

3/30/2020

Addendum

ADD #:
02

Date Issued:
03.30.2020

Project #:
546 UA Union Infill

Project:
Student Affairs
Arkansas Union 634
Fayetteville, AR 72701

Owner:
University of Arkansas
Fayetteville, AR 72701

From Architect:
Hufft Projects
403 SE 5 th Street
Bentonville, AR 72712

To Contractor:

The Contractor shall carry out the Work in accordance with the following supplemental instructions without change in Contract Sum or Contract Time. Proceeding with the Work in accordance with these instructions indicates your acknowledgement that there will be no change in the Contract Sum or Contract Time. Any change in Contract Sum or Contract Time requires Architect's approval and shall be submitted in writing.

Description:

This ADD consists of (2) 24 x 36 sheets and 16 Bid Question Responses. Refer to ADD 02 on the attached drawings and specifications, and 546 Bid Question Log for responses.

Modify the Project Manual and/or the Drawings as noted:

Project Manual:

Section 051200 – Structural Steel Framing:

1.05.B: Removed reference to LEED submittals.
1.07.C: Provide alternative requirements for non-AISC certified Fabricators / Erectors.

Section 084113 – Aluminum Entrance and Storefront:

2.04: removed reference to system that 'engages' drywall. Storefront should be installed as detailed in the drawings.
2.04.C: Changed finish to "Black"
2.05.A: Changed finish to "Black"

Drawings:

A612 – Millwork/Casework Details

Detail 10 – Panel Detail

1. REVISE note for securing felt covered panels to metal cross brace with adhesive. (Bid Question 13)

A800 – FF&E Floor Plans

Detail 1 – Level 2 Plan

1. ADD note to locate workstation power pole at far end of workstations.

Detail 2 – Level 3 Plan

1. REVISE note at fixed seats, at hallway countertop, to be installed by general contractor.

Attachments:

- 546-19-0330-UnionInfillAdd02Section051200.pdf
- 546-19-0330-UnionInfillAdd02Section084113.pdf
- 546-20-0330 - ADD 02 - NARRATIVE.pdf
- 546-20-0330_546 Bid Question Log - ADD 02.pdf
- A612 - MILLWORK - CASEWORK DETAILS.pdf
- A800 - FF&E FLOOR PLANS.pdf

-END-

Issued by the Architect:



Brad Kingsley

Signature

Printed Name

SECTION 05 12 00 – STRUCTURAL STEEL FRAMING**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. Section Includes:
1. Structural steel.
 2. Grout.
- B. Related Sections:
1. Section 014000 "Quality Requirements" for independent testing agency procedures and administrative requirements.
 2. Section 053100 "Steel Decking" for field installation of shear connectors through deck.
 3. Section 099100 "Painting" for surface-preparation and priming requirements.

1.03 DEFINITIONS

- A. Structural Steel: Elements of structural-steel frame, as classified by AISC 303, "Code of Standard Practice for Steel Buildings and Bridges."
- B. Heavy Sections: Rolled and built-up sections as follows:
1. Shapes included in ASTM A 6/A 6M with flanges thicker than 2 inches.
 2. Welded built-up members with plates thicker than 2 inches.

1.04 PERFORMANCE REQUIREMENTS

1. Provide connections as shown or noted on Drawings. Design of connections not shown or noted shall be provided by Structural Engineer-of-Record upon request.
 2. Alternate connections may be submitted by the Contractor with prior approval of Structural Engineer-of-Record. Connections shall be designed for loads indicated on drawings or provided by Structural Engineer-of-Record. Loads indicated are developed using Load and Resistance Factor Design (LRFD) load combinations unless noted otherwise. One set of calculations for all alternate connections signed and sealed by a qualified engineer shall be submitted with or in advance of applicable shop drawings.
- B. Construction: Refer to the Drawings for description of lateral load resisting system.

1.05 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. ~~LEED Submittals:~~
- ~~1. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.~~
 - ~~2. Laboratory Test Reports for Credit IEQ 4: For primers, documentation indicating that products comply 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."~~
- C. Shop and Erection Drawings: Show location, fabrication, and assembly of structural-steel components.
1. Location of each piece or detail within the structure.
 2. Include details of cuts, connections, splices, camber, holes, and other pertinent data.
 3. Include embedment piece and setting drawings.
 4. 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.
 5. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify pretensioned and slip-critical high-strength bolted connections.
 6. Drawings submitted in multiple packages shall contain individual submittals complete with all applicable erection drawings, details, and piece drawings.
 7. Reproduction of Contract Documents is not permitted.
 8. Provide schedule for submittal of shop and erection drawings.
- D. Welding Procedure Specifications (WPSs) and Procedure Qualification Records (PQRs): Provide according to AWS D1.1/D1.1M, "Structural Welding Code - Steel," for each welded joint whether prequalified or qualified by testing

1.06 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer and fabricator.
- B. Welding certificates.
- C. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers, certifying that shop primers are compatible with topcoats.
- D. Mill test reports for structural steel, including chemical and physical properties.
- E. Product Test Reports: For the following if present on project:

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. Shop primers.
5. Nonshrink grout.

1.07 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. Installer Qualifications: A qualified installer who participates in the AISC Quality Certification Program and is designated an AISC-Certified Erector, Category CSE.
- C. **Alternative Fabricator and Installer/Erector Qualifications:**
 1. **Steel fabricators and erectors that are NOT AISC certified will be acceptable with the following qualifications/requirements:**
 - a. **Have experience on at least five structures of similar size and complexity. Submit a description of these projects and scope performed;**
 - b. **Up to date welding certifications for all shop and erector personnel performing welding on the project;**
 - c. **Welding procedure specifications for all shop and field welds on the project stamped by a certified welding inspector;**
 - d. **Inspection reports addressing each shop and field weld on project;**
 - e. **Ultrasonic testing results for each shop and field complete joint penetration welds on the project;**
 - f. **Submit a sequencing plan and shop drawing submittal schedule.**
- D. Shop-Painting Applicators: Qualified according to AISC's Sophisticated Paint Endorsement or SSPC-QP 3, "Standard Procedure for Evaluating Qualifications of Shop Painting Applicators."
- E. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- F. Comply with applicable provisions of the following specifications and documents:
 1. AISC 303 as amended below:
 - a. Section 3.2: Replace entire section with the following: "Requirements for structural steel including quantities, sizes, locations, arrangement, and details shall be shown or noted in the overall Contract Drawing package. Fabricator is responsible for incorporating all such information from structural, architectural, mechanical, and electrical drawings, as well as those of other disciplines."
 - b. Section 3.5: Remove all text after first sentence.
 - c. Section 3.6: Replace entire section with the following: "When the fast-track project delivery system is selected, release of structural drawings shall constitute release for construction only if specifically noted as such on the drawing. Drawing indicated "preliminary" or "not for construction" shall not be used for detailing or construction except where the risk of any cost or delay associated with subsequent revisions to Contract Documents is accepted by the Owner, Contractor or Fabricator."
 - d. Section 4.4: Revise second sentence to read the following: "The shop and erection drawings shall be returned in accordance with the schedule defined in Division 1 of the project Specification. In the absence of such schedule, the Owner's Designated Representative for Design shall return submittals within 14 calendar days of receipt from the Owner's Designated Representative for Construction."
 2. AISC 360.
 3. RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- G. Preinstallation Conference: Conduct conference at Project site

1.08 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 Owner's testing and inspecting agency observes repackaging and seals containers.
 2. Clean and relubricate bolts and nuts that become dry or rusty before use.
 3. Comply with manufacturers' written recommendations for cleaning and lubricating ASTM F 1852 fasteners and for retesting fasteners after lubrication.

1.09 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

2.01 STRUCTURAL-STEEL MATERIALS

- A. Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than **25** percent.
- B. Recycled Content of Steel Products: Provide products with an average recycled content of steel products so postconsumer recycled content plus one-half of preconsumer recycled content is not less than the following:
 - 1. W-Shapes: 60 percent.
 - 2. Channels, Angles, M , S-Shapes: 60 percent.
 - 3. Plate and Bar: 25 percent.
 - 4. Cold-Formed Hollow Structural Sections: 25 percent.
 - 5. Steel Pipe: 25 percent.
 - 6. All Other Steel Materials: 25 percent..
- C. W-Shapes: ASTM A 992 unless indicated otherwise on Drawings.
- D. Channels, Angles, Shapes: ASTM A 36 unless indicated otherwise on Drawings.
- E. Plate and Bar: ASTM A 36 unless indicated otherwise on Drawings..
- F. Welding Electrodes: Comply with AWS requirements, 70 Series
 - 1. Conform to Charpy V-Notch test requirements of AISC 360.
- G. Heavy Sections:
 - 1. Conform to Charpy V-Notch test requirements of AISC 360.

2.02 BOLTS, CONNECTORS, AND ANCHORS

- A. Use Tension-Control, High-Strength Bolt-Nut-Washer Assemblies whenever possible unless indicated otherwise.
- B. High-Strength Bolts, Nuts, and Washers: ASTM A 325, Type 1, heavy-hex steel structural bolts; ASTM A 563, Grade C, heavy-hex carbon-steel nuts; and ASTM F 436, Type 1, hardened carbon-steel washers; all with plain finish.
- C. 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.
- D. Unheaded Anchor Rods: ASTM F 1554, Grade 55, weldable.
 - 1. Configuration: Straight
 - 2. Nuts: ASTM A 563 heavy-hex carbon steel.
 - 3. Plate Washers: ASTM A 36 carbon steel.
 - 4. Washers: ASTM F 436, Type 1, hardened carbon steel.
 - 5. Finish: Plain
- E. Headed Anchor Rods: ASTM F 1554, Grade 55, weldable, straight.
 - 1. Nuts: ASTM A 563 heavy-hex carbon steel.
 - 2. Plate Washers: ASTM A 36 carbon steel.
 - 3. Washers: ASTM F 436, Type 1, hardened carbon steel.
 - 4. Finish: Plain
- F. Threaded Rods: ASTM A 36
 - 1. Nuts: ASTM A 563 heavy-hex carbon steel.
 - 2. Washers: ASTM A 36 carbon steel.
 - 3. Finish: Plain
- G. Deformed Anchor Studs (DAS) / Deformed Bar Anchors (DBA): Made from ASTM A 108 low carbon steel, cold worked and deformed per ASTM A 496. Minimum yield stress = 60 ksi (415 MPa); minimum tensile strength = 80 ksi (550 MPa).
- H. Rebar: Rebar used for welding shall meet the requirements of ASTM A-706. Minimum bend diameters per ACI 318.
- I. Expansion Anchors, Screw Anchors, and Adhesive Anchors: Size and Manufacturer as indicated on Drawings. Complete assemblies with required rods, nuts, washers, and adhesive system as applicable. Installed in accordance with Manufacturer's installation instructions. Current ICC approval and published ICC Research Report required.
 - 1. Finish for use in conditioned environments free from potential moisture (interior): Plain or in accordance with Manufacturer's standard.
 - 2. Finish for use in exposed or potentially wet environments and for attachment of exterior cladding materials: Galvanized in conformance with ASTM A 153 or stainless steel, Series 300.

2.03 PRIMER

- A. Low-Emitting Materials: Paints and coatings shall comply 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."
- B. Primer: Where steel is to be field painted, provide fabricator's standard lead- and chromate-free, nonasphaltic, rust-inhibiting primer complying with MPI#79 and compatible with topcoat.
- C. Galvanizing Repair Paint: MPI#18, MPI#19, or SSPC-Paint 20.

2.04 GROUT

- A. Metallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, metallic aggregate grout, mixed with water to consistency suitable for application and a 30-minute working time. Minimum compressive strength = 6000 psi .

- B. 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. Minimum compressive strength = 6000 psi. Required where grout is exposed to view or weathering.

2.05 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, if applicable.
- 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: Cut, drill, mechanically thermal cut, or punch standard bolt holes perpendicular to metal surfaces. Do not enlarge bolt holes by burning.
- D. Finishing: Accurately finish ends of columns and other members transmitting bearing loads.
- E. Cleaning: Clean and prepare steel surfaces that are to remain unpainted according to SSPC-SP 2, "Hand Tool Cleaning or SSPC-SP 3, "Power Tool Cleaning."
- F. Steel Headed Stud Anchors and Deformed Anchor Studs / Deformed Bar Anchors: Prepare steel surfaces as recommended by manufacturer of anchors. Use automatic end welding of anchors according to AWS D1.1/D1.1M and manufacturer's written instructions.
- G. Holes: Provide holes required for securing other work to structural steel and for other work to pass through steel framing members.
1. Cut, drill, thermal cut, or punch holes perpendicular to steel surfaces.
 2. Baseplate Holes: Cut, drill, mechanically thermal cut, or punch holes perpendicular to steel surfaces.
- H. Splices: Splicing of members to obtain required lengths is not permitted without prior approval of structural Engineer-of-Record unless indicated on the Drawings.
- I. Substitutions: Where exact sizes and weights indicated on Drawings are not readily available, secure approval of alternate sizes from Structural Engineer-of Record in time to prevent project delay.

2.06 SHOP CONNECTIONS

- A. High-Strength Bolts: Shop install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for type of bolt and type of joint specified.
1. Joint Type: As indicated on Drawings.
- B. Weld Connections: Comply with AWS D1.1 and AWS D1.8 for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.

2.07 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, including top flange of beams to receive steel headed stud anchors.
 3. Surfaces to be high-strength bolted with slip-critical connections.
 4. Surfaces to receive sprayed fire-resistive materials (applied fireproofing).
 5. Galvanized surfaces.
 6. Surfaces not otherwise indicated to be painted that are not exposed to view or weather in the final condition.
- B. Surface Preparation: Clean surfaces to be painted. Remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces according to either of the following specifications and standards:
1. SSPC-SP 2, "Hand Tool Cleaning."
 2. SSPC-SP 3, "Power Tool Cleaning."
- 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.

2.08 GALVANIZING

- A. Hot-Dip Galvanized Finish: Apply zinc coating by the hot-dip process to structural steel according to ASTM A 123/A 123M.
1. Fill vent and drain holes in closed sections (HSS or Pipe) that will be exposed in the finished Work unless they will function as weep holes, by plugging with zinc solder and filing off smooth.
 2. Galvanize lintels and shelf angles located in exterior walls.

2.09 SOURCE QUALITY CONTROL

- A. Testing and Inspection: As indicated on Drawings.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify, with steel Erector present, elevations of concrete- and masonry-bearing surfaces and locations of anchor rods, bearing plates, and other embedments for compliance with requirements.
1. Prepare a certified survey of bearing surfaces, anchor rods, bearing plates, and other embedments showing dimensions, locations, angles, and elevations.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 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.
1. Coordinate installation of non-structural steel items that load the temporarily supported steel frame such that temporary supports are adequate to resist all imposed loads.
 2. Do not remove temporary shoring supporting composite deck construction until cast-in-place concrete has attained its design compressive strength.
 3. Do not apply permanent loading other than the weight to supported concrete slab-on-deck assemblies to composite beams and girders until concrete has achieved 75 percent of its design strength without prior approval of structural Engineer-of-Record.

3.03 ERECTION

- A. Set structural steel accurately in locations and to elevations indicated and according to AISC 303 and AISC 360.
- B. Base Bearing and Leveling 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. Weld plate washers to top of baseplate where indicated on Drawings.
 3. 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.
 4. Clean and moisten surfaces to receive grout. Immediately remove any remaining free water. 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.
 2. Make allowances for difference between temperature at time of erection and mean temperature of 70° F when structure is completed and in service.
- E. Splice members only where indicated.
1. Fasten splices in compression after bearing surface have been brought into contact. Close all gaps greater than 1/16" by driving non-tapered mild steel shims full depth of bearing surface along full length of gap.
- F. Do not use thermal cutting during erection unless approved by Structural Engineer-of-Record. Finish thermally cut sections within smoothness limits in AWS D1.1.
- G. Do not enlarge unfair holes in members by burning or using drift pins. Ream holes that must be enlarged to admit bolts.
- H. Steel Headed Stud Anchors: Prepare steel surfaces as recommended by manufacturer of shear connectors. Use automatic end welding of headed-stud shear connectors according to AWS D1.1 and manufacturer's written instructions.

3.04 FIELD CONNECTIONS

- A. High-Strength Bolts: Install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for type of bolt and type of joint specified.
1. Joint Type: As indicated on Drawings.
- B. Weld Connections: Comply with AWS D1.1 and AWS D1.8 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 where indicated on Drawings, 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.

3.05 FIELD QUALITY CONTROL

- A. Testing and Inspection: As indicated on Drawings.

3.06 REPAIRS AND PROTECTION

- A. Galvanized Surfaces: Clean areas where galvanizing is damaged or missing and repair galvanizing to comply with ASTM A 780.
- B. Touchup Painting: Cleaning and touchup painting are specified in Section 099100 "Painting"

END OF SECTION 05 12 00

THIS SPECIFICATION WAS PREPARED UNDER THE ARCHITECT'S SUPERVISION, AND IS AN "INSTRUMENT OF SERVICE" INTENDED SOLELY FOR USE BY OUR CLIENT ON THIS PROJECT. THE SPECIFICATIONS ARE PART OF AN INTEGRATED SET OF CONSTRUCTION CONTRACT DOCUMENTS - THE AGREEMENT, THE GENERAL AND SUPPLEMENTARY CONDITIONS OF THE CONTRACT, AND DIVISION-01 "GENERAL REQUIREMENTS". SECTIONS OF THESE SPECIFICATIONS APPLY TO THE WORK DESCRIBED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND SAFETY PRECAUTIONS. THE ARCHITECT DISCLAIMS ANY RESPONSIBILITY FOR EXISTING SITE CONDITIONS AND ANY EXISTING BUILDING STRUCTURE OR CONSTRUCTION ELEMENTS, AND FOR ANY DOCUMENTS NOT SIGNED AND SEALED BY THE ARCHITECT. THE INFORMATION, IDEAS AND DESIGNS INDICATED - INCLUDING THE OVERALL FORM, ARRANGEMENT AND COMPOSITION OF SPACES OR BUILDING ELEMENTS - CONSTITUTES THE ORIGINAL, CONFIDENTIAL, AND UNPUBLISHED WORK AND PROPERTY OF THE ARCHITECT. RECEIPT OR POSSESSION OF THIS SPECIFICATION CONFERS NO RIGHT, IN, OR LICENSE TO DISCLOSE TO ANY OTHER THE SUBJECT MATTER CONTAINED HEREIN FOR ANY BUT AUTHORIZED PURPOSES. UNAUTHORIZED REPRODUCTION, DISTRIBUTION OR DISSEMINATION - IN WHOLE OR IN PART - IS STRICTLY PROHIBITED. ALL RIGHTS RESERVED - © 2020 BY HUFFT PROJECTS LLC

SECTION 08 41 13 – ALUMINUM ENTRANCE AND STOREFRONT**PART 1 - GENERAL**

- 1.01 PROVIDE ALUMINUM-FRAMED entrance doors and storefront framing as shown on Drawings, as required herein, and as needed to meet the requirements of the construction shown in the Contract Documents.
- 1.02 ACCESSIBLE ENTRANCES: Provide entrances in compliance with both the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG).", and ICC/ANSI A117.1.
- 1.03 SUBMITTALS
- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, hardware, finishes, and installation instructions for each type of aluminum-framed storefront system indicated.
 1. Recycled Content:
 - a. Provide documentation that aluminum has a minimum of 50% mixed pre- and post-consumer recycled content with a sample document illustrating project specific information that will be provided after product shipment.
 - b. Once product has shipped, provide project specific recycled content information, including:
 - (1) Indicate recycled content; indicate percentage of pre- and post-consumer recycled content per unit of product.
 - (2) Indicate relative dollar value of recycled content product to total dollar value of product included in project.
 - (3) Indicate location recovery of recycled content.
 - (4) Indicate location of manufacturing facility.
 2. Environmental Product Declaration (EPD).
 - a. Include a Type III Product-Specific EPD created from a Product Category Rule.
 - B. Shop Drawings: Include plans, elevations, sections, details, hardware, and attachments to other work, operational clearances and installation details.
 - C. Samples for Initial Selection: For units with factory-applied color finishes including samples of hardware and accessories involving color selection.
 - D. Samples for Verification: For aluminum-framed storefront system and components required.
 - E. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency for each type, of aluminum-framed storefront.
 - F. Fabrication Sample: Of each vertical-to-horizontal intersection of aluminum-framed systems, made from 12" (304.8 mm) lengths of full-size components and showing details of the following:
 1. Joinery, including concealed welds.
 2. Anchorage.
 3. Expansion provisions.
 4. Glazing.
 5. Flashing and drainage.
 - G. Other Action Submittals:
 1. Entrance Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of entrance door hardware, as well as procedures and diagrams. Coordinate final entrance door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of entrance door hardware.
- 1.04 QUALITY ASSURANCE:
- A. Installer Qualifications: An installer which has had successful experience with installation of the same or similar units required for the project and other projects of similar size and scope.
 - B. Manufacturer Qualifications: A manufacturer capable of providing aluminum-framed storefront system that meet or exceed performance requirements indicated and of documenting this performance by inclusion of test reports, and calculations.
 - C. Source Limitations: Obtain aluminum-framed storefront system through one source from a single manufacturer.
 - D. Product Options: Drawings indicate size, profiles, and dimensional requirements of aluminum-framed storefront system and are based on the specific system indicated. Refer to Division 01 Section "Product Requirements". Do not modify size and dimensional requirements.
 1. 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: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 1. Build mockup for type(s) of storefront elevation(s) indicated, in location(s) shown on Drawings.
 - F. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination".
- 1.05 Project Conditions
- A. Field Measurements: Verify actual dimensions of aluminum-framed storefront openings by field measurements before fabrication and indicate field measurements on Shop Drawings.

1.06 Warranty

- A. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty.
 - 1. Warranty Period: Two (2) years from Date of Substantial Completion of the project.

PART 2 - PRODUCTS

2.01 GENERAL

- A. SYSTEM STRUCTURAL CAPACITY (for exterior storefront / window framing):
 - 1. MINIMUM EXTERIOR WIND LOAD: Design system to provide structural capacity to withstand a minimum inward and outward uniform pressure loading as indicated on the Drawing or as otherwise required below – whichever value is greater:
 - a. For clear spans up to 19 feet high: 25 PSF (per Exposure C w/ 90 MPH wind).
 - b. For clear spans between 19 to 25 feet high: 27 PSF
 - 2. DEFLECTION LIMITS– NORMAL TO WALL PLANE: Limit to 1/175 of clear span for spans up to 13 feet 6 inches and to 1/240 of clear span plus 1/4 inch for spans greater than 13 feet 6 inches or an amount that restricts edge deflection of individual glazing lites to 3/4 inch whichever is less.
 - 3. DEFLECTION LIMITS OF FRAMING MEMBERS – PARALLEL TO GLAZING PLANE: Limited to 1/360 of clear span or 1/8 inch, whichever is smaller
- B. SYSTEM PERFORMANCE (for exterior storefront / window framing): Provide assemblies designed and fabricated to comply with the following, as demonstrated by testing corresponding stock systems:
- C. THERMAL MOVEMENT: Allow for expansion and contraction resulting from ambient temperature range of 120 deg. F.
- D. AIR & WATER LEAKAGES - FIXED FRAMING: Air infiltration of not more than 0.06 CFM per sq. ft. of fixed area per ASTM E 283 and no uncontrolled water penetration per ASTM E 331 at pressure differential of 6.24 PSF.
- E. AIR & WATER LEAKAGES - ENTRANCES: Air infiltration per linear foot of perimeter crack of not more than 0.50 CFM for single doors and 1.0 CFM for pairs of doors per ASTM E 283 at pressure differential of 1.567.

2.02 MATERIALS

- A. Aluminum Extrusions: Alloy and temper recommended by aluminum storefront manufacturer for strength, corrosion resistance, and application of required finish and not less than 0.070" (1.8 mm) wall thickness at any location for the main frame and complying with ASTM B 221: 6063-T6 alloy and temper.
 - 1. Recycled Content: Shall have a minimum of 50% mixed pre- and post-consumer recycled content.
 - a. Indicate recycled content; indicate percentage of pre-consumer and post-consumer recycled content per unit of product.
 - b. Indicate relative dollar value of recycled content product to total dollar value of product included in project.
 - c. Indicate location recovery of recycled content.
 - d. Indicate location of manufacturing facility.
- B. Fasteners: Aluminum, nonmagnetic stainless steel or other materials to be non-corrosive and compatible with aluminum framing members, trim hardware, anchors, and other components.
- C. Anchors, Clips, and Accessories: 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; provide sufficient strength to withstand design pressure indicated.
- D. Reinforcing Members: 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; provide sufficient strength to withstand design pressure indicated.
- E. Sealant: For sealants required within fabricated storefront system, provide permanently elastic, non-shrinking, and non-migrating type recommended by sealant manufacturer for joint size and movement.
- F. Tolerances: Reference to tolerances for wall thickness and other cross-sectional dimensions of storefront members are nominal and in compliance with AA Aluminum Standards and Data.

2.03 ACCEPTABLE MANUFACTURERS: Subject to compliance with unit size of products indicated and other requirements specified herein, products of one of the following alternative manufacturers are also acceptable:

- A. Arch Amarlite – Arch Aluminum and Glass Inc. (www.archamarlite.com)
- B. EFCO Corporation (www.efcocorp.com)
- C. BASIS OF DESIGN: Kawneer Company, Inc. (www.kawneer.com)
- D. Tubelite Architectural Systems (www.tubeliteinc.com)
- E. Vistawall Architectural Products (www.vistawall.com)
- F. YKK AP America Inc. (www.ykkap.com)

2.04 INTERIOR STOREFRONT, DOOR & WINDOW FRAMING: Fabricated system of ASTM B 221 - 6063 T5 alloy extruded aluminum, in rectangular profile to accept 6 mm (1/4 inch) glass panels with 1-3/4-inch-wide snap-on outside trims to cover and engage drywall partitions with an overall "face" profile width of 1 3/4 inch. Provide "throat opening" to match drywall partition thickness. Pre-machine jambs and prepare for door hardware, with concealed reinforcement plates, drilled and tapped as required, and fastened to the frames. Provide corner reinforcements to allow secure installation without exposed fasteners. Pre-cut in factory, and ship to project site knocked-down for field assembly.

- A. Typical member size: 1-3/4" wide/high x 4-1/2-inch deep
- B. Glazing location: "centered"
- C. Finish: Black Anodized



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- D. Kawneer- Trifab 400 Framing system (Basis of Design)
1. https://www.kawneer.com/kawneer/north_america/en/product.asp?cat_id=1342&prod_id=1830&desc=custom-aluminum-extrusion-framing-systems
- E. Finish selected by Architect
- 2.05 INTERIOR (NON-THERMAL) ALUMINUM ENTRANCE DOORS: Stile and rail type door, 1-3/4 inch thick, with "wide" profile vertical and top stiles and six (6) inch high minimum bottom rail, of minimum 1/8" thick tubular aluminum frame members mechanically fastened and with reinforced joints, for single-pane glazing:
- A. Finish: Black Anodized
 - B. BASIS OF DESIGN: Kawneer 500 Wide Stile Entrance
- 2.06 ALUMINUM ENTRANCE DOOR HARDWARE:
- A. Refer to other Division-08 "Door Hardware" Section for other hardware required for storefront doors
- 2.07 BRAKE-METAL ALUMINUM TRIM: Fabricate flat aluminum sheet in profiles indicated on Drawings or as required to provide closure at adjacent construction elements.
- 2.08 STEEL REINFORCEMENT complete with manufacturer's standard corrosion-resistant primer complying with SSPC-PS Guide No. 12.00 applied immediately after surface preparation and pretreatment, select surface preparation methods according to recommendations in SSPC-SP COM and prepare surfaces according to applicable SSPC standard:
- A. Structural Shapes, Plates, and Bars: ASTM A 36
 - B. Cold-Rolled Sheet and Strip: ASTM A 1008
 - C. Hot-Rolled Sheet and Strip: ASTM A 1011
- 2.09 FASTENERS: Aluminum, non-magnetic stainless steel, or other materials warranted by manufacturer to be noncorrosive and compatible with aluminum components. Exposed fasteners must match finish of members and hardware being fastened.
- 2.10 CONCEALED FLASHING: Dead-soft stainless steel, 26 gage minimum, or extruded aluminum, 0.062" minimum, as selected by manufacturer for compatibility with other components.
- 2.11 CONCRETE/MASONRY INSERTS: Cast-iron, malleable iron, or hot-dipped galvanized steel complying with ASTM A-386.
- 2.12 BITUMINOUS COATINGS: Cold-applied asphalt mastic complying with SSPC-PS 12, compounded for 30-mil thickness per coat.
- 2.13 COMPRESSION WEATHERSTRIPPING: Manufacturer's standard replaceable stripping of either molded neoprene gaskets complying with ASTM D 2000 or molded PVC gaskets complying with ASTM D 2287.
- 2.14 GLAZING SYSTEM: Provide manufacturer's standard compression type molded or extruded glazing gaskets that maintain uniform pressure and watertight seal, inside-outside matched, with provisions for glass replacement. Provide elastomeric type spacers and setting blocks.
- 2.15 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 entrance door hardware.
- 2.16 PREFABRICATION: Complete fabrication, assembly, finishing, hardware application, and other work before shipment to project site. Disassemble components only as necessary for shipment and installation. Comply with AWS recommendations to avoid discoloration; grind exposed welds smooth and restore mechanical finish. Install reinforcing if required for performance requirements; separate dissimilar metals with bituminous paint or other separator which will prevent corrosion. Maintain accurate relation of planes and angles, with hairline fit of contacting members. Conceal fasteners wherever possible.
- 2.17 DOOR FABRICATION: Provide tubular frame members, fabricated with mechanical joints using heavy inserted reinforcing plates and concealed tie-rods or j-bolts, or fabricate with structurally welded joints, at manufacturer's option.
- 2.18 ALUMINUM TRIM: Fabricate flat aluminum sheet in profiles indicated on Drawings or as required to provide closure at adjacent construction elements.
- 2.19 ANODIZED ALUMINUM FINISH: Provide Class 1 "colored" anodized finish per AA-M12C22A42/A44.
- A. COLOR: Clear Anodized
- 2.20 TAKE FIELD MEASUREMENTS prior to fabrication, to ensure proper fitting of Work.

PART 3 - EXECUTION

- 3.01 EXAMINE AREAS with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work. Proceed with installation only after unsatisfactory conditions have been corrected.
- 3.02 INSTALLATION:
- A. COMPLY with manufacturer's instructions and recommendations for installation of aluminum entrances and storefronts.
 - B. SET UNITS PLUMB, level, and true to line, without warp or rack of framing members, doors, or panels. Anchor securely in place, separating aluminum and other corrodible metal surfaces from sources of corrosion of electrolytic action at points of contact with other materials.
 - C. DRILL AND TAP frames and doors and apply surface-mounted hardware items, complying with hardware manufacturer's instructions and template requirements. Use concealed fasteners wherever possible.
 - D. SET SILL MEMBERS in bed of sealant as indicated, or with joint fillers or gaskets as indicated to provide weathertight construction. Comply with requirements of Division 7 for sealants, fillers, and gaskets. Install glazing as required by Division-08 "Glazing" Section.

- E. ADJUST OPERATING HARDWARE to function properly, without binding, and to prevent tight fit at contact points and weather-stripping.
- F. ERECTION TOLERANCES: Install aluminum-framed entrances and storefronts to comply with the following maximum tolerances:
 - 1. PLUMB: 1/8 inch in 10 feet; 1/4 inch in 40 feet.
 - 2. LEVEL: 1/8 inch in 20 feet; 1/4 inch in 40 feet.
 - 3. ALIGNMENT: Where surfaces abut in line or are separated by reveal or protruding element up to 1/2 inch wide, limit offset from true alignment to 1/16 inch.
 - 4. LOCATION: Limit variation from plane to 1/8 inch in 12 feet; 1/2 inch over total length.

3.03 FIELD QUALITY CONTROL – WATER-SPRAY TESTING: Before installation of interior finishes has begun, test representative areas as designated by the Architect according to AAMA 501.2, in the presence of the Architect and the Owner’s representative. Tested areas must not show any evidence of water penetration. Perform a minimum of two tests in areas as directed by Architect.

3.04 CLEAN COMPLETED SYSTEM, inside and out, promptly after erection and installation of glass and sealants. Remove excess glazing and joint sealants, dirt, and other substances from aluminum surfaces.

3.05 INSTITUTE PROTECTIVE MEASURES and precautions required to assure that aluminum entrances and storefronts will be without damage or deterioration, other than normal weathering, at time of acceptance.

3.06 MAINTENANCE SERVICE FOR ENTRANCE DOOR HARDWARE: Beginning at Substantial Completion, provide maintenance service by skilled employees of the entrance door hardware Installer. Include quarterly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper entrance door hardware operation at rated speed and capacity. Use parts and supplies that are the same as those used in the manufacture and installation of original equipment.

3.07 INITIAL MAINTENANCE SERVICE PERIOD: twelve months after Substantial Completion

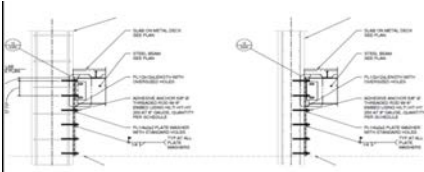
END OF SECTION 08 41 13

THIS SPECIFICATION WAS PREPARED under the Architect's supervision, and is an "Instrument of Service" intended solely for use by our Client on this Project. The Specifications are part of an integrated set of construction Contract Documents - the Agreement, the General and Supplementary Conditions of the Contract, and Division-01 "General Requirements". Sections of these Specifications apply to the Work described. The Contractor is solely responsible for construction means, methods, techniques, sequences, procedures and safety precautions. The Architect disclaims any responsibility for existing site conditions and any existing building structure or construction elements, and for any documents not signed and sealed by the Architect. The information, ideas and designs indicated - including the overall form, arrangement and composition of spaces or building elements - constitutes the original, confidential, and unpublished Work and property of the Architect. Receipt or possession of this Specification confers no right in, or license to disclose to any other the subject matter contained herein - in whole or in part - is strictly prohibited. All rights reserved - © 2020 by Hufft Projects LLC

Bid RFI Questions

Project: 546 UA Union Infill

Bid Due Date 4/14/2020

#	Question/Description	Received	Discipline	Response	Drawing/Spec Update
1	Procurement and Contracting Requirements pg 76 of 287.1.15. Is the Owner's and Designer's Protective Liability listed the same as the Owner's and Contractor's Protective Liability?	3/26/2020	Arch - Specs	The coverage for all liability insurance should meet the amounts listed in 1.15.B.1. This includes the "Owner's and Designers Protective Liability" as well as the "Owner's and Contractor's Protective Liability". The coverage of these from a policy perspective is they are not the same thing. The policy should cover all parties involved, Owner, Designer, and Contractor, and not exclude any.	
2	Can we get clarification for the below snap shot. These plates call out 1/2"x12"x Length. I need to know if this is referring to the length of the existing column or if they are meaning something else. Please clarify. 	3/26/2020	Structural	The length of plate depends on the number of anchors needed for the connection based on the schedule provided in 11/S200. The connection type is noted where the detail is cut on plan.	
3	Spec Section 08 4113 specifies for a clear anodized finish while the plans call for a black anodized finish. Please clarify which is needed?	3/26/2020	Arch - Finishes	Black anodized finish	ADD 02
4	Spec Section 08 4113 specifies interior 1.75" x 4.5" storefront frames which cover and engage the drywall partitions. The head/ jamb detail on A720 shows a more typical interior 1.75" x 4.5" storefront frame installation that does not cover and engage the drywall. Please clarify.	3/26/2020	Arch	Refer to drawings detail on sheet A720.	ADD 02
5	All of storefront doors are listed to have 08 71 00 supplied hardware set 02. It looks like deadbolt lock and flush bolts should be supplied by the storefront contractor (storefront manufacturers' deadlock and flush bolts installed in doors at manufacturers' plant). Will all other hardware for these doors be furnished by 08 71 00 or will any of the hardware also be furnished by the storefront contractor?	3/26/2020	Arch	Prefer Storefront supplier to furnish/provide hardware requiring door to be prepped for. Other hardware can be provided by storefront supplier or other.	
6	Sheet M202 shows six pipes between grid lines m and l and to the right of grid line 7. Please clarify what kind of piping, the sizing and material, and how much it raises.	3/26/2020	Mechanical	BTME Response to #6: See attached markups with sizes and service type of each pipe. Note these are from a 1998 renovation and shall be field verified prior to performing work. Any shut-downs shall be approved by and coordinated with the owner, as this will result in a temporary loss of service. Pipe material shall meet the Division 23 Specs. Elevation shall be as high as possible within structural bay to coordinate around ductwork.	
7	Please see attached substitution request for operable partitions.	3/26/2020	Arch	Approved	
8	Spec Section 08 34 13 Folding Doors page 216 starts off with a typical specification for operable partitions and then on page 217 transitions to a specification for an accordion door. Please clarify	3/26/2020	Arch	The door is to be an operable partition with folding doors.	
9	Spec Section 05 12 00 1.07 Is the AISC Certification required for the steel erector?	3/26/2020	Structural	Spec section 05 12 00 to be updated in ADD 02, please see new 1.09 QUALITY ASSURANCE for steel fabricators not AISC certified.	ADD 02
10	Spec Section 05 12 00 1.05 calls for LEED submittals. Is this a LEED project?	3/26/2020	Arch	This project is NOT a LEED project. Specifications to be updated accordingly.	ADD 02
11	Sheet A800 FF&E: Indicates the layout for the furniture in the completed space. Is this to be supplied and installed by others? Please clarify.	3/26/2020	Arch - Furniture	Furniture is to be supplied by others and except the barstools in the hallway, level 3, will be installed by the contractor. Contractor is also responsible for connecting power to the open workstations, and installing the TV monitors.	
12	Sheet A610 Space Divider: Is this by the GC including the upholstery? Are the square spaces around the perimeter open? Details are not clear. Please clarify	3/26/2020	Arch - Finishes	GC is to include upholstery, the square openings - metal framing - is open.	
13	Sheet A612 Photo Backdrop Wall: It appears that this wall is double sided mirror image. Where there is not a felt colored panel shown is that space to be left open? Please clarify This may be a means and method issue, but how can a plywood panels that are wrapped with felt be installed back to back without exposing the method of attachment?	3/26/2020	Arch	Where there is no felt panel, that space is open. The 3/4" plywood panels on each side of the metal straps/cross braces to be secured to metal straps with an adhesive. Detail 10/A612 will be updated in an addendum.	ADD 02
14	Upholstery Notes UP1, UP2, and UP3: Are these cushions supplied by the GC or by Owner?	3/26/2020	Arch	General contractor to provide upholstery.	

15	Can there be an additional date or dates for site visits by specific subcontractors bidding the project? It would be advantageous to schedule these late next week if possible.	3/26/2020	Owner	Due to COVID-19 the University is taking measures to limit the number of staff and visitors in the building. The space can no longer be left open but subcontractors can view the space from the hallway but are asked to go in small groups.	
16	How can parking spaces be procured in the adjacent Parking Garage? The monthly rental cost and the amount of spaces allowed would also be helpful.	3/26/2020	Owner	<p>Regarding the Stadium Dr. Parking Garage ("Union Garage"), Spaces cannot be purchased for an extended amount of time. They would have to pay by the hour. Currently \$1.80 will go up to \$1.85 in July. Purchasing a yellow parking permit will allow the user to park anywhere on campus that is designated as a Yellow parking lot. The link that I have provided will show all parking locations and designations. https://parking.uark.edu/parkmap.pdf</p> <p>The permit is good from July-June and will be prorated according to which month it is purchased in.</p> <p>There are also free off campus parking options that are available. Example Baum Stadium East parking lot or off of Beechwood Ave. both are in close proximity to each other south of the university main campus.</p>	

NOTICE TO SHEET METAL CONTRACTOR:

THIRD LEVEL PLENUM SPACE ABOVE CEILING IS EXTREMELY LIMITED WITH TIGHTLY COORDINATED DUCTWORK BELOW EXISTING STRUCTURE, EXISTING PLUMBING, EXISTING HVAC PIPING, AND ABOVE NEW LIGHT FIXTURES AND CEILING GRIDS. PRIOR TO INSTALLATION OF ANY NEW DUCTWORK, SHEET METAL CONTRACTOR SHALL REVIEW LIGHTING PLANS AND LAYOUTS AND TIGHTLY COORDINATE DUCTWORK ROUTING WITH PLANS. LIGHTING FIXTURE LOCATIONS HAVE PRIORITY UNLESS PERMISSION IS GIVEN BY ARCHITECT AND ELECTRICAL ENGINEER. DUCTWORK SHOP DRAWINGS SHALL BE SUBMITTED TO DESIGN TEAM FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

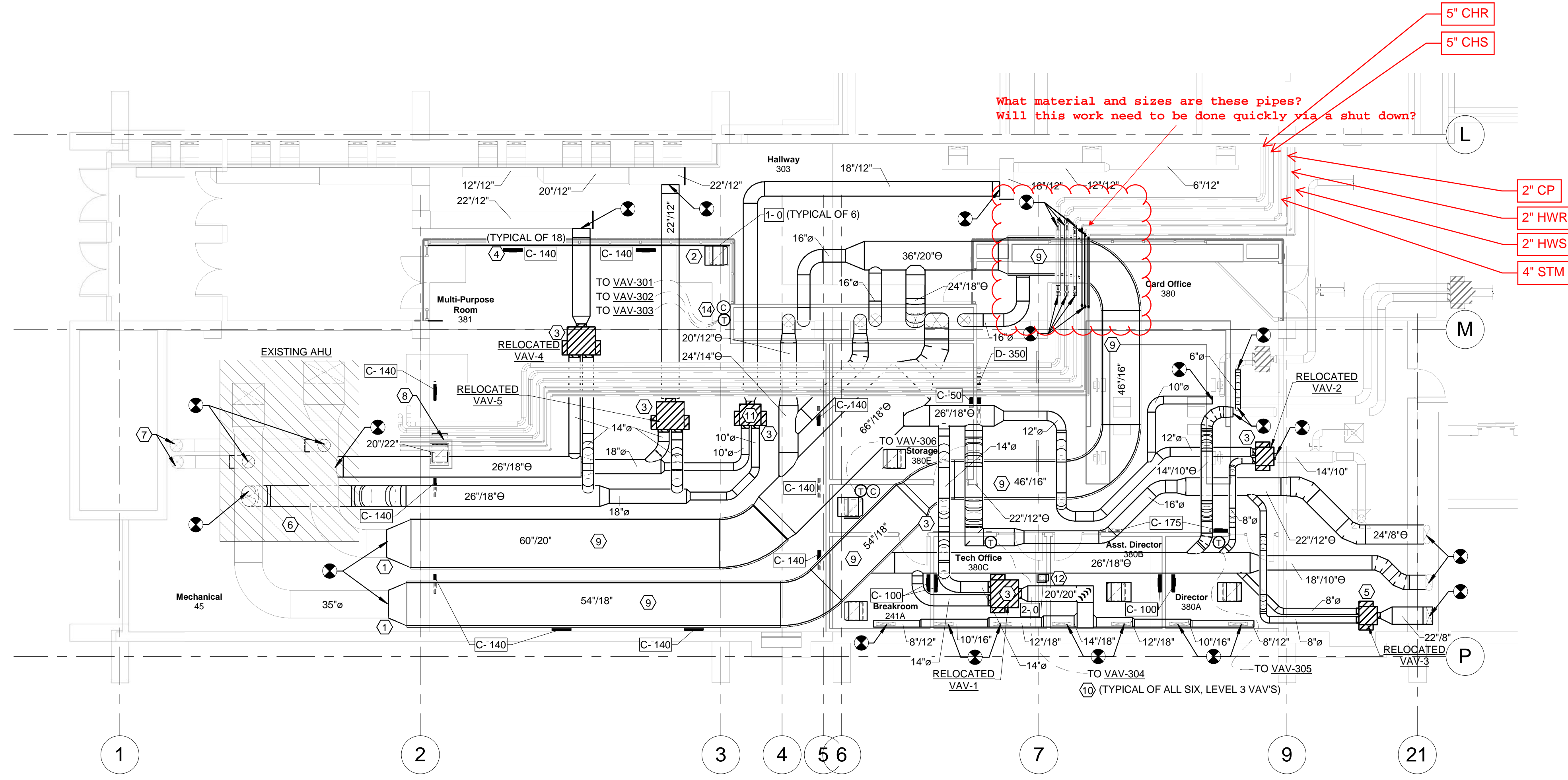
GENERAL NOTES:

- GENERAL CONTRACTOR SHALL PROVIDE ACCESS DOORS TO ALL MECHANICAL EQUIPMENT, DAMPERS, AND VALVES LOCATED ABOVE HARD CEILINGS OR BEHIND WALLS.
- COORDINATE ALL MECHANICAL SYSTEM SHUT DOWNS AND INTERRUPTIONS CLOSELY WITH OWNER AND DO NOT PERFORM SYSTEM SHUT DOWN WITHOUT PRIOR WRITTEN APPROVAL OF OWNER.
- ALL NEW EXPOSED CHILLED WATER PIPING AND CONDENSATE DRAIN PIPING IN MECHANICAL ROOMS SHALL BE JACKETED WITH COLORED PVC JACKET PER UNIVERSITY STANDARD COLOR SCHEME. ALL PIPING SHALL BE LABELED WITH FLOW DIRECTION, WATER TYPE, AND PIPE SIZE PER SPECIFICATION 23 05 53.
- ALL TAGGED DUCT SIZES ARE THE INSIDE METAL DIMENSIONS.
- PROVIDE REMOTE BALANCING DAMPERS FOR ALL DAMPERS ABOVE HARD CEILINGS. DAMPERS SHALL BE OPERATED WITH HAND-HELD CONTROLLER FROM AN ACCESS POINT AT WALL PLATE.

KEYED NOTES:

- REPLACE EXISTING ROUND DUCTWORK WITH DOUBLE-WALL, RECTANGULAR DUCTWORK TO ACCOMMODATE LIMITED PLENUM SPACE.
- INSULATED RETURN ELBOW; REFER TO DESIGNATION 1, DETAIL 10 ON SHEET M302.
- EXISTING DUAL DUCT VAV BOXES TO BE RE-USED AND RELOCATED ACCORDING TO NEW CONSTRUCTION REQUIREMENTS.
- FLOOR SUPPLY GRILLES 'C'; REFER TO M201 FOR SUPPLY DUCTWORK LEADING TO THESE GRILLES. SHEET METAL CONTRACTOR TO FIELD FABRICATE 24-INCH LONG PLENUM BOX TO CONNECT TO LINEAR FLOOR DIFFUSER. PLENUM SHALL BE SAME HEIGHT AS DIFFUSER AND TALL ENOUGH FOR SIDE DUCT CONNECTION. PLENUM SHALL BE EXTERNALLY INSULATED. DUCT PENETRATION THROUGH FLOOR SHALL HAVE A FIRE DAMPER. REFER TO DETAIL 1 ON SHEET M302.
- EXISTING DUAL DUCT VAV BOX TO BE RE-USED AND ELEVATED TO NEW PLENUM SPACE, ACCORDING TO NEW CONSTRUCTION REQUIREMENTS.
- EXISTING AHU.
- EXISTING HOT/COLD DUCTWORK SUPPLY UP TO LEVEL(S) ABOVE.
- 20" X 22" RETURN AIR DUCTWORK UP FROM AHU-1 ON LEVEL BELOW. COORDINATE WITH ARCHITECTURAL PLANS FOR CHASE LOCATION.
- ALL MEDIUM / HIGH PRESSURE RECTANGULAR SUPPLY DUCTWORK SHALL BE DOUBLE-WALL CONSTRUCTION.
- REFER TO SHEET M201 FOR LEVEL 3 VAV LOCATIONS.
- RELOCATED VAV-6.
- INSULATED RETURN ELBOW; REFER TO DESIGNATION 2, DETAIL 10 ON SHEET M302.
- FLOOR SUPPLY GRILLES 'D'; REFER TO M201 FOR SUPPLY DUCTWORK LEADING TO THESE GRILLES. SHEET METAL CONTRACTOR TO FIELD FABRICATE 72-INCH LONG PLENUM BOX TO CONNECT TO LINEAR FLOOR DIFFUSER. PLENUM SHALL BE SAME HEIGHT AS DIFFUSER AND TALL ENOUGH FOR SIDE DUCT CONNECTION. PLENUM SHALL BE EXTERNALLY INSULATED. DUCT PENETRATION THROUGH FLOOR SHALL HAVE A FIRE DAMPER. REFER TO DETAIL 1 ON SHEET M302.
- VAV-301, VAV-302 AND VAV-303 SHALL ALL BE CONTROLLED BY ONE THERMOSTAT, AS SHOWN, SERVING MULTI-PURPOSE ROOM 381.

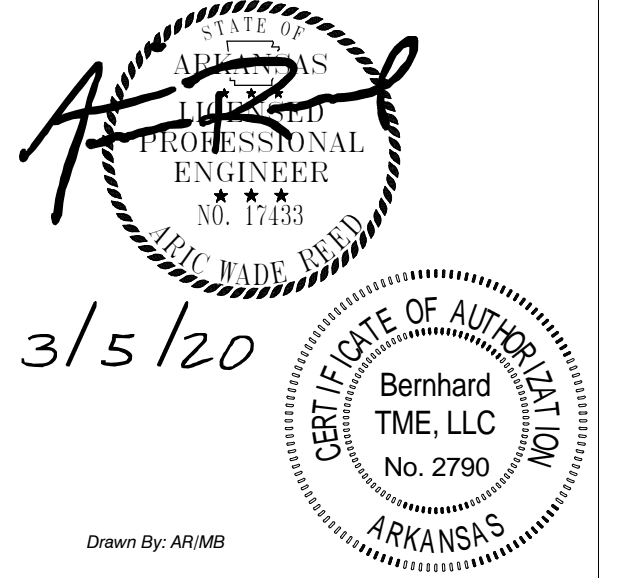
Question 6 - BTME markup.



1 LEVEL 3 - HVAC NEW
1/8" = 1'-0"

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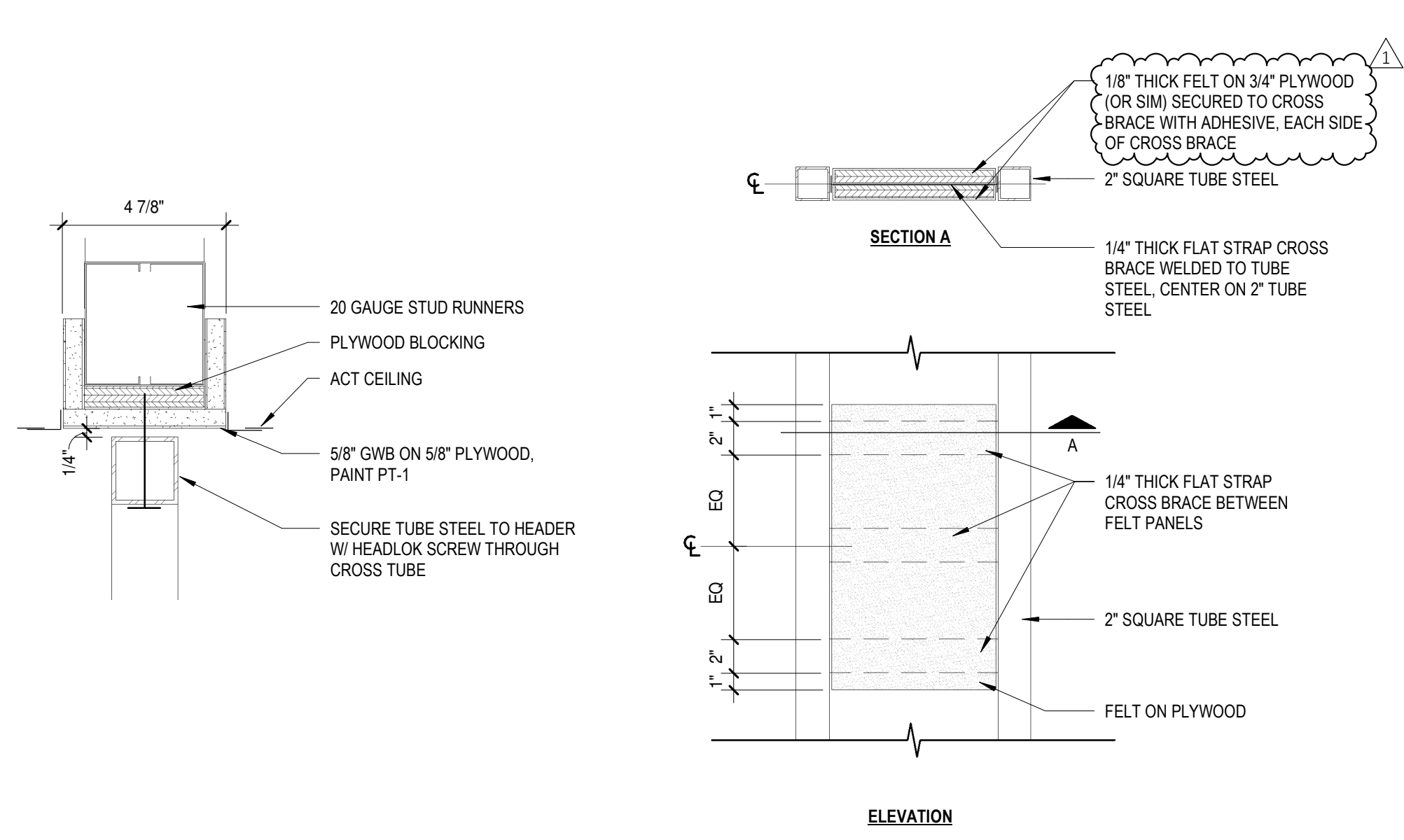
Drawn By: ARMB
THIRD FLOOR PLAN - HVAC NEW

GENERAL NOTES

- FOR MATERIAL DESIGNATIONS SEE FINISHES REF. A600
- EXISTING WALL ELECTRICAL PANELS, OR SIM, TO BE PAINTED TO MATCH ADJACENT WALL COLOR.

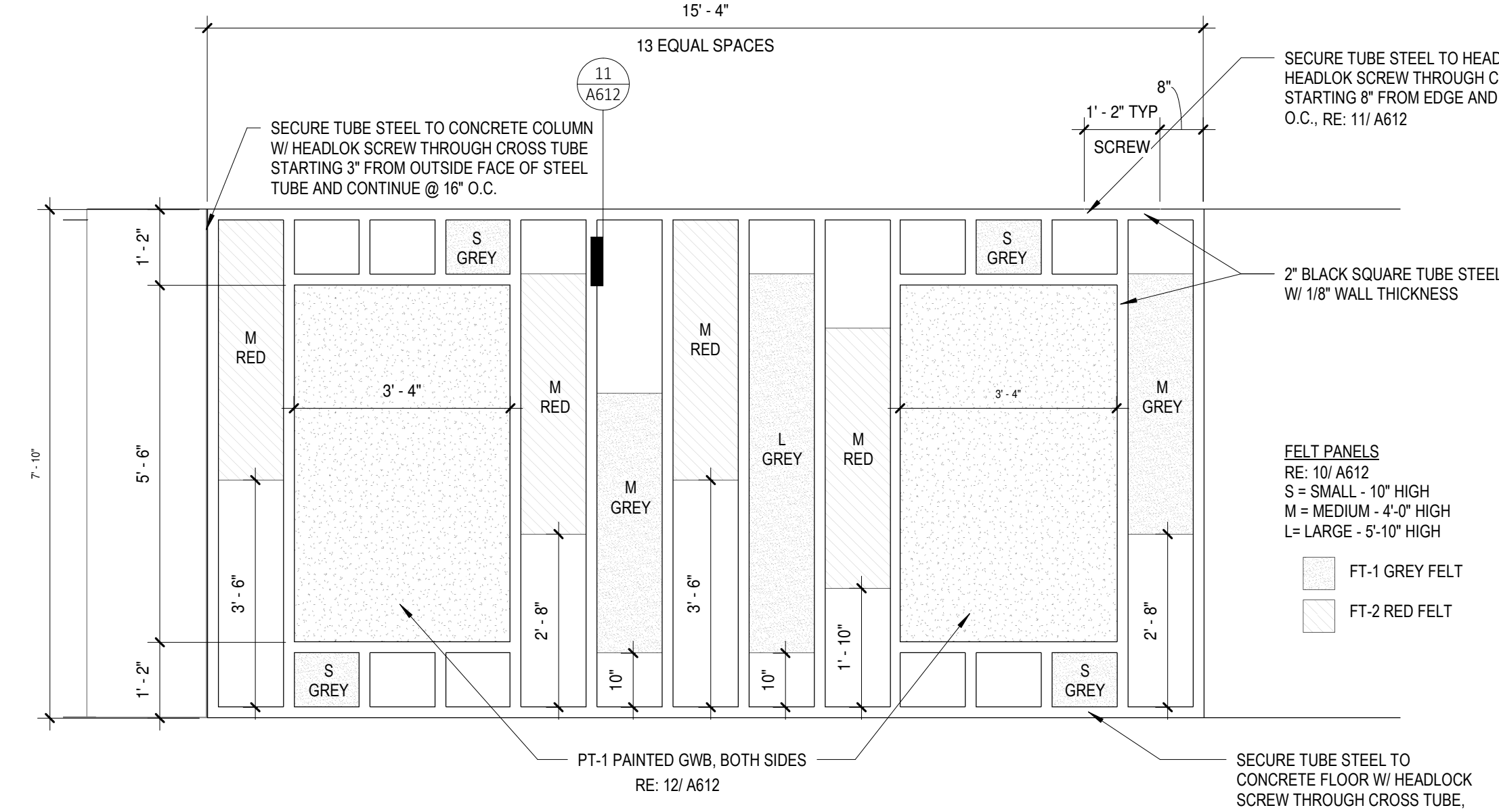
KEYNOTE LEGEND

- RE: A600 FOR FINISH SCHEDULE
- PL-1 LAMINATE FINISH
 - PT-2 BLACK PAINT
 - SS-1 SOLID SURFACE COUNTERTOP (066116)

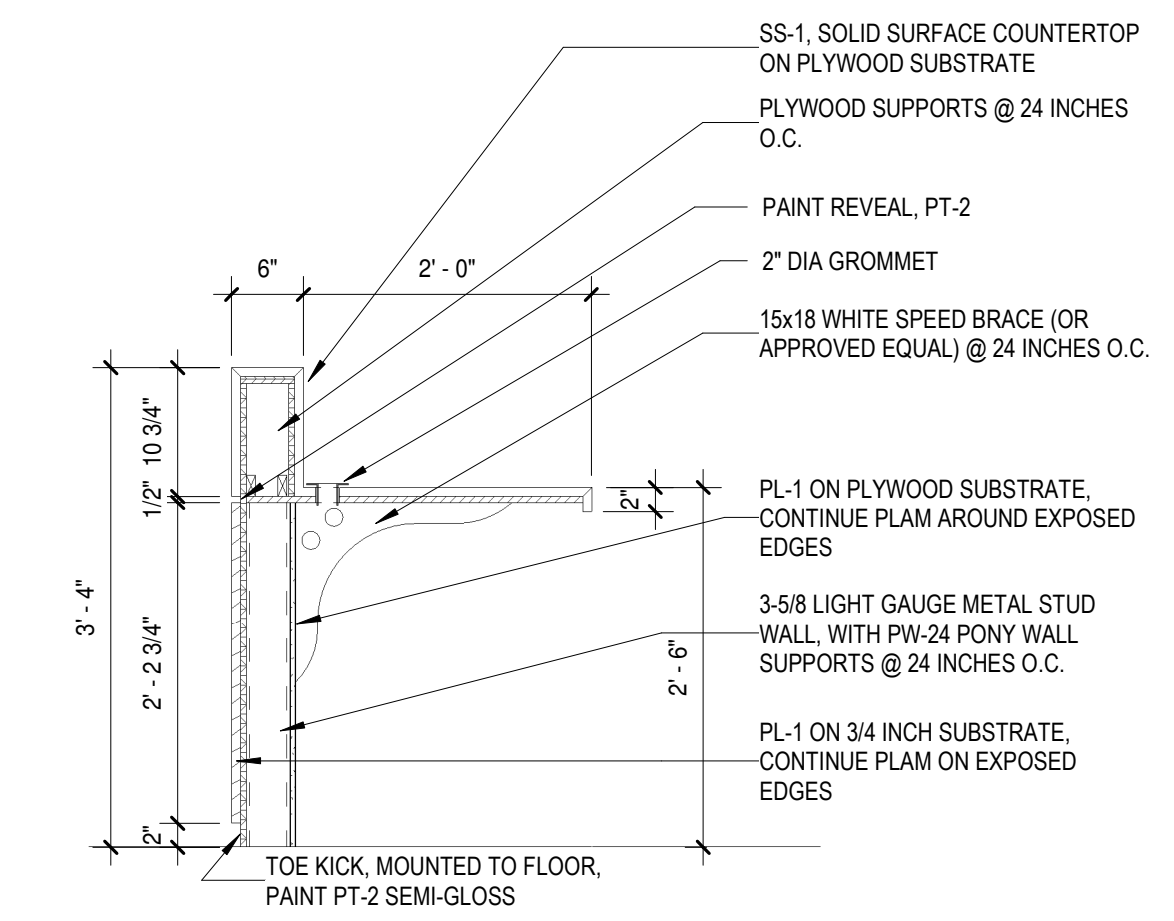


11 ENLARGED DETAIL
 3/8" = 1'-0"

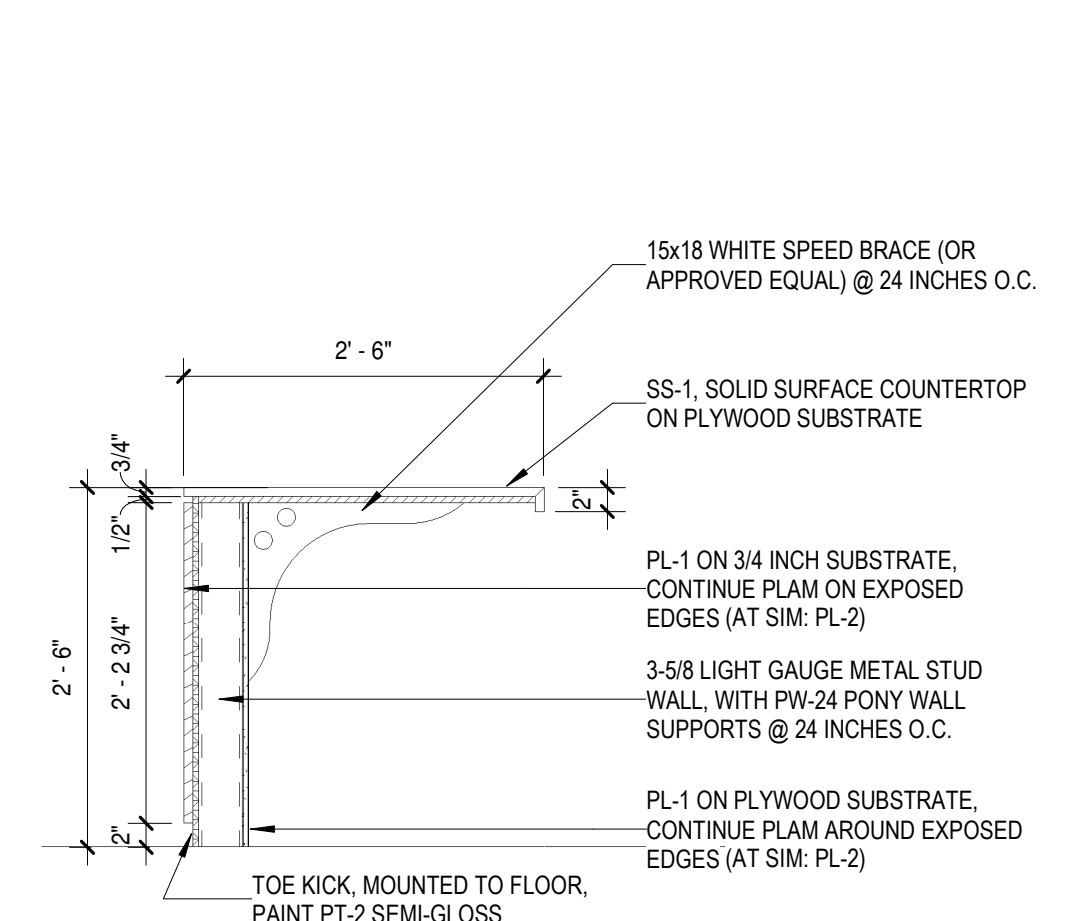
10 PANEL DETAIL
 1 1/2" = 1'-0"



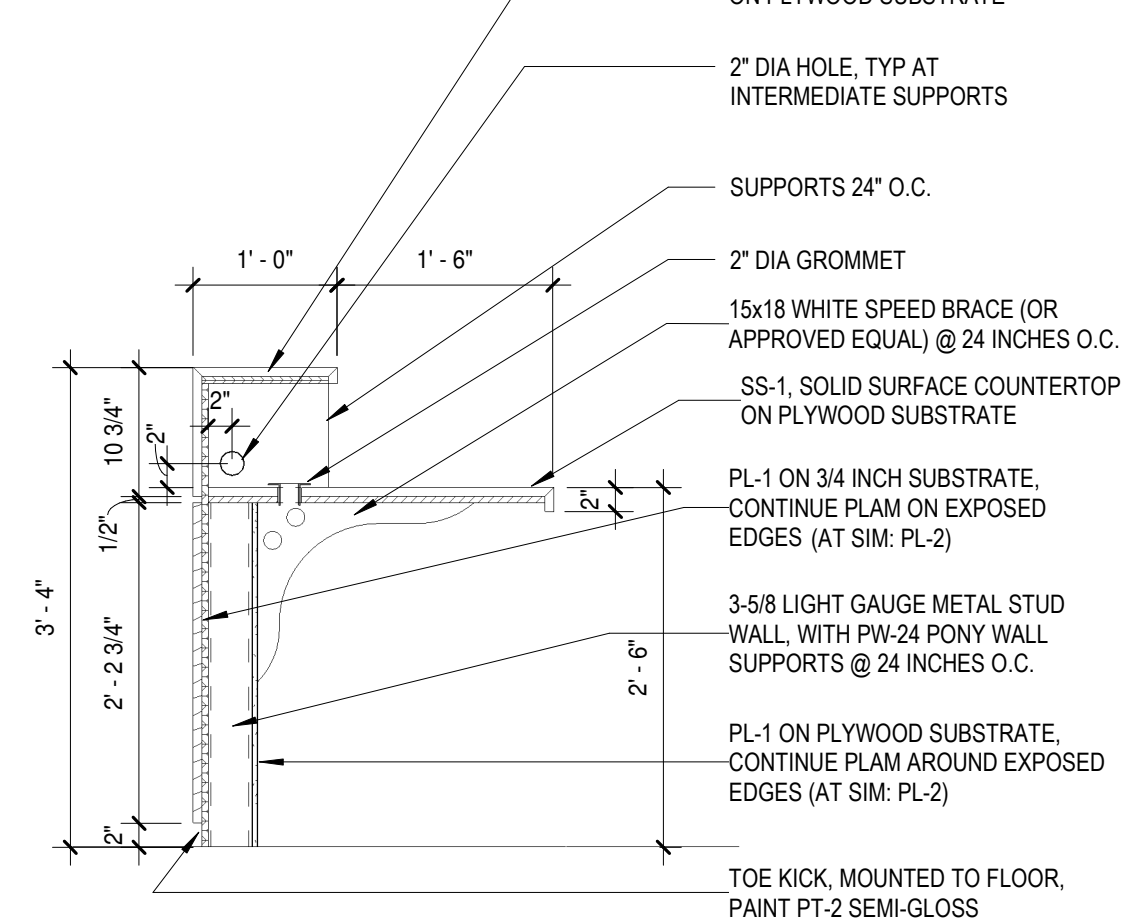
9 PHOTO BACKDROP WALL
 1/2" = 1'-0"



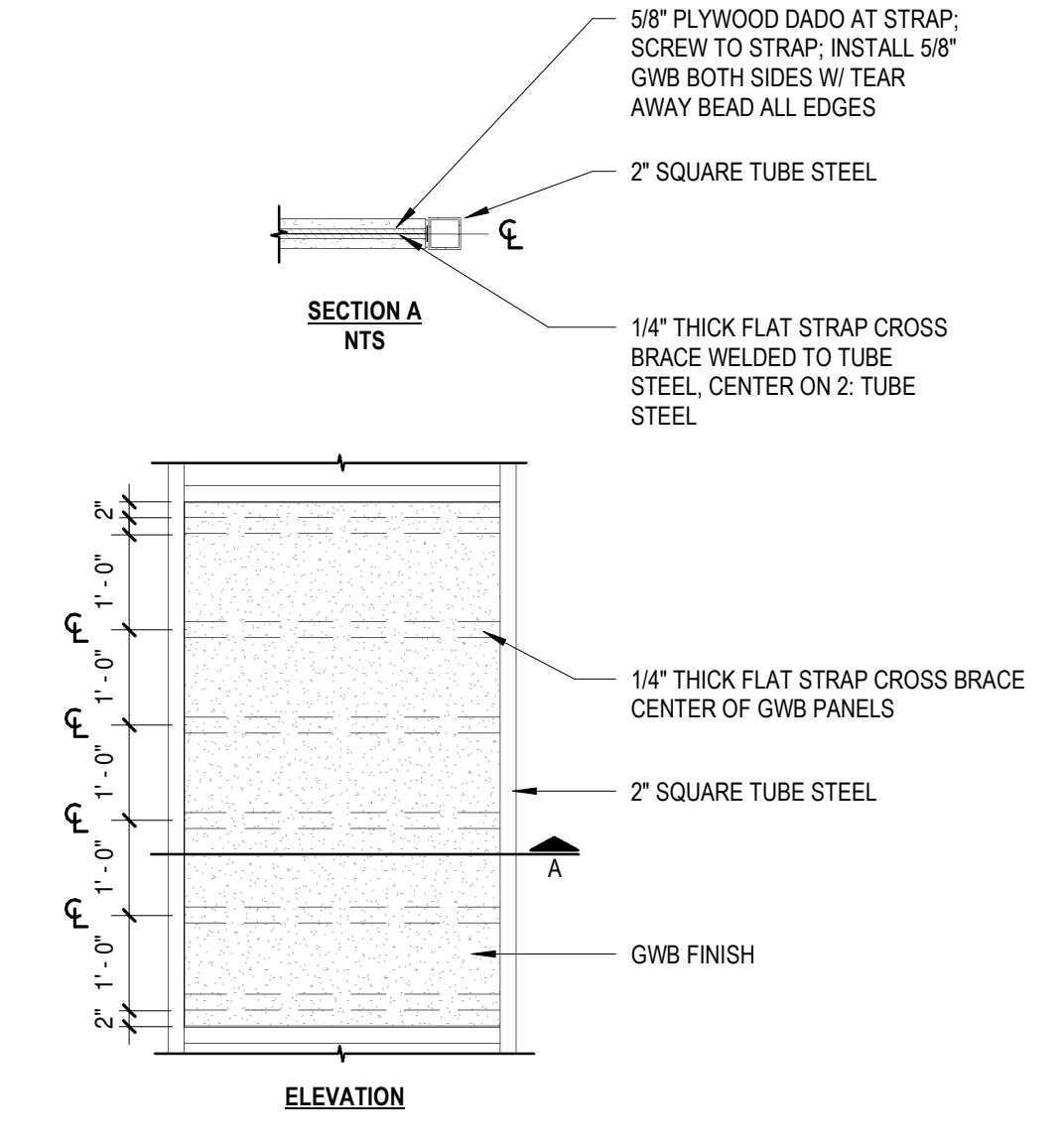
8 ENLARGED DETAIL
 3/4" = 1'-0"



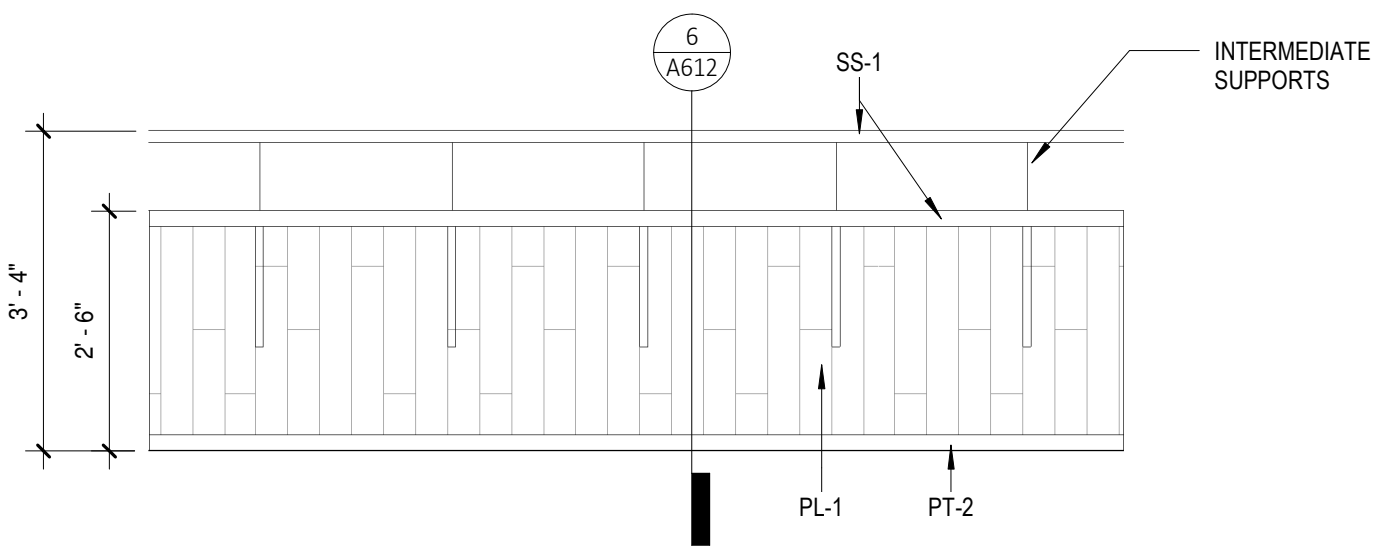
7 ENLARGED DETAIL
 3/4" = 1'-0"



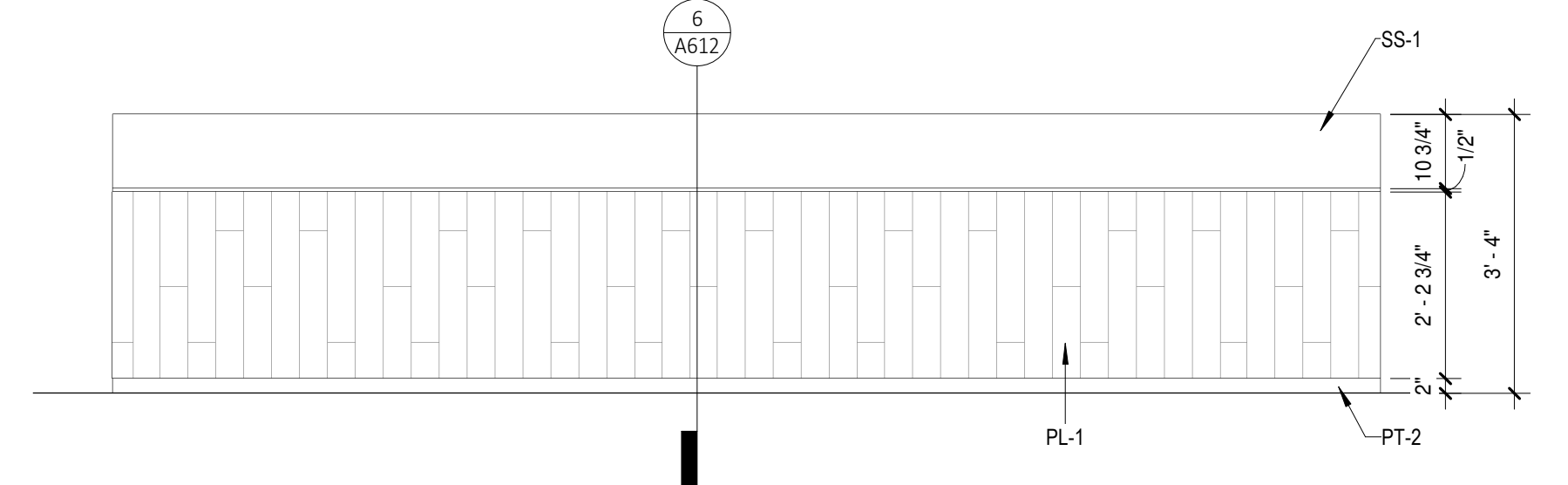
6 ENLARGED DETAIL
 3/4" = 1'-0"



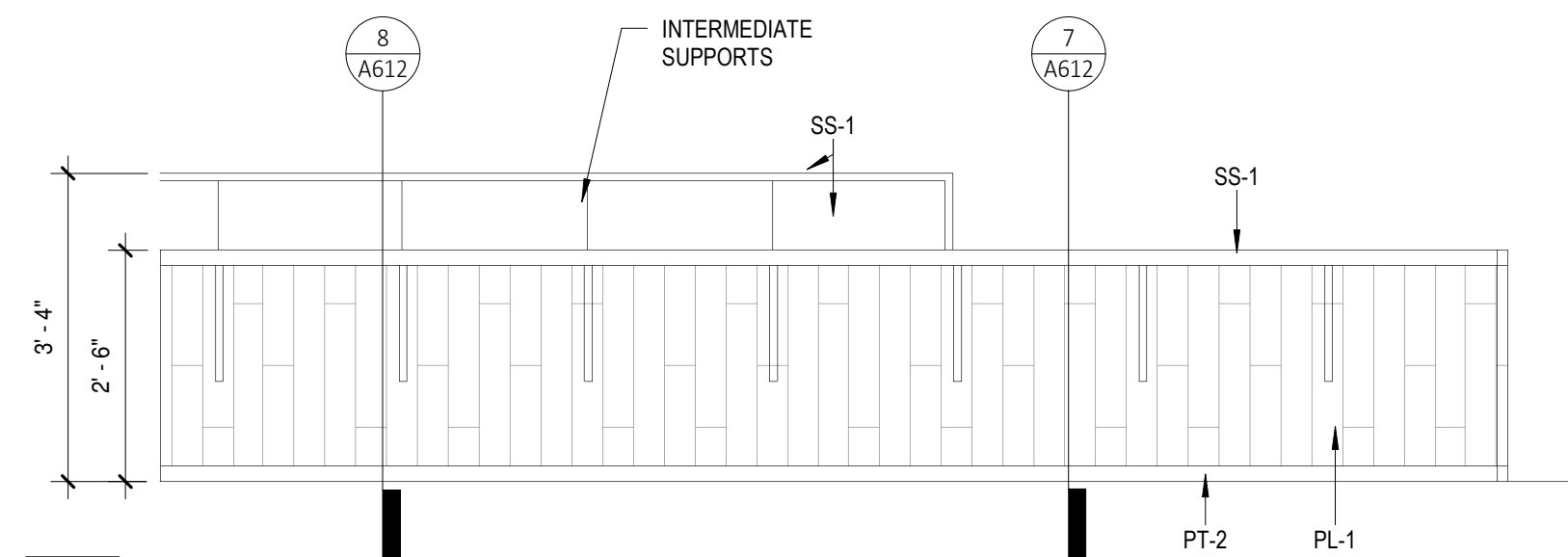
12 GWB PANEL DETAIL
 1/2" = 1'-0"



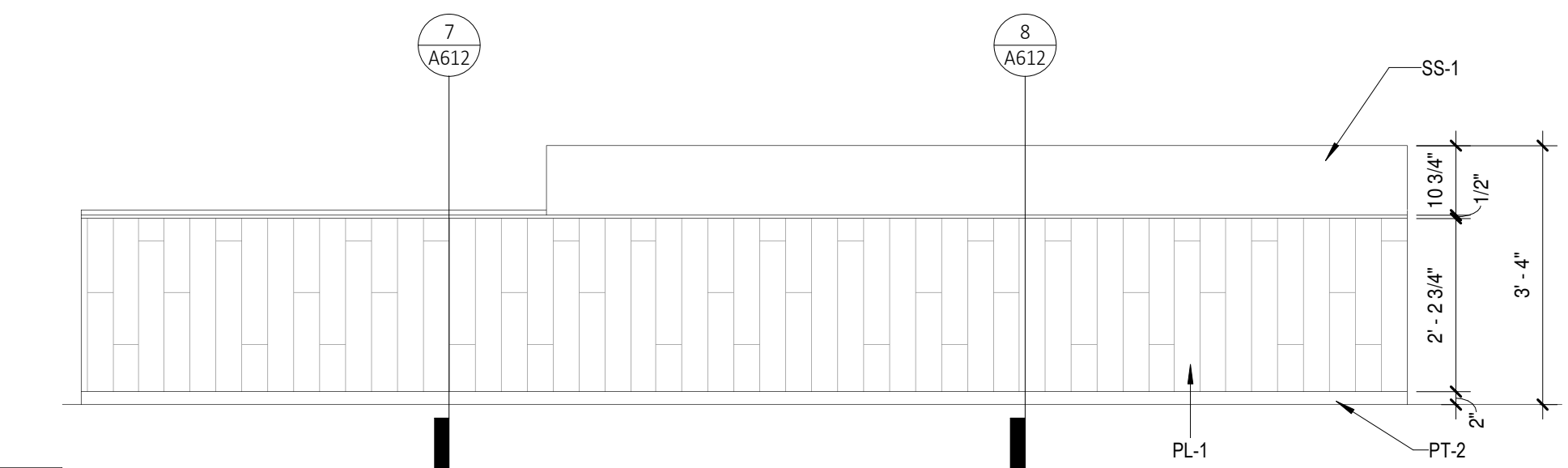
5 DESK ELEVATION
 1/2" = 1'-0"



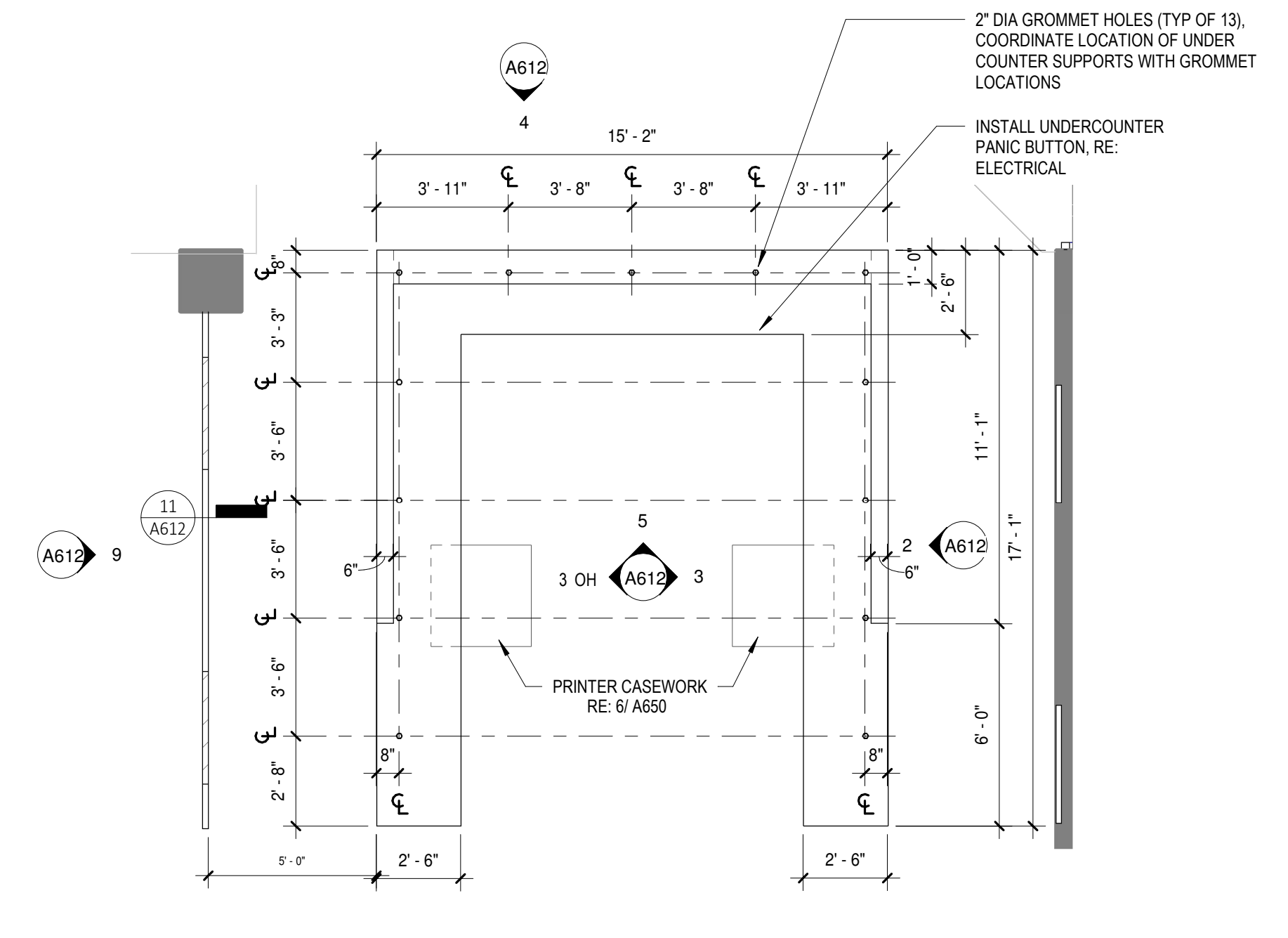
4 DESK ELEVATION
 1/2" = 1'-0"



3 DESK ELEVATION
 1/2" = 1'-0"



2 DESK ELEVATION
 1/2" = 1'-0"



1 LEVEL 3 DESK PLAN
 1/4" = 1'-0"

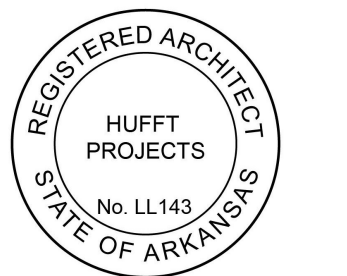
KEY PLAN:

ISSUE:
100% CONSTRUCTION DOCUMENTS
03/05/2020

NO.	DATE	ISSUE
1	2020/03/20	ADD 02

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Drawn By: EM

MILLWORK / CASEWORK DETAILS

A612

KEY PLAN:

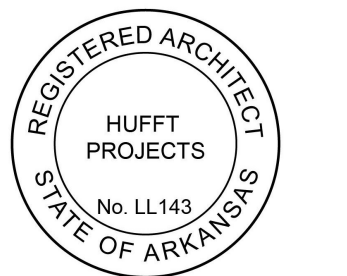
ISSUE:
100% CONSTRUCTION DOCUMENTS
03/05/2020

REVISION SCHEDULE:

NO.	DATE	ISSUE
1	2020/03/30	ADD 02

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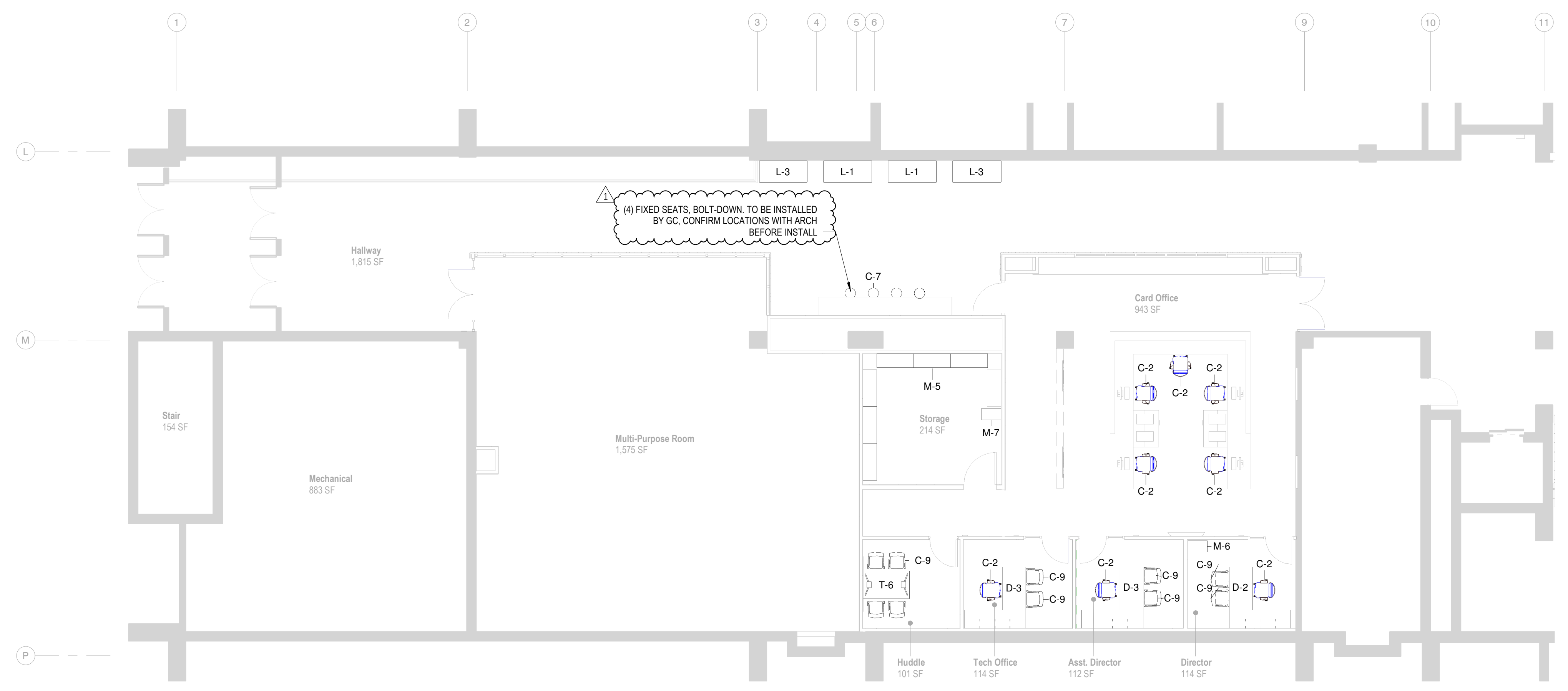
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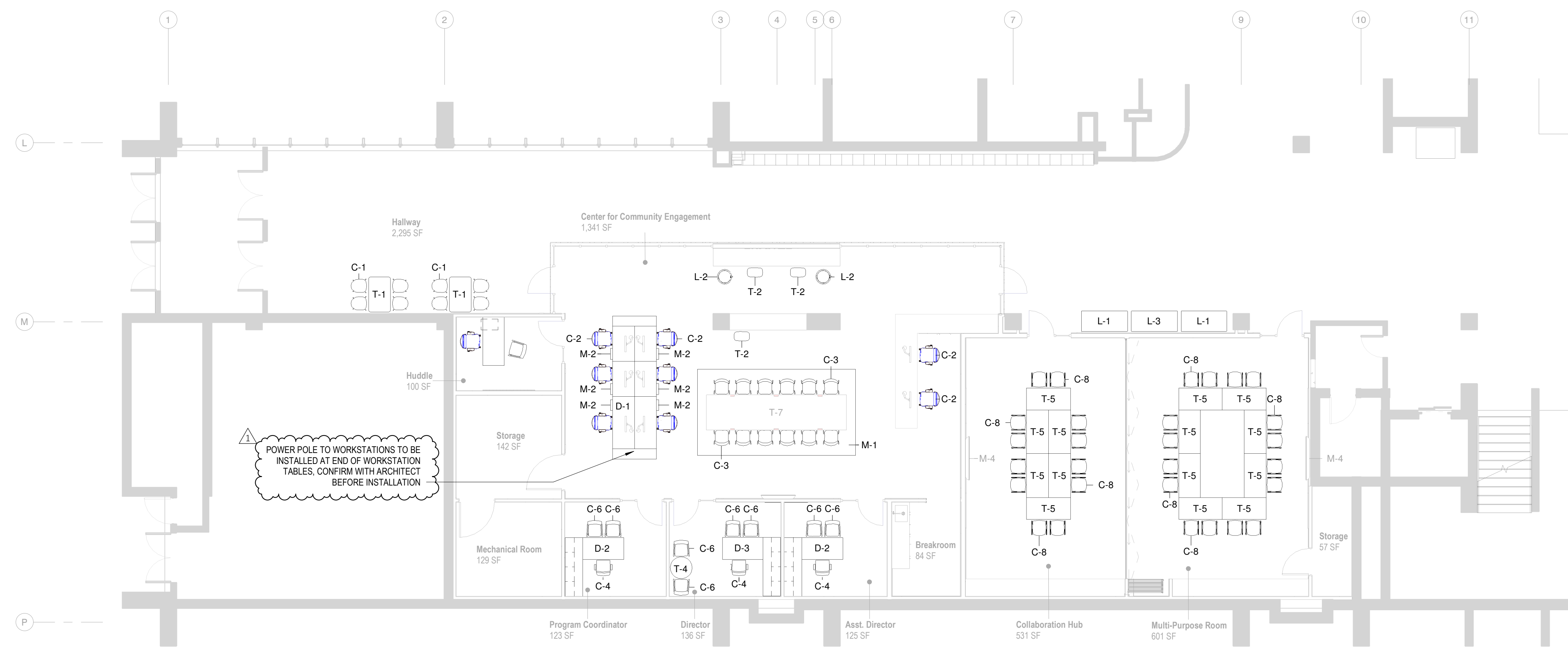
Drawn By: CD

FF&E FLOOR PLANS

A800



2 LEVEL 3 - PLAN
 1/8" = 1'-0" RE: 1/2,103



1 LEVEL 2 - PLAN
 1/8" = 1'-0"

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