. Concrete in footings and slabs shall not be vibrated unless slump is less than 4". Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations.
- J. All exterior concrete walks shall have rounded edges. Edges of scored and expansion joints shall be rounded.
- K. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.

3.4 FINISHING FLOORS AND SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power driven floats. Restraighten, cut down high spots, and fill low spots.

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Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture.

1. Apply float finish to surfaces indicated to receive trowel finish.
- C. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
 1. Apply a trowel finish to surfaces to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
- D. Broom Finish: Apply a broom finish to exterior concrete walks, steps, ramps, and elsewhere as indicated.
 1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

3.5 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Design Professional.
 1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of strip placements of floors and slabs.
 2. Form keyed joints as indicated. Embed keys at least 1-1/2 inches into concrete.
 3. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

3.6 FINISHING FORMED SURFACES

- A. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed the specified limits on formed surface irregularities.
 1. Apply to concrete surfaces exposed to public view.
- B. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.7 PLACEMENT OF COARSE GROUT

- A. Remove loose and foreign matter from concrete; lightly roughen bonding surface.
- B. Just prior to grouting, thoroughly wet concrete surfaces; remove excess water.

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- C. Mix grout in accordance with manufacturer's instructions. Do not retemper.
- D. Place grout continuously, by most practical means; avoid entrapped air. Do not vibrate grout.

3.8 MISCELLANEOUS CONCRETE ITEMS

- A. Filling In: Fill in holes and openings left in concrete structures after work of other trades is in place unless otherwise indicated. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete the Work.
- B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.
- C. Equipment Bases and Foundations: Provide machine and equipment bases and foundations as shown on Drawings. Set anchor bolts for machines and equipment at correct elevations, complying with diagrams or templates from manufacturer furnishing machines and equipment.

3.9 PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Provide artificial heat to maintain temperature of concrete above minimum specified temperature for duration of curing period.
- D. Keep forms sufficiently wet to prevent cracking of concrete or loosening of form joints.
- E. Hardener: After final curing, unless otherwise noted, treat interior floors noted in finish schedule as “exposed concrete with trowel finish”, with three full even applications of liquid floor hardener applied in strict accordance with the manufacturer’s written instructions.
- F. Concrete slabs used as substrate for resilient tile, wood and seamless flooring shall remain exposed (without applied finish floor covering) for a minimum of 45 days after placement. Curing components or hardeners shall not be applied to these areas.

3.10 CURING

- A. Cure concrete in accordance with ACI 308:
 - 1. Horizontal surfaces:
 - a. Use of curing compounds is prohibited for initial curing.

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- b. Initial curing shall be by ponding, continuous sprinkling, sand, burlap kept moist or moisture retaining cover (poly). Initial curing procedure shall continue for at least 7 days after concrete is placed.
- 2. Vertical surfaces: Use either wet curing or curing compound method.
- B. Curing Compound Method (Do not use unless approved by finish floor manufacturer.):
 - 1. Spray compound on surfaces in two coats, applying second at right angle to first, at minimum rate recommended by manufacturer.
 - 2. Restrict traffic on surfaces during curing.
- C. Curing Paper Method:
 - 1. Spread curing paper over surfaces, lapping ends and sides minimum 4 inches; maintain in place by use of weights.
 - 2. Remove paper after curing.
- D. Wet Curing Method: Spray water over surfaces and maintain wet for 7 days.
- E. Initial Curing may be by ponding, kept moist with sand or a moisture retaining cover.
- F. Concrete slabs used as substrate for ceramic, quarry and resilient tile flooring shall be cured for a minimum of 30 days prior to installation of flooring system. Curing compounds and hardeners shall not be applied to those areas.
- G. Final curing is defined as the point at which the concrete reaches its' specified 3,000 psi compressive strength confirmed by a cylinder break at 28 days.

3.11 CLEANING

- A. Remove efflorescence, stains, oil, grease, and foreign materials from exposed surfaces.

3.12 JOINT FILLING

- A. Prepare, clean, and install joint filler according to manufacturer's written instructions.
 - 1. Defer joint filling until concrete has aged at least one month. Do not fill joints until construction traffic has permanently ceased.
- B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joint clean and dry.

3.13 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.
- B. Patching Mortar: Mix dry-pack patching mortar, consisting of one part portland cement to two and one-half parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.

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- C. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
 2. After concrete has cured at least 14 days, correct high areas by grinding.
 3. Correct other low areas scheduled to receive floor coverings with a repair underlayment. Prepare, mix, and apply repair underlayment and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface. Feather edges to match adjacent floor elevations.
 4. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
 5. Repair defective areas, except random cracks and single holes 1 inch or less in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose steel reinforcement with at least a 3/4-inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials and mixture as original concrete except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.
 6. Repair random cracks and single holes 1 inch or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.
- D. Perform structural repairs of concrete, subject to Architect's approval, using epoxy adhesive and patching mortar.
- E. Repair materials and installation not specified above may be used, subject to Architect's approval.

3.14 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Owner will engage a qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Inspections per IBC 2012, including:
1. Steel reinforcement placement.
 2. Headed bolts and studs.
 3. Verification of use of required design mixture.
 4. Concrete placement, including conveying and depositing.
 5. Curing procedures and maintenance of curing temperature.

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- C. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd. , plus one set for each additional 50 cu. yd. or fraction thereof.
 2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
 3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; ASTM C 173/C 173M, volumetric method, for structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
 5. Unit Weight: ASTM C 567, fresh unit weight of structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 6. Compression Test Specimens: ASTM C 31/C 31M.
 - a. Cast and laboratory cure two sets of two standard cylinder specimens for each composite sample.
 7. Compressive-Strength Tests: ASTM C 39/C 39M.
 - a. Test one laboratory-cured specimen at 7 days and one set of two specimens @ 28 days.
 - b. When two specimens are tested, the compressive strength test shall be the average compressive strength from a set of two specimens obtained from the same composite sample and tested at the age indicated.
 - c. Retain one specimen for additional testing if requested by the Design Professional.
 8. Strength of each concrete mixture will be satisfactory if concrete has achieved the specified 28-day compressive strength.
 9. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
 10. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
 11. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42/C 42M or by other methods as directed by Architect.
 12. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
 13. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

SECTION 03 3000 – CAST-IN-PLACE CONCRETE

- D. Measure floor and slab flatness and levelness according to ASTM E 1155 within 48 hours of finishing.

3.15 CONCRETE ADJUSTMENTS

- A. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant, as accepted by Architect. Laboratory test data for revised mix design and strength results must be submitted to and accepted by Architect before using in Work.

END OF SECTION

SECTION 04 0513 MASONRY MORTARING

PART 1 PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Mortar for masonry.
- B. Related Sections:
 - 1. Division 01: Administrative and procedural work requirements.
 - 2. Section 04 2000 - Unit Masonry.

1.2 REFERENCES

- A. ASTM International (ASTM):
 - 1. C91 - Standard Specification for Masonry Cement.
 - 2. C144 - Standard Specification for Aggregate for Masonry Mortar.
 - 3. C150 - Standard Specification for Portland Cement.
 - 4. C207 - Standard Specification for Hydrated Lime for Masonry Purposes.
 - 5. C270 - Standard Specification for Mortar for Unit Masonry.
 - 6. C1329 - Standard Specification for Mortar Cement.
- B. The Masonry Society (TMS):
 - 1. 402 - Building Code for Masonry Structures.
 - 2. 602 - Specification for Masonry Structures.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Samples: 1/2 x 1/2 inch x 3 inch long colored mortar samples.
- B. Quality Control Submittals:
 - 1. Test reports: Indicating mortar compliance with ASTM C270.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver cement and lime in manufacturer's original, unopened packages or containers.
- B. Protect materials from moisture absorption and damage; reject damaged containers.
- C. Storage aggregate to prevent inclusion of foreign matter

SECTION 04 0513 MASONRY MORTARING

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturers – Masonry Cement:

1. Blue Circle Cement Inc.
2. Medusa Cement Company
3. Coosa Masonry Cements
4. Giant

A. Portland Cement:

1. ASTM C150, Type I
2. For exposed surfaces, provide cement from one source throughout project.

B. Aggregate:

1. ASTM C144, standard masonry type.
2. For exposed surfaces, provide aggregate from one source throughout project.

C. Lime: ASTM C207,

D. Water: Clean and potable

E. Do not add admixtures including air-entraining agents, accelerators, retarders, water repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated. Do not use calcium chloride in mortar.

F. Exterior brick masonry cement water repellent admixture shall be Master Builders Rheopel mortar admixture or Sonneborne Hydrocide Powder.

2.3 MIXES

A. Mortar for Unit Masonry: Comply with ASTM C 270, Proportion Specification, for types of mortar indicated below:

B. Mortar Mixes: To ASTM C270 using the Property Method for job-mixed mortar and ASTM 1142 for ready-mixed mortar, of types indicated below:

1. Provide masonry cement mortar.
2. Brick Masonry below grade: Type S.
3. Concrete Masonry below finish floor: Type M.
4. Concrete masonry above finish floor: Type S or M
5. Brick Masonry above grade: Type N

2.4 MIXING

A. Mix mortar in accordance with ASTM C270-08.

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- B. Jobsite Proportioning of Mortar:
 - 1. Mix using mechanical mixer. Hand mixing not permitted.
 - 2. Mix approximately three-quarters of required water, all of cement and lime, and onehalf of aggregate for minimum of 2 minutes.
 - 3. Add remainder of water and aggregate; mix for minimum of 3 minutes.
- C. Thoroughly mix ingredients in quantities needed for immediate use.
- D. Discard lumpy, caked, frozen, and hardened mixes.
- E. Provide uniformity of color in exposed mortar.
- F. Water repellent admixture shall be added at the rate recommended by manufacturer per bag or cubic foot of brick masonry cement. Water repellent is not required in mortar of interior brick or concrete block.
- G. Mortar may not be retempered. Mortar shall be used and placed in final position within 1-1/2 hours after initial mixing at ambient temperatures over 80 degrees F. At temperatures below 80 degrees F., elapsed time to placement of mortar shall not exceed 2-1/2 hours. Mortar not used within these limits shall be discarded.
- H. Do not add accelerators, retarders, water repellents, antifreeze compounds, or other additives without Architect's approval.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Follow requirements specified in referenced sections.

END OF SECTION

SECTION 04 2000 - UNIT MASONRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Concrete masonry units (CMU's).
2. Split-faced masonry veneer units.
3. Cast stone units.
4. Face brick units.
5. Interior glazed concrete masonry units to match existing.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Verification: For each type and color of exposed masonry unit and colored mortar.

1.3 INFORMATIONAL SUBMITTALS

- A. Material Certificates: For each type and size of product indicated. For masonry units include data on material properties.

1.4 QUALITY ASSURANCE

- A. Masonry Standard: Comply with ACI 530.1/ASCE 6/TMS 602 unless modified by requirements in the Contract Documents.
- B. Sample Panels: Build sample panels to verify selections made under sample submittals and to demonstrate aesthetic effects. Comply with requirements in Section 01 4000 "Quality Requirements" for mockups.
1. Build sample panels for typical exterior wall in sizes approximately 60 inches long by 48 inches high by full thickness.

1.5 PROJECT CONDITIONS

- A. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

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- B. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

PART 2 - PRODUCTS

2.1 MASONRY UNITS, GENERAL

- A. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated in the standard. Do not use units where such defects will be exposed in the completed Work.
- B. Fire-Resistance Ratings: Where indicated, provide units that comply with requirements for fire-resistance ratings indicated as determined by testing according to ASTM E 119, by equivalent masonry thickness, or by other means, as acceptable to authorities having jurisdiction.

2.2 CONCRETE MASONRY UNITS

- A. Shapes: Provide shapes indicated and for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
 - 1. Provide bullnose units for outside corners of interior partitions, except where indicated otherwise.
 - 2. Provide pre-cast cast stone sills as shown on drawings.
- B. CMUs: ASTM C 90.
 - 1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2000 psi.
 - 2. Density Classification: Medium weight.
 - 3. Size: Typical 7-5/8-inch by 15-5/8-inch actual face dimension by 3/8-inch less than nominal thickness indicated.
 - 4. "Assembly Rating - 2 Hr." (U.L. Design No. U905): furnish units bearing UL classification D-2.
 - 5. Net Area Compressive Strength: Provide installed masonry with a net area compressive strength of 2000 psi.
- C. BRICK:
 - 1. Unit strength: 6600 PSI.

SECTION 04 2000 - UNIT MASONRY

2.3 MASONRY LINTELS

- A. General: Provide one of the following:
- B. Masonry Lintels: Prefabricated or built-in-place masonry lintels made from bond beam CMUs with reinforcing bars placed as indicated and filled with coarse grout. Retain subparagraph below for square brick, 8 inches (203 mm) in nominal size.

2.4 MORTAR AND GROUT MATERIALS

- A. Portland Cement: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.
- B. Hydrated Lime: ASTM C 207, Type S.
- C. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.
- D. Colored Cement Product: Packaged blend made from portland cement and hydrated lime and mortar pigments, all complying with specified requirements, and containing no other ingredients.
 - 1. Colored Portland Cement-Lime Mix:
 - a. Products: Subject to compliance with requirements, provide one of the following:
- E. Aggregate for Standard Gray Mortar: ASTM C 144.
 - 1. For joints less than 1/4 inch thick, use aggregate graded with 100 percent passing the No. 16 sieve.
 - 2. White-Mortar Aggregates: Natural white sand or crushed white stone.
- F. Aggregate for Grout: ASTM C 404.
- A. Cold-Weather Admixture: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C 494/C 494M, Type C, and recommended by manufacturer for use in masonry mortar of composition indicated.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Euclid Chemical Company (The); Accelguard 80.
Grace Construction Products, W. R. Grace & Co. - Conn.; Morset.
Sonneborn Products, BASF Aktiengesellschaft; Trimix-NCA.
- G. Water: Potable.

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2.5 REINFORCEMENT

- A. Uncoated Steel Reinforcing Bars: ASTM A 615/A 615M or ASTM A 996/A 996M, Grade 60.
- B. Masonry Joint Reinforcement, General: ASTM A 951/A 951M.
 - 1. Interior Walls: Mill galvanized, carbon steel.
 - 2. Exterior Walls: Hot-dip galvanized, carbon steel.
 - 3. Wire Size for Side Rods: 0.148-inch diameter.
 - 4. Wire Size for Cross Rods: 0.148-inch diameter.
 - 5. Wire Size for Veneer Ties: 0.148-inch diameter.
 - 6. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than 16 inches o.c.
 - 7. Provide in lengths of not less than 10 feet, with prefabricated corner and tee units.
- C. Masonry Joint Reinforcement for Single-Wythe Masonry: Either ladder or truss type with single pair of side rods.
- D. Masonry Joint Reinforcement for Multi-wythe Masonry:
 - 1. Adjustable (two-piece) type, either ladder or truss design, with one side rod at each face shell of backing wythe and with separate adjustable ties with pintle-and-eye connections having a maximum adjustment of 1-1/4 inches. Size ties to extend at least halfway through facing wythe but with at least 5/8-inch cover on outside face.

2.6 TIES AND ANCHORS

- A. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated.
 - 1. Hot-Dip Galvanized, Carbon-Steel Wire: ASTM A 82/A 82M; with ASTM A 153/A 153M, Class B-2 coating.
 - 2. Steel Sheet, Galvanized after Fabrication: ASTM A 1008/A 1008M, Commercial Steel, with ASTM A 153/A 153M, Class B coating.
- B. Wire Ties, General: Unless otherwise indicated, size wire ties to extend at least halfway through veneer but with at least 5/8-inch cover on outside face. Outer ends of wires are bent 90 degrees and extend 2 inches parallel to face of veneer.
- C. Anchor Bolts: L-shaped steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers; hot-dip galvanized to comply with ASTM A 153/A 153M, Class C; of dimensions indicated.

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2.7 EMBEDDED FLASHING MATERIALS

- A. Metal Flashing: Provide metal flashing complying with SMACNA's "Architectural Sheet Metal Manual" and as follows:
1. Metal Drip Edge: Fabricate from stainless steel. Extend at least 3 inches into wall and 1/2 inch out from wall, with outer edge bent down 30 degrees and hemmed.
 2. Metal Sealant Stop: Fabricate from stainless steel. Extend at least 3 inches into wall and out to exterior face of wall. At exterior face of wall, bend metal back on itself for 3/4 inch and down into joint 1/4 inch to form a stop for retaining sealant backer rod.
 3. Metal Expansion-Joint Strips: Fabricate from stainless steel to shapes indicated.
- B. Flexible Flashing: Use one of the following unless otherwise indicated:
1. Copper-Laminated Flashing: 3-oz./sq. ft. copper sheet bonded between 2 layers of glass-fiber cloth. Use only where flashing is fully concealed in masonry.
 - a. Products: Subject to compliance with requirements, provide one of the following:
 - 1) Advanced Building Products Inc.; Copper Fabric Flashing.
Dayton Superior Corporation, Dur-O-Wal Division; Copper Fabric Thru-Wall Flashing.
Hohmann & Barnard, Inc.; H & B C-Fab Flashing.
Phoenix Building Products; Type FCC-Fabric Covered Copper.
Sandell Manufacturing Co., Inc.; Copper Fabric Flashing.
York Manufacturing, Inc.; Multi-Flash 500.
- C. Solder and Sealants for Sheet Metal Flashings: As specified in Section 07 6200 "Sheet Metal Flashing and Trim."
- D. Adhesives, Primers, and Seam Tapes for Flashings: Flashing manufacturer's standard products or products recommended by flashing manufacturer for bonding flashing sheets to each other and to substrates.

2.8 MISCELLANEOUS MASONRY ACCESSORIES

- A. Bond-Breaker Strips: Asphalt-saturated, organic roofing felt complying with ASTM D 226, Type I (No. 15 asphalt felt).
- B. Weep/Vent Products: Use the following unless otherwise indicated:
1. Cellular Plastic Weep/Vent: One-piece, flexible extrusion made from UV-resistant polypropylene copolymer, full height and width of head joint and depth

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1/8 inch less than depth of outer wythe, in color selected from manufacturer's standard.

- a. Products: Subject to compliance with requirements, provide one of the following:

- 1) Advanced Building Products Inc.; Mortar Maze weep vent.
Heckmann Building Products Inc.; No. 85 Cell Vent.
Hohmann & Barnard, Inc.; Quadro-Vent.

- C. Cavity Drainage Material: Free-draining mesh, made from polymer strands that will not degrade within the wall cavity.

- 1. Products: Subject to compliance with requirements, provide one of the following:

- a. Advanced Building Products Inc.; Mortar Break II.
Dayton Superior Corporation, Dur-O-Wal Division; Polytite MortarStop.
Mortar Net USA, Ltd.; Mortar Net.

- 2. Provide one of the following configurations:

- a. Strips, full-depth of cavity and 10 inches high, with dovetail shaped notches 7 inches deep.
Strips, not less than 1-1/2 inches thick and 10 inches high, with dimpled surface designed to catch mortar droppings and prevent weep holes from clogging with mortar.
Sheets or strips full depth of cavity and installed to full height of cavity.

2.9 CAVITY-WALL INSULATION

- A. Extruded-Polystyrene Board Insulation: ASTM C 578, Type IV, closed-cell product extruded with an integral skin.

- 1. R-Value: R 9.5, 1 1/2" thickness

- B. Adhesive: Type recommended by insulation board manufacturer for application indicated.

2.10 MASONRY CLEANERS

- A. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.

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1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Diedrich Technologies, Inc.
 - b. EaCo Chem, Inc.
 - c. ProSoCo, Inc.

2.11 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated.
 1. Do not use calcium chloride in mortar or grout.
 2. Use portland cement-lime mortar unless otherwise indicated.
 3. For exterior masonry, use portland cement-lime mortar.
 4. For reinforced masonry, use portland cement-lime mortar.
 5. Add cold-weather admixture (if used) at same rate for all mortar that will be exposed to view, regardless of weather conditions, to ensure that mortar color is consistent.
- B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.
 1. Mix to match Architect's sample.
 2. Application: Use preblended dry mortar mix for exposed mortar joints with the following units:
 - a. Face Brick.
 3. Mortar for Unit Masonry: Comply with ASTM C 270, Proportion Specification. Provide the following types of mortar for applications stated unless another type is indicated.
 4. For masonry below grade or in contact with earth, use Type S.
 5. For reinforced masonry, use Type S.
 6. For exterior, above-grade, load-bearing and non-load-bearing walls and parapet walls; for interior load-bearing walls; for interior non-load-bearing partitions; and for other applications where another type is not indicated, use Type N.

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7. For interior non-load-bearing partitions, Type O may be used instead of Type N.
- C. Grout for Unit Masonry: Comply with ASTM C 476.
1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with Table 1.15.1 in ACI 530.1/ASCE 6/TMS 602 for dimensions of grout spaces and pour height.
 2. Proportion grout in accordance with ASTM C 476, Table 1.
 3. Provide grout with a slump of 8 to 11 inches as measured according to ASTM C 143/C 143M.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.

3.2 TOLERANCES

A. Dimensions and Locations of Elements:

1. For dimensions in cross section or elevation do not vary by more than plus 1/2 inch or minus 1/4 inch.
2. For location of elements in plan do not vary from that indicated by more than plus or minus 1/2 inch.

For location of elements in elevation do not vary from that indicated by more than plus 3. or minus 1/4 inch in a story height or 1/2 inch total.

B. Lines and Levels:

1. For bed joints and top surfaces of bearing walls do not vary from level by more than 1/4 inch in 10 feet, or 1/2 inch maximum.
2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.
3. For vertical lines and surfaces do not vary from plumb by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2 inch maximum.

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4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.
5. For lines and surfaces do not vary from straight by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2 inch maximum.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch, with a maximum thickness limited to 1/2 inch.
2. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch or minus 1/4 inch.
3. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch.

3.3 LAYING MASONRY WALLS

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond; do not use units with less than nominal 4-inch horizontal face dimensions at corners or jambs.
- C. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.
- D. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.
- E. Fill cores in hollow CMUs with grout 24 inches under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.

3.4 MORTAR BEDDING AND JOINTING

- A. Lay hollow brick CMUs as follows:
 1. With face shells fully bedded in mortar and with head joints of depth equal to bed joints.
 2. With webs fully bedded in mortar in all courses of piers, columns, and pilasters.
 3. With webs fully bedded in mortar in grouted masonry, including starting course

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on footings.

4. With entire units, including areas under cells, fully bedded in mortar at starting course on footings where cells are not grouted.
- B. Lay solid masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.
- C. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.
- D. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) unless otherwise indicated.

3.5 CAVITY WALLS

- A. Bond wythes of cavity walls together using one of the following methods:
 1. Masonry Joint Reinforcement: Installed in horizontal mortar joints.
 - a. Where one wythe is of clay masonry and the other of concrete masonry, use adjustable (two-piece) type reinforcement with continuous horizontal wire in facing wythe attached to ties to allow for differential movement regardless of whether bed joints align.
- B. Keep cavities clean of mortar droppings and other materials during construction. Bevel beds away from cavity, to minimize mortar protrusions into cavity. Do not attempt to trowel or remove mortar fins protruding into cavity.
- C. Coat cavity face of backup wythe to comply with Section 07 1113 "Bituminous Dampproofing."
- D. Apply air barrier to face of backup wythe to comply with Section 07 2726 "Fluid-Applied Membrane Air Barriers."
- E. Installing Cavity-Wall Insulation: Place small dabs of adhesive, spaced approximately 12 inches o.c. both ways, on inside face of insulation boards, or attach with plastic fasteners designed for this purpose. Fit courses of insulation between wall ties and other confining obstructions in cavity, with edges butted tightly both ways. Press units firmly against inside wythe of masonry or other construction as shown.

3.6 MASONRY JOINT REINFORCEMENT

- A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of 6 inches.

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1. Space reinforcement not more than 16 inches o.c.
Space reinforcement not more than 8 inches o.c. in foundation walls and parapet walls.
Provide reinforcement not more than 8 inches above and below wall openings and extending 12 inches beyond openings in addition to continuous reinforcement.

- B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.
- C. Provide continuity at wall intersections by using prefabricated T-shaped units.
- D. Provide continuity at corners by using prefabricated L-shaped units.

3.7 ANCHORING MASONRY VENEERS

- A. Anchor masonry veneers to wall framing and concrete and masonry backup with masonry-veneer anchors to comply with the following requirements:
 1. Embed connector sections and continuous wire in masonry joints. Provide not less than 2 inches of air space between back of masonry veneer and face of sheathing.
 2. Locate anchor sections to allow maximum vertical differential movement of ties up and down.
 3. Space anchors as indicated, but not more than 16 inches o.c. vertically and 24 inches o.c. horizontally with not less than 1 anchor for each 2.67 sq. ft. of wall area. Install additional anchors within 12 inches of openings and at intervals, not exceeding 36 inches, around perimeter.

3.8 FLASHING, WEEP HOLES, CAVITY DRAINAGE, AND VENTS

- A. General: Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated. Install vents at shelf angles, ledges, and other obstructions to upward flow of air in cavities, and where indicated.
- B. Install flashing as follows unless otherwise indicated:
 1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer.
 2. At lintels and shelf angles, extend flashing a minimum of 6 inches into masonry at each end. At heads and sills, extend flashing 6 inches at ends and turn up not less than 2 inches to form end dams.

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3. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch back from outside face of wall and adhere flexible flashing to top of metal drip edge.
4. Install metal flashing termination beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch back from outside face of wall and adhere flexible flashing to top of metal flashing termination.
- C. Install weep holes in head joints in exterior wythes of first course of masonry immediately above embedded flashing and as follows:
 1. Use specified weep/vent products to form weep holes. Space weep holes 24 inches o.c. unless otherwise indicated.
- D. Place cavity drainage material in cavities to comply with configuration requirements for cavity drainage material in "Miscellaneous Masonry Accessories" Article.
- E. Install vents in head joints in exterior wythes at spacing indicated. Use specified weep/vent products to form vents.
 1. Close cavities off vertically and horizontally with blocking in manner indicated. Install through-wall flashing and weep holes above horizontal blocking.

3.9 REINFORCED UNIT MASONRY INSTALLATION

- A. Temporary Formwork and Shores: Construct formwork and shores as needed to support reinforced masonry elements during construction.
 1. Construct formwork to provide shape, line, and dimensions of completed masonry as indicated. Make forms sufficiently tight to prevent leakage of mortar and grout. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.
 2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and other loads that may be placed on them during construction.
- B. Placing Reinforcement: Comply with requirements in ACI 530.1/ASCE 6/TMS 602.
 1. Grouting: Do not place grout until entire height of masonry to be grouted has attained enough strength to resist grout pressure.
 2. Comply with requirements in ACI 530.1/ASCE 6/TMS 602 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
 3. Limit height of vertical grout pours to not more than 60 inches .

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3.10 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Owner will engage special inspectors to perform tests and inspections and prepare reports. Allow inspectors access to scaffolding and work areas, as needed to perform tests and inspections. Retesting of materials that fail to comply with specified requirements shall be done at Contractor's expense.
- B. Inspections: Level 1 special inspections according to the "International Building Code."
 - 1. Begin masonry construction only after inspectors have verified proportions of site-prepared mortar.
 - 2. Place grout only after inspectors have verified compliance of grout spaces and of grades, sizes, and locations of reinforcement.
 - 3. Place grout only after inspectors have verified proportions of site-prepared grout.
- C. Testing Prior to Construction: One set of tests.
- D. Testing Frequency: One set of tests for each 5000 sq. ft. of wall area or portion thereof.
- E. Concrete Masonry Unit Test: For each type of unit provided, according to ASTM C 140 for compressive strength.
- F. Mortar Test (Property Specification): For each mix provided, according to ASTM C 780. Test mortar for compressive strength.
- G. Grout Test (Compressive Strength): For each mix provided, according to ASTM C 1019.

3.11 REPAIRING, POINTING, AND CLEANING

- A. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.
- B. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:
 - 1. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes.
 - 2. Protect surfaces from contact with cleaner.
 - 3. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
 - 4. Clean brick by bucket-and-brush hand-cleaning method described in BIA Technical Notes 20.

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5. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.
6. Clean concrete masonry by cleaning method indicated in NCMA TEK 8-2A applicable to type of stain on exposed surfaces.

3.12 MASONRY WASTE DISPOSAL

- A. Waste Disposal as Fill Material: Dispose of clean masonry waste, including excess or soil-contaminated sand, waste mortar, and broken masonry units, by crushing and mixing with fill material as fill is placed.
 1. Do not dispose of masonry waste as fill within 18 inches of finished grade.
- B. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above, and other masonry waste, and legally dispose of off Owner's property.

END OF SECTION 04 2000

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Plant cast simulated stone units.
- B. Related Sections:
 - 1. Division 01: Administrative and procedural work requirements.
 - 2. Section 04 0513 - Masonry Mortaring.
 - 3. Section 07 9200 - Joint Sealers.

1.2 REFERENCES

- A. American Concrete Institute (ACI) 318 - Building Code Requirements for Structural Concrete.
- B. ASTM International (ASTM):
 - 1. A185/A185M - Standard Specification for Welded Steel Wire Reinforcement, Plain, for Concrete.
 - 2. A615 - Standard Specification for Deformed Billet Steel Bars for Concrete.
 - 3. C33 - Standard Specification for Concrete Aggregates.
 - 4. C150 - Standard Specification for Portland Cement.
 - 5. C231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
 - 6. C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
 - 7. C426 - Standard Test Method for Linear Shrinkage of Concrete Masonry Units.
 - 8. C494 - Standard Specification for Chemical Admixtures for Concrete.
 - 9. C618 - Standard Specification for Fly Ash and Raw or Calcined Natural Pozzolans for Use as a Mineral Admixture in Portland Cement Concrete.
 - 10. C979 - Standard Specification for Pigments for Integrally Colored Concrete.
 - 11. C1194 - Standard Test Method for Compressive Strength of Architectural Cast Stone.
 - 12. C1195 - Standard Test Method for Absorption of Architectural Cast Stone.
 - 13. C1364 - Standard Specification for Architectural Cast Stone.
- C. Cast Stone Institute (CSI) - Technical Manual.
- D. The Masonry Society (TMS):
 - 1. 402 - Building Code for Masonry Structures.
 - 2. 602 - Specification for Masonry Structures.

1.3 SUBMITTALS

- A. Submittals for Review:
 - 1. Shop Drawings:

SECTION 04 7200 CAST STONE

2. Provide cross section showing profile, reinforcing, anchors, and attachment methods.
3. Include plan and elevation of each unit, numbered in sequence for installation.
- 4.. Samples: Sample of typical unit, showing construction, profile, color, and finish.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with TMS 402 and 602.
- B. Design, fabricate, and install cast stone in accordance with CSI Technical Manual.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Minor chipping resulting from shipment and delivery shall not be grounds for rejection. Minor chips visible from 20 feet under direct daylight illumination will be grounds for rejection.
- B. Support and isolate units during shipment on nonstaining spacers.
- C. Store units to protect from staining and damage.
- D. Store units on firm, level, and smooth surfaces; do not place on ground.

1.6 PROJECT CONDITIONS

- A. See masonry requirements.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Portland Cement: ASTM C150, Type 1.
 1. For facing mix: White or gray.
- B. Aggregates: ASTM C33, clean and uncoated.
 1. For backing mix: Washed concrete sand, pea gravel, or graded limestone.
 2. For facing mix: Limestone, marble screenings, silica sand, or other light colored sand; same as used in mix of approved sample.
- C. Admixtures:
 1. Water reducing or water reducing/set retarding: ASTM C494, Type A or D.
 2. Air entraining: ASTM C260.
 3. Coloring: ASTM C979, pure mineral oxide, color to be selected from manufacturer's full color range.
- D. Reinforcing Bars:
 1. ASTM A615, Grade 40 or 60; galvanized or epoxy coated when covered by less than 11/2 inches of material.

SECTION 04 7200 CAST STONE

- E. Welded Wire Fabric:
 - 1. ASTM A185/A185M.
- F. Dowels and Anchors:
 - 1. Stainless steel, ASTM A666, Type 302 or 304.
- G. Spacers: Resilient plastic.
- H. Formwork: Steel or overlay plywood, consistent with required finish.

2.2 ACCESSORIES

- A. Mortar: Specified in Section 04 0513.
- B. Joint Sealer: Specified in Section 07 9200.
- C. Masonry Cleaner: Type recommended by stone manufacturer.

2.3 FABRICATION

- A. Fabricate units to match approved samples.
- B. Construct rigid, tight molds that will cast required sections with smooth finish.
- C. Provide smooth fillet on interior corners of molds to produce slight beveled edge on permanently exposed surfaces.
- D. Clean surfaces of foreign materials prior to casting.
- E. Coat contact surfaces with form release agent.
- F. Provide reinforcing and accessories required for lifting and installation.
 - 1. Before placing in forms, clean reinforcement and accessories of loose rust, mill scale, dirt, oil, and other materials that could reduce bonding.
 - 2. Accurately position reinforcement to provide minimum coverage of not less than twice the bar diameter.
 - 3. Provide reinforcing equal to minimum 0.25 percent of cross section area.
 - 4. Do not use welded wire fabric for dry-cast units.
- G. Tamp stone mixture containing minimum water into molds to produce dense stones with smooth surfaces, free from air pockets and voids.
- H. Provide uniform surface texture on exposed surfaces, free from holes, voids, and irregularities.

SECTION 04 7200 CAST STONE

- I. Curing:
 - 1. Cure units in warm curing chamber at minimum 104 degrees F and 100 percent humidity for minimum 10 hours
 - 2. Cure units in yard at 95 percent relative humidity for 350 degree-days prior to shipping.
 - 3. Protect units cured in forms from evaporation by use of curing blankets or curing compound.
- J. Fabrication Tolerances:
 - 1. Height and width: Plus or minus 1/8 inch.
 - 2. Length: L/360, maximum plus or minus 1/4 inch.
 - 3. Bowing, twisting, or warping: Maximum L/360.
 - 4. Location of dowels, flashing grooves, and similar features: Plus or minus 1/8 inch in any direction on formed sides, maximum 3/8 inch on unformed sides.

2.4 FINISHES

- A. Color: To be selected from manufacturer's full color range.
- B. Surface Finish: Fine-grained texture similar to natural stone, free from voids and surface irregularities.

2.5 SOURCE QUALITY CONTROL

- A. Select one cast stone unit for each 500 cubic feet delivered to Project in accordance with ASTM C1194 and C1195.
 - 1. Minimum average compressive strength for three cut cubes: 85 percent of specified value per ACI 318, with no test less than 75 percent of specified value.
 - 2. Average maximum cold-water absorption for three cut cubes: 6 percent.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install cast stone in accordance with approved Shop Drawings.
- B. Drench units with clean water just prior to setting.
- C. Completely fill dowels holes and anchor slots with mortar.
- D. Maintain uniform spacing between units with plastic spacers.
- E. Bed each piece in full mortar bed.
- F. Equalize bed and joint dimensions.

SECTION 04 7200 CAST STONE

- G. Completely fill beds and joints, then rake out to 3/8 inch depth to allow for sealant.
- H. Point joints with pointing mortar; tool to concave flush profile.
- I. Control and Expansion Joints:
 - 1. Keep joints free from mortar and grout.
 - 2. Install joint backing and joint sealer at control joints in accordance with Section 07 9200.
 - 3. Form expansion joint as indicated on Drawings.
- J. Installation Tolerances; Maximum variation from:
 - 1. Alignment face to face of adjacent units: Plus or minus 1/8 inch.
 - 2. Plumb: Plus or minus 1/4 inch in 10 feet noncumulative.
 - 3. Level: Plus or minus 1/8 inch in 3 feet; 1/4 inch in 10 feet; 1/2 inch in 30 feet.
 - 4. Joint thickness: Plus 1/16 inch, minus 1/8 inch.

3.2 CLEANING

- A. Clean stone with detergent and water applied with fiber brush.
- B. If initial cleaning does not produce acceptable results, apply cleaner in accordance with manufacturer's instructions.
 - 1. Protect adjacent surfaces.
 - 2. Thoroughly rinse surfaces with clean water after completion of cleaning; remove all traces of cleaning solution.

3.3 PROTECTION

- A. Clean Protect units from damage resulting from subsequent construction operations.
- B. Use protection materials and methods which will not stain or damage units.
- C. Remove protection materials upon Substantial Completion, or when risk of damage is no longer present.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Structural steel.
 - 2. Grout.
- B. Related Sections:
 - 1. Division 01 Section "Quality Requirements" for independent testing agency procedures and administrative requirements.
 - 2. Division 05 Section "Metal Fabrications" for steel lintels and shelf angles not attached to structural-steel frame miscellaneous steel fabrications and other metal items not defined as structural steel.

1.3 DEFINITIONS

- A. Structural Steel: Elements of structural-steel frame, as classified by AISC 303, "Code of Standard Practice for Steel Buildings and Bridges."

1.4 PERFORMANCE REQUIREMENTS

- A. Connections: As indicated on structural drawings.
- B. Moment Connections: As indicated on structural drawings.

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. For each approved fabricator that is exempt from Special Inspections of shop fabrications and implementation procedures in accordance with Section 1704.2.5.2 of the International Building Code, the contractor shall submit "Fabricator's Certificate of Compliance". Contractor shall provide copies of fabricator's certification or building code evaluation services report and fabricator's quality control manual.
- C. Shop Drawings: Show fabrication of structural-steel components.
 - 1. Include details of cuts, connections, splices, camber, holes, and other pertinent data.
 - 2. Include embedment drawings.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

3. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld. Show backing bars that are to be removed and supplemental fillet welds where backing bars are to remain.
 4. Elements designed by the fabricator must be signed and sealed by professional engineer licensed in State of Georgia. As an alternate, a signed and sealed cover letter shall be submitted with the shop drawings substantiating the design information. The fabricator's design engineer must review and confirm in writing that the shop and erection drawings properly incorporate his design.
- D. Welding certificates.
- E. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers, certifying that shop primers are compatible with topcoats.
- F. Mill test reports for structural steel, including chemical and physical properties.
- G. Product Test Reports: For the following:
1. Bolts, nuts, and washers including mechanical properties and chemical analysis.
 2. Direct-tension indicators.
 3. Tension-control, high-strength bolt-nut-washer assemblies.
 4. Shear stud connectors.
 5. Shop primers.
 6. Nonshrink grout.

1.6 QUALITY ASSURANCE

- A. Fabricator Qualifications: A qualified fabricator that participates in the AISC Quality Certification Program and is designated an AISC-Certified Plant, Category STD.
- B. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- C. Comply with applicable provisions of the following specifications and documents:
1. AISC 303.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to permit easy access for inspection and identification. Keep steel members off ground and spaced by using pallets, dunnage, or other supports and spacers. Protect steel members and packaged materials from corrosion and deterioration.
1. Do not store materials on structure in a manner that might cause distortion, damage, or overload to members or supporting structures. Repair or replace damaged materials or structures as directed.
- B. Store fasteners in a protected place in sealed containers with manufacturer's labels intact.
1. Fasteners may be repackaged provided Design Professional's testing and inspecting agency observes repackaging and seals containers.
 2. Clean and relubricate bolts and nuts that become dry or rusty before use.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

3. Comply with manufacturers' written recommendations for cleaning and lubricating ASTM F 1852 fasteners and for retesting fasteners after lubrication.

1.8 COORDINATION

- A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' recommendations to ensure that shop primers and topcoats are compatible with one another.
- B. Coordinate installation of anchorage items to be embedded in or attached to other construction without delaying the Work. Provide setting diagrams, sheet metal templates, instructions, and directions for installation.

PART 2 - PRODUCTS

2.1 STRUCTURAL-STEEL MATERIALS

- A. W-Shapes: ASTM A 992/Am 992M, Grade 50
- B. Channels, Angles, M, S-Shapes: ASTM A 36/A 36M
- C. Plate and Bar: ASTM A 36/A 36M, ASTM A 572/A 572M, Grade 50, as noted on drawings.
- D. Cold-Formed Hollow Structural Sections: ASTM A 500, Grade B, structural tubing.
- E. Steel Pipe: ASTM A 53/A 53M, Type E or S, Grade B.
 1. Weight Class: Standard.
 2. Finish: Black.
- F. Steel Castings: ASTM A 216/A 216M, Grade WCB with supplementary requirement S11.
- G. Steel Forgings: ASTM A 668/A 668M.
- H. Welding Electrodes: Comply with AWS requirements, E70XX.

2.2 BOLTS, CONNECTORS, AND ANCHORS

- A. Tension-Control, High-Strength Bolt-Nut-Washer Assemblies: ASTM F 1852, Type 1, round head assemblies consisting of steel structural bolts with splined ends, heavy-hex carbon-steel nuts, and hardened carbon-steel washers.
 1. Finish: Plain.
- B. Shear Connectors: ASTM A 108, Grades 1015 through 1020, headed-stud type, cold-finished carbon steel; AWS D1.1/D1.1M, Type B.
- C. Unheaded Anchor Rods: ASTM F 1554, Grade 55.
 1. Configuration: Straight.
 2. Nuts: ASTM A 563 heavy-hex carbon steel.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

3. Plate Washers: ASTM A 36/A 36M carbon steel.
 4. Washers: ASTM F 436, Type 1, hardened carbon steel.
 5. Finish: Plain
- D. Threaded Rods: ASTM A 36/A 36M
1. Nuts: ASTM A 563 heavy-hex carbon steel.
 2. Washers: ASTM A 36/A 36M carbon steel.
 3. Finish: Plain
- E. Clevises and Turnbuckles: Made from cold-finished carbon steel bars, ASTM A 108, Grade 1035.
- F. Eye Bolts and Nuts: Made from cold-finished carbon steel bars, ASTM A 108, Grade 1030.
- G. Sleeve Nuts: Made from cold-finished carbon steel bars, ASTM A 108, Grade 1018.

2.3 PRIMER

- A. Primer: SSPC-Paint 25, Type II, alkyd primer.

2.4 GROUT

- A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, nonmetallic aggregate grout, noncorrosive and nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

2.5 FABRICATION

- A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate according to AISC's "Code of Standard Practice for Steel Buildings and Bridges" and AISC 360.
1. Camber structural-steel members where indicated.
 2. Fabricate beams with rolling camber up.
 3. Identify high-strength structural steel according to ASTM A 6/A 6M and maintain markings until structural steel has been erected.
 4. Mark and match-mark materials for field assembly.
 5. Complete structural-steel assemblies, including welding of units, before starting shop-priming operations.
- B. Thermal Cutting: Perform thermal cutting by machine to greatest extent possible.
1. Plane thermally cut edges to be welded to comply with requirements in AWS D1.1/D1.1M.
- C. Bolt Holes: Drill or punch standard bolt holes perpendicular to metal surfaces.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

- D. Finishing: Accurately finish ends of columns and other members transmitting bearing loads.
- E. Connection Holes: Provide holes required for securing other work to structural steel.
 - 1. Drill, or punch holes perpendicular to steel surfaces.
 - 2. Baseplate Holes: Drill or punch holes perpendicular to steel surfaces.
 - 3. Weld threaded nuts to framing and other specialty items indicated to receive other work.

2.6 SHOP CONNECTIONS

- A. High-Strength Bolts: Shop install high-strength bolts according to RCSC's "Specification for Structural Joints Using High-Strength Bolts" dated June 11, 2020 for type of bolt and type of joint specified.
 - 1. Joint Type: Snug Tight
- B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
 - 1. Assemble and weld built-up sections by methods that will maintain true alignment of axes without exceeding tolerances in AISC 303 for mill material.

2.7 SHOP PRIMING

- A. Shop prime steel surfaces except the following:
 - 1. Surfaces embedded in concrete or mortar. Extend priming of partially embedded members to a depth of 2 inches.
 - 2. Surfaces to be field welded.
 - 3. Surfaces to be coated with bituminous material.
- B. Surface Preparation: Clean surfaces to be painted. Remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces according to the following specifications and standards:
 - 1. SSPC-SP 3 "Power Tool Cleaning" for other steel.
- C. Priming: Immediately after surface preparation, apply primer according to manufacturer's written instructions and at rate recommended by SSPC to provide a minimum dry film thickness of 1.5 mils. Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.
 - 1. Stripe paint corners, crevices, bolts, welds, and sharp edges.
 - 2. Apply two coats of shop paint to surfaces that are inaccessible after assembly or erection. Change color of second coat to distinguish it from first.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Before erection proceeds, survey elevations and locations of concrete and masonry-bearing surfaces and locations of anchor rods, bearing plates and other embedments to receive structural framing, with Erector present, for compliance with requirements and specified tolerances.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Provide temporary shores, guys, braces, and other supports during erection to keep structural steel secure, plumb, and in alignment against temporary construction loads and loads equal in intensity to design loads. Remove temporary supports when permanent structural steel, connections, and bracing are in place unless otherwise indicated.

3.3 ERECTION

- A. Set structural steel accurately in locations and to elevations indicated and according to AISC 303 and AISC 360.
- B. Base Plates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.
 - 1. Set plates for structural members on wedges, shims, or setting nuts as required.
 - 2. Snug-tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.
 - 3. Promptly pack grout solidly between bearing surfaces and plates so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for shrinkage-resistant grouts.
- C. Maintain erection tolerances of structural steel within AISC's "Code of Standard Practice for Steel Buildings and Bridges."
- D. Align and adjust various members that form part of complete frame or structure before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that will be in permanent contact with members. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.
 - 1. Level and plumb individual members of structure.
- E. Splice members only where indicated.
- F. Coat columns and base plates below floor slab with ultra-high build, single component coal tar mastic for protecting steel and concrete substrates subject to aggressive conditions and below grade damp proofing in strict accordance with manufacturer's published instructions.
- G. Do not use thermal cutting during erection unless approved by Architect. Finish approved thermally cut sections within smoothness limits in AWS D1.1/D1.1M.
- H. Do not enlarge unfair holes in members by burning or using drift pins. Ream holes that must be enlarged to admit bolts.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

- I. Shear Connectors: Prepare steel surfaces as recommended by manufacturer of shear connectors. Use automatic end welding of headed-stud shear connectors according to AWS D1.1/D1.1M and manufacturer's written instructions.

3.4 FIELD CONNECTIONS

- A. High-Strength Bolts: Install high-strength bolts according to RCSC's "Specification for Structural Joints Using High-Strength Bolts" dated December 31, 2009 for type of bolt and type of joint specified.
 - 1. Joint Type: Snug tightened
 - 2. Bolt Type: Tension Control of size, quantity and style noted on drawings.
- B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
 - 1. Comply with AISC 303 and AISC 360 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.
 - 2. Remove backing bars or runoff tabs, back gouge, and grind steel smooth.
 - 3. Assemble and weld built-up sections by methods that will maintain true alignment of axes without exceeding tolerances in AISC's "Code of Standard Practice for Steel Buildings and Bridges" for mill material.

3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Design Professional will engage a qualified independent testing and inspecting agency to inspect field welds and high-strength bolted connections.
- B. Bolted Connections: Bolted connections will be inspected according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- C. Welded Connections: Field welds will be visually inspected according to AWS D1.1/D1.1M.
- D. In addition to visual inspection, test and inspect field-welded shear connectors according to requirements in AWS D1.1/D1.1M for stud welding and as follows:
 - 1. Perform bend tests if visual inspections reveal either a less-than-continuous 360-degree flash or welding repairs to any shear connector.
 - 2. Conduct tests on additional shear connectors if weld fracture occurs on shear connectors already tested, according to requirements in AWS D1.1/D1.1M.
- E. Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents.

3.6 REPAIRS AND PROTECTION

- A. Touchup Painting: Immediately after erection, clean exposed areas where primer is damaged or missing and paint with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

SECTION 05 1200 – STRUCTURAL STEEL FRAMING

1. Clean and prepare surfaces by SSPC-SP 2 hand-tool cleaning or SSPC-SP 3 power-tool cleaning.

END OF SECTION

SECTION 05 5000 - METAL FABRICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Steel framing and supports for countertops.
 - 2. Steel framing and supports for applications where framing and supports are not specified in other Sections.
- B. Products furnished, but not installed, under this Section:
 - 1. Loose steel lintels.

1.3 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design ladders, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Structural Performance of Aluminum Ladders: Aluminum ladders shall withstand the effects of loads and stresses within limits and under conditions specified in ANSI A14.3.

1.4 ACTION SUBMITTALS

- A. Product Data: For the following:
 - 1. Paint products.
 - 2. Grout.
- B. Shop Drawings: Show fabrication and installation details for metal fabrications.
 - 1. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.

SECTION 05 5000 - METAL FABRICATIONS

1.5 INFORMATIONAL SUBMITTALS

- A. Welding certificates.

1.6 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Welding Qualifications: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
 - 2. AWS D1.2/D1.2M, "Structural Welding Code - Aluminum."

1.7 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

1.8 COORDINATION

- A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.
- B. Coordinate installation of anchorages and steel weld plates and angles for casting into concrete. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

PART 2 - PRODUCTS

2.1 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

2.2 FERROUS METALS

- A. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

SECTION 05 5000 - METAL FABRICATIONS

- B. Steel Tubing: ASTM A 500, cold-formed steel tubing.

2.3 NONFERROUS METALS

- A. Aluminum Plate and Sheet: ASTM B 209, Alloy 6061-T6.
- B. Aluminum Extrusions: ASTM B 221, Alloy 6063-T6.
- C. Aluminum-Alloy Rolled Tread Plate: ASTM B 632/B 632M, Alloy 6061-T6.
- D. Aluminum Castings: ASTM B 26/B 26M, Alloy 443.0-F.
- E. Bronze Plate, Sheet, Strip, and Bars: ASTM B 36/B 36M, Alloy UNS No. C28000 (muntz metal, 60 percent copper).

2.4 FASTENERS

- A. General: Unless otherwise indicated, provide Type 304 stainless-steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B 633 or ASTM F 1941, Class Fe/Zn 5, at exterior walls. Select fasteners for type, grade, and class required.
- B. Steel Bolts and Nuts: Regular hexagon-head bolts, ASTM A 307, Grade A; with hex nuts, ASTM A 563; and, where indicated, flat washers.
- C. Steel Bolts and Nuts: Regular hexagon-head bolts, ASTM A 325, Type 3; with hex nuts, ASTM A 563, Grade C3; and, where indicated, flat washers.
- D. Stainless-Steel Bolts and Nuts: Regular hexagon-head annealed stainless-steel bolts, ASTM F 593; with hex nuts, ASTM F 594; and, where indicated, flat washers; Alloy Group 1.
- E. Eyebolts: ASTM A 489.
- F. Machine Screws: ASME B18.6.3.
- G. Lag Screws: ASME B18.2.1.
- H. Wood Screws: Flat head, ASME B18.6.1.
- I. Plain Washers: Round, ASME B18.22.1.
- J. Lock Washers: Helical, spring type, ASME B18.21.1.
- K. Anchors, General: Anchors capable of sustaining, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed

SECTION 05 5000 - METAL FABRICATIONS

when installed in concrete, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.

- L. Post-Installed Anchors: Torque-controlled expansion anchors.
 - 1. Material for Interior Locations: Carbon-steel components zinc plated to comply with ASTM B 633 or ASTM F 1941, Class Fe/Zn 5, unless otherwise indicated.
 - 2. Material for Exterior Locations and Where Stainless Steel is Indicated: Alloy Group 1 stainless-steel bolts, ASTM F 593, and nuts, ASTM F 594.

2.5 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- B. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible with topcoat.
- C. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.
- D. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.
- E. Nonshrink, Metallic Grout: Factory-packaged, ferrous-aggregate grout complying with ASTM C 1107, specifically recommended by manufacturer for heavy-duty loading applications.
- F. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.

2.6 FABRICATION, GENERAL

- A. Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.
- B. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- C. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

SECTION 05 5000 - METAL FABRICATIONS

- D. Form exposed work with accurate angles and surfaces and straight edges.
- E. Weld corners and seams continuously to comply with the following:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove welding flux immediately.
 - 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- F. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) fasteners unless otherwise indicated. Locate joints where least conspicuous.
- G. Fabricate seams and other connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.
- H. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.
- I. Provide for anchorage of type indicated; coordinate with supporting structure. Space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.
 - 1. Where units are indicated to be cast into concrete or built into masonry, equip with integrally welded steel strap anchors, 1/8 by 1-1/2 inches, with a minimum 6-inch embedment and 2-inch hook, not less than 8 inches from ends and corners of units and 24 inches o.c., unless otherwise indicated.

2.7 MISCELLANEOUS FRAMING AND SUPPORTS

- A. General: Provide steel framing and supports not specified in other Sections as needed to complete the Work.
- B. Fabricate units from steel shapes, plates, and bars of welded construction unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction.
- C. Fabricate steel girders for wood frame construction from continuous steel shapes of sizes indicated.
 - 1. Provide bearing plates welded to beams where indicated.
 - 2. Drill or punch girders and plates for field-bolted connections where indicated.

SECTION 05 5000 - METAL FABRICATIONS

3. Where wood nailers are attached to girders with bolts or lag screws, drill or punch holes at 24 inches o.c.

D. Prime miscellaneous framing and supports with where indicated.

2.8 MISCELLANEOUS STEEL TRIM

- A. Unless otherwise indicated, fabricate units from steel shapes, plates, and bars of profiles shown with continuously welded joints and smooth exposed edges. Miter corners and use concealed field splices where possible.
- B. Galvanize exterior miscellaneous steel trim.
- C. Prime exterior miscellaneous steel trim with zinc-rich primer.

2.9 LOOSE STEEL LINTELS

- A. Fabricate loose steel lintels from steel angles and shapes of size indicated for openings and recesses in masonry walls and partitions at locations indicated. Fabricate in single lengths for each opening unless otherwise indicated. Weld adjoining members together to form a single unit where indicated.
- B. Galvanize loose steel lintels located in exterior walls.

2.10 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Finish metal fabrications after assembly.
- C. Finish exposed surfaces to remove tool and die marks and stretch lines, and to blend into surrounding surface.

2.11 STEEL AND IRON FINISHES

- A. Galvanizing: Hot-dip galvanize items as indicated to comply with ASTM A 153/A 153M for steel and iron hardware and with ASTM A 123/A 123M for other steel and iron products.
 1. Do not quench or apply post galvanizing treatments that might interfere with paint adhesion.
- B. Shop prime iron and steel items not indicated to be galvanized unless they are to be

SECTION 05 5000 - METAL FABRICATIONS

embedded in concrete, sprayed-on fireproofing, or masonry, or unless otherwise indicated.

1. Shop prime with universal shop primer unless zinc-rich primer is indicated.

2.12 ALUMINUM FINISHES

- A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- B. Class I, Clear Anodic Finish: AA-M12C22A41 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.
- B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.
- C. Field Welding: Comply with the following requirements:
 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 2. Obtain fusion without undercut or overlap.
 3. Remove welding flux immediately.
 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- D. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag screws, wood screws, and other connectors.

SECTION 05 5000 - METAL FABRICATIONS

- E. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.

3.2 INSTALLING MISCELLANEOUS FRAMING AND SUPPORTS

- A. General: Install framing and supports to comply with requirements of items being supported, including manufacturers' written instructions and requirements indicated on Shop Drawings.
- B. Install pipe columns on concrete footings with grouted baseplates. Position and grout column baseplates as specified in "Installing Bearing and Leveling Plates" Article.
 - 1. Grout baseplates of columns supporting steel girders after girders are installed and leveled.

3.3 INSTALLING METAL BOLLARDS

- A. Fill metal-capped bollards solidly with concrete and allow concrete to cure seven days before installing.
- B. Anchor bollards in concrete in formed or core-drilled holes not less than 8 inches deep and 3/4 inch larger than OD of bollard. Fill annular space around bollard solidly with nonshrink, nonmetallic grout; mixed and placed to comply with grout manufacturer's written instructions. Slope grout up approximately 1/8 inch toward bollard.
- C. Place removable bollards over internal sleeves and secure with 3/4-inch machine bolts and nuts. After tightening nuts, drill holes in bolts for inserting padlocks. Owner will furnish padlocks.
- D. Fill bollards solidly with concrete, mounding top surface to shed water.
 - 1. Do not fill removable bollards with concrete.

3.4 ADJUSTING AND CLEANING

- A. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas. Paint uncoated and abraded areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
 - 1. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.
- B. Touchup Painting: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint are specified in Section 09 9113 "Exterior Painting."

SECTION 05 5000 - METAL FABRICATIONS

END OF SECTION 05 5000

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Wood blocking and furring.
 - 2. Wood framing and sheathing.
- B. Related Sections:
 - 1. Division 01: Administrative and procedural work requirements.

1.2 REFERENCES

- A. American Wood Protection Association (AWPA) U1 - Use Category System - User Specification for Treated Wood.
- B. ASTM International (ASTM):
 - 1. A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 - 2. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 3. F593 - Standard Specification for Stainless Steel Bolts, Hex Cap Screws and Studs.
- C. National Institute of Standards and Technology (NIST) - Product Standard PS 20 - American Softwood Lumber Standard.
- D. Southern Pine Inspection Bureau (SPIB) - Standard Grading Rules for Southern Pine Lumber.
- E. Engineered Wood Association (APA) PRP-108 - Performance Standards and Qualification Policy for Structural-Use Panels.

1.3 QUALITY ASSURANCE

- A. Lumber Grading Agency: Certified to NIST PS 20.
- B. Identify lumber and sheet products by official grade mark.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Store materials minimum 6 inches above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation.
- B. Do not store seasoned or treated materials in damp location.
- C. Protect edges and corners of sheet materials from damage.

1.5 SUBMITTALS

- A. Shop Drawings – Required for trusses. Include engineer's stamp, certification and design criteria. A registered engineer must also stamp truss layout. See drawings for wood truss notes.
 - 1. Shop Drawings shall include all truss-to-truss connection details and shall comply with all bracing and requirements specified in the structural drawings and specifications.
 - 2. General Contractor responsible for review of shop drawing construction dimensions.
 - 3. General Contractor to coordinate wood truss layout with any conflicting elements.
 - 4. General Contractor must fully review and approve wood truss shop drawings and dimensions prior to submitting to Architect and Engineer for review.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Lumber: Grading rules: SPIB.
 - 1. Species: Southern Yellow Pine.
 - 2. Grade: marked No. 2 or better, see drawings.
 - 3. Surfacing: Surfaced four sides (S4S) unless otherwise indicated.
 - 4. Maximum moisture content: 19 percent.
- B. Sheet Products:
 - 1. Type: CDX Plywood. Size as indicated.
 - 2. Panel grade: CDX, grade stamped, plugged EXT-DFPA
 - 3. Exposure:
 - a. Exterior applications: Exterior.
 - 4. Plywood clips shall be 18 ga. galvanized steel.
 - 5. Wall sheathing shall be 5/8" CDX plywood.
 - 6. Roof sheathing shall be 5/8" CDX plywood
 - 7. At contractor's option, OSB (oriented strand board) may be substituted for plywood.
- C. LVL framing: Properties shall be greater than or equal to $F_b=2600$ psi and $E = 2.0E6$ psi.

2.2 ACCESSORIES

- A. Fasteners:
 - 1. Type and size: As required by conditions of use.
 - 2. Exterior locations and treated products: Hot-dip galvanized steel, ASTM A153/A153M, G90 coating class.
 - 3. Other interior locations: Plain steel.
 - 4. Hurricane clips will be specified pending receipt of truss shop drawings.
- B. Framing Accessories: Accessories such as joist hangers, hurricane anchors, framing anchors, sheathing clips and similar items shall be equal to products manufactured by Simpson (Strong-Tie Connectors), San Leandro, CA of types, gauges and finishes best suited for intended use.

2.3 FABRICATION

A. Preservative Treatment:

1. Treat lumber and sheet products in accordance with AWP U1:
 - a. Interior locations protected from moisture sources: Category UC1 - Interior/Dry.
 - b. Interior locations subject to sources of moisture: Category UC2 - Interior/Damp.
 - c. Exterior locations above ground: Category UC3B - Above Ground/Exposed.
 - d. Exterior locations in contact with ground: Category UC4A - Ground Contact/General
2. Treatment process: Type CCA - Chromated Copper Arsenate or Type ACQ - Ammoniacal Copper Quaternary (ACQ); free from arsenic, chromium, and other EPA classified hazardous preservatives.

PART 3 EXECUTION

3.1 INSTALLATION

- ### A. Workmanship:
- All rough carpentry shall produce joints that are true, tight and well fastened and with all members assembled in accordance with the drawings. Carefully layout, cut and erect accurately to required dimensions, fitting closely and securing in place with sufficient and proper anchorage. Do not shim sills, joist, short studs, trimmers, headers, lintels or other framing components. Where members are cut for electrical or mechanical work, properly reinforce with headers, full depth of members cut.

1. Do all cutting and patching customarily performed by the carpentry trade to end results of providing adequate strength in a neat and workmanlike manner and install miscellaneous items for which the carpentry trade is customarily responsible such as “template” setting of anchor bolts, providing frames for openings through concrete and/or masonry and like items.
2. Carefully select all members; select individual pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing or making proper connections.
3. Cut out and discard all defects which will render a piece unable to serve its intended function; lumber may be rejected by the Architect, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper cutting and fitting.

B. General Framing:

1. Comply with sizes, spacing, and configurations indicated. Where not specifically indicated, comply with applicable codes and NFPA “Manual for Wood Frame Construction”. Splice members only where specifically indicated or approved.
2. Space fasteners as indicated. Where not specifically indicated, comply with applicable codes and the “Recommended Nailing Schedule” of NFPA “Manual for Wood Frame Construction” and “National Design Specifications for Wood Construction”.

SECTION 06 1000 – ROUGH CARPENTRY

3. In addition to all framing operations normal to the fabrication and erection indicated on the drawings, install all backing required for the work of other trades.
 4. Set all horizontal or sloped members with crown up.
 5. Do not notch, bore or cut members for pipes, ducts, conduits or other reasons except as shown on the drawings or as specifically approved in advance by the Architect.
 6. Make all bearings full unless otherwise indicated on the drawings.
 7. Finish all bearing surfaces on which structural members are to rest or as to give sure and even support; where framing members slope, cut or notch the ends as required to give uniform bearing surface.
 8. Install all blocking, furring and similar items as shown on the drawings.
 9. Install roof edges and curbs in the locations shown on the drawings and in accordance with the details shown thereon.
 10. Set members level, plumb, and rigid.
 11. All wood in contact with concrete or masonry shall be pressure treated
- C. Roof Decking: Install over wood framing, as shown on the drawings, securely anchored in place in accordance with APA, utilizing sheathing clips (plyclips) or solid blocking as recommended by APA.
- D. Sheathing: Install over studs under all siding and in other locations shown on the drawings and in strict accordance with the Standard Specifications of American Plywood Association's Publication Design/Construction Guide, Residential and Commercial.
- E. Nailing: Using only the proper nails; do all nailing without splitting wood members, preboring as required, replace all split members.
- F. Bolting:
1. Drill holes 1/16-inch larger in diameter than the bolts being used; drill straight and true from one side only.
 2. Bolt threads must not bear on wood; use washers under head and nut where both bear on wood; use washers under all nuts.
- G. Screws:
1. For lag screws and wood screws, prebore holes same diameter as root of thread; enlarge holes to shank diameter for length of shank.

SECTION 06 1000 – ROUGH CARPENTRY

2. Screw, do not drive, all lag screws and wood screws.

3.2 Field Quality Control:

- A. Wood Preservative: Apply two brush coats of the approved preservative chemical all field cuts of treated lumber.
- B. Clean Up:
 1. At the end of each working day, or more often if necessary, thoroughly sweep all surfaces where refuse from this portion of the work has settled.
 2. Remove the refuse to the area of the job set aside for its storage.
 3. Upon completion of this portion of the work, thoroughly broom clean all surfaces.

END OF SECTION

SECTION 06 1300 - HEAVY TIMBER CONSTRUCTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Timber.
2. Timber connectors.
3. Miscellaneous materials.

B. Related Requirements:

1. Section 06 1000 "Rough Carpentry" for dimension lumber items associated with heavy timber framing.
2. Section 06 1516 "Wood Roof Decking."

1.2 DEFINITIONS

A. Timbers: Lumber of 5 inches nominal or greater in least dimension.

B. Inspection agencies, and the abbreviations used to reference them, include the following:

1. NeLMA: Northeastern Lumber Manufacturers' Association.
2. NHLA: National Hardwood Lumber Association.
3. NLGA: National Lumber Grades Authority.
4. SPIB: Southern Pine Inspection Bureau (The).
5. WCLIB: West Coast Lumber Inspection Bureau.
6. WWPA: Western Wood Products Association.

1.3 ACTION SUBMITTALS

A. Shop Drawings: For heavy timber framing. Show layout, dimensions of each member, and details of connections.

1.4 INFORMATIONAL SUBMITTALS

A. Material Certificates:

1. For timbers specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by ALSC's Board of Review.

B. Certificates of Inspection: Issued by lumber-grading agency for exposed timber not marked with grade stamp.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Schedule delivery of materials to avoid extended on-site storage and to avoid delaying the Work.

B. Store materials under cover and protected from weather and contact with damp or wet surfaces. Provide for air circulation within and around stacks and under temporary coverings.

SECTION 06 1300 - HEAVY TIMBER CONSTRUCTION

PART 2 - PRODUCTS

2.1 TIMBER

A. Comply with DOC PS 20 and with grading rules of lumber-grading agencies certified by ALSC's Board of Review as applicable.

1. At all members, apply grade stamps to surfaces that are not exposed to view, or omit grade stamps and provide certificates of grade compliance issued by grading agency.

B. Timber Species and Grade:

1. Southern pine; No. 1, SPIB.

C. Structural Properties: Provide any species and grade that, for moisture content provided, complies with required structural properties.

1. Allowable Stress Ratings for 5x5 and larger: Fb 1350 psi and E 1,500,000 psi

D. Moisture Content: Provide timber with 19 percent maximum moisture content at time of dressing.

2.2 TIMBER CONNECTORS

A. See structural drawings for connections.

2.3 MISCELLANEOUS MATERIALS

A. End Sealer: Manufacturer's standard, transparent, colorless wood sealer that is effective in retarding the transmission of moisture at cross-grain cuts and is compatible with indicated finish.

B. Penetrating Sealer: Manufacturer's standard, transparent, penetrating wood sealer that is compatible with indicated finish.

2.4 FABRICATION

A. Shop fabricate members by cutting and restoring exposed surfaces to match specified surfacing. Finish exposed surfaces to remove planing or surfacing marks, and to provide a finish equivalent to that produced by machine sanding with No. 120 grit sandpaper.

B. Predrill for fasteners and assembly of units.

C. Coat crosscuts with end sealer.

D. Seal Coat: After fabricating and surfacing each unit, apply a saturation coat of penetrating sealer on surfaces of each unit except for treated wood where the treatment included a water repellent.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Erect heavy timber framing true and plumb. Provide temporary bracing to maintain lines and levels until permanent supporting members are in place.

SECTION 06 1300 - HEAVY TIMBER CONSTRUCTION

1. Install horizontal and sloping members with crown edge up, and provide not less than 4 inches (102 mm) of bearing on supports. Provide continuous members unless otherwise indicated; tie together over supports with metal strap ties if not continuous.
2. Handle and temporarily support heavy timber framing to prevent surface damage, compression, and other effects that might interfere with indicated finish.

B. Cutting: Avoid extra cutting after fabrication. Where field fitting is unavoidable, comply with requirements for shop fabrication.

C. Fitting: Fit members by cutting and restoring exposed surfaces to match specified surfacing.

1. Predrill for fasteners using timber connectors as templates.
2. Finish exposed surfaces to remove planing or surfacing marks, and to provide a finish equivalent to that produced by machine sanding with No. 120 grit sandpaper.
3. Coat crosscuts with end sealer.

D. Install timber connectors as indicated.

1. Unless otherwise indicated, install bolts with same orientation within each connection and in similar connections.
2. Install bolts with orientation as indicated or, if not indicated, as directed by Architect.

3.2 ADJUSTING

A. Repair damaged surfaces and finishes after completing erection. Replace damaged heavy timber framing if repairs are not approved by Architect.

END OF SECTION 06 1300

SECTION 06 1600 - SHEATHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Wall sheathing.
 - 2. Sheathing joint and penetration treatment.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WALL SHEATHING

- A. Glass-Mat Gypsum Wall Sheathing: ASTM C 1177/1177M.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. CertainTeed Corporation; GlasRoc.
 - b. G-P Gypsum Corporation; Dens-Glass Gold.
 - c. National Gypsum Company; Gold Bond e(2)XP.
 - d. Temple-Inland Inc.; GreenGlass
 - e. United States Gypsum Co.; Securock.
 - 2. Type and Thickness: Type X, 5/8 inch thick.
 - 3. Size: 48 by 96 inches for vertical installation.

SECTION 06 1600 - SHEATHING

2.2 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
 - 1. For roof and wall sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- B. Screws for Fastening Gypsum Sheathing to Cold-Formed Metal Framing: Steel drill screws, in length recommended by sheathing manufacturer for thickness of sheathing to be attached, with organic-polymer or other corrosion-protective coating having a salt-spray resistance of more than 800 hours according to ASTM B 117.
 - 1. For steel framing less than 0.0329 inch thick, use screws that comply with ASTM C 1002.
 - 2. For steel framing from 0.033 to 0.112 inch thick, use screws that comply with ASTM C 954.

2.3 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIALS

- A. Sealant for Glass-Mat Gypsum Sheathing: Silicone emulsion sealant complying with ASTM C 834, compatible with sheathing tape and sheathing and recommended by tape and sheathing manufacturers for use with glass-fiber sheathing tape and for covering exposed fasteners.
 - 1. Sheathing Tape: Self-adhering glass-fiber tape, minimum 2 inches wide, 10 by 10 or 10 by 20 threads/inch, of type recommended by sheathing and tape manufacturers for use with silicone emulsion sealant in sealing joints in glass-mat gypsum sheathing and with a history of successful in-service use.

2.4 MISCELLANEOUS MATERIALS

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.
- B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.
- C. Securely attach to substrate by fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.

SECTION 06 1600 - SHEATHING

2. Table 2304.9.1, "Fastening Schedule," in ICC's "International Building Code."
 3. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's "International Residential Code for One- and Two-Family Dwellings."
- D. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.
- E. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
- F. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

3.2 GYPSUM SHEATHING INSTALLATION

- A. Comply with GA-253 and with manufacturer's written instructions.
1. Fasten gypsum sheathing to cold-formed metal framing with screws.
 2. Install boards with a 3/8-inch gap where non-load-bearing construction abuts structural elements.
 3. Install boards with a 1/4-inch gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.
- B. Apply fasteners so heads bear tightly against face of sheathing, but do not cut into facing.
- C. Horizontal Installation: Install sheathing with V-grooved edge down and tongue edge up. Interlock tongue with groove to bring long edges in contact with edges of adjacent boards without forcing. Abut ends of boards over centers of studs, and stagger end joints of adjacent boards not less than one stud spacing. Attach boards at perimeter and within field of board to each steel stud.
1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards.
 2. For sheathing under stucco cladding, boards may be initially tacked in place with screws if overlying self-furring metal lath is screw-attached through sheathing to studs immediately after sheathing is installed.
- D. Vertical Installation: Install board vertical edges centered over studs. Abut ends and edges of each board with those of adjacent boards. Attach boards at perimeter and within field of board to each stud.
1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards.

SECTION 06 1600 - SHEATHING

2. For sheathing under stucco cladding, boards may be initially tacked in place with screws if overlying self-furring metal lath is screw-attached through sheathing to studs immediately after sheathing is installed.
- E. Seal sheathing joints according to sheathing manufacturer's written instructions.
1. Apply elastomeric sealant to joints and fasteners and trowel flat. Apply sufficient amount of sealant to completely cover joints and fasteners after troweling. Seal other penetrations and openings.
 2. Apply glass-fiber sheathing tape to glass-mat gypsum sheathing joints and apply and trowel silicone emulsion sealant to embed entire face of tape in sealant. Apply sealant to exposed fasteners with a trowel so fasteners are completely covered. Seal other penetrations and openings.

END OF SECTION 06 1600

SECTION 07 1113 - BITUMINOUS DAMPPROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Cold-applied, emulsified-asphalt dampproofing below slab and below sill flashing at wall base.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.4 FIELD CONDITIONS

- A. Weather Limitations: Proceed with application only when existing and forecasted weather conditions permit dampproofing to be performed according to manufacturers' written instructions.
- B. Ventilation: Provide adequate ventilation during application of dampproofing in enclosed spaces. Maintain ventilation until dampproofing has cured.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Source Limitations: Obtain primary dampproofing materials and primers from single source from single manufacturer. Provide protection course molded-sheet drainage panels and auxiliary materials recommended in writing by manufacturer of primary materials.
- B. VOC Content: Products shall comply with VOC content limits of authorities having jurisdiction unless otherwise required.

SECTION 07 1113 - BITUMINOUS DAMPPROOFING

2.2 COLD-APPLIED, EMULSIFIED-ASPHALT DAMPPROOFING

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. BASF Construction Chemicals - Building Systems; Sonneborn Brand Products.
 - 2. Karnak Corporation.
 - 3. Meadows, W. R., Inc.
- B. Trowel Coats: ASTM D 1227, Type II, Class 1.
- C. Fibered Brush and Spray Coats: ASTM D 1227, Type II, Class 1.
- D. Brush and Spray Coats: ASTM D 1227, Type III, Class 1.

2.3 AUXILIARY MATERIALS

- A. General: Furnish auxiliary materials recommended in writing by dampproofing manufacturer for intended use and compatible with bituminous dampproofing.
- B. Emulsified-Asphalt Primer: ASTM D 1227, Type III, Class 1, except diluted with water as recommended in writing by manufacturer.
- C. Asphalt-Coated Glass Fabric: ASTM D 1668, Type I.
- D. Patching Compound: Asbestos-free fibered mastic of type recommended in writing by dampproofing manufacturer.

2.4 MOLDED-SHEET DRAINAGE PANELS

- A. Nonwoven-Geotextile-Faced, Molded-Sheet Drainage Panel: Composite subsurface drainage panel consisting of a studded, nonbiodegradable, molded-plastic-sheet drainage core; with a nonwoven, needle-punched geotextile facing with an apparent opening size not exceeding No. 70 sieve laminated to one side of the core; and with a vertical flow rate of 9 to 15 gpm per ft..
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. American Hydrotech, Inc.
 - b. Carlisle Coatings & Waterproofing Inc.
 - c. Grace, W. R., & Co. - Conn.
 - d. Protecto Wrap Company.

SECTION 07 1113 - BITUMINOUS DAMPPROOFING

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions with Applicator present, for compliance with requirements for surface smoothness, surface moisture, and other conditions affecting performance of bituminous dampproofing work.
- B. Proceed with application only after substrate construction and penetrating work have been completed and unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Mask or otherwise protect adjoining exposed surfaces from being stained, spotted, or coated with dampproofing. Prevent dampproofing materials from entering and clogging weep holes and drains.
- B. Clean substrates of projections and substances detrimental to the dampproofing work; fill voids, seal joints, and remove bond breakers if any, as recommended in writing by prime material manufacturer.
- C. Apply patching compound to patch and fill tie holes, honeycombs, reveals, and other imperfections; cover with asphalt-coated glass fabric.

3.3 APPLICATION, GENERAL

- A. Comply with manufacturer's written instructions for dampproofing application, cure time between coats, and drying time before backfilling unless more stringent requirements are indicated.
 - 1. Apply additional coats if recommended in writing by manufacturer or to achieve a smooth surface and uninterrupted coverage.
- B. Provide dampproofing at footings and foundation walls, apply from finished-grade line to top of footing; extend over top of footing and down a minimum of 6 inches over outside face of footing.
 - 1. Extend dampproofing 12 inches onto intersecting walls and footings, but do not extend onto surfaces exposed to view when Project is completed.
 - 2. Install flashings and corner protection stripping at internal and external corners, changes in plane, construction joints, cracks, and where shown as "reinforced," by embedding an 8-inch- wide strip of asphalt-coated glass fabric in a heavy coat of dampproofing. Dampproofing coat for embedding fabric is in addition to other coats required.

SECTION 07 1113 - BITUMINOUS DAMPPROOFING

- C. Provide dampproofing at exterior face of above-grade, exterior wall cmu backup behind brick veneer, continue dampproofing through intersecting walls by keeping vertical mortar joints at intersection temporarily open or by dampproofing wall before constructing intersecting walls.

3.4 COLD-APPLIED, EMULSIFIED-ASPHALT DAMPPROOFING

- A. Concrete Foundations: Apply two brush or spray coats at not less than 1.5 gal. /100 sq. ft. For first coat and 1 gal. /100 sq. ft. For second coat.
- B. Unparged Masonry Foundation Walls: Apply primer and two brush or spray coats at not less than 1.5 gal./100 sq. ft. for first coat and 1 gal./100 sq. ft. for second coat .

3.5 INSTALLATION OF PROTECTION COURSE

- A. Where indicated, install protection course over completed-and-cured dampproofing. Comply with dampproofing-material and protection-course manufacturers' written instructions for attaching protection course.
 - 1. Support protection course over cured coating with spot application of adhesive type recommended in writing by protection-board manufacturer.

3.6 INSTALLATION OF MOLDED-SHEET DRAINAGE PANELS

- A. Place and secure molded-sheet drainage panels, with geotextile facing away from wall substrate, according to manufacturer's written instructions. Use adhesives or other methods that do not penetrate dampproofing. Lap edges and ends of geotextile to maintain continuity. Protect installed molded-sheet drainage panels during subsequent construction.
 - 1. Install protection course before installing drainage panels.

3.7 CLEANING

- A. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended in writing by manufacturer of affected construction.

END OF SECTION 07 1113

SECTION 071900 - WATER REPELLENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes penetrating water-repellent treatments for the following vertical and horizontal surfaces:
 - 1. Concrete unit masonry for single wythe walls.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each type of water repellent and substrate indicated.
- C. Product certificates.

1.3 QUALITY ASSURANCE

- A. Preinstallation Conference: Conduct conference at **Project site**.

PART 2 - PRODUCTS

2.1 PENETRATING WATER REPELLENTS

- A. Silane, Penetrating Water Repellent: Clear, containing **20** percent or more solids of alkyltrialkoxysilanes; with alcohol, mineral spirits, water, or other proprietary solvent carrier; and with 400 g/L or less of VOCs.
 - 1. Products: Subject to compliance with requirements, **provide one of the following**:
 - a. BASF Construction Chemicals, LLC; **Hydrozo 100**.
 - b. Degussa Corp; **Protectosil Chem-Trete PB 100**.
 - c. Fox Industries, Inc.; **FX-425**.

SECTION 071900 - WATER REPELLENTS

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements and conditions affecting performance of the Work.
 - 1. Verify that surfaces are clean and dry according to water-repellent manufacturer's requirements. Check moisture content in representative locations by method recommended by manufacturer.
 - 2. Inspect for previously applied treatments that may inhibit penetration or performance of water repellents.
 - 3. Verify that there is no efflorescence or other removable residues that would be trapped beneath the application of water repellent.
 - 4. Verify that required repairs are complete, cured, and dry before applying water repellent.
- B. Test pH level according to water-repellent manufacturer's written instructions to ensure chemical bond to silica-containing or siliceous minerals.

3.2 PREPARATION

- A. Cleaning: Before application of water repellent, clean substrate of substances that could impair penetration or performance of product according to water-repellent manufacturer's written instructions.
- B. Coordination with Mortar Joints: Do not apply water repellent until pointing mortar for joints adjacent to surfaces receiving water-repellent treatment has been installed and cured.
- C. Coordination with Sealant Joints: Do not apply water repellent until sealants for joints adjacent to surfaces receiving water-repellent treatment have been installed and cured.
 - 1. Water-repellent work may precede sealant application only if sealant adhesion and compatibility have been tested and verified using substrate, water repellent, and sealant materials identical to those required.

3.3 APPLICATION

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect the substrate before application of water repellent and to instruct Applicator on the product and application method to be used.
- B. Apply a heavy-saturation coating of water repellent, on surfaces indicated for treatment, using low-pressure spray to the point of saturation. Remove excess material; do not allow material to puddle beyond saturation. Comply with manufacturer's written instructions for application procedure unless otherwise indicated.

SECTION 071900 - WATER REPELLENTS

- C. Apply a second saturation coating, repeating first application. Comply with manufacturer's written instructions for limitations on drying time between coats and after rainstorm wetting of surfaces between coats. Consult manufacturer's technical representative if written instructions are not applicable to Project conditions.

3.4 CLEANING

- A. Immediately clean water repellent from adjoining surfaces and surfaces soiled or damaged by water-repellent application as work progresses. Correct damage to work of other trades caused by water-repellent application.
- B. Comply with manufacturer's written cleaning instructions.

END OF SECTION 071900

SECTION 07 2100 - THERMAL INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Foam-plastic board insulation for foundation insulation.
2. Foil faced polyisocyanurate board insulation at gym roof.
3. Continuous roof insulation above metal deck.
4. Extruded polyiso board behind metal wall panels.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

1.4 QUALITY ASSURANCE

- A. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect insulation materials from physical damage and from deterioration due to moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.
- B. Protect foam-plastic board insulation as follows:
 1. Do not expose to sunlight except to necessary extent for period of installation and concealment.
 2. Protect against ignition at all times. Do not deliver foam-plastic board materials to Project site before installation time.
 3. Quickly complete installation and concealment of foam-plastic board insulation in each area of construction.

SECTION 07 2100 - THERMAL INSULATION

PART 2 - PRODUCTS

2.1 FOAM-PLASTIC BOARD INSULATION

- A. Extruded-Polystyrene Board Insulation: ASTM C 578, of type and minimum compressive strength indicated below, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E 84.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. DiversiFoam Products.
 - b. Dow Chemical Company (The).
 - c. Owens Corning.
 - 2. Type IV, 25 psi.
- B. Adhesive for Bonding Insulation: Product with demonstrated capability to bond insulation securely to substrates without damaging insulation and substrates.
- C. Fasteners for Bonding Insulation to Acoustical Deck: Factory Mutual Approved.

2.2 GLASS-FIBER BLANKET INSULATION

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. CertainTeed Corporation.
 - 2. Guardian Building Products, Inc.
 - 3. Johns Manville.
 - 4. Knauf Insulation.
 - 5. Owens Corning.
 - 6. Simple Saver System (basis of design).
- B. Glass-Fiber-Blanket Insulation: ASTM C 665, type indicated below; consisting of fibers manufactured from glass, slag wool, or rock wool.
 - 1. Nonreflective Faced: Type II (blankets with nonreflective membrane covering), Category 1 (membrane is a vapor retarder), Class A (membrane-faced surface with a flame-spread index of 25 or less).
 - 2. Unfaced: Type I (blankets without membrane covering), passing ASTM E 136 for combustion characteristics.
 - a. Vapor-Retarder Facing: ASTM C 1136, with permeance not greater than

SECTION 07 2100 - THERMAL INSULATION

0.02 perm (1.15 ng/Pa x s x sq. m) when tested according to ASTM E 96/E 96M, Desiccant Method.

- 1) Composition: White polypropylene film facing and fiberglass-polyester blend fabric backing.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean substrates of substances that are harmful to insulation or vapor retarders, including removing projections capable of puncturing vapor retarders, or that interfere with insulation attachment.

3.2 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products and applications indicated.
- B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.
- C. Extend insulation to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- D. Provide sizes to fit applications indicated and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units to produce thickness indicated unless multiple layers are otherwise shown or required to make up total thickness.

3.3 INSTALLATION OF BELOW-GRADE INSULATION TYPE 1

- A. On vertical surfaces, set insulation units loosely laid according to manufacturer's written instructions.
 1. If not otherwise indicated, extend insulation a minimum of 24 inches below exterior grade line.
- B. On horizontal surfaces, loosely lay insulation units according to manufacturer's written instructions. Stagger end joints and tightly abut insulation units.
 1. If not otherwise indicated, extend insulation a minimum of 24 inches in from exterior walls.

SECTION 07 2100 - THERMAL INSULATION

3.4 PROTECTION

- A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 07 2100

SECTION 07 3113 - ASPHALT SHINGLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Asphalt shingles.
 - 2. Underlayment.

1.3 DEFINITION

- A. Roofing Terminology: See ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definitions of terms related to roofing work in this Section.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of asphalt shingle ridge and hip cap shingles ridge vent and exposed valley lining indicated.
 - 1. Include similar Samples of trim and accessories involving color selection.
- C. Samples for Verification: For the following products, of sizes indicated, to verify color selected:
 - 1. Asphalt Shingle: Full size.
- D. Qualification Data: For qualified Installer.
- E. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for asphalt shingles.
- F. Warranties: Sample of special warranties.

SECTION 07 3113 - ASPHALT SHINGLES

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Source Limitations: Obtain ridge and hip cap shingles ridge vents and self-adhering sheet underlayment from single source from single manufacturer.
- C. Fire-Resistance Characteristics: Where indicated, provide asphalt shingles and related roofing materials identical to those of assemblies tested for fire resistance per test method below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify products with appropriate markings of applicable testing agency.
 - 1. Exterior Fire-Test Exposure: Class A ; ASTM E 108 or UL 790, for application and roof slopes indicated.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store roofing materials in a dry, well-ventilated, weathertight location according to asphalt shingle manufacturer's written instructions. Store underlayment rolls on end on pallets or other raised surfaces. Do not double stack rolls.
 - 1. Handle, store, and place roofing materials in a manner to avoid significant or permanent damage to roof deck or structural supporting members.
- B. Protect unused underlayment from weather, sunlight, and moisture when left overnight or when roofing work is not in progress.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install asphalt shingles until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.
 - 1. Install self-adhering sheet underlayment within the range of ambient and substrate temperatures recommended by manufacturer.

1.8 WARRANTY

- A. Special Warranty: Standard form in which manufacturer agrees to repair or replace asphalt shingles that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Manufacturing defects.

SECTION 07 3113 - ASPHALT SHINGLES

- b. Structural failures including failure of asphalt shingles to self-seal after a reasonable time.
- 2. Material Warranty Period: 35 years from date of Substantial Completion, prorated, with first three years nonprorated.
- 3. Wind-Speed Warranty Period: Asphalt shingles will resist blow-off or damage caused by wind speeds up to **100 mph** for five years from date of Substantial Completion.
- 4. Algae-Discoloration Warranty Period: Asphalt shingles will not discolor five years from date of Substantial Completion.
- 5. Workmanship Warranty Period: 10 years from date of Substantial Completion.

1.9 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Asphalt Shingles: **100 sq. ft** of each type, in unbroken bundles.

PART 2 - PRODUCTS

2.1 GLASS-FIBER-REINFORCED ASPHALT SHINGLES

- A. Laminated-Strip Asphalt Shingles: ASTM D 3462, laminated, multi-ply overlay construction, glass-fiber reinforced, mineral-granule surfaced, and self-sealing.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - A Basis-of-Design Product: Subject to compliance with requirements, provide Camelot® II Lifetime Designer Shingles, by GAF®
 - 2. or comparable product by one of the following:
 - a. Atlas Roofing Corporation.
 - b. CertainTeed Corporation.
 - c. Elk Premium Building Products, Inc.; an ElkCorp company.
 - d. Emco Building Products Corp.
 - e. GAF Materials Corporation.
 - f. IKO.
 - g. Malarkey Roofing Products.
 - h. Owens Corning.
 - i. PABCO Roofing Products.
 - j. TAMKO Roofing Products, Inc.
 - k. <Insert manufacturer's name>.
 - 3. Butt Edge: Notched cut.
 - 4. Strip Size: Manufacturer's standard.
 - 5. Algae Resistance: Granules treated to resist algae discoloration.

SECTION 07 3113 - ASPHALT SHINGLES

6. Color and Blends: As selected by Architect from manufacturer's full range.

- B. Hip and Ridge Shingles: Site-fabricated units cut from asphalt shingle strips. Trim each side of lapped portion of unit to taper approximately 1 inch (25 mm).

2.2 UNDERLAYMENT MATERIALS

- A. Self-Adhering Sheet Underlayment, Granular Surfaced: ASTM D 1970; glass-fiber-mat-reinforced, SBS-modified asphalt; mineral-granule surfaced; with release paper backing; cold applied

1. Manufacturers: Subject to compliance with requirements, :
2. Basis-of-Design Product: Subject to compliance with requirements, provide WeatherWatch® XT Leak Barrier, by GAF® or comparable product by one of the following:
 - a. ALCO-NVC Inc.
 - b. Atlas Roofing Corporation.
 - c. Carlisle Coatings & Waterproofing, Inc.
 - d. CertainTeed Corporation.
 - e. GAF Materials Corporation.
 - f. Henry Company.
 - g. IKO.
 - h. Johns Manville.
 - i. Owens Corning. Retain first paragraph below if polyethylene-faced sheet is required. A polyester-fabric-faced, SBS-modified asphalt sheet, reinforced internally with polyester or glass-fiber mats, is also produced that may comply with ASTM D 1970; verify availability with manufacturers and insert revised description of products in paragraph.

- B. Granular-Surfaced Valley Lining: ASTM D 3909, mineral-granular-surfaced, glass-felt-based, asphalt roll roofing; 36 inches (914 mm) wide.

2.3 RIDGE VENTS

- A. Flexible Ridge Vent: Manufacturer's standard, compression-resisting, three-dimensional, open-nylon or polyester-mat filter bonded to a nonwoven, nonwicking, geotextile fabric cover.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
2. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawing or comparable product by one of the following:
 - a. GAF Materials Corporation.
 - b. Obdyke, Benjamin Incorporated.
 - c. TAMKO Roofing Products, Inc.

SECTION 07 3113 - ASPHALT SHINGLES

2.4 ACCESSORIES

- A. Asphalt Roofing Cement: ASTM D 4586, Type II, asbestos free.
- B. Roofing Nails: ASTM F 1667; aluminum, stainless-steel, copper, or hot-dip galvanized-steel wire shingle nails, minimum **0.120-inch- (3-mm-)** diameter, barbed shank, sharp-pointed, with a minimum **3/8-inch- (9.5-mm-)** diameter flat head and of sufficient length to penetrate **3/4 inch (19 mm)** into solid wood decking or extend at least **1/8 inch (3 mm)** through OSB or plywood sheathing.
 - 1. Where nails are in contact with metal flashing, use nails made from same metal as flashing.
- C. Felt Underlayment Nails: Aluminum, stainless-steel, or hot-dip galvanized-steel wire with low-profile capped heads or disc caps, **1-inch (25-mm)** minimum diameter.

2.5 METAL FLASHING AND TRIM

- A. General: Comply with requirements in Division 07 Section "Sheet Metal Flashing and Trim."
 - 1. Sheet Metal: Zinc-tin alloy-coated stainless steel.
- B. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of the item.
 - 1. Apron Flashings: Fabricate with lower flange a minimum of **5 inches (125 mm)** over and **4 inches (100 mm)** beyond each side of downslope asphalt shingles and **6 inches (150 mm)** up the vertical surface.
 - 2. Step Flashings: Fabricate with a headlap of **2 inches (50 mm)** and a minimum extension of **5 inches (125 mm)** over the underlying asphalt shingle and up the vertical surface.
 - 3. Backer Flashings: Fabricate with concealed flange extending a minimum of **24 inches (600 mm)** beneath upslope asphalt shingles and **6 inches (150 mm)** beyond each side of chimney and **6 inches (150 mm)** above the roof plane.
 - 4. Open-Valley Flashings: Fabricate in lengths not exceeding **10 feet (3 m)** with **1-inch- (25-mm-)** high, inverted-V profile at center of valley and equal flange widths of **12 inches (300 mm)**.
 - 5. Drip Edges: Fabricate in lengths not exceeding **10 feet (3 m)** with **2-inch (50-mm)** roof-deck flange and **1-1/2-inch (38-mm)** fascia flange with **3/8-inch (9.6-mm)** drip at lower edge.
- C. Vent Pipe Flashings: ASTM B 749, Type L51121, at least **1/16 inch (1.6 mm)** thick. Provide lead sleeve sized to slip over and turn down into pipe, soldered to skirt at slope of roof, and extending at least **4 inches (100 mm)** from pipe onto roof.

SECTION 07 3113 - ASPHALT SHINGLES

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
 - 1. Examine roof sheathing to verify that sheathing joints are supported by framing and blocking or metal clips and that installation is within flatness tolerances.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and completely anchored; and that provision has been made for flashings and penetrations through asphalt shingles.
- B. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

- A. General: Comply with underlayment manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.
- B. Single- Retain first paragraph below for installing a single, self-adhering sheet underlayment.
- C. Self-Adhering Sheet Underlayment: Install, wrinkle free, on roof deck. Comply with low-temperature installation restrictions of underlayment manufacturer if applicable. Install at locations indicated below, lapped in direction to shed water. Lap sides not less than **3-1/2 inches (89 mm)**. Lap ends not less than **6 inches (150 mm)** staggered **24 inches (600 mm)** between courses. Roll laps with roller. Cover underlayment within seven days.
 - 1. Prime concrete and masonry surfaces to receive self-adhering sheet underlayment.
 - 2. Eaves: Extend from edges of eaves **24 inches (600 mm)** beyond interior face of exterior wall.
 - 3. Rakes: Extend from edges of rake **24 inches (600 mm)** beyond interior face of exterior wall.
 - 4. Valleys: Extend from lowest to highest point **18 inches (450 mm)** on each side.
 - 5. Hips: Extend **18 inches (450 mm)** on each side.
 - 6. Ridges: Extend **36 inches (914 mm)** on each side without obstructing continuous ridge vent slot.
 - 7. Sidewalls: Extend beyond sidewall **18 inches (450 mm)**, and return vertically against sidewall not less than **4 inches (100 mm)**.
 - 8. Dormers, Chimneys, Skylights, and Other Roof-Penetrating Elements: Extend beyond penetrating element **18 inches (450 mm)**, and return vertically against penetrating element not less than **4 inches (100 mm)**.
 - 9. Roof Slope Transitions: Extend **18 inches (450 mm)** on each roof slope.

SECTION 07 3113 - ASPHALT SHINGLES

3.3 METAL FLASHING INSTALLATION

- A. General: Install metal flashings and other sheet metal to comply with requirements in Division 07 Section "Sheet Metal Flashing and Trim."
 - 1. Install metal flashings according to recommendations in ARMA's "Residential Asphalt Roofing Manual" and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual."
- B. Apron Flashings: Extend lower flange over and beyond each side of downslope asphalt shingles and up the vertical surface.
- C. Step Flashings: Install with a headlap of 2 inches (50 mm) and extend over the underlying asphalt shingle and up the vertical surface. Fasten to roof deck only.
- D. Rake Drip Edges: Install rake drip edge flashings over underlayment and fasten to roof deck.
- E. Eave Drip Edges: Install eave drip edge flashings below underlayment and fasten to roof sheathing.
- F. Pipe Flashings: Form flashing around pipe penetrations and asphalt shingles. Fasten and seal to asphalt shingles as recommended by manufacturer.

3.4 ASPHALT SHINGLE INSTALLATION

- A. General: Install asphalt shingles according to manufacturer's written instructions, recommendations in ARMA's "Residential Asphalt Roofing Manual," and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual."
- B. Install starter strip along lowest roof edge, consisting of an asphalt shingle strip with tabs removed at least 7 inches (175 mm) wide with self-sealing strip face up at roof edge.
 - 1. Extend asphalt shingles 3/4 inch (19 mm) over fasciae at eaves and rakes.
 - 2. Install starter strip along rake edge.
- C. Install first and remaining courses of asphalt shingles stair-stepping diagonally across roof deck with manufacturer's recommended offset pattern at succeeding courses, maintaining uniform exposure.
- D. Install first and remaining courses of asphalt shingles stair-stepping diagonally across roof deck with manufacturer's recommended offset pattern at succeeding courses, maintaining uniform exposure.
- E. Install asphalt shingles by single-strip column or racking method, maintaining uniform exposure. Install full-length first course followed by cut second course, repeating alternating pattern in succeeding courses.
- F. Fasten asphalt shingle strips with a minimum of six roofing nails located according to manufacturer's written instructions.

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1. Where roof slope exceeds 20:12, seal asphalt shingles with asphalt roofing cement spots after fastening with additional roofing nails.
 2. Where roof slope is less than 4:12, seal asphalt shingles with asphalt roofing cement spots.
 3. When ambient temperature during installation is below 50 deg F (10 deg C), seal asphalt shingles with asphalt roofing cement spots.
- G. Ridge Vents: Install continuous ridge vents over asphalt shingles according to manufacturer's written instructions. Fasten with roofing nails of sufficient length to penetrate sheathing.
- H. Ridge and Hip Cap Shingles: Maintain same exposure of cap shingles as roofing shingle exposure. Lap cap shingles at ridges to shed water away from direction of prevailing winds. Fasten with roofing nails of sufficient length to penetrate sheathing.
1. Fasten ridge cap asphalt shingles to cover ridge vent without obstructing airflow.

END OF SECTION 073113

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Formed roof-drainage sheet metal fabrications.
2. Formed low-slope roof sheet metal fabrications.
3. Formed steep-slope roof sheet metal fabrications.
4. Formed wall sheet metal fabrications.
5. Formed equipment support flashing.

1.3 COORDINATION

- A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.
- B. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leakproof, secure, and noncorrosive installation.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 1. Review construction schedule. Verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 2. Review special roof details, roof drainage, roof-penetration flashing, equipment curbs, and condition of other construction that affect sheet metal flashing and trim.
 3. Review requirements for insurance and certificates if applicable.
 4. Review sheet metal flashing observation and repair procedures after flashing installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.
- B. Shop Drawings: For sheet metal flashing and trim.
1. Include plans, elevations, sections, and attachment details.
 2. Detail fabrication and installation layouts, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work.
 3. Include identification of material, thickness, weight, and finish for each item and location in Project.
 4. Include details for forming, including profiles, shapes, seams, and dimensions.
 5. Include details for joining, supporting, and securing, including layout and spacing of fasteners, cleats, clips, and other attachments. Include pattern of seams.
 6. Include details of termination points and assemblies.
 7. Include details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction from fixed points.
 8. Include details of roof-penetration flashing.
 9. Include details of edge conditions, including eaves, ridges, valleys, rakes, crickets, and counterflashings as applicable.
 10. Include details of special conditions.
 11. Include details of connections to adjoining work.
 12. Detail formed flashing and trim at scale of not less than 3 inches per 12 inches.
- C. Samples for Initial Selection: For each type of sheet metal and accessory indicated with factory-applied finishes.
- D. Samples for Verification: For each type of exposed finish.
1. Sheet Metal Flashing: 12 inches long by actual width of unit, including finished seam and in required profile. Include fasteners, cleats, clips, closures, and other attachments.
- 1.6 INFORMATIONAL SUBMITTALS
- A. Qualification Data: For fabricator.
- B. Product Certificates: For each type of coping and roof edge flashing that is FM Approvals approved.
- C. Product Test Reports: For each product, for tests performed by a qualified testing agency.
- D. Sample Warranty: For special warranty.

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1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For sheet metal flashing and trim, and its accessories, to include in maintenance manuals.

1.8 QUALITY ASSURANCE

- A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.
 - 1. For copings and roof edge flashings that are FM Approvals approved, shop shall be listed as able to fabricate required details as tested and approved.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.

1.10 WARRANTY

- A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 20 years from date of Substantial Completion.

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- C. FM Approvals Listing: Manufacture and install roof edge flashings that are listed in FM Approval's "RoofNav" and approved for windstorm classification, Class 1-60. Identify materials with name of fabricator and design approved by FM Approvals.
- D. SPRI Wind Design Standard: Manufacture and install copings and roof edge flashings capable of resisting the following design pressure:
 - 1. Design Pressure: As indicated on Drawings.
- E. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 - 1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Stainless-Steel Sheet: ASTM A 240/A 240M or ASTM A 666, Type 304, dead soft, fully annealed; with smooth, flat surface.
 - 1. Finish: 2D (dull, cold rolled).
- C. Metallic-Coated Steel Sheet: Provide aluminum-zinc alloy-coated steel sheet according to ASTM A 792/A 792M, Class AZ50 coating designation, Grade 40; prepainted by coil-coating process to comply with ASTM A 755/A 755M.
 - 1. Surface: Smooth, flat .

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2. Exposed Coil-Coated Finish:
 - a. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
3. Color: Match standing seam roofing.
4. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with minimum total dry film thickness of 0.5 mil.

2.3 UNDERLAYMENT MATERIALS

- A. Felt: ASTM D 226/D 226M, Type II (No. 30), asphalt-saturated organic felt; nonperforated.
- B. Slip Sheet:
 1. Products: Subject to compliance with requirements, provide one of the following
 - a. Carlisle Residential, a division of Carlisle Construction Materials; WIP 300HT.
 - b. Grace Construction Products, a unit of W. R. Grace & Co.-Conn.; Grace Ice and Water Shield HT.
 - c. Henry Company; Blueskin PE200 HT.
 - d. Kirsch Building Products, LLC; Sharkskin Ultra SA.
 - e. Lexsuo 20 mil vapor barrier.
 - f. Metal-Fab Manufacturing, LLC; MetShield.
 - g. Owens Corning; WeatherLock Specialty Tile & Metal Underlayment.
 - h. Polyguard Products, Inc.; Deck Guard HT.
 - i. Protecto Wrap Company; Protecto Jiffy Seal Ice & Water Guard HT.

2.4 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.
 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer

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head.

- a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
 - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
 - c. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
2. Fasteners for Stainless-Steel Sheet: Series 300 stainless steel.
 3. Fasteners for Aluminum-Zinc Alloy-Coated Steel Sheet: Series 300 stainless steel or hot-dip galvanized steel according to ASTM A 153/A 153M or ASTM F 2329.
- C. Solder:
1. For Stainless Steel: ASTM B 32, Grade Sn60, with acid flux of type recommended by stainless-steel sheet manufacturer.
 2. For Zinc-Coated (Galvanized) Steel: ASTM B 32, Grade Sn50, 50 percent tin and 50 percent lead or Grade Sn60, 60 percent tin and 40 percent lead with maximum lead content of 0.2 percent.
- D. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
- E. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- F. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.
- G. Epoxy Seam Sealer: Two-part, noncorrosive, aluminum seam-cementing compound, recommended by aluminum manufacturer for exterior nonmoving joints, including riveted joints.
- H. Bituminous Coating: Cold-applied asphalt emulsion according to ASTM D 1187.
- I. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

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2.5 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.
 - 1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
 - 2. Obtain field measurements for accurate fit before shop fabrication.
 - 3. Form sheet metal flashing and trim to fit substrates without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
 - 4. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.
- B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- C. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."
- D. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.
 - 1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
 - 2. Use lapped expansion joints only where indicated on Drawings.
- E. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal to provide for proper installation of elastomeric sealant according to cited sheet metal standard.
- F. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- G. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard and by FM Global Property Loss Prevention Data Sheet 1-49 for application, but not less than thickness of metal being secured.
- H. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use.

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

- I. Do not use graphite pencils to mark metal surfaces.

2.6 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

- A. Roof-to-Wall Transition Expansion-Joint Cover: Fabricate from the following materials:

1. Aluminum-Zinc Alloy-Coated Steel: 0.034 inch thick.

2.7 STEEP-SLOPE ROOF SHEET METAL FABRICATIONS

- A. Roof-to-Wall Transition Expansion-Joint Cover: Fabricate from the following materials:

1. Aluminum-Zinc Alloy-Coated Steel: 0.034 inch thick

2.8 WALL SHEET METAL FABRICATIONS

- A. Through-Wall Flashing: Fabricate continuous flashings in minimum 96-inch-long, but not exceeding 12-foot- long, sections, under copings, and at shelf angles. Fabricate discontinuous lintel, sill, and similar flashings to extend 6 inches beyond each side of wall openings; and form with 2-inch- high, end dams. Fabricate from the following materials:

1. Stainless Steel: 0.016 inch thick.

- B. Opening Flashings in Frame Construction: Fabricate head, sill, jamb, and similar flashings to extend 4 inches beyond wall openings. Form head and sill flashing with 2-inch- high, end dams. Fabricate from the following materials:

1. Stainless Steel: 0.016 inch thick. Aluminum: 0.032 inch thick.

- C. Wall Expansion-Joint Cover: Fabricate from the following materials:

1. Aluminum-Zinc Alloy-Coated Steel: 0.028 inch thick.

2.9 MISCELLANEOUS SHEET METAL FABRICATIONS

- A. Equipment Support Flashing: Fabricate from the following materials:

1. Stainless Steel: 0.019 inch thick.

- B. Overhead-Piping Safety Pans: Fabricate from the following materials:

1. Stainless Steel: 0.025 inch thick.

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PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.
 - 1. Verify compliance with requirements for installation tolerances of substrates.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
 - 3. Verify that air- or water-resistant barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

- A. Felt Underlayment: Install felt underlayment, wrinkle free, using adhesive to minimize use of mechanical fasteners under sheet metal flashing and trim. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.
- B. Synthetic Underlayment: Install synthetic underlayment, wrinkle free, according to manufacturers' written instructions, and using adhesive where possible to minimize use of mechanical fasteners under sheet metal.
- C. Self-Adhering Sheet Underlayment: Install self-adhering sheet underlayment, wrinkle free. Prime substrate if recommended by underlayment manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation; use primer for installing underlayment at low temperatures. Apply in shingle fashion to shed water, with end laps of not less than 6 inches staggered 24 inches between courses. Overlap side edges not less than 3-1/2 inches. Roll laps and edges with roller. Cover underlayment within 14 days.
- D. Apply slip sheet, wrinkle free, directly on substrate before installing sheet metal flashing and trim.

3.3 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.

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1. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
 2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 3. Space cleats not more than 12 inches apart. Attach each cleat with at least two fasteners. Bend tabs over fasteners.
 4. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
 5. Torch cutting of sheet metal flashing and trim is not permitted.
 6. Do not use graphite pencils to mark metal surfaces.
- B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
1. Coat concealed side of stainless-steel sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
 2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.
1. Form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.
 2. Use lapped expansion joints only where indicated on Drawings.
- D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws.
- E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
- F. Seal joints as required for watertight construction.
1. Use sealant-filled joints unless otherwise indicated. Embed hooked flanges of joint members not less than 1 inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F.
 2. Prepare joints and apply sealants to comply with requirements in Section 07 9200 "Joint Sealants."

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- G. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter. Pre-tin edges of sheets with solder to width of 1-1/2 inches; however, reduce pre-tinning where pre-tinned surface would show in completed Work.
1. Do not solder metallic-coated steel and aluminum sheet.
 2. Do not use torches for soldering.
 3. Heat surfaces to receive solder, and flow solder into joint. Fill joint completely. Completely remove flux and spatter from exposed surfaces.
 4. Stainless-Steel Soldering: Tin edges of uncoated sheets, using solder for stainless steel and acid flux. Promptly remove acid flux residue from metal after tinning and soldering. Comply with solder manufacturer's recommended methods for cleaning and neutralization.
 5. Copper Soldering: Tin edges of uncoated sheets, using solder for copper.
 6. Copper-Clad Stainless-Steel Soldering: Tin edges of uncoated sheets, using solder for copper-clad stainless steel.
- H. Rivets: Rivet joints in uncoated aluminum where necessary for strength.

3.4 ROOF-DRAINAGE SYSTEM INSTALLATION

- A. General: Install sheet metal roof-drainage items to produce complete roof-drainage system according to cited sheet metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of roof-drainage system.
- B. Hanging Gutters: Join sections with riveted and soldered joints or joints sealed with sealant]. Provide for thermal expansion. Attach gutters at eave or fascia to firmly anchor them in position. Provide end closures and seal watertight with sealant. Slope to downspouts.
1. Fasten gutter spacers to front and back of gutter.
 2. Anchor and loosely lock back edge of gutter to continuous cleat.
 3. Anchor back of gutter that extends onto roof deck with cleats spaced not more than 24 inches apart.
 4. Anchor gutter with gutter brackets spaced not more than 24 inches apart to roof deck, unless otherwise indicated, and loosely lock to front gutter bead.
 5. Install gutter with expansion joints at locations indicated, but not exceeding, 50 feet apart. Install expansion-joint caps.
 6. Install continuous gutter screens on gutters with noncorrosive fasteners, hinged to swing open for cleaning gutters.
- C. Downspouts: Join sections with 1-1/2-inch telescoping joints.
1. Provide hangers with fasteners designed to hold downspouts securely to walls. Locate hangers at top and bottom and at approximately 60 inches o.c.
 2. Provide elbows at base of downspout to direct water away from building.
 3. Connect downspouts to underground drainage system.

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- D. Expansion-Joint Covers: Install expansion-joint covers at locations and of configuration indicated. Lap joints minimum of 4 inches in direction of water flow.

3.5 WALL FLASHING INSTALLATION

- A. General: Install sheet metal wall flashing to intercept and exclude penetrating moisture according to cited sheet metal standard unless otherwise indicated. Coordinate installation of wall flashing with installation of wall-opening components such as windows, doors, and louvers.
- B. Through-Wall Flashing: Installation of through-wall flashing is specified in Section 04 2000 "Unit Masonry."
- C. Opening Flashings in Frame Construction: Install continuous head, sill, jamb, and similar flashings to extend 4 inches beyond wall openings.

3.6 MISCELLANEOUS FLASHING INSTALLATION

- A. Equipment Support Flashing: Coordinate installation of equipment support flashing with installation of roofing and equipment. Weld or seal flashing with elastomeric sealant to equipment support member.
- B. Overhead-Piping Safety Pans: Suspend pans from structure above, independent of other overhead items such as equipment, piping, and conduit, unless otherwise indicated on Drawings. Pipe and install drain line to plumbing waste or drainage system.

3.7 ERECTION TOLERANCES

- A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- B. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."

3.8 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.
- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation

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instructions. On completion of sheet metal flashing and trim installation, remove unused materials and clean finished surfaces as recommended by sheet metal flashing and trim manufacturer. Maintain sheet metal flashing and trim in clean condition during construction.

- E. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 07 6200

SECTION 07 9200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Silicone joint sealants.
2. Urethane joint sealants.
3. Latex joint sealants.

1.2 ACTION SUBMITTALS

A. Product Data: For each joint-sealant product indicated.

B. Joint-Sealant Schedule: Include the following information:

1. Joint-sealant application, joint location, and designation.
2. Joint-sealant manufacturer and product name.
3. Joint-sealant formulation.
4. Joint-sealant color.

1.3 INFORMATIONAL SUBMITTALS

A. Product test reports.

1.4 WARRANTY

A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

A. Special Manufacturer's Warranty: Manufacturer's standard form in which joint-sealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period:
 - a. Typical: 20 years from date of Substantial Completion.
 - b. Urethane Joint Sealants: 10 years from date of Substantial Completion.

SECTION 07 9200 - JOINT SEALANTS

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
 - 1. Suitability for Immersion in Liquids: Where sealants are indicated for Use I for joints that will be continuously immersed in liquids, provide products that have undergone testing according to ASTM C 1247. Liquid used for testing sealants is deionized water, unless otherwise indicated.
- B. Stain-Test-Response Characteristics: Where sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- C. Suitability for Contact with Food: Where sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.

2.2 SILICONE JOINT SEALANTS

- A. Mildew-Resistant Silicone Joint Sealant SS-1: ASTM C 920.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Dow Corning 786 or comparable product by one of the following:
 - a. BASF Building Systems.
 - b. GE Advanced Materials - Silicones.
 - c. Pecora Corporation.
 - d. Tremco Incorporated.
 - 2. Type: Single component (S).
 - 3. Grade: nonsag (NS).
 - 4. Class: 25.
 - 5. Uses Related to Exposure: Nontraffic (NT).
- B. Neutral-Curing Silicone Joint Sealant SS-2: ASTM C 920.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Dow Corning 790 or comparable product by one of the following:
 - a. BASF Building Systems.
 - b. GE Advanced Materials - Silicones.
 - c. Pecora Corporation.

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- d. Tremco Incorporated.
 - 2. Type: Single component (S).
 - 3. Grade: nonsag (NS).
 - 4. Class: 100/50.
 - 5. Uses Related to Exposure: Nontraffic (NT).
- C. Neutral-Curing Silicone Joint Sealant SS-3: ASTM C 920.
- 1. Basis-of-Design Product: Subject to compliance with requirements, provide Dow Corning 795 or comparable product by one of the following:
 - a. BASF Building Systems.
 - b. GE Advanced Materials - Silicones.
 - c. Pecora Corporation.
 - d. Tremco Incorporated.
 - 2. Type: Single component (S).
 - 3. Grade: nonsag (NS).
 - 4. Class: 50.
 - 5. Uses Related to Exposure: Nontraffic (NT).

2.3 URETHANE JOINT SEALANTS

- A. Urethane Joint Sealant US-1: ASTM C 920.
- 1. Basis-of-Design Product: Subject to compliance with requirements, provide Masterseal NP100; BASF Building Systems or comparable product by one of the following:
 - a. Pecora Corporation.
 - b. Tremco Incorporated.
 - 2. Type: Single component (S).
 - 3. Grade: nonsag (NS).
 - 4. Class: 25.
 - 5. Uses Related to Exposure: Nontraffic (NT).

2.4 LATEX JOINT SEALANTS

- A. Latex Joint Sealant LS-1: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
- 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. BASF Building Systems.

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- b. Pecora Corporation.
- c. Tremco Incorporated.

2.5 JOINT SEALANT BACKING

- A. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance. Backer rod at joints beyond 3/8" or less than 3 points of direct contact 3/8" into the cavity.

2.6 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions.
 - 1. Remove laitance and form-release agents from concrete.
 - 2. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

SECTION 07 9200 - JOINT SEALANTS

3.2 INSTALLATION

- A. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - 1. Do not leave gaps between ends of sealant backings.
 - 2. Do not stretch, twist, puncture, or tear sealant backings.
 - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- C. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 - 1. Place sealants so they directly contact and fully wet joint substrates.
 - 2. Completely fill recesses in each joint configuration.
 - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- D. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 - 1. Remove excess sealant from surfaces adjacent to joints.
 - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 - 3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
- E. Acoustical Sealant Installation: Comply with ASTM C 919 and with manufacturer's written recommendations.
- F. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.3 JOINT-SEALANT SCHEDULE

- A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces SS-2.
 - 1. Joint Locations:
 - a. Joints in exterior insulation finish systems.

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2. Joint Sealant: Silicone.
 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.
- B. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces SS-3.
1. Joint Locations:
 - a. Joints between exterior insulation finish systems and masonry.
 2. Joint Sealant: Silicone.
 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.
- C. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces US-1.
1. Joint Locations:
 - a. Control and expansion joints in unit masonry.
 - b. Joints between different materials listed above.
 - c. Perimeter joints between materials listed above and frames of doors and windows.
 2. Joint Sealant: Urethane.
 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.
- D. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces US-1.
1. Joint Locations:
 - a. Control and expansion joints on exposed interior surfaces of exterior walls.
 - b. Perimeter joints of exterior openings where indicated.
 - c. Vertical joints on exposed surfaces of interior unit masonry walls and partitions.
 2. Joint Sealant: Urethane.
 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.
- E. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces LS-1.
1. Joint Locations:
 - a. Vertical joints on exposed surfaces of interior unit masonry walls and partitions.

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- b. Perimeter joints between interior wall surfaces and frames of interior doors and windows .
 - 2. Joint Sealant: Latex.
 - 3. Joint-Sealant Color: White, paintable color. Latex Joint Sealant shall be painted to match the adjacent wall.
- F. Joint-Sealant Application: Mildew-resistant interior joints in vertical surfaces and horizontal nontraffic surfaces SS-1.
- 1. Joint Sealant Location:
 - a. Joints between plumbing fixtures and adjoining walls, floors, and counters.
 - 2. Joint Sealant: Silicone.
 - 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

END OF SECTION 07 9200

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes hollow-metal work.

1.3 DEFINITIONS

- A. Minimum Thickness: Minimum thickness of base metal without coatings according to NAAMM-HMMA 803 or SDI A250.8.

1.4 COORDINATION

- A. Coordinate anchorage installation for hollow-metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, core descriptions, fire-resistance ratings, temperature-rise ratings, and finishes.
- B. Shop Drawings: Include the following:
 - 1. Elevations of each door type.
 - 2. Details of doors, including vertical- and horizontal-edge details and metal thicknesses.
 - 3. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
 - 4. Locations of reinforcement and preparations for hardware.
 - 5. Details of each different wall opening condition.
 - 6. Details of anchorages, joints, field splices, and connections.
 - 7. Details of accessories.

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8. Details of moldings, removable stops, and glazing.
 9. Details of conduit and preparations for power, signal, and control systems.
- C. Samples for Initial Selection: For units with factory-applied color finishes.
- D. Samples for Verification:
1. For each type of exposed finish required, prepared on Samples of not less than 3 by 5 inches.
 2. For "Doors" and "Frames" subparagraphs below, prepare Samples approximately 8 by 10 inches to demonstrate compliance with requirements for quality of materials and construction:
 - a. Doors: Show vertical-edge, top, and bottom construction; core construction; and hinge and other applied hardware reinforcement. Include separate section showing glazing if applicable.
 - b. Frames: Show profile, corner joint, floor and wall anchors, and silencers. Include separate section showing fixed hollow-metal panels and glazing if applicable.
- E. Schedule: Provide a schedule of hollow-metal work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with final Door Hardware Schedule.

1.6 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: For each type of hollow-metal door and frame assembly, for tests performed by a qualified testing agency.
- B. Oversize Construction Certification: For assemblies required to be fire rated and exceeding limitations of labeled assemblies.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver hollow-metal work palletized, packaged, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic.
1. Provide additional protection to prevent damage to factory-finished units.
- B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.
- C. Store hollow-metal work vertically under cover at Project site with head up. Place on minimum 4-inch- high wood blocking. Provide minimum 1/4-inch space between each stacked door to permit air circulation.

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Amweld International, LLC.
 - 2. Ceco Door Products; an Assa Abloy Group company.
 - 3. Curries Company; an Assa Abloy Group company.
 - 4. Fleming-Baron Door Products.
 - 5. Pioneer Industries, Inc.
 - 6. Security Metal Products Corp.
 - 7. Steelcraft; an Ingersoll-Rand company.
- B. Source Limitations: Obtain hollow-metal work from single source from single manufacturer.

2.2 REGULATORY REQUIREMENTS

- A. Fire-Rated Assemblies: Complying with NFPA 80 and listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction for fire-protection ratings and temperature-rise limits indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.
 - 1. Smoke- and Draft-Control Assemblies: Provide an assembly with gaskets listed and labeled for smoke and draft control by a qualified testing agency acceptable to authorities having jurisdiction, based on testing according to UL 1784 and installed in compliance with NFPA 105.
- B. Fire-Rated, Borrowed-Light Assemblies: Complying with NFPA 80 and listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction for fire-protection ratings indicated, based on testing according to NFPA 257 or UL 9.

2.3 INTERIOR DOORS AND FRAMES

- A. Construct interior doors and frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.
- B. Heavy-Duty Doors and Frames: SDI A250.8, Level 2. .
 - 1. Physical Performance: Level B according to SDI A250.4.
 - 2. Doors:

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

- a. Type: As indicated in the Door and Frame Schedule.
 - b. Thickness: 1-3/4 inches.
 - c. Face: Uncoated, cold-rolled steel sheet, minimum thickness of 0.042 inch.
 - d. Edge Construction: Model 1, Full Flush.
 - e. Core: Manufacturer's standard kraft-paper honeycomb, polystyrene, polyurethane, polyisocyanurate, mineral-board, or vertical steel-stiffener core at manufacturer's discretion.
3. Frames:
- a. Materials: Uncoated steel sheet, minimum thickness of 0.053 inch.
 - b. Construction: Full profile welded.
4. Exposed Finish: Prime.

2.4 EXTERIOR HOLLOW-METAL DOORS AND FRAMES

- A. Construct exterior doors and frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.
- B. Heavy-Duty Doors and Frames: SDI A250.8, Level 2.
1. Physical Performance: Level B according to SDI A250.4.
 2. Doors:
 - a. Type: As indicated in the Door and Frame Schedule.
 - b. Thickness: 1-3/4 inches
 - c. Face: Metallic-coated steel sheet, minimum thickness of 0.042 inch, with minimum A40 coating.
 - d. Edge Construction: Model 1, Full Flush.
 - e. Core: Manufacturer's standard kraft-paper honeycomb, polystyrene, polyurethane, polyisocyanurate, mineral-board, or vertical steel-stiffener core at manufacturer's discretion.
 - 1) Thermal-Rated Doors: Provide doors fabricated with thermal-resistance value (R-value) of not less than 2.1 deg F x h x sq. ft./Btu when tested according to ASTM C 1363.
3. Frames:
- a. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch, with minimum A40 coating.
 - b. Construction: Full profile welded.
4. Exposed Finish: Prime.

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

2.5 HOLLOW-METAL PANELS

- A. Provide hollow-metal panels of same materials, construction, and finish as adjacent door assemblies.

2.6 FRAME ANCHORS

- A. Jamb Anchors:
 - 1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177 inch thick.
 - 2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch thick.
 - 3. Postinstalled Expansion Type for In-Place Concrete or Masonry: Minimum 3/8-inch- diameter bolts with expansion shields or inserts. Provide pipe spacer from frame to wall, with throat reinforcement plate, welded to frame at each anchor location.
- B. Floor Anchors: Formed from same material as frames, minimum thickness of 0.042 inch, and as follows:
 - 1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.
 - 2. Separate Topping Concrete Slabs: Adjustable-type anchors with extension clips, allowing not less than 2-inch height adjustment. Terminate bottom of frames at finish floor surface.

2.7 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
- B. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.
- C. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B.
- D. Frame Anchors: ASTM A 879/A 879M, Commercial Steel (CS), 04Z coating designation; mill phosphatized.
 - 1. For anchors built into exterior walls, steel sheet complying with ASTM A 1008/A 1008M or ASTM A 1011/A 1011M, hot-dip galvanized according to ASTM A 153/A 153M, Class B.

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- E. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.
- F. Power-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hollow-metal frames of type indicated.
- G. Grout: ASTM C 476, except with a maximum slump of 4 inches, as measured according to ASTM C 143/C 143M.
- H. Mineral-Fiber Insulation: ASTM C 665, Type I (blankets without membrane facing); consisting of fibers manufactured from slag or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E 136 for combustion characteristics.
- I. Glazing: Comply with requirements in Section 08 8000 "Glazing."
- J. Bituminous Coating: Cold-applied asphalt mastic, compounded for 15-mil dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

2.8 FABRICATION

- A. Fabricate hollow-metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for metal thickness. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.
- B. Hollow-Metal Doors:
 - 1. Steel-Stiffened Door Cores: Provide minimum thickness 0.026 inch, steel vertical stiffeners of same material as face sheets extending full-door height, with vertical webs spaced not more than 6 inches apart. Spot weld to face sheets no more than 5 inches o.c. Fill spaces between stiffeners with glass- or mineral-fiber insulation.
 - 2. Fire Door Cores: As required to provide fire-protection and temperature-rise ratings indicated.
 - 3. Vertical Edges for Single-Acting Doors: Bevel edges 1/8 inch in 2 inches.
 - 4. Top Edge Closures: Close top edges of doors with inverted closures, except provide flush closures at exterior doors of same material as face sheets.
 - 5. Bottom Edge Closures: Close bottom edges of doors with end closures or channels of same material as face sheets.
 - 6. Exterior Doors: Provide weep-hole openings in bottoms of exterior doors to permit moisture to escape. Seal joints in top edges of doors against water penetration.

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

7. Astragals: Provide overlapping astragal on one leaf of pairs of doors where required by NFPA 80 for fire-performance rating or where indicated. Extend minimum 3/4 inch beyond edge of door on which astragal is mounted or as required to comply with published listing of qualified testing agency.
 8. View Lites: 2"x 30", with screw mounted lite kits and 9/16" tempered laminated glass, as indicated on drawings.
- C. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
1. Sidelight and Transom Bar Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by butt welding.
 2. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
 3. Grout Guards: Weld guards to frame at back of hardware mortises in frames to be grouted.
 4. Floor Anchors: Weld anchors to bottoms of jambs with at least four spot welds per anchor; however, for slip-on drywall frames, provide anchor clips or countersunk holes at bottoms of jambs.
 5. Jamb Anchors: Provide number and spacing of anchors as follows:
 - a. Masonry Type: Locate anchors not more than 16 inches from top and bottom of frame. Space anchors not more than 32 inches o.c., to match coursing, and as follows:
 - 1) Two anchors per jamb up to 60 inches high.
 - 2) Three anchors per jamb from 60 to 90 inches high.
 - 3) Four anchors per jamb from 90 to 120 inches high.
 - 4) Four anchors per jamb plus one additional anchor per jamb for each 24 inches or fraction thereof above 120 inches high.
 - b. Stud-Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
 - 1) Three anchors per jamb up to 60 inches high.
 - 2) Four anchors per jamb from 60 to 90 inches high.
 - 3) Five anchors per jamb from 90 to 96 inches high.
 - 4) Five anchors per jamb plus one additional anchor per jamb for each 24 inches or fraction thereof above 96 inches high.
 - c. Compression Type: Not less than two anchors in each frame.
 - d. Postinstalled Expansion Type: Locate anchors not more than 6 inches from top and bottom of frame. Space anchors not more than 26 inches o.c.

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

6. Head Anchors: Two anchors per head for frames more than 42 inches wide and mounted in metal-stud partitions.
7. Door Silencers: Except on weather-stripped frames, drill stops to receive door silencers as follows. Keep holes clear during construction.
 - a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
 - b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.
8. Terminated Stops: Terminate stops 6 inches above finish floor with a 45-degree angle cut, and close open end of stop with steel sheet closure. Cover opening in extension of frame with welded-steel filler plate, with welds ground smooth and flush with frame.
9. Restroom Partition Frames: Hollow metal frames (hinge, strike, and top with one course of block above the jamb) at gang restroom partitions, as indicated on the drawings.
 - a. Frames shall be set at 12" AFF and terminate at 72" AFF. Through bolted to masonry toilet partition.
 - b. Restroom frames shall have hollow metal header, welded to hollow metal mullions.
 - c. Mullions shall be mortar filled.
- D. Fabricate concealed stiffeners and edge channels from either cold- or hot-rolled steel sheet.
- E. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and templates.
 1. Reinforce doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.
 2. Comply with applicable requirements in SDI A250.6 and BHMA A156.115 for preparation of hollow-metal work for hardware.
- F. Stops and Moldings: Provide stops and moldings around glazed lites and louvers where indicated. Form corners of stops and moldings with butted hairline joints.
 1. Single Glazed Lites: Provide fixed stops and moldings welded on secure side of hollow-metal work.
 2. Multiple Glazed Lites: Provide fixed and removable stops and moldings so that each glazed lite is capable of being removed independently.
 3. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.
 4. Provide loose stops and moldings on inside of hollow-metal work.

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

5. Coordinate rabbet width between fixed and removable stops with glazing and installation types indicated.

2.9 STEEL FINISHES

- A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.
 1. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with SDI A250.10; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

2.10 ACCESSORIES

- A. Mullions and Transom Bars: Join to adjacent members by welding or rigid mechanical anchors.
- B. Grout Guards: Formed from same material as frames, not less than 0.016 inch thick.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.
- C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove welded-in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.
- B. Drill and tap doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

3.3 INSTALLATION

- A. General: Install hollow-metal work plumb, rigid, properly aligned, and securely fastened in place. Comply with Drawings and manufacturer's written instructions.
- B. Hollow-Metal Frames: Install hollow-metal frames of size and profile indicated. Comply with SDI A250.11 or NAAMM-HMMA 840 as required by standards specified.
 - 1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
 - a. At fire-rated openings, install frames according to NFPA 80.
 - b. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
 - c. Install frames with removable stops located on secure side of opening.
 - d. Install door silencers in frames before grouting.
 - e. Remove temporary braces necessary for installation only after frames have been properly set and secured.
 - f. Check plumb, square, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
 - g. Field apply bituminous coating to backs of frames that will be filled with grout containing antifreezing agents.
 - 2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with postinstalled expansion anchors.
 - a. Floor anchors may be set with power-actuated fasteners instead of postinstalled expansion anchors if so indicated and approved on Shop Drawings.
 - 3. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout.
 - 4. Concrete Walls: Solidly fill space between frames and concrete with mineral-fiber insulation.
 - 5. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
 - 6. In-Place Metal or Wood-Stud Partitions: Secure slip-on drywall frames in place according to manufacturer's written instructions.
 - 7. Installation Tolerances: Adjust hollow-metal door frames for squareness, alignment, twist, and plumb to the following tolerances:
 - a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

- degrees from jamb perpendicular to frame head.
 - b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
 - c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
 - d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor.
- C. Hollow-Metal Doors: Fit hollow-metal doors accurately in frames, within clearances specified below. Shim as necessary.
 - 1. Non-Fire-Rated Steel Doors:
 - a. Between Door and Frame Jambs and Head: 1/8 inch plus or minus 1/32 inch.
 - b. Between Edges of Pairs of Doors: 1/8 inch to 1/4 inch plus or minus 1/32 inch.
 - c. At Bottom of Door: 3/4 inch plus or minus 1/32 inch.
 - d. Between Door Face and Stop: 1/16 inch to 1/8 inch plus or minus 1/32 inch.
 - 2. Fire-Rated Doors: Install doors with clearances according to NFPA 80.
 - 3. Smoke-Control Doors: Install doors and gaskets according to NFPA 105.
- D. Glazing: Comply with installation requirements in Section 08 8000 "Glazing" and with hollow-metal manufacturer's written instructions.
 - 1. Secure stops with countersunk flat- or oval-head machine screws spaced uniformly not more than 9 inches o.c. and not more than 2 inches o.c. from each corner.

3.4 ADJUSTING AND CLEANING

- A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow-metal work that is warped, bowed, or otherwise unacceptable.
- B. Remove grout and other bonding material from hollow-metal work immediately after installation.
- C. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.
- D. Metallic-Coated Surface Touchup: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

- E. Factory-Finish Touchup: Clean abraded areas and repair with same material used for factory finish according to manufacturer's written instructions.
- F. Touchup Painting: Cleaning and touchup painting of abraded areas of paint are specified in painting Sections.

END OF SECTION 08 1113

SECTION 08 7100 - DOOR HARDWARE

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes items known commercially as finish or door hardware that are required for swing, sliding, and folding doors, except special types of unique hardware specified in the same sections as the doors and door frames on which they are installed.
- B. This Section includes the following:
 - 1. Hinges
 - 2. Continuous Hinges
 - 3. Pivots
 - 4. Key control system
 - 5. Lock cylinders and keys
 - 6. Lock and latch sets
 - 7. Bolts
 - 8. Exit devices
 - 9. Push/Pull units
 - 10. Closers
 - 11. Overhead holders
 - 12. Miscellaneous door control devices
 - 13. Door trim units
 - 14. Protection plates
 - 15. Weatherstripping for exterior doors
 - 16. Sound stripping for interior doors
 - 17. Automatic drop seals (door bottoms)
 - 18. Astragals or meeting seals on pairs of doors
 - 19. Thresholds

1.3 REFERENCES

- A. Standards of the following as referenced:
 - 1. American National Standards Institute (ANSI)
 - 2. Door and Hardware Institute (DHI)
 - 3. Factory Mutual (FM)
 - 4. National Fire Protection Association (NFPA)

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5. Underwriters' Laboratories, Inc. (UL)
 - a. UL 10C - Fire Tests Door Assemblies
6. Warnock Hersey

B. Regulatory standards of the following as referenced:

1. Department of Justice, Office of the Attorney General, Americans with Disabilities Act, Public Law 101-336 (ADA).
2. CABO/ANSI A117.1: Providing Accessibility and Usability for Physically Handicap People, 2010 edition.

1.4 SYSTEM DESCRIPTION

- A. Refer to applicable Headings for system description for electric and electro-pneumatic hardware products.

1.5 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification sections.
- B. Product data including manufacturers' technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
- C. Final hardware schedule coordinated with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
1. Final Hardware Schedule Content: Based on hardware indicated, organize schedule into vertical format "hardware sets" indicating complete designations of every item required for each door or opening. Use specification Heading numbers with any variations suffixed a, b, etc. Include the following information:
 - a. Type, style, function, size, and finish of each hardware item.
 - b. Name and manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of each hardware set cross referenced to indications on Drawings both on floor plans and in door and frame schedule.
 - e. Explanation of all abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for hardware.
 - g. Door and frame sizes and materials.
 - h. Keying information.
 - i. Cross reference numbers used within schedule deviating from those specified.
 - 1) Column 1: State specified item and manufacturer.

SECTION 08 7100 - DOOR HARDWARE

2) Column 2: State prior approved substituted item and its manufacturer.

2. Submittal Sequence: Submit final schedule at earliest possible date particularly where acceptance of hardware schedule must precede fabrication of other work that is critical in the Project construction schedule. Include with schedule the product data, samples, shop drawings of other work affected by door hardware, and other information essential to the coordinated review of schedule.
 3. Keying Schedule: Submit separate detailed schedule indicating clearly how the Owner's final instructions on keying of locks has been fulfilled.
- D. Templates for doors, frames, and other work specified to be factory prepared for the installation of door hardware. Check shop drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- E. Contract closeout submittals:
1. Operation and maintenance data: Complete information for installed door hardware.
 2. Warranty: Completed and executed warranty forms.

1.6 QUALITY ASSURANCE

- A. Single Source Responsibility: Obtain each type of hardware (latch and lock sets, hinges, exit devices, closers, etc.) from a single manufacturer.
- B. Supplier Qualifications:
1. The finish hardware supplier shall be a factory authorized distributor with office and warehouse facilities within a 25 mile radius of Bibb County, Georgia.
 2. The finish hardware supplier shall have a record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project.
 3. The finish hardware supplier shall employ an experienced architectural hardware consultant (AHC) who is available to Owner, Architect, and Contractor, at reasonable times during the course of the work, for consultation.
- C. Coordination Meetings:
1. Contractor to set up and attend the following:
 - a. Lock distributor to meet with the Owner to finalize lock functions and keying requirements and to obtain final instructions in writing.
 - b. Lock distributor and lock, closer and exit device manufacturer to meet with the installer prior to beginning of installation of door hardware. Instruct installer on proper installation of specified products.
 2. Contractor to set up and attend the following:
 - a. Meet with the Owner, General Contractor, Supplier, electrical and security contractors to coordinate all electrical hardware items. Supplier to provide riser diagrams, elevation drawings, wiring diagrams and operational descriptions as required by the General and sub-contractors.

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- D. The hardware manufacturer's representative(s) shall conduct a pre-installation conference with the Contractor's installer, a representative of the county planning and/or maintenance department, and a representative of the hardware supplier, to demonstrate product installation and adjustment in accordance with manufacturer's recommendations and Owner's requirements.
- E. Hardware manufacturers' representative shall inspect hardware installation to confirm that all products are installed and adjusted according to manufacturer's recommendations. A certificate of compliance shall be submitted with the project closeout documents.
- F. Fire-Rated Openings: Provide door hardware for fire-rated openings that complies with NFPA Standard No. 80 requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and tested by UL or Warnock Hersey for given type/size opening and degree of label. Provide proper latching hardware, door closers, approved-bearing hinges and seals whether listed in the Hardware Schedule or not. All hardware shall comply with standards UL 10C.
 - 1. Where emergency exit devices are required on fire-rated doors, (with supplementary marking on doors' UL labels indicating "Fire Door to be equipped with Fire Exit Hardware") provide UL label on exit devices indicating "Fire Exit Hardware".

1.7 PRODUCT HANDLING

- A. Tag each item or package separately with identification related to final hardware schedule, and include basic installation instructions with each item or package.
- B. Packaging of door hardware is responsibility of supplier. As material is received by hardware supplier from various manufacturers, sort and repackage in containers clearly marked with appropriate hardware set number to match set numbers of approved hardware schedule. Two or more identical sets may be packed in same container.
- C. Inventory door hardware jointly with representatives of hardware supplier and hardware installer until each is satisfied that count is correct.
- D. Deliver individually packaged door hardware items promptly to place of installation (shop or Project site).
- E. Provide secure lock-up for door hardware delivered to the Project, but not yet installed. Control handling and installation of hardware items that are not immediately replaceable so that completion of the Work will not be delayed by hardware losses both before and after installation.

1.8 WARRANTY

- A. Special warranties:
 - 1. Door Closers: Ten year period
 - 2. Exit Devices: Three year period

1.9 MAINTENANCE:

SECTION 08 7100 - DOOR HARDWARE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 MANUFACTURED UNITS

A. Hinges:

1. Acceptable manufacturers: Products by the following manufacturers meet all the performance characteristics listed below:
 - a. Hager
 - b. Bommer
 - c. Ives*
2. Characteristics:
 - a. Templates: Provide only template-produced units.
 - b. Screws: Provide Phillips flat-head screws complying with the following requirements:
 - 1) For metal doors and frames install machine screws into drilled and tapped holes.
 - 2) For wood doors and frames install threaded-to-the-head wood screws.
 - 3) For fire-rated wood doors install #12 x 1-1/4 inch, threaded-to-the-head steel wood screws.
 - 4) Finish screw heads to match surface of hinges or pivots.
 - c. Hinge pins: Except as otherwise indicated, provide hinge pins as follows:
 - 1) Out-Swing Exterior Doors: Non-removable pins.
 - 2) Out-Swing Corridor Doors with Locks: Non-removable pins.
 - 3) Interior Doors: Non-rising pins.
 - 4) Tips: Flat button and matching plug. Finished to match leafs.
 - d. Size: Size hinges in accordance with specified manufacturer's published recommendations.
 - e. Quantity: Furnish one pair of hinges for all doors up to 5'0" high. Furnish one hinge for each additional 2-1/2 feet or fraction thereof.
 - f. Provide half surface hinges with back plates for all fire-rated wood doors.

B. Continuous Hinges:

1. Acceptable manufacturers: Products by the following manufacturers meet all the performance characteristics listed below:
 - a. Ives*
2. Characteristics:
 - a. Continuous gear hinges to be manufactured of extruded 6063-T6 aluminum alloy with anodized finish, or factory painted finish as scheduled. Hinges are to be Ives 157 XY with full adjustability after installation.

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- b. All hinges are to be manufactured to template. Uncut hinges shall be non-handed and shall be a pinless assembly of three interlocking extrusions applied to the full height of the door and frame without mortising.
- c. Vertical door loads shall be carried on chemically lubricated polyacetal thrust bearings. The door and frame leaves shall be continually geared together for the entire hinge length and secured with a full cover channel. Hinge to operate to a full 180°.
- d. Hinges to be milled, anodized and assembled in matching pairs.
- e. Provide UL listed continuous hinges at fire doors. Continuous hinges at fire doors shall meet the required ratings without the use of auxiliary fused pins or studs.

C. Cylinders:

- 1. Acceptable manufacturers:
 - a. Schlage - Primus Level III* and Conventional, keyed to existing system. See notes below.
- 2. Characteristics:
 - a. *Review the keying system with the Owner and provide the type required (master, grandmaster or great-grandmaster), either new or integrated with Owner's existing system.
 - b. Equip locks with cylinders for interchangeable-core pin tumbler inserts for all doors. Furnish only temporary inserts for the construction period.
 - c. *Furnish final cores and keys for installation by Owner.
 - d. Metals: Construct lock cylinder parts from brass or bronze, stainless steel, or nickel silver.
 - e. Exterior doors, Vault, AV and food storage to be Primus. Interior doors are conventional keyway. All keys are to be Primus. KR mullions are to have conventional keyway cylinders.
 - f. *Comply with Owner's instructions for master keying and, except as otherwise indicated, provide individual change key for each lock that is not designated to be keyed alike with a group of related locks.
 - 1) Permanently inscribe each key with number of lock that identifies cylinder manufacturer's key symbol, and notation, "DO NOT DUPLICATE."
 - 2) * Keying Submittal must be reviewed and approved by the Owner before permanent cores are ordered from Schlage Lock Co.
 - g. Key Material: Provide keys of nickel silver only.
 - h. Key Quantity: Furnish 3 change keys for each lock, (max of 10 at large KA groups), 5 master keys for each master system, and 5 grandmaster keys for each grandmaster system. Provide any additional keys not used as key blanks. Provide 10 construction master keys and 4 construction control keys.
 - 1) *Deliver keys to Owner.
 - 2) All keys are to be Primus
 - 3) All cores shall be Primus where noted above.
 - 4) Key vault and food storage as a change under the great grandmaster only (GGM1)
 - 5) AV storage shall be keyed SKD (next available)

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D. Locksets, Latchsets, Deadbolts:

1. Acceptable manufacturers: Products by the following manufacturers meet all the performance characteristics listed below:
 - a. Basis of Design Manufacturer: Subject to compliance with requirements, products manufactured by Schlage to match existing equipment used throughout Macon Parks Department.
2. Mortise Locksets and Latchsets: as scheduled.
 - a. Chassis: cold-rolled steel, handing field-changeable without disassembly.
 - b. Latchbolts: 3/4-inch throw stainless steel anti-friction type.
 - c. Lever Trim: through-bolted, accessible design, cast or solid rod lever as scheduled. Spindles: independent break-away.
 - d. Thumbturns: accessible design not requiring pinching or twisting motions to operate.
 - e. Deadbolts: stainless steel 1-inch throw.
 - f. Electric operation: Manufacturer-installed continuous duty solenoid.
 - g. Strikes: 16 gage curved stainless steel, bronze or brass with 1" deep box construction, lips of sufficient length to clear trim and protect clothing.
 - h. Scheduled Lock Series and Design: Schlage L series, 07A design.
 - i. Certifications:
 - 1) ANSI A156.13, 1994, Grade 1 Operational, Grade 1 Security.
 - 2) ANSI/ASTM F476-84 Grade 30 UL Listed.
3. Extra Heavy Duty Cylindrical Locks and Latches: as scheduled, fastened with through-bolts.
 - a. Chassis: Cylindrical design, corrosion-resistant plated cold-rolled steel.
 - b. Locking Spindle: Stainless steel, interlocking design.
 - c. Latch Retractors: Forged steel. Balance of inner parts: Corrosion-resistant plated steel, or stainless steel.
 - d. Lever Trim: Accessible design, independent operation, spring-cage supported, minimum 2" clearance from lever mid-point to door face.
 - e. Rosettes: Minimum 3-7/16" diameter for coverage of ANSI/DHI A115.18, 1994 door preparation, through-bolt lugs on both spring cages to fully engage this pattern.
 - f. Springs: Full compression type.
 - g. Electric operation: Manufacturer-installed continuous duty solenoid.
 - h. Strikes: 16 gage curved steel, bronze or brass with 1" deep box construction, lips of sufficient length to clear trim and protect clothing.
 - i. Lock Series and Design: Schlage ND series, ATH design.
 - j. Certifications:
 - 1) ANSI A156.2, 1994, Series 4000, Grade 1. Tested to exceed 3,000,000 cycles.
 - 2) UL listed for A label single doors up to 4 ft x 8 ft.

E. Exit Devices:

1. Acceptable manufacturers: Products by the following manufacturers meet all the performance characteristics listed below:
 - a. Basis of Design Manufacturer: Subject to compliance with requirements, products manufactured by Von Duprin to match existing equipment used throughout Macon Parks Department.

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2. Removable mullions by Von Duprin - Steel material ONLY - key removable.
3. Electronic access points shall be Von Duprin EL98 Electric panic hardware operated by electronic access control system hardwired with a card reader recessed into the building structure.
 - a. EL devices shall use a 16 amp solenoid to activate a mechanical linkage to retract the latch.
 - b. Power supplies shall be Von Duprin PS914 x 900-RS Series.
4. Conduit and necessary wiring shall be provided under Electrical Section. See Owner's standard details.
5. Characteristics:
 - a. All exit devices shall be of one manufacturer.
 - b. All exit devices shall have US32D touchpads. All finished parts that are not US32D shall be US26D. No painted finish shall be allowed.
 - c. All exit devices shall be flush mounted. Provide manufacturer's standard shim kit to accommodate molding for glass and vision lights. Exit devices that are not flush mounted must provide a filler bar on those doors where conflict with molding for glass vision lights is not an issue.
 - d. Exit devices shall be attached with sex nuts and bolts on all doors. Finish on all exposed fasteners shall match devices.
 - e. Lever handle operating trim for exit devices shall be of heavy duty construction, incorporating cast or heavy solid forged escutcheons and levers. Where listed in the hardware sets, provide "breakaway" lever incorporating an internal clutch mechanism allowing the lever to break away and drop into a "down" position when more than 35 pounds of torque are applied. Lever shall be easily reset to its operating position by a simple uplift motion.
 - f. Exit devices shall be "UL" listed for life safety. All exit devices for fire rated openings shall have "UL" labels for "Fire Exit Hardware."
 - g. All trim shall be thru-bolted to the lock stile case.
 - h. All exit devices shall be made of brass, bronze, stainless steel, or aluminum material, plated or powder coated to the standard architectural finishes to match the balance of the door hardware. Painted finishes are not accepted.
 - i. Provide glass bead conversion kits to shim exit devices on doors with raised glass heads.
 - j. Dogging mechanism shall be "hook and eye" type. No plastic dogging cams or friction type dogging mechanism shall be allowed.
 - k. Equip rim exit devices with a roller strike.
 - l. All exit devices shall be non-handed.
 - m. Touchpad shall extend a minimum of 1/2 of the door width. Touchpad height shall exceed height of mechanism case or rail assembly to eliminate pinch points. If touchpad height does not exceed height of mechanism case/rail assembly provide factory installed insert/filler on top and bottom of touchpad along mechanism case/rail assembly to prevent pinch point. Plastic touchpads are not acceptable.
 - n. All latchbolts to be the deadlocking type. Latchbolts shall have a self-lubricating coating to reduce wear. Plated or plastic coated latchbolts are not acceptable.
 - o. At specific locations, such as the Media Center, Auditorium, Administrative areas, etc. equip exit devices with a fluid dampening device to reduce noise associated with the operation of the exit device.

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- p. Exit devices shall include impact resistant, flush mounted end cap design to avoid damage due to carts and other heavy objects passing through an opening. End cap shall be of heavy-duty metal alloy construction and provide horizontal adjustment to provide alignment with device cover plate. When exit device end cap is installed, no raised edges will protrude.

F. Closers and Door Control Devices:

1. Acceptable manufacturers: Products by the following manufacturers meet all the performance characteristics listed below:
 - a. Basis of Design Manufacturer: Subject to compliance with requirements, products manufactured by LCN to match existing equipment used throughout Macon Parks Department.
2. Characteristics:
 - a. Door closers shall be overhead type and have fully hydraulic, full rack and pinion action with a high strength cast iron cylinder.
 - b. All closers shall be attached using sex nuts and bolts only. Provide mounting plates if required to mount on narrow top rail of door.
 - c. All fire rated doors shall have closers. Closers shall not be installed on classroom doors unless required by Fire Marshal's office.
 - d. Hydraulic fluid shall be of a type requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F (49 degrees C) to -30 degrees F (-35 degrees C).
 - e. Spring power shall be continuously adjustable over the full range of closer sizes, and allow for reduced opening force for the physically handicapped. Hydraulic regulation shall be by tamper-proof, non-critical valves. Closers shall have separate adjustment for latch speed, general speed and back check. Closers shall be sized in accordance with manufacturer's recommendation.
 - f. All closers shall have solid forged steel main arms (and forearms for parallel arm closers) and where specified shall have a cast-in solid stop on the closer shoe ("cush"). Where door travel on out-swing doors must be limited, use "Cush" type closers. Auxiliary stops are not required when cushion type closers are used.
 - g. All closers shall be certified to exceed ten million (10,000,000) full load cycles by a recognized independent testing laboratory. All closers (overhead, surface and concealed) shall be of one manufacturer and carry manufacturer's ten year warranty (electric closers to have two year warranty).
 - h. Access-Free Manual Closers: Where manual closers are indicated for doors required to be accessible to the physically handicapped, provide adjustable units complying with ADA and ANSI A-117.1 provisions for door opening force.
 - i. Closers to be installed to allow door swing as shown on plans. Doors swinging into exit corridors shall provide for corridor clear width as required by code. Where possible, mount closers inside rooms.
 - j. Provide powder coated finish, certified to exceed 100 hours salt spray testing by ETL, an independent testing laboratory used by BHMA for ANSI certification. Lacquer or painted finish on metal components is not acceptable.

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G. Floor Stops and Wall Bumpers:

1. Acceptable manufacturers:
 - a. Trimco
 - b. Ives*
 - c. Rockwood
2. Characteristics: Refer to Hardware Headings.

H. Door Bolts/Coordinators:

1. Acceptable manufacturers:
 - a. Trimco
 - b. Ives*
 - c. Rockwood
2. Characteristics:
 - a. Flush bolts to be forged brass 6-3/4" x 1", with 1/2" diameter bolts. Plunger to be supplied with milled surface one side which fits into a matching guide.
 - b. Automatic flush bolts to be UL listed as top and bottom bolts on a pair of classified fire doors. Bolt construction to be of rugged steel and brass components.
 - c. Self-latching flush bolts to be UL listed as top and bottom bolts on a pair of classified fire doors. Bolt construction to be of rugged steel and brass components.
 - d. Automatic flush bolts and self-latching flush bolts shall be UL listed for fire door application without bottom bolts.
 - e. Coordinator to be soffit mounted non-handed fully automatic UL listed coordinating device for sequential closing of paired doors with or without astragals.
 - f. Provide filler pieced to close the header. Provide brackets as required for mounting of soffit applied hardware.

I. Push Plates:

1. Acceptable manufacturers:
 - a. Trimco
 - b. Ives*
 - c. Rockwood
2. Characteristics:
 - a. Exposed Fasteners: Provide manufacturers standard, stainless steel exposed fasteners.
 - b. Material to be extruded/forged, stainless steel, per the Hardware Headings.
 - c. Provide plated sized as shown in Hardware Headings.

J. Door Pulls & Pull Plates:

1. Acceptable manufacturers:
 - a. Trimco
 - b. Ives*
 - c. Rockwood

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2. Characteristics:
 - a. Provide concealed thru-bolted trim on back to back mounted pulls, but not for single units.
 - b. Material to be extruded/forged/cast, stainless steel.
 - c. Provide units sized as shown in Hardware Headings.

K. Push Pull Sets:

1. Acceptable manufacturers:
 - a. Trimco
 - b. Ives*
 - c. Rockwood
2. Characteristics:
 - a. Provide mounting systems as shown in hardware sets.
 - b. Material to be (description - i.e. solid rod, tubular, cast etc.) stainless steel.
 - c. Provide Push/Pull sets sized as shown in Hardware Headings.

L. Protective Plates:

1. Acceptable manufacturers:
 - a. Trimco
 - b. Ives*
 - c. Rockwood
2. Characteristics:
 - a. Provide manufacturers standard, stainless steel exposed fasteners for door trim units consisting of either machine screws or self-tapping screws.
 - b. Materials:
 - 1) Metal Plates: Stainless Steel, .050 inch (U.S. 18 gage).
 - c. Fabricate protection plates not more than 2 inches less than door width on push side and not more than 1 inch less than door width on pull side.
 - d. Heights:
 - 1) Kick plates to be 10 inches in height.
 - 2) Mop plates to be 4 inches in height.
 - 3) Armor plates to be 34 inches in height. Armor plates on fire doors to comply with NFPA 80.

M. Thresholds:

1. Acceptable manufacturers:
 - a. Pemko*
 - b. Reese Industries
 - c. Zero Weatherstripping
2. Types: Indicated in Hardware Headings.

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N. Weatherstripping:

1. Acceptable manufacturers:
 - a. Pemko*
 - b. Reese Industries
 - c. Zero Weatherstripping
2. Types: Indicated in Hardware Headings.

O. Silencers:

1. Acceptable manufacturers:
 - a. Hager
 - b. Ives*
 - c. Rockwood
2. Three for each single doors; two for pairs of doors.

P. Key Cabinet and System:

1. Acceptable manufacturers:
 - a. Telkee, Inc.
2. Provide a key control system including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150 percent of the number of locks required for the Project.
 - a. Provide hinged-panel type cabinet for wall mounting.

Q. Magnetic Door Holders

1. Acceptable manufacturers:
 - a. LCN*
 - b. Rixson-Firemark
 - c. Edwards
2. Wall mounted 24vdc units with finish to match door hardware. Provide standard extensions as manufactured by the same manufacturer of the Magnetic holders as required for job conditions.

2.2 MATERIALS AND FABRICATION

- A. Manufacturer's Name Plate: Do not use manufacturers' products that have manufacturer's name or trade name displayed in a visible location (omit removable nameplates) except in conjunction with required fire-rated labels and as otherwise acceptable to Architect.

1. Manufacturer's identification will be permitted on rim of lock cylinders only.

- B. Base Metals: Produce hardware units of basic metal and forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness, but in no case of lesser (commercially recognized) quality than specified for applicable hardware units by applicable ANSI/BHMA A156 series standards for each type of hardware item and with

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ANSI/BHMA A156.18 for finish designations indicated. Do not furnish "optional" materials or forming methods for those indicated, except as otherwise specified.

- C. Fasteners: Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
 - 1. Do not provide hardware that has been prepared for self-tapping sheet metal screws, except as specifically indicated.
 - 2. Furnish screws for installation with each hardware item. Provide Phillips flat-head screws except as otherwise indicated. Finish exposed (exposed under any condition) screws to match hardware finish or, if exposed in surfaces of other work, to match finish of this other work as closely as possible including "prepared for paint" surfaces to receive painted finish.
 - 3. All exit devices, door closers, overhead stops and surface mounted hardware shall be attached with thru-bolts.

2.3 HARDWARE FINISHES

- A. Match items to the manufacturer's standard color and texture finish for the latch and lock sets (or push-pull units if no latch or lock sets).
- B. Provide finishes that match those established by ANSI or, if none established, match the Architect's sample.
- C. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware.
- D. The designations used to indicate hardware finishes are those listed in ANSI/BHMA A156.18, "Materials and Finishes," including coordination with the traditional U.S. finishes shown by certain manufacturers for their products.
 - 1. Hinges (Exterior): 630 (US32D) Satin Stainless Steel
 - 2. Hinges (Interior): 652 (US26D) Satin Chrome Plated Steel
 - 3. Continuous Hinges: 628 (US28) Clear Anodized Aluminum finish to match doors @ aluminum entrance systems
 - 4. Flush Bolts: 626 (US26D) Satin Chrome Plated Brass/Bronze
 - 5. Locks: 626 (US26D) Satin Chrome Plated
 - 6. Exit Devices: 628 (US28) chassis, 626 (Satin Chrome) covers, and 630 (US32D) touchpads
 - 7. Door Closers: 689 (AL) Powder Coat
 - 8. Push Plates: 630 (US32D) Satin Stainless Steel
 - 9. Pull Plates: 630 (US32D) Satin Stainless Steel
 - 10. Protective Plates: 630 (US32D) Satin Stainless Steel
 - 11. Door Stops: 626 (US26D) Satin Chrome Plated Brass/Bronze
 - 12. Thresholds/Weatherstripping: 627/628 (US27/US28) Aluminum

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Mount hardware units at heights indicated in following applicable publications, except as specifically indicated or required to comply with governing regulations and except as otherwise directed by Architect.
 - 1. "Recommended Locations for Builders Hardware for Standard Steel Doors and Frames" by the Door and Hardware Institute.
- B. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Where cutting and fitting is required to install hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation or application of surface protection with finishing work specified in the Division 9 Sections. Do not install surface-mounted items until finishes have been completed on the substrates involved.
- C. Set units level, plumb, and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- D. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
- E. Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene mastic sealant complying with requirements specified in Division 7 Section "Joint Sealers."
- F. Weatherstripping and Seals: Comply with manufacturer's instructions and recommendations to the extent installation requirements are not otherwise indicated.

3.2 ADJUSTING, CLEANING, AND DEMONSTRATING

- A. Adjust and check each operating item of hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate freely and smoothly or as intended for the application made.
 - 1. Where door hardware is installed more than one month prior to acceptance or occupancy of a space or area, return to the installation during the week prior to acceptance or occupancy and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to function properly with final operation of heating and ventilating equipment.
- B. Clean adjacent surfaces soiled by hardware installation.
- C. Door Hardware Supplier's Field Service
 - 1. Inspect door hardware items for correct installation and adjustment after complete installation of door hardware.
 - 2. Instruct Owner's personnel in the proper adjustment and maintenance of door hardware and hardware finishes.
 - 3. File written report of this inspection to Architect.

- D. Prior to project completion, representatives of the lock, exit device and overhead closer manufacturer(s) shall inspect and adjust all units and certify that all units are installed in accordance with the manufacturer's instructions, and are regulated properly and functioning correctly. A written report shall be provided to the Architect as to the inspection and shall include appropriate certificates.

3.3 HARDWARE SCHEDULE

- A. As shown on drawings.

SECTION 09 9113 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following exterior substrates:

- 1. Steel.

1.2 DEFINITIONS

- A. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples: For each type of paint system and each color and gloss of topcoat.
- C. Product List: For each product indicated. Include printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.
 - 2. Provide a list of paint products used (manufacturer), and color codes (mix proportions) to the maintenance paint department at the end of the project.

SECTION 09 9113 - EXTERIOR PAINTING

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in other Part 2 articles for the paint category indicated.
- B. Painting Systems Schedule: All trade names and numbers listed hereinafter are in the following order, unless specifically shown otherwise:
 - 1. ICI ICI/GLIDDEN AND DEVOE
 - 2. MS Martin Senour
 - 3. PL Pratt and Lambert
 - 4. BM Benjamin Moore
 - 5. SW Sherwin Williams

2.2 PAINT, GENERAL

- A. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. VOC Content: Provide materials that comply with VOC limits of authorities having jurisdiction.
- C. Colors: As indicated in a color schedule.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

SECTION 09 9113 - EXTERIOR PAINTING

- C. Proceed with coating application only after unsatisfactory conditions have been corrected.

- 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.
- B. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

3.3 APPLICATION

- A. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 CLEANING AND PROTECTION

- A. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- B. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.5 EXTERIOR PAINTING SCHEDULE

- A. Steel Substrates:
 - 1. Prime Coat – Alkyd MultiPurpose Metal Primer:
 - a. ICI 4160 Devguard Multi-Purpose Tank and Structural Primer
 - b. MS Tough Coat® Rust Control Universal Metal Primer
 - c. PL S45XX Steeltech® Rust Inhibitive Metal Primer
 - d. BM Super Spec HP Universal Alkyd Metal Primer P07
 - e. SW B66W00001 - DTM Acrylic Primer/Finish
 - 2. Prime Coat: Shop primer specified in Section where substrate is specified.

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3. Intermediate Coat: Exterior alkyd enamel, matching topcoat.
4. Top Coat - Alkyd Industrial Enamel
 - a. ICI 4308 Devguard 4308 Alkyd Industrial Gloss Enamel
 - b. MS Tough Coat® Heavy Duty Alkyd Enamel
 - c. PL S45XX Techgard Maintenance Gloss Enamel
 - d. BM Benjamin Moore® Super Spec HP® D.T.M. Aklyd Gloss Enamel P26
 - e. SW B66W00111 - DTM Acrylic Gloss Acrylic Coating

END OF SECTION 09 9113

SECTION 09 9123 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on interior substrates.
 - 1. Concrete masonry units (CMU).
 - 2. Steel.
 - 3. Galvanized metal.
 - 4. Gypsum board.

1.3 DEFINITIONS

- A. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- C. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. VOC content.

SECTION 09 9123 - INTERIOR PAINTING

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials[, from the same product run,] that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide product listed in other Part 3 articles for the paint category indicated.
- B. Painting Systems Schedule: All trade names and numbers listed hereinafter are in the following order, unless specifically shown otherwise:
 - 1. ICI ICI/GLIDDEN AND DEVOE
 - 2. MS Martin Senour
 - 3. PL Pratt and Lambert
 - 4. BM Benjamin Moore
 - 5. SW Sherwin Williams

2.2 PAINT, GENERAL

- A. Material Compatibility:

SECTION 09 9123 - INTERIOR PAINTING

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. VOC Content: Products shall comply with VOC limits of authorities having jurisdiction.
1. Nonflat Paints and Coatings: 150 g/L.
 2. Primers, Sealers, and Undercoaters: 200 g/L.
 3. Anticorrosive and Antirust Paints Applied to Ferrous Metals: 250 g/L.
 4. Zinc-Rich Industrial Maintenance Primers: 340 g/L.
- C. Colors: As indicated in a color schedule.
1. 30 percent of surface area will be painted with deep tones.
- 2.3 SOURCE QUALITY CONTROL
- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:
1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
 2. Testing agency will perform tests for compliance with product requirements.
 3. Owner may direct Contractor to stop applying coatings if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic

SECTION 09 9123 - INTERIOR PAINTING

moisture meter as follows:

1. Concrete: 12 percent.
 2. Masonry (Clay and CMU): 12 percent.
 3. Gypsum Board: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- E. Proceed with coating application only after unsatisfactory conditions have been corrected.
1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceed that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer but not less than the following:

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1. SSPC-SP 2, "Hand Tool Cleaning."
 2. SSPC-SP 3, "Power Tool Cleaning."
 3. SSPC-SP 7/NACE No. 4, "Brush-off Blast Cleaning."
 4. SSPC-SP 11, "Power Tool Cleaning to Bare Metal."
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- 3.3 APPLICATION
- A. Apply paints according to manufacturer's written instructions.
1. Use applicators and techniques suited for paint and substrate indicated.
 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
1. Paint the following work where exposed in equipment rooms:
 - a. Equipment, including panelboards.
 - b. Uninsulated metal piping.

SECTION 09 9123 - INTERIOR PAINTING

- c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Tanks that do not have factory-applied final finishes.
 - h. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
2. Paint the following work where exposed in occupied spaces:
- a. Equipment, including panelboards.
 - b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
 - h. Other items as directed by Architect.
3. Paint portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets that are visible from occupied spaces.

3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
- 1. Contractor shall touch up and restore painted surfaces damaged by testing.
 - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

SECTION 09 9123 - INTERIOR PAINTING

- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE

A. CMU Substrates:

1. Block Filler -Heavy Duty Interior/Exterior Heavy Duty Block Filler
 - a. BM Super Spec® HP Latex Block Filler 160
 - b. ICI 4000 Blok-Fill Int/Ext Heavy Duty Acrylic Block Filler
 - c. MS ProLine® Premium Int/Ext Heavy Duty Block Filler
 - d. PL Z8465 Enducryl Int/Ext Heavy Duty Latex Block Filler
 - e. SW B25W00025 - Preprite Interior/Exterior Latex Block Filler
2. Intermediate Coat - Waterborne Polyamide High Performance Acrylic Semi-Gloss Epoxy matching top coat
3. Top Coat – Waterborne Polyamide High Performance Acrylic Semi-Gloss Epoxy
 - a. BM Polyamide Epoxy Semi-Gloss Coating M36/M38
 - b. ICI 4406 Devoe Tru-Glaze-WB Waterborne Polyamide Semi Gloss Epoxy
 - c. MS Super Tough Coat® Acrylic Water Based Epoxy
 - d. PL Enducryl® HP (High Performance) Water-Based Epoxy
 - e. SW B70W00211 - Waterbased Catalyzed Epoxy (Part A), Two-part epoxy - Part B B60V25

B. Steel Substrates:

1. Prime Coat – Alkyd MultiPurpose Metal
 - a. BM Super Spec HP Universal Alkyd Metal Primer P07
 - b. ICI 4160 Devguard Multi-Purpose Tank and Structural Primer
 - c. MS Tough Coat® Rust Control Universal Metal Primer
 - d. PL S45XX Steeltech® Rust Inhibitive Metal Primer
 - e. SW
2. Intermediate Coat: Alkyd Industrial Enamel, matching topcoat.
3. Top Coat - Alkyd Industrial Enamel
 - a. BM Benjamin Moore® Super Spec HP® D.T.M. Aklyd Gloss Enamel P26
 - b. ICI 4308 Devguard 4308 Alkyd Industrial Enamel
 - c. MS Tough Coat® Heavy Duty Alkyd Enamel
 - d. PL S45XX Techgard Maintenance Gloss Enamel
 - e. SW

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C. Galvanized-Metal Substrates:

1. Primer-Waterborne Acrylic DTM Metal Primer
 - a. BM SuperSpec Acrylic Metal Primer 004
 - b. ICI 4020 Devflex DTM Flat Interior/Exterior Waterborne Primer Finish
 - c. MS Super Tough Coat® Acrylic Prime & Finish
 - d. PL Z190 Steeltech® Acrylic Prime or Finish
 - e. SW
2. Intermediate Coat: Waterborne Int/Ext Waterborne Acrylic Semi-Gloss, matching topcoat.
3. Top coat-Waterborne Int/Ext Waterborne Acrylic Semi-Gloss
 - a. BM DTM Acrylic Semi-Gloss M29
 - b. ICI 4206 Devflex Interior/Exterior Waterborne Acrylic Semi-Gloss
 - c. MS Super Tough Coat® Acrylic Semi-Gloss Enamel
 - d. PL 6620 Enducryl® Acrylic Semi-Gloss Enamel
 - e. SW

D. Gypsum Board Substrates:

1. Prime Coat - Waterborne Acrylic Latex
 - a. BM: Super Spec® Latex Enamel Undercoater & Primer Sealer 253
 - b. ICI: Prep&Prime Gripper Multi-Purpose Primer 3210
 - c. MS: T.P.S.® Interior Multi-Surface Latex Enamel Undercoater
 - d. PL: Z1013 SUPRIME® Interior Latex Enamel Undercoater
 - e. SW: B28W02600 - ProMar 200 Zero VOC Interior Latex primer
2. Intermediate Coat: Waterborne Polyamide High Performance Acrylic Semi-Gloss Epoxy, matching topcoat.
3. Top Coat – Waterborne Polyamide High Performance Acrylic Semi-Gloss Epoxy
 - a. BM: Polyamide Epoxy Semi-Gloss Coating M36/M38
 - b. ICI: 4406 Devoe Tru-Glaze-WB Waterborne Polyamide Semi-Gloss Epoxy
 - c. MS: Super Tough Coat® Acrylic Water Based Epoxy
 - d. PL: Enducryl® HP (High Performance) Water-Based Epoxy
 - e. SW: B70W00211 - Waterbased Catalyzed Epoxy (Part A), Two-part epoxy - Part B B60V25

END OF SECTION 09 9123

SECTION 10 2800 – TOILET ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Public-use washroom accessories.
 - 2. Public-use shower room accessories.
 - 3. Underlavatory guards.
 - 4. Custodial accessories.
- B. Owner-Furnished Material: Soap Dispensers.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include the following:
 - 1. Construction details and dimensions.
 - 2. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
 - 3. Material and finish descriptions.
 - 4. Features that will be included for Project.
 - 5. Manufacturer's warranty.
- B. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.
 - 1. Identify locations using room designations indicated.
 - 2. Identify products using designations indicated.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For toilet and bath accessories to include in maintenance manuals.

SECTION 10 2800 – TOILET ACCESSORIES

1.5 QUALITY ASSURANCE

- A. Source Limitations: For products listed together in the same Part 2 articles, obtain products from single source from single manufacturer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

1.6 COORDINATION

- A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.
- B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.7 WARRANTY

- A. Special Mirror Warranty: Manufacturer's standard form in which manufacturer agrees to replace mirrors that develop visible silver spoilage defects and that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Stainless Steel: ASTM A 666, Type 304, 0.031-inch minimum nominal thickness unless otherwise indicated.
- B. Steel Sheet: ASTM A 1008/A 1008M, Designation CS (cold rolled, commercial steel), 0.036-inch minimum nominal thickness.
- C. Galvanized-Steel Sheet: ASTM A 653/A 653M, with G60 hot-dip zinc coating.
- D. Galvanized-Steel Mounting Devices: ASTM A 153/A 153M, hot-dip galvanized after fabrication.
- E. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.

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- F. Mirrors: ASTM C 1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.

2.2 PUBLIC-USE WASHROOM ACCESSORIES

- A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated or comparable product by one of the following:

- 1. American Specialties, Inc.
- 2. Bobrick Washroom Equipment, Inc.
- 3. Bradley Corporation.

- B. Changing stations:

- 1. KB-200SS

- C. Roll towel dispenser:

- 1. Bobrick B-2974

- D. Toilet Tissue (Roll) Dispenser :

- 1. Basis-of-Design Product: TP Series by Royce Rolls Ringer, SS.
- 2. Mounting: Surface mounted.

- E. Liquid-Soap Dispenser :

- 1. Description: Provided by Owner and designed for dispensing soap in liquid or lotion form.
- 2. Mounting: Vertically oriented, surface mounted.

- F. Grab Bar :

- 1. Basis-of-Design Product: Bobrick; B6806 x 36, B6806 x 42 .
- 2. Mounting: Flanges with concealed fasteners.
- 3. Material: Stainless steel, 0.05 inch thick.
 - a. Finish: Smooth, No. 4 finish (satin) on ends and slip-resistant texture in grip area.
- 4. Outside Diameter: 1-1/4 inches.
- 5. Configuration and Length: As indicated on Drawings.

- G. Mirror Unit :

- 1. Basis-of-Design Product: Bobrick B2908.
- 2. Frame: Stainless-steel channel.

SECTION 10 2800 – TOILET ACCESSORIES

- a. Corners: Welded and ground smooth.
3. Hangers: Produce rigid, tamper- and theft-resistant installation, using method indicated below.
 - a. One-piece, galvanized-steel, wall-hanger device with spring-action locking mechanism to hold mirror unit in position with no exposed screws or bolts.
4. Size: As indicated on Drawings.

2.3 UNDERLAVATORY GUARDS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated or comparable product by one of the following:
 1. Plumberex Specialty Products, Inc.
 2. Truebro by IPS Corporation.
 3. TCI Products
- B. Underlavatory Guard :
 1. Basis-of-Design Product: Truebo Lav Guard 2.
 2. Description: Insulating pipe covering for supply and drain piping assemblies that prevent direct contact with and burns from piping; allow service access without removing coverings.
 3. Material and Finish: Antimicrobial, molded plastic, white.

2.4 FABRICATION

- A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.
- B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.

SECTION 10 2800 – TOILET ACCESSORIES

- B. Grab Bars: Install to withstand a downward load of at least 250 lbf, when tested according to ASTM F 446.

3.2 ADJUSTING AND CLEANING

- A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
- B. Remove temporary labels and protective coatings.
- C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

END OF SECTION 10 2800

SECTION 32 11 00

GRADED AGGREGATE BASE COURSE

PART 1 GENERAL

1.1 SCOPE

- A. This section specifies requirements for furnishing materials and constructing a quality controlled graded aggregate base course on a compacted subgrade, for flexible pavements.
- B. Contractor shall provide all service, labor, materials, and equipment required for the aggregate base course necessary to complete the work as shown on the drawings or specified in these specifications, or as determined in the field jointly by the Contractor and Owner.

1.2 RELATED SECTIONS

- A. Section 31 11 00 – Clearing & Grubbing
- B. Section 32 12 16 – Asphalt Concrete Paving

1.3 REFERENCES

- A. AASHTO Specifications:
 - 1. AASHTO T 96-91 – Resistance to Abrasion of Small Size Coarse Aggregate by Use of Los Angeles Machine.
 - 2. AASHTO T 180-90 – Moisture – Density Relations of Soils Using a 10-lb (4.5 kg) Rammer and an 18-in. (457 mm) Drop.
- B. ASTM Standards:
 - 1. ASTM D 1556-90 – Density and Unit Weight of Soil in Place by the Sand-Cone Method.
 - 2. ASTM D 1557-91 – Laboratory Compaction Characteristics of Soil Using Modified Effort.
 - 3. ASTM D 2167-94 – Density and Unit Weight of Soil in Place by the Rubber

Balloon Method.

4. ASTM D 2922-91 – Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
5. ASTM D 3017-88 (1993) – Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).
6. ASMT D 3740-94 – Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock Used in Engineering Design and Construction.
7. ASTM E 329-93 – Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.

1.4 REGULATORY REQUIREMENTS

- A. Perform all work in accordance with the Department of Transportation, State of Georgia, Standard Specifications, current edition.

1.5 SUBMITTALS

- A. Provide certificates stating that materials supplied comply with Specifications. Certificates shall be signed by the producer and the Contractor.

1.6 CONDITIONS

- A. Weather Limitations
 1. Do not conduct base placement operations when surface is wet, frozen or contains excess of moisture which would prevent uniform distribution and required penetration.
 2. Place base course when air temperature is above 35 degrees F and rising. No base course shall be placed on a frozen or muddy subgrade.
- B. Grade Control: Establish and maintain the required lines and grades for each course during construction operations.

1.7 INSPECTION AND TESTING

- A. Testing laboratory shall operate in accordance to ASTM D 3740 and E 329 and

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shall be accepted by the Owner.

- B. The testing laboratory and Owner shall be given a minimum of 48 hours notice prior to taking any of the tests.
- C. Testing shall be the responsibility of the Contractor and shall be performed at the Contractor's expense by a commercial testing laboratory that operates in accordance with 1.7.A above.
- D. Test results shall be furnished to the Owner in a timely manner.
- E. The testing agency shall test in-place courses for compliance with specified compaction, thickness and surface smoothness requirements.
- F. Graded Aggregate Base Compaction: Minimum acceptable density shall be 100 percent of maximum dry density in accordance with ASTM D 1556. Conduct one test for each 5000 square feet of in-place material, but in no case less than one daily for each layer. Test the density of graded aggregate base according to ASTM D 2167 (rubber balloon method), ASTM D 2937 (sand cone method) or nuclear method of ASTM D 2922.
- G. Base Thickness: Inspect the cores of the base course to determine the average thickness of the course. If the average thickness exceeds the allowable variation below, additional cores shall be made at the Contractor's expense to determine the area of deficient thickness. The deficient area shall be corrected by overlay with the same type base.
 - 1. Base Course Tolerance: +/- 1/2-inch
- H. Surface Smoothness: Test finished surface of the base course for smoothness using a 10 foot straight edge. Intervals of tests shall be as directed by the Owner. Surfaces will not be acceptable if the base course exceeds 1/4-inch in 10 feet.
- I. Compacted base layer shall be tested before asphalt paving construction work is performed.
- J. Contractor's Duties Relative to Testing
 - 1. Notify laboratory of conditions requiring testing.
 - 2. Coordinate with laboratory for field testing.

3. Pay costs for all retesting where initial tests reveal non-conformance with specified requirements.

PART 2 PRODUCTS

2.1 MATERIALS

- A. **Coarse Aggregate:** Aggregate retained on the No. 4 sieve shall consist of durable, angular fragments of gravel or crushed stone obtained from an approved quarry, and shall be capable of withstanding the effects of handling, spreading, and compaction with minimum degradation.
- B. **Fine Aggregate:** Material passing the No. 4 sieve shall consist essentially of particles produced from the crushing of coarse aggregate at the approved source. Other types of fine aggregate, if permitted for use, shall meet the Georgia Department of Transportation's requirements.
- C. **Grading:** The Graded Aggregate Base Course material shall be of uniform quality throughout. The graded aggregate may be produced from an approved source or deposit which will yield a satisfactory mixture conforming to all requirements of these Specifications after it has been crushed or processed as a part of the mining operations, or the material may be furnished in two sizes of such gradation that when combined in the central mix plant the resultant mixture shall conform to the required Specifications. In addition, the aggregate shall be free from lumps and balls of clay, organic matter, objectionable coatings, and other foreign material and shall be durable and sound. The aggregate shall meet the applicable requirements of Section 815 – Graded Aggregate of the Department of Transportation, State of Georgia, Standard Specifications, Construction of Roads and Bridges, Current Edition.

The material shall meet the following gradation:

Sieve Size	Percent by Weight Passing
2"	100
1-1 ½"	95-100
1"	75-95
3/8"	40-75
#4	30-60
#10	20-45
#40	15-30
#200	5-20
Liquid Limit	0-25
Plasticity Index	0-6

PART 3 EXECUTION

3.1 SUBGRADE PREPARATION

- A. Verify subgrade has been inspected, is dry, and gradients and elevations are correct.
- B. The subgrade shall be leveled to the lines and grades of the plans and cleaned of all foreign substances prior to constructing the base course.
- C. Do not place base on soft, muddy or frozen surfaces.
- D. Correct irregularities in subgrade gradient and elevation by scarifying, reshaping, and re-compacting.
- E. Thorough compaction of the subgrade with appropriate equipment. In general the upper 12 inches of the subgrade should be compacted to at least 100% of AASHTO T-99 maximum dry density. Sheepsfoot rollers usually perform well in cohesive soils such as clays and silts. Vibratory rollers and pneumatic tired rollers can be used in cohesionless soils such as sands.
- F. The surface of the subgrade shall be checked by the Owner for adequate compaction and surface tolerances. Ruts or soft yielding spots that may appear in areas of the subgrade course having inadequate compaction, and areas not smooth or which vary in elevation more than 3/8-inch above or below the required grade established on the plans shall be corrected to the satisfaction of the Owner. Base material shall not be placed until subgrade has been properly prepared and test results have so indicated.

3.2 AGGREGATE PLACEMENT

- A. Aggregate shall be placed with an acceptable spreader in accordance with the Department of Transportation's, State of Georgia, Standard Specifications for Construction of Roads and Bridges, Current Edition, Section 300 and in accordance with all terms included in these specifications. (The spreader shall contain a hopper and adjustable screed and be so designed that there will be a uniform, steady flow of material from the hopper. The spreader shall be capable of laying material without segregation across the full width of the lane to a uniform thickness and to a uniform loose density.) Spreaders are not required on curb and gutter road sections.
- B. Level and contour surfaces to elevations and gradients indicated.

- C. Add small quantities of fine aggregate to coarse aggregate as appropriate to assist compaction.
- D. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.
- E. Use mechanical tamping equipment in areas inaccessible to compaction equipment.
- F. While at optimum moisture ($\pm 1 - \frac{1}{2} \%$), compact the base course with rollers capable of obtaining the required density. Vibratory, flat wheel, and other rollers accepted by the Owner may be used to obtain the required compaction. Rolling shall continue until the base is compacted to 95% of the maximum laboratory dry density as determined by ASTM D 1557 or AASHTO T 180. In-place density of the compacted base will be determined in accordance with ASTM D 1556 or ASTM D 2922.

3.3 TOLERANCES

- A. Flatness: Maximum variation of $\frac{1}{4}$ inch measured with an acceptable 10-foot straight edge.
- B. Scheduled Compacted Thickness: Within $\frac{3}{8}$ inch.
- C. Variation from Design Elevation: Within $\frac{3}{8}$ inch.
- D. Depth measurements for compacted thickness shall be made by test holes through the base course. Where the base course is deficient, correct such areas by scarifying, adding base material and recompacting as directed by the Owner. Measurements shall be made at staggered intervals not to exceed 250 feet for two-lane streets and roads.

END OF SECTION

SECTION 31 23 33

TRENCH EXCAVATION AND BACKFILL

PART 1 GENERAL

1.1 SCOPE

- A. The work under this section consists of furnishing all labor, equipment and materials and performing all operations in connection with the trench excavation and backfill required to install the site utilities, including all pipelines and conduits shown on the drawings and as specified.
- B. Site utility excavations shall include the removal of trees, stumps, brush, debris or other obstacles which remain after the clearing and grubbing operations, which may obstruct the work, and the excavation and removal of all earth, rock or other materials to the extent necessary to install the utility and appurtenances in conformance with the lines and grades shown on the Drawings and as specified.
- C. Site utility backfill shall include the refilling and compaction of the fill in the trenches and excavations up to the surrounding ground surface or road grade at crossing.

1.2 DEFINITIONS

- A. The trench is divided into five specific areas:
 - 1. **Foundation:** The area beneath the bedding sometimes referenced to as trench stabilization.
 - 2. **Bedding:** The area above the trench bottom (or foundation) and below the bottom of the utility.
 - 3. **Haunch:** The area above the bottom of the utility to a specified height along the utility.
 - 4. **Initial Backfill:** The area above the haunch and below an 18-inch plane above the top of the utility.
 - 5. **Final Backfill:** 18-inch plane over the top of the utility to the proposed grade (elevation).

1.3 REFERENCES

- A. ASTM D 698 – Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, current edition.
- B. ASTM D 1556 – Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method, current edition.
- C. ASTM D 2937 – Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method, current edition.

- D. ASTM D 2487 – Standard Classification of Soils for Engineering Purposes, current edition.
- E. ASTM D 2488 – Practice for Description and Identification of Soils (Visual-Manual Procedure), current edition.
- F. ASTM D 2922 – Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth), current edition.
- G. ASTM D 3017 – Standard Test Method Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth), current edition.

1.4 QUALITY ASSURANCE

- A. Density: Tests for compaction and density shall be conducted by an independent testing laboratory selected and paid for by the Contractor.
- B. The soils testing laboratory is responsible for the following:
 - 1. Field compaction testing shall be based on using the maximum dry density determined by the Standard Proctor Compaction Test in accordance with ASTM D-698.
 - 2. Maximum dry density for non-cohesive materials shall mean the maximum index density as determined by ASTM D 4253.
 - 3. Determination of in-place backfill density shall be done in accordance with ASTM D 1556, ASTM D 2937, or ASTM D 2922.
 - 4. Field density tests for each two feet of lift.
 - 5. Inspecting and testing stripped site, subgrades and proposed fill materials.
- C. Contractor is responsible for:
 - 1. Notifying laboratory of conditions requiring testing.
 - 2. Coordinating with laboratory for field testing.
 - 3. Providing representative fill soil samples to the laboratory for test purposes. Provide 50 pound samples of each fill soil.
- D. Sources and Evaluation Testing:
 - 1. Testing of materials to certify conformance with the Specifications shall be performed in accordance with Section 02300.

PART 2 PRODUCTS

2.1 TRENCH FOUNDATION MATERIALS

- A. Crushed stone shall be utilized as foundation materials should existing native materials not be acceptable to support the entire length of the pipe section.

Unless otherwise detailed, foundation materials shall have earth material trench foundations.

- B. Crushed stone shall conform to Georgia DOT Standard Specifications for Construction, 800.01, size No's. 78 and 57.

2.2 BEDDING AND HAUNCHING MATERIALS

- A. Unless detailed or specified otherwise, all bedding material shall be classified as SW or SP under the Unified Soil Classification System.
- B. For pressurized mains, earth materials utilized to bed and haunch shall be suitable materials selected from materials excavated from the trench. Suitable materials shall be clean and free of rock, organics, cinders, stumps, limbs, frozen earth or mud, man-made wastes and other unsuitable materials. Should the material excavated from the trench be saturated, the saturated material may be used for bedding and haunch material, provided it is allowed to dry properly and it is capable of meeting the specified compaction requirements. When necessary, earth bedding and haunch materials shall be moistened to facilitate compaction by tamping. If materials excavated from the trench are not suitable for use as bedding or haunch material, provide select material conforming to the requirements of this Section at no additional cost to the Owner.

2.3 INITIAL BACKFILL

- A. Initial backfill material shall be acceptable earth materials as detailed and specified herein.
- B. Earth materials utilized for initial backfill shall be suitable materials selected from materials excavated from the trench. Materials shall be clean and free of rock, organics, cinders, stumps, limbs, or frozen earth or mud, man-made wastes and other unsuitable materials for at least one foot above the top of the pipe. No stone larger than ¾-inches in its greatest dimension shall be used for backfill. Should the material excavated from the trench be saturated, the saturated material may be used for initial backfill, provided it is allowed to dry and it is capable of meeting the specified compaction requirements. When necessary, initial backfill materials shall be moistened to facilitate compaction by tamping. If materials excavated from the trench are not acceptable for use as initial backfill material, provide select material conforming to the requirements of this Section at no additional cost to the Owner.

2.4 FINAL BACKFILL

- A. Final backfill material shall be general excavated earth materials, shall not contain rock larger than 4-inches at its greatest diameter, cinders, stumps, limbs, man-made wastes. If materials excavated from the trench are not acceptable for use as final backfill material, provide select material conforming to the requirements of this Section at no additional cost to the Owner.

2.5 SELECT BACKFILL

- A. Select backfill shall be materials which meet the requirements as specified for bedding, haunch, initial backfill or final backfill materials, including compaction requirements.

- B. Use materials classified as GW, GP, GM, SW or SP under the Unified Soil Classification System.

2.6 CONCRETE

- A. Concrete for bedding, haunch, initial backfill or encasement shall have a minimum 3000psi compressive strength at 28 days.

PART 3 EXECUTION

3.1 GENERAL

- A. Conduct all construction operations in accordance with the U.S. "Occupational Safety and Health Act of 1970", the Standards of the U.S. Department of Labor, Occupational Safety and Health Administration and the latest amendments thereto.
- B. Protect structures, utilities, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by trenching operations.

3.2 PREPARATION

- A. Identify required lines and levels.
- B. Maintain benchmarks, other control points, existing structures, and paving. If disturbed or destroyed, re-establish at no additional cost to the Owner.
- C. Locate existing utilities and structures above or below ground before excavation starts.
- D. Maintain and protect existing utilities not designated for removal. When utilities are encountered but are not shown on the drawings, or when locations differ from those shown on the drawings, notify the Owner for instructions before proceeding.

3.3 TRENCH EXCAVATION

- A. Description: The trench shall be dug to the alignment and grade required and not to exceed 200 feet in advance of the pipe laying. The trench shall be braced if necessary and drained in order that workmen therein may work safely and efficiently. It is essential that the discharge from any pumps be led to natural drainage channels or to drains.
- B. Width: Minimum width of trench shall be six (6) inches from the outside of barrel of pipe on each side of pipe. Maximum width of trench shall be nine (9) inches from the outside of barrel of pipe on each side of pipe. Sides of trench shall be dug and maintained. Contractor shall adhere to all applicable requirements of OSHA for trench safety.
- C. Correcting Faulty Grade: Any part of the trench excavated below grade shall be corrected with acceptable material thoroughly compacted.

- D. Bell hole dimensions shall be dug in trenches at each joint to permit the joint to be made.
- E. Braced and Sheeted Trenches: Wherever necessary to prevent caving, excavations shall be sheeted and braced. Where sheeting and bracing are used, the trench width shall be increased accordingly. Trench sheeting shall remain in place until the pipe has been laid, tested for defects, and repaired if necessary, and the earth around it compacted to a depth of two feet over the top of the pipe.
- F. Trench Stabilization: Wherever the material at the bottom of the trench is not acceptable for installation of the pipe, it shall be removed and replaced with select material.
- G. When so directed by the Owner, undercut the trench and backfill with No. 57 stone meeting the requirements of GA D.O.T. Specification 800.01. Place and compact this material to bring the trench to the required grade.
- H. Pipe Alignment and Grade: The pipe shall be laid in the trench so that the interior surface of pipe shall conform accurately to the grades and alignments fixed and shown on the plans.
- I. Haunch Sewer Pipe: Haunch pipelines in accordance with detail drawing and the following specifications. Contractor shall pay close attention to the haunch procedures for all pipe installations.
- J. Bedding Sewer Pipe: Bed pipelines in accordance with the following specifications.
1. PVC Sewer: All bedding materials shall be crushed stone unless shown or specified otherwise. Crushed stone bedding materials shall meet the requirements of Georgia Department of Transportation Specification 800.01 for No. 78 stone.
 2. Ductile Iron Sewer: All bedding materials shall be crushed stone unless shown or specified otherwise. Crushed stone bedding material shall meet the requirements of Georgia Department of Transportation Specification 800.01 for No. 57 stone.
 3. Sewer Laterals: The bedding requirement for the laterals from the main sewer to the structure shall be the same as applicable to the main sewer.
 4. Manholes: All bedding materials shall be crushed stone unless shown or specified otherwise. Crushed stone bedding materials shall meet the requirements of Georgia Department of Transportation Specification 800.01 for No 57 stone.
 5. General: Compact stone bedding material by tamping or slicing with a flat-blade shovel. Prepare the trench bottom to support the pipe uniformly throughout its length. Provide bell holes to relieve pipe bells of all loads. If the trench is excavated to excessive width or depth, provide the next better class of bedding. In rock trenches, bed pipe in at least six inches of bedding material.
- K. Bedding Classifications: All gravity sanitary sewer installations shall conform to the following bedding classifications.

1. Ductile Iron Sewer: Lay all ductile iron pipe with Type "B" bedding unless otherwise specified. Bedding shall be prepared according to the following specifications.
 - a. Type "A": Excavate the trench to a depth of one-fourth the nominal diameter of the pipe below grade and lay the pipe to line and grade on concrete block. Place concrete, with a minimum compressive strength of 1500psi to the full width of the trench and to a height of one-fourth the outside diameter of the pipe above the invert.
 - b. Type "B": Excavate the bottom of the trench flat at a minimum depth shown on the Drawings below the bottom of the pipe barrel. The Contractor shall place and compact bedding material to the proper grade. Bedding shall then be carefully placed by hand and compacted to provide full support under and up to the centerline of the pipe.
 - c. Type "C": Excavate the bottom of the trench flat at a minimum depth shown on the Drawings, below the bottom of the pipe barrel. The Contractor shall place and compact bedding materials to the proper grade. Bedding shall then be carefully placed by hand and compacted to provide full support under and up to a height of one-fourth the outside diameter of the pipe invert.
2. PVC: Excavate the bottom of the trench flat at a minimum depth shown on the Drawings below the bottom of the pipe barrel. Place the compact bedding material to the proper grade. Bedding shall then be carefully placed by hand and compacted to provide full support under the pipe and up to 6" above the crown of the pipe.
3. Sewer Laterals: The bedding requirements for the laterals from the main sewer to the structure shall be the same as applicable to the main sewer and as explained above.
- L. Manholes: Excavate to a minimum of 12 inches below the planned elevation of the base of the manhole. The Contractor shall place and compact stone bedding material to the required grade before constructing the manhole.
- M. Compaction: Bedding under pipe and manholes shall be compacted to a minimum of 95 percent of the maximum dry density as determined by a Standard Proctor Compaction Test, ASTM D-698, current edition.
- N. Care of Surface Material for Reuse: If local conditions permit their reuse, all surface materials suitable for reuse in restoring the surface shall be kept separate from the general excavation material.
- O. Manner of Piling Excavated Materials: All excavated materials shall be piled so that it will not endanger the work and avoid obstructing roads and driveways. Drainage channels shall be kept clear or other satisfactory provisions made for drainage.

- P. Trenching by Machine or by Hand: The use of trench digging machinery will be permitted except in places where operation of same will cause damage to existing structures above or below the ground; in which case, hand methods shall be employed.
- Q. Remove topsoil or stone paving from trench lines and stockpile for later use over compacted backfill.
- R. Excavate trenches to the depth shown on the drawings.
- S. Accurately grade the trench bottom to provide uniform bearing for the utility.
- T. Trim and shape trench bottom and leave free of irregularities, lumps, and projections.
- U. Removal of materials beyond the indicated subgrade elevation without authorization by the Owner shall be classified as unauthorized excavation and shall be backfilled and compacted at no additional cost to the Owner.
- V. Remove water from the excavation continuously throughout the progress of the work and keep the excavation dry until the pipe installation and backfilling are completed.
- W. Where underground streams or springs are found, provide temporary drainage and notify the Owner.

3.4 INITIAL BACKFILL

- A. As soon as practicable after the completion of laying and jointing of the pipe, the trench shall be backfilled, and at no time shall the completed backfilled trench be more than 200 feet behind the pipe laying. Initial backfill shall be placed to anchor the pipe, protect the pipe from damage by subsequent backfill and ensure the uniform distribution of the loads over the top of the pipe.
- B. Place initial backfill material carefully around the pipe in uniform layers to a depth of at least 18-inches above the pipe. Layer depths shall be a maximum of 6-inches for pipe 18-inches in diameter and smaller and a maximum of 12-inches for pipe larger than 18-inches in diameter.
- C. Backfill on both sides of the pipe simultaneously to prevent side pressures.
- D. Compact each layer thoroughly with suitable hand tools or tamping equipment being careful not to damage the pipe. Any pipe that is damaged shall be replaced at the Contractor's expense.
- E. Initial backfill shall be compacted to a minimum 98 percent of the maximum dry density, unless shown or specified otherwise.
- F. For conduit and duct banks, place the first 12-inches of initial backfill materials as specified in this Section. The Contractor shall place the remaining backfill in 6-inch layers and compact with hand tools or tamping equipment.
- G. If materials excavated from the trench are not acceptable for use as backfill materials, provide select backfill material conforming to the requirements of this Section.

- H. Maintain optimum moisture content of backfill materials to attain required compaction density.
- I. Restore and compact stone paving disturbed by trenching activities.

3.5 CONCRETE ENCASEMENT FOR PIPELINES

- A. Where concrete encasement is shown on the Drawings for pipelines, excavate the trench to provide a minimum of 6-inches clearance from the bell of the pipe. Lay the pipe to line and grade on concrete blocks. In lieu of bedding, haunch and initial backfill, place concrete to the full width of the trench and to a height of not less than 6-inches above the pipe bell. Do not backfill the trench for a period of at least 24 hours after concrete is placed.

3.6 FINAL BACKFILL

- A. After initial backfill materials has been placed and compacted, backfill with final backfill material. Place backfill material in uniform layers and compact each layer thoroughly as follows:
 - 1. In 6-inch layers, if using light power tamping equipment, such as a 'jumping jack.'
 - 2. In 12-inch layers, if using heavy tamping equipment, such as hammer with tamping feet.
 - 3. In 24-inch layers, if using a hydra-hammer.
- B. Final backfill shall be compacted to a minimum 98 percent of the maximum dry density, unless specified otherwise.
- C. Backfill shall provide a finished grade at the elevations shown on the Drawings.
- D. The top materials layer shall be topsoil obtained as specified in Section 02300 of these Specifications.
- E. If materials excavated from the trench are not acceptable for use as final backfill material, provide select backfill material conforming to the requirements of this Section.
- F. Settlement: If trench settles, re-fill and grade the surface to conform to the adjacent surfaces.
- G. Top Surface of Backfilling: ± 1 inch from required elevations.

3.7 ADDITIONAL MATERIAL

- A. Where final grades above the pre-construction grades are required to maintain minimum cover, additional fill material will be as shown on the Drawings. Utilize excess material excavated from the trench, if the material is acceptable. If excess excavated materials are not acceptable, or if the quantity available is not sufficient, provide additional acceptable fill material at the Contractor's expense.

3.8 BACKFILL UNDER ROADS

- A. Compact backfill underlying within ten (10) feet of pavement and sidewalks, and backfill under dirt and gravel roads to a minimum 98 percent of the Standard Proctor maximum dry density (ASTM D 698).

3.9 FIELD QUALITY CONTROL

- A. Testing of Trench Backfill Material
 - 1. Compaction/Density tests: minimum of one test for every 100 linear foot of trench.
- B. Materials not meeting density specification requirement shall be scarified, re-compacted, and retested at the Contractor's expense.
- C. The Owner may require additional tests to establish gradation, maximum density, and in-place density as working conditions dictate, at the Contractor's expense.

3.10 DETECTION TAPE

- A. Where required, detection tape shall be buried 4 to 10-inches beneath the ground surface directly over the top of the utility. Should detection tape need to be installed deeper, the Contractor shall provide 3-inch wide tape. In no case shall detection tape be buried greater than 20-inches from the finished grade surface.

END SECTION

SECTION 32 11 00

GRADED AGGREGATE BASE COURSE

PART 1 GENERAL

1.1 SCOPE

- A. This section specifies requirements for furnishing materials and constructing a quality controlled graded aggregate base course on a compacted subgrade, for flexible pavements.
- B. Contractor shall provide all service, labor, materials, and equipment required for the aggregate base course necessary to complete the work as shown on the drawings or specified in these specifications, or as determined in the field jointly by the Contractor and Owner.

1.2 RELATED SECTIONS

- A. Section 31 11 00 – Clearing & Grubbing
- B. Section 32 12 16 – Asphalt Concrete Paving

1.3 REFERENCES

- A. AASHTO Specifications:
 - 1. AASHTO T 96-91 – Resistance to Abrasion of Small Size Coarse Aggregate by Use of Los Angeles Machine.
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- A. Perform all work in accordance with the Department of Transportation, State of Georgia, Standard Specifications, current edition.

1.5 SUBMITTALS

- A. Provide certificates stating that materials supplied comply with Specifications. Certificates shall be signed by the producer and the Contractor.

1.6 CONDITIONS

- A. Weather Limitations
 1. Do not conduct base placement operations when surface is wet, frozen or contains excess of moisture which would prevent uniform distribution and required penetration.
 2. Place base course when air temperature is above 35 degrees F and rising. No base course shall be placed on a frozen or muddy subgrade.
- B. Grade Control: Establish and maintain the required lines and grades for each course during construction operations.

1.7 INSPECTION AND TESTING

- A. Testing laboratory shall operate in accordance to ASTM D 3740 and E 329 and

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shall be accepted by the Owner.

- B. The testing laboratory and Owner shall be given a minimum of 48 hours notice prior to taking any of the tests.
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- D. Test results shall be furnished to the Owner in a timely manner.
- E. The testing agency shall test in-place courses for compliance with specified compaction, thickness and surface smoothness requirements.
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- G. Base Thickness: Inspect the cores of the base course to determine the average thickness of the course. If the average thickness exceeds the allowable variation below, additional cores shall be made at the Contractor's expense to determine the area of deficient thickness. The deficient area shall be corrected by overlay with the same type base.
 - 1. Base Course Tolerance: +/- 1/2-inch
- H. Surface Smoothness: Test finished surface of the base course for smoothness using a 10 foot straight edge. Intervals of tests shall be as directed by the Owner. Surfaces will not be acceptable if the base course exceeds 1/4-inch in 10 feet.
- I. Compacted base layer shall be tested before asphalt paving construction work is performed.
- J. Contractor's Duties Relative to Testing
 - 1. Notify laboratory of conditions requiring testing.
 - 2. Coordinate with laboratory for field testing.

3. Pay costs for all retesting where initial tests reveal non-conformance with specified requirements.

PART 2 PRODUCTS

2.1 MATERIALS

- A. **Coarse Aggregate:** Aggregate retained on the No. 4 sieve shall consist of durable, angular fragments of gravel or crushed stone obtained from an approved quarry, and shall be capable of withstanding the effects of handling, spreading, and compaction with minimum degradation.
- B. **Fine Aggregate:** Material passing the No. 4 sieve shall consist essentially of particles produced from the crushing of coarse aggregate at the approved source. Other types of fine aggregate, if permitted for use, shall meet the Georgia Department of Transportation's requirements.
- C. **Grading:** The Graded Aggregate Base Course material shall be of uniform quality throughout. The graded aggregate may be produced from an approved source or deposit which will yield a satisfactory mixture conforming to all requirements of these Specifications after it has been crushed or processed as a part of the mining operations, or the material may be furnished in two sizes of such gradation that when combined in the central mix plant the resultant mixture shall conform to the required Specifications. In addition, the aggregate shall be free from lumps and balls of clay, organic matter, objectionable coatings, and other foreign material and shall be durable and sound. The aggregate shall meet the applicable requirements of Section 815 – Graded Aggregate of the Department of Transportation, State of Georgia, Standard Specifications, Construction of Roads and Bridges, Current Edition.

The material shall meet the following gradation:

Sieve Size	Percent by Weight Passing
2"	100
1-1 ½"	95-100
1"	75-95
3/8"	40-75
#4	30-60
#10	20-45
#40	15-30
#200	5-20
Liquid Limit	0-25
Plasticity Index	0-6

PART 3 EXECUTION

3.1 SUBGRADE PREPARATION

- A. Verify subgrade has been inspected, is dry, and gradients and elevations are correct.
- B. The subgrade shall be leveled to the lines and grades of the plans and cleaned of all foreign substances prior to constructing the base course.
- C. Do not place base on soft, muddy or frozen surfaces.
- D. Correct irregularities in subgrade gradient and elevation by scarifying, reshaping, and re-compacting.
- E. Thorough compaction of the subgrade with appropriate equipment. In general the upper 12 inches of the subgrade should be compacted to at least 100% of AASHTO T-99 maximum dry density. Sheepsfoot rollers usually perform well in cohesive soils such as clays and silts. Vibratory rollers and pneumatic tired rollers can be used in cohesionless soils such as sands.
- F. The surface of the subgrade shall be checked by the Owner for adequate compaction and surface tolerances. Ruts or soft yielding spots that may appear in areas of the subgrade course having inadequate compaction, and areas not smooth or which vary in elevation more than 3/8-inch above or below the required grade established on the plans shall be corrected to the satisfaction of the Owner. Base material shall not be placed until subgrade has been properly prepared and test results have so indicated.

3.2 AGGREGATE PLACEMENT

- A. Aggregate shall be placed with an acceptable spreader in accordance with the Department of Transportation's, State of Georgia, Standard Specifications for Construction of Roads and Bridges, Current Edition, Section 300 and in accordance with all terms included in these specifications. (The spreader shall contain a hopper and adjustable screed and be so designed that there will be a uniform, steady flow of material from the hopper. The spreader shall be capable of laying material without segregation across the full width of the lane to a uniform thickness and to a uniform loose density.) Spreaders are not required on curb and gutter road sections.
- B. Level and contour surfaces to elevations and gradients indicated.

- C. Add small quantities of fine aggregate to coarse aggregate as appropriate to assist compaction.
- D. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.
- E. Use mechanical tamping equipment in areas inaccessible to compaction equipment.
- F. While at optimum moisture ($\pm 1 - \frac{1}{2} \%$), compact the base course with rollers capable of obtaining the required density. Vibratory, flat wheel, and other rollers accepted by the Owner may be used to obtain the required compaction. Rolling shall continue until the base is compacted to 95% of the maximum laboratory dry density as determined by ASTM D 1557 or AASHTO T 180. In-place density of the compacted base will be determined in accordance with ASTM D 1556 or ASTM D 2922.

3.3 TOLERANCES

- A. Flatness: Maximum variation of $\frac{1}{4}$ inch measured with an acceptable 10-foot straight edge.
- B. Scheduled Compacted Thickness: Within $\frac{3}{8}$ inch.
- C. Variation from Design Elevation: Within $\frac{3}{8}$ inch.
- D. Depth measurements for compacted thickness shall be made by test holes through the base course. Where the base course is deficient, correct such areas by scarifying, adding base material and recompacting as directed by the Owner. Measurements shall be made at staggered intervals not to exceed 250 feet for two-lane streets and roads.

END OF SECTION

SECTION 32 12 16

ASPHALT CONCRETE PAVING

PART 1 GENERAL

1.1 SCOPE

- A. This section covers the general requirements for furnishing materials, labor, and equipment for installing asphalt concrete paving. The limits for the asphalt concrete paving are as shown on the construction plans or as denoted in these specifications.

1.2 RELATED SECTIONS

- A. Section 31 00 00 – Earthwork
- B. Section 32 11 00 – Graded Aggregate Base Course

1.3 REFERENCES

- A. ASTM Specifications:
 - 1. ASTM D 946-82 – Penetration-Graded Asphalt-Cement for Use in Pavement Construction.
 - 2. ASTM E 329-93b – Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.
 - 3. ASTM D 3740-94 – Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock Used in Engineering Design and Construction.
 - 4. ASTM D 2726-93 – Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Saturated Surface-Dry Specimens.
 - 5. ASTM D 2950-91 – Density of Bituminous Concrete in Place by Nuclear Methods.
 - 6. ASTM D-1188-89 – Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Paraffin-Coated Specimens.
- B. AASHTO Guidelines:
 - 1. AASHTO-T 245-91 – Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus.
 - 2. AASHTO-T 179-88 – Effect of Heat and Air on Asphalt Materials (Thin-film Oven Test).

1.4 REGULATORY REQUIREMENTS

- A. Perform work in accordance with Georgia Department of Transportation Standard Specifications for Construction of Transportation Systems, current edition, Section 400.
- B. Mixing Plan shall conform to Georgia Department of Transportation Standard Specifications, current edition, and regularly engage in the production of hot-mix, hot-laid asphalt concrete.

1.5 TESTING & INSPECTION

- A. Testing laboratory shall operate in accordance to ASTM D 3740 and E 329 and shall be accepted by the Owner.
- B. The testing laboratory and Owner shall be given a minimum of 48 hours notice prior to taking any of the tests.
- C. Testing shall be the responsibility of the Contractor and shall be performed at the Contractor's expense by a commercial testing laboratory that operates in accordance with 1.5.A above.
- D. Test results shall be furnished to the Owner in duplicate in a timely manner.
- E. The testing agency shall take one 4-inch diameter core per 1,100 square yards of paved surface at locations selected by the Owner for density and thickness test. Contractor shall repair holes resulting from coring to match existing paving.
- F. Compaction
 - 1. Asphaltic Concrete: Compare density of in-place material against laboratory specimen of same mixture. Minimum acceptable density of in-place material shall be 94 percent of the calculated voidless density based upon the effective specific gravity of the aggregate used. It is intended that acceptance density testing will be accomplished while the bituminous mixture is hot enough to permit further densification if such is shown to be necessary. If the density does not conform to the requirements stated herein above, the Contractor shall continue compaction effort until the required density is obtained.
- G. Pavement Thickness: Inspect the cores of the base and surface course to determine the average thickness of the course. If the average thickness exceeds the allowable variation below, additional cores shall be made at the Contractor's expense to determine the area of deficient thickness. The deficient area shall be corrected by overlay with the same type mix to the limits as determined by the Owner.
 - 1. Base Course Tolerance: +1/2-inch.
 - 2. Surface Course Tolerance: +1/4-inch.

- H. Surface Smoothness: Test finished surface of each asphalt course for smoothness using a 10 foot straightedge. Intervals of tests shall be as directed by the Owner. Surfaces will not be acceptable if exceeding the following:
1. Base Course Tolerance: 1/4-inch in 10 feet.
 2. Surface Course Tolerance: 1/8-inch in 10 feet.
- I. Contractor's Duties Relative to Testing
1. Notify laboratory of conditions requiring testing.
 2. Coordinate with laboratory for field testing.
 3. Pay all costs for re-testing where initial tests reveal non-conformance with specified requirements.
 4. Paying the cost of overlays or pavement removal and replacement which does not comply with the specified testing limits.

1.6 WEATHER CONDITIONS

- A. Do not place asphalt mixture when ambient air temperature is less than that indicated in the Table below.

Lift Thickness	Min. Air Temperature, Degrees F.
1" or less	55
1.1" to 2"	45
2.1" to 3"	35
3.1" to 4"	30
4.1" to 8"	Contractor's Discretion

- B. Mixture shall be delivered to the spreader at a temperature between 250 degrees F and 325 degrees F. Place mixture when temperature of the mixture is not more than 15 degrees F below bitumen supplier's bill of lading and not more than the maximum specified temperature.
- C. Do not mix or place asphalt concrete when the existing surface is wet or frozen.
- D. Apply bituminous prime and tack coats only when the ambient temperature in the shade is at least 40 degrees F.
- E. Place base course when air temperature is above 35 degrees F and rising. No base course shall be placed on a frozen or muddy subgrade.

1.7 SUBMITTALS

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- A. Certificates: Provide certificates stating that materials supplied comply with Specifications. Certificates shall be signed by the asphalt producer and the Contractor.
- B. Mix Design: Submit mix design for each course to the Owner for acceptance.
- C. Asphalt spreader equipment shall be approved by the Owner. Submit design and operational data.
- D. Traffic paint manufacturer's application instructions and a description and other data relative to the Contractor's application equipment and methods shall be submitted to the Owner for approval.

PART 2 PRODUCTS

2.1 PRIME COAT

- A. Material: Shall consist of preparing and spraying the base course surface with low viscosity liquid asphalt such as MC-30 and RC-30, which is known as a Cut-Back Asphalt, and allowing the asphalt to penetrate as far as possible.
- B. The asphalt shall conform to Section 412 –Bituminous Prime of the Department of Transportation, State of Georgia, Standard Specifications, current edition.

2.2 TACK COAT

- A. Material: Shall be AC-20 or AC-30, asphalt cement, conforming to Section 413 – Bituminous Tack Coat and Section 820 – Asphalt Cement of the Department of Transportation, State of Georgia, Standard Specifications, current edition. When the temperature in the shade exceeds 70° F, an emulsion such as CRS-2h or CRS-3 may be used.

2.3 ASPHALT CEMENT AND ADDITIVES

- A. Asphalt Cement: Shall conform to the requirements of Section 820.1 – Asphalt Cement of the Department of Transportation, State of Georgia, Standard Specifications, current edition. The material shall be AC-30 with the exception that AC-20 having a penetration at 77°F not exceeding 80 and an initial viscosity at 77°F not less than 25 million poises may be used in lieu of AC-30. The loss on heating from the Thin-Film Oven Test shall not exceed 0.75%.
- B. Anti-Stripping: Shall conform to the requirements of Section 831.04 – Heat Stable Anti-Stripping Additive of the Department of Transportation, State of Georgia, Standard Specifications, current edition.

2.4 AGGREGATES

- A. General: Mineral aggregate shall be composed of fine aggregate or a combination of fine and coarse aggregate. Coarse aggregate shall be that portion of the material retained on a No.8 Sieve.
- B. Fine aggregate shall be considered that portion passing the No. 8 Sieve. Fine aggregate, coarse aggregate, and any additives in combination with the specified percentage of asphalt cement shall meet the requirements of test specified, before approval may be given for their individual use.
- C. Fine aggregate: Shall conform to the requirements of Section 802.01 – Fine Aggregate for Asphaltic Concrete of the Department of Transportation, State of Georgia, Standard Specifications, current edition.
- D. Coarse aggregate: Shall conform to the requirements of Section 802.02 – Coarse Aggregate for Asphaltic Concrete of the Department of Transportation, State of Georgia, Standard Specifications, current edition.
- E. Surface Coarse: The surface coarse shall consist of fine and coarse aggregate and mineral filler uniformly mixed with hot asphalt cement in an approved mixing plant. It shall also conform to the requirements of Section 828 of the DOT, State of Georgia, Standard Specifications, current edition. The gradations, asphalt content and stabilities shall be the following:

Square Sieve	Percent Passing
$\frac{3}{4}"$	100
$\frac{1}{2}"$	85-100
$\frac{3}{8}"$	70-85
No. 8	44-48
No. 50	13-22
No. 200	4-7
Percent Asphalt	5.0-7.0
Marshall Stability @ 50 Blows (Design)	1500
Air Voids, % (Design)	4.5±0.5

- F. Intermediate or Binder Course: The Binder Course shall conform to the requirements of Section 828 of the DOT, State of Georgia, Standard Specifications, current edition. The mineral aggregates and asphalt cement shall be combined in such proportions that the composition by weight of the finished mixture shall be within the following range limits:

2.5 SOURCE QUALITY CONTROL

- A. Submit proposed mix design for review prior to beginning work.
- B. Test samples in accordance with the requirements of these specifications.

PART 3 EXECUTION

3.1 EXAMINATION

- A. ON-SITE OBSERVATIONS: The Owner will have the right to require that any portion of the work to be done in his presence and if the work is covered up after such instruction, it shall be exposed by the Contractor for observation at no additional cost to the Owner. However, if the Contractor notifies the Owner that such work is scheduled, and the Owner fails to appear within 48 hours, the Contractor may proceed without him. All work done and materials furnished shall be subject to review by the Owner. Improper work shall be reconstructed, and all materials, which do not conform to the requirements of the specifications, shall be removed from the work upon notice being received from the Owner for the rejection of such materials. The Owner shall have the right to mark rejected materials so as to distinguish them as such.
- B. Contractor verify that base has been inspected, is dry, and gradients and elevations are correct.

3.2 PREPARATION

- A. Apply prime coat in accordance with Section 412-Bituminous Prime of the Department of Transportation, State of Georgia, Standard Specifications, current edition. Rate of application shall be 0.20 gallons per square yard. All irregularities in the base course surface shall be corrected prior to application of the prime coat.
- B. Do not apply prime to a wet surface when the temperature is below 40°F in the shade. Do not apply prime when rain threatens nor when weather conditions prevent proper construction of prime coat.
- C. Apply tack coat in accordance with Section 413 – Bituminous Tack Coat of the Department of Transportation, State of Georgia, Standard Specifications, current edition. Rate of application shall be 0.06 gallons per square yard of surface.
- D. Work shall be planned so that no more tack coat than is necessary for the day's operation is placed on the surface. All traffic not essential to the work should be kept off the tack coat.
- E. Apply tack coat to contact surfaces of curbs and gutters. Apply in manner so exposed curb or gutter surfaces are not stained.
- F. Coat surfaces of manhole frames and inlets frames with oil to prevent bond with asphalt pavement. Do not tack coat these surfaces.
- G. Before beginning the application of the hot mix asphaltic concrete pavement, the existing surface shall be cleaned to the satisfaction of the Owner.

- H. Patching and Repair of Minor Defects: All potholes and broken areas in the existing surface and base, which require patching as directed by the Owner, shall be corrected prior to placing any leveling course. Areas to be patched shall be cut out, trimmed to vertical sides, and all loose material removed. It shall then be cleaned, primed, and tack coated.

3.3 EQUIPMENT

- A. Provide size and quantity of equipment to complete the work specified within the Project time schedule.
- B. Bituminous pavers shall be self-propelled, steel-wheeled and pneumatic-tired rollers that can reverse direction without backlash.
- C. Rolling equipment shall be self-propelled, steel-wheeled and pneumatic-tired rollers that can reverse direction without backlash.
- D. Provide rakes, lutes, shovels, tampers, smoothing irons, pavement cutters, portable heaters, and other miscellaneous small tools to complete the work specified.

3.1 PLACEMENT

- A. Construction shall be in accordance with Section 400 – Hot Mix Asphaltic Concrete Surface Construction of the Department of Transportation, State of Georgia, Standard Specifications, current edition.
- B. Place asphalt concrete mix on prepared surface, spread and strike-off using paving machine.
- C. Asphaltic concrete shall not be placed on a surface that is wet or frozen.
- D. Inaccessible and small areas may be placed by hand.
- E. Compaction shall commence as soon as possible after the mixture has been spread to the desired thickness. Compaction shall be continuous and uniform over the entire surface. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks. Compaction rolling shall be complete before material temperature drops below 185° F.
- F. Machine Placing
 - 1. Unless otherwise directed, begin placing along centerline of areas to be paved on crowned section, and at high side of sections on one way slope, and direction of traffic flow.
 - 2. After first strip has been placed and rolled, place succeeding strips and extend

rolling to overlap previous strips.

3. Complete base courses for a section before placing surface courses.
4. Place mixture in as continuous an operation as practical.

G. Hand Placing

1. Spread, tamp, and finish mixture using hand tools in areas where machine spreading is not possible.
2. Place mixture at a rate that will ensure handling and compaction before mixture becomes cooler than acceptable working temperature.

H. Joints

1. Make joints between old and new pavements, or between successive days work, to ensure a continuous bond between adjoining work.
2. Construct joints to have same texture, density and smoothness as adjacent sections of asphalt concrete course.
3. Clean contact surfaces free of sand, dirt, or other objectionable material and apply tack coat.
4. Offset transverse joints in succeeding courses not less than 24-inches.
5. Cut back edge of previously placed course to expose an even, vertical surface for full course thickness.
6. Offset longitudinal joints in succeeding courses not less than 6-inches.
7. When the edges of longitudinal joints are irregular, honeycombed, or inadequately compacted, cut back unsatisfactory sections to expose an even, vertical surface for full course thickness.

- I. Areas of pavement with deficient thickness or density shall be removed and replaced at no additional cost to the Owner.

3.5 ASPHALTIC CONCRETE COMPACTION

- A. Provide sufficient rollers to obtain the required pavement density.
- B. Begin rolling operations as soon after placing as the mixture will bear weight of roller without excessive displacement.

- C. Do not permit heavy equipment, including rollers to stand on finished surface before it has thoroughly cooled or set.
- D. Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.
- E. Start rolling longitudinally at extreme lower side of sections and proceed toward center of pavement. Roll to slightly different lengths on alternate roller runs.
- F. Do not roll centers of sections first under any circumstances.
- G. Breakdown Rolling
 - 1. Accomplish breakdown or initial rolling immediately following rolling of transverse and longitudinal joints and outside edge.
 - 2. Operate rollers as close as possible to paver without causing pavement displacement.
 - 3. Check crown, grade, and smoothness after breakdown rolling. Repair displaced areas by loosening and filling, if required, with hot material.
- H. Second Rolling
 - 1. Follow breakdown rolling as soon as possible, while mixture is hot and in condition for compaction.
 - 2. Continue second rolling until mixture has been thoroughly compacted.
- I. Finish Rolling
 - 1. Perform finish rolling while mixture is still warm enough for removal of roller marks.
 - 2. Continue rolling until roller marks are eliminated and course has attained specified density.
- J. Patching
 - 1. Remove and replace defective areas.
 - 2. Cut-out and fill with fresh, hot asphalt concrete.
 - 3. Compact by rolling to specified surface density and smoothness.
 - 4. Remove deficient areas for full depth of course.

5. Cut sides perpendicular and parallel to direction of traffic with edges vertical.
6. Apply tack coat to exposed surfaces before placing new asphalt concrete mixture.

3.6 CLEANING AND PROTECTION

- A. Cleaning: After completion of paving operations, clean surfaces of excess or spilled asphalt materials.
- B. Protection
 1. After final rolling, do not permit vehicular traffic on asphalt concrete pavement until it has cooled and hardened and in no case no sooner than six hours.
 2. Provide barricades and warning devices as required to protect pavement and the general public until mixture has cooled enough to become marked.
- C. Maintenance: The Contractor shall maintain the surfaces of pavements until the acceptance of the Project. Maintenance shall include replacement, overlay, milling and reshaping as necessary to prevent raveling of the road material, the preservation of smooth surfaces and the repair of damaged or unsatisfactory surfaces.

3.6 TOLERANCES

- A. General: All paving shall be subject to visual and straightedge inspection during construction operations and thereafter prior to final acceptance. A 10 foot straightedge shall be maintained in the vicinity of the paving operation at all times for the purpose of measuring surface irregularities on all paving courses. The straightedge and labor for its use shall be provided by the Contractor. The surface of all courses shall be inspected with the straightedge as necessary to detect surface irregularities. Irregularities such as rippling, tearing, or pulling, which in the judgment of the Owner indicate a continuing problem in equipment, mixture or operation technique, will not be permitted to recur. The paving operation shall be stopped until appropriate steps are taken by the Contractor to correct the problem.
- B. Flatness: All irregularities in excess of $\frac{1}{8}$ " in 10' for surface courses and $\frac{3}{16}$ " in 10' for intermediate courses shall be corrected.
- C. Variation from Design Elevation: Less than $\frac{1}{4}$ ".
- D. Scheduled Compaction Thickness: Less than $\frac{1}{4}$ " under tolerance.
- E. Pavement Deficient in Thickness: When measurement of any core indicates that the pavement is deficient in thickness, additional cores will be drilled 10' either side of the deficient core along the centerline of the land until the cores indicate that the thickness conforms to the above specified requirements. A core indicating thickness deficiencies is

considered a failed test. Pavement deficient in thickness shall be removed and replaced with the appropriate thickness of materials. If the Contractor believes that the cores and measurements taken are not sufficient to indicate fairly the actual thickness of the pavement, additional cores and measurements will be taken, provided the Contractor will bear the extra cost of drilling the cores and filling the holes in the roadway as directed.

3.7 FIELD QUALITY CONTROL

- A. Quality acceptance of the in-place density of the surface course shall be in accordance with Section 400.05 – Construction, subparagraphs F and G of the Department of Transportation, State of Georgia, Standard Specifications, current edition.
- B. Density Testing: Performed in accordance with ASTM D 2726 and ASTM D 2950. Core samples for each day's operation shall be taken, tested, and the results reported to the Owner the following day. The areas sampled shall be properly restored by the Contractor at no additional cost to the Owner. Compaction must be accomplished when the temperature of the mix is above 185° F and below 300° F. When the density of the compacted course is less than 96% or more than 100% of the maximum laboratory density, the course will be rejected.
- C. Temperature:
 - 1. Asphaltic concrete shall not exceed 325° F at any time.
 - 2. Temperature at time of loading shall be recorded on the truck delivery ticket.
- D. Frequency of Test:
 - 1. Asphaltic Concrete – One (1) test for each 250 tons placed.
 - a. Asphalt extraction and gradation test.
 - b. Marshal Stability Test.
 - c. Core Sample.
 - 1. Field determination of density by the nuclear method every 5,000 square feet during construction of the base course.

END SECTION

SECTION 32 16 00

CONCRETE CURB & GUTTER AND SIDEWALK

PART 1 GENERAL

1.1 SCOPE

- A. The work included in this section includes furnishing all materials, equipment, and labor necessary to construct Portland Cement Concrete curb and gutter and sidewalk as shown on the construction plans.

1.2 RELATED SECTIONS

- A. Section 32 11 00 – Graded Aggregate Base Course

1.3 REFERENCES

A. ACI Code:

1. ACI 301 – Specifications for Concrete Buildings.
2. ACI 304 – Recommended Practice for Measuring, Measuring, Mixing, Transporting, and Placing Concrete.

B. ASTM Specifications:

1. ASTM A 185-94 – Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.
2. ASTM A 497-94 – Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement.
3. ASTM A 615-95 – Deformed and Plain Billet-Street Bars for Concrete Reinforcement.
4. ASTM C 33-93 – Concrete Aggregates.
5. ASTM C 39-94 – Compressive Strength of Cylindrical Concrete Specimens
6. ASTM C 94-94 – Ready-Mixed Concrete.
7. ASTM C 150-05 – Portland Cement
8. ASTM C 260-94 – Air – Entraining Admixtures for Concrete.
9. ASTM C 309-94 – Liquid Membrane – Forming Compounds for Curing Concrete.
10. ASTM C 494-92 – Chemical Admixtures for Concrete
11. ASTM D 1751-83 (1991) – Preformed Expansion Joint Filler for Concrete Paving and Structures Construction. (Nonextruding and Resilient Bituminous Type).
12. ASTM D 1752-84 (1992) – Performed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
13. ASTM D 3740-94 – Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
14. ASTM E 329-93 – Agencies Engaged in the Testing and/or Inspection of Materials used in construction.

1.4 REGULATORY REQUIREMENTS

- A. Perform work in accordance with State of Georgia Department of Transportation, Standard Specifications, Current Edition.

- B. Conform to applicable standards for paving work on public property.

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1.5 TESTING

- A. Testing laboratory shall operate in accordance to ASTM D 3740 and E 329 and shall be accepted by the Owner.
- B. The testing laboratory and Owner shall be given a minimum of 48 hours notice prior to taking any of the tests.
- C. Testing shall be the responsibility of the Contractor and shall be performed at the Contractor's expense by a commercial testing laboratory that operates in accordance with 1.4.A above.
- D. The Contractor shall submit for review a design mix for "Class A" concrete proposed for use. The mix shall be prepared by an approved testing laboratory. Compressive strength of at least four (4) specimens of the design mix shall indicate 15% higher than 28 days strengths specified. During the work, the Contractor shall make 3 test cylinders for each 75 cubic yards, or fraction thereof, of concrete placed each day. One cylinder shall be tested at 7 days and the other two at 28 days in accordance with ASTM C-39. Copies of all test reports shall be furnished to the Owner.

1.6 SUBMITTALS

- A. Product Data: Provide data on joint filler, admixtures, and curing compounds.
- B. Concrete Mix Design.

1.7 WEATHER CONDITIONS

- A. Do not place concrete when base surface temperature is less than 40° F, or surface is wet or frozen.

PART 2 PRODUCTS

2.1 FORM MATERIALS

- A. Shall conform to ACI 301.
- B. Shall be wood, plywood, metal or other accepted material and shall be of the grade or type suitable to obtain the finish specified. The material should be of size and strength to resist movement during concrete placement and to retain horizontal and vertical alignment until removed. Use straight forms, free of distortion and defects.

- C. Use flexible spring steel forms or laminated boards to form radius bends as required.
- D. Form Ties: Removable or snap-off type, galvanized metal, adjustable length, free of defects that could leave holes larger than 1-inch in concrete surface.
- E. Form Release Agent: Colorless mineral oil, which will not stain concrete, or absorb moisture, or impair natural bonding or color characteristics of coating intended for use on concrete.

2.2 REINFORCING STEEL

- A. Reinforcing Steel: ASTM A 615, Grade 60 billet steel deformed bars; uncoated finish.
- B. Welded Steel Wire Fabric: Plain type, ASTM A-185; uncoated finish.
- C. When specifically called for on the plans, reinforcing bars shall be epoxy-coated in accordance with ASTM A-775.

2.3 CONCRETE MATERIALS

- A. Design mix to produce normal weight concrete consisting of Portland cement, aggregate, air-entrained admixture and water.
- B. Fine and Coarse Mix Aggregates: ASSTM C33.
- C. Water: Potable, not detrimental to concrete
- D. Air Entrainment: ASTM C260.

2.4 JOINT SEALERS

- A. Joint Fillers: ASTM D1751 Asphalt impregnated fiberboard or felt, tongue and groove profile.
- B. Sealant: Joints shall be sealed per detail on project drawings. ASTM C 920-94, Type S or M, Grade P or NS, Class 25.

2.5 CONCRETE MIX-BY PERFORMANCE CRITERIA

- A. Concrete mixed at the job site shall be mixed in a batch mixer in accordance with American Concrete Institution Standard A.C.I. 318, and in a similar manner subject to acceptance. Ready-mixed concrete shall conform to A.S.T.M. Standard C-94. Mixing time for stationary mixers over 1 cubic yard in capacity shall be increased 15 seconds for each additional ½ cubic yard or fraction thereof materials mixed. Construction shall be in accordance with applicable portions of "Building Code Requirements for Concrete" (A.C.I. – 318).
- B. Provide concrete to the following criteria:
1. Flexible Strength: 700 psi
 2. Compressive Strength: 4,000 psi @ 28 days.
 3. Slump: 3 inches.
 4. Air Content: 5% to 8%
 5. Welded Wire Mesh (WWM): Welded plain cold-drawn steel wire fabric, ASTM A-185. Furnish in flat sheets.
 6. Fibermesh reinforced concrete shall be concrete with polypropylene, collated, fibrillated fibers meeting the requirements of ASTM C 1116. Provide 1.5 pounds of 1-1/2" fibers per cubic yard of concrete.
- C. Use accelerating admixtures in cold weather only when approved by Owner. Use of admixtures will not relax cold weather placement requirements.
- D. Use calcium chloride only when approved by Owner.
- E. Use set retarding admixtures during hot weather only when approved by Owner.

2.6 SOURCE QUALITY CONTROL AND TEST

- A. All sampling and testing services shall be performed at the Contractor's expense, by a testing laboratory which operates in accordance with ASTM D 3740 and E 329 latest edition and accepted by the Engineer.
- B. The Contractor shall submit for review a design mix for each class of concrete proposed for use. The mix shall be prepared by an approved testing laboratory. Compressive strength of a least four specimens of the design mix shall indicate 15% higher than 28 days strength specified. During the work, the Contractor shall make 3 test cylinders for each 30 cubic yards, or fraction thereof, of concrete placed each day. One cylinder shall be tested a 7 days and the other two at 28 days in accordance with ASTM C 39. Copies of all test reports shall be furnished to the Owner in duplicate.

PART 3 EXECUTION

3.1 CONSTRUCTION OBSERVATION

- A. Verify compacted subgrade & granular base are acceptable and ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.
- C. The Owner will have the right to require that any portion of the work the done in his presence and if the work is covered up after such instruction, it shall be exposed by the Contractor for observation. However, if the Contractor notifies the Owner that such work is scheduled, and the Owner fails to appear within 48 hours, the Contractor may proceed without him. All work done and materials furnished shall be subject to review by the Owner. Improper work shall be reconstructed. All materials, which do not conform to the requirements of the specifications, shall be removed from the work upon notice being received from the Owner for the rejection of such materials. The Owner shall have the right to mark rejected materials so as to distinguish them as such.

3.2 SUBBASE

- A. Prepare subbase in accordance with Section 300 – Standard Specifications for Base and Subbase Courses, Department of Transportation, State of Georgia, current edition.
- B. Remove loose material from compacted subbase surface immediately before placing concrete.
- C. Proof-roll prepared subbase surface to check for unstable areas and need for additional compaction. Do not begin paving work until such conditions have been corrected and area is ready to receive paving.

3.3 PREPARATION FOR PLACEMENT

- A. Water shall be removed from excavations before concrete is deposited. Hardened concrete debris and other foreign materials shall be removed from the interior of forms and from the inside of mixing and conveying equipment. The reinforcement shall be made secure in position and shall be subject to examination and acceptance.
- B. Moisten base to minimize absorption of water from fresh concrete.
- C. Notify Owner minimum 48 hours prior to commencement of concreting operations.

3.4 FORMING

- A. Place and secure forms to correct location, dimension, profile, and gradient.
- B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.
- C. Place joint filler in position, in straight lines. Secure to formwork during concrete placement.
- D. Forms shall be constructed to the shape, form line, and grade required and shall be maintained sufficiently rigid to prevent deformation under load. Formwork and details of construction shall conform to ACI-318, Chapter 6.
- E. Check completed formwork for grade and alignment to following tolerances:
 - 1. Top of forms shall not be more than 1/8" in 10'.
 - 2. Vertical face on longitudinal axis shall not be more than 1/4" in 10'.

3.5 REINFORCING

- A. Place Reinforcement as indicated.
- B. Interrupt reinforcement at expansion joints.

3.6 PLACING CONCRETE

- A. Placing of concrete shall conform to Chapter 5 of the American Concrete Institution Standard A.C.I. 318. Concrete having attained initial set or having contained water for more than 45 minutes shall not be used in the work. Concrete shall not be dropped freely more than 3 feet. Concrete shall be mixed and placed only when the temperature is at least 40 degrees F and rising. Concrete shall be placed only upon surfaces that are free from frost, ice, mud and other detrimental circumstances. When placed on dry soil or previous materials, waterproof paper or polyethylene sheeting shall be laid over the surfaces that are to receive the concrete.
- B. Ensure reinforcement, inserts, embedded parts, and formed joints are not disturbed during concrete placement.
- C. Place concrete continuously over the full width of the panel and between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.

3.7 JOINTS

- A. Place expansion and/or contraction joints at 20 foot intervals. Align curb, gutter, and sidewalk joints.
- B. Place joint filler between paving components and building or other appurtenances. Recess filler $\frac{1}{4}$ inch.
- C. Provide saw joints at 3 feet intervals between sidewalks and curbs.
- D. Saw cut contraction joints $\frac{3}{16}$ inch wide at an optimum time after finishing. Cut $\frac{1}{3}$ into depth of slab.
- E. Finishing: After striking-off and consolidating concrete, smooth surface by screeding and floating. Use hand methods only where mechanical floating is not possible. Adjust floating to compact surface and produce uniform texture.
- F. After floating, test surface for trueness with a 10' straightedge. Distribute concrete as required to remove subsurface irregularities, and refloat areas to provide a continuous smooth finish.

3.8 FINISHING

- A. Concrete Finishing: After striking-off and consolidating concrete, smooth surface by screeding and floating. Use hand methods only where mechanical floating is not possible. Adjust floating to compact surface and produce uniform texture.
- B. After floating, test surface for trueness with a 10' straightedge. Distribute concrete as required to remove surface irregularities, and refloat repaired areas to provide a continuous smooth finish.
- C. Work edges of gutters, back top edge of curb, and formed joints with an edging tool, and round to ½" radius, unless otherwise indicated. Eliminate tool marks on concrete surface.
- D. Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point-up any minor honeycombed areas. Remove and replace areas or sections with major defects, as directed by Engineer.
- E. Sidewalk Paving: Finish with a light broom.

3.9 CONCRETE CURING

- A. Immediately after placement and finishing, concrete shall be protected from moisture loss for not less than 7 days. For concrete surfaces not in contact with forms, white-pigmented curing compound shall be uniformly applied after water sheen disappears from the concrete surface. Formed surfaces shall receive and application of curing compound if forms are removed during the 7 day curing period. Curing compound shall not be applied during rainfall.
- B. Curing compound shall be applied under pressure at the rate of 1 gallon to not more than 150 square feet by mechanical sprayers. The spraying equipment shall be of the fully atomizing type. At the time of use, the compound shall be thoroughly mixed with white pigments uniformly dispersed throughout the sprayer. Care shall be taken to prevent application to joints where concrete bond is required, to reinforcing steel and to joints where joint sealer is to be placed. The compound shall form a uniform continuous coherent film that will not crack or peel and shall be free from pinholes and other imperfections.
- C. Concrete surfaces that are subjected to heavy rainfall within 3 hours after curing compound has been applied shall be resprayed by the above method and at the above coverage at no additional expense to the Owner.

D. No pedestrian or vehicular traffic shall be allowed over the surface for seven days unless the surface is protected by planks, plywood, or sand. The protection shall not be placed until at least 12 hours after the application of the curing compound.

E. Protect concrete by suitable methods to prevent damage by mechanical injury or excessively hot or cold temperatures.

3.10 FIELD QUALITY CONTROL

A. Three concrete cylinders will be taken every 75 cubic yards of concrete placed each day.

B. One additional test cylinder will be taken during cold weather and cured on site under same conditions as concrete it represents.

C. One slump test will be taken for each set of test cylinders taken.

D. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.11 PROTECTION

A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.

B. Repair or Replace broken or defective concrete, as directed by Owner.

C. Allow testing company to drill test cores where directed by Owner, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to pavement with epoxy adhesive.

D. Protect concrete from damage until acceptance of work. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.

E. Sweep concrete curb and gutter and wash free of stains, discolorations, dirt, and other foreign material just prior to final inspection.

END OF SECTION

SECTION 32 16 00

CONCRETE CURB & GUTTER AND SIDEWALK

PART 1 GENERAL

1.1 SCOPE

- A. The work included in this section includes furnishing all materials, equipment, and labor necessary to construct Portland Cement Concrete curb and gutter and sidewalk as shown on the construction plans.

1.2 RELATED SECTIONS

- A. Section 32 11 00 – Graded Aggregate Base Course

1.3 REFERENCES

- A. ACI Code:
 - 1. ACI 301 – Specifications for Concrete Buildings.
 - 2. ACI 304 – Recommended Practice for Measuring, Measuring, Mixing, Transporting, and Placing Concrete.
- B. ASTM Specifications:
 - 1. ASTM A 185-94 – Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.
 - 2. ASTM A 497-94 – Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement.
 - 3. ASTM A 615-95 – Deformed and Plain Billet-Street Bars for Concrete Reinforcement.
 - 4. ASTM C 33-93 – Concrete Aggregates.
 - 5. ASTM C 39-94 – Compressive Strength of Cylindrical Concrete Specimens
 - 6. ASTM C 94-94 – Ready-Mixed Concrete.
 - 7. ASTM C 150-05 – Portland Cement
 - 8. ASTM C 260-94 – Air – Entraining Admixtures for Concrete.
 - 9. ASTM C 309-94 – Liquid Membrane – Forming Compounds for Curing Concrete.
 - 10. ASTM C 494-92 – Chemical Admixtures for Concrete
 - 11. ASTM D 1751-83 (1991) – Preformed Expansion Joint Filler for Concrete Paving and Structures Construction. (Nonextruding and Resilient Bituminous Type).

12. ASTM D 1752-84 (1992) – Performed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
13. ASTM D 3740-94 – Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
14. ASTM E 329-93 – Agencies Engaged in the Testing and/or Inspection of Materials used in construction.

1.4 REGULATORY REQUIREMENTS

- A. Perform work in accordance with State of Georgia Department of Transportation, Standard Specifications, Current Edition.
- B. Conform to applicable standards for paving work on public property.

1.5 TESTING

- A. Testing laboratory shall operate in accordance to ASTM D 3740 and E 329 and shall be accepted by the Owner.
- B. The testing laboratory and Owner shall be given a minimum of 48 hours notice prior to taking any of the tests.
- C. Testing shall be the responsibility of the Contractor and shall be performed at the Contractor's expense by a commercial testing laboratory that operates in accordance with 1.4.A above.
- D. The Contractor shall submit for review a design mix for "Class A" concrete proposed for use. The mix shall be prepared by an approved testing laboratory. Compressive strength of at least four (4) specimens of the design mix shall indicate 15% higher than 28 days strengths specified. During the work, the Contractor shall make 3 test cylinders for each 75 cubic yards, or fraction thereof, of concrete placed each day. One cylinder shall be tested at 7 days and the other two at 28 days in accordance with ASTM C-39. Copies of all test reports shall be furnished to the Owner.

1.6 SUBMITTALS

- A. Product Data: Provide data on joint filler, admixtures, and curing compounds.
- B. Concrete Mix Design.

1.7 WEATHER CONDITIONS

- A. Do not place concrete when base surface temperature is less than 40° F, or surface is wet or frozen.

PART 2 PRODUCTS

2.1 FORM MATERIALS

- A. Shall conform to ACI 301.
- B. Shall be wood, plywood, metal or other accepted material and shall be of the grade or type suitable to obtain the finish specified. The material should be of size and strength to resist movement during concrete placement and to retain horizontal and vertical alignment until removed. Use straight forms, free of distortion and defects.
- C. Use flexible spring steel forms or laminated boards to form radius bends as required.
- D. Form Ties: Removable or snap-off type, galvanized metal, adjustable length, free of defects that could leave holes larger than 1-inch in concrete surface.
- E. Form Release Agent: Colorless mineral oil, which will not stain concrete, or absorb moisture, or impair natural bonding or color characteristics of coating intended for use on concrete.

2.2 REINFORCING STEEL

- A. Reinforcing Steel: ASTM A 615, Grade 60 billet steel deformed bars; uncoated finish.
- B. Welded Steel Wire Fabric: Plain type, ASTM A-185; uncoated finish.
- C. When specifically called for on the plans, reinforcing bars shall be epoxy-coated in accordance with ASTM A-775.

2.3 CONCRETE MATERIALS

- A. Design mix to produce normal weight concrete consisting of Portland cement, aggregate, air-entrained admixture and water.
- B. Fine and Coarse Mix Aggregates: ASSTM C33.
- C. Water: Potable, not detrimental to concrete
- D. Air Entrainment: ASTM C260.

2.4 JOINT SEALERS

- A. Joint Fillers: ASTM D1751 Asphalt impregnated fiberboard or felt, tongue and groove profile.
- B. Sealant: Joints shall be sealed per detail on project drawings. ASTM C 920-94, Type S or M, Grade P or NS, Class 25.

2.5 CONCRETE MIX-BY PERFORMANCE CRITERIA

- A. Concrete mixed at the job site shall be mixed in a batch mixer in accordance with American Concrete Institution Standard A.C.I 318, and in a similar manner subject to acceptance. Ready-mixed concrete shall conform to A.S.T.M. Standard C-94. Mixing time for stationary mixers over 1 cubic yard in capacity shall be increased 15 seconds for each additional ½ cubic yard or fraction thereof materials mixed. Construction shall be in accordance with applicable portions of “Building Code Requirements for Concrete” (A.C.I. – 318).

- B. Provide concrete to the following criteria:
1. Flexible Strength: 700 psi
 2. Compressive Strength: 4,000 psi @ 28 days.
 3. Slump: 3 inches.
 4. Air Content: 5% to 8%
 5. Welded Wire Mesh (WWM): Welded plain cold-drawn steel wire fabric, ASTM A-185. Furnish in flat sheets.
 6. Fibermesh reinforced concrete shall be concrete with polypropylene, collated, fibrillated fibers meeting the requirements of ASTM C 1116. Provide 1.5 pounds of 1-1/2" fibers per cubic yard of concrete.
- C. Use accelerating admixtures in cold weather only when approved by Owner. Use of admixtures will not relax cold weather placement requirements.
- D. Use calcium chloride only when approved by Owner.
- E. Use set retarding admixtures during hot weather only when approved by Owner.

2.6 SOURCE QUALITY CONTROL AND TEST

- A. All sampling and testing services shall be performed at the Contractor's expense, by a testing laboratory which operates in accordance with ASTM D 3740 and E 329 latest edition and accepted by the Engineer.
- B. The Contractor shall submit for review a design mix for each class of concrete proposed for use. The mix shall be prepared by an approved testing laboratory. Compressive strength of a least four specimens of the design mix shall indicate 15% higher than 28 days strength specified. During the work, the Contractor shall make 3 test cylinders for each 30 cubic yards, or fraction thereof, of concrete placed each day. One cylinder shall be tested at 7 days and the other two at 28 days in accordance with ASTM C 39. Copies of all test reports shall be furnished to the Owner in duplicate.

PART 3 EXECUTION

3.1 CONSTRUCTION OBSERVATION

- A. Verify compacted subgrade & granular base are acceptable and ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.
- C. The Owner will have the right to require that any portion of the work the done in his presence and if the work is covered up after such instruction, it shall be exposed by the Contractor for observation. However, if the Contractor notifies the Owner that such work is scheduled, and the Owner fails to appear within 48 hours, the Contractor may proceed without him. All work

done and materials furnished shall be subject to review by the Owner. Improper work shall be reconstructed. All materials, which do not conform to the requirements of the specifications, shall be removed from the work upon notice being received from the Owner for the rejection of such materials. The Owner shall have the right to mark rejected materials so as to distinguish them as such.

3.2 SUBBASE

- A. Prepare sub-base in accordance with Section 300 - Standard Specifications for Base and Sub-base Courses, Department of Transportation, State of Georgia, current edition.
- B. Remove loose material from compacted sub-base surface immediately before placing concrete.
- C. Proof-roll prepared sub-base surface to check for unstable areas and need for additional compaction. Do not begin paving work until such conditions have been corrected and area is ready to receive paving.

3.3 PREPARATION FOR PLACEMENT

- A. Water shall be removed from excavations before concrete is deposited. Hardened concrete debris and other foreign materials shall be removed from the interior of forms and from the inside of mixing and conveying equipment. The reinforcement shall be made secure in position and shall be subject to examination and acceptance.
- B. Moisten base to minimize absorption of water from fresh concrete.
- C. Notify Owner minimum 48 hours prior to commencement of concreting operations.

3.4 FORMING

- A. Place and secure forms to correct location, dimension, profile, and gradient.
- B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.
- C. Place joint filler in position, in straight lines. Secure to formwork during concrete placement.
- D. Forms shall be constructed to the shape, form line, and grade required and shall be maintained sufficiently rigid to prevent deformation under load. Formwork and details of construction shall conform to ACI-318, Chapter 6.
- E. Check completed formwork for grade and alignment to following tolerances:
 - 1. Top of forms shall not be more than 1/8" in 10'.
 - 2. Vertical face on longitudinal axis shall not be more than 1/4" in 10'.

3.5 REINFORCING

- A. Place Reinforcement as indicated.
- B. Interrupt reinforcement at expansion joints.

3.6 PLACING CONCRETE

- A. Placing of concrete shall conform to Chapter 5 of the American Concrete Institution Standard A.C.I. 318. Concrete having attained initial set or having contained water for more than 45 minutes shall not be used in the work. Concrete shall not be dropped freely more than 3 feet. Concrete shall be mixed and placed only when the temperature is at least 40 degrees F and rising. Concrete shall be placed only upon surfaces that are free from frost, ice, mud and other detrimental circumstances. When placed on dry soil or previous materials, waterproof paper or polyethylene sheeting shall be laid over the surfaces that are to receive the concrete.
- B. Ensure reinforcement, inserts, embedded parts, and formed joints are not disturbed during concrete placement.
- C. Place concrete continuously over the full width of the panel and between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.

3.7 JOINTS

- A. Place expansion and/or contraction joints at 20 foot intervals (max). Align curb, gutter, and sidewalk joints.
- B. Place joint filler between paving components and building or other appurtenances. Recess filler ¼ inch.
- C. Provide swan joints at 3 feet intervals between sidewalks and curbs.
- D. Saw cut contraction joints 3/16 inch wide at an optimum time after finishing. Cut ⅓ into depth of slab.
- E. Finishing: After striking-off and consolidating concrete, smooth surface by screeding and floating. Use hand methods only where mechanical floating is not possible. Adjust floating to compact surface and produce uniform texture.
- F. After floating, test surface for trueness with a 10' straightedge. Distribute concrete as required to remove surface irregularities, and refloat areas to provide a continuous smooth finish.

3.8 FINISHING

- A. Concrete Finishing: After striking-off and consolidating concrete, smooth surface by screeding and floating. Use hand methods only where mechanical floating is not possible. Adjust floating to compact surface and produce uniform texture.
- B. After floating, test surface for trueness with a 10' straightedge. Distribute concrete as required to remove surface irregularities, and refloat repaired areas to provide a continuous

smooth finish.

- C. Work edges of gutters, back top edge of curb, and formed joints with an edging tool, and round to ½" radius, unless otherwise indicated. Eliminate tool marks on concrete surface.
- D. Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point-up any minor honeycombed areas. Remove and replace areas or sections with major defects, as directed by Design Professional.
- E. Sidewalk Paving: Finish with a light broom.

3.9 CONCRETE CURING

- A. Immediately after placement and finishing, concrete shall be protected from moisture loss for not less than 7 days. For concrete surfaces not in contact with forms, white-pigmented curing compound shall be uniformly applied after water sheen disappears from the concrete surface. Formed surfaces shall receive and application of curing compound if forms are removed during the 7 day curing period. Curing compound shall not be applied during rainfall.
- B. Curing compound shall be applied under pressure at the rate of 1 gallon to not more than 150 square feet by mechanical sprayers. The spraying equipment shall be of the fully atomizing type. At the time of use, the compound shall be thoroughly mixed with white pigments uniformly dispersed throughout the sprayer. Care shall be taken to prevent application to joints where concrete bond is required, to reinforcing steel and to joints where joint sealer is to be placed. The compound shall form a uniform continuous coherent film that will not crack or peel and shall be free from pinholes and other imperfections.
- C. Concrete surfaces that are subjected to heavy rainfall within 3 hours after curing compound has been applied shall be resprayed by the above method and at the above coverage at no additional expense to the Owner.
- D. No pedestrian or vehicular traffic shall be allowed over the surface for seven days unless the surface is protected by planks, plywood, or sand. The protection shall not be placed until at least 12 hours after the application of the curing compound.
- E. Protect concrete by suitable methods to prevent damage by mechanical injury or excessively hot or cold temperatures.

3.10 FIELD QUALITY CONTROL

- A. Three concrete cylinders will be taken every 75 cubic yards of concrete placed each day.
- B. One additional test cylinder will be taken during cold weather and cured on site under same conditions as concrete it represents.
- C. One slump test will be taken for each set of test cylinders taken.
- D. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.11 PROTECTION

- A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.
- B. Repair or Replace broken or defective concrete, as directed by Owner.
- C. Allow testing company to drill test cores where directed by Owner, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to pavement with epoxy adhesive.
- D. Protect concrete from damage until acceptance of work. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- E. Sweep concrete curb and gutter and wash free of stains, discolorations, dirt, and other foreign material just prior to final inspection.

END OF SECTION

SECTION 32 17 23

PAVEMENT MARKINGS

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

- A. The work to be performed under this section shall consist of furnishing and applying reflective Traffic Line Paint. Painted stripes shall consist of either solid or broken (skip) lines of the color and at the location designated on the Construction Plans and in accordance with the Construction Details.
- B. Skip traffic stripes consist of painted segments between unpainted gaps in a designated sequence with a ratio of 1:3 (10 foot segment and 30 foot gap). The location and color will be as designated on the Construction Plans.
- C. This section shall also be in accordance with the requirements of the “Manual on Uniform Traffic Control Devices”.

1.2 WEATHER CONDITIONS

- A. Paint shall be applied only when the temperature is at or above 40°F. It shall not be applied on damp surfaces or frosted surfaces, nor shall it be applied when the air is misty or otherwise unsatisfactory of the work.

PART 2 PRODUCTS

2.1 MATERIALS

- A. All materials shall meet the requirements of Section 652.02 – Thermoplastic Traffic Stripe, Department of Transportation, State of Georgia, Standard Specifications, current edition.

PART 3 EXECUTION

3.1 CONSTRUCTION

- A. All construction and application methods shall meet the requirements of Section 652.03 – Thermoplastic Traffic Stripe and Section 870.03 - Paint, Department of Transportation, State of Georgia, Standard Specifications, current edition.

END OF SECTION

SECTION 32 92 00

GRASSING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Seeding, planting grass and fertilizing graded areas behind the structures, pipeline rights-of-way, roadway shoulders, yards and other disturbed areas.
- B. Seed protection.
- C. Maintaining seeded areas until final acceptance.

1.2 RELATED SECTIONS

- A. Section 31 25 00 – Erosion, Sedimentation, & Pollution Control

1.3 DELIVERY, STORAGE AND HANDLING

- A. Deliver grass seed in original containers showing analysis of seed mixture, percentage of pure seed, year of production, net weight, and date of packaging and location of packaging. Damaged packages are not acceptable.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer. Damaged bags are not acceptable.
- C. Deliver sod on pallets.
- D. All material shall be acceptable to Owner prior to use.

1.4 PLANTING DATES

- A. This specification provides for the establishment of a permanent grass cover between the dates of March 1 and September 30. If finished earth grades are not completed in time to permit planting and establishment of the permanent grass during the favorable season between the dates specified above unless otherwise accepted, the Contractor will be required to plant a temporary cover to protect the new graded areas from erosion and to keep windborne dust to a minimum. The temporary cover shall be planted between October 1 and February 28 unless otherwise permitted.

PART 2 PRODUCTS

2.1 SEED

- A. All seed shall conform to all Georgia State Laws and to all requirements and regulations of the State of Georgia Department of Agriculture.
- B. The several varieties of seed shall be individually packaged or bagged, and tagged to

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show name of seed, net weight, origin, germination, lot number, and other information required by the State of Georgia Department of Agriculture.

- C. The Owner reserves the right to test, reject, or accept all seed before seeding.
- D. The seed shall be delivered to the site in the original sacks as received from the producer and each sack shall be tagged in accordance with the agricultural seed laws of the United States and the State of Georgia. Each sack shall be tagged showing the dealers guarantee as to the year grown, percentage of purity, percentage of germination and the date of the test by which the percentages of purity and germination were determined. All seed sown shall have a date of test within six months of the date of sowing.
- F. Any seed delivered prior to use, shall be stored so that it will be protected from damage by heat, moisture, rodents, or other cause.

2.2 FERTILIZER

- A. Shall be a slow release, complete fertilizer as stated by the soil analysis results. The nitrogen content of which shall be derived from either organic or inorganic sources and meets the minimum requirements of plant food by weight. Should the soil analysis and report indicate a need for a different fertilizer mixture, the recommended mixture shall be furnished and applied at the Contractor's expense. All State and Federal laws relating to fertilizer shall be complied with.

2.3 SEEDING SCHEDULE

- A.

SEED	RATE	PLANTING DATES
Bermuda	10 lbs/acre	March 1 – September 30
Rye	40 lbs/acre	October 1 – February 28

- B. In areas where existing grass is to be matched, contractor shall sow seed at the rate and dates recommended by seed distributor.

2.4 LIME

- A. Agricultural grade, ground limestone: Shall be ground dolomitic limestone containing not less than 85 percent of total carbonates and shall be ground to fineness such that more than 50 percent will pass through a 100-mesh sieve and 90 percent will pass through a 20-mesh sieve. Coarser material will be acceptable, provided the specified rates of application are increased proportionately on the basis of quantities passing the 100-mesh sieve. Slag may be used as a substitute for limestone and must pass the sieve tests cited above.

2.5 AMMONIUM NITRATE

- A. Shall be a commercial product in dry powder form of recent manufacture and shall be delivered in the original, unopened containers each bearing the manufacturer's guaranteed statement of analysis. It shall contain not less than 33.5% Nitrogen.

2.6 WATER

- A. The Contractor shall be responsible for providing water to the newly planted grass. The Contractor shall be responsible for providing temporary above-ground irrigation equipment for watering purposes.

2.7 SOD

- A. Sod shall be densely rooted, good quality centipede grass, free from noxious weeds. The sod shall be obtained from areas where the soil is reasonably fertile. The sod shall be raked free of all debris and the grass mowed to two inches before cutting. The sod shall contain practically all of the dense root system and not be less than one (1) inch thick. Sod shall be cut in uniform strips not less than twelve (12) inches in width and not less than twenty-four (24) inches

2.8 ACCESSORIES

- A. Straw Mulch: Oat or wheat straw, reasonably free from weeds, foreign matter detrimental to plant life, and in dry condition.
- B. Excelsior Mulch: Excelsior mulch shall consist of wood fibers cut from sound, green timber. The average length of the fibers shall be 4 to 6 inches. The cut shall be made in such a manner as to provide maximum strength of fiber, but at a slight angle to the natural grain of the wood so as to cause splintering of the fibers when weathering in order to provide adherence to each other and to the soil.
- C. Wood cellulose fiber shall be made from wood chip particles manufactured particularly for discharging uniformly on the ground surface when dispersed by a hydraulic water sprayer. It shall remain in uniform suspension in water under agitation and blend with grass seed and fertilizer to form homogenous slurry. The mulch fibers shall intertwine physically to form a strong moisture holding mat on the ground surface and allow rainfall to percolate into the underlying soil. The mulch shall be heat processed so as to contain no germination or growth-inhibiting factors. It shall be dyed (non-toxic) an appropriate color to facilitate metering of material.

2.9 PRODUCT REVIEW

- A. The Contractor shall provide the Owner with a complete description of all products before ordering. The Owner will review all products before they are ordered.

PART 3 EXECUTION

3.1 PREPARATION

- A. The areas to be seeded shall be made smooth and uniform and shall conform to the finished grade indicated on the plans.
- B. Remove foreign materials, plants, roots, stones, and debris from surfaces to be seeded.

- C. Grassing areas, if not loose, shall be loosened to a minimum depth of 3-inch before fertilizer, seed or sod is applied.

3.2 STAND OF GRASS

- A. Before acceptance of the seeding performed for the establishment of permanent vegetation, the Contractor will be required to produce a satisfactory stand of perennial grass whose root system shall be developed sufficiently to survive dry periods and the winter weather and be capable of re-establishment in the spring.
- B. Before acceptance of the seeding performed for the establishment of temporary vegetation, the Contractor will be required to produce a stand of grass sufficient to control erosion for a given area and length of time before the next phase of construction or the establishment of permanent vegetation is to commence.

3.3 SEEDING DATES

- A. Seeding shall be performed during the periods and at the rates specified in the seeding schedules. Seeding work may, at the discretion of the Contractor, be performed throughout the year using the schedule prescribed for the given period. Seeding work shall not be conducted when the ground is frozen or excessively wet. The Contractor will be required to produce a satisfactory stand of grass regardless of the period of the year the work is performed.

3.4 APPLYING LIME AND FERTILIZER

- A. Following advance preparation and placing selected material for shoulders and slopes, lime, if called for based on soil tests and fertilizer, shall be spread uniformly over the designated areas and shall be thoroughly mixed with the soil to a depth of approximately 2-inches. Fertilizer shall be applied at the rate of 1,500 pounds per acre for the initial application unless otherwise directed by the Owner. Lime shall be applied at the rate determined by the soil test. Unless otherwise provided, lime will not be applied for temporary seeding. In all cases where practicable, acceptable mechanical spreaders shall be used for spreading fertilizer. On steep slopes subject to slides and inaccessible to power equipment, the slopes shall be adequately scarified. Fertilizer may be applied on steep slopes by hydraulic methods as a mixture of fertilizer and seed. When fertilizer is applied with combination seed and fertilizer drills, no further incorporation will be necessary. The fertilizer and seed shall be applied together when Wood Cellulose Fiber Mulch is used. Any stones larger than 2-1/2 inches in any dimension, larger clods, roots, or other debris brought to the surface shall be removed.

3.5 SEEDING

- A. Seed shall be sown within 24 hours following the application of fertilizer and lime and preparation of the seedbed as specified in Section 3.4. Seed shall be uniformly sown at the rate specified by the use of acceptable mechanical seed drills. Rotary hand seeders, power sprayers or other satisfactory equipment may be used on steep slopes or on other areas that are inaccessible to seed drills.
- B. The seeds shall be covered and lightly compacted by means of culti-packer or light

roller if the drill does not perform this operation. On slopes inaccessible to compaction equipment, the seed shall be covered by dragging spiked chains, by light harrowing or by other satisfactory methods.

- C. Apply water with fine spray immediately after each area has been sown.
- D. Do not sow seed when ground is too dry, during windy periods or immediately following a rain.
- E. If permitted by the special provisions, wood cellulose fiber mulch or excelsior fiber mulch may be used.

3.6 HYDROSEEDING

- A. Hydroseeding may be used on any area to be grassed. Under this method of seeding, the seed and fertilizer, at the specified rates, with Wood Fiber Mulch shall be distributed over the area to be seeded in the form of slurry. Seeds of all sizes may be mixed together.
- B. Wood Fiber Mulch is required to be used as a metering agent and seedbed when hydroseeding is used. The application rate for Wood Fiber Mulch shall be approximately 1500 pounds per acre and is required regardless of which mulching method is chosen.
- C. Ground preparations for hydroseeding shall be the same as for conventional seeding.
- D. Equipment for mixing and applying the slurry shall be especially designed for this purpose. It shall be capable of applying a uniform mixture over the entire area to be seeded. The slurry mixture shall be agitated during application to keep the ingredients thoroughly mixed. All materials shall be discharged within one hour after being combined in the hydroseeder. Hydroseeding shall not be performed when winds prevent an even, thorough application. The equipment manufacturer's directions shall be followed.
- E. The entire hydroseeded area shall be mulched as specified.

3.7 SEED PROTECTION (STRAW MULCH)

- A. All seeded areas seeded with permanent grasses shall be uniformly mulched in a continuous blanket immediately following seeding and compacting operations, using at least 2 tons of straw per acre.

3.8 SEED PROTECTION (EXCELSIOR MULCH)

- A. Seed shall be sown as specified in Section 3.5. Within 24 hours after the covering of seed, excelsior mulch shall be uniformly applied at the rate of 2 tons per acre. The mulch may be applied hydraulically or by other acceptable methods. Should the mulch be placed in a dry condition, it shall be thoroughly wetted immediately after placing. The Owner may require light rolling of the mulch to form a tight mat.

3.9 SEED PROTECTION (WOOD CELLULOSE FIBER MULCH)

- A. After the lime has been applied and ground prepared as specified in Section 3.4, wood cellulose fiber mulch shall be applied at the rate of 1,500 pounds per acre in a mixture of seed and fertilizer. Hydraulic equipment shall be used for the application of fertilizer, seed and slurry of the prepared wood pulp. This equipment shall have a built-in agitation system with an operating capacity sufficient to agitate, suspend, and homogeneously mix slurry of the specified amount of fiber, fertilizer, seed and water. The slurry distribution lines shall be large enough to prevent stoppage. The discharge line shall be equipped with a set of hydraulic spray nozzles which will provide an even distribution of the slurry on the various areas to be seeded. The slurry tank shall have a minimum capacity of 1,000 gallons.
- B. The seed, fertilizer, wood pulp mulch, and water shall all be combined into the slurry tank for distribution of all ingredients in one operation by the hydraulic seeding method specified herein. The materials shall be combined in a manner recommended by the manufacturer. The slurry mixture shall be so regulated that the amounts and rates of application shall result in a uniform application of all materials at rates not less than the amount specified. Using the color of the wood pulp as a guide, the equipment operator shall spray the prepared seedbed with a uniform visible coat. The slurry shall be applied in a sweeping motion, in an arched stream so as to fall like rain, allowing the wood fibers to build upon each other until an even coat is achieved.

3.10 SODDING

- A. Sod shall be placed between March 1st and December 1st.
- B. Sod shall be placed within 48 hours of cutting.
- C. Sod shall be moist when laid and placed on moist ground. The sod shall be carefully placed by hand, beginning at the toe of slopes and working upwards. The length of the strips shall be at right angles to the flow of surface water. All joints shall be tightly butted and end joints shall be staggered at least 12 inches. The sod shall be immediately pressed firmly into the ground by tamping or rolling. Fill all joints between strips with fine screened soil. Sod on slopes shall be pegged with sod pegs to prevent movement. The sod shall be watered, mowed, weeded, repaired or otherwise maintained, to insure the establishment of a uniform healthy stand of grass until acceptance.

3.11 MAINTENANCE

- A. Maintain seeded surfaces until final acceptance.
- B. Maintenance shall consist of providing protection against traffic, watering to ensure uniform seed germination and to keep surface of soil damp, and repairing any areas damaged as a result of construction operations or erosion.

3.12 ACCEPTANCE

- A. Before acceptance of the seeding performed for the establishment of permanent vegetation, the Contractor will be required to produce a satisfactory stand of perennial grass whose root system shall be developed sufficiently to survive dry periods and the winter weather and be capable of reestablishment in the spring.

END SECTION

SECTION 33 14 13

WATER DISTRIBUTION MAINS AND ACCESSORIES

PART 1 GENERAL

1.1 SCOPE

- A. This Section describes products to be incorporated into the water mains and requirements for the installation and use of these items. Furnish all products and perform all labor necessary to fulfill the requirements of these Specifications. It includes, but is not limited to the construction of piping, valves, fittings, connection to existing systems, and all other appurtenances necessary to convey potable water.
- B. Warranty: Water distribution system installed by the Contractor shall be warranted and guaranteed for a period of one year from the date of final acceptance that the completed system is free from all defects due to faulty products or workmanship, and that the Contractor shall make such corrections as may be necessary by reason of such defects upon notice by the Owner.
- C. All construction shall meet the requirements of the City of Washington and EPD.

1.2 RELATED SECTIONS

- A. Section 31 11 00 – Clearing and Grubbing
- B. Section 31 41 00 – Sheeting, Shoring, and Bracing
- C. Section 31 23 33 – Trenching Excavation & Backfill
- D. Section 32920 - Grassing

1.3 REFERENCES

- A. ASTM Specifications:
 - 1. ASTM D 3740-94a – Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
 - 2. ASTM E 329-93b – Agencies Engaged in the Testing and/or Inspection of Materials as Used in Construction.
 - 3. ASTM D 3034-94 – Type PSM PVC Sewer Pipe and Fittings.
 - 4. ASTM D 2321-89 – Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Installations.
 - 5. ASTM A 746-95 – Ductile Iron Gravity Sewer Pipe.
 - 6. ASTM D 3212-92 – Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.

7. ASTM F 477-95 – Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
8. ASTM D 2241-94 – PVC Pressure-Rated Pipe (SDR – Series).
9. ASTM D 3139-95 – Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seams.
10. ASTM A 139-93a – Electric-Fusion (Arc) Welded Steel Pipe (NPS 4 and Over).
11. ASTM C 478-94 – Precast Reinforced Concrete Manhole sections.
12. ASTM C 443-94 – Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
13. ASTM C 39-94 – Compressive Strength of Cylindrical Concrete Specimens.
14. ASTM C 890-91 – Minimum Structural Design Loading for Monolithic or Sectional Precast Concrete Water and Wastewater Structures.
15. ASTM C 891-90 – Installation of Underground Precast Concrete Utility Structures.
16. ASTM C 913-89 – Precast Concrete Water and Wastewater Structures.
17. ASTM A 615/A 615 M-95b – Deformed and Plain Billet – Steel Bars for Concrete Reinforcement.
18. ASTM D-2922-91 – Test methods for Density of Soil and Soil Aggregate In-Place by Nuclear Methods (Shallow Depth).
19. ASTM D-1557-91 – Laboratory Compaction Characteristics of Soil Using Modified Effort.
20. ASTM D 1556-90 – Density and Unit Weight of Soil In-Place By The Sand-Cone Method.
21. ASTM D 71-87 (reapproved 1994) – Evaluation Degree of Blistering of Paints.
22. ASTM D 2794-93 – Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
23. ASTM E 96-95 – Water Vapor Transmission of Materials.
24. ASTM G 53-95 – Operating Light and Water-Exposure Apparatus (Fluorescent UV – Condensation Type) for Exposure of Nonmetallic Materials.
25. ASTM A 377-95 – Index of Specifications for Ductile Iron Pressure Pipe.

B. ANSI/AWWA Specifications:

1. ANSI/AWWA C 150/A 21.50-96 – Thickness Design of Ductile Iron Pipe.

2. ANSI/AWWA C 151/A 21.51-91 – Ductile Iron Pipe, Centrifugally Cast, for Water or Other Liquids.
 3. ANSI/AWWA C-500-93 – Metal-Seated Gate Valves for Water Supply Service.
 4. ANSI/AWWA C-509-94 – Resilient-Seated Gate Valves for Water Supply Service.
 5. ANSI/AWWA C 111/A 21.11-95 – Rubber-Gasket Joints for Ductile Iron Pressure Pipe and Fittings.
 6. ANSI/AWWA C 600-93 – Installation of Ductile Iron Water Mains and their appurtenances.
- C. ACI Specifications:
1. ACI 318-89 – Building Code Requirements for Reinforced concrete.
- D. AASHTO Standards:
1. AASHTO T 191-91 – Density of Soil In-Place by the Sand-Cone Method.

1.4 SUBMITTALS

- A. Complete shop drawings and product data on all piping and accessories shall be submitted to the Owner in accordance with the requirements of these Specifications.
- B. Shop drawings shall indicate piping layout in plan and/or elevations and shall include a complete schedule of all pipe, fittings, special hangers and supports. Special castings shall be clearly detailed showing all pertinent dimensions. Special coatings shall be clearly identified.
- C. The Contractor shall furnish the Owner with lists of all pieces of pipe and fittings in each shipment received. These lists shall give the serial or mark number, weight, class, size and description of each item received.
- D. The Contractor shall submit written evidence to the Owner that the products furnished under this Section will conform to the material and mechanical requirements specified herein. Certified copies of independent laboratory test results or mill test results from the pipe supplier may be considered evidence of compliance provided such tests are performed in accordance with the appropriate testing standards by experienced, competent personnel. In case of doubt as to the accuracy or adequacy of mill tests, the Owner may require that the Contractor furnish test reports from an independent testing laboratory on samples of pipe materials.

1.5 QUALITY ASSURANCE

- A. Material and equipment shall be the standard product of a manufacturer who has manufactured them for a minimum of 2 years and who provides published data on the quality and performance of the product.

- B. A Subcontractor for any part of the work must have experience on similar work and if required, furnish the Owner with a list of projects and reference contacts.
- C. Devices, equipment, structures, and systems not designated by the Engineer that the Contractor wishes to furnish shall be designed either by a registered professional engineer or by someone the Owner approved as qualified. If required, complete design calculations and assumptions shall be furnished to the Owner before acceptance.
- D. All testing of the piping shall be made by the Contractor with equipment qualified by the Owner or utility company and in the presence of the Owner and utility company. The Owner reserves the right to accept or reject testing equipment.
- E. Soil testing shall be done by a testing laboratory regularly engaged in soil testing, and shall be approved by the Owner prior to engagement. Mill certificates of test on materials made by manufactures will be accepted provided the manufacturer maintains an adequate testing laboratory, makes regularly scheduled tests that are spot checked by an outside laboratory, and furnishes satisfactory certificates with the name of the one making the test.
- F. The details of all welded joints shall comply with all of the requirements for joints, which are accepted without qualification test under the "Code of Arc and Gas Welding in Building Construction of the American Welding Society". Workmanship shall conform to A.I.S.C. Specifications for Fabrication and Erection. All work shall be executed by skilled workmen under experienced supervision. All welding shall be done by welders who have been previously qualified by tests as prescribed in the "American Welding Society Standard Qualification Procedure" to perform the type of work required. Welders shall have passed the qualification test (Qualification tests using procedures covered in AWSS B3.0 Part II) within the preceding 12 months.

1.6 TRANSPORTATION AND HANDLING

- A. Unloading: Furnish equipment and facilities for unloading, handling, distributing and storing pipe, fittings, valves and accessories. Make equipment available at all times for use in unloading. Do not drop or dump materials. Any materials dropped or dumped will be subject to rejection without additional justification. Pipe handled on skids shall not be rolled or skidded against the pipe on the ground.
- B. Handling: Handle pipe, fittings, valves and accessories carefully to prevent shock or damage. Handle pipe by rolling on skids, forklift, or front end loader. Do not use material damaged in handling. Slings, hooks or pipe tongs shall be padded and used in such a manner as to prevent damage to the exterior coatings or internal lining of the pipe.
- C. Distribution: Distribute and place pipe and materials to not interfere with traffic. Do not string pipe more than 250 feet beyond the area where pipe is being laid. Do not obstruct drainage ditches.

1.7 STORAGE AND PROTECTION

- A. Store all pipes which cannot be distributed along the route. Make arrangements for the use of suitable storage areas. Do not interfere with other Contractor's right to

access.

- B. Stored materials shall be kept safe from damage. The interior of all pipes, fittings and other appurtenances shall be kept free from dirt or foreign matter at all times. Valves and hydrants shall be drained and stored in a manner that will protect them from damage by freezing.
- C. Pipe shall not be stacked higher than the limits recommended by the manufacturer. The bottom tier shall be kept off the ground on timbers, rails or concrete. Pipe in tiers shall be alternated: bell, plain end; bell, plain end. The timbers shall be large enough to prevent contact between the pipes in adjacent tiers.
- D. Stored mechanical and push-on joint gaskets shall be placed in a cool location out of direct sunlight. Gaskets shall not come in contact with petroleum products. Gaskets shall be used on a first-in, first-out basis.
- E. Mechanical-joint bolts shall be handled and stored in such manner that will ensure proper use with respect to types and sizes.

1.8 SEQUENCING, SCHEDULING

- A. The Contractor shall arrange his work so that sections of mains between valves are tested, sterilized, placed in service as soon as reasonable after it is placed.

1.9 ALTERNATIVES

- A. The intention of these specifications is to produce the best system for the Owner. If the Contractor suggests that alternate material, equipment or procedures will improve the results at no additional cost, the Owner will examine the suggestion and determine if acceptable for use. The basis upon which acceptance of an alternate will be given is its value to the Owner, and not for the convenience of the Contractor.

1.10 GUARANTEE

- A. The Contractor shall guarantee the quality of the materials, equipment, and workmanship for 12 months after acceptance of the completed Project. Defects discovered during that period shall be repaired by the Contractor, at no cost to the Owner. The Performance Bond shall reflect this guarantee.
- B. The manufacturers of equipment, valves, pumps, controls, measuring devices and special equipment shall test the equipment at field conditions for compliance with the specifications. The manufacturer shall guarantee the product to be free from defects in material and factory workmanship for a period of 12 months from date of acceptance of the completed project, provided the product is properly installed, serviced and operated under normal conditions and according to the manufacturer's instructions. The manufacturer shall furnish a replacement for any component that proves defective during the guarantee period, except such items which are seals. The Contractor shall furnish the services of a representative of the manufacturer to check the installation after it is completed and to furnish the Owner with a certificate that the equipment meets the specifications and will perform as required.

1.11 EXISTING UTILITIES

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RECREATION CENTER
MACON, GA**

- A. All known utility facilities are shown schematically on plans, and are not necessarily accurate in location as to plan or elevation. Utilities such as service lines or unknown facilities not shown on plans will not relieve the contractor of his responsibility under this requirement. "Existing Utility Facilities" means any utility that exists on the project in its original, relocated or newly installed position. The Contractor will be held responsible for the cost of repairs to damaged underground facilities; even when such facilities are not shown on the plans. The Contractor shall contact all utility companies prior to beginning the work and request an accurate field location of their respective utility lines.
- B. Damage to any part of the existing water system and facilities by the Contractor or Subcontractors, that is required by the Owner's forces, shall be charged to the Contractor on the basis of time and material, plus 30% for overhead and administration.

1.12 REQUIREMENTS OF REGULATORY AGENCIES

- A. Water mains shall be sterilized to meet the requirements of the appropriate Health/Public Works Department. Sterilization shall be in accordance with AWWA Standards C-651, latest revision.

1.13 CONNECT NEW MAIN TO EXISTING SYSTEM

- A. The Contractor shall furnish the necessary pipe and perform all excavation, dewatering, shoring, backfilling, etc. necessary to make the connection of a new main to the existing water system. The Contractor shall contact the Superintendent of the Water Utility a minimum of 48 hours in advance of construction. The Contractor shall be responsible for coordinating his construction with the utility operator.

1.14 ACCEPTANCE OF PORTIONS OF WORK

- A. The Owner reserves the right to accept and use any portion of the work whenever it is considered in the public interest to do so.

1.15 RECORD DATA

- A. It will be required of the Contractor to keep accurate, legible records of the location of any deviations from the construction drawings, any additional items or structures to the construction drawings, and all utilities encountered which are not shown on the construction drawings. These records will be made available to the Owner before his inspection for incorporation into the "Drawing of Record".

1.16 OPTIONS

- A. Several materials are described within these specifications. Where manufacturer and model of equipment is named in the specification, it is intended that these are to describe the quality and function required. The Contractor may use equipment or material of other manufacturers provided they are reviewed and accepted by the Owner as meeting the specifications.
- B. The Contractor will furnish the Owner a description of all materials before ordering.

The Owner will review the Contractor's submittals and provide in writing an acceptance or rejection of material. However, an acceptance of any material by the Owner does not relieve the Contractor of this responsibility to meet the requirements of the construction plans or these specifications.

PART 2 PRODUCTS

2.1 PIPING MATERIALS AND ACCESSORIES

A. Ductile Iron Pipe (DIP) :

1. Ductile iron pipe shall be manufactured in accordance with AWWA C151. All pipes, except as specials, shall be furnished in nominal lengths of 18 to 20 feet. Diameters will be as shown on the Drawings. All pipes shall have a minimum pressure rating of 350 pounds per square inch (psi), and corresponding minimum wall thickness, unless otherwise specified or shown on the Drawings.
2. Flanged pipe minimum wall thickness shall be equal to Special Class 53 for pipe sizes 4"-54". Flanges shall be furnished by the pipe manufacturer.
3. Fittings and Accessories:
 - a. Fittings shall be ductile iron and shall conform to AWWA C110/ANSI A21.10. The minimum rated working pressure for fittings shall be 350.
 - b. Flanged elbow fittings shall be ANSI pattern using short radius elbows except where noted differently on the Drawings. Special fittings, ductile iron wall pipes and sleeves shall conform to the dimensions and details as shown on the Drawings.
 - c. All grooved-end fittings shall conform to the laying length requirements of AWWA C110/ANSI A21.10, end preparation requirements of AWWA C606, and wall thickness requirements of AWWA C110/ANSI A21.10.
 - d. Thrust Collars: Thrust collars shall be welded-on ductile iron body type capable of withstanding a thrust due to 250 psi internal pressure on a dead end from either direction on that pipe size. Weld on collars shall be continuously welded to the pipe by the pipe manufacturer.
 - e. Bosses: Shall be welded-on ductile iron body type and shall be faced and tapped for AWWA C110/ANSI A21.10 flange connection. All welding, fabrication and outlet hole drilling shall be performed by the manufacturer. Outlets shall be free of burrs. Sizes shall be as indicated on the Drawings. The bosses shall be welded on a minimum Class 51 ductile iron pipe greater than 12 inches and Class 52 for smaller pipe. Bosses shall be equal to ACIPCO A-96945 for mechanical joint or A-96946 for flanged joints.
 - f. Solid Sleeves: Shall permit the connection of plain end ductile iron

pipe and plain end PVC pipe. Solid sleeves shall meet the requirements of ANSI/AWWA C110 for long pattern and have a minimum pressure rating of 250 psi. Solid sleeves shall have a mechanical or restrained joint as specified in this Section and as shown on the Drawings. Solid sleeves shall be provided with gaskets suitable for the type of pipe to be connected. Solid sleeves shall be used only in locations shown on the Drawings. Solid sleeves shall be manufactured by J.C.M. or equal.

4. Joints for Ductile Iron Pipe and Fittings

- a. Joints for ductile iron pipe and fittings shall be mechanical joint, flanged joint, restrained joint, push-on joint or grooved-end joint as shown on the Drawings or specified herein.
- b. Unless otherwise shown on the Drawings, specified or directed, all ductile iron pipe laid underground shall be joined using mechanical joints or push-on type joints.
- c. In all cases, gaskets shall be made of material that will not be damaged by the fluid being transported or by the environment in which the pipe is installed.
- d. Provide the necessary bolts for connections. All bolts and nuts shall be threaded in accordance with ANSI B1.1, Coarse Thread Series, Class 2A external and 2B internal fit. All bolts and nuts shall be made in the U.S.A.
- e. Mechanical Joints:
 1. Joints shall conform to AWWA C111/ANSI A21.11.
 2. Bolts and nuts shall be Tee Head Bolts and nuts of high strength low-alloy steel in accordance with ASTM A-242 to the dimensions shown in AWWA C111/ANSI A21.11.
 3. Gaskets shall be in accordance with AWWA C111/ANSI A21.11 and shall be constructed of 1/8" thick cloth reinforced rubber; gaskets may be ring type or full face type.
 4. Mechanical joint glands shall be ductile iron.
- f. Push-On Joints: Push-on joints and gaskets shall conform to AWWA C111/ANSI A21.11. Details of the joint design shall be in accordance with the manufacturer's standard practice such as ACIPCO "Fastite", McWane (Clow) "Bell-Tite", or U.S. Pipe "Tyton" joints.
- g. Flanged Joints:

1. Flanged joints shall conform to AWWA C115/ANSI A21.12. Flanges shall be ductile iron and shall be furnished by the pipe manufacturer.
 2. Gaskets shall be made of 1/8-inch thick, Buna-N. Gaskets may be ring type or full face type. Gaskets for all flanged piping 24-inches and larger shall be equal to ACIPCO Toruseal gaskets.
 3. Flanged ductile iron pipe 3 through 12-inche diameter shall have flanges cast solidly to the pipe barrel. Flanges on ductile iron pipe larger than 12-inches may be of the threaded type. Pipe threads shall be of such length that with flanges screwed home, the end of the pipe shall project beyond the face line of the flange. Flange and pipe shall then be machined to a flush finish to the pipe and the flange and surface shall be normal to the axis of the pipe. Ductile iron flanges shall be of such design that the flange neck completely covers the threaded portion of the pipe to protect same against corrosion. All pipes with threaded type flanges shall be assembled, faced, and drilled at the point of manufacture, unless otherwise approved by the Owner.
 4. Flange filler shall conform to AWWA C110/ANSI A21.10. Joint bolt length shall be increased by the thickness of the flange filler.
 5. Where tap or stud bolts are required, flanges shall be drilled and tapped accordingly.
 6. Bolt length and diameter shall conform to ANSI/AWWA C115 for Class 125 flanges shown in ANSI/ASME B16.1.
 7. Bolts for exposed service shall be zinc plated, cold pressed, steel machine bolts conforming to ASTM A-307, Grade B. Nuts for exposed service shall be zinc plated, heavy hex conforming to ASTM A-563. Zinc plating shall conform to ASTM B 633, Type II.
 8. Bolts for submerged service shall be stainless steel machine bolts conforming to ASTM A-193, Grade B8. Nuts shall be heavy hex, stainless steel conforming to ASTM A-194, Grade 8.
5. Restrained Joint Pipe (RJP): RJP shall be either the bolt type, or modified push-on type with joint restraint using ductile iron components. Restrained joint pipe on piers shall have bolted joints and shall be specifically designed for clear spans of at least 36 feet. Restrained joint pipe where required shall be American, U.S. Pipe, or equal.
 6. Cement Linings: Pipe and fittings shall be cement lined in accordance with

AWWA C104/ANSI/AWWA C104/A21.4.

7. Bituminous Coating: All pipe and fitting shall be furnished with a bituminous outside coating.
8. Pipe couplings shall be installed where shown on the Drawings or as directed by the Owner.
9. Wall Sleeves and Wall Pipes:
 - a. Where piping passes through concrete structures, furnish and install wall sleeves unless wall pipes or other provisions are specifically shown on the Drawings. Wall sleeves shall be accurately located and securely fastened into position before concrete is poured.
 - b. Wall Sleeves:
 1. For pipe sizes smaller than 3-inches, wall sleeves shall be steel oversize sleeves furnished with a full circle, integral, or continuously welded water stop collar. The sleeve seal shall be the mechanically expanded, synthetic rubber type. Provide all associated bolts, seals and seal fittings, pressure clamps, or plates necessary to achieve a watertight installation. Sleeves shall extend the full thickness of the concrete. Sleeves and seal shall be Link Seal.
 2. For pipe sizes larger than 3-inches, wall sleeves shall be statically cast ductile iron mechanical joint wall sleeves. Unless specified or shown otherwise for a specific situation, wall sleeves shall be mechanical joint bell-plain end type with water stop/thrust collar. The collar shall be capable of withstanding a thrust force caused by a 250 psi dead end load from either direction on that size pipe. Sleeves shall be constructed with studs and mechanical joint retainer gland on the air side of the concrete structure. Provide retainer gland where shown on the Drawings. Where the concrete structure is exposed to dirt on one side and is wet on the other side, construct with studs and glands on the dirt side. Wall sleeves shall be equal to ACIPCO A-10771.
 - c. Wall pipes:
 1. Wall pipes shall be either statically cast ductile iron with integral water stop/thrust collar or centrifugally cast ductile iron with a continuously welded water stop/thrust collar. The welded on collar shall be attached to the pipe by the manufacturer. The collar shall be capable of withstanding a thrust force caused by a 250 psi dead

end load from either direction on that size pipe. Wall pipes shall be furnished uncoated on the outside and cement lined on the inside. Unless specified or shown otherwise, wall pipes shall be flange end type.

2. Wall pipes shall be cast and/or fabricated and lines in one manufacturer's facilities and delivered to the job site ready to use.

10. Hydrant Tees: Hydrant tees shall be equal to ACIPCO A-10180 or U.S. Pipe U-592.

B. Polyvinyl Chloride (PVC) Pipe

1. Pipe sizes smaller than 4-inch outside diameter:
 - a. PVC pipe shall conform to ASTM D 1785 (Schedule 40).
 - b. Fittings shall be solvent weld socket type, schedule 40, ASTM D 2466 or D 2467.
 - c. Cement shall conform to ASTM D 2564.
2. Pipe equal to and larger than 4-inch outside diameter:
 - a. Shall be PVC Class 150, DR 18, C-900 for 12-inch and smaller and Class 165, DR 25, C-905 for 14-inch and larger. All pipe shall conform to ASTM D-2241 and be installed in accordance with ASTM D-2321. Joints shall be in accordance with ASTM D-3036. Sizes and dimensions shall be as follows:

150 PSI, DR 18, C-900			165 PSI, DR 25, C-905		
Nom. Pipe Size	O.D. (in.)	Min. Wall Thickness (in.)	Nom. Pipe Size	O.D. (in.)	Min. Wall Thickness (in.)
4"	4.800	0.267	14"	15.300	0.612
6"	6.900	0.383	16"	17.400	0.696
8"	9.050	0.503	18"	19.500	0.780
10"	11.100	0.617	20"	21.600	0.864
12"	13.200	0.733	24"	25.800	1.032
			30"	32.000	1.280
			36"	38.300	1.530

- b. Pipe shall bear the National Sanitation Foundation seal of approval and shall comply with the requirements of Type I, Grade I (PVC 1120) of the ASTM resin specification D-1784 (AWWA C 151-76). Certificates of conformance with the foregoing specifications shall be furnished with each lot of pipe supplied. Plastic pipe shall be jointed by means of a rubber ring bell joint which shall be an integral part of the barrel or

solvent welded at the factory. The joints shall have a space to provide expansion and contraction of the pipe without leaking. Fittings for plastic pipes shall be PVC with ring tight rubber joints; or ductile iron with adapters to PVC pipe.

- c. The bell shall consist of an integral wall section with a bound-in solid cross section shall be designed to be at least as hydrostatically strong as the pipe wall and meet the requirements of UNI-BELL-B-11.
 - d. Each standard and random length of pipe shall be tested to two times the rated pressure of the pipe for a minimum of 5 seconds. The integral bell shall be tested with the pipe.
 - e. Pipe shall be supplied in minimum lengths of 20 feet.
 - f. Acceptance will be on the basis of the Owner's inspection and the manufacturer's written certification that the pipe was manufactured and tested in accordance with the applicable standards, including the National Sanitation Foundation. Additionally, each piece of pipe shall be stamped "NSF Approved".
- C. Plastic Tubing – Tubing for house service lines shall be Polyethylene Tubing – CTS PE 3408 conforming to all requirements of AWWA C-901 and ASTM D-2737 (SDR9). The tubing shall be copper tubing size and rated for a minimum working pressure of 200 psi. Marking on the tubing shall include – nominal tubing pipe size; type of tubing material – PE 3408; SDR 9; pressure rating – 200 psi; ASTM D-2737; manufacturer's name and seal of the National Sanitation Foundation.

2.2 GATE VALVES

- A. 3-Inches in Diameter and Smaller: Shall be bronze, heavy duty, non-rising stem, and wedge type with screwed or union bonnet. Valve ends shall be threaded or solder type as appropriate. Valves shall have a minimum 200 psi working pressure for water (125 psi working pressure for steam). Valves shall be made in the U.S.A. Gate valves shall be equal to Crane No.428 (threaded), Crane No. 1334 (solder end), Watts, Wilkins, or Mueller, or equal.
- B. 4-Inches Through 12-Inches in Diameter: Shall be mechanical joint resilient wedge type conforming to the requirements of AWWA C509 rated for 200 psi working pressure and test pressure of 400 psi.
 - 1. Valves shall be provided with two O-ring stem seals with one O-ring located above and one O-ring below the stem collar. The area between the O-rings shall be filled with lubricant to provide lubrication to the thrust collar bearing surfaces each time the valve is operated. At least one anti-friction washer shall be utilized to further minimize operating torque. All seals between valve parts, such as body and bonnet, bonnet and bonnet cover, shall be flat gaskets or O-rings.
 - 2. The valve gate shall be made of ductile iron having a vulcanized, synthetic rubber coating, or a seat ring attached to the disc with retaining screws. Sliding of the rubber on the seating surfaces to compress the rubber will not

be allowed. The design shall be such that compression-set of the rubber shall not affect the ability of the valve to seal when pressure is applied to either side of the gate. The sealing mechanism shall provide zero leakage at the water working pressure when installed with the line flow in either direction.

3. All internal ferrous surfaces shall be coated with epoxy to a minimum thickness of 4 mils. The epoxy shall be non-toxic, impart no taste to the water and shall conform to AWWA C550, latest revision.
 4. Gate valves 4 through 12-inches shall be manufactured by Mueller, U.S. or M & H Valve, or equal.
- C. 14-Inches in Diameter and Larger: Valves shall be U.S. Metro Seal or equal conforming to the requirements of AWWA C509.
1. Valve ends shall be mechanical joint type except where flanged or restrained joint ends are shown. Flanged joints shall meet the requirements of ANSI B16.1, Class 125.
 2. Buried valves shall be equipped with valve boxes unless access to the operator is provided by a manhole.
 3. Manually operated valves, shall be non-rising stem type having O-ring seals.
 4. Valves shall be installed in a vertical position without a bypass valve. Valves shall be metro seal 250 R/S resilient seated manufactured by U.S. Pipe. Resilient seat gate valves shall conform to AWWA Standard Specification C-509.
 5. Valves shall be designed for a water working pressure of 150 psi and a test pressure of 300 psi.

2.3 BUTTERFLY VALVE

- A. Butterfly valves shall be resilient seated, short body design, and shall be designed, manufactured, and tested in accordance with all requirements of AWWA C504. Valves shall be designed for a rated working pressure of 150 psi, unless shown otherwise on the drawings.
- B. Valve bodies shall be ductile iron conforming to ASTM A-536, Grade 65-45-12 or ASTM A-126, Grade B cast iron. Shafts shall be 18-8, Type 304 stainless steel, machined and polished. Valve discs shall be ductile iron, ASTM A-536, Grade 65-45-12 or ASTM A-126, Grade B cast iron. The resilient valve seat shall be located either on the valve disc or in the valve body and shall be fully field replaceable for valves 30" and larger.
- C. Valves shall be equipped with geared actuators designed, manufactured and tested in accordance with AWWA C504. Actuators shall be capable of holding the disc in any position between full open and full closed without any movement or fluttering of the disc. Actuators shall be furnished with fully adjustable mechanical stop-limiting devices. Actuators that utilize the sides of the actuator housing to limit disc travel are unacceptable. Valve actuators shall be capable of withstanding a minimum of

450 foot pounds of input torque in either the open or closed position without damage.

- D. Valves shall be installed with the valve shafts horizontal. Valves and actuators shall have seals on all shafts and gaskets on valve actuator covers to prevent the entry of water. Actuator mounting brackets shall be totally enclosed and shall have gasket seals.
- E. Valve ends shall be mechanical joint type, except where flanged or restrained joint ends are shown. Flange joints shall meet the requirements of ANSI B16.1, Class 125.
- F. Butterfly valves shall be manufactured by Henry Pratt, Dezurik, Keystone, or equal.

2.4 VALVE BOXES

- A. All valves shall be equipped with valve boxes. The valve boxes shall be cast iron two-piece screw type with drop covers. Valve boxes shall have a 5.25-inch inside diameter. Valve box covers shall weigh a minimum of 13 pounds. The valve boxes shall be adjustable to 6-inches up or down from the nominal required cover over the pipe. Valve boxes shall be of sufficient length that bottom flange of the lower belled portion of the box is below the valve operating nut. Ductile or cast iron extensions shall be provided as necessary. Covers shall have "WATER VALVE" or "WATER" cast into them. Valve boxes shall be manufactured in the United States and shall be equal to U.S. Foundry No. 7500 screw type.
- B. Extension stems shall be provided so as to set the top of the operating nut 30-inches below finished grade. Connection to the valve shall be with a wrench nut coupling and a set screw to secure the coupling to the valve's operating nut. The coupling and square wrench nut shall be welded to the extension stem. Extension stems shall be equal to Mueller A-26441 or M & H Valve Style 3801.
- C. Post Indicator Valves: 175 pound, cast iron body (ASTM A-126 Class B), cast iron split wedge disc, bronze discs rings, stem and threaded renewable seat rings, inside screw, non-rising stem, bolted bonnet, mechanical joint ends (ANSI/AWWA C111), indicator post flange, adjustable indicator post with tamper switch mounting bracket, UL listed and FM approved.

2.5 FIRE HYDRANTS

- A. All fire hydrants shall conform to the requirements of AWWA C502 and shall have a minimum of 200 psi working pressure. Hydrants shall be the compression type, closing with line pressure. The valve opening shall not be less than 5-1/4 inches.
- B. In the event of a traffic accident, the hydrant barrel shall break away from the standpipe at a point above grade and in a manner which will prevent damage to the barrel and stem, preclude opening of the valve, and permit rapid and inexpensive restoration without digging or cutting off the water.
- C. The means for attaching the barrel to the standpipe shall permit facing the hydrant a minimum of eight different directions.
- D. Hydrants shall be fully bronze mounted with all working parts of bronze. Valve seat

ring shall be bronze and shall screw into a bronze retainer.

- E. All working parts, including the seat ring shall be removable through the top without disturbing the barrel of the hydrant.
- F. The operating nut shall match those on the existing hydrants. The operating threads shall be totally enclosed in an operating chamber separated from the hydrant barrel by a rubber O-ring stem seal and lubricated by a grease or oil reservoir. A stop nut shall be positioned in the top operating mechanism so that the valve cannot contact the bottom of the shoe when fully open.
- G. Hydrant shall be a non-freezing design and provided with a simple, positive, and automatic drain which shall be fully closed whenever the main valve is opened.
- H. Hose and pump-truck connections shall be breech-locked, pinned, and then caulked with lead; or threaded and pinned, to seal them permanently into the hydrant barrel. Each hydrant shall have two 2-1/2 inch hose connections and one 4 inch pump connection all with National Standard threads and each equipped with cap and non-kinking chain.
- I. Hydrants shall be furnished with a mechanical joint shoe connection to the spigot of the 6-inch hydrant lead.
- J. Minimum depth of bury shall be 4.5 feet. Provide extension section where necessary for vertical installation and in accordance with manufacturer's recommendations to achieve the 15" minimum height above ground specified in the typical fire hydrant setting detail.
- K. All outside surfaces of the barrel above grade shall be painted with Koppers Glamortex 501 enamel or equal in a color to be selected by the using Authority.
- L. Hydrants shall be traffic model and manufactured by M&H, Mueller, or American Darling.
- M. All new fire hydrants shall be covered with a cloth bag until the water mains and fire hydrants are in service.

2.6 TAPPING SADDLES

- A. Tapping saddles shall be ductile iron body type with O-ring gasket and stainless steel (type ESS) straps. Connection shall be flanged or mechanical joint as detailed on the Drawings. Tapping saddles shall be equal to ACIPCO A-30920.

2.7 TAPPING SLEEVES AND VALVES (TS&V)

- A. Tapping sleeves shall be cast or ductile iron of the split sleeve, mechanical joint type. The contractor shall be responsible for determining the outside diameter of the pipe to be connected to prior to ordering the sleeve. Valves shall be furnished in accordance with Section 02510 of these Specifications, with flanged connection to the tapping sleeve and mechanical joint connection to the branch pipe. The tapping sleeve and valve shall be supplied by the valve manufacturer. Tapping sleeves shall be Mueller or M&H Valve.

2.8 FLANGE ADAPTERS

- A. Flange adapters shall permit the connection of un-threaded, un-grooved, open ended, ductile iron pipe to ANSI/ASME B16.1, Class 125 flanges. Flange adapters shall meet the test requirements of ANSI/ASME B16.1 for Class 125 flanges. The adapter shall be a ductile iron casting incorporating a flange with extended throat, set screws and gasket. The gasket shall provide a compression seal between the adaptor, the pipe and the adjacent flange. Flange adapters are to be used only in locations specifically shown on the Drawings and in accordance with the manufacturer's recommendations. Flange adapters shall be manufactured by McWane, Uni Flange (Series 400) or EBAA Iron.

2.9 RETAINER GLANDS

- A. Retainer glands shall be Megalug, Series 1100, as manufactured by EBAA Iron.
- B. Retainer glands for polyvinyl chloride pipe shall be Megalug Series 2000 PV, as manufactured by EBAA Iron Sales, Inc.

2.10 HARNESS RODS

- A. Harness rods shall be manufactured in accordance with ASTM A 449. Harness rods shall be field coated with bitumastic before backfilling.
- B. Eye bolts shall be of the same diameter as specified in AWWA C111 for that pipe size. The eye shall be welded closed. Where eye bolts are used in conjunction with harness rods, an appropriate size washer shall be utilized with a nut on each end of the harness rod. Eye bolts shall be of the same material and coating as the harness rods.

2.11 VALVE MARKERS

- A. The Contractor shall provide a concrete valve marker as detailed on the Drawings for each valve installed. Valve markers shall be stamped "WATER". Contractor shall provide raised pavement markers that meet the specifications and requirements set forth in the most current edition of the State of Georgia Department of Transportation "Standard Specifications for the Construction of Roads and Bridges", Section 654. RPM shall be installed as specified in Part 3 of this Section.

2.12 CORPORATION COCKS AND CURB STOPS

- A. Corporation cocks and curb stops shall be ground key type, shall be made of bronze conforming to ASTM B 61 or B 62, and shall be suitable for the working pressure of the system. Ends shall be suitable for grip type joint. Threaded ends for inlet and outlet of corporation cocks shall conform to AWWA C800; coupling nut for connection to flared copper tubing shall conform to ANSI B16.26. Corporation cocks and curb stops shall be manufactured by Mueller or Ford.

2.13 HYDRANT TEES

- A. Hydrant tees shall be equal to ACIPCO A10180 or U.S. Pipe U-592.

2.14 ANCHOR COUPLINGS

- A. Lengths and sizes shall be as shown on the Drawings. Anchor couplings shall be equal to ACIPCO A-10895 or U.S. Pipe U-591.

2.15 CONCRETE

- A. Concrete shall have a compressive strength of not less than 3000 psi, with not less than 5.5 bags of cement per cubic yard and a slump between 3 and 5-inches. For job mixed concrete, submit the concrete mix design for approval by the Owner. Ready-mixed concrete shall be mixed and transported in accordance with ASTM C 94. Reinforcing steel shall conform to the requirements of ASTM A-615, Grade 60.

2.16 DETECTION TAPE

- A. Detection tape shall be composed of a solid aluminum foil encased in a protective plastic jacket. Tapes shall be color coded in accordance with APWA color codes (Safety Precaution Blue) with the following text: "Caution Water Line Buried Below." Tape lettering shall be permanently printed with no surface printing allowed. Tape width shall be minimum 2-inches when buried less than 10 inches below the surface. Tape width shall be minimum 3-inches when buried greater than 10-inches and less than 20-inches.
- B. Detection tape shall be equal to Lineguard Type III Detectable or Allen Systems Detectatape.
- C. In addition to Detection Tape, a #12 insulated copper tracer wire shall be installed on all buried pipelines.

PART 3 EXECUTION

3.1 CONSTRUCTION ALONG HIGHWAYS, STREETS AND ROADWAYS

- A. Install pipe lines and accessories along highways, streets and roadways in accordance with the applicable regulations of City of Washington, Georgia Department of Transportation and/or the Georgia Environmental Protection Division with referenced to construction operations, safety, traffic control, road maintenance and repair.
- B. Traffic Control
 - 1. The Contractor shall supply, erect, and maintain all necessary barricades, suitable with sufficient lights and other traffic control devices; provide qualified flagmen where necessary to direct traffic; take all necessary precautions for the protection of the work and the safety of the public.
 - 2. Construction traffic control devices and their installation shall be in accordance with the current Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition.

3. Placement and removal of construction traffic control devices shall be coordinated with the Georgia Department of Transportation and local governing municipalities a minimum of 48 hours in advance of the activity.
4. Placement of construction traffic control devices shall be scheduled ahead of associated construction activities. Construction time in street right-of-way shall be conducted to minimize the length of time traffic is disrupted. Construction traffic control devices shall be removed immediately following their useful purpose. Traffic control devices used intermittently, such as "Flagmen Ahead", shall be removed and replaced when needed.
5. Existing traffic control devices within the construction work zone shall be protected from damage. Traffic control devices requiring temporary relocation shall be located as near as possible to their original vertical and horizontal locations. Original locations shall be measured from reference points and recorded in a log prior to relocation. Temporary locations shall provide the same visibility to affected traffic as the original location. Relocated traffic control devices shall be reinstalled in their original locations as soon as practical following construction.
6. Construction traffic control devices shall be maintained in good repair and shall be clean and visible to affected traffic for daytime and nighttime operation. Traffic control devices affected by the construction work zone shall be inspected daily.
7. Construction warning signs shall be black legend on an orange background. Regulatory signs shall be black legend on a white background. Construction sign panels shall meet the minimum reflective requirements of the Georgia Department of Transportation and local governing municipalities. Sign panels shall be of durable materials capable of maintaining their color, reflective character and legibility during the period of construction.
8. Traffic channel devices shall be positioned preceding an obstruction at a taper length as required by the current Manual On Uniform Traffic Control Devices for Streets and Highways, as appropriate for the speed limit at that location. Traffic channel devices shall be patrolled to insure that they are maintained in the proper position throughout their period of use.

C. Construction Operations

1. Perform all work along highways, streets and roadways to minimize interference with traffic.
2. Stripping: Where the pipe line is laid along road right-of-way, strip and stockpile all sod, topsoil and other material suitable for right-of-way restoration.
3. Trenching, Laying and Backfilling: Do not open the trench any further ahead of pipe laying operations than is necessary. Backfill and remove excess material immediately behind laying operations. Complete excavation and backfill for any portion of the trench in the same day.

4. Shaping: Reshape damaged slopes, side ditches, and ditch lines immediately after completing backfilling operations. Replace topsoil, sod and any other materials removed from shoulders.
 5. Construction operations shall be limited to 400 feet along areas, including clean-up and utility exploration unless otherwise approved by the Owner.
- D. Excavated Materials: Do not place excavated material along highways, streets and roadways in a manner which obstructs traffic. Sweep all scattered excavated material off of the pavement in a timely manner.
 - E. Drainage Structures: Keep all side ditches, culverts, cross drains, and other drainage structures clear of excavated material. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.
 - F. Landscaping Features: Landscaping features shall include, but are not necessarily limited to: fences; property corners; cultivated trees and shrubbery; manmade improvements; subdivision and other signs within the right-of-way and easement. The Contractor shall take extreme care in moving landscape features and promptly re-establishing these features.
 - G. Maintaining Highways, Streets, Roadways and Driveways
 1. Maintain streets, highways, roadways and driveways in suitable condition for movement of traffic until completion and final acceptance of the Work.
 2. During the time period between pavement removal and completing permanent pavement replacement, maintain highways, streets and roadways by the use of steel running plates. Running plate edges shall have asphalt placed around their perimeter to minimize vehicular impact. The backfill above the pipe shall be compacted as specified elsewhere up to the existing pavement surface to provide support for the steel running plates.
 3. Immediately repair all driveways that are cut or damaged. Maintain them in a suitable condition for use until completion and final acceptance of the Work.

3.2 EXISTING UNDERGROUND UTILITIES AND OBSTRUCTIONS

- A. It is the responsibility of the Contractor to locate all existing utilities along the path of construction. The drawings shall indicate underground utilities or obstructions that are known to exist. Where these or unforeseen underground utilities are encountered, the location and alignment of the water main may be changed, upon written approval of the Owner, to avoid interference.
- B. Existing Utility Location: The following steps shall be exercised to avoid interruption of existing utility service.
 1. Provide the required notice to the utility owners and allow them to locate their facilities according to Georgia law. Field utility locations are valid for only 10 days after original notice. The Contractor shall ensure, at the time of any excavation that a valid utility location exists at the point of excavation.

2. Expose the facility, for a distance of at least 200 feet in advance of pipeline construction, to verify its true location and grade. Repair, or have repaired, any damage to utilities resulting from locating or exposing their true location.
3. Avoid utility damage and interruption by protection with means or methods recommended by the utility owner.
4. Maintain a log identifying when phone calls were made, who was called, area for which utility relocation was requested and work order number issued, if any. The Contractor shall provide the Owner an updated copy of the log as requested.

C. Conflict with Existing Utilities

1. Horizontal conflict shall be defined as when the actual horizontal separation between a utility, main, or service and the proposed piping does not permit safe installation of the piping by the use of sheeting, shoring, tying-back, supporting, or temporarily suspending service of the parallel or crossing facility. The Contractor may change the proposed alignment of the piping to avoid horizontal conflicts if the new alignment remains within the available right-of way or easement, complies with regulatory agency requirements and after a written request to and subsequent approval by the Owner, the Contractor shall arrange to have the utility, main, or service relocated.
2. Vertical conflict shall be defined as when the actual vertical separation between a utility, main, or service and the proposed piping does not permit the crossing without immediate or potential future damage to the utility, main, service, or the piping. The Contractor may change the proposed grade of the piping to avoid vertical conflicts if the new grade complies with regulatory agencies requirements and after written request to and subsequent approval by the Owner. Where such adjustment of the piping is approved by the Owner, the Contractor shall arrange to have the utility, main, or service relocated.

- D. Electronic Locator: Have available at all times an electronic pipe locator and a magnetic locator, in good working order, to aid in locating existing pipe lines or other obstructions.

3.3 CONNECTIONS TO EXISTING PIPE LINES

- A. Before laying pipe, the Contractor shall locate the points of connection to existing pipe lines and uncover as necessary for the Owner to confirm the nature of the connection to be made. The Contractor shall furnish materials and make the connection to all existing pipe lines as shown on the drawings. The Contractor will be observed during construction of tie-ins by the Owner. The Contractor shall use all available practices and resources to minimize the time the customers are without water. The Contractor shall notify all required utility companies and users of outages at least 72 hours in advance.
- B. Interruption of Services: Make connections to existing piping only when system operations permit. Operate existing valves only with the specific authorization and

direct supervision of the Owner.

C. Tapping Saddles and Tapping Sleeves

1. Holes in the new pipe shall be machine cut, either in the field or at the factory. No torch cutting of holes shall be permitted.
2. Prior to attaching the saddle or sleeve, the pipe shall be thoroughly cleaned, utilizing a brush and rag, as required.
3. Before performing field machine cut, the water tightness of the saddle or sleeve assembly shall be pressure tested. The interior of the assembly shall be filled with water. An air compressor shall be attached, which will induce a test pressure as specified in Section 02519. No leakage shall be permitted for a period of five minutes.
4. After attaching the saddle or sleeve to existing piping, but prior to making the tap, the interior of the assembly shall be disinfected. All surfaces to be exposed to potable water shall be swabbed or sprayed with one percent hypochlorite solution.

D. Connections Using Solid Sleeves: Where solid sleeves are shown on the Drawings, the Contractor shall furnish materials and labor necessary to make the connection using a solid sleeve to the existing pipe line.

E. Connections Using Flange Filler shall be used only where shown on the Drawings or approved by the Owner to make up minor differences in pipe length less than 3-inches. Joint bolt length shall be increased by the thickness of the flange filler.

F. Connections Using Mechanical Pipe Couplings: Where pipe couplings are shown on the Drawings, the Contractor shall furnish materials and labor necessary to make the connection using a pipe coupling to the existing pipe line, including all necessary cutting, plugging and backfill.

G. Connections to Pressure Mains

1. Connections to ductile iron pipe pressure mains shall be by the direct tap method or service clamp, as detailed on the Drawings in full accordance with AWWA requirements.
2. Connections to polyvinyl chloride pipe shall be made using a full body service clamp.
3. Pressure ratings for connections shall be the same as the pressure rating for the pipe.

H. Hydrants: Hydrants shall be attached to the water main by the following method:

1. For mains 12-inches and smaller, the isolation valve shall be attached to the main by connecting the valve to the hydrant tee.
2. For mains larger than 12-inches, the isolation valve shall be attached to the

main by providing an anchor coupling between the valve and tapping saddle.

3. The isolation valve shall be attached to the hydrant by providing an anchor coupling between the valve and hydrant.

3.4 PIPE DISTRIBUTION

- A. Pipe shall be distributed and placed in such a manner that will not interfere with traffic.
- B. No pipe shall be strung further along the route than 1,000 feet beyond the area in which the Contractor is actually working without written permission from the Owner. The Owner reserves the right to reduce this distance to a maximum distance of 200 feet in residential and commercial areas based on the effects of the distribution to the adjacent property owners.
- C. No street or roadway may be closed for unloading of pipe without first obtaining permission from the proper authorities. The Contractor shall furnish and maintain proper warning signs and obstruction lights for the protection of traffic along highways, streets and roadways upon which pipe is distributed.
- D. No distributed pipe shall be placed inside drainage ditches.
- E. Distributed pipe shall be placed as far as possible from the roadway pavement, but no closer than five feet from the roadway pavement, as measured edge-to-edge.

3.5 LOCATION AND GRADE

- A. The Drawings show the alignment of the water main and the location of valves, hydrants and other appurtenances.
- B. After the Contractor locates and marks the water main centerline or baseline, the Contractor shall perform clearing and grubbing.
- C. Construction shall begin at a connection location and proceed without interruption. Multiple construction sites shall not be permitted without written authorization from the Owner for each site.

3.6 LAYING PIPE

- A. Field Inspection: All pipe and accessories shall be laid, jointed, tested for defects and for leakage with pressure and chlorinated in the manner herein specified in the presence of the Owner and subject to their approval.
- B. Handling Pipe and Accessories:
 1. Care: PVC pipe, fittings, valves and other accessories shall be unloaded at the point of delivery, hauled to and distributed at the site of the project by the contractor; they shall at all times be handled with care to avoid damage. In loading and unloading they shall be lifted by hoists or slid or towed on skid-ways in such a manner as to avoid shock. Under no circumstances shall they be dropped. Pipe handled on skids must not be skidded or rolled against pipe already on the ground.

2. At Site of Work: In distributing the material at the site of the work, each piece shall be unloaded opposite or near the place where it is to be laid in the trench and shall be laid on high ground so that it will not be in a drainage way.
3. Bell Ends, How Faced: Pipe shall be placed on the site of the work parallel with the trench alignment and with the bell ends facing the direction in which the work will proceed, unless otherwise directed by the Owner.
4. Pipe Kept Clean: The interior of all pipes, fittings and other accessories shall be kept free from dirt and foreign matter at all times.
5. Detection tape shall be buried 2'-0" below the ground surface above the water main.
6. Twelve (12) gauge pipe detection wire shall also be installed by taping to the top of the pipe every fifty (50) feet during pipe installation.

C. Alignment and Grade:

1. General: All pipes shall be laid and maintained in the required lines and grades, with fittings and valves at the required locations, with joints centered and spigots home, and with all valve stems plumb.
2. Depth of Pipe: Where pipe is laid in roadways and parkways of streets, the top of the barrel of the pipe shall have a minimum cover of forty-eight inches below the curb line of the street or where no curb line has been established, below the existing ground line. Where the pipe is laid in open, un-subdivided areas, a minimum of thirty-six inches of cover is required. A greater depth of cover is required in certain sections of the main, such as railroad crossings, valve locations and other sections of special construction, and within State and Federal highway rights-of-way.
3. All PVC line smaller than 4" shall be aligned in the trench in a "snake" or "S" form to allow for elongation due to temperature changes.

D. Excavation and Preparation of Trench:

1. Description: The trench shall be dug to the alignment and depth required and not to exceed 200 feet in advance of the pipe laying. The trench shall be braced if work therein, safely and efficiently. It is essential that the discharge from any pumps be led to natural drainage channels, to drains or to storm sewers.
2. Width: Minimum width of trench shall be eighteen (18) inches or six (6) inches out-side the barrel of the pipe on each side of pipe. Maximum width of trench shall be nine (9) inches outside the barrel of the pipe on each side of pipe. Sides of trench shall be dug and maintained substantially vertical to a height 12 inches above the pipe.
3. Pipe Foundation: The pipe shall be laid upon a sound earthen foundation cut

true and even so that the barrel of the pipe will have a bearing for its full length.

4. Correcting Faulty Grade: Any part of the trench excavated below grade shall be corrected with approved materials and thoroughly compacted.
5. Bell Holes, Required: Bell holes of ample dimensions shall be dug in trenches at each joint to permit the joint to be made properly.
6. Braced and Sheeted Trenches: Wherever necessary to prevent caving, excavations shall be adequately sheeted and braced. Where sheeting and bracing are used, the trench width shall be increased accordingly. Trench sheeting shall remain in place until the pipe has been laid, tested for defects, and repaired if necessary, and the earth around it compacted to a depth of two feet over the top of the pipe.
7. Care of Surface Materials for Re-Use: If local conditions permit their re-use, all surface materials suitable for re-use in restoring the surface shall be kept separate from the general excavation material.
8. Manner of Piling Excavated Materials: All excavated materials shall be piled in a manner that will not endanger the work and that will avoid obstructing sidewalks and driveways. Gutters shall be kept clear or other provisions made for street drainage.
9. Trenching by Machine or by Hand: The use of trench digging machinery will be permitted except in places where operation of same will cause damage to existing structures above or below ground; in which case hand methods shall be employed. Excavation shall be made by ladder type machine or backhoe.
10. Unsuitable Soil Conditions: Where the sub-grade is unsuitable material for the proper installation of the water main, the Contractor shall undercut the trench and backfill with No. 57 stone meeting the requirements of Georgia DOT Specification 800.01 at the Owner's direction. The stone shall be brought to grade and thoroughly compacted to conform to the outside of the main.
11. No separate payment will be made for unsuitable soil removal. The Contractor shall be paid at a price as negotiated by the Owner on an "as needed" basis.
12. Dewatering Trenches: Where subgrade with excessive water is encountered, dewatering shall be done by well pointing. If soil conditions are not suitable for well points, trench drains or crushed stone or gravel shall be constructed to carry the water to sumps and the water removed by pumps or bailing. No extra payment will be made for dewatering trenches.

E. Pipe Handling:

1. Manner of Hauling Pipe and Accessories: Proper implements, tools and facilities shall be provided and used by the contractor for the safe and

convenient execution of the work. All pipe, fittings and valves shall be carefully lowered into the trench piece by piece by means of derrick ropes or other suitable tools or equipment, in such a manner as to prevent damage to pipe or pipe coating. Under no circumstances shall pipe or accessories be dropped or dumped into the trench.

2. Inspection: Before lowering and while still suspended, the pipe shall be inspected for defects. Any defective, damaged or unsound pipe shall be rejected.
 3. Pipe Kept Clean: All foreign matter or dirt shall be removed from the pipe, and it shall be kept clean by approved means throughout the process.
 4. Installation of the Pipe: The spigot shall be centered in the bell, the pipe forced "home" and brought into true alignment; it shall be secured there by earth carefully tamped under and on each side of it, except at the bell holes. Care shall be taken to prevent dirt from entering the joint space. No "blocking up" of pipe or joints will be permitted. The joint shall be made as hereinafter described.
 5. All PVC pipe smaller than 4" O.D. or less shall be solvent welded. Method of solvent weld jointing shall be approved by the Owner prior to installation.
 6. Trench Water Entering Pipe: At times when pipe installation is not in progress, the open ends of the pipe shall be closed by approved means and no trench water shall be permitted to enter the pipe.
 7. Cutting Pipe: Cutting of pipe for inserting valves, fittings or closure pieces shall be done in a neat workmanlike manner without damage to the pipe.
 8. Bell Ends Face Direction of Laying: Unless otherwise directed, pipe shall be laid with bell ends facing in the direction of installation; and for lines on an appreciable slope, bells shall, at the discretion of the Owner face up-grade.
 9. Permissible Deflections at Joints: Wherever necessary to deflect pipe from a straight line, either in the vertical or horizontal plane to avoid obstructions, the degree of deflection shall not exceed $\frac{2}{3}$ the maximum according to manufacturer's recommendations.
 10. Unsuitable Conditions for Installing Pipe: No pipe shall be laid in water, or when the trench conditions or the weather is unsuitable for such work.
- F. Jointing Pipe-Mechanical Joints: The following steps shall be taken in making mechanical joints:
1. All lumps, blisters and excess coal-tar enamel shall be removed from socket and spigot of the pipe.
 2. Wash socket and plain end with soapy water containing chloride solution; then slip gland and gasket over plain end. The small side of gasket and lip gland shall face bell.

3. Paint gasket with soapy solution containing chlorine.
 4. Push gasket into position, being sure it is evenly seated in socket.
 5. Slide gland into position; insert bolts and run nuts up finger tight.
 6. Tighten bolts to uniform tightness with correct ratchet wrench. The first bolt tightened shall be the bottom bolt, then top. All other bolts shall be tightened in sequence at 180 degrees apart.
- G. Setting Valves, Valve Boxes and Fittings:
1. General: Gate valves and pipe fittings shall be set and joined to new pipe in the manner heretofore specified for cleaning, laying and jointing pipe.
 2. Valve Boxes: Cast iron valve boxes shall be firmly supported and maintained centered and plumb over the wrench nut of the gate valve, with box cover.
- H. Plugging Dead Ends: Standard plugs shall be inserted into the bells of all dead ends of pipes, tees or crosses and spigot ends shall be capped. Plugs or caps shall be jointed to the pipe or fittings in the manner specified above.
- I. Hydrant Installation
1. Prior to installation, inspect all hydrants for direction of opening, nozzle threading, operating nut and cap nut dimensions, tightness of pressure-containing bolting, cleanliness of inlet elbow, handling damage and cracks. Defective hydrants shall be corrected or held for inspection by the Owner.
 2. All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the roadway, with pump connection nozzle facing the roadway, except that hydrants having two-hose nozzles 90 degrees apart shall be set with each nozzle facing the roadway at an angle of 45 degrees.
 3. Hydrants shall be set to the established grade, with the centerline of the lowest nozzle at least 12-inches above the ground or as directed by the Owner.
 4. Each hydrant shall be connected to the main with a 6-inch branch controlled by an independent 6-inch valve. When a hydrant is set in soil that is pervious, drainage shall be provided at the base of the hydrant by placing coarse gravel or crushed stone mixed with coarse sand from the bottom of the trench to at least 6-inches above the drain port opening in the hydrant to a distance of 12-inches around the elbow.
 5. When a hydrant is set in clay or other impervious soil, a drainage pit 2 x 2 x 2 feet shall be excavated below each hydrant and filled with coarse gravel or crushed stone mixed with coarse sand under and around the elbow of the hydrant and to a level of 6-inches above the drain port.
 6. Hydrants shall be located as shown on the Drawings or as directed by the Owner. In the case of hydrants that are intended to fail at the ground-line joint

upon vehicle impact, specific care must be taken to provide adequate soil resistance to avoid transmitting shock moment to the lower barrel and inlet connection. In loose or poor load bearing soil, this may be accomplished by pouring a concrete collar approximately 6-inches thick to a diameter of 24-inches at or near the ground line around the hydrant barrel.

7. Raised pavement markers (RPM's) shall be provided and installed along the appropriate roadway centerline for each fire hydrant on Owner owned right-of-way. RPM's for in-line valves shall be Type I, two-way, and blue in color.

3.7 THRUST RESTRAINT

- A. Provide restraint at all points where hydraulic thrust may develop.
- B. Retainer Glands: Provide retainer glands where shown on the Drawings and on fire hydrants and all associated fittings, valves and related piping. Retainer glands shall be installed in accordance with the manufacturer's recommendations, particularly, the required torque of the set screws. The Contractor shall furnish a torque wrench to verify the torque on all set screws which do not have inherent torque indicators.
- C. Harnessing
 1. Provide harness rods only where specifically shown on the Drawings or directed by the Owner.
 2. Harness rods shall be manufactured in accordance with ASTM A36 and shall have an allowable tensile stress of no less than 22,000 psi. Harness rods shall be hot dip galvanized or field coated with bitumastic before backfilling.
 3. Where possible, harness rods shall be installed through the mechanical joint bolt holes. Where it is not possible, provide 90 degree bend eye bolts.
 4. Eye bolts shall be of the same diameter as specified in AWWA C111 for that pipe size. The eye shall be welded closed. Where eye bolts are used in conjunction with harness rods, an appropriate size washer shall be utilized with a nut on each end of the harness rod. Eye bolts shall be of the same material and coating as the harness rods.
- D. Hydrants: Hydrants shall be attached to the water main as shown on the Standard Detail.
- E. Thrust Collars: Collars shall be constructed as shown on the Drawings. Concrete and reinforcing steel shall meet the requirements as specified in this Section. The welded-on collar shall be designed to meet the minimum allowable load shown on the Drawings. The welded-on collar shall be attached to the pipe by the pipe manufacturer.
- F. Concrete Blocking
 1. Provide concrete blocking for all bends, tees, valves, and other points where thrust may develop, except where other exclusive means of thrust restraint are specifically shown on the Drawings.

2. Concrete shall be as specified in this Section.
3. Form and pour concrete blocking at fittings as shown on the Drawings and as directed by the Owner. Pour blocking against undisturbed earth. Increase dimensions when required by over excavation.

3.8 DETECTION TAPE

- A. Provide detection tape for all water mains.

3.9 BACKFILLING, CLEANING UP AND MAINTAINING SURFACES

- A. Time of Backfilling: As soon as practicable after the completion of laying and jointing of the pipe, the trench shall be backfilled, and at no time shall the completed backfilling of the trench be more than 300 feet behind the pipe laying.
- B. Compaction Requirements: All backfill for trenches under paved or roadway areas shall be compacted to 98% of the Standard Proctor maximum density (ASTM D-698). Backfill for trenches other than under paved or roadway areas shall be compacted to 95% of the Standard Proctor maximum density (ASTM D-698). The testing lab shall furnish the Owner proof of compaction at a point 18" above the crown of the sewer pipe at all pavement, driveway or roadway crossings. Additional compaction tests are required at each crossing 8" below the surface of the pavement or on the pavement subgrade before pavement placement. Contractor shall incur all cost for compaction test performed by a testing laboratory approved by the Owner and selected by the Contractor.
- C. Backfill Procedure at Pipe Zone: Select backfill material free from rock fragments shall be deposited in the trench simultaneously on both sides of the pipe for the full width of the trench and to an elevation of twelve inches above the top of the barrel of the pipe. The backfill material shall be moistened if necessary, tamped in thin (about 4-inch) layers and thoroughly compacted under and on each side of the pipe to provide solid backing against the external surface of the pipe. Backfill material within 6" of main shall be selected backfill aggregate no larger than 3/4" in diameter (#57 stone).
- D. Backfill Procedure Above the Pipe Zone: Succeeding layers of backfill may contain coarser materials, and shall be compacted thoroughly to the natural ground surface.
- E. Procedure Where Settlement is Important: Where it is important that the surface of the backfill be made safe for vehicular traffic at unpaved street crossings and along existing unpaved streets, the upper thirty-six inches of backfill shall be approved moist material, thoroughly compacted in eight inch layers by tamping, and shall be brought to the required surface grade.
- F. Deficiency of Backfill, by Whom Supplied: Any deficiency in the quantity of material for backfilling the trenches, or for filling depressions caused by settlement, shall be supplied by the contractor.
- G. Protection: Return all items and all areas disturbed, directly or indirectly by work under these specifications, to their original condition or better, as quickly as possible after work is started.

- H. Restoration of Surfaces: The contractor shall replace all curbing, sidewalks, gutters, shrubbery, fences, sod, and other surfaces disturbed to a condition equal to that before the work began, furnishing all labor and materials incidental thereto and complete the work in a manner satisfactory to the Owner. Replacement of street base and surface removed to permit installation of pipe lines shall be provided for elsewhere in these specifications.
- I. Man-Made Improvements: Protect, or remove and replace with the Owner's approval, all fences, piers, docks, walkways, mailboxes, pipe lines, drain culverts, power and telephone lines and cables, and other improvements that may be encountered in the work.
- J. Cultivated Growth: Do not disturb cultivated trees or shrubbery unless approved by the Owner. Any such trees or shrubbery which must be removed shall be heeled in and replanted under the direction of an experienced nurseryman.
- K. Cutting of Trees: Do not cut trees for the performance of the work except as absolutely necessary. Protect trees that remain in the vicinity of the work from damage from equipment. Do not store spoil from excavation against the trunks. Remove excavated material stored over the root system of trees within 30 days to allow proper natural watering of the root system. Repair any damaged tree over 3 inches in diameter, (measured 4' from the ground) not to be removed, under the direction of an experienced nurseryman. All trees and brush that require removal shall be promptly and completely removed from the work area and disposed of by the Contractor. No stumps, wood piles, or trash piles will be permitted on the work site.
- L. Surplus Earth: Surplus excavated materials from trenches in streets or at railroad crossings shall be disposed of by the contractor at his expense and in a manner satisfactory to the Owner.
- M. Cleaning Up: Surplus pipe line materials, tools, surplus excavated materials, rubbish, and temporary structures shall be removed by the contractor and the construction site shall be left clean, to the satisfaction of the Owner. The line shall be cleaned up immediately after a satisfactory pressure test has been made.
- N. Maintenance of Surfaces: Following the certification of completion by the Owner, the contractor shall maintain the surface of the unpaved trenches, adjacent curbs, sidewalks, gutters and other surfaces disturbed for a period of three months thereafter. All materials and labor required for the maintenance of the trenches and adjacent structures shall be supplied by the contractor and the work shall be done in a manner satisfactory to the Owner.
- O. Compaction Testing:
 - 1. Density: Tests for compaction and density shall be conducted by an independent testing laboratory selected in accordance with Section 02300 of these specifications.
 - 2. The soils testing laboratory is responsible for the following:

- a. Field compaction testing shall be based on using the maximum dry density determined by the Standard Proctor Compaction Test in accordance with ASTM D 698.
- b. Maximum dry density for non-cohesive materials shall mean the maximum index density as determined by ASTM D 4253.
- c. Determination of in-place backfill density shall be done in accordance with ASTM D 1556, ASTM D 2937, or ASTM D 2922.
- d. Field density tests for each two feet of lift; one test for each 5,000 square feet of fill.
- e. Inspecting and testing stripped site, subgrade and proposed fill materials.

P. Contractor's duties relative to testing include – Refer to Sections 02300 and 02324.

3.10 WATER MAIN AND SEWER MAIN SEPARATION

- A. Water mains should maintain a minimum 10 foot edge-to-edge separation from sewer lines, whether gravity or pressure. If the main cannot be installed in the prescribed easement or right-of-way and provide the 10 foot separation, the separation may be reduced, provided the bottom of the water main is a minimum of 18-inches above the top of the sewer. If neither of these two separation criteria be possible, the water main shall be installed below the sewer with a minimum vertical separation of 18-inches.
- B. The water main, when installed below the sewer, shall be encased in concrete with a minimum 6-inch concrete depth to the first joint in each direction. Where water mains cross the sewer, the pipe joint adjacent to the pipe crossing the sewer shall be cut to provide maximum separation of the pipe joints from the sewer.
- C. No water main shall pass through, or come in contact with, any part of a sanitary sewer manhole.

3.11 TESTING

REFER TO SECTION 02519 - PIPING, TESTING AND ACCEPTANCE.

3.12 DISINFECTING PIPE LINES

REFER TO SECTION 02515 - DISINFECTION OF WATER DISTRIBUTION SYSTEMS.

3.13 PROTECTION AND RESTORATION OF WORK AREA

- A. General: Return all items and all areas disturbed, directly or indirectly by work under these Specifications, to their original condition or better, as quickly as possible after work is started.
 - 1. The Contractor shall plan, coordinate, and prosecute the work such that disruption to personal property and business is held to a practical minimum.

2. All construction areas abutting lawns and yards of residential or commercial property shall be restored promptly. Backfilling of underground facilities, ditches, and disturbed areas shall be accomplished on a daily basis as work is completed. Finishing, dressing, and grassing shall be accomplished immediately thereafter, as a continuous operation within each area being constructed and with emphasis placed on completing each individual yard or business frontage. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.
 3. Handwork, including raking and smoothing, shall be required to ensure that the removal of roots, sticks, rocks, and other debris is removed in order to provide a neat and pleasing appearance.
 4. The Department of Transportation's engineer shall be authorized to stop all work by the Contractor when restoration and cleanup are unsatisfactory and to require appropriate remedial measures.
- B. Man-Made Improvements: Protect, or remove and replace with the Owner's approval, all fences, walkways, mail boxes, pipe lines, drain culverts, power and telephone lines and cables, property pins and other improvements that may be encountered in the Work.
- C. Cultivated Growth: Do not disturb cultivated trees or shrubbery unless approved by the Owner. Any such trees or shrubbery which must be removed shall be heeled in and replanted under the direction of an experienced nurseryman.
- D. Cutting of Trees: Do not cut trees for the performance of the work except as absolutely necessary. Protect trees that remain in the vicinity of the work from damage from equipment. Do not store spoil from excavation against the trunks. Remove excavated material stored over the root system of trees within 30 days to allow proper natural watering of the root system. Repair any damaged tree over 3-inches in diameter, not to be removed, under the direction of an experienced nurseryman. All trees and brush that require removal shall be promptly and completely removed from the work area and disposed of by the Contractor. No stumps, wood piles, or trash piles will be permitted on the work site.
- E. Disposal of Rubbish: Dispose of all materials cleared and grubbed during the construction of the Project in accordance with the applicable codes and rules of the appropriate Owner, state and federal regulatory agencies.
- F. Swamps and Other Wetlands
1. The Contractor shall not construct permanent roadbeds, berms, drainage structures or any other structures which alter the original topographic features within the easement.
 2. All temporary construction or alterations to the original topography will incorporate measures to prevent erosion into the surrounding swamp or wetland. All areas within the easement shall be returned to their original topographic condition as soon as possible after work is completed in the area. All materials of construction and other non-native materials shall be disposed by the Contractor.

3. The Contractor shall provide temporary culverts or other drainage structures, as necessary, to permit the free migration of water between portions of a swamp, wetland or stream which may be temporarily divided by construction.
4. The Contractor shall not spread, discharge or dump any fuel oil, gasoline, pesticide, or any other pollutant to adjacent swamps or wetlands.

END SECTION

SECTION 33 05 61

MANHOLES AND APPURTENANCES

PART 1 GENERAL

1.1 DESIGN REQUIREMENTS

- A. Manholes shall be constructed of specified materials to the sizes, shapes and dimensions and at the locations shown on the Drawings. The height of depth of the manhole will vary with the location. Unless shown otherwise on the Drawings, the top of the manhole will vary with the location. Unless shown on the Drawings, the top of manhole frame will be at the finished grade of the pavement or ground surface and inverts will be at the elevations shown on the Drawings.

1.2 SUBMITTALS

- A. Complete product data on all precast manhole bottoms, riser sections, transition slabs and tops shall be submitted in accordance with these Specifications.
- B. Complete product data on frames, covers and steps shall be submitted to the Owner for approval.
- C. Complete product data on all piping appurtenances shall be submitted to the Owner for approval.

1.3 QUALITY ASSURANCE

- A. Prior to delivery, all basic materials specified herein shall be tested and inspected by an approved independent commercial testing laboratory. Certified copies of test reports prepared by the manufacturer's testing laboratory will be acceptable.

PART 2 PRODUCTS

2.1 MANHOLES

- A. Concrete and Reinforcement
 - 1. Concrete used in construction shall have a minimum compressive strength of 3000 psi unless noted or specified otherwise.
 - 2. Steel reinforcement shall be deformed bars conforming to ASTM A-615.

Reinforcement shall be manufactured from new billet steel of American Manufacture Grade 60.

3. Brick used in manhole construction shall be solid or cored, medium hard or better, Grade MS brick conforming to the requirements of ASTM C 32 for sewer and manhole brick.
4. Mortar shall be made of one part Portland cement and two parts clean sharp sand. Cement shall be Type 1 and shall conform to ASTM C 150, C175 and C33. Sand shall meet the requirements of ASTM C 144.

B. Round Precast Concrete Manholes: Provide manholes and other precast concrete products in accordance with the following:

1. Precast concrete sections shall meet the requirements of ASTM C 478. The minimum compressive strength of the concrete in precast sections shall be 4,000 psi.
2. The minimum wall thickness shall be one-twelfth of the inside diameter of the base, riser or the largest cone diameter. Additionally, the wall thickness shall be sufficient for the installation of the rubber boots.
3. Transition slabs which convert bases larger than four feet in diameter to four foot diameter risers shall be designed by the manhole manufacturer to carry the live and dead loads exerted on the slab.
4. Seal joints between precast sections by means of rubber O-ring gaskets or flexible butyl rubber sealant.
5. Manholes shall be coated and sealed to prevent interior corrosion and waterproofed as required to meet the minimum testing requirements.

2.2. MANHOLE FRAMES AND COVERS

- A. Cast iron frames and covers shall meet the requirements of ASTM A-48 for Class 30 gray iron and all applicable local standards. All castings shall be tough, close grained, smooth, and free from blow holes, blisters, shrinkage, strains, cracks, cold shots and other imperfections. No casting will be accepted which weighs less than 95 percent of the design weight. Shop drawings must indicate the design weight and provide sufficient dimensions to permit checking. All castings shall be thoroughly cleaned in the shop and given two coats of bituminous paint before rusting begins.

- B. Manhole frames and covers shall be as indicated on the Detail Drawings:
- C. All frames and covers shall have machined horizontal bearing surfaces.
- D. All manholes shall have standard frames and covers except where specifically shown otherwise on the Drawings.

2.3. JOINT SEALANT:

- A. Seal joints between precast sections by means of rubber O-ring gaskets or flexible butyl rubber sealant. Butyl rubber sealant shall meet the requirements of AASHTO M-198. Sealant shall be pre-formed type with a minimum nominal diameter of 1-inch. Butyl rubber sealant shall be equal to Kent Seal No.2 or concrete Sealant CS202.

2.4. RUBBER BOOTS

- A. Provide preformed rubber boots and fasteners as manufactured by Kor-N-Seal or Press Seal Gasket Corporation.

2.5. STEPS

- A. Manhole steps shall be plastic coated steel as manufactured by M.A. Industries, Model PS1-PF or approved equal meeting ASTM C-478. Steps shall be spaced 12 inches on center and vertically aligned.

PART 3 EXECUTION

3.1 GENERAL

- A. Excavation for backfilling for all manholes covered under this Section shall conform to the requirements of these Specifications.
- B. Top Elevations: Built manhole castings shall be flush with the finished grade unless otherwise shown on the Drawings.
- C. Drop Connections: Manholes requiring drop connections are shown on the Drawings. Construct drop connections of the same materials as the upstream sewer and in accordance with the details shown on the Drawings.
- D. Inlet and Outlet Pipe

1. Where required, inlet and outlet pipes shall be cut-off flush with the interior

surface of the manhole walls.

2. Inverts: All inverts shall be 3000 psi concrete and shall conform to the shape indicated on the Drawings. The invert shall be formed to the required size and grade by gradual and even changes in sections. Changes in directions of flow through the inlet shall be made to a true curve with as large a radius as the size of the inlet will permit.
- E. Invert Elevations: The invert elevations shown on the Drawings shall be for the invert elevation of the incoming and outgoing pipe. Prior to setting the laser or other vertical alignment control system for the sewer upstream of the manhole, the Contractor shall verify the elevation of the sewer installed at the manhole.
- F. Manholes shall be constructed with plumb walls.
- G. The cast iron frame for the manhole cover shall be set at the required elevation and anchored to the masonry. Where manholes are constructed in paved areas, the top surface of the frame and cover shall be tilted to conform to the exact slope, crown and grade of the existing adjacent pavement.
- H. Masonry work shall be allowed to set for a period of not less than 24 hours. Outside forms, if any, then shall be removed and the manhole backfilled and compacted. All loose or waste material shall be removed from the interior of the manhole. The manhole cover then shall be placed and the surface in the vicinity of the work cleaned off and left in a neat and orderly condition.

3.2 CONSTRUCTION OF CAST-IN-PLACE CONCRETE STRUCTURES

- A. Cast-in-place structures shall be constructed in place as shown and detailed on the Drawings.
- B. Should circumstances make a vertical joint necessary, a formed groove or reinforcing dowels shall be required in the top of the first placement for shear protection. Immediately before the second vertical placement is made, the surface of the cold joint shall be thoroughly cleaned and wetted with a layer of mortar being deposited on the surface.

3.3 PRECAST MANHOLE CONSTRUCTION

- A. Construct manholes as shown on the Drawings and in accordance with the

requirements of ASTM C 891.

- B. Precast Concrete: Handle sections to prevent cracking or chipping. Provide uniform bedding of the bottom section to prevent uneven loading. Install gaskets and joint sealants in accordance with manufacturer's recommendations to produce a watertight structure.
- C. Where bricks are used to adjust the frame and cover to grade, bed the bottom and sides of every brick in mortar. Apply a smooth coat of mortar, 3/4-inch thick, on the inside and outside.
- D. Pipe Connections: Seal the void between the pipe and the manhole with brick and mortar on both the inside and outside.
 - 1. Pipe 36-inch Diameter and Less: Connect pipe to manhole utilizing rubber boots.
 - 2. Pipe 42-inch Diameter and Larger: Construct manhole collars as shown on the Drawings after the pipe has been sealed into the manhole.
- E. Frames and Covers: Unless frame and cover is at grade, the frame shall be cast into the cone section.
- F. Seal all manhole joints and lift holes, both inside and out, with grout. Between precast sections, this is in addition to joint sealant.

3.4 INSPECTION AND TESTING

- A. All manholes shall be tested in accordance with the requirements of Section 02519 of these Specifications.

END SECTION

SECTION 33 14 13

WATER DISTRIBUTION MAINS AND ACCESSORIES

PART 1 GENERAL

1.1 SCOPE

- A. This Section describes products to be incorporated into the water mains and requirements for the installation and use of these items. Furnish all products and perform all labor necessary to fulfill the requirements of these Specifications. It includes, but is not limited to the construction of piping, valves, fittings, connection to existing systems, and all other appurtenances necessary to convey potable water.
- B. Warranty: Water distribution system installed by the Contractor shall be warranted and guaranteed for a period of one year from the date of final acceptance that the completed system is free from all defects due to faulty products or workmanship, and that the Contractor shall make such corrections as may be necessary by reason of such defects upon notice by the Owner.
- C. All construction shall meet the requirements of the City of Washington and EPD.

1.2 RELATED SECTIONS

- A. Section 31 11 00 – Clearing and Grubbing
- B. Section 31 41 00 – Sheeting, Shoring, and Bracing
- C. Section 31 23 33 – Trenching Excavation & Backfill
- D. Section 32920 - Grassing

1.3 REFERENCES

- A. ASTM Specifications:
 - 1. ASTM D 3740-94a – Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
 - 2. ASTM E 329-93b – Agencies Engaged in the Testing and/or Inspection of Materials as Used in Construction.
 - 3. ASTM D 3034-94 – Type PSM PVC Sewer Pipe and Fittings.
 - 4. ASTM D 2321-89 – Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Installations.
 - 5. ASTM A 746-95 – Ductile Iron Gravity Sewer Pipe.
 - 6. ASTM D 3212-92 – Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.

7. ASTM F 477-95 – Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
8. ASTM D 2241-94 – PVC Pressure-Rated Pipe (SDR – Series).
9. ASTM D 3139-95 – Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seams.
10. ASTM A 139-93a – Electric-Fusion (Arc) Welded Steel Pipe (NPS 4 and Over).
11. ASTM C 478-94 – Precast Reinforced Concrete Manhole sections.
12. ASTM C 443-94 – Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
13. ASTM C 39-94 – Compressive Strength of Cylindrical Concrete Specimens.
14. ASTM C 890-91 – Minimum Structural Design Loading for Monolithic or Sectional Precast Concrete Water and Wastewater Structures.
15. ASTM C 891-90 – Installation of Underground Precast Concrete Utility Structures.
16. ASTM C 913-89 – Precast Concrete Water and Wastewater Structures.
17. ASTM A 615/A 615 M-95b – Deformed and Plain Billet – Steel Bars for Concrete Reinforcement.
18. ASTM D-2922-91 – Test methods for Density of Soil and Soil Aggregate In-Place by Nuclear Methods (Shallow Depth).
19. ASTM D-1557-91 – Laboratory Compaction Characteristics of Soil Using Modified Effort.
20. ASTM D 1556-90 – Density and Unit Weight of Soil In-Place By The Sand-Cone Method.
21. ASTM D 71-87 (reapproved 1994) – Evaluation Degree of Blistering of Paints.
22. ASTM D 2794-93 – Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
23. ASTM E 96-95 – Water Vapor Transmission of Materials.
24. ASTM G 53-95 – Operating Light and Water-Exposure Apparatus (Fluorescent UV – Condensation Type) for Exposure of Nonmetallic Materials.
25. ASTM A 377-95 – Index of Specifications for Ductile Iron Pressure Pipe.

B. ANSI/AWWA Specifications:

1. ANSI/AWWA C 150/A 21.50-96 – Thickness Design of Ductile Iron Pipe.

2. ANSI/AWWA C 151/A 21.51-91 – Ductile Iron Pipe, Centrifugally Cast, for Water or Other Liquids.
 3. ANSI/AWWA C-500-93 – Metal-Seated Gate Valves for Water Supply Service.
 4. ANSI/AWWA C-509-94 – Resilient-Seated Gate Valves for Water Supply Service.
 5. ANSI/AWWA C 111/A 21.11-95 – Rubber-Gasket Joints for Ductile Iron Pressure Pipe and Fittings.
 6. ANSI/AWWA C 600-93 – Installation of Ductile Iron Water Mains and their appurtenances.
- C. ACI Specifications:
1. ACI 318-89 – Building Code Requirements for Reinforced concrete.
- D. AASHTO Standards:
1. AASHTO T 191-91 – Density of Soil In-Place by the Sand-Cone Method.

1.4 SUBMITTALS

- A. Complete shop drawings and product data on all piping and accessories shall be submitted to the Owner in accordance with the requirements of these Specifications.
- B. Shop drawings shall indicate piping layout in plan and/or elevations and shall include a complete schedule of all pipe, fittings, special hangers and supports. Special castings shall be clearly detailed showing all pertinent dimensions. Special coatings shall be clearly identified.
- C. The Contractor shall furnish the Owner with lists of all pieces of pipe and fittings in each shipment received. These lists shall give the serial or mark number, weight, class, size and description of each item received.
- D. The Contractor shall submit written evidence to the Owner that the products furnished under this Section will conform to the material and mechanical requirements specified herein. Certified copies of independent laboratory test results or mill test results from the pipe supplier may be considered evidence of compliance provided such tests are performed in accordance with the appropriate testing standards by experienced, competent personnel. In case of doubt as to the accuracy or adequacy of mill tests, the Owner may require that the Contractor furnish test reports from an independent testing laboratory on samples of pipe materials.

1.5 QUALITY ASSURANCE

- A. Material and equipment shall be the standard product of a manufacturer who has manufactured them for a minimum of 2 years and who provides published data on the quality and performance of the product.

- B. A Subcontractor for any part of the work must have experience on similar work and if required, furnish the Owner with a list of projects and reference contacts.
- C. Devices, equipment, structures, and systems not designated by the Engineer that the Contractor wishes to furnish shall be designed either by a registered professional engineer or by someone the Owner approved as qualified. If required, complete design calculations and assumptions shall be furnished to the Owner before acceptance.
- D. All testing of the piping shall be made by the Contractor with equipment qualified by the Owner or utility company and in the presence of the Owner and utility company. The Owner reserves the right to accept or reject testing equipment.
- E. Soil testing shall be done by a testing laboratory regularly engaged in soil testing, and shall be approved by the Owner prior to engagement. Mill certificates of test on materials made by manufactures will be accepted provided the manufacturer maintains an adequate testing laboratory, makes regularly scheduled tests that are spot checked by an outside laboratory, and furnishes satisfactory certificates with the name of the one making the test.
- F. The details of all welded joints shall comply with all of the requirements for joints, which are accepted without qualification test under the "Code of Arc and Gas Welding in Building Construction of the American Welding Society". Workmanship shall conform to A.I.S.C. Specifications for Fabrication and Erection. All work shall be executed by skilled workmen under experienced supervision. All welding shall be done by welders who have been previously qualified by tests as prescribed in the "American Welding Society Standard Qualification Procedure" to perform the type of work required. Welders shall have passed the qualification test (Qualification tests using procedures covered in AWSS B3.0 Part II) within the preceding 12 months.

1.6 TRANSPORTATION AND HANDLING

- A. Unloading: Furnish equipment and facilities for unloading, handling, distributing and storing pipe, fittings, valves and accessories. Make equipment available at all times for use in unloading. Do not drop or dump materials. Any materials dropped or dumped will be subject to rejection without additional justification. Pipe handled on skids shall not be rolled or skidded against the pipe on the ground.
- B. Handling: Handle pipe, fittings, valves and accessories carefully to prevent shock or damage. Handle pipe by rolling on skids, forklift, or front end loader. Do not use material damaged in handling. Slings, hooks or pipe tongs shall be padded and used in such a manner as to prevent damage to the exterior coatings or internal lining of the pipe.
- C. Distribution: Distribute and place pipe and materials to not interfere with traffic. Do not string pipe more than 250 feet beyond the area where pipe is being laid. Do not obstruct drainage ditches.

1.7 STORAGE AND PROTECTION

- A. Store all pipes which cannot be distributed along the route. Make arrangements for the use of suitable storage areas. Do not interfere with other Contractor's right to

access.

- B. Stored materials shall be kept safe from damage. The interior of all pipes, fittings and other appurtenances shall be kept free from dirt or foreign matter at all times. Valves and hydrants shall be drained and stored in a manner that will protect them from damage by freezing.
- C. Pipe shall not be stacked higher than the limits recommended by the manufacturer. The bottom tier shall be kept off the ground on timbers, rails or concrete. Pipe in tiers shall be alternated: bell, plain end; bell, plain end. The timbers shall be large enough to prevent contact between the pipes in adjacent tiers.
- D. Stored mechanical and push-on joint gaskets shall be placed in a cool location out of direct sunlight. Gaskets shall not come in contact with petroleum products. Gaskets shall be used on a first-in, first-out basis.
- E. Mechanical-joint bolts shall be handled and stored in such manner that will ensure proper use with respect to types and sizes.

1.8 SEQUENCING, SCHEDULING

- A. The Contractor shall arrange his work so that sections of mains between valves are tested, sterilized, placed in service as soon as reasonable after it is placed.

1.9 ALTERNATIVES

- A. The intention of these specifications is to produce the best system for the Owner. If the Contractor suggests that alternate material, equipment or procedures will improve the results at no additional cost, the Owner will examine the suggestion and determine if acceptable for use. The basis upon which acceptance of an alternate will be given is its value to the Owner, and not for the convenience of the Contractor.

1.10 GUARANTEE

- A. The Contractor shall guarantee the quality of the materials, equipment, and workmanship for 12 months after acceptance of the completed Project. Defects discovered during that period shall be repaired by the Contractor, at no cost to the Owner. The Performance Bond shall reflect this guarantee.
- B. The manufacturers of equipment, valves, pumps, controls, measuring devices and special equipment shall test the equipment at field conditions for compliance with the specifications. The manufacturer shall guarantee the product to be free from defects in material and factory workmanship for a period of 12 months from date of acceptance of the completed project, provided the product is properly installed, serviced and operated under normal conditions and according to the manufacturer's instructions. The manufacturer shall furnish a replacement for any component that proves defective during the guarantee period, except such items which are seals. The Contractor shall furnish the services of a representative of the manufacturer to check the installation after it is completed and to furnish the Owner with a certificate that the equipment meets the specifications and will perform as required.

1.11 EXISTING UTILITIES

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**FILMORE THOMAS PARK
RECREATION CENTER
MACON, GA**

- A. All known utility facilities are shown schematically on plans, and are not necessarily accurate in location as to plan or elevation. Utilities such as service lines or unknown facilities not shown on plans will not relieve the contractor of his responsibility under this requirement. "Existing Utility Facilities" means any utility that exists on the project in its original, relocated or newly installed position. The Contractor will be held responsible for the cost of repairs to damaged underground facilities; even when such facilities are not shown on the plans. The Contractor shall contact all utility companies prior to beginning the work and request an accurate field location of their respective utility lines.
- B. Damage to any part of the existing water system and facilities by the Contractor or Subcontractors, that is required by the Owner's forces, shall be charged to the Contractor on the basis of time and material, plus 30% for overhead and administration.

1.12 REQUIREMENTS OF REGULATORY AGENCIES

- A. Water mains shall be sterilized to meet the requirements of the appropriate Health/Public Works Department. Sterilization shall be in accordance with AWWA Standards C-651, latest revision.

1.13 CONNECT NEW MAIN TO EXISTING SYSTEM

- A. The Contractor shall furnish the necessary pipe and perform all excavation, dewatering, shoring, backfilling, etc. necessary to make the connection of a new main to the existing water system. The Contractor shall contact the Superintendent of the Water Utility a minimum of 48 hours in advance of construction. The Contractor shall be responsible for coordinating his construction with the utility operator.

1.14 ACCEPTANCE OF PORTIONS OF WORK

- A. The Owner reserves the right to accept and use any portion of the work whenever it is considered in the public interest to do so.

1.15 RECORD DATA

- A. It will be required of the Contractor to keep accurate, legible records of the location of any deviations from the construction drawings, any additional items or structures to the construction drawings, and all utilities encountered which are not shown on the construction drawings. These records will be made available to the Owner before his inspection for incorporation into the "Drawing of Record".

1.16 OPTIONS

- A. Several materials are described within these specifications. Where manufacturer and model of equipment is named in the specification, it is intended that these are to describe the quality and function required. The Contractor may use equipment or material of other manufacturers provided they are reviewed and accepted by the Owner as meeting the specifications.
- B. The Contractor will furnish the Owner a description of all materials before ordering.

The Owner will review the Contractor's submittals and provide in writing an acceptance or rejection of material. However, an acceptance of any material by the Owner does not relieve the Contractor of this responsibility to meet the requirements of the construction plans or these specifications.

PART 2 PRODUCTS

2.1 PIPING MATERIALS AND ACCESSORIES

A. Ductile Iron Pipe (DIP) :

1. Ductile iron pipe shall be manufactured in accordance with AWWA C151. All pipes, except as specials, shall be furnished in nominal lengths of 18 to 20 feet. Diameters will be as shown on the Drawings. All pipes shall have a minimum pressure rating of 350 pounds per square inch (psi), and corresponding minimum wall thickness, unless otherwise specified or shown on the Drawings.
2. Flanged pipe minimum wall thickness shall be equal to Special Class 53 for pipe sizes 4"-54". Flanges shall be furnished by the pipe manufacturer.
3. Fittings and Accessories:
 - a. Fittings shall be ductile iron and shall conform to AWWA C110/ANSI A21.10. The minimum rated working pressure for fittings shall be 350.
 - b. Flanged elbow fittings shall be ANSI pattern using short radius elbows except where noted differently on the Drawings. Special fittings, ductile iron wall pipes and sleeves shall conform to the dimensions and details as shown on the Drawings.
 - c. All grooved-end fittings shall conform to the laying length requirements of AWWA C110/ANSI A21.10, end preparation requirements of AWWA C606, and wall thickness requirements of AWWA C110/ANSI A21.10.
 - d. Thrust Collars: Thrust collars shall be welded-on ductile iron body type capable of withstanding a thrust due to 250 psi internal pressure on a dead end from either direction on that pipe size. Weld on collars shall be continuously welded to the pipe by the pipe manufacturer.
 - e. Bosses: Shall be welded-on ductile iron body type and shall be faced and tapped for AWWA C110/ANSI A21.10 flange connection. All welding, fabrication and outlet hole drilling shall be performed by the manufacturer. Outlets shall be free of burrs. Sizes shall be as indicated on the Drawings. The bosses shall be welded on a minimum Class 51 ductile iron pipe greater than 12 inches and Class 52 for smaller pipe. Bosses shall be equal to ACIPCO A-96945 for mechanical joint or A-96946 for flanged joints.
 - f. Solid Sleeves: Shall permit the connection of plain end ductile iron

pipe and plain end PVC pipe. Solid sleeves shall meet the requirements of ANSI/AWWA C110 for long pattern and have a minimum pressure rating of 250 psi. Solid sleeves shall have a mechanical or restrained joint as specified in this Section and as shown on the Drawings. Solid sleeves shall be provided with gaskets suitable for the type of pipe to be connected. Solid sleeves shall be used only in locations shown on the Drawings. Solid sleeves shall be manufactured by J.C.M. or equal.

4. Joints for Ductile Iron Pipe and Fittings

- a. Joints for ductile iron pipe and fittings shall be mechanical joint, flanged joint, restrained joint, push-on joint or grooved-end joint as shown on the Drawings or specified herein.
- b. Unless otherwise shown on the Drawings, specified or directed, all ductile iron pipe laid underground shall be joined using mechanical joints or push-on type joints.
- c. In all cases, gaskets shall be made of material that will not be damaged by the fluid being transported or by the environment in which the pipe is installed.
- d. Provide the necessary bolts for connections. All bolts and nuts shall be threaded in accordance with ANSI B1.1, Coarse Thread Series, Class 2A external and 2B internal fit. All bolts and nuts shall be made in the U.S.A.
- e. Mechanical Joints:
 1. Joints shall conform to AWWA C111/ANSI A21.11.
 2. Bolts and nuts shall be Tee Head Bolts and nuts of high strength low-alloy steel in accordance with ASTM A-242 to the dimensions shown in AWWA C111/ANSI A21.11.
 3. Gaskets shall be in accordance with AWWA C111/ANSI A21.11 and shall be constructed of 1/8" thick cloth reinforced rubber; gaskets may be ring type or full face type.
 4. Mechanical joint glands shall be ductile iron.
- f. Push-On Joints: Push-on joints and gaskets shall conform to AWWA C111/ANSI A21.11. Details of the joint design shall be in accordance with the manufacturer's standard practice such as ACIPCO "Fastite", McWane (Clow) "Bell-Tite", or U.S. Pipe "Tyton" joints.
- g. Flanged Joints:

1. Flanged joints shall conform to AWWA C115/ANSI A21.12. Flanges shall be ductile iron and shall be furnished by the pipe manufacturer.
 2. Gaskets shall be made of 1/8-inch thick, Buna-N. Gaskets may be ring type or full face type. Gaskets for all flanged piping 24-inches and larger shall be equal to ACIPCO Toruseal gaskets.
 3. Flanged ductile iron pipe 3 through 12-inche diameter shall have flanges cast solidly to the pipe barrel. Flanges on ductile iron pipe larger than 12-inches may be of the threaded type. Pipe threads shall be of such length that with flanges screwed home, the end of the pipe shall project beyond the face line of the flange. Flange and pipe shall then be machined to a flush finish to the pipe and the flange and surface shall be normal to the axis of the pipe. Ductile iron flanges shall be of such design that the flange neck completely covers the threaded portion of the pipe to protect same against corrosion. All pipes with threaded type flanges shall be assembled, faced, and drilled at the point of manufacture, unless otherwise approved by the Owner.
 4. Flange filler shall conform to AWWA C110/ANSI A21.10. Joint bolt length shall be increased by the thickness of the flange filler.
 5. Where tap or stud bolts are required, flanges shall be drilled and tapped accordingly.
 6. Bolt length and diameter shall conform to ANSI/AWWA C115 for Class 125 flanges shown in ANSI/ASME B16.1.
 7. Bolts for exposed service shall be zinc plated, cold pressed, steel machine bolts conforming to ASTM A-307, Grade B. Nuts for exposed service shall be zinc plated, heavy hex conforming to ASTM A-563. Zinc plating shall conform to ASTM B 633, Type II.
 8. Bolts for submerged service shall be stainless steel machine bolts conforming to ASTM A-193, Grade B8. Nuts shall be heavy hex, stainless steel conforming to ASTM A-194, Grade 8.
5. Restrained Joint Pipe (RJP): RJP shall be either the bolt type, or modified push-on type with joint restraint using ductile iron components. Restrained joint pipe on piers shall have bolted joints and shall be specifically designed for clear spans of at least 36 feet. Restrained joint pipe where required shall be American, U.S. Pipe, or equal.
 6. Cement Linings: Pipe and fittings shall be cement lined in accordance with

AWWA C104/ANSI/AWWA C104/A21.4.

7. Bituminous Coating: All pipe and fitting shall be furnished with a bituminous outside coating.
8. Pipe couplings shall be installed where shown on the Drawings or as directed by the Owner.
9. Wall Sleeves and Wall Pipes:
 - a. Where piping passes through concrete structures, furnish and install wall sleeves unless wall pipes or other provisions are specifically shown on the Drawings. Wall sleeves shall be accurately located and securely fastened into position before concrete is poured.
 - b. Wall Sleeves:
 1. For pipe sizes smaller than 3-inches, wall sleeves shall be steel oversize sleeves furnished with a full circle, integral, or continuously welded water stop collar. The sleeve seal shall be the mechanically expanded, synthetic rubber type. Provide all associated bolts, seals and seal fittings, pressure clamps, or plates necessary to achieve a watertight installation. Sleeves shall extend the full thickness of the concrete. Sleeves and seal shall be Link Seal.
 2. For pipe sizes larger than 3-inches, wall sleeves shall be statically cast ductile iron mechanical joint wall sleeves. Unless specified or shown otherwise for a specific situation, wall sleeves shall be mechanical joint bell-plain end type with water stop/thrust collar. The collar shall be capable of withstanding a thrust force caused by a 250 psi dead end load from either direction on that size pipe. Sleeves shall be constructed with studs and mechanical joint retainer gland on the air side of the concrete structure. Provide retainer gland where shown on the Drawings. Where the concrete structure is exposed to dirt on one side and is wet on the other side, construct with studs and glands on the dirt side. Wall sleeves shall be equal to ACIPCO A-10771.
 - c. Wall pipes:
 1. Wall pipes shall be either statically cast ductile iron with integral water stop/thrust collar or centrifugally cast ductile iron with a continuously welded water stop/thrust collar. The welded on collar shall be attached to the pipe by the manufacturer. The collar shall be capable of withstanding a thrust force caused by a 250 psi dead

end load from either direction on that size pipe. Wall pipes shall be furnished uncoated on the outside and cement lined on the inside. Unless specified or shown otherwise, wall pipes shall be flange end type.

2. Wall pipes shall be cast and/or fabricated and lines in one manufacturer's facilities and delivered to the job site ready to use.

10. Hydrant Tees: Hydrant tees shall be equal to ACIPCO A-10180 or U.S. Pipe U-592.

B. Polyvinyl Chloride (PVC) Pipe

1. Pipe sizes smaller than 4-inch outside diameter:
 - a. PVC pipe shall conform to ASTM D 1785 (Schedule 40).
 - b. Fittings shall be solvent weld socket type, schedule 40, ASTM D 2466 or D 2467.
 - c. Cement shall conform to ASTM D 2564.
2. Pipe equal to and larger than 4-inch outside diameter:
 - a. Shall be PVC Class 150, DR 18, C-900 for 12-inch and smaller and Class 165, DR 25, C-905 for 14-inch and larger. All pipe shall conform to ASTM D-2241 and be installed in accordance with ASTM D-2321. Joints shall be in accordance with ASTM D-3036. Sizes and dimensions shall be as follows:

150 PSI, DR 18, C-900			165 PSI, DR 25, C-905		
Nom. Pipe Size	O.D. (in.)	Min. Wall Thickness (in.)	Nom. Pipe Size	O.D. (in.)	Min. Wall Thickness (in.)
4"	4.800	0.267	14"	15.300	0.612
6"	6.900	0.383	16"	17.400	0.696
8"	9.050	0.503	18"	19.500	0.780
10"	11.100	0.617	20"	21.600	0.864
12"	13.200	0.733	24"	25.800	1.032
			30"	32.000	1.280
			36"	38.300	1.530

- b. Pipe shall bear the National Sanitation Foundation seal of approval and shall comply with the requirements of Type I, Grade I (PVC 1120) of the ASTM resin specification D-1784 (AWWA C 151-76). Certificates of conformance with the foregoing specifications shall be furnished with each lot of pipe supplied. Plastic pipe shall be jointed by means of a rubber ring bell joint which shall be an integral part of the barrel or

solvent welded at the factory. The joints shall have a space to provide expansion and contraction of the pipe without leaking. Fittings for plastic pipes shall be PVC with ring tight rubber joints; or ductile iron with adapters to PVC pipe.

- c. The bell shall consist of an integral wall section with a bound-in solid cross section shall be designed to be at least as hydrostatically strong as the pipe wall and meet the requirements of UNI-BELL-B-11.
 - d. Each standard and random length of pipe shall be tested to two times the rated pressure of the pipe for a minimum of 5 seconds. The integral bell shall be tested with the pipe.
 - e. Pipe shall be supplied in minimum lengths of 20 feet.
 - f. Acceptance will be on the basis of the Owner's inspection and the manufacturer's written certification that the pipe was manufactured and tested in accordance with the applicable standards, including the National Sanitation Foundation. Additionally, each piece of pipe shall be stamped "NSF Approved".
- C. Plastic Tubing – Tubing for house service lines shall be Polyethylene Tubing – CTS PE 3408 conforming to all requirements of AWWA C-901 and ASTM D-2737 (SDR9). The tubing shall be copper tubing size and rated for a minimum working pressure of 200 psi. Marking on the tubing shall include – nominal tubing pipe size; type of tubing material – PE 3408; SDR 9; pressure rating – 200 psi; ASTM D-2737; manufacturer's name and seal of the National Sanitation Foundation.

2.2 GATE VALVES

- A. 3-Inches in Diameter and Smaller: Shall be bronze, heavy duty, non-rising stem, and wedge type with screwed or union bonnet. Valve ends shall be threaded or solder type as appropriate. Valves shall have a minimum 200 psi working pressure for water (125 psi working pressure for steam). Valves shall be made in the U.S.A. Gate valves shall be equal to Crane No.428 (threaded), Crane No. 1334 (solder end), Watts, Wilkins, or Mueller, or equal.
- B. 4-Inches Through 12-Inches in Diameter: Shall be mechanical joint resilient wedge type conforming to the requirements of AWWA C509 rated for 200 psi working pressure and test pressure of 400 psi.
 - 1. Valves shall be provided with two O-ring stem seals with one O-ring located above and one O-ring below the stem collar. The area between the O-rings shall be filled with lubricant to provide lubrication to the thrust collar bearing surfaces each time the valve is operated. At least one anti-friction washer shall be utilized to further minimize operating torque. All seals between valve parts, such as body and bonnet, bonnet and bonnet cover, shall be flat gaskets or O-rings.
 - 2. The valve gate shall be made of ductile iron having a vulcanized, synthetic rubber coating, or a seat ring attached to the disc with retaining screws. Sliding of the rubber on the seating surfaces to compress the rubber will not

be allowed. The design shall be such that compression-set of the rubber shall not affect the ability of the valve to seal when pressure is applied to either side of the gate. The sealing mechanism shall provide zero leakage at the water working pressure when installed with the line flow in either direction.

3. All internal ferrous surfaces shall be coated with epoxy to a minimum thickness of 4 mils. The epoxy shall be non-toxic, impart no taste to the water and shall conform to AWWA C550, latest revision.
 4. Gate valves 4 through 12-inches shall be manufactured by Mueller, U.S. or M & H Valve, or equal.
- C. 14-Inches in Diameter and Larger: Valves shall be U.S. Metro Seal or equal conforming to the requirements of AWWA C509.
1. Valve ends shall be mechanical joint type except where flanged or restrained joint ends are shown. Flanged joints shall meet the requirements of ANSI B16.1, Class 125.
 2. Buried valves shall be equipped with valve boxes unless access to the operator is provided by a manhole.
 3. Manually operated valves, shall be non-rising stem type having O-ring seals.
 4. Valves shall be installed in a vertical position without a bypass valve. Valves shall be metro seal 250 R/S resilient seated manufactured by U.S. Pipe. Resilient seat gate valves shall conform to AWWA Standard Specification C-509.
 5. Valves shall be designed for a water working pressure of 150 psi and a test pressure of 300 psi.

2.3 BUTTERFLY VALVE

- A. Butterfly valves shall be resilient seated, short body design, and shall be designed, manufactured, and tested in accordance with all requirements of AWWA C504. Valves shall be designed for a rated working pressure of 150 psi, unless shown otherwise on the drawings.
- B. Valve bodies shall be ductile iron conforming to ASTM A-536, Grade 65-45-12 or ASTM A-126, Grade B cast iron. Shafts shall be 18-8, Type 304 stainless steel, machined and polished. Valve discs shall be ductile iron, ASTM A-536, Grade 65-45-12 or ASTM A-126, Grade B cast iron. The resilient valve seat shall be located either on the valve disc or in the valve body and shall be fully field replaceable for valves 30" and larger.
- C. Valves shall be equipped with geared actuators designed, manufactured and tested in accordance with AWWA C504. Actuators shall be capable of holding the disc in any position between full open and full closed without any movement or fluttering of the disc. Actuators shall be furnished with fully adjustable mechanical stop-limiting devices. Actuators that utilize the sides of the actuator housing to limit disc travel are unacceptable. Valve actuators shall be capable of withstanding a minimum of

450 foot pounds of input torque in either the open or closed position without damage.

- D. Valves shall be installed with the valve shafts horizontal. Valves and actuators shall have seals on all shafts and gaskets on valve actuator covers to prevent the entry of water. Actuator mounting brackets shall be totally enclosed and shall have gasket seals.
- E. Valve ends shall be mechanical joint type, except where flanged or restrained joint ends are shown. Flange joints shall meet the requirements of ANSI B16.1, Class 125.
- F. Butterfly valves shall be manufactured by Henry Pratt, Dezurik, Keystone, or equal.

2.4 VALVE BOXES

- A. All valves shall be equipped with valve boxes. The valve boxes shall be cast iron two-piece screw type with drop covers. Valve boxes shall have a 5.25-inch inside diameter. Valve box covers shall weigh a minimum of 13 pounds. The valve boxes shall be adjustable to 6-inches up or down from the nominal required cover over the pipe. Valve boxes shall be of sufficient length that bottom flange of the lower belled portion of the box is below the valve operating nut. Ductile or cast iron extensions shall be provided as necessary. Covers shall have "WATER VALVE" or "WATER" cast into them. Valve boxes shall be manufactured in the United States and shall be equal to U.S. Foundry No. 7500 screw type.
- B. Extension stems shall be provided so as to set the top of the operating nut 30-inches below finished grade. Connection to the valve shall be with a wrench nut coupling and a set screw to secure the coupling to the valve's operating nut. The coupling and square wrench nut shall be welded to the extension stem. Extension stems shall be equal to Mueller A-26441 or M & H Valve Style 3801.
- C. Post Indicator Valves: 175 pound, cast iron body (ASTM A-126 Class B), cast iron split wedge disc, bronze discs rings, stem and threaded renewable seat rings, inside screw, non-rising stem, bolted bonnet, mechanical joint ends (ANSI/AWWA C111), indicator post flange, adjustable indicator post with tamper switch mounting bracket, UL listed and FM approved.

2.5 FIRE HYDRANTS

- A. All fire hydrants shall conform to the requirements of AWWA C502 and shall have a minimum of 200 psi working pressure. Hydrants shall be the compression type, closing with line pressure. The valve opening shall not be less than 5-1/4 inches.
- B. In the event of a traffic accident, the hydrant barrel shall break away from the standpipe at a point above grade and in a manner which will prevent damage to the barrel and stem, preclude opening of the valve, and permit rapid and inexpensive restoration without digging or cutting off the water.
- C. The means for attaching the barrel to the standpipe shall permit facing the hydrant a minimum of eight different directions.
- D. Hydrants shall be fully bronze mounted with all working parts of bronze. Valve seat

ring shall be bronze and shall screw into a bronze retainer.

- E. All working parts, including the seat ring shall be removable through the top without disturbing the barrel of the hydrant.
- F. The operating nut shall match those on the existing hydrants. The operating threads shall be totally enclosed in an operating chamber separated from the hydrant barrel by a rubber O-ring stem seal and lubricated by a grease or oil reservoir. A stop nut shall be positioned in the top operating mechanism so that the valve cannot contact the bottom of the shoe when fully open.
- G. Hydrant shall be a non-freezing design and provided with a simple, positive, and automatic drain which shall be fully closed whenever the main valve is opened.
- H. Hose and pump-truck connections shall be breech-locked, pinned, and then caulked with lead; or threaded and pinned, to seal them permanently into the hydrant barrel. Each hydrant shall have two 2-1/2 inch hose connections and one 4 inch pump connection all with National Standard threads and each equipped with cap and non-kinking chain.
- I. Hydrants shall be furnished with a mechanical joint shoe connection to the spigot of the 6-inch hydrant lead.
- J. Minimum depth of bury shall be 4.5 feet. Provide extension section where necessary for vertical installation and in accordance with manufacturer's recommendations to achieve the 15" minimum height above ground specified in the typical fire hydrant setting detail.
- K. All outside surfaces of the barrel above grade shall be painted with Koppers Glamortex 501 enamel or equal in a color to be selected by the using Authority.
- L. Hydrants shall be traffic model and manufactured by M&H, Mueller, or American Darling.
- M. All new fire hydrants shall be covered with a cloth bag until the water mains and fire hydrants are in service.

2.6 TAPPING SADDLES

- A. Tapping saddles shall be ductile iron body type with O-ring gasket and stainless steel (type ESS) straps. Connection shall be flanged or mechanical joint as detailed on the Drawings. Tapping saddles shall be equal to ACIPCO A-30920.

2.7 TAPPING SLEEVES AND VALVES (TS&V)

- A. Tapping sleeves shall be cast or ductile iron of the split sleeve, mechanical joint type. The contractor shall be responsible for determining the outside diameter of the pipe to be connected to prior to ordering the sleeve. Valves shall be furnished in accordance with Section 02510 of these Specifications, with flanged connection to the tapping sleeve and mechanical joint connection to the branch pipe. The tapping sleeve and valve shall be supplied by the valve manufacturer. Tapping sleeves shall be Mueller or M&H Valve.

2.8 FLANGE ADAPTERS

- A. Flange adapters shall permit the connection of un-threaded, un-grooved, open ended, ductile iron pipe to ANSI/ASME B16.1, Class 125 flanges. Flange adapters shall meet the test requirements of ANSI/ASME B16.1 for Class 125 flanges. The adapter shall be a ductile iron casting incorporating a flange with extended throat, set screws and gasket. The gasket shall provide a compression seal between the adaptor, the pipe and the adjacent flange. Flange adapters are to be used only in locations specifically shown on the Drawings and in accordance with the manufacturer's recommendations. Flange adapters shall be manufactured by McWane, Uni Flange (Series 400) or EBAA Iron.

2.9 RETAINER GLANDS

- A. Retainer glands shall be Megalug, Series 1100, as manufactured by EBAA Iron.
- B. Retainer glands for polyvinyl chloride pipe shall be Megalug Series 2000 PV, as manufactured by EBAA Iron Sales, Inc.

2.10 HARNESS RODS

- A. Harness rods shall be manufactured in accordance with ASTM A 449. Harness rods shall be field coated with bitumastic before backfilling.
- B. Eye bolts shall be of the same diameter as specified in AWWA C111 for that pipe size. The eye shall be welded closed. Where eye bolts are used in conjunction with harness rods, an appropriate size washer shall be utilized with a nut on each end of the harness rod. Eye bolts shall be of the same material and coating as the harness rods.

2.11 VALVE MARKERS

- A. The Contractor shall provide a concrete valve marker as detailed on the Drawings for each valve installed. Valve markers shall be stamped "WATER". Contractor shall provide raised pavement markers that meet the specifications and requirements set forth in the most current edition of the State of Georgia Department of Transportation "Standard Specifications for the Construction of Roads and Bridges", Section 654. RPM shall be installed as specified in Part 3 of this Section.

2.12 CORPORATION COCKS AND CURB STOPS

- A. Corporation cocks and curb stops shall be ground key type, shall be made of bronze conforming to ASTM B 61 or B 62, and shall be suitable for the working pressure of the system. Ends shall be suitable for grip type joint. Threaded ends for inlet and outlet of corporation cocks shall conform to AWWA C800; coupling nut for connection to flared copper tubing shall conform to ANSI B16.26. Corporation cocks and curb stops shall be manufactured by Mueller or Ford.

2.13 HYDRANT TEES

- A. Hydrant tees shall be equal to ACIPCO A10180 or U.S. Pipe U-592.

2.14 ANCHOR COUPLINGS

- A. Lengths and sizes shall be as shown on the Drawings. Anchor couplings shall be equal to ACIPCO A-10895 or U.S. Pipe U-591.

2.15 CONCRETE

- A. Concrete shall have a compressive strength of not less than 3000 psi, with not less than 5.5 bags of cement per cubic yard and a slump between 3 and 5-inches. For job mixed concrete, submit the concrete mix design for approval by the Owner. Ready-mixed concrete shall be mixed and transported in accordance with ASTM C 94. Reinforcing steel shall conform to the requirements of ASTM A-615, Grade 60.

2.16 DETECTION TAPE

- A. Detection tape shall be composed of a solid aluminum foil encased in a protective plastic jacket. Tapes shall be color coded in accordance with APWA color codes (Safety Precaution Blue) with the following text: "Caution Water Line Buried Below." Tape lettering shall be permanently printed with no surface printing allowed. Tape width shall be minimum 2-inches when buried less than 10 inches below the surface. Tape width shall be minimum 3-inches when buried greater than 10-inches and less than 20-inches.
- B. Detection tape shall be equal to Lineguard Type III Detectable or Allen Systems Detectatape.
- C. In addition to Detection Tape, a #12 insulated copper tracer wire shall be installed on all buried pipelines.

PART 3 EXECUTION

3.1 CONSTRUCTION ALONG HIGHWAYS, STREETS AND ROADWAYS

- A. Install pipe lines and accessories along highways, streets and roadways in accordance with the applicable regulations of City of Washington, Georgia Department of Transportation and/or the Georgia Environmental Protection Division with referenced to construction operations, safety, traffic control, road maintenance and repair.
- B. Traffic Control
 - 1. The Contractor shall supply, erect, and maintain all necessary barricades, suitable with sufficient lights and other traffic control devices; provide qualified flagmen where necessary to direct traffic; take all necessary precautions for the protection of the work and the safety of the public.
 - 2. Construction traffic control devices and their installation shall be in accordance with the current Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition.

3. Placement and removal of construction traffic control devices shall be coordinated with the Georgia Department of Transportation and local governing municipalities a minimum of 48 hours in advance of the activity.
4. Placement of construction traffic control devices shall be scheduled ahead of associated construction activities. Construction time in street right-of-way shall be conducted to minimize the length of time traffic is disrupted. Construction traffic control devices shall be removed immediately following their useful purpose. Traffic control devices used intermittently, such as "Flagmen Ahead", shall be removed and replaced when needed.
5. Existing traffic control devices within the construction work zone shall be protected from damage. Traffic control devices requiring temporary relocation shall be located as near as possible to their original vertical and horizontal locations. Original locations shall be measured from reference points and recorded in a log prior to relocation. Temporary locations shall provide the same visibility to affected traffic as the original location. Relocated traffic control devices shall be reinstalled in their original locations as soon as practical following construction.
6. Construction traffic control devices shall be maintained in good repair and shall be clean and visible to affected traffic for daytime and nighttime operation. Traffic control devices affected by the construction work zone shall be inspected daily.
7. Construction warning signs shall be black legend on an orange background. Regulatory signs shall be black legend on a white background. Construction sign panels shall meet the minimum reflective requirements of the Georgia Department of Transportation and local governing municipalities. Sign panels shall be of durable materials capable of maintaining their color, reflective character and legibility during the period of construction.
8. Traffic channel devices shall be positioned preceding an obstruction at a taper length as required by the current Manual On Uniform Traffic Control Devices for Streets and Highways, as appropriate for the speed limit at that location. Traffic channel devices shall be patrolled to insure that they are maintained in the proper position throughout their period of use.

C. Construction Operations

1. Perform all work along highways, streets and roadways to minimize interference with traffic.
2. Stripping: Where the pipe line is laid along road right-of-way, strip and stockpile all sod, topsoil and other material suitable for right-of-way restoration.
3. Trenching, Laying and Backfilling: Do not open the trench any further ahead of pipe laying operations than is necessary. Backfill and remove excess material immediately behind laying operations. Complete excavation and backfill for any portion of the trench in the same day.

4. Shaping: Reshape damaged slopes, side ditches, and ditch lines immediately after completing backfilling operations. Replace topsoil, sod and any other materials removed from shoulders.
 5. Construction operations shall be limited to 400 feet along areas, including clean-up and utility exploration unless otherwise approved by the Owner.
- D. Excavated Materials: Do not place excavated material along highways, streets and roadways in a manner which obstructs traffic. Sweep all scattered excavated material off of the pavement in a timely manner.
 - E. Drainage Structures: Keep all side ditches, culverts, cross drains, and other drainage structures clear of excavated material. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.
 - F. Landscaping Features: Landscaping features shall include, but are not necessarily limited to: fences; property corners; cultivated trees and shrubbery; manmade improvements; subdivision and other signs within the right-of-way and easement. The Contractor shall take extreme care in moving landscape features and promptly re-establishing these features.
 - G. Maintaining Highways, Streets, Roadways and Driveways
 1. Maintain streets, highways, roadways and driveways in suitable condition for movement of traffic until completion and final acceptance of the Work.
 2. During the time period between pavement removal and completing permanent pavement replacement, maintain highways, streets and roadways by the use of steel running plates. Running plate edges shall have asphalt placed around their perimeter to minimize vehicular impact. The backfill above the pipe shall be compacted as specified elsewhere up to the existing pavement surface to provide support for the steel running plates.
 3. Immediately repair all driveways that are cut or damaged. Maintain them in a suitable condition for use until completion and final acceptance of the Work.

3.2 EXISTING UNDERGROUND UTILITIES AND OBSTRUCTIONS

- A. It is the responsibility of the Contractor to locate all existing utilities along the path of construction. The drawings shall indicate underground utilities or obstructions that are known to exist. Where these or unforeseen underground utilities are encountered, the location and alignment of the water main may be changed, upon written approval of the Owner, to avoid interference.
- B. Existing Utility Location: The following steps shall be exercised to avoid interruption of existing utility service.
 1. Provide the required notice to the utility owners and allow them to locate their facilities according to Georgia law. Field utility locations are valid for only 10 days after original notice. The Contractor shall ensure, at the time of any excavation that a valid utility location exists at the point of excavation.

2. Expose the facility, for a distance of at least 200 feet in advance of pipeline construction, to verify its true location and grade. Repair, or have repaired, any damage to utilities resulting from locating or exposing their true location.
3. Avoid utility damage and interruption by protection with means or methods recommended by the utility owner.
4. Maintain a log identifying when phone calls were made, who was called, area for which utility relocation was requested and work order number issued, if any. The Contractor shall provide the Owner an updated copy of the log as requested.

C. Conflict with Existing Utilities

1. Horizontal conflict shall be defined as when the actual horizontal separation between a utility, main, or service and the proposed piping does not permit safe installation of the piping by the use of sheeting, shoring, tying-back, supporting, or temporarily suspending service of the parallel or crossing facility. The Contractor may change the proposed alignment of the piping to avoid horizontal conflicts if the new alignment remains within the available right-of way or easement, complies with regulatory agency requirements and after a written request to and subsequent approval by the Owner, the Contractor shall arrange to have the utility, main, or service relocated.
2. Vertical conflict shall be defined as when the actual vertical separation between a utility, main, or service and the proposed piping does not permit the crossing without immediate or potential future damage to the utility, main, service, or the piping. The Contractor may change the proposed grade of the piping to avoid vertical conflicts if the new grade complies with regulatory agencies requirements and after written request to and subsequent approval by the Owner. Where such adjustment of the piping is approved by the Owner, the Contractor shall arrange to have the utility, main, or service relocated.

- D. Electronic Locator: Have available at all times an electronic pipe locator and a magnetic locator, in good working order, to aid in locating existing pipe lines or other obstructions.

3.3 CONNECTIONS TO EXISTING PIPE LINES

- A. Before laying pipe, the Contractor shall locate the points of connection to existing pipe lines and uncover as necessary for the Owner to confirm the nature of the connection to be made. The Contractor shall furnish materials and make the connection to all existing pipe lines as shown on the drawings. The Contractor will be observed during construction of tie-ins by the Owner. The Contractor shall use all available practices and resources to minimize the time the customers are without water. The Contractor shall notify all required utility companies and users of outages at least 72 hours in advance.
- B. Interruption of Services: Make connections to existing piping only when system operations permit. Operate existing valves only with the specific authorization and

direct supervision of the Owner.

C. Tapping Saddles and Tapping Sleeves

1. Holes in the new pipe shall be machine cut, either in the field or at the factory. No torch cutting of holes shall be permitted.
2. Prior to attaching the saddle or sleeve, the pipe shall be thoroughly cleaned, utilizing a brush and rag, as required.
3. Before performing field machine cut, the water tightness of the saddle or sleeve assembly shall be pressure tested. The interior of the assembly shall be filled with water. An air compressor shall be attached, which will induce a test pressure as specified in Section 02519. No leakage shall be permitted for a period of five minutes.
4. After attaching the saddle or sleeve to existing piping, but prior to making the tap, the interior of the assembly shall be disinfected. All surfaces to be exposed to potable water shall be swabbed or sprayed with one percent hypochlorite solution.

D. Connections Using Solid Sleeves: Where solid sleeves are shown on the Drawings, the Contractor shall furnish materials and labor necessary to make the connection using a solid sleeve to the existing pipe line.

E. Connections Using Flange Filler shall be used only where shown on the Drawings or approved by the Owner to make up minor differences in pipe length less than 3-inches. Joint bolt length shall be increased by the thickness of the flange filler.

F. Connections Using Mechanical Pipe Couplings: Where pipe couplings are shown on the Drawings, the Contractor shall furnish materials and labor necessary to make the connection using a pipe coupling to the existing pipe line, including all necessary cutting, plugging and backfill.

G. Connections to Pressure Mains

1. Connections to ductile iron pipe pressure mains shall be by the direct tap method or service clamp, as detailed on the Drawings in full accordance with AWWA requirements.
2. Connections to polyvinyl chloride pipe shall be made using a full body service clamp.
3. Pressure ratings for connections shall be the same as the pressure rating for the pipe.

H. Hydrants: Hydrants shall be attached to the water main by the following method:

1. For mains 12-inches and smaller, the isolation valve shall be attached to the main by connecting the valve to the hydrant tee.
2. For mains larger than 12-inches, the isolation valve shall be attached to the

main by providing an anchor coupling between the valve and tapping saddle.

3. The isolation valve shall be attached to the hydrant by providing an anchor coupling between the valve and hydrant.

3.4 PIPE DISTRIBUTION

- A. Pipe shall be distributed and placed in such a manner that will not interfere with traffic.
- B. No pipe shall be strung further along the route than 1,000 feet beyond the area in which the Contractor is actually working without written permission from the Owner. The Owner reserves the right to reduce this distance to a maximum distance of 200 feet in residential and commercial areas based on the effects of the distribution to the adjacent property owners.
- C. No street or roadway may be closed for unloading of pipe without first obtaining permission from the proper authorities. The Contractor shall furnish and maintain proper warning signs and obstruction lights for the protection of traffic along highways, streets and roadways upon which pipe is distributed.
- D. No distributed pipe shall be placed inside drainage ditches.
- E. Distributed pipe shall be placed as far as possible from the roadway pavement, but no closer than five feet from the roadway pavement, as measured edge-to-edge.

3.5 LOCATION AND GRADE

- A. The Drawings show the alignment of the water main and the location of valves, hydrants and other appurtenances.
- B. After the Contractor locates and marks the water main centerline or baseline, the Contractor shall perform clearing and grubbing.
- C. Construction shall begin at a connection location and proceed without interruption. Multiple construction sites shall not be permitted without written authorization from the Owner for each site.

3.6 LAYING PIPE

- A. Field Inspection: All pipe and accessories shall be laid, jointed, tested for defects and for leakage with pressure and chlorinated in the manner herein specified in the presence of the Owner and subject to their approval.
- B. Handling Pipe and Accessories:
 1. Care: PVC pipe, fittings, valves and other accessories shall be unloaded at the point of delivery, hauled to and distributed at the site of the project by the contractor; they shall at all times be handled with care to avoid damage. In loading and unloading they shall be lifted by hoists or slid or towed on skid-ways in such a manner as to avoid shock. Under no circumstances shall they be dropped. Pipe handled on skids must not be skidded or rolled against pipe already on the ground.

2. At Site of Work: In distributing the material at the site of the work, each piece shall be unloaded opposite or near the place where it is to be laid in the trench and shall be laid on high ground so that it will not be in a drainage way.
3. Bell Ends, How Faced: Pipe shall be placed on the site of the work parallel with the trench alignment and with the bell ends facing the direction in which the work will proceed, unless otherwise directed by the Owner.
4. Pipe Kept Clean: The interior of all pipes, fittings and other accessories shall be kept free from dirt and foreign matter at all times.
5. Detection tape shall be buried 2'-0" below the ground surface above the water main.
6. Twelve (12) gauge pipe detection wire shall also be installed by taping to the top of the pipe every fifty (50) feet during pipe installation.

C. Alignment and Grade:

1. General: All pipes shall be laid and maintained in the required lines and grades, with fittings and valves at the required locations, with joints centered and spigots home, and with all valve stems plumb.
2. Depth of Pipe: Where pipe is laid in roadways and parkways of streets, the top of the barrel of the pipe shall have a minimum cover of forty-eight inches below the curb line of the street or where no curb line has been established, below the existing ground line. Where the pipe is laid in open, un-subdivided areas, a minimum of thirty-six inches of cover is required. A greater depth of cover is required in certain sections of the main, such as railroad crossings, valve locations and other sections of special construction, and within State and Federal highway rights-of-way.
3. All PVC line smaller than 4" shall be aligned in the trench in a "snake" or "S" form to allow for elongation due to temperature changes.

D. Excavation and Preparation of Trench:

1. Description: The trench shall be dug to the alignment and depth required and not to exceed 200 feet in advance of the pipe laying. The trench shall be braced if work therein, safely and efficiently. It is essential that the discharge from any pumps be led to natural drainage channels, to drains or to storm sewers.
2. Width: Minimum width of trench shall be eighteen (18) inches or six (6) inches out-side the barrel of the pipe on each side of pipe. Maximum width of trench shall be nine (9) inches outside the barrel of the pipe on each side of pipe. Sides of trench shall be dug and maintained substantially vertical to a height 12 inches above the pipe.
3. Pipe Foundation: The pipe shall be laid upon a sound earthen foundation cut

true and even so that the barrel of the pipe will have a bearing for its full length.

4. Correcting Faulty Grade: Any part of the trench excavated below grade shall be corrected with approved materials and thoroughly compacted.
5. Bell Holes, Required: Bell holes of ample dimensions shall be dug in trenches at each joint to permit the joint to be made properly.
6. Braced and Sheeted Trenches: Wherever necessary to prevent caving, excavations shall be adequately sheeted and braced. Where sheeting and bracing are used, the trench width shall be increased accordingly. Trench sheeting shall remain in place until the pipe has been laid, tested for defects, and repaired if necessary, and the earth around it compacted to a depth of two feet over the top of the pipe.
7. Care of Surface Materials for Re-Use: If local conditions permit their re-use, all surface materials suitable for re-use in restoring the surface shall be kept separate from the general excavation material.
8. Manner of Piling Excavated Materials: All excavated materials shall be piled in a manner that will not endanger the work and that will avoid obstructing sidewalks and driveways. Gutters shall be kept clear or other provisions made for street drainage.
9. Trenching by Machine or by Hand: The use of trench digging machinery will be permitted except in places where operation of same will cause damage to existing structures above or below ground; in which case hand methods shall be employed. Excavation shall be made by ladder type machine or backhoe.
10. Unsuitable Soil Conditions: Where the sub-grade is unsuitable material for the proper installation of the water main, the Contractor shall undercut the trench and backfill with No. 57 stone meeting the requirements of Georgia DOT Specification 800.01 at the Owner's direction. The stone shall be brought to grade and thoroughly compacted to conform to the outside of the main.
11. No separate payment will be made for unsuitable soil removal. The Contractor shall be paid at a price as negotiated by the Owner on an "as needed" basis.
12. Dewatering Trenches: Where subgrade with excessive water is encountered, dewatering shall be done by well pointing. If soil conditions are not suitable for well points, trench drains or crushed stone or gravel shall be constructed to carry the water to sumps and the water removed by pumps or bailing. No extra payment will be made for dewatering trenches.

E. Pipe Handling:

1. Manner of Hauling Pipe and Accessories: Proper implements, tools and facilities shall be provided and used by the contractor for the safe and

convenient execution of the work. All pipe, fittings and valves shall be carefully lowered into the trench piece by piece by means of derrick ropes or other suitable tools or equipment, in such a manner as to prevent damage to pipe or pipe coating. Under no circumstances shall pipe or accessories be dropped or dumped into the trench.

2. Inspection: Before lowering and while still suspended, the pipe shall be inspected for defects. Any defective, damaged or unsound pipe shall be rejected.
3. Pipe Kept Clean: All foreign matter or dirt shall be removed from the pipe, and it shall be kept clean by approved means throughout the process.
4. Installation of the Pipe: The spigot shall be centered in the bell, the pipe forced "home" and brought into true alignment; it shall be secured there by earth carefully tamped under and on each side of it, except at the bell holes. Care shall be taken to prevent dirt from entering the joint space. No "blocking up" of pipe or joints will be permitted. The joint shall be made as hereinafter described.
5. All PVC pipe smaller than 4" O.D. or less shall be solvent welded. Method of solvent weld jointing shall be approved by the Owner prior to installation.
6. Trench Water Entering Pipe: At times when pipe installation is not in progress, the open ends of the pipe shall be closed by approved means and no trench water shall be permitted to enter the pipe.
7. Cutting Pipe: Cutting of pipe for inserting valves, fittings or closure pieces shall be done in a neat workmanlike manner without damage to the pipe.
8. Bell Ends Face Direction of Laying: Unless otherwise directed, pipe shall be laid with bell ends facing in the direction of installation; and for lines on an appreciable slope, bells shall, at the discretion of the Owner face up-grade.
9. Permissible Deflections at Joints: Wherever necessary to deflect pipe from a straight line, either in the vertical or horizontal plane to avoid obstructions, the degree of deflection shall not exceed $\frac{2}{3}$ the maximum according to manufacturer's recommendations.
10. Unsuitable Conditions for Installing Pipe: No pipe shall be laid in water, or when the trench conditions or the weather is unsuitable for such work.

F. Jointing Pipe-Mechanical Joints: The following steps shall be taken in making mechanical joints:

1. All lumps, blisters and excess coal-tar enamel shall be removed from socket and spigot of the pipe.
2. Wash socket and plain end with soapy water containing chloride solution; then slip gland and gasket over plain end. The small side of gasket and lip gland shall face bell.

3. Paint gasket with soapy solution containing chlorine.
 4. Push gasket into position, being sure it is evenly seated in socket.
 5. Slide gland into position; insert bolts and run nuts up finger tight.
 6. Tighten bolts to uniform tightness with correct ratchet wrench. The first bolt tightened shall be the bottom bolt, then top. All other bolts shall be tightened in sequence at 180 degrees apart.
- G. Setting Valves, Valve Boxes and Fittings:
1. General: Gate valves and pipe fittings shall be set and joined to new pipe in the manner heretofore specified for cleaning, laying and jointing pipe.
 2. Valve Boxes: Cast iron valve boxes shall be firmly supported and maintained centered and plumb over the wrench nut of the gate valve, with box cover.
- H. Plugging Dead Ends: Standard plugs shall be inserted into the bells of all dead ends of pipes, tees or crosses and spigot ends shall be capped. Plugs or caps shall be jointed to the pipe or fittings in the manner specified above.
- I. Hydrant Installation
1. Prior to installation, inspect all hydrants for direction of opening, nozzle threading, operating nut and cap nut dimensions, tightness of pressure-containing bolting, cleanliness of inlet elbow, handling damage and cracks. Defective hydrants shall be corrected or held for inspection by the Owner.
 2. All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the roadway, with pump connection nozzle facing the roadway, except that hydrants having two-hose nozzles 90 degrees apart shall be set with each nozzle facing the roadway at an angle of 45 degrees.
 3. Hydrants shall be set to the established grade, with the centerline of the lowest nozzle at least 12-inches above the ground or as directed by the Owner.
 4. Each hydrant shall be connected to the main with a 6-inch branch controlled by an independent 6-inch valve. When a hydrant is set in soil that is pervious, drainage shall be provided at the base of the hydrant by placing coarse gravel or crushed stone mixed with coarse sand from the bottom of the trench to at least 6-inches above the drain port opening in the hydrant to a distance of 12-inches around the elbow.
 5. When a hydrant is set in clay or other impervious soil, a drainage pit 2 x 2 x 2 feet shall be excavated below each hydrant and filled with coarse gravel or crushed stone mixed with coarse sand under and around the elbow of the hydrant and to a level of 6-inches above the drain port.
 6. Hydrants shall be located as shown on the Drawings or as directed by the Owner. In the case of hydrants that are intended to fail at the ground-line joint

upon vehicle impact, specific care must be taken to provide adequate soil resistance to avoid transmitting shock moment to the lower barrel and inlet connection. In loose or poor load bearing soil, this may be accomplished by pouring a concrete collar approximately 6-inches thick to a diameter of 24-inches at or near the ground line around the hydrant barrel.

7. Raised pavement markers (RPM's) shall be provided and installed along the appropriate roadway centerline for each fire hydrant on Owner owned right-of-way. RPM's for in-line valves shall be Type I, two-way, and blue in color.

3.7 THRUST RESTRAINT

- A. Provide restraint at all points where hydraulic thrust may develop.
- B. Retainer Glands: Provide retainer glands where shown on the Drawings and on fire hydrants and all associated fittings, valves and related piping. Retainer glands shall be installed in accordance with the manufacturer's recommendations, particularly, the required torque of the set screws. The Contractor shall furnish a torque wrench to verify the torque on all set screws which do not have inherent torque indicators.
- C. Harnessing
 1. Provide harness rods only where specifically shown on the Drawings or directed by the Owner.
 2. Harness rods shall be manufactured in accordance with ASTM A36 and shall have an allowable tensile stress of no less than 22,000 psi. Harness rods shall be hot dip galvanized or field coated with bitumastic before backfilling.
 3. Where possible, harness rods shall be installed through the mechanical joint bolt holes. Where it is not possible, provide 90 degree bend eye bolts.
 4. Eye bolts shall be of the same diameter as specified in AWWA C111 for that pipe size. The eye shall be welded closed. Where eye bolts are used in conjunction with harness rods, an appropriate size washer shall be utilized with a nut on each end of the harness rod. Eye bolts shall be of the same material and coating as the harness rods.
- D. Hydrants: Hydrants shall be attached to the water main as shown on the Standard Detail.
- E. Thrust Collars: Collars shall be constructed as shown on the Drawings. Concrete and reinforcing steel shall meet the requirements as specified in this Section. The welded-on collar shall be designed to meet the minimum allowable load shown on the Drawings. The welded-on collar shall be attached to the pipe by the pipe manufacturer.
- F. Concrete Blocking
 1. Provide concrete blocking for all bends, tees, valves, and other points where thrust may develop, except where other exclusive means of thrust restraint are specifically shown on the Drawings.

2. Concrete shall be as specified in this Section.
3. Form and pour concrete blocking at fittings as shown on the Drawings and as directed by the Owner. Pour blocking against undisturbed earth. Increase dimensions when required by over excavation.

3.8 DETECTION TAPE

- A. Provide detection tape for all water mains.

3.9 BACKFILLING, CLEANING UP AND MAINTAINING SURFACES

- A. Time of Backfilling: As soon as practicable after the completion of laying and jointing of the pipe, the trench shall be backfilled, and at no time shall the completed backfilling of the trench be more than 300 feet behind the pipe laying.
- B. Compaction Requirements: All backfill for trenches under paved or roadway areas shall be compacted to 98% of the Standard Proctor maximum density (ASTM D-698). Backfill for trenches other than under paved or roadway areas shall be compacted to 95% of the Standard Proctor maximum density (ASTM D-698). The testing lab shall furnish the Owner proof of compaction at a point 18" above the crown of the sewer pipe at all pavement, driveway or roadway crossings. Additional compaction tests are required at each crossing 8" below the surface of the pavement or on the pavement subgrade before pavement placement. Contractor shall incur all cost for compaction test performed by a testing laboratory approved by the Owner and selected by the Contractor.
- C. Backfill Procedure at Pipe Zone: Select backfill material free from rock fragments shall be deposited in the trench simultaneously on both sides of the pipe for the full width of the trench and to an elevation of twelve inches above the top of the barrel of the pipe. The backfill material shall be moistened if necessary, tamped in thin (about 4-inch) layers and thoroughly compacted under and on each side of the pipe to provide solid backing against the external surface of the pipe. Backfill material within 6" of main shall be selected backfill aggregate no larger than 3/4" in diameter (#57 stone).
- D. Backfill Procedure Above the Pipe Zone: Succeeding layers of backfill may contain coarser materials, and shall be compacted thoroughly to the natural ground surface.
- E. Procedure Where Settlement is Important: Where it is important that the surface of the backfill be made safe for vehicular traffic at unpaved street crossings and along existing unpaved streets, the upper thirty-six inches of backfill shall be approved moist material, thoroughly compacted in eight inch layers by tamping, and shall be brought to the required surface grade.
- F. Deficiency of Backfill, by Whom Supplied: Any deficiency in the quantity of material for backfilling the trenches, or for filling depressions caused by settlement, shall be supplied by the contractor.
- G. Protection: Return all items and all areas disturbed, directly or indirectly by work under these specifications, to their original condition or better, as quickly as possible after work is started.

- H. Restoration of Surfaces: The contractor shall replace all curbing, sidewalks, gutters, shrubbery, fences, sod, and other surfaces disturbed to a condition equal to that before the work began, furnishing all labor and materials incidental thereto and complete the work in a manner satisfactory to the Owner. Replacement of street base and surface removed to permit installation of pipe lines shall be provided for elsewhere in these specifications.
- I. Man-Made Improvements: Protect, or remove and replace with the Owner's approval, all fences, piers, docks, walkways, mailboxes, pipe lines, drain culverts, power and telephone lines and cables, and other improvements that may be encountered in the work.
- J. Cultivated Growth: Do not disturb cultivated trees or shrubbery unless approved by the Owner. Any such trees or shrubbery which must be removed shall be heeled in and replanted under the direction of an experienced nurseryman.
- K. Cutting of Trees: Do not cut trees for the performance of the work except as absolutely necessary. Protect trees that remain in the vicinity of the work from damage from equipment. Do not store spoil from excavation against the trunks. Remove excavated material stored over the root system of trees within 30 days to allow proper natural watering of the root system. Repair any damaged tree over 3 inches in diameter, (measured 4' from the ground) not to be removed, under the direction of an experienced nurseryman. All trees and brush that require removal shall be promptly and completely removed from the work area and disposed of by the Contractor. No stumps, wood piles, or trash piles will be permitted on the work site.
- L. Surplus Earth: Surplus excavated materials from trenches in streets or at railroad crossings shall be disposed of by the contractor at his expense and in a manner satisfactory to the Owner.
- M. Cleaning Up: Surplus pipe line materials, tools, surplus excavated materials, rubbish, and temporary structures shall be removed by the contractor and the construction site shall be left clean, to the satisfaction of the Owner. The line shall be cleaned up immediately after a satisfactory pressure test has been made.
- N. Maintenance of Surfaces: Following the certification of completion by the Owner, the contractor shall maintain the surface of the unpaved trenches, adjacent curbs, sidewalks, gutters and other surfaces disturbed for a period of three months thereafter. All materials and labor required for the maintenance of the trenches and adjacent structures shall be supplied by the contractor and the work shall be done in a manner satisfactory to the Owner.
- O. Compaction Testing:
 - 1. Density: Tests for compaction and density shall be conducted by an independent testing laboratory selected in accordance with Section 02300 of these specifications.
 - 2. The soils testing laboratory is responsible for the following:

- a. Field compaction testing shall be based on using the maximum dry density determined by the Standard Proctor Compaction Test in accordance with ASTM D 698.
- b. Maximum dry density for non-cohesive materials shall mean the maximum index density as determined by ASTM D 4253.
- c. Determination of in-place backfill density shall be done in accordance with ASTM D 1556, ASTM D 2937, or ASTM D 2922.
- d. Field density tests for each two feet of lift; one test for each 5,000 square feet of fill.
- e. Inspecting and testing stripped site, subgrade and proposed fill materials.

P. Contractor's duties relative to testing include – Refer to Sections 02300 and 02324.

3.10 WATER MAIN AND SEWER MAIN SEPARATION

- A. Water mains should maintain a minimum 10 foot edge-to-edge separation from sewer lines, whether gravity or pressure. If the main cannot be installed in the prescribed easement or right-of-way and provide the 10 foot separation, the separation may be reduced, provided the bottom of the water main is a minimum of 18-inches above the top of the sewer. If neither of these two separation criteria be possible, the water main shall be installed below the sewer with a minimum vertical separation of 18-inches.
- B. The water main, when installed below the sewer, shall be encased in concrete with a minimum 6-inch concrete depth to the first joint in each direction. Where water mains cross the sewer, the pipe joint adjacent to the pipe crossing the sewer shall be cut to provide maximum separation of the pipe joints from the sewer.
- C. No water main shall pass through, or come in contact with, any part of a sanitary sewer manhole.

3.11 TESTING

REFER TO SECTION 02519 - PIPING, TESTING AND ACCEPTANCE.

3.12 DISINFECTING PIPE LINES

REFER TO SECTION 02515 - DISINFECTION OF WATER DISTRIBUTION SYSTEMS.

3.13 PROTECTION AND RESTORATION OF WORK AREA

- A. General: Return all items and all areas disturbed, directly or indirectly by work under these Specifications, to their original condition or better, as quickly as possible after work is started.
 - 1. The Contractor shall plan, coordinate, and prosecute the work such that disruption to personal property and business is held to a practical minimum.

2. All construction areas abutting lawns and yards of residential or commercial property shall be restored promptly. Backfilling of underground facilities, ditches, and disturbed areas shall be accomplished on a daily basis as work is completed. Finishing, dressing, and grassing shall be accomplished immediately thereafter, as a continuous operation within each area being constructed and with emphasis placed on completing each individual yard or business frontage. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.
 3. Handwork, including raking and smoothing, shall be required to ensure that the removal of roots, sticks, rocks, and other debris is removed in order to provide a neat and pleasing appearance.
 4. The Department of Transportation's engineer shall be authorized to stop all work by the Contractor when restoration and cleanup are unsatisfactory and to require appropriate remedial measures.
- B. Man-Made Improvements: Protect, or remove and replace with the Owner's approval, all fences, walkways, mail boxes, pipe lines, drain culverts, power and telephone lines and cables, property pins and other improvements that may be encountered in the Work.
- C. Cultivated Growth: Do not disturb cultivated trees or shrubbery unless approved by the Owner. Any such trees or shrubbery which must be removed shall be heeled in and replanted under the direction of an experienced nurseryman.
- D. Cutting of Trees: Do not cut trees for the performance of the work except as absolutely necessary. Protect trees that remain in the vicinity of the work from damage from equipment. Do not store spoil from excavation against the trunks. Remove excavated material stored over the root system of trees within 30 days to allow proper natural watering of the root system. Repair any damaged tree over 3-inches in diameter, not to be removed, under the direction of an experienced nurseryman. All trees and brush that require removal shall be promptly and completely removed from the work area and disposed of by the Contractor. No stumps, wood piles, or trash piles will be permitted on the work site.
- E. Disposal of Rubbish: Dispose of all materials cleared and grubbed during the construction of the Project in accordance with the applicable codes and rules of the appropriate Owner, state and federal regulatory agencies.
- F. Swamps and Other Wetlands
1. The Contractor shall not construct permanent roadbeds, berms, drainage structures or any other structures which alter the original topographic features within the easement.
 2. All temporary construction or alterations to the original topography will incorporate measures to prevent erosion into the surrounding swamp or wetland. All areas within the easement shall be returned to their original topographic condition as soon as possible after work is completed in the area. All materials of construction and other non-native materials shall be disposed by the Contractor.

3. The Contractor shall provide temporary culverts or other drainage structures, as necessary, to permit the free migration of water between portions of a swamp, wetland or stream which may be temporarily divided by construction.
4. The Contractor shall not spread, discharge or dump any fuel oil, gasoline, pesticide, or any other pollutant to adjacent swamps or wetlands.

END SECTION

SECTION 33 30 00

SANITARY SEWERS

PART 1 GENERAL

1.1 SCOPE

- A. This Section describes products to be incorporated into sewers and accessories and requirements for the installation and use of these items. Furnish all products and perform all labor necessary to fulfill the requirements of these Specifications.
- B. General: Supply all products and perform all work in accordance with applicable American Society for Testing and Material (ASTM), American Water Works Association (AWWA), American National Standards Institute (ANSI), or other recognized standards. Latest revisions of all standards are applicable.
- C. All work shall be done in accordance with the appropriate Water Works Department Standards.
- D. Bypassing of raw wastewater onto the ground or into a receiving stream is prohibited.

1.2 RELATED SECTIONS

- A. Section 31 11 00 – Clearing and Grubbing
- B. Section 31 14 00 – Sheeting, Shoring, and Bracing
- C. Section 31 00 00 – Earthwork
- D. Section 32 23 16 – Trench Excavation and Support
- E. Section 32920 – Grassing

1.3 REFERENCES

- A. ASTM Specifications
 - 1. ASTM D 3740-94a – Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
 - 2. ASTM E 329-93b – Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.
 - 3. ASTM D 3034-94 – Type PSM PVC Sewer Pipe and Fittings.
 - 4. ASTM D 2321-89 – Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Installations.
 - 5. ASTM A 746-95 – Ductile Iron Gravity Sewer Pipe.
 - 6. ASTM D 3212-92 – Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric

Seals.

7. ASTM F 477-95 – Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
8. ASTM D 3139-95 – PVC Pressure-Rated Pipe (SDR-Series).
9. ASTM D 3139-95 – Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seams.
10. ASTM A 139-93a – Electric-Fusion (Arc) Welded Steel Pipe (NPS 4 and over).
11. ASTM C 478-94 – Precast Reinforced Concrete Manhole Sections.
12. ASTM C 443-94 – Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
13. ASTM C 39-94 - Compressive Strength of Cylindrical Concrete Specimens.
14. ASTM C 890-91 – Minimum Structural Design Loading for Monolithic or Sectional Precast Concrete Water and Wastewater Structures.
15. ASTM C 891-90 – Installation of Underground Precast Concrete Utility Structures.
16. ASTM C 913-89 – Precast Concrete Water and Wastewater Structures.
17. ASTM A 615/A 615 M-95b – Deformed and Plain Billet – Steel Bars for Concrete Reinforcement.
18. ASTM D 2922-91 – Test Methods for Density of Soil and Soil Aggregate In Place By Nuclear Methods (Shallow Depths).
19. ASTM D 1557-91 – Laboratory Compaction Characteristics of Soil Using Modified Effort.
20. ASTM D 1556-90 – Density and Unit Weight of Soil in Place by the Sand Cone Method.
21. ASTM D 714-87 (Reapproved 1994) – Evaluation Degree of Blistering Paints.
22. ASTM D 2794-93 – Resistance of organic Coatings to the Effects of Rapid Deformation (Impact).
23. ASTM E 96-95 – Water Vapor Transmission of Materials.
24. ASTM A 377-95 – Index and Specifications for Ductile Iron Pressure Pipe and Fittings.
25. ASTM C890-73 (Latest Revision) – Standard Practice for Minimum Structural Design Loading for Monolithic or Sectional Precast Concrete for Water and Wastewater Structures.
26. ASTM C891-78 (Latest Revision) – Standard Practice for Installation of Underground Precast Concrete Utility Structures.

27. ASTM C913-79 (Latest Revision) – Precast Concrete Water and Wastewater Structures.

B. ANSI/AWWA Specifications

1. ANSI/AWWA C 150/A-21.50-96 – Thickness Design of Ductile Iron Pipe.
2. ANSI/AWWA C 151/A-21.51-91 – Ductile Iron Pipe, Centrifugally Cast, for Water or Other Liquids.
3. ANSI/AWWA C-500-93 – Metal-Seated Gate Valves for Water Supply Service.
4. ANSI/AWWA C-509-94 – Resilient-Seated Gate Valves for Water Supply Service.
5. ANSI/AWWA C 111/A 21.11-95 – Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings.
6. ANSI/AWWA C 600-93 – Installation of Ductile Iron Water Mains and their appurtenances.

C. ACI Specifications

1. ACI 318-89 – Building code Requirements for Reinforced Concrete.

D. AASHTO Guidelines

1. AASHTO T 191-91 – Density of Soil in-Place by the Sand-Cone Method.

1.4 QUALIFICATIONS

- A. If requested by the Owner, submit evidence that manufacturers have consistently produced products of satisfactory quality and performance for a period of at least two years.

1.5 SUBMITTALS

- A. Submittals Required: The Contractor shall furnish to the Owner for review in accordance with the procedure outlined below, drawings and descriptive literature for all manufactured or fabricated products. Additional information such as special drawings, schedules, calculations and curves, shall be provided as specifically requested by the Owner.
- B. Contractor's Review: The Contractor shall review and check drawings and submittals. He shall indicate his review by initials and date. The Contractor shall furnish the Owner with a minimum of five copies of all submittals. A transmittal form shall accompany each submittal or group of submittals.
- C. Owner's Review:
1. All submittals will be reviewed, stamped, and dated by the Owner before they are returned to the Contractor.
 2. One copy of reviewed submittals will be returned to the Contractor and the remaining

copies retained by the Owner.

3. Submittals requiring minor corrections will be so noted. Drawings must be resubmitted for review prior to installation or use of products.
- D. Drawings for Construction: Drawings or submittals not bearing the Engineer's or Owner's review notation shall not be issued to subcontractors or utilized for construction purposes. The Contractor shall maintain at the job site a complete set of construction drawings bearing the Engineer's review.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Unloading: Furnish equipment and facilities for unloading, handling, distributing and storing pipe, fittings, valves and accessories. Make equipment available at all times for use in unloading. Do not drop or dump materials. Any materials dropped or dumped will be subject to rejection without additional justification.
- B. Handling: Handle pipe, fittings, valves and accessories carefully to prevent shock or damage. Handle pipe by rolling on skids, forklift, or front loader. Do not use material damaged in handling.
- C. Lined pipe shall be handled and transported to prevent damage to linings.
- D. Store all pipes which cannot be distributed along the route. Make arrangements for the use of suitable storage areas.
- E. Stored materials shall be kept safe from damage. The interior of all pipes, fittings and other appurtenances shall be kept free from dirt or foreign matter at all times.
- F. Pipe shall not be stacked higher than the limits recommended by the manufacturer. The bottom tier shall be kept off the ground on timbers, rails or concrete. Pipe in tiers shall be alternated: bell, plain end; bell, plain end. At least two rows of timbers shall be placed between tiers and chocks, affixed to each other in order to prevent movement. The timbers shall be large enough to prevent contact between the pipes in adjacent tiers.
- G. Store joint gaskets in a cool location, out of direct sunlight. Gaskets shall not come in contact with petroleum products. Gaskets shall be used on a first-in, first-out basis.
- H. Conditions for Delivery and Handling of Pump Station: The manufacturer shall coordinate with the Contractor so that the station is delivered to the job site on the day of, or the day before the installation. Lifting pins shall be provided by the manufacturer to insure proper handling of the station structures. After delivery to the job site, the contractor shall store the control panel off the ground in a dry location until such time as it is mounted and supplied with electrical service. The contractor shall also insure that all pump power and control cables, as well as float cables are protected from submergence until they are properly installed.

1.7 QUALITY ASSURANCE

- A. Product manufacturers shall provide the Owner with written certification that all products furnished comply with all applicable provisions of these Specifications.

- B. If ordered by the Owner, each pipe manufacturer shall furnish the services of a competent factory representative to supervise and/or inspect the installation of pipe. This service will be furnished for a minimum of five days during initial pipe installation.
- C. The Contractor shall furnish the Owner a description of all material before ordering. The Owner will review the Contractor's submittals and provide in writing an acceptance or rejection of material.
- D. Where ductile iron pipe is indicated on the plans, or required by the Owner, it shall be used.
- E. Material and equipment shall be the standard product of a manufacturer who has manufactured them for a minimum of 2 years and who provides published data on the quality and performance of the product.
- F. Qualifications of Pump Manufacturer: The manufacturer shall demonstrate the ability to fabricate the various pump station structure components, as specified, utilizing adequate numbers of skilled workmen, tools, and facilities. To insure proper quality control and supervision, all factory cast concrete units shall be poured and vibrated, using steel forms, in the same PCI (Pre-stressed Concrete Institute) certified manufacturing facility used for the complete assembly of all pump station components and their equipment.
- G. A subcontractor for any part of the work must have experience on similar work and if required, furnish the Owner with a list of projects and the Owner(s) who is familiar with his competence.
- H. Devices, equipment, structures, and systems not designed by the Design Professional that the Contractor wishes to furnish shall be designed by either a registered professional engineer or by someone the Design Professional accepts as qualified. If required, the Design Professional or Owner shall be furnished complete design calculations and assumptions before acceptance.
- I. Soil testing shall be done by a testing laboratory, which operates in accordance with ASTM D 3740 and E 329 latest revision and be acceptable to the Owner prior to engagement.
- J. Infiltration, line and grade of sewer, pump performance, and hydrostatic tests on force mains shall be made by the Contractor with equipment qualified by the Owner and in the presence of the Owner. The Owner reserves the right to accept or reject testing equipment.

1.8 WARRANTY

- A. The Contractor shall guarantee the quality of the materials, equipment, and workmanship for 12 months after acceptance of the completed Project. Defects discovered during that period shall be repaired by the Contractor at no cost to the Owner. The Performance Bond shall reflect this guarantee.
- B. The manufacturer shall guarantee the complete pump station to be free from defects in material and workmanship for a period of five years from the date of start-up and acceptance.

1.9 EXISTING UTILITIES

- A. All known utility facilities are shown schematically on plans, and are not necessarily accurate in location as to plan or elevation. Utilities such as service lines are unknown facilities not shown on plans will not relieve the Contractor of his

responsibility under this requirement. "Existing Utilities Facilities" means any utility that exist on the project in its original, relocated, or newly installed position. The Contractor will be held responsible for the cost of repairs to damaged underground facilities, even when such facilities are not shown on the plans. The Contractor shall contact all utility companies prior to beginning work and request an accurate field location of their respective utility lines.

PART 2 PRODUCTS

2.1 MATERIALS

- A. All pipes shall be subject to inspection at the pipe plant, trench or other point of delivery for the purpose of culling and rejecting pipe, independent of laboratory tests, which do not conform to the requirements of these specifications. The manufacturer of the pipe shall submit evidence of having consistently produced both pipe and joints of satisfactory quality and performance results in service over a period of at least five (5) years.
- B. Stone: All bedding, haunching, and trench stabilization stone shall be crushed granite.

2.2 POLYVINYL CHLORIDE (PVC) GRAVITY SEWER PIPE

- A. Acceptability of PVC pipe for gravity sewers is indicated in the following table:

Standard Min Thick Type PVC ¹	Wall	Acceptable Manufacturers	≤ 6	8 to 15	18	21	24
ASTM D 3034 SDR 35 12454B	SW	Open	Yes	Yes	No	No	No
ASTM F 679 T-1 12454C	SW	Open	No	No	Yes	Yes	Yes
ASTM F 794 Series 46 12454C	OP	Open	No	No	No	No	Yes
ASTM F 794 Series 46 12454C	CP	Open	Yes	No	No	No	Yes

¹ As specified in ASTM D 1784
 SW Solid Wall
 OP Open Profile
 CP Closed Profile

Open shall mean any manufacturer whose products meet the specified standard is acceptable.

- B. All pipes shall have a minimum pipe stiffness of 46 psi at five percent deflection as determined by ASTM D 2412.
- C. Each length of pipe shall be marked with the manufacturer's name, trade name, nominal size,

class, hydrostatic test pressure, manufacturer's standard symbol to signify it was tested, and date of manufacture. Each rubber ring shall be marked with the manufacturer's identification, the size, the year of manufacture, and the classes of pipe with which it can be used.

- D. Fittings 15 inches in diameter and less shall be manufactured in accordance with ASTM D 3034. PVC compound shall be 12454B or 12454C as specified in ASTM D 1784.
 - 1. For sizes 8-inches and less in diameter, fittings shall be molded in one-piece with no solvent welded joints. Minimum socket depths shall be as specified in ASTM D 3034, Table 2.
 - 2. For sizes 10-inches and larger in diameter, fittings shall be fabricated from pipe conforming to ASTM D 3034 using solvent welding. No field fabrication of fittings will be allowed. All such fabrication shall be performed at the factory and the fittings shall be delivered ready for use.
- E. Joints: Joints for pipe and fittings shall be of the integral bell and spigot type with a confined elastomeric gasket having the capability of absorbing expansion and contraction without leakage, when tested in accordance with ASTM D 3212. Gaskets shall meet the requirements of ASTM F 477. The joint system shall be subject to the approval of the Owner and shall be identical for pipe and fittings.
- F. Manhole Connections
 - 1. Solid Wall and Closed Profile Wall Pipe: The sewer shall be connected to manholes utilizing a standard pipe section.
 - 2. Open Profile Wall Pipe: The sewer shall be connected to manholes with an adapter piece. The adapter piece shall have an open profile pipe bell and a solid wall pipe spigot for penetrating the manhole wall.
- G. Acceptance: Acceptance will be on the basis of the Owner's inspection and the manufacturer's written certification that the pipe and fittings were manufactured and tested in accordance with the applicable standards.

2.3 DUCTILE IRON PIPE (DIP)

- A. Ductile iron pipe shall be utilized where shown on the Drawings. All pipes, except specials, shall be furnished in nominal lengths of 18 to 20 feet, with a bituminous outside coating.
- B. Ductile iron pipe shall be manufactured in accordance with AWWA C151. All pipes, except specials, shall be furnished in nominal lengths of 18 to 20 feet. Sizes will be as shown on the Drawings. All pipes shall have a minimum pressure rating as indicated in the following table, and corresponding minimum wall thickness, unless otherwise specified or shown on the Drawings:

Pipe Sizes (inches)	Pressure Class (psi)
4 - 12	350

16 - 24	250
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- C. Flexible Joint (Ball Joint) Pipe: Flexible, restrained joint pipe shall be minimum Thickness Class 56. Appropriate transition pieces shall be utilized on each end of run of flexible joint pipe.
- D. Fittings and Accessories
 - 1. Fittings shall be ductile iron and shall conform to AWWA C110/ANSI A21.10 or AWWA C153/ANSI A21.53 with a minimum rated working pressure of 250 psi, and shall be furnished with a bituminous outside coating.
 - 2. Thrust Collars: Thrust collars shall be welded-on ductile iron body type capable of withstanding a thrust due to 250 psi internal pressure on a dead end from either direction on that pipe size. Weld-on collars shall be continuously welded to the pipe by the pipe manufacturer.
 - 3. Solid Sleeves: Solid sleeves shall permit the connection of plain end ductile iron pipe and plain end PVC pipe. Solid sleeves shall meet the requirements of ANSI/AWWA C110 for long pattern and have a minimum pressure rating of 250 psi. Solid sleeves shall have a mechanical or restrained joint as specified in this Section and as shown on the Drawings. Solid sleeves shall be provided with gaskets suitable for the type of pipe to be connected. Solid sleeves shall be used only in locations shown on the Drawings or at the direction of the Owner. Solid sleeves shall be manufactured by ACIPCO, U.S. Pipe or Clow.
- E. Joints for Ductile Iron Pipe and Fittings
 - 1. Joints for ductile iron pipe and fittings shall be mechanical joint, flanged joint, ball joint, restrained joint, or push-on joint as shown on the Drawings or specified herein.
 - 2. Unless otherwise shown on the Drawings, specified or directed, all ductile iron pipe laid underground shall be joined using push-on type joints.
 - 3. In all cases, gaskets shall be made of material that will not be damaged by the fluid being transported or by the environment in which the pipe is installed.
 - 4. Provide the necessary bolts for connections. All bolts and nuts shall be threaded in accordance with ANSI B1.1, Coarse Thread Series, Class 2A external and 2B internal fit. All bolts and nuts shall be made in the U.S.A.
 - 5. Mechanical Joints:
 - a. Joints shall conform to AWWA C111/ANSI A21.11.
 - b. Bolts and nuts shall be Tee Head Bolts and nuts of high strength low-alloy steel in accordance with ASTM A242 to the dimensions shown in AWWA C111/ANSI A21.11.
 - c. Gaskets shall be in accordance with AWWA C111/ANSI A21.11 and shall be constructed of plain rubber.

- d. Mechanical joint glands shall be ductile iron.
- 6. Push-On Joints: Push-on joints and gaskets shall conform to AWWA C111/ANSI A21.11. Details of the joint design shall be in accordance with the manufacturer's standard practice such as ACIPCO "Fastite", McWane (Clow) "Bell-Tite", or U.S. Pipe "Tyton" joints.
- 7. Flanged Joints:
 - a. Flanged joints shall conform to AWWA C115/ANSI A21.15. Flanges shall be ductile iron and shall be furnished by the pipe manufacturer.
 - b. Gaskets shall be made of 1/8-inch thick, cloth reinforced rubber. Gaskets may be ring type or full face type.
 - c. Flanged ductile iron pipe shall have flanges cast solidly or threaded to the pipe barrel. Pipe threads shall be of such length that with flanges screwed home, the end of the pipe shall project beyond the face line of the flange. Flange and pipe shall then be machined to give a flush finish to the pipe and the flange and surface shall be normal to the axis of the pipe. Ductile iron flanges shall be of such design that the flange neck completely covers the threaded portion of the pipe to protect same against corrosion. All pipes with threaded type flanges shall be assembled, faced, and drilled at the point of manufacture, unless otherwise approved by the Owner.
 - d. Flange filler shall conform to AWWA C110/ANSI A21.10. Joint bolt length shall be increased by the thickness of the flange filler.
 - e. Where tap or stud bolts are required, flanges shall be drilled and tapped accordingly.
 - f. Bolt length and diameter shall conform to ANSI/AWWA C115 for Class 125 flanges shown in ANSI/ASME B16.1.
 - g. Bolts for exposed service shall be zinc plated, cold pressed, steel machine bolts conforming to ASTM A307, Grade B. Nuts for exposed service shall be zinc plated, heavy hex conforming to ASTM A563. Zinc plating shall conform to ASTM B633, Type II.
 - h. Bolts for submerged service shall be stainless steel machine bolts conforming to ASTM A193, Grade B8. Nuts shall be heavy hex, stainless steel conforming to ASTM A194, Grade 8.
- 8. Restrained Joints:
 - a. Restrained joints shall be ACIPCO "FLEX-RING" or "FAST-GRIP", or U.S. "TR-FLEX" or "FIELD LOK".
 - b. Bolts and nuts shall be in accordance with the manufacturer's recommendations.
 - c. Gaskets shall be in accordance with the manufacturer's recommendations.

F. Interior Lining: Ductile iron pipe and fittings shall be lined with polyethylene, polyurethane or epoxy, as specified below:

1. Linings shall cover all exposed surfaces of pipe and fittings subject to contact with sewer liquid or gas. The lining of the pipe barrel shall extend from spigot end through the socket to the edge of the gasket sealing area or recess for pipe using push-on gaskets, and to the edge of the gasket seat for mechanical joints. The lining shall also cover the exterior of the spigot end from the end of the pipe to beyond the gasket sealing area. The lining in fittings shall cover the interior surfaces including the socket areas as defined above. All linings shall be hermetically sealed at the ends.

2. Lining Materials:

a. Polyethylene lining material for pipe barrel shall conform to ASTM D 1248, compounded with inert filler and with sufficient carbon black to resist ultraviolet rays during aboveground storage. The polyethylene shall be bonded to the interior of the pipe or fitting by heat. Lining material for exterior of spigot and interior of socket shall be equal to Roskote Mastic B-151 or Madewell 1104 Coal Tar Epoxy. Polyethylene lining system shall be ACIPCO Polybond or U.S. Pipe Polylined.

b. Polyurethane lining material shall consist of a two-part polyurethane coating system conforming to ASTM D 16, Type V, consisting of a polyisocyanate resin and a polyol resin. Polyurethane for pipe barrel and fittings shall be Corropipe II Wasteliner as manufactured by Madison Chemical Industries, Inc. Polyurethane lining material for exterior of spigot and interior of socket shall be equal to Corropipe 'S' as manufactured by Madison Chemical Industries, Inc. Polyurethane lining system shall be equal to U.S. Pipe Polythane.

c. Epoxy: The lining material shall be Protecto 401 Ceramic Epoxy, a two component, modified epoxy formulated for corrosion control with the following minimum requirements:

1. A permeability rating of 0.0 perms when measured by ASTM E 96, Procedure A. Duration of test shall be six weeks.

2. A direct impact resistance of 125 inch-pounds with no cracking when measured by ASTM D 2794.

3. The ability to build at least 50 mils, dry, in one coat.

4. The material shall be recoatable with itself for at least seven days with no additional surface preparation when exposed to direct summer sun and a temperature of 90 degrees F.

5. The material shall contain at least 20 percent by volume of ceramic quartz pigment.

6. A test and service history demonstrating the ability of the material to withstand the service expected.

7. Possess a minimum solids volume content of 88 percent, $\pm$ one percent.
 8. Possess a maximum drying time to allow recoating as follows: 50 degrees F - 72 hours; 75 degrees F - 18 hours; 90 degrees F - 8 hours. If recoating cannot be accomplished within seven days, a light brush blast shall be performed to improve intercoat adhesion.
3. All surfaces to be lined with polyethylene shall be blast cleaned equal to the requirements of SSPC-SP6. All surfaces to be lined with polyurethane shall be blast cleaned equal to the requirements of SSPC-SP10. All surfaces to be lined with epoxy shall be blasted and cleaned to remove all loose laitance, scale, or other loose material. No lining shall take place over grease, oil, etc., that would be detrimental to the adhesion of the compound to the substrate.
 4. Application:
 - a. Lining of pipe barrel and fittings shall be 40 mils nominal thickness; minimum lining thickness shall be 30 mils. Lining thickness for exterior of spigot and interior of socket shall be 8 to 10 mils.
 - b. The lining shall be applied using a centrifugal lance applicator by applicators certified by the lining manufacturer. The workers shall be experienced and competent in the surface preparation, application and inspection of the lining to be applied. The compound shall not be applied when the substrate temperature is below 40 degrees F or in adverse atmospheric conditions which will cause detrimental blistering, pin holing or porosity of the film.
 5. All pipe and fitting linings shall be tested for pinholes in accordance with ASTM G 62, Method B.
 6. All pipe linings shall be checked for thickness using a magnetic film thickness gauge.
 7. Each pipe joint and fitting shall be marked with the date of application of the lining system and with the numerical sequence of application of that date.
 - G. Polyethylene Encasement: Where shown on the Drawings, ductile iron pipe shall be encased with polyethylene film. Polyethylene film shall have a minimum thickness of 8 mils.

2.4 MISCELLANEOUS ACCESSORIES

A. Flexible Adaptor Couplings

1. Couplings for pipe sizes 15-inches in diameter and less shall be elastomeric plastic sleeves designed to connect pipes of dissimilar materials. Adapters shall provide a positive seal against infiltration and exfiltration and remain leak proof and root proof up to 4.3 psi. The adaptor manufacturer shall provide all stainless steel clamps and required accessories.
2. Couplings shall be products of Fernco and shall be installed in accordance with the

manufacturer's recommendations.

B. Flexible Adaptor Donuts

1. Adaptor donuts shall be elastomeric polyvinyl chloride (PVC), compressible seals designed for sealing joints between sewer pipes of different sizes and/or dissimilar materials. Adaptors shall provide a positive seal against infiltration and exfiltration and remain leak proof and root proof up to 4.3 psi.
2. Donuts shall be products of Fernco and shall be installed in accordance with the manufacturer's recommendations.

- C. Detection Tape:** Detection tape shall be composed of a solid aluminum foil encased in a protective plastic jacket. Tapes shall be color coded in accordance with APWA color codes with the following legends: Sanitary Sewerage Systems, Safety Green, "Caution: Sewer Line Buried Below". Colors may be solid or striped. Tape shall be permanently printed with no surface printing allowed. Tape width shall be minimum 2-inches when buried less than 10-inches below the surface. Tape width shall be minimum 3-inches when buried greater than 10-inches and less than 20-inches. Detection tape shall be equal to Lineguard Type III Detectable or Allen Systems Detectatape.

PART 3 EXECUTION

3.1 GENERAL

- A.** The contractor shall excavate the trenches and manholes to the required dimensions; excavate the bell holes; construct and maintain all bridges required for traffic control; sheet, brace and support the adjoining ground or structures where necessary; handle all drainage or ground water; guard the site; unload, haul, distribute, lay the pipe, fittings and accessories; rearrange other conduits, ducts or pipes where necessary; replace all damaged water services, drains, sewers, or other structures; backfill trenches; restore the roadway surfaces; remove surplus excavated materials; clean the site of the work of any trees and stumps and maintain the street or other surfaces over the trenches.
- B.** Manholes shall be constructed at the locations shown on the plans. Manholes shall be the type and to the depth shown on the plans. Details of manhole are shown on the plans and construction shall be in accordance with these details.
- C.** Where inlet leads and main or lateral pipe sewers enter a manhole, such pipes shall be cut off flush with the inside of the manhole, and any irregularities shall be touched up with mortar.
- D.** The inverts of the sewer lines entering manholes at or near the flow line elevation of the manhole shall be shaped and routed across the floor of the manhole using concrete and mortar to obtain the proper contour.
- E.** Where the sewers enter the manhole, a neoprene boot shall be used to positively seal against infiltration or exfiltration.
- F.** Where sewers enter an existing manhole, the seal will be fully grouted with non-shrink grout to positively seal against infiltration or exfiltration.

- G. Do not connect any sewage flow to new work until authorized by the appropriate Water Works Department. Contact the appropriate Water Works Department a minimum of 72 hours prior to connection.

3.2 SERVICE FITTINGS

- A. Location of Service Fittings: All wyes and other fittings shall be placed at the points indicated on the plans or by the Owner. They shall not be covered until the representative has measured their exact location in relation to the nearest manhole, and recorded it clearly on a record plan for the Owner's permanent records.
- B. Wye branches shall be laid to correspond with the sewers and house service lines entering them. When service lines are not laid, or whenever wyes are installed and short runs of service lines are constructed to a point for future extension, they shall be closed with caps from the same pipe material and sealed with like joint material as used for jointing bell and sockets of regular sewer pipe.
- C. Each wye branch shall be provided with a 45 degree bend connected to the branch.
- D. Service lines, unless otherwise shown on the Drawings or requested by the Owner are to be installed to suit field conditions at a minimum grade of 1.0 percent and with a minimum pipe cover of 30 inches.
- E. Provide cleanouts in service lines at not more than 75 foot intervals and where pipe horizontal deflection equals or exceeds 45 degrees. Unless noted otherwise, furnish cleanouts consisting of wye and 45 degree fittings, vertical pipe, and threaded brass or plastic removal plug. Arrange cleanout to permit cleaning in the direction of flow.

3.3 INSPECTION

- A. Materials at Delivery Point: During the process of unloading all pipe and accessories shall be inspected by the contractor for loss or damage in transit.
- B. Field Inspection: All pipe and accessories shall be laid and jointed in the manner herein specified in the presence of the owners authorized inspector.
- C. Disposition of Defective Material: All material found during the process of the work to have cracks, flaws or other defects will be rejected and the contractor shall promptly remove such material from the job site.
- D. Contractor's Responsibility for Materials: The contractor shall be responsible for all material furnished to him and he shall replace at his own expense all such materials that have become damaged in handling after delivery. The contractor shall be responsible for the safe storage of materials furnished by or to him, and accepted by him intended for the work until it has been incorporated in the completed project.
- E. Handling Pipe and Accessories: Pipe, fittings and other accessories shall be unloaded at the point of delivery, hauled to and distributed at the site of the project by the contractor; they shall at all times be handled with care to avoid damage. Under no circumstances shall they be dropped. Pipe and fittings shall be properly distributed in such a manner as to be convenient for laying and so as to be of as little inconvenience to the public as practicable.

3.4 ALIGNMENT AND GRADE

- A. General: All pipes shall be laid and maintained in the required lines and grades, with wyes or fittings at the required locations, and with joints centered and spigots home. The contractor shall, at his own expense, furnish and place in position all necessary stakes and batter boards for locating the work. The Contractor must also furnish, at his own expense, good spun twilled lines or wire for use in giving lines and grades and the necessary plummets and grade poles. The laser beam method of establishing pipe grade is preferred.
- B. Protecting Underground and Surface Structures: Temporary support, adequate protection and maintenance of all underground and surface utility structures, water services, gas services, poles, guy wires, drains, sewers and other obstructions encountered in the progress of the work shall be furnished by the Contractor at his own expense.

3.5 PROTECTION OF WATER SUPPLIES

- A. Water Supply Interconnections: There shall be no physical connection between a public or private potable water supply system and a sewer, or appurtenance thereto which would permit the passage of any sewage or polluted water into the potable supply.
- B. Relation to Water Works Structures: While no general statement can be made to cover all conditions, it is generally recognized that sewers shall meet the requirements of the approving agency with respect to minimum distances from public water supply wells or other water supply sources and structures.
- C. Relation to Water Mains:
 - 1. Horizontal Separation: Whenever possible, sewers should be laid at least 10 feet, horizontally, from any existing or proposed water main. Should local conditions prevent a lateral separation of 10 feet, a sewer may be laid closer than 10 feet to a water main if:
 - a. It is laid in a separate trench.
 - b. It is laid in the same trench with the water mains located at one side on a bench of undisturbed earth.
 - c. In either case the elevation of the crown of the sewer is at least 18 inches below the invert of the water main.
 - 2. Vertical Separation: Whenever sewers must cross under water mains, the sewer shall be laid at such an elevation that the top of the sewer is at least 18 inches below the bottom of the water main. When the elevation of the sewer cannot be buried to meet the above requirement, the water main shall be relocated to provide this separation or reconstructed with slip-on or mechanical-joint cast-iron pipe, asbestos-cement pressure pipe or pre-stressed concrete cylinder pipe for a distance of 10 feet on each side of the sewer. One full length of water main should be centered over the sewer so that both joints will be as far from the sewer as possible.
- D. Deviations Occasioned by Other Utility Structures: Wherever existing utility structures or

branch connections leading to main sewers or storm sewers, or other conduits, ducts, pipes or structures present obstructions to the grade and alignment of the pipe, they shall be permanently supported, removed, relocated or reconstructed by the Contractor through cooperation with the owner of the utility structures, or obstruction. Where necessary to move service poles, guy wires, pipe lines or other obstructions, the Contractor shall notify and cooperate with the utility owner. In those instances where their location or reconstruction is impracticable, a deviation from line and grade will be ordered, and the change shall be made in the manner directed.

- E. Sub-Surface Explorations: Whenever necessary to determine the location of existing pipes, valves, or other underground structures, the Contractor, after examination of available records, shall make the explorations and excavations for such purpose, at his own expense.
- F. Pipe Alignment and Grade: The pipes and specials shall be laid in the trench so that after the sewer is completed, the interior surface thereof shall conform accurately to the grades and alignments fixed and shown on the plans. On completion, no pipe sewer will be accepted unless a clear lamp may be seen from manhole to manhole.

3.6 EXISTING UNDERGROUND UTILITIES AND OBSTRUCTIONS

- A. It is the responsibility of the Contractor to locate all existing utilities along the path of his construction. The drawings shall indicate underground utilities or obstructions that are known to exist. Where these or unforeseen underground utilities are encountered, the location and alignment of the water main may be changed, upon written approval of the Owner, to avoid interference.
- B. Existing Utility Location: The following steps shall be exercised to avoid interruption of existing utility service.
 - 1. Provide the required notice to the utility owners and allow them to locate their facilities according to Georgia Law. Field utility locations are valid for only 10 days after original notice. The Contractor shall ensure, at the time of any excavation that a valid utility location exists at the point of excavation.
 - 2. Expose the facility, for a distance of at least 200 feet in advance of pipeline construction, to verify its true location and grade. Repair, or have repaired, any damage to utilities resulting from locating or exposing their true location.
 - 3. Avoid utility damage and interruption by protection with means or methods recommended by the utility owner.
 - 4. Maintain a log identifying when phone calls were made, who was called, area for which utility relocation was requested and work order number issued, if any. The Contractor shall provide the Owner an updated copy of the log.
- C. Conflict with Existing Utilities
 - 1. Horizontal conflict shall be defined as when the actual horizontal separation between a utility, main, or service and the proposed piping does not permit safe installation of the piping by the use of sheeting, shoring, tying-back, supporting, or temporarily suspending service of the parallel or crossing facility. The Contractor may change the

proposed alignment of the piping to avoid horizontal conflicts if the new alignment remains within the available right-of way or easement, complies with regulatory agency requirements and after a written request to and subsequent approval by the Owner. Where such relocation of the piping is denied by the Owner, the Contractor shall arrange to have the utility, main, or service relocated.

2. Vertical conflict shall be defined as when the actual vertical separation between a utility, main, or service and the proposed piping does not permit the crossing without immediate or potential future damage to the utility, main, service, or the piping. The Contractor may change the proposed grade of the piping to avoid regulatory agencies requirements after written request to and subsequent approval by the Owner. Where such relocation of the piping is denied by the Owner, the Contractor shall arrange to have the utility, main, or service relocated.

- D. Electronic Locator: Have available at all times an electronic pipe locator and a magnetic locator, in good working order, to aid in locating existing pipe lines or other obstructions.

3.7 TRENCHING

- A. Additional directives for Utility Trenching are covered in Section 02324 of these Specifications.
- B. Description: The trench shall be dug to the alignment and grade required. The trench shall be braced if necessary and drained in order that workmen therein may work safely and efficiently. It is essential that the discharge from any pumps be led to natural drainage channels or to drains.
- C. Width: Minimum width of trench shall be six (6) inches outside of barrel of pipe on each side of pipe. Maximum width of trench shall be nine (9) inches outside of barrel of pipe on each side of pipe. Sides of trench shall be dug and maintained substantially vertical.
- D. Correcting Faulty Grade: Any part of the trench excavated below grade shall be corrected with approved material thoroughly compacted.
- E. Trench Stabilization: Wherever the material at the bottom of the trench is unsuitable for the proper installation of the pipe, the Owner will direct the removal and replacement of the unsuitable material. When so directed, undercut the trench and backfill with bedding material (#57 stone). Place and compact this material to bring the trench to the required grade.
- F. Haunching of Sewer: Haunch pipelines in accordance with the detail drawings in the plans and the following specifications. Haunching will be required for all gravity sewers.
- G. Haunching Materials - PVC and Ductile Iron Sewer: All haunching materials shall be crushed granite stone.

3.8 BEDDING OF SEWER

- A. Types of Piping Sewer
 1. Ductile Iron Sewer: All bedding materials shall be crushed stone unless shown or specified otherwise. Crushed stone bedding material shall meet the requirements of Georgia Department of Transportation Specification 800.01 for No. 57 Stone.

2. PVC: All bedding materials shall be or crushed stone bedding material meeting the requirements of Georgia Department of Transportation Specification 800.01 for No. 78 stone.
 3. Sewer Laterals: The bedding requirement for the laterals from the main sewer to the designation shall be the same as applicable to the main sewer, (same type material) and as explained above.
 4. Manholes: All bedding materials shall be crushed stone unless shown or specified otherwise. Crushed stone bedding material shall meet the requirements of Georgia Department of Transportation Specification 800.01 for No. 57 Stone.
- B. Compact stone bedding material by tamping or slicing with a flat blade shovel. Prepare the trench bottom to support the pipe uniformly throughout its length. Provide bell holes to relieve pipe bells of all loads. If the trench is excavated to excessive width or depth, provide the next better class of bedding. In rock trenches, be pipe in at least six inches of suitable earth material.
- C. Bedding Classifications: Refer to Section 02315 – Trench Excavation

3.9 CONSTRUCTION

- A. PVC and Ductile Iron Pipe: Excavate the bottom of the trench flat at a minimum depth shown on the Drawings below the bottom of the pipe barrel. If required, place and compact bedding material to the proper grade. Haunching material shall then be carefully placed by hand and compacted to provide full support under the pipe and to the height above the pipe as shown on the detailed plans.
- B. Manholes: Excavate to a minimum of 12 inches below the planned elevation of the base of the manhole. The Contractor shall place and compact bedding material to the required grade before constructing the manhole.
- C. Compaction: Bedding under pipe and manholes shall be compacted to a minimum of 95 percent of the maximum dry density as determined by the Standard Proctor Compaction Test, ASTM D698.
- D. Care of Surface Material for Reuse: If local conditions permit their reuse, all surface materials suitable for reuse in restoring the surface shall be kept separate from the general excavation material.
- E. Manner of Piling Excavated Materials: All excavated material shall be piled so that it will not endanger the work and so that it will avoid obstructing roads and driveways. Drainage channels shall be kept clear or other satisfactory provisions made for drainage.
- F. Trenching by Machine or by Hand: The use of trench digging machinery will be permitted except in places where operation of same will cause damage to existing structures above or below the ground; in which case, hand methods shall be employed.

3.10 PIPE HANDLING

- A. Manner of Handling Pipe: Proper implements, tools and facilities shall be provided and used by the Contractor for convenient prosecution of the work. All pipes shall be carefully lowered into the trench piece by piece by means of suitable tools or equipment in such manner as to prevent damage to pipe. Under no circumstances shall pipe be dropped or dumped into the trench.
- B. Inspection: Before lowering and while suspended, the pipe shall be inspected for defects. Any defective, damaged or unsound pipe shall be rejected.
- C. Pipe Kept Clean: All foreign matter or dirt shall be removed from the pipe, and it shall be kept clean by approved means during and after installation.
- D. Installation of Pipe: The laying of pipe in finished trenches shall be constructed at the lowest point, so that spigot ends point in the direction of flow. All pipes shall be laid with ends abutting true to line and grade. They shall be fitted and matched so that when laid in the work they will form a sewer with a smooth and uniform invert. All possible care shall be taken when shoving the pipes together so that the joints will not be unnecessarily large. Sockets and spigots shall be carefully cleaned and lubricated according to manufacturer's recommendations before pipes are jointed.
- E. Unsuitable Conditions for Installing Pipe: No pipe shall be laid in water, or when the trench conditions or weather is unsuitable for such work, except in an emergency. Owner must be informed of such emergency.
- F. Encasement and Blocking of Sewer Pipes: Where specifically indicated on the plans the Contractor shall encase or block sewer pipes in conformity with details and type of concrete specified. Sewer lines to be encased shall be encased in 3000 psi concrete, a minimum of six (6) inches on all sides of the pipe.

3.11 BACKFILLING TRENCHES AND AROUND MANHOLES

- A. Time of Backfilling: As soon as practicable after the completion of laying and jointing of the pipe, the trench shall be backfilled, and at no time shall the completed backfilled trench be more than 200 feet behind the pipe laying.
- B. Backfill Procedure:
 - 1. The backfill material shall be moistened if necessary, tamped in thin (about 6" layers) and thoroughly compacted under and on each side of the pipe, with mechanical tamps to provide solid backing against external surface of the pipe. Walking or working on the completed pipe line, except as may be necessary in tamping or backfilling will not be permitted until the trench has been backfilled to a height of at least 12" over the top of the pipe.
 - 2. The backfill in all the trenches shall be compacted to 98% of the maximum dry density under and within 10 feet of pavement or dirt roadways, and 95% elsewhere, determined by the Standard Proctor Compaction Test. The testing agency shall run as a minimum one (1) Proctor for each type of soil encountered.
 - 3. During the backfilling, loose lifts shall not exceed eight (8) inches in thickness. Field density determination (compaction tests) should be made at a minimum of one (1)

test per 1000 linear feet one foot above the pipe. Additional tests may be required for special conditions such as backfill around manholes in streets and other critical areas. The range of moisture content should be maintained within plus or minus three (3) percent of the optimum moisture content.

- C. Rock and Rock Fragment Exclusion: No rock or rock fragments shall be used in the backfill for at least 18" above the top of the pipe, and no stone larger than eight inches in its greatest dimension shall be used in the backfill.
- D. Deficiency of Backfill: Any deficiency in the quantity of material for backfilling the trenches, or for filling depressions caused by settlement, shall be supplied by the Contractor.

3.12 RESTORATION OF SURFACES

- A. The Contractor shall replace all curbing, sidewalks, pavements, gutters, shrubbery, fences, sod and other surfaces disturbed to a condition equal to that before the work began, furnishing all labor and materials incidental thereto.

3.13 UNSUITABLE SOIL CONDITIONS

- A. Where the subgrade is too soft or mucky for the proper installation of the sewer pipe, areas where the subgrade is not capable of in-situ compaction, the Contractor shall undercut the trench and backfill with fill type S1 or A1 and compact to density equal to or greater than requirements for backfill material. The stone shall be brought to grade and thoroughly compacted to conform to the outside of the pipe barrel.

3.14 DEWATERING TRENCHES

- A. Where high groundwater is encountered, dewatering shall be done by well pointing. If soil conditions are not suitable for well points, trench drains or crushed stone or gravel shall be constructed to carry the water to sumps and the water removed by pumps or bailing. No extra payment will be made for dewatering trenches.

3.15 CLEANING UP

- A. Any surplus pipe line materials, tools, rubbish, temporary structures, or Contractor's trash shall be removed by the Contractor and the construction site shall be left clean.

3.16 INSPECTION AND TESTING:

- A. The Owner reserves the right to inspect construction methods to insure compliance with these specifications. Sewer lines and related facilities will be inspected by the Owner before acceptance or tie-in to the Owner's system is permitted. All lines must be clean and all obstructions removed prior to requesting inspection.
- B. The Contractor will test the system for leakage as set forth in Section 02519 - Piping, Testing and Acceptance. The Owner will inspect for construction or material defects, and will randomly check PVC sewer for excessive deflection.

3.17 SAFETY AND PROPERTY INSPECTION

- A. Barricades, Guards and Safety Provision: To protect persons from injury and to avoid property damage, adequate barricades, construction signs, torches, red lanterns and guards shall be placed and maintained during the progress of the construction work and until it is safe for traffic to use the trenched areas. Rules and regulations of the local authorities respecting safety provisions shall be observed.
- B. Traffic and Utility Controls: Excavations for pipe laying operations shall be conducted in a manner to cause the least interruption to traffic. Where traffic must cross open trenches the Contractor shall provide suitable bridges. Hydrants under pressure, valve pit covers, valves boxes, curb stop boxes, fire or police call boxes or other utility controls shall be left unobstructed and accessible during the construction period.
- C. Flow of Drains and Sewers Maintained: Provisions shall be made for the flow of storm and sanitary sewers, drains and water courses encountered during construction, and the structures which may have been disturbed shall be satisfactorily restored upon completion of the work.
- D. Protection and Restoration of Work Area:
 - 1. General: Return all items and all areas disturbed, directly or indirectly by work under these Specifications, to their original condition or better, as quickly as possible after work is started.
 - 2. Man-Made Improvements: Protect, or remove and replace with the Owner's approval, all fences, piers, docks, walkways, mail boxes, pipe lines, drain culverts, power and telephone lines and cables, and other improvements that may be encountered in the work.
 - 3. Cultivated Growth: Do not disturb cultivated trees or shrubbery unless approved by the Owner. Any such trees or shrubbery which must be removed shall be heeled in and replanted under the direction of an experienced nurseryman.
 - 4. Cutting of Trees: Do not cut trees for the performance of the work except as absolutely necessary. Protect trees that remain in the vicinity of the work from damage from equipment. Do not store spoil from excavation against the trunks. Remove excavated material stored over the root system of trees within 30 days to allow proper natural watering of the root system. Repair any damaged tree over 3-inches in diameter, not to be removed, under the direction of an experienced nurseryman. All trees and brush that require removal shall be promptly and completely removed from the work area and disposed of by the Contractor. No stumps, wood piles, or trash piles will be permitted on the work site.
 - 5. Grassing: See Section 02920 for detailed information.
 - 6. Erosion Control: Plan excavation work to prevent erosion and the washing of soil into adjacent streams. Limit the amount of open excavation at any one time. Place spoil in the proper place and keep natural water routes open. See Erosion and Sedimentation Control Section.

7. Disposal of Rubbish: Dispose of all materials cleaned and grubbed during the construction of the project in accordance with the applicable codes and rules of the appropriate regulatory agencies, county, state and federal.

END SECTION

WM2A
ARCHITECTS
WM2A.COM
348 COTTON AVENUE
SUITE 500, PO BOX 110
MACON, GEORGIA 31201

Seal:

A circular professional seal for the State of Georgia. The outer ring contains the text "STATE OF GEORGIA" at the top and "REGISTERED ARCHITECT" at the bottom, separated by two stars. Inside the ring, the license number "19704567" is stamped in the center. Below the license number, the name "BRANDON A. FAIRBANKS" is printed. At the bottom of the seal, the text "COMMISSION EXPIRES 12/31/2024" is printed. A blue ink signature is written over the printed name and license number.

FACILITY: FILMORE THOMAS PARK
3793 LOG CABIN DR,
MACON, GA 31204

LIST OF DRAWINGS

Sheet Number	Sheet Name
General	
G101	COVERSHEET
G102	GENERAL REQUIREMENTS
Civil	
C001	
C101	EXISTING CONDITIONS AND DEMOLITION PLAN
C201	SITE LAYOUT
C301	GRADING AND DRAINAGE PLAN
C401	UTILITIES PLAN
C501	ESPC PHASE 1
C504	ESPC DETAILS
C601	ESPC DETAILS
C602	ADS DETAILS
Structural	
S101	GENERAL NOTES AND DETAILS
S102	FOUNDATION AND FRAMING PLAN
S103	BUILDING ELEVATIONS
S104	TRUSS DIAGRAMS
S200	PUMP HOUSE FOUNDATION PLAN AND SECTIONS
S201	PUMP HOUSE ROOF FRAMING PLAN AND SECTIONS
Architecture	
AS101	SITE PLAN
Architecture	
A101	PUMP HOUSE PLANS AND DOOR DETAILS
A102	PUMP HOUSE - ELEVATIONS AND SECTIONS
A103	PAVILION PLAN ELEVATIONS AND SECTIONS
A104	PAVILLION DETAILS
A105	DOOR SCHEDULE, DETAILS & OPENING FLASHING DETAILS
A701	FINISH PLAN, LEGEND, SCHEDULE, AND INTERIOR ELEVATIONS
Mechanical	
M100	MECHANICAL SPECS, SCHEDULES AND PLANS
Plumbing	
P101	PLUMBING PLANS
Electrical	
E101	ELECTRICAL LEGEND, SCHEDULES AND DETAILS
E201	FLOOR PLAN - ELECTRICAL

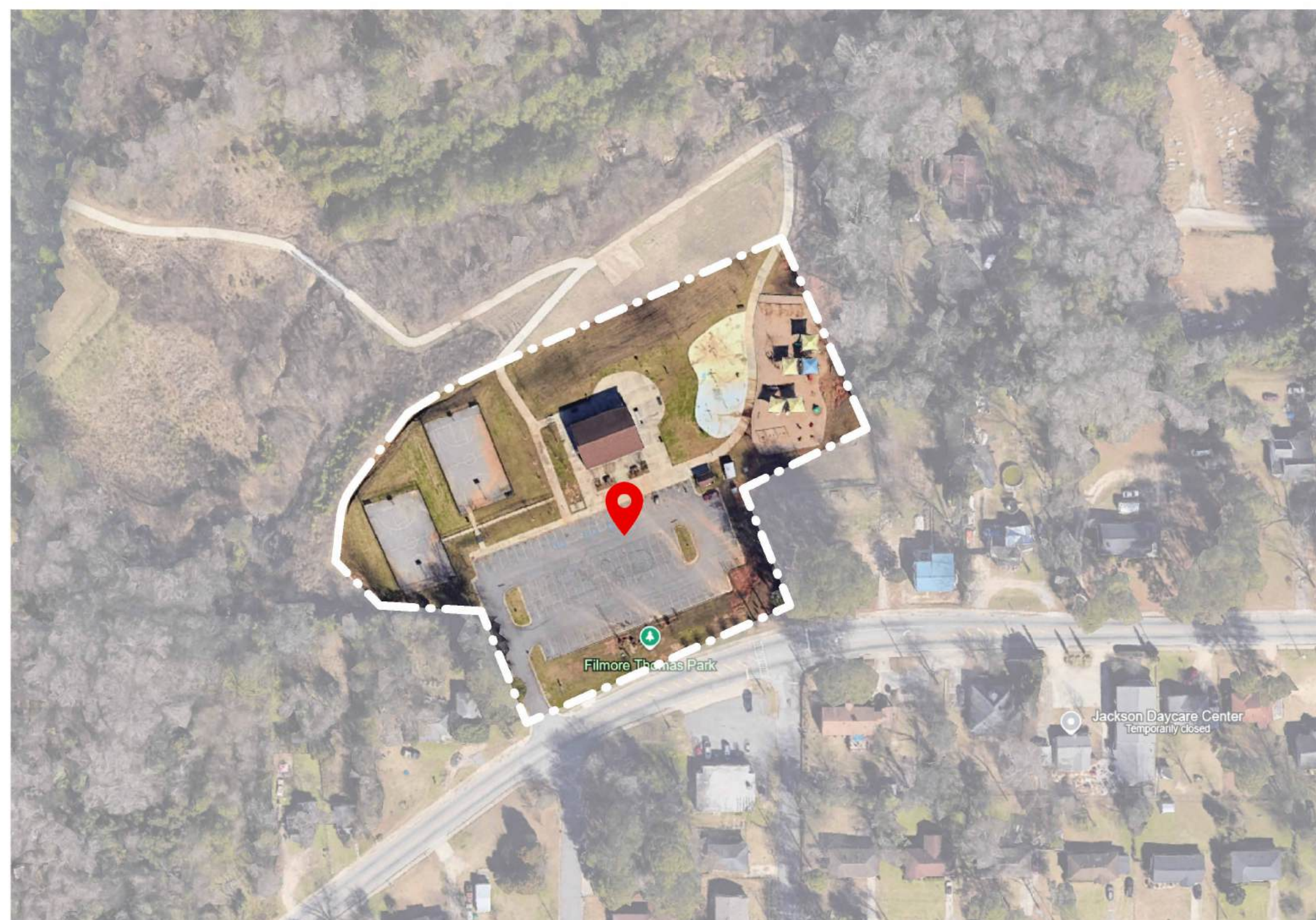


MACON-BIBB COUNTY PARKS
AND RECREATION

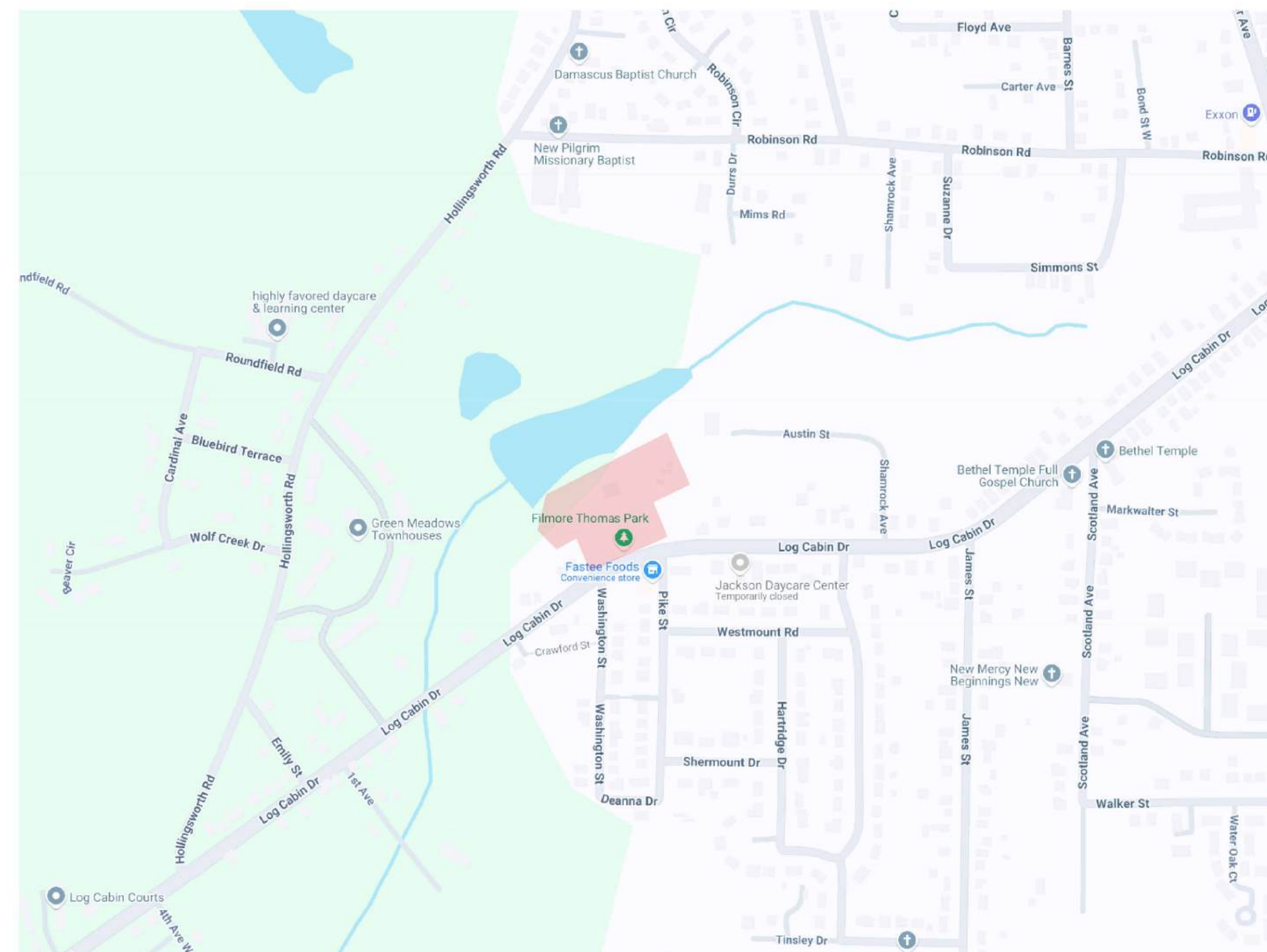
**FILMORE THOMAS PARK
RENOVATION**

3793 LOG CABIN DR, MACON, GA 31204-3753

SITE PLAN



VICINITY PLAN



BUILDING CODE CLASSIFICATION

BUILDING INFORMATION :

PROJECT NAME: FILMORE THOMAS PARK
ADDRESS: 3793 LOG CABIN DR, MACON, GA 31204
OWNER: MBC PARKS AND RECREATION

I. OCCUPANCY TYPE:
- UTILITY AND MISCELLANEOUS, GROUP U SECTION 312

II. BUILDING CONSTRUCTION TYPE:
- TYPE IIIB (IBC 602.3)

III. CONSTRUCTION AREA:
- 1 STORY
-680 GSF TOTAL

Code Classification

3/8" = 1'-0'

LIFE SAFETY INFORMATION

I. APPLICABLE CODES:

- NFPA 101 - LIFE SAFETY CODE (2018)
- RULES AND REGULATIONS FOR THE STATE MINIMUM FIRE SAFETY; CH. 120-9-20 MODIFICATIONS (2020)
- GEORGIA ACCESSIBILITY CODE FOR BUILDINGS AND FACILITIES; (GAC) - CH. 120-9-20
- INTERNATIONAL FIRE CODE (IFC) (2018), NO GEORGIA AMENDMENTS.
- INTERNATIONAL BUILDING CODE (IBC) (2018), with GEORGIA AMENDMENTS 2020, 2022.
- INTERNATIONAL MECHANICAL CODE (IMC) (2018), with GEORGIA AMENDMENTS 2020.
- NATIONAL ELECTRICAL CODE, (NEC) (2020), with GEORGIA AMENDMENTS 2021.
- INTERNATIONAL ENERGY CONSERVATION CODE, (IECC) (2015), with GEORGIA SUPPLEMENTS AND AMENDMENTS 2022

Applicable Codes

3/8" = 1'-0'

CONTACT INFORMATION

CIVIL

TRAVERSE LAND SERVICES, LLC
253 CARL VINSON PARKWAY
WARNER ROBINS, GA. 31088
478-922-7724
CONTACT: MICHAEL CLARKE

STRUCTURAL

PI-TECH, INC.
115 FOREST HILL RD, MACON, GA
31210
478.743.5600
CONTACT: MATT ELLIS

ARCHITECTURAL

WM2A ARCHITECTS
348 COTTON AVENUE SUITE 500
MACON, GA 31201
478-745-4945
CONTACT: BRANDON FAIRBANKS

MECHANICAL

TOTAL ENGINEERS
169 NEW STREET, MACON, GA
31201
478-741-4632
CONTACT: KRUNAL PATEL

PLUMBING

TOTAL ENGINEERS
169 NEW STREET, MACON, GA
31201
478-741-4632
CONTACT: KRUNAL PATEL

ELECTRICAL

ELECTRICAL DESIGN CONSULTANTS
175 NEW STREET, SUITE 1
MACON, GA 31201
478-781-1833
CONTACT: JEFF McGEE

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Project Status:

Revision No (if any):	Revision Date:
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2024-081

Drawing Name:

Drawing No:

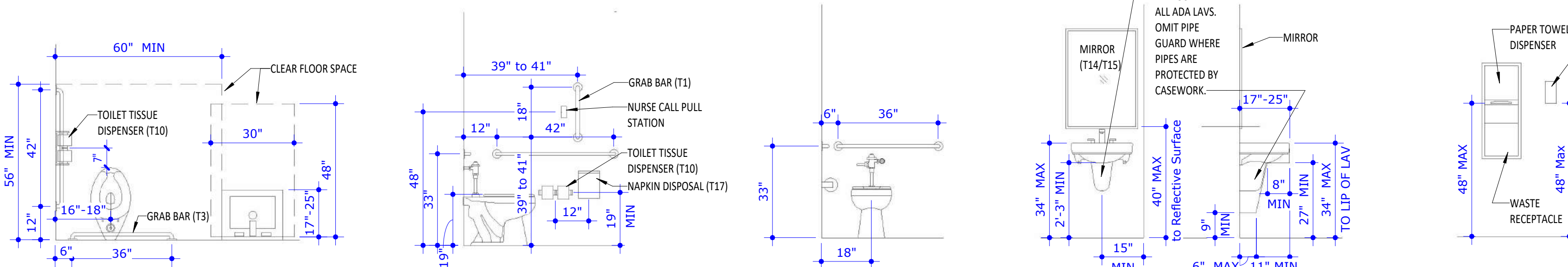
G101

ABBREVIATIONS

ABBREV	TERM	ABBREV	TERM	ABBREV	TERM
A	AND	DWR	DRAWER	KIT	KITCHEN
&,+	AT	E	EAST	KO	KNOCK OUT
@	AIR CONDITIONING	EA	EACH	KP	KICK PLATE
A/C	AUDIO/VISUAL	EB	EXPANSION BOLT	KSF	KIPS PER SQUARE FOOT
AB	ANCHOR BOLT	EJ	EXPANSION JOINT	L	LAMINATE
ACC	ACCESSIBLE	EL	ELEVATION	LAV	LAVATORY
ACUST	ACOUSTICAL	ELEC	ELECTRICAL	LB	POUNDS
ACT	ACOUSTIC CEILING TILE	ELEV	ELEVATOR, ELEVATION	LGMS	LIGHT GAUGE METAL STUD (DIV 5)
AD	AREA DRAIN	EMER	EMERGENCY	LLH	LONG LEG HORIZONTAL
ADI	ADIACENT, ADJUSTABLE	ENCL	ENCLOSURE	LLV	LONG LEG VERTICAL
AFG	ABOVE FINISHED FLOOR	ENGR	ENGINEER	LT	LIGHT
AGG	ABOVE FINISHED GRADE	EP	ELECTRICAL PANEL	LVT	LUXURY VINYL TILE
AGGR	AGGREGATE	EPDM	ETHYLENE PROPYLENE DIENE M-CLASS (ROOFING)	M	MASONRY
ALT	ALTERNATE	EQ	EQUAL	MAX	MAXIMUM
ALUM	ALUMINUM	EQUIP	EQUIPMENT	MB	MODIFIED BITUMEN (ROOFING)
ANOD	ANODIZED	EVS	ENVIRONMENTAL SERVICES	MECH	MECHANICAL
APC	ACOUSTICAL PANEL CEILING	EXH	EXHAUST	MED	MEDIUM
APPROX	APPROXIMATE	EXT	EXISTING	MEMB	MEMBRANE
ARCH	ARCHITECTURAL	EXP	EXPANSION	MFR	MANUFACTURER
ASPH	ASPHALT	EXT	EXTERIOR	MH	MANHOLE
ATTN	ATTENTION	FA	FIRE ALARM	MIN	MINIMUM
AUTO	AUTOMATIC	FB	FACE BRICK	MISC	MISCELLANEOUS
B	BASE CABINET	FD	FLOOR DRAIN; FIRE DEPARTMENT	MO	MASONRY OPENING
BCAB	BOARD	FDC	FIRE DEPARTMENT CONNECTION	MR	MOISTURE RESISTANT
BIT	BUMPER GUARD	FE	FIRE EXTINGUISHER	MTD	MOUNTED
BG	BITUMINOUS	FEC	FIRE EXTINGUISHER CABINET	MTG	MOUNTING
BL	BED LOCATOR; BUILDING LINE	FFBE	FURNITURE, FIXTURES AND EQUIPMENT	MTL	METAL
BLDG	BUILDING	FFB	FLUSH FLOOR BOX	MULL	MULLION
BK	BLOCK	FFE	FINISH FLOOR ELEVATION	N	NOTE
BLK	BLOCKING	PH	FLAT HEAD, FIRE HYDRANT	N/A	NOT APPLICABLE
BMG	BEAM	FHC	FIRE HOSE CABINET	NC	NOISE CRITERIA
BO	BOTTOM OF	FIN	FINISH	NIC	NOT IN CONTRACT
ROT	BOTTOM	FIKT	FIXTURE	NO	NUMBER
BRG	BEARING	FLASH	FLASHING	NOM	NOMINAL
BRK	BRICK	FLR	FLOOR	NR	NOT [FIRE] RATED
BRKT	BRACKET	FLUR	FLUORESCENT	NTS	NOT TO SCALE
BSMNT	BASEMENT	FND	FOUNDATION	O	OWNER-FURNISHED, CONTRACTOR-INSTALLED
BUR	BUILT-UP ROOFING	FO	FACE OF	O,C	OWNER-FURNISHED, CONTRACTOR-INSTALLED
C	CHANNEL	FP	FIRE PROTECTION	O,O	OWNER-FURNISHED, OWNER-INSTALLED
C,C	CONTRACTOR-FURNISHED, CONTRACTOR-INSTALLED	FPF	FIREPROOFING	O,C	ON CENTER
CAB	CABINET	FR	FIRE RESISTANT	O/A	OUTSIDE AIR
CAT	CATEGORY	FRC	FIBER REINFORCED CONCRETE	OD	OUTSIDE DIAMETER; OVERFLOW DRAIN
CATV	CABLE TELEVISION	FRP	FIBER REINFORCED PANEL	OFF	OFFICE
CB	CATCH BASIN, CEMENT BOARD	FRT	FIRE RETARDANT TREATED	OH	OVERHEAD, OPPOSITE HAND
CBU	CEMENTITIOUS BACKER UNIT	FT	FEET; FOOT	OPNG	OPENING
CC	CENTER-TO-CENTER	FTG	FOOTING	OPP	OPPOSITE
CCTV	CLOSED-CIRCUIT TELEVISION	FURN	FURNITURE	ORD	OVERFLOW ROOF DRAIN
CEM	CEMENT	FURR	FURRING	P	PAINT
CER	CERAMIC	FWC	FABRIC WALL COVERING	PAV	PAVING
CG	CORNER GUARD	FWP	FABRIC WRAPPED PANEL	PB	PARTICLE BOARD
CH	CHILLER	G	GAUGE	PC	PRECAST
CI	CAST IRON	GA	GAUZE	PDF	POWER DRIVEN FASTENER
CP	CASE-IN-PLACE	GALV	GALVANIZED	U	UNFINISHED
CP	CONTROL JOINT, CONSTRUCTION JOINT	GB	GRAB BAR	UNO	UNLESS NOTED OTHERWISE
CL	CENTERLINE	GB, GWB	GYPSUM (WALL) BOARD	UON	UNLESS OTHERWISE NOTED
CLG	CEILING	GC	GENERAL CONTRACTOR	URNL	URNAL
CLR	CLEAR	GEN	GENERAL	V	VARIES
CMU	CONCRETE MASONRY UNIT	GFR	GLASS FIBER REINFORCED CONCRETE	VCT	VINYL COMPOSITION TILE
CNTR	CENTER, COUNTER	GL	GLASS	VERT	VERTICAL
CO	CASED OPENING; CLEANOUT	GLAZ	GLAZING	VEST	VESTIBULE
COL	COLUMN	GRAN	GRANULAR	VIF	VERIFY IN FIELD
CONC	CONCRETE	GRD	GROUND	VR	VISION PANEL
COND	CONDITION	GRFG	GLASS FIBER REINFORCED GYPSUM	VR	VAPOR RETARDER
CONN	CONNECTION	GSM	GALVANIZED SHEET METAL	VWC	VINYL WALL COVERING
CONST	CONSTRUCTION	GV	GAS VALVE	W	WIDE; WEST
CONT	CONTINUOUS	GYP	GYPSUM	W/	WITH
CONTR	CONTRACTOR	H	HIGH; HEIGHT	W/O	WITHOUT
COORD	COORDINATE	H, HT	HIGH; HEIGHT	WC	WATER CLOSET
COORD	COORDINATE	HB	HOSE BIB	WCAB	WALL CABINET
CORR	CORRIDOR	HC	ACCESSIBLE	WOOD	WOOD
CPT	CARPET	HDWD	HARDWOOD	WIN	WINDOW
CR	CRASH RAIL	HDWR	HARDWARE	WP	WATERPROOF; WATERPROOFING
CS	CLINICAL SERVICE SINK	HGT	HEIGHT	WPM	WATERPROOF MEMBRANE
CT	CERAMIC TILE	HM	HOLLOW METAL	WS	WEATHER-STRIPPING
CTR	CENTER	HNDRL	HANDRAIL	WST	WAINSCOT
CTSK	COUNTERSUNK	HO	HOLD OPEN	WT	WEIGHT
CW	COLD WATER; CURTAIN WALL	HORIZ	HORIZONTAL	WV	WATER VALVE
D	DEEP, DEPTH	HR	HOUR	WWF	WELDED WIRE FABRIC
DBL	DOUBLE	HMC	HOSE REEL CABINET	WWM	WELDED WIRE MESH
DGR	DEGREE	HSGNG	HOUSEKEEPING		
DEMO	DEMOLISH; DEMOLITION	HSS	HOLLOW STRUCTURAL SECTION		
DEPT	DEPARTMENT	HTG	HEATING		
DF	DRINKING FOUNTAIN	HVAC	HEATING, VENTILATION, AND AIR CONDITIONING		
DIA	DIAMETER	HW	HOT WATER; HAND WASH		
DIFF	DIFFUSER	I	INSIDE DIAMETER		
DIM	DIMENSION	ID	INSIDE DIAMETER		
DIMS	DIMENSIONS	IN	INCH; INCHES		
DISP	DISPENSER	INCAND	INCANDESCENT		
DIV	DIVISION	INCL	INCLUDED; INCLUDING		
DMPP	DAMP PROOFING	INFO	INFORMATION		
DN	DOWN	INSUL	INSULATED; INSULATION		
DO	DOOR OPENING	INT	INTERIOR		
DR	DOOR	INV	INVERT		
DRN	DRAIN	J	JANITOR		
DS	DOWNSPOUT	JAN	JANITOR		
DTL	DETAIL	JC	JANITOR'S CLOSET		
DW	DISHWASHER	JST	JOIST		
DWG	DRAWING	JT	JOINT		
DWMS	DRYWALL METAL STUD (DIV 9)	K	KIP (1000 POUNDS)		
		KD	KNOCK DOWN		

ADA Accessible Fixtures

3/8" = 1'-0"



Partition Type Legend

1 1/2" = 1'-0"

- A. Demolition Plan(s) are not all inclusive. Additional demolition may be required to allow installation of new work. See Civil, Mechanical, Plumbing, and Electrical Drawings for additional demolition requirements. In areas or rooms where architectural demolition is not indicated and mech/elec/plumbing work is required, remove existing construction as needed to allow installation of the mech/elec/plumbing work required. Restore area to original condition upon completion of mech/elec/plumbing work.
- B. During time of demolition, protect all existing construction to remain. Repair any damage promptly and restore the construction to original condition.
- C. Wherever new finish is indicated, demolish existing finish prior to installation of new finish. When new paint or other coating is indicated, it is permissible to leave existing coating in place provided that the required surface preparation is performed.
- D. Verify all existing conditions prior to commencing demolition operations. Notify the Architect of any discrepancies before proceeding.
- E. As demolition work proceeds, notify Architect of any newly-exposed structural components that appear to need repair or replacement. Allow Architect and/or Structural Engineer to examine components prior to proceeding with demolition. Repair/replace structural items as directed by Architect prior to resuming demolition work.
- F. Execute demolition work in a careful and orderly manner. Minimize production of noise, dust, and other disturbance to the Owner.
- G. Maintain all existing smoke and fire protection systems at all times during demolition.
- H. Keep all existing access/egress paths free and clear of debris at all times.
- I. Owner is responsible for removing any furniture prior to commencement of construction UNO.
- J. Remove all landscaping as necessary for construction. Verify with Architect and/or Owner whether relocation of plants is required. Remove planting to be relocated carefully; maintain root system to extent possible.

General Notes - Demolition

3/8" = 1'-0"

- FIXTURE AND ACCESSORY MOUNTING NOTES:**
1. Install accessories at mounting heights indicated UNO.
 2. Provide partition blocking for wall-mounted items, such as grab bars. (See Partition Blocking detail.)
 3. Provide indicated clear floor space for all fixtures and accessories.
 4. Where accessories are indicated to be installed on or within toilet partitions, coordinate required fastening reinforcements, cutouts, and other required accommodations with the fabrication and installation of the toilet partition system.
 5. Provide/Install flush valve controls that are accessible from interior of room UNO.

WALL TYPES

C CMU (MAY HAVE FURRING)

G GYPSUM BOARD WITH METAL STUDS

S SHAFT/WALL

W GYPSUM BOARD WITH WOOD STUDS

WALL TYPE

STUD/CMU WIDTH

WALL TYPE MODIFIER

FIRE RATING OR PARTITION HEIGHT

G 3 A 0

SYMBOL DESIGNATION

FOR WALL TYPES INDICATED TO RECEIVE SOUND ATTENUATION, EXTEND SOUND ATTENUATION TO FULL HEIGHT OF WALL UNLESS OTHERWISE INDICATED. REFER TO INDIVIDUAL WALL TYPE MODIFIER FOR STC RATINGS.

WITH SOUND ATTENUATION

NO SOUND ATTENUATION

XX#X

XX#X

WALL HATCH PATTERN LEGEND

NON-RATED METAL STUD PARTITION

NON-RATED MASONRY

NON-RATED WOOD STUD PARTITION

STUD/CMU WIDTH

#	CMU	METAL	WOOD
0		0 7/8"	
1		1 5/8"	1x flat
2		2 1/2"	
3		3 5/8"	2x3
4		3 5/8"	2x4
5		5 5/8"	6"
6		5 5/8"	2x6
7		7 5/8"	
12		11 5/8"	2x8

WALL TYPE MODIFIER

A. 5/8" GYP BD EA SIDE. (NO SAB + STC 40; W/R-11 SAB + STC 48)

B. 5/8" GYP BD EA SIDE - UL DESIGN U419. (NO SAB + STC 40; W/R-11 SAB + STC 48)

C. 5/8" GYP BD (X 2 LAYERS) EA SIDE - UL DESIGN U419. (NO SAB + STC 50; W/R-11 SAB + STC 53)

D. 1" GYP BD SHAFT SIDE; 1/2" GYP BD (X 2 LAYERS) OPP SIDE - UL DESIGN U438. (NO SAB + STC 38; W/3-INCH MIN FIBER + STC 50.)

E. 5/8" GYP BD - EXPOSED SIDE ONLY.

F. NO SHEATHING ON CMU.

G. 5/8" GYP BD ON 7/8" HAT CHNL - EACH SIDE OF CMU.

H. 5/8" GYP BD ON 7/8" HAT CHNL - EXPOSED SIDE OF CMU.

FIRE RATING OR PARTITION HEIGHT

0 NON-RATED; EXTEND FINISH 6-INCHES ABOVE CEILING.

1 NON-RATED; FULL HEIGHT TO STRUCTURE.

2 1 HOUR RATED FIRE/SMOKE PARTITION

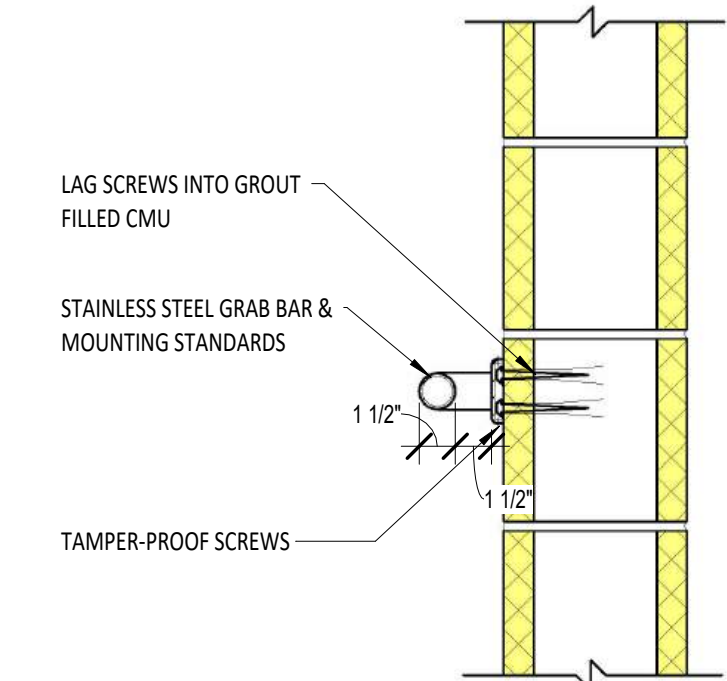
3 2 HOUR RATED FIRE/SMOKE BARRIER

4 1 HOUR RATED FIRE PARTITION

5 2 HOUR RATED FIRE BARRIER

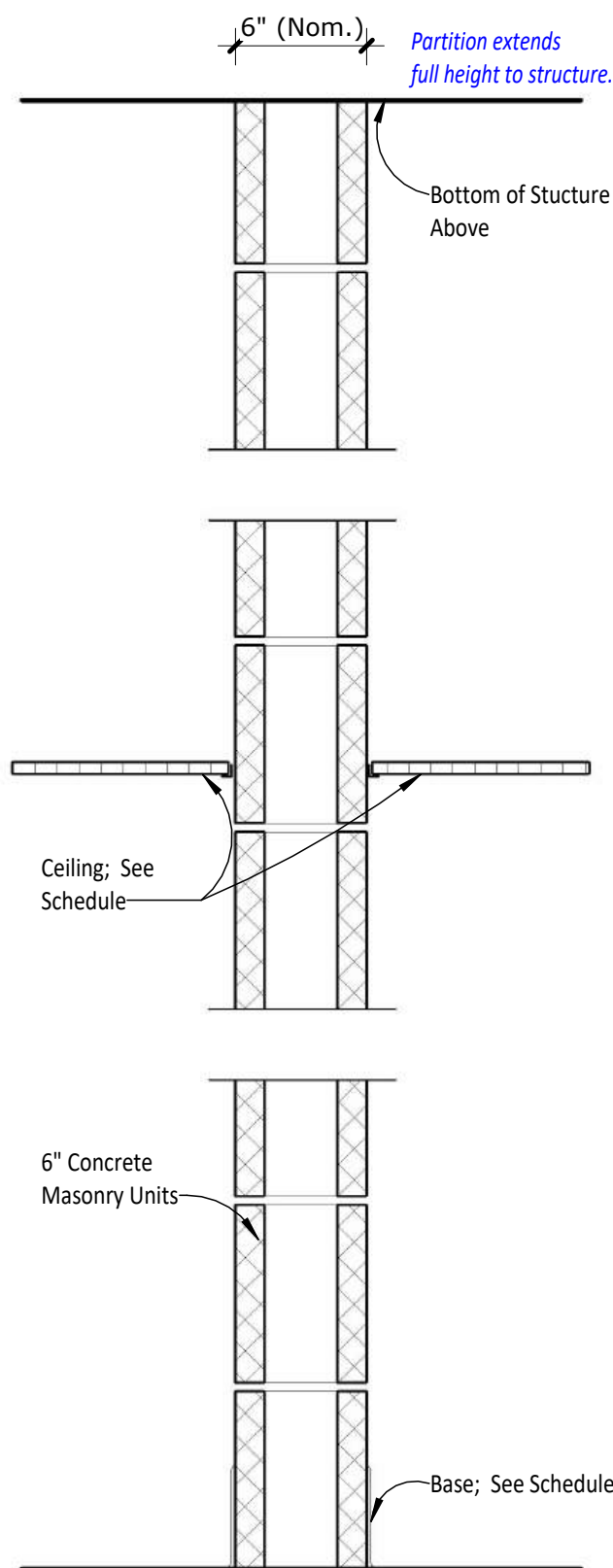
6 EXTEND CMU TO NEXT FLOOR COURSE ABOVE CEILING (4-INCH MINIMUM ABOVE CEILING).

X SEE BLDG SECTION/ELEVATION FOR HEIGHT.



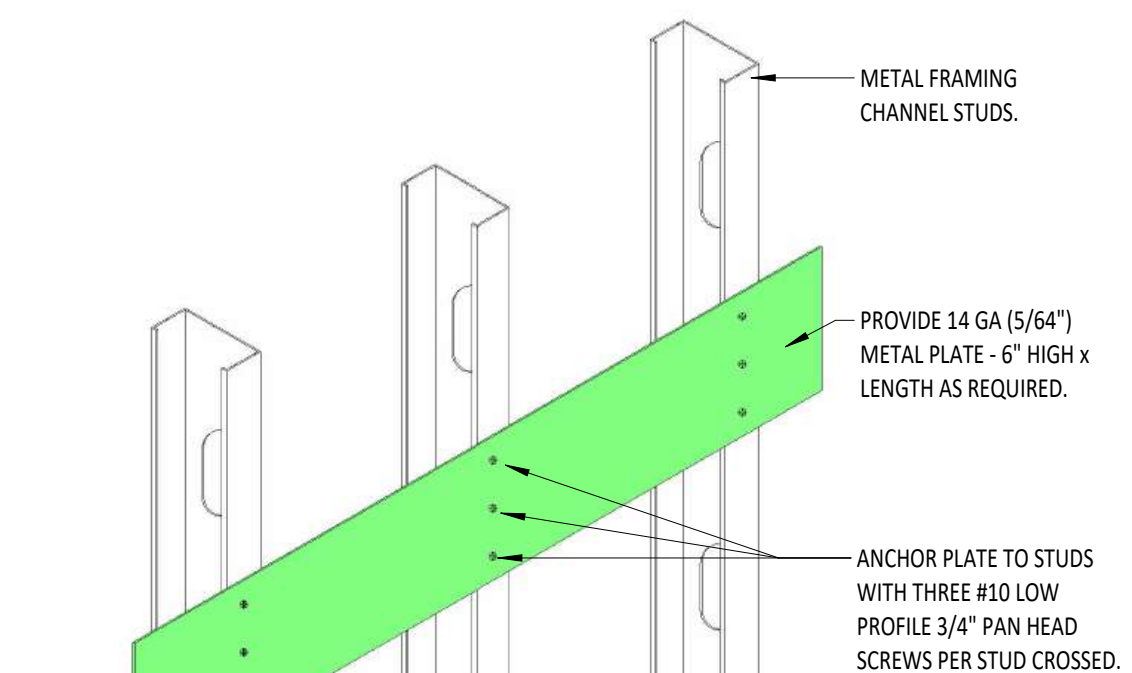
2 Grab Bars on CMU

G102 3" = 1'-0"



FULL HEIGHT 6" CMU PARTITION

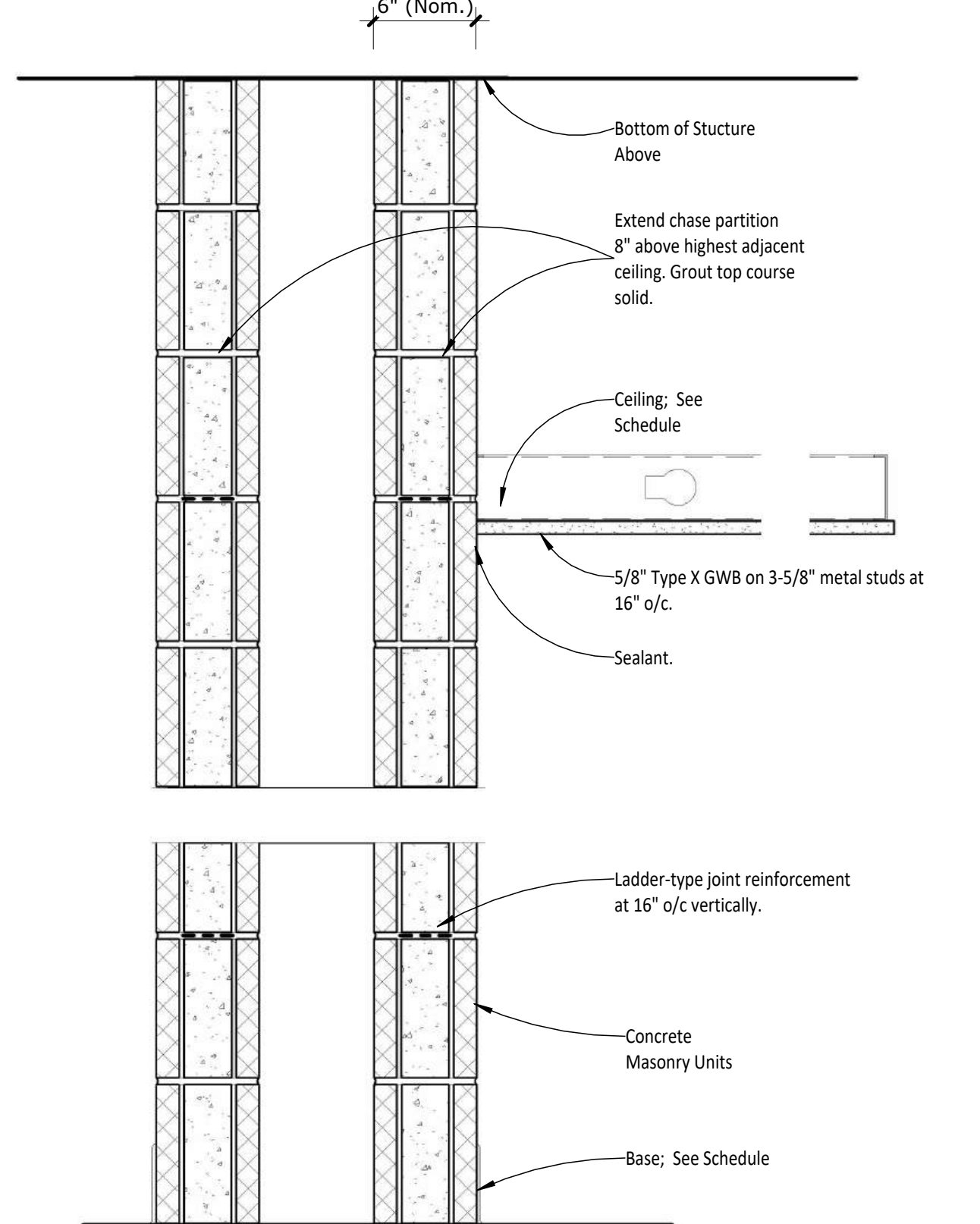
C6F0



- NOTES:**
- PROVIDE BACKING AS SHOWN FOR GRAB BARS, HANDRAILS, CABINETS, SHELF STANDARDS, TACKBOARDS, AND OTHER WALL MOUNTED EQUIPMENT.
 - SIMILAR DETAIL FOR SECURING PLUMBING PIPING AND OTHER ITEMS IN WALL CAVITY.

1 Partition Backing Support

G102 1 1/2" = 1'-0"



PARTIAL HEIGHT CMU CHASE

WALL PARTITION

C6F0 + C6F0

PERMITS & STANDARDS

1. ALL NECESSARY FEDERAL, STATE AND LOCAL PERMITS REQUIRED TO PERFORM THE WORK SHOWN AND NOTED HEREON SHALL BE OBTAINED FROM THE ISSUING AUTHORITY, PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.
2. ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE RULES, REGULATIONS, STANDARDS & SPECIFICATIONS OF THE CITY OF MACON, GEORGIA , REGARDLESS OF THE ABGENCE OF "REVIEWING/SECTION COMMENTS".
3. THE CONTRACTOR IS REQUIRED TO NOTIFY THE LOCAL INSPECTOR 24 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
4. THE PROJECT SITE IS SUBJECT TO ALL RIGHT-OF-WAYS & EASEMENTS SHOWN AND/OR RECORDED, AND MAY BE SUBJECT TO ADDITIONAL RIGHT-OF-WAYS/EASEMENTS NOT SHOWN OR RECORDED HEREON.
5. THE CONTRACTOR SHALL PERFORM A SITE INSPECTION PRIOR TO ANY CONSTRUCTION ACTIVITY, TO IDENTIFY ANY DISCREPANCIES BETWEEN THE APPROVED CONSTRUCTION DOCUMENTS AND EXISTING SITE CONDITIONS. IF DISCREPANCIES EXIST, THE CONTRACTOR SHALL NOTIFY IN WRITING TO THE OWNER AND TRAVERSE LAND SERVICES PRIOR TO WORK COMMENCEMENT.
6. THE LIMITS OF CONSTRUCTION HAVE BEEN DELINEATED ON THE SITE PLAN. REFER TO SPECIFICATIONS FOR PERIMETER FENCING. THE CONTRACTOR SHALL CONTAIN ALL CONSTRUCTION ACTIVITIES WITHIN THESE LIMITS. ANY REPAIR OR RECONSTRUCTION OF DAMAGE TO ADJACENT PROPERTIES SHALL BE REPAIRED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS INCURRED FOR SAID REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED.
7. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL USE THE GEOMETRY PROVIDED ON THE CONSTRUCTION DOCUMENTS. ALL DIMENSIONS SHOWN ARE PERPENDICULAR/RADIAL AND ARE MEASURED FACE TO FACE OF CURB & BUILDINGS OR FROM THE EDGE OF PAVEMENT IN THE ABGENCE OF CURBING.
8. ALL GRADED AREAS SHALL PROVIDE POSITIVE DRAINAGE IN THE DIRECTION INDICATED ON THE CONSTRUCTION DOCUMENTS SO AS TO PROVIDE A SMOOTH TRANSITION BETWEEN SURFACES WITH NO SHARP BREAKS IN GRADE AND NO STEEP OR REVERSE CROSS SLOPES. MINOR FIELD ADJUSTMENTS TO PROPOSED GRADES MAY BE NECESSARY TO CONSTRUCT THE DESIGN INTENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH THE ABOVE.
9. CONTRACTOR SHALL VERIFY INVERTS & SPOT ELEVATIONS OF ALL TIE-INS TO EXISTING INFRASTRUCTURE & PAVEMENT PRIOR TO INSTALLATION.
10. ALL PAVEMENT TO BE REMOVED SHALL BE SAW CUT.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE PRIOR TO ORDERING PROJECT MATERIALS, THE MOST CURRENT SET OF "APPROVED" CONSTRUCTION DOCUMENTS FROM TRAVERSE LAND SERVICES INCLUDING BUT NOT LIMITED TO, PERMITTED SET(S) FROM ALL APPLICABLE AGENCIES AS APPROPRIATE. TRAVERSE LAND SERVICES SHALL ACCEPT NO RESPONSIBILITY FOR IMPROPER ORDERING OF MATERIALS.
12. DO NOT SCALE FROM THESE DRAWINGS. " DIFFERENTIAL STRETCHING" OCCURS DURING THE REPRODUCTION PROCESS.
13. AN AS-BUILT SITE SURVEY AND REVISED HYDROLOGY/HYDRAULIC ANALYSIS SHALL BE SUBMITTED TO THE LOCAL CITY OR COUNTY GOVERNMENTAL AGENCY PRIOR TO FINAL APPROVAL AND ISSUANCE OF "CERTIFICATE OF OCCUPANCY" FOR THIS PROJECT.

UTILITIES

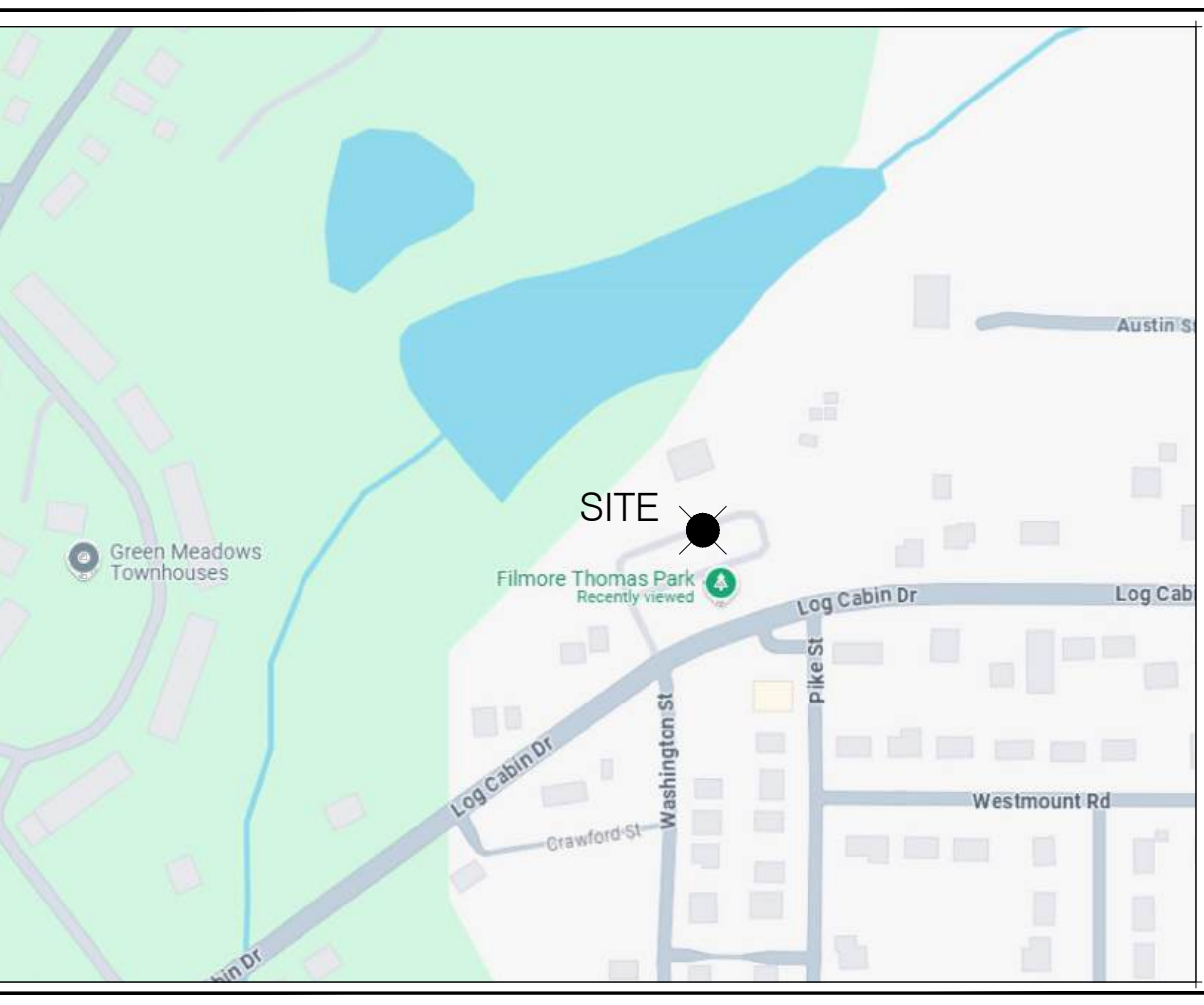
1. ALL WATER & SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MACON WATER AUTHORITY UTILITY DEPARTMENT WATER & SEWER STANDARDS, LATEST ADDITION.
2. ALL UTILITY WORK MEETING THE DEFINITION OF "UTILITY CONTRACTING" AS DESCRIBED IN THE OFFICIAL CODE OF THE STATE OF GEORGIA, SECTION 43-1-4.2 SHALL ADHERE TO THE PRESCRIBED SECTIONS REGARDING "UTILITY CONTRACTOR" LICENSING REQUIREMENTS.
3. ALL UTILITIES, STORM DRAIN & SERVICE LINES SHALL BE MARKED WITH LOCATOR WIRE.
4. CAUTION! UNDERGROUND UTILITY SERVICE ALERT ! THE CONTRACTOR SHALL CALL THE TOLL FREE NUMBER- 1.800.282.7411 , A MINIMUM OF 48 HOURS PRIOR TO THE START OF ANY EXCAVATION AS SHOWN AND NOTED ON THE APPROVED PLANS.
5. INFRASTRUCTURE AND/OR UTILITIES SHOWN ON THESE PLANS ARE FROM GROUND LOCATION OF IDENTIFIABLE STRUCTURES AND "SURFACE DELINIATIONS" OF UNDERGROUND INFRASTRUCTURE (UPC) AVAILABLE AT THE TIME OF THE DESIGN SURVEY. ADDITIONAL SURFACE & SUB-SURFACE INFRASTRUCTURE MAY EXIST. TRAVERSE LAND SERVICES ACCEPTS NO RESPONSIBILITY FOR THE COMPLETENESS OF THIS INFORMATION.
6. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ANY SAID UTILITIES PRIOR TO WORK COMMENCEMENT AND TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL DAMAGES TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY TRAVERSE LAND SERVICES IMMEDIATELY IF ANY EXISTING UTILITY LOCATIONS WILL EFFECT OR IMPEDE THE PROGRESSION OR COMPLETION OF THE DESIGN INTENT AS SHOWN HEREON.
7. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY ENTITY WITH ANY REQUIRED RELOCATION OF EXISTING UTILITIES, PRIOR TO THE START OF ANY CONSTRUCTION.
8. THE CONTRACTOR SHALL REMOVE SAID UTILITIES ONLY, AFTER APPROVAL FROM ALL INTERESTED PARTIES. THE CONTRACTOR SHALL COORDINATE ABANDONMENT AND/OR RELOCATION WITH THE APPROPRIATE UTILITY COMPANY OR ENTITY. ANY DISPOSAL OF SAID FACILITIES SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL UTILITY AND OR GOVERNMENTAL REGULATIONS. ANY COSTS INCURRED IN THE REMOVAL/ABANDONMENT OF SAID INFRASTRUCTURE SHALL BE THE RESPONSIBILITY OF THE OWNER/CONTRACTOR.

CLEARING & GRADING

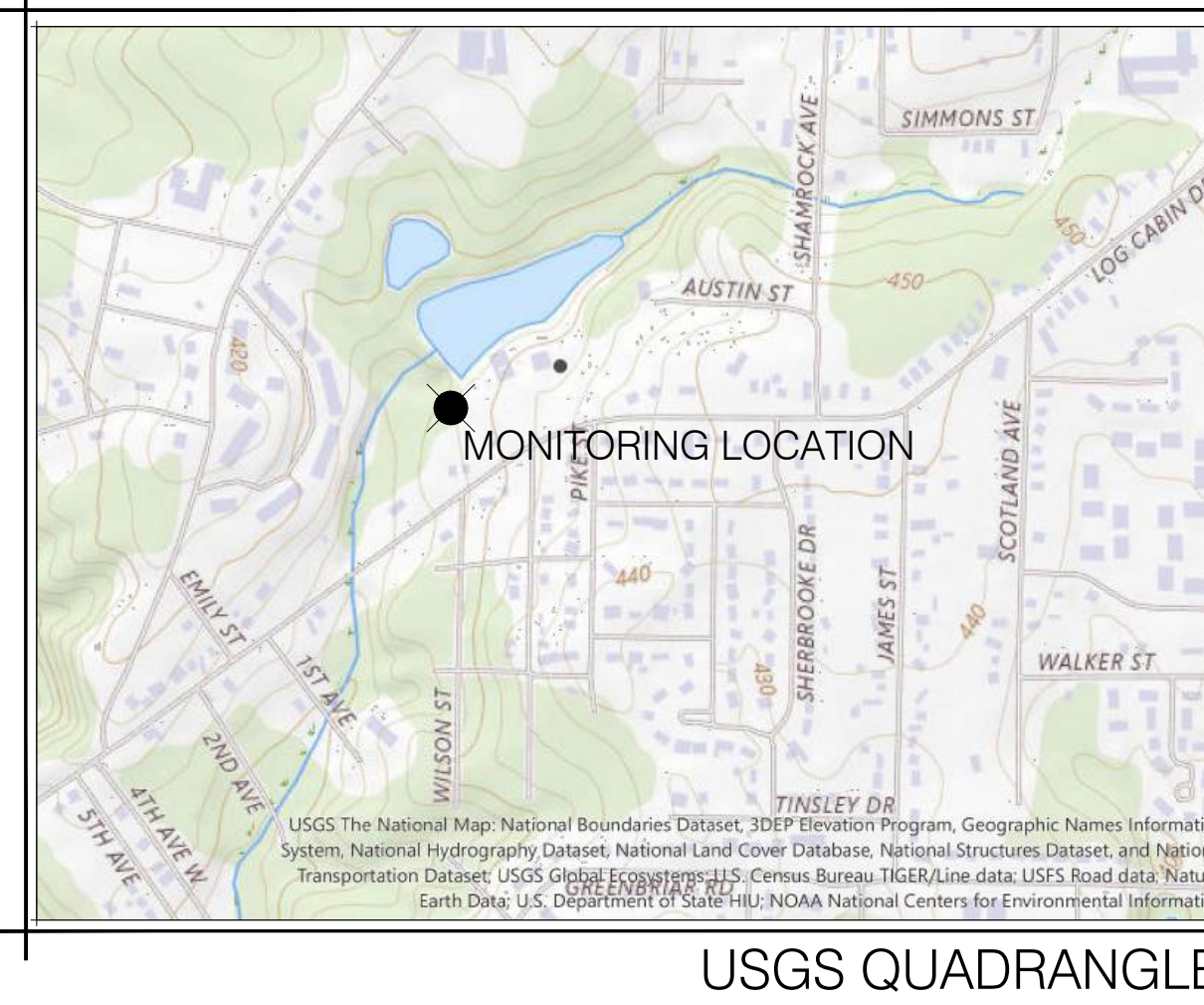
1. THE CONTRACTOR SHALL EXORCISE EXTREME CAUTION IN PROTECTING EXISTING TRESS/VEGETATION AND COORDINATE ALL TREE REMOVAL WITH THE OWNER PRIOR TO THE START OF ANY CONSTRUCTION.
2. THE CONTRACTOR SHALL REMOVE ALL WASTE MATERIAL EXCAVATED FROM THE SITE AND DISPOSED OF PROPERLY OFF-SITE.
3. STRUCTURAL FILL MATERIAL REQUIRED TO BRING THE SITE TO GRADE SHALL BE LIMITED TO SOILS CLASSIFIED IN ACCORDANCE WITH ASTM D2487. ON-SITE SOILS FROM CUT AREAS MAY BE SUITABLE FOR FILL MATERIAL.
4. THE CONTRACTOR SHALL STOCKPILE AND LATER SPREAD A MINIMUM OF 6 INCHES OF TOPSOIL IN AREAS TO BE LANDSCAPED, SODDED OR SEEDED.
5. AT THE END OF EACH DAY, THE CONTRACTOR SHALL HAVE THE SITE GRADED IN SUCH A WAY SO AS NOT TO CAUSE ADVERSE IMPACT FROM RUN-OFF OR SILTATION TO ANY ADJACENT PROPERTIES. SILT BARRIERS SHALL BE MAINTAINED AND REPAIRED IF REQUIRED AT THE END OF EACH WORKING DAY.
6. GROUND SURFACE PREPARATION:
 - 6.1. REMOVE VEGETATION INCLUDING GRASS, ROOTS, AND SURFICIAL ORGANICS, DEBRIS, UNSATISFACTORY SOILS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF FILL MATERIAL. FLOW STRIP, BREAKUP SLOPED SURFACES STEEPER THAN 2:1 SO THAT FILL MATERIAL WILL BOND WITH THE EXISTING SOILS. WHEN EXISTING GROUND SURFACE HAS A DENSITY LESS THAN THAT SPECIFIED UNDER COMPACTION FOR PARTICULAR AREA CLASSIFICATION, BREAKUP GROUND SURFACE, PULVERIZE, MOISTURE CONDITION TO OPTIMUM MOISTURE CONTENT, AND COMPACT TO REQUIRED DEPTH AND PERCENTAGE OF MAXIMUM DENSITY.
 - 6.2. PLACE BACKFILL AND FILL MATERIAL IN LAYERS NOT MORE THAN 6 INCHES IN LOOSE FILL LIFTS COMPACTED BY HEAVY EQUIPMENT AND NOT MORE THAN 3 INCHES IN LOOSE FILL LIFTS COMPACTED BY HAND-OPERATED TAMPERS.
 - 6.3. BEFORE COMPACTION, MOISTEN AND AERATE EACH LAYER AS NECESSARY TO PROVIDE OPTIMUM MOISTURE CONTENT. COMPACT EACH LAYER TO REQUIRED PERCENTAGE OF MAXIMUM DRY DENSITY OR RELATIVE DRY DENSITY FOR EACH AREA CLASSIFICATION. DO NOT PLACE BACKFILL OR FILL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAINS FROST OR ICE.
 - 6.4. UNLESS OTHERWISE INDICATED OR DIRECTED BY GEOTECHNICAL CONSULTANT, COMPACT ALL BUILDING PADS & PAVEMENT SUBGRADE MATERIAL TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTMD698 CURRENT ADDITION). OTHER GRADED AREAS SHALL BE COMPACTED TO 95% STANDARD PROCTOR DRY DENSITY (+/- 2%) UNLESS OTHERWISE SPECIFIED.
 - 6.5. ALL GRADED AREAS SHALL BE PROOFROLLED WITH A 20 TON DUMP TRUCK. UNDERCUT ALL AREAS THAT PUMP AND REPLACE WITH SUITABLE FILL MATERIAL AS SPECIFIED.
7. MOISTURE CONTROL:
 - 7.1. WHERE SUBSURFACE OR LAYER OF SOIL MATERIAL MUST BE MOISTURE CONDITIONED BEFORE COMPACTION, UNIFORMLY APPLY WATER TO SURFACE OF SUBGRADE OR SOIL LAYER. APPLY WATER IN MINIMUM QUANTITIES AS NECESSARY TO PREVENT FREE WATER FROM APPEARING ON THE SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS.
 - 7.2. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, SOIL MATERIAL THAT IS TOO WET TO ALLOW FOR REQUIRED SPECIFIED DENSITY.
 - 7.3. SPREAD SOIL MATERIAL THAT HAS BEEN REMOVED DUE TO EXCESSIVE MOISTURE CONTENT. ASSIST THE DRYING PROCESS BY DISKING, HARROWING, OR PULVERIZING UNTIL MOISTURE CONTENT IS REDUCED TO A SATISFACTORY VALUE.
 - 7.4. THE CONTRACTOR SHALL NOTIFY TRAVERSE LAND SERVICES & OWNER IMMEDIATELY UPON THE DISCOVERY OF ANY GROUNDWATER, SUB-SURFACE SEEPAGE, OR SPRINGS DURING THE COURSE OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO CONSULT WITH A REGISTERED GEOTECHNICAL ENGINEER FOR SITE INSPECTION, AND TO MAKE RECOMMENDATIONS REGARDING THE EVIDENCE AND REMEDIATION OF SUBSURFACE WATERS.
8. QUALITY CONTROL TESTING DURING CONSTRUCTION:
 - 8.1. ALLOW GEOTECHNICAL TESTING SERVICE TO INSPECT AND APPROVE EACH SUBGRADE, BACKFILL OR FILL LAYER BEFORE FURTHER FILL OR CONSTRUCTION WORK IS CONTINUED. TESTING SHALL BE PERFORMED EVERY 10,000 SF OF AREA PER ONE FOOT LIFT OR AS DIRECTED BY A REGISTERED GEOTECHNICAL ENGINEER.
 - 8.2. GEOTECHNICAL SPECIFICATIONS DESCRIBED HEREIN ARE GUIDELINES ONLY AND SHOULD BE VERIFIED BY A REGISTERED GEOTECHNICAL ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. RECOMMENDATIONS FROM A REGISTERED GEOTECHNICAL ENGINEER SHALL SUPERSEDE THE ABOVE RECOMMENDATIONS.

MATERIALS

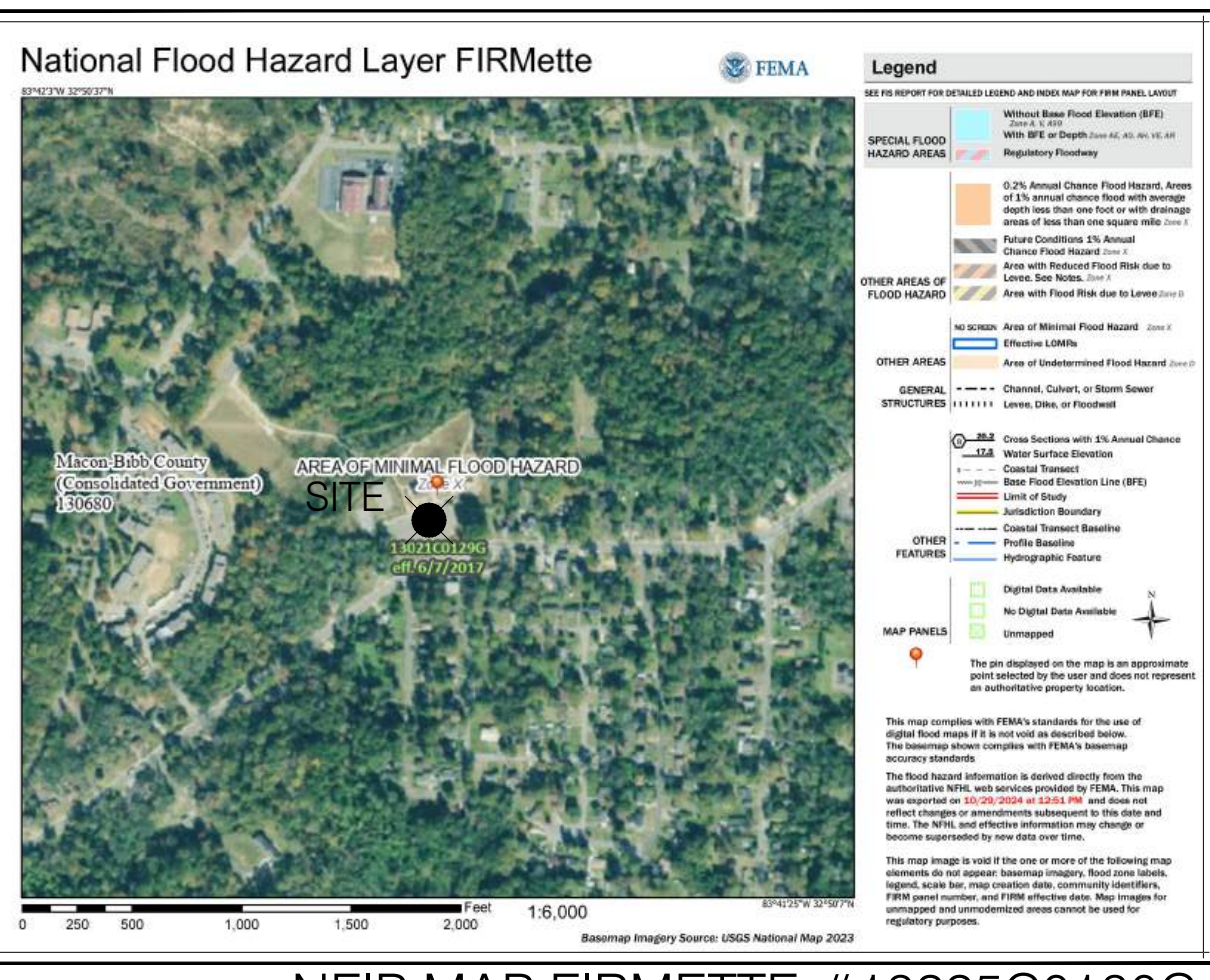
1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE PRIOR TO ORDERING PROJECT MATERIALS, THE MOST CURRENT SET OF "APPROVED" CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO, PERMITTED SET(S) FROM ALL APPLICABLE AGENCIES AS APPROPRIATE. TRAVERSE LAND SERVICES SHALL ACCEPT NO RESPONSIBILITY FOR IMPROPER ORDERING OF MATERIALS.
2. WATER, SEWER & STORM PIPE MATERIALS SHALL CONFORM TO THE FOLLOWING STANDARDS.
 - 2.1. WATER MAINS: DUCTILE IRON PIPE CLASS 350 (AWWA C 151) PVC C-900 SDR-21 WITH UTILITY AUTHORITY APPROVAL
 - 2.2. SERVICE LINES: PVC SCHEDULE 40 HDPE SDR 9 (ASTM D3035)
 - 2.3. IRRIGATION: PURPLE PIPE (ASTM 2737)
 - 2.4. SANITARY SEWER: DUCTILE IRON PIPE CLASS 350 (AWWA C 151) PVC SDR 35 (ASTM D-3034)
 - 2.5. STORM SYSTEM: RCP CLASS III (ASTM C76) CORRUGATED HDPE INTEGRALLY FORMED SMOOTH INTERIOR (ASHTO M-294 TYPE 'S')



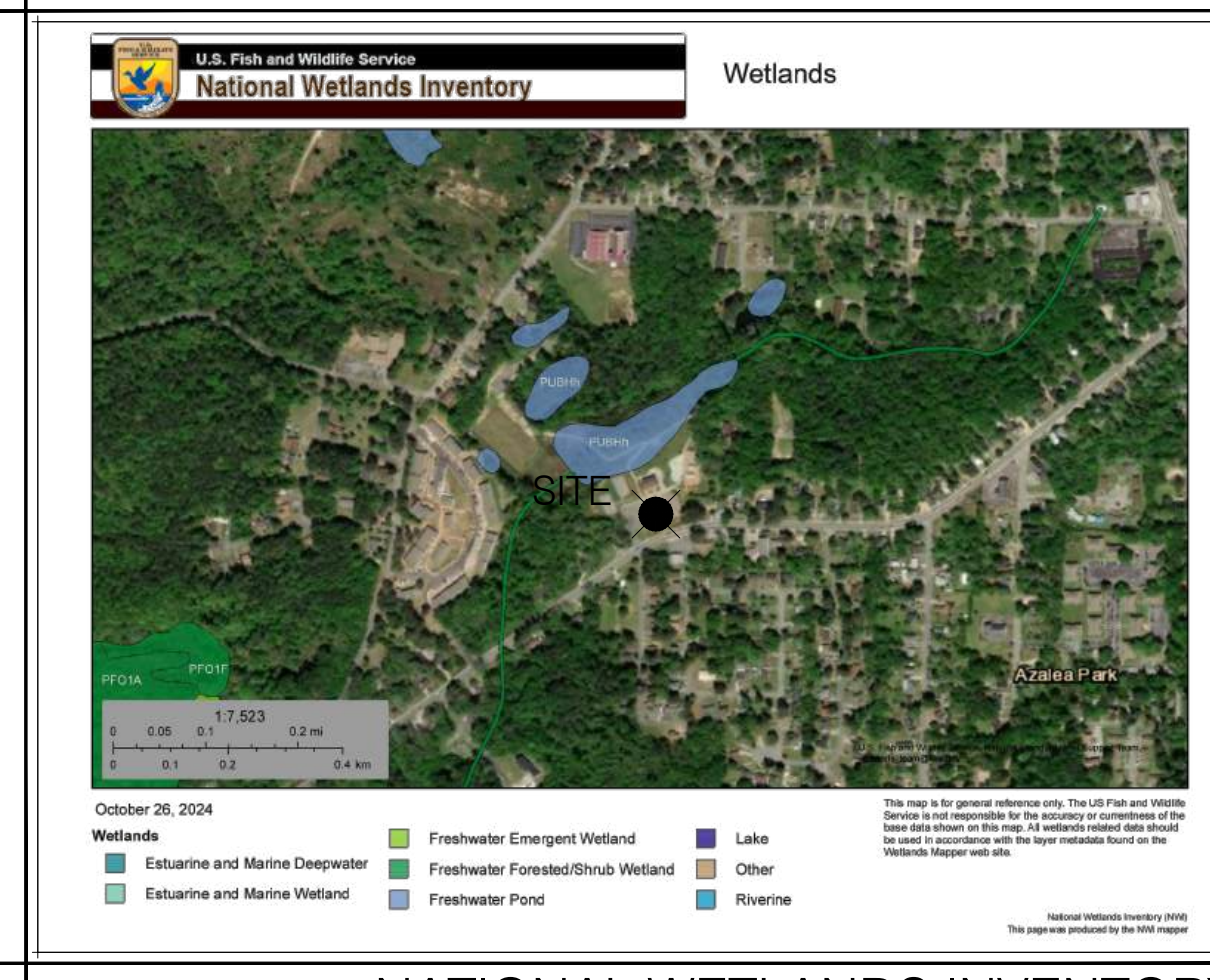
VICINITY MAP



USGS QUADRANGLE



NFIP MAP FIRMETTE #13225C0130C



NATIONAL WETLANDS INVENTORY

LEGEND

-----●-----	IPS	=	PROPERTY CORNER SET (REBAR)
-----○-----	IPF	=	PROPERTY CORNER FOUND
-----□-----	CMF	=	CONCRETE MONUMENT FOUND
-----■-----	CMS	=	CONCRETE MONUMENT SET
-----△-----		=	SURVEY CONTROL POINT
-----X-----	"X"	=	CHISELED "X"
-----LL-----	LLL	=	LAND LOT LINE
-----BSL-----	BSL	=	BUILDING SETBACK LINE
-----SSE-----	SSE	=	SANITARY SEWER EASEMENT
-----UE-----	UE	=	UTILITY EASEMENT
-----DE-----	DE	=	DRAINAGE EASEMENT
-----DUE-----	DUE	=	DRAINAGE & UTILITY EASEMENT
-----LL-----	LL	=	LAND LOT
-----POB-----	POB	=	POINT OF BEGINNING

CONTACT INFORMATION

OWNER/PRIMARY PERMITEE: MACON-BIBB COUNTY
PO BOX 247
MACON, GEORGIA 31202

24-HR CONTACT: BRANDON FAIRBANKS
PHONE: 478-745-4945
EMAIL: BRANDONFAIRBANKS@WM2A.COM

DESIGN PROFESSIONAL: CASEY GRAHAM
TRAVERSE LAND SERVICES
253 CARL VINSON PARKWAY
WARNER ROBINS, GEORGIA 31088
PHONE: 478-922-7724
EMAIL: CASEY.GRAHAM@TRAVERSE-LS.COM

GENERAL SITE INFORMATION

1. LEGAL DESCRIPTION: N/A
LAND LOT 115 4th DISTRICT
MACON-BIBB GEORGIA
2. PHYSICAL ADDRESS: 3793 LOG CABIN DR
3. ZONING-USE: EXISTING: PDE
PROPOSED: PDE
4. SETBACK LINES: FRONT= N/A
SIDE= N/A
REAR= N/A
5. PROJECT AREA: SITE= 22.52 ACRES
DISTURBED= 0.13 ACRES
6. THIS PROPERTY IS NOT IN A SPECIAL FLOOD HAZARD DISTRICT PER NFIP FIRM PANEL No. 13021C0129G EFFECTIVE DATE 06.07.2017.
7. "STATE WATERS" DO LIE ON OR WITHIN 200' OF THE PROJECT SITE.



GSWCC L2 Design Professional
Certification No. B290



MACON-BIBB COUNTY PARKS
AND RECREATION

FILMORE THOMAS PARK
RECREATION CENTER RENOVATION

3793 LOG CABIN DR., MACON, GA 31202

These drawings convey certain contractual information through the use of color. Do NOT use drawings printed in black and white or grayscale.

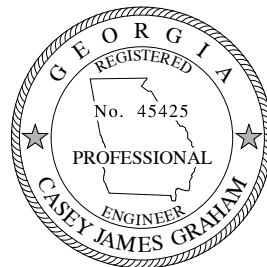
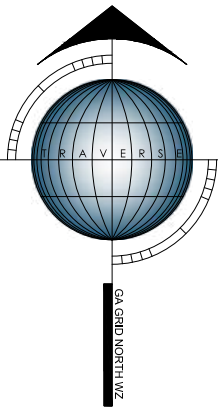
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Project Status: Revision Date:
Issued For: 01/06/24
Revision No (if any): Revision Date:

Project No: Current Date:
3024-001 10/30/24
Drawing Name:

Drawing No:

C001



GSWCC LP Design Professional
Certification No. 8296



MACON-BIBB COUNTY PARKS
AND RECREATION

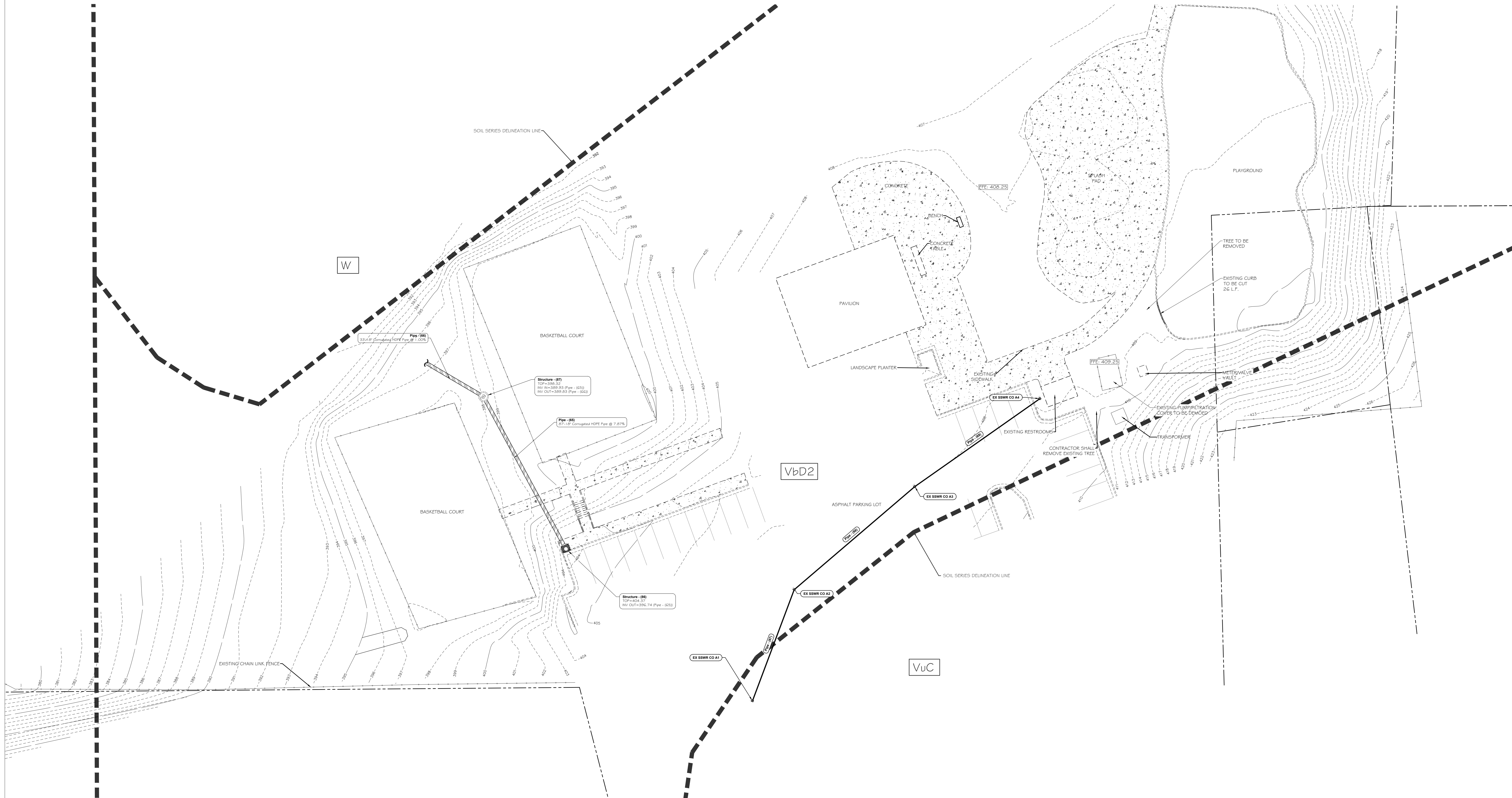
FILMORE THOMAS PARK
RECREATION CENTER RENOVATION

3793 LOG CABIN DR., MACON, GA 31202

SOIL LEGEND:

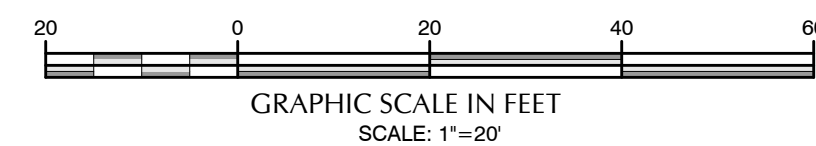
VbD2 - Vance sandy loam, 10 to 17
percent slopes, eroded

VuC - Vaucluse-Urban Land complex,
2 to 8 percent slopes



UTILITY NOTES

1. AT THE TIME OF THESE DRAWINGS, THE LOCATION AND SIZE OF THE EXISTING WATER LINE IS UNKNOWN.
2. THE MUNICIPALITY THAT OWNS THE WATER LINE HAS NO RECORD OF THE EXISTING WATER LINE.
3. CONTRACTOR SHALL FIELD VERIFY SIZE AND LOCATION OF THE EXISTING WATER LINE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL CALL 811 FOR LOCATION OF EXISTING WATER LINE.
5. ONCE THE EXISTING WATER LINE HAS BEEN SIZED AND LOCATED THE CONTRACTOR SHALL TIE THE EXISTING WATER LINE INTO THE PROPOSED BATHROOMS.
6. THE EXISTING SANITARY SEWER CLEANOUTS SHOWN HAVE BEEN FIELD VERIFIED DURING THE SURVEY.
7. DUE TO THE CLEANOUTS BEING PAVED OVER INVERTS AND THE SIZE OF THE EXISTING SSWR LINE HAS NOT BEEN VERIFIED.
8. CONTRACTOR SHALL FIELD VERIFY SIZE AND LOCATION OF THE EXISTING SANITARY SEWER LINE BEFORE CONSTRUCTION.
9. CONTRACTOR SHALL INFORM THE OWNER, ENGINEER, AND THE GENERAL CONTRACTOR OF THE RESULTS OF THE INVESTIGATION BEFORE MOVING FORWARD WITH CONSTRUCTION.
10. PLANS AS SHOWN ARE SUBJECT TO CHANGE BASED ON THE RESULTS OF THE FIELD INVESTIGATION.



These drawings convey certain contractual information through the use of color. Do NOT use drawings printed in black and white or grayscale.

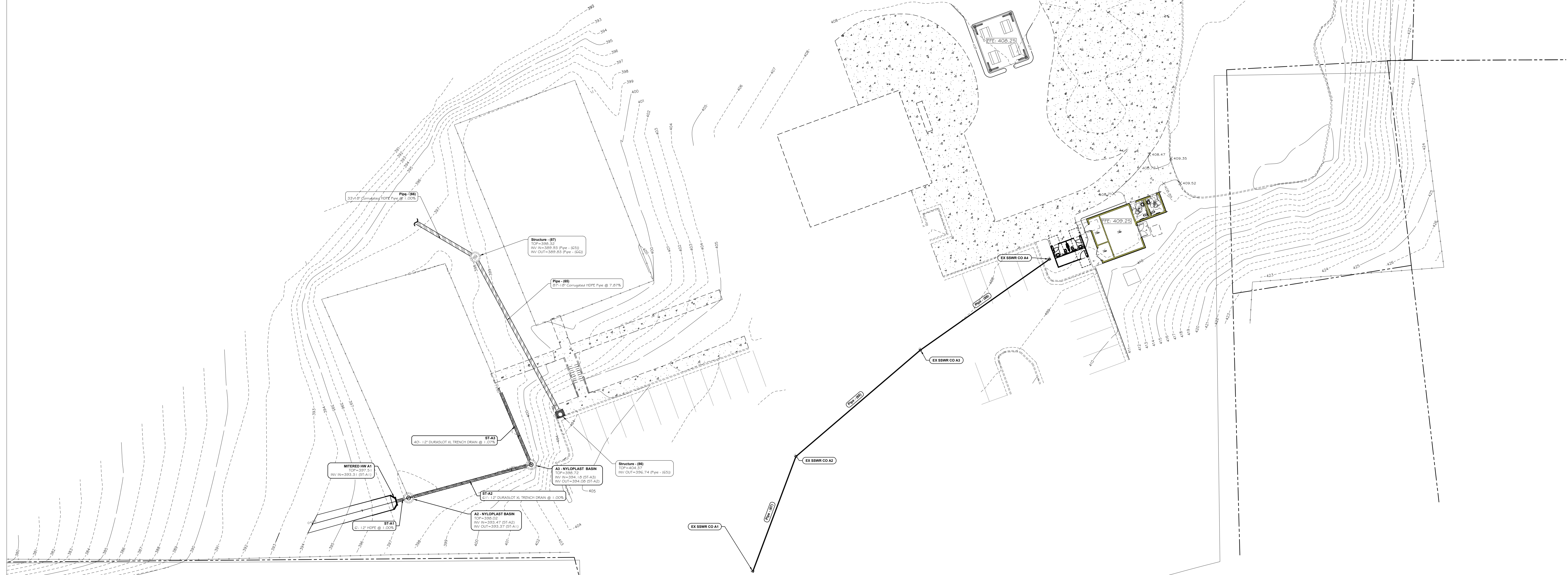
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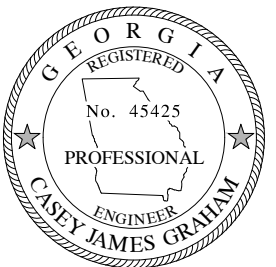
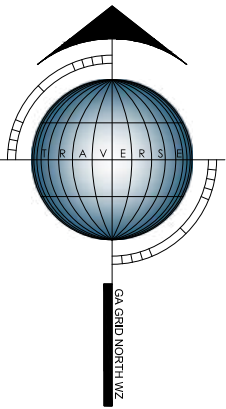
Project Status:	Revision Date:
ISSUED FOR BIDDING	
Revision No (if any):	Revision Date:
Project No:	Current Date:
3024-001	10/30/24
Drawing Name:	

EXISTING CONDITIONS
& DEMOLITION PLAN

Drawing No:

C101





GSWCC LP Design Professional
Certification No. 8296



MACON-BIBB COUNTY PARKS
AND RECREATION

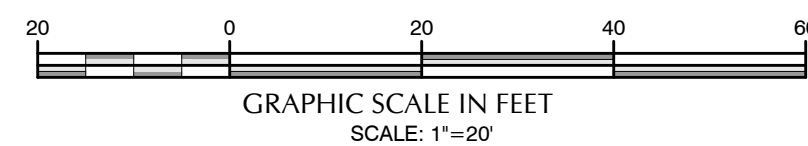
FILMORE THOMAS PARK
RECREATION CENTER RENOVATION

3793 LOG CABIN DR., MACON, GA 31202



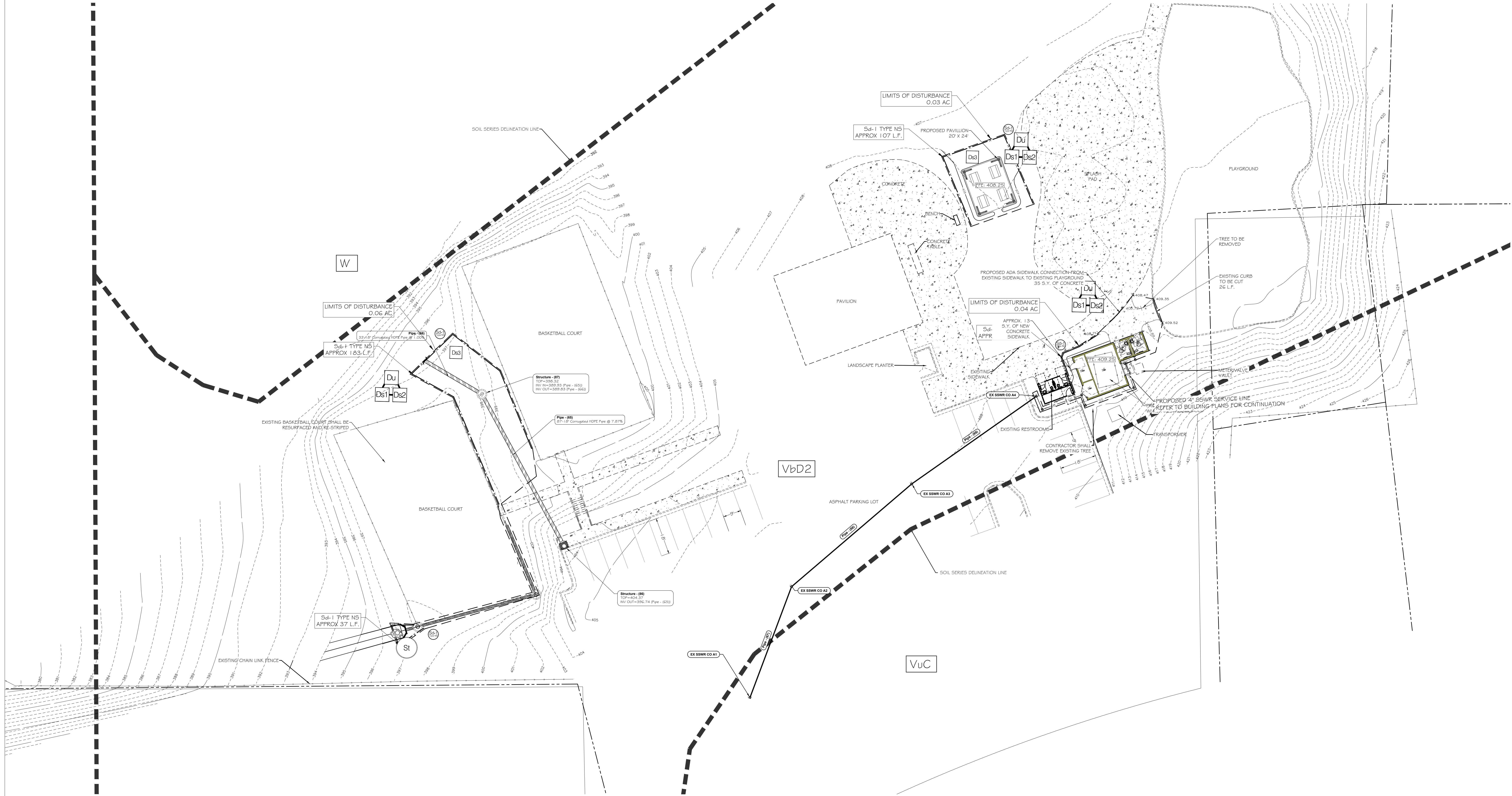
UTILITY NOTES

1. AT THE TIME OF THESE DRAWINGS, THE LOCATION AND SIZE OF THE EXISTING WATER LINE IS UNKNOWN.
2. THE MUNICIPALITY THAT OWNS THE WATER LINE HAS NO RECORD OF THE EXISTING WATER LINE.
3. CONTRACTOR SHALL FIELD VERIFY SIZE AND LOCATION OF THE EXISTING WATER LINE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL CALL 811 FOR LOCATION OF EXISTING WATER LINE.
5. ONCE THE EXISTING WATER LINE HAS BEEN SIZED AND LOCATED THE CONTRACTOR SHALL TIE THE EXISTING WATER LINE INTO THE PROVIDED BATHROOMS.
6. THE EXISTING SANITARY SEWER CLEANOUTS SHOWN HAVE BEEN FIELD VERIFIED DURING THE SURVEY.
7. DUE TO THE CLEANOUTS BEING PAVED OVER INVERTS AND THE SIZE OF THE EXISTING SEWER LINE HAS NOT BEEN VERIFIED.
8. CONTRACTOR SHALL FIELD VERIFY SIZE AND LOCATION OF THE EXISTING SANITARY SEWER LINE BEFORE CONSTRUCTION.
9. CONTRACTOR SHALL INFORM THE OWNER, ENGINEER, AND THE GENERAL CONTRACTOR OF THE RESULTS OF THE INVESTIGATION BEFORE MOVING FORWARD WITH CONSTRUCTION.
10. PLANS AS SHOWN ARE SUBJECT TO CHANGE BASED ON THE RESULTS OF THE FIELD INVESTIGATION.



UTILITIES PLAN
Drawing No:

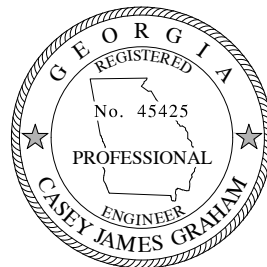
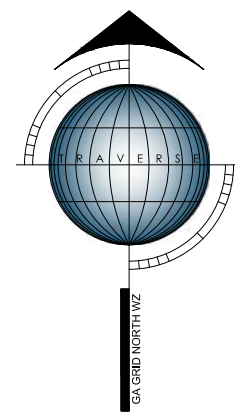
C401



SOIL LEGEND:

VbD2 - Vance sandy loam, 10 to 17 percent slopes, eroded

VuC - Vaucluse-Urban Land complex, 2 to 8 percent slopes



GSWCC LP Design Professional
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MACON-BIBB COUNTY PARKS
AND RECREATION

FILMORE THOMAS PARK
RECREATION CENTER RENOVATION

3793 LOG CABIN DR., MACON, GA 31202

These drawings convey certain contractual information through the use of color. Do NOT use drawings printed in black and white or grayscale.

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Project Status: ISSUED FOR PERMIT
Revision No (if any):
Revision Date:

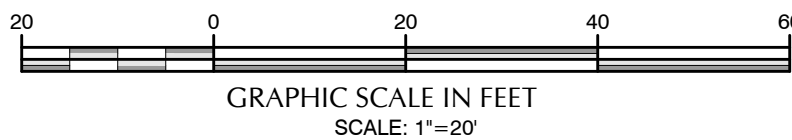
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Current Date: 10/30/24
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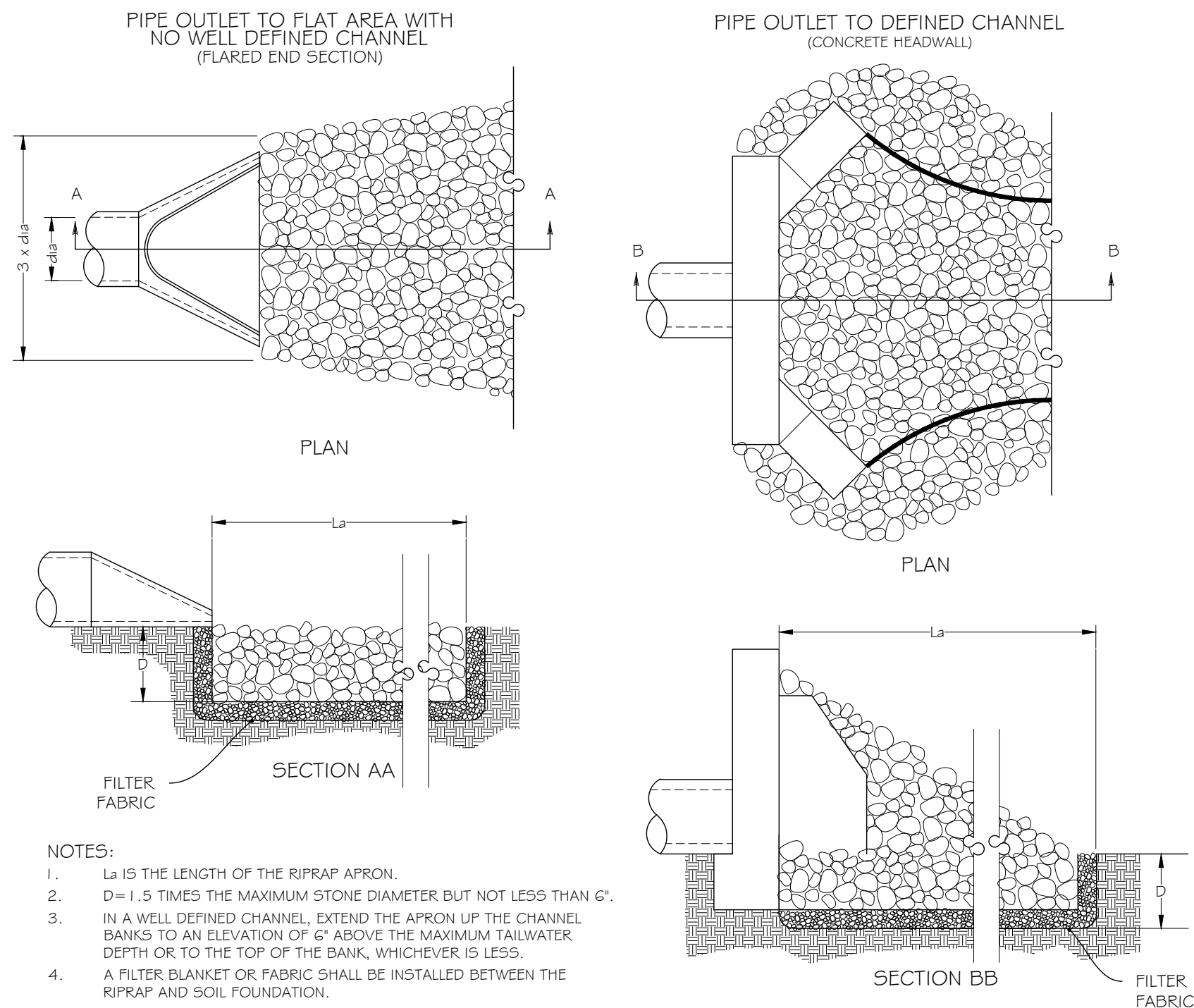
ESPC PHASE 1

Drawing No:

C501

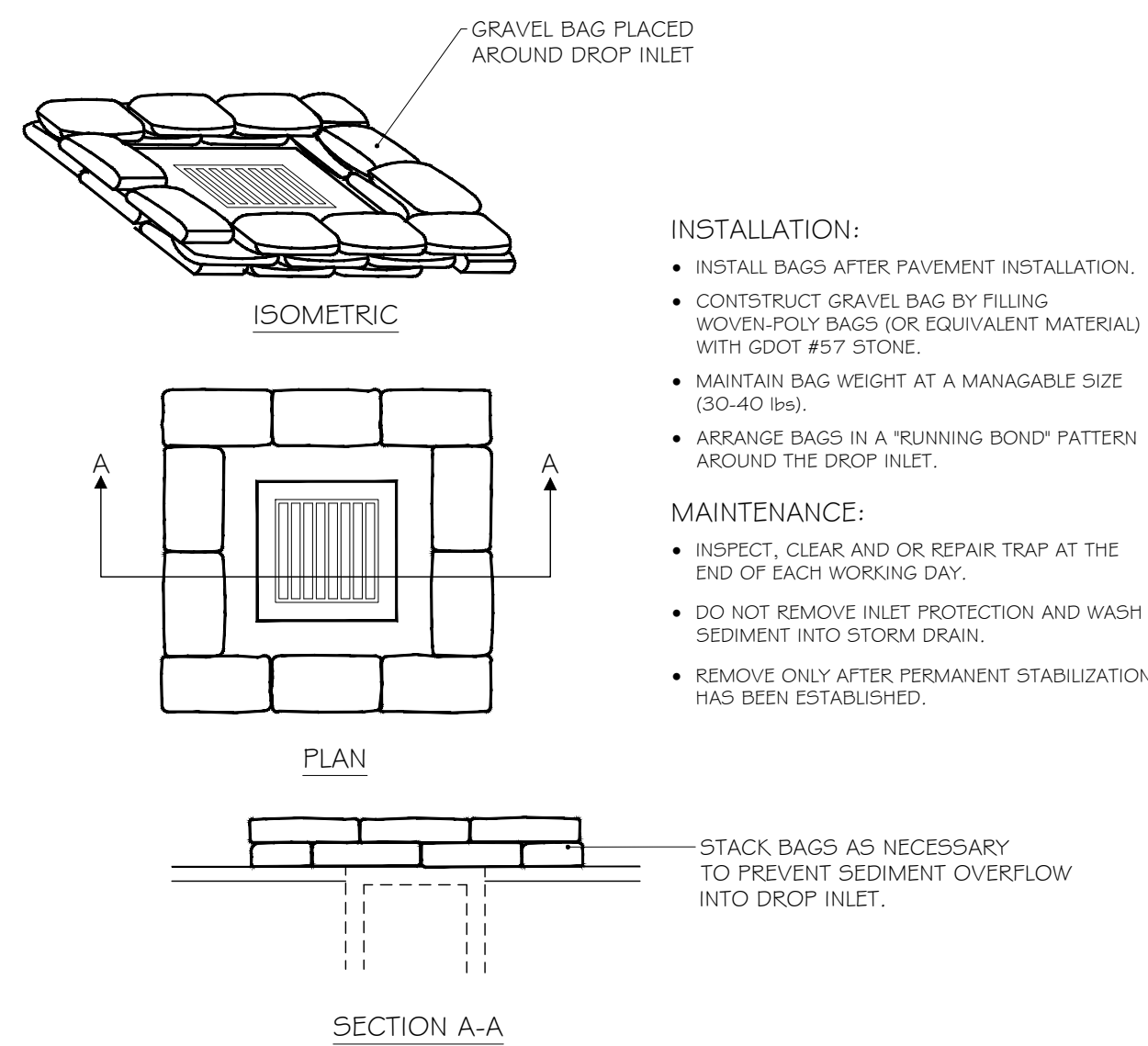
Page 1129 of 1396





St

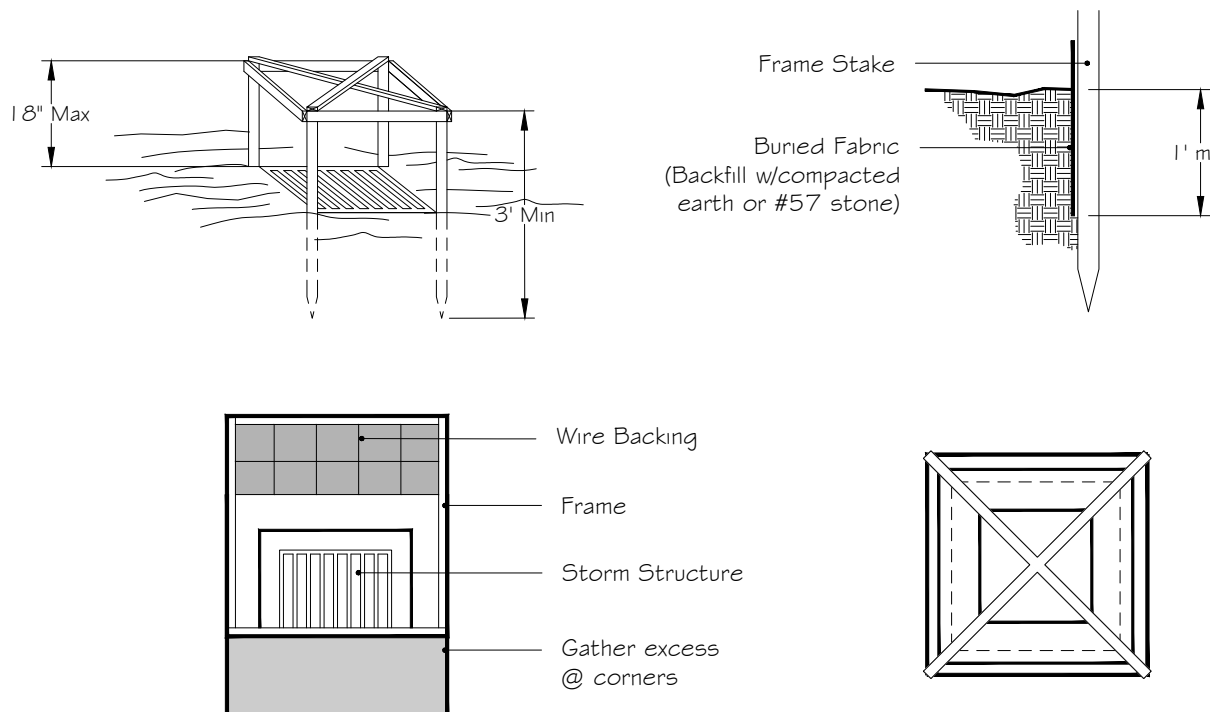
STORMDRAIN OUTLET PROTECTION



Sd2-GB

INLET SEDIMENT TRAP-GRAVEL BAG

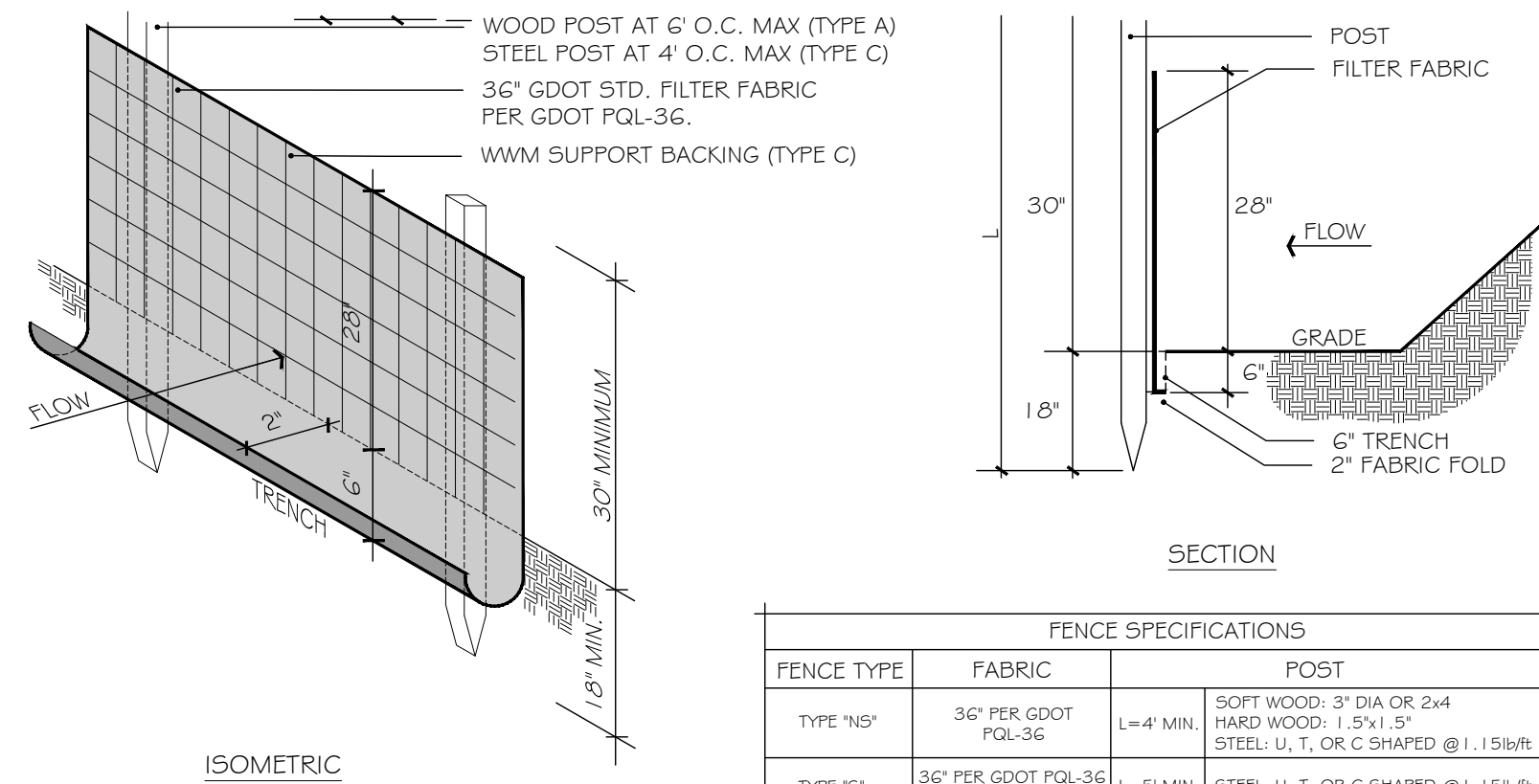
THIS METHOD OF INLET PROTECTION SHALL BE REMOVED IF TEMPORARY PONDING CREATES A SAFETY HAZARD.



Sd2-F

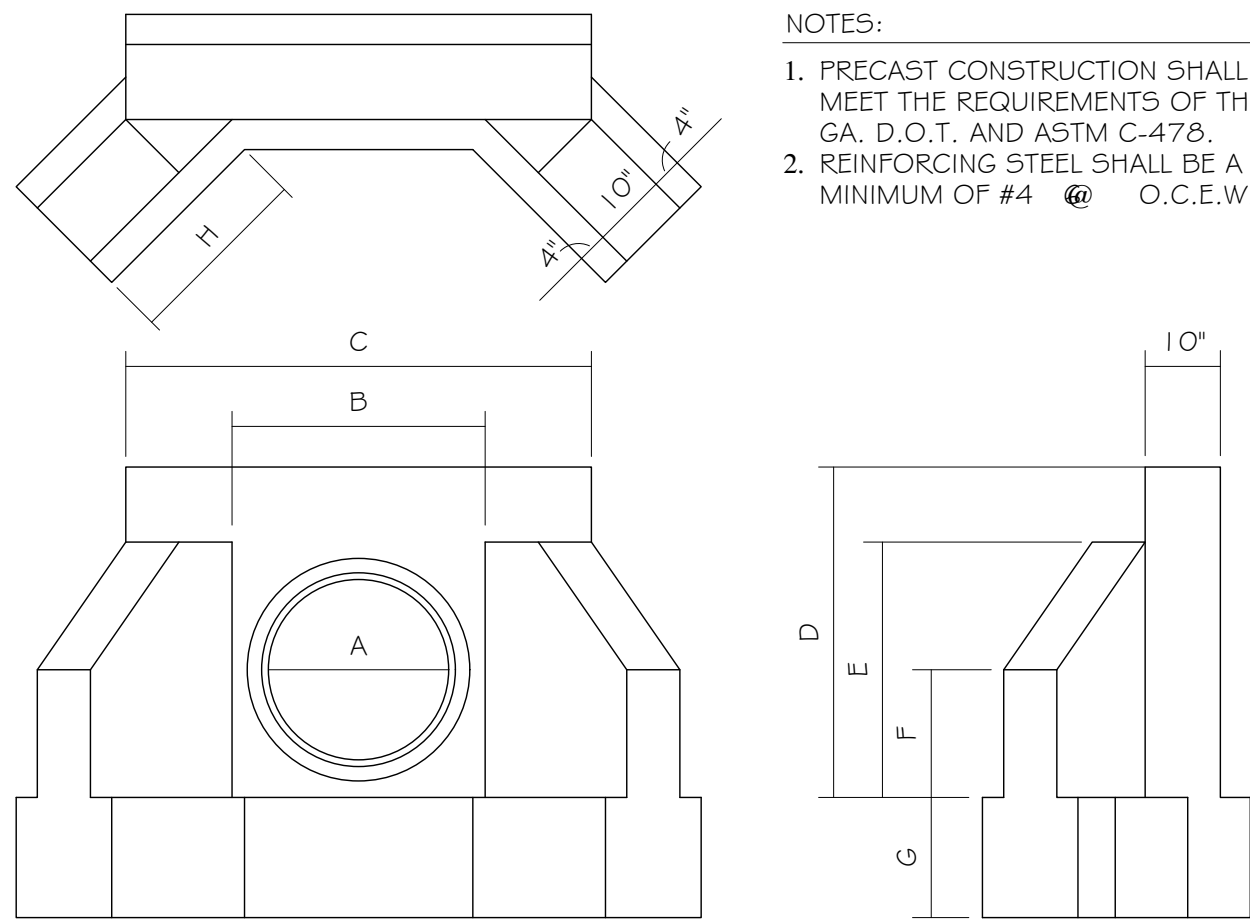
FILTER FABRIC & FRAME DETAIL

(STORM INLET PROTECTION)



Sd1

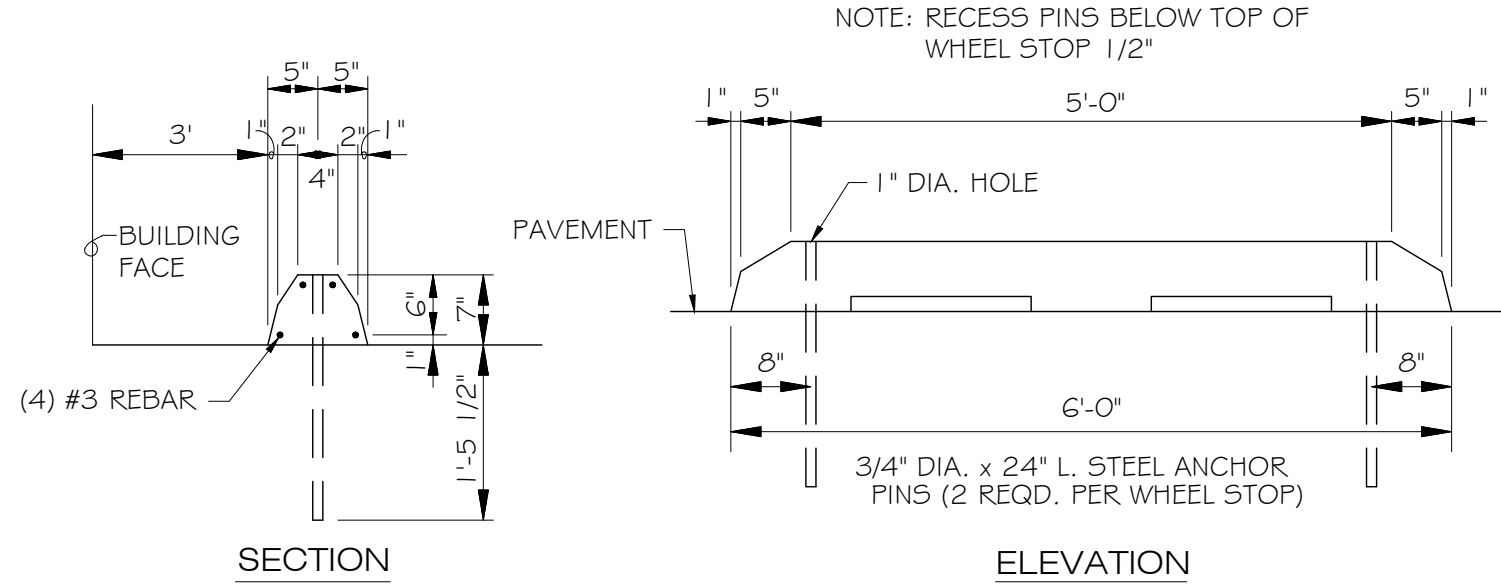
SEDIMENT CONTROL FENCE



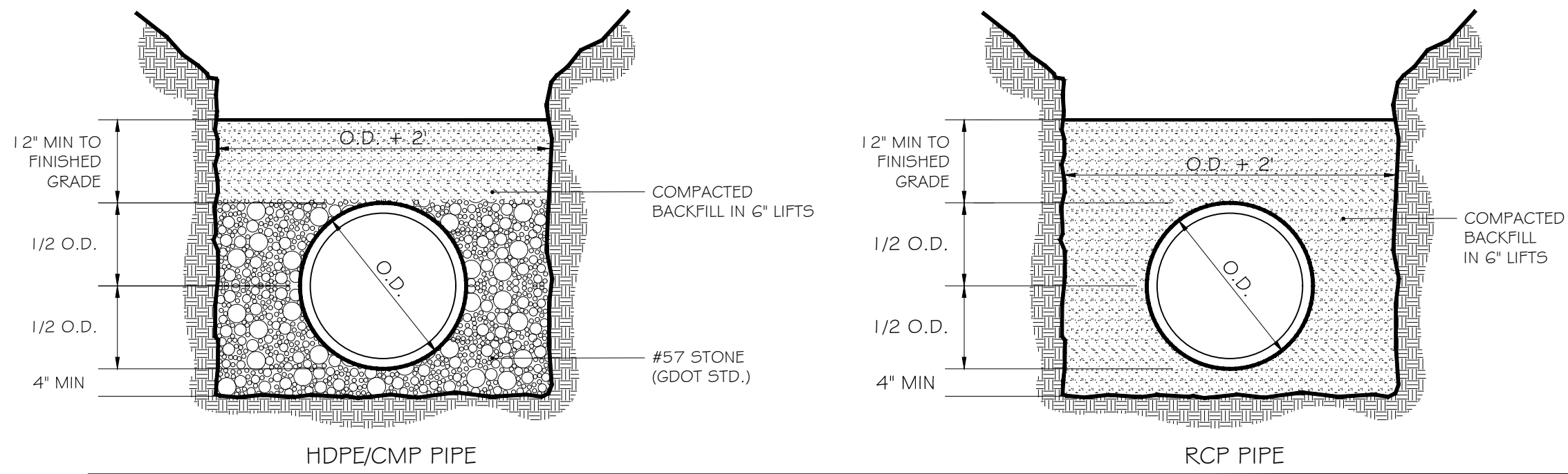
- NOTES:
1. PRECAST CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE GA. D.O.T. AND ASTM C-478.
 2. REINFORCING STEEL SHALL BE A MINIMUM OF #4 @ O.C.E.W.

"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"
12"	1'-8"	4'-0"	2'-6"	1'-8"	1'-2"	1'-3"	1'-7"
15"	2'-0"	4'-4"	2'-10"	2'-0"	1'-3"	1'-3"	1'-7"
18"	2'-4"	4'-8"	3'-2"	2'-4"	1'-4"	1'-3"	1'-7"
24"	2'-10"	5'-2"	3'-8"	2'-10"	1'-5"	1'-4"	2'-1"
30"	3'-6"	5'-10"	4'-4"	3'-6"	1'-9"	1'-6"	2'-5"
36"	4'-0"	6'-4"	4'-10"	4'-0"	2'-0"	1'-8"	2'-11"
42"	4'-6"	6'-10"	5'-4"	4'-6"	2'-3"	2'-0"	3'-6"
48"	5'-2"	7'-6"	6'-0"	5'-2"	2'-6"	2'-0"	4'-0"
54"	5'-9"	8'-1"	6'-7"	5'-9"	2'-9"	2'-0"	4'-6"
60"	6'-4"	8'-8"	7'-2"	6'-4"	3'-0"	2'-2"	5'-0"

PRECAST CONCRETE HEADWALL DETAIL

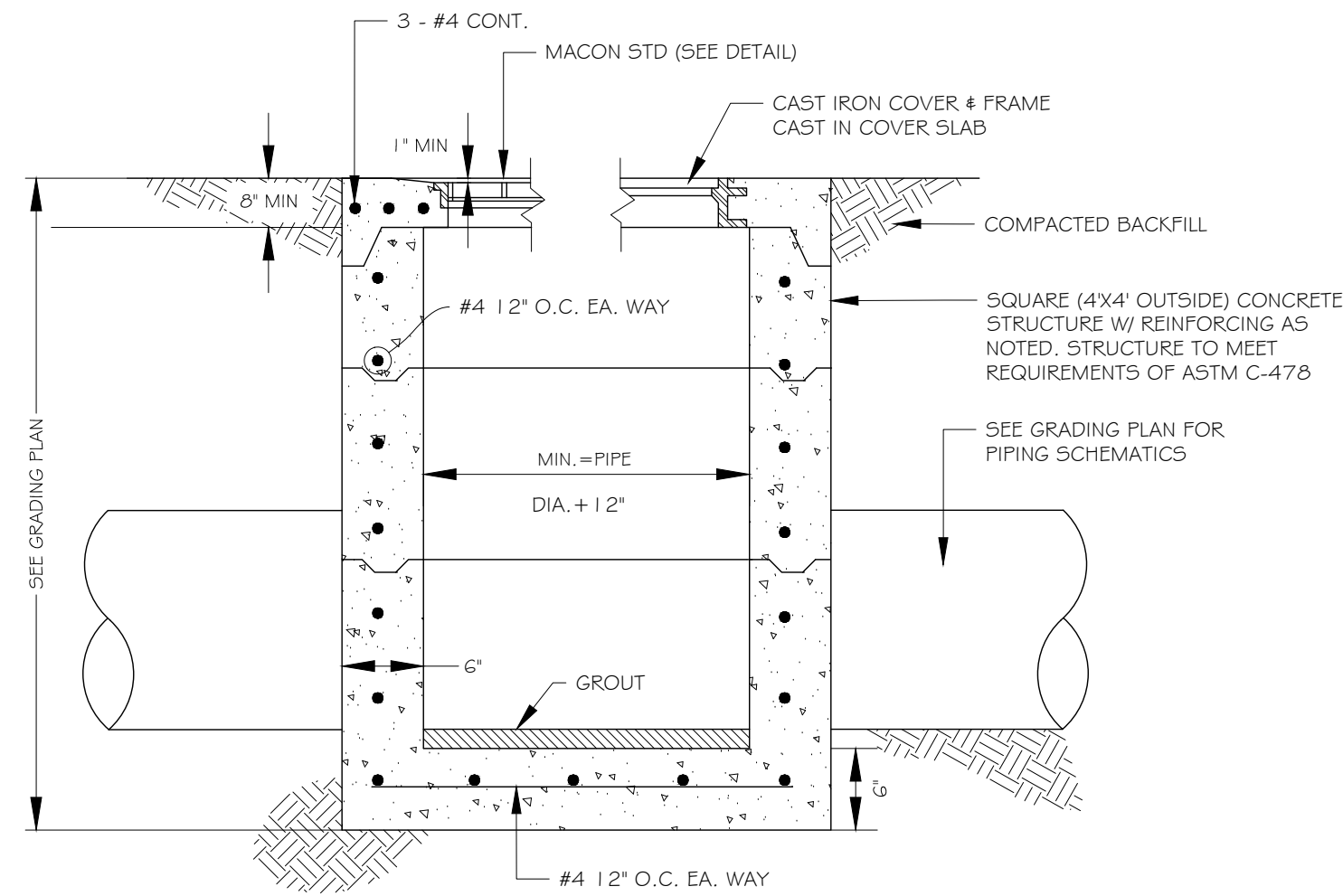


CONCRETE WHEEL STOP DETAIL

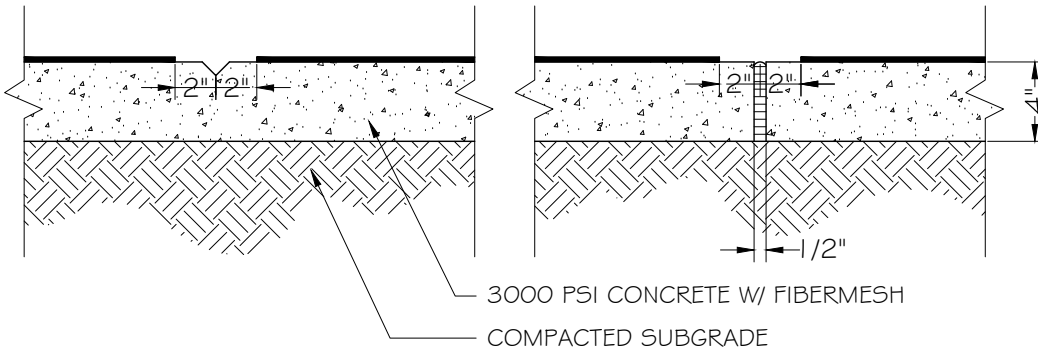


- NOTE: MINIMUM COVER UNDER PAVEMENT SECTIONS SHALL BE AS FOLLOWS:
- HDPE- 12\" TO FINISHED GRADE UNDER RIGID PAVEMENT
 - 12\" TO FINISHED GAB UNDER FLEXIBLE PAVEMENT
- CMP- REFER TO MANUFACTURERS RECOMMENDATIONS
- COMPACTION & TESTING:
- OUTSIDE OF EXISTING OR PROPOSED PAVING=95% STANDARD PROCTOR.
 - BENEATH EXISTING OR PROPOSED PAVING= 100 % STANDARD PROCTOR.
 - TESTING OF ALL COMPACTION SHALL BE CERTIFIED BY GEOTECHNICAL ENGINEER.

STORM PIPE BEDDING DETAIL

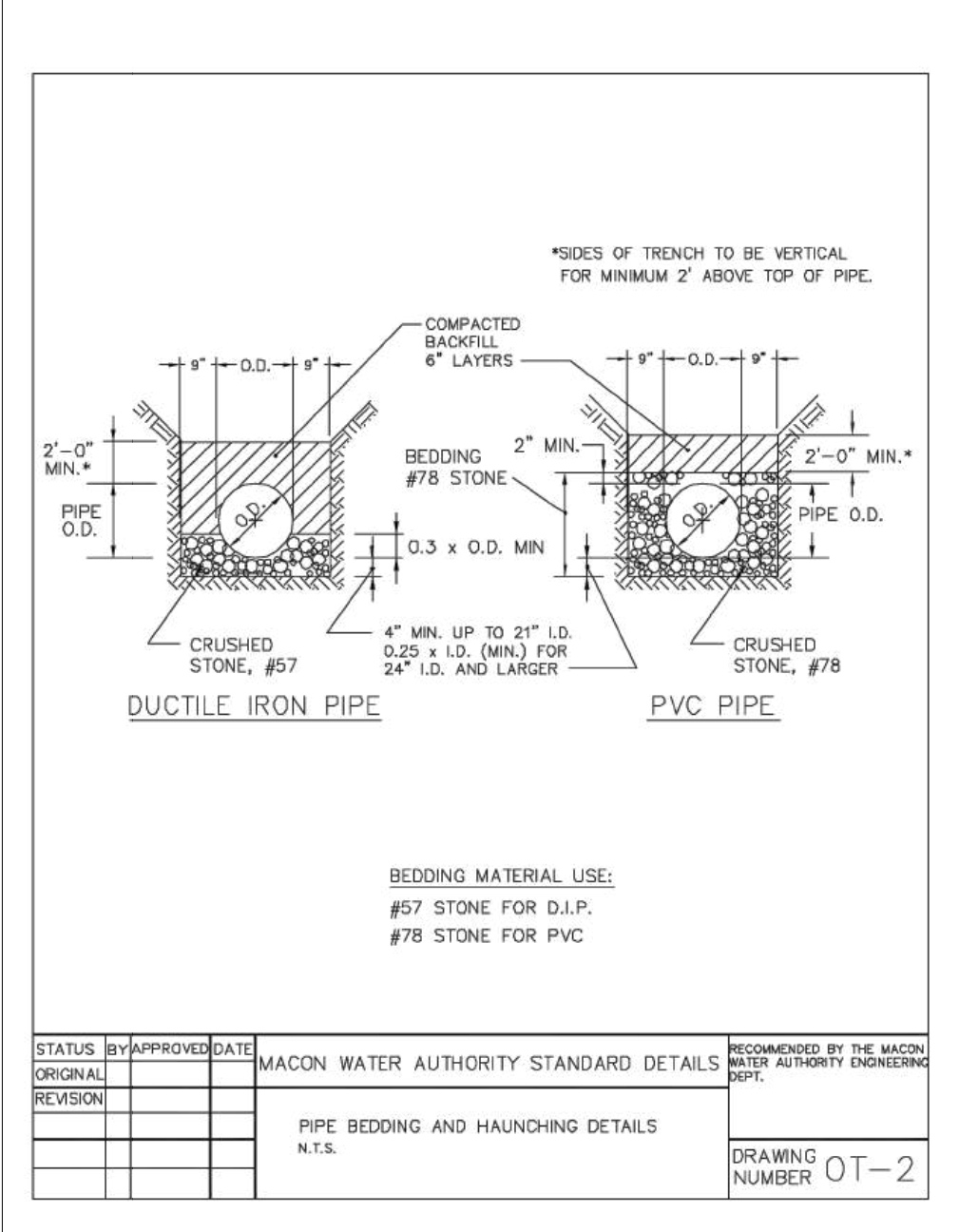
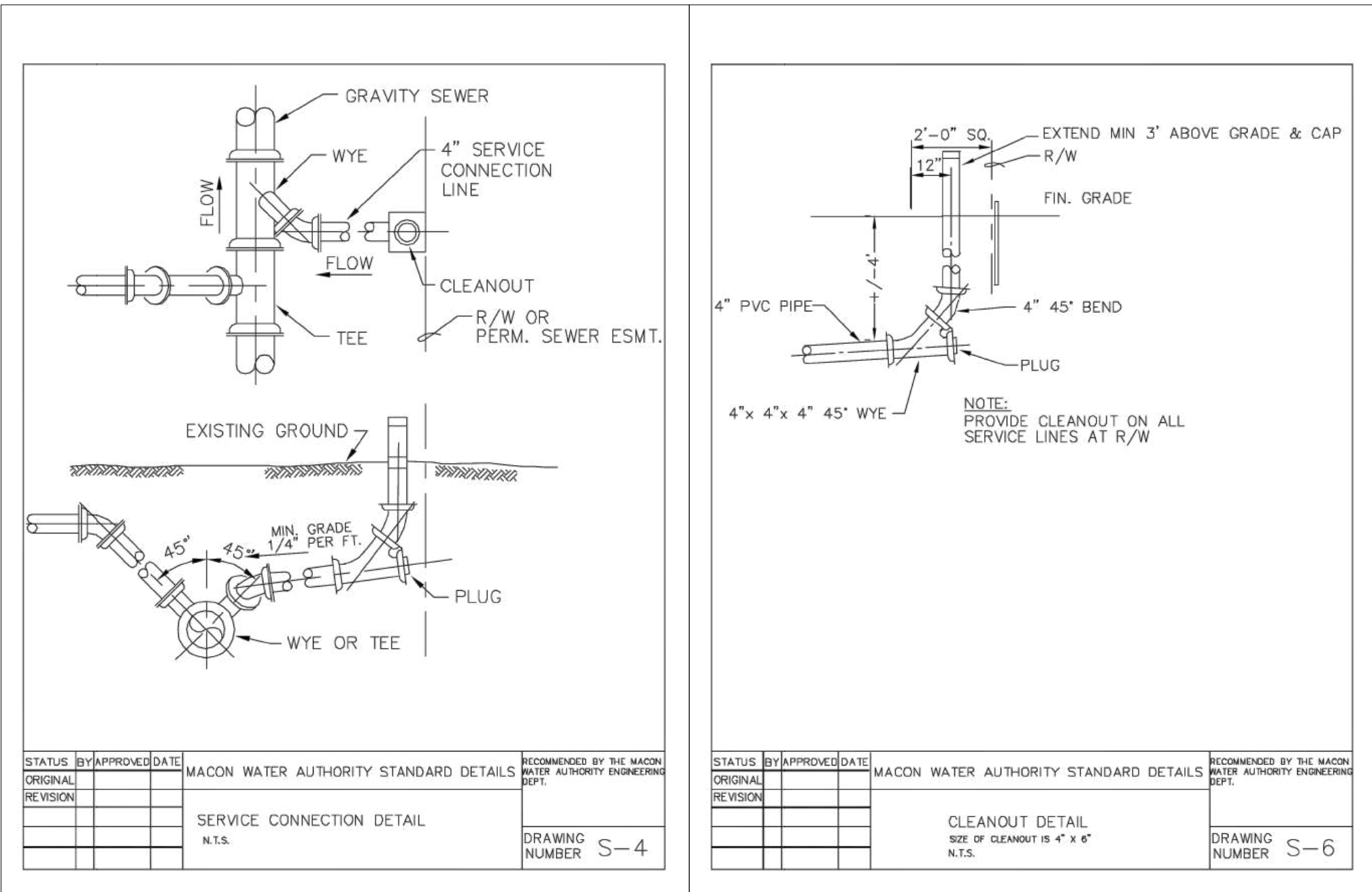


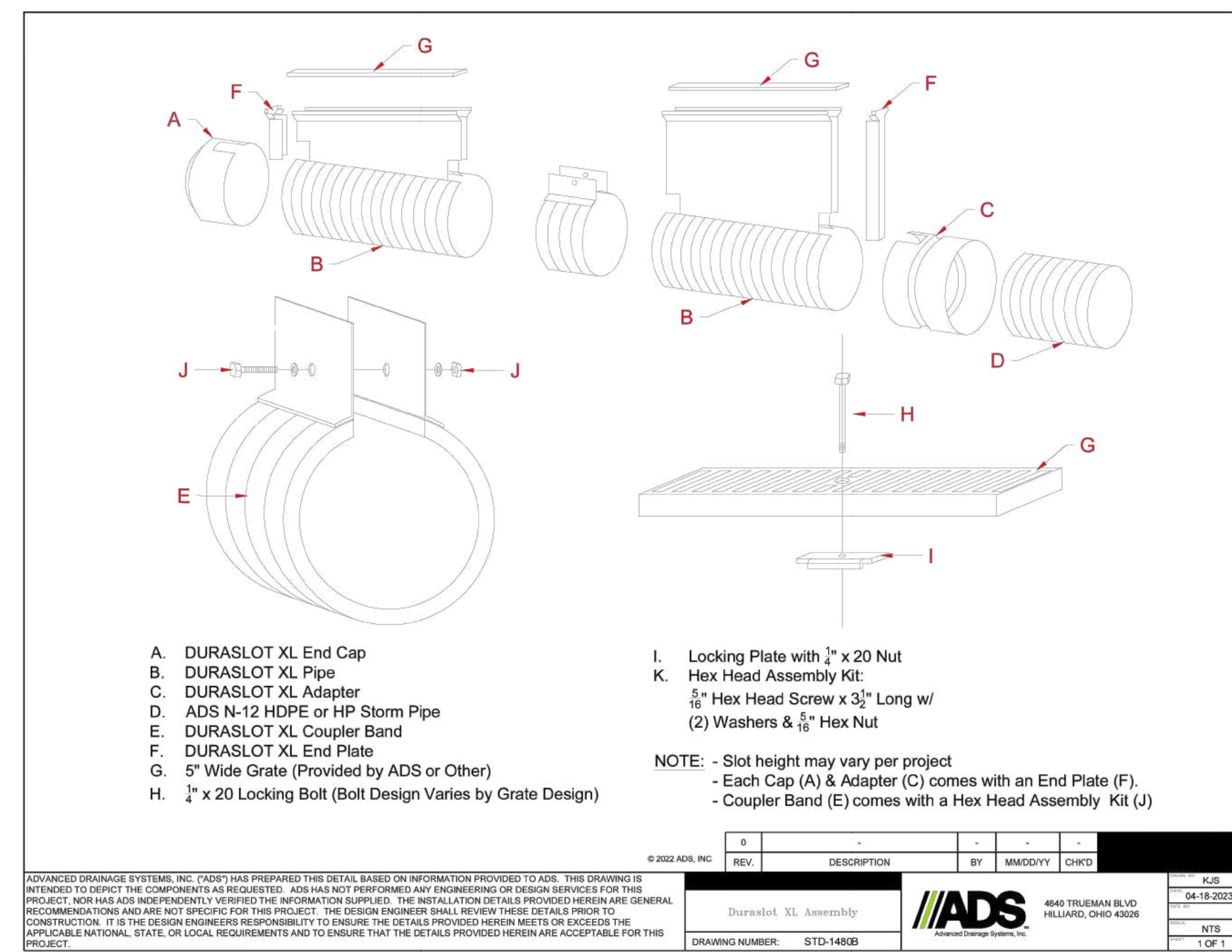
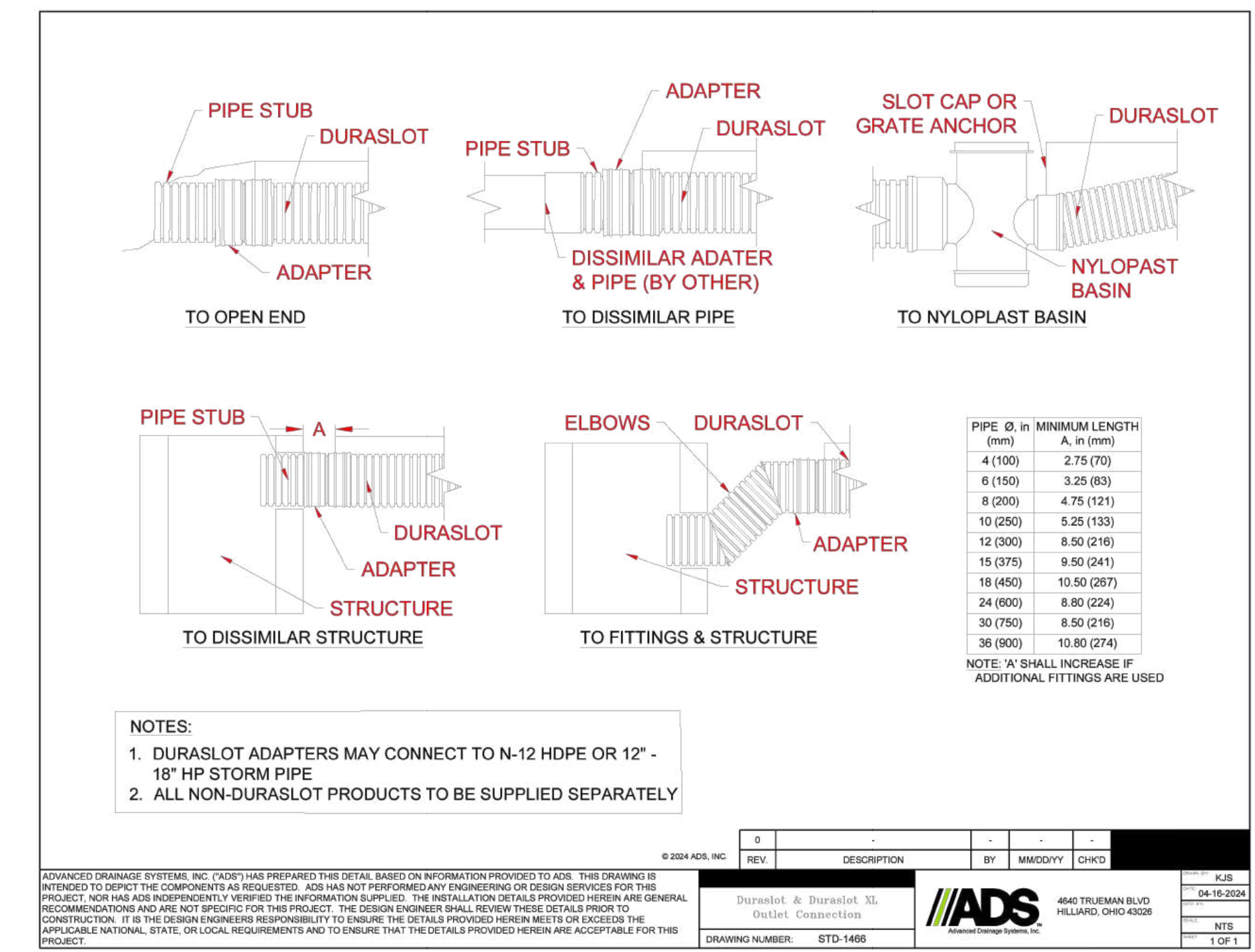
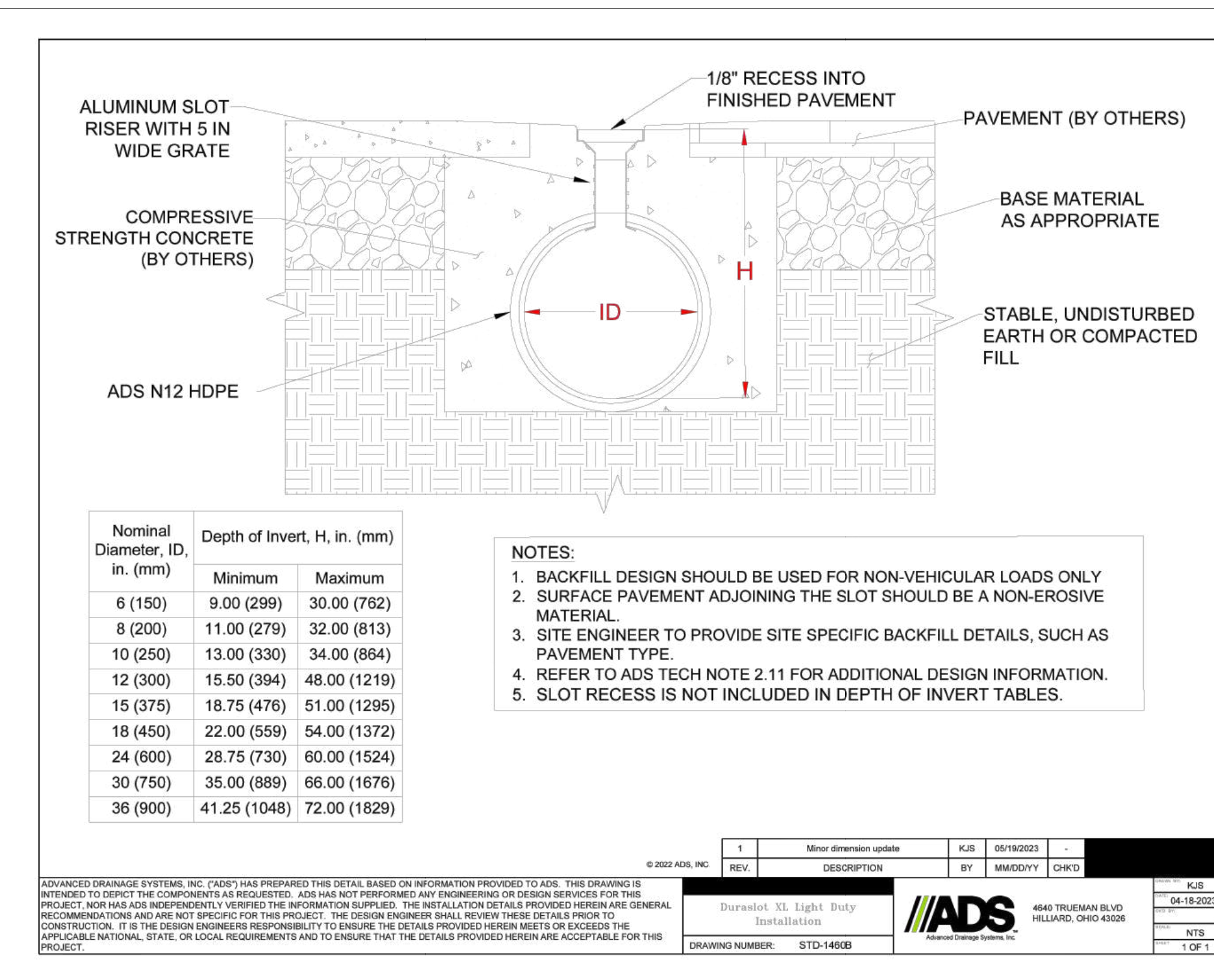
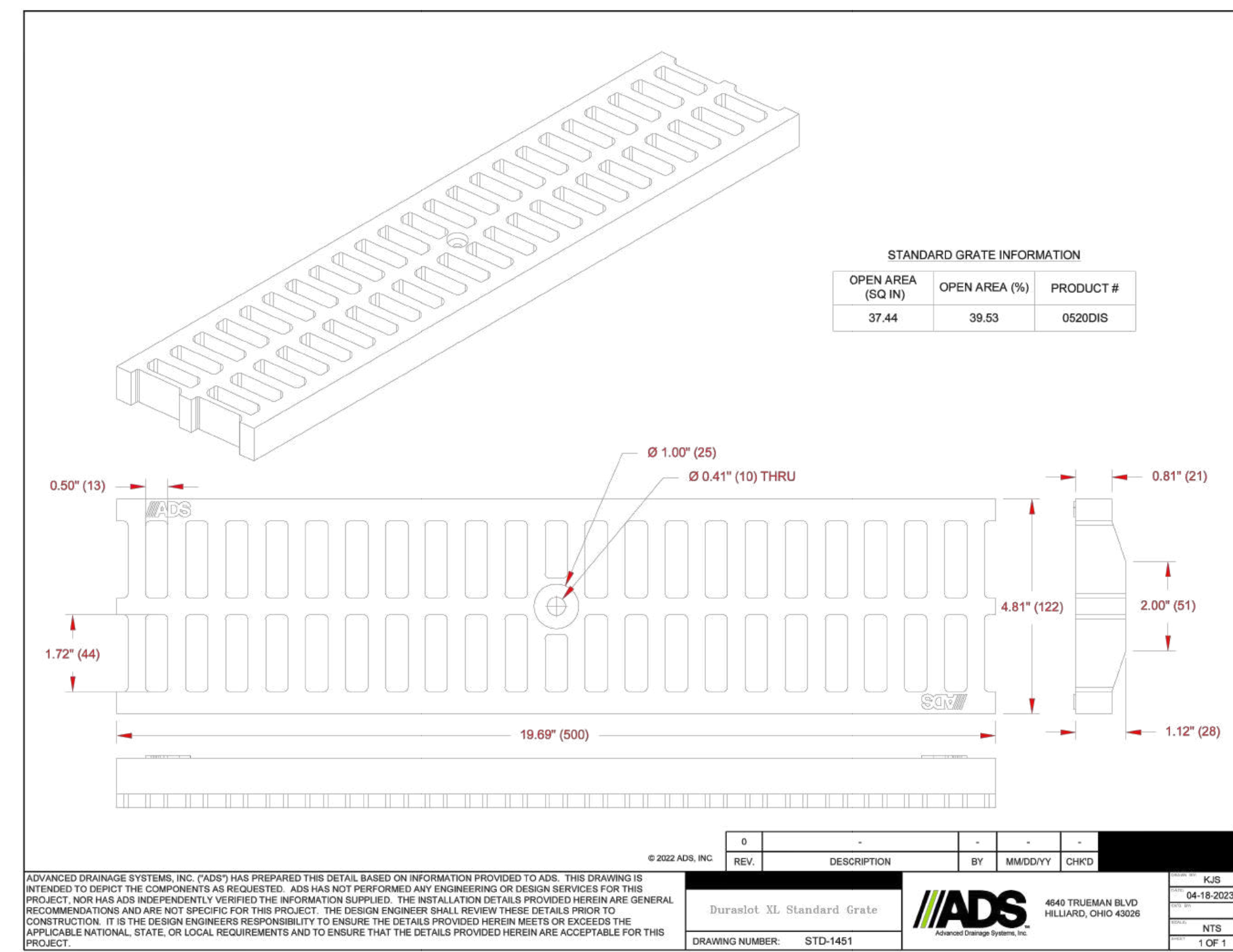
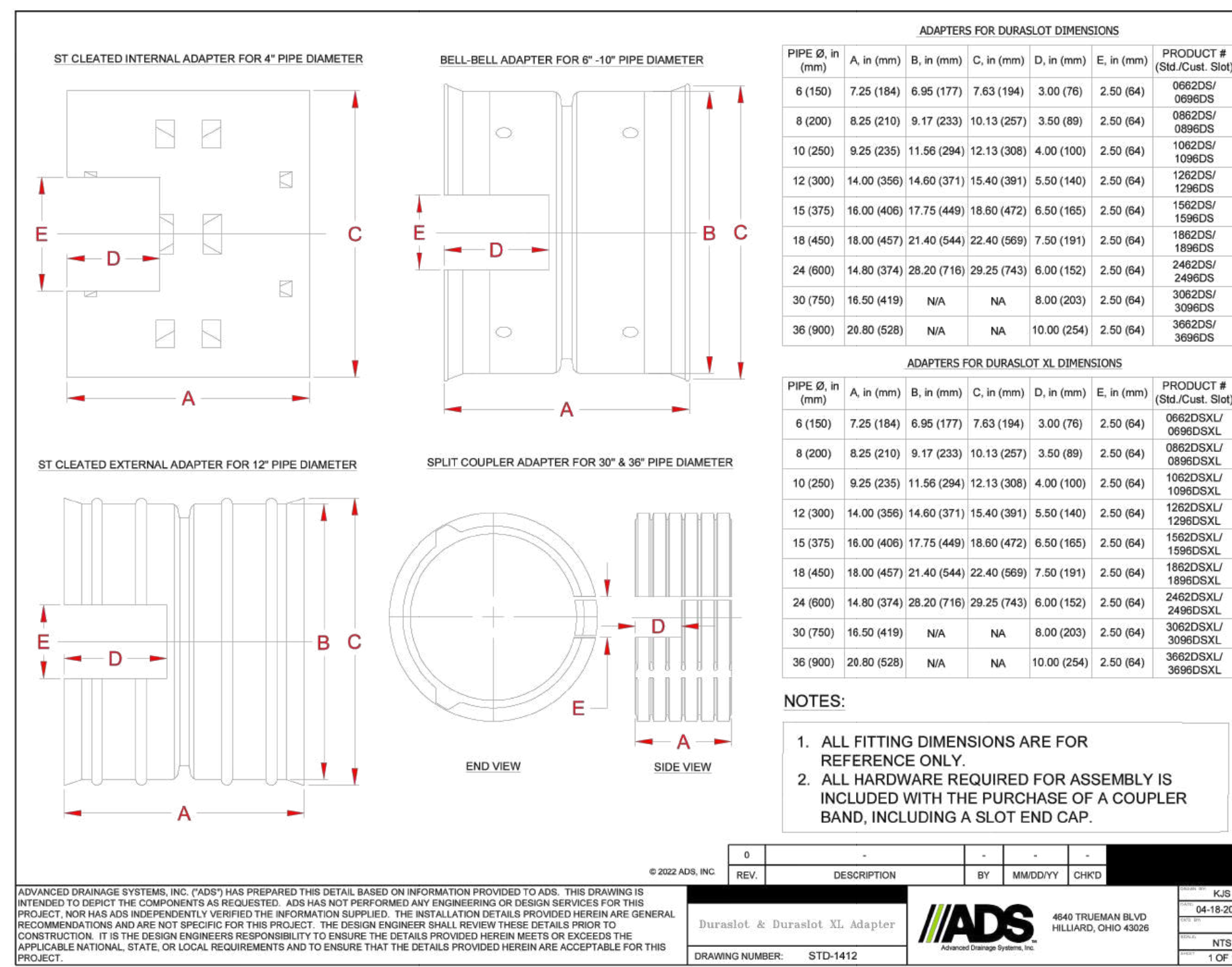
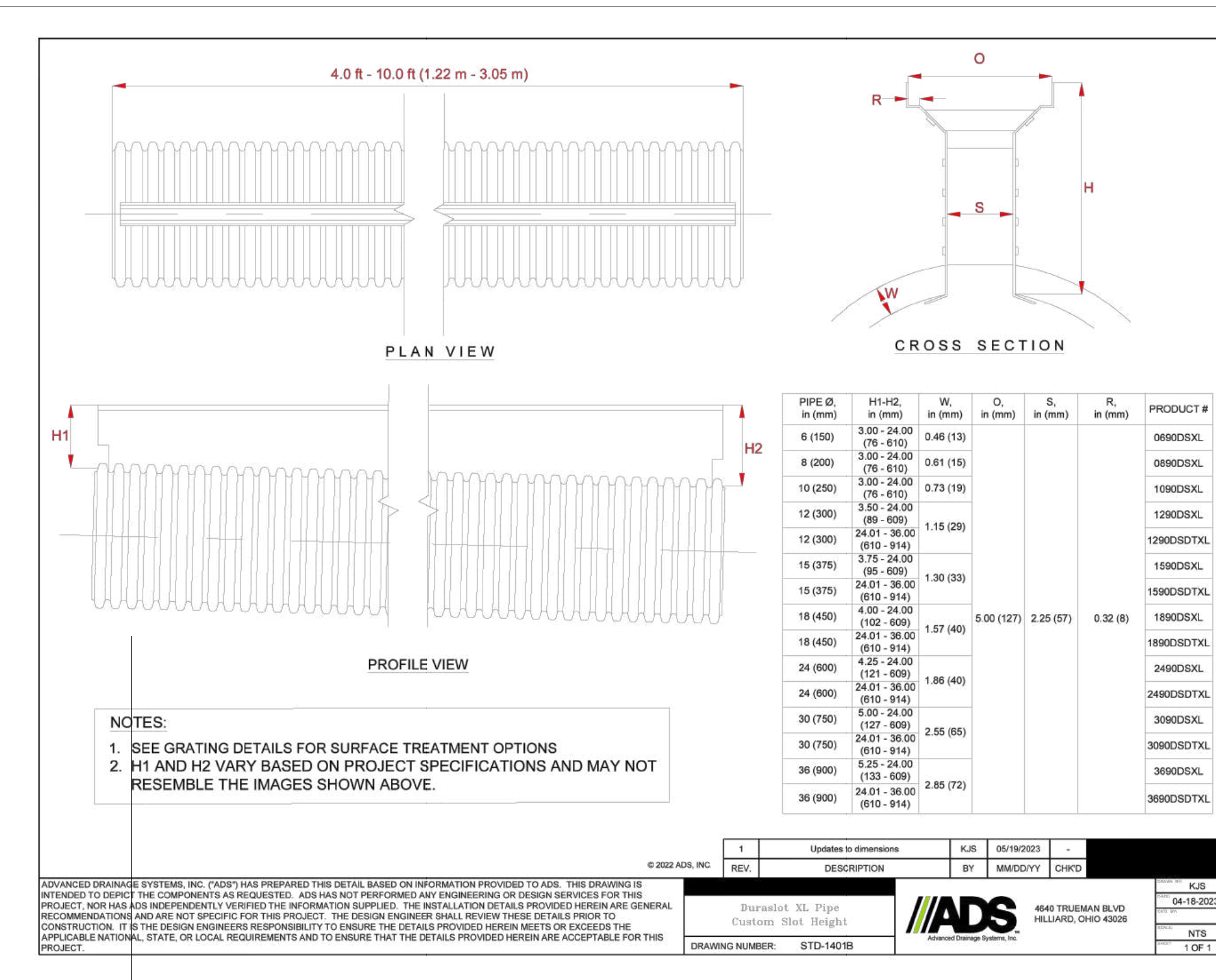
JUNCTION BOX DETAIL

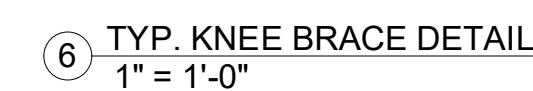
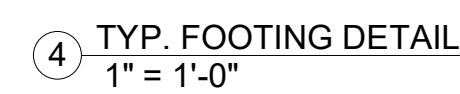
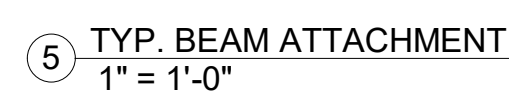
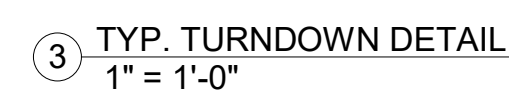


- NOTE:
- PROVIDE EXPANSION JOINTS WHERE CONCRETE WALK IS ADJACENT TO CURB AND/OR BUILDING SLAB AND AT 40' MAX. INTERVALS

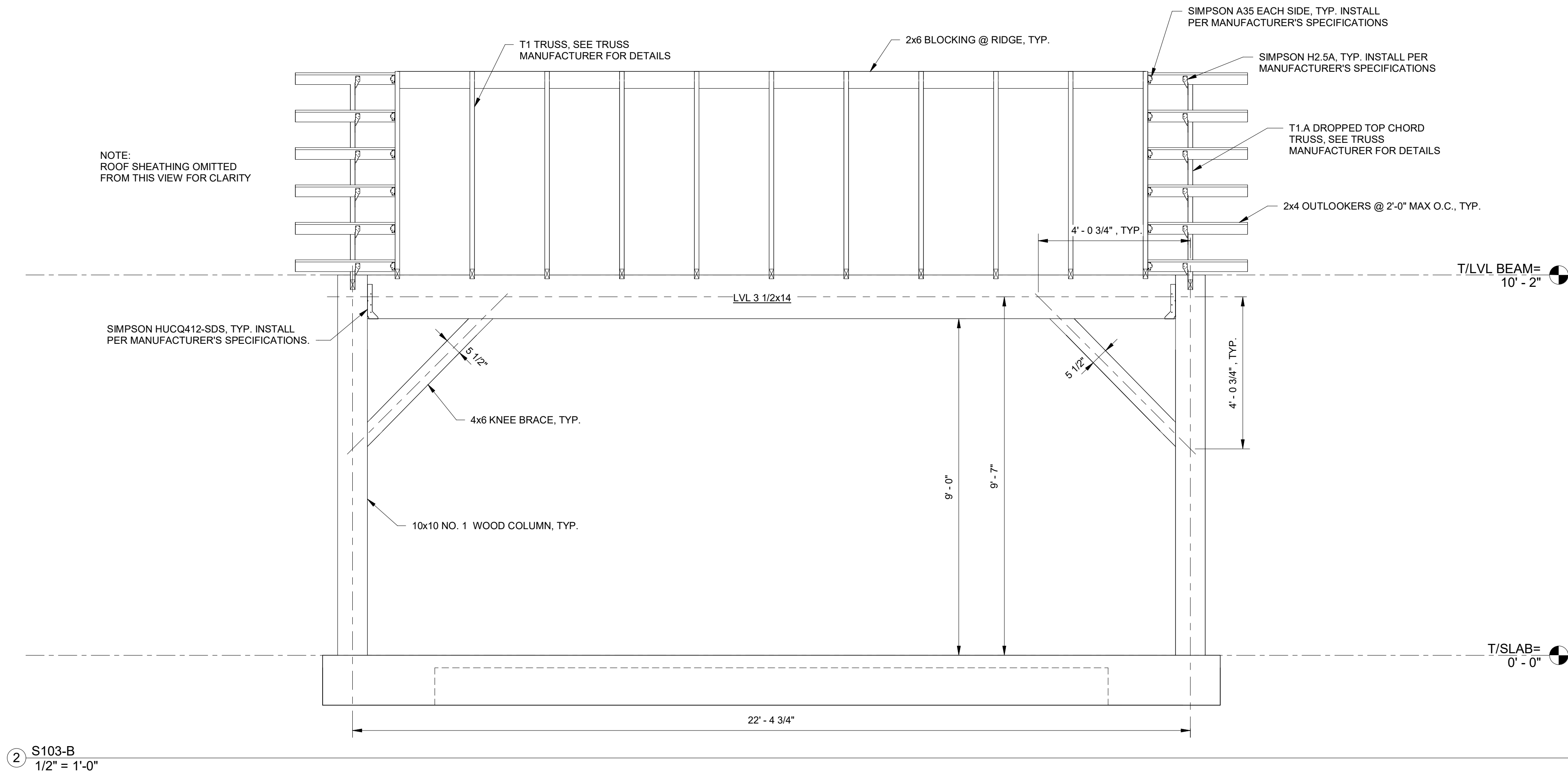
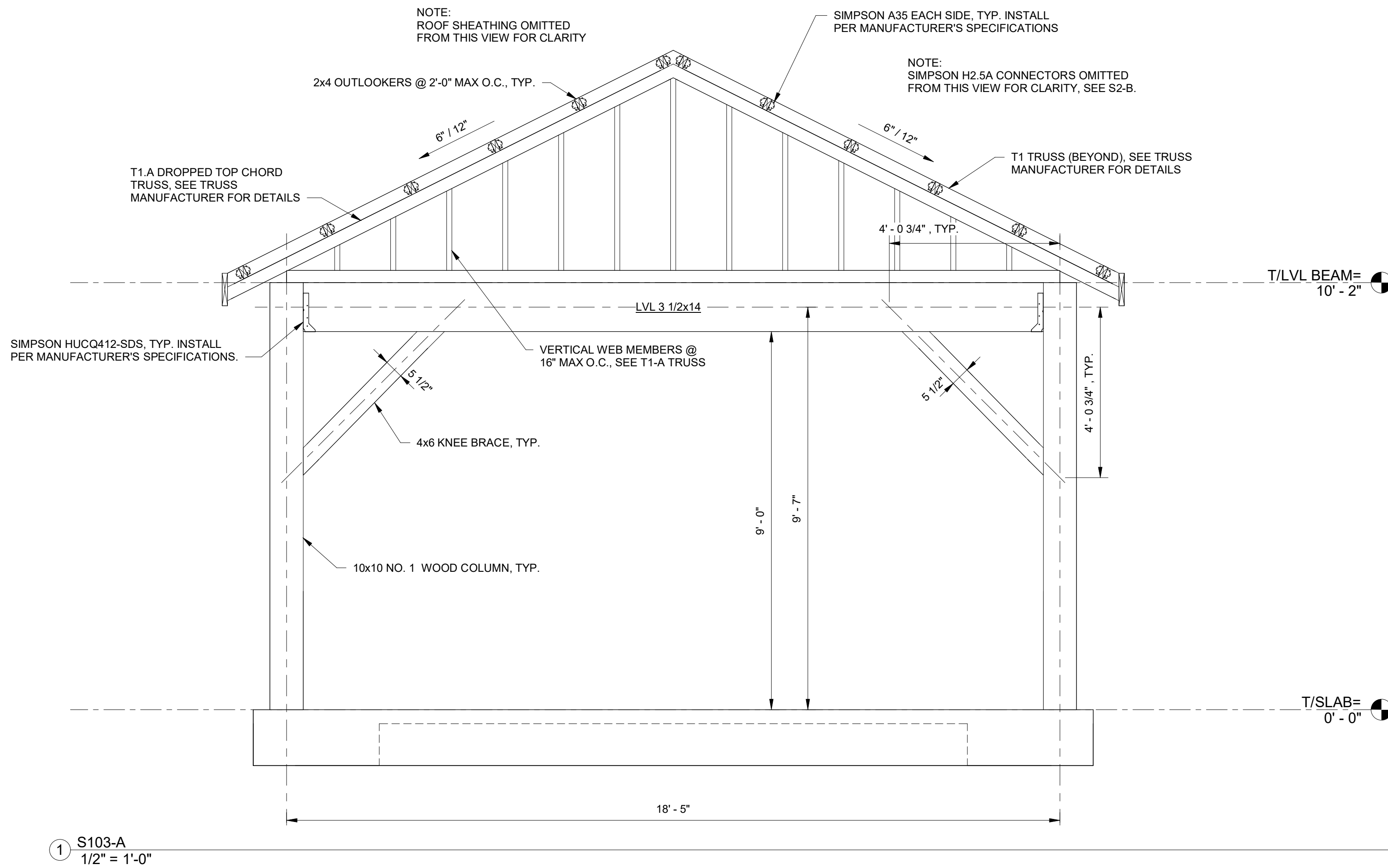
CONCRETE SIDEWALK DETAIL

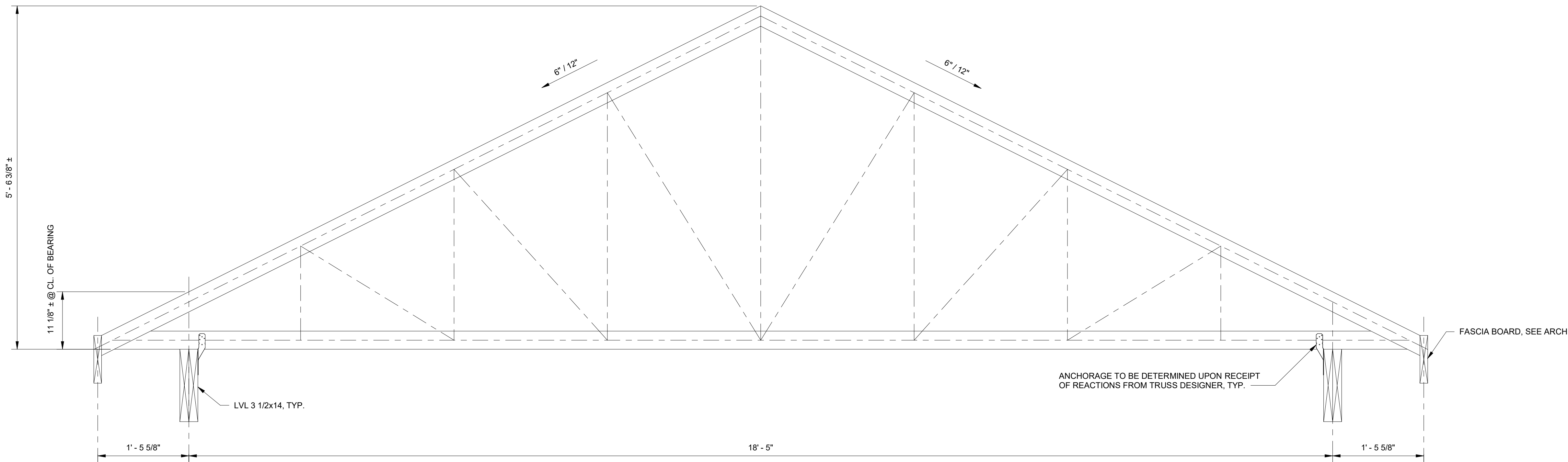




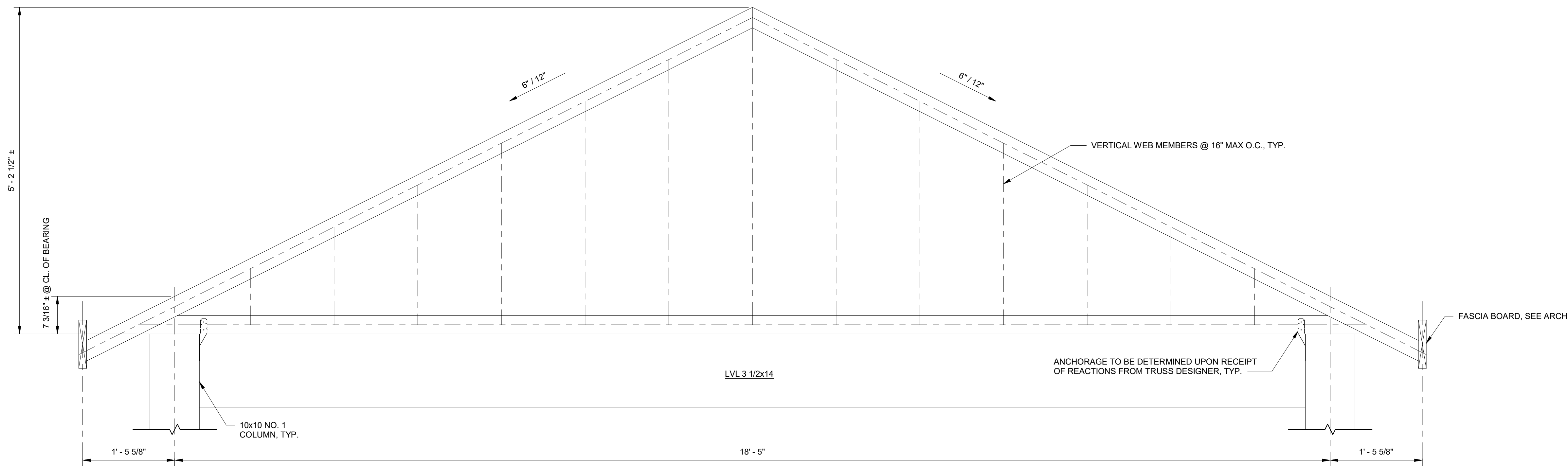


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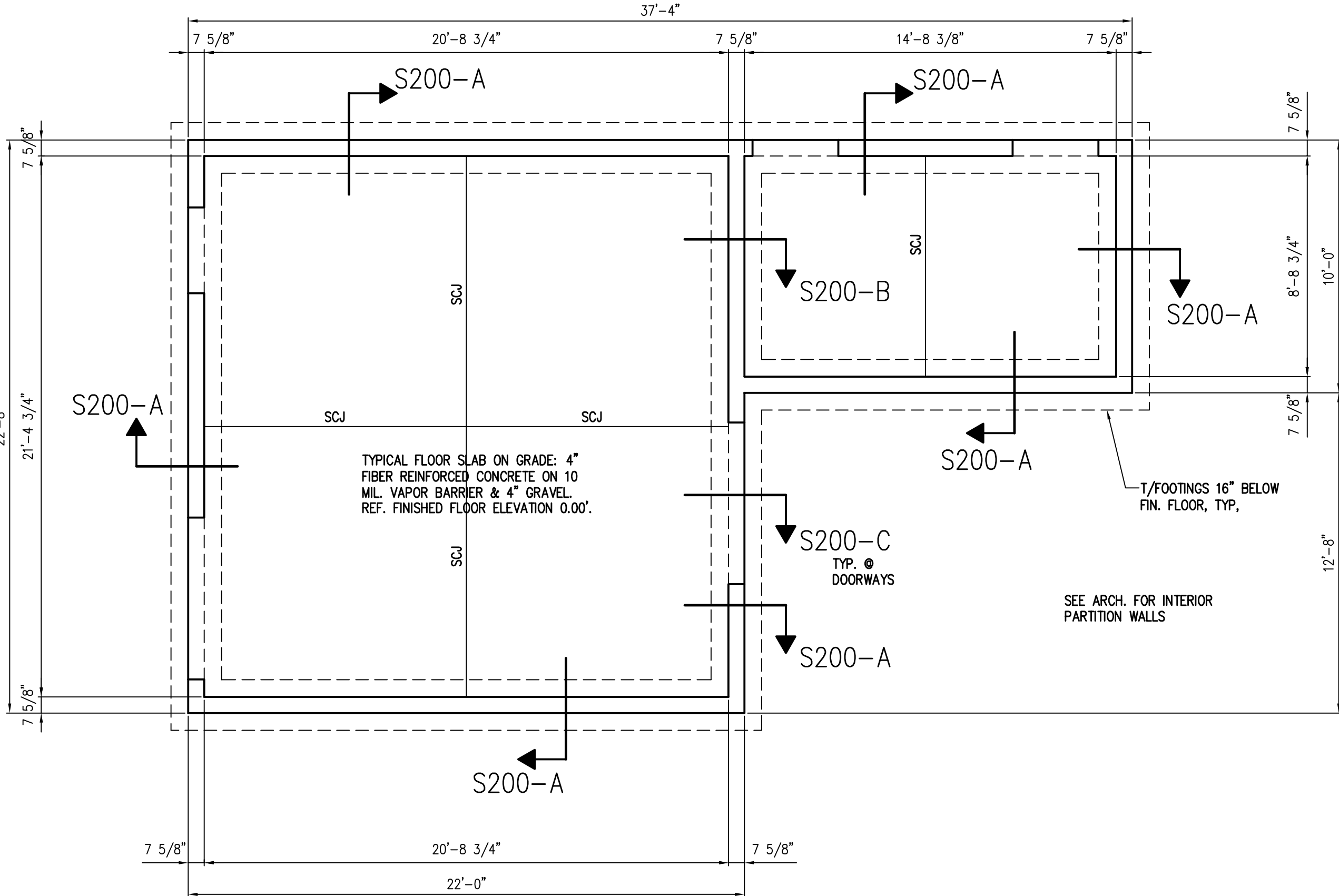




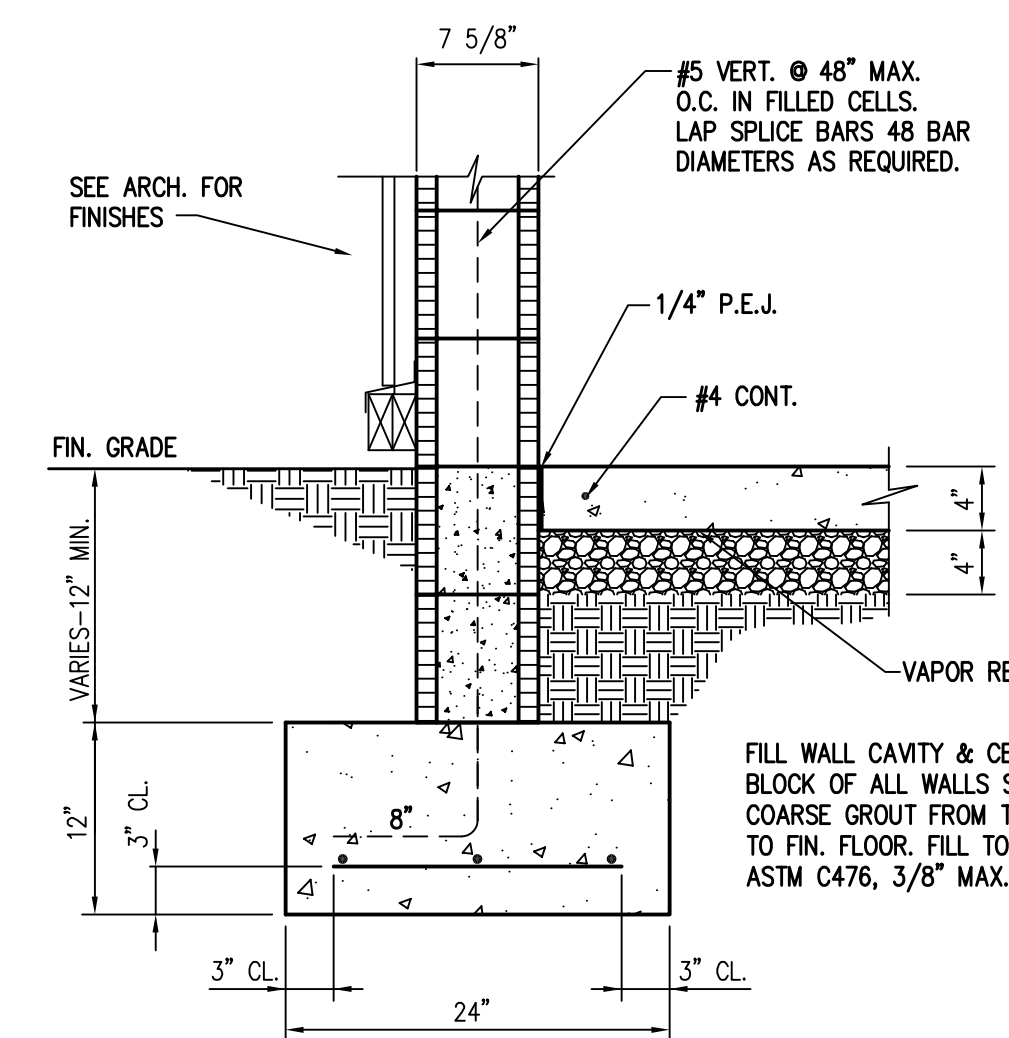
① T1 TRUSS
1" = 1'-0"



② T1-A DROPPED TOP CHORD TRUSS
1" = 1'-0"

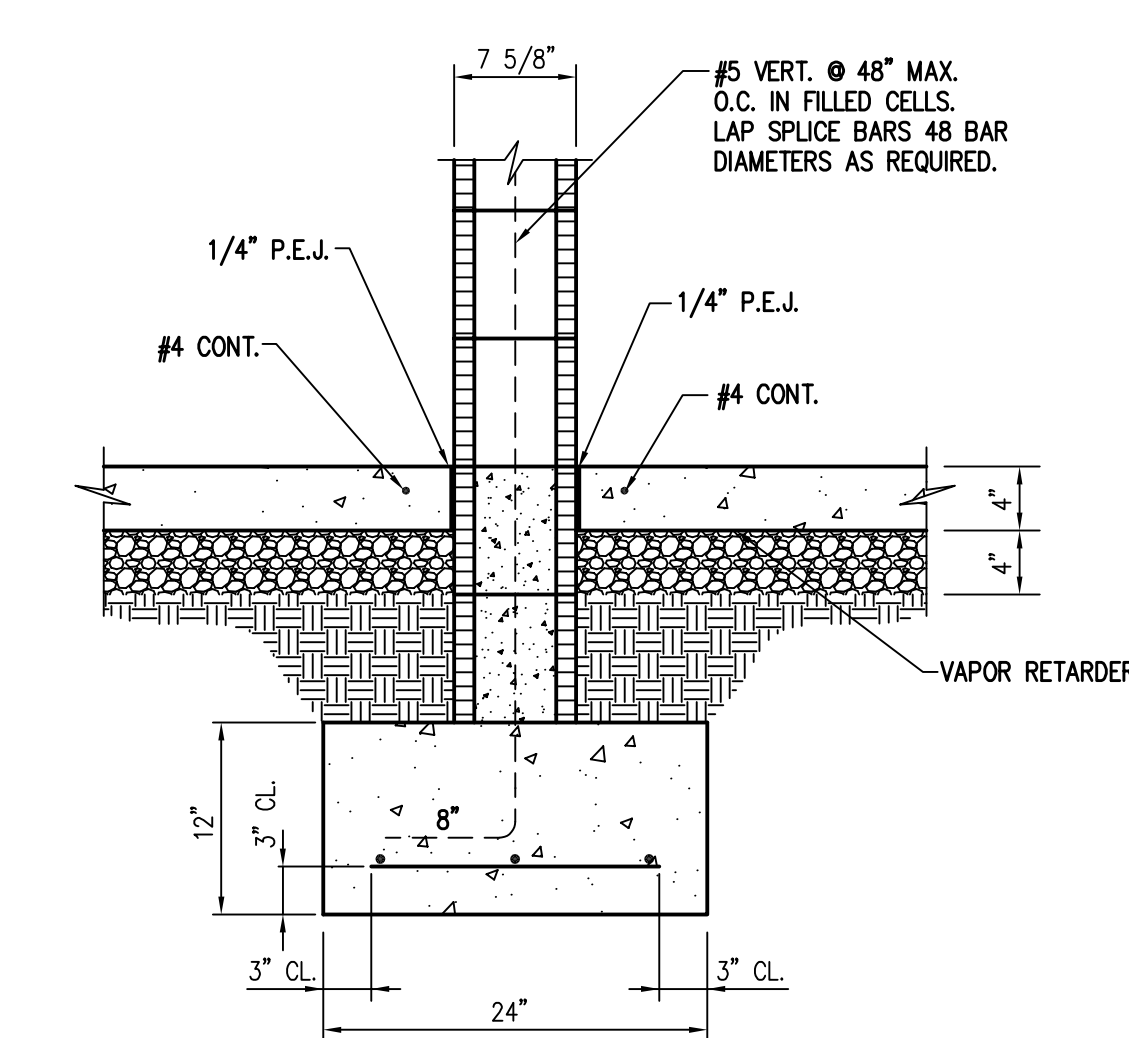


PUMP HOUSE FOUNDATION AND FIRST FLOOR SLAB PLAN
SCALE: 1/4" = 1'-0"



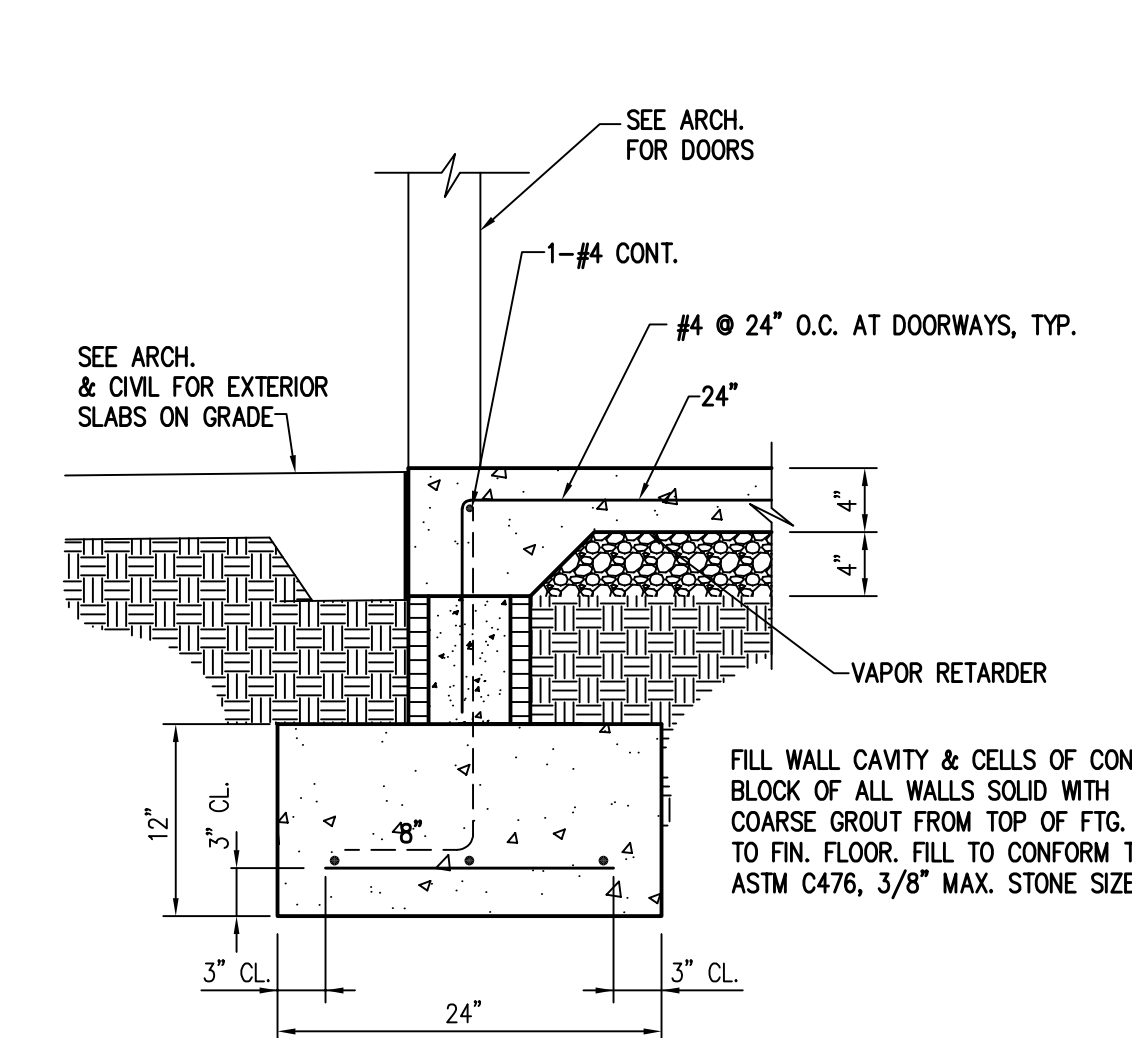
TYPICAL CONT. WALL FOOTING TO BE 24" WIDE x 12" DEEP WITH 3-#5 CONT. 3" CL. FROM BOT. OF FTG. & #3 TRANSVERSE #36" O.C. CONTINUE WALL FTG. BARS THRU COLUMN FTGS. PROVIDE 3-#5 CORNER BARS @ CORNERS & INTERSECTIONS WHERE NO COLUMN FTG. OCCURS.

S200-A
SCALE: 1" = 1'-0"



TYPICAL CONT. WALL FOOTING TO BE 24" WIDE x 12" DEEP WITH 3-#5 CONT. 3" CL. FROM BOT. OF FTG. & #3 TRANSVERSE #36" O.C. CONTINUE WALL FTG. BARS THRU COLUMN FTGS. PROVIDE 3-#5 CORNER BARS @ CORNERS & INTERSECTIONS WHERE NO COLUMN FTG. OCCURS.

S200-B
SCALE: 1" = 1'-0"

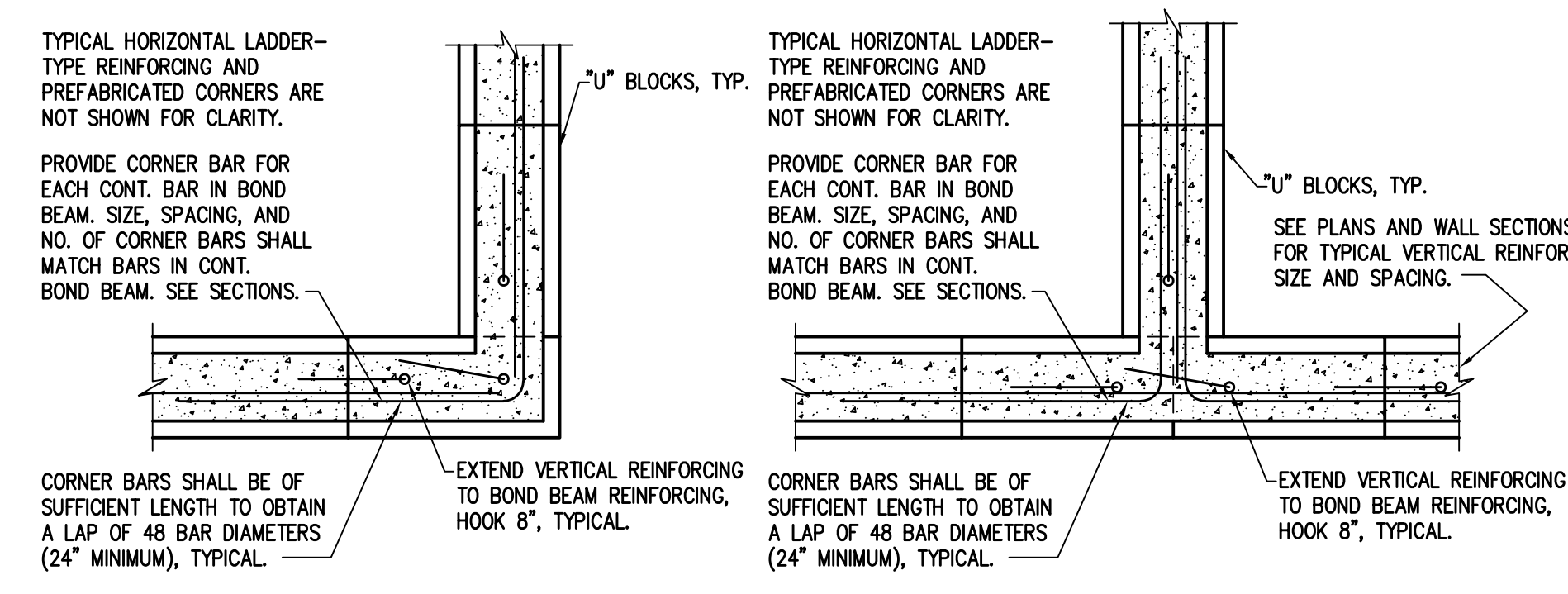


TYPICAL CONT. WALL FOOTING TO BE 24" WIDE x 12" DEEP WITH 3-#5 CONT. 3" CL. FROM BOT. OF FTG. & #3 TRANSVERSE #36" O.C. CONTINUE WALL FTG. BARS THRU COLUMN FTGS. PROVIDE 3-#5 CORNER BARS @ CORNERS & INTERSECTIONS WHERE NO COLUMN FTG. OCCURS.

S200-C
SCALE: 1" = 1'-0"

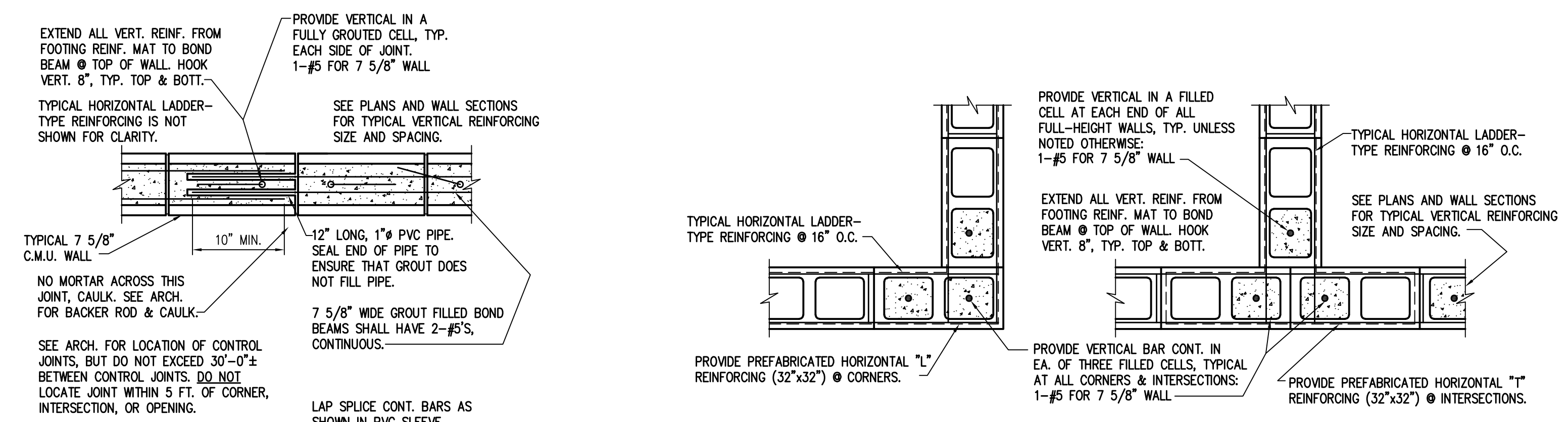
REINFORCED C.M.U. GENERAL NOTES

- ALL MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF TMS 602-16 ("SPECIFICATION FOR MASONRY STRUCTURES"). ALL SUPERVISORY PERSONNEL HAVING ANY CONNECTION WITH THE MASONRY WORK SHALL CERTIFY THAT THEY HAVE FAMILIARIZED THEMSELVES WITH THESE PUBLICATIONS.
- BLOCK SHALL BE LAID IN RUNNING BOND.
- ALL FACE SHELLS OF BLOCKS SHALL BE COMPLETELY MORTARED IN BED JOINTS. HEAD JOINTS SHALL BE COMPLETELY MORTARED VERTICALLY FOR SAME WIDTH AS BED JOINTS. WHERE CELLS ARE TO BE FILLED WITH GROUT, FACE AND WEB SHELLS SHALL BE COMPLETELY MORTARED EXCEPT WHERE ADJACENT CELLS ARE TO BE FILLED. WHERE ADJACENT CELLS ARE TO BE FILLED, THE WEBS COMMON TO BOTH CELLS NEED NOT BE MORTARED.
- CONCRETE MASONRY UNITS SHALL COMPLY WITH ASTM C 90-15, LIGHT WEIGHT (105 PCF). UNIT COMPRESSIVE STRENGTH SHALL BE 2000 PSI, MINIMUM. MANUFACTURER SHALL PROVIDE A WRITTEN CERTIFICATION OF THE UNIT COMPRESSIVE STRENGTH WHICH SHALL BE SAMPLED AND TESTED IN ACCORDANCE WITH ASTM C140-15.
- ALL BLOCK WORK BELOW THE FINISHED FLOOR ELEVATION SHALL BE LAID USING TYPE M MORTAR. ALL BLOCK WORK ABOVE THE FINISHED FLOOR ELEVATION SHALL BE LAID USING TYPE S OR TYPE M MORTAR. MORTAR SHALL COMPLY WITH ASTM C 270-14A.
- ASSUMED F_m FOR EXTERIOR WALLS = 2000 PSI @ 28 DAYS.
- ASSUMED F_m FOR INTERIOR WALLS = 2000 PSI @ 28 DAYS.
- PROVIDE CONT. HORIZONTAL JOINT REINFORCING @ 16" O.C. VERTICALLY.
 - IN ALL 7 5/8" MASONRY WALLS HORIZONTAL JOINT REINFORCING SHALL BE LADDER TYPE WITH 2-CONT. W1.7 (9 GA.) WIRES WITH W1.7 (9 GA.) CROSS TIES @ 16" O.C.
 - HORIZONTAL JOINT REINFORCING SHALL COMPLY WITH ASTM A957 - 16 AND SHALL BE HOT DIP GALVANIZED PER ASTM A153 - 16.
 - LAP SPICE ALL JOINT REINFORCING IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS. USE PREFABRICATED SECTIONS AT INTERSECTIONS AND CORNERS. DO NOT CUT OR BEND.
- ALL CELLS AND VOIDS NOTED AS FILLED SHALL BE FILLED SOLID WITH GROUT. PROVIDE GROUT THAT:
 - CONFORMS TO MATERIAL REQUIREMENTS OF ASTM C476-LATEST EDITION.
 - HAS A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI @ 28 DAYS (TESTED PER ASTM C1019).
 - HAS A SLUMP FLOW OF 8 IN TO 11 IN AS DETERMINED BY ASTM C143
 - HAS A VISUAL STABILITY INDEX (VSI) LESS THAN OR EQUAL TO 1 AS DETERMINED IN ACCORDANCE WITH ASTM C1611/C161M.
 - INCLUDES COARSE AGGREGATE NOT EXCEEDING 3/8" IN DIMENSION.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
 - PROVIDE A CONTINUOUS GROUT FILLED BOND BEAM (WITH 2-CONTINUOUS #5'S) AT 8'-0" MAXIMUM ON CENTER VERTICALLY IN FULL HEIGHT OF ALL 7 5/8" REINFORCED MASONRY WALLS.
 - PROVIDE A CONTINUOUS GROUT FILLED BOND BEAM (WITH 2-CONTINUOUS #5'S) AT THE TOPS OF ALL 7 5/8" MASONRY WALLS.
 - PROVIDE KNOCK-OUT BLOCKS FOR BOND BEAMS WHERE SHOWN OR NOTED. PROVIDE U-BLOCKS FOR BOND BEAMS IN ALL OTHER WALLS.
 - VERTICAL WALL REINFORCING IN CENTER OF FULLY GROUTED CELLS WILL BE REQUIRED AT:
 - SPACINGS SHOWN ON PLANS & DETAILS.
 - IN EACH OF 3 FILLED CELLS AT ALL CORNERS AND INTERSECTIONS (SEE ASSOC. DETAILS, THIS SHEET)
 - IN FILLED CELLS ON EA. SIDE OF ALL OPENINGS (AS INDICATED IN UNTEL SCHEDULE)
 - IN FILLED CELLS ON EACH SIDE OF EACH INTERRUPTING COLUMN (SEE ASSOC. DETAILS, THIS SHEET)
 - IN FILLED CELLS ON EACH SIDE OF EACH EXPANSION/CONTROL JOINT (SEE ASSOC. DETAILS, THIS SHEET)
 - IN FILLED CELL AT EACH "FREE END" OF EACH WALL.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE SHORING FOR WALLS DURING CONSTRUCTION.
- SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL SHOWING ALL FABRICATION DIMENSIONS AND LOCATIONS FOR PLACING REINFORCING STEEL AND ACCESSORIES. SHOW WALL STEEL IN PLAN & ELEVATION. INDICATE CONTROL JOINT LOCATIONS - COORDINATE WITH ARCHITECTURAL DRAWINGS. NO FABRICATION SHALL BEGIN UNTIL SHOP DRAWINGS ARE COMPLETED AND REVIEWED.



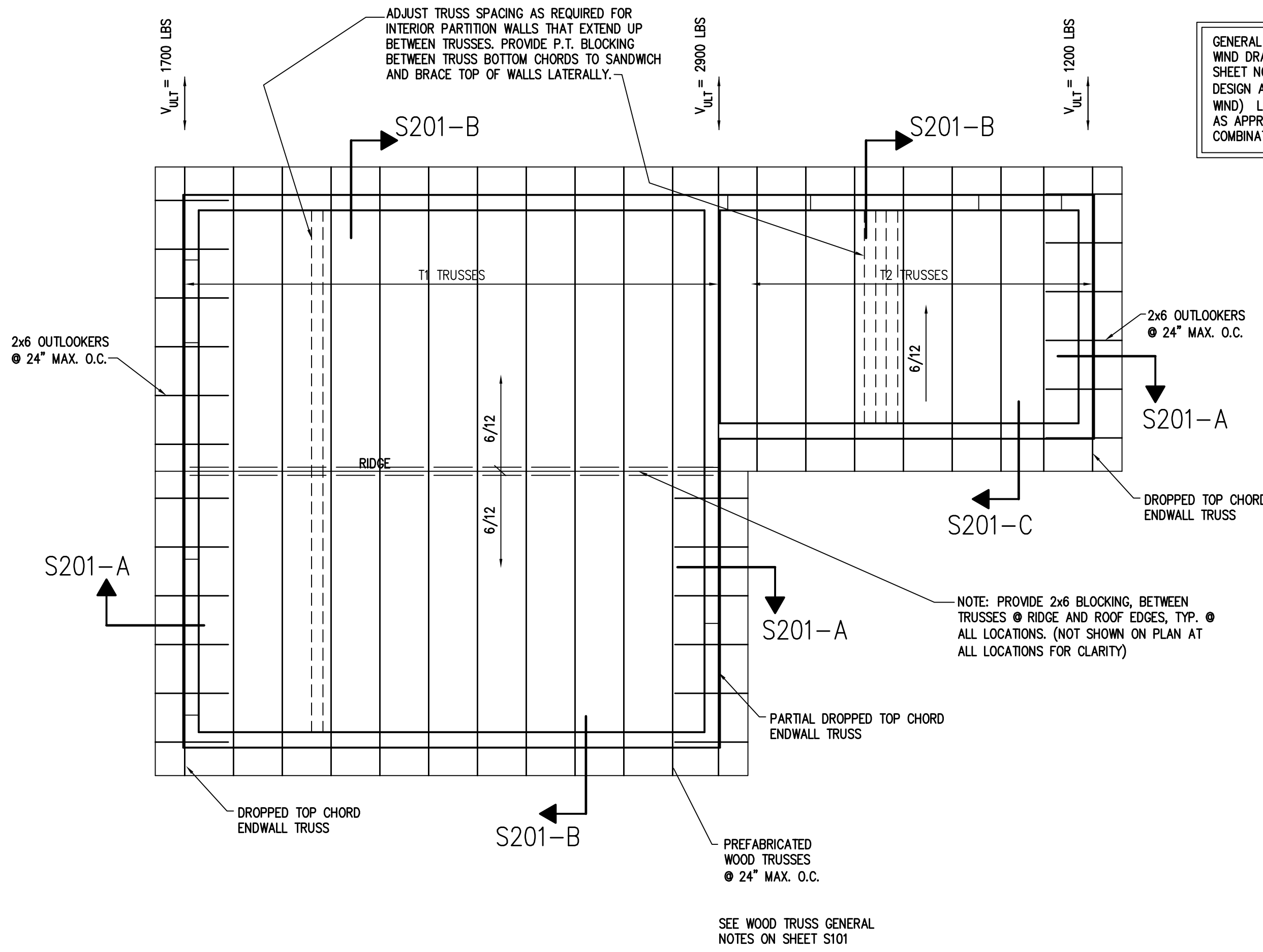
TYPICAL CORNER TYP. EXPANSION/CONTROL JOINT

PLAN DETAILS @ BOND BEAM INTERSECTIONS



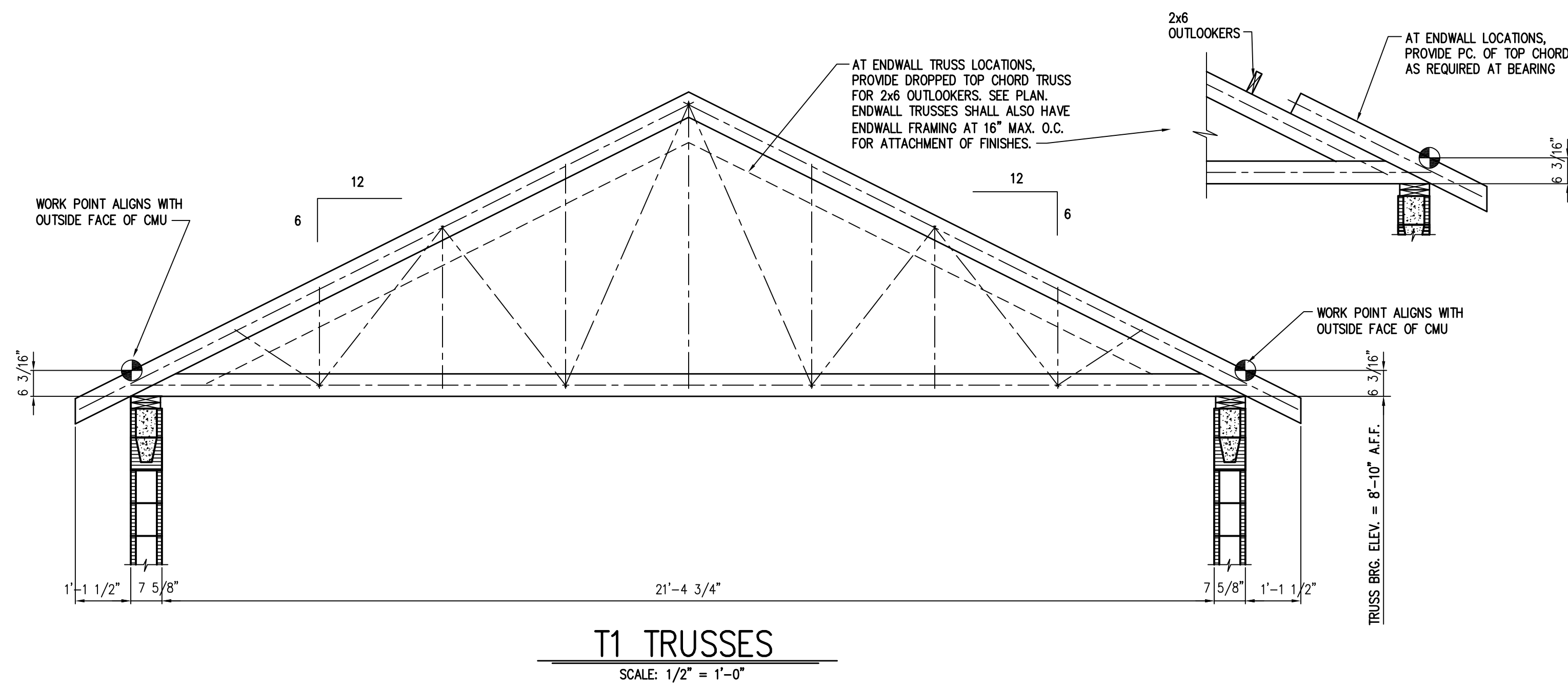
TYPICAL CORNER TYP. EXPANSION/CONTROL JOINT

PLAN DETAILS @ WALL INTERSECTIONS

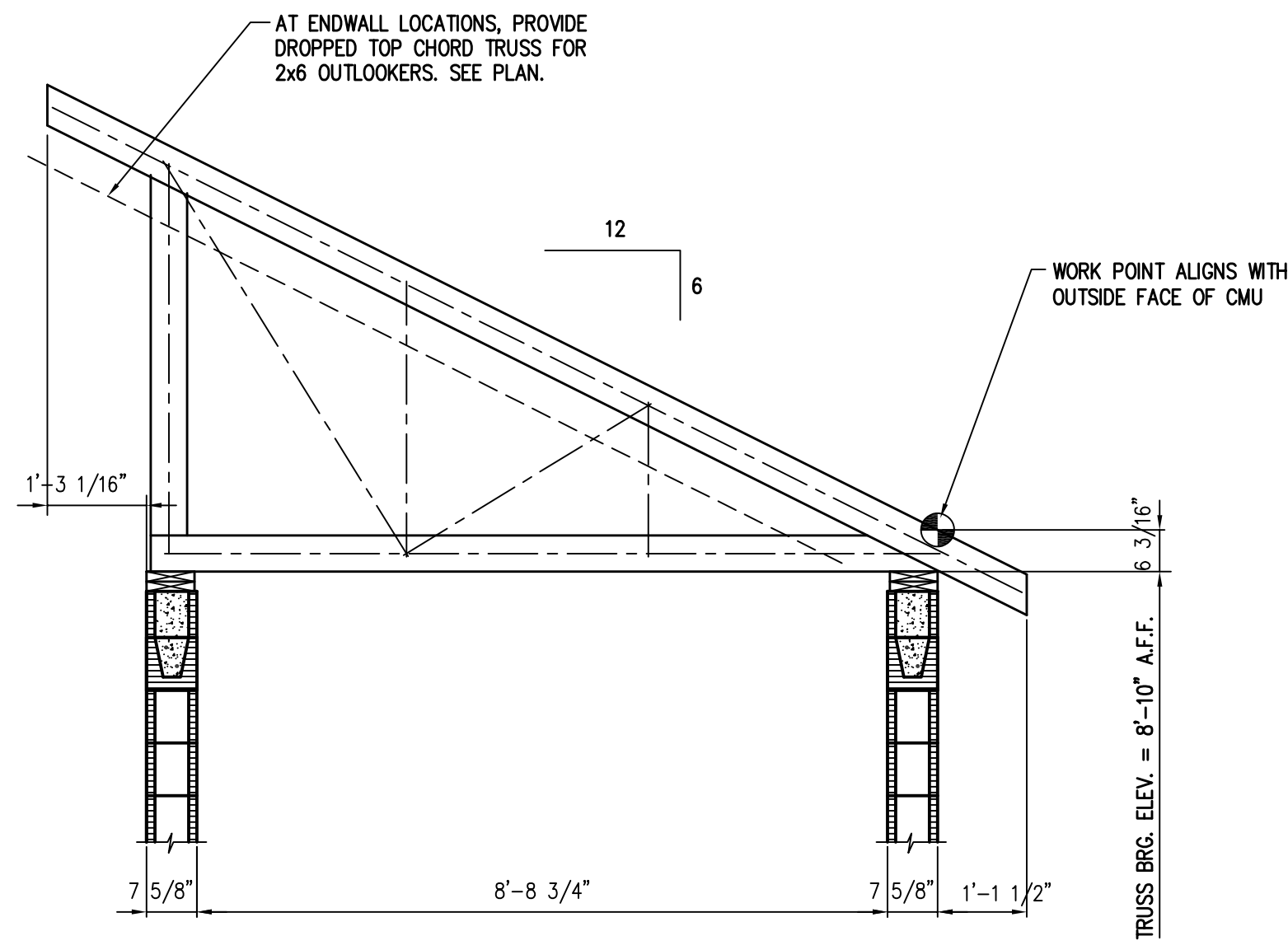


PUMP HOUSE ROOF PLAN
SCALE: 1/4" = 1'-0"

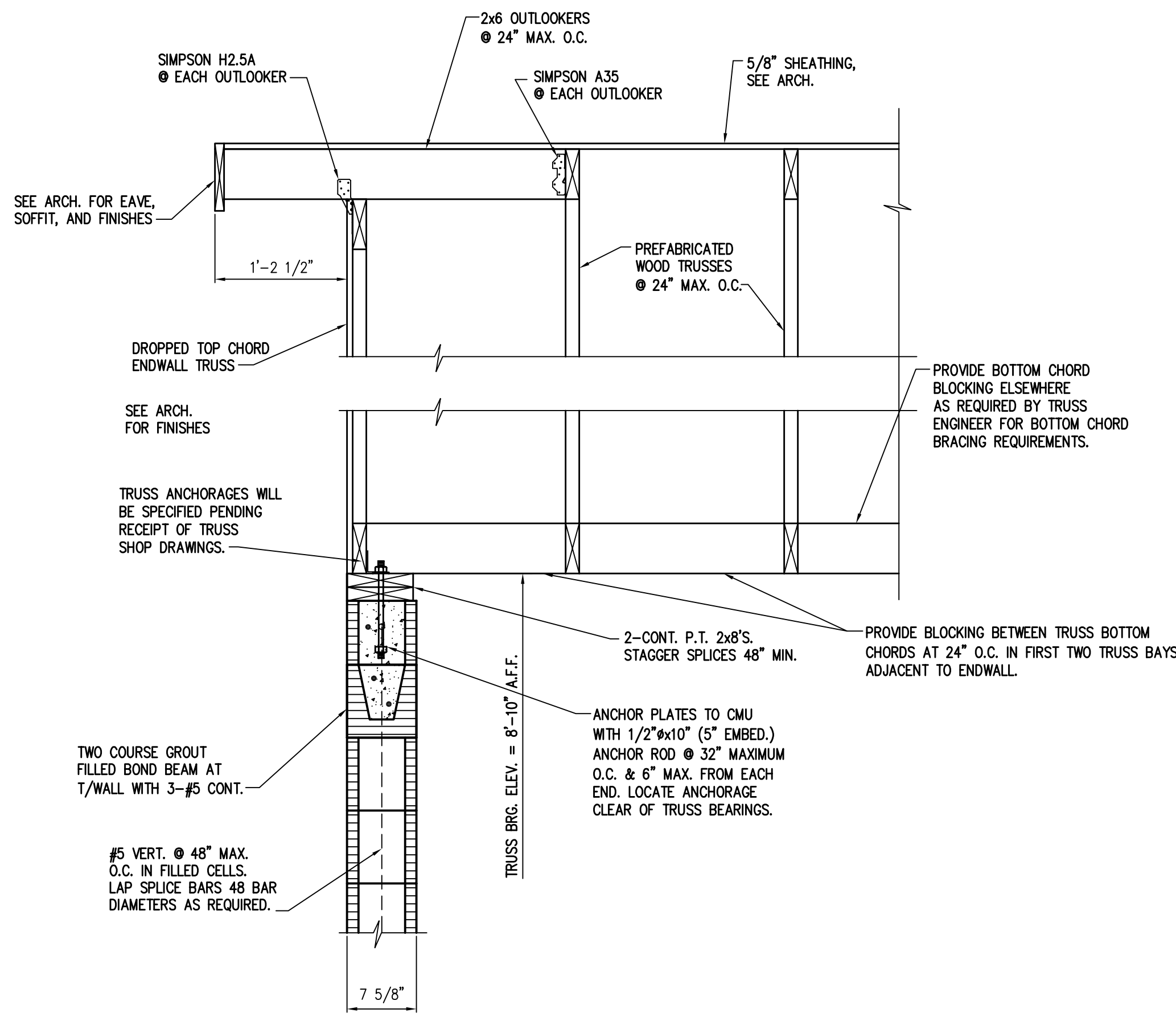
GENERAL NOTE:
WIND DRAG LOADS LISTED ON THIS SHEET NOTED AS V_{ult} FOR TRUSS DESIGN ARE ULTIMATE VALUES (1.0 x WIND) LOADS SHOULD BE COMBINED AS APPROPRIATE IN LOAD COMBINATIONS PER IBC 2018.



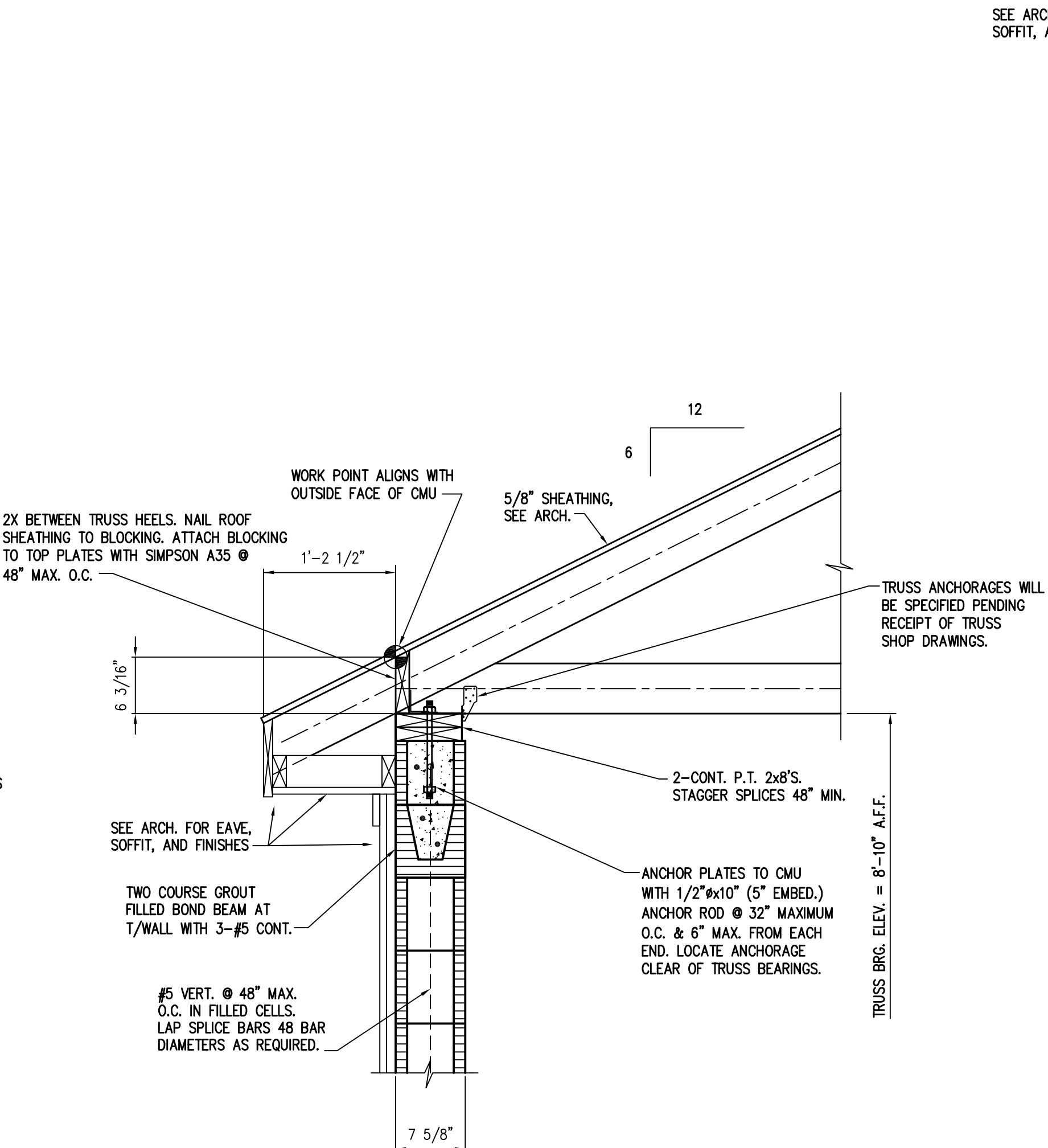
T1 TRUSSES
SCALE: 1/2" = 1'-0"



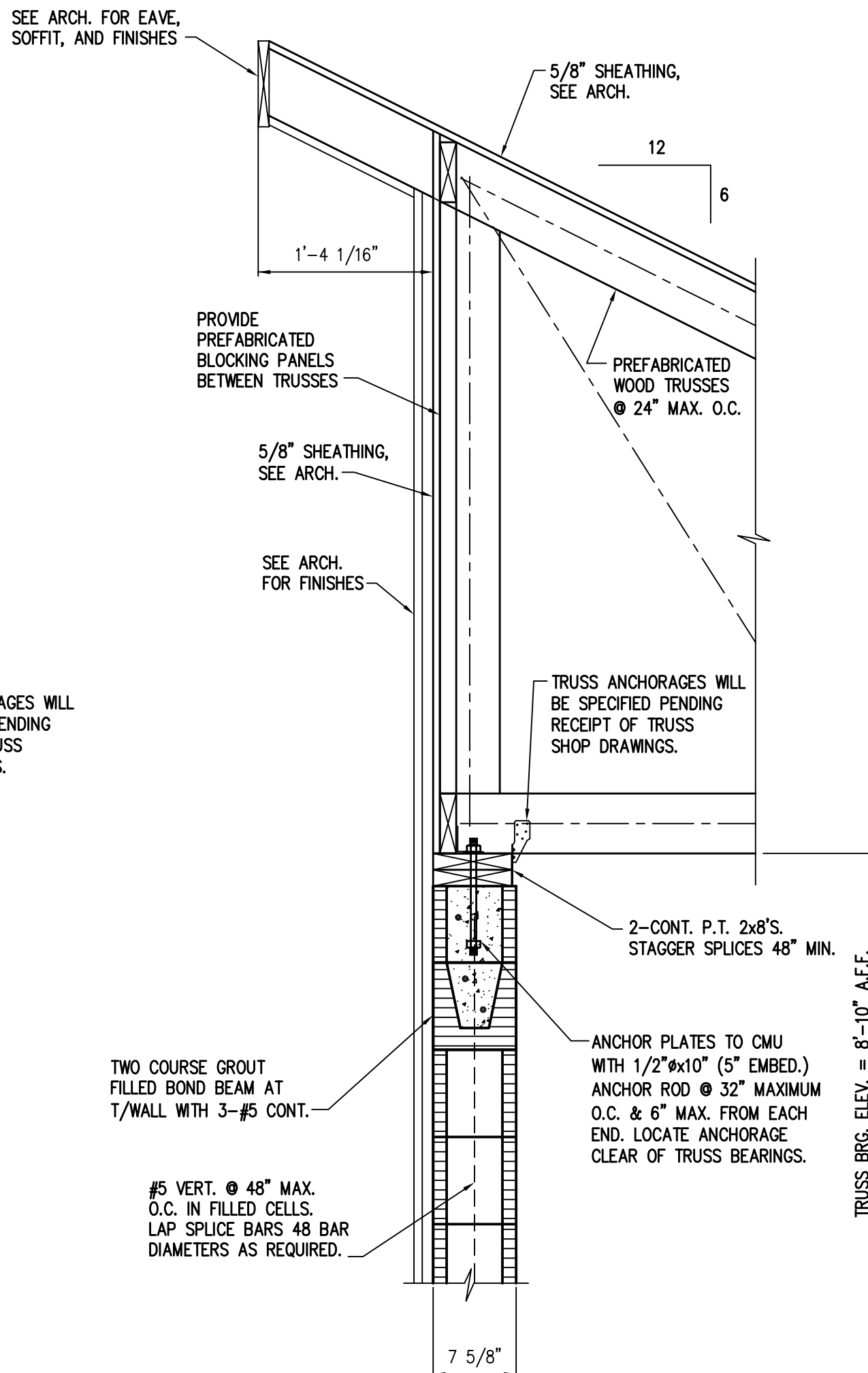
T2 TRUSSES
SCALE: 1/2" = 1'-0"



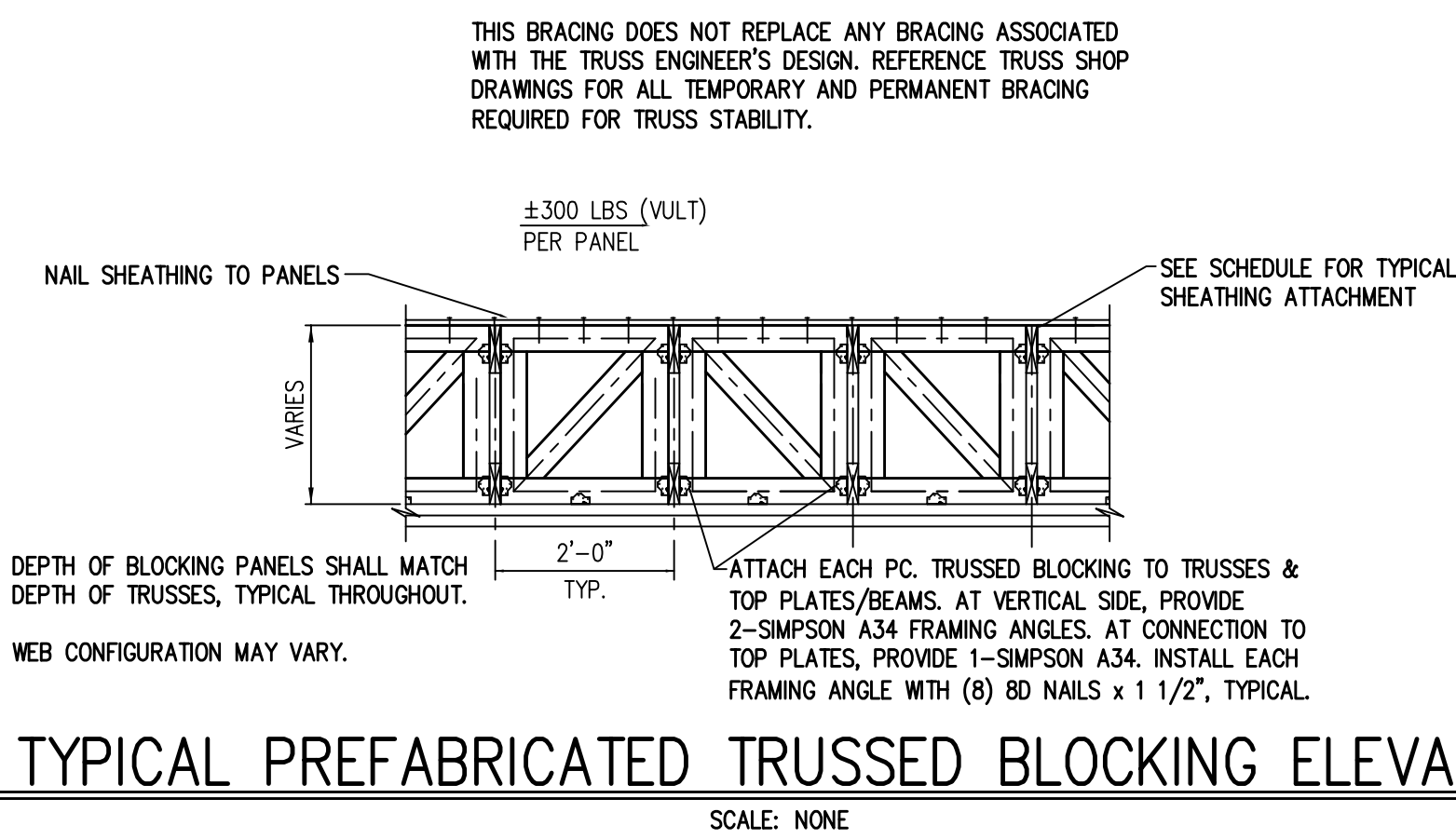
S201-A
SCALE: 1" = 1'-0"



S201-B
SCALE: 1" = 1'-0"



S201-C
SCALE: 1" = 1'-0"



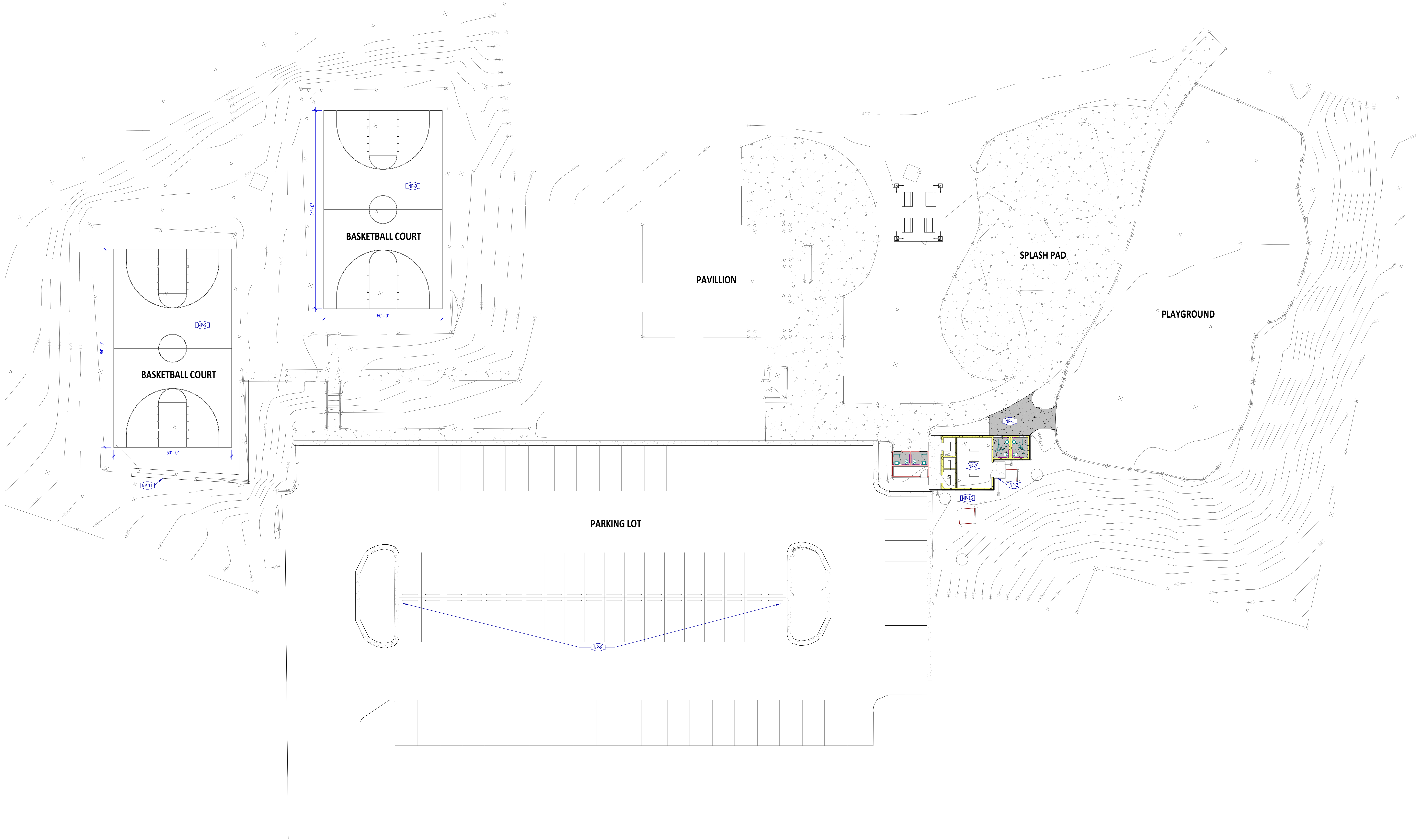
TYP. ROOF DECK FASTENING

- SEE PLAN FOR ROOF PANEL ORIENTATION AND CONFIGURATION.
- U.N.O., DIAPHRAGM NAILING SHALL BE 6" O.C. AT DIAPHRAGM EDGES, 6" O.C. @ PANEL EDGES, AND 12" O.C. AT INTERMEDIATE PANEL SUPPORTS IN THE FIELD OF EACH PANEL. NAILS SHALL BE 100 NAILS WITH 1 1/2" PENETRATION INTO MAIN FRAMING MEMBERS.
- PROVIDE BLOCKING AT ALL PANEL EDGES AT PORCHES & OVERHANGS. BLOCKING SHALL BE MINIMUM 2x AT ALL BLOCKED PANEL EDGES.

TYPICAL ROOF SHEATHING SCHEDULE

ROOF SHEATHING	PANEL EDGE NAILING (E.N.)	PANEL FIELD NAILING (F.N.)	NAILING AT ROOF DIAPHRAGM BOUNDARIES
5/8" WOOD PANEL	100 NAILS AT 6" O.C.	100 NAILS AT 12" O.C.	100 NAILS AT 6" O.C.

POWER DRIVEN NAILS SHALL BE .148" DIAMETER AND A MINIMUM OF 2 1/4" LONG. WOOD PANELS SHALL BE RATED AS STRUCTURAL USE AND CONFORM TO DOC P22. MINIMUM PANELS SHALL HAVE AN EXPOSURE AND SPAN RATING SUITABLE FOR THEIR APPLICATION. PANELS SHALL BE INSTALLED WITH THE LONG DIMENSION ACROSS THE SUPPORTING FRAMING. FASTENERS SHALL PENETRATE FRAMING BY 1 1/2" MIN. NAILS SHALL BE AT LEAST 3/8" FROM PANEL EDGES. STAGGER NAILS ON ADJACENT PANEL EDGES BEING FASTENED TO THE SAME SUPPORTING MEMBER. PLYWOOD CLIPS SHALL BE PROVIDED AT UNLOCKED EDGES OF ROOF PANELS.



KEYNOTES - NEW WORK - FLOOR PLANS	
NOTE	DESCRIPTION
NP-1	PROVIDE NEW CONCRETE POUR TO CREATE A PATHWAY THAT INTEGRATES THE RESTROOMS WITH THE MAIN PATH
NP-2	PROVIDE 5' 0" X 7' 0" CONCRETE PAD
NP-7	PROVIDE NEW EXHAUST FAN WITH MOTOR
NP-8	PROVIDE WHEEL STOPS AT ALL INTERIOR PARKING SPOTS. REFER CIVIL FOR DETAIL.
NP-9	REMOVE SURFACE AT (2) EXISTING BASKETBALL COURTS. REGRADE AND RESURFACE BOTH COURTS. REF. CIVIL.
NP-11	REFER CIVIL FOR EXTENT OF DRAINAGE IN THIS AREA
NP-15	EXISTING PUMP HOUSE TO BE DISCONNECTED AND RELOCATED DURING CONSTRUCTION. COORDINATE WITH SPLASH PAD CONTRACTOR AND OWNER. REFER TO ELECTRICAL FOR ELECTRICAL DISCONNECTION.



MACON-BIBB COUNTY PARKS
AND RECREATION

FILMORE THOMAS PARK
RENOVATION

3795 LOG CABIN DR, MACON, GA 31204-9753

These drawings convey certain contractual information through the use of color. Do NOT use drawings printed in black and white or grayscale.
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Project Status:
Revision No (if any): Revision Date:
Project No: 2024-081 Current Date:
Drawing Name:



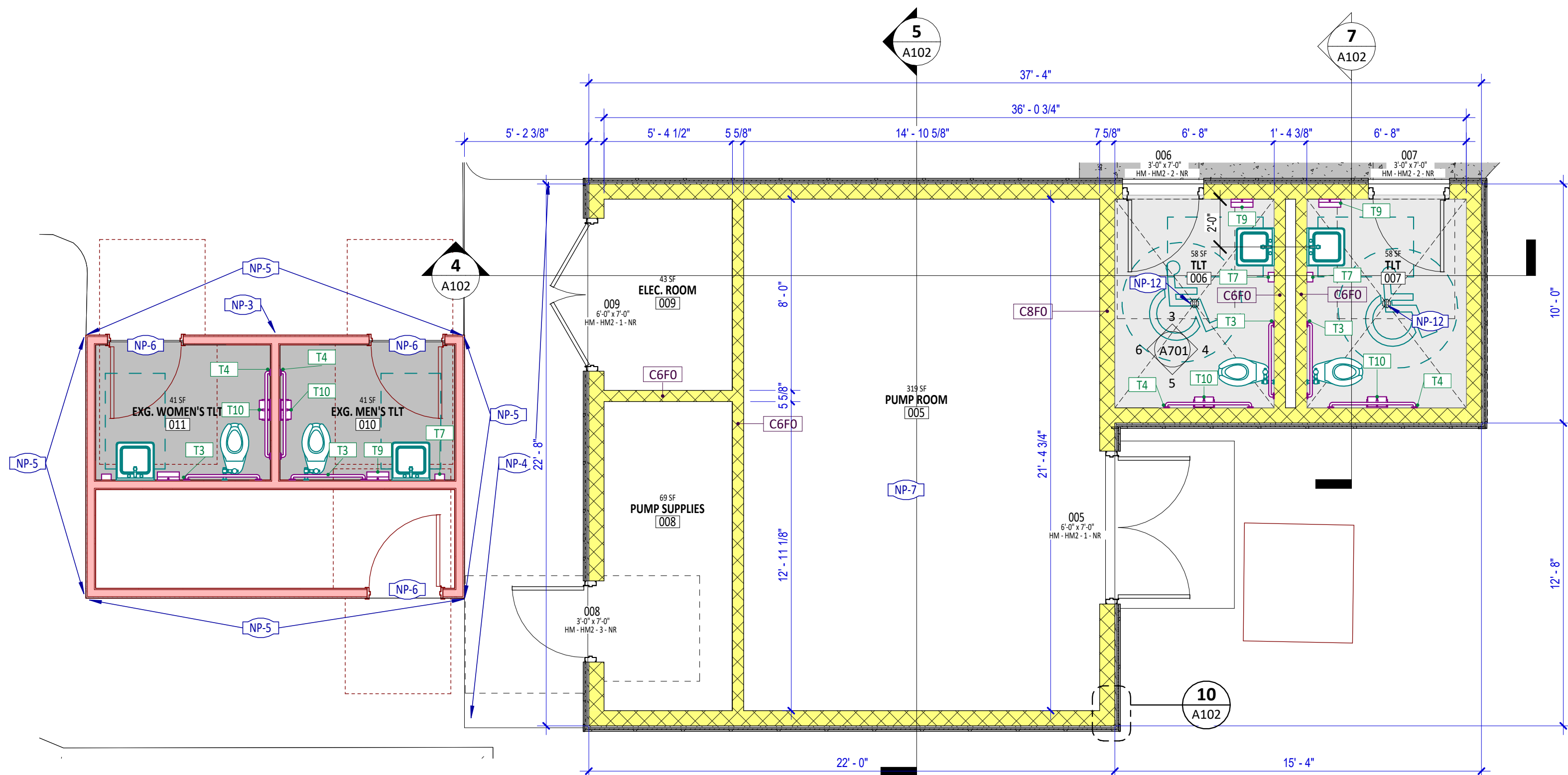
KEYNOTES - DEMOLITION - FLOOR PLANS	
NOTE	DESCRIPTION
DP-1	DEMOLISH EXG. PUMP ENCLOSURE
DP-2	REMOVE EXG. FIXTURES.
DP-3	REMOVE EXISTING WOOD BASE TRIM.
DP-4	REMOVE EXISTING TOILET ACCESSORIES.
DP-5	REMOVE EXISTING FLOOR DRAIN COVER PLATE.

KEYNOTES - NEW WORK - FLOOR PLANS	
NOTE	DESCRIPTION
NP-3	REPLACE EXISTING SHOWER HEAD, REF. PLUMBING.
NP-4	PROVIDE NEW CONCRETE SLAB, BROOM FINISH.
NP-5	PATCH ALL PENETRATIONS, HOLES, CLEAN AND REPAINT. MATCH EXISTING COLOR
NP-6	PREP AND PAINT EXISTING DOORS AND JAMBS. MATCH EXISTING COLORS. ROLLER FINISH.
NP-7	PROVIDE NEW EXHAUST FAN WITH MOTOR
NP-12	PROVIDE NEW FLOOR DRAIN, REF. PLUMBING.

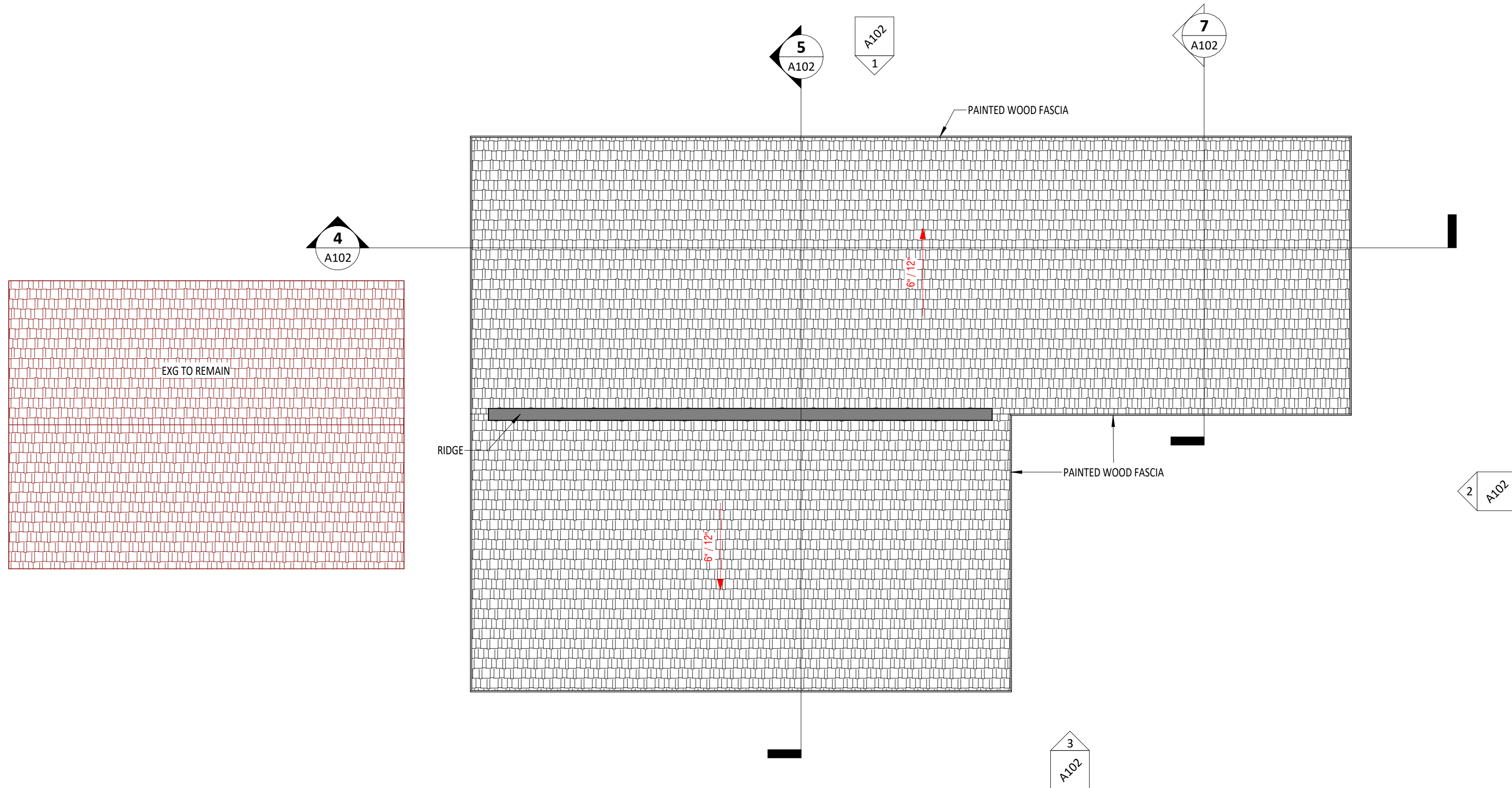
C402.1.2 Equipment buildings.

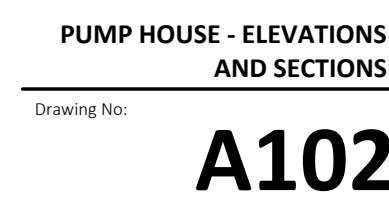
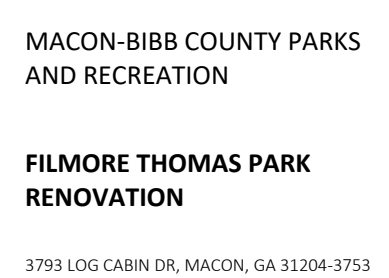
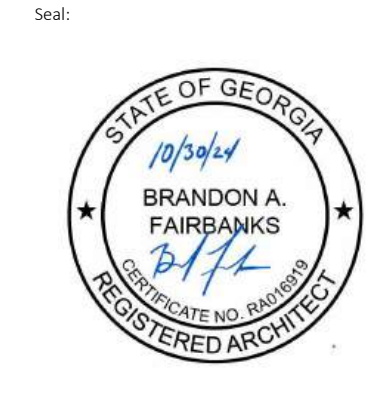
Buildings that comply with the following shall be exempt from the *building thermal envelope* provisions of this code:

- Are separate buildings with floor area not more than 500 square feet (50 m²).
- Are intended to house electronic equipment with installed equipment power totaling not less than 7 watts per square foot (75 W/m²) and not intended for human occupancy.
- Have a heating system capacity not greater than (17,000 Btu/hr) (5 kW) and a heating thermostat set point that is restricted to not more than 50°F (10°C).
- Have an average wall and roof U-factor less than 0.200 in *Climate Zones 1* through 5 and less than 0.120 in *Climate Zones 6* through 8.
- Comply with the roof solar reflectance and thermal emittance provisions for *Climate Zone 1*.

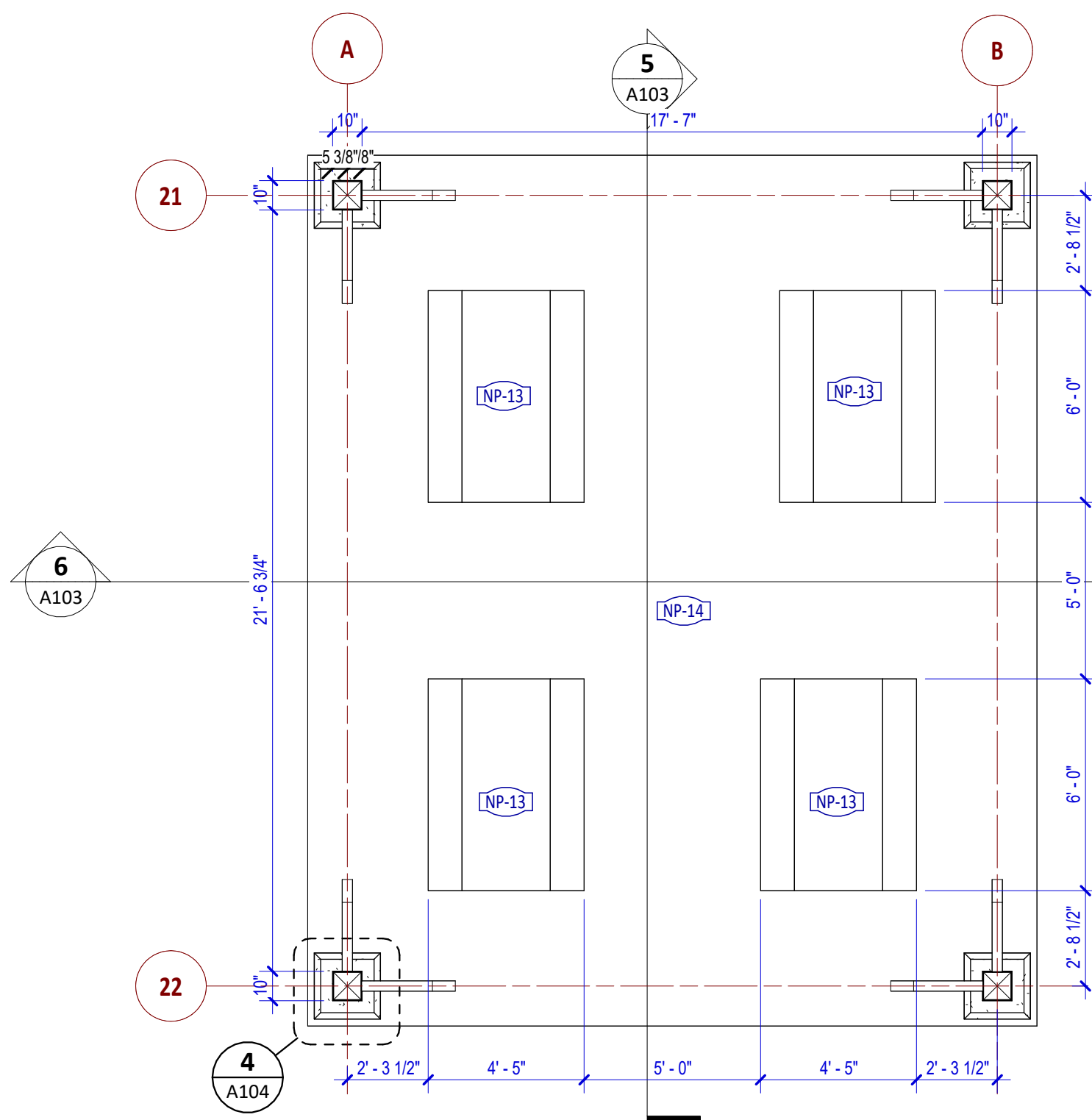


1 | PUMP HOUSE FLOOR PLAN
A101 | 1/4" = 1'-0"

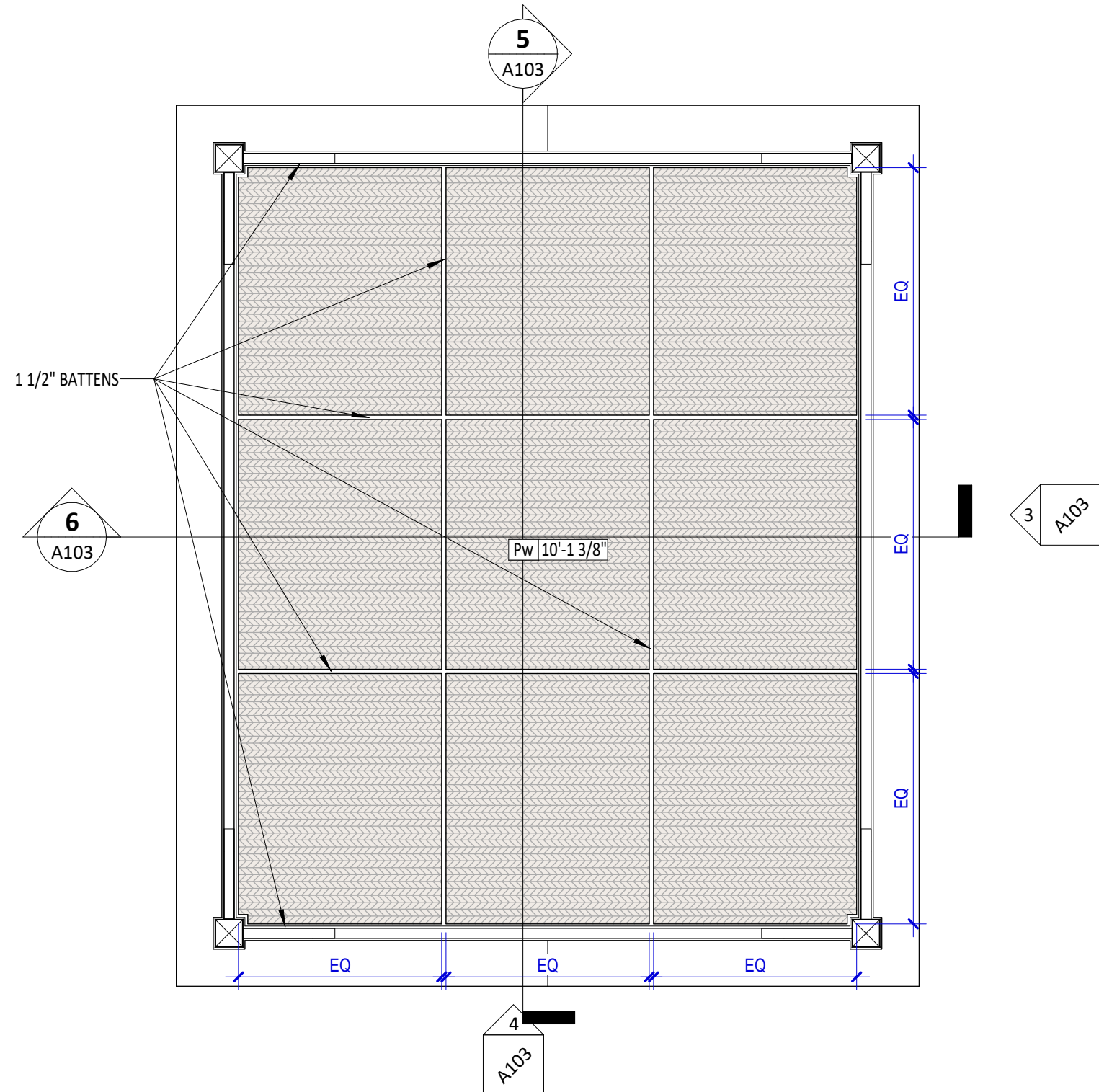




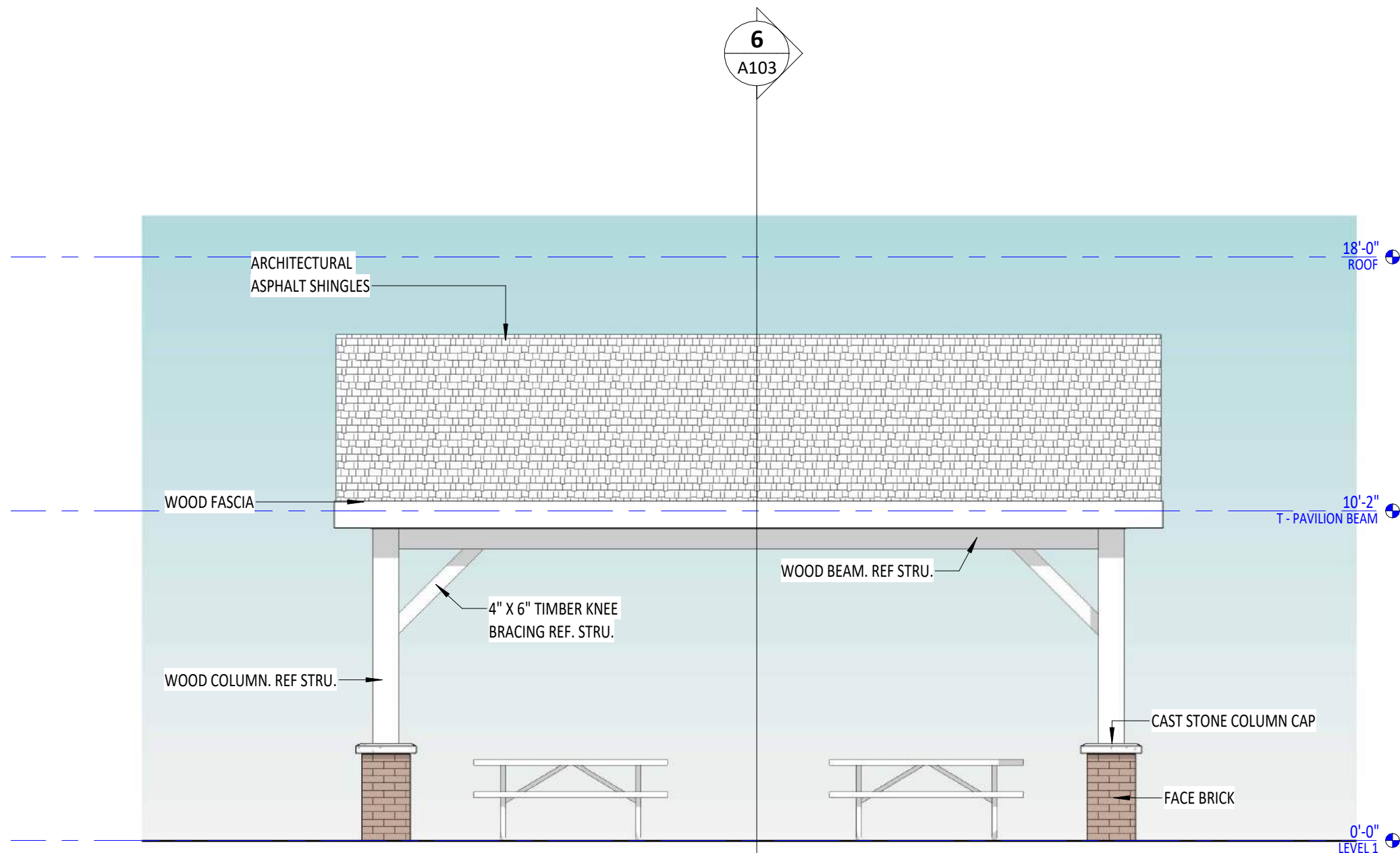
KEYNOTES - NEW WORK - FLOOR PLANS	
NOTE	DESCRIPTION
NP-13	TABLE TO BE PROVIDED BY OWNER, GC TO ASSEMBLE AND BOLT TO SLAB.
NP-14	4" CONCRETE SLAB OVER COMPACT GRAVEL BASE, REF. STRU. FOR REINF. AND CONTROL JOINT SPACING



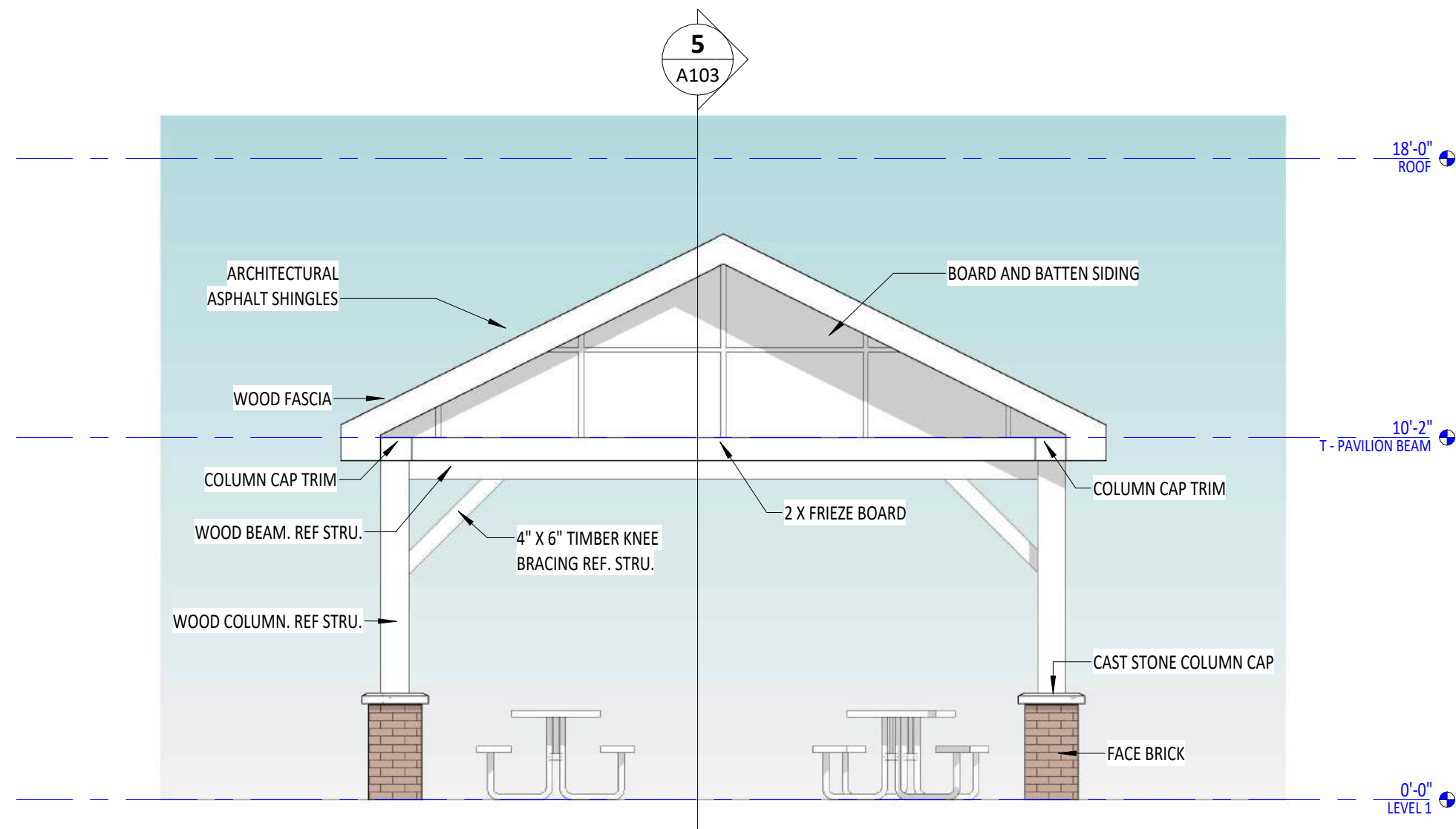
1 | PAVILLION PLAN
A103 1/4" = 1'-0"



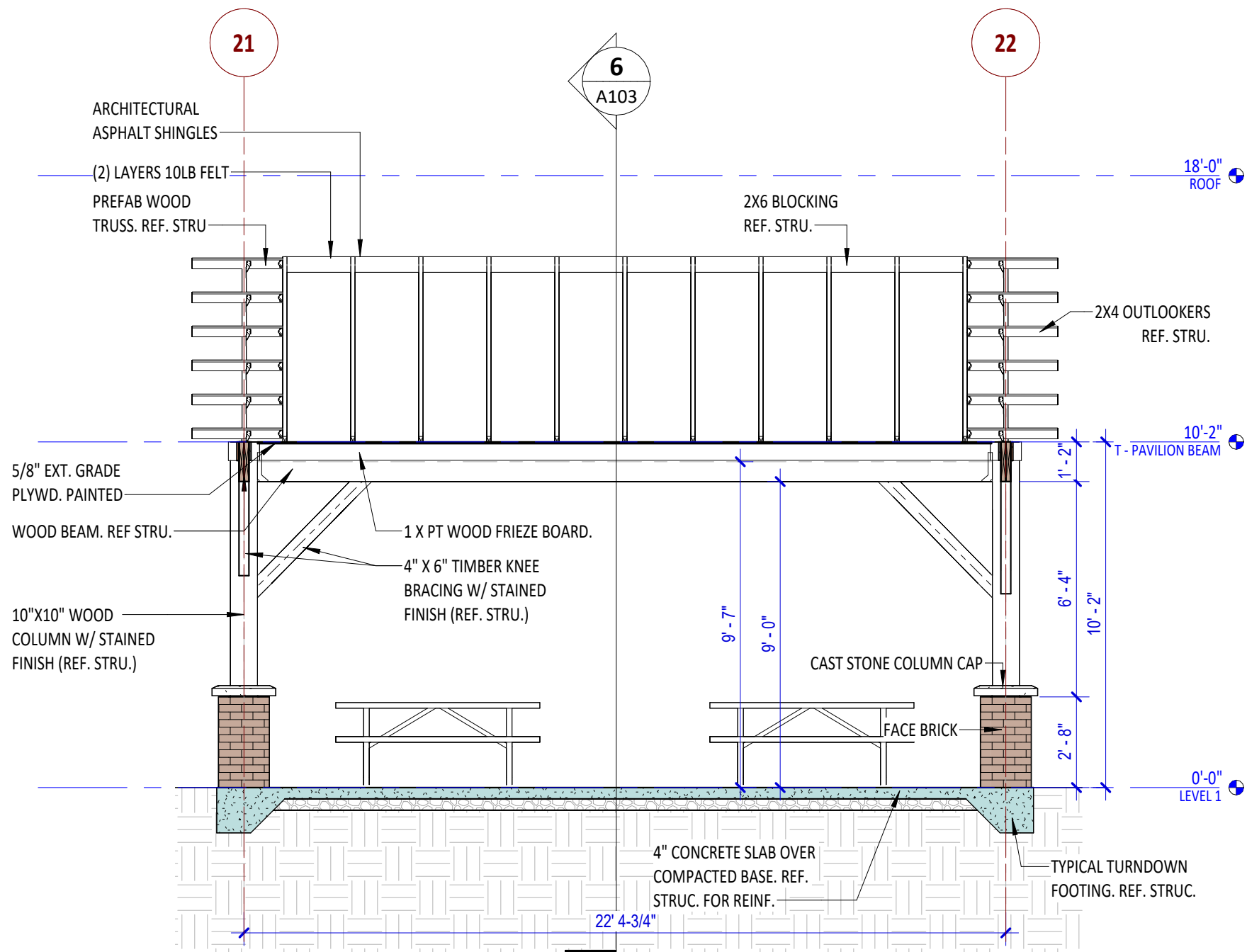
2 | LEVEL 1 CEILING
A103 1/4" = 1'-0"



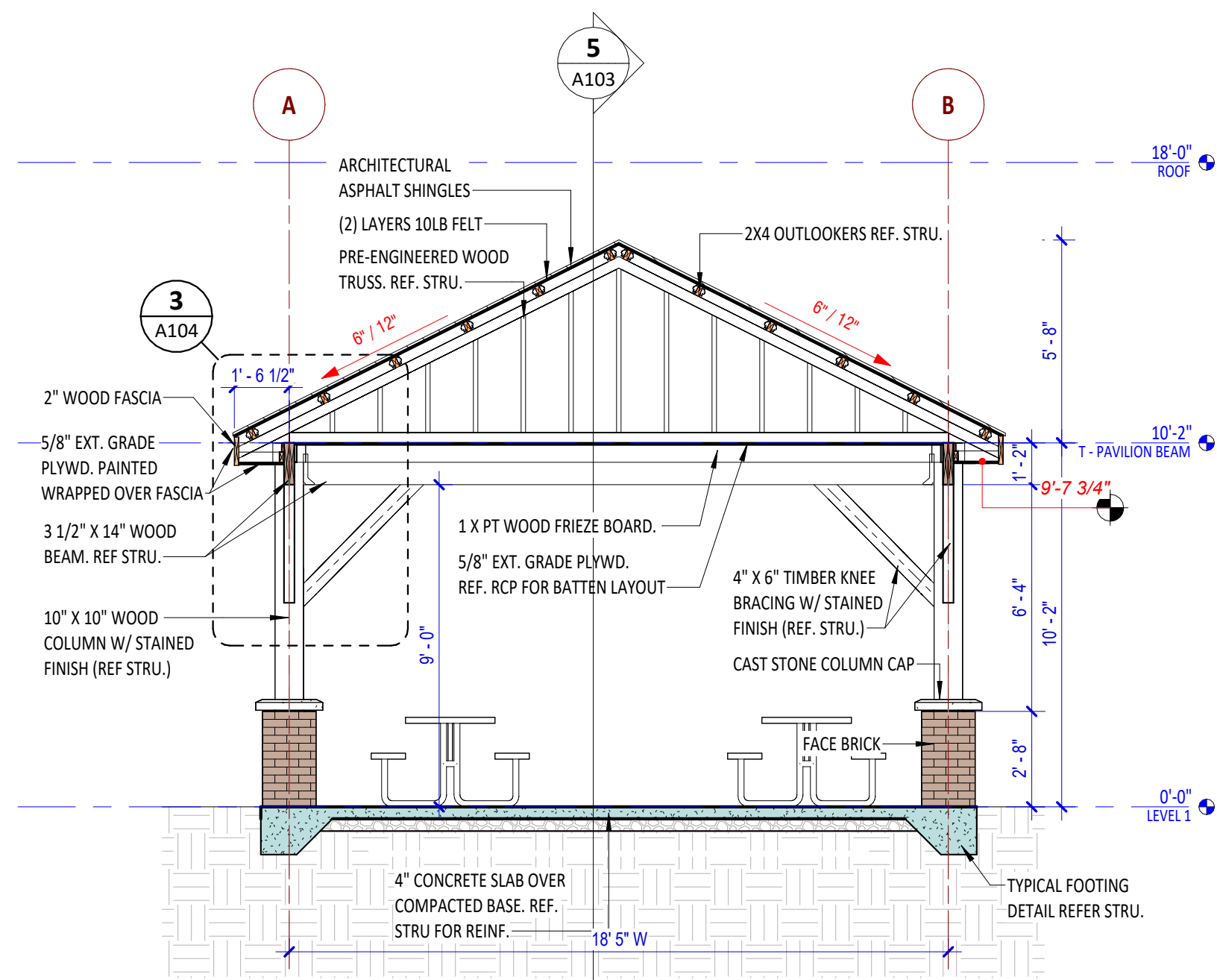
3 | PAVILLION ELEVATION 01
A103 1/4" = 1'-0"



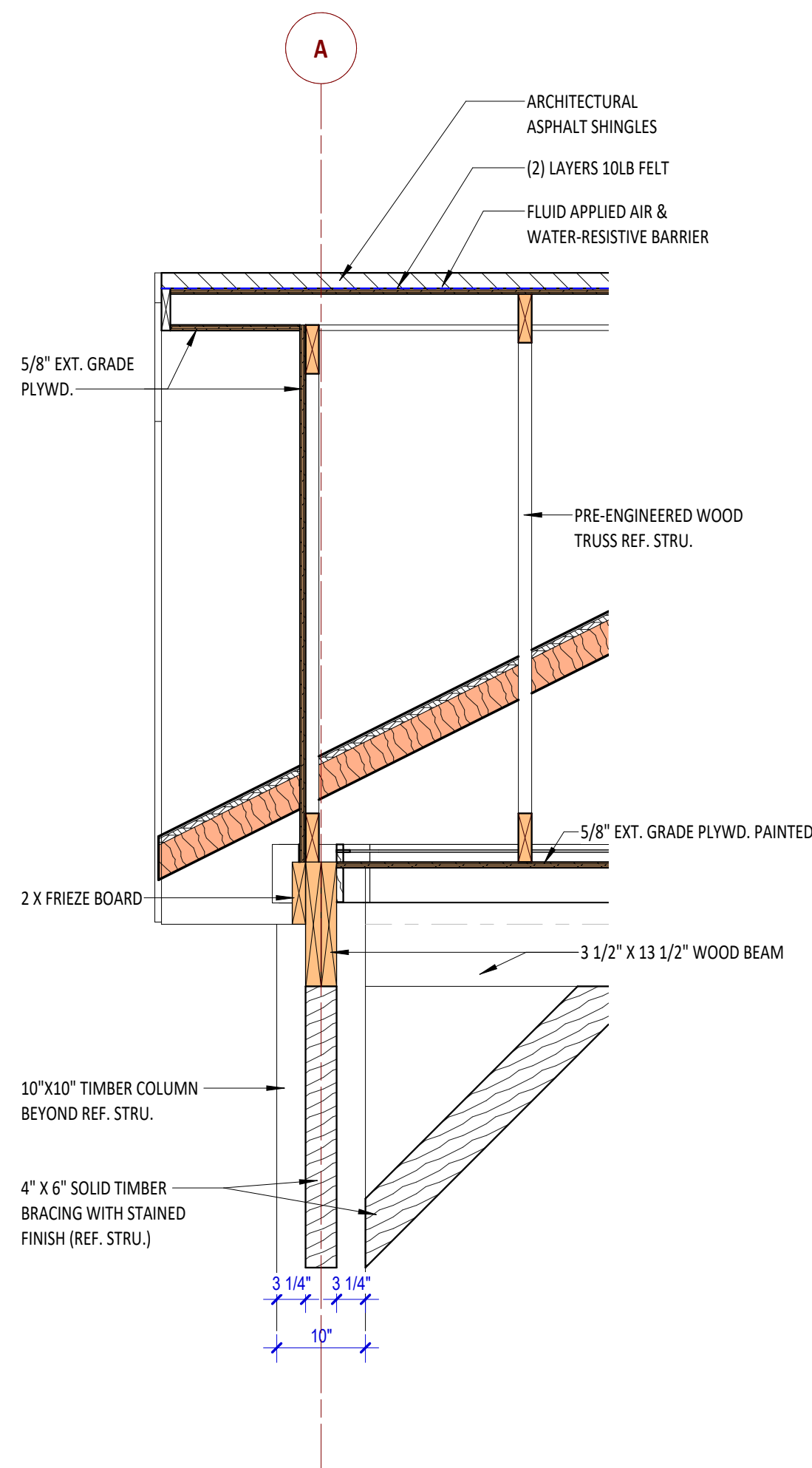
4 | PAVILLION ELEVATION 02
A103 1/4" = 1'-0"



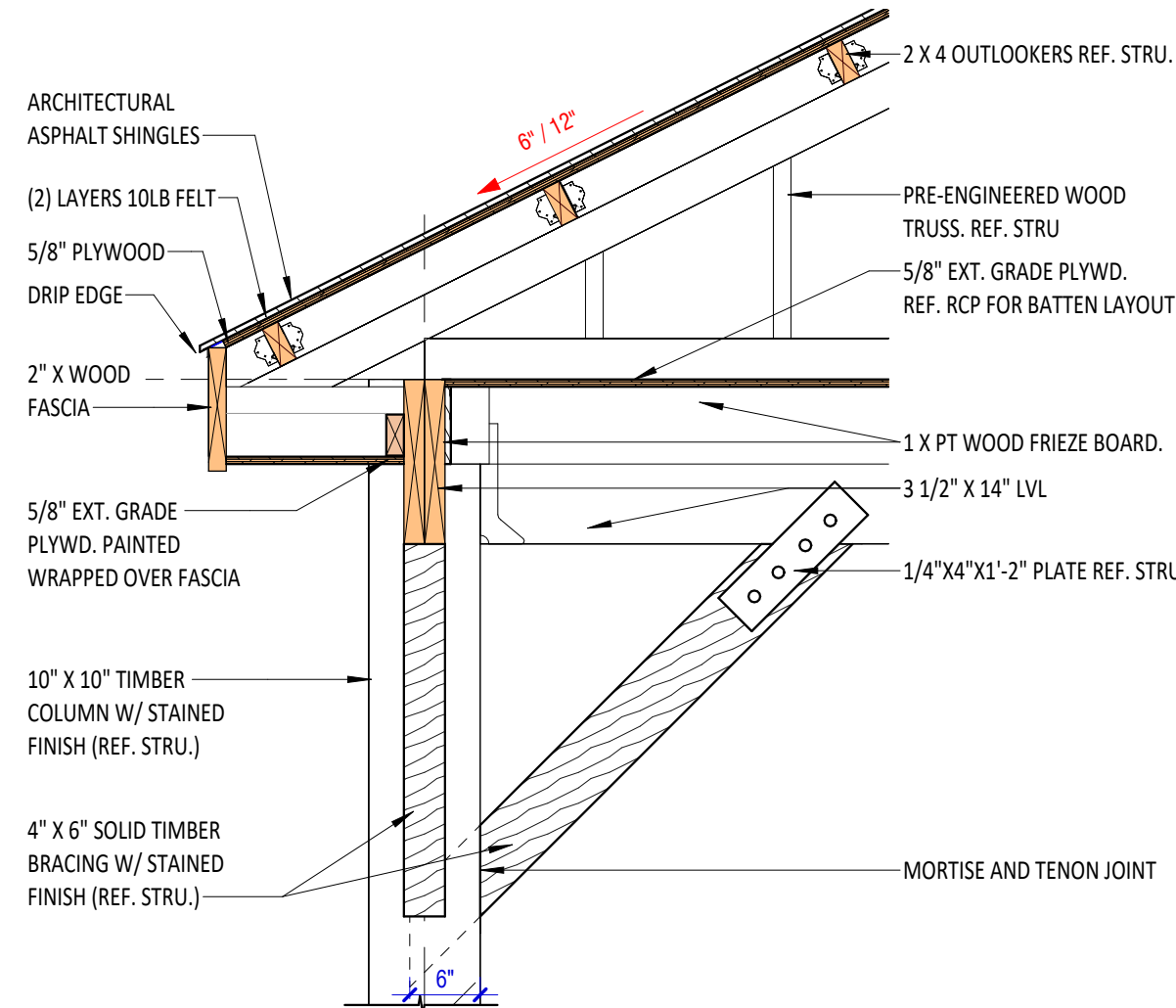
5 | Section 15
A103 1/4" = 1'-0"



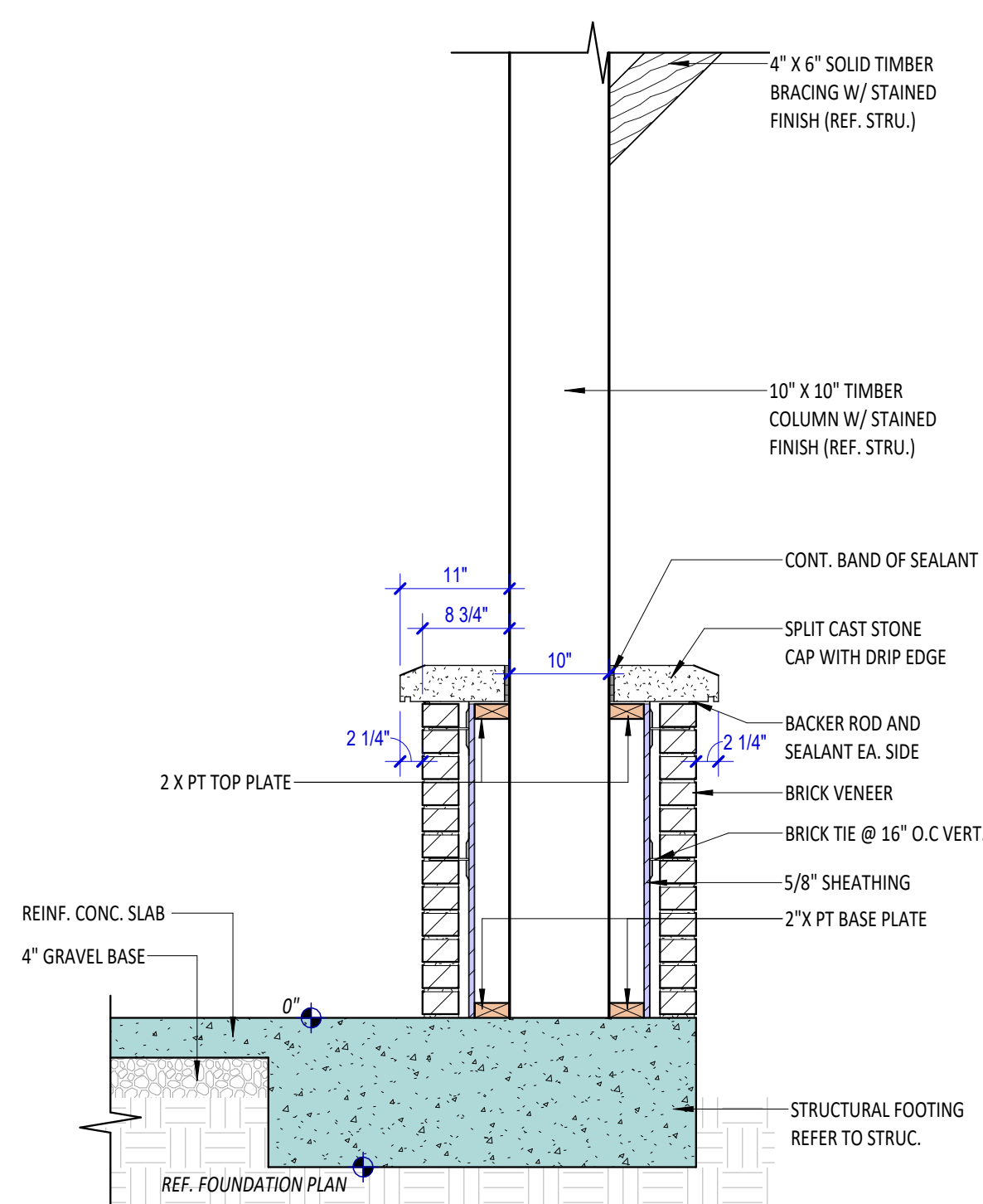
6 | PAVILLION SECTION 02
A103 1/4" = 1'-0"



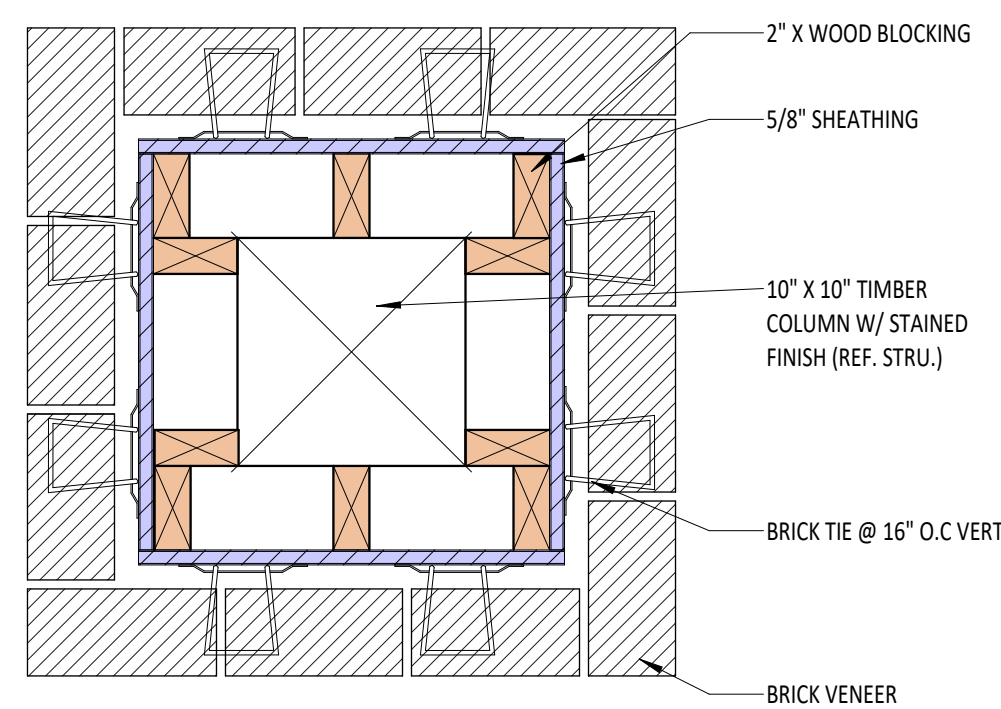
1 | ROOF DETAIL 1
A104 | 3/4" = 1'-0"



3 | ROOF DETAIL 2
A104 | 3/4" = 1'-0"



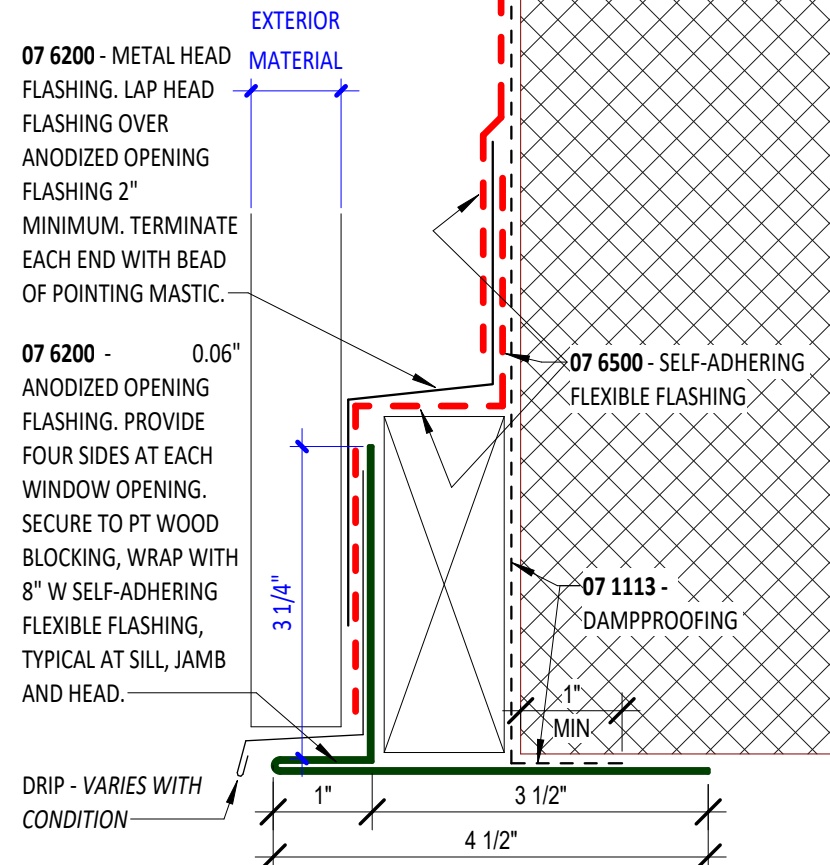
2 | TYPICAL COLUMN SECTION
A104 | 3/4" = 1'-0"



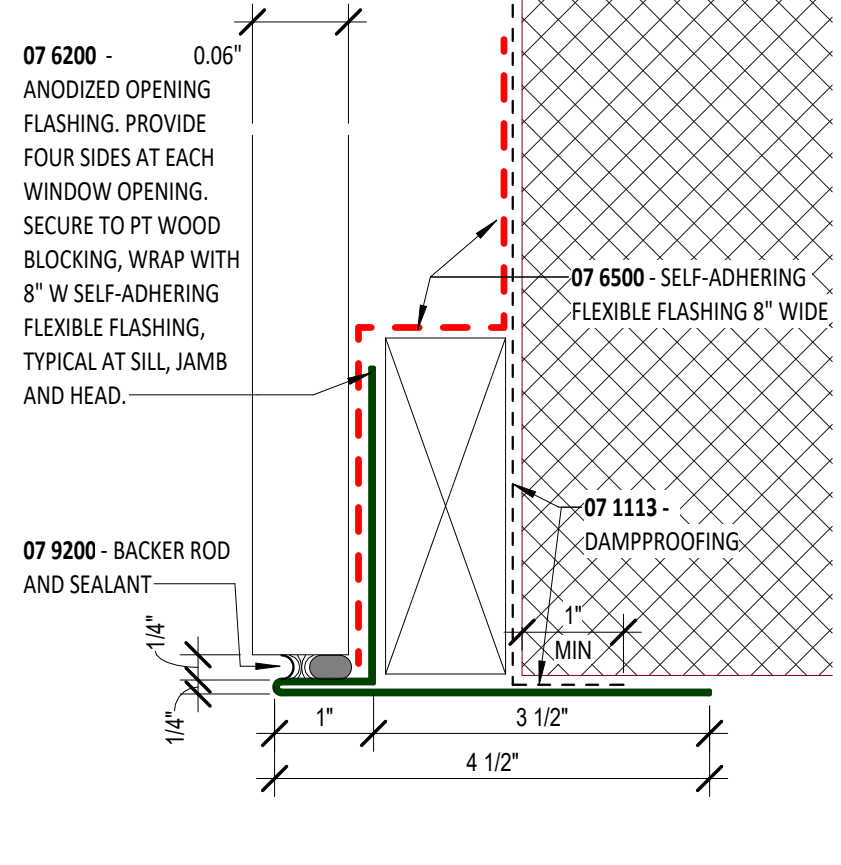
4 | COLUMN BASE PLAN DETAIL
A104 | 1 1/2" = 1'-0"

FLASHING GENERAL NOTES

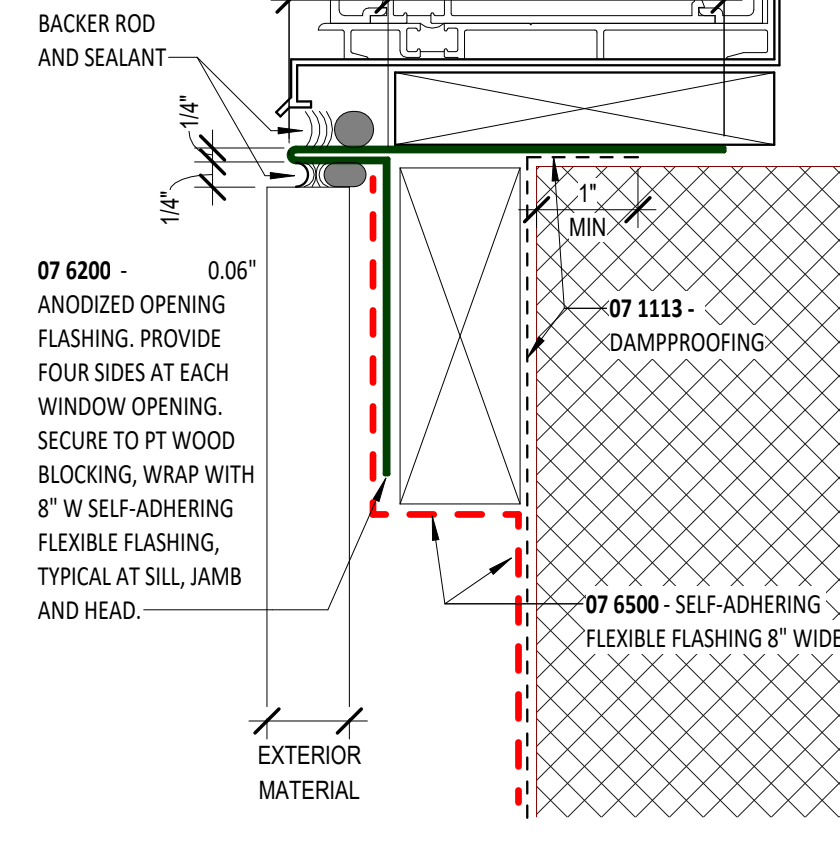
1. PROVIDE 2" LAP DAMS AT ALL OPENINGS AND TERMINATIONS.
2. LAPS BETWEEN PIECES OF METAL FLASHING SHOULD BE FULLY BEDDED IN SEALANT.
3. REMOVE TOP HEM FROM TOP PIECE OF FLASHING @ LAPS



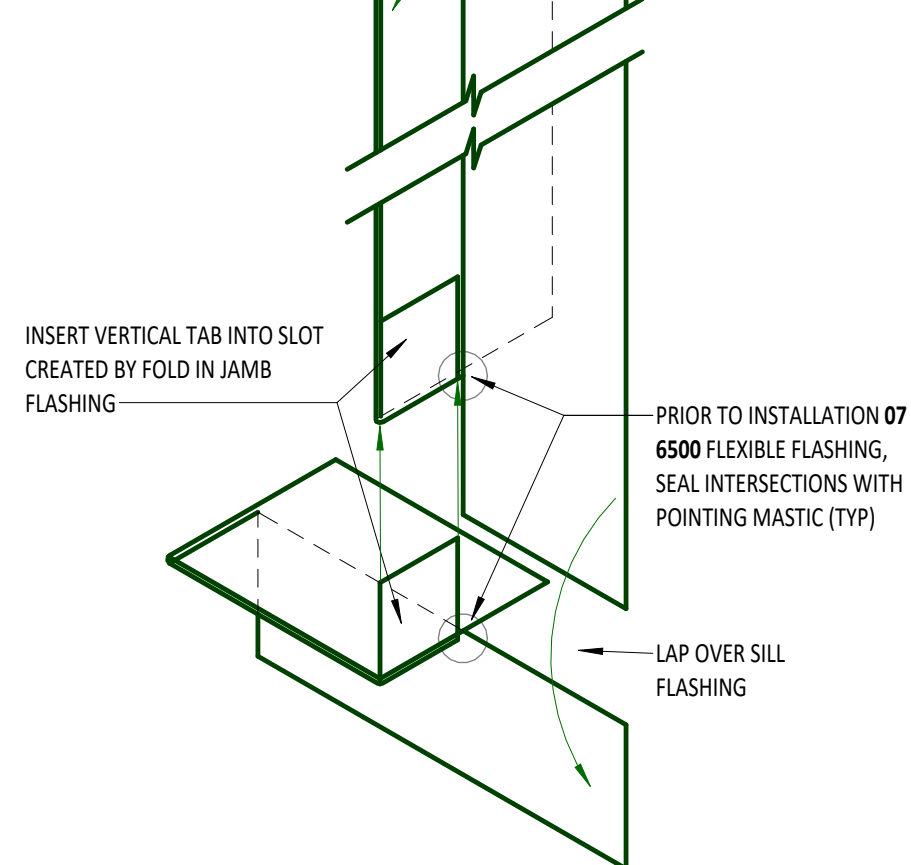
HEAD OPENING FLASHING



JAMB OPENING FLASHING



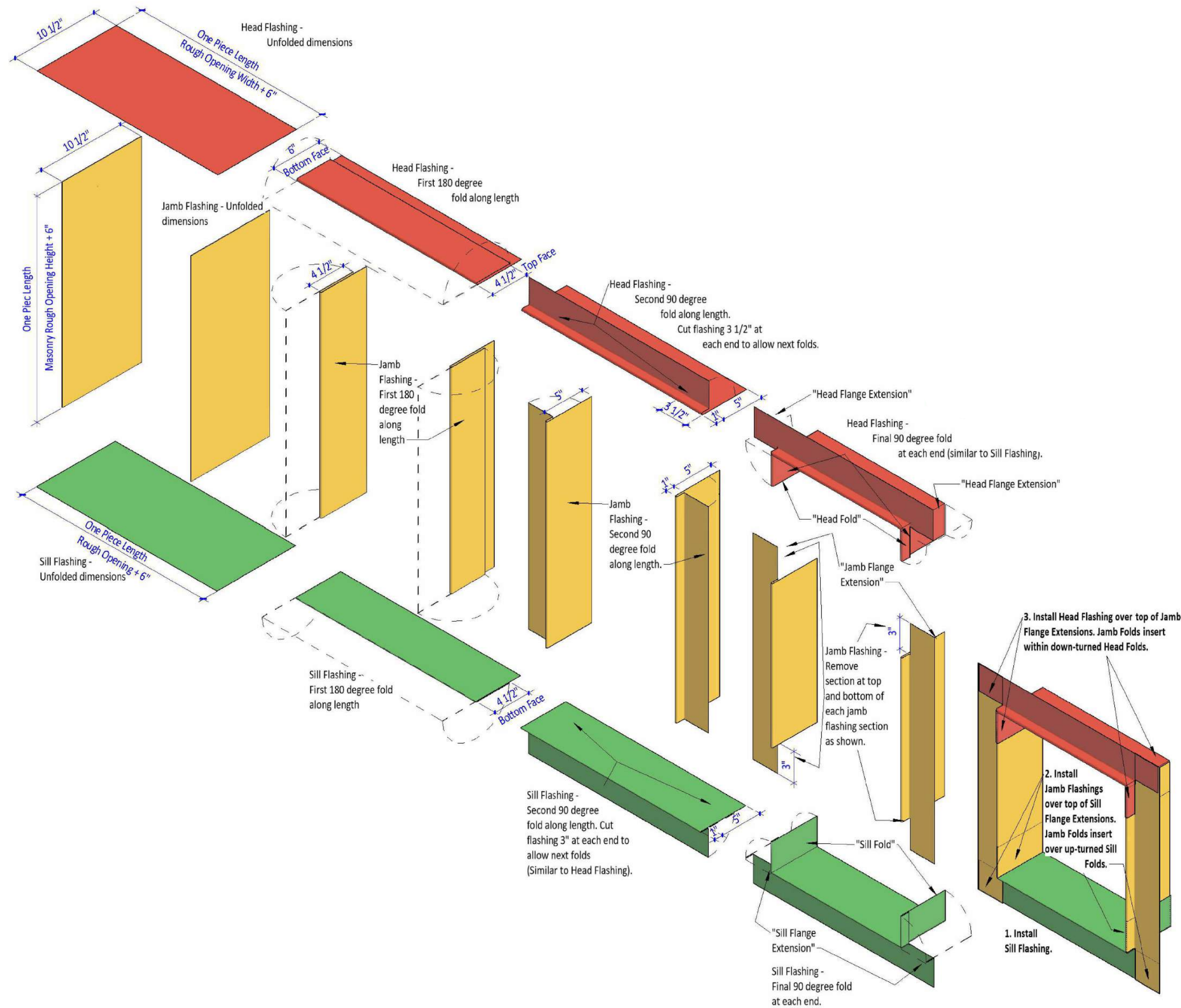
SILL OPENING FLASHING



OPENING FLASHING 3D

01 OPENING FLASHING

A105 6" = 1'-0"



02 OPENING FLASHING ASSEMBLY INSTALLATION ILLUSTRATED

A105 1 : 100

DOOR SCHEDULE

OPNG NO	Qty	FROM ROOM	TO ROOM	Width	Height	Door Type	Frame Type	HW SET	Rated Opng	COMMENTS
005	Pair - Swinging	PUMP ROOM		6'-0"	7'-0"	HM	HM2	1	NR	16"X16" LOUVER IN EACH DOOR LEAF
006	Sngl - Swinging		TLT	3'-0"	7'-0"	HM	HM2	2	NR	
007	Sngl - Swinging		TLT	3'-0"	7'-0"	HM	HM2	2	NR	
008	Sngl - Swinging	PUMP SUPPLIES		3'-0"	7'-0"	HM	HM2	3	NR	14"X14" LOUVER IN DOOR
009	Pair - Swinging	ELEC. ROOM		6'-0"	7'-0"	HM	HM2	1	NR	14"X14" LOUVER IN ONE OF THE DOORS

Hardware Set# 1 Storage - Pair Exterior

Qty	UOM	Item Desc.
8	EA	Hinge - Nutt
1	EA	Storage Lockset
2	EA	Weatherstripping
1	EA	Manual Flush Bolts

Hardware Set# 2 Public Restroom

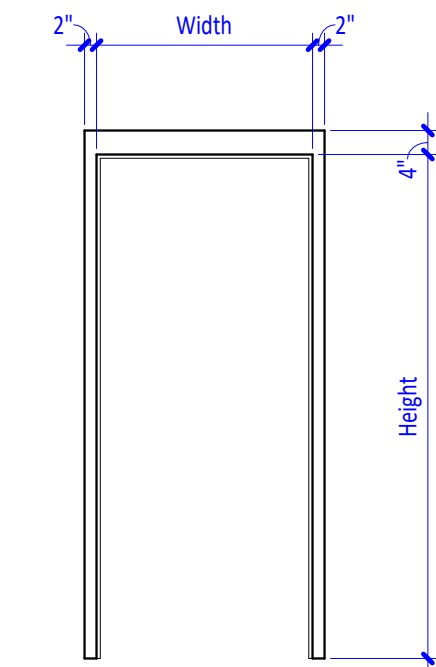
Qty	UOM	Item Desc.
3	EA	Hinge - Nutt
1	EA	Door Closer
1	EA	Deadbolt
1	EA	Door Stop - Wall
1	EA	Pull Plate
1	EA	Push Plate
1	EA	Kick Plate

Hardware Set# 3 Storage - Single Exterior

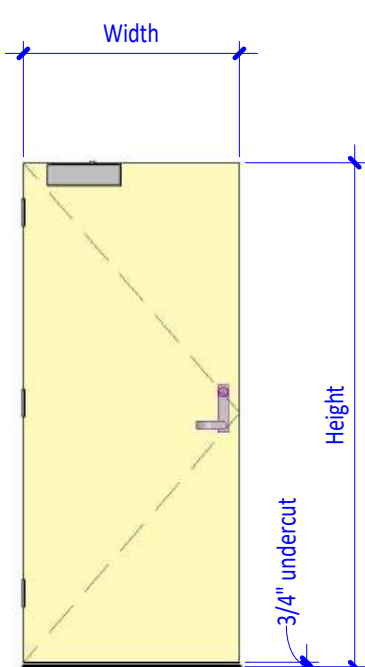
Qty	UOM	Item Desc.
3	EA	Hinge - Nutt
1	EA	Storage Lockset
1	EA	Wall Stop
1	EA	Deadbolt
1	EA	Weatherstripping

5 Door hardware schedule

A105 1/8" = 1'-0"



HM2
HOLLOW METAL



HM
HOLLOW METAL

Notes:

Type WNG is always a rated door with fire glass.
(100 Wf max.) Provide metal glazing frame if reqd for rating.

At all other doors where a rating is reqd, provide fire glass in lieu of indicated safety glass. Provide metal glazing frame if reqd for rating.

"V" indicates that dimension varies with door size.

"SG" indicates 6mm safety glass.

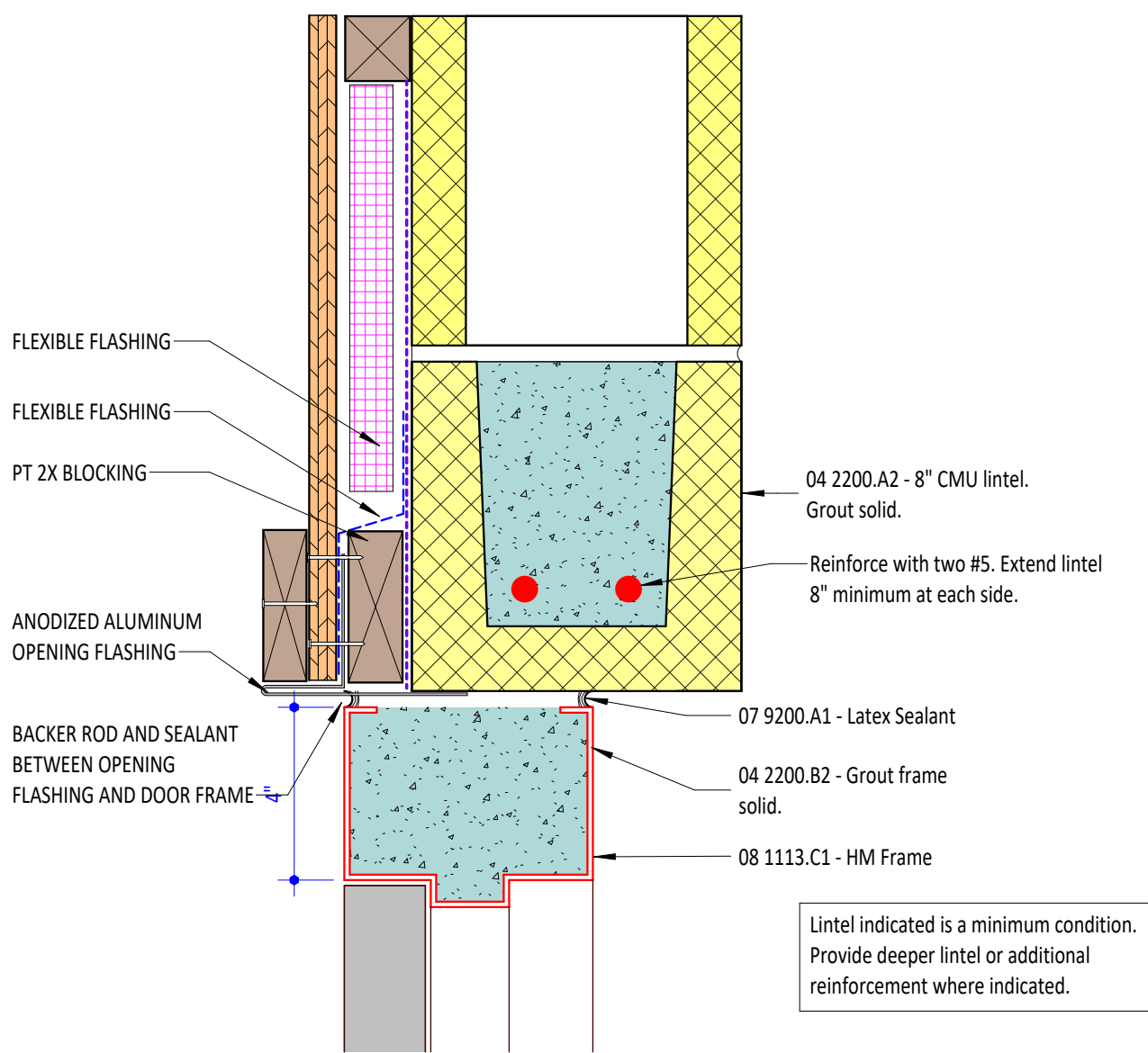
"FG" indicates fire glass.

HM Frame Types

3/8" = 1'-0"

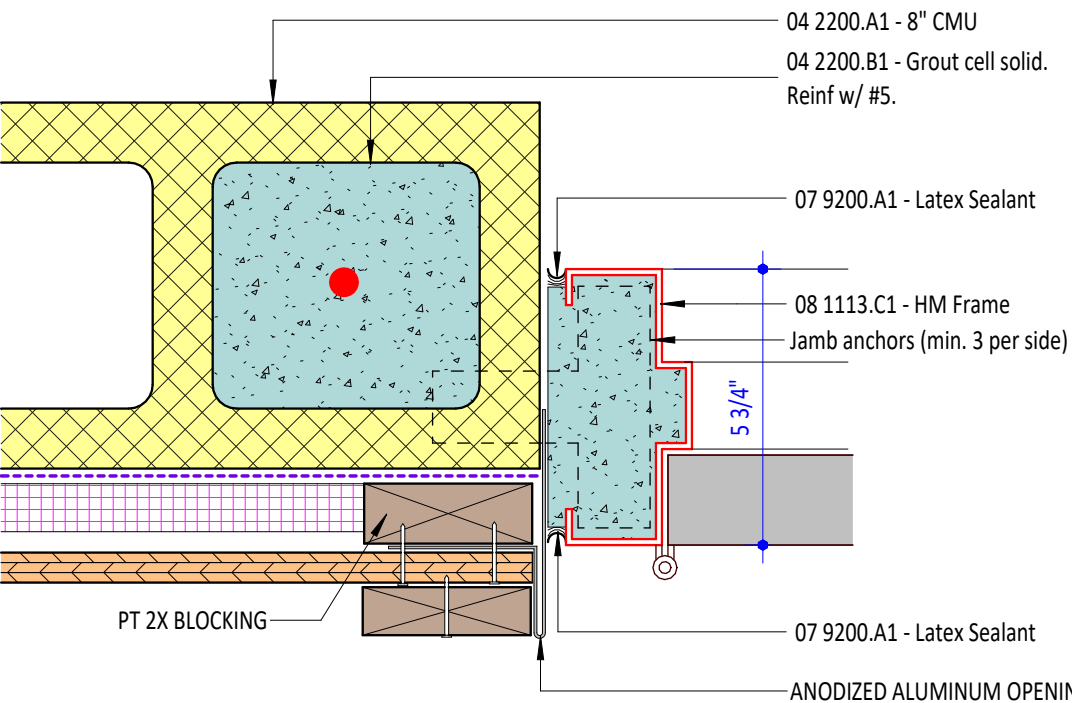
Door Types

3/8" = 1'-0"



03 Head CA - HM Door Frame (Typ at CMU) Copy 1

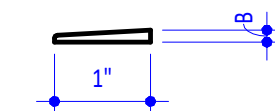
A105 3' = 1'-0"



04 Jamb CA - HM Door Frame (Typ at CMU) Copy 1

A105 3' = 1'-0"

Roppe #21; Tarkett RRS-XX-B (B=.080")
Burke 633; Roppe #22; Tarkett RRS-XX-C (B=1/8")



Provide edge strip wherever resilient flooring abuts concrete slab. Size to match flooring thickness (B).

1 | Resilient Edge Strip

A701 | 6" = 1'-0"

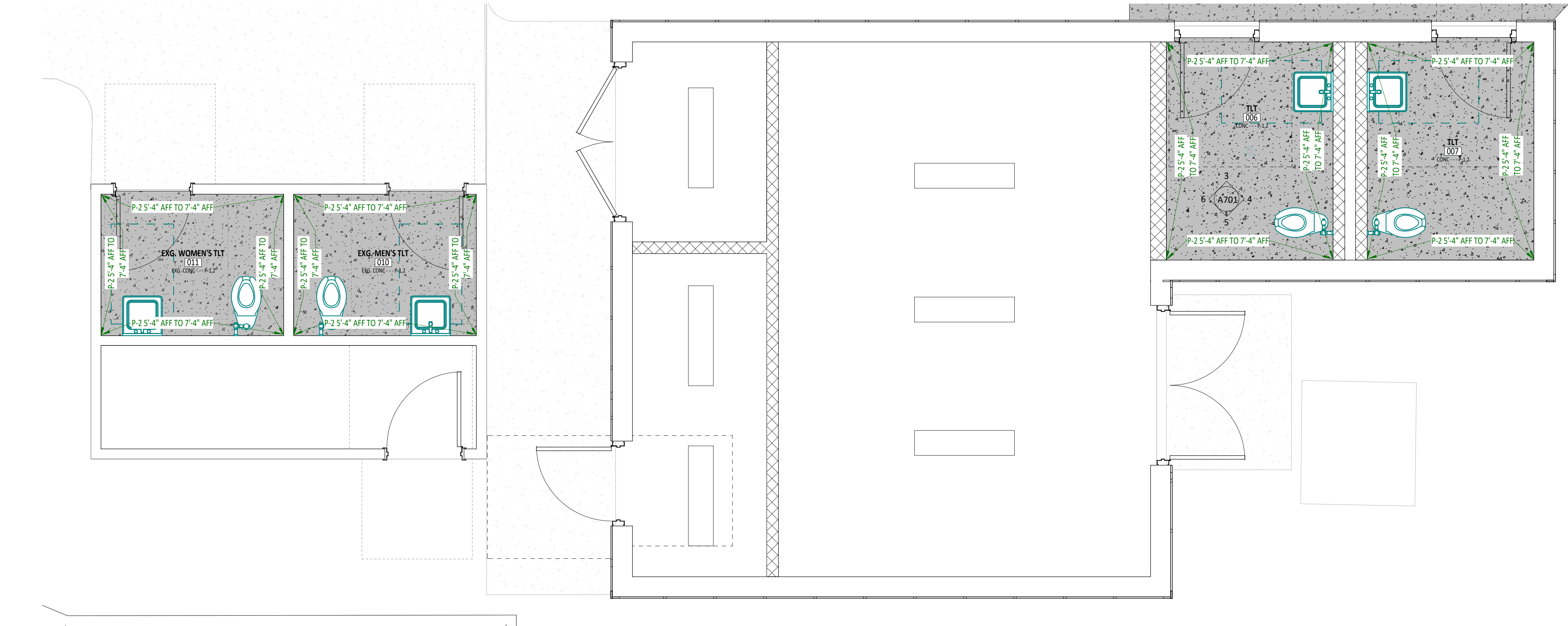
FINISHES - FLOORS				
Floor Finish	Manufacturer	Style and Color	Image	Comments
CONC	TBD BY CONTRACTOR	CONTRACTOR TO SEAL CONCRETE SLAB WITH INDUSTRIAL SEALER THAT CAN WITHSTAND WATER AND HARSH CHEMICALS. COLOR: CLEAR		SEE SPECIFICATIONS. CONTRACTOR TO PREP SUBSTRATE AS RECOMMENDED BY THE MANUFACTURER

FINISHES - WALLS				
Wall Finish	Manufacturer	Style and Color	Image	Comments
P-1	SHERWIN WILLIAMS	SW 7022 - ALPACA		FIELD PAINT
P-2	SHERWIN WILLIAMS	SW 9148 - SMOKY AZURITE		
P-3	SHERWIN WILLIAMS	SW 9168 - ELEPHANT EAR		DOOR PAINT - GLOSS FINISH
P-4	SHERWIN WILLIAMS	SW 7562 - ROMAN COLUMN		
WS-1	PPG	EBONY SRD - SRD-094 WOOD STAIN		

FINISHES - CEILING				
Ceiling Finish	Manufacturer	Style and Color	Image	Comments
P-4	SHERWIN WILLIAMS	SW 7007 CEILING BRIGHT WHITE		CEILING PAINT

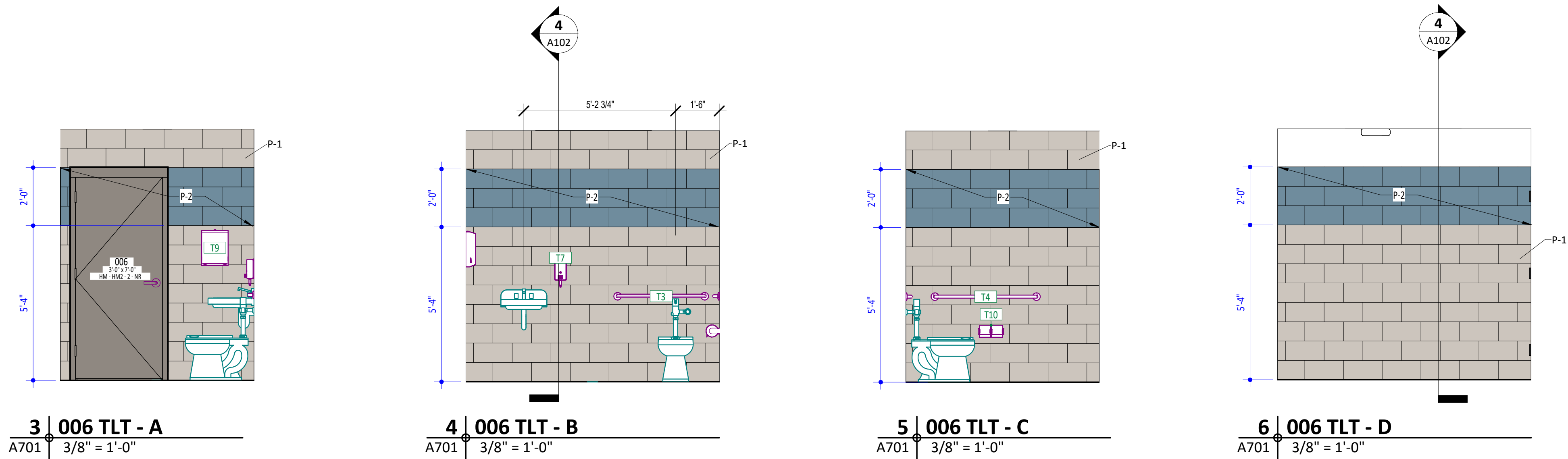
ROOM SCHEDULE				
ROOM NUMBER	ROOM NAME	Floor Finish	Wall Finish	COMMENTS
006	TLT	CONC	P-1,2	SEE FINISH PLAN FOR PAINT LOCATIONS.
007	TLT	CONC	P-1,2	SEE FINISH PLAN FOR PAINT LOCATIONS.
010	EXG. MEN'S TLT	EXG. CONC	P-1,2	SEE FINISH PLAN FOR PAINT LOCATIONS.
011	EXG. WOMEN'S TLT	EXG. CONC	P-1,2	SEE FINISH PLAN FOR PAINT LOCATIONS.

TOILET ACCESSORY SCHEDULE				
Type Mark	Item	Image	Description	Model
T3	36" Grab Bar		1 1/4" diameter, heavy-duty satin-finish stainless steel, concealed mounting.	ASI 3700 series, Bobrick B-5806, Bradley 832.
T4	42" Grab Bar		1 1/4" diameter, heavy-duty satin-finish stainless steel, concealed mounting.	ASI 3700 series, Bobrick B-5806, Bradley 832.
T7	Soap Dispenser		Surface-mid, vertical, manual dispenser.	ASI 0347, Bobrick B-2111, Bradley 6562.
T9	Paper Towel Dispenser, surface-mounted.		Satin-finish stainless steel, dispenses 400 C-fold or S25 multi-fold, surface mounting.	ASI 0210, Bobrick B-262, Bradley 250-15.
T10	Toilet Paper Dispenser.		Dual-roll dispenser, cast aluminum, non-controlled delivery.	ASI 0264-1A, Bobrick B-2740, Bradley 5241-50.



2 | PUMP HOUSE - FINISH PLAN

A701 | 3/8" = 1'-0"



3 | 006 TLT - A

A701 | 3/8" = 1'-0"

4 | 006 TLT - B

A701 | 3/8" = 1'-0"

5 | 006 TLT - C

A701 | 3/8" = 1'-0"

6 | 006 TLT - D

A701 | 3/8" = 1'-0"

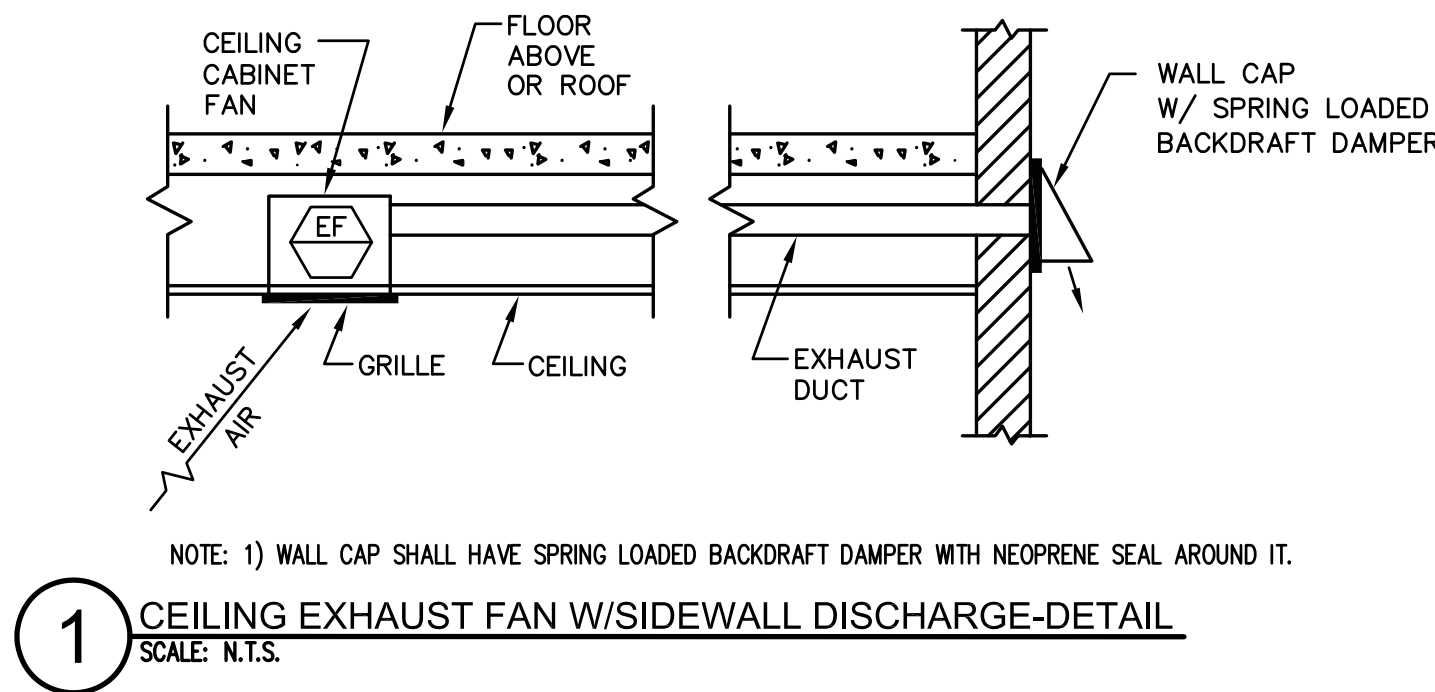
TOILET ACCESSORIES BY ROOM					
ROOM NO.	ROOM NAME	TYPE MARK	DESCRIPTION	COUNT	O/C / C.C. / O.O
006					
006	TLT	T3	36" Grab Bar	1	C.C.
006	TLT	T4	42" Grab Bar	1	C.C.
006	TLT	T7	Soap Dispenser	1	C.C.
006	TLT	T9	Paper Towel Dispenser, surface-mounted.	1	C.C.
006	TLT	T10	Toilet Paper Dispenser.	1	C.C.
007					
007	TLT	T3	36" Grab Bar	1	C.C.
007	TLT	T4	42" Grab Bar	1	C.C.
007	TLT	T7	Soap Dispenser	1	C.C.
007	TLT	T9	Paper Towel Dispenser, surface-mounted.	1	C.C.
007	TLT	T10	Toilet Paper Dispenser.	1	C.C.
010					
010	EXG. MEN'S TLT	T3	36" Grab Bar	1	C.C.
010	EXG. MEN'S TLT	T4	42" Grab Bar	1	C.C.
010	EXG. MEN'S TLT	T7	Soap Dispenser	1	C.C.
010	EXG. MEN'S TLT	T9	Paper Towel Dispenser, surface-mounted.	1	C.C.
010	EXG. MEN'S TLT	T10	Toilet Paper Dispenser.	1	C.C.
011					
011	EXG. WOMEN'S TLT	T3	36" Grab Bar	1	C.C.
011	EXG. WOMEN'S TLT	T4	42" Grab Bar	1	C.C.
011	EXG. WOMEN'S TLT	T7	Soap Dispenser	1	C.C.
011	EXG. WOMEN'S TLT	T9	Paper Towel Dispenser, surface-mounted.	1	C.C.
011	EXG. WOMEN'S TLT	T10	Toilet Paper Dispenser.	1	C.C.

MECHANICAL SPECIFICATIONS

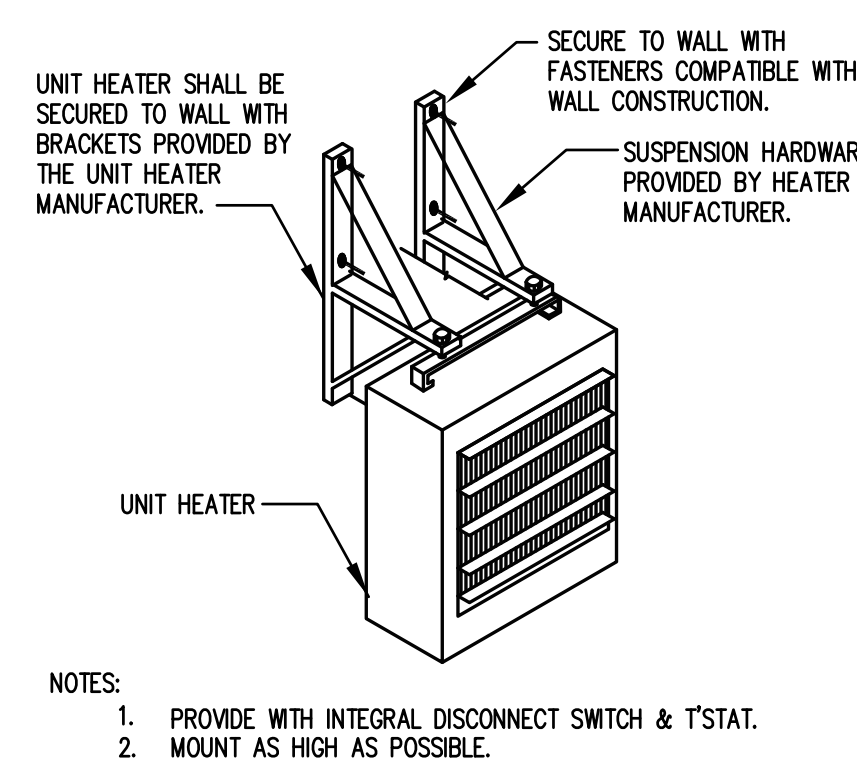
- 1) Provide all heating, ventilation and air conditioning items indicated on the drawings, described in this specification, or required for a complete and proper installation.
- 2) Comply with all pertinent codes, ordinances, and regulations. Refer to website for Dept. of Community Affairs for current Codes Editions.
- 3) The contractor shall not attempt to precisely scale dimensions from these drawings to obtain construction dimensions and clearances. The contractor shall verify all actual dimensions and clearances. Although these plans are diagrammatic in nature, they shall be followed as closely as site conditions, new construction, and work by other trades shall permit. Deviations from these drawings, which are required to conform to the available space or the actual building construction, shall be made at no additional cost to the owner.
- 4) Furnish without extra charge, any additional material and labor required to comply with the above codes and standards, even though the work may not be described in the contract documents. Where the requirements of the contract documents exceed the requirements of the above codes and standards, the contract documents shall take precedence.
- 5) All equipment and material shall be new and of first quality. Equipment and material shall be the same or equal to the basis of design listed on these drawings and shall be UL listed.
- 6) Cooperate and coordinate with other trades in order that all systems in the work may be installed in the best arrangement.
- 7) Examine the areas and conditions under which work of this section will be installed. Correct conditions detrimental to the proper and timely completion of the work. Notify Architect of any discrepancies. Do not proceed until unsatisfactory conditions have been corrected.
- 8) Avoid interference with structure, and with work of other trades. Install all equipment per manufacturer's instructions. Install accessible parts, including equipment, coils, valves, dampers, controls, and filters with adequate clearance for inspection, adjustments, repair, and replacement.
- 9) All other materials not specifically described but required for a complete and proper installation shall be as selected by the contractor subject to acceptance by the Engineer.
- 10) All ductwork shall be fabricated from galvanized sheet metal duct and conform to SMACNA "HVAC Duct Construction Standards—Metal and Flexible". Seal all joints in ductwork with mastic sealant.
- 11) Provide fire and smoke rated flexible connections between fans and ducts. Material shall comply with NFPA 90A requirements for material in supply air stream.
- 12) Install all equipment in accordance with manufacturer's instructions and recommendations including clearances recommended for proper operation or service. All filters and serviceable parts shall be readily accessible.
- 13) Make all duct elbows right angle type with single –thickness turning vanes or construct with centerline radius 1–1/2 times the duct width.
- 14) Duct sizes shown on plans are clear, interior dimensions. Duct sizes shown shall be enlarge to allow for liner at locations of interior liner.
- 15) Do not cut into or reduce the size of any structural member without the permission of the Architect.
- 16) Provide weather–proof flashing at all duct and pipe penetrations through the building walls and roof. As a minimum, flashings shall be designed and installed in accordance with SMACNA standards. Flashings shall be guaranteed weathertight.
- 17) Support all HVAC units, ductwork, piping, and other appearances from structure, provide vibration isolation at all fans which are not internally isolated. Provide hanger rod with built in rubber–in–shear isolator. Between drain pan and unit provide 4 inch rubber–in–shear isolator. Do not attach vibration isolator to drain pan. Do not screw or drive fasteners into non–structural components such as roof decks or non–load bearing walls.
- 18) Thoroughly clean all components and remove all dirt, scale, oil, and other foreign substances. Provide clean air filters for all equipment.
- 19) Perform all tests necessary to demonstrate the integrity of the complete installation to the approval of the Engineer and all other authorities having jurisdiction. Make all adjustments necessary and balance the completed system in accordance with the data shown. Balance the systems in accordance with NEBB or AABC standards. Acceptable tolerances shall be minus ten percent to plus five percent of all measurements. Balancing shall be done by an independent licensed (by NEBB or AABC) TAB contractor. Make the following tests and submit reports to the Architect:
- Airflow rate at each exhaust outlet.
 - Total airflow rate and total static pressure for each supply and exhaust fan. Test exhaust fans with room doors closed.
 - Motor speed, for multiple speed fans (e.g. high, medium, low).
 - For direct drive fans, provide speed settings and actual rpm, including ECM motor driven fans.
 - Provide fan and motor rpm for belt driven fans. Provide sheave sizes.
 - Outside airflow rate to each HVAC unit and supply fan.
 - Motor current (and compare with nameplate data) at all motors.
 - Entering and leaving air dry–bulb and wet–bulb conditions at all cooling coils.
 - Heat output capacity for unit heaters, heating devices and coils (KW or MBH).
 - Manufacturer, model, and serial number for each piece of HVAC equipment scheduled on drawings.
 - Calibrate thermostats to be within one degree of actual temperature at thermostat.
 - Verify that all HVAC devices operate as scheduled or indicated (i.e. ON–OFF, 2–stage, variable output (SCR heaters), etc).
- 20) The entire system shall be warranted for a period of one (1) year beginning with Owner's acceptance of the work. Compressors shall include a minimum of five (5) year parts only warranty from the manufacturer. All labor and materials necessary to repair or replace the system or portions thereof, during that time shall be warranted for a period of one (1) year from the repair of replacement.
- 21) SUBMITTALS AND SUBMITTAL PROCEDURES:
- Contractor shall review the submittal data and check for the purpose of compliance with safety requirements, verification of dimensions, contract documents and methods and means prior to submitting to design professional. Contractor shall indicate approval by indicating such on the submittal.
 - Transmit each submittal electronically in PDF format.
 - Sequentially number submittal files and transmit/fail form. Revise submittals with original number and a sequential alphabetic suffix. File names shall describe item included in file.
 - Identify Project, the Contractor, Subcontractor, or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy. Each file shall include an index of items included in file.
 - Apply the Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
 - Submittal data for all items in project shall be submitted at one time. Submittal shall be divided into groups with file sizes not exceeding 6 MB. If there is unavailable data such as control submittal, etc., these may be submitted later if not doing so would delay project progress. Data shall include capacities, complete installation instructions, dimensional data and electrical data, BHP, motor HP, operating weights, and load distribution at mounting points.
 - Deliver submittals electronically to the Design Professional.
 - Schedule submittals to expedite the Project, and coordinate submission of related items.
 - For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
 - Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
 - Provide space for the Contractor and the Architect/ review stamps.
 - When reissued for resubmission, identify all changes made since previous submission.
 - Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
 - Submittals not requested will not be recognized or processed.
 - Provide files containing only related items (such as piping, equipment, air distribution, etc)
- 22) Instruct Owner's representative in the operation of the systems, using the operation and maintenance manual as a teaching aid.
- 23) Provide an operation and maintenance manual. As a minimum, the manual shall contain:
- A complete list of all equipment and appearances with equipment designations (per Drawings), manufacturers, and catalog numbers.
 - Copies of manufacturers' brochures or instructions for operation and maintenance of all mechanical equipment, including replacement parts lists.
 - Typed system operation and maintenance instructions, including inspection, lubrication, and service instructions and schedules.
 - List of names, addresses and phone numbers of distributors of all equipment and appearances.
 - Manufacturers' warranties.
- 24) Basic motor requirements: basic requirements apply to mechanical equipment motors, unless otherwise indicated. Motors 1/2 hp and larger: Polyphase, unless otherwise scheduled. Motors smaller than 1/2 hp: single phase. Frequency rating: 60 Hz. Service factor: according to NEMA MG 1, general purpose continuous duty, design type "B." Enclosure: open drip–proof, unless otherwise indicated. Efficiency: motors shall have a higher efficiency rating than industry standard average motor as delineated in IEEE Standard 112, test method 13. Thermal protection: where indicated or required, internal protection automatically opens power supply circuit to motor when winding temperature exceeds a safe value calibrated to temperature rating of motor insulation. Thermal protection device automatically resets when motor temperature returns to normal range, unless otherwise indicated.
- 25) Hangers and supports: Building attachments: concrete inserts or structural–steel fasteners appropriate for building materials, and beam clamps. Hanger materials: galvanized, sheet steel or round, threaded steel rod. Hangers installed in corrosive atmospheres: electrogalvanized, all–thread rod or galvanized rods with threads painted after installation. Straps and rod sizes: comply with SMACNA's "HVAC Duct Construction Standards—Metal and Flexible" for sheet steel width and thickness and for steel rod diameters. Duct attachments: sheet metal screws, blind rivets, or self–tapping metal screws; compatible with duct materials. Trapeze and riser support galvanized steel shapes and plates: steel shapes complying with ASTM A 36/A 36M.
- 26) Sealant materials: joint and seam sealants, general: the term "sealant" is not limited to materials of adhesive or mastic nature but includes tapes and combinations of open–weave fabric strips and mastics. Joint and seam tape: 2 inches wide; glass–fiber fabric reinforced. Joint and seam sealant: one–part, nonsoap, solvent–release–curing, polymerized butyl sealant, formulated with a minimum of 75 percent solids. Flanged joint mastics: one–part, acid–curing, silicone, elastomeric joint sealants, complying with ASTM C 920, type S, grade NS, class 2S, use 0.
- 27) Unit Heaters–Electric: Electric unit blower heaters shall be UL listed, CSA certified and CE marked for use in dirty and corrosive environments. The heater shall be NEMA 4X rated for hose down requirements. Heaters to allow mounting positioning for horizontal or vertical operation. Heater to be of the kW rating, voltage, phase, and cycles specified in the schedule. Heating elements shall be typing 316 stainless steel tubing and type 316 stainless steel fins for maximum heat dissipation. The elements shall consist of high–quality resistance wire imbedded in a compacted magnesium oxide refractory for excellent dielectric strength and optimum thermal conductivity. The heaters shall be protected by a high temperature cutoff. The fan assembly shall include a UL listed and CSA certified, totally enclosed, epoxy painted motor with permanently lubricated ball bearings designed to resist moisture and corrosion. The epoxy coated aluminum fan blade shall be dynamically balanced for vibration free operational exposed sheet metal surfaces shall be constructed of type 304 stainless steel, the 20–gauge case shall be roll formed with beaded edges to insure rigidity. A lowered outlet grill shall be painted with the chromate primer and two coats of corrosion resistant epoxy paint. A NEMA 4X control enclosure shall contain the pre–wired built in controls: automatic reset over–temperature cutoff, fan delay relay, heater contactor, motor contactor, terminal block and 120V control transformer. Standard mounting hardware shall consist of three (3) L shaped gauge 304 stainless steel mounting brackets for mounting the heater directly to a wall for horizontal airflow or ceiling for vertical airflow. Refer to drawing for additional information.
- 28) All HVAC equipment such as AH, CU, EF, AC, HP, and RTU shall have visible nameplates with their associated marks on them.

- 29) Ceiling Ventilator shall have corrosion resistant galvanized steel housing with four–point mounting capability. It shall be ducted to a cap on wall or roof using round ductwork. Blower assembly shall be removable, have a centrifugal–type blower wheel and a permanently lubricated motor designed for continuous operation. Non–metallic damper/duct connector shall be included. Fan and heater shall be separately controllable. Fan shall contain electric heater Air delivery shall be no less than scheduled and sound level no greater than listed in the schedule. All air and sound ratings shall be certified by HV.
- 30) Electric Wall Mount Heater: Heater shall be UL listed and labeled with terminal box and cover, and built–in controls. Heater shall be made in three pieces consisting of back enclosure, heater assembly and front panel. Front panel shall be attached with concealed fasteners. Heating Elements: Nickel–chromium heating element wire shall be encased in a steel or copper sheath. Aluminum fins shall be pressure bonded to the sheath. Enclosure shall be minimum 20–gauge painted steel for surface mounting. Front Panel: Bar grille type with down deflection toward floor. Finish shall be paint on steel bars. Grille shall be surrounded by decorative satin finished aluminum anodized frame. Unit shall be fan forced type including fan motor, fan, and controls with thermostat adjustment accessible through front grille. Unit shall also include thermal safety cutouts in the event of over temperature conditions. Refer to Schedule on Drawings for additional specifications.
- 31) Up Blast fan (direct drive): Side wall mounted exhaust fans shall be upblast centrifugal direct drive type. The fan wheel shall be centrifugal backward inclined, constructed of aluminum, and shall include a wheel cone carefully matched to the inlet cone for precise running tolerances. Wheels shall be statically and dynamically balanced. The fan housing shall be constructed of heave gauge aluminum with a rigid internal support structure. Wind bands shall have a rolled bead for added strength and shall be joined to curb caps with a leak–proof, continuously welded seam. Motors shall be mounted out of the airstream on vibration isolators. Fresh air for motor cooling shall be drawn into the motor compartment from an area free of discharge contaminants. Motors shall be readily accessible for maintenance. A disconnect switch shall be factory installed and wired from the fan motor to a junction box within the motor compartment. A conduit chase shall be provided through the curb cap to the motor compartment for ease of electrical wiring. All fans shall bear the AMCA Certified Ratings Seal for sound and air performance. Each fan shall bear a permanently affixed manufacturer's nameplate containing the model number and individual serial number for future identification. Refer to schedule for further requirement.
- 32) Acceptable Manufacturers are:

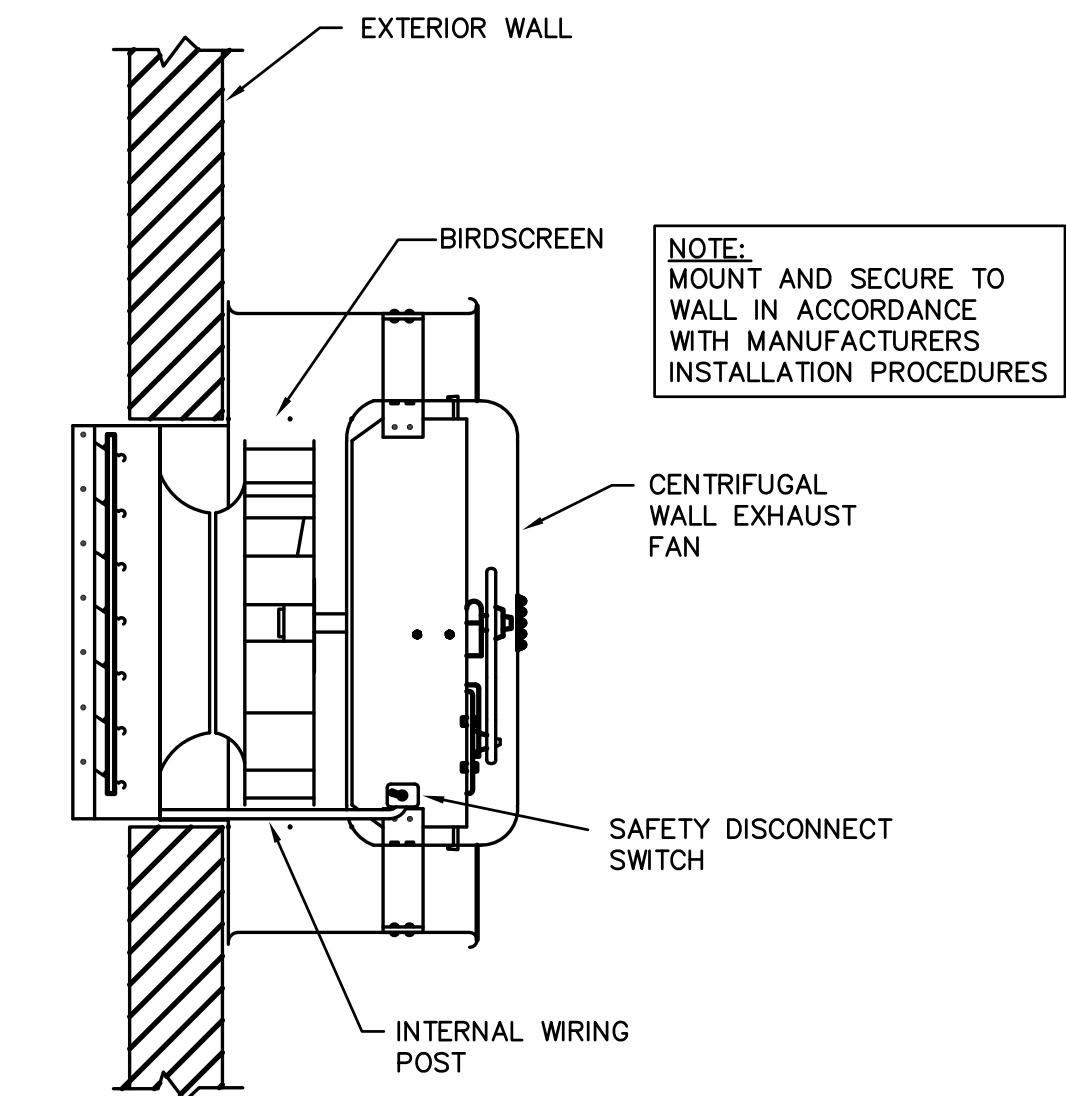
Fans: Twin-City, Cook, Greenheck, Penn Barry, Acme, American Cool Air, Captive Air, Salar & Palau
Electric Heaters: Markel, Q-Mark, Ray wall, Indico, Chromox



1 CEILING EXHAUST FAN W/SIDEWALL DISCHARGE-DETAIL
SCALE: N.T.S.



2 UNIT HEATER MOUNTING
SCALE: N.T.S.



3 SIDEWALL CENTRIFUGAL EXHAUST FAN MOUNTING-DETAIL
SCALE: N.T.S.

COMcheck Software Version 4.1.5.5
Mechanical Compliance Certificate

Project Information
Energy Code: 2015 IECC
Project Title: FILMORE THOMAS PARK
Location: Macon, Georgia
Climate Zone: 3a
Project Type: New Construction

Construction Site:
3793 LOF CABIN DR
MACON, GA 31204

Owner/Agent:
KRUNAL PATEL
TOTAL ENGINEER
169 NEW ST
MACON, GA 31201

Designer/Contractor:
KRUNAL PATEL
TOTAL ENGINEER
169 NEW ST
MACON, GA 31201

Additional Efficiency Package(s)
Credits: 1.0 Required 1.0 Proposed
Reduced Lighting Power: 1.0 credit

Mechanical Systems List

Quantity	System Type & Description
1	UH-1 (Single Zone) Heating: 1 each - Unit Heater, Electric, Capacity = 17 kBtu/h Fan System: None
1	UH-2 (Single Zone) Heating: 1 each - Unit Heater, Electric, Capacity = 10 kBtu/h No minimum efficiency requirement applies Fan System: None
3	EFWH 1 2 3 (Single Zone) Heating: 3 each - Unit Heater, Electric, Capacity = 6 kBtu/h No minimum efficiency requirement applies Fan System: None

Mechanical Compliance Statement
Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.
KRUNAL M.PATEL-MECH.ENG
Name - Title Signature Date 10-23-24

Project Title: FILMORE THOMAS PARK

Report date: 10/23/24

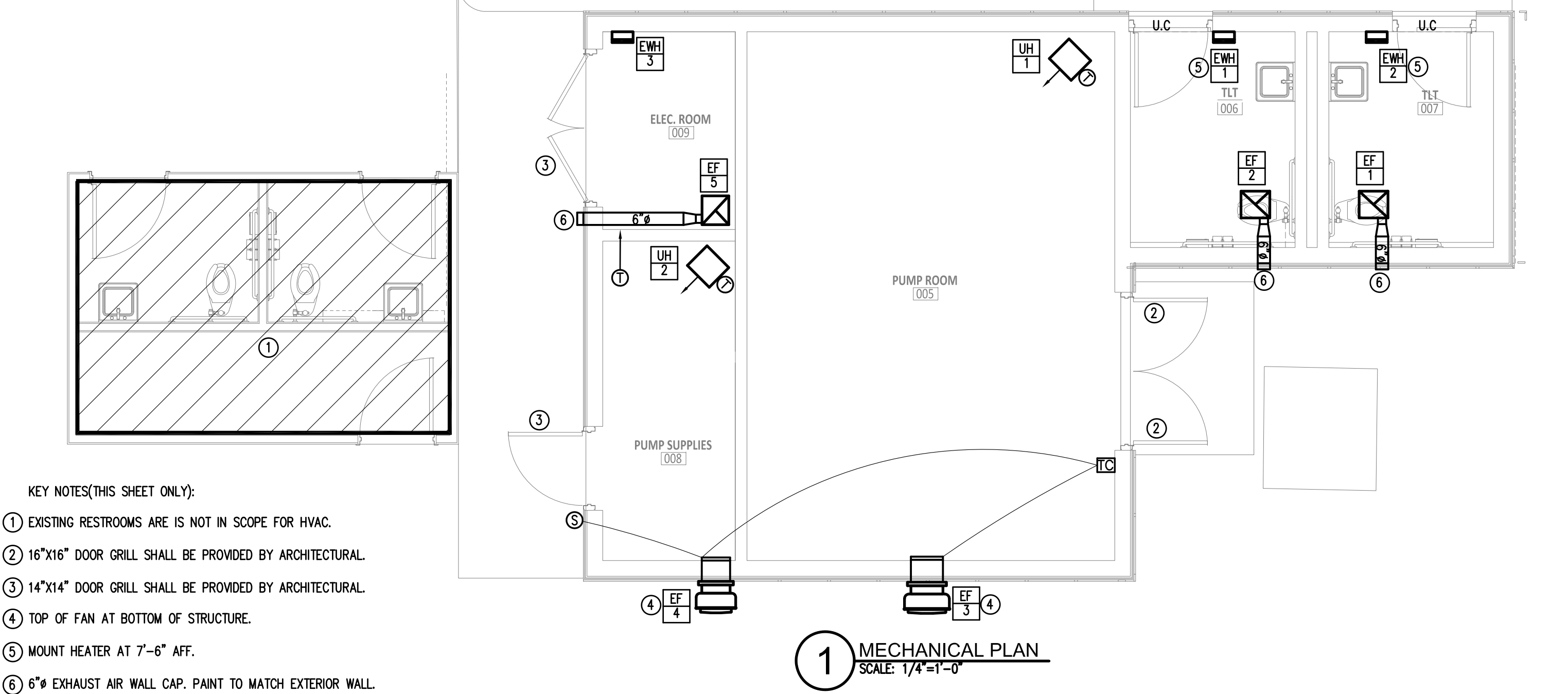
4 COMCHECK COMPLIANCE CERTIFICATE
SCALE: N.T.S.

FAN SCHEDULE									
MARK	CFM	EXT. SP IN W.G.	DRIVE TYPE	MOTOR HP/W	MAX FAN (RPM)	MAX TP SPEED FPM	POWER/ PHASE	LAY-OUT BASIS:	NOTES
EF-1	70	0.25	DIRECT	20 W	700	----	115/1	SP-B90	1:8:9
EF-2	70	0.25	DIRECT	20 W	700	----	115/1	SP-B90	1:8:9
EF-3	600	0.20	DIRECT	1/10 HP	1590	4525	115/1	CU-090-VG	2:3:4:5:6
EF-4	170	0.20	DIRECT	1/15 HP	1385	2945	115/1	CU-070-VG	2:3:4:5:6:7
EF-5	150	0.25	DIRECT	128 W	1050	----	115/1	SP-B150	1:8:10
1. VERIFY ELECTRIC POWER REQUIREMENTS WITH ELECTRICAL PLANS, WHICH TAKE PRECEDENCE OVER THIS INFORMATION. 2. VERIFY ELECTRIC POWER REQUIREMENTS WITH ELECTRICAL PLANS, WHICH TAKE PRECEDENCE OVER THIS INFORMATION. TOP OF FAN AT BOTTOM OF STRUCTURE. COORDINATE EXACT ELEVATION WITH ARCHITECT. 3. PROVIDE WALL MOUNTING BRACKETS, BOTTOM OF HEATER AT 6'-0" AFF. 4. PROVIDE ALL INTERNALLY AND EXTERNALLY COATED(INCLUDING WHEEL AND ALL SURFACES IN AIR STREAM) SUITABLE FOR SEVERELY CORROSIVE ATMOSPHERES(POTASSIUM PERMANGANATE & SODA ASH). COATING SHALL BE FACTORY APPLIED HI-PRO POLYESTER COATING. 5. POLYESTER COATING SHALL BE GREENKOR HI-PRO POLYESTER OR EQUIVALENT. PROVIDE MANUFACTURER'S WALL GRILL. 6. FAN SHALL BE CONTROLLED BY WALL MOUNTED TIME CLOCK. 7. PROVIDE DISCONNECT SWITCH TO OVERRIDE TIME CLOCK AND ENERGIZE THE FAN PRIOR TO ENTERING ROOM. 8. CEILING MOUNTED CENTRIFUGAL FAN. PROVIDE AND INSTALL MANUFACTURER'S ROUND DUCT CONNECTION. PROVIDE FACTORY SUPPLIED DISCONNECT SWITCH, BACKDRAFT DAMPER, GRILLE AND MOTOR WITH THERMAL OVERLOAD. 9. FAN SHALL BE INTERLOCKED WITH LIGHTS IN THE ROOM IT SERVES. PROVIDE 10 MINUTE TIME DELAY. 10. FAN SHALL BE CONTROLLED BY LINE VOLTAGE THERMOSTAT PROVIDED AND INSTALLED BY MECHANICAL.									

ELECTRIC UNIT HEATER SCHEDULE					
EQUIPMENT NO.	VOLTS/PHASE	AIR FLOW (CFM)	TOTAL KW	LAY-OUT BASIS: CHROMALOX	NOTES
UH-1	208/1	405	5.0	HD30-500	1:2:3:4:5
UH-2	208/1	405	3.0	HD30-300	1:2:3:4:5
1. VERIFY ELECTRIC POWER REQUIREMENTS WITH ELECTRICAL PLANS, WHICH TAKE PRECEDENCE OVER THIS INFORMATION. 2. PROVIDE WALL OR CEILING MOUNTING BRACKETS, BOTTOM OF HEATER AT 6'-0" AFF. 3. PROVIDE UNIT MOUNTED THERMOSTAT, CONTACTOR, AND INTEGRAL FAN CONTROL, POWER TRANSFORMER AND INTEGRAL DISCONNECT SWITCH. 4. ALL HEATER COMPONENTS SHALL BE HOUSED IN 4X ENCLOSURE SUITABLE FOR CORROSIVE ENVIRONMENTS AND WASH DOWN APPLICATION. 5. HEATER CASING INCLUDING ALL ITS COMPONENTS SHALL BE EPOXY PAINTED.					

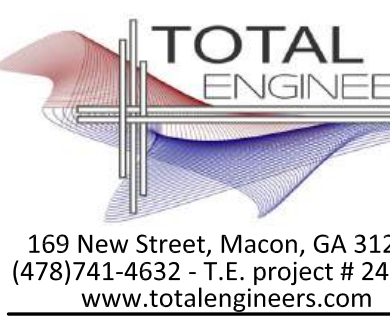
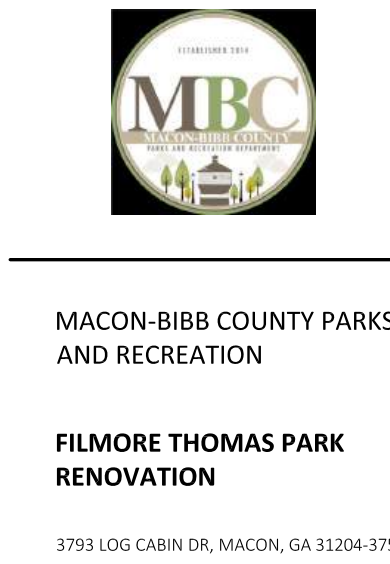
ELECTRIC CABINET HEATER SCHEDULE				
MARK	HEATER KW	VOLTS/PH	BASIS OF DESIGN	NOTES
EFWH-1	1.5	120/1	BROAN 174	1:2:3
EFWH-2	1.5	120/1	BROAN 174	1:2:3
EFWH-3	1.5	120/1	BROAN 174	2:3:4
1. MOUNT HEATER AT 7'-6" AFF. 2. VERTICAL WALL MOUNTED EXPOSED HEATER. 3. VERIFY ELECTRIC POWER REQUIREMENTS WITH ELECTRICAL PLANS, WHICH TAKE PRECEDENCE OVER THIS INFORMATION. 4. MOUNT HEATER AT 12" AFF.				

MECHANICAL SYMBOLS & ABBREVIATIONS LEGEND	
	NEW PIPE, DUCTWORK OR EQUIPMENT
	DUCT SIZE: FIRST DIMENSION IS SIDE DRAWN. FLEXIBLE ROUND DUCTWORK
	FIRE DAMPER, SMOKE DAMPER, SMOKE DETECTOR
	CEILING SUPPLY DIFFUSER
	CEILING RETURN OR EXHAUST AIR
	S.A. DUCT OUT OF TU BOX WITH DUCT LINER FOR THR FIRST FIVE FEET OF DUCT OUT OF TU BOX
	SIDEWALL REGISTER OR GRILLE
	CHANGE IN PIPE OR DUCT SIZE OR SHAPE
	REFRIGERANT PIPING
	CONDENSATE OR OTHER DRAIN PIPING
	ELBOW TURNED DOWN OR TURNED UP IN PIPING
	THERMOSTAT, ARROW SHOWS CONTROL WIRING PATH
	TIME CLOCK
	DIAMETER
	U.C. UNDER-CUT DOOR 3/4", UNLESS OTHER SIZE NOTED
	INDICATES EQUIPMENT ON PLANS; TOP ITEM SHOWS TYPE OF EQUIPMENT AND BOTTOM ITEM SHOWS SPECIFIC MARK NUMBER
	ITEM IN HEXAGON SHOWS AIR DEVICE MARK NUMBER, ITEM ABOVE LINE SHOWS NECK SIZE, ITEM BELOW LINE SHOWS AIR FLOW THROUGH DEVICE, AND NUMBER IN FRONT SHOWS QUANTITY IF MORE THAN ONE
	ABOVE FINISHED FLOOR
	BYPASS DAMPER
	BTU/h, MBH
	CAPACITY
	CUBIC FEET PER MINUTE
	CEILING
	CONDENSING UNIT
	DB, WB
	EA, EG
	EF
	EXT SP
	MVD, VD
	OA
	RA, RG
	SA
	VAC, PH
	W, KW
	UH
	ACCESS DOOR
	RADIUS ELBOW (R=15)
	VANED ELBOW



- KEY NOTES(THIS SHEET ONLY):
- EXISTING RESTROOMS ARE NOT IN SCOPE FOR HVAC.
 - 16"x16" DOOR GRILL SHALL BE PROVIDED BY ARCHITECTURAL.
 - 14"x14" DOOR GRILL SHALL BE PROVIDED BY ARCHITECTURAL.
 - TOP OF FAN AT BOTTOM OF STRUCTURE.
 - MOUNT HEATER AT 7'-6" AFF.
 - 6" EXHAUST AIR WALL CAP. PAINT TO MATCH EXTERIOR WALL.

1 MECHANICAL PLAN
SCALE: 1/4"=1'-0"



PLUMBING SPECIFICATIONS

Provide all plumbing items indicated on the drawings, described herein or otherwise required for a complete and proper installation, including:

- A. Plumbing fixtures, fittings and equipment.
- B. Hot and cold water systems.
- C. Drain waste and vent piping systems.
- D. Indirect waste piping, including all valves, traps, piping and accessories for all equipment. Size per equipment requirements.

Comply with all applicable codes, standards and ordinances, including requirements of the Georgia State Minimum Standard Plumbing Code (2018 International Plumbing Code with all Georgia State Amendments), Georgia State Minimum Standard Energy Code (2015 International Energy Conservation Code with all Georgia State supplements and Amendments), and the DOJ 2010 ADA Standards for Accessible Design with Georgia Amendments of Rule 120-3-20.

The contractor should not attempt to precisely scale dimensions from these drawings to obtain construction dimensions and clearance. The contractor shall verify all actual dimensions and clearances. Although these plans are diagrammatic in nature, they shall be followed as closely as site conditions, new construction, and work by other trades shall permit. Deviations from these drawings, which are required to conform to the available space or to actual building construction, shall be made at no additional cost to the owner.

The submission of a bid or proposal will be construed as evidence that the contractor has familiarized himself with the plans and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless these difficulties could not have been foreseen, even though proper examination had been made.

Fabrication or ordering of any material or equipment prior to verification of site conditions shall be done at the contractor's risk.

All equipment and material shall be new and of first quality. Equipment and material shall be the same or equal to the basis of design listed on these drawings.

Coordinate with all trades and verify all equipment rough-in items and locations with the equipment supplier or contractor. All re-work and corrections required due to lack of coordination shall be the contractor's responsibility, and done at no cost to the owner.

Submit shop drawings and material data submittals to the engineer for approval before installation. No substitutions shall be allowed without prior approval by the engineer. Product data for piping, insulation, valves, specialties and all fixtures and equipment scheduled and specified here. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.

All equipment and fue materials shall be U.L. listed.

Installation shall comply with manufacturer requirements including all clearances recommended for proper operation of service. All serviceable parts shall be readily accessible.

Below ground sanitary drain and vent piping shall be solid-wall ASTM D2665 schedule 40 PVC. Install underground, PVC plastic drainage piping according to ASTM D2321. Above ground sanitary drain, roof drainage, overflow roof drainage, and vent piping shall be cellular-core ASTM F891 schedule 40 PVC. Install aboveground PVC piping according to ASTM D 2665. All aboveground piping shall be adequately supported. Sanitary drain and vent piping shall have PVC Socket Fittings (ASTM D 2665, made to ASTM D 3311, drain, waste, and vent patterns and to fit Schedule 40 pipe). Slope pipe sizes 8" and under at 1/8 inch per foot continuously toward public sewer. Slope pipe sizes 8" and larger at 1/16 inch per foot continuously toward public sewer.

All above ground domestic water distribution piping shall be ASTM D 2846, SDR11, schedule 40 CPVC with socket fittings. All piping shall be adequately supported. Disinfect all domestic water piping after installation. All underground domestic water distribution piping 1" and smaller shall be ASTM D 876 & ASTM F 877 PEX with no fittings underground. All underground domestic water distribution piping 1-1/4" and larger shall be ASTM D 1785 schedule 40 PVC with ASTM D 2466 PVC socket fittings.

DOMESTIC WATER PIPING CLEANING

A. Clean and disinfect potable domestic water piping as follows:

1. Purge new piping and parts of existing piping that have been altered, extended, or repaired before use.
2. Use purging and disinfecting procedures prescribed by authorities having jurisdiction; if methods are not prescribed, use procedures described in either AWWA C651 or AWWA C652 or follow procedures described below:
 - a. Flush piping system with clean, potable water until dirty water does not appear at outlets.
 - b. Flush and isolate system according to either of the following:
 - 1) Fill system or part thereof with water/chlorine solution with at least 50 ppm (50 mg/L) of chlorine. Isolate with valves and allow to stand for 24 hours.
 - 2) Fill system or part thereof with water/chlorine solution with at least 200 ppm (200 mg/L) of chlorine. Isolate and allow to stand for three hours.
 - c. Flush system with clean, potable water until no chlorine is in water coming from system after the standing time.
 - d. Repeat procedures if biological examination shows contamination.
 - e. Submit water samples in sterile bottles to authorities having jurisdiction.

B. Prepare and submit reports of purging and disinfecting activities. Include copies of water-sample approvals from authorities having jurisdiction.

C. Clean interior of domestic water piping system. Remove dirt and debris as work progresses.

Domestic water piping shall be insulated with Owens Corning type ASJ/SL--II heavy density fiber glass with all service jacket. Insulation shall have a flame spread rating not to exceed 25 and a smoke density not to exceed 50 when tested in accordance with U.B.C. standard 42-1. Provide mastic on all joints and exposed ends of insulation. Insulate domestic Cold water piping in unconditioned spaces such as exterior corridors, attic, basements, etc with 1/2" thick insulation for piping 1-1/4" & smaller and 1" thick insulation for piping 1-1/2" & larger. Insulate all domestic hot water supply and return piping with 1" thick insulation for piping 1-1/4" & smaller and 1-1/2" thick insulation for piping 1-1/2" & larger.

HW & CW Valves: Use pipe size valves, as shown below:

- A. Ball: Watts LFFB-3C.
- B. Check: Watts #600 or #601S.

Fixture tailpieces, wall escutcheons, and traps for lavatories and sinks shall be brass tubing, semi-cast, or cast iron: All brass tubing shall be 17 gage, chrome plated. Grid drains for public lavatories.

Water Hammer Arresters shall comply with standard ASSE 1010, metal bellows type or copper piston type.

Lavatory Supports shall be type II, lavatory carrier with concealed arms and tie rod for wall-mounting, lavatory-type fixture. Include steel uprights with feet. For accessible-fixture support include rectangular steel uprights.

Lavatory/ Sink supply fittings: NSF Standard: Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components -- Health Effects," for supply-fitting materials that will be in contact with potable water. Standard: ASME A112.18.1/CSA B125.1. Supply Stops: Chrome-plated-brass, one-quarter-turn, ball-type valve with inlet connection matching supply piping. Wheel handle operation. Risers: Chrome-plated, soft-copper flexible tube for exposed applications and ASME A112.18.6, braided- or corrugated-stainless-steel, flexible hose for conceal behind cabinet applications.

Provide ADA Supply and Drain Protective Shielding Guards on ADA fixtures that piping is exposed. Supply and Drain Protective Shielding Guards shall comply with ICC A117.1 and Americans with Disabilities Act (ADA) requirements. Manufactured plastic wraps shall cover hot and cold water supplies, trap, and drain piping.

All pipe hangers, clamps and channels shall be adequately sized to carry pipe loads and prevent sagging.

All other materials not specifically described but required for a complete and proper installation of work of this section, shall be new, first quality of their respective kinds, and as selected by the contractor subject to acceptance by the engineer.

Lay out the plumbing system in careful coordination with the drawings, determining proper elevations for all components of the system and using only the minimum number of bends to produce a satisfactorily functioning system. Follow the general layout shown on the drawings in all cases except where other work may interfere. Unless shown otherwise, lay out all pipes to fall within partition, wall floor, or roof cavities, and to not require furring other than as shown on the drawings.

Do not cut into or reduce the size of any load-carrying member without the prior approval of the architect. Install all pipes to clear all beams and obstructions.

Permanently close and make weatherproof any openings or penetrations of the building envelope made for plumbing systems. All wall and floor penetrations shall be sleeved. All exterior wall or foundation wall penetrations shall use a mechanical seal.

Coordinate all roof penetrations with architectural plans and building and roofing trades.

Provide shut-off balls valves and unions at all water connections to equipment and appliances.

Isolate all dissimilar metals with "EPCO" dielectric unions, except for brass or bronze valves with steel pipe.

Protect the potable water supply against backflow and siphonage from equipment, fixtures, etc., using approved backflow and anti-siphon devices.

Thoroughly clean all piping and equipment. Removing all dirt, rust, oil, and plaster.

Test Sanitary drainage piping by plugging all openings and filling with water to a height equal to a 10 foot head. Allow to stand one hour or longer as required. Repair leaking joints and then re-test.

No work shall be covered until it has been inspected and accepted by the local authority.

Domestic water piping tests: Fill domestic water piping. Check components to determine that they are not air bound and that piping is full of water. Test for leaks and defects in new piping and parts of existing piping that have been altered, extended, or repaired. Leave new, altered, extended, or replaced domestic water piping uncovered until it has been tested and approved. Expose work that was covered or concealed before it was tested. Cap and subject piping to static water pressure of 50 psi (345 kPa) above operating pressure, without exceeding pressure rating of piping system materials. Isolate test source and allow it to stand for four hours. Leaks and loss in test pressure constitute defects that must be repaired. Repair leaks and defects with new materials, and retest piping or portion thereof until satisfactory results are obtained.

The entire system shall be warranted for a period of one (1) year beginning with Owner's acceptance of the work. All labor and materials necessary to repair or replace the system, or portions thereof, during that time shall be warranted for a period of one (1) year from the repair or replacement.

Install piping in concealed locations, unless otherwise indicated and except in equipment rooms, and service areas. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal. Install piping to permit active servicing. Install piping at indicated slopes. Install piping free of sags and bends. Install fittings for changes in direction and branch connections. Install piping to allow application of insulation. Select system components with pressure rating equal to or greater than system operating pressure. Install escutcheons for penetrations of walls, ceilings, and floors. Verify final equipment locations for roughing-in.

Confirm that millwork is constructed with adequate provision for the installation of counter top lavatories and sinks.

Seal fixtures to wall and floor surfaces with sealant, color to match fixture.

All vents thru roof (VTR) shall be offset a minimum of 10'-0" from all outside air intakes.

Provide a complete through penetration fire stopping assembly for fire resistance rated wall assemblies. The through penetration assembly must be listed by an approved third-party test agency (UL), and include the entire listed assembly with all notations. Refer to architectural drawings for fire wall locations.

Approved manufactures: (Items submitted shall be approved by architect and engineer. Architect and engineer reserve the right to reject any item substituted for basis of design item for any reason.)

China Fixtures: American Standard, Kohler, Toto, Zurn, Sloan

Faucets: Delta, T&B Brass, Chicago Faucets, Zurn, Kohler, Grohe, Moen, Speakman, Symmons

Supplies & Traps: Engineered Brass CO., McGuire, Charlotte Pipe, Brasscraft, IPS, Watts, Zurn

Flush Valves: Sloan, Delany, Zurn, American Standard

Floor Drains & Cleanouts: Zurn, Joy R. Smith, Proset, Watts, Mifab, Wade, Josam, Sioux Chief, Oatey

Tankless Electric Water Heaters: A.O. Smith, Rheem, Eemax, Chromalite

Toilet Seats: Bemis, Centoc, Church Seats, Osonite, Beneka, Zurn, Mainline

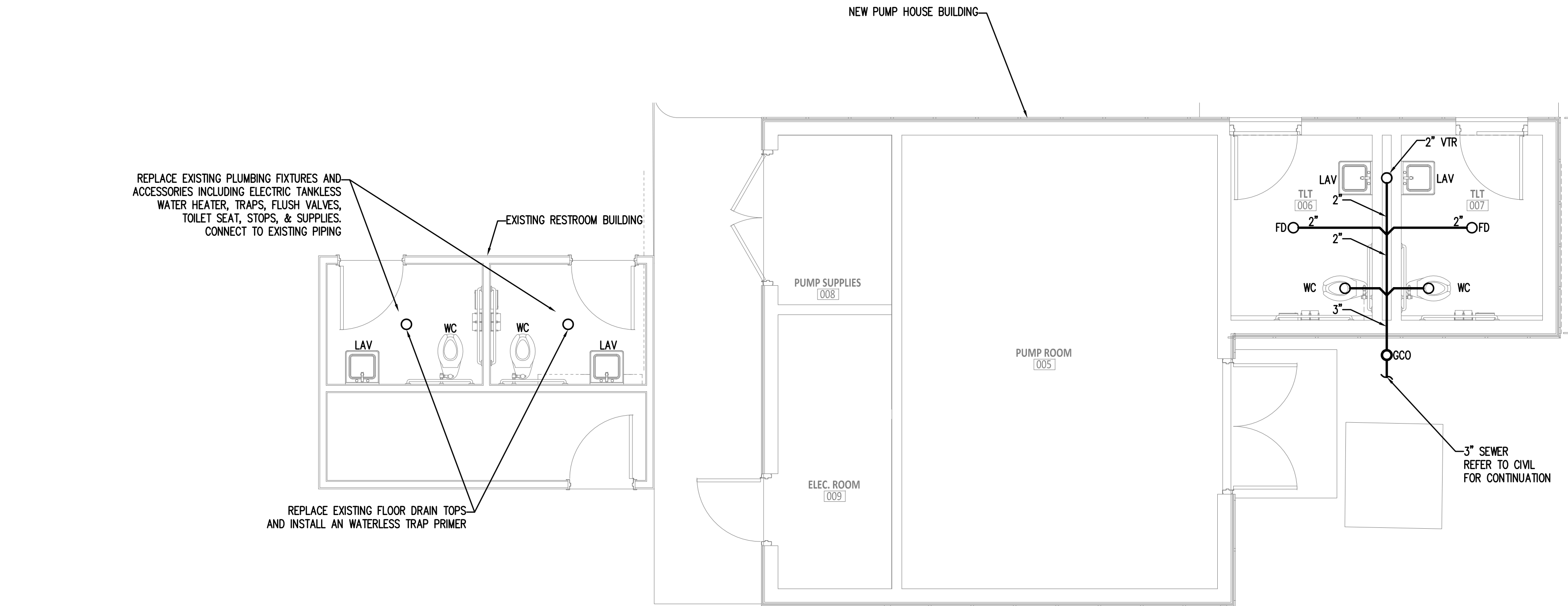
ADA Protective Shielding Pipe Covers: Engineered Brass, McGuire, Plumberex, TRUEBRO, Zurn, Oatey

Fixture Supports: MIFAB, Joy R. Smith, Wade, Watts, Zurn

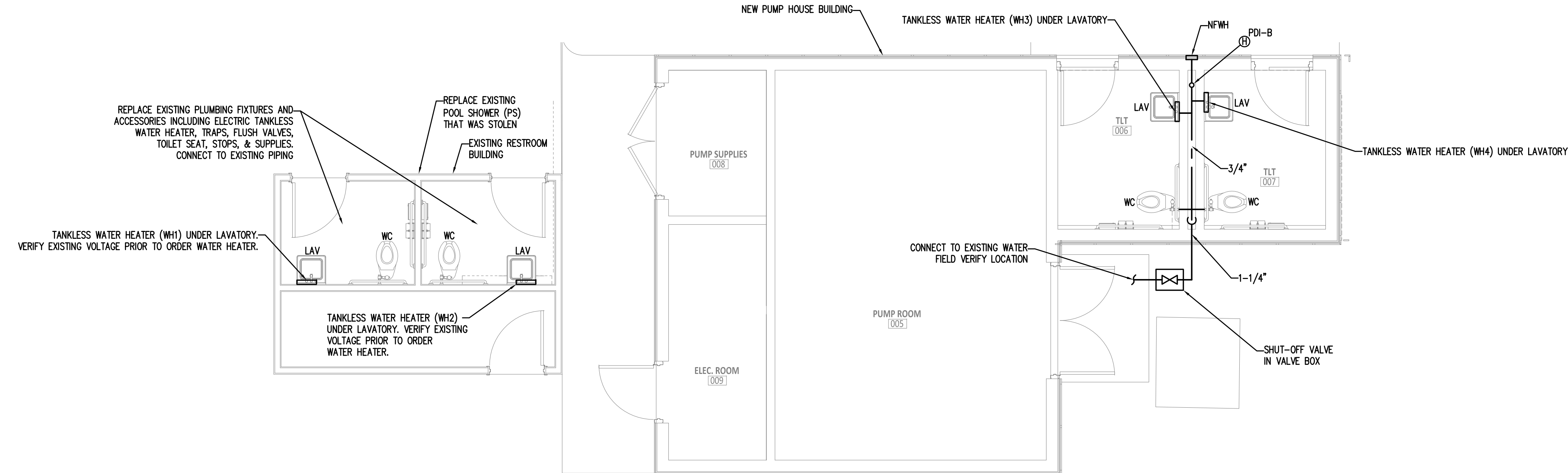
Wall Hydrants/ Hose Bibbs: MIFAB, Joy R. Smith, Wade, Watts, Woodford, Zurn

Water Hammer Arresters: AMTROL, Josam, MIFAB, PPP, Sioux Chief, Joy R. Smith, Wade, Watts, Zurn

Brass Valves: American, Crane, Watts, Apollo



1 PLUMBING PLAN - SEWER
SCALE: 1/4"=1'-0"



2 PLUMBING PLAN - WATER
SCALE: 1/4"=1'-0"

FIXTURE AND EQUIPMENT SCHEDULE									
#	FIXTURE TYPE	WASTE BELOW FLOOR	FIXTURE CONN.	WATER SUPPLY COLD	HOT	COLD	HOT	CONN.	MANUFACTURE AND NOTES
WC	ADA WATER CLOSET 1.28 GPF	3"	3"	1"		1"			KOHLER K-96057-B WATER CLOSET. SLOAN REGAL 111 SFSM-1.28 FLUSH VALVE. BEMIS 1655550T SEAT.
LAV	ADA WALL-HUNG LAVATORY 0.5 GPM	2"	1-1/4"	1/2"	1/2"	1/2"	1/2"		KOHLER K-2005 LAVATORY. MOEN 8413F05 FAUCET.
NFHW	NON-FREEZE WALL HYDRANT			3/4"		3/4"			WOODFORD B65
FD	FLOOR DRAIN WITH WATERLESS TRAP PRIMER	3"	3"						WATTS FD-190-PR-60 FLOOR DRAIN. RECTORSEAL "SURESEAL PLUS" WATERLESS TRAP
GCO	GRADE CLEANOUT	SEE DWG.	SEE DWG.						WATTS CO-200-RX-4-60.
PS	POOL SHOWER			1/2"		1/2"			OUTDOOR SHOWER COMPANY WMPC-150-12

LEGEND							
	SHUTOFF VALVE		COLD WATER	(TYP)	TYPICAL	VTR	VENT THRU ROOF
	BALANCING VALVE		TEMPERED HOT WATER	C.T.	COUNTER-TOP	AFF	ABOVE FINISHED FLOOR
	CHECK VALVE	140"	140" HOT WATER	DN	DOWN	CW	COLD WATER
	PIPE UP		HOT WATER RETURN	CONN.	CONNECTION	HW	HOT WATER
	PIPE DOWN	G	GAS	NTS	NOT TO SCALE	HWR	HOT WATER RETURN
	PDI UNIT WATER HAMMER ARRESTOR	R	ROOF DRAINAGE PIPING	VT	VENT	B.F.F.	BELOW FINISH FLOOR
	DWGS. DRAWINGS		SEWER VENT	FFE	FINISHED FLOOR ELEVATION	CV	CLOSED VALVE
	INDIRECT WASTE		SEWER	FLR			
	DOWNSPOUT	C	CONDENSATE	GREASE	GREASE LADEN SEWER		
		O	OVERFLOW ROOF DRAINAGE PIPING				

WATER HEATER & TANK SCHEDULE							
MARK	MANUFACTURER	MODEL NUMBER	TYPE	GALLON	KW	*ELECTRICAL VOLTS	PHASE
WH1	CHRONOMITE	CM-15L/208	TANKLESS ELECTRIC POINT OF USE	N/A	3.12	208	1
WH2	CHRONOMITE	CM-15L/208	TANKLESS ELECTRIC POINT OF USE	N/A	3.12	208	1
WH3	CHRONOMITE	CM-15L/208	TANKLESS ELECTRIC POINT OF USE	N/A	3.12	208	1
WH4	CHRONOMITE	CM-15L/208	TANKLESS ELECTRIC POINT OF USE	N/A	3.12	208	1

CONTRACTOR SHALL CONSULT THE ELECTRICAL DOCUMENTS FOR VOLTAGE AND PHASE.



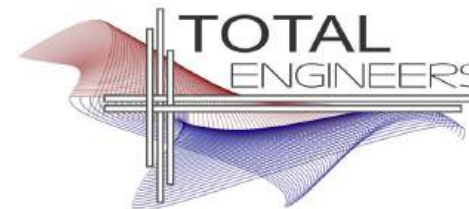
ARCHITECTS
WM2A.COM
348 COTTON AVENUE
SUITE 500, PO BOX 110
MACON, GEORGIA 31201



MACON-BIBB COUNTY PARKS
AND RECREATION

FILMORE THOMAS PARK
RENOVATION

3755 LOG CABIN DR, MACON, GA 31204-3753



169 New Street, Macon, GA 31201
(478)741-4532 - T.E. project # 24-081
www.totalengineers.com

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Project Status: PLUMBING PLANS
Revision No (if any): Revision Date:

Project No: 2024-081 Current Date: 10/30/2024

Drawing Name: PLUMBING PLANS

Drawing No:

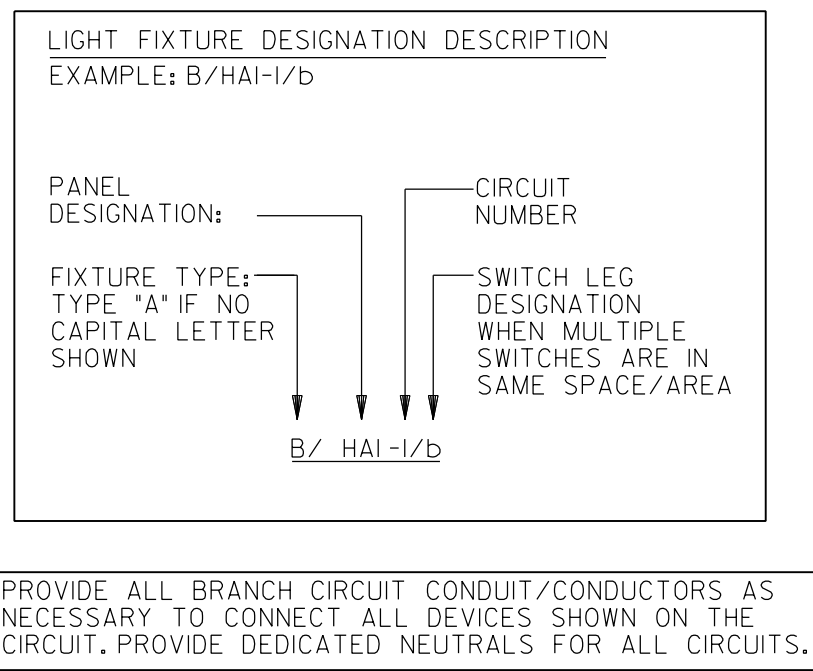
ELECTRICAL SPECIFICATIONS		
DIVISION 26		SECTION C: DISTRIBUTION EQUIPMENT
ELECTRICAL		
SECTION A: GENERAL ELECTRICAL REQUIREMENTS		
1. THESE PLANS AND SPECIFICATIONS APPLY TO FILMORE THOMAS PARK IN MACON, GEORGIA. THE WORK DESCRIBED BY THESE PLANS AND SPECIFICATIONS APPLY TO THE INDICATED PROJECT AND MAY NOT BE MODIFIED OR REUSED WITHOUT WRITTEN APPROVAL OF THE ENGINEER.		
2. ALL WORK SHALL BE PERFORMED BY LICENSED ELECTRICAL CONTRACTOR WITH MINIMUM OF TWO YEARS OF EXPERIENCE. LIST OF PREVIOUS JOBS AND REFERENCES SHALL BE MADE AVAILABLE UPON REQUEST. CONTRACTOR SHALL PROVIDE ADEQUATE INSURANCE FOR PERSONNEL AND SHALL REPAIR ANY DAMAGE OCCURRING AS THE RESULT OF THIS PROJECT SITE AND RELATED PROPERTY.		
3. ALL WORK SHALL BE PERFORMED IN A PROFESSIONAL MANNER IN ACCORDANCE WITH THE 2020 NATIONAL ELECTRICAL CODE, LIFE SAFETY CODE NFPA 70E, ADA CODE, ALL ACCESSIBILITY CODES, STATE OF GEORGIA ENERGY CODE AND ALL OTHER APPLICABLE CODES AND ORDINANCES.		
4. ALL PERMITS AND FEES SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR.		
5. ALL EQUIPMENT, MATERIAL, AND DEVICES SHALL BE LISTED OR RECOGNIZED BY UNDERWRITER'S LABORATORY OR ELECTRICAL TESTING LABORATORY AND USED AND INSTALLED IN ACCORDANCE WITH ITS LISTING.		
6. ALL WORK PERFORMED SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE FINAL COMPLETION DATE EXCEPT FOR FUSES AND LAMPS IN LIGHT FIXTURES. UPON NOTIFICATION OF A PROBLEM, THE CONTRACTOR SHALL INVESTIGATE THE PROBLEM WITHIN 48 HOURS UNLESS A DIFFERENT TIME PERIOD IS AGREED TO. THE CONTRACTOR SHALL INVESTIGATE, REPAIR OR REPLACE ALL FAULTY EQUIPMENT WITHIN A REASONABLE TIME PERIOD WITHOUT CHARGE TO THE OWNER.		
7. THE TERM "PROVIDE" SHALL BE UNDERSTOOD TO MEAN, OBTAIN THE ITEM DESCRIBED - INSTALL ITEM IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS , AND MANUFACTURER'S RECOMMENDATIONS.		
8. ALL PENETRATIONS MADE IN FIRE RATED BUILDING PORTIONS SHALL BE SEALED WITH A LISTED RESISTANT MATERIAL SUITABLE FOR THE APPLICATION.		
9. ALL INSTALLATIONS OF ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE COORDINATED WITH OTHER TRADES PRIOR TO INSTALLATION.		
10. PLANS ARE DIAGRAMMATIC AND SHOW THE LOCATION OF THE EQUIPMENT, RACEWAY AND FIXTURES, AND ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED AT THE BUILDING SITE.		
11. CONTRACTOR SHALL VERIFY AND COORDINATE ALL EQUIPMENT AND DEVICE LOCATIONS WITH OWNER'S PROJECT MANAGER PRIOR TO INSTALLATION.		
12. EQUIPMENT POWER SUPPLY AND WIRING REQUIREMENTS: THE CONTRACTOR SHALL SUBMIT FOR REVIEW A TABULATED SHEET OF EQUIPMENT POWER SUPPLY AND WIRING REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT REQUIRING POWER AS SPECIFIED IN DIVISION 23. REQUIREMENTS SHALL BE IDENTIFIED BY HORSEPOWER OR KW, OPERATING AMPERAGE, REQUIRED VOLTAGE AND PHASE REQUIREMENTS, AND MANUFACTURERS SUGGESTED OVERCURRENT CIRCUIT PROTECTION DEVICE SIZE AND MINIMUM CIRCUIT AMPACITY SIZE. WHERE THE ELECTRICAL REQUIREMENTS SUBMITTED FOR MECHANICAL EQUIPMENT DIFFERS FROM THE BRANCH CIRCUITRY SHOWN ON THE ELECTRICAL DRAWINGS WHEN USING THE BASIS OF DESIGN UNIT LISTED IN THE MECHANICAL SCHEDULES/SPECIFICATIONS OR A SIMILAR UNIT OF THE SAME SIZE FROM LISTED ALTERNATE MANUFACTURERS, THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS TO THE BRANCH CIRCUITRY PER THE CURRENT NEC AT NO ADDITIONAL COST TO THE OWNER, WHEN CHANGES ARE MADE TO POWER REQUIREMENTS FOR EQUIPMENT DUE TO OWNER, ARCHITECT/ENGINEER APPROVED VALUE ENGINEERING CHANGES TO EQUIPMENT. THE COST MUST BE INCLUDED IN THE VALUE ENGINEERING OVERALL CHANGE ORDER COST. COSTS DUE TO ADJUSTMENTS IN BRANCH CIRCUITRY TO EQUIPMENT DUE TO VALUE ENGINEERING CHANGES WILL NOT BE ALLOWED AFTER THE OVERALL VALUE ENGINEERING CHANGE ORDER HAS BEEN APPROVED. IN ALL CASES, POWER WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT MUST BE PROVIDED TO THE ENGINEER BEFORE OR AT THE SAME TIME AS THE SHOP DRAWINGS FOR THE ELECTRICAL DISTRIBUTION GEAR OR EQUIPMENT. IN NO CASE SHALL THE ELECTRICAL DISTRIBUTION GEAR OR EQUIPMENT BE ORDERED OR BRANCH CIRCUITRY ROUGHED IN PRIOR TO ENGINEER REVIEW AND COMMENT ON THIS DOCUMENT. ANY EQUIPMENT ORDERED OR BRANCH CIRCUITRY ROUGHED IN ON THE JOBSITE WITHOUT THIS REVIEW AND COMMENT WILL BE TOTALLY AT THE CONTRACTORS RISK.		
SECTION B: BASIC MATERIALS		
1. ALL CONDUCTORS USED FOR 600 VOLTS OR LESS SHALL BE HIGH GRADE COPPER CONDUCTORS WITH 75 DEGREE C, THHN OR THWN THERMOPLASTIC INSULATION. ALL CONDUCTORS SHALL BE MADE IN THE USA. ALL CONDUCTORS ROUTED IN UNDERGROUND CONDUIT SHALL BE RATED FOR WET LOCATIONS.		
2. ALL INTERIOR 120 VOLT, 20 AMP POWER AND LIGHTING WIRING SHALL BE INSTALLED IN MC CABLE IF NOT EXPOSED OR ALL INTERIOR CIRCUITS UNLESS OTHERWISE NOTED. POWER CIRCUITS FOR HVAC EQUIPMENT SHALL BE IN ELECTRICAL METALIC CONDUIT. ALL CONDUIT SHALL BE SUPPORTED FROM BUILDING STRUCTURE. IT SHALL NOT BE SUPPORTED FROM DUCTWORK, PIPING, CEILING GRID OR CEILING GRID SUPPORTS, OR ANY OTHER NON-STRUCTURAL ITEM. CONDUIT SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC. CONDUIT IN EXPOSED STRUCTURE AREAS SHALL BE EMT, GALVANIZED RIGID STEEL CONDUIT SHALL BE USED IN AREAS WHERE IT WILL BE EXPOSED TO PHYSICAL DAMAGE. ALL 20A BRANCH CIRCUITS LONGER THAN 80FT SHALL BE MC.		
3. CONDUIT UNDERGROUND SHALL BE SCHEDULE 40 PVC, IF MORE THAN ONE CONDUIT IS PROVIDED IN A SINGLE TRENCH, THE CONDUIT SHALL BE RACKED WITH SPACERS EVERY FOUR FEET TO MAINTAIN A MINIMUM SPACING BETWEEN CONDUIT OF TWO INCHES. BACKFILL USED FOR UNDERGROUND INSTALLATIONS SHALL BE FREE OF FOREIGN MATTER. WHERE EXPOSED TO WEATHER, CONDUIT SHALL BE GALVANIZED RIGID STEEL OR INTERMEDIATE METALLIC CONDUIT. THE CONDUIT SHALL BE TERMINATED WITH LISTED FITTINGS AND ALL CONDUIT ENDS SHALL BE REAMED AND SMOOTH. ALL CONDUIT ENDS IN BOXES SHALL BE PROVIDED WITH INSULATED BUSHINGS.		
4. A #12 INSULATED COPPER GROUND CONDUCTOR SHALL BE INCLUDED IN ALL BRANCH CIRCUITS RATED 20 AMPERES. ALL OTHER CIRCUITS AND FEEDERS WILL BE PROVIDED WITH AN INSULATED COPPER CONDUCTOR SIZED AS NOTED OR IN ACCORDANCE WITH THE NEC, WHICHEVER IS GREATER.		
5. THE MINIMUM SIZE OF ALL CONDUCTORS NOT OTHERWISE INDICATED IS #12 AND THE MINIMUM SIZE OF ALL CONDUIT UNLESS OTHERWISE INDICATED IS 1/2 IN.		
6. ALL JUNCTION BOXES SHALL BE PROVIDED WITH COVERS AND ALL UNUSED OPENINGS SHALL BE PLUGGED. ALL JUNCTION BOXES SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE. COVERS OF BOXES SHALL BE LABELED WITH THE CIRCUIT NUMBER WITH A BLACK PERMANENT MARKER IN 3/4 IN. HIGH LETTERS (LEGIBLE HANDWRITTEN LETTERING IS ACCEPTABLE).		
7. ALL OUTLET BOXES SHALL BE SQUARE METAL BOXES. PROVIDE PLASTER RINGS FOR ALL OUTLET BOXES CONTAINING DEVICES TO PROVIDE A FIRM MOUNTING SUPPORT FOR THE DEVICE.		
8. ALL CONVENIENCE RECEPTACLES SHALL BE SPECIFICATION GRADE 20 AMP RECEPTACLES, OWNER TO SELECT COLOR.		
9. ALL LIGHT SWITCHES SHALL BE SPECIFICATION GRADE 20 AMP TOGGLE SWITCHES FULL LOAD RATED FOR TUNGSTEN-HALOGEN LAMPS, OWNER TO SELECT COLOR.		
10. PROVIDE FACEPLATES FOR ALL RECEPTACLES AND SWITCHES. COORDINATE STYLE AND COLOR WITH OWNER'S PROJECT MANAGER.		
11. PROVIDE BETWEEN 12 AND 24 INCHES OF LIQUID TIGHT FLEXIBLE CONDUIT BETWEEN RIGID CONDUIT AND ANY EQUIPMENT CONTAINING MOTORS. THE FLEXIBLE CONDUIT SHALL BE SUPPORTED TO PREVENT THE CONDUIT FROM RESTING ON THE GROUND OR CONCRETE PAD.		
12. PROVIDE WEATHERPROOF RECEPTACLE WITHIN 25 FEET OF EACH PIECE OF EXTERIOR EQUIPMENT. THIS RECEPTACLE SHALL BE MOUNTED HORIZONTALLY WITH METAL HINGED "IN USE" COVER MOUNTED TO OPEN UP. THIS OUTLET SHALL BE A GFI RECEPTACLE. THIS RECEPTACLE SHALL BE BE MOUNTED IN DIE CAST NON CORRODING METAL BOX.		
13. WHEN OUTLETS OR BOXES ARE INDICATED INSTALLED ON OPPOSITE SIDES OF THE SAME WALL, THE CONTRACTOR SHALL ADJUST THE LOCATION TO OFFSET THE OUTLETS WITH A WALL STUD PROVIDING SEPERATION.		

LIGHTING FIXTURE SCHEDULE		
TYPE	DESCRIPTION	MANUFACTURER
A	1'X4' LINEAR VAPORTIGHT FIXTURE; SURFACE MOUNTING; FIBERGLASS AND NEMA 4X RATED LENS AND HOUSING; WET AND IP RATED . LAMPS: LED, 6000 LUMENS, 46 WATTS, 3500 DEGREE K DRIVERS: UNV, VOLT	LITHONIA "FEM LED" SER., COLUMBIA LXEM PORTFOLIO L06" SER., CREE "SOL6" SER.
0A	ARCHITECTURAL LOW PROFILE WALL MOUNTED OUTDOOR WALL PACK, PROVIDE PHOTOCELL AND 90 MIN. BACK-UP BATTERY OPTIONS. LAMPS: LED, 750 LUMENS, 4 WATTS, 4000 DEGREE K BALLAST: UNV, VOLT	LITHONIA W0CE2 OR APPROVED EQUAL

NOTES:
1. CONTRACTOR TO VERIFY ALL VOLTAGES, GRID AND CEILING TYPES WITH THE ARCHITECT AND COORDINATE FIXTURE DIMENSION SIZE TO ENSURE A PROPER FIT IN ALL CEILING TYPES PRIOR TO ORDERING.
2. ALL LUMENS LISTED ARE DELIVERED LUMENS, ALL EQUALS TO SPECIFIED FIXTURES SHALL NOT BE ANY LOWER THAN 5% OF SPECIFIED LUMENS, WATTAGE SHALL NOT BE HIGHER THAN 15% OF SPECIFIED WATTAGE.
3. LISTING OF MANUFACTURERS DOES NOT EQUAL AUTOMATIC APPROVAL. ALL CHARACTERISTICS NOTED IN DESCRIPTION SECTION MUST BE MET IN ORDER TO BE APPROVED, WHERE VENDOR/REP. DOES NOT HAVE ONE MANUFACTURER LISTED, PRIOR APPROVAL IS REQUIRED TO BE SUBMITTED TO ENGINEER TEN (10) DAYS PRIOR TO BID.
4. PROVIDE UNSWITCHED HOT TO EXIT SIGNS, EMERGENCY FLOOD LIGHTS AND EXTERIOR BUILDING EGRESS LIGHTING.

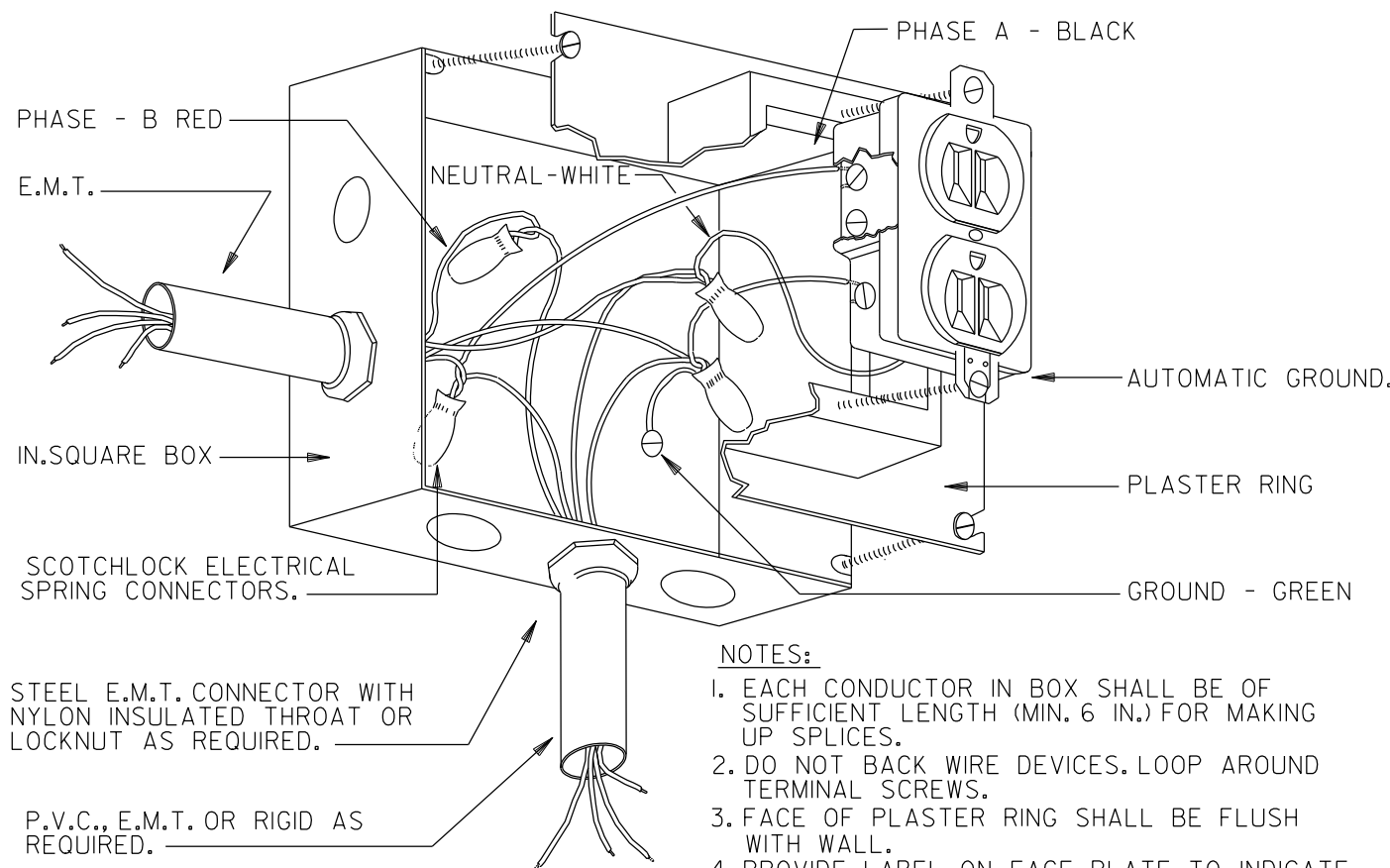
GENERAL NOTES:

- A. ALL FLUSH RECESSED OUTLET BOXES SHALL BE INSTALLED SUCH THAT FRONT EDGE OF THE BOX WILL NOT BE SET BACK OF THE FINISHED SURFACE MORE THAN 1/4 IN. IN ORDER TO COMPLY WITH N.E.C. 34-20. SUPPORT OF OUTLET BOX BY RECEPTACLE AND COVERPLATE IS NOT ACCEPTABLE. CAREFULLY COORDINATE ROUGH-IN WITH BLOCK MASONS AND GROUT-IN CELL CONTAINING OUTLET BOX.
- B. DO NOT SCALE DRAWINGS TO LOCATE EQUIPMENT OR OUTLETS. MOUNTING HEIGHTS AS INDICATED ON THE DRAWINGS SHALL BE FROM THE FINISHED FLOOR TO THE CENTER LINE OF THE OUTLET BOX.
- C. THE ELECTRICAL DRAWINGS ARE ONLY A PART OF THE CONTRACT DOCUMENTS. ALL OF THE DRAWINGS AND SPECIFICATIONS MUST BE REVIEWED FOR THEIR INTERRELATIONSHIP AND REQUIRED COORDINATION BETWEEN DISCIPLINES.



ELECTRICAL LEGEND	
LIGHTING AND POWER	
	CONDUIT RUN CONCEALED ABOVE CEILING OR IN WALL, HASH MARKS INDICATE NUMBER OF CONDUCTORS. (3 WIRE UNLESS SHOWN)
	CONDUIT RUN CONCEALED BELOW FLOOR SLAB, OR UNDERGROUND.
	HOMERUN TO PANELBOARD, LETTER OR LETTERS INDICATE PANELBOARD. NUMBERS INDICATES CIRCUIT NUMBERS.
	LIGHT FIXTURE, SEE SCHEDULE FOR MOUNTING AND TYPE.
	LIGHTING FIXTURE, WALL BRACKET MOUNTED, (SEE ARCHITECTURAL FOR MOUNTING HEIGHT.) PROVIDE BATTERY PACK.
	LIGHT FIXTURE, SEE SCHEDULE FOR MOUNTING AND TYPE. PROVIDE WITH 100 LUMEN, 90 MINUTE BATTERY PACK.
	DUPLEX CONVENIENCE OUTLET, 18 IN. ABOVE FLOOR UNLESS OTHERWISE NOTED.
	DUPLEX CONVENIENCE OUTLET, GFI TYPE, 18 IN. MOUNTING HEIGHT. *WP* WHERE SHOWN INDICATES WEATHERPROOF, PROVIDE METAL IN-USE WEATHERPROOF COVERPLATE.
	DUPLEX CONVENIENCE OUTLET, GFI TYPE, MOUNTED ABOVE COUNTER, MOUNT AT 3 FT. - 4 IN. TO BOTTOM OF BOX.
	SINGLE POLE TOGGLE SWITCH, 42 IN. MOUNTING HEIGHT.
	PANELBOARD, SEE SCHEDULE.
LIGHTING CONTROL SENSORS	
	COMBINATION 360 DEGREE ULTRASONIC AND PASSIVE INFRARED SENSOR (WATT STOPPER "DT-300"; GREENGATE, NOVITAS, HUBBELL, LEVITON; SENSOR SWITCH.
	WALL MOUNTED SENSOR SWITCH, 42 IN. MOUNTING HEIGHT (WATT STOPPER DW-100, GREENGATE, NOVITAS, HUBBELL, LEVITON; SENSOR SWITCH).
FIRE ALARM SYSTEM	
	SMOKE DETECTOR, PHOTOELECTRIC TYPE, 120V STAND ALONE DETECTOR WITH 9V BATTERY BACKUP, DETECTORS INTERLOCKED SO THAT WHEN ONE ANNUNCIATES, THEY ALL DO ON THE CIRCUIT.

NOTE:
1. ALL MOUNTING HEIGHTS ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET OR DEVICE.
2. ALL RECEPTACLES SHALL BE TAMPER RESISTANT (TYPE "TR").



RECEPTACLE CONNECTION DETAIL

1
E.O.I
NOT TO SCALE



MACON-BIBB COUNTY
PARKS AND RECREATION

FILMORE THOMAS PARK
RENOVATION PROJECT

3793 LOG CABIN DR, MACON,
GA - 31204-3753

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Project Status:

ISSUED FOR PERMIT

Revision No (if any): Revision Date:

Project No: Current Date: 10/30/24

Drawing Name: ELECTRICAL LEGEND, SCHEDULES AND DETAILS

Drawing No:





Macon-Bibb County Government

Procurement Department

Government Center

700 Poplar Street, Suite 308

Macon, Georgia 31201

(478) 803-0550

Fax (478) 751-7252

Laura Hardwick
Director of Procurement

December 30, 2024

ADDENDUM # 1

To: ALL PROSPECTIVE FIRMS

Re: INVITATION FOR BIDS: 25-024-LH, Renovations to Filmore Park

The Invitation for Bids, referenced above, is modified as follows:

1. The bid due date has been changed from Thursday, January 9, 2025, 12 noon to Thursday, January 23, 2025, by 12 noon.

Please incorporate this change into the Invitation for Bid and acknowledge receipt of this addendum on your bid form.

Sincerely,

Laura Hardwick



Macon-Bibb County Government

Procurement Department

Government Center

700 Poplar Street, Suite 308

Macon, Georgia 31201

(478) 803-0550

Fax (478) 751-7252

Laura Hardwick
Director of Procurement

January 21, 2025

ADDENDUM # 3

To: ALL PROSPECTIVE FIRMS

Re: INVITATION FOR BIDS: 25-024-LH, Renovations to Filmore Park

The Invitation for Bids, referenced above, is modified as follows:

1. The bid due date has been changed from Thursday, January 23, 2025, to Thursday, January 30, 2025, by 12 Noon.

Please incorporate this change into the Invitation for Bid and acknowledge receipt of this addendum on your bid form.

Sincerely,

Laura Hardwick



Macon-Bibb County Government

Procurement Department

Government Center

700 Poplar Street, Suite 308

Macon, Georgia 31201

(478) 803-0550

Fax (478) 751-7252

Laura Hardwick
Director of Procurement

January 3, 2025

ADDENDUM # 2

To: ALL PROSPECTIVE FIRMS

Re: INVITATION FOR BIDS: 25-024-LH, Renovations to Filmore Park

The Invitation for Bids, referenced above, is modified as follows:

1. What is the plan for resurfacing the basketball courts? Will it be just milling and overlaying with new asphalt and painting new lines? Or do we need to quote a specialty surface?

Answer: Basketball courts will be milled and resurfaced with new asphalt. New striping will also be provided. Refer to keynote #9 on sheet AS101 of addendum B.

2. The Invitation to Bid states that only 30 calendar days will be allowed for construction. Is this correct or will we be allowed to have more time?

Answer: To be determined.

3. Will liquidated damage apply?

Answer: The liquidated damage does apply the amount of \$100.00 dollars for each day that the project is delayed beyond the completion date of the contract.

Please incorporate this change into the Invitation for Bid and acknowledge receipt of this addendum on your bid form.

Sincerely,

Laura Hardwick

BID FORM

Macon-Bibb County Government
Macon-Bibb County, Procurement Dept.
700 Poplar Street, Suite 308
Macon, Georgia 31201

DATE: 1/30/2025

Re: **25-024-LH Renovations to Filmore Park**

Macon-Bibb County
Bibb County, Georgia

Dear Ms. Hardwick:

1. We have examined the Specifications, related documents and the site of the proposed Work, and are familiar with all the conditions surrounding this project, including the availability of materials and labor, and hereby bid to furnish all materials and labor, and to complete the project in accordance with the Contract Documents, within the time set forth herein, and at the prices stated below. These prices are to cover all expenses incurred in performing the Work required under these Specifications, of which this bid is part.

2. **ADDENDUM RECEIPT:**

- a. We acknowledge our responsibility to ensure that all addenda have been received prior to the submission of a bid.
- b. Bidder acknowledges receipt of the following addenda:

Addendum No. 1 Dated 12/30/2024

Addendum No. 3 Dated 1/21/2025

Addendum No. 2 Dated 1/3/2025

We agree to commence actual physical work on site, with an adequate force and equipment within the timeframe presented in the specifications and to complete fully all work within the stated timeframe following notice to proceed.

We agree that this bid may not be revoked or withdrawn after the time set for the opening of bids and shall remain open for acceptance for a period of ninety (90) days following such time.

5. In case of written notification by mail, telegraph, or delivery of the acceptance of this bid within ninety (90) days after the time set for the opening of bids, the undersigned agrees to execute within ten (10) days a Contract for the Work for the below stated compensation and at the same time to furnish and deliver to the Owner a Performance Bond and a Payment Bond, both in an amount equal to one hundred percent (100%) of the Contract Sum.
6. Enclosed herewith is a Bid Bond in the amount of five percent (5%) of the total base bid. We agree that the above stated amount is the proper measure of liquidated damages that the Owner will sustain by the failure of the undersigned to execute the Contract and to furnish the Performance Bond and the Payment Bond.
7. If this bid is accepted within ninety (90) days after the date set for the opening of bids and we fail to execute the Contract within ten (10) days after written notice of such acceptance or if we fail to furnish both a Performance Bond and a Payment Bond, the obligation of the bond will remain in full force and affect and the money payable thereon shall be paid into the funds of the Owner as liquidated damages for such failure; otherwise, the obligation of the bond will be null and void.
8. We hereby certify that we have not, nor has any member of the firm(s) or corporation(s), either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this submitted bid.
3. We understand the total bid price listed below to be inclusive of all materials, labor, equipment, and other provisions necessary to provide the services in accordance with the associated specification.

Bid Price Form

For

25-024-LH Renovations to Filmore Park

Total Bid Price	\$ <u>506,535.00</u>
Timeline for Project	<u>120</u> Calendar Days

I certify that my bid meets these minimum specifications. This bid shall be valid and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving bids.

Printed Name: Stephen P. Keys

Authorized Signature:  **Date:** 1/30/2025

Company Name: Pro Construction of GA, LLC

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we

Pro Construction of GA, LLC, 7420 Cochran Street, Macon, GA 31216

(Here insert full name and address or legal title of Contractor)

as Principal, hereinafter called Principal, and,

FCCI Insurance Company, 6300 University Parkway, Sarasota, FL 34240-8424

(Here insert full name and address or legal title of Surety)

a corporation duly organized under the laws of the State of Florida

as Surety, hereinafter called the Surety, are held and firmly bound unto

Macon-Bibb County Board of Commissioners, 700 Poplar Street, Suite 308, Macon, GA 31201

(Here insert full name and address or legal title of Corporation)

as Obligee, hereinafter called the Obligee, in the sum of

5% of Bid

Dollars (\$ 5% of Bid),

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for

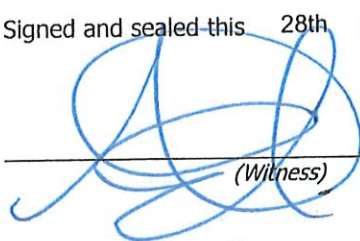
25-024-LH RENOVATIONS TO FILMORE PARK, 3793 LOG CABIN DRIVE MACON, GA 31204

(Here insert full name and address description of project)

NOW THEREFORE, if the obligee shall accept the bid of the principal and the principal shall enter into Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this 28th day of January

, 20 25



(Witness)



Mike Kaplan (Witness)

Pro-Construction of GA, LLC

(Principal)

(Seal)

Stephen Keys

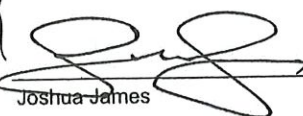
(Title)

President

FCCI Insurance Company

(Surety)

(Seal)



Joshua James

Attorney-In-Fact



GENERAL POWER OF ATTORNEY

Know all men by these presents: That the FCCI Insurance Company, a Corporation organized and existing under the laws of the State of Florida (the "Corporation") does make, constitute and appoint:

Lara Miller; Teresa Bedingfield; Carrie McKinney; Kaleb Lee; Joshua James; Mike Kaplan

Each, its true and lawful Attorney-In-Fact, to make, execute, seal and deliver, for and on its behalf as surety, and as its act and deed in all bonds and undertakings provided that no bond or undertaking or contract of suretyship executed under this authority shall exceed the sum of (not to exceed \$30,000,000.00): \$30,000,000.00

This Power of Attorney is made and executed by authority of a Resolution adopted by the Board of Directors. That resolution also authorized any further action by the officers of the Company necessary to effect such transaction.

The signatures below and the seal of the Corporation may be affixed by facsimile, and any such facsimile signatures or facsimile seal shall be binding upon the Corporation when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached.

In witness whereof, the FCCI Insurance Company has caused these presents to be signed by its duly authorized officers and its corporate Seal to be hereunto affixed, this 23rd day of July, 2020.

Attest:

Christina D. Welch, President
FCCI Insurance Company



Christopher Shoucair,
EVP, CFO, Treasurer, Secretary
FCCI Insurance Company

State of Florida
County of Sarasota

Before me this day personally appeared Christina D. Welch, who is personally known to me and who executed the foregoing document for the purposes expressed therein.

My commission expires: 2/27/2027



PEGGY SNOW
Commission # HH 328535
Expires February 27, 2027

Notary Public

State of Florida
County of Sarasota

Before me this day personally appeared Christopher Shoucair, who is personally known to me and who executed the foregoing document for the purposes expressed therein.

My commission expires: 2/27/2027



PEGGY SNOW
Commission # HH 328535
Expires February 27, 2027

Notary Public

CERTIFICATE

I, the undersigned Secretary of FCCI Insurance Company, a Florida Corporation, DO HEREBY CERTIFY that the foregoing Power of Attorney remains in full force and has not been revoked; and furthermore that the February 27, 2020 Resolution of the Board of Directors, referenced in said Power of Attorney, is now in force.

Dated this 28th day of January, 2025

Christopher Shoucair, EVP, CFO, Treasurer, Secretary
FCCI Insurance Company



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
01/28/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Sanford Insurance, LLC 4468 Forsyth Rd. Macon GA 31210	CONTACT NAME: Lara Miller PHONE (A/C, No, Ext): (478) 471-4221 FAX (A/C, No): (478) 471-4222 E-MAIL: lmiller@sanfordusa.com ADDRESS: INSURER(S) AFFORDING COVERAGE INSURER A : Old Guard Insurance INSURER B : Insurance Company of West INSURER C : INSURER D : INSURER E : INSURER F : NAIC # 17558 27847
INSURED Pro Construction of GA, LLC 7420 Cochran St Macon GA 31216-7712	

COVERAGES

CERTIFICATE NUMBER: CL2472514328

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☐ LOC OTHER:	Y	Y	419528C	07/01/2024	07/01/2025	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 1,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Employee Benefits \$ 75,000
A	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☐ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ NON-OWNED AUTOS ONLY	Y	Y	419528C	07/01/2024	07/01/2025	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ 1,000,000 BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE DED ☒ RETENTION \$ 0	Y	Y	419528C	07/01/2024	07/01/2025	EACH OCCURRENCE \$ 4,000,000 AGGREGATE \$ 4,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	Y	WGA507870200	07/01/2024	07/01/2025 ☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
A	Leased & Rented Equipment			419528C	07/01/2024	07/01/2025	Limit \$25,000 Deductible \$1,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Project: 25-024-LH Renovations to Filmore Park, 3793 Log Cabin Drive, Macon, GA 31204

CERTIFICATE HOLDER

Macon-Bibb County Board of Commissioners 700 Poplar Street, Suite 308 Macon GA 31210

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

© 1988-2015 ACORD CORPORATION. All rights reserved.

DISPLAY IN CONSPICUOUS PLACE – RENEWAL DEADLINE MARCH 31ST

Macon-Bibb County Tax Commissioner's Office

188 THIRD STREET
MACON, GA 31201

Pro Construction of GA LLC

7420 Cochran St
Macon, GA 31216

GB000452

THE BUSINESS LISTED ABOVE IS REGISTERED WITH MACON BIBB COUNTY
FROM 02/03/2021 TO 03/31/2025

1. Your Occupational Tax **MUST** be paid on or before March 31st of each year. Occupational Tax Certificate renewals are the responsibility of the business owner. Renewal reminder letters are provided as a courtesy and are not required for renewal purposes.
2. This certificate **MUST BE DISPLAYED** in a conspicuous place inside the above business location.
3. Macon-Bibb County **MUST** be notified of any changes in ownership, location, business name or business closure. This certificate is not transferable and is only valid for the above location.



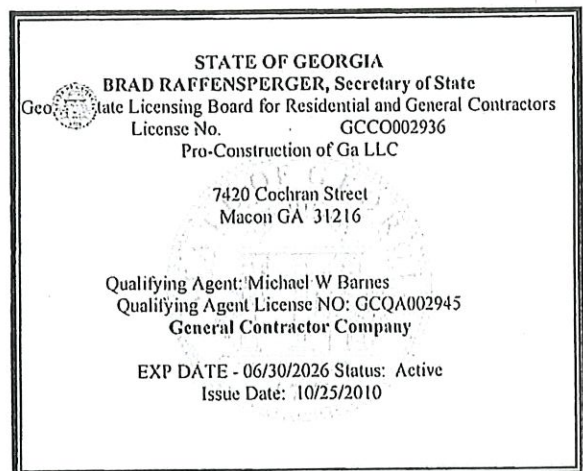
S. Wade McCord, Tax Commissioner



A pocket-sized license card is below. Above is an enlarged copy of your pocket card.
Please make note of the expiration date on your license. It is your responsibility to renew your license before it expires. Please notify the Board if you have a change of address.
Wall certificates suitable for framing are available at cost, see board fee schedule. To order a wall certificate, please order from the web site – www.sos.ga.gov/plb.
Please refer to Board Rules for any continuing education requirements your profession may require.

Georgia State Board of Professional Licensing
237 Coliseum Drive
Macon GA 31217
Phone: (404) 424-9966
www.sos.ga.gov/plb

Pro-Construction of Ga LLC
7420 Cochran Street
Macon GA 31216



Attachment "A"
Required Submission Documents

Macon-Bibb County
Summary of Attachment "A" Required Documents

- Bidder Qualification Form
- List of Sub-Contractors
- Bidder Minority Participation Goal
- Financial & Legal Stability Statement
- Insurability Statement
- Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- Non-Collusion Affidavit

Instructions and additional information regarding the three forms below can be found on our website under the Procurement Department Documents tab if needed.

- Macon-Bibb County Vendor Application
- Form W-9
- E-Verify Affidavit

Attachment "A"
Required Submission Documents

BIDDER QUALIFICATION FORM

Company Name: Pro Construction of GA, LLC
Address: 7420 Cochran Street Macon, GA 31216
When Organized: 9/2/2010 Where Incorporated: Georgia
How many years have you engaged in business under the present firm name? 15 years
Credit available for this contract? \$10MM
Contracts now in hand? \$12.2MM
Has bidder ever refused to execute a contract at the original bid amount? No
Has bidder ever been declared in default on a contract? No
Comments: _____

Company Name: Pro Construction of GA, LLC
Authorized By (typed name): Stephen P. Keys
Authorized Signature: _____
Title: Owner Date: 1/30/2025

References

Following is a reference list of contracts that are similar to this project:

NAME OF PROJECT/DATE	LOCATION	CONTACT	PHONE #
Fayette Animal Shelter/2024	Peachtree City, GA	Richard Brooks	770-305-5410
Alamo City Hall Renovations/2023	Alamo, GA	Jeffery Floyd	912-568-7153
Abernathy PEMB Renovations/2023	Atlanta, GA	Cole Abernathy	678-904-0038

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

30th DAY OF January, 2025

Notary Public



Attachment "A"
Required Submission Documents

LIST OF SUB-CONTRACTORS

I do ☒, do not ☐, propose to sub-contract some of the work on this project. I propose to sub-contract work to the following contractors.

NAME/ADDRESS	TYPE OF WORK	% of Contract
JR Preston	Sitework	12%
Pyles Plumbing	Plumbing	6%
Ryals	Paving	11%
Mclaren	Concrete	6%
SOM Masonry	Block/Brick	12%
Dream States	Framing/Ext. Wood	4%
Accurate	Roofing	2%
GCR	Painting	2%
Buzzell	HVAC	4%
Starr Electric	Electrical	10%

Pro Construction of GA, LLC

Contractor Name

BIDDER MINORITY PARTICIPATION GOAL
(Attach additional pages if required.)

NAME/ADDRESS	TYPE OF WORK	% of Contract
--------------	--------------	---------------

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be a standard notebook page, possibly from a composition book. The edges of the paper are slightly irregular, suggesting it might be a scan of a physical document. There is no handwriting or other markings on the page.

Contractor Name

Attachment "A"
Required Submission Documents

FINANCIAL & LEGAL STABILITY STATEMENT

Please check appropriate item(s):

☒ Firm has the financial capability to undertake the work and assume the liability required if awarded this solicitation.

☐ Firm has the legal capability to undertake the work and assume the responsibilities required if awarded this solicitation.

Pending litigations (if any) will not affect the firm's ability to perform on this contract, if awarded.

Company Name: Pro Construction of GA, LLC

Authorized By (typed name): Stephen P. Keys

Authorized Signature: _____

Title: Owner

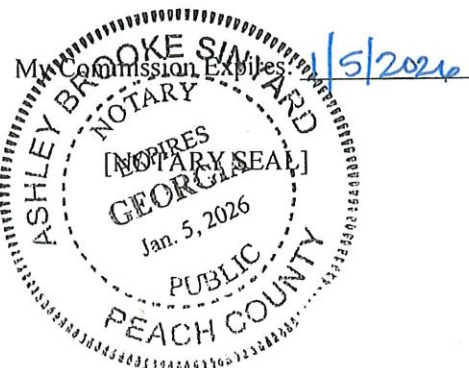
Date: 1/30/2025

SUBSCRIBED AND SWORN

BEFORE ME ON THIS THE

30th DAY OF January, 2025

Notary Public _____



Attachment "A"
Required Submission Documents

INSURABILITY STATEMENT

Please check appropriate item(s):

- ☒ By submission of this form, this firm confirms the ability to acquire and maintain the required levels of insurance as outlined in the bid document. It is the understanding of this firm that proof of Insurance must be provided prior to contract execution and maintained throughout the entire term of the contract.

Company Name: Pro Construction of GA, LLC
Authorized By (typed name): Stephen P. Keys
Authorized Signature: _____
Title: Owner Date: 1/30/2025

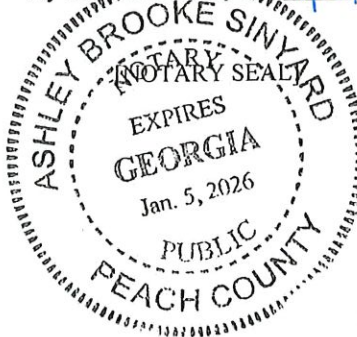
SUBSCRIBED AND SWORN

BEFORE ME ON THIS THE

30th DAY OF January, 2025

Notary Public

My Commission Expires: 1/5/2026



Attachment "A"
Required Submission Documents



Macon-Bibb County
Procurement Department
700 Poplar Street, Suite 308
Macon, Georgia 31202-0247
Tel: (478) 803-0550 • Fax: (478) 751-7252
www.maconbibb.us

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION
INELIGIBILITY AND VOLUNTARY EXCLUSION**

The Bidder/offer certifies, by submission of this Proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier, transactions, proposals, contracts, and subcontracts. Where the Bidder/offeror or any lower tier participant is unable to certify to this statement, it shall attach an explanation of this solicitation/proposal.

Dated at this 30th day of January, 2019.

Signature of Contractor: _____

Title: owner _____

For Macon Bibb County Personnel Only:

Macon Bibb County Procurement Department will verify that the above bidder/offer certifies, by submission of this Proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from participation in this transaction by any Federal department or agency.

Signature of Procurement Officer _____ Date _____

Printed Name _____

Attachment "A"
Required Submission Documents

NON COLLUSION AFFIDAVIT

Date:	1/30/2025
Project:	Bibb County, Georgia
Project #:	25-024
Project Description:	Renovations to Filmore Park
Services Provided:	General Contracting
State of:	Georgia
County of:	Bibb

I, Stephen P. Kengs having first been duly sworn, deposes and states as follows:

I am the party making the foregoing Proposal or Bid; that such Proposal or Bid is genuine and not collusive or sham; that said Proposer or Bidder has not colluded, conspired, connived, or agreed, directly or indirectly, with any Proposer or Bidder or person, to put in a sham Proposal or Bid, or that such other person refrain from proposing or bidding, and has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the Proposal Fee or Bid Price of affiant or any other Proposer or Bidder, or to fix any overhead, profit or cost element of said Proposal Fee or Bid Price, or that of any other Proposer or Bidder, or to secure any advantage against Bibb County, Georgia or any person interested in the proposed Contract; and that all statements in said Proposal or Bid are true; and further, that such Proposer or Bidder has not directly or indirectly submitted this Proposal or Bid, or the contents thereof, or divulged information or data relative thereto to any association or to any member or agent thereof.

Contractor: Pro Construction of GA, LLC

(Signature)

(Seal)



MACON-BIBB COUNTY Vendor Application

Date Submitted: 6/7/2021

☒ New Application

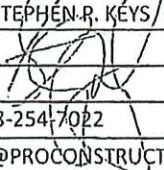
☐ Revised Application

RETURN THIS COMPLETED FORM TO:

Macon-Bibb County Procurement Department
700 Poplar Street, Ste. 308
Macon, GA 31201

Phone: 478-803-0550
Fax: 478-751-7252
Email: procurement@maconbibb.us

GENERAL VENDOR INFORMATION

Company Name: PRO CONSTRUCTION OF GA, LLC	
Company Address: 7420 COCHRAN STREET MACON, GA 31216	
Authorized By (Name): STEPHEN R. KEYS	
Title: OWNER	
Authorized Signature: 	Date: 6/7/2021
Telephone Number: 478-254-7022	Fax Number: 478-254-7023
Email Address: ASHLEY@PROCONSTRUCTIONOFGA.COM	

REMITTANCE INFORMATION (where payments should be sent)

Remit to Name: PRO CONSTRUCTION OF GA, LLC		
Remit to Address: 7420 COCHRAN STREET MACON, GA 31216		
Phone: 478-254-7022	Fax: 478-254-7023	Toll Free:
Contact: ASHLEY SINYARD (ACCOUNTS PAYABLE)		Email: ASHLEY@PROCONSTRUCTIONOFGA.COM
Business Type (choose one):	☐ Individual/Sole Proprietor	☐ Single member LLC
	☐ Business - incorporated	☐ Business - not incorporated/partnership
	☒ LLC: C S P (circle one)	Other (Specify):
Social Security #:		Federal Tax ID #: 27-3385087

PURCHASE ORDER INFORMATION (where purchase orders should be sent)

Purchase Order Name: PRO CONSTRUCTION OF GA, LLC		
Purchase Order Address: 7420 COCHRAN STREET MACON, GA 31216		
Phone: 478-254-7022	Fax: 478-254-7023	Toll Free:
Contact: ASHLEY SINARD (ACCOUNTS PAYABLE)		Email: ASHLEY@PROCONSTRUCTIONOFGA.COM
Payment Terms: Discount %	# Days	Net Due
Freight Terms: Ship Via		FOB

E-Verify Information

Private Employer Affidavit is attached :	
With E-Verify # 510901	With E-Verify exemption selected _____
Contractor Affidavit is attached: (additional affidavit, if applicable)	
With E-Verify # 510901	Without E-Verify # but a copy of my driver's license is attached since I have no employees and no intent to hire employees _____

MBE/DBE/WBE STATUS (Select at least one)

Minority Owned (African American, Hispanic, Native American, Asian American) circle one _____			
Woman Owned _____	Disabled _____	Veteran _____	Not Applicable _____

Do you maintain a local office in Macon-Bibb County?	Yes ☒ _____	No _____
--	---	----------

**Request for Taxpayer
Identification Number and Certification**

Go to www.irs.gov/FormW9 for instructions and the latest information.

Give form to the
requester. Do not
send to the IRS.

Before you begin. For guidance related to the purpose of Form W-9, see *Purpose of Form*, below.

Print or type. See Specific Instructions on page 3.	1 Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.) Pro Construction of GA, LLC	
	2 Business name/disregarded entity name, if different from above.	
	3a Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only one of the following seven boxes. ☐ Individual/sole proprietor ☐ C corporation ☐ S corporation ☐ Partnership ☐ Trust/estate ☒ LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) S Note: Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner. ☐ Other (see instructions)	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any) _____ (Applies to accounts maintained outside the United States.)
	3b If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See Instructions ☐	
	5 Address (number, street, and apt. or suite no.). See instructions. 7420 Cochran Street	Requester's name and address (optional)
	6 City, state, and ZIP code Macon, GA 31216	
	7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. See also *What Name and Number To Give the Requester* for guidelines on whose number to enter.

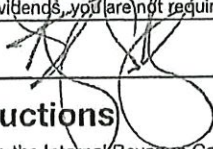
Social security number	
or	
Employer identification number	
2 7	3 3 8 5 0 8 7

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and, generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person	Date
		1/9/25

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

What's New

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

Attachment "A"
Required Submission Documents

E-VERIFY AND PRIVATE EMPLOYER AFFIDAVIT

Pursuant To O.C.G.A. § 36-60-6(d)

By executing this affidavit, the undersigned private employer verifies one of the following with respect to its application for an occupational tax certificate, alcohol license, or other document required to operate a business as referenced in O.C.G.A. § 36-60-6(d):

Business Name: Pro Construction of GA, LLC

SECTION 1 (Choose ONE of the following)

- (A) ☒ On January 1 of the below-signed year, the individual, firm, or corporation employed ten (10) or less employees. (Proceed to Section 3)
- (B) ☐ On January 1 of the below-signed year, the individual, firm, or corporation employed more than ten (10) employees and has registered with the E-Verify program. (Proceed to Section 2)

SECTION 2

The employer has registered with and utilizes the Federal Work Authorization program commonly known as E-Verify, in accordance with the applicable provisions and deadlines established in O.C.G.A. §36-60-6. The undersigned private employer also attests that its E-Verify number and date of authorization are as follows:

E-Verify Number: 510901

Date of Authorization: 2/17/2012 (Proceed to Section 3)

SECTION 3

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on January, 30th, 2025 in Macon (city), GA (state)

Printed Name of Authorized Officer or Agent: Stephen R. Kays

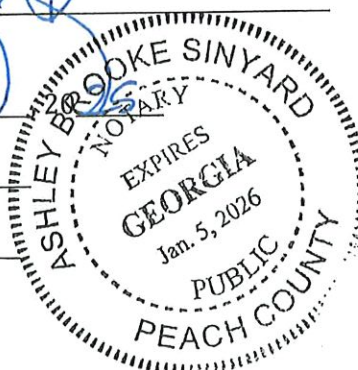
Title of Authorized Officer or Agent: owner

Signature of Authorized Officer or Agent: _____

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE 30th DAY OF January

NOTARY PUBLIC

My Commission Expires: 1/5/2026





LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR TO EXECUTE AN AGREEMENT WITH RUMCREEK ENTERPRISES, LLC FOR THE PROVISION OF SPLOST MANAGEMENT SERVICES, IN AN ANNUAL AMOUNT OF \$170,000.00, TO BE PAID FROM SPLOST FUNDS; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, Macon-Bibb County’s numerous SPLOST projects require the oversight of a SPLOST Manager to monitor progress and funding; and

WHEREAS, the County’s SPLOST Manager works with County departments and numerous contractors and vendors to ensure that SPLOST projects are completed on time and according to plans; and

WHEREAS, the County has, since before the initiation of the 2018 SPLOST, utilized Rumcreek Enterprises, LLC to perform SPLOST management services; and

WHEREAS, Rumcreek Enterprises, LLC is familiar with current and anticipated SPLOST projects, and retaining their services will result in continuity of projects and cost savings; and

WHEREAS, the Macon-Bibb County Commission desires to enter into a Professional Services Agreement with Rumcreek Enterprises, LLC, in an annual amount of \$170,000.00, for Rumcreek to perform SPLOST management services for up to five years, in substantially the same form as Exhibit A, attached hereto and incorporated herein by reference; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that the Mayor is authorized to execute an agreement with Rumcreek Enterprises, LLC for the provision of SPLOST management

services, in an annual amount of \$170,000.00, to be paid from the SPLOST funds, in substantially the same form as Exhibit A.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

[Signatures on the following page.]

APPROVED AND ADOPTED this _____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

*Q:\RES MACON-BIBB\2025 Miller Authorizing Agreement with Rumcreek for SPLOST Management - \$170,000.00
Annually 2-11-25.docx*

EXHIBIT A

**PROFESSIONAL SERVICE AGREEMENT
BETWEEN MACON-BIBB COUNTY, GEORGIA
AND RUMCREEK ENTERPRISES, LLC**

This Professional Service Agreement ("Agreement") is made and entered into by and between Macon-Bibb County, Georgia ("County"), a political subdivision of the State of Georgia, and Rumcreek Enterprises, LLC ("Contractor"), a Georgia limited liability company, with a principal address of 318 Buford Place, Macon, Georgia 31204, collectively the "Parties."

NOW THEREFORE, for good and valuable consideration, the sufficiency of which is hereby acknowledged, County and Contractor agree as follows:

1. Scope of Services

Contractor shall commence, diligently pursue, and perform those services identified in Exhibit A – Professional Services Addendum ("Exhibit A"), attached hereto and incorporated herein by reference.

If Contractor agrees to perform additional project management duties not identified in the 2018 or 2025 SPLOST Project Timeline and Budget, as described in Exhibit A, Contractor and County shall execute a separate agreement and arrange for additional compensation not contemplated by this Agreement. The Parties already have reached such an agreement as 108 First Street and contemplate agreements related to other projects.

All services shall be performed in accordance with federal, state, and local laws. Contractor will maintain current certifications, licenses, and permits as required for services provided to the County. Any changes to this Scope of Services shall be made in writing and mutually agreed upon by the Parties. Contractor is not obligated to perform services beyond what is contemplated by this Agreement.

2. Compensation

For the performance of services as described in this Agreement, Contractor shall receive a fixed rate of ONE HUNDRED SEVENTY THOUSAND DOLLARS AND 00/100 CENTS (\$170,000.00) per year. County shall pay Contractor in twelve (12) equal monthly payments.

County will not pay any interest, penalties, or other amount claimed beyond the amount authorized by this Agreement. Any amount charged to County in excess of the amount stated in this Agreement must be approved by County in writing in the form of an Amendment prior to performance of services. Payment of all amounts due are to be made upon presentation of an invoice and will be considered past due thirty (30) days from County's receipt of invoice. County is tax exempt and cannot agree to pay State or Federal taxes.

3. Term

This Agreement shall be effective as of the date it is fully executed by the Parties. Contractor shall immediately commence performance of services upon its receipt of the fully executed Agreement. This Agreement shall continue in full force and effect until one (1) calendar year from the effective date of this Agreement or upon the completion of Contractor's duties under this Agreement, whichever occurs first, at which time this Agreement shall terminate absolutely and without further obligation on the part of the

County. Upon expiration of the initial term of this Agreement, this Agreement shall automatically renew, provided Contractor's duties have not been completed, for four (4) consecutive renewal terms of one year each.

4. Termination

Termination for Convenience. Either Party may terminate this Agreement, or any part of this Agreement, upon thirty (30) days written notice, with or without cause, and with no penalty or additional cost beyond the rates stated in this Agreement. Should either Party terminate this Agreement at any time other than upon the expiration of an annual term, Contractor shall be compensated in a pro-rated amount to be calculated by monthly payments payable only through the month of termination. Contractor will not be compensated the full annual amount for an early termination of this Agreement.

Termination for Cause. County may terminate this Agreement for cause upon Contractor's failure to comply with any provision of this Agreement provided that County shall notify Contractor of its failure to comply and allow Contractor ten (10) days to cure its noncompliance prior to termination. At the end of the 10th day following notice by the County, if Contractor has not cured its noncompliance, County may terminate this Agreement immediately.

Upon termination, Contractor shall immediately provide to County any work product created on behalf of the County as part of the Scope of Services contemplated herein.

5. Fiscal Non-Appropriation Clause

Financial obligations of County payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available in accordance with the rules, regulations, and resolutions of County, and other applicable law. In the event that there ceases to be appropriated funds available to pay any obligation under this Agreement, the County shall have the right to terminate this Agreement immediately.

6. Performance Standards

Contractor shall perform the services contemplated by this Agreement using that degree of care, skill, and professionalism ordinarily exercised under similar circumstances by members of the same profession practicing or performing the substantially same or similar services.

7. Independent Contractor

Contractor is an independent contractor and not an agent, partner, joint venturer, or employee of County. Neither Contractor, nor any employee or agent thereof, shall be deemed for any reason to be an employee or agent of County. County shall not have any liability or responsibility for any direct payments of any salaries, wages, payroll taxes, or any and all other forms or types of compensation or benefits to any personnel performing services for County under this Agreement. Contractor will be responsible for and compensation paid under this Agreement shall include the cost of obtaining, maintaining, and complying with, and paying all fees and taxes associated with all applicable licenses, authorizations, consents, approvals, and permits required of Contractor in performing services and complying with this Agreement. Contractor will not make any representations, warranties, or commitments binding the County without the County's written consent. The compensation set forth in this Agreement shall be the sole payment

for services rendered. Contractor shall provide county with a W-9 form for each contract term for which services are performed. Contractor and County agree that Contractor will be free to contract for similar services to be performed for other employers while under Contract with County.

Contractor acknowledges and agrees that Contractor is not entitled to receive Unemployment Insurance Benefits or Worker's Compensation Coverage. Further, Contractor is obligated to pay Federal and State Income Tax on any moneys received from County for services provided under this Agreement.

8. Subcontracting and Assignment

Contractor shall not assign or subcontract the whole or any part of this Agreement without County's prior consent, which may be granted in writing by the project manager. Should Contractor subcontract any services, Contractor shall remain responsible for the performance of the subcontractors, remain County's sole point of contact for the services, and be responsible for the payment of any subcontractors. Subject to the foregoing, the terms, covenants, and conditions of this Agreement shall be binding on the successors and assigns of either party. Notwithstanding the terms of any subcontractor's agreement, in no circumstances shall any subcontractor have any greater rights as against the County than the Contractor has under this Agreement; and in no circumstances shall the County's responsibilities towards subcontractor be greater than County's responsibilities to Contractor under this Agreement.

Should Contractor subcontract any services under this Agreement, Contractor shall comply with the following reporting requirements:

Contractor shall submit a "Subcontractor/Supplier Participation Report" quarterly to the Macon-Bibb County Office of Small Business Affairs which shall include the following:

1. The name of each subcontractor or supplier participating in the contract.
2. A description of the work to be performed, materials, supplies, and services provided by each subcontractor or supplier.
3. Whether each subcontractor or supplier is a minority owned, woman owned, LGBTQIA+ owned, veteran owned, disabled-person owned, Certified Disadvantaged Business Entity, non-profit, or local business.
4. Whether each subcontractor is a supplier, subcontractor, or other.
5. The dollar value of each subcontract or supply agreement.
6. The actual payment to date of each subcontractor or supplier participating in the contract.

The report shall be updated during the applicable quarter by the Contractor whenever any of the approved subcontractors or suppliers have completed the portion of the work they were contracted to perform. Copies of this report should be transmitted promptly to the Macon-Bibb County Office of Small Business Affairs.

The County may withhold any payment due to the Contractor on any project for failure to submit the Subcontractor/Supplier Report within thirty (30) days following the end of the calendar quarter or for the failure to submit updates to the quarterly report within thirty (30) days of any subcontractor or supplier having complete the portion of work they were contracted to perform.

9. Conflicts of Interest

Contractor and all subcontractors thereof shall immediately notify County in writing, specifically disclosing any and all potential or actual conflicts of interest, which arise or may arise during the execution of its work in the fulfillment of the requirements of this Agreement. County shall make a written determination as to whether a conflict of interest actually exists and the actions to be taken to resolve the conflict of interest. Failure to properly disclose any conflicts of interest may result in immediate termination of this Agreement. Upon termination, Contractor shall be entitled to compensation of services performed prior to the date of termination, on a pro rata basis, provided such services are reasonably satisfactory to the County.

10. Indemnification

To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless County, its elected and appointed officials, employees and volunteers, and others working on behalf of County, from and against any and all third-party claims, demands, suits, costs (including reasonable legal costs), expenses, and liabilities ("Claims") alleging personal injury, including bodily injury or death, and/or property damage, but only to the extent that any such Claims are caused by the negligence of Contractor or any Officer, employee, representative, or agent of Contractor. Contractor shall have no obligations under this Section to the extent that any Claim arises as a result of Contractor's compliance with County law, ordinances, rules, regulations, resolution, executive orders, or other instructions received from County.

11. Insurance

(a) Contractor shall procure and maintain and shall cause any subcontractor of Contractor to procure and maintain, the minimum insurance coverages listed below throughout the term of this Agreement. Such coverages shall be procured and maintained with forms and insurers acceptable to County.

a. Comprehensive General Liability ("CGL") policy of at least \$1,000,000.00 covering all premises and operations. The policy shall include coverage for bodily injury, broad form property damage, personal injury (including coverage for contractual and employee acts), blanket contractual, independent contractors, and products.

(b) All deductibles shall be paid by Contractor. Contractor shall provide current certificates of insurance for all insurance types required under this Agreement and shall provide updated certificates of insurance no later than thirty (30) days prior to the renewal or material amendment of any required insurance policy. Contractor shall provide complete copies of any or all insurance policies upon written demand. No policy shall be cancelled, non-renewed, or have policy limits reduced outside of this Agreement unless County is given thirty (30) days advance notice from Contractor. Contractor shall further require that no insurer shall cancel, non-renew, or reduce the policy limits of any policy required under this Agreement without first giving thirty (30) days written notice to County.

(c) The County shall be under no obligation to ensure that Contractor, or any subcontractor, complies with the insurance requirements of this Agreement, and Contractor assumes all liability arising from its, or its subcontractor's failure, to acquire

and/or maintain adequate insurance to cover its operations and business. Contractor further agrees to indemnify and hold harmless the County for any claims arising from Contractor's, or any subcontractor's, failure to acquire and/or maintain adequate insurance.

12. Ownership of Documents

Except as expressly provided in this Agreement, County shall retain ownership of all work product and deliverables created by Contractor pursuant to this Agreement and all records, documents, notes, data and other materials required for or resulting from the performance of services hereunder shall not be used by Contractor for any purpose other than the performance of Services hereunder without the express prior written consent of County. All such records, documents, notes, data, and other materials shall be considered "work for hire" and shall become the exclusive property of County when Contractor has been compensated for the same as set forth herein, and County shall thereafter retain sole and exclusive rights to receive and use such materials in such manner and for such purposes as determined by it.

13. Confidential Information and Open Records

The Parties acknowledge that both Contractor and County are required to comply with the Georgia Open Records Act, O.C.G.A. § 50-18-70, et seq. See, *Milliron v. Antonakakis*, 905 S.E.2d 657 (Ga. 2024). As a result, Contractor acknowledges and agrees that County may make such disclosures as are authorized or required under the Georgia Open Records Act, notwithstanding any claims of confidentiality asserted by Contractor as to any records or data in the County's possession.

Upon execution of this Agreement, Contractor shall designate in writing that one or more of its officers shall be the open records officer for Contractor in accordance with the Open Records Act. In the event that Contractor receives a request for records under the Open Records Act, Contractor shall notify County within two business days by sending an email, return receipt requested, to OpenRecordsNotices@maconbibb.onmicrosoft.com. Contractor shall provide County with copies of all records proposed for production prior to responding to such request. Contractor shall assert all exemptions and exceptions available to the fullest extent of the law and shall not produce any records which are subject to withholding under the Open Records Act or any other state or federal law. Contractor shall have a duty to consult with independent legal counsel concerning which records are or are not subject to production prior to making any production, and shall certify to County at the time the proposed production is provided to County that the records contained therein have been reviewed by counsel for responsiveness and that all information that is protected or protectable from release under the law has been redacted therefrom. Contractor shall be responsible for calculating response costs and billing requestors for all requests sent in accordance with the Open Records Act, and Contractor's complete compliance with the provisions of this section shall be performed at no cost to County.

Contractor assumes all civil and criminal liability for its own compliance with the Open Records Act. Where actual damages are calculable, then County shall reserve the right to seek actual damages for the harm caused by such production. Nothing herein shall be construed as limiting in any way the County's right to seek injunctive, declaratory, or other

relief to prevent the release of protected information prior to any such production being made.

14. Audit Clause

County or its authorized agent shall have the right to audit and inspect financial records pertaining to services offered under this Agreement from time to time during the contract term, upon reasonable notice to Contractor and during Contractor's ordinary business hours.

15. Publicity

Contractor shall not release without prior written approval from County, any publicity regarding services provided, including but not limited to, notices, information pamphlets, press releases, research, reports, signs and similar public notices prepared by or for Contractor, identifying County as receiving goods or services under this Agreement.

16. Discrimination and ADA Compliance

Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, age, sex, disability, national origin, or any other category protected by applicable federal or state law. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notice to be provided by an agency of the federal government, setting forth the provisions of Equal Opportunity laws. Contractor shall comply with the appropriate provisions of the Americans with Disabilities Act (the "ADA"), as enacted and as from time to time amended, and any other applicable federal regulations. A signed certificate confirming compliance with the ADA may be requested by County at any time during the term of this Agreement.

17. Drug Free Workplace

Contractor and any subcontractors shall not be in possession of or use a controlled substance or marijuana during the performance of this Agreement, except for those controlled substances prescribed by a licensed medical provider. County has a no tolerance policy for violation of this rule.

18. Notices

All notices required or permitted to be given under this Agreement shall be in writing (the "Notice") and deemed given when (a) hand delivered by the sender and properly receipted for by a responsible person of the receiving party, (b) deposited in the United States Mail, properly addressed, with sufficient postage affixed, via first class mail, return receipt requested, (c) via Federal Express, UPS or similar national overnight courier service with delivery charges prepaid; or (d) via facsimile with a copy sent that same day via (a), (b), or (c). All Notices shall be addressed as follows:

For County:

Macon-Bibb County, Georgia
Attn: Mayor
700 Poplar Street
Macon, Georgia 31202-0247

For Contractor:

Rumcreek Enterprises, LLC
Attn: Clay Murphey
318 Buford Place
Macon, Georgia 31204

Copy To:

Macon-Bibb County
Attn: County Attorney's Office
PO Box 247
Macon, Georgia 31201

Either party has the right to designate in writing, served as provided above, a different address to which any notice, demand or communication is to be mailed.

19. Force Majeure

Any delay or non-performance of any provision of this Agreement by either Party (with the exception of payment obligations) which is caused by events beyond the reasonable control of such party, shall not constitute a breach of this Agreement, and the time for performance of such provision, if any, shall be deemed to be extended for a period equal to the duration of the conditions preventing such performance.

20. Dispute Resolution and Jury Trial

In the event a dispute arises out of or relates to this Agreement, or the breach thereof, and if said dispute cannot be settled through negotiation, Parties may try in good faith to settle the dispute by mediation before resorting to some other dispute resolution procedure or litigation; however, mediation is not a required pre-condition to litigation. Disputes arising under this Agreement shall be governed by and interpreted in accordance with the laws of the State of Georgia. Exclusive jurisdiction and venue for any legal proceeding related to this Agreement shall be in Bibb County State or Superior Court, or the Federal District Court for the Middle District of Georgia (Macon Division). County does not agree to arbitration nor waive its right to a jury trial. Nothing in this Agreement shall be construed as waiving any immunity held by the County under the Eleventh Amendment of the United States Constitution.

21. Attorney's Fees

In the event of dispute resolution or litigation to enforce any of the terms herein, each Party shall pay all its own costs and attorney's fees.

22. Authority to Execute

The person or persons executing this Agreement represent and warrant that they are fully authorized to sign and so execute this Agreement and to bind their respective entities to the performance of its obligations hereunder.

23. Counterparts

This Agreement may be executed in two or more counterparts, each of which taken together shall constitute one and the same instrument. This Agreement shall be fully executed when each Party whose signature is required has signed at least one counterpart, even though no one counterpart contains all of the signatures of all the Parties to this Agreement. Reproduced or electronic signatures shall be considered the same as an original signature. Delivery of a copy of this Agreement bearing an original signature by facsimile transmission, by electronic mail or by any other electronic means will have the same effect as physical delivery of the paper document bearing the original signature.

24. Electronic Representations and Records

Parties hereby agree to regard electronic representations of original signatures as legally sufficient for executing this Agreement and scanned signatures emailed by PDF or

otherwise shall be as valid as the original. Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

25. Waiver

Failure to enforce any provision of this Agreement shall not be deemed a waiver of that provision. Waiver of any right or power arising out of this Agreement shall not be deemed waiver of any other right or power.

26. Severability

In the event that any provision of this Agreement is declared invalid, unenforceable, or unlawful, such provision shall be deemed omitted and shall not affect the validity of other provisions of this Agreement.

27. Survival

Any provision of this Agreement which contemplates performance or observance subsequent to any termination or expiration of this Agreement or which must survive in order to give effect to its meaning, shall survive the expiration or termination of this Agreement.

28. Entire Agreement

The Parties acknowledge that this Agreement sets forth the entire agreement and understanding between the Parties and fully supersedes all previous communications, representations or agreements, oral or written, between the Parties pertaining to the same subject matter. This Agreement may only be amended or modified in writing by consent of both Parties. Contractor may not unilaterally amend or modify this Agreement by including provisions in its invoices, or other business forms, which shall be deemed objected to by County and of no force or effect.

[Signatures on the following page.]

IN WITNESS WHEREOF, the Parties have executed this Agreement to be effective as of the date executed by both Parties.

Macon-Bibb County:

By: _____
Lester M. Miller, Mayor

Date

Attested: _____
Janice S. Ross, Clerk of Commission

Date

Rumcreek Enterprises, LLC:

Date

Attested: _____
_____(Title)

Date

Q:\CONTRACTS\2025 Rumcreek Enterprises - SPLOST Manager.docx

EXHIBIT A

Professional Services Addendum

Duties: Contractor will be responsible for capturing and reporting information relevant to any outstanding SPLOST funded projects for Macon-Bibb County, including 2018 SPLOST projects, as identified in the 2018 SPLOST Project Timeline and Budget, and 2025 SPLOST projects, if such SPLOST is approved and as such projects are identified by the SPLOST referendum and any resolutions or ordinances of the Macon-Bibb County Commission specifying such projects.

During the term of this Agreement, Contractor will interface with Macon-Bibb County departments, outside contractors, and suppliers to obtain current information on the SPLOST projects for the provision of updates and progress reports to the Mayor, Macon-Bibb County Commission, County Manager, Director of Finance, and the SPLOST Advisory Committee.

In conjunction with Macon-Bibb County, Contractor will develop a budget and timeline for the 2018 and 2025 SPLOST projects, and will track project milestones and deliverables.

Contractor will also be responsible for coordinating the private sector economic investment with the public sector planning and infrastructure improvements relating to all SPLOST projects.

Contractor will coordinate with the Mayor, Macon-Bibb County Commission, County Manager, Director of Finance, and the SPLOST Advisory Committee to develop and provide reports to any granting agency that provides funding for any SPLOST project.

The Mayor and/or County Manager, with the consent of the Contractor, may assign additional project management duties to Contractor. However, if Contractor agrees to perform additional project management duties beyond what is contemplated by this Agreement, Contractor and County shall execute a separate agreement and arrange for additional compensation to Contractor.

Expenses: All expenses incurred by Contractor shall be incurred at the sole cost of Contractor, unless the County agrees, in writing, to pay for such expenses.



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR, TO ENTER AN AGREEMENT WITH WILLIAMS COMMUNICATIONS, INC., IN THE AMOUNT OF \$142,219.72 FOR REPAIRS TO RADIO TOWER ELECTRIC SUPPLY SYSTEMS, TO BE PAID FROM 2018 SPLOST FUNDS – PUBLIC SAFETY LINE ITEM; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, the power generation and supply systems at the Town Creek and Allied Industrial radio tower sites are nearing the end of their usable life; and

WHEREAS, to ensure ongoing radio communications abilities, Macon-Bibb County finds it necessary to replace aspects of these power supply systems; and

WHEREAS, Williams Communications, Inc., holds Georgia Statewide Contract # 99999-SPD-T20250623-0001, for the provision L3Harris radio technology, including sale, installation, and maintenance of the same, and frequently services Macon-Bibb County radio systems and facilities; and

WHEREAS, the use of cooperative purchasing agreements is authorized under Macon-Bibb County Code of Ordinances Sec. 19-8, allowing for faster processing times and more favorable pricing structures from vendors who have been pre-screened for technical skill and ability, and

WHEREAS, routine repairs and maintenance, such as the repair and replacement services contemplated herein, are exceptions to the general bidding requirements of the Georgia Local Government Public Works Construction Act, O.C.G.A. § 36-91-1 et seq.; and

WHEREAS, Procurement and Information Technology concur with this award recommendation; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission and it is hereby so resolved by the authority of the same that the Mayor is authorized to enter into an Agreement with Williams Communications, Inc., in the amount of ONE HUNDRED FORTY-TWO THOUSAND, TWO HUNDRED NINETEEN DOLLARS AND SEVENTY-TWO CENTS (\$142,219.72), for the routing repair and replacement of power generating systems at the Allied Industrial and Town Creek radio towers, with such work more readily shown in the attached Exhibit A, incorporated herein by reference, with associated costs to be paid from 2018 SPLOST Public Safety funds.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-

Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this ____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

*Q:\RES MACON-BIBB\2025 Miller Authorizing Power System Repairs And Radio Towers - Williams
Communications - \$142,219.72 - SPLOST - 2-4-25.Docx*

EXHIBIT A

Macon-Bibb - DC Power Plant & Upgrade

 Please Submit Purchase Orders and Disbursement Orders to: sales@wmscom.com

Williams Communications, Inc | 5046 Tennessee Capital Blvd | Tallahassee, FL 32303

 Phillip Taylor | ptaylor@wmscom.com

Quote #	SOMAC02231	Date	1/15/2025
Customer #	C000000266	Phone	478-621-6413
Contact	Christopher Land	Email	cland@maconbibb.us
Client PO#		Cell	
Address	Macon-Bibb County Attn: Accounts Payable Po Box 247 Macon GA 31202	Ship To	Macon-Bibb Co IT-Terminal Station Attn: Christopher Land 200 Cherry St Ste 401 Macon GA 31201

COMPANY PROPRIETARY & CONFIDENTIALITY

Description	QTY	Client Price	Ext. Total
DC Power Plant Installation	2.00	\$4,309.00	\$8,618.00
DC Power Plant	1.00	-	-
Unity Power System-FP2-23"Rack-500A-LVBD	2.00	\$6,454.00	\$12,908.00
Rectifier-Flatpack2 HE-3000W 48V	12.00	\$647.50	\$7,770.00
Blind Panel-Flatpack2-HE 109*43*17.2 BLK	6.00	\$16.50	\$99.00
Temperature Probe Kit, 470K NTC, 5/16"	2.00	\$102.50	\$205.00
7' X 6" 19" Relay Rack	2.00	\$1,000.00	\$2,000.00
Cable-Alarm-Unity System-50Ft	2.00	\$112.50	\$225.00
Circuit Breaker-Genric-2A/100A-E/M Trip	40.00	\$26.25	\$1,050.00
450A Battery Disconnect Panel Kit 19 or	2.00	\$700.00	\$1,400.00
NARADA 210 AHR Front Terminal, 48V Strin	8.00	\$2,210.00	\$17,680.00
Battery Cable Kit, 4/0 Cable, 2 Runs per	2.00	\$1,548.44	\$3,096.88
	1.00	-	-
MASTRV - DC-AC Power System - (Allied & Town Creek)	1.00	-	-
DC to AC Power System	2.00	\$17,771.52	\$35,543.04
AWG Wire, Lugs, Etc	1.00	\$13,724.80	\$13,724.80
Installation and Test	1.00	\$24,750.00	\$24,750.00
PM and Engineering	1.00	\$13,150.00	\$13,150.00
		Shipping & Handling:	-
		Tax:	-



WILLIAMS
COMMUNICATIONS, INC.
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LEGISLATIVE SPONSORS

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| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

AN ORDINANCE OF THE MACON-BIBB COUNTY COMMISSION TO DESIGNATE AS COMPLETE THE FOLLOWING PROJECTS FROM THE 2018 SPLOST TIMELINE: FROM ROADS AND BRIDGES - SEVENTH STREET, CENTRAL CITY COMMONS, SECOND STREET, NAVICENT, AND ALLEN ROAD SIGNAL PROJECTS; AND FROM CULTURAL AND PUBLIC - COLISEUM AND S.M.A.R.T. LAKE PARK PROJECTS; TO AUTHORIZE THE REAPPROPRIATION OF \$475,418.00 IN 2018 SPLOST PROCEEDS TO OTHER 2018 SPLOST PROJECTS AS SPECIFIED HEREIN; TO APPROVE THE FORTY-SIXTH AMENDMENT TO THE SPLOST TIMELINE AND BUDGET AS PRESENTED BY THE SPLOST PROJECT MANAGER; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, a one cent Special Purpose Local Option Sales and Use Tax was approved by Resolution, dated August 2, 2016, of the Macon-Bibb County Commission with a project list as described therein for capital outlay projects which was subsequently approved by the voters of the County on November 8, 2016 on all sales and uses within the County for an indefinite period of time, as allowed under the SPLOST Law for a consolidated government, (O.C.G.A. § 48-8-111.1), to be collected until the amount of specified tax has been raised, said total amount being \$280,000,000.00 which collection is set to begin on April 1, 2018, or upon the termination of the current SPLOST being collected (the “2018 SPLOST Revenues”); and

WHEREAS, the Macon-Bibb County Commission finds that several of the projects planned for the 2018 SPLOST have been completed under budget, and desires to designate such projects as completed and reappropriate the remaining funds previously appropriated to each project for other uses within the 2018 SPLOST timeline; and

WHEREAS, on or about April 18, 2017, the Macon-Bibb County Commission approved Resolution No. R-17-0066, establishing the 2018 SPLOST Project Timeline and Budget; and

WHEREAS, since such time, the Macon-Bibb County Commission has amended such timeline forty-five times, with the most recent amendment being adopted by Resolution R-24-0048 on April 16, 2024; and

WHEREAS, a copy of the most recent amended SPLOST Project Timeline and Budget is attached hereto at Exhibit A and incorporated herein by reference; and

WHEREAS, the SPLOST Project Manager has prepared the forty-sixth amendment to the 2018 SPLOST Project Timeline and Budget which is attached hereto as Exhibit B and incorporated herein by reference (the “SPLOST Project Timeline”); and

WHEREAS, the Macon-Bibb County Commission finds that this Ordinance is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT ORDAINED by the Macon-Bibb County Commission and it is hereby so ordained by the authority of the same that:

Section 1

The Macon-Bibb County Commission hereby declares that the following projects from the 2018 SPLOST have been completed under budget as follows:

1. Roads and Bridges - Seventh Street, \$32,562.00 under budget,
2. Roads and Bridges - Central City Commons, \$49,237.00 under budget,
3. Roads and Bridges - Second Street, \$2,837.00 under budget,
4. Roads and Bridges - Navicent, \$618.00 under budget,
5. Roads and Bridges - Allen Road Signal, \$796.00 under budget,
6. Cultural and Public - Coliseum, \$348,265.00 under budget,
7. Cultural and Public - S.M.A.R.T. Lake Park, \$27,603.00 under budget, and

Total Out: \$461,918.00

Section 2

The Macon-Bibb County Commission does hereby approve and authorize the reappropriation of all remaining funds previously appropriated to the above projects, totaling \$461,918.00, more or less, to be applied instead to the following projects, in the following amounts:

1. \$86,050.00 to Roads and Bridges – Other,

2. \$348,265.00 to Cultural and Public – Auditorium, and
3. \$27,603.00 to Cultural and Public – Other – Property,

Total In: \$461,918.00

Section 3.

- (a) The Commission hereby adopts and approves the forty-sixth amendment to the SPLOST Project Timeline, in substantially the same form as Exhibit B attached hereto and incorporated herein by reference.
- (b) The SPLOST Project Timeline shall serve as a guideline for the timing and expenditure of 2018 SPLOST Revenues.
- (c) For purposes of this Ordinance, 2018 SPLOST Revenues shall mean and refer to the revenues from the one cent Special Purpose Local Option Sales and Use Tax which was approved by Resolution, dated August 6, 2016, of the Macon-Bibb County Commission with a project list as described therein for capital outlay projects which was subsequently approved by the voters of the County on November 8, 2016, on all sales and uses within the County for an indefinite period of time, as allowed under the SPLOST Law for a consolidated government, (O.C.G.A. § 48-8-111.1), to be collected until the amount of specified tax has been raised, said total amount being \$280,000,000.
- (d) The purpose of the SPLOST Project Timeline is to provide for and ensure the orderly and appropriate expenditure of the 2018 SPLOST Revenues so that each SPLOST Project is accomplished, and the annual bond indebtedness payments satisfied without exceeding the estimated annual flow of 2018 SPLOST Revenues.
- (e) An Ordinance appropriating funds for each SPLOST capital outlay project shall still be required to be approved by the Macon-Bibb County Commission pursuant to the appropriation process as set forth in Section 14 of the Charter of Macon-Bibb County.
- (f) If the timing of a SPLOST project is to be advanced in the timeline or if the estimated budgeted amount for a SPLOST project is amended, then another SPLOST Project or combination of SPLOST Projects must be delayed from their schedule time, along with including any necessary budget adjustments to remaining SPLOST projects, so as to ensure that the annual expenditures related to SPLOST projects will never exceed the cumulative amount of available 2018 SPLOST Revenues.

- (g) If an Ordinance is submitted for approval of a SPLOST capital outlay project which requires amending the SPLOST Project Timeline, then such necessary amendment(s) shall be made to the SPLOST Project Timeline in conjunction with the SPLOST Project Manager and included as part of said Ordinance.
- (h) For purposes of determining the applicability and supremacy of laws, this Section shall have the force of a resolution, not an ordinance, and shall be subject to amendment or repeal in the same manner as resolutions.

Section 4.

In addition to the foregoing, the Macon-Bibb County Commission does hereby further approve and authorize the reappropriation of \$13,500.00 from the Blight Bond #2 – Edgewood/Telfair/Elm Street Park line item in the 2018 SPLOST Budget to the Blight Bond #2 – Property line item.

Section 5.

The Mayor, the Finance Director, and all other proper officers and agents of the County are authorized and directed to execute such documents and to take such other actions as may be required to accomplish the intents and purposes of this Ordinance.

Section 6.

In the event scrivener's errors shall be discovered in this Ordinance or in the Exhibits hereto after the adoption hereof, the Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Ordinance.

Section 7.

The sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable, and not mutually dependent upon each other or upon any other provisions in the Macon-Bibb County Code of Ordinances. If any sections, paragraphs, sentences, clauses, or phrases of this Ordinance shall be declared illegal by the valid judgment or decree of any court of competent jurisdiction, such illegality shall not affect any of the remaining sections, paragraphs, sentences, clauses, or phrases of this Ordinance, or any other provisions of the Macon-Bibb County Code of Ordinances.

Section 8.

Except as otherwise provided for herein, in the event that this Ordinance or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated

an act of resolution by the Macon-Bibb County Commission, it is the intent of this Commission that this Ordinance or such portion thereof shall be considered to have been adopted as a resolution of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Ordinance calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Ordinance satisfy such requirement, and that this Ordinance be construed accordingly.

Section 9.

All ordinances or resolutions, or parts of ordinances or resolutions in conflict with this Ordinance are, to the extent of such conflict, hereby repealed.

Section 10.

Pursuant to and in accordance with Section 14 of the Charter, the Mayor may disapprove or reduce any item or items of appropriation in this Ordinance. The approved part or parts of this Ordinance making appropriations shall become law effective immediately upon its approval by the Mayor, and the part or parts disapproved shall not become law unless subsequently passed into law by the Commission over the Mayor's veto by the affirmative vote of six (6) members of the Macon-Bibb County Commission.

SO ORDERED AND ORDAINED this _____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

\\Tc-Storage.Maconbibb.Us\Countyattstorage\ORD MACON-BIBB\2025 Miller Reappropriating Funds For Completed SPLOST Projects And 46th Timeline 1-30-25.Docx

EXHIBIT A

2018 SPLOST**PROJECT TIMELINE (MILLION DOLLARS)**

Amendment 45

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
WALKER ROAD LANDFILL CLOSURE	\$1,800,000											
PURCHASE	\$1,084,258				\$5,656,359	\$7,694,937	\$3,000,000					\$18,151,296
TRANSFER												\$1,084,258
TOTAL	\$2,884,258	\$0			\$5,656,359	\$7,694,937			\$0			\$0
CUMULATIVE	\$2,884,258	\$2,884,258	\$2,884,258	\$2,884,258	\$8,540,617	\$16,235,554	\$16,235,554	\$16,235,554	\$16,235,554	\$16,235,554	\$16,235,554	\$16,235,554
COURTHOUSE ADDITION												
COURTHOUSE	\$736,593				\$2,885,652	\$4,000,000	\$2,545,734			\$10,879,770		
PARKING DECK		\$408,594	\$15,000		\$450,000					\$3,847,074		
COURTROOM												
JUVENILE JUSTICE		\$144,213										
TOTAL	\$736,593	\$552,807	\$15,000	\$0	\$3,335,652	\$4,000,000	\$2,545,734	\$0	\$12,536,018	\$14,726,844	\$0	\$0
CUMULATIVE	\$736,593	\$1,289,400	\$1,304,400	\$1,304,400	\$4,640,052	\$8,640,052	\$11,185,786	\$11,185,786	\$23,721,804	\$38,448,648	\$38,448,648	\$38,448,648
ECONOMIC DEVELOPMENT												
INDUSTRIAL		\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$7,500,000			\$2,500,000	\$2,500,000	\$25,000,000
OTHER (PARKING)						\$3,847,468						\$3,847,468
TOTAL		\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$6,347,468	\$7,500,000	\$0	\$0	\$2,500,000	\$2,500,000	\$25,000,000
CUMULATIVE		\$2,500,000	\$5,000,000	\$7,500,000	\$10,000,000	\$16,347,468	\$23,847,468	\$23,847,468	\$23,847,468	\$26,347,468	\$28,847,468	\$28,847,468
BLIGHT REMEDIATION												
Blight Bond #2												
TOTAL	\$750,000	\$581,251	\$1,134,474	\$1,134,474	\$1,319,474	\$6,621,844						\$11,541,517
CUMULATIVE	\$750,000	\$581,251	\$1,134,474	\$1,134,474	\$1,319,474	\$6,621,844	\$0	\$0	\$0	\$0	\$0	\$0
	\$750,000	\$1,331,251	\$2,465,725	\$3,600,199	\$4,919,673	\$11,541,517	\$11,541,517	\$11,541,517	\$11,541,517	\$11,541,517	\$11,541,517	\$11,541,517
DEBT RETIREMENT												
2013 A (2017refunding issue)		\$718,007										\$718,007
2013 B MBCUDA		\$146,551	\$1,700,000									\$1,846,551
2015 A MBCUDA		\$906,920	\$900,000	\$100,000	\$300,000							\$2,206,920
2015B MBCUDA		\$422,076	\$1,000,000	\$1,000,000	\$500,000							\$2,922,076
2015 MBCIDA		\$556,768	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000				\$2,956,768
GMA LEASE		\$2,849,678										\$2,849,678
TOTAL		\$5,600,000	\$4,000,000	\$1,500,000	\$1,200,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
CUMULATIVE		\$5,600,000	\$9,600,000	\$11,100,000	\$12,300,000	\$12,700,000	\$13,100,000	\$13,500,000	\$13,500,000	\$13,500,000	\$13,500,000	\$13,500,000

CULTURAL AND PUBLIC											
GRAND OPERA	\$1,922,840	\$1,057,012	\$865,278	\$865,278	\$865,278	\$865,278	\$865,278	\$865,278	\$865,278	\$1,790,240	\$865,278
HEALTH DEPT/MENTAL HEALTH		\$865,278								\$865,278	\$865,278
SHURLING LIBRARY											
COLISEUM	\$590,000	\$371,420	\$961,420	\$961,420	\$961,420	\$1,922,840	\$961,420				
AUDITORIUM		\$450,000	\$1,032,000	\$547,050	\$3,369,278		\$6,013,203				
TUBMAN			\$482,500								
ROSE HILL											
SMART/LAKE PARK	\$100,000	\$861,420					\$480,988				
OTHER(LW, DOUGLASS)	\$2,884,260	\$136,300									
TOTAL	\$5,497,100	\$3,741,430	\$3,341,198	\$2,373,748	\$6,157,396	\$8,320,889	\$865,278	\$865,278	\$865,278	\$2,655,518	\$865,278
CUMULATIVE	\$5,497,100	\$9,238,530	\$12,579,728	\$14,953,476	\$21,110,872	\$29,431,761	\$30,297,039	\$31,162,317	\$32,027,595	\$34,683,113	\$35,548,391
PARKS AND RECREATION											
CLIFFVIEW LAKE											
LAKE TOBOSOFKEE		\$961,420	\$2,002,840	\$300,000	\$400,000		\$1,922,839	\$662,130			
SOUTH BIBB REC	\$1,884,568	\$5,806,792	\$150,000								
JDS TENNIS			\$825,000								
FRANK JOHNSON	\$48,250			\$150,000				\$2,355,325	\$1,407,550		
FILMORE THOMAS								\$2,734,260			
MEMORIAL								\$2,403,550			
FREEDOM PARK	\$384,568	\$2,642,408	\$1,031,180								
BLOOMFIELD/GILEAD	\$822,994			\$1,500,000		\$2,330,402					
EAST MACON REC	\$961,420	\$350,000	\$533,000	\$60,000		\$499,130					
CENTRAL CITY PARK	\$1,249,846	\$1,442,130		\$930,000	\$512,130						
BOWDEN	\$340,000	\$140,710									
BOOKER T CENTER?		\$240,710									
Mattie Hubbard				\$250,000		\$23,000		\$217,000			
OTHER(N MACON, SENIORS)	\$150,000	\$811,420		\$230,000		\$80,000					
TOTAL	\$5,841,646	\$12,395,590	\$4,542,020	\$3,170,000	\$1,162,130	\$4,946,371	\$8,372,265	\$1,407,550	\$0	\$0	
CUMULATIVE	\$5,841,646	\$18,237,236	\$22,779,256	\$25,949,256	\$27,111,386	\$32,057,757	\$40,430,022	\$41,837,572	\$41,837,572	\$41,837,572	
INTEREST											
SUMMARY											TOTALS
LANDFILL	\$764,446	\$0	\$0	\$0	\$5,656,359	\$7,694,937	\$0	\$0	\$0	\$0	\$16,235,554
COURTHOUSE	\$1,529,332	\$552,807	\$15,000	\$0	\$3,335,652	\$4,000,000	\$2,545,734	\$0	\$12,536,018	\$14,726,844	\$38,448,648
ECON DEV	\$152,532	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$6,347,468	\$7,500,000	\$0	\$0	\$2,500,000	\$28,847,468
BLIGHT	\$458,483	\$581,251	\$1,134,474	\$1,134,474	\$1,319,474	\$6,621,844	\$0	\$0	\$0	\$0	\$11,541,517
DEBT		\$5,600,000	\$4,000,000	\$1,500,000	\$1,200,000	\$400,000	\$400,000	\$400,000	\$0	\$0	\$13,500,000
PUBLIC SAFETY	\$955,670	\$1,777,485	\$3,606,551	\$2,321,065	\$7,938,558	\$240,355	\$3,315,528	\$2,536,238	\$240,355	\$240,355	\$24,044,330
ROADS	\$1,338,109	\$4,073,055	\$4,524,503	\$6,037,130	\$3,641,933	\$5,138,320	\$1,495,278	\$2,655,916	\$1,879,485	\$922,963	\$36,085,891
STORMWATER	\$955,666	\$2,404,536	\$2,404,536	\$2,404,536	\$2,404,536	\$2,404,536	\$2,404,536	\$2,404,536	\$1,443,096	\$1,443,096	\$24,044,334

EXHIBIT B

2018 SPLOST**PROJECT TIMELINE (MILLION DOLLARS)**

Amendment 46

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
WALKER ROAD LANDFILL CLOSURE	\$1,800,000				\$5,656,359	\$7,694,937	\$3,000,000					\$18,151,296
PURCHASE	\$1,084,258											\$1,084,258
TRANSFER												\$0
TOTAL	\$2,884,258	\$0			\$5,656,359	\$7,694,937			\$0			
CUMULATIVE	\$2,884,258	\$2,884,258	\$2,884,258	\$2,884,258	\$8,540,617	\$16,235,554	\$16,235,554	\$16,235,554	\$16,235,554	\$16,235,554	\$16,235,554	\$16,235,554
COURTHOUSE ADDITION												
COURTHOUSE	\$736,593				\$2,885,652	\$4,000,000	\$2,545,734		\$9,503,944	\$10,879,770		\$30,551,693
PARKING DECK		\$408,594	\$15,000		\$450,000				\$3,032,074	\$3,847,074		\$7,752,742
COURTROOM												
JUVENILE JUSTICE		\$144,213										\$144,213
TOTAL	\$736,593	\$552,807	\$15,000	\$0	\$3,335,652	\$4,000,000	\$2,545,734	\$0	\$12,536,018	\$14,726,844	\$0	
CUMULATIVE	\$736,593	\$1,289,400	\$1,304,400	\$1,304,400	\$4,640,052	\$8,640,052	\$11,185,786	\$11,185,786	\$23,721,804	\$38,448,648	\$38,448,648	
ECONOMIC DEVELOPMENT												
INDUSTRIAL		\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$7,500,000		\$2,500,000	\$2,500,000	\$2,500,000	\$25,000,000
OTHER (PARKING)						\$3,847,468						\$3,847,468
TOTAL		\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$6,347,468	\$7,500,000	\$0	\$0	\$2,500,000	\$2,500,000	
CUMULATIVE		\$2,500,000	\$5,000,000	\$7,500,000	\$10,000,000	\$16,347,468	\$23,847,468	\$23,847,468	\$23,847,468	\$26,347,468	\$28,847,468	
BLIGHT REMEDIATION												
Blight Bond #2	\$750,000	\$581,251	\$1,134,474	\$1,134,474	\$1,319,474	\$6,621,844						\$11,541,517
Other												
TOTAL	\$750,000	\$581,251	\$1,134,474	\$1,134,474	\$1,319,474	\$6,621,844	\$0	\$0	\$0	\$0	\$0	
CUMULATIVE	\$750,000	\$1,331,251	\$2,465,725	\$3,600,199	\$4,919,673	\$11,541,517	\$11,541,517	\$11,541,517	\$11,541,517	\$11,541,517	\$11,541,517	
DEBT RETIREMENT												
2013 A (2017 refunding issue)		\$718,007										\$718,007
2013 B MBCUDA		\$146,551	\$1,700,000									\$1,846,551
2015 A MBCUDA		\$906,920	\$900,000	\$100,000	\$300,000							\$2,206,920
2015B MBCUDA		\$422,076	\$1,000,000	\$1,000,000	\$500,000							\$2,922,076
2015 MBCIDA		\$556,768	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000				\$2,956,768
GMA LEASE		\$2,849,678										\$2,849,678
TOTAL		\$5,600,000	\$4,000,000	\$1,500,000	\$1,200,000	\$400,000	\$400,000	\$400,000	\$13,500,000	\$13,500,000	\$13,500,000	
CUMULATIVE		\$5,600,000	\$9,600,000	\$11,100,000	\$12,300,000	\$12,700,000	\$13,100,000	\$13,500,000	\$13,500,000	\$13,500,000	\$13,500,000	

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
PUBLIC SAFETY												
FIRE STATION					\$2,886,158							\$2,886,158
FIRE UPGRADE		\$220,215	\$480,710	\$480,710	\$480,710		\$480,710	\$480,710		\$240,355		\$2,864,120
LADDER TRUCK		\$1,221,915			\$962,054							\$2,183,969
IT UPGRADE			\$961,420		\$962,054		\$1,792,054	\$612,764				\$4,328,292
SHERIFF VEHICLES	\$275,110	\$240,355	\$240,355	\$240,355	\$240,355	\$240,355	\$480,710	\$962,054	\$240,355			\$3,160,004
SHERIFF BUILDINGS	\$591,310	\$95,000		\$1,500,000	\$2,407,227							\$4,593,537
TOWERS	\$961,420		\$1,924,066									\$2,885,486
PUBLIC SAFETY OTHER				\$100,000			\$562,054	\$480,710				\$1,142,764
TOTAL	\$1,827,840	\$1,777,485	\$3,606,551	\$2,321,065	\$7,938,558	\$240,355	\$3,315,528	\$2,536,238	\$240,355	\$240,355		
CUMULATIVE	\$1,827,840	\$3,605,325	\$7,211,876	\$9,532,941	\$17,471,499	\$17,711,854	\$21,027,382	\$23,563,620	\$23,803,975	\$24,044,330	\$24,044,330	
ROADS AND BRIDGES												
LMIG	\$630,000	\$939,766	\$632,131	\$647,825	\$826,821	\$846,050	\$865,278	\$884,506	\$907,100	\$922,963	\$85,706	\$8,188,146
BASS	\$121,065	\$721,065		\$1,371,570		\$551,270		\$1,771,410	\$972,385			\$5,508,765
SARDIS CHURCH/SGODA RD		\$5,001									\$5,001	\$5,001
FOREST HILL	\$694,537	\$564,923				\$3,741,000						\$5,000,460
SEVENTH STREET	\$370,000											\$337,438
ELECTRIC BUS	\$1,076,000	\$140,000		\$2,631,212								\$3,847,212
CENTRAL CITY COMMONS			\$1,068,372									\$1,019,135
OTHER												\$86,050
Jeffersonville	\$140,000	\$529,150	\$324,000	\$1,386,523	\$606,303							\$2,985,976
Ocmulgee Trail	\$400,000											\$400,000
Second Street	\$2,200,000											\$2,197,163
sidewalks Log Cabin		\$288,000										\$288,000
Sidewalks Pinehill		\$100,000			\$150,000		\$630,000					\$880,000
MGSU		\$206,000										\$2,706,000
Navicent		\$250,000		\$2,500,000								\$249,382
Hollingsworth Rd Sidewalks					\$288,000							
Allen Rd Signal		\$29,150										\$28,354
Tucker Rd Bridge		\$300,000										\$300,000
Jeffersonville Road Sidewalks					\$1,070,809							
Old Clinton Road Sidewalk					\$200,000							
Sidewalks - miscellaneous					\$500,000							
Mead Road												
Barrington Hall Sidewalks												
TOTAL	\$5,631,602	\$4,073,055	\$4,524,503	\$6,037,130	\$3,641,933	\$5,138,320	\$1,495,278	\$2,655,916	\$1,879,485	\$922,963	\$85,706	
CUMULATIVE	\$5,631,602	\$9,704,657	\$14,229,160	\$20,266,290	\$23,908,223	\$29,046,543	\$30,541,821	\$33,197,737	\$35,077,222	\$36,000,185	\$36,085,891	

Stormwater Management

VARIOUS

EMERGENCY

\$2,884,280 \$1,922,840 \$1,922,840 \$1,922,840 \$1,922,840 \$1,922,840 \$1,922,840 \$1,922,840 \$1,922,840 \$1,922,840 \$1,922,840 \$1,922,840 \$19,228,360

\$480,710 \$481,696 \$481,696 \$481,696 \$481,696 \$481,696 \$481,696 \$481,696 \$481,696 \$481,696 \$481,696 \$481,696 \$4,815,974

PUBLIC SAFETY	\$955,670	\$1,827,840	\$1,777,485	\$3,606,551	\$2,321,065	\$7,938,558	\$240,355	\$3,315,528	\$2,536,238	\$240,355	\$240,355	\$0	\$24,044,330
ROADS	\$1,338,109	\$5,631,602	\$4,073,055	\$4,524,503	\$6,037,130	\$3,641,933	\$5,138,320	\$1,495,278	\$2,655,916	\$1,879,485	\$922,963	\$85,706	\$36,085,891
STORMWATER	\$955,666	\$3,364,990	\$2,404,536	\$2,404,536	\$2,404,536	\$2,404,536	\$2,404,536	\$2,404,536	\$2,404,536	\$1,443,096	\$1,443,096	\$961,400	\$24,044,334
FACILITIES	\$1,414,601	\$5,497,100	\$3,741,430	\$3,341,198	\$2,373,748	\$6,157,396	\$8,320,889	\$865,278	\$865,278	\$865,278	\$2,655,518	\$865,278	\$35,548,391
RECREATION	\$1,662,428	\$5,841,646	\$12,395,590	\$4,542,020	\$3,170,000	\$1,162,130	\$4,946,371	\$8,372,265	\$1,407,550	\$0	\$0	\$0	\$41,837,572
SPLOST INTEREST			\$758,467	\$1,545,550	\$1,456,750	\$1,304,250	\$1,144,000	\$975,750	\$799,250	\$613,750	\$419,000	\$214,500	\$9,231,267
PRINCIPLE REDUCTION	\$9,231,267		\$2,875,000	\$2,930,000	\$3,075,000	\$3,230,000	\$3,390,000	\$3,530,000	\$3,705,000	\$3,890,000	\$4,085,000	\$4,290,000	\$35,000,000
TOTAL		\$26,534,029	\$37,259,621	\$30,543,832	\$25,972,703	\$39,850,288	\$50,648,720	\$31,404,369	\$14,773,768	\$21,467,982	\$26,992,776	\$8,916,884	\$314,364,972
BOND		\$40,826,045											
SALES TAX		\$0	\$24,305,269	\$30,000,000	\$30,000,000	\$30,000,000	\$30,000,000	\$30,000,000	\$30,000,000	\$30,000,000	\$30,000,000	\$17,500,000	\$281,805,269
NET		\$14,292,016	\$1,337,664	\$793,832	\$4,821,129	-\$5,029,159	-\$25,677,879	-\$27,082,248	-\$11,856,016	-\$3,323,998	-\$316,774	\$8,266,342	



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR TO EXECUTE AN AGREEMENT WITH UNITED WAY OF CENTRAL GEORGIA, INC. GRANTING AN EMERGENCY SOLUTIONS GRANT, IN THE AMOUNT OF \$25,106.00, TO PROVIDE EMERGENCY SHELTER, SUPPORT SERVICES, AND CASE MANAGEMENT SERVICES TO UNSHELTERED INDIVIDUALS; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, the Macon-Bibb County Emergency Solutions Grant program is administered by the Economic and Community Development Department (“ECD”) of the Macon-Bibb County Government and is funded by an Emergency Solutions Grant (“ESG”) applied for by Macon-Bibb County and awarded by the U.S. Department of Housing and Urban Development; and

WHEREAS, United Way of Central Georgia, Inc. (“United Way”) has applied for ESG funding, in the amount of \$25,106.00 from ECD, in order to provide emergency shelter, support services, and case management services to unsheltered individuals; and

WHEREAS, United Way intends to utilize ESG funds to provide intake and client services to approximately 1200 individuals seeking emergency shelter; and

WHEREAS, ECD has determined this to be eligible ESG activity and has selected United Way for award of these funds; and

WHEREAS, a copy of the grant agreement has been attached hereto as Exhibit A for review and reference purposes, and is incorporated herein by reference; and

WHEREAS, the Macon-Bibb County Commission desires to provide these ESG funds to this organization as recommended by ECD; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that the Mayor is authorized to execute an agreement between Macon-Bibb County and United Way of Central Georgia, Inc. for the County to provide ESG funding in the amount of TWENTY-FIVE THOUSAND ONE HUNDRED SIX DOLLARS AND 00/100 CENTS (\$25,106.00) to emergency shelter, support services, and case management services to unsheltered individuals, as provided in Exhibit A.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this

Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this _____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL)

Attest: _____
JANICE S. ROSS, Clerk of the Commission

Q:\RES MACON-BIBB\2025 Miller Authorizing Agreement with United Way of Central Georgia ESG Funds - \$25,106.00 2-11-25.docx

EXHIBIT A

**AGREEMENT
BETWEEN
MACON-BIBB COUNTY GOVERNMENT
ECONOMIC AND COMMUNITY DEVELOPMENT DEPARTMENT**

AND

**UNITED WAY OF CENTRAL GEORGIA
277 Martin Luther King Jr, Blvd, Suite 301
Macon, GA 31201
478-745-4732**

**PROVIDING FOR
EMERGENCY SOLUTIONS GRANT**

This Agreement ("Agreement") is made and entered into by and between Macon-Bibb County, Georgia ("M-BCG") a political subdivision of the State of Georgia, and **United Way of Central Georgia**, ("Sub-grantee"). This Agreement shall be in effect on the date it is fully executed by both Parties.

NOW THEREFORE in consideration of the mutual terms and conditions, promises, covenants and payments hereinafter set forth, The M-BCG and Sub-grantee hereby agree as follows:

**ARTICLE I
DEFINITIONS AND IDENTIFICATIONS**

Unless the context otherwise requires, the capitalized terms used herein and not otherwise defined shall have the meaning assigned to them in this Article I.

Macon-Bibb County Emergency Solutions Grant (ESG) Program or "Program"

The term "Macon-Bibb County Emergency Solutions Grant (ESG) Program," or "Program" shall mean that the program administered by the Economic and Community Development Department of the Macon-Bibb County Government and funded by an Emergency Solutions Grant applied for by the M-BCG and awarded by HUD as authorized pursuant to Title I of the Housing and Community Development Act of 1974, Public Law 93-383, as amended.

Department

The term "Department" shall mean the Economic and Community Development Department of the M-BCG.

Grantee

The term "Grantee" shall mean the M-BCG as Grantee of an Emergency Solutions Grant awarded by HUD.

HUD

The term "HUD" shall mean the U. S. Department of Housing and Urban Development.

Project

The term "Project" shall mean the project or projects set forth in Article III hereto entitled "Scope of Services and Timetable."

Low- and Moderate-Income Household

The term “Low- and Moderate-Income Household” shall mean a household having an income equal to or less than the Section 8 low-income limit established by HUD.

Low- and Moderate-Income Person

The term “Low- and Moderate-Income Person” shall mean a member of a family having an income equal to or less than the Section 8 low-income limit established by HUD. Unrelated individuals will be considered as one-person families for this purpose.

Household

Household means all the persons who occupy a housing unit. The occupants may be a single family, one person living alone, two or more families living together, or any other related or unrelated person who share living arrangements.

Duplicated Count

A duplicated count is comprised of several units of service or services provided to one participant.

Unduplicated Count

An unduplicated count is defined as tracking each participant once for the entire program year. No participant is to be counted more than once for reporting purposes within a program year.

At Risk of Homelessness (24 CFR 576.2)

An individual or family who:

- (1) Has an annual income below 30 percent of the median family income for the area, as determined by HUD;
- (2) Does not have sufficient resources or support networks, e.g., family, friends, faith-based or other social networks, immediately available to prevent them from moving to an emergency shelter or another place described in paragraph 1 of this section.
- (3) Meets one of the following conditions:
 - Has moved 2 or more times due to economic reasons during 60 preceding applications for homelessness prevention assistance
 - Is living in the home of another because of economic hardship
 - Has been notified that right to occupy current housing will be terminated within 21 days
 - Lives in a hotel or motel and the costs is not paid by charitable organizations for low-income individuals
 - Lives in a single-room occupancy or efficiency apartment unit in which there resides more than 2 persons or lives in a larger housing unit in which more than 1.5 persons reside per room.
 - Is exiting a publicly funded institution of system of care
 - Lives in housing that has characteristics associated with instability and increased risk of homelessness
- (4) A child or youth who does not qualify as “homeless” under this section, but qualifies under section 387(3) of the Runaway and Homeless Youth Act (42 U.S.C. 5732a(3), etc.
- (5) A child or youth who does not qualify as “homeless” under this section but qualifies as “homeless” under section 725(2) of the McKinney Vento Homeless Assistance Act (42 U.S.C. 11434a(2), and the parent(s) or guardian(s) of that child or youth if living with her or him.

Homeless

- (1) An individual or family who lacks a fixed, regular, and adequate nighttime residence
- (2) An individual or family who will imminently lose their primary nighttime residence, see provisions in (576.2)

- (3) Unaccompanied youth under 25 years of age, or families with children and youth, who do not otherwise qualify as homeless under this definition
- (4) Any individual or family who is fleeing or attempting to flee, domestic violence, dating violence, sexual assault, stalking, or other dangerous or life-threatening conditions that relate to violence against the individual or family member making them afraid to return to their primary nighttime residence.

ARTICLE II **PREAMBLE**

In order to establish the background, context, and frame of reference for this Agreement and to manifest the objectives and the intentions of the respective parties herein, the following statements, representations, and explanations are set forth. Such statements, representations, and explanations shall be accepted as predicates for the undertakings and commitments included within the provisions, which follow and may be relied upon by the parties as essential elements of the mutual considerations upon which this Agreement is based.

Title I of the Housing and Community Development Act of 1974 P.L. 93-383 (hereinafter the “Act”) consolidated several existing programs for community development into a single program of Emergency Solutions Grant (hereinafter “ESG”) for the purpose of allowing local discretion for the determination of needs and priorities of community development. The citizens of Macon-Bibb through citizen participation workshops, the Mayor, and The M-BCG Commission determined the need and priorities of community development in the M-BCG.

Pursuant to HUD regulations at 24 CFR 576 certain projects were included in the M-BCG’s ESG submission to HUD, referred to as the Annual Plan. The M-BCG determined that the projects included in the Annual Plan addressed of the following ESG program components:

- a) Street Outreach
- b) Emergency Shelter
- c) Homelessness Prevention
- d) Rapid Re-housing
- e) Homeless Management Information System (HMIS)

M-BCG has determined that ESG assistance can be provided for Homelessness Prevention, Street Outreach, Emergency Shelter, and/or Rapid Re-housing components.

Under the Rules and Regulations of HUD, the M-BCG is the administrator for the Program and is mandated to comply with various statutes, rules, and regulations of the United States, as they pertain to the allocation and expenditure of funds as well as protecting the interest of certain classes of individuals who reside within Macon-Bibb County.

The M-BCG is desirous of disbursing the funds to the Sub-grantee for use in the Project. However, as administrator for the Program, the M-BCG desires to obtain assurance from the Sub-grantee, and the Sub-grantee so assures the M-BCG, that the Sub-grantee will comply with all applicable statutes, rules, and regulations of the United States, the State of Georgia, and/or the M-BCG relating to the Project and the Program, as a condition precedent to the release of such funds to the Sub-grantee.

ARTICLE III

UNIFORM GUIDANCE INFORMATION

Macon-Bibb County will use the following information to provide a reference to the PY24 (September 25, 2024, thru December 23, 2025) sub-award contract to the aforementioned agency regarding new elements required for disclosure by the U.S. Office of Management and Budget (OMB) presented in the Omni-Circular. The update known as the Uniform Guidance; 2 CFR 200.331, provides certain elements to be included in contracts for recipients of federal grant awards acting as pass-through entities.

Federal Award:

Emergency Solutions Grant

Subrecipient Name:

United Way of Central Georgia

Agency Unique Entity Identification (UEI):

GLVTLKKJDNK5

Federal Award Identification Number:

E-24-MC-13-0005

Federal Award Date:

September 25, 2024

Subaward period of performance start and end date:

September 25, 2024, thru December 23, 2025

Federal Funds Obligated:

\$25,106.00

Project Description

Provide emergency shelter, support services, and/or case management to reduce the unsheltered count within the Balance of State entitlement.

Federal Awarding Agency/Pass-Through Entity:

Housing and Urban Development (Federal)

Macon-Bibb County, Economic, and Community Development Department (Pass through entity)

688 Walnut Street, Suite 101

Macon, GA 31217

CFDA Name and Number:

Emergency Solutions Grants; 14.231

Research and Development:

No

Provision:

OMB OMNI Circular Subpart E-Cost principles provide for consistent and transparent treatment of cost both direct and indirect. Indirect costs according to CFR 2A Part 200.414 are classified into two broad categories of: Facilities and Administration. "Facilities" is defined as depreciation on buildings, equipment, and capital improvement, interest on debt associated with certain buildings, equipment, and capital improvements, and operations and maintenance expenses. "Administration" is defined as general administration and general expenses such as the director's office, accounting, personnel, and all other types of expenditures not listed specifically under one of the subcategories of "Facilities".

Pursuant to HUD regulations, Macon-Bibb County Government recognizes an approved Federal Government, or, if no such rate exists, either a rate negotiated between the pass-through entity and the subrecipient (in compliance with this part), or a 10% de minimis indirect cost rate.

ARTICLE IV **PROJECT**

The M-BCG agrees to reimburse the Sub-grantee in an amount not to exceed **TWENTY-FIVE THOUSAND ONE HUNDRED AND SIX DOLLARS AND 00/100 CENTS (\$25,106.00)** (hereinafter the "Grant") to implement the following project (s): **"United Way of Central Georgia (Outreach and Supportive Services)" ESG PY2024 Program.** Provide emergency shelter, support services, and/or case management to reduce the unsheltered count within the Balance of State entitlement.

ARTICLE V **NOTICES**

Sub-grantee and the M-BCG agree that all notices required by this Agreement shall be in writing and delivered via mail (postage prepaid), commercial courier, or personal delivery or sent by facsimile or other electronic means. Any notice delivered or sent as aforesaid shall be effective on the date of delivery or sending. All notices and other written communications under this Agreement shall be addressed to the individuals in the capacities indicated below unless otherwise modified by subsequent written notice.

Communication and details concerning this contract shall be directed to the following contract representatives:

If to M-BCG: Macon-Bibb County Consolidated Government
Attention: Lester M. Miller, Mayor
Government Center
700 Poplar Street
Macon, Georgia 31201

With copy to: Economic and Community Development Department
Attention: Wanzina Jackson, Director
688 Walnut Street, Suite 101
Macon, Georgia 31201
Phone: 478-751-7190
Facsimile: 478-910-2347

If to Sub-grantee: United Way of Central Georgia
Attention: George McCanless, Chief Executive Officer
277 Martin Luther King Jr, Blvd, Suite 301
Macon, GA 31201
478-746-9803

ARTICLE VI **GENERAL CONDITIONS**

A. General Compliance

The Sub-grantee agrees to comply with the requirements of Title 24 of the Code of Federal Regulations, Part 576 (the U.S. Housing and Urban Development regulations concerning Emergency Solutions Grants (ESG)) except that (1) the Sub-grantee does not assume the M-BCG's environmental responsibilities and (2) the Sub-grantee does not assume the M-BCG's responsibility for initiating the review process. The Sub-grantee also agrees to comply with all other applicable Federal, state and local

laws, regulations, and policies governing the funds provided under this contract. The Sub-grantee further agrees to utilize funds available under this Agreement to supplement rather than supplant funds otherwise available.

B. Independent Contractor

Nothing contained in this Agreement is intended to or shall be construed in any manner, as creating or establishing the relationship of employer/employee between the parties. The Sub-grantee shall at all times remain an "independent contractor" with respect to the services to be performed under this Agreement. The M-BCG shall be exempt from payment of all Unemployment Compensation, FICA, retirement, life and/or medical insurance, and Workers' Compensation Insurance, as the Sub-grantee is an independent contractor.

C. Hold Harmless

The Sub-grantee shall hold harmless, defend, and indemnify the M-BCG from any and all claims, actions, suits, charges, and judgments whatsoever that arise out of the Sub-grantee's performance or nonperformance of the services or subject matter called for in this Agreement.

D. Workers' Compensation

The Sub-grantee shall provide Workers' Compensation Insurance coverage for all of its employees involved in the performance of this Agreement.

E. Insurance & Bonding

The Sub-grantee shall carry sufficient insurance coverage to protect contract assets from loss due to theft, fraud, and/or undue physical damage, and as a minimum shall purchase a blanket fidelity bond covering all employees in an amount equal to cash advances from the M-BCG.

The Sub-grantee shall comply with the bonding and insurance requirements of 2 CFR Part 200 or 2 CFR Part 200.325 and 2 CFR Part 200, Subpart D, Bonding and Insurance.

F. The Macon-Bibb County Government's Recognition

The Sub-grantee shall ensure recognition of the role of the M-BCG in providing services through this Agreement. All activities, facilities, and items utilized pursuant to this Agreement shall be prominently labeled as to funding source. In addition, the Sub-grantee will include a reference to the support provided herein in all publications made possible with funds made available under this Agreement.

G. Amendments

The M-BCG or Sub-grantee may amend this Agreement at any time provided that such amendments make specific reference to this Agreement, and are executed in writing, signed by a duly authorized representative of each organization, and approved by the M-BCG's governing body only if such changes increase in the grant amount set forth in Section 3.1. Such amendments shall not invalidate this Agreement, nor relieve or release the M-BCG or Sub-grantee from its obligations under this Agreement.

It is further understood that the M-BCG, as Grantee, is responsible to HUD for the administration of funds and may consider and act upon reprogramming recommendations as proposed by its Sub-grantee. In the event that the M-BCG approves any modification, amendment, or alteration to the funding allocation, the Sub-grantee shall be notified pursuant to Article IV and such notification shall constitute an official amendment to this Agreement.

It is further agreed that the Sub-grantee will submit to the M-BCG within thirty- (30) days of the completion of each Project a complete financial accounting of all its project activities.

The Department's Director shall be authorized to approve line item changes to the Sub-grantee's budget as long as such changes do not increase in the grant amount set forth in Section 3.1.

The M-BCG may, in its discretion, amend this Agreement to conform with Federal, state, or local governmental guidelines, policies, and available funding amounts, or for other reasons. If such amendments result in a change in the funding, the scope of services, or a schedule of the activities to be undertaken as part of this Agreement, such modifications will be incorporated only by written amendment signed by both the M-BCG and Sub-grantee.

H. Suspension or Termination

In accordance with 2 CFR Part 200.338, the M-BCG may suspend or terminate this Agreement if the Sub-grantee materially fails to comply with any terms of this Agreement, which include (but are not limited to) the following:

- (a). Failure to comply with any of the rules, regulations or provisions referred to herein, or such statutes, regulations, executive orders, and HUD guidelines, policies or directives as may become applicable at any time;
- (b). Failure, for any reason, of the Sub-grantee to fulfill in a timely and proper manner its obligations under this Agreement;
- (c). Ineffective or improper use of funds provided under this Agreement; or
- (d). Submission by the Sub-grantee to the M-BCG reports that are incorrect or incomplete in any material respect.

In accordance with 2 CFR Part 200.339, this Agreement may also be terminated for convenience by either the M-BCG or the Sub-grantee, in whole or in part, by setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. However, if in the case of a partial termination, the M-BCG determines that the remaining portion of the award will not accomplish the purpose for which the award was made, the M-BCG may terminate the award in its entirety.

ARTICLE VII **ADMINISTRATIVE REQUIREMENTS**

A. Financial Management

1. Accounting Standards

The Sub-grantee agrees to comply with 2 CFR Part 200.302-303 and agrees to adhere to the accounting principles and procedures required therein, utilize adequate internal controls, and maintain necessary source documentation for all costs incurred.

2. Cost Principles

The Sub-grantee shall administer its program in conformance with OMB 2 CFR Part 200(Subpart E), "Cost-Profit Organizations." These principles shall be applied for all costs incurred whether charged on a direct basis.

- (a). Sub-grantee gives the M-BCG, HUD, and the Comptroller General, through any authorized representatives, access to and the right to examine all records, books, papers, or documents relating to the Project.
- (b). Sub-grantee agrees to maintain books, records, and documents in accordance with generally accepted accounting procedures and practices that sufficiently and properly reflect all expenditures of Grant funds provided by the M-BCG under this Agreement.
- (c). All Grant funds disbursed through an Emergency Solutions Grant shall be used only for eligible activities specifically outlined in this Agreement. The Sub-grantee shall comply with any conditions and timetables set forth in this Agreement. In the event that the Sub-grantee does not comply with the conditions and timetables, or if the Sub-grantee ceases to exist or provides the services for which the Grant was made, the Sub-grantee will not carry out another ESG eligible project, the Sub-grantee shall be in default. In the event of default, the M-BCG may exercise any rights or remedies provided in this Agreement or in that security agreement executed simultaneously herewith.

B. Documentation and Recordkeeping

1. Records to be Maintained

The Sub-grantee shall maintain all records required by the Federal regulations specified in 24 CFR 576.500 and 578.103 that are pertinent to the activities to be funded under this Agreement. Such records shall include but not be limited to:

- (a). Records providing a full description of each activity undertaken;
- (b). Records demonstrating that each activity undertaken meets the components of the ESG program;
- (c). Records required to determine the eligibility of activities;
- (d). Records documenting compliance with the homeless definition of the ESG program;
- (e). Financial records as required by 24 CFR 570.502, and 2 CFR Part 200.302 to 2 CFR 200 Subpart F; and
- (f). Other records are necessary to document compliance with 24 CFR Part 576.

2. Retention

The Sub-grantee shall retain all financial records, supporting documents, statistical records, and all other records pertinent to the Agreement for a period of five (5) years. The retention period begins on the date of the submission of the M-BCG's annual performance and evaluation report to HUD in which the activities assisted under the Agreement are reported on for the final time. Notwithstanding the above, if there is litigation, claims, audits, negotiations, or other actions that involve any of the records cited and that have started before the expiration of the five-year period, then such records must be retained until completion of the actions and resolution of all issues, or the expiration of the five-year period, whichever occurs later.

3. Client Data

The Sub-grantee shall maintain client data demonstrating client eligibility for services provided. Such data shall include, but not be limited to, client name, address, income level or other basis for determining eligibility, and description of service provided. Such information shall be made available to the M-BCG monitors or their designees for review upon request.

4. Disclosure

The Sub-grantee understands that client information collected under this contract is private and the use or disclosure of such information, when not directly connected with the administration of the M-BCG's or Sub-grantee's responsibilities with respect to services provided under this contract, is prohibited unless written consent is obtained from such person receiving service and, in the case of a minor, that of a responsible parent/guardian.

5. Close-outs

The Sub-grantee's obligation to the M-BCG shall not end until all closeout requirements are completed. Activities during this closeout period shall include but are not limited to: making final payments, disposing of program assets (including the return of all unused materials, equipment, unspent cash advances, program income balances, and accounts receivable to the M-BCG), and determining the custodianship of records. Notwithstanding the foregoing statement, the terms of this Agreement shall remain in effect during any period that the Sub-grantee has control over ESG funds, including program income.

Any Grant funds remaining at the end of the contract period shall be returned to the M-BCG, and the M-BCG may in its discretion reprogram the funds to another ESG-eligible project.

6. Audits & Inspections

All Sub-grantee records with respect to any matters covered by this Agreement shall be made available to the M-BCG, HUD, and the Comptroller General of the United States or any of their authorized representatives, at any time during normal business hours, as often as deemed necessary, to audit, examine, and make excerpts or transcripts of all relevant data. Any

deficiencies noted in audit reports must be fully cleared by the Sub-grantee within 30 days after receipt by the Sub-grantee. Failure of the Sub-grantee to comply with the above audit requirements will constitute a violation of this contract and may result in the withholding of

future payments. The Sub-grantee hereby agrees to have an annual agency audit conducted in accordance with current M-BCG policy concerning Sub-grantee audits and 2 CFR Part 200, Subpart F-Uniform Guidance, as applicable.

C. Reporting and Payment Procedures

1. Program Income

The Sub-grantee shall report “monthly” all program income (as defined at 24 CFR 570.500(a)) generated by activities carried out with ESG funds made available under this contract. The use of program income by the Sub-grantee shall comply with the requirements set forth at 24 CFR 570.504. By way of further limitations, the Sub-grantee may use each income during the contract period for activities permitted under this contract and shall reduce requests for additional funds by the amount of any such program income balances on hand. All unexpended program income shall be returned to the M-BCG at the end of the contract period. Any interest earned on cash advances from the U.S. Treasury and from funds held in a revolving fund account is not program income and shall be remitted promptly to the M-BCG.

2. Invoicing and Payment Procedures

1. In order to obtain reimbursement from the M-BCG in connection with the Project, the Sub-grantee shall provide the following information:

(a). Sub-grantee shall submit monthly reports for the Project in the form attached hereto as Exhibit "C" and Exhibit "C, part II," detailing the project accomplishments for the reporting period, and the number of participants broken down by income, ethnicity, race, sex, disability, and female head of household. In addition, for each Program participant, once, and once only during the term of this contract, the Sub-grantee shall complete a Participant Eligibility report in the form attached hereto as Exhibit "B" and shall submit such forms with its monthly progress report.

(b). The Sub-grantee shall submit reimbursement requests in the form attached hereto as Exhibit "D" detailing the amount of funds expended.

(c). Time sheets shall be submitted as backup documentation for salary reimbursement.

(d). Request for reimbursement by the Sub-grantee shall be accompanied by invoices, canceled checks, receipts, or other documentation evidencing funds expended by the Sub-grantee.

(e). The M-BCG agrees to reimburse costs allowable under Federal, State, and Local guidelines.

2. Upon receiving the invoices, reports, and other material, the Department shall audit such documentation to determine whether the items invoiced are eligible for reimbursement under applicable Federal, State, and local laws and regulations.

3. The Department shall authorize the M-BCG's Finance Department to reimburse the Sub-grantee for all costs it determines are eligible for reimbursement, pursuant to the audit.

4. The M-BCG will pay to the Sub-grantee funds available under this Agreement based upon information submitted by the Sub-grantee and consistent with any approved budget and the M-BCG policy concerning payments. Reimbursements will be made for eligible expenses actually incurred by the Sub-grantee. Payments will be adjusted by the M-BCG in accordance with the advance fund and program income balances available in Sub-grantee accounts. In addition, the M-BCG reserves the right to liquidate funds available under this contract for costs incurred by the M-BCG on behalf of the Sub-grantee.

3. Progress Reports

The Sub-grantee shall submit monthly Progress Reports to the M-BCG in the format and content provided as required by the M-BCG by the 10th of each following month, or as agreed upon electronically or in writing by the department and Sub-grantee. Additions to or updated versions of these and other required forms may be provided to the Sub-grantee by the department via email or in hard copy throughout the year, within reason. The department will give Sub-grantees advance notice of any significant changes in documentation or reporting requirements.

D. Procurement

1. Compliance

The Sub-grantee shall comply with the current M-BCG policy concerning the purchase of equipment and shall maintain inventory records of all non-expendable personal property as defined by such policy as may be procured with funds provided herein. All program assets (unexpended program income, property, equipment, etc.) shall revert to the M-BCG upon termination of this Agreement.

(a). All procurement transactions regardless of whether negotiated or advertised and without regard to the dollar value, should be conducted in a manner so as to provide maximum open free competition consistent with the Cost Principles for Non-Profit Organizations. See Uniform Guidance, 2 CFR Part 200 and 215. The M-BCG will provide copies to the Sub-grantee.

(b). Sub-grantee shall make positive efforts to utilize small business and minority-owned business sources, as well as women-owned businesses, for supplies and services.

2. OMB Standards

Unless specified otherwise within this agreement, the Sub-grantee shall procure all materials, property, or services in accordance with the requirements of 2 CFR Part 200, Subpart D.

3. Travel

The Sub-grantee shall obtain written approval from the M-BCG for any travel outside of Macon-Bibb County with funds provided under this Agreement.

4. Security

Sub-grantee's obligations under this Agreement shall be secured by a valid first lien security

interest in and to all tangible personal property purchased with the Grant funds, as well as all proceeds, products, rents, royalties, issues, and profits thereof. Sub-grantee shall execute a separate security agreement setting forth the rights and remedies of the M-BCG with respect to any tangible personal property purchased with the Grant funds. The occurrence of any event of default hereunder, or the suspension of payment pursuant to Article X hereof shall constitute an event of default under the terms of said security agreement.

E. Use and Reversion of Assets

The use and disposition of real property and equipment under this Agreement shall be in compliance with the requirements of 2 CFR Part 200 and 24 CFR 570.502, 507.503, and 570.504, as applicable, which include but are not limited to the following:

1. The Sub-grantee shall transfer to the M-BCG any ESG funds on hand and any accounts receivable attributable to the use of funds under this Agreement at the time of expiration, cancellation, or termination.
2. In all cases in which equipment acquired, in whole or in part, with funds under this Agreement is sold, the proceeds shall be program income (prorated to reflect the extent to which funds received under this Agreement were used to acquire the equipment). Equipment not needed by the Sub-grantee for activities under this Agreement shall be:
 - (a). Transferred to the M-BCG for the ESG program, or
 - (b). Retained after compensating the M-BCG for an amount equal to the current fair market.

ARTICLE VIII **PERSONNEL & PARTICIPANT CONDITIONS**

A. Civil Rights

1. Compliance

- (a). The Sub-grantee agrees to comply with Title VI of the Civil Rights Act of 1964 as amended, Title VIII of the Civil Rights Act of 1968 as amended, Section 104(b), and Section 109 of Title I of the Housing and Community Development Act of 1974 as amended, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Executive Order 11063, and Executive Order 11246 as amended by Executive Orders 11375, 11478, 12107 and 12086.
- (b). In compliance with Executive Order 11246 and Section 3 of the 1968 Housing and Urban Development Act regarding Equal Employment Opportunity, the Sub-grantee agrees and understands that no person shall be discriminated against on the grounds of race, color, national origin, age, familial status, handicap or sex. Further assurance is also given that the Sub-grantee will immediately take any measures necessary to effectuate this policy. Notice of the policy will be placed in plain sight at the Project location, for the benefit of interested parties, and all subcontractors will be notified of the policy provisions.

2. Nondiscrimination

The Sub-grantee agrees to comply with the nondiscrimination in employment and contracting opportunities laws, regulations, and executive orders referenced in 24 CFR 576.407, as revised by Executive Order 13279. The applicable non-discrimination provisions in Section 109 of the Housing and Community Development Act of 1974 (HCDA) are still applicable.

3. Section 504

The Sub-grantee agrees to comply with all Federal regulations issued pursuant to compliance with Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), which prohibits discrimination against individuals with disabilities or handicaps in any Federally assisted program. The M-BCG shall provide the Sub-grantee with any guidelines necessary for compliance with that portion of the regulations in force during the term of this Agreement.

B. Affirmative Action

1. Approved Plan

The Sub-grantee agrees that it shall be committed to carry out pursuant to the M-BCG's specifications an Affirmative Action Program in keeping with the principles as provided in President's Executive Order 11246 of September 24, 1966. The M-BCG shall provide Affirmative Action guidelines to the Sub-grantee to assist in the formulation of such a program. The Sub-grantee shall submit a plan for an Affirmative Action Program for approval prior to the award of funds.

2. Women- and Minority-Owned Businesses (W/MBE)

The Sub-grantee will use its best efforts to afford small businesses, minority business enterprises, and women's business enterprises the maximum practicable opportunity to participate in the performance of this contract. As used in this contract, the terms "small business" means a business that meets the criteria set forth in section 3(a) of the Small Business Act, as amended (15 U.S.C. 632), and "minority and women's business enterprise" means a business at least fifty-one (51) percent owned and controlled by minority group members or women. For the purpose of this definition, "minority group members" are Afro-Americans, Spanish-speaking, Spanish-surnamed or Spanish-heritage Americans, Asian Americans, and American Indians. The Sub-grantee may rely on written representations by businesses regarding their status as minority and female business enterprises in lieu of an independent investigation.

3. Access to Records

The Sub-grantee shall furnish and cause each of its own sub-grantees or subcontractors to furnish all information and reports required hereunder and will permit access to its books, records, and accounts by the M-BCG, HUD or its agent, or other authorized Federal officials for purposes of investigation to ascertain compliance with the rules, regulations and provisions stated herein.

4. Equal Employment Opportunity and Affirmative Action (EEO/AA) Statement

The Sub-grantee will, in all solicitations or advertisements for employees placed by or on behalf of

the Sub-grantee; state that it is an Equal Opportunity or Affirmative Action employer.

C. Employment Restrictions

The Sub-grantee is prohibited from using funds provided herein or personnel employed in the administration of the program for: political activities; inherently religious activities; lobbying; political patronage; and nepotism activities.

D. Conduct

1. Assignability

The Sub-grantee shall not assign or transfer any interest in this Agreement without the prior written consent of the M-BCG thereto; provided, however, that claims for money due or to become due to the Sub-grantee from the M-BCG under this contract may be assigned to a bank, trust company, or other financial institution without such approval. Notice of any such assignment or transfer shall be furnished promptly to the M-BCG.

2. Subcontracts

(a). Approvals

The Sub-grantee shall not enter into any subcontracts with any agency or individual in the performance of this contract without the written consent of the M-BCG prior to the execution of such agreement.

(b). Monitoring

The Sub-grantee will monitor all subcontracted services on a regular basis to ensure contract compliance. Results of monitoring efforts shall be summarized in written reports and supported with documented evidence of follow-up actions taken to correct areas of noncompliance.

(c). Content

The Sub-grantee shall cause all of the provisions of this contract in its entirety to be included in and made a part of any subcontract executed in the performance of this Agreement.

(d). Selection Process

The Sub-grantee shall undertake to ensure that all subcontracts left in the performance of this Agreement shall be awarded on a fair and open competition basis in accordance with applicable procurement requirements. Executed copies of all subcontracts shall be forwarded to the M-BCG along with documentation concerning the selection process.

(e). Employee Verification

(1). Compliance with O.C.G.A. Sec. 13-10-91 and Georgia Department of Labor Rule 300.10.1.02, regarding verification of new employee information, is a condition of this Agreement. In connection therewith and as a condition of the M-BCG entering into this

Agreement, the affidavit attached hereto as Exhibit "E" shall be executed and adhered to by the Sub-grantee.

(2). Compliance with 8 U.S.C. §1621, the Federal Immigration and Nationality Act, and O.C.G.A. §50-36-1, is a condition of this Agreement. In connection therewith and as a condition of the M-BCG entering into this Agreement, the affidavit attached hereto as Exhibit "F" shall be executed and adhered to by the Sub-grantee.

3. Hatch Act

The Sub-grantee agrees that no funds provided, nor personnel employed under this Agreement, shall be in any way or to any extent engaged in the conduct of political activities in violation of Chapter 15 of Title V of the U.S.C.

4. Conflict of Interest

The Sub-grantee agrees to abide by the provisions of 2 CFR Part 200.317-318 and 576.404, which include (but are not limited to) the following:

(a). The Sub-grantee shall maintain a written code or standards of conduct that shall govern the performance of its officers, employees, or agents engaged in the award and administration of contracts supported by Federal funds.

(b). No employee, officer, or agent of the Sub-grantee shall participate in the selection, or in the award, or administration of, a contract supported by Federal funds if a conflict of interest, real or apparent, would be involved.

(c). No covered persons who exercise or have exercised any functions or responsibilities with respect to ESG-assisted activities, or who are in a position to participate in a decision-making process or gain inside information with regard to such activities, may obtain a financial interest in any contract, or have a financial interest in any contract, subcontract, or agreement with respect to the ESG-assisted activity, or with respect to the proceeds from the ESG-assisted activity, either for themselves or those with whom they have business or immediate family ties, during their tenure or for a period of one (1) year thereafter. For purposes of this paragraph, a "covered person" includes any person who is an employee, agent, consultant, officer, or elected or appointed official of the M-BCG, the Sub-grantee, or any designated public agency.

5. Lobbying

The Sub-grantee hereby certifies that:

(a). No Federal appropriated funds have been paid or will be paid, by or on behalf of it, to any person for influencing or attempting to influence an officer or employee of any agency, a

Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement;

(b). If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, it

will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions; and

(c). It will require that the language of paragraph (6) of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all Sub-grantees shall certify and disclose accordingly.

6. Lobbying Certification

This certification is a material representation of the fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S.C. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

7. Copyright

If this contract results in any copyrightable material or inventions, the M-BCG and/or grantor agency reserves the right to royalty-free, non-exclusive, and irrevocable license to reproduce, publish or otherwise use and to authorize others to use, the work or materials for governmental purposes.

8. Religious Activities

The Sub-grantee agrees that funds provided under this Agreement will not be utilized for inherently religious activities prohibited by 24 CFR 576.406, such as worship, religious instruction, or proselytization.

ARTICLE IX **SEVERABILITY**

If any provision of this Agreement is held invalid, the remainder of the Agreement shall not be affected thereby, and all other parts of this Agreement shall nevertheless be in full force and effect.

ARTICLE X **SECTION HEADINGS AND SUBHEADINGS**

The section headings and subheadings contained in this Agreement are included for convenience only and shall not limit or otherwise affect the terms of this Agreement.

ARTICLE XI
WAIVER

The M-BCG's failure to act with respect to a breach by the Sub-grantee does not waive its right to act with respect to subsequent or similar breaches. The failure of the M-BCG to exercise or enforce any right or provision shall not constitute a waiver of such right or provision.

ARTICLE XII
ENTIRE AGREEMENT

This agreement constitutes the entire agreement between the M-BCG and the Sub-grantee for the use of funds received under this Agreement, and it supersedes all prior or contemporaneous communications and proposals, whether electronic, oral, or written between the M-BCG and the Sub-grantee with respect to this Agreement.

ARTICLE XIII
CHOICE OF LAW AND VENUE

This agreement shall be governed by the laws of the State of Georgia, and the parties hereby consent that venue for any dispute arising under this agreement shall be in any court of competent jurisdiction in Bibb County, Georgia.

(Signatures on following page)

SIGNATURE PAGE

IN WITNESS WHEREOF, all parties with the express consent of their governing board and/or Commission have made and executed this Agreement on the respective dates under each signature.

ATTEST:

MACON-BIBB COUNTY

Janice S. Ross, Macon-Bibb County
Clerk of Commission

Lester M. Miller, Mayor

Date

ATTEST:

ECONOMIC AND COMMUNITY
DEVELOPMENT DEPARTMENT

Witness

Wanzina Jackson, Director

Date

ATTEST:

UNITED WAY OF CENTRAL GEORGIA, INC

Witness

George McCanless, Chief Executive Officer

Date

EXHIBIT "A"

SCOPE OF SERVICES AND TIMETABLE

The Sub-grantee will be responsible for administering the Emergency Solutions Grant – **United Way of Central Georgia (Outreach and Supportive Services) ESG PY2024 Program** in a manner satisfactory to M-BCG and consistent with any standards required as a condition of providing these funds. Such program will include the following activities eligible under the Emergency Solutions Grant program:

I. SCOPE OF SERVICES

A. Activity

DESCRIPTION OF ACTIVITY

This project will provide emergency shelter support services and/or case management to at least 1,200 individuals, reducing the unsheltered count within the Balance of State entitlement during a 12-month period.

IMPLEMENTATION PLANS

Individuals and families experiencing homelessness will receive emergency shelter at Brookdale Resource Center and Hello House, along with case management, outreach, and/or support services to connect them with housing, benefits enrollment, employment, addiction treatment, and more.

DESCRIPTION OF RELEVANT PERSONNEL/ ADMINISTRATIVE PROCESSES

ESG funds will enable UWCG to retain two critical positions serving residents experiencing homelessness: Client Services Specialist and an Intake Specialist.

Client Services Specialist provides support and intake services at Brookdale Resource Center. The Client Service Specialist will share an overview of the program, and provide information about shelter policies, available resources, and services. They assist clients in completing necessary forms and applications. They do an in-person assessment to determine eligibility and gather necessary documentation and information.

Intake Specialist staffs the intake desk at Hello House overnight so that assistance can immediately be offered to anyone seeking emergency shelter. The Hello House is a low-barrier shelter.

B. Program Components

The Sub-grantee certifies that the activity carried out under this Agreement will meet one of the following Emergency Solutions Grant program components: Street Outreach, Emergency Shelter, Homelessness Prevention, or Rapid Re-housing components.

C. Levels of Accomplishment - Goals and Performance Measures

The Subgrantee agrees to provide the following levels of program services:

Activity	Units Per Month	Projected Schedule	Projected Outcome
Shelter	100	September 25, 2024- December 23, 2025	Harm Reduction
Total Number Served			1200 Individuals

SUBGRANTEE is also responsible for submitting to M-BCG, monthly progress reports, timesheets, participant eligibility forms, and any other documentation deemed necessary by the monitoring official during the funding cycle. These records shall be retained for up to four (4) years after the contract expires.

D. Performance Monitoring

The Subgrantee agrees that the Department may carry out periodic monitoring activities as determined necessary by the Department. At a minimum, monitoring shall occur annually, and it may occur more frequently if the Department deems it necessary. The Department will provide the

Subgrantee with advance notice in writing prior to any monitoring activities. Such monitoring shall consist of evaluating the Subgrantee's compliance with the terms and conditions of this Agreement and comparing the Subgrantee's projected Project schedule, budget, and output with its actual performance. Unscheduled visits may occur in an effort to observe agency activities and/or programs when deemed necessary. Upon request, the Subgrantee shall furnish the Department, M-BCG, or its designee copies of such records and information as the Department or M-BCG deems necessary. In addition, the Subgrantee shall submit monthly progress reports as required by Section 6-C.3 of this Agreement and shall prepare such other reports as may be required by the Department, M-BCG, and/or HUD. **All monthly reports shall be submitted to the Department no later than the 10th of the following month.**

M-BCG will monitor the performance of the Subgrantee against goals and performance standards as stated above. Substandard performance as determined by M-BCG will constitute noncompliance with this Agreement. If action to correct such substandard performance is not taken by the

Subgrantee within a reasonable period of time after being notified by M-BCG, contract suspension or termination procedures will be initiated.

E. Macon-Bibb County Recognition

The Subgrantee shall ensure recognition of the role of M-BCG in providing services through this Agreement. All activities, facilities, and items utilized pursuant to this Agreement shall be prominently labeled as funding sources. In addition, the Subgrantee will include a reference to the support provided herein in all publications made possible with funds made available under this Agreement.

II. TIME OF PERFORMANCE

The services of the Subgrantee shall start on **September 25, 2024, and end on December 23, 2025**. The term of this Agreement and the provisions herein shall be extended to cover any additional time period

during which the Subgrantee remains in control of ESG funds or other ESG assets, including program income.

III. BUDGET

<u>Line Item</u>	<u>Amount</u>
Client Services Specialist	\$12,553.00
Intake Specialist	\$12,553.00
TOTAL	\$25,106.00

Any amendments to the budget must be in writing and approved by both the M-BCG and the Sub-grantee.

IV. PAYMENT

It is expressly agreed and understood that the total amount to be paid by the Grantee under this Agreement shall not exceed **\$25,106.00**. Drawdowns for the payment of eligible expenses shall be made against the line-item budgets specified in Paragraph III herein and in accordance with performance.

Payments may be contingent upon certification of the Sub-grantee's financial management system in accordance with the standards specified in 2 CFR Part 200, Subpart D, 24 CFR 1.6, 24 CFR Part 121.

The sub-grantee is also responsible for submitting to the M-BCG, monthly progress reports, participant eligibility forms, invoices, and any other documentation deemed necessary by the monitoring official during the funding cycle. These records shall be retained at least four (4) years after the Contract expires.

EXHIBIT “B” PROGRAM REQUIREMENTS

Sub-grantee shall operate this project funded through the M-BCG's Emergency Solutions Grant Program according to the following guidelines:

1. Accounting and related records of the Sub-grantee shall comprise the following as a minimum:

- a. Voucher System - All supporting documentation, such as purchase orders, invoices, receiving reports, and requisitions.
- b. Books of Original Entry - Cash receipts and disbursements journal, general ledger.
- c. Chart of Accounts - Listing of accounts must be maintained in the accounting system.
- d. Personnel Records - Separate personnel files shall be maintained for each project employee. As a minimum, the file shall contain a resume of the employee, a description of duties assigned, and a record of the date employed, rate of pay at the time of employment, subsequent pay adjustments, and documentation supporting leave taken by the employee.
- e. Attendance Record - Attendance records shall be maintained for all personnel paid with ESG funds. This applies to part-time as well as full-time personnel. In addition to accounting for daily attendance, the type of leave taken (annual, sick, or other), shall be disclosed. Daily attendance records must support budgetary changes for payroll purposes.
- f. Payroll Records - Formal payroll records supporting cash disbursements to employees shall be maintained. Such records shall disclose each employee's name, job title, social security number, date hired, rate of pay, and all required deductions for tax purposes. Timely quarterly payments of taxes withheld from employees for the Federal Government, along with required matching costs, are required. In addition, all charges for payroll purposes shall be in accordance with the budget submitted to the M-BCG.
- g. Checking Accounts - Monthly bank reconciliation shall be conducted by the Sub-grantee. All checks, stubs, etc. shall be pre-numbered and accounted for, including voided checks. Check stubs, canceled checks, and deposit slips must be readily available for audit purposes.
- h. Petty Cash - Sub-grantee is encouraged to use an imprest system and adhere to a monthly, or if necessary, more frequent reimbursement procedure if any ESG funds are used as petty cash.
- i. Purchasing Practices - HUD considers State-purchasing regulations to be an acceptable standard for purchasing practices. Local purchasing practices and other procedures shall prevail unless State and/or Federal practices and procedures are more stringent. Therefore, the Sub-grantee is obligated to conform to the more restrictive practices and procedures. It is recommended that the Sub-grantee use a formal pre-numbered purchase order system where possible and applicable.
- j. Inventories - Sub-grantee is advised to maintain adequate safeguards against loss by theft or physical deterioration of any inventories of office supplies, equipment, or other items purchased with ESG funds.
- k. Property Records - Sub-grantee is required to maintain formal subsidiary records to control all

project property and equipment. Such records shall disclose the acquisition and subsequent disposition of all property. An annual inventory should be conducted, and the books shall reflect the actual value of the property on hand at the end of the fiscal year.

2. All projects' accounting records and supporting documents shall be maintained for a period of at least four (4) years after termination of the M-BCG's award. The records shall be made available to the M-BCG, HUD, and/or any of their authorized representatives.
3. Sub-grantee should maintain records in an orderly manner, with separate identification for different federal time periods. Records must be protected from fire or other perils, and if stored in a location other than the project site, they should be readily accessible to the M-BCG's staff, HUD officials, and others who may be authorized to examine such records.



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR TO EXECUTE AN AGREEMENT WITH MACON-BIBB COUNTY ECONOMIC OPPORTUNITY COUNCIL, INC. GRANTING AN EMERGENCY SOLUTIONS GRANT, IN THE AMOUNT OF \$48,675.00, TO PROVIDE RENTAL ASSISTANCE, UTILITY ASSISTANCE, AND CASE MANAGEMENT SERVICES TO HELP PREVENT HOMELESSNESS; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, the Macon-Bibb County Emergency Solutions Grant program is administered by the Economic and Community Development Department (“ECD”) of the Macon-Bibb County Government and is funded by an Emergency Solutions Grant (“ESG”) applied for by Macon-Bibb County and awarded by the U.S. Department of Housing and Urban Development; and

WHEREAS, Macon-Bibb County Economic Opportunity Council, Inc. (“EOC”) has applied for ESG funding, in the amount of \$48,675.00 from ECD, in order to assistance to those at-risk of homelessness; and

WHEREAS, EOC intends to utilize ESG funds to provide rent assistance, utility assistance, and case management services; and

WHEREAS, ECD has determined this to be eligible ESG activity and has selected EOC for award of these funds; and

WHEREAS, a copy of the grant agreement has been attached hereto as Exhibit A for review and reference purposes, and is incorporated herein by reference; and

WHEREAS, the Macon-Bibb County Commission desires to provide these ESG funds to this organization as recommended by ECD; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that the Mayor is authorized to execute an agreement between Macon-Bibb County and Macon-Bibb County Economic Opportunity Council, Inc. for the County to provide ESG funding in the amount of FORTY-EIGHT THOUSAND SIX HUNDRED SEVENTY-FIVE DOLLARS AND 00/100 CENTS (\$48,675.00) to provide rental assistance, utility assistance, and case management services to help prevent homelessness, as provided in Exhibit A.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it

is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this ____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

Q:\RES MACON-BIBB\2025 Miller Authorizing Agreement with EOC ESG Funds - \$48,675.00 2-11-25.docx

EXHIBIT A

**AGREEMENT
BETWEEN
MACON-BIBB COUNTY GOVERNMENT
ECONOMIC AND COMMUNITY DEVELOPMENT DEPARTMENT**

AND

**MACON-BIBB COUNTY ECONOMIC OPPORTUNITY COUNCIL, INC
456 Bay Street
Macon, GA 31201
478-738-3240**

**PROVIDING FOR
EMERGENCY SOLUTIONS GRANT**

This Agreement ("Agreement") is made and entered into by and between Macon-Bibb County, Georgia ("M-BCG") a political subdivision of the State of Georgia, and **Macon-Bibb County Economic Opportunity Council, Inc.**, ("Sub-grantee"). This Agreement shall be in effect on the date it is fully executed by both Parties.

NOW THEREFORE in consideration of the mutual terms and conditions, promises, covenants and payments hereinafter set forth, The M-BCG and Sub-grantee hereby agree as follows:

**ARTICLE I
DEFINITIONS AND IDENTIFICATIONS**

Unless the context otherwise requires, the capitalized terms used herein and not otherwise defined shall have the meaning assigned to them in this Article I.

Macon-Bibb County Emergency Solutions Grant (ESG) Program or "Program"

The term "Macon-Bibb County Emergency Solutions Grant (ESG) Program," or "Program" shall mean that the program administered by the Economic and Community Development Department of the Macon-Bibb County Government and funded by an Emergency Solutions Grant applied for by the M-BCG and awarded by HUD as authorized pursuant to Title I of the Housing and Community Development Act of 1974, Public Law 93-383, as amended.

Department

The term "Department" shall mean the Economic and Community Development Department of the M-BCG.

Grantee

The term "Grantee" shall mean the M-BCG as Grantee of an Emergency Solutions Grant awarded by HUD.

HUD

The term "HUD" shall mean the U. S. Department of Housing and Urban Development.

Project

The term "Project" shall mean the project or projects set forth in Article III hereto entitled "Scope of

Services and Timetable."

Low- and Moderate-Income Household

The term "Low- and Moderate-Income Household" shall mean a household having an income equal to or less than the Section 8 low-income limit established by HUD.

Low- and Moderate-Income Person

The term "Low- and Moderate-Income Person" shall mean a member of a family having an income equal to or less than the Section 8 low-income limit established by HUD. Unrelated individuals will be considered as one-person families for this purpose.

Household

Household means all the persons who occupy a housing unit. The occupants may be a single family, one person living alone, two or more families living together, or any other related or unrelated person who share living arrangements.

Duplicated Count

A duplicated count is comprised of several units of service or services provided to one participant.

Unduplicated Count

An unduplicated count is defined as tracking each participant once for the entire program year. No participant is to be counted more than once for reporting purposes within a program year.

At Risk of Homelessness (24 CFR 576.2)

An individual or family who:

- (1) Has an annual income below 30 percent of the median family income for the area, as determined by HUD;
- (2) Does not have sufficient resources or support networks, e.g., family, friends, faith-based or other social networks, immediately available to prevent them from moving to an emergency shelter or another placed described in paragraph 1 of this section.
- (3) Meets one of the following conditions:
 - Has moved 2 or more times due to economic reasons during 60 preceding applications for homelessness prevention assistance
 - Is living in the home of another because of economic hardship
 - Has been notified that right to occupy current housing will be terminated within 21 days
 - Lives in a hotel or motel and the costs is not paid by charitable organizations for low-income individuals
 - Lives in a single-room occupancy or efficiency apartment unit in where there resides more than 2 persons or lives in a larger housing unit in which more than 1.5 persons reside per room.
 - Is exiting a publicly funded institution of system of care
 - Lives in housing that has characteristics associated with instability and increased risk of homelessness
- (4) A child or youth who does not qualify as "homeless" under this section, but qualifies under section 387(3) of the Runaway and Homeless Youth Act (42 U.S.C. 5732a(3), etc.
- (5) A child or youth who does not qualify as "homeless" under this section but qualifies as "homeless" under section 725(2) of the McKinney Vento Homeless Assistance Act (42 U.S.C. 11434a(2), and the parent(s) or guardian(s) of that child or youth if living with her or him.

Homeless

- (1) An individual or family who lacks a fixed, regular, and adequate nighttime residence

- (2) An individual or family who will imminently lose their primary nighttime residence, see provisions in (576.2)
- (3) Unaccompanied youth under 25 years of age, or families with children and youth, who do not otherwise qualify as homeless under this definition
- (4) Any individual or family who is fleeing or attempting to flee, domestic violence, dating violence, sexual assault, stalking, or other dangerous or life-threatening conditions that relate to violence against the individual or family member making them afraid to return to their primary nighttime residence.

ARTICLE II **PREAMBLE**

In order to establish the background, context, and frame of reference for this Agreement and to manifest the objectives and the intentions of the respective parties herein, the following statements, representations and explanations are set forth. Such statements, representations, and explanations shall be accepted as predicates for the undertakings and commitments included within the provisions, which follow and may be relied upon by the parties as essential elements of the mutual considerations upon which this Agreement is based.

Title I of the Housing and Community Development Act of 1974 P.L. 93-383 (hereinafter the “Act”) consolidated several existing programs for community development into a single program of Emergency Solutions Grant (herein after “ESG”) for the purpose of allowing local discretion for the determination of needs and priorities of community development. The citizens of Macon-Bibb through citizen participation workshops, the Mayor, and The M-BCG Commission determined the need and priorities of community development in the M-BCG.

Pursuant to HUD regulations at 24 CFR 576 certain projects were included in the M-BCG’s ESG submission to HUD, referred to as the Annual Plan. The M-BCG determined that the projects included in the Annual Plan addressed of the following ESG program components:

- a) Street Outreach
- b) Emergency Shelter
- c) Homelessness Prevention
- d) Rapid Re-housing
- e) Homeless Management Information System (HMIS)

M-BCG has determined that ESG assistance can be provided for Homelessness Prevention, Street Outreach, Emergency Shelter, and/or Rapid Re-housing components.

Under the Rules and Regulations of HUD, the M-BCG is the administrator for the Program and is mandated to comply with various statutes, rules, and regulations of the United States, as they pertain to the allocation and expenditure of funds as well as protecting the interest of certain classes of individuals who reside within Macon-Bibb County.

The M-BCG is desirous of disbursing the funds to the Sub-grantee for use in the Project. However, as administrator for the Program, the M-BCG desires to obtain assurance from the Sub-grantee, and Sub-grantee so assures the M-BCG, that the Sub-grantee will comply with all applicable statutes, rules and regulations of the United States, the State of Georgia, and/or the M-BCG relating to the Project and the Program, as a condition precedent to the release of such funds to the Sub-grantee.

ARTICLE III

UNIFORM GUIDANCE INFORMATION

Macon-Bibb County will use the following information to provide a reference to the PY24 (September 25, 2024, thru December 23, 2025) sub-award contract to the aforementioned agency regarding new elements required for disclosure by the U.S. Office of Management and Budget (OMB) presented in the Omni-Circular. The update known as the Uniform Guidance; 2 CFR 200.331, provides certain elements to be included in contracts for recipients of federal grant awards acting as pass-through entities.

Federal Award:

Emergency Solutions Grant

Subrecipient Name:

Macon-Bibb County Economic Opportunity Council, Inc (MBCEOC)

Agency Unique Entity Identification (UEI):

M5W2KRFMZND3

Federal Award Identification Number:

E-24-MC-13-0005

Federal Award Date:

September 25, 2024

Subaward period of performance start and end date:

September 25, 2024, thru December 23, 2025

Federal Funds Obligated:

\$48,675.00

Project Description

Preventing homelessness for individuals and families and increasing long-term stability for clients in permanent housing.

Federal Awarding Agency/Pass-Through Entity:

Housing and Urban Development (Federal)

Macon-Bibb County, Economic and Community Development Department (Pass through entity)

688 Walnut Street, Suite 101

Macon, GA 31217

CFDA Name and Number:

Emergency Solutions Grants; 14.231

Research and Development:

No

Provision:

OMB OMNI Circular Subpart E-Cost principles provide for consistent and transparent treatment of cost both direct and indirect. Indirect costs according to CFR 2A Part 200.414 are classified into two broad categories of: Facilities and Administration. "Facilities" is defined as depreciation on buildings, equipment, and capital improvement, interest on debt associated with certain buildings, equipment, and capital improvements, and operations and maintenance expenses. "Administration" is defined as general administration and general expenses such as the director's office, accounting, personnel, and all other types of expenditures not listed specifically under one of the subcategories of "Facilities".

Pursuant to HUD regulations, Macon-Bibb County Government recognizes an approved Federal Government, or, if no such rate exists, either a rate negotiated between the pass-through entity and the subrecipient (in compliance with this part), or a 10% de minimis indirect cost rate.

ARTICLE IV PROJECT

The M-BCG agrees to reimburse the Sub-grantee in an amount not to exceed **FORTY-EIGHT THOUSAND SIX HUNDRED SEVENTY-FIVE DOLLARS AND 00/100 CENTS (\$48,675.00)** (hereinafter the "Grant") to implement the following project (s): **"Macon-Bibb County Economic Opportunity Council, Inc (Homeless Prevention)" ESG PY2024 program.** Preventing homelessness for individuals and families and increasing long-term stability for clients in permanent housing.

ARTICLE V NOTICES

Sub-grantee and the M-BCG agree that all notices required by this Agreement shall be in writing and delivered via mail (postage prepaid), commercial courier, or personal delivery or sent by facsimile or other electronic means. Any notice delivered or sent as aforesaid shall be effective on the date of delivery or sending. All notices and other written communications under this Agreement shall be addressed to the individuals in the capacities indicated below unless otherwise modified by subsequent written notice.

Communication and details concerning this contract shall be directed to the following contract representatives:

If to M-BCG: Macon-Bibb County Consolidated Government
Attention: Lester M. Miller, Mayor
Government Center
700 Poplar Street
Macon, Georgia 31201

With copy to: Economic and Community Development Department
Attention: Wanzina Jackson, Director
688 Walnut Street, Suite 101
Macon, Georgia 31201
Phone: 478-751-7190
Facsimile: 478-910-2347

If to Sub-grantee: Macon-Bibb County Economic Opportunity Council, Inc
Attention: Sarita Hill, Executive Director
456 Bay Street
Macon, GA 31201
478-738-3240

ARTICLE VI GENERAL CONDITIONS

A. General Compliance

The Sub-grantee agrees to comply with the requirements of Title 24 of the Code of Federal Regulations, Part 576 (the U.S. Housing and Urban Development regulations concerning Emergency Solutions Grants (ESG)) except that (1) the Sub-grantee does not assume the M-BCG's environmental responsibilities and (2) the Sub-grantee does not assume the M-BCG's responsibility for initiating the review process. The Sub-grantee also agrees to comply with all other applicable Federal, state and local

laws, regulations, and policies governing the funds provided under this contract. The Sub-grantee further agrees to utilize funds available under this Agreement to supplement rather than supplant funds otherwise available.

B. Independent Contractor

Nothing contained in this Agreement is intended to or shall be construed in any manner, as creating or establishing the relationship of employer/employee between the parties. The Sub-grantee shall at all times remain an "independent contractor" with respect to the services to be performed under this Agreement. The M-BCG shall be exempt from payment of all Unemployment Compensation, FICA, retirement, life and/or medical insurance, and Workers' Compensation Insurance, as the Sub-grantee is an independent contractor.

C. Hold Harmless

The Sub-grantee shall hold harmless, defend, and indemnify the M-BCG from any and all claims, actions, suits, charges, and judgments whatsoever that arise out of the Sub-grantee's performance or nonperformance of the services or subject matter called for in this Agreement.

D. Workers' Compensation

The Sub-grantee shall provide Workers' Compensation Insurance coverage for all of its employees involved in the performance of this Agreement.

E. Insurance & Bonding

The Sub-grantee shall carry sufficient insurance coverage to protect contract assets from loss due to theft, fraud and/or undue physical damage, and as a minimum shall purchase a blanket fidelity bond covering all employees in an amount equal to cash advances from the M-BCG.

The Sub-grantee shall comply with the bonding and insurance requirements of 2 CFR Part 200 or 2 CFR Part 200.325 and 2 CFR Part 200, Subpart D, Bonding and Insurance.

F. The Macon-Bibb County Government's Recognition

The Sub-grantee shall ensure recognition of the role of the M-BCG in providing services through this Agreement. All activities, facilities, and items utilized pursuant to this Agreement shall be prominently labeled as to funding sources. In addition, the Sub-grantee will include a reference to the support provided herein in all publications made possible with funds made available under this Agreement.

G. Amendments

The M-BCG or Sub-grantee may amend this Agreement at any time provided that such amendments make specific reference to this Agreement, and are executed in writing, signed by a duly authorized representative of each organization, and approved by the M-BCG's governing body only if such changes increase in the grant amount set forth in Section 3.1. Such amendments shall not invalidate this Agreement, nor relieve or release the M-BCG or Sub-grantee from its obligations under this Agreement.

It is further understood that the M-BCG, as Grantee, is responsible to HUD for the administration of funds and may consider and act upon reprogramming recommendations as proposed by its Sub-grantee. In the event that the M-BCG approves any modification, amendment, or alteration to the funding allocation, the Sub-grantee shall be notified pursuant to Article IV and such notification shall constitute an official amendment to this Agreement.

It is further agreed that the Sub-grantee will submit to the M-BCG within thirty- (30) days of the completion of each Project a complete financial accounting of all its project activities.

The Department's Director shall be authorized to approve line-item changes to the Sub-grantee's budget as long as such changes do not increase in the grant amount set forth in Section 3.1.

The M-BCG may, in its discretion, amend this Agreement to conform with Federal, state, or local governmental guidelines, policies, and available funding amounts, or for other reasons. If such amendments result in a change in the funding, the scope of services, or a schedule of the activities to be undertaken as part of this Agreement, such modifications will be incorporated only by written amendment signed by both the M-BCG and Sub-grantee.

H. Suspension or Termination

In accordance with 2 CFR Part 200.338, the M-BCG may suspend or terminate this Agreement if the Sub-grantee materially fails to comply with any terms of this Agreement, which include (but are not limited to) the following:

- (a). Failure to comply with any of the rules, regulations or provisions referred to herein, or such statutes, regulations, executive orders, and HUD guidelines, policies or directives as may become applicable at any time;
- (b). Failure, for any reason, of the Sub-grantee to fulfill in a timely and proper manner its obligations under this Agreement;
- (c). Ineffective or improper use of funds provided under this Agreement; or
- (d). Submission by the Sub-grantee to the M-BCG reports that are incorrect or incomplete in any material respect.

In accordance with 2 CFR Part 200.339, this Agreement may also be terminated for convenience by either the M-BCG or the Sub-grantee, in whole or in part, by setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. However, if in the case of a partial termination, the M-BCG determines that the remaining portion of the award will not accomplish the purpose for which the award was made, the M-BCG may terminate the award in its entirety.

ARTICLE VII **ADMINISTRATIVE REQUIREMENTS**

A. Financial Management

1. Accounting Standards

The Sub-grantee agrees to comply with 2 CFR Part 200.302-303 and agrees to adhere to the accounting principles and procedures required therein, utilize adequate internal controls, and maintain necessary source documentation for all costs incurred.

2. Cost Principles

The Sub-grantee shall administer its program in conformance with OMB 2 CFR Part 200(Subpart E), "Cost-Profit Organizations." These principles shall be applied for all costs incurred whether charged on a direct basis.

- (a). Sub-grantee gives the M-BCG, HUD, and the Comptroller General, through any authorized representatives, access to and the right to examine all records, books, papers, or documents relating to the Project.
- (b). Sub-grantee agrees to maintain books, records, and documents in accordance with general accepted accounting procedures and practices that sufficiently and properly reflect all expenditures of Grant funds provided by the M-BCG under this Agreement.
- (c). All Grant funds disbursed through an Emergency Solutions Grant shall be used only for eligible activities specifically outlined in this Agreement. The Sub-grantee shall comply with any conditions and timetables set forth in this Agreement. In the event, that the Sub-grantee does not comply with the conditions and timetables, or if the Sub-grantee ceases to exist or provide the services for which the Grant was made, the Sub-grantee will not carry out another ESG eligible project, the Sub-grantee shall be in default. In the event of default, the M-BCG may exercise any rights or remedies provided in this Agreement or in that security agreement executed simultaneously herewith.

B. Documentation and Recordkeeping

1. Records to be Maintained

The Sub-grantee shall maintain all records required by the Federal regulations specified in 24 CFR 576.500 and 578.103 that are pertinent to the activities to be funded under this Agreement. Such records shall include but not be limited to:

- (a). Records providing a full description of each activity undertaken;
- (b). Records demonstrating that each activity undertaken meets the components of the ESG program;
- (c). Records required to determine the eligibility of activities;
- (d). Records documenting compliance with the homeless definition of the ESG program;
- (e). Financial records as required by 24 CFR 570.502, and 2 CFR Part 200.302 to 2 CFR 200 Subpart F; and
- (f). Other records are necessary to document compliance with 24 CFR Part 576.

2. Retention

The Sub-grantee shall retain all financial records, supporting documents, statistical records, and

all other records pertinent to the Agreement for a period of five (5) years. The retention period begins on the date of the submission of the M-BCG's annual performance and evaluation report

to HUD in which the activities assisted under the Agreement are reported on for the final time. Notwithstanding the above, if there is litigation, claims, audits, negotiations, or other actions

that involve any of the records cited and that have started before the expiration of the five-year period, then such records must be retained until completion of the actions and resolution of all issues, or the expiration of the five-year period, whichever occurs later.

3. Client Data

The Sub-grantee shall maintain client data demonstrating client eligibility for services provided. Such data shall include, but not be limited to, client name, address, income level or other basis for determining eligibility, and description of service provided. Such information shall be made available to the M-BCG monitors or their designees for review upon request.

4. Disclosure

The Sub-grantee understands that client information collected under this contract is private and the use or disclosure of such information, when not directly connected with the administration of the M-BCG's or Sub-grantee's responsibilities with respect to services provided under this contract, is prohibited unless written consent is obtained from such person receiving service and, in the case of a minor, that of a responsible parent/guardian.

5. Close-outs

The Sub-grantee's obligation to the M-BCG shall not end until all closeout requirements are completed. Activities during this closeout period shall include, but are not limited to: making final payments, disposing of program assets (including the return of all unused materials, equipment, unspent cash advances, program income balances, and accounts receivable to the M-BCG), and determining the custodianship of records. Notwithstanding the foregoing statement, the terms of this Agreement shall remain in effect during any period that the Sub-grantee has control over ESG funds, including program income.

Any Grant funds remaining at the end of the contract period shall be returned to the M-BCG, and the M-BCG may in its discretion reprogram the funds to another ESG-eligible project.

6. Audits & Inspections

All Sub-grantee records with respect to any matters covered by this Agreement shall be made available to the M-BCG, HUD, and the Comptroller General of the United States or any of their authorized representatives, at any time during normal business hours, as often as deemed necessary, to audit, examine, and make excerpts or transcripts of all relevant data. Any deficiencies noted in audit reports must be fully cleared by the Sub-grantee within 30 days after receipt by the Sub-grantee. Failure of the Sub-grantee to comply with the above audit requirements will constitute a violation of this contract and may result in the withholding of future payments. The Sub-grantee hereby agrees to have an annual agency audit conducted in

accordance with the current M-BCG policy concerning Sub-grantee audits and 2 CFR Part 200, Subpart F-Uniform Guidance, as applicable.

C. Reporting and Payment Procedures

1. Program Income

The Sub-grantee shall report “monthly” all program income (as defined at 24 CFR 570.500(a)) generated by activities carried out with ESG funds made available under this contract. The use of program income by the Sub-grantee shall comply with the requirements set forth at 24 CFR 570.504. By way of further limitations, the Sub-grantee may use each income during the contract period for activities permitted under this contract and shall reduce requests for additional funds by the amount of any such program income balances on hand. All unexpended program income shall be returned to the M-BCG at the end of the contract period. Any interest earned on cash advances from the U.S. Treasury and from funds held in a revolving fund account is not program income and shall be remitted promptly to the M-BCG.

2. Invoicing and Payment Procedures

1. In order to obtain reimbursement from the M-BCG in connection with the Project, the Sub-grantee shall provide the following information:

(a). Sub-grantee shall submit monthly reports for the Project in the form attached hereto as Exhibit "C" and Exhibit "C, part II," detailing the project accomplishments for the reporting period, and the number of participants broken down by income, ethnicity, race, sex, disability, and female head of household. In addition, for each Program participant, once, and once only during the term of this contract, the Sub-grantee shall complete a Participant Eligibility report in the form attached hereto as Exhibit "B" and shall submit such forms with its monthly progress report.

(b). The Sub-grantee shall submit reimbursement requests in the form attached hereto as Exhibit "D" detailing the amount of funds expended.

(c). Time sheets shall be submitted as backup documentation for salary reimbursement.

(d). Request for reimbursement by the Sub-grantee shall be accompanied by invoices, canceled checks, receipts, or other documentation evidencing funds expended by the Sub-grantee.

(e). The M-BCG agrees to reimburse costs allowable under Federal, State, and Local guidelines.

2. Upon receiving the invoices, reports, and other material, the Department shall audit such documentation to determine whether the items invoiced are eligible for reimbursement under applicable Federal, State, and local laws and regulations.

3. The Department shall authorize the M-BCG's Finance Department to reimburse the Sub-grantee for all costs it determines are eligible for reimbursement, pursuant to the audit.

4. The M-BCG will pay to the Sub-grantee funds available under this Agreement based upon information submitted by the Sub-grantee and consistent with any approved budget and the M-BCG policy concerning payments. Reimbursements will be made for eligible expenses actually incurred by the Sub-grantee. Payments will be adjusted by the M-BCG in accordance with the advance fund and program income balances available in Sub-grantee accounts. In addition, the M-BCG reserves the right to liquidate funds available under this contract for costs incurred by the M-BCG on behalf of the Sub-grantee.

3. Progress Reports

The Sub-grantee shall submit monthly Progress Reports to the M-BCG in the format and content provided as required by the M-BCG by the 10th of each following month, or as agreed upon electronically or in writing by the department and Sub-grantee. Additions to or updated versions of these and other required forms may be provided to the Sub-grantee by the department via email or in hard copy throughout the year, within reason. The department will give Sub-grantees advance notice of any significant changes in documentation or reporting requirements.

D. Procurement

1. Compliance

The Sub-grantee shall comply with the current M-BCG policy concerning the purchase of equipment and shall maintain inventory records of all non-expendable personal property as defined by such policy as may be procured with funds provided herein. All program assets (unexpended program income, property, equipment, etc.) shall revert to the M-BCG upon termination of this Agreement.

(a). All procurement transactions regardless of whether negotiated or advertised and without regard to the dollar value, should be conducted in a manner so as to provide maximum open free competition consistent with the Cost Principles for Non-Profit Organizations. See Uniform Guidance, 2 CFR Part 200 and 215. The M-BCG will provide copies to the Sub-grantee.

(b). Sub-grantee shall make positive efforts to utilize small business and minority-owned business sources, as well as women-owned businesses, for supplies and services.

2. OMB Standards

Unless specified otherwise within this agreement, the Sub-grantee shall procure all materials, property, or services in accordance with the requirements of 2 CFR Part 200, Subpart D.

3. Travel

The Sub-grantee shall obtain written approval from the M-BCG for any travel outside of Macon-Bibb County with funds provided under this Agreement.

4. Security

Sub-grantee's obligations under this Agreement shall be secured by a valid first lien security interest in and to all tangible personal property purchased with the Grant funds, as well as all proceeds, products, rents, royalties, issues, and profits thereof. Sub-grantee shall execute a

separate security agreement setting forth the rights and remedies of the M-BCG with respect to any tangible personal property purchased with the Grant funds. The occurrence of any event of default hereunder, or the suspension of payment pursuant to Article X hereof shall constitute an event of default under the terms of said security agreement.

E. Use and Reversion of Assets

The use and disposition of real property and equipment under this Agreement shall be in compliance with the requirements of 2 CFR Part 200 and 24 CFR 570.502, 507.503, and 570.504, as applicable, which include but are not limited to the following:

1. The Sub-grantee shall transfer to the M-BCG any ESG funds on hand and any accounts receivable attributable to the use of funds under this Agreement at the time of expiration, cancellation, or termination.
2. In all cases in which equipment acquired, in whole or in part, with funds under this Agreement is sold, the proceeds shall be program income (prorated to reflect the extent to which funds received under this Agreement were used to acquire the equipment). Equipment not needed by the Sub-grantee for activities under this Agreement shall be:
 - (a). Transferred to the M-BCG for the ESG program, or
 - (b). Retained after compensating the M-BCG for an amount equal to the current fair market.

ARTICLE VIII **PERSONNEL & PARTICIPANT CONDITIONS**

A. Civil Rights

1. Compliance

(a). The Sub-grantee agrees to comply with Title VI of the Civil Rights Act of 1964 as amended, Title VIII of the Civil Rights Act of 1968 as amended, Section 104(b), and Section 109 of Title I of the Housing and Community Development Act of 1974 as amended, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Executive Order 11063, and Executive Order 11246 as amended by Executive Orders 11375, 11478, 12107 and 12086.

(b). In compliance with Executive Order 11246 and Section 3 of the 1968 Housing and Urban Development Act regarding Equal Employment Opportunity, the Sub-grantee agrees and understands that no person shall be discriminated against on the grounds of race, color, national origin, age, familial status, handicap or sex. Further assurance is also given that the Sub-grantee will immediately take any measures necessary to effectuate this policy. Notice of the policy will

be placed in plain sight at the Project location, for the benefit of interested parties, and all subcontractors will be notified of the policy provisions.

2. Nondiscrimination

The Sub-grantee agrees to comply with the nondiscrimination in employment and contracting opportunities laws, regulations, and executive orders referenced in 24 CFR 576.407, as revised by Executive Order 13279. The applicable non-discrimination provisions in Section 109 of the Housing and Community Development Act of 1974 (HCDA) are still applicable.

3. Section 504

The Sub-grantee agrees to comply with all Federal regulations issued pursuant to compliance with Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), which prohibits discrimination against individuals with disabilities or handicaps in any Federally assisted program. The M-BCG shall provide the Sub-grantee with any guidelines necessary for compliance with that portion of the regulations in force during the term of this Agreement.

B. Affirmative Action

1. Approved Plan

The Sub-grantee agrees that it shall be committed to carry out pursuant to the M-BCG's specifications an Affirmative Action Program in keeping with the principles as provided in President's Executive Order 11246 of September 24, 1966. The M-BCG shall provide Affirmative Action guidelines to the Sub-grantee to assist in the formulation of such a program. The Sub-grantee shall submit a plan for an Affirmative Action Program for approval prior to the award of funds.

2. Women- and Minority-Owned Businesses (W/MBE)

The Sub-grantee will use its best efforts to afford small businesses, minority business enterprises, and women's business enterprises the maximum practicable opportunity to participate in the performance of this contract. As used in this contract, the terms "small business" means a business that meets the criteria set forth in section 3(a) of the Small Business Act, as amended (15 U.S.C. 632), and "minority and women's business enterprise" means a business at least fifty-one (51) percent owned and controlled by minority group members or women. For the purpose of this definition, "minority group members" are Afro-Americans, Spanish-speaking, Spanish surnamed or Spanish-heritage Americans, Asian Americans, and American Indians. The Sub-grantee may rely on written representations by businesses regarding their status as minority and female business enterprises in lieu of an independent investigation.

3. Access to Records

The Sub-grantee shall furnish and cause each of its own sub-grantees or subcontractors to furnish all information and reports required hereunder and will permit access to its books, records and accounts by the M-BCG, HUD or its agent, or other authorized Federal officials for purposes of investigation to ascertain compliance with the rules, regulations and provisions stated herein.

4. Equal Employment Opportunity and Affirmative Action (EEO/AA) Statement

The Sub-grantee will, in all solicitations or advertisements for employees placed by or on behalf of the Sub-grantee; state that it is an Equal Opportunity or Affirmative Action employer.

C. Employment Restrictions

The Sub-grantee is prohibited from using funds provided herein or personnel employed in the administration of the program for: political activities; inherently religious activities; lobbying; political patronage; and nepotism activities.

D. Conduct

1. Assignability

The Sub-grantee shall not assign or transfer any interest in this Agreement without the prior written consent of the M-BCG thereto; provided, however, that claims for money due or to become due to the Sub-grantee from the M-BCG under this contract may be assigned to a bank, trust company, or other financial institution without such approval. Notice of any such assignment or transfer shall be furnished promptly to the M-BCG.

2. Subcontracts

(a). Approvals

The Sub-grantee shall not enter into any subcontracts with any agency or individual in the performance of this contract without the written consent of the M-BCG prior to the execution of such agreement.

(b). Monitoring

The Sub-grantee will monitor all subcontracted services on a regular basis to ensure contract compliance. Results of monitoring efforts shall be summarized in written reports and supported with documented evidence of follow-up actions taken to correct areas of noncompliance.

(c). Content

The Sub-grantee shall cause all of the provisions of this contract in its entirety to be included in and made a part of any subcontract executed in the performance of this Agreement.

(d). Selection Process

The Sub-grantee shall undertake to ensure that all subcontracts left in the performance of this Agreement shall be awarded on a fair and open competition basis in accordance with applicable procurement requirements. Executed copies of all subcontracts shall be forwarded to the M-BCG along with documentation concerning the selection process.

(e). Employee Verification

(1). Compliance with O.C.G.A. Sec. 13-10-91 and Georgia Department of Labor Rule 300.10.1.02, regarding verification of new employee information, is a condition of this Agreement. In connection therewith and as a condition of the M-BCG entering into this Agreement, the affidavit attached hereto as Exhibit "E" shall be executed and adhered to by the Sub-grantee.

(2). Compliance with 8 U.S.C. §1621, the Federal Immigration and Nationality Act, and O.C.G.A. §50-36-1, is a condition of this Agreement. In connection therewith and as a condition of the M-BCG entering into this Agreement, the affidavit attached hereto as Exhibit "F" shall be executed and adhered to by the Sub-grantee.

3. Hatch Act

The Sub-grantee agrees that no funds provided, nor personnel employed under this Agreement, shall be in any way or to any extent engaged in the conduct of political activities in violation of Chapter 15 of Title V of the U.S.C.

4. Conflict of Interest

The Sub-grantee agrees to abide by the provisions of 2 CFR Part 200.317-318 and 576.404, which include (but are not limited to) the following:

(a). The Sub-grantee shall maintain a written code or standards of conduct that shall govern the performance of its officers, employees, or agents engaged in the award and administration of contracts supported by Federal funds.

(b). No employee, officer, or agent of the Sub-grantee shall participate in the selection, or in the award, or administration of, a contract supported by Federal funds if a conflict of interest, real or apparent, would be involved.

(c). No covered persons who exercise or have exercised any functions or responsibilities with respect to ESG-assisted activities, or who are in a position to participate in a decision-making process or gain inside information with regard to such activities, may obtain a financial interest in any contract, or have a financial interest in any contract, subcontract, or agreement with respect to the ESG-assisted activity, or with respect to the proceeds from the ESG-assisted activity, either for themselves or those with whom they have business or immediate family ties, during their tenure or for a period of one (1) year thereafter. For purposes of this paragraph, a "covered person" includes any person who is an employee, agent, consultant, officer, or elected or appointed official of the M-BCG, the Sub-grantee, or any designated public agency.

5. Lobbying

The Sub-grantee hereby certifies that:

(a). No Federal appropriated funds have been paid or will be paid, by or on behalf of it, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of

Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement;

(b). If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, it will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions; and

(c). It will require that the language of paragraph (6) of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all Sub-grantees shall certify and disclose accordingly.

6. Lobbying Certification

This certification is a material representation of the fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S.C. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

7. Copyright

If this contract results in any copyrightable material or inventions, the M-BCG and/or grantor agency reserves the right to royalty-free, non-exclusive, and irrevocable license to reproduce, publish or otherwise use and to authorize others to use, the work or materials for governmental purposes.

8. Religious Activities

The Sub-grantee agrees that funds provided under this Agreement will not be utilized for inherently religious activities prohibited by 24 CFR 576.406, such as worship, religious instruction, or proselytization.

ARTICLE IX **SEVERABILITY**

If any provision of this Agreement is held invalid, the remainder of the Agreement shall not be affected thereby, and all other parts of this Agreement shall nevertheless be in full force and effect.

ARTICLE X **SECTION HEADINGS AND SUBHEADINGS**

The section headings and subheadings contained in this Agreement are included for convenience only and

shall not limit or otherwise affect the terms of this Agreement.

ARTICLE XI
WAIVER

The M-BCG's failure to act with respect to a breach by the Sub-grantee does not waive its right to act with respect to subsequent or similar breaches. The failure of the M-BCG to exercise or enforce any right or provision shall not constitute a waiver of such right or provision.

ARTICLE XII
ENTIRE AGREEMENT

This agreement constitutes the entire agreement between the M-BCG and the Sub-grantee for the use of funds received under this Agreement, and it supersedes all prior or contemporaneous communications and proposals, whether electronic, oral, or written between the M-BCG and the Sub-grantee with respect to this Agreement.

ARTICLE XIII
CHOICE OF LAW AND VENUE

This agreement shall be governed by the laws of the State of Georgia, and the parties hereby consent that venue for any dispute arising under this agreement shall be in any court of competent jurisdiction in Bibb County, Georgia.

(Signatures on following page)

SIGNATURE PAGE

IN WITNESS WHEREOF, all parties with the express consent of their governing board and/or Commission have made and executed this Agreement on the respective dates under each signature.

ATTEST:

MACON-BIBB COUNTY

Janice S. Ross, Macon-Bibb County
Clerk of Commission

Lester M. Miller, Mayor

Date

ATTEST:

ECONOMIC AND COMMUNITY
DEVELOPMENT DEPARTMENT

Witness

Wanzina Jackson, Director

Date

ATTEST:

MACON-BIBB COUNTY ECONOMIC
OPPORTUNITY COUNCIL, INC

Witness

Sarita Hill, Executive Director

Date

EXHIBIT "A"

SCOPE OF SERVICES AND TIMETABLE

The Sub-grantee will be responsible for administering the Emergency Solutions Grant – **Macon-Bibb County Economic Opportunity Council, Inc (Homeless Prevention) ESG PY2024 Program** in a manner satisfactory to M-BCG and consistent with any standards required as a condition of providing these funds. Such program will include the following activities eligible under the Emergency Solutions Grant program:

I. SCOPE OF SERVICES

A. Activity

DESCRIPTION OF ACTIVITY

With the ESG-Homeless Prevention Funds, we are proposing to assist residents of Macon-Bibb County, who find themselves at risk of becoming homeless, with an eviction notice or demand letter from the courts and lack the ability to catch their arrears up but will be able to maintain moving forward with limited or no support. Households receiving this assistance should have income below or at 30% of the Area Median Income for Macon-Bibb County, GA. We will provide short-term rental assistance, up to six months in arrears (\$2,500), and no more than three additional months to stabilize or relocate an individual or family. With utility assistance, we will be able to assist with \$666.00 per unit. The individual family can be moved into another property meeting the ESG guidelines if the landlord refuses to accept their payment. These funds will only be used to the extent necessary to assist the individual/family with regaining stability in housing.

IMPLEMENTATION PLANS

Macon-Bibb County Economic Opportunity Council, Inc. will begin advertising immediately within the community regarding the availability of these funds while educating the public on the process one must use to access these funds. Community partners will be made aware of the qualifications of the program through the Macon Coalition to End Homelessness and other Community Partnerships. A few other methods that we will use are our Agency Website-www.maconbibbeoc.com., flyers, and word of mouth.

DESCRIPTION OF RELEVANT PERSONNEL/ ADMINISTRATIVE PROCESSES

This program will be administered by the Program Director, Case Managers, Finance Department, City Inspectors, Chief Executive Officer, and the Grantee Staff of Macon-Bibb County ECDD. All agency policies and procedures as well as the ESG-Homeless Prevention Program policies and procedures will be honored.

Describe the roles of staff at your agency that are involved in the implementation of this program. Describe any relevant administrative tasks and salary rate. Attached job description and resume of the staff member who will work with the program (if applicable).

Coordinated Entry Staff or Receptionist will make the initial contact with the clients needing services performing the assessment needed (VI-SPDAT) the prioritize need or triage and diversion. Under the Homeless Prevention Program, the focus of CES will be Diversion. A referral is then made to the Case Manager at this agency where the necessary assessment, documents, and assistance is delivered to assist the client. The Data Entry Specialist will make certain the household's information is accurately keyed into Client Track. Files are monitored and signed off

by another department head. After which, approval is sought from the Chief Executive Officer to

provide the services being requested. The check request is forwarded to the Finance Director leading to a check being written for the services. In most cases, another individual will hand deliver the check to the landlord (if local) or the check will be placed in the mail.

B. Program Components

The Sub-grantee certifies that the activity carried out under this Agreement will meet one of the following Emergency Solutions Grant program components: Street Outreach, Emergency Shelter, Homelessness Prevention, or Rapid Re-housing components.

C. Levels of Accomplishment - Goals and Performance Measures

The Subgrantee agrees to provide the following levels of program services:

Activity	Units Per Month	Projected Schedule	Projected Outcome
Rental Assistance	1	September 25, 2024- December 23, 2025	Successfully prevent eviction
Utility Payments	1	September 25, 2024- December 23, 2025	Successfully assist with utility payments
Case Management	12	September 25, 2024- December 23, 2025	Successfully assist w/ Case Management
Total Number Served			12 Households

SUBGRANTEE is also responsible for submitting to M-BCG, monthly progress reports, timesheets, participant eligibility forms, and any other documentation deemed necessary by the monitoring official during the funding cycle. These records shall be retained for up to four (4) years after the contract expires.

D. Performance Monitoring

The Subgrantee agrees that the Department may carry out periodic monitoring activities as determined necessary by the Department. At a minimum, monitoring shall occur annually, and it may occur more frequently if the Department deems it necessary. The Department will provide the

Subgrantee with advance notice in writing prior to any monitoring activities. Such monitoring shall consist of evaluating the Subgrantee's compliance with the terms and conditions of this Agreement and comparing the Subgrantee's projected Project schedule, budget, and output with its actual performance. Unscheduled visits may occur in an effort to observe agency activities and/or programs when deemed necessary. Upon request, the Subgrantee shall furnish the Department, M-BCG, or its designee copies of such records and information as the Department or M-BCG deems necessary. In addition, the Subgrantee shall submit monthly progress reports as required by Section 6-C.3 of this Agreement and shall prepare such other reports as may be required by the Department, M-BCG and/or HUD. **All monthly reports shall be submitted to the Department no later than the 10th of the following month.**

M-BCG will monitor the performance of the Subgrantee against goals and performance standards

as stated above. Substandard performance as determined by M-BCG will constitute noncompliance with this Agreement. If action to correct such substandard performance is not taken by the

Subgrantee within a reasonable period of time after being notified by M-BCG, contract suspension or termination procedures will be initiated.

E. Macon-Bibb County Recognition

The Subgrantee shall ensure recognition of the role of M-BCG in providing services through this Agreement. All activities, facilities, and items utilized pursuant to this Agreement shall be prominently labeled as funding sources. In addition, the Subgrantee will include a reference to the support provided herein in all publications made possible with funds made available under this Agreement.

II. TIME OF PERFORMANCE

The services of the Subgrantee shall start on **September 25, 2024, and end on December 23, 2025**. The term of this Agreement and the provisions herein shall be extended to cover any additional time period during which the Subgrantee remains in control of ESG funds or other ESG assets, including program income.

III. BUDGET

<u>Line-Item</u>	<u>Amount</u>
Rental	\$20,000.00
Case Manager	\$13,500.00
Case Manager Fringe	\$ 2,750.00
Utility Payments	\$ 8,000.00
Admin Fee	\$ 4,425.00
TOTAL	\$48,675.00

Any amendments to the budget must be in writing and approved by both the M-BCG and the Sub-grantee.

IV. PAYMENT

It is expressly agreed and understood that the total amount to be paid by the Grantee under this Agreement

shall not exceed **\$48,675.00**. Drawdowns for the payment of eligible expenses shall be made against the line-item budgets specified in Paragraph III herein and in accordance with performance.

Payments may be contingent upon certification of the Sub-grantee's financial management system in accordance with the standards specified in 2 CFR Part 200, Subpart D, 24 CFR 1.6, 24 CFR Part 121.

The sub-grantee is also responsible for submitting to the M-BCG, monthly progress reports, participant eligibility forms, invoices, and any other documentation deemed necessary by the monitoring official during the funding cycle. These records shall be retained at least four (4) years after the Contract expires.

EXHIBIT "B"

PROGRAM REQUIREMENTS

Sub-grantee shall operate this project funded through the M-BCG's Emergency Solutions Grant Program according to the following guidelines:

1. Accounting and related records of the Sub-grantee shall comprise the following as a minimum:

- a. Voucher System - All supporting documentation, such as purchase orders, invoices, receiving reports, and requisitions.
- b. Books of Original Entry - Cash receipts and disbursements journal, general ledger.
- c. Chart of Accounts - Listing of accounts must be maintained in the accounting system.
- d. Personnel Records - Separate personnel files shall be maintained for each project employee. As a minimum, the file shall contain a resume of the employee, a description of duties assigned, and a record of the date employed, rate of pay at the time of employment, subsequent pay adjustments, and documentation supporting leave taken by the employee.
- e. Attendance Record - Attendance records shall be maintained for all personnel paid with ESG funds. This applies to part-time as well as full-time personnel. In addition to accounting for daily attendance, the type of leave taken (annual, sick, or other), shall be disclosed. Daily attendance records must support budgetary changes for payroll purposes.
- f. Payroll Records - Formal payroll records supporting cash disbursements to employees shall be maintained. Such records disclose each employee's name, job title, social security number, date hired, rate of pay, and all required deductions for tax purposes. Timely quarterly payments of taxes withheld from employees for the Federal Government, along with required matching costs, are required. In addition, all charges for payroll purposes shall be in accordance with the budget submitted to the M-BCG.
- g. Checking Accounts - Monthly bank reconciliation shall be conducted by Sub-grantee. All checks, stubs, etc. shall be pre-numbered and accounted for, including voided checks. Check stubs, canceled checks, and deposit slips must be readily available for audit purposes.
- h. Petty Cash - Sub-grantee is encouraged to use an imprest system and adhere to a monthly, or if necessary, more frequent reimbursement procedure if any ESG funds are used as petty cash.
- i. Purchasing Practices - HUD considers State-purchasing regulations to be an acceptable standard for purchasing practices. Local purchasing practices and other procedures shall prevail unless State and/or Federal practices and procedures are more stringent. Therefore, Sub-grantee is obligated to conform to the more restrictive practices and procedures. It is recommended that Sub-grantee use a formal pre-numbered purchase order system where possible and applicable.
- j. Inventories - Sub-grantee is advised to maintain adequate safeguards against loss by theft or physical deterioration of any inventories of office supplies, equipment, or other items purchased

with ESG funds.

k. Property Records - Sub-grantee is required to maintain formal subsidiary records to control all

project property and equipment. Such records shall disclose the acquisition and subsequent disposition of all property. An annual inventory should be conducted, and the books shall reflect the actual value of the property on hand at the end of the fiscal year.

2. All projects' accounting records and supporting documents shall be maintained for a period of at least four (4) years after termination of the M-BCG's award. The records shall be made available to the M-BCG, HUD, and/or any of their authorized representatives.

3. Sub-grantee should maintain records in an orderly manner, with separate identification for different federal time periods. Records must be protected from fire or other perils, and if stored in a location other than the project site, they should be readily accessible to the M-BCG's staff, HUD officials, and others who may be authorized to examine such records.



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR TO EXECUTE AN AGREEMENT WITH FAMILY ADVANCEMENT MINISTRIES, INC. GRANTING AN EMERGENCY SOLUTIONS GRANT, IN THE AMOUNT OF \$32,000.00, TO PROVIDE RENTAL ASSISTANCE AND UTILITY ASSISTANCE TO HELP PREVENT HOMELESSNESS; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, the Macon-Bibb County Emergency Solutions Grant program is administered by the Economic and Community Development Department (“ECD”) of the Macon-Bibb County Government and is funded by an Emergency Solutions Grant (“ESG”) applied for by Macon-Bibb County and awarded by the U.S. Department of Housing and Urban Development; and

WHEREAS, Family Advancement Ministries, Inc. (“FAM”) has applied for ESG funding, in the amount of \$32,000.00 from ECD, in order to provide assistance to those at-risk of homelessness; and

WHEREAS, FAM intends to utilize ESG funds to provide rent and utility assistance; and

WHEREAS, ECD has determined this to be eligible ESG activity and has selected FAM for award of these funds; and

WHEREAS, a copy of the grant agreement has been attached hereto as Exhibit A for review and reference purposes, and is incorporated herein by reference; and

WHEREAS, the Macon-Bibb County Commission desires to provide these ESG funds to this organization as recommended by ECD; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that the Mayor is authorized to execute an agreement between Macon-Bibb County and Family Advancement Ministries, Inc. for the County to provide ESG funding in the amount of THIRTY-TWO THOUSAND DOLLARS AND 00/100 CENTS (\$32,000.00) to rental and utility assistance to help prevent homelessness, as provided in Exhibit A.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then

this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this _____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

Q:\RES MACON-BIBB\2025 Miller Authorizing Agreement with Family Advancement Ministries ESG Funds - \$32,000.00 2-11-25.docx

EXHIBIT A

**AGREEMENT
BETWEEN
MACON-BIBB COUNTY GOVERNMENT
ECONOMIC AND COMMUNITY DEVELOPMENT DEPARTMENT**

AND

**FAMILY ADVANCEMENT MINISTRIES
538 Orange Street
Macon, GA 31201
478-746-9803**

**PROVIDING FOR
EMERGENCY SOLUTIONS GRANT**

This Agreement ("Agreement") is made and entered into by and between Macon-Bibb County, Georgia ("M-BCG") a political subdivision of the State of Georgia, and **Family Advancement Ministries**, ("Sub-grantee"). This Agreement shall be in effect on the date it is fully executed by both Parties.

NOW THEREFORE in consideration of the mutual terms and conditions, promises, covenants and payments hereinafter set forth, The M-BCG and Sub-grantee hereby agree as follows:

**ARTICLE I
DEFINITIONS AND IDENTIFICATIONS**

Unless the context otherwise requires, the capitalized terms used herein and not otherwise defined shall have the meaning assigned to them in this Article I.

Macon-Bibb County Emergency Solutions Grant (ESG) Program or "Program"

The term "Macon-Bibb County Emergency Solutions Grant (ESG) Program," or "Program" shall mean that the program administered by the Economic and Community Development Department of the Macon-Bibb County Government and funded by an Emergency Solutions Grant applied for by the M-BCG and awarded by HUD as authorized pursuant to Title I of the Housing and Community Development Act of 1974, Public Law 93-383, as amended.

Department

The term "Department" shall mean the Economic and Community Development Department of the M-BCG.

Grantee

The term "Grantee" shall mean the M-BCG as Grantee of an Emergency Solutions Grant awarded by HUD.

HUD

The term "HUD" shall mean the U. S. Department of Housing and Urban Development.

Project

The term "Project" shall mean the project or projects set forth in Article III hereto entitled "Scope of Services and Timetable."

Low- and Moderate-Income Household

The term “Low- and Moderate-Income Household” shall mean a household having an income equal to or less than the Section 8 low-income limit established by HUD.

Low- and Moderate-Income Person

The term “Low- and Moderate-Income Person” shall mean a member of a family having an income equal to or less than the Section 8 low-income limit established by HUD. Unrelated individuals will be considered as one-person families for this purpose.

Household

Household means all the persons who occupy a housing unit. The occupants may be a single family, one person living alone, two or more families living together, or any other related or unrelated person who share living arrangements.

Duplicated Count

A duplicated count is comprised of several units of service or services provided to one participant.

Unduplicated Count

An unduplicated count is defined as tracking each participant once for the entire program year. No participant is to be counted more than once for reporting purposes within a program year.

At Risk of Homelessness (24 CFR 576.2)

An individual or family who:

- (1) Has an annual income below 30 percent of the median family income for the area, as determined by HUD;
- (2) Does not have sufficient resources or support networks, e.g., family, friends, faith-based or other social networks, immediately available to prevent them from moving to an emergency shelter or another placed described in paragraph 1 of this section.
- (3) Meets one of the following conditions:
 - Has moved 2 or more times due to economic reasons during 60 preceding applications for homelessness prevention assistance
 - Is living in the home of another because of economic hardship
 - Has been notified that right to occupy current housing will be terminated within 21 days
 - Lives in a hotel or motel and the costs is not paid by charitable organizations for low-income individuals
 - Lives in a single-room occupancy or efficiency apartment unit in where there resides more than 2 persons or lives in a larger housing unit in which more than 1.5 persons reside per room.
 - Is exiting a publicly funded institution of system of care
 - Lives in housing that has characteristics associated with instability and increased risk of homelessness
- (4) A child or youth who does not qualify as “homeless” under this section, but qualifies under section 387(3) of the Runaway and Homeless Youth Act (42 U.S.C. 5732a(3), etc.
- (5) A child or youth who does not qualify as “homeless” under this section but qualifies as “homeless” under section 725(2) of the McKinney Vento Homeless Assistance Act(42 U.S.C. 11434a(2), and the parent(s) or guardian(s) of that child or youth if living with her or him.

Homeless

- (1) An individual or family who lacks a fixed, regular, and adequate nighttime residence

- (2) An individual or family who will imminently lose their primary nighttime residence, see provisions in (576.2)
- (3) Unaccompanied youth under 25 years of age, or families with children and youth, who do not otherwise qualify as homeless under this definition
- (4) Any individual or family who is fleeing or attempting to flee, domestic violence, dating violence, sexual assault, stalking, or other dangerous or life-threatening conditions that relate to violence against the individual or family member making them afraid to return to their primary nighttime residence.

ARTICLE II

PREAMBLE

In order to establish the background, context, and frame of reference for this Agreement and to manifest the objectives and the intentions of the respective parties herein, the following statements, representations and explanations are set forth. Such statements, representations, and explanations shall be accepted as predicates for the undertakings and commitments included within the provisions, which follow and may be relied upon by the parties as essential elements of the mutual considerations upon which this Agreement is based.

Title I of the Housing and Community Development Act of 1974 P.L. 93-383 (hereinafter the “Act”) consolidated several existing programs for community development into a single program of Emergency Solutions Grant (herein after “ESG”) for the purpose of allowing local discretion for the determination of needs and priorities of community development. The citizens of Macon-Bibb through citizen participation workshops, the Mayor, and The M-BCG Commission determined the need and priorities of community development in the M-BCG.

Pursuant to HUD regulations at 24 CFR 576 certain projects were included in the M-BCG’s ESG submission to HUD, referred to as the Annual Plan. The M-BCG determined that the projects included in the Annual Plan addressed of the following ESG program components:

- a) Street Outreach
- b) Emergency Shelter
- c) Homelessness Prevention
- d) Rapid Re-housing
- e) Homeless Management Information System (HMIS)

M-BCG has determined that ESG assistance can be provided for Homelessness Prevention, Street Outreach, Emergency Shelter, and/or Rapid Re-housing components.

Under the Rules and Regulations of HUD, the M-BCG is the administrator for the Program and is mandated to comply with various statutes, rules, and regulations of the United States, as they pertain to the allocation and expenditure of funds as well as protecting the interest of certain classes of individuals who reside within Macon-Bibb County.

The M-BCG is desirous of disbursing the funds to the Sub-grantee for use in the Project. However, as administrator for the Program, the M-BCG desires to obtain assurance from the Sub-grantee, and Sub-grantee so assures the M-BCG, that the Sub-grantee will comply with all applicable statutes, rules and regulations of the United States, the State of Georgia, and/or the M-BCG relating to the Project and the Program, as a condition precedent to the release of such funds to the Sub-grantee.

ARTICLE III
UNIFORM GUIDANCE INFORMATION

Macon-Bibb County will use the following information to provide a reference to the PY24 (September 25, 2024, thru December 23, 2025) sub-award contract to the aforementioned agency regarding new elements required for disclosure by the U.S. Office of Management and Budget (OMB) presented in the Omni-Circular. The update known as the Uniform Guidance; 2 CFR 200.331, provides certain elements to be included in contracts for recipients of federal grant awards acting as pass-through entities.

Federal Award:

Emergency Solutions Grant

Subrecipient Name:

Family Advancement Ministries

Agency Unique Entity Identification (UEI):

J8RM Y8GLZKN7

Federal Award Identification Number:

E-24-MC-13-0005

Federal Award Date:

September 25, 2024

Subaward period of performance start and end date:

September 25, 2024, thru December 23, 2025

Federal Funds Obligated:

\$32,000.00

Project Description

Preventing homelessness for individuals and families and increasing long-term stability for clients in permanent housing.

Federal Awarding Agency/Pass-Through Entity:

Housing and Urban Development (Federal)

Macon-Bibb County, Economic and Community Development Department (Pass through entity)

688 Walnut Street, Suite 101

Macon, GA 31217

CFDA Name and Number:

Emergency Solutions Grants; 14.231

Research and Development:

No

Provision:

OMB OMNI Circular Subpart E-Cost principles provides for consistent and transparent treatment of cost both direct and indirect. Indirect costs according to CFR 2A Part 200.414 are classified into two broad categories of: Facilities and Administration. "Facilities" is defined as depreciation on buildings, equipment and capital improvement, interest on debt associated with certain buildings, equipment and capital improvements, and operations and maintenance expenses. "Administration" is defined as general administration and general expenses such as the director's office, accounting, personnel, and all other types of expenditures not listed specifically under one of the subcategories of "Facilities".

Pursuant to HUD regulations, Macon-Bibb County Government recognizes an approved Federal Government, or, if no such rate exists, either a rate negotiated between the pass-through entity and the subrecipient (in compliance with this part), or a 10% de minimis indirect cost rate.

ARTICLE IV **PROJECT**

The M-BCG agrees to reimburse the Sub-grantee in an amount not to exceed **THIRTY-TWO THOUSAND DOLLARS AND 00/100 CENTS (\$32,000.00)** (hereinafter the "Grant") to implement the following project (s): **“Family Advancement Ministries (Homeless Prevention)” ESG PY2024 Program.** Preventing homelessness for individuals and families and increasing long-term stability for clients in permanent housing.

ARTICLE V **NOTICES**

Sub-grantee and the M-BCG agree that all notices required by this Agreement shall be in writing and delivered via mail (postage prepaid), commercial courier, or personal delivery or sent by facsimile or other electronic means. Any notice delivered or sent as aforesaid shall be effective on the date of delivery or sending. All notices and other written communications under this Agreement shall be addressed to the individuals in the capacities indicated below unless otherwise modified by subsequent written notice.

Communication and details concerning this contract shall be directed to the following contract representatives:

If to M-BCG: Macon-Bibb County Consolidated Government
Attention: Lester M. Miller, Mayor
Government Center
700 Poplar Street
Macon, Georgia 31201

With copy to: Economic and Community Development Department
Attention: Wanzina Jackson, Director
688 Walnut Street, Suite 101
Macon, Georgia 31201
Phone: 478-751-7190
Facsimile: 478-910-2347

If to Sub-grantee: Family Advancement Ministries
Attention: Gigi Rolfes, Executive Director
538 Orange Street
Macon, GA 31201
478-746-9803

ARTICLE VI **GENERAL CONDITIONS**

A. General Compliance

The Sub-grantee agrees to comply with the requirements of Title 24 of the Code of Federal Regulations, Part 576 (the U.S. Housing and Urban Development regulations concerning Emergency Solutions Grants (ESG)) except that (1) the Sub-grantee does not assume the M-BCG's environmental responsibilities and (2) the Sub-grantee does not assume the M-BCG's responsibility for initiating the review process. The Sub-grantee also agrees to comply with all other applicable Federal, state and local

laws, regulations, and policies governing the funds provided under this contract. The Sub-grantee further agrees to utilize funds available under this Agreement to supplement rather than supplant funds otherwise available.

B. Independent Contractor

Nothing contained in this Agreement is intended to or shall be construed in any manner, as creating or establishing the relationship of employer/employee between the parties. The Sub-grantee shall at all times remain an "independent contractor" with respect to the services to be performed under this Agreement. The M-BCG shall be exempt from payment of all Unemployment Compensation, FICA, retirement, life and/or medical insurance, and Workers' Compensation Insurance, as the Sub-grantee is an independent contractor.

C. Hold Harmless

The Sub-grantee shall hold harmless, defend, and indemnify the M-BCG from any and all claims, actions, suits, charges, and judgments whatsoever that arise out of the Sub-grantee's performance or nonperformance of the services or subject matter called for in this Agreement.

D. Workers' Compensation

The Sub-grantee shall provide Workers' Compensation Insurance coverage for all of its employees involved in the performance of this Agreement.

E. Insurance & Bonding

The Sub-grantee shall carry sufficient insurance coverage to protect contract assets from loss due to theft, fraud, and/or undue physical damage, and as a minimum shall purchase a blanket fidelity bond covering all employees in an amount equal to cash advances from the M-BCG.

The Sub-grantee shall comply with the bonding and insurance requirements of 2 CFR Part 200 or 2 CFR Part 200.325 and 2 CFR Part 200, Subpart D, Bonding and Insurance.

F. The Macon-Bibb County Government's Recognition

The Sub-grantee shall ensure recognition of the role of the M-BCG in providing services through this Agreement. All activities, facilities, and items utilized pursuant to this Agreement shall be prominently labeled as to funding source. In addition, the Sub-grantee will include a reference to the support provided herein in all publications made possible with funds made available under this Agreement.

G. Amendments

The M-BCG or Sub-grantee may amend this Agreement at any time provided that such amendments make specific reference to this Agreement, and are executed in writing, signed by a duly authorized representative of each organization, and approved by the M-BCG's governing body only if such changes increase in the grant amount set forth in Section 3.1. Such amendments shall not invalidate this Agreement, nor relieve or release the M-BCG or Sub-grantee from its obligations under this Agreement.

It is further understood that the M-BCG, as Grantee, is responsible to HUD for the administration of funds and may consider and act upon reprogramming recommendations as proposed by its Sub-grantee. In the event that the M-BCG approves any modification, amendment, or alteration to the funding allocation, the Sub-grantee shall be notified pursuant to Article IV and such notification shall constitute an official amendment to this Agreement.

It is further agreed that the Sub-grantee will submit to the M-BCG within thirty- (30) days of the completion of each Project a complete financial accounting of all its project activities.

The Department's Director shall be authorized to approve line item changes to the Sub-grantee's budget as long as such changes do not increase in the grant amount set forth in Section 3.1.

The M-BCG may, in its discretion, amend this Agreement to conform with Federal, state, or local governmental guidelines, policies, and available funding amounts, or for other reasons. If such amendments result in a change in the funding, the scope of services, or a schedule of the activities to be undertaken as part of this Agreement, such modifications will be incorporated only by written amendment signed by both the M-BCG and Sub-grantee.

H. Suspension or Termination

In accordance with 2 CFR Part 200.338, the M-BCG may suspend or terminate this Agreement if the Sub-grantee materially fails to comply with any terms of this Agreement, which include (but are not limited to) the following:

- (a). Failure to comply with any of the rules, regulations or provisions referred to herein, or such statutes, regulations, executive orders, and HUD guidelines, policies or directives as may become applicable at any time;
- (b). Failure, for any reason, of the Sub-grantee to fulfill in a timely and proper manner its obligations under this Agreement;
- (c). Ineffective or improper use of funds provided under this Agreement; or
- (d). Submission by the Sub-grantee to the M-BCG reports that are incorrect or incomplete in any material respect.

In accordance with 2 CFR Part 200.339, this Agreement may also be terminated for convenience by either the M-BCG or the Sub-grantee, in whole or in part, by setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. However, if in the case of a partial termination, the M-BCG determines that the remaining portion of the award will not accomplish the purpose for which the award was made, the M-BCG may terminate the award in its entirety.

ARTICLE VII

ADMINISTRATIVE REQUIREMENTS

A. Financial Management

1. Accounting Standards

The Sub-grantee agrees to comply with 2 CFR Part 200.302-303 and agrees to adhere to the accounting principles and procedures required therein, utilize adequate internal controls, and maintain necessary source documentation for all costs incurred.

2. Cost Principles

The Sub-grantee shall administer its program in conformance with OMB 2 CFR Part 200(Subpart E), "Cost-Profit Organizations." These principles shall be applied for all costs incurred whether charged on a direct basis.

- (a). Sub-grantee gives the M-BCG, HUD, and the Comptroller General, through any authorized representatives, access to and the right to examine all records, books, papers, or documents relating to the Project.
- (b). Sub-grantee agrees to maintain books, records, and documents in accordance with general accepted accounting procedures and practices that sufficiently and properly reflect all expenditures of Grant funds provided by the M-BCG under this Agreement.
- (c). All Grant funds disbursed through an Emergency Solutions Grant shall be used only for eligible activities specifically outlined in this Agreement. The Sub-grantee shall comply with any conditions and timetables set forth in this Agreement. In the event, the Sub-grantee does not comply with the conditions and timetables, or if the Sub-grantee ceases to exist or provide the services for which the Grant was made, the Sub-grantee will not carry out another ESG eligible project, the Sub-grantee shall be in default. In the event of default, the M-BCG may exercise any rights or remedies provided in this Agreement or in that security agreement executed simultaneously herewith.

B. Documentation and Recordkeeping

1. Records to be Maintained

The Sub-grantee shall maintain all records required by the Federal regulations specified in 24 CFR 576.500 and 578.103 that are pertinent to the activities to be funded under this Agreement. Such records shall include but not be limited to:

- (a). Records providing a full description of each activity undertaken;
- (b). Records demonstrating that each activity undertaken meets the components of the ESG program;
- (c). Records required to determine the eligibility of activities;
- (d). Records documenting compliance with the homeless definition of the ESG program;
- (e). Financial records as required by 24 CFR 570.502, and 2 CFR Part 200.302 to 2 CFR 200 Subpart F; and
- (f). Other records are necessary to document compliance with 24 CFR Part 576.

2. Retention

The Sub-grantee shall retain all financial records, supporting documents, statistical records, and all other records pertinent to the Agreement for a period of five (5) years. The retention period begins on the date of the submission of the M-BCG's annual performance and evaluation report to HUD in which the activities assisted under the Agreement are reported on for the final time. Notwithstanding the above, if there is litigation, claims, audits, negotiations, or other actions that involve any of the records cited and that have started before the expiration of the five-year period, then such records must be retained until completion of the actions and resolution of all issues, or the expiration of the five-year period, whichever occurs later.

3. Client Data

The Sub-grantee shall maintain client data demonstrating client eligibility for services provided. Such data shall include, but not be limited to, client name, address, income level or other basis for determining eligibility, and description of service provided. Such information shall be made available to the M-BCG monitors or their designees for review upon request.

4. Disclosure

The Sub-grantee understands that client information collected under this contract is private and the use or disclosure of such information, when not directly connected with the administration of the M-BCG's or Sub-grantee's responsibilities with respect to services provided under this contract, is prohibited unless written consent is obtained from such person receiving service and, in the case of a minor, that of a responsible parent/guardian.

5. Close-outs

The Sub-grantee's obligation to the M-BCG shall not end until all closeout requirements are completed. Activities during this closeout period shall include, but are not limited to: making final payments, disposing of program assets (including the return of all unused materials, equipment, unspent cash advances, program income balances, and accounts receivable to the M-BCG), and determining the custodianship of records. Notwithstanding the foregoing statement, the terms of this Agreement shall remain in effect during any period that the Sub-grantee has control over ESG funds, including program income.

Any Grant funds remaining at the end of the contract period shall be returned to the M-BCG, and the M-BCG may in its discretion reprogram the funds to another ESG-eligible project.

6. Audits & Inspections

All Sub-grantee records with respect to any matters covered by this Agreement shall be made available to the M-BCG, HUD, and the Comptroller General of the United States or any of their authorized representatives, at any time during normal business hours, as often as deemed necessary, to audit, examine, and make excerpts or transcripts of all relevant data. Any

deficiencies noted in audit reports must be fully cleared by the Sub-grantee within 30 days after receipt by the Sub-grantee. Failure of the Sub-grantee to comply with the above audit requirements will constitute a violation of this contract and may result in the withholding of future payments. The Sub-grantee hereby agrees to have an annual agency audit conducted in accordance with current M-BCG policy concerning Sub-grantee audits and 2 CFR Part 200, Subpart F-Uniform Guidance, as applicable.

C. Reporting and Payment Procedures

1. Program Income

The Sub-grantee shall report “monthly” all program income (as defined at 24 CFR 570.500(a)) generated by activities carried out with ESG funds made available under this contract. The use of program income by the Sub-grantee shall comply with the requirements set forth at 24 CFR 570.504. By way of further limitations, the Sub-grantee may use each income during the contract period for activities permitted under this contract and shall reduce requests for additional funds by the amount of any such program income balances on hand. All unexpended program income shall be returned to the M-BCG at the end of the contract period. Any interest earned on cash advances from the U.S. Treasury and from funds held in a revolving fund account is not program income and shall be remitted promptly to the M-BCG.

2. Invoicing and Payment Procedures

1. In order to obtain reimbursement from the M-BCG in connection with the Project, the Sub-grantee shall provide the following information:

(a). Sub-grantee shall submit monthly reports for the Project in the form attached hereto as Exhibit "C" and Exhibit "C, part II," detailing the project accomplishments for the reporting period, and the number of participants broken down by income, ethnicity, race, sex, disability, and female head of household. In addition, for each Program participant, once, and once only during the term of this contract, the Sub-grantee shall complete a Participant Eligibility report in the form attached hereto as Exhibit "B" and shall submit such forms with its monthly progress report.

(b). The Sub-grantee shall submit reimbursement requests in the form attached hereto as Exhibit "D" detailing the amount of funds expended.

(c). Time sheets shall be submitted as backup documentation for salary reimbursement.

(d). Request for reimbursement by the Sub-grantee shall be accompanied by invoices, canceled checks, receipts, or other documentation evidencing funds expended by the Sub-grantee.

(e). The M-BCG agrees to reimburse costs allowable under Federal, State, and Local guidelines.

2. Upon receiving the invoices, reports, and other material, the Department shall audit such documentation to determine whether the items invoiced are eligible for reimbursement under applicable Federal, State, and local laws and regulations.

3. The Department shall authorize the M-BCG's Finance Department to reimburse the Sub-grantee for all costs it determines are eligible for reimbursement, pursuant to the audit.

4. The M-BCG will pay to the Sub-grantee funds available under this Agreement based upon information submitted by the Sub-grantee and consistent with any approved budget and the M-BCG policy concerning payments. Reimbursements will be made for eligible expenses actually incurred by the Sub-grantee. Payments will be adjusted by the M-BCG in accordance with advance fund and program income balances available in Sub-grantee accounts. In addition, the M-BCG reserves the right to liquidate funds available under this contract for costs incurred by the M-BCG on behalf of the Sub-grantee.

3. Progress Reports

The Sub-grantee shall submit monthly Progress Reports to the M-BCG in the format and content provided as required by the M-BCG by the 10th of each following month, or as agreed upon electronically or in writing by the department and Sub-grantee. Additions to or updated versions of these and other required forms may be provided to the Sub-grantee by the department via email or in hard copy throughout the year, within reason. The department will give Sub-grantees advance notice of any significant changes in documentation or reporting requirements.

D. Procurement

1. Compliance

The Sub-grantee shall comply with the current M-BCG policy concerning the purchase of equipment and shall maintain inventory records of all non-expendable personal property as defined by such policy as may be procured with funds provided herein. All program assets (unexpended program income, property, equipment, etc.) shall revert to the M-BCG upon termination of this Agreement.

(a). All procurement transactions regardless of whether negotiated or advertised and without regard to the dollar value, should be conducted in a manner so as to provide maximum open free competition consistent with the Cost Principles for Non-Profit Organizations. See Uniform Guidance, 2 CFR Part 200 and 215. The M-BCG will provide copies to the Sub-grantee.

(b). Sub-grantee shall make positive efforts to utilize small business and minority-owned business sources, as well as women-owned businesses, for supplies and services.

2. OMB Standards

Unless specified otherwise within this agreement, the Sub-grantee shall procure all materials, property, or services in accordance with the requirements of 2 CFR Part 200, Subpart D.

3. Travel

The Sub-grantee shall obtain written approval from the M-BCG for any travel outside of Macon-Bibb County with funds provided under this Agreement.

4. Security

Sub-grantee's obligations under this Agreement shall be secured by a valid first lien security interest in and to all tangible personal property purchased with the Grant funds, as well as all

proceeds, products, rents, royalties, issues, and profits thereof. Sub-grantee shall execute a separate security agreement setting forth the rights and remedies of the M-BCG with respect to any tangible personal property purchased with the Grant funds. The occurrence of any event of default hereunder, or the suspension of payment pursuant to Article X hereof shall constitute an event of default under the terms of said security agreement.

E. Use and Reversion of Assets

The use and disposition of real property and equipment under this Agreement shall be in compliance with the requirements of 2 CFR Part 200 and 24 CFR 570.502, 507.503, and 570.504, as applicable, which include but are not limited to the following:

1. The Sub-grantee shall transfer to the M-BCG any ESG funds on hand and any accounts receivable attributable to the use of funds under this Agreement at the time of expiration, cancellation, or termination.
2. In all cases in which equipment acquired, in whole or in part, with funds under this Agreement is sold, the proceeds shall be program income (prorated to reflect the extent to which funds received under this Agreement were used to acquire the equipment). Equipment not needed by the Sub-grantee for activities under this Agreement shall be:
 - (a). Transferred to the M-BCG for the ESG program, or
 - (b). Retained after compensating the M-BCG for an amount equal to the current fair market.

ARTICLE VIII **PERSONNEL & PARTICIPANT CONDITIONS**

A. Civil Rights

1. Compliance

(a). The Sub-grantee agrees to comply with Title VI of the Civil Rights Act of 1964 as amended, Title VIII of the Civil Rights Act of 1968 as amended, Section 104(b) and Section 109 of Title I of the Housing and Community Development Act of 1974 as amended, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Executive Order 11063, and Executive Order 11246 as amended by Executive Orders 11375, 11478, 12107 and 12086.

(b). In compliance with Executive Order 11246 and Section 3 of the 1968 Housing and Urban Development Act regarding Equal Employment Opportunity, the Sub-grantee agrees and understands that no person shall be discriminated against on the grounds of race, color, national origin, age, familial status, handicap or sex. Further assurance is also given that the Sub-grantee will immediately take any measures necessary to effectuate this policy. Notice of the policy will

be placed in plain sight at the Project location, for the benefit of interested parties, and all subcontractors will be notified of the policy provisions.

2. Nondiscrimination

The Sub-grantee agrees to comply with the non-discrimination in employment and contracting opportunities laws, regulations, and executive orders referenced in 24 CFR 576.407, as revised by Executive Order 13279. The applicable non-discrimination provisions in Section 109 of the Housing and Community Development Act of 1974 (HCDA) are still applicable.

3. Section 504

The Sub-grantee agrees to comply with all Federal regulations issued pursuant to compliance with Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), which prohibits discrimination against individuals with disabilities or handicaps in any Federally assisted program. The M-BCG shall provide the Sub-grantee with any guidelines necessary for compliance with that portion of the regulations in force during the term of this Agreement.

B. Affirmative Action

1. Approved Plan

The Sub-grantee agrees that it shall be committed to carry out pursuant to the M-BCG's specifications an Affirmative Action Program in keeping with the principles as provided in President's Executive Order 11246 of September 24, 1966. The M-BCG shall provide Affirmative Action guidelines to the Sub-grantee to assist in the formulation of such a program. The Sub-grantee shall submit a plan for an Affirmative Action Program for approval prior to the award of funds.

2. Women- and Minority-Owned Businesses (W/MBE)

The Sub-grantee will use its best efforts to afford small businesses, minority business enterprises, and women's business enterprises the maximum practicable opportunity to participate in the performance of this contract. As used in this contract, the terms "small business" means a business that meets the criteria set forth in section 3(a) of the Small Business Act, as amended (15 U.S.C. 632), and "minority and women's business enterprise" means a business at least fifty-one (51) percent owned and controlled by minority group members or women. For the purpose of this definition, "minority group members" are Afro-Americans, Spanish-speaking, Spanish surnamed or Spanish-heritage Americans, Asian Americans, and American Indians. The Sub-grantee may rely on written representations by businesses regarding their status as minority and female business enterprises in lieu of an independent investigation.

3. Access to Records

The Sub-grantee shall furnish and cause each of its own sub-grantees or subcontractors to furnish all information and reports required hereunder and will permit access to its books, records and accounts by the M-BCG, HUD or its agent, or other authorized Federal officials for purposes of investigation to ascertain compliance with the rules, regulations and provisions stated herein.

4. Equal Employment Opportunity and Affirmative Action (EEO/AA) Statement

The Sub-grantee will, in all solicitations or advertisements for employees placed by or on behalf of the Sub-grantee; state that it is an Equal Opportunity or Affirmative Action employer.

C. Employment Restrictions

The Sub-grantee is prohibited from using funds provided herein or personnel employed in the administration of the program for: political activities; inherently religious activities; lobbying; political patronage; and nepotism activities.

D. Conduct

1. Assignability

The Sub-grantee shall not assign or transfer any interest in this Agreement without the prior written consent of the M-BCG thereto; provided, however, that claims for money due or to become due to the Sub-grantee from the M-BCG under this contract may be assigned to a bank, trust company, or other financial institution without such approval. Notice of any such assignment or transfer shall be furnished promptly to the M-BCG.

2. Subcontracts

(a). Approvals

The Sub-grantee shall not enter into any subcontracts with any agency or individual in the performance of this contract without the written consent of the M-BCG prior to the execution of such agreement.

(b). Monitoring

The Sub-grantee will monitor all subcontracted services on a regular basis to ensure contract compliance. Results of monitoring efforts shall be summarized in written reports and supported with documented evidence of follow-up actions taken to correct areas of noncompliance.

(c). Content

The Sub-grantee shall cause all of the provisions of this contract in its entirety to be included in and made a part of any subcontract executed in the performance of this Agreement.

(d). Selection Process

The Sub-grantee shall undertake to ensure that all subcontracts left in the performance of this Agreement shall be awarded on a fair and open competition basis in accordance with applicable procurement requirements. Executed copies of all subcontracts shall be forwarded to the M-BCG along with documentation concerning the selection process.

(e). Employee Verification

(1). Compliance with O.C.G.A. Sec. 13-10-91 and Georgia Department of Labor Rule 300.10.1.02, regarding verification of new employee information, is a condition of this Agreement. In connection therewith and as a condition of the M-BCG entering into this Agreement, the affidavit attached hereto as Exhibit "E" shall be executed and adhered to by the Sub-grantee.

(2). Compliance with 8 U.S.C. §1621, the Federal Immigration and Nationality Act, and O.C.G.A. §50-36-1, is a condition of this Agreement. In connection therewith and as a

condition of the M-BCG entering into this Agreement, the affidavit attached hereto as Exhibit "F" shall be executed and adhered to by the Sub-grantee.

3. Hatch Act

The Sub-grantee agrees that no funds provided, nor personnel employed under this Agreement, shall be in any way or to any extent engaged in the conduct of political activities in violation of Chapter 15 of Title V of the U.S.C.

4. Conflict of Interest

The Sub-grantee agrees to abide by the provisions of 2 CFR Part 200.317-318 and 576.404, which include (but are not limited to) the following:

(a). The Sub-grantee shall maintain a written code or standards of conduct that shall govern the performance of its officers, employees, or agents engaged in the award and administration of contracts supported by Federal funds.

(b). No employee, officer, or agent of the Sub-grantee shall participate in the selection, or in the award, or administration of, a contract supported by Federal funds if a conflict of interest, real or apparent, would be involved.

(c). No covered persons who exercise or have exercised any functions or responsibilities with respect to ESG-assisted activities, or who are in a position to participate in a decision-making process or gain inside information with regard to such activities, may obtain a financial interest in any contract, or have a financial interest in any contract, subcontract, or agreement with respect to the ESG-assisted activity, or with respect to the proceeds from the ESG-assisted activity, either for themselves or those with whom they have business or immediate family ties, during their tenure or for a period of one (1) year thereafter. For purposes of this paragraph, a "covered person" includes any person who is an employee, agent, consultant, officer, or elected or appointed official of the M-BCG, the Sub-grantee, or any designated public agency.

5. Lobbying

The Sub-grantee hereby certifies that:

(a). No Federal appropriated funds have been paid or will be paid, by or on behalf of it, to any person for influencing or attempting to influence an officer or employee of any agency, a

Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement;

(b). If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, it will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions; and

(c). It will require that the language of paragraph (6) of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all Sub-grantees shall certify and disclose accordingly.

6. Lobbying Certification

This certification is a material representation of the fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S.C. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

7. Copyright

If this contract results in any copyrightable material or inventions, the M-BCG and/or grantor agency reserves the right to royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use and to authorize others to use, the work or materials for governmental purposes.

8. Religious Activities

The Sub-grantee agrees that funds provided under this Agreement will not be utilized for inherently religious activities prohibited by 24 CFR 576.406, such as worship, religious instruction, or proselytization.

ARTICLE IX **SEVERABILITY**

If any provision of this Agreement is held invalid, the remainder of the Agreement shall not be affected thereby, and all other parts of this Agreement shall nevertheless be in full force and effect.

ARTICLE X
SECTION HEADINGS AND SUBHEADINGS

The section headings and subheadings contained in this Agreement are included for convenience only and shall not limit or otherwise affect the terms of this Agreement.

ARTICLE XI
WAIVER

The M-BCG's failure to act with respect to a breach by the Sub-grantee does not waive its right to act with respect to subsequent or similar breaches. The failure of the M-BCG to exercise or enforce any right or provision shall not constitute a waiver of such right or provision.

ARTICLE XII
ENTIRE AGREEMENT

This agreement constitutes the entire agreement between the M-BCG and the Sub-grantee for the use of funds received under this Agreement, and it supersedes all prior or contemporaneous communications and proposals, whether electronic, oral, or written between the M-BCG and the Sub-grantee with respect to this Agreement.

ARTICLE XIII
CHOICE OF LAW AND VENUE

This agreement shall be governed by the laws of the State of Georgia, and the parties hereby consent that venue for any dispute arising under this agreement shall be in any court of competent jurisdiction in Bibb County, Georgia.

(Signatures on following page)

SIGNATURE PAGE

IN WITNESS WHEREOF, all parties with the express consent of their governing board and/or Commission have made and executed this Agreement on the respective dates under each signature.

ATTEST:

MACON-BIBB COUNTY

Janice S. Ross, Macon-Bibb County
Clerk of Commission

Lester M. Miller, Mayor

Date

ATTEST:

ECONOMIC AND COMMUNITY
DEVELOPMENT DEPARTMENT

Witness

Wanzina Jackson, Director

Date

ATTEST:

FAMILY ADVANCEMENT MINISTRIES

Witness

Gigi Rolfes, Executive Director

Date

EXHIBIT "A"
SCOPE OF SERVICES AND TIMETABLE

The Sub-grantee will be responsible for administering the Emergency Solutions Grant – **Family Advancement Ministries (Homeless Prevention) ESG PY2024 Program** in a manner satisfactory to M-BCG and consistent with any standards required as a condition of providing these funds. Such a program will include the following activities eligible under the Emergency Solutions Grant program:

I. SCOPE OF SERVICES

A. Activity

DESCRIPTION OF ACTIVITY

Family Advancement Ministries will support families and individuals who are at risk of homelessness by providing rental and utility assistance to prevent an eviction and/or utility disconnection.

IMPLEMENTATION PLANS

Potential clients should contact FAM to set an appointment, complete all FAM applications, and submit the required documentation. Once the required documents are received, reviewed, and approved, an inspection of the property will be requested. Once we receive an approved inspection report, the Executive Director will approve the request and present materials to the CFO for payment processing. The payments will be sent directly to the landlord and/or utility vendor. All approvals are based on the availability of funds.

DESCRIPTION OF RELEVANT PERSONNEL/ ADMINISTRATIVE PROCESSES

The case manager for this ESG-HP program is Kayla Isom. She will interview each potential client, review all required documents, and verify documentation. The case will be reviewed by the Executive Director and funds for approval. Once approved the request for payment will be sent to David Bearchell for processing.

B. Program Components

The Sub-grantee certifies that the activity carried out under this Agreement will meet one of the following Emergency Solutions Grant program components: Street Outreach, Emergency Shelter, Homelessness Prevention, or Rapid Re-housing components.

C. Levels of Accomplishment - Goals and Performance Measures

The Subgrantee agrees to provide the following levels of program services:

Activity	Units Per Month	Projected Schedule	Projected Outcome
Rental Assistance	4 families	September 25, 2024- December 23, 2025	4 families will stay in their current housing for at least 4 months
Utility Assistance	4 families	September 25, 2024- December 23, 2025	4 families will avoid utility disconnection
Total Number Served			20 families

SUBGRANTEE is also responsible for submitting to M-BCG, monthly progress reports, timesheets, participant eligibility forms, and any other documentation deemed necessary by the monitoring official during the funding cycle. These records shall be retained for up to four (4) years after the contract expires.

D. Performance Monitoring

The Subgrantee agrees that the Department may carry out periodic monitoring activities as determined necessary by the Department. At a minimum, monitoring shall occur annually, and it may occur more frequently if the Department deems it necessary. The Department will provide the

Subgrantee with advance notice in writing prior to any monitoring activities. Such monitoring shall consist of evaluating the Subgrantee's compliance with the terms and conditions of this Agreement and comparing the Subgrantee's projected Project schedule, budget, and output with its actual performance. Unscheduled visits may occur in an effort to observe agency activities and/or programs when deemed necessary. Upon request, the Subgrantee shall furnish the Department, M-BCG, or its designee copies of such records and information as the Department or M-BCG deems necessary. In addition, the Subgrantee shall submit monthly progress reports as required by Section 6-C.3 of this Agreement and shall prepare such other reports as may be required by the Department, M-BCG and/or HUD. **All monthly reports shall be submitted to the Department no later than the 10th of the following month.**

M-BCG will monitor the performance of the Subgrantee against goals and performance standards as stated above. Substandard performance as determined by M-BCG will constitute noncompliance with this Agreement. If action to correct such substandard performance is not taken by the

Subgrantee within a reasonable period of time after being notified by M-BCG, contract suspension or termination procedures will be initiated.

E. Macon-Bibb County Recognition

The Subgrantee shall ensure recognition of the role of M-BCG in providing services through this Agreement. All activities, facilities, and items utilized pursuant to this Agreement shall be prominently labeled as funding sources. In addition, the Subgrantee will include a reference to the support provided herein in all publications made possible with funds made available under this Agreement.

II. TIME OF PERFORMANCE

The services of the Subgrantee shall start on **September 25, 2024, and end on December 23, 2025**. The term of this Agreement and the provisions herein shall be extended to cover any additional time period during which the Subgrantee remains in control of ESG funds or other ESG assets, including program income.

III. BUDGET

<u>Line Item</u>	<u>Amount</u>
Rental Assistance	\$20,000.00
Utility Payments	\$ 8,000.00
Admin Fee	\$ 4,000.00
TOTAL	\$32,000.00

Any amendments to the budget must be in writing and approved by both the M-BCG and the Sub-grantee.

IV. PAYMENT

It is expressly agreed and understood that the total amount to be paid by the Grantee under this Agreement shall not exceed **\$32,000.00**. Drawdowns for the payment of eligible expenses shall be made against the line-item budgets specified in Paragraph III herein and in accordance with performance.

Payments may be contingent upon certification of the Sub-grantee's financial management system in accordance with the standards specified in 2 CFR Part 200, Subpart D, 24 CFR 1.6, 24 CFR Part 121.

Sub-grantee is also responsible for submitting to the M-BCG, monthly progress reports, participant eligibility forms, invoices and any other documentation deemed necessary by the monitoring official during the funding cycle. These records shall be retained at least four (4) years after the Contract expires.

EXHIBIT "B"

PROGRAM REQUIREMENTS

Sub-grantee shall operate this project funded through the M-BCG's Emergency Solutions Grant Program according to the following guidelines:

1. Accounting and related records of Sub-grantee shall comprise the following as a minimum:

- a. Voucher System - All supporting documentation, such as purchase orders, invoices, receiving reports, and requisitions.
- b. Books of Original Entry - Cash receipts and disbursements journal, general ledger.
- c. Chart of Accounts - Listing of accounts must be maintained in the accounting system.
- d. Personnel Records - Separate personnel files shall be maintained for each project employee. As a minimum, the file shall contain a resume of the employee, a description of duties assigned, and a record of the date employed, rate of pay at the time of employment, subsequent pay adjustments, and documentation supporting leave taken by the employee.
- e. Attendance Record - Attendance records shall be maintained for all personnel paid with ESG funds. This applies to part-time as well as full-time personnel. In addition to accounting for daily attendance, the type of leave taken (annual, sick, or other), shall be disclosed. Daily attendance records must support budgetary changes for payroll purposes.
- f. Payroll Records - Formal payroll records supporting cash disbursements to employees shall be maintained. Such records shall disclose each employee's name, job title, social security number, date hired, rate of pay, and all required deductions for tax purposes. Timely quarterly payments of taxes withheld from employees for the Federal Government, along with required matching costs, are required. In addition, all charges for payroll purposes shall be in accordance with the budget submitted to the M-BCG.
- g. Checking Accounts - Monthly bank reconciliation shall be conducted by Sub-grantee. All checks, stubs, etc. shall be pre-numbered and accounted for, including voided checks. Check stubs, canceled checks, and deposit slips must be readily available for audit purposes.
- h. Petty Cash - Sub-grantee is encouraged to use an imprest system and adhere to a monthly, or if necessary, more frequent reimbursement procedure if any ESG funds are used as petty cash.
- i. Purchasing Practices - HUD considers State-purchasing regulations to be an acceptable standard for purchasing practices. Local purchasing practices and other procedures shall prevail unless State and/or Federal practices and procedures are more stringent. Therefore, Sub-grantee is obligated to conform to the more restrictive practices and procedures. It is recommended that Sub-grantee use a formal pre-numbered purchase order system where possible and applicable.
- j. Inventories - Sub-grantee is advised to maintain adequate safeguards against loss by theft or physical deterioration of any inventories of office supplies, equipment, or other items purchased with ESG funds.

- k. Property Records - Sub-grantee is required to maintain formal subsidiary records to control all project property and equipment. Such records shall disclose the acquisition and subsequent disposition of all property. An annual inventory should be conducted, and the books shall reflect the actual value of the property on hand at the end of the fiscal year.
2. All projects' accounting records and supporting documents shall be maintained for a period of at least four (4) years after termination of the M-BCG's award. The records shall be made available to the M-BCG, HUD, and/or any of their authorized representatives.
3. Sub-grantee should maintain records in an orderly manner, with separate identification for different federal time periods. Records must be protected from fire or other perils, and if stored in a location other than the project site, they should be readily accessible to the M-BCG's staff, HUD officials, and others who may be authorized to examine such records.



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE ACCEPTANCE OF GEORGIA DEPARTMENT OF TRANSPORTATION GEORGIA AIRPORT AID FUNDING, IN THE AMOUNT OF UP TO \$5,512,500.00, WITH A \$1,837,500.00 LOCAL MATCH, TO BE USED AT THE MIDDLE GEORGIA REGIONAL AIRPORT TO BUILD HANGARS, EXTEND EAST DRIVE, AND RELOCATE THE VAULT; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, the Macon-Bibb County Commission is committed to the continued improvement of the two airport located in Macon-Bibb County; and

WHEREAS, the County has initiated the process of building additional T-hangars and a box hangar, extend East Drive, and relocate the vault at the Middle Georgia Regional Airport, all at a proposed cost of approximately \$7,350,000.00; and

WHEREAS, the County has applied for funding for this project from the Georgia Department of Transportation (“GDOT”);

WHEREAS, GDOT has offered to fund the aforementioned project with Georgia Airport Aid Funding, in an amount of up to \$5,512,500.00, with a local match of up to \$1,837,500.00;

WHEREAS, a copy of the contract document for acceptance of the funding has been attached hereto as Exhibit A and is incorporated herein by reference; and

WHEREAS, the Macon-Bibb County Commission desires to accept the GDOT funding for the proposed project, as described in and upon the terms and conditions included Exhibit A, on behalf of the Middle Georgia Regional Airport; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby resolved by the authority of the same, that the Mayor is hereby authorized to accept the Georgia Department of Transportation Georgia Airport Aid funding, in the amount of up to \$5,512,500.00, with a local match of up to \$1,837,500.00, to be used at the Middle Georgia Regional Airport to build hangars, extend East Drive, and relocate the vault, as provided in Exhibit A.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then

this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this ____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL)

Attest: _____
JANICE S. ROSS, Clerk of the Commission

*Q:\RES MACON-BIBB\2025 Miller Accepting GDOT Georgia Airport Aid Funding for Constructing T Hangars,
East Drive Extension, and Relocating Vault \$5,512,500.00 2-13-25.docx*

EXHIBIT A

Revised December 23, 2024

CONTRACT FOR CONSTRUCTION OF AIRPORT

AIRPORT PROJECT NO. AP025-9000-52(021)
PID - T008978

BIBB

LIMITED PARTICIPATION

STATE OF GEORGIA

FULTON COUNTY

THIS CONTRACT made and entered into on _____, ("Effective Date") by and between the GEORGIA DEPARTMENT OF TRANSPORTATION, party of the first part (hereinafter called "DEPARTMENT"), and MACON-BIBB COUNTY, GEORGIA CONSOLIDATED GOVERNMENT (hereinafter called "SPONSOR"), who have been duly authorized to execute this Contract. (DEPARTMENT and SPONSOR are sometimes referred to herein individually as a "Party", and collectively as the "Parties").

WITNESSETH:

WHEREAS, the DEPARTMENT and the SPONSOR desire the construction of certain work at a certain airport, and the SPONSOR agrees to contract for all the materials and to perform all work and labor for said purpose, the Project being more particularly described as follows:

CONSTRUCT T-HANGARS, BOX HANGAR, AND EAST DRIVE EXTENSION; RELOCATE VAULT AT THE MIDDLE GEORGIA REGIONAL AIRPORT IN MACON, GA

Now, therefore, in consideration of the premises and the mutual covenants herein contained, the parties hereto agree as follows:

(1) The work and materials shall be in strict and entire conformity with the provisions of this Contract and the plans on Airport Project No. T008978/AP025-9000-52(021) BIBB prepared (or approved) by the DEPARTMENT and in accordance with the Standard Specifications, 2021 Edition, and Special Provisions contained in **Attachment 1**, which are attached hereto and incorporated as if fully set forth herein, and the Federal Aviation Administration's Standards for Specifying Construction of Airports, dated December 21, 2018, updated through Errata Sheet dated August 19, 2020.

The original plans and specifications are on file at the DEPARTMENT in Atlanta, Georgia and said plans and specifications are hereby made a part of this Contract as if fully set out herein.

If applicable, for those General Aviation Airports receiving Federal funds, the Special Conditions contained in **Attachment 2**, attached hereto and incorporated herein, shall apply.

(2) At the time of execution of this Contract, the SPONSOR agrees

to furnish to the DEPARTMENT, at the expense of the SPONSOR, a complete set of plans and specifications for said Project, and to furnish to said DEPARTMENT from time to time on demand by the DEPARTMENT to the SPONSOR all revisions of said plans and specifications. Further, SPONSOR will ensure that any airport receiving funding under this Block Grant has submitted for the file a current **Exhibit "A" Property Map** with their request for funding to the DEPARTMENT.

(3) This contract is accepted with the express understanding that no person, firm, corporation, or governmental agency can increase the liability of the DEPARTMENT in connection herewith, except under written agreement with the DEPARTMENT.

(4) Compensation.

(4.1) Project Costs. The DEPARTMENT and the SPONSOR agree that the cost of this Project shall be as follows:
The total estimated cost of the Project is SEVEN MILLION THREE HUNDRED FIFTY THOUSAND and 00/100 Dollars (\$7,350,000.00). The total estimated cost of the Project as described herein is shown on the Summary of Construction Items in Exhibit A to this Contract, which is attached hereto and incorporated as if fully set forth herein.

(4.2) Funding Maximum not to Exceed Amount. The Maximum amount that the Department shall be obligated to pay is FIVE MILLION FIVE HUNDRED TWELVE THOUSAND FIVE HUNDRED and 00/100 Dollars (\$5,512,500.00). This amount may be comprised of a combination of AIP and or AIG funds, and or state funds, as set forth specifically below.

It is further agreed that if the sum total of the actual cost of the Project is less than the amounts indicated in Exhibit A to this Contract, the DEPARTMENT shall be obligated to pay its 75% of the actual Project cost as verified from the records of the SPONSOR or actual measured quantities of the items listed in Exhibit A, whichever is less.

(4.2.1) Airport Improvement Program (AIP) Funding. The Parties understand that the maximum amount of AIP funds obligated under this Agreement is ZERO and 00/100 Dollars (\$0.00) and of that maximum amount, the AIP funds are allocated and shall apply as follows:

1. It is agreed that the DEPARTMENT'S obligation will include state funds in the amount of ZERO and 00/100 Dollars (\$0.00) for the Project as summarized in Exhibit A.
2. It is further agreed that the DEPARTMENT'S obligation will include federal funds in the amount of ZERO and 00/100 Dollars (\$0.00) for the Project as summarized in Exhibit A.
3. It is further understood the SPONSOR'S local share of the project is in the amount of ZERO and 00/100 Dollars (\$0.00).

(4.2.2) Airport Infrastructure Program (AIG) Funding. If applicable, SPONSOR understands and agrees that in addition to the representations contained in the SPONSOR'S project applications for the AIG Funds, SPONSOR agrees that pursuant to and for the purpose of carrying out the Infrastructure Investment and Jobs Act of 2021 (Public Law 117-58, Division J, Title VIII) referred to as the Bipartisan Infrastructure Law (BIL), these AIG Funds will be used for the Project at SPONSOR'S airport.

The Parties understand that the maximum amount of AIG funds obligated under this Agreement is ZERO and 00/100 Dollars (\$0.00) and of that maximum amount, the AIG funds are allocated and shall apply as follows:

1. It is agreed that the DEPARTMENT'S obligation will include state funds in the amount of ZERO and 00/100 Dollars (\$0.00) for the Project as summarized in Exhibit A.
2. It is further agreed that the DEPARTMENT'S obligation will include federal funds in the amount of ZERO and 00/100 Dollars (\$0.00) for the Project as summarized in Exhibit A.
3. It is further understood the SPONSOR'S local share of the project is in the amount of ZERO and 00/100 Dollars (\$0.00).

(4.2.3) Georgia Airport Aid Funding. If applicable, the Parties understand that only state funds shall be obligated under this Agreement. The Parties understand and agree that the maximum amount of state funds, which shall be the DEPARTMENT'S sole obligation, will be in the amount of FIVE MILLION FIVE HUNDRED TWELVE THOUSAND FIVE HUNDRED and 00/100 Dollars (\$5,512,500.00) and of that maximum amount, the state funds are allocated and shall apply as follows:

1. It is agreed that the DEPARTMENT'S obligation is the maximum amount the DEPARTMENT shall be obligated to pay which is the total amount of the state share of the Project which is FIVE MILLION FIVE HUNDRED TWELVE THOUSAND FIVE HUNDRED and 00/100 Dollars (\$5,512,500.00) as summarized in Exhibit A. However, if the sum total of the actual cost of the Project is less than the amounts indicated in Exhibit A, the DEPARTMENT shall be obligated to pay its percentage or pro rata share of the actual Project cost as verified from the records of the SPONSOR or actual measured quantities of the items listed in the Summary of Construction Items (Exhibit A), whichever is less.
2. It is further understood that the SPONSOR'S local share of the Project is in the amount of ONE MILLION EIGHT HUNDRED THIRTY-SEVEN THOUSAND FIVE HUNDRED and 00/100 Dollars (\$1,837,500.00).
3. It is further understood and agreed that any costs of the total Project that exceed the above estimated Project costs will be the sole responsibility of the SPONSOR.

(4.2.4) It is further understood and agreed that any costs of the total Project that exceed the above estimated Project costs will

be the sole responsibility of the SPONSOR.

(4.2.5) It is further understood and agreed that any line item in the Summary of Construction Items as shown in EXHIBIT A may be increased or decreased without the execution of a Supplemental Agreement, provided that the DEPARTMENT'S total maximum obligation under this contract is not changed.

(4.3) Progress Payments. Payments by the DEPARTMENT shall be made upon the submission of monthly work progress statements. The payments by the DEPARTMENT for the work completed, as evidenced by the monthly statements, shall be on a prorated basis. These monthly payments will be made in the amount of sums earned less all previous partial payments. Any amounts held by the SPONSOR as retainage will not be paid by the DEPARTMENT until such retainage is paid by the SPONSOR.

SPONSOR must initiate a payment request for Project accomplishments in accordance with Project progress and receipt of contractor invoices on a monthly basis, but in the event monthly invoices are not accrued, on a quarterly basis. Nonetheless, in the event there is continued grant payment inactivity, defined as no drawdowns over a six (6) month period, and no invoices are received, SPONSOR is hereby advised that such can be cause for termination of this grant agreement.

Upon completion of the Project, the DEPARTMENT will pay the SPONSOR a sum equal to one hundred percent (100%) of the DEPARTMENT'S share of the compensation set forth herein less the total of all previous partial payments made, or in the process of payment.

(4.4) Records. The SPONSOR shall maintain all books, documents, papers, accounting records, and other evidence pertaining to costs incurred on the Project and used in support of their proposal and shall make such material available at all reasonable times during the period of the Contract, and for three years from the date of final payment under the Contract, for inspection by the DEPARTMENT and copies thereof shall be furnished if requested.

(5) Compliance with Laws and Standards.

(5.1) Laws. The work shall be done in accordance with the Laws of the State of Georgia and to the satisfaction of the DEPARTMENT. It is further agreed that the SPONSOR shall comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, and acceptance and use of Federal funds for this Project, as well as those regulations and requirements included in the Federal Office of Management and Budget Uniform Grant Guidance, 2 CFR Part 200 and all information required by 2 CFR § 200.332.

(5.2) Standards and Special Provisions. All construction on this Project shall be in accordance and compliance with the 2021 Edition of the Standard Specifications, of the DEPARTMENT, and Special Provisions included in **Attachment 1**, which are attached hereto and incorporated as if fully set forth herein, and the Standards for Specifying Construction of Airports, dated December 21, 2018,

Federal Aviation Administration, updated through Errata Sheet dated August 19, 2020, hereinafter jointly referred to as the "STANDARDS." The DEPARTMENT reserves the right to refuse payment on any monthly statement presented for work which does not comply with the STANDARDS. The DEPARTMENT reserves the right to withhold the final payment until the Project is completed to the DEPARTMENT'S satisfaction and complies with the STANDARDS. The decision of the DEPARTMENT'S Chief Engineer upon any question connected with the execution or fulfillment of this Contract shall be final and conclusive.

(5.3) FAA Airport Sponsor Assurances. It is understood and agreed that the FAA Airport Sponsor Assurances, attached hereto and incorporated herein as **Exhibit E**, shall be complied with, completed, and submitted by SPONSOR to the DEPARTMENT, where necessary and as required therein.

(5.4) FAA Certifications.

(a) Prior to the issuance of the Notice to Proceed("NTP"), SPONSOR shall complete and submit to the DEPARTMENT all applicable Airport Improvement Program (AIP) Sponsor's certifications. SPONSOR shall comply with all requirements where necessary and as required therein.

(b) Prior to Contract closeout, SPONSOR shall complete and submit to the DEPARTMENT all applicable closeout documentation. SPONSOR shall comply with all requirements where necessary and as required therein.

(5.5) Other.

(a) Buy American. Unless otherwise approved in advance by the FAA, in accordance with 49 U.S.C. § 50101, SPONSOR will not acquire or permit any contractor or subcontractor to acquire any steel or manufactured goods produced outside the United States to be used for any project for which funds are provided under this grant. The SPONSOR will include a provision implementing Buy American in every contract.

(b) Build America, Buy America. The SPONSOR must comply with the requirements under the Build America, Buy America Act (Public Law 117-58).

(c) Suspension or Debarment. SPONSOR entering into "covered transactions", as defined by 2 CFR § 180.200, must:

1. Verify the non-Federal entity is eligible to participate in the Federal program by:
 - i. Checking the excluded parties list system (EPLS) as maintained within the System for Award Management (SAM) to determine if the non-Federal entity is excluded or disqualified; or
 - ii. Collecting a certification statement from the non-Federal entity attesting they are not excluded or disqualified from participating; or
 - iii. Adding a clause or condition to covered transactions attesting the individual or firm are not excluded or disqualified from participating.

2. Require prime contractors to comply with 2 CFR § 180.330 when entering into lower-tier transactions (e.g., subcontracts).

(d) Special Conditions. Reserved unless applicable.

(e) Trafficking in Persons. SPONSOR must post the contact information of the National Human Trafficking Hotline (including options to reach out to the hotline such as through phone, text, or TTY) in all public airport restrooms, in accordance with applicable Grant Conditions.

(6) The SPONSOR further covenants that it is the owner of fee simple title to the land whereon the actual construction of said Project is performed, as evidenced by Certificate of Title heretofore furnished to DEPARTMENT.

(7) It is further understood and agreed that no money derived from motor fuel taxes shall be expended for this Project and that for the purposes of this Contract a specific allotment of funds has been made, from sources other than motor fuel taxes.

(8) To the extent allowed by law, the SPONSOR hereby agrees to defend any and all suits, if any should arise as a result of said Project, at the entire expense of said SPONSOR, and to pay from the funds of said SPONSOR any and all settlements or judgments that may be made or had under or as a result of such suits.

(9) To the extent allowed by law, the SPONSOR further agrees to save harmless the DEPARTMENT from any and all claims for any damages whatsoever that may arise prior to or during construction of the work to be done under said Project and this Contract, or as a result of said construction work whether said damages arise as a result of the actual construction work or from change of grade, change of location, drainage, loss of access, loss of ingress and egress, torts, or any other cause whatsoever; it being the intention of this Contract to save harmless the DEPARTMENT from any claim that could or may arise as a result of construction of said Project.

(9.1) The SPONSOR shall provide insurance under this Agreement as follows:

1. It is understood that the SPONSOR (*complete the applicable statement*):

☐ shall obtain coverage from SPONSOR'S private insurance company or cause SPONSOR'S consultant/contractor to obtain coverage
OR

☐ is self-insured.

Prior to beginning the work, SPONSOR shall furnish to the DEPARTMENT, a copy of the certificates and the endorsement page for the minimum amounts of insurance indicated below in this Section 9.1 of the Agreement.

2. Minimum Amounts. The following minimum amount of insurance from insurers rated at least A- by A. M. Best's and registered to do business in the State of Georgia:

(a) Commercial General Liability Insurance of at least \$1,000,000 per occurrence \$3,000,000 aggregate, including Automobile Comprehensive Liability Coverage with bodily injury in the minimum amount of \$1,000,000 combined single limits each occurrence. The DEPARTMENT shall be named as an additional insured and a copy of the policy endorsement shall be provided with the insurance certificate.

(b) Workmen's Compensation Insurance, "in accordance with the laws of the State of Georgia."

(c) Professional Liability (Errors and Omissions) Insurance with limits of at least:

- (i) For Professionals - \$1,000,000 per claim and \$1,000,000 in aggregate coverage;
- (ii) For Sub-consultant Engineers and Architects - \$1,000,000 per claim and \$1,000,000 in aggregate coverage;
- (iii) For Other Consultants - \$1,000,000 per claim and \$1,000,000 in aggregate coverage;
- (iv) Professional liability insurance that shall be either a practice policy or project-specific coverage. Professional liability insurance shall contain prior acts coverage for services performed for this Project. If project-specific coverage is used, these requirements shall be continued in effect for two years following final completion for the Project.

(d) The above-listed insurance coverages shall be maintained in full force and effect for the entire term of the Contract.

3. The insurance certificate must provide the following:

- a. Name, address, signature, and telephone number of authorized agents.
- b. Name and address of insured.
- c. Name of Insurance Company.
- d. Description of coverage in standard terminology.
- e. Policy number, policy period and limits of liability.
- f. Name and address of the DEPARTMENT as certificate holder.
- g. Thirty (30) day notice of cancellation.
- h. Details of any special policy exclusions.

4. Waiver of Subrogation: There is no waiver of subrogation rights by either party with respect to insurance.

5. If and to the extent such damage or loss (including costs and expenses) as covered by this indemnification set forth herein is paid by the State Tort Claims Trust Fund, the State Authority Liability Trust Fund, the State Employee Broad Form Liability Fund, the State Insurance and Hazard Reserve Fund, and other self-insured funds established and maintained by the State of Georgia Department of Administrative Services Risk Management Division or any successor agency (all such funds hereinafter collectively referred to as the "Funds"), in satisfaction of any liability, whether established by judgment or settlement, the SPONSOR and its consultant/contractor agrees to reimburse the Funds for such monies paid out by the Funds.

(10) The SPONSOR further agrees that, at its own cost and expense,

it will maintain said Project in a manner satisfactory to the DEPARTMENT and said SPONSOR will make provisions each year for such maintenance.

(11) It is agreed by the SPONSOR that time is of the essence in the completion of this Project and that the obligation of the DEPARTMENT is made in the interest and for the public welfare. Therefore, the SPONSOR shall perform its responsibilities for the Project until the maximum allowable cost to the DEPARTMENT is reached or until the end of the Term as set forth in Section 20, whichever comes first, subject to the Term of this Contract.

(12) To the extent applicable, the SPONSOR certifies that it is in compliance with O.C.G.A. §36-70-20 *et seq.*, and is not debarred from receiving financial assistance from the State of Georgia. Also, the SPONSOR certifies that the funds to be used on the Project are consistent with applicable Service Delivery Strategy.

(13) For land purchased for airport development purposes, the SPONSOR will, when the land is no longer needed for airport purposes, dispose of such land and make available to the DEPARTMENT an amount equal to the DEPARTMENT's original monetary participation in the land purchase. Land shall be considered to be needed for airport purposes under this provision if (a) it may be needed for aeronautical purposes (including runway protection zones) and (b) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport.

(14) Audit Requirements.

(14.1) State Audit. In accordance with the provisions of O.C.G.A. § 36-81-7, the SPONSOR will provide certification of compliance with state audit requirements as described in Exhibit B, which is hereby made a part of this Contract as if fully set out herein.

(14.2) Federal Audit for Sponsors. The SPONSOR must provide for a Single Audit or program-specific audit in accordance with 2 CFR Part 200. The SPONSOR must submit the audit reporting package to the Federal Audit Clearinghouse on the Federal Audit Clearinghouse's Internet Data Entry System at <https://harvester.census.gov/facweb>. Upon request of FAA, the SPONSOR shall provide one copy of the completed audit to the FAA. Sponsors that expend less than \$1,000,000 in Federal awards and are exempt from Federal audit requirements must make records available for review or audit by the appropriate Federal agency officials, State, and Government Accountability Office. The FAA and other appropriate Federal agencies may request additional information to meet all Federal audit requirements.

(15) Pursuant to O.C.G.A. § 50-5-85, SPONSOR hereby certifies that it is not currently engaged in, and agrees that for the duration of this Contract, it will not engage in a boycott of Israel.

(16) In accordance with the provisions of O.C.G.A. § 13-10-91, the SPONSOR will provide certification of compliance with the Georgia Security and Immigration Compliance Act as described in Exhibit C, which is hereby made a part of this Contract as if fully set out herein.

(17) It is FURTHER AGREED that the SPONSOR shall comply and shall require its contractors, subcontractors and consultants to comply with the requirements of the State of Georgia's Sexual Harassment Prevention Policy as described in Exhibit D, which is hereby made a part of this Contract as if fully set out herein.

(18) It is FURTHER AGREED that the SPONSOR is, and shall at all times be, in compliance with the provisions of O.C.G.A. §50-36-4(b), O.C.G.A. §35-1-17 et seq., and O.C.G.A. §36-80-23(b), relating to the "Annual Immigration Reporting Requirements/No Sanctuary Policy/Federal Law Enforcement Cooperation," as stated in Exhibit F of this Agreement.

(19) It is FURTHER AGREED that the SPONSOR shall comply and require its contractors, subcontractors and consultants to comply with the requirements of Executive Order No. 13513, Federal Leadership on Reducing Text Messaging while driving, October 1, 2009, and DOT Order 3902.10, Text Messaging While Driving, December 30, 2009, the DEPARTMENT and SPONSOR(S) are encouraged to:

- i. Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers including policies to ban text messaging while driving when performing any work for, or on behalf of, the Federal government, including work relating to a grant or subgrant.
- ii. Conduct workplace safety initiatives in a manner commensurate with the size of the business, such as:
 - (a) Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and
 - (b) Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.

(20) The Term of this contract shall be two (2) years from the Effective Date.

(21) The DEPARTMENT reserves the right to terminate this Agreement at any time for just cause or for any cause upon written notice to the SPONSOR, notwithstanding any just claims by the SPONSOR, for payment of services rendered prior to the date of termination. It is understood by the Parties hereto that should the DEPARTMENT terminate this Agreement prior to the completion of an element of work the SPONSOR shall be reimbursed for such work element based upon the percentage work completed for said work element.

(22) Assignment. Except as herein provided, the Parties hereto will not transfer or assign all or any of their rights, titles or interests hereunder or delegate any of their duties or obligations hereunder without the prior written consent of the other Parties, which consent will not be unreasonably withheld.

(23) Non-Waiver. No failure of any Party to exercise any right or power given to such Party under this Agreement, or to insist upon strict compliance by another Party with the provisions of this Agreement, and no custom or practice of any Party at variance with the terms and conditions of this Agreement, will constitute a waiver of any Party's right to demand exact and strict compliance by the another Party with the terms and conditions of this Agreement.

(24) Continuity. Each of the provisions of this Agreement will be binding upon and inure to the benefit and detriment of each Party and the successors and assigns of each Party.

(25) Preamble, Recitals and Exhibits. The Preamble, Recitals, Exhibits and Appendices hereto are a part of this Agreement and are incorporated herein by reference.

(26) Severability. If any one or more of the provisions contained herein are for any reason held by any court of competent jurisdiction to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect any other provision hereof, and this Agreement will be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

(27) Captions. The brief headings or titles preceding each provision hereof are for purposes of identification and convenience only and should be completely disregarded in construing this Agreement.

(28) Georgia Agreement. This Agreement will be governed, construed under, performed and enforced in accordance with the laws of the State of Georgia. Any dispute arising from this contractual relationship shall be governed by the laws of the State of Georgia, and shall be decided solely and exclusively by the Superior Court of Fulton County, Georgia to the extent that such venue is permitted by law. The Parties hereby consent to personal jurisdiction and venue in said court and waive any claim of inconvenient forum.

(29) Interpretation. Should any provision of this Agreement require judicial interpretation, it is agreed that the court interpreting or construing the same shall not apply a presumption that the terms hereof shall be more strictly construed against any Party by reason of the rule of construction that a document is to be construed more strictly against the Party who itself or through its agent prepared the same, it being agreed that the agents of all Parties have participated in the preparation hereof.

(30) Execution. Each of the individuals executing this Agreement represents that they are authorized to execute this Agreement on behalf of their respective entities.

(31) No Third-Party Beneficiaries. Nothing contained herein shall be construed as conferring upon or giving to any person, other than the Parties hereto, any rights or benefits under or by reason of this Agreement.

(32) Entire Agreement. This Agreement supersedes all prior negotiations, discussion, statements and agreements between the Parties and constitutes the full, complete and entire agreement between the Parties with respect hereto; no member, officer, employee or agent of any Party has authority to make, or has made, any statement, agreement, representation or contemporaneous agreement, oral or written, in connection herewith, amending, supplementing, modifying, adding to, deleting from, or changing the terms and conditions of this Agreement. No modification of or amendment to this Agreement will be binding on any Party hereto unless such modification or amendment will be properly authorized,

in writing, properly signed by all Parties and incorporated in and by reference made a part hereof.

IN WITNESS WHEREOF, said parties have hereunto set their hands and affixed their seals.

DEPARTMENT OF TRANSPORTATION:

MACON-BIBB COUNTY, GEORGIA CONSOLIDATED
GOVERNMENT:

DATE: _____

DATE: _____

COMMISSIONER

MAYOR

ATTEST: _____
Treasurer

PRINTED NAME

This Contract approved by

MACON-BIBB COUNTY, GEORGIA CONSOLIDATED
GOVERNMENT

at a meeting held at:

DATE: _____

CLERK SEAL)

Federal ID/IRS #

APPROVED:

LOCAL GOVERNMENT ATTORNEY

SIGNATURE

PRINTED NAME

MIDDLE GEORGIA REGIONAL AIRPORT
MACON, GEORGIA

EXHIBIT A

SUMMARY OF CONSTRUCTION ITEMS - LIMITED PARTICIPATION

GDOT PROJECT NUMBER: AP025-9000-52(021) BIBB
PID-T008978

CONSTRUCT T-HANGARS, BOX HANGAR, AND EAST DRIVE EXTENSION; RELOCATE VAULT

ITEM	SPEC	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL	%	FEDERAL FUNDS	%	STATE FUNDS
Part 1 State Funds AFY24										02AV4
Construct T-Hangars										
1		LIMITED PARTICIPATION PROJECT. THE AMOUNT SHALL NOT EXCEED \$1,575,000.00 OR 75%, WHICHEVER IS LESS OF THE ACTUAL CONSTRUCTION COST OF \$2,100,000.00 AIRPORT CONSTRUCTION - LIMITED PARTICIPATION	EACH	2,100,000.00	\$1.00	\$2,100,000.00	0%	\$0.00	75%	\$1,575,000.00
Construct Box Hangar										
2		LIMITED PARTICIPATION PROJECT. THE AMOUNT SHALL NOT EXCEED \$1,500,000.00 OR 75%, WHICHEVER IS LESS OF THE ACTUAL CONSTRUCTION COST OF \$2,000,000.00 AIRPORT CONSTRUCTION - LIMITED PARTICIPATION	EACH	2,000,000.00	\$1.00	\$2,000,000.00	0%	\$0.00	75%	\$1,500,000.00
Construct East Drive Extension										
3		LIMITED PARTICIPATION PROJECT. THE AMOUNT SHALL NOT EXCEED \$937,500.00 OR 75%, WHICHEVER IS LESS OF THE ACTUAL CONSTRUCTION COST OF \$1,250,000.00 AIRPORT CONSTRUCTION - LIMITED PARTICIPATION	EACH	1,250,000.00	\$1.00	\$1,250,000.00	0%	\$0.00	75%	\$937,500.00
Total Part 1 State Funds AFY24						\$5,350,000.00		\$0.00		\$4,012,500.00
Part 2 State Funds FY25										01250
Relocate Vault										
4		LIMITED PARTICIPATION PROJECT. THE AMOUNT SHALL NOT EXCEED \$1,500,000.00 OR 75%, WHICHEVER IS LESS OF THE ACTUAL CONSTRUCTION COST OF \$2,000,000.00 AIRPORT CONSTRUCTION - LIMITED PARTICIPATION	EACH	2,000,000.00	\$1.00	\$2,000,000.00	0%	\$0.00	75%	\$1,500,000.00
Total Part 2 State Funds FY25						\$2,000,000.00		\$0.00		\$1,500,000.00
Total Project Cost						\$7,350,000.00		\$0.00		\$5,512,500.00

FAA Federal Grant and FAIN #	Federal Award Date	Amount	Fund Source	Activity Code
State AFY24	N/A	\$4,012,500.00	02AV4	AVIA
State FY25	N/A	\$1,500,000.00	01250	AVIA
Total Maximum Obligation of State Funds this Contract:		\$5,512,500.00		

EXHIBIT B**CERTIFICATION OF
COMPLIANCE WITH STATE AUDIT REQUIREMENT**

I hereby certify that I am the duly authorized representative of MACON-BIBB COUNTY, GEORGIA CONSOLIDATED GOVERNMENT whose address is 700 POPLAR STREET, MACON, GA 31201, and it is also certified that:

The provisions of Section 36-81-7 of the Official Code of Georgia Annotated, relating to the "Requirement of Audits" have been complied with in full such that:

- (a) Each unit of local government having a population in excess of 1,500 persons or expenditures of \$550,000.00 or more shall provide for and cause to be made an annual audit of the financial affairs and transactions of all funds and activities of the local government for each fiscal year of the local government.
- (b) The governing authority of each local unit of government not included above shall provide for and cause to be made the audit required not less often than once every two fiscal years.
- (c) The governing authority of each local unit of government having expenditures of less than \$550,000.00 in that government's most recently ended fiscal year may elect to provide for and cause to be made, in lieu of the biennial audit, an annual report of agreed upon procedures for that fiscal year.
- (d) A copy of the report and any comments made by the state auditor shall be maintained as a public record for public inspection during the regular working hours at the principal office of the local government. Those units of local government not having a principal office shall provide a notification to the public as to the location of and times during which the public may inspect the report.

Date _____

Signature

Name: _____

Title: _____



EXHIBIT C

GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

Contractor's Name:	MACON-BIBB COUNTY, GEORGIA CONSOLIDATED GOVERNMENT
Solicitation/Contract No./ Call No. or Project Description:	T008978/AP025-9000-52(021) Bibb Construct T-Hangars, Box Hangar, and East Drive Extension; Relocate Vault at the Middle Georgia Regional Airport in Macon, GA

CONTRACTOR AFFIDAVIT

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, entity or corporation which is engaged in the physical performance of services on behalf of the Georgia Department of Transportation has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

741651

Federal Work Authorization User Identification Number
(EEV/E-Verify Company Identification Number)

1/3/2014

Date of Authorization

MACON-BIBB COUNTY, GEORGIA CONSOLIDATED GOVERNMENT

Name of Contractor

I hereby declare under penalty of perjury that the foregoing is true and correct

Printed Name (of Authorized Officer or Agent of Contractor)

Title (of Authorized Officer or Agent of Contractor)

Signature (of Authorized Officer or Agent)

Date Signed

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

DATE: _____

Notary Public

[NOTARY SEAL]

My Commission Expires: _____

EXHIBIT C

EXHIBIT D

CERTIFICATION OF COMPLIANCE WITH THE STATE OF GEORGIA'S SEXUAL HARASSMENT PREVENTION POLICY

The State of Georgia promotes respect and dignity and does not tolerate sexual harassment in the workplace. The State is committed to providing a workplace and environment free from sexual harassment for its employees and for all persons who interact with state government. All State of Georgia employees are expected and required to interact with all persons including other employees, SPONSOR, contractors, and customers in a professional manner that contributes to a respectful work environment free from sexual harassment. Furthermore, the State of Georgia maintains an expectation that SPONSOR, its contractors and their employees and subcontractors will interact with entities of the State of Georgia, their customers, and other contractors of the State in a professional manner that contributes to a respectful work environment free from sexual harassment.

Pursuant to the State of Georgia's Statewide Sexual Harassment Prevention Policy (the "Policy"), SPONSOR and all contractors who are regularly on State premises or who regularly interact with State personnel must complete sexual harassment prevention training on an annual basis.

SPONSOR, including its employees and subcontractors, who have violated the Policy, including but not limited to engaging in sexual harassment and/or retaliation may be subject to appropriate corrective action. Such action may include, but is not limited to, notification to the employer, removal from State premises, restricted access to State premises and/or personnel, termination of contract, and/or other corrective action(s) deemed necessary by the State.

- (i) If SPONSOR is an individual who is regularly on State premises or who will regularly interact with State personnel, SPONSOR certifies that:
 - (a) SPONSOR has received, reviewed, and agreed to comply with the State of Georgia's Statewide Sexual Harassment Prevention Policy located at [Statewide Sexual Harassment Prevention Policy and Investigation Procedures v.2.pdf](#);
 - (b) SPONSOR has completed sexual harassment prevention training in the last year; or will complete the Georgia Department of Administrative Services' sexual harassment prevention training located at [Sexual Harassment Training for Employees Modules 1 6 - YouTube](#) prior to accessing State premises and prior to interacting with State employees; and on an annual basis thereafter; and,
 - (c) Upon request by the State, SPONSOR will provide documentation substantiating the completion of sexual harassment training.
- (ii) If SPONSOR has employees and subcontractors that are regularly on State premises or who will regularly interact with State personnel, SPONSOR certifies that:

- (a) SPONSOR will ensure that such employees and subcontractors have received, reviewed, and agreed to comply with the State of Georgia's Statewide Sexual Harassment Prevention Policy located at [Statewide Sexual Harassment Prevention Policy and Investigation Procedures v.2.pdf](#);
- (b) SPONSOR has provided sexual harassment prevention training in the last year to such employees and subcontractors and will continue to do so on an annual basis; or SPONSOR will ensure that such employees and subcontractors complete the Georgia Department of Administrative Services' sexual harassment prevention training located at [Sexual Harassment Training for Employees Modules 1 6 - YouTube](#) prior to accessing State premises and prior to interacting with State employees; and on an annual basis thereafter; and
- (c) Upon request of the State of the Georgia Department of Transportation, SPONSOR will provide documentation substantiating such employees and subcontractors' acknowledgment of the State of Georgia's Statewide Sexual Harassment Prevention Policy and annual completion of sexual harassment prevention training.

Signature: _____

Name: _____

Position: _____

Company: MACON-BIBB COUNTY, GEORGIA CONSOLIDATED GOVERNMENT

EXHIBIT E
FAA Airport Sponsor Assurances

FAA Airport Sponsor Assurances shall begin on the following pages.

FAA AIRPORT SPONSOR ASSURANCES DO NOT APPLY TO THIS CONTRACT.



**FAA
Airports**

ASSURANCES

AIRPORT SPONSORS

A. General.

1. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.
2. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.
3. Upon acceptance of this grant offer by the sponsor, these assurances are incorporated in and become part of this Grant Agreement.

B. Duration and Applicability.

1. Airport development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor.

The terms, conditions and assurances of this Grant Agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.

2. Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor.

The preceding paragraph (1) also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.

3. Airport Planning Undertaken by a Sponsor.

Unless otherwise specified in this Grant Agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 23, 25, 30, 32, 33, 34, and 37 in Section C apply to planning projects. The terms, conditions, and

assurances of this Grant Agreement shall remain in full force and effect during the life of the project; there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport.

C. Sponsor Certification.

The sponsor hereby assures and certifies, with respect to this grant that:

1. General Federal Requirements

It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance, and use of Federal funds for this Grant including but not limited to the following:

FEDERAL LEGISLATION

- a. 49 U.S.C. subtitle VII, as amended.
- b. Davis-Bacon Act, as amended — 40 U.S.C. §§ 3141-3144, 3146, and 3147, et seq.¹
- c. Federal Fair Labor Standards Act — 29 U.S.C. § 201, et seq.
- d. Hatch Act — 5 U.S.C. § 1501, et seq.²
- e. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, 42 U.S.C. § 4601, et seq.^{1, 2}
- f. National Historic Preservation Act of 1966 — Section 106 — 54 U.S.C. § 306108.¹
- g. Archeological and Historic Preservation Act of 1974 — 54 U.S.C. § 312501, et seq.¹
- h. Native Americans Grave Repatriation Act — 25 U.S.C. § 3001, et seq.
- i. Clean Air Act, P.L. 90-148, as amended — 42 U.S.C. § 7401, et seq.
- j. Coastal Zone Management Act, P.L. 92-583, as amended — 16 U.S.C. § 1451, et seq.
- k. Flood Disaster Protection Act of 1973 — Section 102(a) - 42 U.S.C. § 4012a.¹
- l. 49 U.S.C. § 303, (formerly known as Section 4(f)).
- m. Rehabilitation Act of 1973 — 29 U.S.C. § 794.
- n. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin).
- o. Americans with Disabilities Act of 1990, as amended, (42 U.S.C. § 12101 et seq.) (prohibits discrimination on the basis of disability).
- p. Age Discrimination Act of 1975 — 42 U.S.C. § 6101, et seq.
- q. American Indian Religious Freedom Act, P.L. 95-341, as amended.
- r. Architectural Barriers Act of 1968, as amended — 42 U.S.C. § 4151, et seq.¹
- s. Powerplant and Industrial Fuel Use Act of 1978 — Section 403 — 42 U.S.C. § 8373.¹
- t. Contract Work Hours and Safety Standards Act — 40 U.S.C. § 3701, et seq.¹
- u. Copeland Anti-kickback Act — 18 U.S.C. § 874.¹

- v. National Environmental Policy Act of 1969 – 42 U.S.C. § 4321, et seq.¹
- w. Wild and Scenic Rivers Act, P.L. 90-542, as amended – 16 U.S.C. § 1271, et seq.
- x. Single Audit Act of 1984 – 31 U.S.C. § 7501, et seq.²
- y. Drug-Free Workplace Act of 1988 – 41 U.S.C. §§ 8101 through 8105.
- z. The Federal Funding Accountability and Transparency Act of 2006, as amended (P.L. 109-282, as amended by section 6202 of P.L. 110-252).
- aa. Civil Rights Restoration Act of 1987, P.L. 100-259.
- bb. Build America, Buy America Act, P.L. 117-58, Title IX.

EXECUTIVE ORDERS

- a. Executive Order 11246 – Equal Employment Opportunity¹
- b. Executive Order 11990 – Protection of Wetlands
- c. Executive Order 11998 – Flood Plain Management
- d. Executive Order 12372 – Intergovernmental Review of Federal Programs
- e. Executive Order 12699 – Seismic Safety of Federal and Federally Assisted New Building Construction¹
- f. Executive Order 12898 – Environmental Justice
- g. Executive Order 13166 – Improving Access to Services for Persons with Limited English Proficiency
- h. Executive Order 13985 – Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government
- i. Executive Order 13988 – Preventing and Combating Discrimination on the Basis of Gender Identity or Sexual Orientation
- j. Executive Order 14005 – Ensuring the Future is Made in all of America by All of America's Workers
- k. Executive Order 14008 – Tackling the Climate Crisis at Home and Abroad

FEDERAL REGULATIONS

- a. 2 CFR Part 180 – OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement).
- b. 2 CFR Part 200 – Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. ^{4, 5}
- c. 2 CFR Part 1200 – Nonprocurement Suspension and Debarment.
- d. 14 CFR Part 13 – Investigative and Enforcement Procedures.
- e. 14 CFR Part 16 – Rules of Practice for Federally-Assisted Airport Enforcement Proceedings.
- f. 14 CFR Part 150 – Airport Noise Compatibility Planning.

- g. 28 CFR Part 35 – Nondiscrimination on the Basis of Disability in State and Local Government Services.
- h. 28 CFR § 50.3 – U.S. Department of Justice Guidelines for the Enforcement of Title VI of the Civil Rights Act of 1964.
- i. 29 CFR Part 1 – Procedures for Predetermination of Wage Rates.¹
- j. 29 CFR Part 3 – Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States.¹
- k. 29 CFR Part 5 – Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction (Also Labor Standards Provisions Applicable to Nonconstruction Contracts Subject to the Contract Work Hours and Safety Standards Act).¹
- l. 41 CFR Part 60 – Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and Federally-assisted contracting requirements).¹
- m. 49 CFR Part 20 – New Restrictions on Lobbying.
- n. 49 CFR Part 21 – Nondiscrimination in Federally-Assisted Programs of the Department of Transportation - Effectuation of Title VI of the Civil Rights Act of 1964.
- o. 49 CFR Part 23 – Participation by Disadvantage Business Enterprise in Airport Concessions.
- p. 49 CFR Part 24 – Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs.^{1, 2}
- q. 49 CFR Part 26 – Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs.
- r. 49 CFR Part 27 – Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance.¹
- s. 49 CFR Part 28 – Enforcement of Nondiscrimination on the Basis of Handicap in Programs or Activities Conducted by the Department of Transportation.
- t. 49 CFR Part 30 – Denial of Public Works Contracts to Suppliers of Goods and Services of Countries That Deny Procurement Market Access to U.S. Contractors.
- u. 49 CFR Part 32 – Governmentwide Requirements for Drug-Free Workplace (Financial Assistance).
- v. 49 CFR Part 37 – Transportation Services for Individuals with Disabilities (ADA).
- w. 49 CFR Part 38 – Americans with Disabilities Act (ADA) Accessibility Specifications for Transportation Vehicles.
- x. 49 CFR Part 41 – Seismic Safety.

FOOTNOTES TO ASSURANCE (C)(1)

¹ These laws do not apply to airport planning sponsors.

² These laws do not apply to private sponsors.

³ 2 CFR Part 200 contains requirements for State and Local Governments receiving Federal assistance. Any requirement levied upon State and Local Governments by this regulation shall

apply where applicable to private sponsors receiving Federal assistance under Title 49, United States Code.

⁴ Cost principles established in 2 CFR part 200 subpart E must be used as guidelines for determining the eligibility of specific types of expenses.

⁵ Audit requirements established in 2 CFR part 200 subpart F are the guidelines for audits.

SPECIFIC ASSURANCES

Specific assurances required to be included in grant agreements by any of the above laws, regulations or circulars are incorporated by reference in this Grant Agreement.

2. Responsibility and Authority of the Sponsor.

a. Public Agency Sponsor:

It has legal authority to apply for this Grant, and to finance and carry out the proposed project; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

b. Private Sponsor:

It has legal authority to apply for this Grant and to finance and carry out the proposed project and comply with all terms, conditions, and assurances of this Grant Agreement. It shall designate an official representative and shall in writing direct and authorize that person to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

3. Sponsor Fund Availability.

It has sufficient funds available for that portion of the project costs which are not to be paid by the United States. It has sufficient funds available to assure operation and maintenance of items funded under this Grant Agreement which it will own or control.

4. Good Title.

- a. It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.
- b. For noise compatibility program projects to be carried out on the property of the sponsor, it holds good title satisfactory to the Secretary to that portion of the property upon which Federal funds will be expended or will give assurance to the Secretary that good title will be obtained.

5. Preserving Rights and Powers.

- a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in this Grant Agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or modify any outstanding rights or claims of right of others which would interfere

with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

- b. Subject to the FAA Act of 2018, Public Law 115-254, Section 163, it will not sell, lease, encumber, or otherwise transfer or dispose of any part of its title or other interests in the property shown on Exhibit A to this application or, for a noise compatibility program project, that portion of the property upon which Federal funds have been expended, for the duration of the terms, conditions, and assurances in this Grant Agreement without approval by the Secretary. If the transferee is found by the Secretary to be eligible under Title 49, United States Code, to assume the obligations of this Grant Agreement and to have the power, authority, and financial resources to carry out all such obligations, the sponsor shall insert in the contract or document transferring or disposing of the sponsor's interest, and make binding upon the transferee all of the terms, conditions, and assurances contained in this Grant Agreement.
- c. For all noise compatibility program projects which are to be carried out by another unit of local government or are on property owned by a unit of local government other than the sponsor, it will enter into an agreement with that government. Except as otherwise specified by the Secretary, that agreement shall obligate that government to the same terms, conditions, and assurances that would be applicable to it if it applied directly to the FAA for a grant to undertake the noise compatibility program project. That agreement and changes thereto must be satisfactory to the Secretary. It will take steps to enforce this agreement against the local government if there is substantial non-compliance with the terms of the agreement.
- d. For noise compatibility program projects to be carried out on privately owned property, it will enter into an agreement with the owner of that property which includes provisions specified by the Secretary. It will take steps to enforce this agreement against the property owner whenever there is substantial non-compliance with the terms of the agreement.
- e. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with these assurances for the duration of these assurances.
- f. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to ensure that the airport will be operated and maintained in accordance with Title 49, United States Code, the regulations and the terms, conditions and assurances in this Grant Agreement and shall ensure that such arrangement also requires compliance therewith.
- g. Sponsors of commercial service airports will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport. Sponsors of general aviation airports entering into any arrangement that results in permission for the owner of residential real property adjacent to or near the airport must comply with the requirements of Sec. 136 of Public Law 112-95 and the sponsor assurances.

6. Consistency with Local Plans.

The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport.

7. Consideration of Local Interest.

It has given fair consideration to the interest of communities in or near where the project may be located.

8. Consultation with Users.

In making a decision to undertake any airport development project under Title 49, United States Code, it has undertaken reasonable consultations with affected parties using the airport at which project is proposed.

9. Public Hearings.

In projects involving the location of an airport, an airport runway, or a major runway extension, it has afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary, submit a copy of the transcript of such hearings to the Secretary. Further, for such projects, it has on its management board either voting representation from the communities where the project is located or has advised the communities that they have the right to petition the Secretary concerning a proposed project.

10. Metropolitan Planning Organization.

In projects involving the location of an airport, an airport runway, or a major runway extension at a medium or large hub airport, the sponsor has made available to and has provided upon request to the metropolitan planning organization in the area in which the airport is located, if any, a copy of the proposed amendment to the airport layout plan to depict the project and a copy of any airport master plan in which the project is described or depicted.

11. Pavement Preventive Maintenance-Management.

With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, it assures or certifies that it has implemented an effective airport pavement maintenance-management program and it assures that it will use such program for the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the airport. It will provide such reports on pavement condition and pavement management programs as the Secretary determines may be useful.

12. Terminal Development Prerequisites.

For projects which include terminal development at a public use airport, as defined in Title 49, it has, on the date of submittal of the project grant application, all the safety equipment required for certification of such airport under 49 U.S.C. § 44706, and all the security equipment required by rule or regulation, and has provided for access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft.

13. Accounting System, Audit, and Record Keeping Requirements.

- a. It shall keep all project accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of this Grant, the total cost of the project in connection with which this Grant is given or used, and the amount or nature of that portion of the cost of the project supplied by other sources, and such other financial records pertinent to the project. The

accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.

- b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to this Grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to the project in connection with which this Grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United States not later than six (6) months following the close of the fiscal year for which the audit was made.

14. Minimum Wage Rates.

It shall include, in all contracts in excess of \$2,000 for work on any projects funded under this Grant Agreement which involve labor, provisions establishing minimum rates of wages, to be predetermined by the Secretary of Labor under 40 U.S.C. §§ 3141-3144, 3146, and 3147, Public Building, Property, and Works), which contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in proposals or bids for the work.

15. Veteran's Preference.

It shall include in all contracts for work on any project funded under this Grant Agreement which involve labor, such provisions as are necessary to insure that, in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in 49 U.S.C. § 47112. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

16. Conformity to Plans and Specifications.

It will execute the project subject to plans, specifications, and schedules approved by the Secretary. Such plans, specifications, and schedules shall be submitted to the Secretary prior to commencement of site preparation, construction, or other performance under this Grant Agreement, and, upon approval of the Secretary, shall be incorporated into this Grant Agreement. Any modification to the approved plans, specifications, and schedules shall also be subject to approval of the Secretary, and incorporated into this Grant Agreement.

17. Construction Inspection and Approval.

It will provide and maintain competent technical supervision at the construction site throughout the project to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary for the project. It shall subject the construction work on any project contained in an approved project application to inspection and approval by the Secretary and such work shall be in accordance with regulations and procedures prescribed by the Secretary. Such regulations and procedures shall require such cost and progress reporting by the sponsor or sponsors of such project as the Secretary shall deem necessary.

18. Planning Projects.

In carrying out planning projects:

- a. It will execute the project in accordance with the approved program narrative contained in the project application or with the modifications similarly approved.
- b. It will furnish the Secretary with such periodic reports as required pertaining to the planning project and planning work activities.
- c. It will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.
- d. It will make such material available for examination by the public, and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.
- e. It will give the Secretary unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.
- f. It will grant the Secretary the right to disapprove the sponsor's employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.
- g. It will grant the Secretary the right to disapprove the use of the sponsor's employees to do all or any part of the project.
- h. It understands and agrees that the Secretary's approval of this project grant or the Secretary's approval of any planning material developed as part of this grant does not constitute or imply any assurance or commitment on the part of the Secretary to approve any pending or future application for a Federal airport grant.

19. Operation and Maintenance.

- a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal, state, and local agencies for maintenance and operation. It will not cause or permit any activity or action thereon which would interfere with its use for airport purposes. It will suitably operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary. In furtherance of this assurance, the sponsor will have in effect arrangements for:
 1. Operating the airport's aeronautical facilities whenever required;
 2. Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and
 3. Promptly notifying pilots of any condition affecting aeronautical use of the airport. Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood, or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or

facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.

- b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

20. Hazard Removal and Mitigation.

It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

21. Compatible Land Use.

It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

22. Economic Nondiscrimination.

- a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.
- b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to:
 - 1. Furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and
 - 2. Charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.
- c. Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities.
- d. Each air carrier using such airport shall have the right to service itself or to use any fixed-based operator that is authorized or permitted by the airport to serve any air carrier at such airport.
- e. Each air carrier using such airport (whether as a tenant, non-tenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rules, regulations, conditions, rates, fees, rentals, and other charges with respect to facilities directly and substantially related to providing air transportation as are applicable to all such air carriers which make similar use of such airport and utilize similar facilities, subject to reasonable

classifications such as tenants or non-tenants and signatory carriers and non-signatory carriers. Classification or status as tenant or signatory shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on air carriers in such classification or status.

- f. It will not exercise or grant any right or privilege which operates to prevent any person, firm, or corporation operating aircraft on the airport from performing any services on its own aircraft with its own employees (including, but not limited to maintenance, repair, and fueling) that it may choose to perform.
- g. In the event the sponsor itself exercises any of the rights and privileges referred to in this assurance, the services involved will be provided on the same conditions as would apply to the furnishing of such services by commercial aeronautical service providers authorized by the sponsor under these provisions.
- h. The sponsor may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.
- i. The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.

23. Exclusive Rights.

It will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public. For purposes of this paragraph, the providing of the services at an airport by a single fixed-based operator shall not be construed as an exclusive right if both of the following apply:

- a. It would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and
- b. If allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport. It further agrees that it will not, either directly or indirectly, grant or permit any person, firm, or corporation, the exclusive right at the airport to conduct any aeronautical activities, including, but not limited to charter flights, pilot training, aircraft rental and sightseeing, aerial photography, crop dusting, aerial advertising and surveying, air carrier operations, aircraft sales and services, sale of aviation petroleum products whether or not conducted in conjunction with other aeronautical activity, repair and maintenance of aircraft, sale of aircraft parts, and any other activities which because of their direct relationship to the operation of aircraft can be regarded as an aeronautical activity, and that it will terminate any exclusive right to conduct an aeronautical activity now existing at such an airport before the grant of any assistance under Title 49, United States Code.

24. Fee and Rental Structure.

It will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection. No part of the Federal share of an airport development, airport planning or noise compatibility project for

which a Grant is made under Title 49, United States Code, the Airport and Airway Improvement Act of 1982, the Federal Airport Act or the Airport and Airway Development Act of 1970 shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.

25. Airport Revenues.

- a. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport and which are directly and substantially related to the actual air transportation of passengers or property; or for noise mitigation purposes on or off the airport. The following exceptions apply to this paragraph:
 1. If covenants or assurances in debt obligations issued before September 3, 1982, by the owner or operator of the airport, or provisions enacted before September 3, 1982, in governing statutes controlling the owner or operator's financing, provide for the use of the revenues from any of the airport owner or operator's facilities, including the airport, to support not only the airport but also the airport owner or operator's general debt obligations or other facilities, then this limitation on the use of all revenues generated by the airport (and, in the case of a public airport, local taxes on aviation fuel) shall not apply.
 2. If the Secretary approves the sale of a privately owned airport to a public sponsor and provides funding for any portion of the public sponsor's acquisition of land, this limitation on the use of all revenues generated by the sale shall not apply to certain proceeds from the sale. This is conditioned on repayment to the Secretary by the private owner of an amount equal to the remaining unamortized portion (amortized over a 20-year period) of any airport improvement grant made to the private owner for any purpose other than land acquisition on or after October 1, 1996, plus an amount equal to the federal share of the current fair market value of any land acquired with an airport improvement grant made to that airport on or after October 1, 1996.
 3. Certain revenue derived from or generated by mineral extraction, production, lease, or other means at a general aviation airport (as defined at 49 U.S.C. § 47102), if the FAA determines the airport sponsor meets the requirements set forth in Section 813 of Public Law 112-95.
- b. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit will review, and the resulting audit report will provide an opinion concerning, the use of airport revenue and taxes in paragraph (a), and indicating whether funds paid or transferred to the owner or operator are paid or transferred in a manner consistent with Title 49, United States Code and any other applicable provision of law, including any regulation promulgated by the Secretary or Administrator.
- c. Any civil penalties or other sanctions will be imposed for violation of this assurance in accordance with the provisions of 49 U.S.C. § 47107.

26. Reports and Inspections.

It will:

- a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the

public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;

- b. for airport development projects, make the airport and all airport records and documents affecting the airport, including deeds, leases, operation and use agreements, regulations and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request;
- c. for noise compatibility program projects, make records and documents relating to the project and continued compliance with the terms, conditions, and assurances of this Grant Agreement including deeds, leases, agreements, regulations, and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request; and
- d. in a format and time prescribed by the Secretary, provide to the Secretary and make available to the public following each of its fiscal years, an annual report listing in detail:
 - 1. all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and
 - 2. all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.

27. Use by Government Aircraft.

It will make available all of the facilities of the airport developed with Federal financial assistance and all those usable for landing and takeoff of aircraft to the United States for use by Government aircraft in common with other aircraft at all times without charge, except, if the use by Government aircraft is substantial, charge may be made for a reasonable share, proportional to such use, for the cost of operating and maintaining the facilities used. Unless otherwise determined by the Secretary, or otherwise agreed to by the sponsor and the using agency, substantial use of an airport by Government aircraft will be considered to exist when operations of such aircraft are in excess of those which, in the opinion of the Secretary, would unduly interfere with use of the landing areas by other authorized aircraft, or during any calendar month that:

- a. Five (5) or more Government aircraft are regularly based at the airport or on land adjacent thereto; or
- b. The total number of movements (counting each landing as a movement) of Government aircraft is 300 or more, or the gross accumulative weight of Government aircraft using the airport (the total movement of Government aircraft multiplied by gross weights of such aircraft) is in excess of five million pounds.

28. Land for Federal Facilities.

It will furnish without cost to the Federal Government for use in connection with any air traffic control or air navigation activities, or weather-reporting and communication activities related to air traffic control, any areas of land or water, or estate therein as the Secretary considers necessary or desirable for construction, operation, and maintenance at Federal expense of space or facilities for such purposes. Such areas or any portion thereof will be made available as provided herein within four months after receipt of a written request from the Secretary.

29. Airport Layout Plan.

- a. Subject to the FAA Reauthorization Act of 2018, Public Law 115-254, Section 163, it will keep up to date at all times an airport layout plan of the airport showing:
1. boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto;
 2. the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and roads), including all proposed extensions and reductions of existing airport facilities;
 3. the location of all existing and proposed non-aviation areas and of all existing improvements thereon; and
 4. all proposed and existing access points used to taxi aircraft across the airport's property boundary.

Such airport layout plans and each amendment, revision, or modification thereof, shall be subject to the approval of the Secretary which approval shall be evidenced by the signature of a duly authorized representative of the Secretary on the face of the airport layout plan. The sponsor will not make or permit any changes or alterations in the airport or any of its facilities which are not in conformity with the airport layout plan as approved by the Secretary and which might, in the opinion of the Secretary, adversely affect the safety, utility or efficiency of the airport.

- b. Subject to the FAA Reauthorization Act of 2018, Public Law 115-254, Section 163, if a change or alteration in the airport or the facilities is made which the Secretary determines adversely affects the safety, utility, or efficiency of any federally owned, leased, or funded property on or off the airport and which is not in conformity with the airport layout plan as approved by the Secretary, the owner or operator will, if requested, by the Secretary:
1. eliminate such adverse effect in a manner approved by the Secretary; or
 2. bear all costs of relocating such property (or replacement thereof) to a site acceptable to the Secretary and all costs of restoring such property (or replacement thereof) to the level of safety, utility, efficiency, and cost of operation existing before the unapproved change in the airport or its facilities except in the case of a relocation or replacement of an existing airport facility due to a change in the Secretary's design standards beyond the control of the airport sponsor.

30. Civil Rights.

It will promptly take any measures necessary to ensure that no person in the United States shall, on the grounds of race, color, and national origin (including limited English proficiency) in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4); creed and sex (including sexual orientation and gender identity) per 49 U.S.C. § 47123 and related requirements; age per the Age Discrimination Act of 1975 and related requirements; or disability per the Americans with Disabilities Act of 1990 and related requirements, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any program and activity conducted with, or benefiting from, funds received from this Grant.

- a. Using the definitions of activity, facility, and program as found and defined in 49 CFR §§ 21.23(b) and 21.23(e), the sponsor will facilitate all programs, operate all facilities, or conduct all programs in compliance with all non-discrimination requirements imposed by or pursuant to these assurances.
- b. Applicability
 1. Programs and Activities. If the sponsor has received a grant (or other federal assistance) for any of the sponsor's program or activities, these requirements extend to all of the sponsor's programs and activities.
 2. Facilities. Where it receives a grant or other federal financial assistance to construct, expand, renovate, remodel, alter, or acquire a facility, or part of a facility, the assurance extends to the entire facility and facilities operated in connection therewith.
 3. Real Property. Where the sponsor receives a grant or other Federal financial assistance in the form of, or for the acquisition of real property or an interest in real property, the assurance will extend to rights to space on, over, or under such property.
- c. Duration.

The sponsor agrees that it is obligated to this assurance for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the assurance obligates the sponsor, or any transferee for the longer of the following periods:

1. So long as the airport is used as an airport, or for another purpose involving the provision of similar services or benefits; or
 2. So long as the sponsor retains ownership or possession of the property.
- d. Required Solicitation Language. It will include the following notification in all solicitations for bids, Requests For Proposals for work, or material under this Grant Agreement and in all proposals for agreements, including airport concessions, regardless of funding source:

"The ([**Selection Criteria: Sponsor Name**]), in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, [select businesses, or disadvantaged business enterprises or airport concession disadvantaged business enterprises] will be afforded full and fair opportunity to submit bids in response to this invitation and no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in consideration for an award."

- e. Required Contract Provisions.
 1. It will insert the non-discrimination contract clauses requiring compliance with the acts and regulations relative to non-discrimination in Federally-assisted programs of the Department of Transportation (DOT), and incorporating the acts and regulations into the contracts by reference in every contract or agreement subject to the non-discrimination in Federally-assisted programs of the DOT acts and regulations.

2. It will include a list of the pertinent non-discrimination authorities in every contract that is subject to the non-discrimination acts and regulations.
3. It will insert non-discrimination contract clauses as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a sponsor.
4. It will insert non-discrimination contract clauses prohibiting discrimination on the basis of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability as a covenant running with the land, in any future deeds, leases, license, permits, or similar instruments entered into by the sponsor with other parties:
 - a. For the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
 - b. For the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.
- f. It will provide for such methods of administration for the program as are found by the Secretary to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the acts, the regulations, and this assurance.
- g. It agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the acts, the regulations, and this assurance.

31. Disposal of Land.

- a. For land purchased under a grant for airport noise compatibility purposes, including land serving as a noise buffer, it will dispose of the land, when the land is no longer needed for such purposes, at fair market value, at the earliest practicable time. That portion of the proceeds of such disposition which is proportionate to the United States' share of acquisition of such land will be, at the discretion of the Secretary, (1) reinvested in another project at the airport, or (2) transferred to another eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order:
 1. Reinvestment in an approved noise compatibility project;
 2. Reinvestment in an approved project that is eligible for grant funding under 49 U.S.C. § 47117(e);
 3. Reinvestment in an approved airport development project that is eligible for grant funding under 49 U.S.C. §§ 47114, 47115, or 47117;
 4. Transfer to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport; or
 5. Payment to the Secretary for deposit in the Airport and Airway Trust Fund.

If land acquired under a grant for noise compatibility purposes is leased at fair market value and consistent with noise buffering purposes, the lease will not be considered a disposal of the land. Revenues derived from such a lease may be used for an approved airport development

project that would otherwise be eligible for grant funding or any permitted use of airport revenue.

- b. For land purchased under a grant for airport development purposes (other than noise compatibility), it will, when the land is no longer needed for airport purposes, dispose of such land at fair market value or make available to the Secretary an amount equal to the United States' proportionate share of the fair market value of the land. That portion of the proceeds of such disposition which is proportionate to the United States' share of the cost of acquisition of such land will, upon application to the Secretary, be reinvested or transferred to another eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order:
 - 1. Reinvestment in an approved noise compatibility project;
 - 2. Reinvestment in an approved project that is eligible for grant funding under 49 U.S.C. § 47117(e);
 - 3. Reinvestment in an approved airport development project that is eligible for grant funding under 49 U.S.C. §§ 47114, 47115, or 47117;
 - 4. Transfer to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport; or
 - 5. Payment to the Secretary for deposit in the Airport and Airway Trust Fund.
- c. Land shall be considered to be needed for airport purposes under this assurance if (1) it may be needed for aeronautical purposes (including runway protection zones) or serve as noise buffer land, and (2) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport. Further, land purchased with a grant received by an airport operator or owner before December 31, 1987, will be considered to be needed for airport purposes if the Secretary or Federal agency making such grant before December 31, 1987, was notified by the operator or owner of the uses of such land, did not object to such use, and the land continues to be used for that purpose, such use having commenced no later than December 15, 1989.
- d. Disposition of such land under (a), (b), or (c) will be subject to the retention or reservation of any interest or right therein necessary to ensure that such land will only be used for purposes which are compatible with noise levels associated with operation of the airport.

32. Engineering and Design Services.

If any phase of such project has received Federal funds under Chapter 471 subchapter 1 of Title 49 U.S.C., it will award each contract, or sub-contract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping or related services in the same manner as a contract for architectural and engineering services is negotiated under Chapter 11 of Title 40 U.S.C., or an equivalent qualifications-based requirement prescribed for or by the sponsor of the airport.

33. Foreign Market Restrictions.

It will not allow funds provided under this Grant to be used to fund any project which uses any product or service of a foreign country during the period in which such foreign country is listed by

the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

34. Policies, Standards, and Specifications.

It will carry out any project funded under an Airport Improvement Program Grant in accordance with policies, standards, and specifications approved by the Secretary including, but not limited to, current FAA Advisory Circulars (<https://www.faa.gov/airports/aip/media/aip-pfc-checklist.pdf>) for AIP projects as of [Selection Criteria: Project Application Date].

35. Relocation and Real Property Acquisition.

- a. It will be guided in acquiring real property, to the greatest extent practicable under State law, by the land acquisition policies in Subpart B of 49 CFR Part 24 and will pay or reimburse property owners for necessary expenses as specified in Subpart B.
- b. It will provide a relocation assistance program offering the services described in Subpart C of 49 CFR Part 24 and fair and reasonable relocation payments and assistance to displaced persons as required in Subpart D and E of 49 CFR Part 24.
- c. It will make available within a reasonable period of time prior to displacement, comparable replacement dwellings to displaced persons in accordance with Subpart E of 49 CFR Part 24.

36. Access By Intercity Buses.

The airport owner or operator will permit, to the maximum extent practicable, intercity buses or other modes of transportation to have access to the airport; however, it has no obligation to fund special facilities for intercity buses or for other modes of transportation.

37. Disadvantaged Business Enterprises.

The sponsor shall not discriminate on the basis of race, color, national origin, or sex, in the award and performance of any DOT-assisted contract covered by 49 CFR Part 26, or in the award and performance of any concession activity contract covered by 49 CFR Part 23. In addition, the sponsor shall not discriminate on the basis of race, color, national origin or sex in the administration of its Disadvantaged Business Enterprise (DBE) and Airport Concessions Disadvantaged Business Enterprise (ACDBE) programs or the requirements of 49 CFR Parts 23 and 26. The sponsor shall take all necessary and reasonable steps under 49 CFR Parts 23 and 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts, and/or concession contracts. The sponsor's DBE and ACDBE programs, as required by 49 CFR Parts 26 and 23, and as approved by DOT, are incorporated by reference in this agreement. Implementation of these programs is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the sponsor of its failure to carry out its approved program, the Department may impose sanctions as provided for under Parts 26 and 23 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. § 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. §§ 3801-3809, 3812).

38. Hangar Construction.

If the airport owner or operator and a person who owns an aircraft agree that a hangar is to be constructed at the airport for the aircraft at the aircraft owner's expense, the airport owner or operator will grant to the aircraft owner for the hangar a long term lease that is subject to such terms and conditions on the hangar as the airport owner or operator may impose.

39. Competitive Access.

- a. If the airport owner or operator of a medium or large hub airport (as defined in 49 U.S.C. § 47102) has been unable to accommodate one or more requests by an air carrier for access to gates or other facilities at that airport in order to allow the air carrier to provide service to the airport or to expand service at the airport, the airport owner or operator shall transmit a report to the Secretary that:
 1. Describes the requests;
 2. Provides an explanation as to why the requests could not be accommodated; and
 3. Provides a time frame within which, if any, the airport will be able to accommodate the requests.
- b. Such report shall be due on either February 1 or August 1 of each year if the airport has been unable to accommodate the request(s) in the six month period prior to the applicable due date.

EXHIBIT F

**CERTIFICATION OF COMPLIANCE WITH
ANNUAL IMMIGRATION REPORTING REQUIREMENTS/
NO SANCTUARY POLICY/FEDERAL LAW ENFORCEMENT COOPERATION**

By executing this document, the undersigned duly authorized representative of the Local Governing Body, certifies that the Local Governing Authority:

- 1) has filed a compliant Annual Immigration Compliance Report with the Georgia Department of Audits & Accounts (“GDA&A”) for the preceding calendar year required by O.C.G.A. § 50-36-4(b), or has been issued a written exemption from GDA&A from doing so;
- 2) has not enacted a “Sanctuary Policy” in violation of O.C.G.A. § 36-80-23(b); and,
- 3) is in compliance with O.C.G.A. §§ 35-1-17 *et seq.* regarding its obligation to cooperate with federal immigration enforcement authorities to deter the presence of criminal illegal aliens.

As an ongoing condition to receiving funding from the Georgia Department of Transportation, the Local Governing Body shall continue to remain fully compliant with O.C.G.A. §§ 50-36-4, 36-80-23 and 35-1-17 *et seq.* for the duration of time the subject agreement is in effect.

Signature of Authorized Officer or Agent

Printed Name of Authorized Officer or Agent

Title of Authorized Officer or Agent

Date

Form Date - May 10, 2024

EXHIBIT F

CERTIFICATION REGARDING LOBBYING**Certification for Contracts, Grants, Loans, and Cooperative Agreements**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

APPLICANT'S ORGANIZATION

**THIS CERTIFICATION REGARDING LOBBYING
DOES NOT APPLY TO THIS CONTRACT.**

PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Prefix:

First Name:

Middle Name:

Last Name:

Suffix:

Title:

SIGNATURE:

DATE:

ATTACHMENT 1

Department of Transportation
State of Georgia

JANUARY 16, 2025

SPECIAL PROVISIONS

AIRPORT PROJECT NO. T008978/AP025-9000-52(021) BIBB
CONSTRUCT T-HANGARS, BOX HANGAR, AND EAST DRIVE EXTENSION; RELOCATE VAULT AT THE
MIDDLE GEORGIA REGIONAL AIRPORT IN MACON, GA

S.P. CODE	SPECIAL PROVISIONS DESCRIPTION
108-1-01-SP	Prosecution and Progress
109-1-01-SP	Measurement and Payment

First Use Date 2021 Specifications: April 16, 2021

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

SPECIAL PROVISION

Section 108—Prosecution and Progress

Retain Subsection 108.03 except as modified below:

For this Project, the Progress Schedule required by Subsection 108.03 need not be submitted.

First Use Date 2021 Specifications: April 16, 2021

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
SPECIAL PROVISION**

Section 109—Measurement & Payment

Delete the first sentence of Subsection 109.07.A, paragraph one, and substitute the following:

- A. General: On the tenth day of each calendar month, the total value of Items complete in place will be estimated by the Engineer and certified for payment.

**ATTACHMENT 2
SPECIAL CONDITIONS**

THIS CONTRACT DOES NOT CONTAIN ANY SPECIAL CONDITIONS.



LEGISLATIVE SPONSORS

- | | |
|---|--|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION AUTHORIZING THE MAYOR TO EXECUTE AN AGREEMENT WITH CRISIS LINE & SAFE HOUSE OF CENTRAL GEORGIA, INC. GRANTING AN EMERGENCY SOLUTIONS GRANT, IN THE AMOUNT OF \$42,615.00, TO PROVIDE SHELTER AND COMPREHENSIVE SERVICES TO INDIVIDUALS AND FAMILIES INVOLVED IN DOMESTIC VIOLENCE SITUATIONS; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, the Macon-Bibb County Emergency Solutions Grant program is administered by the Economic and Community Development Department (“ECD”) of the Macon-Bibb County Government and is funded by an Emergency Solutions Grant (“ESG”) applied for by Macon-Bibb County and awarded by the U.S. Department of Housing and Urban Development; and

WHEREAS, Crisis Line & Safe House of Central Georgia, Inc. (“CL&SH”) has applied for ESG funding, in the amount of \$42,615.00 from ECD, in order to provide shelter and services to those involved in domestic violence situations; and

WHEREAS, CL&SH intends to utilize ESG funds to provide emergency shelter and comprehensive services to individuals and families; and

WHEREAS, ECD has determined this to be eligible ESG activity and has selected CL&SH for award of these funds; and

WHEREAS, a copy of the grant agreement has been attached hereto as Exhibit A for review and reference purposes, and is incorporated herein by reference; and

WHEREAS, the Macon-Bibb County Commission desires to provide these ESG funds to this organization as recommended by ECD; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW, THEREFORE, BE IT RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same, that the Mayor is authorized to execute an agreement between Macon-Bibb County and Crisis Line & Safe House of Central Georgia, Inc. for the County to provide ESG funding in the amount of FORTY-TWO THOUSAND SIX HUNDRED FIFTEEN DOLLARS AND 00/100 CENTS (\$42,615.00) to provide shelter and comprehensive services to individuals and families involved in domestic violence situations, as provided in Exhibit A.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it

is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this ____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL) Attest: _____
JANICE S. ROSS, Clerk of the Commission

Q:\RES MACON-BIBB\2025 Miller Authorizing Agreement with Crisis Line and Safe House ESG Funds - \$42,615.00 2-11-25.docx

EXHIBIT A

**AGREEMENT
BETWEEN
MACON-BIBB COUNTY GOVERNMENT
ECONOMIC AND COMMUNITY DEVELOPMENT DEPARTMENT**

AND

**CRISIS LINE & SAFE HOUSE OF CENTRAL GEORGIA, INC.
915 Hill Park, Suite 100C
Macon, GA 31201
478-254-7204**

**PROVIDING FOR
EMERGENCY SOLUTIONS GRANT**

This Agreement ("Agreement") is made and entered into by and between Macon-Bibb County, Georgia ("M-BCG") a political subdivision of the State of Georgia, and **Crisis Line & Safe House of Central Georgia, Inc.**, ("Sub-grantee"). This Agreement shall be in effect on the date it is fully executed by both Parties.

NOW THEREFORE in consideration of the mutual terms and conditions, promises, covenants and payments hereinafter set forth, The M-BCG and Sub-grantee hereby agree as follows:

**ARTICLE I
DEFINITIONS AND IDENTIFICATIONS**

Unless the context otherwise requires, the capitalized terms used herein and not otherwise defined shall have the meaning assigned to them in Article I.

Macon-Bibb County Emergency Solutions Grant (ESG) Program or "Program"

The term "Macon-Bibb County Emergency Solutions Grant (ESG) Program," or "Program" shall mean that the program administered by the Economic and Community Development Department of the Macon-Bibb County Government and funded by an Emergency Solutions Grant applied for by the M-BCG and awarded by HUD as authorized pursuant to Title I of the Housing and Community Development Act of 1974, Public Law 93-383, as amended.

Department

The term "Department" shall mean the Economic and Community Development Department of the M-BCG.

Grantee

The term "Grantee" shall mean the M-BCG as Grantee of an Emergency Solutions Grant awarded by HUD.

HUD

The term "HUD" shall mean the U. S. Department of Housing and Urban Development.

Project

The term "Project" shall mean the project or projects set forth in Article III hereto entitled "Scope of Services and Timetable."

Low- and Moderate-Income Household

The term “Low- and Moderate-Income Household” shall mean a household having an income equal to or less than the Section 8 low-income limit established by HUD.

Low- and Moderate-Income Person

The term “Low- and Moderate-Income Person” shall mean a member of a family having an income equal to or less than the Section 8 low-income limit established by HUD. Unrelated individuals will be considered as one-person families for this purpose.

Household

Household means all the persons who occupy a housing unit. The occupants may be a single family, one person living alone, two or more families living together, or any other related or unrelated person who shares living arrangements.

Duplicated Count

A duplicated count is comprised of several units of service or services provided to one participant.

Unduplicated Count

An unduplicated count is defined as tracking each participant once for the entire program year. No participant is to be counted more than once for reporting purposes within a program year.

At Risk of Homelessness (24 CFR 576.2)

An individual or family who:

- (1) Has an annual income below 30 percent of the median family income for the area, as determined by HUD;
- (2) Does not have sufficient resources or support networks, e.g., family, friends, faith-based or other social networks, immediately available to prevent them from moving to an emergency shelter or another place described in paragraph 1 of this section.
- (3) Meets one of the following conditions:
 - Has moved 2 or more times due to economic reasons during 60 preceding applications for homelessness prevention assistance
 - Is living in the home of another because of economic hardship
 - Has been notified that right to occupy current housing will be terminated within 21 days
 - Lives in a hotel or motel and the costs is not paid by charitable organizations for low-income individuals
 - Lives in a single-room occupancy or efficiency apartment unit in which there resides more than 2 persons or lives in a larger housing unit in which more than 1.5 persons reside per room.
 - Is exiting a publicly funded institution of system of care
 - Lives in housing that has characteristics associated with instability and increased risk of homelessness
- (4) A child or youth who does not qualify as “homeless” under this section, but qualifies under section 387(3) of the Runaway and Homeless Youth Act (42 U.S.C. 5732a(3), etc.
- (5) A child or youth who does not qualify as “homeless” under this section but qualifies as “homeless” under section 725(2) of the McKinney Vento Homeless Assistance Act (42 U.S.C. 11434a(2), and the parent(s) or guardian(s) of that child or youth if living with her or him.

Homeless

- (1) An individual or family who lacks a fixed, regular, and adequate nighttime residence
- (2) An individual or family who will imminently lose their primary nighttime residence, see provisions in (576.2)
- (3) Unaccompanied youth under 25 years of age, or families with children and youth, who do not otherwise qualify as homeless under this definition
- (4) Any individual or family who is fleeing or attempting to flee, domestic violence, dating violence, sexual assault, stalking, or other dangerous or life-threatening conditions that relate to violence against the individual or family member making them afraid to return to their primary nighttime residence.

ARTICLE II **PREAMBLE**

In order to establish the background, context, and frame of reference for this Agreement and to manifest the objectives and the intentions of the respective parties herein, the following statements, representations and explanations are set forth. Such statements, representations, and explanations shall be accepted as predicates for the undertakings and commitments included within the provisions, which follow and may be relied upon by the parties as essential elements of the mutual considerations upon which this Agreement is based.

Title I of the Housing and Community Development Act of 1974 P.L. 93-383 (hereinafter the “Act”) consolidated several existing programs for community development into a single program of Emergency Solutions Grant (herein after “ESG”) for the purpose of allowing local discretion for the determination of needs and priorities of community development. The citizens of Macon-Bibb through citizen participation workshops, the Mayor, and The M-BCG Commission determined the need and priorities of community development in the M-BCG.

Pursuant to HUD regulations at 24 CFR 576 certain projects were included in the M-BCG’s ESG submission to HUD, referred to as the Annual Plan. The M-BCG determined that the projects included in the Annual Plan addressed of the following ESG program components:

- a) Street Outreach
- b) Emergency Shelter
- c) Homelessness Prevention
- d) Rapid Re-housing
- e) Homeless Management Information System (HMIS)

M-BCG has determined that ESG assistance can be provided for Homelessness Prevention, Street Outreach, Emergency Shelter, and/or Rapid Re-housing components.

Under the Rules and Regulations of HUD, the M-BCG is the administrator for the Program and is mandated to comply with various statutes, rules, and regulations of the United States, as they pertain to the allocation and expenditure of funds as well as protecting the interest of certain classes of individuals who reside within Macon-Bibb County.

The M-BCG is desirous of disbursing the funds to the Sub-grantee for use in the Project. However, as administrator for the Program, the M-BCG desires to obtain assurance from the Sub-grantee, and Sub-grantee so assures the M-BCG, that the Sub-grantee will comply with all applicable statutes, rules and

regulations of the United States, the State of Georgia, and/or the M-BCG relating to the Project and the Program, as a condition precedent to the release of such funds to the Sub-grantee.

ARTICLE III **UNIFORM GUIDANCE INFORMATION**

Macon-Bibb County will use the following information to provide a reference to the PY24 (September 25, 2024, thru December 23, 2025) sub-award contract to the aforementioned agency regarding new elements required for disclosure by the U.S. Office of Management and Budget (OMB) presented in the Omni-Circular. The update known as the Uniform Guidance; 2 CFR 200.331, provides certain elements to be included in contracts for recipients of federal grant awards acting as pass-through entities.

Federal Award:

Emergency Solutions Grant

Subrecipient Name:

Crisis Line & Safe House of Central Georgia, Inc

Agency Unique Entity Identification (UEI):

L2N8CXVX798

Federal Award Identification Number:

E-24-MC-13-0005

Federal Award Date:

September 25, 2024

Subaward period of performance start and end date:

September 25, 2024, thru December 23, 2025

Federal Funds Obligated:

\$42,615.00

Project Description

To provide shelter services to individuals/families involved in domestic violence within a 12-month period, along with comprehensive services.

Federal Awarding Agency/Pass-Through Entity:

Housing and Urban Development (Federal)

Macon-Bibb County, Economic, and Community Development Department (Pass through entity)

688 Walnut Street, Suite 101

Macon, GA 31217

CFDA Name and Number:

Emergency Solutions Grants; 14.231

Research and Development:

No

Provision:

OMB OMNI Circular Subpart E-Cost principles provide for consistent and transparent treatment of cost both direct and indirect. Indirect costs according to CFR 2A Part 200.414 are classified into two broad categories of: Facilities and Administration. "Facilities" is defined as depreciation on buildings, equipment, and capital improvement, interest on debt associated with certain buildings, equipment, and capital improvements, and operations and maintenance expenses. "Administration" is defined as general administration and general expenses such as the director's office, accounting, personnel, and all other types of expenditures not listed specifically under one of the subcategories of "Facilities".

Pursuant to HUD regulations, Macon-Bibb County Government recognizes an approved Federal Government, or, if no such rate exists, either a rate negotiated between the pass-through entity and the subrecipient (in compliance with this part), or a 10% de minimis indirect cost rate.

ARTICLE IV **PROJECT**

The M-BCG agrees to reimburse the Sub-grantee in an amount not to exceed **FORTY-TWO THOUSAND SIX HUNDRED FIFTEEN DOLLARS AND 00/100 CENTS (\$42,615.00)** (hereinafter the "Grant") to implement the following project (s): **"Crisis Line and Safe House" ESG PY 2024 program.** To provide shelter services to individuals/families involved in domestic violence within 12 months, along with comprehensive services.

ARTICLE V **NOTICES**

Sub-grantee and the M-BCG agree that all notices required by this Agreement shall be in writing and delivered via mail (postage prepaid), commercial courier, or personal delivery or sent by facsimile or other electronic means. Any notice delivered or sent as aforesaid shall be effective on the date of delivery or sending. All notices and other written communications under this Agreement shall be addressed to the individuals in the capacities indicated below unless otherwise modified by subsequent written notice.

Communication and details concerning this contract shall be directed to the following contract representatives:

If to M-BCG: Macon-Bibb County Consolidated Government
Attention: Lester M. Miller, Mayor
Government Center
700 Poplar Street
Macon, Georgia 31201

With copy to: Economic and Community Development Department
Attention: Wanzina Jackson, Director
688 Walnut Street, Suite 101
Macon, Georgia 31201
Phone: 478-751-7190
Facsimile: 478-910-2347

If to Sub-grantee: Crisis Line and Safe House
Attention: Jamie Bormann, Executive Director
915 Hill Park
Macon, GA 31201
478-745-9292

ARTICLE VI **GENERAL CONDITIONS**

A. General Compliance

The Sub-grantee agrees to comply with the requirements of Title 24 of the Code of Federal Regulations, Part 576 (the U.S. Housing and Urban Development regulations concerning Emergency Solutions

Grants (ESG)) except that (1) the Sub-grantee does not assume the M-BCG's environmental responsibilities and (2) the Sub-grantee does not assume the M-BCG's responsibility for initiating the review process. The Sub-grantee also agrees to comply with all other applicable Federal, state, and local laws, regulations, and policies governing the funds provided under this contract. The Sub-grantee further agrees to utilize funds available under this Agreement to supplement rather than supplant funds otherwise available.

B. Independent Contractor

Nothing contained in this Agreement is intended to or shall be construed in any manner, as creating or establishing the relationship of employer/employee between the parties. The Sub-grantee shall at all times remain an "independent contractor" with respect to the services to be performed under this Agreement. The M-BCG shall be exempt from payment of all Unemployment Compensation, FICA, retirement, life and/or medical insurance, and Workers' Compensation Insurance, as the Sub-grantee is an independent contractor.

C. Hold Harmless

The Sub-grantee shall hold harmless, defend, and indemnify the M-BCG from any and all claims, actions, suits, charges, and judgments whatsoever that arise out of the Sub-grantee's performance or nonperformance of the services or subject matter called for in this Agreement.

D. Workers' Compensation

The Sub-grantee shall provide Workers' Compensation Insurance coverage for all of its employees involved in the performance of this Agreement.

E. Insurance & Bonding

The Sub-grantee shall carry sufficient insurance coverage to protect contract assets from loss due to theft, fraud and/or undue physical damage, and as a minimum shall purchase a blanket fidelity bond covering all employees in an amount equal to cash advances from the M-BCG.

The Sub-grantee shall comply with the bonding and insurance requirements of 2 CFR Part 200 or 2 CFR Part 200.325 and 2 CFR Part 200, Subpart D, Bonding and Insurance.

F. The Macon-Bibb County Government's Recognition

The Sub-grantee shall ensure recognition of the role of the M-BCG in providing services through this Agreement. All activities, facilities, and items utilized pursuant to this Agreement shall be prominently labeled as funding sources. In addition, the Sub-grantee will include a reference to the support provided herein in all publications made possible with funds made available under this Agreement.

G. Amendments

The M-BCG or Sub-grantee may amend this Agreement at any time provided that such amendments make specific reference to this Agreement, and are executed in writing, signed by a duly authorized representative of each organization, and approved by the M-BCG's governing body only if such changes

increase in the grant amount set forth in Section 3.1. Such amendments shall not invalidate this Agreement, nor relieve or release the M-BCG or Sub-grantee from its obligations under this Agreement.

It is further understood that the M-BCG, as Grantee, is responsible to HUD for the administration of funds and may consider and act upon reprogramming recommendations as proposed by its Sub-grantee. In the event that the M-BCG approves any modification, amendment, or alteration to the funding allocation, the Sub-grantee shall be notified pursuant to Article IV and such notification shall constitute an official amendment to this Agreement.

It is further agreed that the Sub-grantee will submit to the M-BCG within thirty- (30) days of the completion of each Project a complete financial accounting of all its project activities.

The Department's Director shall be authorized to approve line-item changes to the Sub-grantee's budget as long as such changes do not increase the grant amount set forth in Section 3.1.

The M-BCG may, in its discretion, amend this Agreement to conform with Federal, state, or local governmental guidelines, policies, and available funding amounts, or for other reasons. If such amendments result in a change in the funding, the scope of services, or a schedule of the activities to be undertaken as part of this Agreement, such modifications will be incorporated only by written amendment signed by both the M-BCG and Sub-grantee.

H. Suspension or Termination

In accordance with 2 CFR Part 200.338, the M-BCG may suspend or terminate this Agreement if the Sub-grantee materially fails to comply with any terms of this Agreement, which include (but are not limited to) the following:

- (a). Failure to comply with any of the rules, regulations, or provisions referred to herein, or such statutes, regulations, executive orders, and HUD guidelines, policies, or directives as may become applicable at any time;
- (b). Failure, for any reason, of the Sub-grantee to fulfill in a timely and proper manner its obligations under this Agreement;
- (c). Ineffective or improper use of funds provided under this Agreement; or
- (d). Submission by the Sub-grantee to the M-BCG reports that are incorrect or incomplete in any material respect.

In accordance with 2 CFR Part 200.339, this Agreement may also be terminated for convenience by either the M-BCG or the Sub-grantee, in whole or in part, by setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. However, if in the case of a partial termination, the M-BCG determines that the remaining portion of the award will not accomplish the purpose for which the award was made, the M-BCG may terminate the award in its entirety.

ARTICLE VII

ADMINISTRATIVE REQUIREMENTS

A. Financial Management

1. Accounting Standards

The Sub-grantee agrees to comply with 2 CFR Part 200.302-303 and agrees to adhere to the accounting principles and procedures required therein, utilize adequate internal controls, and maintain necessary source documentation for all costs incurred.

2. Cost Principles

The Sub-grantee shall administer its program in conformance with OMB 2 CFR Part 200(Subpart E), "Cost-Principle Organizations." These principles shall be applied for all costs incurred whether charged on a direct basis.

(a). Sub-grantee gives the M-BCG, HUD, and the Comptroller General, through any authorized representatives, access to and the right to examine all records, books, papers, or documents relating to the Project.

(b). Sub-grantee agrees to maintain books, records, and documents in accordance with generally accepted accounting procedures and practices that sufficiently and properly reflect all expenditures of Grant funds provided by the M-BCG under this Agreement.

(c). All Grant funds disbursed through an Emergency Solutions Grant shall be used only for eligible activities specifically outlined in this Agreement. The Sub-grantee shall comply with any conditions and timetables set forth in this Agreement. In the event, that the Sub-grantee does not comply with the conditions and timetables, or if the Sub-grantee ceases to exist or provide the services for which the Grant was made, the Sub-grantee will not carry out another ESG eligible project, the Sub-grantee shall be in default. In the event of default, the M-BCG may exercise any rights or remedies provided in this Agreement or in that security agreement executed simultaneously herewith.

B. Documentation and Recordkeeping

1. Records to be Maintained

The Sub-grantee shall maintain all records required by the Federal regulations specified in 24 CFR 576.500 and 578.103 that are pertinent to the activities to be funded under this Agreement. Such records shall include but not be limited to:

- (a). Records providing a full description of each activity undertaken;
- (b). Records demonstrating that each activity undertaken meets the components of the ESG program;
- (c). Records required to determine the eligibility of activities;
- (d). Records documenting compliance with the homeless definition of the ESG program;
- (e). Financial records as required by 24 CFR 570.502, and 2 CFR Part 200.302 to 2 CFR

200 Subpart F; and

(f). Other records are necessary to document compliance with 24 CFR Part 576.

2. Retention

The Sub-grantee shall retain all financial records, supporting documents, statistical records, and all other records pertinent to the Agreement for a period of five (5) years. The retention period begins on the date of the submission of the M-BCG's annual performance and evaluation report to HUD in which the activities assisted under the Agreement are reported on for the final time. Notwithstanding the above, if there is litigation, claims, audits, negotiations, or other actions that involve any of the records cited and that have started before the expiration of the five-year period, then such records must be retained until completion of the actions and resolution of all issues, or the expiration of the five-year period, whichever occurs later.

3. Client Data

The Sub-grantee shall maintain client data demonstrating client eligibility for services provided. Such data shall include, but not be limited to, client name, address, income level or other basis for determining eligibility, and description of service provided. Such information shall be made available to the M-BCG monitors or their designees for review upon request.

4. Disclosure

The Sub-grantee understands that client information collected under this contract is private and the use or disclosure of such information, when not directly connected with the administration of the M-BCG's or Sub-grantee's responsibilities with respect to services provided under this contract, is prohibited unless written consent is obtained from such person receiving service and, in the case of a minor, that of a responsible parent/guardian.

5. Close-outs

The Sub-grantee's obligation to the M-BCG shall not end until all closeout requirements are completed. Activities during this closeout period shall include but are not limited to: making final payments, disposing of program assets (including the return of all unused materials, equipment, unspent cash advances, program income balances, and accounts receivable to the M-BCG), and determining the custodianship of records. Notwithstanding the foregoing statement, the terms of this Agreement shall remain in effect during any period that the Sub-grantee has control over ESG funds, including program income.

Any Grant funds remaining at the end of the contract period shall be returned to the M-BCG, and the M-BCG may in its discretion reprogram the funds to another ESG-eligible project.

6. Audits & Inspections

All Sub-grantee records with respect to any matters covered by this Agreement shall be made available to the M-BCG, HUD, and the Comptroller General of the United States or any of their authorized representatives, at any time during normal business hours, as often as deemed

necessary, to audit, examine, and make excerpts or transcripts of all relevant data. Any deficiencies noted in audit reports must be fully cleared by the Sub-grantee within 30 days after receipt by the Sub-grantee. Failure of the Sub-grantee to comply with the above audit requirements will constitute a violation of this contract and may result in the withholding of future payments. The Sub-grantee hereby agrees to have an annual agency audit conducted in accordance with current M-BCG policy concerning Sub-grantee audits and 2 CFR Part 200, Subpart F-Uniform Guidance, as applicable.

C. Reporting and Payment Procedures

1. Program Income

The Sub-grantee shall report “monthly” all program income (as defined at 24 CFR 570.500(a)) generated by activities carried out with ESG funds made available under this contract. The use of program income by the Sub-grantee shall comply with the requirements set forth at 24 CFR 570.504. By way of further limitations, the Sub-grantee may use each income during the contract period for activities permitted under this contract and shall reduce requests for additional funds by the amount of any such program income balances on hand. All unexpended program income shall be returned to the M-BCG at the end of the contract period. Any interest earned on cash advances from the U.S. Treasury and from funds held in a revolving fund account is not program income and shall be remitted promptly to the M-BCG.

2. Invoicing and Payment Procedures

1. In order to obtain reimbursement from the M-BCG in connection with the Project, the Sub-grantee shall provide the following information:

(a). Sub-grantee shall submit monthly reports for the Project in the form attached hereto as Exhibit "C" and Exhibit “C, part II,” detailing the project accomplishments for the reporting period, and the number of participants broken down by income, ethnicity, race, sex, disability, and female head of household. In addition, for each Program participant, once, and once only during the term of this contract, the Sub-grantee shall complete a Participant Eligibility report in the form attached hereto as Exhibit “B” and shall submit such forms with its monthly progress report.

(b). The Sub-grantee shall submit reimbursement requests in the form attached hereto as Exhibit “D” detailing the amount of funds expended.

(c). Time sheets shall be submitted as backup documentation for salary reimbursement.

(d). Request for reimbursement by the Sub-grantee shall be accompanied by invoices, canceled checks, receipts, or other documentation evidencing funds expended by the Sub-grantee.

(e). The M-BCG agrees to reimburse costs allowable under Federal, State, and Local guidelines.

2. Upon receiving the invoices, reports, and other material, the Department shall audit such documentation to determine whether the items invoiced are eligible for reimbursement under applicable Federal, State, and local laws and regulations.

3. The Department shall authorize the M-BCG's Finance Department to reimburse the Sub-grantee for all costs it determines are eligible for reimbursement, pursuant to the audit.

4. The M-BCG will pay to the Sub-grantee funds available under this Agreement based upon information submitted by the Sub-grantee and consistent with any approved budget and the M-BCG policy concerning payments. Reimbursements will be made for eligible expenses actually incurred by the Sub-grantee. Payments will be adjusted by the M-BCG in accordance with the advance fund and program income balances available in Sub-grantee accounts. In addition, the M-BCG reserves the right to liquidate funds available under this contract for costs incurred by the M-BCG on behalf of the Sub-grantee.

3. Progress Reports

The Sub-grantee shall submit monthly Progress Reports to the M-BCG in the format and content provided as required by the M-BCG by the 10th of each following month, or as agreed upon electronically or in writing by the department and Sub-grantee. Additions to or updated versions of these and other required forms may be provided to the Sub-grantee by the department via email or in hard copy throughout the year, within reason. The department will give Sub-grantees advance notice of any significant changes in documentation or reporting requirements.

D. Procurement

1. Compliance

The Sub-grantee shall comply with the current M-BCG policy concerning the purchase of equipment and shall maintain inventory records of all non-expendable personal property as defined by such policy as may be procured with funds provided herein. All program assets (unexpended program income, property, equipment, etc.) shall revert to the M-BCG upon termination of this Agreement.

(a). All procurement transactions regardless of whether negotiated or advertised and without regard to the dollar value, should be conducted in a manner so as to provide maximum open free competition consistent with the Cost Principles for Non-Profit Organizations. See Uniform Guidance, 2 CFR Part 200 and 215. The M-BCG will provide copies to the Sub-grantee.

(b). Sub-grantee shall make positive efforts to utilize small business and minority-owned business sources, as well as women-owned businesses, for supplies and services.

2. OMB Standards

Unless specified otherwise within this agreement, the Sub-grantee shall procure all materials, property, or services in accordance with the requirements of 2 CFR Part 200, Subpart D.

3. Travel

The Sub-grantee shall obtain written approval from the M-BCG for any travel outside of Macon-Bibb County with funds provided under this Agreement.

4. Security

Sub-grantee's obligations under this Agreement shall be secured by a valid first lien security interest in and to all tangible personal property purchased with the Grant funds, as well as all proceeds, products, rents, royalties, issues, and profits thereof. Sub-grantee shall execute a separate security agreement setting forth the rights and remedies of the M-BCG with respect to any tangible personal property purchased with the Grant funds. The occurrence of any event of default hereunder, or the suspension of payment pursuant to Article X hereof shall constitute an event of default under the terms of said security agreement.

E. Use and Reversion of Assets

The use and disposition of real property and equipment under this Agreement shall be in compliance with the requirements of 2 CFR Part 200 and 24 CFR 570.502, 507.503, and 570.504, as applicable, which include but are not limited to the following:

1. The Sub-grantee shall transfer to the M-BCG any ESG funds on hand and any accounts receivable attributable to the use of funds under this Agreement at the time of expiration, cancellation, or termination.
2. In all cases in which equipment acquired, in whole or in part, with funds under this Agreement is sold, the proceeds shall be program income (prorated to reflect the extent to which funds received under this Agreement were used to acquire the equipment). Equipment not needed by the Sub-grantee for activities under this Agreement shall be:
 - (a). Transferred to the M-BCG for the ESG program, or
 - (b). Retained after compensating the M-BCG for an amount equal to the current fair market.

ARTICLE VIII **PERSONNEL & PARTICIPANT CONDITIONS**

A. Civil Rights

1. Compliance

(a). The Sub-grantee agrees to comply with Title VI of the Civil Rights Act of 1964 as amended, Title VIII of the Civil Rights Act of 1968 as amended, Section 104(b), and Section 109 of Title I of the Housing and Community Development Act of 1974 as amended, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Executive Order 11063, and Executive Order 11246 as amended by Executive Orders 11375, 11478, 12107 and 12086.

(b). In compliance with Executive Order 11246 and Section 3 of the 1968 Housing and Urban Development Act regarding Equal Employment Opportunity, the Sub-grantee agrees and understands that no person shall be discriminated against on the grounds of race, color, national origin, age, familial status, handicap or sex. Further assurance is also given that the Sub-grantee will immediately take any measures necessary to effectuate this policy. Notice of the policy will

be placed in plain sight at the Project location, for the benefit of interested parties, and all subcontractors will be notified of the policy provisions.

2. Nondiscrimination

The Sub-grantee agrees to comply with the nondiscrimination in employment and contracting opportunities laws, regulations, and executive orders referenced in 24 CFR 576.407, as revised by Executive Order 13279. The applicable non-discrimination provisions in Section 109 of the Housing and Community Development Act of 1974 (HCDA) are still applicable.

3. Section 504

The Sub-grantee agrees to comply with all Federal regulations issued pursuant to compliance with Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), which prohibits discrimination against individuals with disabilities or handicaps in any Federally assisted program. The M-BCG shall provide the Sub-grantee with any guidelines necessary for compliance with that portion of the regulations in force during the term of this Agreement.

B. Affirmative Action

1. Approved Plan

The Sub-grantee agrees that it shall be committed to carry out pursuant to the M-BCG's specifications an Affirmative Action Program in keeping with the principles as provided in President's Executive Order 11246 of September 24, 1966. The M-BCG shall provide Affirmative Action guidelines to the Sub-grantee to assist in the formulation of such a program. The Sub-grantee shall submit a plan for an Affirmative Action Program for approval prior to the award of funds.

2. Women- and Minority-Owned Businesses (W/MBE)

The Sub-grantee will use its best efforts to afford small businesses, minority business enterprises, and women's business enterprises the maximum practicable opportunity to participate in the performance of this contract. As used in this contract, the terms "small business" means a business that meets the criteria set forth in section 3(a) of the Small Business Act, as amended (15 U.S.C. 632), and "minority and women's business enterprise" means a business at least fifty-one (51) percent owned and controlled by minority group members or women. For the purpose of this definition, "minority group members" are Afro-Americans, Spanish-speaking, Spanish-surnamed or Spanish-heritage Americans, Asian Americans, and American Indians. The Sub-grantee may rely on written representations by businesses regarding their status as minority and female business enterprises in lieu of an independent investigation.

3. Access to Records

The Sub-grantee shall furnish and cause each of its own sub-grantees or subcontractors to furnish all information and reports required hereunder and will permit access to its books, records, and accounts by the M-BCG, HUD or its agent, or other authorized Federal officials for purposes of investigation to ascertain compliance with the rules, regulations, and provisions stated herein.

4. Equal Employment Opportunity and Affirmative Action (EEO/AA) Statement

The Sub-grantee will, in all solicitations or advertisements for employees placed by or on behalf of the Sub-grantee; state that it is an Equal Opportunity or Affirmative Action employer.

C. Employment Restrictions

The Sub-grantee is prohibited from using funds provided herein or personnel employed in the administration of the program for: political activities; inherently religious activities; lobbying; political patronage; and nepotism activities.

D. Conduct

1. Assignability

The Sub-grantee shall not assign or transfer any interest in this Agreement without the prior written consent of the M-BCG thereto; provided, however, that claims for money due or to become due to the Sub-grantee from the M-BCG under this contract may be assigned to a bank, trust company, or other financial institution without such approval. Notice of any such assignment or transfer shall be furnished promptly to the M-BCG.

2. Subcontracts

(a). Approvals

The Sub-grantee shall not enter into any subcontracts with any agency or individual in the performance of this contract without the written consent of the M-BCG prior to the execution of such agreement.

(b). Monitoring

The Sub-grantee will monitor all subcontracted services on a regular basis to ensure contract compliance. Results of monitoring efforts shall be summarized in written reports and supported with documented evidence of follow-up actions taken to correct areas of noncompliance.

(c). Content

The Sub-grantee shall cause all of the provisions of this contract in its entirety to be included in and made a part of any subcontract executed in the performance of this Agreement.

(d). Selection Process

The Sub-grantee shall undertake to ensure that all subcontracts left in the performance of this Agreement shall be awarded on a fair and open competition basis in accordance with applicable procurement requirements. Executed copies of all subcontracts shall be forwarded to the M-BCG along with documentation concerning the selection process.

(e). Employee Verification

(1). Compliance with O.C.G.A. Sec. 13-10-91 and Georgia Department of Labor Rule 300.10.1.02, regarding verification of new employee information, is a condition of this Agreement. In connection therewith and as a condition of the M-BCG entering into this Agreement, the affidavit attached hereto as Exhibit "E" shall be executed and adhered to by the Sub-grantee.

(2). Compliance with 8 U.S.C. §1621, the Federal Immigration and Nationality Act, and O.C.G.A. §50-36-1, is a condition of this Agreement. In connection therewith and as a condition of the M-BCG entering into this Agreement, the affidavit attached hereto as Exhibit "F" shall be executed and adhered to by the Sub-grantee.

3. Hatch Act

The Sub-grantee agrees that no funds provided, nor personnel employed under this Agreement, shall be in any way or to any extent engaged in the conduct of political activities in violation of Chapter 15 of Title V of the U.S.C.

4. Conflict of Interest

The Sub-grantee agrees to abide by the provisions of 2 CFR Part 200.317-318 and 576.404, which include (but are not limited to) the following:

(a). The Sub-grantee shall maintain a written code or standards of conduct that shall govern the performance of its officers, employees, or agents engaged in the award and administration of contracts supported by Federal funds.

(b). No employee, officer, or agent of the Sub-grantee shall participate in the selection, in award, or administration of, a contract supported by Federal funds if a conflict of interest, real or apparent, would be involved.

(c). No covered persons who exercise or have exercised any functions or responsibilities with respect to ESG-assisted activities, or who are in a position to participate in a decision-making process or gain inside information with regard to such activities, may obtain a financial interest in any contract, or have a financial interest in any contract, subcontract, or agreement with respect to the ESG-assisted activity, or with respect to the proceeds from the ESG-assisted activity, either for themselves or those with whom they have business or immediate family ties, during their tenure or for a period of one (1) year thereafter. For purposes of this paragraph, a "covered person" includes any person who is an employee, agent, consultant, officer, or elected or appointed official of the M-BCG, the Sub-grantee, or any designated public agency.

5. Lobbying

The Sub-grantee hereby certifies that:

(a). No Federal appropriated funds have been paid or will be paid, by or on behalf of it, to any person for influencing or attempting to influence an officer or employee of any agency, a

Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement;

(b). If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, it will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions; and

(c). It will require that the language of paragraph (6) of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all Sub-grantees shall certify and disclose accordingly.

6. Lobbying Certification

This certification is a material representation of the fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S.C. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

7. Copyright

If this contract results in any copyrightable material or inventions, the M-BCG and/or grantor agency reserves the right to royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use and to authorize others to use, the work or materials for governmental purposes.

8. Religious Activities

The Sub-grantee agrees that funds provided under this Agreement will not be utilized for inherently religious activities prohibited by 24 CFR 576.406, such as worship, religious instruction, or proselytization.

ARTICLE IX **SEVERABILITY**

If any provision of this Agreement is held invalid, the remainder of the Agreement shall not be affected thereby, and all other parts of this Agreement shall nevertheless be in full force and effect.

ARTICLE X
SECTION HEADINGS AND SUBHEADINGS

The section headings and subheadings contained in this Agreement are included for convenience only and shall not limit or otherwise affect the terms of this Agreement.

ARTICLE XI
WAIVER

The M-BCG's failure to act with respect to a breach by the Sub-grantee does not waive its right to act with respect to subsequent or similar breaches. The failure of the M-BCG to exercise or enforce any right or provision shall not constitute a waiver of such right or provision.

ARTICLE XII
ENTIRE AGREEMENT

This agreement constitutes the entire agreement between the M-BCG and the Sub-grantee for the use of funds received under this Agreement and it supersedes all prior or contemporaneous communications and proposals, whether electronic, oral, or written between the M-BCG and the Sub-grantee with respect to this Agreement.

ARTICLE XIII
CHOICE OF LAW AND VENUE

This agreement shall be governed by the laws of the State of Georgia, and the parties hereby consent that venue for any dispute arising under this agreement shall be in any court of competent jurisdiction in Bibb County, Georgia.

(Signatures on following page)

SIGNATURE PAGE

IN WITNESS WHEREOF, all parties with the express consent of their governing board and/or Commission have made and executed this Agreement on the respective dates under each signature.

ATTEST:

MACON-BIBB COUNTY

Janice S. Ross, Macon-Bibb County
Clerk of Commission

Lester M. Miller, Mayor

Date

ATTEST:

ECONOMIC AND COMMUNITY
DEVELOPMENT DEPARTMENT

Witness

Wanzina Jackson, Director

Date

ATTEST:

CRISIS LINE AND SAFE HOUSE, INC

Witness

Jamie Bormann, Executive Director

Date

EXHIBIT "A"

SCOPE OF SERVICES AND TIMETABLE

The Sub-grantee will be responsible for administering the Emergency Solutions Grant – **Crisis Line and Safe House (Domestic Violence Shelter, Crisis Line, and Outreach) ESG PY2024 Program** in a manner satisfactory to M-BCG and consistent with any standards required as a condition of providing these funds. Such program will include the following activities eligible under the Emergency Solutions Grant program:

I. SCOPE OF SERVICES

A. Activity

DESCRIPTION OF ACTIVITY

Crisis Line & Safe House shall provide rapid rehousing services to 50 persons/families involved in a domestic violence situation within 12 months, along with 24/7 crisis intervention, safe shelter, comprehensive support, and recovery services for victims of domestic violence and their children, most of whom would otherwise be homeless due to severe poverty and safety issues within their current household.

IMPLEMENTATION PLANS

The agency will provide emergency shelter and supportive services to victims of domestic violence and their children who are considered “Extremely Low-Income Households” and who would otherwise be considered homeless. Both shelter and outreach clients are eligible to apply or be referred for rapid rehousing services. The agency will track income and other demographic data on participants. The initial case plan meeting will be held with all adult shelter residents who are in the shelter for 4+ days, and outreach residents upon receipt of referral. Through ESG funds, the program will service homeless and/ or homeless at-risk victims of domestic violence including emergency shelter, legal advocacy, direct rent and utility assistance to help a victim remain in their current housing and not become homeless, household establishment assistance to those who are homeless, transportation assistance, childcare assistance, and employment assistance. Ongoing comprehensive case management to leverage other community resources as needed for the healing and stabilization of the family would also be available.

DESCRIPTION OF RELEVANT PERSONNEL/ ADMINISTRATIVE PROCESSES

Executive Director: Oversees program; reviews and approves ESG paperwork; responsible for the oversight of the monthly grant reporting and reimbursement requests.

Director of Programs: Provides oversight and support to the shelter manager and ensures a continuation of services to agency clients.

Shelter Manager: Serves as project manager for the ESG grant, oversees daily operations of the shelter, staff, and paperwork completion; assesses clients for program eligibility.

Housing Stability Advocate (partially ESG grant funded): will provide housing and income-focused case management services to program participants. This includes conducting assessments, voucher coordination, developing community partnerships, landlord-tenant mediation, community resource linkage, and assessing clients for program eligibility.

Client Services Manager: serves as the primary case manager for shelter clients and provides support in ensuring a quick transition from shelter living to independent living. This role serves as a supervisor to shelter advocates and will work collaboratively with the Housing Stability Advocate in assessing clients for program eligibility, to enhance current practices so that more victims receive housing services.

B. Program Components

The Sub-grantee certifies that the activity carried out under this Agreement will meet one of the following Emergency Solutions Grant program components: Street Outreach, Emergency Shelter, Homelessness Prevention, or Rapid Re-housing components.

C. Levels of Accomplishment - Goals and Performance Measures

The Subgrantee agrees to provide the following levels of program services:

Activity	Units Per Month	Projected Schedule	Projected Outcome
Hold initial case plan meetings with all adult residents who are in the shelter for 4+ days.	Average 5/month	Sept. 25, 2024- Dec. 23, 2025	To identify residents eligible for rapid rehousing services through the ESG grant.
Hold initial case plan meetings with outreach clients who apply /are referred for rapid rehousing services.	Average 5/month	Sept. 25, 2024- Dec. 23, 2025	To identify residents eligible for rapid rehousing services through the ESG grant.
Hold initial case plan meetings with outreach clients who apply /are referred for rapid rehousing services.	Average 5/month	Sept. 25, 2024- Dec. 23, 2025	To provide rapid rehousing services to 50 persons/families involved in a domestic violence situation within a 12-month period, along with 24/7 crisis intervention, safe shelter, comprehensive support, and recovery services for victims of domestic violence and their children.
Foster collaborative relationships with community partners.	Average 5/month	Sept. 25, 2024- Dec. 23, 2025	To ensure wrap-around services and resource availability remain accessible to clients.
Total Number Served			50 Individuals

SUBGRANTEE is also responsible for submitting to M-BCG, monthly progress reports, timesheets, participant eligibility forms, and any other documentation deemed necessary by the monitoring official during the funding cycle. These records shall be retained for up to four (4) years after the contract expires.

D. Performance Monitoring

The Subgrantee agrees that the Department may carry out periodic monitoring activities as determined necessary by the Department. At a minimum, monitoring shall occur annually, and it may occur more frequently if the Department deems it necessary. The Department will provide the Subgrantee with advance notice in writing prior to any monitoring activities. Such monitoring shall consist of evaluating the Subgrantee's compliance with the terms and conditions of this Agreement and comparing the Subgrantee's projected Project schedule, budget, and output with its actual performance. Unscheduled visits may occur in an effort to observe agency activities and/or programs when deemed necessary. Upon request, the Subgrantee shall furnish the Department, M-BCG, or its designee copies of such records and information as the Department or M-BCG deems necessary. In addition, the Subgrantee shall submit monthly progress reports as required by Section 6-C.3 of this Agreement and shall prepare such other reports as may be required by the Department, M-BCG, and/or HUD. **All monthly reports shall be submitted to the Department no later than the 10th of the following month.**

M-BCG will monitor the performance of the Subgrantee against goals and performance standards as stated above. Substandard performance as determined by M-BCG will constitute noncompliance with this Agreement. If action to correct such substandard performance is not taken by the

Subgrantee within a reasonable period of time after being notified by M-BCG, contract suspension or termination procedures will be initiated.

E. Macon-Bibb County Recognition

The Subgrantee shall ensure recognition of the role of M-BCG in providing services through this Agreement. All activities, facilities, and items utilized pursuant to this Agreement shall be prominently labeled as funding sources. In addition, the Subgrantee will include a reference to the support provided herein in all publications made possible with funds made available under this Agreement.

II. TIME OF PERFORMANCE

The services of the Subgrantee shall start on **September 25, 2024, and end on December 23, 2025**. The term of this Agreement and the provisions herein shall be extended to cover any additional time period during which the Subgrantee remains in control of CDBG funds or other CDBG assets, including program income.

III. BUDGET

<u>Line-Item</u>	<u>Amount</u>
Client Rental Assistance	\$20,000.00
PT Housing Stability Advocate	\$10,000.00
Client Utility Payments	\$ 8,000.00
Client Transportation (Bus Passes)	\$ 500.00
Operating Supplies	\$ 241.00
Indirect Cost	\$ 3,874.00
TOTAL	\$42,615.00

Any amendments to the budget must be in writing and approved by both the M-BCG and the Sub-grantee.

IV. PAYMENT

It is expressly agreed and understood that the total amount to be paid by the Grantee under this Agreement shall not exceed **\$42,615.00.** Drawdowns for the payment of eligible expenses shall be made against the line-item budgets specified in Paragraph III herein and in accordance with performance.

Payments may be contingent upon certification of the Sub-grantee's financial management system in accordance with the standards specified in 2 CFR Part 200, Subpart D, 24 CFR 1.6, 24 CFR Part 121.

Sub-grantee is also responsible for submitting to the M-BCG, monthly progress reports, participant eligibility forms, invoices, and any other documentation deemed necessary by the monitoring official during the funding cycle. These records shall be retained at least four (4) years after the Contract expires.

EXHIBIT "B"
PROGRAM REQUIREMENTS

Sub-grantee shall operate this project funded through the M-BCG's Emergency Solutions Grant Program according to the following guidelines:

1. Accounting and related records of the Sub-grantee shall comprise the following as a minimum:

- a. Voucher System - All supporting documentation, such as purchase orders, invoices, receiving reports, and requisitions.
- b. Books of Original Entry - Cash receipts and disbursements journal, general ledger.
- c. Chart of Accounts - Listing of accounts must be maintained in the accounting system.
- d. Personnel Records - Separate personnel files shall be maintained for each project employee. As a minimum, the file shall contain a resume of the employee, a description of duties assigned, and a record of the date employed, rate of pay at the time of employment, subsequent pay adjustments, and documentation supporting leave taken by the employee.
- e. Attendance Record - Attendance records shall be maintained for all personnel paid with ESG funds. This applies to part-time as well as full-time personnel. In addition to accounting for daily attendance, the type of leave taken (annual, sick, or other), shall be disclosed. Daily attendance records must support budgetary changes for payroll purposes.
- f. Payroll Records - Formal payroll records supporting cash disbursements to employees shall be maintained. Such records shall disclose each employee's name, job title, social security number, date hired, rate of pay, and all required deductions for tax purposes. Timely quarterly payments of taxes withheld from employees for the Federal Government, along with required matching costs, are required. In addition, all charges for payroll purposes shall be in accordance with the budget submitted to the M-BCG.
- g. Checking Accounts - Monthly bank reconciliation shall be conducted by the Sub-grantee. All checks, stubs, etc. shall be pre-numbered and accounted for, including voided checks. Check stubs, canceled checks, and deposit slips must be readily available for audit purposes.
- h. Petty Cash - Sub-grantee is encouraged to use an imprest system and adhere to a monthly, or if necessary, more frequent reimbursement procedure if any ESG funds are used as petty cash.
- i. Purchasing Practices - HUD considers State-purchasing regulations to be an acceptable standard for purchasing practices. Local purchasing practices and other procedures shall prevail unless State and/or Federal practices and procedures are more stringent. Therefore, the Sub-grantee is obligated to conform to the more restrictive practices and procedures. It is recommended that the Sub-grantee use a formal pre-numbered purchase order system where possible and applicable.
- j. Inventories - Sub-grantee is advised to maintain adequate safeguards against loss by theft or physical deterioration of any inventories of office supplies, equipment, or other items purchased with ESG funds.

- k. Property Records - Sub-grantee is required to maintain formal subsidiary records to control all project property and equipment. Such records shall disclose the acquisition and subsequent disposition of all property. An annual inventory should be conducted, and the books shall reflect the actual value of the property on hand at the end of the fiscal year.
2. All project's accounting records and supporting documents shall be maintained for a period of at least four (4) years after termination of the M-BCG's award. The records shall be made available to the M-BCG, HUD, and/or any of their authorized representatives.
3. Sub-grantee should maintain records in an orderly manner, with separate identification for different federal time periods. Records must be protected from fire or other perils, and if stored in a location other than the project site, shall be readily accessible to the M-BCG's staff, HUD officials, and others who may be authorized to examine such records.



LEGISLATIVE SPONSORS

- | | |
|--|---|
| ☒ MAYOR LESTER M. MILLER | ☐ MAYOR PRO TEMPORE SETH CLARK |
| ☐ COMMISSIONER VALERIE WYNN | ☐ COMMISSIONER PAUL BRONSON |
| ☐ COMMISSIONER STANLEY B. STEWART | ☐ COMMISSIONER JOEY HULETT |
| ☐ COMMISSIONER RAYMOND WILDER | ☐ COMMISSIONER BILL HOWELL |
| ☐ COMMISSIONER DONICE BRYANT-CATO | ☐ COMMISSIONER BRENDA LYN BAILEY |
-

A RESOLUTION OF THE MACON-BIBB COUNTY COMMISSION TO AUTHORIZE THE ACCEPTANCE ELEVEN (11) BIKE RACKS AND ELEVEN (11) SIMME SEATS AS A DONATION TO MACON-BIBB COUNTY FROM BIKE WALK MACON, INC., TO BE INSTALLED AT VARIOUS IN DOWNTOWN MACON; AND FOR OTHER LAWFUL PURPOSES.

WHEREAS, Bike Walk Macon, Inc, (“Bike Walk Macon”) is Macon-based non-profit, with the mission to creating a happier, healthier community by promoting safe, connect, and vibrant streets for all in Macon-Bibb County; and

WHEREAS, Bike Walk Macon previously applied for and received a Downtown Challenge Grant in the amount of \$5,000, with no match required, to purchase and install eleven (11) bike racks and eleven (11) sets of bus stop seating known as “Simme seats,” (collectively “transportation improvements”), throughout downtown Macon, with such proposed locations more readily shown on the attain Exhibit “A” attached hereto for review and reference purposes; and

WHEREAS, said transportation improvements and the proposed locations thereof have been reviewed and approved by the Macon-Bibb County Engineering Department and the Parks & Beautification Department; and

WHEREAS, the Macon-Bibb County Commission desires to accept the Bike Walk Macon’s generous donation of the aforesaid transportation improvements in order to encourage the use of and improve the facilities available for residents and visitors utilizing alternative and mass transit options; and

WHEREAS, the Macon-Bibb County Commission finds that this resolution is necessary and proper to promote or protect the safety, health, peace, security, and general welfare of Macon-Bibb County and its inhabitants;

NOW THEREFORE LET IT BE RESOLVED by the Macon-Bibb County Commission, and it is hereby so resolved by the authority of the same that the Macon-Bibb County Commission authorizes the acceptance of the donation of eleven (11) bike racks and eleven (11) Simme Seats, to be installed and maintained by Macon-Bibb County in such locations as may benefit residents and visitors to downtown Macon.

BE IT FURTHER RESOLVED that the Macon-Bibb County Commission directs the Mayor, County Manager, the County Engineer, Parks and Recreation Director, or their designees, to coordinate with Bike Walk Macon to complete the donation and installation of the aforesaid transportation improvements.

BE IT FURTHER RESOLVED that a copy of this Resolution be forwarded by the Clerk of Commission to The Executive Director of Bike Walk Macon, Rachel Umana.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission hereby declares that the foregoing preamble and whereas provisions set forth hereinabove constitute, and shall be considered to be, substantive provisions of this Resolution and are hereby incorporated by reference into this provision.

BE IT FURTHER RESOLVED the Macon-Bibb County Commission grants the Mayor the authority to take any and all further actions necessary to carry out the intents and purposes of this Resolution.

BE IT FURTHER RESOLVED that in the event scrivener's errors shall be discovered in this Resolution after the adoption hereof, the Macon-Bibb County Commission hereby authorizes and directs that each such scrivener's error shall be corrected in all multiple counterparts of this Resolution.

BE IT FURTHER RESOLVED that except as specifically provided herein, any and all resolutions or parts of resolutions in conflict with this Resolution shall be and the same hereby are repealed, and this Resolution shall be in full force and effect from and after its adoption.

BE IT FURTHER RESOLVED that in the event that this Resolution or part thereof is found by any court of competent jurisdiction to be substantively more appropriately denominated an act of ordinance by the Macon-Bibb County Commission, it is the intent of this Commission

that this Resolution or such portion thereof shall be considered to have been adopted as an ordinance of the Macon-Bibb County Commission. Where any law bearing on the subject matter of this Resolution calls for the taking of any legislative action by the governing authority of Macon-Bibb County, and such law specifies for such action to be taken by resolution or by ordinance, it is the intent of this Commission that this Resolution satisfy such requirement, and that this Resolution be construed accordingly. To the extent that this Resolution is construed by any appropriate authority as being substantively an act of ordinance and not an act of resolution, then this Resolution shall operate further to repeal all prior ordinances or parts of ordinances in conflict herewith.

BE IT FURTHER RESOLVED this Resolution shall become effective immediately upon its approval by the Mayor or upon its adoption into law without such approval.

APPROVED AND ADOPTED this _____ day of _____, 2025.

By: _____
LESTER M. MILLER, Mayor

(SEAL)

Attest: _____
JANICE S. ROSS, Clerk of the Commission

Q:\RES MACON-BIBB\2025 Miller Accepting Simme Seats & Bike Racks From BWM 1-28-25.Docx

EXHIBIT A

Bike Rack Locations Submitted by Bike Walk Macon - 10.18.2024

1. First Choice Primary Care - 400 Poplar St
2. Bibb County Transit Authority - Transfer station - 200 Cherry St
3. Cotton Ave Plaza on Cotton Ave
4. Fall Line Brewing Co. - 567 Plum St
5. Tubman Museum - 310 Cherry St
6. Macon Chamber of Commerce - 388 Poplar St *remove big bike rack and replace with small staple rack
7. Coleman Hill - 285 Spring St
8. Tatnall Square Park on Oglethorpe St
9. Bibb County Courthouse - 601 Mulberry St
10. La Bella Morelia - 524 Mulberry St.
11. Hello Boba - 349 Third St.
12. Fresh Produce Records - 567 Cherry St.
13. Bike Tech Macon - move big bike rack from Chamber to this location

1. First Choice Primary Care - 400 Poplar St



2. Bibb County Transit Authority - Transfer station - 200 Cherry St



3. Cotton Ave. Plaza



4. Fall Line Brewing Co. - 567 Plum St



5. Tubman Museum - 310 Cherry St



6. Macon Chamber of Commerce - 388 Poplar St



7. Coleman Hill Park - 285 Spring St



8. Tattnall Square Park



9. Bibb County Courthouse - 601 Mulberry St



10. La Bella Morelia - 524 Mulberry St



11. Hello Boba - 349 3rd St



12. Bike Tech Macon - 909 2nd Street



13. Fresh Produce Records- 567 Cherry St.



The recommendations for the Simme Seat locations are as follows:

1. Main Street at Maynard
2. Monroe Street at Second Ave (Alt: Short Street E)
3. Intersection at Mulberry, Spring and Georgia Ave (in front of the Hay House)
4. Davis Village
5. Third Street at Oglethorpe (around DFACS)
6. Mercer University Dr (received approval from Mercer University)
7. Monroe Street at First Avenue (Booker T. Washington Community Center)
8. Forsyth at College (St Paul Church)
9. Washington Ave at Orange St (Library)
10. Washington Avenue at College Street
11. New Street (former shelter location)
12. Oglethorpe Street at Ross Street

General instructions for Simme seat installations are shown below. Detailed instructions can be found at <https://simmeseat.com/installation/>.

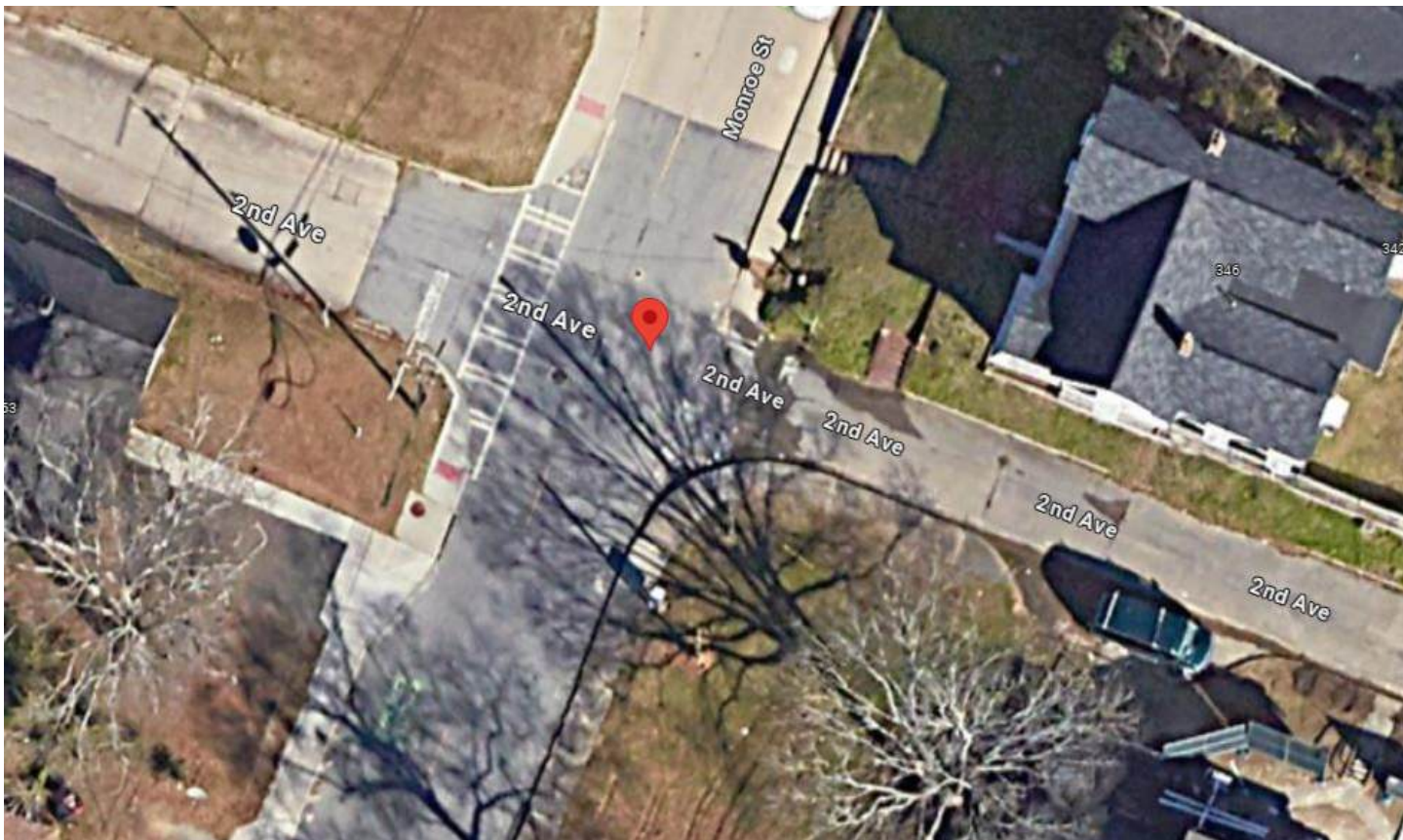
SIMME-SEAT GENERAL INSTALLATION INSTRUCTIONS

1. For Simme-Seat installation on an existing sidewalk or other port and cement concrete paving with a minimum thickness of 4 inches, skip to Step 3.
2. For Simme-Seat installation adjacent to existing concrete or at an isolated position away from concrete paving, (Refer to Figure 1, Foundation Installation Instructions, before proceeding with Step 3).
3. With the Simme-Seat support base plate as template, mark the expansion anchor locations and use an impact drill motor and 7/8-inch masonry bit to drill four 2-1/2 inch deep holes in the concrete sidewalk or prepared foundation.
4. Insert the four provided expansion anchors into the drilled holes and complete their installation according to (Figure 2, Anchor Installation Instructions).
5. Position the Simme-Seat support in place over the expansion anchors, **shims required to level** and secure with four machine bolts and flat washers provided. (Refer to Figure 3, Support Installation)
6. Attach the two seat sections to the Simme-Seat support gusset plates with 3/8-inch bolts and lock nuts provided. (Refer to Figure 4, Seat A Assembly).
7. Insert bus stop sign post into the Simme-Seat base support tube, and mark the sign post at the top of the base support tube and at the locations of the two holes in the support tube where the securing thru-bolt connection will be made.
8. Remove the sign post from the base support tube and drill two 3/8" holes at the marked locations for the thru-bolt connection.
9. Remove the backing paper from the provided 1" wide x 7-1/4" long piece of 3M UHMW polyethylene tape and wrap the tape around the sign post, centered at the previously marked location at the top of the support tube. Install the provided finial on top of the sign post, re-insert the sign post into the base support tube, and secure the sign post in place with the 5/16" x 3-1/2" bolt, flat washer and lock nut provided. (Refer to Figure 5, Sign Post Installation)

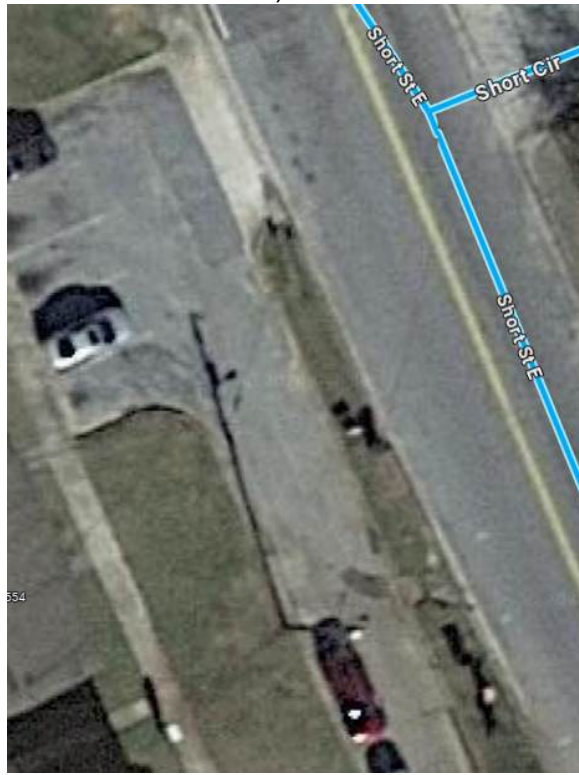
1. Main St @ Maynard



2. Monroe Street at Second Ave



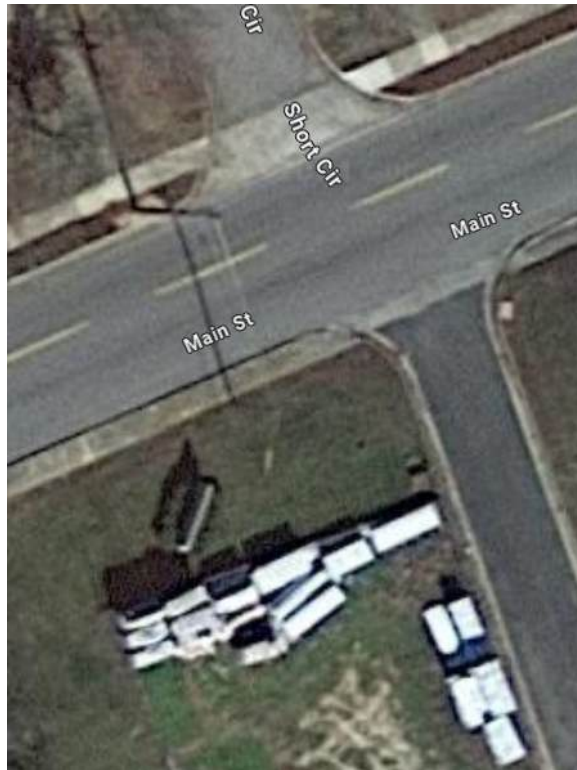
2a. Short Street E (Alternate to Monroe Street at Second Ave)



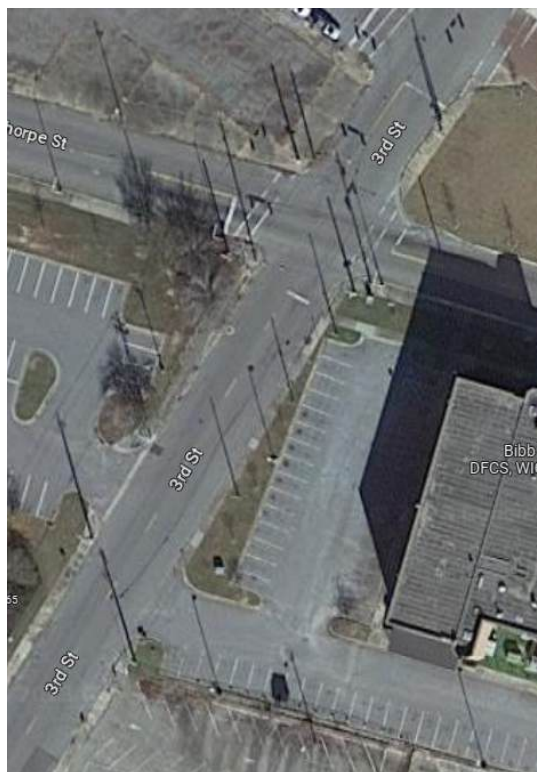
3. Intersection at Mulberry, Spring and Georgia Ave



4. Davis Village



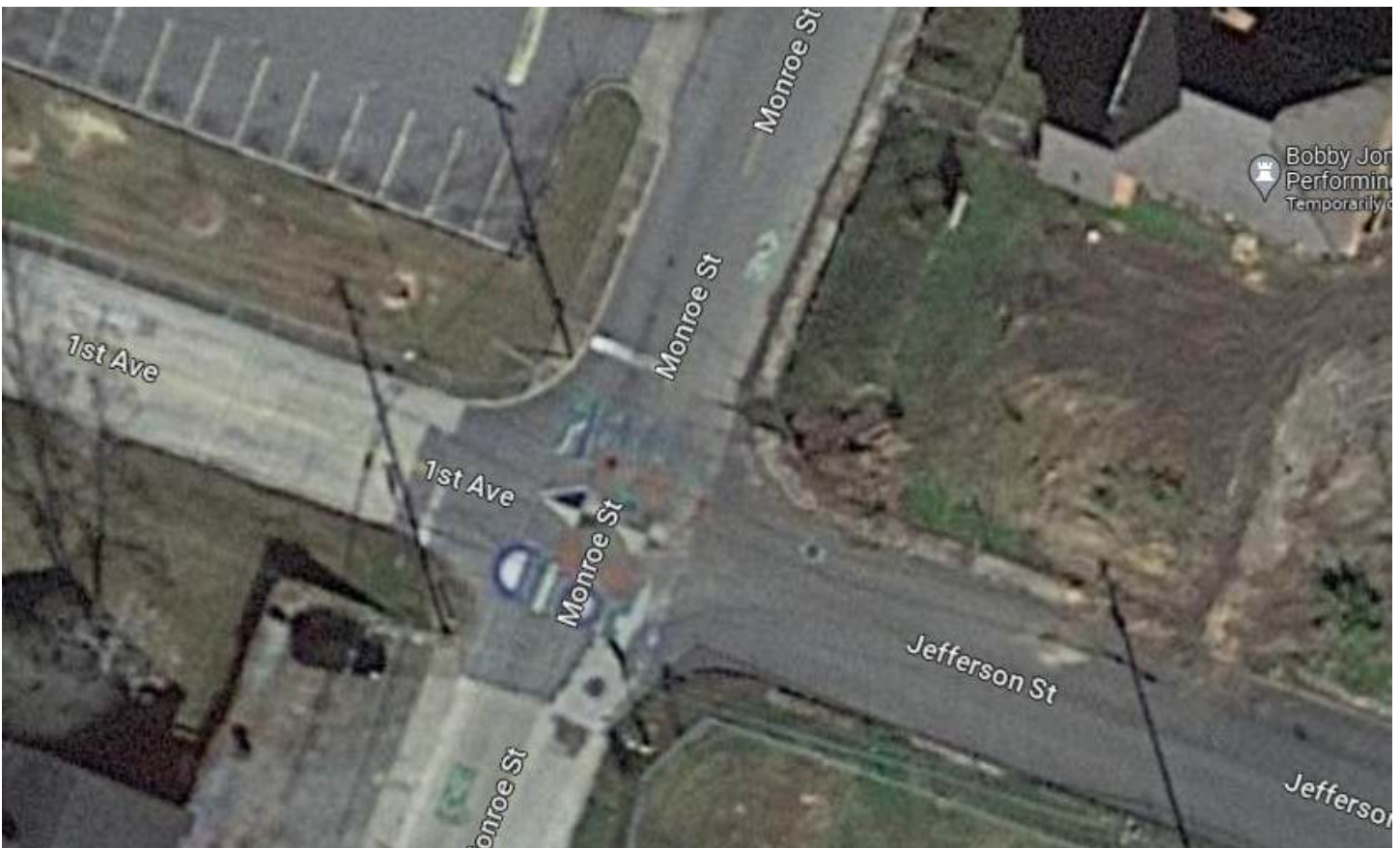
5. Third St at Oglethorpe near DFACS



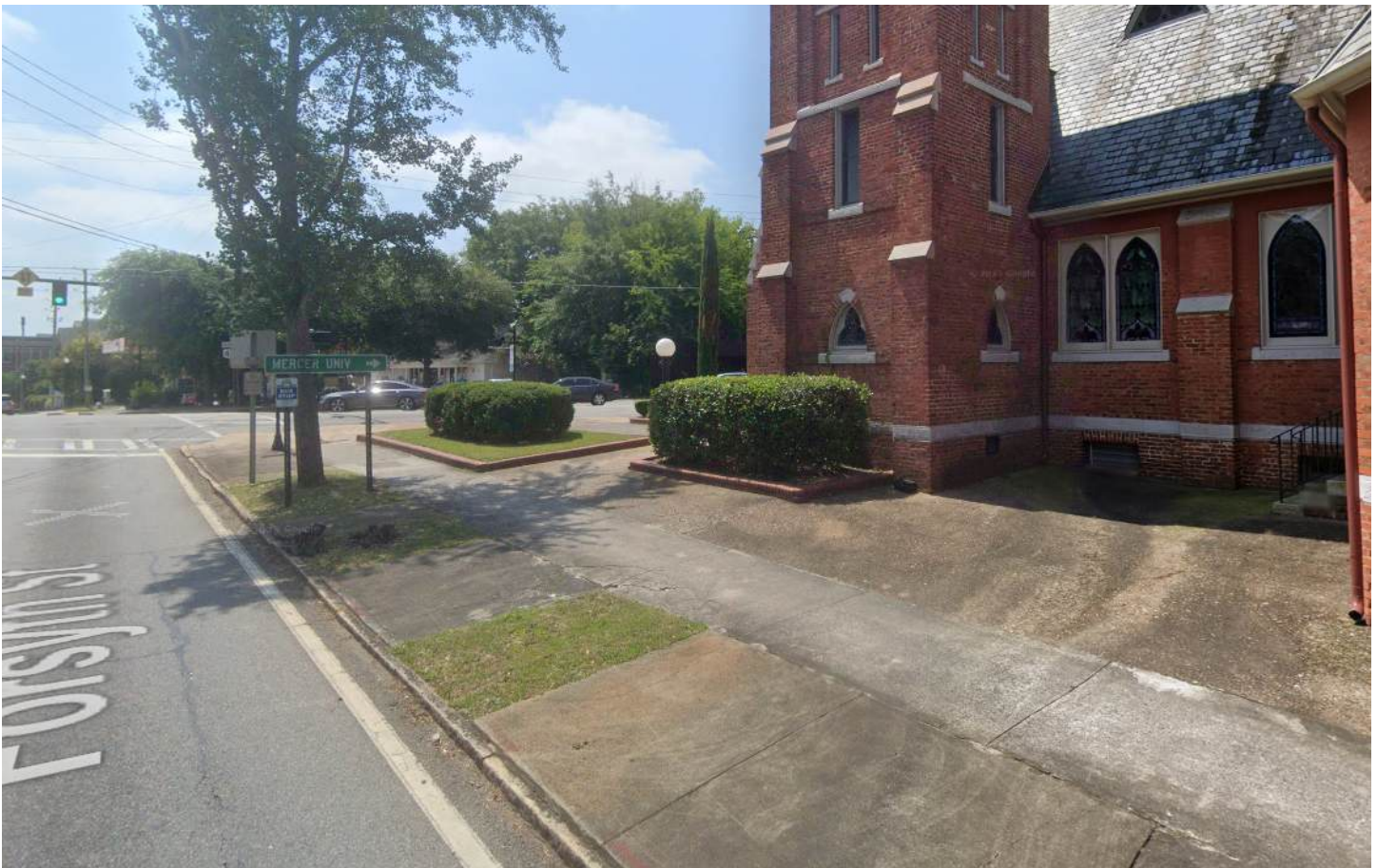
6. Mercer University Drive



7. Monroe Street at First Avenue (Booker T. Washington Community Center)



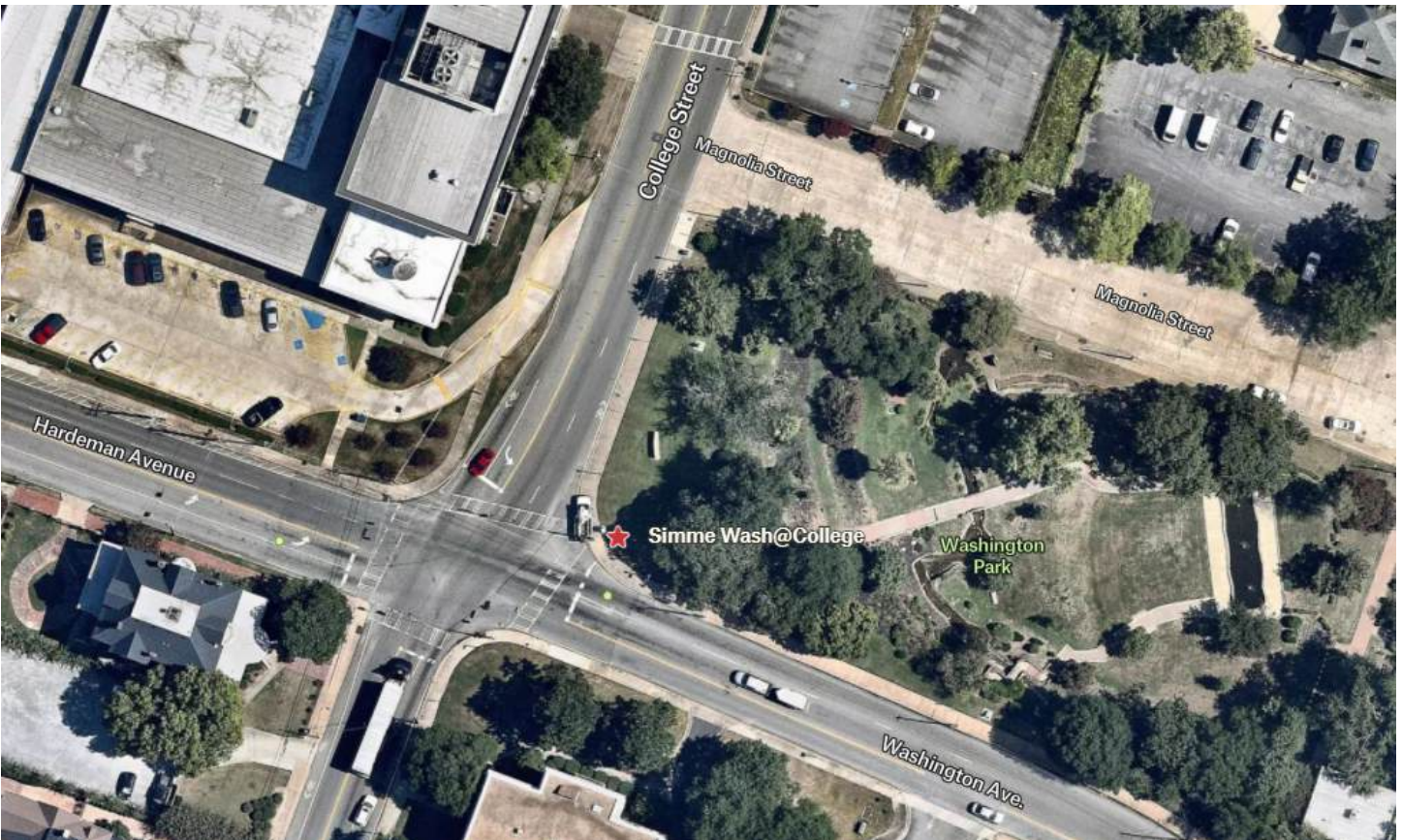
8. Forsyth at College (St Paul Church)



9. Washington Avenue at Orange Street (Library)



10. Washington Avenue at College Street



11. New Street



12. Oglethorpe Street at Ross Street

