allred
ARCHITECTURAL GROUP

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ADDENDUM NO. 1
JANUARY 7, 2026

PASCAGOULA CITY HALL IMPROVEMENTS PROJECT
603 WATTS AVENUE
PASCAGOULA, MISSISSIPPI

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated December 23, 2025. Acknowledge receipt of this Addendum in the space provided on the Proposal Form. Failure to do so may subject Bidder to disqualification.

This Addendum consists of a total of 5 pages and 35 pages of attachments, for a total of 40 pages.

CLARIFICATIONS

1. A Pre-Bid Meeting will be held on site on Monday, January 12th, 2026 @ 1:00pm.

2. All questions (RFI's) on this project should be submitted in writing via email to the Architect, by **COB on Tuesday, January 20th, 2026,** at:
   hoppy@allredarchitects.com and
   mike@allredarchitects.com

CHANGES TO SPECIFICATIONS

1. Section 01.100 – SUMMARY
   a. PART 1 GENERAL, 1.02 WORK COVERED BY THE CONTRACT DOCUMENTS, Paragraph A – Revise to read as follows:
      "Project Identification: Project consists of furnishing all labor, and material and incidentals to complete the Pascagoula City Hall Improvements Project in accordance with the plans and specifications."

2. Section 01.402 – SPECIAL INSPECTIONS AND TESTING
   a. Remove this section in its entirety and update the Index to Specifications accordingly.
   b. See Sheet S101 for Quality Control Special Inspections.

3. Section 04.051 – MASONRY HELICAL TIES

a. Add the attached specification and update the Index to Specifications accordingly.

4. Section 04.200 – UNIT MASONRY
   a. Part 3 EXECUTION, 3.02 LAYING, Paragraph A, 2. – Change the sentence to read, “Lay bricks in 1/3 bond, coursed vertically as dimensioned on the Drawings, unless otherwise indicated.”

5. Section 04.515 – MASONRY TUCK-POINTING
   a. PART 1 GENERAL, 1.01 SUMMARY OF WORK, B. – Revise to read as follows: “B. Contractor shall figure in the contract, 5,000 linear feet for tuck-pointing (placing new mortar in cut out or defective mortar joints) mortar joints on the project. Locations will be as determined by the Architect.”

6. Section 04.720 CAST STONE MASONRY
   a. Add the attached specification and update the Index to Specifications accordingly.

7. Section 04.900 – MASONRY / TRAVERTINE RESTORATION & CLEANING
   a. PART 1 GENERAL, 1.01 SUMMARY OF WORK, A. – Add the following: “2. Scope of work includes all existing and repaired exterior masonry and travertine surfaces.”

8. Section 06.100 – ROUGH CARPENTRY
   a. PART 2 PRODUCTS, 2.03 DOWNSPOUTS. Remove 2.03 Downspouts in its entirety.

9. Section 07.175 – SEALER FOR EXTERIOR MASONRY
   a. PART 1 GENERAL, 1.01 SCOPE, A. Change to read as follows: “ A. Apply masonry sealer to all new and existing exterior masonry walls, stone veneer, and stone parapet cap surfaces.”

10. Section 07.190 – ROOF AND WALL UNDERLAYMENT
    a. Remove this section in its entirety and update the Index to Specifications accordingly.
    b. See Section 07.270 Liquid Applied Membrane.

11. Section 07.600 – FLASHING AND SHEET METAL
    a. PART 2 PRODUCTS, 2.05 EAVE METAL / FASCIA. Add the following: “B. Fascia to be equal to Berridge BR-12 panel. 24 gauge with zinc coat finish.”
    b. PART 2 PRODUCTS, 2.06 GUTTERS AND DOWNSPOUTS. Change to read as follows: “A. Gutters and downspouts shall be fabricated from 24 gauge galvalume. Gutters shall be as sized on the drawings and downspouts shall be 4” round type.”

12. Section 08.311 – ACCESS DOORS AND FRAMES
    a. PART 2 PRODUCTS, 2.01 MANUFACTURERS. Add the following: “D. Rockfon.”
    b. PART 2 PRODUCTS, 2.03 ACCESS PANELS. Add the following: “3. Rockfon Mono Acoustic Inspection Hatch in acoustic treated ceilings. Size to be 600mm x 600mm.”

13. Section 08.411 – ALUMINUM FRAMED ENTRANCES AND STOREFRONTS
    a. Remove this section in its entirety and replace with the attached 08.411-R ALUMINUM FRAMED ENTRANCES AND STOREFRONTS. Update the Index to Specifications accordingly.

14. Section 08.441 – GLAZED ALUMINUM CURTAINWALLS
    a. Remove this section in its entirety and replace with the attached 08.441-R GLAZED ALUMINUM CURTAINWALLS. Update the Index to Specifications accordingly.

15. Section 08.910 – LOUVERS
    a. Remove this section in its entirety and update the Index to Specifications accordingly.

16. Section 09.300 – CERAMIC TILE
    b. PART 2 PRODUCTS, 2.04 ACCESSORIES, B. Change to read as follows: “B. Finishing Strip. 1. At top and outer edges of mosaic tile to gyp wall transition: Schulter FINEC at mitered tile locations and JOLLY at non-mitered locations. Anodized aluminum, sized for each application. Include all corner pieces. 2. Height / Length: as required to suit application.

       C. Cove Profile. 1. All inside corners: Schulter DILEX-EKE, sized for each application, Anodized aluminum. Include all corner pieces. 2. Height / Length: as required to suit application.

       D. Transition Strip: 1. At floor wither tile transitions to different floor type: Schulter RENO-TK at sloped transitions and RENO SCHIENE for same height transitions. Sized for each application.”

17. Section 09.581 – INTEGRATED CEILING ASSEMBLIES
    a. PART 1 GENERAL, 1.02 SUMMARY. Remove 3. in its entirety.
    b. PART 2 PRODUCTS, 2.02 MATERIALS. A. Remove 2. And 3. in their entirety.

18. Section 09.681 – TILE CARPETING
    a. PART 3 EXECUTION, 3.03 INSTALLATION, F. Change to read as follows: “F. Lay carpet tile in vertical ashlar pattern.”

19. Section 10.350 – FLAGPOLE
    a. PART 1 GENERAL, 1.02 SYSTEM DESCRIPTION. Change to read as follows: “A. Type: Equal to Titan Series IWW – Internal with Winch Wire Halyard, Ground set installation by Concord American Flagpole.

       B. Flagpole construction: Alloy 6063-T6 Tapered aluminum tube. Wall thickness to be .250” to increase max wind speed to above 140 mph. Ground sleeve assembly to be 16 gauge galvanized steel tube. Provide and install steel plate welded to the foundation sleeve, steel support plate and lightning spike arrestor.

       C. Exposed Height: 40’ measured from top of base. Set depth: 4’-0”. Total length: 44’-0”. Butt diameter: 8”. Wall Thickness: .250”. Top diameter: 4”. Flagpole sections: 1. Shaft Weight: 260 lbs. Hardware Weight: 32 lbs. Ground Sleeve Weight: 55 lbs.

       D. Hardware: Internal stainless steel winch system, including: heavy-duty revolving truck ball assembly with 1.25 stainless steel spindle, 1/8” stainless steel aircraft cable, locking stainless steel internal winch with removable handle, beaded retainer rings, counterweight, 2” stainless steel snap hooks, 3/8” Q links, and flag arrangement.

       E. Finish to be coated with a high performance, 2 component chemically cured epoxy semigloss primer and finished with an aliphatic urethane gloss enamel designed for maximum glass and color retention.

       F. Warranty: 1 year limited warranty on shaft.

       G. Provide: 6’x10’ outdoor polyester U.S. flag.”

20. Section 10.400 – IDENTIFYING DEVICES
    a. PART 2 PRODUCTS, 2.01 MANUFACTURERS. Change to read as follows: “A. Takeform Architectural Graphics – Fusion, Recked Collection.”
    b. PART 2 PRODUCTS, 2.04 MANUFACTURED UNITS, A. Change to read as follows: “General: Provide ‘Fusion – Recked’ for all sign types as manufactured by Takeform Architectural Graphics (Basis of Design). Face Material: Savannah; Raised Text: Black; Insert Background: White; Insert Text: Raven; Metal Accents: Natural; Font: ADA U.S. 101.”

21. Section 10.535 – OVERHEAD SUPPORTED ALUMINUM CANOPY
    a. Remove this section in its entirety and replace with the attached 10.535 CANTILEVER ALUMINUM CANOPY. Update the Index to Specifications accordingly.

22. Section 11.300 – RESIDENTIAL EQUIPMENT

a. PART 2 PRODUCTS, 2.01 KITCHEN APPLIANCES, B. Remove "(Breakroom 131)" and replace with "(Breakroom 1137 and Kitchen 1098)".

23. Section 12.485 – RUGS AND MATS
    a. PART 2 PRODUCTS, 2.03 SYSTEM DESCRIPTION, B. Change to read as follows: "B. Locations – Provide the following size mats at the following door locations: Doors 105 & 106: 3'-0"W x 6'-0"L. Doors 101 & 103: 3'-0"W x 5'-0"L."

24. Section 12.520 – WINDOW SHADES
    a. PART 2 PRODUCTS, 2.02 MOTORIZED ROLLER SHADE OPERATORS. Remove 2.02 Motorized Roller Shade Operators. All shades are to be manual type.

<u>CHANGES TO DRAWINGS</u>

Added Sheets:

AD1-1 Roof Access Chase
AD1-2 Entry Canopy

End of Addendum #1
(plus 35 pages of attachments)

SECTION 04.051 MASONRY HELICAL TIES

PART 1 — GENERAL

1.01 SECTION INCLUDES

A. This Section pertains to all other Sections of these Specifications that require post-installed helical ties, unless specified otherwise. Requirements pertaining to post-installed helical tie work including, but not limited to, furnishing and installing helical ties and providing all equipment, labor, services, and access to complete the work:
   a. Helical wall ties to connect multiple wythes of masonry or other wall construction together
   b. Helical stitching ties installed in mortar bed joints for crack stabilization

1.02 RELATED DOCUMENTS

A. Division 1: General Requirements
B. Division 4: Masonry

1.03 REFERENCES

Use the most recent edition of the following referenced Standards based on current, jurisdictional Code adoptions.

A. ANSI B212.15 — Cutting Tools — Carbide-tipped Masonry Drills and Blanks for Carbide-tipped Masonry Drills
B. ASTM E3121 — Standard Test Methods for Field Testing of Anchors in Concrete or Masonry
C. CSA A370 — Connectors for Masonry
D. SAE J405 — Chemical Compositions of SAE Wrought Stainless Steels
E. TMS 402/602 — Building Code Requirements and Specification for Masonry Structures
F. 29 CFR, Standard 1926 – Safety and Health Regulations for Construction

1.04 SUBMITTALS AND SUBSTITUTIONS

Submittals and substitutions shall be in accordance with the General Conditions of the Contract Documents, Division 1: General Requirements, and the following procedures.

A. Submittals: Submit product data for proprietary products and materials listed under Part 2 — Products of this Section that includes:
   1. General Product Information
   2. Technical Performance Data
   3. Material Safety Data Sheets (MSDS)
   4. Manufacturer's Published Installation Instructions (MPII)
   5. Results of preconstruction, site-specific, field testing program when required by the Contract Documents or Project exiting conditions.
B. Substitutions
   1. The Contractor shall submit technical performance data and calculations that are prepared & sealed by a registered Design Professional demonstrating that the product substitution is capable of achieving performance values equal to, or better than, the specified product using

appropriate design procedure and/or standard(s) as required by the Contract Documents and applicable Building Code.

2. Calculations shall specify the diameter and embedment depth required of the substituted product as well as the diameter of drill bits and drilling procedures required to drill holes for the installation.
3. The Contractor shall submit results of a preconstruction, site-specific, field testing program for product proposed as substitutes when such field testing is required by the Contract Documents or Project existing conditions.
4. Substitution requests must be accompanied by all Submittal information required of the specified product for which the substitution is proposed.
5. Any increase in costs for such substitution shall be the sole responsibility of the Contractor.

1.05 QUALITY ASSURANCE

A. Installer Qualifications: Installers shall be trained by a qualified, helical tie product manufacturer's representative to assure proper installation.
B. The Installer shall be experienced with the installation of product similar or equal to the type specified, and into the base material required for the Project, or shall otherwise be acceptable to the Owner.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to job site undamaged and in product manufacturer's or distributor's original packaging, complete with installation instructions.
B. Protect and handle materials in accordance with product manufacturer's recommendations to prevent product damage, degradation, or deterioration.

1.07 PROJECT CONDITIONS

A. Contractor shall notify the registered Design Professional of inadequate, deteriorated, poor quality, and/or inappropriate base material conditions prior to commencing the work.
B. The product steel type must provide suitable corrosion resistance for the anticipated service environment following proper installation.
C. Preconstruction, Site-Specific, Field Testing Program
    1. Preconstruction, site-specific, field testing of product may be specified or required when base materials are of unknown quality or poor existing condition to determine specific installation parameters, i.e., drill bit diameter, hole drilling procedures, etc., to optimize product performance.
    2. Results of the preconstruction, site-specific, field testing program shall be documented in a written field test report. The field test report shall include, but not be limited to, the following information: maximum tension performance, tension performance/axial deflection relationship, embedment depth, drill bit size, and rotohammer settings for each test and base material tested.

3. Preconstruction, site-specific, field testing shall conform to ASTM E3121 to the greatest extent possible and shall be conducted by qualified field technicians using calibrated test equipment.

PART 2 — PRODUCTS

2.01 Helical Ties

A. Post-installed helical ties for use in masonry/concrete base materials shall be feature radial fins formed on the steel wire via cold rolling process suitable to support and resist structural demand loading by means of tension, compression or a combination of both.

B. Material: Type 304 or 316 Stainless Steel as specified for the Project conditions.

C. Helical ties shall be installed using the manufacturer's accessories.

D. Unless noted otherwise, Helical Ties shall be Heli-Tie™ products by the Simpson Strong-Tie Company or approved equal. Use Heli-Tie Wall Tie for wall tie applications and Heli-Tie Stitching Tie for crack stitching applications or approved equal.

2.02 Nonshrink Repair Mortar

A. Mortar for use as a system in the stitching tie application shall be cementitious, single-component, fiber-reinforced, polymer-modified, silica fume-enhanced, structural repair mortar with integral corrosion inhibitor.

B. Minimum properties for nonshrink grout or mortar are in the table below. Failure to meet these minimum properties may result in decreased performance.

Compressive Strength – 7 days	4,500 psi (31.1 MPa)	ASTM C109
Compressive Strength – 28 days	6,400 psi (44.2 MPa)	
Tensile Strength – 28 days	310 psi (2.14 MPa)	ASTM C1583
Flexural Strength – 28 days	680 psi (4.69 MPa)	ASTM C348

2.03 Misc. Repair Materials

A. Material used for vertical crack repair in stitching tie application shall be as specified or approved by the registered Design Professional.

B. Material used to conceal horizontal mortar joint in stitching tie application shall be as specified or approved by the registered Design Professional.

2.04 Equipment and tools for installing wall ties

A. Drill bit. Drill bit shall be carbide-tipped and conforming to ANSI B212.15. Diameter shall be as specified in the Contract Documents.

B. Installation Tool. Use installation tool as specified by the helical tie manufacturer. Unless noted otherwise, use Simpson Strong-Tie® Heli-Tie Installation Tool (model HELITOOL37A).

2.05 Equipment and tools for installing stitching ties

A. Rotary grinding wheel or other suitable tools for safely removing mortar in bed joints to the depth specified in the Contract Documents.

PART 3 — EXECUTION

3.01 EXAMINATION

A. Examine supporting base materials and environmental conditions. Do not begin installation until base materials have been properly prepared.

B. Unless otherwise specified, do not drill holes or commence helical wall tie installations in concrete or masonry until the concrete, mortar, or grout base materials have achieved their full design strength.

3.02 INSTALLATION

Installations shall conform to the Manufacturer's Published Installation Instructions (MPII) or to alternative procedures specified in the Contract Documents. Installation procedures specified in the Contract Documents shall supersede procedures in the MPII.

A. For Wall Tie applications

1. Drill all holes for helical ties using carbide-tipped drill bits of the diameter specified in the Contract Documents or otherwise recommended in the MPII. Drill holes with rotohammer setting set as specified in the Contract Documents or otherwise recommended in the MPII. It is suggested to use rotation only mode for soft or hollow materials.
2. Identify position of bed joint reinforcement, reinforcing steel and/or other embedded items prior to drilling holes for ties. Exercise care in drilling to avoid damaging existing reinforcing or embedded items. Notify the registered Design Professional of Record if reinforcing steel or other embedded items are encountered during hole drilling procedures.
3. Drill holes for helical wall ties accurately and squarely without excessive drill bit wobble at locations and spacing specified in the Contract Documents. Drill holes perpendicular to base material, unless otherwise specified.
4. Drill holes continuously and to the specified embedment depth through all facing and back-up base materials to be tied together.
5. Install helical ties into holes predrilled in base materials using the manufacturer's recommended installation tool.
6. Position correct end of helical tie into the manufacturer's installation tool set in an SDS-Plus rotohammer and drive the helical tie into the predrilled hole with the rotohammer set in hammer mode. Drive the helical tie into the base material until the helical tie is countersunk beyond the facing base-material surface as specified or to the depth permitted by the installation tool. Install specified patch / repair material to match existing finish surface material.
7. Where the helical tie manufacturer recommends use of special tools for installation of ties, such tools shall be used, unless otherwise specifically permitted by the registered Design Professional of Record.

B. For Stitching Tie applications

1. Remove bed joint mortar for minimum 20" length on either side of the affected area (crack) to a depth of approximately 1 1/4", or as otherwise specified, with a rotary grinding wheel. Unless specified otherwise on the contract documents, vertical spacing of installation sites should be every fourth course for red brick or every other course for concrete masonry units.
2. Clear bed joint of all loose debris and condition mortar joint and adjacent units to a saturated surface dry moisture condition.
3. Mix nonshrink repair grout or mortar per product instructions and place into the prepared bed joint, filling the void to approximately two-thirds of its depth.
4. Embed the Stitching Tie at one-half the depth of the void. Trowel displaced grout to fully encapsulate the tie.
5. Fill and tool any remaining void of the bed joint with mortar to match existing adjacent mortar.
6. Fill and finish any vertical cracks with approved repair material to conceal repair site.

3.03 FIELD QUALITY CONTROL

A. Special Inspection
   1. When Special Inspection is required under the Contract, the Contractor shall notify the Owner’s selected Special Inspection Agency of the helical tie Installer’s intent to commence work, providing at least 72 hours advanced notice.
   2. The Contractor shall provide the Special Inspector with safe access to the work and a representative from the Contractor shall accompany the Special Inspector at all time during Special Inspection, unless otherwise agreed between the Contractor, Owner, and Special Inspection Agency.

3.04 FIELD TESTING

A. Helical tie installations shall be tested during construction by qualified field technicians acceptable to the Owner and registered Design Professional of Record using properly calibrated, manufacturer-recommended, proprietary testing equipment when such field testing is specified under the Contract.
B. Frequency of helical wall tie testing shall be in accordance with the Contract Documents.
C. Contact manufacturer for additional information related to field testing.

END OF SECTION

SECTION 04.720 CAST STONE

PART 1 GENERAL

1.01 SCOPE

A. All labor, materials and equipment to provide the Cast Stone shown on architectural drawings and as described in this specification.
B. Manufacturer shall furnish and deliver Cast Stone covered by this specification.
C. Setting contractor shall unload, store, furnish all anchors, set and clean Cast Stone.

1.02 QUALITY ASSURANCE

A. Manufacturer: Must have ten (10) years minimum continuous operating experience and have facilities for manufacturing Cast Stone as described herein.
B. Manufacturer: Must be a member of the Cast Stone Institute.
C. Manufacturer: Must have a certified plant.
D. Stone setter: Must have ten (10) years of experience setting cast or natural building stone.
E. Reference Standards: Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified.
   1. Cast Stone Institute Technical Manual 04720-(current edition).
   2. ASTM C 150 - Specification for Portland Cement.
   3. ASTM C 33 - Specification for Concrete Aggregates.
   4. ASTM C 979 - Specification for Pigments for Integrally Colored Concrete.
   5. ASTM C 494 - Specification for Chemical Admixtures for Concrete.
   6. ASTM A 615 - Specification for Deformed and Plain Billet Steel Bars for Concrete Reinforcement.
   7. ASTM C 1194 - Test method for Compressive Strength of Architectural Cast Stone.
   8. ASTM C 1195 - Test method for Absorption of Architectural Cast Stone.
   9. ASTM C 1364 - Standard Specification for Architectural Cast Stone.
   10. ASTM D 2244 - Test Method for Calculation of Color Differences From Instrumentally Measured Color Coordinates.
   11. ASTM C 666 Test Method for Resistance of Concrete to Rapid Freezing and Thawing.
F. Testing: Test three specimens per 500 cubic feet at random from jobsite or from plant production for compressive strength and absorption in accordance with referenced standards.

1.03 SUBMITTALS

A. Submit for approval the following:

1. Samples of the Cast Stone specified which will be representative of the general range of color and finish to be furnished. Submit test results of similar Cast Stone previously made by the manufacturer.
2. Proof of plant certification.
3. List of jobs furnished by the manufacturer, which were similar in scope and at least ten (10) years of age.

B. Shop Drawings: Submit for approval the following:
   1. Copies of shop drawings showing details of the stone to be provided including: profiles, cross-sections, reinforcement, exposed faces, anchoring methods, anchors, annotation of stone types and their location.
   2. Unless otherwise shown on contract drawings:
      a. Provide suitable wash on all coping, and pieces with exposed top surfaces.
      b. Provide drips as needed.

PART 2 PRODUCTS

2.01 MATERIALS

A. Physical properties: Provide the following:
   1. Compressive Strength, ASTM C 1194: 6,500 psi min.
   2. Absorption, ASTM C 1195: 6% max.

B. Raw materials
   1. Portland cement - Type I or III, white and/or grey, ASTM C 150
   2. Coarse aggregates - Granite, quartz or limestone, ASTM C 33
   3. Fine aggregates - Manufactured or natural sands, ASTM C 33
   4. Colors - Inorganic iron oxide pigments, ASTM C 979
   5. Admixtures - ASTM C 494
   6. Water - potable.
   7. Reinforcement - ASTM A 615

2.02 ACCEPTABLE MANUFACTURERS

A. Continental Cast Stone Manufacturing
B. Advanced Cast Stone
C. Building Solutions, Inc./JFC Companies.
D. Bassco Cast Stone
E. Bassco Caststone
F. Approved Equal

(Note: Cast Stone and Architectural Precast Concrete shall be manufactured by the same company to ensure a proper color-match.)

2.03 FABRICATED UNITS (as manufactured by Continental Cast Stone)

A. As indicated on the plans

2.04 FABRICATION METHODS ALLOWED

A. Use Vibrant-Tamp method or machine manufacture using zero slump mixture to achieve desired appearance and physical properties.

2.05 COLOR AND FINISH

A. Exposed surfaces shall exhibit a fine grained texture similar to natural stone. No bugholes or air voids will be permitted. Color to be selected from manufacturer's full color range.

B. Variation
   1. Must match color and finish of approved sample when viewed in direct daylight at a 10 foot distance.
   2. Color variation allowed - 2% hue; 6% lightness, chroma and hue combined.

2.06 REINFORCING

A. New billet steel reinforcing bars - ASTM A 615
   1. Reinforce units when necessary for safe handling and structural stress.
   2. Reinforcement shall be galvanized or epoxy coated when covered with less than 1-1/2" of material. Minimum cover shall be twice the diameter of the bars.
   3. Area of reinforcement in panels greater than 12" wide shall be not less than 1/4 percent of the cross-section area.

2.07 CURING AND FINISHING

A. Cure cast stone components with a direct fired steam generator at a minimum temperature of 105 degrees F (41 degrees C) for a minimum of 6 hours, within 12 hours of fabrication.

B. Cure cast stone components in presence of carbon monoxide and carbon dioxide to promote carbonation at surface, to minimize efflorescence.

C. Yard cure for 350 degree-days (i.e. 7 days @ 50F or 5 days @ 70F) prior to shipment.

D. Acid-etch exposed surfaces to remove cement film prior to packaging for shipment.

2.08 MORTAR MATERIALS

A. Mortar - Type N, ASTM C 270.

2.09 ACCESSORIES

A. Consult Stone Manufacturer for assistance in specifying anchors for the specific application.

B. Anchors and Dowels: Non-corrosive type, sized for conditions. Type 304 stainless steel.

C. Sealant: As specified in Section 07.920.

D. Cleaner
   1. Manufacturer’s standard-strength, general-purpose cleaner designed for removing mortar and grout stains, efflorescence, and other construction stains from new masonry surfaces.
   2. Expressly approved for intended use by Cast Stone manufacture and expressly approved by cleaner manufacturer for use on Cast Stone and adjacent masonry materials.

PART 3 EXECUTION

3.01 TOLERANCES

A. Comply with Cast Stone Institute Technical Manual 04720-(current edition).
B. Set stones 1/8" within plane of adjacent unit.
C. Joints, +1/8", -1/8".

3.02 JOINTING

A. Joint size
   1. At stone/brick joints - 3/8"
   2. At stone/stone joints in vertical position - 1/4" (3/8" optional)
   3. Stone/stone joints exposed on topside - 3/8"
B. Joint material
   1. Use a full bed of mortar at all bed joints.
   2. Flush vertical joints full with mortar.
   3. Leave all joints with exposed tops open for sealant.
C. Location of joints
   1. As shown on approved shop drawings.

3.03 SETTING

A. Drench stones with clear, running water just prior to setting.
B. Fill all dowel holes and anchor slots completely with mortar or non-shrink grout.
C. Set all stones in a full bed of mortar. Leave head joints in coping and similar stones open for sealant.
D. Rake mortar joints 3/4" for pointing. Sponge the face of each stone to remove excess mortar.
E. Tuck point stone joints to a slight concave.
F. Sealant joints - Prime the ends of stones, insert properly sized foam backup rod and gun-in sealant. Use sealant on all cornices, copings and, in general, all stone areas either partially or totally horizontal.
G. Protect stone while on ground (and after setting) from splashing, mortar and damage from other trades.

3.04 CLEANING AND REPAIR

A. Clean stone by wetting with clear running water and applying a solution of manufacturer’s cleaner.

B. Repair obvious chips with touchup material furnished by the manufacturer.
C. Inspect by Cast Stone Institute Standards.

3.05 WATER REPELLANT

A. Apply silane water repellant for waterproofing Cast Stone in accordance with manufacturer's instructions.

END OF SECTION

SECTION 08.411-R ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section covers Kawneer Aluminum Entrances, including glass and glazing, door hardware, and components.

B. Types of Kawneer Aluminum Entrances include:

1. 500T Insulpour® Thermal Entrance:
   a. Wide stile
   b. Vertical face dimension: 5" (127.0 mm)
   c. Depth: 2-1/4" (57.2 mm)
   d. High traffic applications

C. Related Sections:

1. 08400: Aluminum Storefronts Frames
2. 08410: Aluminum Entrances
3. 08441: Glazed Aluminum Curtain Walls

1.03 DEFINITIONS

A. For fenestration industry standard terminology and definitions, refer to the Fenestration & Glazing Industry Alliance (FGIA) Glossary (AAMA AG-13).

1.04 PERFORMANCE REQUIREMENTS

A. General Performance

1. Aluminum-framed entrance system shall withstand the effects of the following performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction.

B. Wind Loads

1. The entrance system shall include anchorage that can withstand the wind load design pressures indicated on sheet S100:

.

C. Air Leakage

1. For single-acting offset pivot or butt-hung entrances in the closed and locked position, the test specimen shall be tested in accordance with ASTM E 283 at a pressure differential of 1.57 psf (75 Pa) for single doors and pairs of doors.
2. A single 3'0" x 7'0" (915 mm x 2134 mm) entrance door and frame shall not exceed 1.0 cfm/ft2.
3. A pair of 6'0" x 7'0" (1830 mm x 2134 mm) entrance doors and frame shall not exceed 1.0 cfm/ft2.

D. Uniform Load
   1. A static air design load shall be applied in the positive and negative direction in accordance with ASTM E 330:
      a. 500T: 85 psf for single doors and 70 psf for pairs of doors
   2. At a structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.
E. Structural-Test Performance
   1. Corner strength shall be tested per the Kawneer dual moment load test procedure and certified by an independent testing laboratory to ensure weld compliance and corner integrity. (Testing procedure and certified test results are available upon request.)
F. Energy Efficiency:
   1. Thermal transmittance (U-factor):
      a. Thermal transmittance test results in accordance with AAMA 1503 or CSA A440 are based upon 1" (25.4 mm) clear high-performance insulating glass [1/4" (e=0.035, #2), 1/2" warm edge spacer and argon fill gas, 1/4"].
      b. When tested to AAMA Specification 1503, the thermal transmittance (U-factor) for 250T shall not be more than: 0.52 (low-e insulating glass

G. Sound Transmission Loss:
   1. When tested to ASTM E90 and ASTM E1425, the Sound Transmission Class (STC) and Outdoor/Indoor Transmission Class (OITC) shall not be less than:
      a. 250T: STC 37 or OITC 32 based upon 1" (25.4 mm) insulating glass (1/4", 1/2" AS, 1/4")
H. Windborne-Debris-Impact Resistance Performance:
   1. Performance shall be tested in accordance with ASTM E1886 and information in ASTM E1996, and in TAS-201/203:
      a. Large-Missile Impact: For aluminum-framed systems located within 30 feet (9.1 m) of grade
      b. Small-Missile Impact: For aluminum-framed systems located above 30 feet (9.1 m) of grade

I. Forced Entry
   1. Performance shall be tested in accordance with AAMA 1304.

1.05 SUBMITTALS
A. Product Data
   1. For each type of aluminum-framed entrance door indicated, include:
      a. Construction details
      b. Material descriptions

c. Fabrication methods
d. Dimensions of individual components and profiles
e. Hardware
f. Finishes
g. Installation instructions

1.06 QUALITY ASSURANCE

A. Installer Qualifications
   1. Installer must have successfully installed the same or similar units required for the project and other projects of similar size and scope.
B. Manufacturer Qualifications
   1. Manufacturer must be capable of fabricating aluminum-framed entrance doors and storefronts that meet or exceed the stated performance requirements.
   2. Manufacturer must document this performance by the inclusion of test reports and calculations.
C. Source Limitations
   1. Obtain aluminum-framed entrance doors through one source from a single manufacturer.
D. Product Options
   1. Drawings indicate size, profiles, and dimensional requirements of aluminum-framed entrance doors and are based on the specific system indicated. Refer to Division 01 Product Requirements Section. Do not modify size and dimensional requirements.
   2. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
E. Mockups
   1. Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
   2. Build mockup for the type(s) of swing entrance door(s) indicated, in location(s) shown on drawings.
F. Pre-installation Conference
   1. Conduct conference at project site to comply with requirements in Division 01 Project Management and Coordination Section.

1.07 PROJECT CONDITIONS

A. Field Measurements
   1. Verify actual dimensions of thermally broken aluminum-framed door openings by field measurements before fabrication.
   2. Indicate measurements on shop drawings.

1.08 WARRANTY

A. Submit manufacturer's standard warranty for owner's acceptance.
B. Warranty Period
   1. Two years from Date of Substantial Completion of the project provided, however, that in no event shall the Limited Warranty begin later than six months from date of shipment by manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis-of-Design Product
   1. Kawneer Company, Inc.
   2. The door stile and rail face dimensions of the entrance doors will be as follows:

      a. 500T Insulpour® Thermal Entrance:
         1) Vertical face dimension: 5" (127.0 mm)
         2) Top Rail: 5" (127.0 mm)
         3) Bottom Rail: 6-1/2" (165.1 mm)
         4) Optional Bottom Rail: 12" (304.8 mm)
   3. Major portions of the door members shall be 0.125" (3.2 mm) nominal thickness.
   4. Glazing molding shall be 0.05" (1.3 mm) thick.
   5. Glazing gaskets shall be either EPDM elastomeric extrusions or a thermoplastic elastomer.
   6. Provide adjustable glass jacks to help center the glass in the door opening.

B. Substitutions
   1. Refer to Division 01 Substitutions Section for procedures and submission requirements.
   2. Pre-Contract (Bidding Period) Substitutions:
      a. Submit written requests ten (10) days prior to bid date.
   3. Post-Contract (Construction Period) Substitutions:
      a. Submit written request in order to avoid installation and construction delays.
   4. Product Literature and Drawings
      a. Submit product literature and drawings modified to suit specific project requirements and job conditions.
   5. Certificates
      a. Submit certificate(s) certifying that the substitute manufacturer (1) attests to adherence to specification requirements for aluminum entrance and storefront system performance criteria, and (2) has been engaged in the design, manufacture, and fabrication of aluminum entrances and

storefronts for a period of not less than ten (10) years. (Company Name)

6. Test Reports
   a. Submit test reports verifying compliance with each test requirement required by the project.
7. Samples
   a. Provide samples of typical product sections and finish samples in manufacturer's standard sizes.

C. Substitution Acceptance
   1. Acceptance will be in written form, either as an addendum or modification.
   2. Acceptance will be documented by a formal change order signed by the owner and contractor.

2.02 MATERIALS

A. Aluminum Extrusions
   1. Alloy and temper recommended by aluminum-framed entrance door manufacturer for strength, corrosion resistance, and application of required finish.
   2. Not less than 0.125" (3.2 mm) wall thickness at any location for the main frame and door leaf members.
B. Fasteners
   1. Aluminum, nonmagnetic stainless steel or other materials must be non-corrosive and compatible with aluminum members, trim hardware, anchors, and other components.
C. Anchors, Clips, and Accessories
   1. Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating.
   2. Anchors, clips, and accessories shall provide sufficient strength to withstand the design pressure indicated.
D. Reinforcing Members
   1. Aluminum, nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B 456 for Type SC 3 severe service conditions, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating.
   2. Reinforcing members must provide sufficient strength to withstand the design pressure indicated.
E. Slide-In-Type Weather-Stripping
   1. Provide woven-pile weather stripping of wool, polypropylene, or nylon pile and resin-impregnated backing fabric.
   2. Comply with AAMA 701/702.

F. Weather Seals
   1. Provide weather stripping with integral barrier fin or fins of semi-rigid, polypropylene sheet or polypropylene-coated material.
   2. Comply with AAMA 701/702.
G. Thermal Barrier
   1. Shall be IsoPour™ utilizing two continuous rows of polypropylene with a nominal 7/32" (5.5 mm) separation that consists of a two-part, chemically curing high density polyurethane which is mechanically and adhesively bonded to the aluminum at door rails and stiles.

2.03 STOREFRONT ENTRANCE FRAMING SYSTEM

A. Storefront Entrance Framing
   1. Trifab® VersaGlaze® 601T
   4. Thermally Broken Entrance Framing:
      a. Kawneer IsoLock® Thermal Break with a 1/4" (6.4 mm) separation consisting of a two-part chemically curing, high-density polyurethane, which is mechanically and adhesively joined to aluminum storefront sections.
      b. Thermal break shall be designed in accordance with AAMA TIR-A8 and tested in accordance with AAMA505.
B. Reinforcements
   1. Manufacturer's standard high-strength aluminum with non-staining, non-ferrous shims for aligning system components.
C. Fasteners and Accessories:
   1. Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories must be compatible with adjacent materials.
   2. Where exposed, fasteners and accessories shall be stainless steel.
D. Perimeter Anchors
   1. When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.
E. Packing, Shipping, Handling, and Unloading
   1. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
F. Storage and Protection
   1. Store materials so that they are protected from exposure to harmful weather conditions.
   2. Handle material and components to avoid damage.
   3. Protect material against damage from elements, construction activities, and other hazards before, during, and after installation.

2.04 GLAZING

A. Glazing shall comply with requirements in Division 08 Glazing Section.
B. Glazing Gaskets
   1. Manufacturer's standard compression types
   2. Replaceable, extruded EPDM rubber
C. Spacers and Setting Blocks
   1. Manufacturer's standard elastomeric type

2.05 HARDWARE

A. General Hardware Requirements
   1. Provide manufacturer's standard hardware.
   2. Hardware shall be fabricated from aluminum, stainless steel, or other corrosion-resistant material that is compatible with aluminum.
   3. Hardware shall be designed to smoothly operate, tightly close, and securely lock aluminum-framed entrance doors.
B. Standard Hardware
   1. Weather-Stripping
      a. Meeting stiles on pairs of doors shall be equipped with two lines of weather-stripping using wool pile with polymeric fin.
      b. The door weathering on a single acting offset pivot or butt hung door and frame (single or pairs) shall be comprised of a thermoplastic elastomer weathering on a tubular shape with a semi-rigid polymeric backing and a wool pile with polymeric fin.
   2. Sill Sweep Strips
      a. EPDM blade gasket sweep strip in an aluminum extrusion applied to the interior exposed surface of the bottom rail with concealed fasteners (necessary to meet specified performance tests)
   3. Threshold
      a. Extruded aluminum
      b. Thermally broken
      c. Ribbed surface
   4. Continuous Hinge:
   5. Pull style
   6. Exit Device: (Rim)
   7. Closer: Surface Mount
   8. Security Lock/Dead Lock:
      a. Active Leaf:
      b. Inactive Leaf:
   9. Cylinder(s)/Thumbturn: Rim

2.06 FABRICATION

A. Fabricate aluminum-framed entrance doors in sizes indicated.

B. Include a complete system for assembling components and anchoring doors.
C. Fabrication requirements
   1. Thermally broken aluminum-framed doors shall be able to be re-glazed without dismantling perimeter framing.
   2. Door corner construction
      a. Mechanical clip fastening
      b. SIGMA deep-penetration plug welds
      c. 1" (25.4 mm) long fillet welds inside and outside of all four corners
      d. Hook-in type glazing stops with EPDM glazing gaskets reinforced with non-stretchable cord
   3. Joint construction
      a. Accurately fit and secure joints and corners.
      b. Make joints hairline in appearance.
   4. Prepare components with internal reinforcement for door hardware.
   5. Arrange fasteners and attachments to conceal from view.
D. Weather-stripping
   1. Provide weather-stripping locked into extruded grooves in door panels or frames as indicated on manufacturer's drawings and details.

2.07 ALUMINUM FINISHES
A. Finish designations that are prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
B. Factory Finishing:
   2. Kawneer Permanodic® AA-M10C21A41, AAMA 611, Architectural Class I Clear Anodic Coating (Color #14 Clear) (Optional)
   3. Kawneer Permanodic® AA-M10C21A31, AAMA 611, Architectural Class II Clear Anodic Coating (Color #17 Clear) (Standard)

PART 3 EXECUTION

3.01 EXAMINATION
A. With installer present, examine openings, substrates, structural support, anchorage, and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work:
   1. Verify rough opening dimensions.
   2. Verify levelness of sill plate.
   3. Verify operational clearances.

4. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components for proper water management.
5. Masonry Surfaces
   a. Masonry surfaces must be visibly dry and free of excess mortar, sand, and other construction debris.
6. Wood Frame Walls
   a. Wood frame walls must be dry, clean, sound, well nailed, free of voids, and without offsets at joints.
   b. Ensure that nail heads are driven flush with surfaces in opening and within 3" (76.2 mm) of opening.
7. Metal Surfaces
   a. Metal surfaces must be dry and clean (free of grease, oil, dirt, rust, corrosion, and welding slag).
   b. Ensure that metal surfaces are without sharp edges or offsets at joints.

B. Proceed with installation only after correcting unsatisfactory conditions.

3.02 INSTALLATION

A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing thermally broken aluminum-framed entrance doors, hardware, accessories, and other components.

B. Install thermally broken aluminum-framed entrance doors so that the doors:
   1. Are level, plumb, square, and true to line
   2. Are without distortion and do not impede thermal movement
   3. Are anchored securely in place to structural support
   4. Are in proper relation to wall flashing and other adjacent construction

C. Set the sill threshold in a bed of sealant, as indicated, for weathertight construction.

D. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.

3.03 FIELD QUALITY CONTROL

A. Manufacturer's Field Services:
   1. Upon owner's written request, provide periodic site visit by manufacturer's field service representative.

3.04 ADJUSTING, CLEANING, AND PROTECTION

A. Adjusting: Not applicable.

B. Protection
   1. Protect installed products’ finish surfaces from damage during construction.

C. Cleaning

1. Avoid damaging protective coatings and finishes.
2. Clean glass and aluminum surfaces of product immediately after installation.
3. Comply with glass manufacturer's written recommendations for final cleaning and maintenance.
4. Remove non-permanent labels and clean surfaces.
5. Remove excess sealants, glazing materials, dirt, and other substances.
6. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during the construction period.
7. Remove construction debris from project site and legally dispose of debris.

END OF SECTION

SECTION 08.441-R GLAZED ALUMINUM CURTAIN WALLS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section covers Kawneer Architectural Aluminum Curtain Wall Systems, including perimeter trims, stools, accessories, shims and anchors, and perimeter sealing of curtain wall framing.

B. Types of Kawneer Aluminum Curtain Wall Systems include:
   1. 1600 Wall System®1 Curtain Wall impact resistant (IR):
      a. Sight line: 2-1/2" (63.5 mm)
      b. Outside-glazed pressure plate format
      c. System depth:
         1) 7-1/2" (190.5) for 9/16" (14.3 mm) insulated glazing and 5/8" (15.9 mm) monolithic glazing
         2) 7-13/16" (198.4 mm) or 10-13/16" (274.6 mm) for 1-5/16" (33.3 mm) insulating glazing

C. Related Sections
   1. 08400: Aluminum Storefronts Frames
   2. 08410: Aluminum Entrances
   3. 08411: Aluminum Framed Entrances and Storefront

1.03 DEFINITIONS

A. For fenestration industry standard terminology and definitions, refer to the Fenestration & Glazing Industry Alliance (FGIA) Glossary (AAMA AG-13).

1.04 PERFORMANCE REQUIREMENTS

A. General Performance
   1. Product to comply with the specified performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction, as determined by testing of glazed aluminum curtain walls representing those indicated for this project.
   2. Glazed aluminum curtain walls shall withstand movements of supporting structure including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
   3. Failure includes any of these events:
      a. Thermal stresses transferring to building structure

    b. Glass breakage
    c. Loosening or weakening of fasteners, attachments, and other components
    d. Failure of operating units

B. Delegated Design
  1. Design glazed aluminum curtain walls, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

C. Wind Loads
  1. The curtain wall system shall include anchorage that can withstand the wind load design pressures indicated on sheet S100

D. Air Leakage
  1. The test specimen shall be tested in accordance with ASTM E 283.
  2. Air infiltration rate shall not exceed 0.06 cfm/ft2 (0.3 l/s · m2) at a static air pressure differential of 6.2 psf (300 Pa).

E. Water Resistance
  1. Static
    a. The test specimen shall be tested in accordance with ASTM E 331.
    b. There shall be no leakage at a minimum static air pressure differential of 12 psf (575 Pa) as defined in AAMA 501.
  2. Dynamic
    a. The test specimen shall be tested in accordance with AAMA 501.1.
    b. There shall be no leakage at an air pressure differential of 12 psf (575 Pa) as defined in AAMA 501.

F. Uniform Load
  1. A a static air design load of 40 psf (1915 Pa) shall be applied in the positive and negative direction in accordance with ASTM E 330.
  2. There shall be no deflection in excess of L/175 of the span of any framing member at design load.
  3. At a structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.

G. Seismic
  1. When tested to AAMA 501.4, system must meet design displacement (elastic) of 0.010 times the story height and ultimate displacement (inelastic) of 1.5 times the design displacement.
  2. When tested to AAMA 501.6, system must meet dynamic seismic drift causing glass fallout (?Fallout) of 4.75" or 0.0300 times the story height.

H. Thermal Transmittance (U-factor), Physical Test

1. Thermal transmittance test results in accordance with AAMA 1503 or CSA A440 are based upon 1" (25.4 mm) clear insulating glass (1/4", 1/2" AS, 1/4").
2. When tested using AAMA 1503, the thermal transmittance (U-factor) shall not be more than 0.66 Btu/hr/(hr·ft2·°F).

I. Thermal Transmittance (U-factor), Physical Test
1. Thermal transmittance test results in accordance with AAMA 1503 or CSA A440 are based upon 1" (25.4 mm) clear, low-emissivity coated glass insulating unit, (1/4" e=0.035, #2), 1/2" warm edge spacer and argon fill gas, 1/4").
2. When tested using AAMA 1503, the thermal transmittance (U-factor) shall not be more than 0.43 Btu/(hr·ft2·°F).

J. Thermal Transmittance (U-factor), Simulation:
1. Thermal transmittance simulation results using NFRC 100 or AAMA 507 are based on a Center of Glass (COG) U-factor of 0.24 Btu/(hr·ft2·°F) and a warm-edge spacer.
2. When simulated using NFRC 100 or AAMA 507, the U-factor shall not be more than 0.39 Btu/(hr·ft2·°F)

K. Condensation Resistance Factor (CRF) or Temperature Index (TI):
1. Condensation resistance test results in accordance with AAMA 1503 or CSA A440 are based upon 1" (25.4 mm) clear insulating glass (1/4", 1/2" AS, 1/4").
2. If using CRF: When tested using AAMA 1503, the CRFframe and CRFglass shall not be less than 66 and 60 respectively.
3. If using TI: When tested to CSA A440-00, the TIframe and TIglass shall not be less than 68 and 54 respectively.

L. Condensation Resistance Factor (CRF) or Temperature Index (TI):
1. Condensation resistance test results in accordance with AAMA 1503 or CSA A440 are based upon 1" (25.4 mm) clear low emissivity coated insulating glass, (1/4" e=0.035, #2), 1/2" warm edge spacer and argon fill gas, 1/4").
2. When tested using AAMA 1503, the CRFframe and CRFglass (with low-emissivity glazing) shall not be less than 71 and 71 respectively.

M. Sound Transmission Loss
1. When tested to ASTM E90 and ASTM E1425, the Sound Transmission Class (STC) and Outdoor/Indoor Transmission Class (OITC) shall not be less than:
   a. STC 31 or OITC 26 based upon 1" (25.4 mm) insulating glass (1/4", 1/2" AS, 1/4")
   b. STC 37 or OITC 30 based upon 1" (25.4 mm) laminated glass (1/4" laminated, 1/2" AS, 1/4" laminated)

N. Windborne-Debris-Impact Resistance Performance:
1. Performance shall be tested in accordance with TAS 201/203, ASTM E1886 and information in ASTM E1996:

a. Large-Missile Impact: For aluminum-framed systems located within 30 feet (9.1 m) of grade
b. Small-Missile Impact: For aluminum-framed systems located above 30 feet (9.1 m) of grade

1.05 SUBMITTALS

A. Product Data
1. For each type of product indicated, include:
a. Construction details
b. Material descriptions
c. Dimensions of individual components and profiles
d. Finishes

1.06 QUALITY ASSURANCE

A. Installer Qualifications
1. Installer must have successfully installed the same or similar systems required for the project and other projects of similar size and scope.

B. Manufacturer Qualifications
1. Manufacturer must be capable of fabricating glazed aluminum curtain walls that meet or exceed the stated performance requirements.

C. Source Limitations
1. Obtain aluminum curtain wall system through one source from a single manufacturer.

D. Product Options
1. 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.
2. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

E. Mockups
1. Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
2. Build mockups for the type(s) of curtain wall elevation(s) indicated, in location(s) shown on drawings.

F. Pre-installation Conference
1. Conduct conference at project site to comply with requirements in Division 01 Project Management and Coordination Section.

1.07 PROJECT CONDITIONS

A. Field Measurements
   1. Verify actual locations of structural supports for glazed aluminum curtain walls by field measurements before fabrication.
   2. Indicate measurements on shop drawings.

1.08 WARRANTY

A. Submit manufacturer's standard warranty for owner's acceptance.
B. Warranty Period
   1. Two years from Date of Substantial Completion of the project provided, however, that in no event shall the Limited Warranty begin later than six months from date of shipment by manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis-of-Design Product:
   1. Kawneer Company, Inc.
      a. 1600 Wall System®1 Curtain Wall impact resistant (IR):
         1) Sight line: 2-1/2" (63.5 mm)
         2) Outside-glazed pressure plate format
         3) System depth:
            a) 7-1/2" (190.5) for 9/16" (14.3 mm) insulated glazing and 5/8" (15.9 mm) monolithic glazing
            b) 7-13/16" (198.4 mm) or 10-13/16" (274.6 mm) for 1-5/16" (33.3 mm) insulating glazing.
   2. Tested to AAMA 501, ASTM E 1886, E 1996, and TAS 201, 202, 203

B. Substitutions
   1. Refer to Division 01 Substitutions Section for procedures and submission requirements.
   2. Pre-Contract (Bidding Period) Substitutions:
      a. Submit written requests ten (10) days prior to bid date.
   3. Post-Contract (Construction Period) Substitutions:
      a. Submit written request in order to avoid installation and construction delays.
   4. Product Literature and Drawings
      a. Submit product literature and drawings modified to suit specific project requirements and job conditions.
   5. Certificates
      a. Submit certificate(s) certifying that the substitute manufacturer (1) attests to adherence to specification requirements for curtain wall system performance criteria, and (2) has been engaged in the design, manufacture, and

fabrication of aluminum curtain walls for a period of not less than ten (10) years. (Company Name).

6. Test Reports
    a. Submit test reports verifying compliance with each test requirement required by the project.
7. Samples
    a. Provide samples of typical product sections and finish samples in manufacturer's standard sizes.

C. Substitution Acceptance
1. Acceptance will be in written form, either as an addendum or modification.
2. Acceptance will be documented by a formal change order signed by the owner and contractor.

2.02 MATERIALS

A. Aluminum Extrusions
1. Alloy and temper recommended by glazed aluminum curtain wall manufacturer for strength, corrosion resistance, and application of required finish
2. Not less than 0.070" (1.8 mm) wall thickness at any location for the main frame
3. Complying with ASTM B221: 6063-T6 alloy and temper

B. Aluminum Sheet Alloy
1. Shall meet the requirements of ASTM B209.

C. Fasteners
1. Aluminum, nonmagnetic stainless steel or other materials must be non-corrosive and compatible with aluminum members, trim hardware, anchors, and other components.

D. Anchors, Clips, and Accessories
1. Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating.
2. Anchors, clips, and accessories shall provide sufficient strength to withstand the design pressure indicated.

E. Pressure Plate
1. Pressure plate shall be aluminum.
2. Pressure plate shall be fastened to the mullion with stainless steel screws.

F. Reinforcing Members
1. Aluminum, nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B 456 for Type SC 3 severe service

conditions, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating.

2. Reinforcing members must provide sufficient strength to withstand the design pressure indicated.

G. Sealant
   1. For sealants required within fabricated curtain wall system, provide permanently elastic, non-shrinking, and non-migrating type recommended by sealant manufacturer for joint size and movement.

H. Thermal Barrier
   1. Thermal separator shall be extruded of a silicone compatible elastomer that provides a minimum 1/4" (6.3 mm) separation.

I. Tolerances
   1. References to tolerances for wall thickness and other cross-sectional dimensions of glazed curtain wall members are nominal and in compliance with AA Aluminum Standards and Data.

2.03 CURTAIN WALL FRAMING

A. Framing Members
   1. Manufacturer's standard extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads
   2. Glazing System: Four-sided captured
   3. Glazing Plane: Front

B. Glass
   1. Monolithic glass options
      a. 1/4" (6.3 mm)
      b. 9/16" (14.3 mm)
      c. 5/8" (15.9 mm)
   2. Insulating glass options
      a. 1" (25.4 mm)
      b. 1-5/16" (33.3 mm)

C. Brackets and Reinforcements
   1. Manufacturer's standard high-strength aluminum with non-staining, non-ferrous shims for aligning system components.

D. Framing Sealants
   1. Shall be suitable for glazed aluminum curtain wall as recommended by sealant manufacturer.

E. Fasteners and Accessories
   1. Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories must be compatible with adjacent materials.
   2. Where exposed, fasteners and accessories shall be stainless steel.

F. Perimeter Anchors
   1. When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.

G. Packing, Shipping, Handling, and Unloading
   1. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

H. Storage and Protection
   1. Store materials so that they are protected from exposure to harmful weather conditions.
   2. Handle material and components to avoid damage.
   3. Protect material against damage from elements, construction activities, and other hazards before, during, and after installation.

2.04 GLAZING

A. Glazing to meet requirements in Division 08 Glazing Section.

B. Available Glazing Options:

   1. 1600 Wall System®1 IR Curtain Wall:
      a. System depth
         1) 7-1/2" (190.5) for 9/16" (14.3 mm) insulated glazing and 5/8" (15.9 mm) monolithic glazing
         2) 7-13/16" (198.4 mm) or 10-13/16" (274.6 mm) for 1-5/16" (33.3 mm) insulating glazing

C. Glazing Gaskets
   1. Gaskets to meet requirements of ASTM C864.

D. Spacers and Setting Blocks
   1. Manufacturer's standard elastomeric type

E. Bond-Breaker Tape
   1. Manufacturer's standard TFE-fluorocarbon or polyethylene material to which sealants will not develop adhesion.

F. Glazing Sealants
   1. As recommended by manufacturer for joint type.

2.05 OPERABLE UNITS

A. Doors comply with Division 08 Aluminum-Framed Entrances and Storefronts Section.

B. Windows comply with Division 08 Aluminum Windows Section.

2.07 FABRICATION

A. Extrude or form aluminum shapes before finishing.

B. Fabricate components that, when assembled, have the following characteristics:
   1. Profiles that are sharp, straight, and free of defects or deformations

2. Accurately fitted joints
3. Physical and thermal isolation of glazing from framing members
4. Accommodations for thermal and mechanical movements of glazing and framing that maintain required glazing edge clearances
5. Provisions for field replacement of glazing from exterior
6. Fasteners, anchors, and connection devices that are concealed from view to the greatest extent possible
7. Internal weeping system or other means to drain water passing joints, condensation occurring within framing members, and moisture migrating within glazed aluminum curtain wall to exterior

C. Curtain Wall Framing:
1. Fabricate components for assembly using shear block system following manufacturer's standard installation instructions.

D. After fabrication, clearly mark components to identify their locations in project according to shop drawings.

2.08 ALUMINUM FINISHES

A. Finish designations that are prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

B. Factory Finishing
2. Kawneer Permanodic® AA-M10C21A41, AAMA 611, Architectural Class I Clear Anodic Coating (Color #14 Clear) (Optional)
3. Kawneer Permanodic® AA-M10C21A31, AAMA 611, Architectural Class II Clear Anodic Coating (Color #17 Clear)

PART 3 EXECUTION

3.01 EXAMINATION

A. With installer present, examine areas for compliance with requirements for installation tolerances and other conditions affecting performance of the work.

B. Proceed with installation only after correcting unsatisfactory conditions.

3.02 INSTALLATION

A. Curtain Wall System Installation
1. Install curtain wall systems plumb, level, and true to line, without warp or rack of frames, within manufacturer's prescribed tolerances, and complying with installation instructions.
2. Provide support and anchor in place.
3. Dissimilar Materials

a. Provide separation of aluminum materials from sources of corrosion or electrolytic action contact points.

4. Glazing
   a. Glass shall be outside-glazed.
   b. Glass shall be held in place with extruded aluminum pressure plates anchored to the mullion using stainless steel fasteners that are spaced no more than 9" (228.6 mm) on center.

5. Water Drainage
   a. Each light of glass shall be compartmentalized using joint plugs and silicone sealant to divert water to the horizontal weep locations.
   b. Weep holes shall be located in the horizontal pressure plates and covers to divert water to the exterior of the building.

B. Related Products Installation
1. Sealants (Perimeter):
   a. Refer to Joint Treatment (Sealants) Section.
2. Glass
   a. Refer to Glass and Glazing Section.
   b. Reference: ANSI Z97.1, CPSC 16 CFR 1201, and GANA Glazing Manual.

3.03 FIELD QUALITY CONTROL

A. Field Tests
1. Architect shall select curtain wall units to be tested as soon as a representative portion of the project has been installed, glazed, perimeter-caulked, and cured.
2. Conduct tests for air infiltration and water penetration with manufacturer's representative present.
3. Tests that do not meet the specified performance requirements and units that have deficiencies shall be corrected as part of the contract amount.
4. Testing shall be performed per AAMA 503 by a qualified independent testing agency. Refer to Testing Section for payment of testing and testing requirements.
5. Air Infiltration Tests
   a. Conduct tests in accordance with ASTM E 783.
   b. Allowable air infiltration shall not exceed 1.5 times the amount indicated in the performance requirements or 0.09 cfm/ft2, whichever is greater.
6. Water Infiltration Tests
   a. Conduct tests in accordance with ASTM E 1105.
   b. No uncontrolled water leakage is permitted when tested at a static test pressure of two-thirds the specified water penetration pressure but not less than 8 psf (383 Pa).

B. Manufacturer's Field Services

1. Upon owner's written request, provide periodic site visit by manufacturer's field service representative.

3.04 ADJUSTING, CLEANING, AND PROTECTION

A. Adjusting: Not applicable

B. Protection
   1. Protect installed product's finish surfaces from damage during construction.
   2. Protect aluminum curtain wall system from damage from grinding and polishing compounds, plaster, lime, acid, cement, or other harmful contaminants.

C. Cleaning
   1. Repair or replace damaged installed products.
   2. Clean installed products in accordance with manufacturer's instructions prior to owner's acceptance.
   3. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during the construction period.
   4. Remove construction debris from project site and legally dispose of debris.

END OF SECTION

SECTION 10.535 CANTILEVER ALUMINUM CANOPY

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

A. Work in this section includes furnishing and installation of extruded aluminum canopy with custom designed cantilever support brackets as manufactured by Mapes Industries Inc. or approved equal.

B. Related Items and Considerations

1. Flashing of various designs may be required. Generic flashing supplied by Mapes. Specialty flashing to be supplied by installer.
2. Determine wall construction, make-up and thickness.
3. Ensure adequate wall condition to carry canopy loads where required.
4. Consider water drainage away from canopy where necessary.
5. Any necessary removal or relocation of existing structures, obstructions or materials.

1.02 QUALITY ASSURANCE

A. Products meeting these specifications established standard of quality required as manufactured by Mapes Industries, Inc. Lincoln, Nebraska 1-888-273-1132.

1.03 FIELD MEASUREMENT

A. Confirm dimensions prior to preparation of shop drawings when possible.

B. If requested, supply manufacturer's standard literature and specifications for canopies.

C. Submit shop drawings showing structural component locations/positions, material dimensions and details of construction and assembly.

1.04 PERFORMANCE REQUIREMENTS

A. Canopy must conform to local building codes.

B. PE Stamped calculations are required and must be signed and sealed by an engineer licensed within the state canopy is installed.

1.05 DELIVER, STORAGE, HANDLING

A. Deliver and store all canopy components in protected areas.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. Mapes Canopies – Super Lumideck (Basis of Design)
Lincoln, Nebraska
Phone: 1-888-273-1132

Fax: 1-877-455-6572

B. Mitchell Metals Canopy Systems
C. Tennessee Valley Metals
D. Approved equal

2.02 MATERIALS

A. All extruded aluminum (T6 – 6063)
B. Fascia .125”
C. Decking .040”
D. Deflection Rating L/180
E. Maximum Projection: 5’ with cantilever supports
F. Fascia shall be standard extruded 8" J with 3" extension style.

2.03 FINISHES

A. Finish type shall be - Class II Clear Anodized.

2.04 FABRICATION

A. All Mapes Super Lumideck extruded aluminum canopies are shipped with the materials precut to size for field assembly.
B. All connections shall be mechanically assembled utilizing 3/16 fasteners with a minimum shear stress of 350 lb. Pre-welded or factory-welded connections are not acceptable.
C. Concealed drainage. Water shall drain from covered surfaces into intermediate trough and be directed to Front Scupper.

PART 3 EXECUTION

3.01 INSPECTION

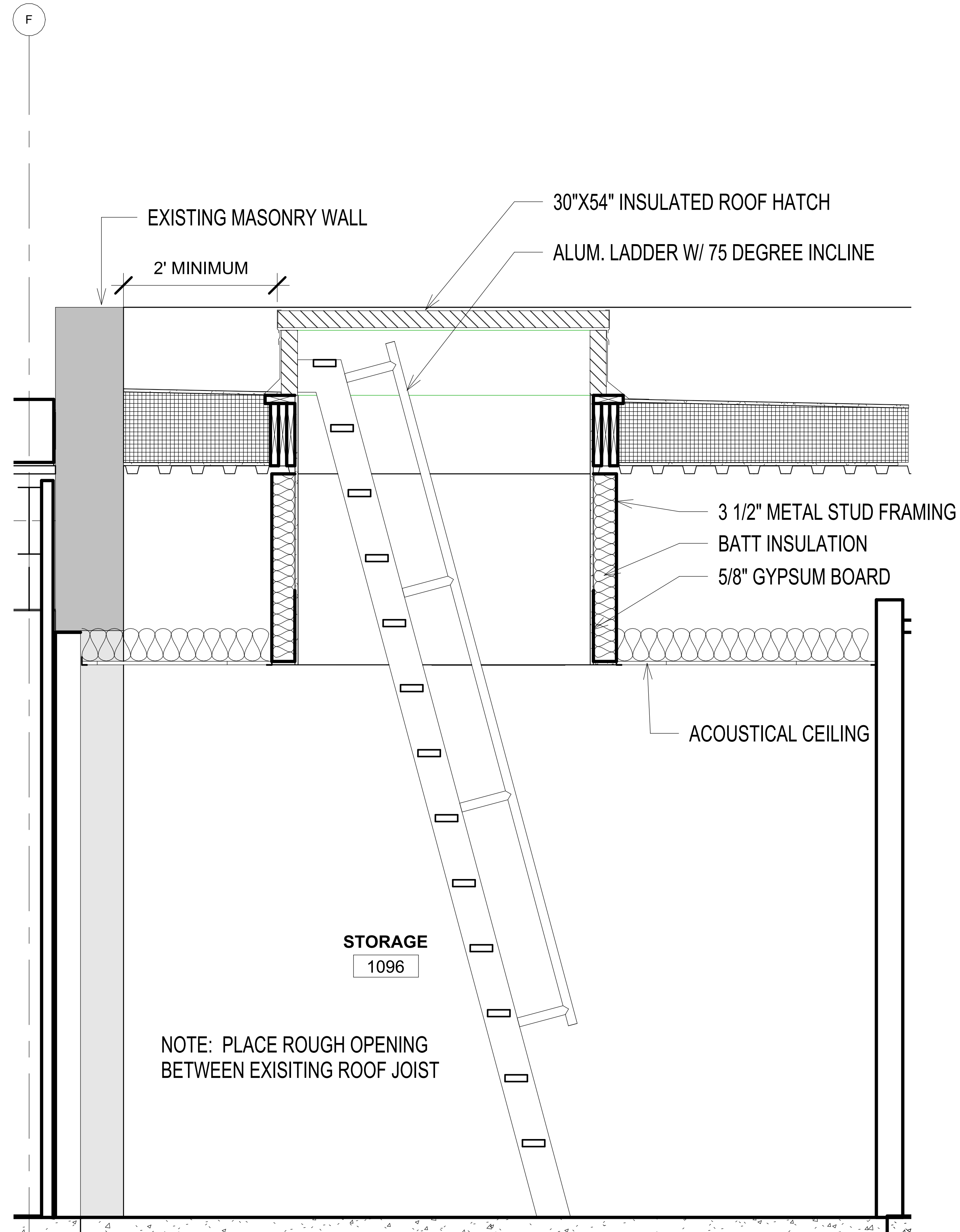
A. Confirm that surrounding area is ready for the canopy installation.
B. Installer shall confirm dimensions and elevations to be as shown on drawings provided by Mapes Industries.
C. Erection shall be performed by an approved installer and scheduled after all concrete, masonry and roofing in the area is completed

3.02 INSTALLATION

A. Installation shall be in strict accordance with manufacturer's shop drawings. Particular attention should be given to protecting the finish during handling and erection.

3.03 After installation, entire system shall be left in a clean condition.

END OF SECTION



1 AD1-1 A101 ACCESS CHASE
1/2" = 1'-0"

711 Church Street
Ocean Springs, MS
39564

allred ARCHITECTURAL GROUP

Phone: (228) 762-1975
Email: contact@allredstolarski.com

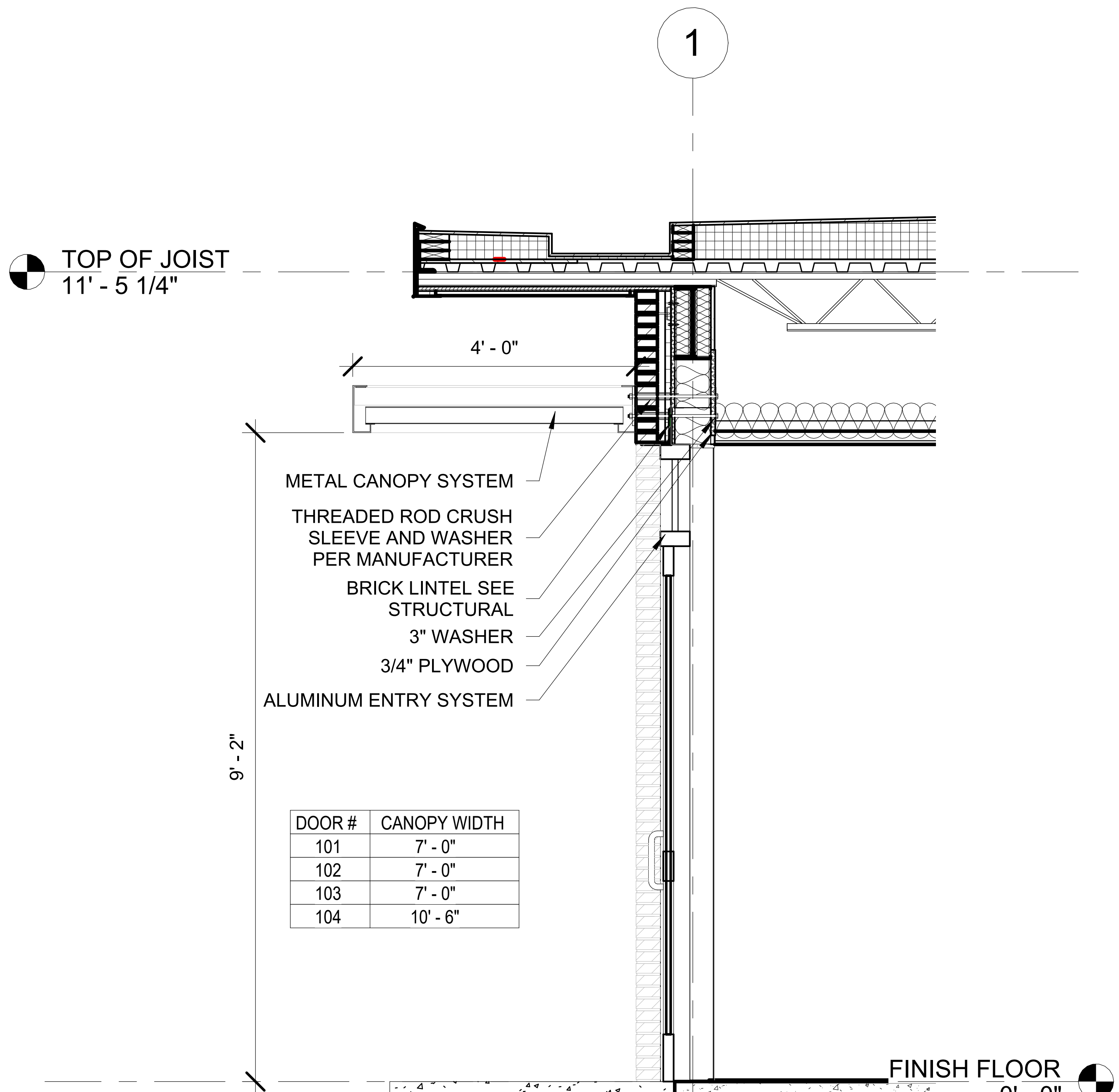
ROOF ACCESS CHASE

PASCAGOULA CITY HALL

IMPROVEMENTS PROJECT
603 WATTS AVE. PASCAGOULA, MS

DATE	12/23/25
JOB NUMBER	2025-08
DRAWN BY	MDH
CHECKED BY	HA
REVISION DATE	–

SHEET
AD1-1



DOOR #	CANOPY WIDTH
101	7' - 0"
102	7' - 0"
103	7' - 0"
104	10' - 6"

1
AD1-2 A101

Section 23 CANOPY
1/2" = 1'-0"

711 Church Street
Ocean Springs, MS
39564

Phone: (228) 762-1975
Email: contact@allredstolarski.com

allred
ARCHITECTURAL GROUP

CANOPY

PASCAGOULA CITY HALL
IMPROVEMENTS PROJECT
603 WATTS AVE. PASCAGOULA, MS

DATE
12/23/25
JOB NUMBER
2025-08
DRAWN BY
MDH
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HA
REVISION DATE
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SHEET
AD1-2