DAG Architects

Addendum No.2

Addendum No. 2

Date: 03/23/2026

Project: Pam Bay Gymatorium

DAG Project #: 22019

1A-1 General

1. The following changes and/or additions to the plans and specifications are hereby made part of same and are incorporated in full as part of the Contract documents.

1A-2 Specifications

1. Revised Door Hardware Specification 08 71 00
2. Acoustic Wall Panels Specification 09 80 00
3. Stage Drapery, Tracks and Pipe Grids Specification 11 06 50

1A-3 Drawings / Cut Sheets

1. Sheet A301 Building Sections, revision 2, Addendum No. 2, dated 3/17/26.
2. Sheet A302 Building Sections, revision 2, Addendum No. 2, dated 3/17/26.
3. Sheet A311 Wall Sections, revision 2, Addendum No. 2, dated 3/17/26
4. Sheet A312 Wall Sections, revision 2, Addendum No. 2, dated 3/17/26.
5. Sheet A314 Wall Sections, revision 2, Addendum No. 2, dated 3/17/26.
6. Fall Protection Membrane / Liner System
7. Partial Site Plan Indicating Extent / Location of Sidewalks (Highlighted in Yellow)
8. Sheet A101.A Floor Plan, revision 2, Addendum No. 2, dated 3/17/26.

1A-4 Answers & Clarifications to Bidder Questions & Comments

1. What is the budget? The owner has not disclosed the budget.
2. Does the Owner have secured financing for this budget? Yes
3. How long do we need to hold pricing for? 60 days

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4. Will we have an opportunity to adjust pricing after plans are coordinated? How are assumptions being handled for consultant level drawings that have not been revised per the reduced scope? (i.e. Telecom and other low voltage systems for the Open room… assume match what the original Conference room had?, appliances/connections in the Concession… assume use specs from original Kitchen?) Revised drawings (MEP, Fire Protection, Telecom, Access Controls, Security, etc.) will be issued in time prior to bid for you to adjust pricing. Equipment for the Concessions will also be addressed via an addendum,
5. Please provide clarification for the following related to the doors:
    a. Doors 106A and 106B?
        i. The Door and frame elevations are for storefront doors. This is correct. Provide impact resistant storefront doors and frames to match 106C and 106D.
        ii. The door and frame types are wood doors in hollow metal frames. . Provide impact resistant storefront doors and frames to match 106C and 106D.
        iii. The hardware is for interior wood doors. We will issue a revised hardware Specification.

        Which way will these doors be quoted? See above.
        If wood doors with hollow metal frames will they be flush, full glass, or narrow lite? See above.
        If full glass they will not need the kickplates the hardware schedule is calling for. See above.
    b. Will the hardware remain the same for the following rooms even though the doors designation has changed? C007, 107, 108, 109, 110, and 111. See attached / revised hardware Specification.
    c. What hardware set will be used for the following:
        i. Door 112 which changed from interior to exterior. See attached / revised hardware Specification.
        ii. Added exterior door 107A. See attached / revised hardware Specification.
6. Are there any signage details? Should we include an allowance for signage and logos? If so, how much shall the allowance be? This will be issued in Addendum No. 3
7. Alternate #1 and base bid restroom is fed from AHU #7&8 that are in alternate #2. I'm sure they want more than the duct that is shown in alternate #1. Refer to revised drawings. AHU-8 has been reselected and ductwork adjusted. AHU-7 has been removed.
8. AHU#10 is in Base bid Mezzanine, but it feeds alternate #3 and room 101 area base bid. If it is just going to feed the room 101 then this unit is extremely oversized for the space it will be feeding. Refer to revised drawings. AHU-10 has been removed and additional duct added to AHU-12.

SECTION 08 71 00
DOOR HARDWARE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Hardware for aluminum, hollow metal, and wood doors.
B. Hardware for fire-rated doors.
C. Electrically operated and controlled hardware.
D. Lock cylinders for doors with balance of hardware specified in other sections.
E. Thresholds.
F. Weatherstripping and gasketing.

1.02 RELATED REQUIREMENTS

A. Section 07 92 00 - Joint Sealants: Sealants for setting exterior door thresholds.
B. Section 08 11 13 - Hollow Metal Doors and Frames.
C. Section 08 11 16 - Aluminum Doors and Frames.
D. Section 08 12 13 - Hollow Metal Frames.
E. Section 08 14 16 - Flush Wood Doors.
F. Section 08 33 23 - Overhead Coiling Doors: Door hardware, except cylinders.
G. Section 08 43 13 - Aluminum-Framed Storefronts: Door hardware, except as noted in section.
H. Section 10 26 00 - Wall and Door Protection: Door and frame protection.
I. Section 28 10 00 - Access Control: Electronic access control devices.

1.03 REFERENCE STANDARDS

A. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
B. ASTM E283/E283M - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen; 2019.
C. BHMA A156.1 - Standard for Butts and Hinges; 2021.
D. BHMA A156.3 - Exit Devices; 2025.
E. BHMA A156.4 - Door Closers and Pivots; 2024.
F. BHMA A156.5 - Cylinders and Input Devices for Locks; 2020.
G. BHMA A156.6 - Standard for Architectural Door Trim; 2021.
H. BHMA A156.7 - Template Hinge Dimensions; 2022.
I. BHMA A156.13 - Mortise Locks and Latches; 2022.
J. BHMA A156.16 - Standard for Auxiliary Hardware; 2023.
K. BHMA A156.18 - Standard for Materials and Finishes; 2020.
L. BHMA A156.21 - Thresholds; 2025.
M. BHMA A156.22 - Standard for Gasketing; 2021.
N. BHMA A156.25 - Electrified Locking Devices; 2023.
O. BHMA A156.26 - Standard for Continuous Hinges; 2021.
P. BHMA A156.28 - Standard for Recommended Practices for Mechanical Keying Systems; 2023.
Q. BHMA A156.115 - Hardware Preparation in Steel Doors and Frames; 2016.
R. BHMA A156.115W - Hardware Preparation in Wood Doors with Wood or Steel Frames; 2006.

S. DHI (H&S) - Sequence and Format for the Hardware Schedule; 2019.

T. DHI (KSN) - Keying Systems and Nomenclature; 2019.

U. FLA (FBC-B) - Florida Building Code: Building (8th Edition); 2023, with Supplement (2024).

V. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.

W. ITS (DIR) - Directory of Listed Products; Current Edition.

X. Miami (APD) - Approved Products Directory; Miami-Dade County; Current Edition.

Y. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

Z. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2025.

AA. NFPA 101 - Life Safety Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

BB. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; 2022.

CC. UL (DIR) - Online Certifications Directory; Current Edition.

DD. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition, Including All Revisions.

EE. UL 294 - Access Control System Units; Current Edition, Including All Revisions.

FF. UL 1034 - Standard for Safety Burglary-Resistant Electrical Locking Mechanisms; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordinate the manufacture, fabrication, and installation of products that door hardware is installed on.

B. Sequence installation to ensure facility services connections are achieved in an orderly and expeditious manner.

C. Preinstallation Meeting: Convene a preinstallation meeting one week prior to commencing work of this section; require attendance by affected installers and the following:
   1. Architect.
   2. Installer's Architectural Hardware Consultant (AHC).
   3. Hardware Installer.

D. Furnish templates for door and frame preparation to manufacturers and fabricators of products requiring internal reinforcement for door hardware.

E. Keying Requirements Meeting:
   1. Attendance Required:
      a. Contractor.
      b. Owner.
      c. Installer's Architectural Hardware Consultant (AHC).
      d. Manufacturer Representative / Key System Consultant.
   2. Agenda:
      a. Establish keying requirements.
      b. Verify locksets and locking hardware are functionally correct for project requirements.
      c. Verify that keying and programming complies with project requirements.
      d. Establish keying submittal schedule and update requirements.
   3. Incorporate "Keying Requirements Meeting" decisions into keying submittal upon review of door hardware keying system including, but not limited to, the following:
      a. Access control requirements.
      b. Flow of traffic and extent of security required.
   4. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

5. Deliver established keying requirements to manufacturers.

1.05 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements for submittal procedures.

B. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project, and includes construction details, material descriptions, finishes, and dimensions and profiles of individual components.

C. Shop Drawings - Door Hardware Schedule: A detailed listing that includes each item of hardware to be installed on each door.
   1. Prepared by or under supervision of Architectural Hardware Consultant (AHC).
   2. Comply with DHI (H&S) using door numbering scheme and hardware set numbers as indicated in Contract Documents.
      a. Submit in vertical format.
   3. Include complete description for each door listed.
   4. Include manufacturers and product names, and catalog numbers; include functions, types, styles, sizes and finishes of each item.

D. Shop Drawings - Electrified Door Hardware: Include diagrams for power, signal, and control wiring for electrified door hardware that include details of interface with building safety and security systems. Provide elevations and diagrams for each electrified door opening as follows:
   1. Prepared by or under supervision of Architectural Hardware Consultant (AHC).
   2. Elevations: Include front and back elevations of each door opening showing electrified devices with connections installed and an operations narrative describing how opening operates from either side at any given time.
   3. Diagrams: Include point-to-point wiring diagrams that show each device in door opening system with related colored wire connections to each device.

E. Manufacturer's Instructions: Indicate special procedures and perimeter conditions requiring special attention.

F. Supplier's qualification statement.

G. Operation and Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.

H. Keying Schedule:
   1. Submit three copies of Keying Schedule complying with requirements established during Keying Requirements Meeting unless otherwise indicated.

I. Executed Warranty.

J. Project Record Documents: Record actual locations of concealed equipment, services, and conduit.

K. Maintenance Materials and Tools: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 60 00 - Product Requirements, for additional provisions.
   2. Tools: One set of each special wrench or tool applicable for each different or special hardware component, whether supplied by hardware component manufacturer or not.

1.06 QUALITY ASSURANCE

A. Standards for Fire-Rated Doors: Maintain one copy of each referenced standard on site, for use by Architect and Contractor.

B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of documented experience.

C. Supplier Qualifications: Company with certified Architectural Hardware Consultant (AHC) to assist in work of this section.

D. Installer Qualifications: Company specializing in performing work of the type specified for commercial door hardware with at least three years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

A. See Section 01 74 19 - Construction Waste Management and Disposal for packaging waste requirements.

B. Package hardware items individually; label and identify each package with door opening code to match door hardware schedule.

1.08 WARRANTY

A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.

B. Manufacturer Warranty: Provide manufacturer warranty against defects in material and workmanship for period indicated, from Date of Substantial Completion. Complete forms in Owner's name and register with manufacturer.
   1. Closers: Thirty years.
   2. Exit Devices:
      a. Mechanical: Five years.
   3. Locksets:
      a. Mechanical: Ten years.
      b. Electrical: Two years.
   4. Cylinders: Three years.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Provide specified door hardware as required to make doors fully functional, compliant with applicable codes, and secure to extent indicated.

B. Provide individual items of single type, of same model, and by same manufacturer.

C. Closers:
   1. Provide door closer on each exterior door, unless otherwise indicated.
   2. Provide door closer on each fire-rated and smoke-rated door.
   3. Spring hinges are not an acceptable self-closing device, unless otherwise indicated.

D. Drip Guards: Provide at head of out swinging exterior doors unless protected by roof or canopy directly overhead.

E. Thresholds:
   1. Exterior Applications: Provide at each exterior door, unless otherwise indicated.

F. Weatherstripping and Gasketing:
   1. Provide weatherstripping on each exterior door at head, jambs, and meeting stiles of door pairs, unless otherwise indicated.
   2. Provide door bottom sweep on each exterior door, unless otherwise indicated.

G. Electrically Operated and/or Controlled Hardware: Provide necessary power supplies, power transfer hinges, relays, and interfaces as required for proper operation; provide wiring between hardware and control components and to building power connection in compliance with NFPA 70.

H. See Section 28 10 00 for additional access control system requirements.

I. Fasteners:
   1. Provide fasteners of proper type, size, quantity, and finish that comply with commercially recognized standards for proposed applications.
      a. Aluminum fasteners are not permitted.

b. Provide Phillips flat-head screws with heads finished to match door surface hardware unless otherwise indicated.

2. Provide machine screws for attachment to reinforced hollow metal and aluminum frames.
   a. Self-drilling (Tek) type screws are not permitted.
3. Provide stainless steel machine screws and lead expansion shields for concrete and masonry substrates.
4. Provide wall grip inserts for hollow wall construction.
5. Fire-Resistance-Rated Applications: Comply with NFPA 80.
   a. Provide wood or machine screws for hinges mortised to doors or frames, strike plates to frames, and closers to doors and frames.
   b. Provide steel through bolts for attachment of surface mounted closers, hinges, or exit devices to door panels unless proper door blocking is provided.

2.02 PERFORMANCE REQUIREMENTS

A. Provide door hardware products that comply with the following requirements:
   1. Applicable provisions of federal, state, and local codes.
   2. Accessibility: ADA Standards and ICC A117.1.
   3. Fire-Resistance-Rated Doors: NFPA 80, listed and labeled by qualified testing agency for fire protection ratings indicated, based on testing at positive pressure in accordance with NFPA 252 or UL 10C.
   4. Hardware on Fire-Resistance-Rated Doors: Listed and classified by UL (DIR) or ITS (DIR) as suitable for application indicated.
   5. Hardware Preparation for Steel Doors and Steel Frames: BHMA A156.115.
   6. Hardware Preparation for Wood Doors with Wood or Steel Frames: BHMA A156.115W.
   7. Products Requiring Electrical Connection: Listed and classified by UL (DIR) as suitable for the purpose specified.

2.03 HINGES

A. Manufacturers: Conventional butt hinges.
   1. BEST, dormakaba Group: www.bestaccess.com/#sle.
   2. PBB.
   3. McKinney.

B. Manufacturers: Continuous hinges.
   1. BEST, dormakaba Group: www.bestaccess.com/#sle.
   2. National Guard Products.
   3. ABH Mfg.

C. Properties:
   1. Butt Hinges: As applicable to each item specified.
      a. Standard Weight Hinges: Minimum of two (2) permanently lubricated non-detachable bearings.
      b. Heavy Weight Hinges: Minimum of four (4) permanently lubricated bearings on heavy weight hinges.
      c. Template screw hole locations.
      d. Bearing assembly installed after plating.
      e. Bearings: Exposed fully hardened bearings.
      f. Bearing Shells: Shapes consistent with barrels.
      g. Pins: Easily seated, non-rising pins.
         1) Fully plated hinge pins.
         2) Non-Removable Pins: Slotted stainless steel screws.
      h. UL 10C listed for fire-resistance-rated doors.
   2. Continuous Hinges: As applicable to each item specified.
      a. Geared Continuous Hinges: As applicable to each item specified.
         1) Non-handed.

2) Anti-spinning through-fastener.
3) UL 10C listed for fire-resistance-rated doors.
(a) Metal Door Installation: Rated up to 90 minutes.
(b) Wood Door Installation: Rated up to 60 minutes.
4) Sufficient size to permit door to swing 180 degrees

D. Sizes: See Door Hardware Schedule.
1. Sufficient size to allow 180 degree swing of door.

E. Finishes: See Door Hardware Schedule.
1. Fully polished hinges; front, back, and barrel.

F. Grades:
1. Butt Hinges: Comply with BHMA A156.1 and BHMA A156.7 for templated hinges.
2. Comply with BHMA A156.18.

G. Material: Base metal as indicated for each item by BHMA material and finish designation.

H. Types:
1. Butt Hinges: Include full mortise hinges.
2. Continuous Hinges: Include geared hinges.

I. Quantities:
1. Butt Hinges: Three (3) hinges per leaves up to 90 inches in height. Add one (1) for each additional 30 inches in height or fraction thereof.
a. Hinge weight and size unless otherwise indicated in hardware sets:
1) For doors up to 36 inches wide and up to 1-3/4 inches thick provide hinges with a minimum thickness of 0.134 inch and a minimum of 4-1/2 inches in height.
2) For doors from 36 inches wide up to 42 inches wide and up to 1-3/4 inches thick provide hinges with a minimum thickness of 0.145 inch and a minimum of 4-1/2 inches in height.
3) For doors from 42 inches wide up to 48 inches wide and up to 1-3/4 inches thick provide hinges with a minimum thickness of 0.180 inch and a minimum of 5 inches in height.
4) For doors greater than 1-3/4 inches thick provide hinges with a minimum thickness of 0.180 inch and a minimum of 5 inches in height.
2. Continuous Hinges: One per door leaf.

J. Applications: At swinging doors.
1. Provide non-removable pins at out-swinging doors with locking hardware and all exterior doors.

K. Products:
1. Butt Hinges:
a. Ball Bearing, Five (5) Knuckle. Best FBB Series.
2. Continuous Hinges:
a. Aluminum geared hinges. 661HDUL.

2.04 BOLTS

A. Manufacturers:
1. Architectural Builders Hardware Mfg. (ABH): www.abhmfg.com#sle.
2. Burns.
3. Rockwood.

B. Properties:
1. Flush Bolts:
a. Pairs of Swing Doors: At inactive leaves, provide flush bolts of type as required to comply with code.
b. Automatic Flush Bolts: Automatically latching upon closing of door leaf.

1) Bolt Throw: 3/4 inch, minimum.

c. Self-Latching Flush Bolts: Automatically latching upon closing of door; manually retracted; located on inactive leaf of pair.
1) Bolt Throw: 3/4 inch, minimum.

C. Products:
1. Automatic flush bolts. See Hardware Sets.
2. Self-Latching Flush Bolts. See Hardware Sets.

2.05 EXIT DEVICES

A. Manufacturers:
1. BEST, dormakaba Group: www.bestaccess.com/#sle.
2. dormakaba: www.dormakaba.com/#sle.
3. Von Duprin. (Where indicated in hardware sets.)

B. Properties:
1. Actuation: Push Pad.
2. Chassis:
a. Compatibility: Standard Stile and Narrow Stile doors.
3. Touchpads: 'T" style metal touchpads and rail assemblies with matching chassis covers end caps.
4. Latch Bolts: Stainless steel deadlocking with 3/4 inch projection using latch bolt.
5. Lever Design: Match project standard lockset trims.
6. Cylinder: Include where cylinder dogging or locking trim is indicated.
7. Strike as recommended by manufacturer for application indicated.
8. Sound dampening on touch bar.
9. Dogging:
a. Non-Fire-Resistance-Rated Devices: Cylinder dogging.
b. Fire-Resistance-Rated Devices: Manual dogging is not permitted.
10. All exposed exit device components to be of architectural metals and “true” architectural finishes.
11. Handing: Field-reversible.
12. Fasteners on Back Side of Device Channel: Concealed - exposed fasteners not allowed.

C. Grades: Complying with BHMA A156.3, Grade 1.

D. Performance Requirements:
1. Exterior Door Exit Devices in Hurricane-Strength Wind Areas:
a. Devices included in Miami (APD).
b. Complying with FLA (FBC-B).

E. Standards Compliance:
1. UL Listed for Panic and Fire for Class II Circuitry.
2. Provide UL (DIR) listed exit device assemblies for fire-resistance-rated doors.
3. Comply with UL 10C.

F. Code Compliance: As required by authorities having jurisdiction in the State in which the Project is located.

G. Options:
1. Electrified Devices:
a. Latchbolt Retraction: Motorized latchbolt retraction.
2. Internally mounted switch that monitors the position of the latchbolt.
3. Electrified Device Voltage: 24 VDC.

H. Products:
1. BEST, Precision 2000 Series.
2. Von Duprin 35A Series. (Where indicated in hardware sets)

2.06 REMOVABLE MULLIONS

A. Manufacturers:
   1. dormakaba: www.dormakaba.com/#sle.

B. Properties:
   1. Rectangular shape 3 inches by 2 inches tubes with minimum 1/8 inch wall thickness.
   2. Furnished by the same manufacturer as exit devices.
   3. Pre-drilled holes for installation of exit device strikes.
   4. Spacers: Provide as required for proper installation, based on frame profile and dimensions.

C. Grades: Comply with BHMA A156.3.

D. Materials: Manufacturer's standard for items specified.
   1. Top and Bottom Brackets: Investment-cast steel.

E. Options:

F. Applications: As indicated on drawings and in Door Hardware Schedule.
   1. Fire-Resistance-Rated Openings: Mullions with UL Listed Labels and mullion stabilizers.

G. Products:
   1. BEST, Precision 822 Series.

2.07 LOCK CYLINDERS

A. Manufacturers:
   1. BEST, dormakaba Group: www.bestaccess.com/#sle.
   2. Substitutions: Not permitted.

B. Properties:
   1. Lock Cylinders: Provide key access on outside of each lock, unless otherwise indicated.
      a. Provide cams and/or tailpieces as required for locking devices.
      b. Provide cylinders with appropriate format interchangeable cores where indicated.

C. Finishes:
   1. Access Control Cylinder Core Battery Cap: True architectural finishes.

D. Grades:
   1. Standard Security Cylinders: Comply with BHMA A156.5.

E. Material:
   1. Manufacturer's standard corrosion-resistant brass alloy.

F. Types: As applicable to each item specified.
   1. Standard security small format interchangeable core (SFIC) type cylinders, with seven-pin, 1C - 7-pin cores.

G. Products:
   1. Rim/mortise. Best 12E / 1E Series.

2.08 MORTISE LOCKS

A. Manufacturers:
   1. BEST, dormakaba Group: www.bestaccess.com/#sle.
   2. Substitutions: Not permitted.

B. Properties:
   1. Mechanical Locks: Manufacturer's standard.
      a. Fitting modified ANSI A115.1 door preparation.
      b. Door Thickness Coordination Fitting 1-3/4 inch to 2-1/4 inch thick doors.
      c. Latch: Solid, one-piece, anti-friction, self-lubricating stainless steel.
         1) Latchbolt Throw: 3/4 inch, minimum.
      d. Auxiliary Deadlatch: One piece stainless steel, permanently lubricated.

e. Backset: 2-3/4 inch.
f. Cylinders:
1) Cylinder Core Types: Locks capable of supporting manufacturers' cores, as applicable.
(a) Small format interchangeable.
g. Lever Trim:
1) Functionality: Allow the lever handle to move up to 45 degrees from horizontal position prior to engaging the latchbolt assembly.
2) Strength: Locksets outside locked lever designed to withstand minimum 1,400 inch-lbs. of torque. In excess of that, a replaceable part will shear. Key from outside and/or inside lever will still operate lockset.
3) Spindle: Designed to prevent forced entry from attacking of lever.
4) Independent spring mechanism for each lever.
(a) Trim to be self-aligning and thru bolted.
5) Handles: Made of forged or cast brass, bronze, or stainless steel construction. Levers that contain a hollow cavity are not acceptable.
6) Levers to operate a roller bearing spindle hub mechanism.

2. Electrified Locks: Same properties as standard locks, and as follows:
a. Voltage: 24 VDC.
b. Function: Electrically locked (Fail Safe) or unlocked (Fail Secure), as indicated for each lock in Door Hardware Schedule.
c. Internal request-to-exit feature.

C. Finishes: See Door Hardware Schedule.
1. Core Faces: Match finish of lockset.

D. Grades:
1. Comply with BHMA A156.13, Grade 1, Security; Grade 2.

E. Options:
1. Temperature Control Module (TCM) at W-Series locks.

F. Products: Mortise locks, including standard and electrified types.
1. BEST, 45H Series.
2. BEST, 45HW, Electromechanical.

2.09 DOOR PULLS

A. Manufacturers:
1. Burns.
2. ABH Mfg.
3. Rockwood.

B. Properties:
1. Pulls and Handles:
a. Tubular Grip:
1) Bar Diameter: 1 inch.
2) Orientation: 90 degree offset.

C. Grades: Comply with BHMA A156.6.

D. Material: Stainless steel, unless otherwise indicated.

E. Products:
1. Burns 39C.

2.10 COORDINATORS

A. Manufacturers:
1. Architectural Builders Hardware Manufacturing, Inc (ABH): www.abhmfg.com/#sle.
2. Burns.

3. Rockwood.

B. Properties:
   1. General: Non-handed devices, with field-selectable active door leaf.
   2. Coordinators: Devices on pairs of doors with closers and self-latching or automatic flush bolts installed.
      a. Coordinator Operation: Only when inactive door is opened.

C. Code Compliance: As required by authorities having jurisdiction in the State in which the Project is located.
   1. Meet UL 10C for Positive Pressure.

D. Types:
   1. Coordinators: Bar.

E. Installation:
   1. Mounting: Provide necessary mounting brackets and filler bars to ensure proper installation of coordinator and related hardware.
   2. Coordination: Properly sequence installation of other door hardware affected by placement of coordinators and carry bars.

F. Products:
   1. ABH 3700 Series.

2.11 CLOSERS

A. Manufacturers:
   1. BEST, dormakaba Group: www.bestaccess.com/#sle.
   2. dormakaba: www.dormakaba.com/#sle.
   3. Sargent.

B. Properties:
   1. Surface Mounted Closers: Manufacturer's standard.
      a. Construction: Corrosion-resistant Aluminum alloy.
      b. Maximum Projection from Face of Door: 2-7/16 inches.
      c. Mechanism: Separate tamper-resistant adjusting valves for closing and latching speeds.
      d. Hydraulic Fluid: All-weather type.
      e. Arm Assembly: Standard for product specified.
         1) Include hold-open, integral stop, or spring-loaded stop feature, as specified in Door Hardware Schedule.
         2) Parallel arm to be a heavy-duty rigid arm.
         3) Where “IS” or “S-IS” arms are specified in hardware sets, if manufacturer does not offer this arm provide a regular arm mount closer in conjunction with a heavy-duty overhead stop equal to a dormakaba 900 Series.
      f. Covers:
         1) Type: Standard for product selected.
            (a) Full.
         2) Material: Plastic.
         3) Finish: Painted.
         4) Attachment: Two-point flange mounting, dual-clamp friction fit closer cover.

C. Grades:
   1. Closers: Comply with BHMA A156.4, Grade 1.
      a. Underwriters Laboratories Compliance:
         1) Product Listing: UL (DIR) for use on fire-resistance-rated doors.
            (a) UL 228 - Door Closers-Holders, With or Without Integral Smoke Detectors.
      b. Testing Standards Compliance: Meeting requirements of UL 10C for positive pressure.

D. Types:
   1. Rack-and-pinion, surface-mounted. 1-1/2 inches minimum bore.

E. Options:
   1. Delayed action, adjustable with an independent valve.
   2. Advanced backcheck.
   3. Adjustable, for force or angle of opening hold open.
   4. Cushion limit stay.

F. Installation:
   1. Mounting: Includes surface mounted and concealed, overhead mounted installations.
   2. Mount closers on non-public side of door and stair side of stair doors unless otherwise noted in hardware sets.
   3. At out swinging exterior doors, mount closer on interior side of door.
   4. Provide adapter plates, shim spacers, and blade stop spacers as required by frame and door conditions.
   5. Where an overlapping astragal is included on pairs of swinging doors, provide coordinator to ensure door leaves close in proper order.

G. Products:
   1. Surface Mounted:
      a. BEST HD8000 Series.

2.12 PROTECTION PLATES

A. Manufacturers:
   1. Burns.
   2. ABH Mfg..
   3. Rockwood.

B. Properties:
   1. Plates:
      a. Kick Plates: Provide along bottom edge of push side of each door, where indicated.
         1) Size: 10 inches high by 2 inches less than door width (LDW) on push side of door; 1 inch LDW on pairs of doors with no mullion.
      b. Mop Plates: Provide along bottom edge of pull side of each door, where indicated.
         1) Size: 6 inches high by 1 inch less than door width (LDW) on pull side of door.
      c. Edges: Beveled, on four (4) unless otherwise indicated.

C. Grades: Comply with BHMA A156.6.

D. Material: As indicated for each item by BHMA material and finish designation.
   1. Metal Properties: Stainless steel.
      a. Metal, Standard Duty: Thickness 0.050 inch, minimum.

E. Installation:
   1. Fasteners: Countersunk screw fasteners

F. Products:

2.13 STOPS AND HOLDERS

A. Manufacturers:
   1. Burns.
   2. ABH.
   3. Rockwood.

B. General: Provide overhead stop/holder when wall or floor stop is not feasible.

C. Grades:
   1. Wall Bumpers and Floor Stops: Comply with BHMA A156.16 and Resilient Material Retention Test as described in this standard.

D. Material: Base metal as indicated for each item by BHMA material and finish designation.

E. Types:
   1. Wall Bumpers: Bumper, convex, wall stop.

F. Installation:
   1. Non-Masonry Walls: Confirm adequate wall reinforcement has been installed to allow lasting installation of wall bumpers.

G. Products:
   1. Wall Bumpers. Burns 560.

2.14 THRESHOLDS

A. Manufacturers:
   1. National Guard Products, Inc (NGP): www.ngpinc.com/#sle.
   2. Reese.
   3. Pemko.

B. Properties:
   1. Threshold Surface: Fluted horizontal grooves across full width.

C. Threshold Grades: Comply with BHMA A156.21.

D. Material: Base metal as indicated for each item by BHMA material and finish designation.
   1. Threshold Assemblies: Aluminum.

E. Types: As applicable to project conditions. Provide barrier-free type at every location where specified.
   1. Bumper Seal Thresholds with Gasket: Use silicone gasket material.

F. Products:
   1. NGP 896S.

2.15 WEATHERSTRIPPING AND GASKETING

A. Manufacturers:
   1. National Guard Products, Inc (NGP): www.ngpinc.com/#sle.
   2. Reese.
   3. Pemko.

B. Properties:
   1. Weatherstripping Air Leakage Performance: Not exceeding 0.3 cfm/sq ft of door opening at 0.3 inches of water pressure differential for single doors, and 0.5 cfm/sq ft of door area at 0.3 inches of water pressure differential for double doors for gasketing other than smoke control, as tested according to ASTM E283/E283M; with resilient or flexible seal strips that are easily replaceable and readily available from stocks maintained by manufacturer.
   2. Adhesive-Backed Perimeter Gasketing: Silicone gasket material applied to frame with self- adhesive.
   3. Rigid, Housed, Perimeter Gasketing: Sponge silicone gasket material held in place by aluminum housing; fastened to frame stop with screws.
   4. Door Sweeps: Silicone gasket material held in place by flat aluminum housing or flange; surface mounted to face of door with screws.

C. Grades: Comply with BHMA A156.22.

D. Products:
   1. Weatherstripping: See Door Hardware Schedule.
   2. Smoke Seals: See Door Hardware Schedule.
   3. Door Bottom Seals:
      a. Door Sweeps: See Door Hardware Schedule.

2.16 MISCELLANEOUS ITEMS

A. Manufacturers:

B. Properties:
   1. Silencers: Provide at equal locations on door frame to mute sound of door's impact upon closing.
      a. Single Door: Provide three on strike jamb of frame.
      b. Pair of Doors: Provide two on head of frame, one for each door at latch side.
      c. Material: Rubber, gray color.

C. Products:
   1. Silencers: Burns 500.

2.17 ELECTRIFIED HARDWARE

A. Manufacturers:
   1. BEST, dormakaba Group: www.bestaccess.com/#sle.
   2. RCI.
   3. Von Duprin.

B. Properties:
   1. Door Position Switches: Recessed devices with magnetic contacts.
      a. Power Requirement: 50mA Max, 100 VDC.
      b. SPDT configuration.
   2. Power Supply Units: Manufacturer's standard.
      a. Regulatory Compliance:
         1) United States Compliance:
            (a) UL listed for Class II Output.
            (b) Comply with UL 294 standards incorporating enhanced Access Control communications capabilities.
      b. Enclosures: Lockable NEMA Type 1, with hinged cover and knockouts.
      c. Power: 24 VDC, filtered, regulated output.
         1) Incoming Power Voltage: 120 VAC.
      d. Emergency Release Terminals: Designed to release devices upon activation of fire alarm system.
      e. Auxiliary contacts for remote signaling.
      f. User-selectable time delay from 0 to 4 minutes.
      g. Fire Alarm System Interface: Standard.
         1) Fire alarm terminal with green LED indicating power is available.
      h. Output Distribution Board with indicator LEDs.
      i. Battery backup.
      j. On/Off LED power indicator.
   3. Power Transfers: Manufacturer's standard.
      a. Mortised Type with Wires & Connectors:
         1) Listed by UL.
         2) Stainless steel housing and spring conduit.
         3) Wire Harness: Pre-installed, twelve wire, equipped with ten (10) 24 gauge wires and two 18 gauge wires.
         4) Accommodate 180 degree door swing.
         5) Quick-Connect Plugs: Pre-installed.

C. Products:
   1. Door Position Switches:
      a. RCI 9540 Recessed Magnetic Contact/Door Position Switch
   2. Power Supplies:
      a. dormakaba Architectural Hardware DKPS Series

b. BEST Precision RPSMLR2 Series
c. RCI DKPS Series

3. Power Transfers:
   a. BEST EPT-12C (Mortise Type with Wires and Connectors)
4. Remote Release Button:
   a. RCI 909S MO

2.18 KEYS AND CORES

A. Manufacturers:
   1. BEST, dormakaba Group: www.bestaccess.com/#sle.
   2. Substitutions: Not permitted.

B. Properties: Complying with guidelines of BHMA A156.28.
   1. Provide small format interchangeable core.
   2. Provide Patented CORMAX keys and cores.
   3. Provide keying information in compliance with DHI (KSN) standards.
   4. Keying Schedule: Arrange for a keying meeting, with Architect, Owner and hardware supplier, and other involved parties to ensure locksets and locking hardware, are functionally correct and keying complies with project requirements.
   5. Keying: Grand master keyed. Verify requirements with Owner.
   6. Include construction keying and control keying with removable core cylinders.
   7. Do not make brass construction cores and construction control and operating keys a part of Owner's permanent keying system, nor furnish in the same keyway (or key section) as Owner, permanent keying system.
   8. Key to existing keying system. Verify specific key, cylinder, and keyway requirements with Owner
   9. Supply keys in following quantities:
      a. Grand Master Keys: 1 each.
      b. Construction Master Keys: 6 each.
      c. Construction Keys: 15 each.
      d. Construction Control Keys: 2 each.
      e. Control Keys if New System: 2 each.
      f. Change Keys: 2 each for each keyed core.
   10. Provide key collection envelopes, receipt cards, and index cards in quantity suitable to manage number of keys.
   11. Deliver keys with identifying tags to Owner by security shipment direct from manufacturer.
   12. Permanent Keys and Cores: Stamped with applicable key marking for identification. Do not include actual key cuts within visual key control marks or codes. Stamp permanent keys "Do Not Duplicate."
   13. Include installation of permanent cores and return construction cores to hardware supplier. Construction cores and keys to remain property of hardware supplier.

C. Products:
   1. Patented:
      a. CORMAX.

2.19 FINISHES

A. Finishes: Identified in Hardware Sets.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that doors and frames are ready to receive this work; labeled, fire-rated doors and frames are properly installed, and dimensions are as indicated on shop drawings.

B. Correct all defects prior to proceeding with installation.

C. Verify that electric power is available to power operated devices and of correct characteristics.

3.02 INSTALLATION

A. Install hardware in accordance with manufacturer's instructions and applicable codes.

B. Install hardware using the manufacturer's fasteners provided. Drill and tap all screw holes located in metallic materials. Do not use "Riv-Nuts" or similar products.

C. Install hardware on fire-rated doors and frames in accordance with applicable codes and NFPA 80.

D. Use templates provided by hardware item manufacturer.

E. Do not install surface mounted items until application of finishes to substrate are fully completed.

F. Wash down masonry walls and complete painting or staining of doors and frames.

G. Complete finish flooring prior to installation of thresholds.

H. Door Hardware Mounting Heights: Distance from finished floor to center line of hardware item. As indicated in following list, unless noted otherwise in Door Hardware Schedule or on drawings.
   1. Mounting heights in compliance with ADA Standards:
      a. Locksets: 40-5/16 inches.
      b. Door Pulls : 42 inches.
      c. Exit Devices: 39-15/16 inches, or as recommended by manufacturer.

I. Set exterior door thresholds with full-width bead of elastomeric sealant at each point of contact with floor providing a continuous weather seal. Anchor thresholds with stainless steel countersunk screws.
   1. See Section 07 92 00 for additional requirements.

J. Include in installation for existing doors and frames any necessary field modification and field preparation of doors and frames for new hardware. Provide necessary fillers, reinforcements, and fasteners for mounting new hardware and to cover existing door and frame preparations.

3.03 FIELD QUALITY CONTROL

A. Perform field inspection and testing under provisions of Section 01 40 00 - Quality Requirements.

3.04 ADJUSTING

A. Adjust work under provisions of Section 01 70 00 - Execution and Closeout Requirements.

B. Adjust hardware for smooth operation.

C. Adjust gasketing for complete, continuous seal; replace if unable to make complete seal.

3.05 CLEANING

A. Clean finished hardware in accordance with manufacturer's written instructions after final adjustments have been made.

B. Clean adjacent surfaces soiled by hardware installation activities.

C. Replace items that cannot be cleaned to manufacturer's level of finish quality at no additional cost.

D. See Section 01 74 19 - Construction Waste Management and Disposal, for additional requirements.

3.06 PROTECTION

A. Protect finished Work under provisions of Section 01 70 00 - Execution and Closeout Requirements.

B. Do not permit adjacent work to damage hardware or finish.

3.07 HARDWARE SETS

Manufacturer List

Code:	Name:
ABH	Architectural Builders Hardware
BES	BEST
PRE	BEST (Precision)
BRN	Burns Manufacturing
NGP	National Guard Products
RCI	Rutherford Controls, Inc.
VON	Von Duprin

Option List

Code:	Name:
TS	Touchbar Monitoring Switch
HC	Hurricane Code Device
EO	Exit Only
900-2RS	2 Relay board output
NLOP	Night Latch, Opt. Pull
RX	Request to Exit
B4E Heavy	Heavy Beveled Edges
RP	Rim Cylinder Ring
RP3	Rings for 7 pin cylinder
LX	Latchbolt Monitoring
QEL	Quiet Electric Latch Retraction
HH	Wind and Impact - Hurricane Rated
CSK	Countersunk Holes
PATD	Patented keyed core
MLR	Motorized Latch Retraction
KR	Keyed Removeable
4" ODW	4" Over Door Width
BP80	Back Plate
CD	Cylinder Dogging
S458	Optional Roller strike
10-24 SS MS/LA	10-24 Stainless Steel Machine Screw/Lead Anchor
LAR	Length As Required
NRP	Non-Removable Pin
Type 6MD	Concealed Mtg on Metal Door
DEU	Electrically Unlocked (Fail-Secure)

Finish List

Code:	Name:
A	Anodized Aluminum
AL	Aluminum, Clear Coated
B	Brown
GPZ	Primer
W	White
US26D	Satin Chromium plated
US27	Mill Aluminum
US28	Clear Anodized Aluminum
26D	Satin Chromium plated
32D	Satin Stainless Steel
600	Primer
622	Powder Coat Black
626	Satin Chromium plated
630	Satin Stainless Steel
689	Powder-Coated Aluminum

HARDWARE SETS

Set #1 - EXT.ALUM. / CARD READER

Doors: 100A, 100B, 100C, 100D, 106D

2	Continuous Hinge	661 HD UL 83 EPT	AL	BES
2	Power Transfer	EPT 10		VON
1	Mullion	HH9954	689	VON
2	Exit Device	HH LX RX QEL 35 A NLOP	US26D	VON
2	Pull	39 C Type 6MD	630	BRN
2	Rim Cylinder	12E 7 2 CORMAX RP	626	BES
2	Door Closer	HD80 16 SISJ BP80 PC SNDTPK	689	BES
1	Gasketing	5100N Mullion		NGP
1	Gasketing	Provided by Alum. Door Manufacturer		
1	Threshold	896 S LAR (10-24 SS MS/LA)	A	NGP
2	Door Position Switch	9540	W	RCI
1	Power Supply	PS902 900-2RS		VON
1	Card Reader	Provided by Access Control Contractor		

NOTE: Presenting valid credential to card reader retracts exit device latch bolts, allowing entry. Request-to-Exit switches inside both exit devices are activated upon depressing push pad, shunting forced door alarm at Access Control System. Door Position Switches monitor door status. Latch monitor switches in exit devices monitor latch bolt position (retracted or extended). Exit devices are fail secure and remain latched and secure on outside during fire alarm or loss of power. Free egress through either leaf is possible at all times. Coordinate wiring and electrical requirements with Electrical Contractor and Security Contractor.

Set #2 - EXT.ALUM. / MONITOR

Doors: 106C

2	Continuous Hinge	661 HD UL 83 EPT	AL	BES
2	Power Transfer	EPT 10		VON
1	Mullion	HH9954	689	VON
1	Exit Device	HH CD LX RX 35 A NLOP	US26D	VON
1	Exit Device	HH CD LX RX 35 A EO	US26D	VON
2	Pull	39 C Type 6MD	630	BRN
1	Rim Cylinder	12E 7 2 CORMAX RP	626	BES
1	Mortise Cylinder	1E 7 4 RP3 CORMAX	626	BES
2	Door Closer	HD80 16 SISJ BP80 PC SNDTPK	689	BES

1	Gasketing	5100N Mullion		NGP
1	Gasketing	Provided by Alum. Door Manufacturer		
1	Threshold	896 S LAR (10-24 SS MS/LA)	A	NGP
2	Door Position Switch	9540	W	RCI

NOTE: Doors normally closed, latched, and locked. Request-to-Exit switches inside both exit devices are activated upon depressing push pad, shunting forced door alarm at Access Control System. Door Position Switches monitor door status. Latch monitor switches in exit devices monitor latch bolt position (retracted or extended). Free egress through either leaf is possible at all times. Coordinate wiring and electrical requirements with Electrical Contractor and Security Contractor.

Set #3 - EXT.ALUM. / CARD READER

Doors: 107A

1	Continuous Hinge	661 HD UL 83 EPT	AL	BES
1	Power Transfer	EPT 10		VON
1	Exit Device	HH LX RX QEL 35 A NLOP	US26D	VON
1	Pull	39 C Type 6MD	630	BRN
1	Rim Cylinder	12E 7 2 CORMAX RP	626	BES
1	Door Closer	HD80 16 SISJ BP80 PC SNDTPK	689	BES
1	Gasketing	Provided by Alum. Door Manufacturer		
1	Threshold	896 S LAR (10-24 SS MS/LA)	A	NGP
1	Door Position Switch	9540	W	RCI
1	Power Supply	PS902 900-2RS		VON
1	Card Reader	Provided by Access Control Contractor		

NOTE: Presenting valid credential to card reader retracts exit device latch bolts, allowing entry. Request-to-Exit switch in exit device is activated upon depressing push pad, shunting forced door alarm at Access Control System. Door Position Switch monitors door status. Latch monitor switch in exit device monitors latch bolt position (retracted or extended). Exit device is fail secure and remains latched and secure on outside during fire alarm or loss of power. Free egress is possible at all times. Coordinate wiring and electrical requirements with Electrical Contractor and Security Contractor.

Set #4 - EXT.HM. / CARD READER

Doors: C007

1	Continuous Hinge	661 HD UL 83 EPT	AL	BES
1	Power Transfer	EPT-12C		PRE
1	Exit Device	HC MLR TS 2103 A 1703	630	PRE

1	Rim Cylinder	12E 7 2 PATD RP	626	BES
1	Door Closer	HD80 16 SDS PC SNDTPK	689	BES
1	Kick Plate	KP50 CSK B4E Heavy 10" Door Width less 2"	630	BRN
1	Gasketing	127S Head & Jambs (2)	A	NGP
1	Sweep	200S LAR	A	NGP
1	Threshold	896 S LAR (10-24 SS MS/LA)	A	NGP
1	Drip Cap	16 4" ODW	A	NGP
1	Door Position Switch	9540	W	RCI
1	Power Supply	RPSMLR2BB		PRE
1	Card Reader	Provided by Access Control Contractor		

NOTE: Presenting valid credential to card reader retracts exit device latch bolt, allowing entry. Request-to-Exit switch in exit devices is activated upon depressing push pad, shunting forced door alarm at Access Control System. Door Position Switch monitors door status. Latch monitor switch in exit device monitors latch bolt position (retracted or extended). Exit device is fail secure and remain latched and secure on outside during fire alarm or loss of power. Free egress is possible at all times. Coordinate wiring and electrical requirements with Electrical Contractor and Security Contractor.

Set #5 - EXT.HM.

Doors: 201, 203

2	Hinge	661 HD UL 83	AL	BES
1	Mullion	RM 0 HCXKR 822 MCS	600	PRE
1	Exit Device	HC 2103 CD A S458 1703	630	PRE
1	Exit Device	HC 2102 CD A S458 1702	630	PRE
2	Rim Cylinder	12E 7 2 PATD RP	626	BES
2	Mortise Cylinder	1E 7 4 RP3 PATD	626	BES
2	Door Closer	HD80 16 SDS PC SNDTPK	689	BES
2	Kick Plate	KP50 CSK B4E Heavy 10" Door Width less 2"	630	BRN
1	Gasketing	5100N Mullion		NGP
1	Gasketing	127S Head & Jambs (2)	A	NGP
2	Sweep	200S LAR	A	NGP
1	Threshold	896 S LAR (10-24 SS MS/LA)	A	NGP
1	Drip Cap	16 4" ODW	A	NGP

Set #6 - EXT.HM.

Doors: 112

1	Hinge	661 HD UL 83	AL	BES
1	Mortise Lock	45H 7 D 14 H PATD	626	BES
1	Door Closer	HD80 16 SDS PC SNDTPK	689	BES
1	Kick Plate	KP50 CSK B4E Heavy 10" Door Width less 2"	630	BRN
1	Gasketing	127S Head & Jambs (2)	A	NGP
1	Sweep	200S LAR	A	NGP
1	Threshold	896 S LAR (10-24 SS MS/LA)	A	NGP
1	Drip Cap	16 4" ODW	A	NGP

Set #7 - INT.ALUM. / CARD READER, REMOTE RELEASE BUTTON

Doors: 106B

2	Continuous Hinge	661 HD UL 83 EPT	AL	BES
2	Power Transfer	EPT 10		VON
1	Mullion	KR 4954	689	VON
2	Exit Device	LX RX QEL 35 A NLOP	US26D	VON
2	Pull	39 C Type 6MD	630	BRN
2	Rim Cylinder	12E 7 2 CORMAX RP	626	BES
1	Mortise Cylinder	1E 7 4 RP3 CORMAX	626	BES
2	Door Closer	HD80 16 SISJ BP80 PC SNDTPK	689	BES
1	Gasketing	5100N Mullion		NGP
1	Gasketing	Provided by Alum. Door Manufacturer		
2	Door Position Switch	9540	W	RCI
1	Power Supply	PS902 900-2RS		VON
1	Rocker Switch	909 S MO		RCI
1	Card Reader	Provided by Access Control Contractor		

NOTE: Presenting valid credential to card reader or activating remote release button retracts exit device latch bolts, allowing entry. Request-to-Exit switches inside both exit devices are activated upon depressing push pad, shunting forced door alarm at Access Control System. Door Position Switches monitor door status. Latch monitor switches in exit devices monitor latch bolt position (retracted or extended). Exit devices are fail secure and remain latched and secure on outside during fire alarm or loss of power. Free egress through either leaf is possible at all times. Coordinate wiring and electrical requirements with Electrical Contractor and Security Contractor.

Set #8 - INT.ALUM. / MONITOR

Doors: 106A

2	Continuous Hinge	661 HD UL 83 EPT	AL	BES
2	Power Transfer	EPT 10		VON
1	Mullion	KR 4954	689	VON
1	Exit Device	CD LX RX 35 A NLOP	US26D	VON
1	Exit Device	CD LX RX 35 A EO	US26D	VON
2	Pull	39 C Type 6MD	630	BRN
1	Rim Cylinder	12E 7 2 CORMAX RP	626	BES
3	Mortise Cylinder	1E 7 4 RP3 CORMAX	626	BES
2	Door Closer	HD80 16 SISJ BP80 PC SNDTPK	689	BES
1	Gasketing	5100N Mullion		NGP
1	Gasketing	Provided by Alum. Door Manufacturer		
2	Door Position Switch	9540	W	RCI

NOTE: Presenting valid credential to card reader or activating remote release button retracts exit device latch bolts, allowing entry. Request-to-Exit switches inside both exit devices are activated upon depressing push pad, shunting forced door alarm at Access Control System. Door Position Switches monitor door status. Latch monitor switches in exit devices monitor latch bolt position (retracted or extended). Exit devices are fail secure and remain latched and secure on outside during fire alarm or loss of power. Free egress through either leaf is possible at all times. Coordinate wiring and electrical requirements with Electrical Contractor and Security Contractor.

Set #9 - INT.ALUM. / CARD READER

Doors: 107

1	Continuous Hinge	661 HD UL 83 EPT	AL	BES
1	Power Transfer	EPT 10		VON
1	Exit Device	LX RX QEL 35 A NLOP	US26D	VON
1	Pull	39 C Type 6MD	630	BRN
1	Rim Cylinder	12E 7 2 CORMAX RP	626	BES
1	Door Closer	HD80 16 SISJ BP80 PC SNDTPK	689	BES
1	Gasketing	Provided by Alum. Door Manufacturer		
1	Door Position Switch	9540	W	RCI
1	Power Supply	PS902 900-2RS		VON
1	Card Reader	Provided by Access Control Contractor		

NOTE: Presenting valid credential to card reader retracts exit device latch bolt, allowing entry. Request-to-Exit switch in exit device is activated upon depressing push pad, shunting forced door alarm at Access

Control System. Door Position Switch monitors door status. Latch monitor switch in exit device monitors latch bolt position (retracted or extended). Exit device is fail secure and remains latched and secure on outside during fire alarm or loss of power. Free egress is possible at all times. Coordinate wiring and electrical requirements with Electrical Contractor and Security Contractor.

Set #10 - INT.WD / CARD READER

Doors: 109

3	Hinge	FBB168 NRP 45X45	26D	BES
1	Power Transfer	EPT-12C		PRE
1	Elec. Mortise. Lock	45HW 7 DEU 14 H PATD RQE	626	BES
1	Door Closer	HD80 16 DS PC SNDTPK	689	BES
1	Kick Plate	KP50 CSK B4E Heavy 10" Door Width less 2"	630	BRN
1	Silencers	500	Gray	BRN
1	Power Supply	DKPS-2A		RCI
1	Door Position Switch	9540	W	RCI
1	Card Reader	Provided by Access Control Contractor		

NOTE: Door normally closed, latched, and locked. Turning key in outside cylinder retracts latch bolt. Presenting valid credential to card reader temporarily unlocks outside lever, allowing entry. Door Position Switch monitors door status. Request-to-Exit Switch in lockset is activated by turning inside lever, shunting forced door alarm at Access Control System. Free egress is possible at all times. Coordinate wiring and electrical requirements with Electrical Contractor and Access Control Contractor.

Set #11 -

Doors: 102

3	Hinge	FBB168 NRP 45X45	26D	BES
1	Exit Device	FL2114 D 4914	622	PRE
1	Door Closer	HD80 16 AF80P PC SNDTPK	689	BES
1	Kick Plate	KP50 CSK B4E Heavy 10" Door Width less 2"	Flat Black	BRN
1	Wall Stop	560	626	BRN
1	Gasketing	5050 Head & Jambs (2)	B	NGP
1	Automatic Door Bottom	423N 36" X DRKB END CAPS	US27	NGP

NOTE: Mount door closer on corridor side of door.

Set #12 -

Doors: 103

6	Hinge	FBB168 45X45	26D	BES
1	Flushbolt	1864P	US26D	ABH

1	Dust Proof Strike	1870	US26D	ABH
1	Mortise Lock	45H 7 D 14 H PATD	626	BES
1	Coordinator	3721	US28	ABH
2	Door Closer	HD80 16 IS PC SNDTPK	689	BES
2	Kick Plate	KP50 CSK B4E Heavy 10" Door Width less 1"	630	BRN
1	Gasketing	5050 Head & Jambs (2)	B	NGP
1	Astragal	562 7'0" Hardware Preps	GPZ	NGP

NOTE: Template door closers for maximum allowable degree of opening.

Set #13 -

Doors: 101

3	Hinge	FBB168 NRP 45X45	26D	BES
1	Mortise Lock	45H 7 D 14 H PATD	626	BES
1	Door Closer	HD80 16 AF80P PC SNDTPK	689	BES
1	Kick Plate	KP50 CSK B4E Heavy 10" Door Width less 2"	630	BRN
1	Wall Stop	560	626	BRN
1	Gasketing	5050 Head & Jambs (2)	B	NGP

Set #14 -

Doors: 110, 111

3	Hinge	FBB168 NRP 45X45	26D	BES
1	Mortise Lock	45H 7 D 14 H PATD	626	BES
1	Door Closer	HD80 16 DS PC SNDTPK	689	BES
1	Kick Plate	KP50 CSK B4E Heavy 10" Door Width less 2"	630	BRN
3	Silencers	500	Gray	BRN

Set #15 -

Doors: 108

3	Hinge	FBB199 45X45	32D	BES
1	Mortise Lock	45H 7 AB 14 H PATD	626	BES
1	Door Closer	HD80 16 AF80P PC SNDTPK	689	BES
1	Kick Plate	KP50 CSK B4E Heavy 10" Door Width less 2"	630	BRN
1	Mop Plate	MP50 CSK B4E Heavy 6" Door Width less 1"	630	BRN
1	Wall Stop	560	626	BRN
3	Silencers	500	Gray	BRN

Set #16 - ROLLING COILING SHUTTER

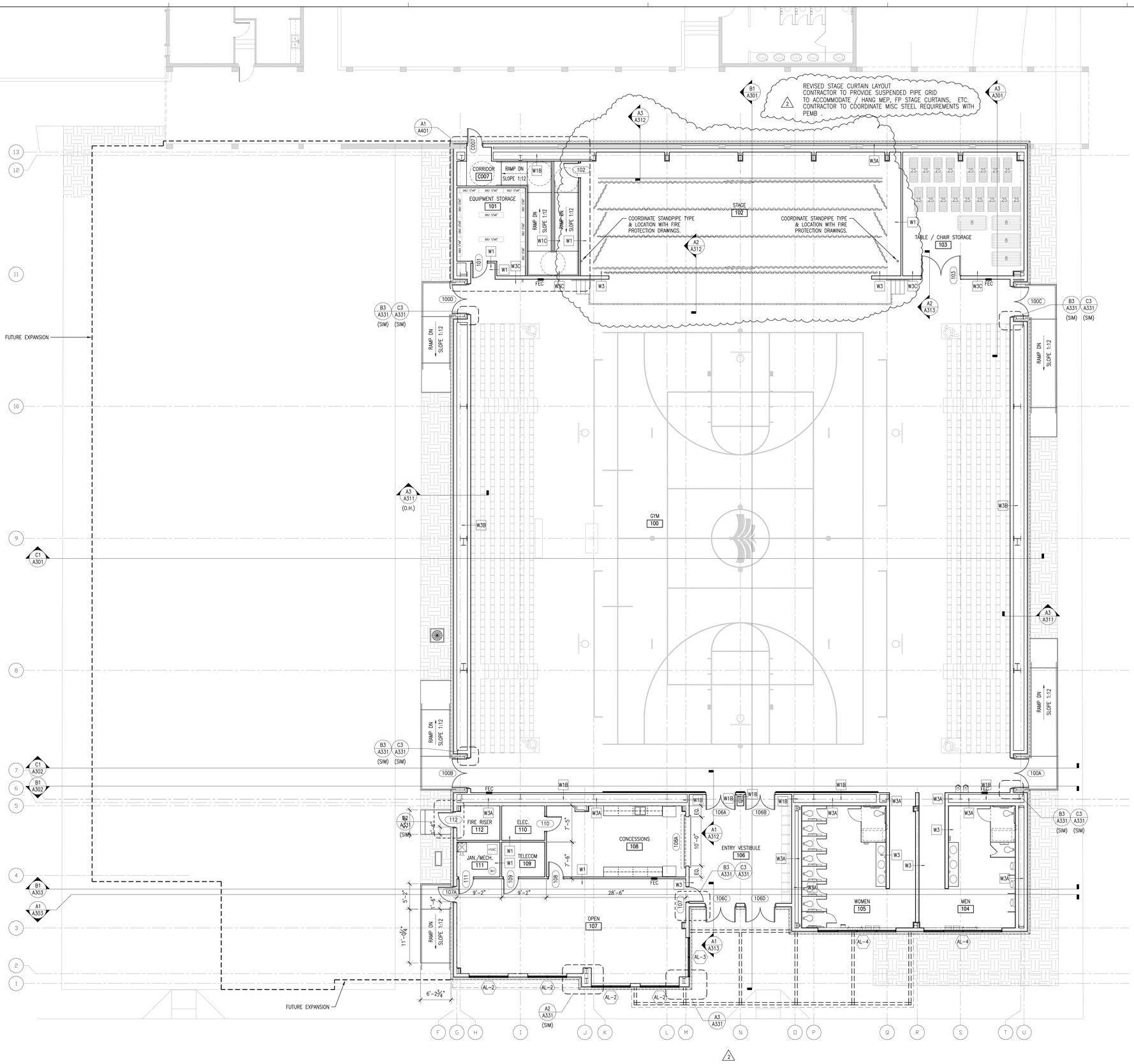
Doors: 108A

NOTE: Hardware provided by Rolling Coiling Shutter Manufacturer.

OPENING LIST:

OPENING #	SET	RATING
C007	4	
100A	1	
100B	1	
100C	1	
100D	1	
101	13	60 MIN
102	11	60 MIN
103	12	60 MIN
106A	8	
106B	7	
106C	2	
106D	1	
107	9	
107A	3	
108	15	
108A	16	
109	10	
110	14	
111	14	
112	6	
201	5	
203	5	

END OF SECTION



GENERAL NOTES

1. ALL CONTRACTORS MUST FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO PERFORMING NEW WORK.
2. THE CONTRACTOR SHALL PROVIDE REINFORCING WITH MATERIALS CONSISTENT WITH CONSTRUCTION MATERIALS BEHIND WALL MOUNTED AND CEILING MOUNTED EQUIPMENT. COORDINATE WITH A/V, DATA, CASEWORK, FURNITURE, ELECTRICAL, AND INTERIOR ELEVATION DRAWINGS.
3. CONTRACTOR SHALL COORDINATE WORK WITH MECHANICAL, ELECTRICAL, PLUMBING, AND ALL OTHER DISCIPLINES.
4. INTERIOR DOORS TO BE LOCATED MIN 4" FROM ADJACENT STUD PARTITIONS AND 8" FROM ADJACENT MASONRY PARTITIONS, UNLESS DIMENSIONED OR NOTED OTHERWISE.
5. REFER TO FINISH SCHEDULE(S) IN A500 SERIES SHEETS FOR FINISHES.
6. REFER TO A600 SERIES SHEETS FOR ADDITIONAL INFORMATION, INCLUDING TOILET ROOM DIMENSIONS.
7. REFER TO LS-SERIES LIFE SAFETY SHEETS FOR FIRE RATED AND SMOKE PARTITION LOCATIONS.
8. REFER TO STRUCTURAL FOR BRACING TYPE AND LOCATIONS.
9. REFER TO PLUMBING FOR FIXTURE SCHEDULES.
10. CONTRACTOR SHALL PROVIDE ISOLATION BETWEEN DISSIMILAR METALS.
11. PROVIDE CONCRETE SPLASH BLOCKS / METAL SPLASH PANS AT ALL DOWNSPOUTS THAT DRAIN TO ROOFS OR GRADE, AND AT ALL CANOPY COLUMNS THAT DRAIN TO GRADE.

PEMB BID WARNING TO CONTRACTOR:

WITH THE SUBMISSION OF THEIR BID, THE GENERAL CONTRACTOR CERTIFIES AND HAS CONFIRMED THAT THE PRE-ENGINEERED METAL BUILDING COMPANY WHOSE PRICE WAS USED TO GENERATE THIS BID HAS THOROUGHLY REVIEWED THE REQUIREMENTS OF THE CURRENT ARCHITECTURAL AND STRUCTURAL PLANS. THE BID PRICING REFLECTS THEIR ABILITY TO PROVIDE A PRE-ENGINEERED METAL BUILDING PACKAGE THAT COMPLIES WITH THE REQUIREMENTS OF THE CONTRACT DRAWINGS TO THE ARCHITECT'S SATISFACTION. THE BIDDING CONTRACTOR FURTHER UNDERSTANDS AND ACKNOWLEDGES THAT THEY HAVE INCLUDED WITHIN THEIR BID PRICE ALL COSTS FOR ALL INITIAL OR SUPPLEMENTAL DESIGN ENGINEERING FROM THE PEMB PROVIDER TO ENSURE THAT THE APPROVED DESIGN TO BE RELEASED FOR FABRICATION COMPLIES WITH THE INTENT OF THE CONTRACT DRAWINGS. THIS INCLUDES COLUMN LOCATIONS AND SPACING, BEAM CLEAR HEIGHTS AND SPANS, AS WELL AS WINDOWS, DOORS, AND STOREFRONT OPENING REQUIREMENTS. THE COST OF ANY STEEL MATERIAL REQUIRED TO COMPLY WITH THESE ARCHITECTURAL REQUIREMENTS IS INCLUDED IN THIS BID. ADDITIONALLY, THE PEMB PROVIDER HAS INCLUDED SUITABLE DESIGN AND SUPPLEMENTAL STEEL BRACING WITHIN THE GYM ROOF FRAMING TO SUPPORT THE SIX RETRACTING BASKETBALL BACKSTOP ASSEMBLIES.

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850.387.1671
www.DAGarchitects.com

100% CONSTRUCTION DOCUMENTS

A New Gymatorium for:
PALM BAY CHARTER SCHOOLS
1104 Balboa Avenue, Panama City, FL 32401

REVISIONS:

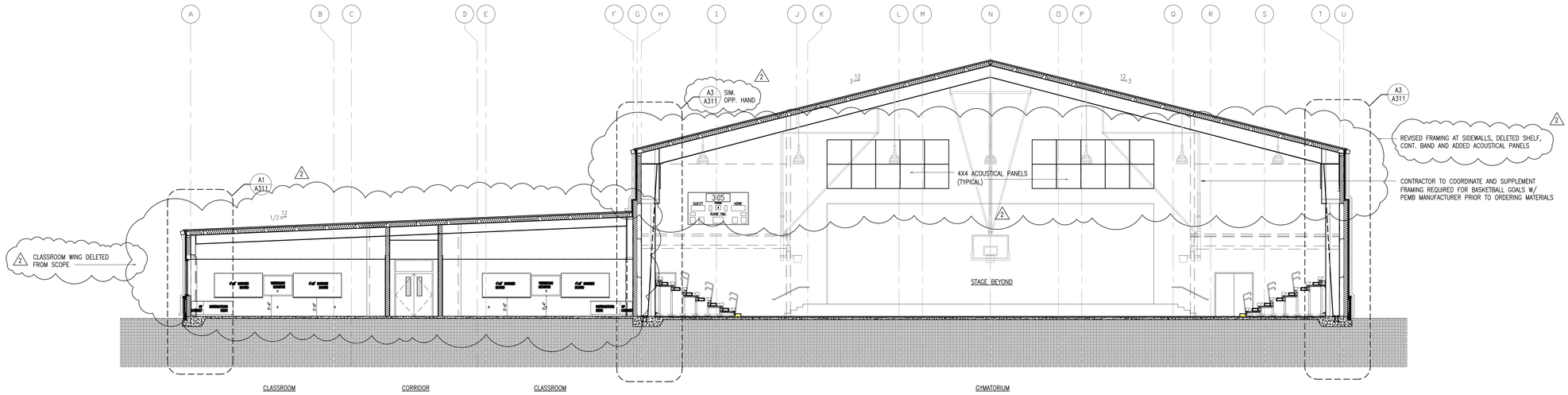
No.	Description	Date
1	SCOPE REDUCTION	2/6/2026
2	ADDENDUM NO. 2	3/17/26

ALTERNATE
FLOOR PLAN

PROJECT NUMBER	22019
DATED	01/31/2025

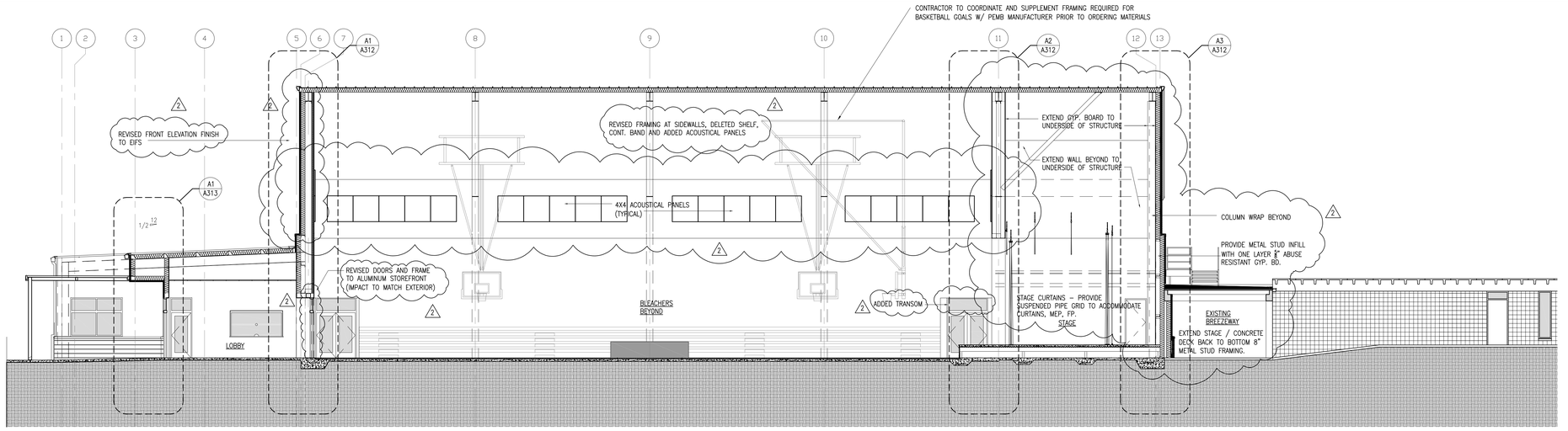
A101.A

A1	FLOOR PLAN
SCALE: 1/8" = 1'-0"	



C1 BUILDING SECTION

SCALE: 1/8" = 1'-0" (REFERENCE BLDG. SECTION 1)



B1 BUILDING SECTION

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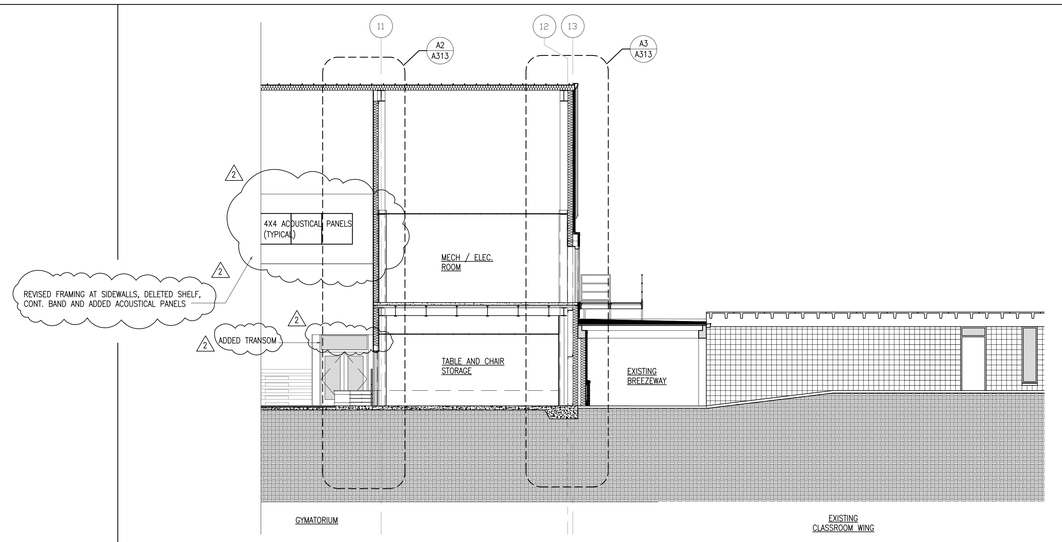

A1

SCALE: .

A3 BUILDING SECTION

SCALE: 1/8" = 1'-0" (REFERENCE BLDG. SECTION 2)

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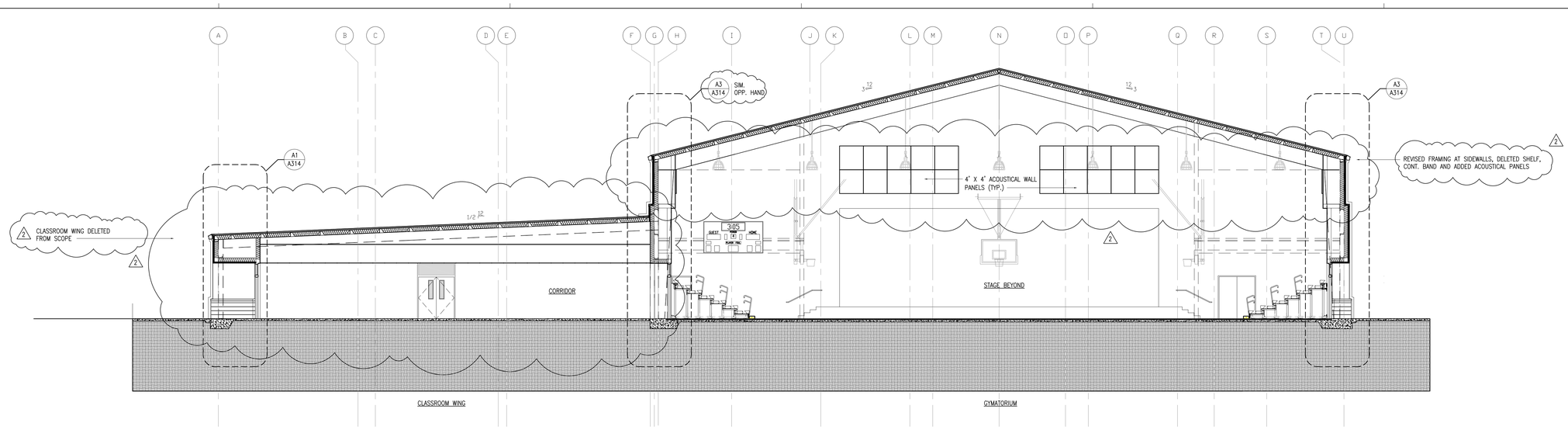
REVISIONS:

No.	Description	Date
2	ADDENDUM NO. 2	3/17/26

BUILDING SECTIONS

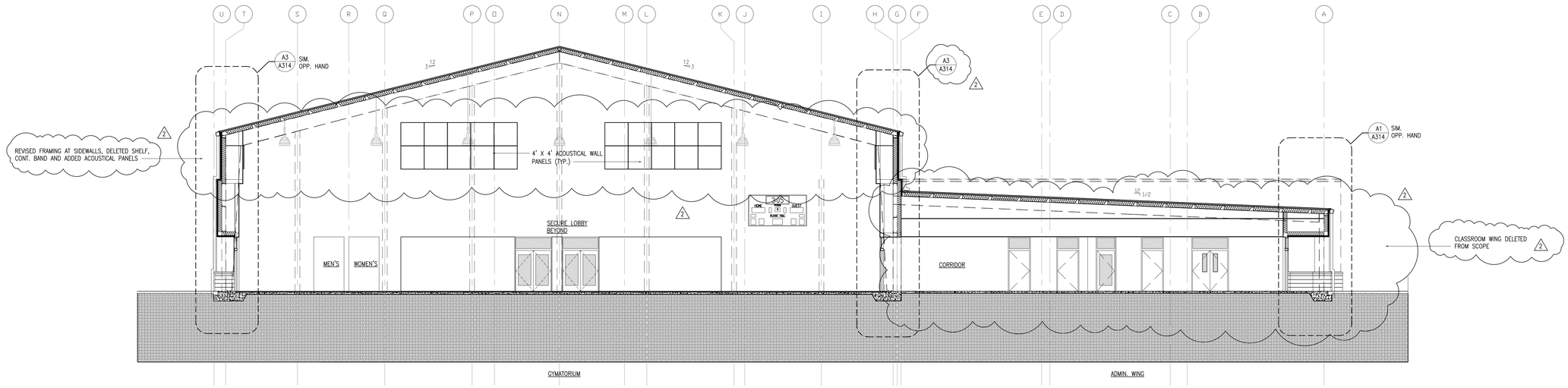
PROJECT NUMBER	22019
DATED	01/31/2025

A301



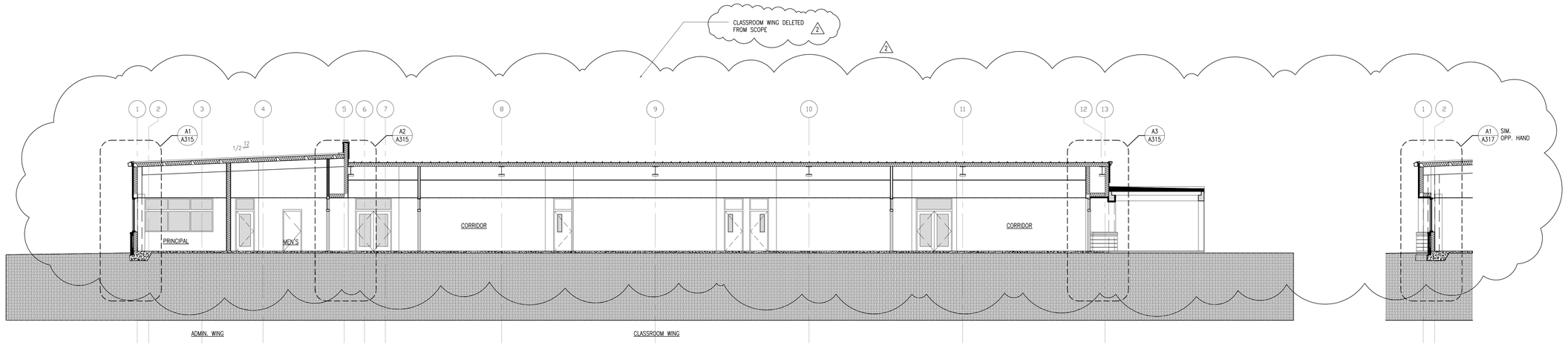
C1 BUILDING SECTION

SCALE: 1/8" = 1'-0" (REFERENCE BLDG. SECTION 3)



B1 BUILDING SECTION

SCALE: 1/8"=1'-0" (REFERENCE BUILDING SECTION 4)



A1 BUILDING SECTION

SCALE: 1/8"=1'-0" (REFERENCE BUILDING SECTION 5)

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1104 Balboa Avenue, Panama City, FL 32401

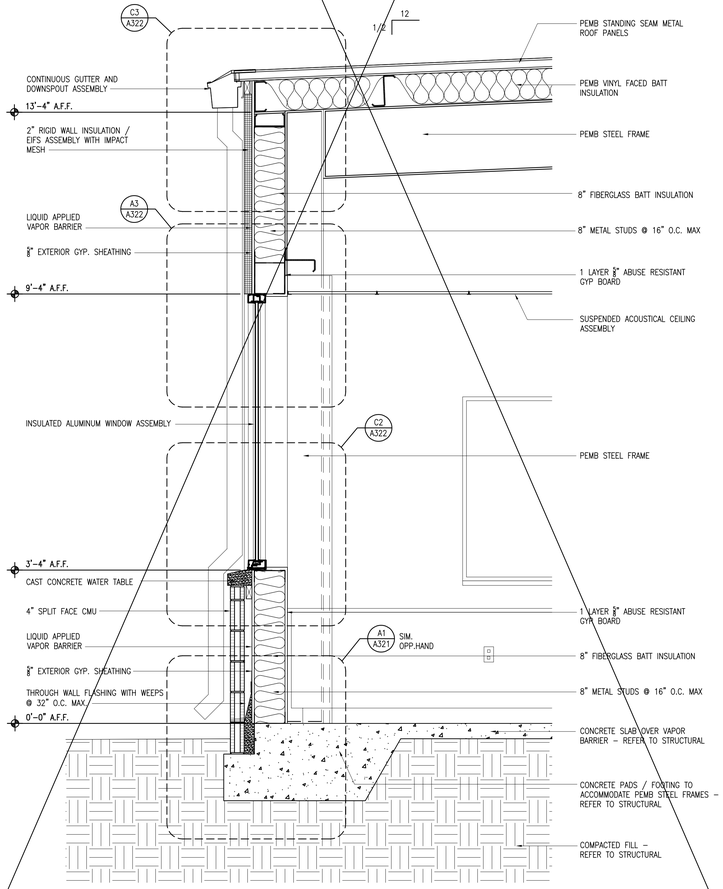
REVISIONS:

No.	Description	Date
2	ADDENDUM NO. 2	3/17/26

BUILDING SECTIONS

PROJECT NUMBER	22019
DATED	01/31/2025

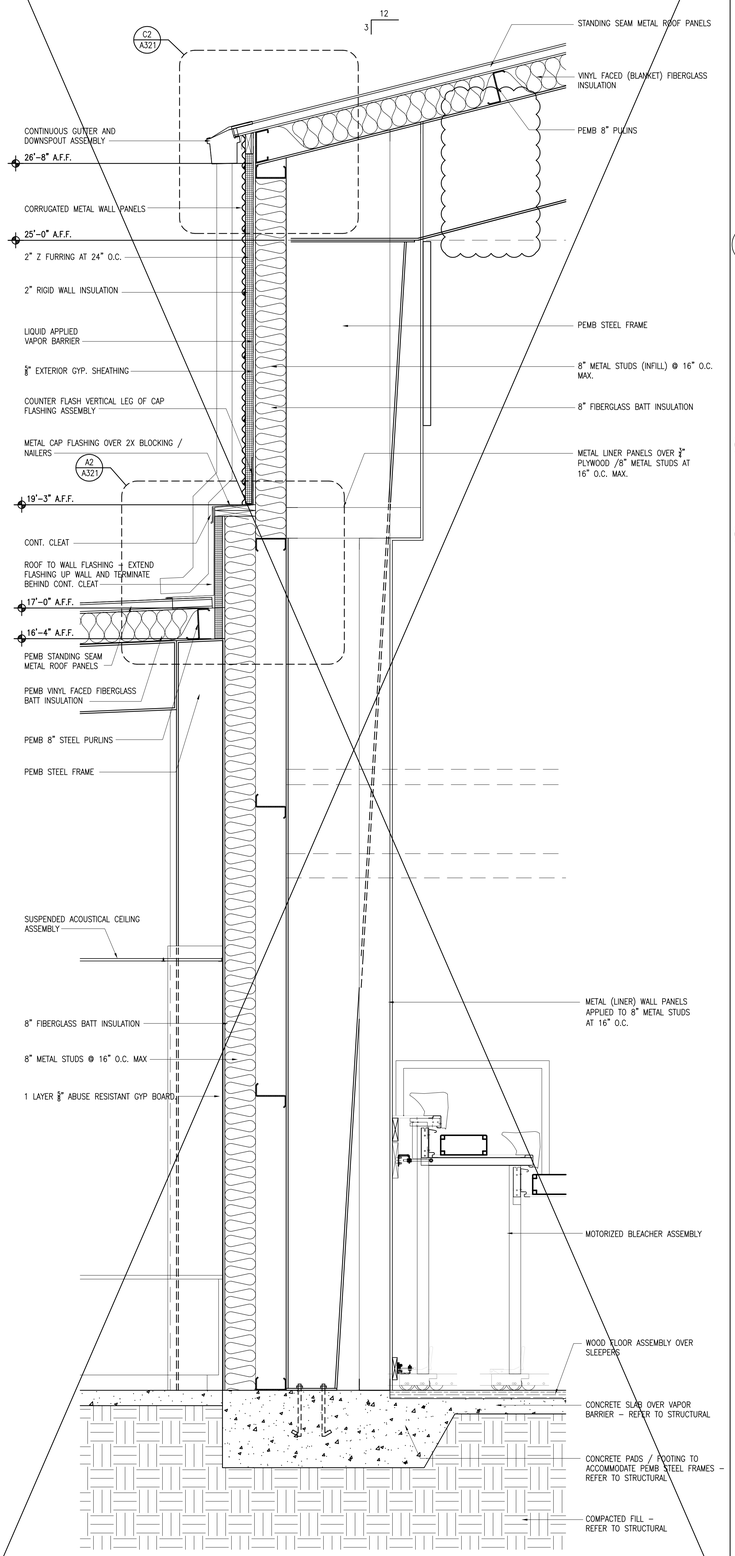
A302



A1 WALL SECTION

SCALE: 3/4" = 1'-0"

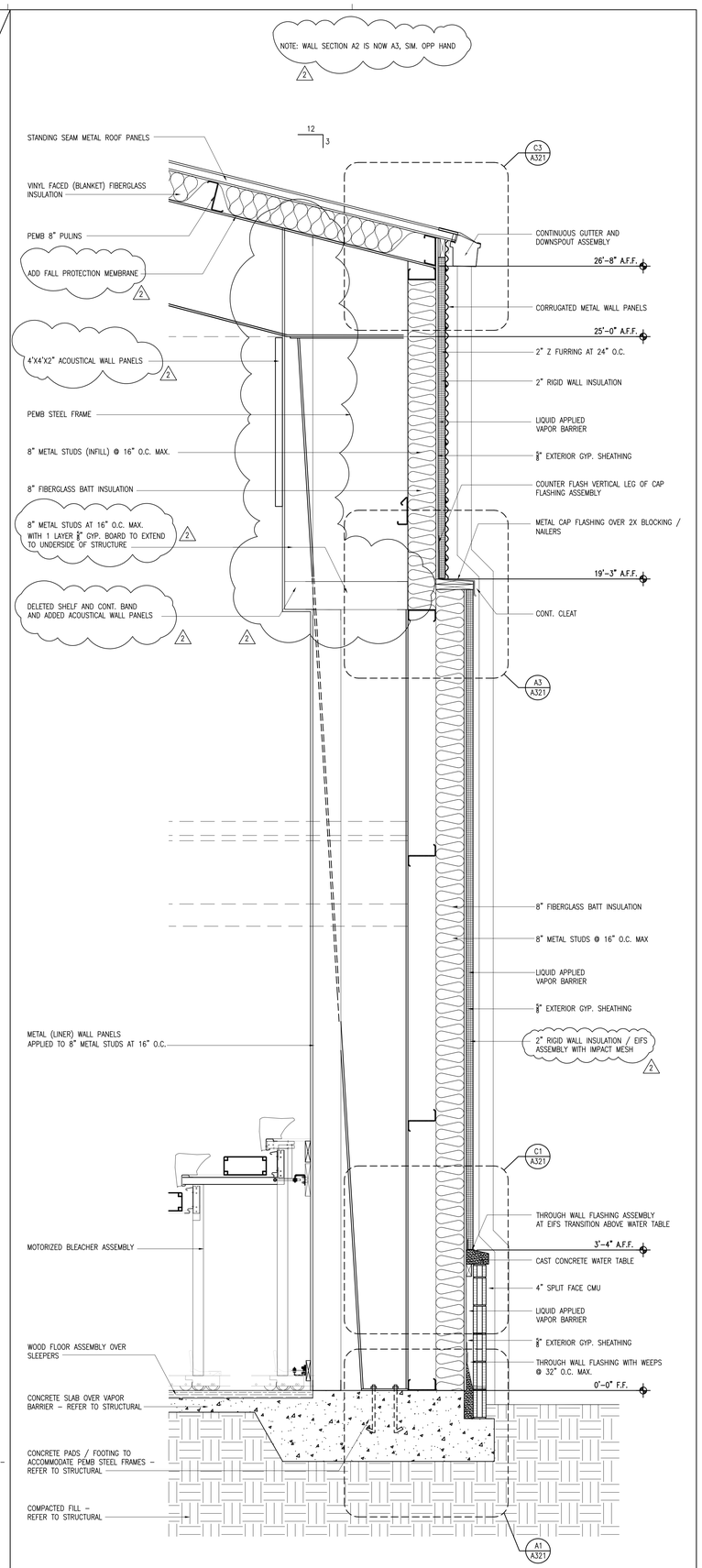
(REFERENCE BLDG. SECTION 1)



A2 WALL SECTION

SCALE: 3/4" = 1'-0"

(REFERENCE BLDG. SECTION 1)



A3 WALL SECTION

SCALE: 3/4" = 1'-0"

(REFERENCE BLDG. SECTION 1)

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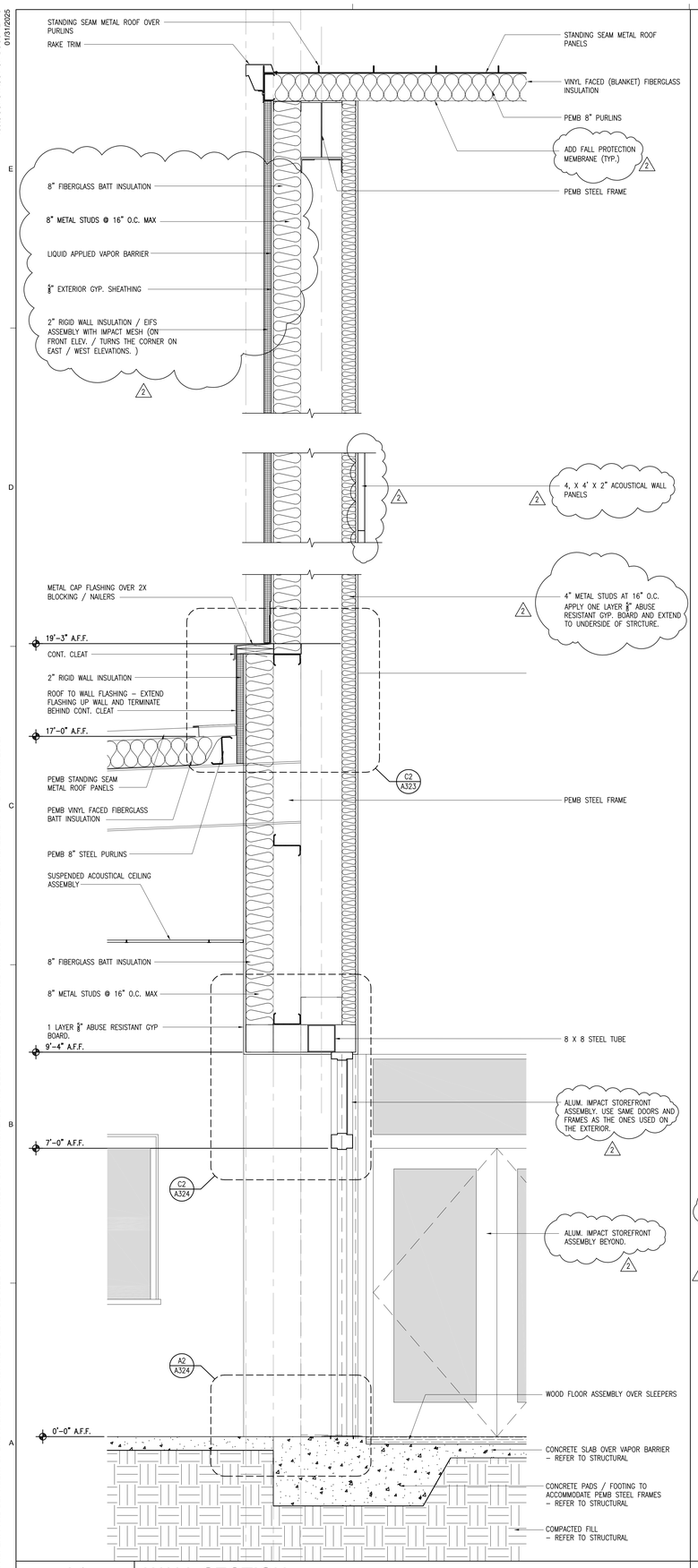
REVISIONS:

No.	Description	Date
2	ADDENDUM NO. 2	3/17/26

WALL SECTIONS

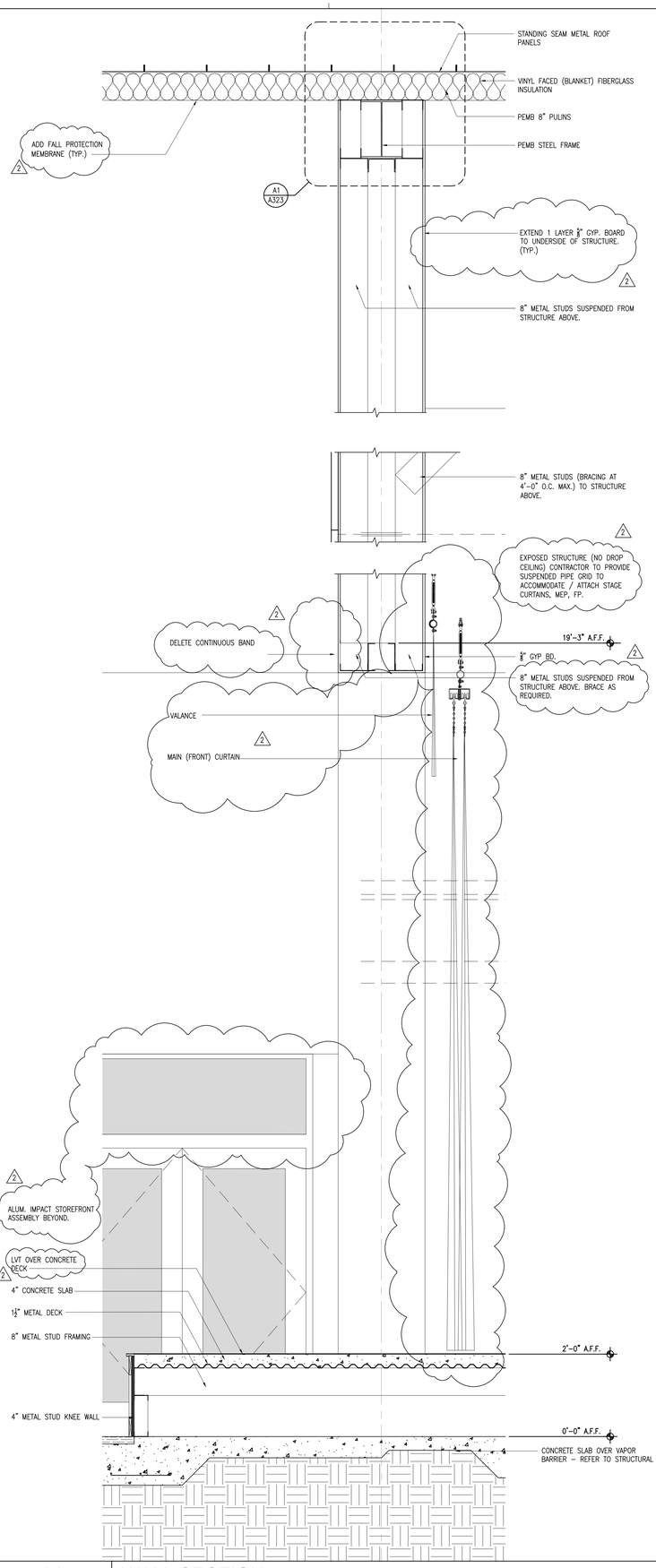
PROJECT NUMBER	22019
DATED	01/31/2025

A311



A1 WALL SECTION

SCALE: 3/4" = 1'-0" (REFERENCE BLDG. SECTION 2)



A2 WALL SECTION

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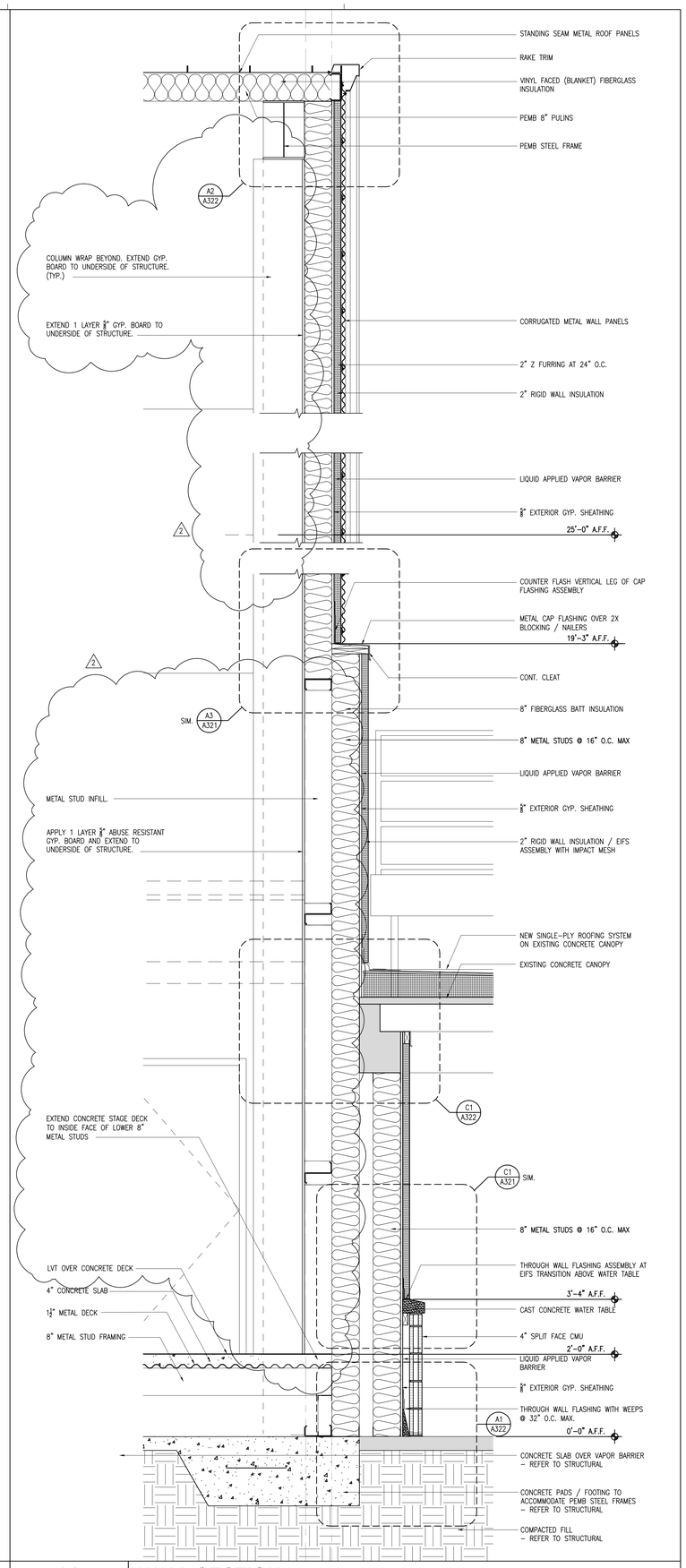

A3 WALL SECTION

SCALE: 3/4" = 1'-0" (REFERENCE BLDG. SECTION 2)

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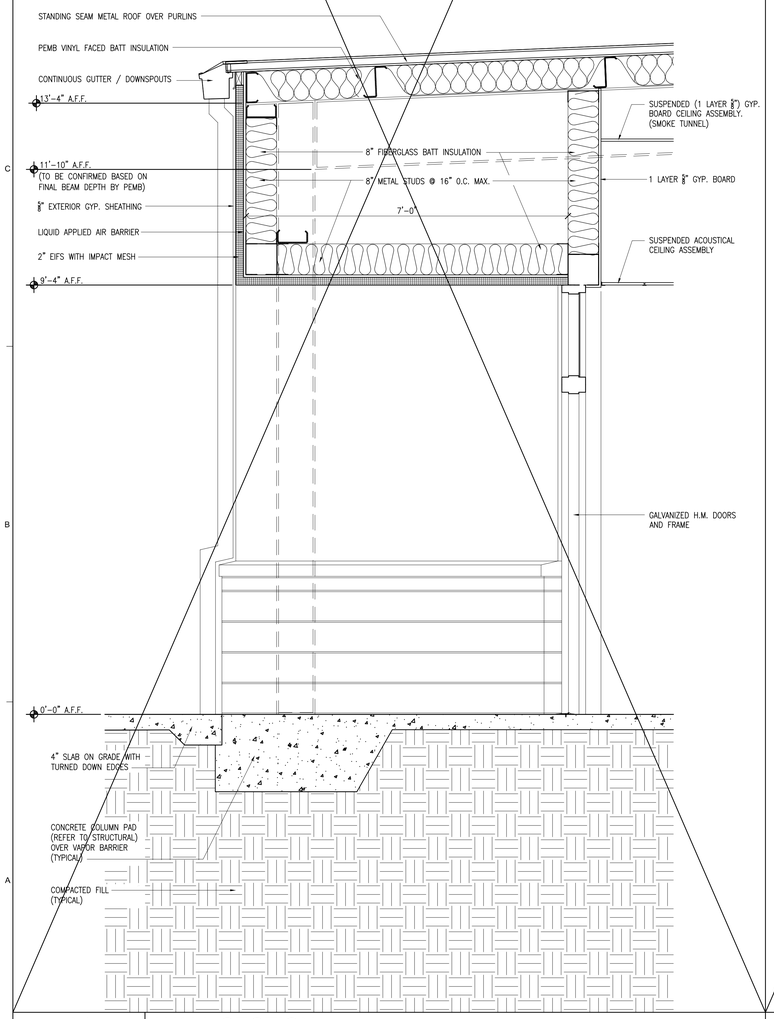
REVISIONS:

No.	Description	Date
2	ADDENDUM NO. 2	3/17/26

WALL SECTIONS

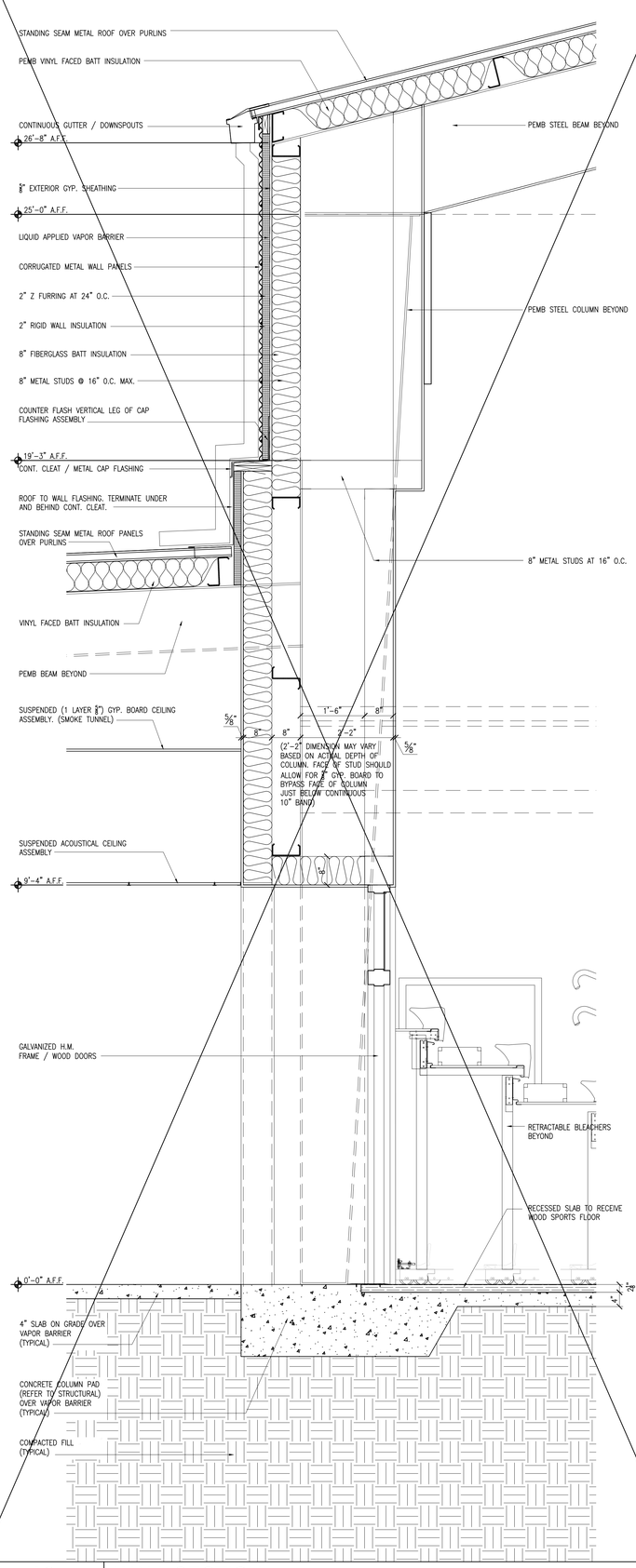
PROJECT NUMBER	22019
DATED	01/31/2025

A312



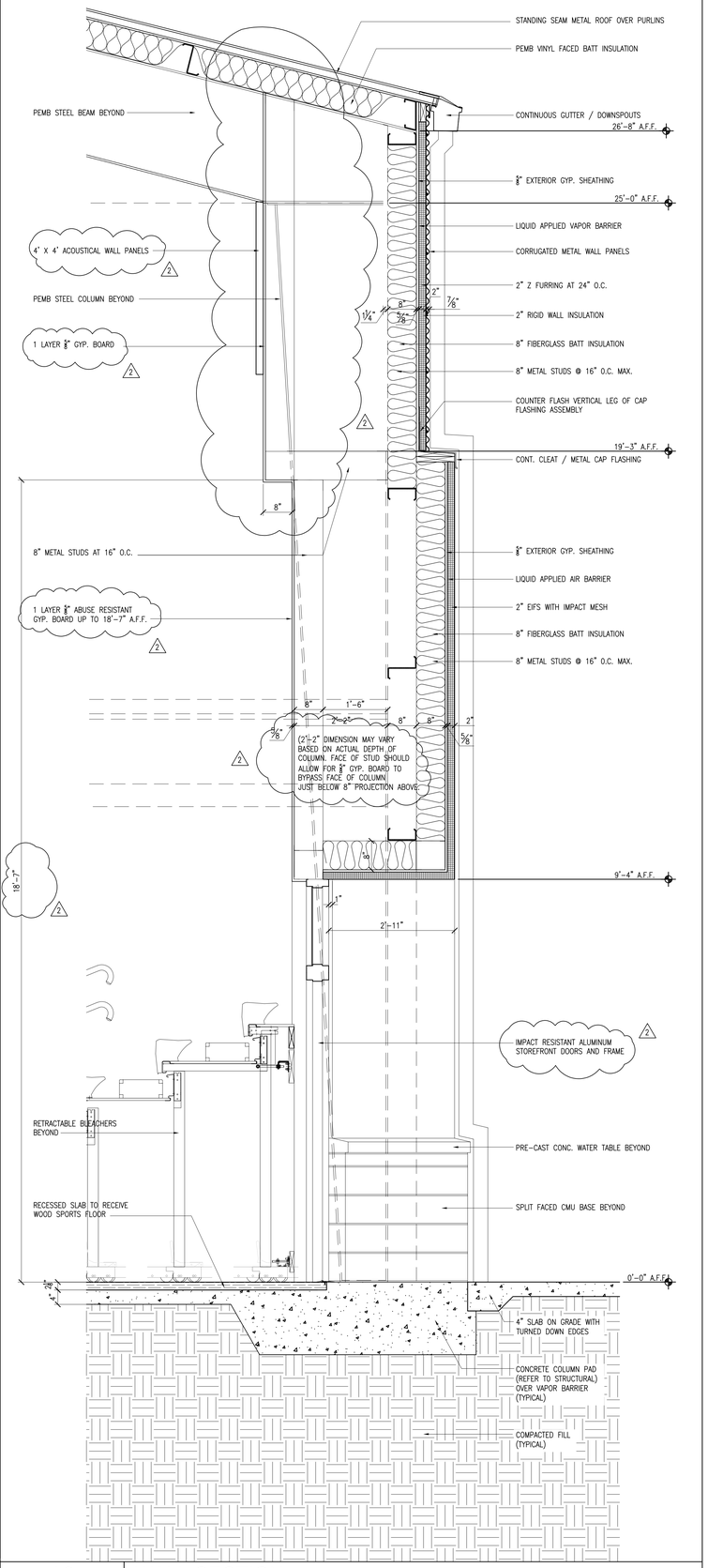
A1 WALL SECTION

SCALE: 3/4" = 1'-0" (REFERENCE BLDG. SECTION 3)



A2 WALL SECTION

SCALE: 3/4" = 1'-0" (REFERENCE BLDG. SECTION 3)



A3 WALL SECTION

SCALE: 3/4" = 1'-0" (REFERENCE BLDG. SECTION 3)

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REVISIONS:

No.	Description	Date
2	ADDENDUM NO. 2	3/17/26

WALL SECTIONS

PROJECT NUMBER	22019
DATED	01/31/2025

A314

PROLINER™ BANDED LINER SYSTEM (LS)

The ProLiner™ Provides Fall Protection and Maximum Thermal Performance

The **ProLiner™ Bi-Directional Banded Liner System** provides OSHA-compliant leading-edge fall protection while maximizing thermal performance in pre-engineered metal buildings using EcoTouch® MBI Plus Filler Blanket. In addition to offering leading-edge fall protection, **ProLiner™ meets energy code requirements**, improves the acoustical environment and aids in sound abatement, and provides a brighter finished interior.

Liner System Features & Benefits

- **Fall Protection**: Provides OSHA-compliant leading-edge fall protection
- **Thermal Performance**: Full range of R-values to meet energy codes
- **Noise Control**: Reduces noise transfer from inside and outside of the building, providing superior sound abatement
- **Durable Finished Appearance**: A low permeance fabric serves as the vapor retarder, preventing condensation, contributing to air barrier integrity, and providing a brighter, resilient finish
- **Meets Fire Code Ratings**
- **GREENGUARD Certified**

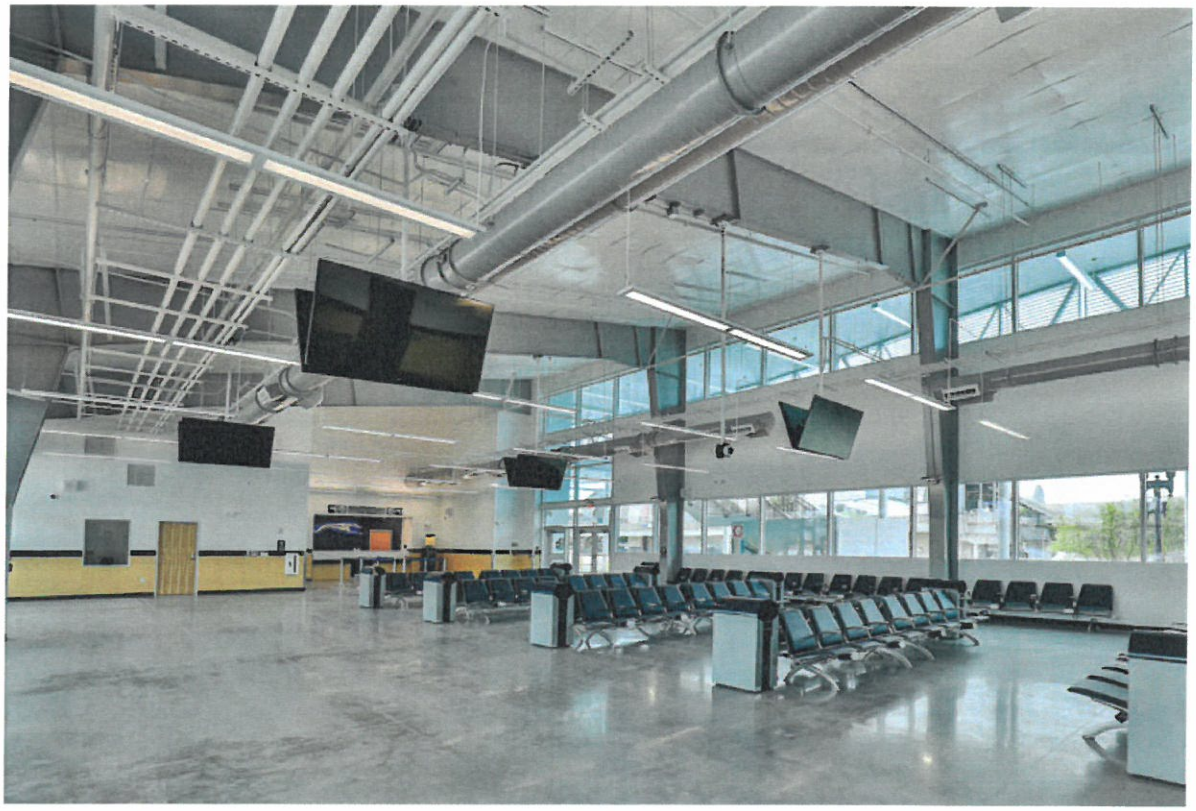
Speak With Our Expert Team

Fall Protection

The ProLiner™ Bi-Directional Banding System meets the requirements of OSHA Standard 29 CFR 1926.502 (c)(4)(i) and OSHA Standard 29 CFR 1926.760 (a)(1) for leading edge fall protection and OSHA Standard 29 CFR 1926.754 (e)(3)(i) covers for roof and floor openings.

How ProLiner™ Helps Meet Codes

One of the difficulties in meeting code compliance for the building envelope is to prove the insulation system or application you are using meets the thermal performance (U-Value) listed for the specific code that applies to your project. This is not an issue with the ProLiner™ system since it meets the definition of Liner System (Ls) as described in the latest version of ASHRAE 90.1, which is also referenced by the IECC (International Energy Conservation Code).

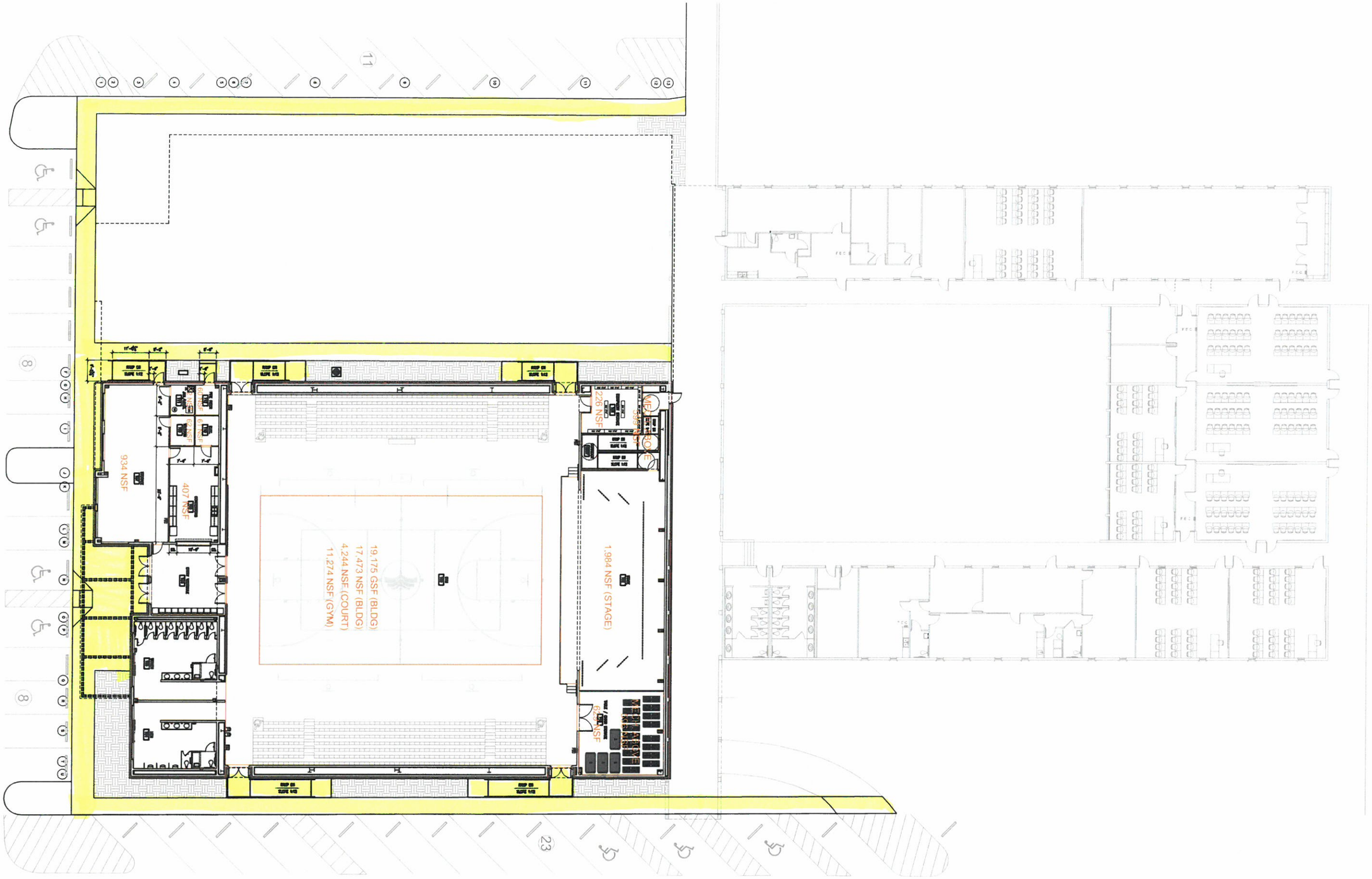


Meet Code Compliance with Therm-All

Call Now To Learn More

Safety Considerations

When installed in strict compliance with the official Bi-Directional Banding instructions and by a "Competent Person" as defined in OSHA Standard 29 CFR 1926.751, ProLiner™ meets the requirements of OSHA Standard 29 CFR 1926.502 (c)(4)(i) and OSHA Standard 29 CFR 1926.760 (a)(1) for leading edge fall protection and OSHA Standard 29 CFR 1926.754 (e)(3)(i) covers for roof and floor openings. Any deviation from these installation instructions or substitution of any original components will nullify compliance with these OSHA standards.



Partial Site Plan Indicating Extent / Location of Sidewalks (Highlighted in Yellow)

SECTION 11 06 50 – STAGE DRAPERY, TRACKS AND PIPE GRIDS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 INTENT

A. The intent of the specification is to provide the owner with a complete working curtain system; to have the design integrity of equipment and features meet the owners decided use, and provide equipment that has a proven long-term reliability record.

1.3 SCOPE

A. All materials, components and services necessary to provide a complete working system indicated in this section, as specified herein and shown on related drawings including, but not limited to:

1. Dimensional drawings and schedules for specified curtains, track and appropriate hardware.
2. Shipment of equipment and supplies to the job site.
3. Installation in accordance with these specifications, related drawings, the equipment manufactures' recommendations, established trade criteria, and all applicable code requirements.
4. Inspection and demonstration of completed installation with the general contractor's engineering personnel and any necessary adjustments needed to comply with these specifications, related drawings, equipment manufactures' recommendations, established trade criteria, applicable code requirements, or proper operation.

1.4 SUMMARY

A. Work Included.

1. Provide all necessary labor and materials for the fabrication, furnishing, accessories, transportation, delivery, and installation, and incidental services required for the complete installation of a fully functional stage rigging system as described within drawings and specifications.
2. This specification covers the fabrication, furnishing, delivery, and installation of a stage rigging system, tracks, curtains, and all incidental or related items necessary to complete the work as described herein, even though they may not be specifically enumerated. The form of contract, general conditions, and the project drawings are considered to be parts of these specifications. The Rigging Contractor shall provide a complete, fully functional system as described herein and shown on drawings.
3. The work of this section shall include, but not necessarily be limited to the following. The following list is for reference only and is not intended to define limits of the work for a complete installation. Carefully follow all written specifications and drawings and provide such work for a complete and operable system.
    a. The supply and installation of Theatrical Drapery per specifications and drawings.
    b. The supply and installation of Traverse Tracks per specifications and drawings.
    c. The supply and installation of Suspension Rigging Components per specifications and drawings.

B. Related Work (By Others) which is not included in this section:

1. Division 5, Structural - Structural steel to support the rigging equipment, galleries, ladders, catwalks, and all other structural steel and miscellaneous metals not specifically called out as part of this section.

2. Division 16, Electrical - Stage lighting and electrical connections, conduit, boxes and wiring to power sources and control locations for all other electrically powered devices listed in these specifications.

   All power and control wire, containment, terminations, testing are not a part of this section. Coordinate power requirements with Division 16 contractor. Field wiring single line riser must be provided to GC for distribution to EC within 30 days of contract award.

1.5 QUALITY ASSURANCE

A. Stage Equipment Contractor Qualifications.

1. All equipment and installation shall be the responsibility of a single contractor, or subcontractor, who shall own and operate his own full time shop for the installation and assembly of stage equipment.

2. Theatrical rigging systems are specialized overhead suspension systems. Due to the highly specialized nature of theatrical rigging equipment, and the safety requirements of the equipment, the rigging products provided for this work shall be the products of a single rigging manufacturer for consistency and ease of integration. Accessory items such as wire rope, fittings, curtain tracks, and the like may be from other specialty manufacturers.

3. The Rigging Contractor shall be an approved rigging manufacturer or an authorized representative or dealer of an approved manufacturer for a minimum of five years. The contractor shall have been in continuous operation for at least ten years, shall have been installing stage rigging systems for a period of ten years or more, and shall have completed at least ten installations of this type and scope. The architect shall be the final judge of the suitability of experience.

4. The Rigging Contractor shall employ an Entertainment Technician Certification Program (ETCP) Certified Theatre Rigger. The Certified Rigger shall be either the project manager or site foreman, and be responsible for the overall project including the layout, inspection, and training.

5. The Theatrical Rigging Contractor / Drapery Manufacturer shall be one of the following accepted firms:

MainStage Theatrical Supply, Inc. 8761 A Ely Road Pensacola, Florida 32514	Phone: Fax: Website:	(850) 434-2080 (850) 434-6046 mainstage.com
Pook, Diemont, Ohl, Inc. 701 East 132nd Street Bronx, New York 10454	Phone: Fax: Website:	(718) 402-2677 (718) 402-2859 pdo.com
Syracuse Scenery and Stage Lighting 101 Monarch Drive Liverpool, NY	Phone: Fax: Website:	(315) 453-8096 (315) 453-7897 sssl.com

6. Bid submissions must identify any such subcontractors.

7. General Liability Insurance is required:

   - $2,000,000. Primary Product and General Aggregate;
   - $1,000,000. Products and Completed Operations;
   - $10,000,000. Excess Liability coverage;
   - $2,000,000. Contractors Professional Liability;

- $1,000,000. Personal and Advertising Injury;
- $1,000,000. Each Occurrence Umbrella Liability;
- $5,000,000. Per Occurrence and Annual Aggregate;
- Contractual Liability and standard Additional Insured included;
- Waivers of Subrogation and special provisions are not included and will incur additional cost;
- Workers Compensation Insurance included, with $1,000,000. per accident or disease with a $1,000,000 limit.

8. Other contractors seeking pre-qualification must submit the following information at least 2 weeks prior to the bid opening date. Approval of contractors will be by addenda. Failure to submit any of the required information will automatically disqualify the contractor from consideration of approval:
    a. A brief written description of the contractor's operation including facilities, financial capabilities, and experience of key personnel. Include resumes for all key personnel with a narrative describing how the project will be managed.
    b. A copy of the ETCP Certified Theatre Rigger's certification credentials.
9. Contractors seeking pre-qualification must submit a listing of ten equivalent installations including:
    a. Name, address and telephone number of Owner;
    b. Name, address and telephone number of Architect;
    c. Scope of work, date of completion, and contract value.
    d. Copy of State Contractors License for projects in: Alabama, Arkansas, Louisiana, Tennessee or Mississippi.

B. Equipment Material Requirements.

1. Drapery fabric shall be manufactured by the following approved manufacturers:

J.B. Martin Company, Inc	Phone:	(800)-223-0525
10 East 53rd Street	Fax:	(212)-421-1460
New York, New York 10022	Website:	jbmartin.com
KM Fabrics, Inc	Phone:	(800)-845-1896
2 Waco Street	Fax:	(864)-295-3356
Greenville, SC 29602	Website:	kmfabrics.com
Rose Brand, Inc	Phone:	(800)-223-1624
4 Emerson Lane	Fax:	(201)-809-1851
Secaucus, NJ 07094	Website:	rosebrand.com
Milliken & Company	Phone:	(864)-503-2020
PO Box 1926		
Spartanburg, SC 29304	Website:	milliken.com

C. Regulatory Requirements.

1. Comply with governing National, State, and City regulations. All equipment, where applicable standards have been established, shall be built to the standards of Underwriters Laboratories, Inc., the National Electric Code, and the United States Institute for Theatre Technology. Approved equipment shall be so labeled on delivery to the job site.

1.6 SUBMITTALS

A. Pre-Bid Documents

1. Bidders shall supply a complete bill of materials with their bids, clearly indicating the equipment the bidder will furnish, including quantities, sizes, capacities, speeds, as required to describe their work.

B. Approval Documents

1. The Rigging Contractor shall submit samples without causing delay in work, as required by the Owner's representative and as listed, but not necessarily limited to those specified below.

    a. Large samples and color cards of all fabrics shall be submitted for approval and for color selection. These samples shall be properly tagged as to grade, weight, color, manufacturer and use.

    b. To supplement the shop drawings, the Contractor shall submit catalog cuts for certain standard equipment items of any equipment component requested by the architect. These must contain full information on dimensions, construction, applications, etc. to permit proper evaluation. In addition, they must be properly identified as to their intended use. Any options or variations must be clearly noted.

    c. Equipment warranty documentation.

1.7 PROJECT CONDITIONS

A. Field Measurement.

1. All bidders shall fully inform themselves of the conditions under which the work is to be performed. No additional compensation shall be allowed for any labor or item the bidder could have been fully informed of prior to the bid date.

2. Verify actual dimensions by accurate measurements prior to the fabrication of equipment.

B. Verification and Notifications.

1. Examine work prepared by others to receive work of this Section and report defects affecting installation to the Contractor for correction. Commencement of the Work shall be construed as complete acceptance of preparatory work by others. The sphere of inspection includes but is not limited to:

    a. Assurance mounting surfaces are ready to accept the work.

    b. Verification of flatness, plumb and level of mounting conditions.

    c. Examine drawings and confirm that number, size and location of conduit is adequate for proposed system.

    d. Inspection of components of the Work to ensure no damage has occurred during shipping or storage.

2. The Stage Equipment Contractor must immediately notify their Contract Holder of any conditions, measurements, quantities and other data, as required for the proper execution, fit and completion of all work, and safe and proper operating clearances.

    a. Do not proceed with the installation in areas of discrepancy until all such discrepancies have been fully resolved.

    b. Commencement of work shall indicate an acceptance of existing conditions.

3. Verify field measurements at the site prior to installation and modify the system accordingly. The Stage Equipment Contractor must notify their Contract Holder of any site conditions or variations that effect the installation or completion of work, and where appropriate, indicate suggested remedial procedures by drawings and/or description.
4. The Contractor shall provide all items, articles, materials, and operations listed, mentioned or scheduled in the drawings, and herein specified, including all tools, scaffolding, labor, supervision, and incidentals necessary and required for their completion. Any errors, omissions or ambiguities are not to condition this requirement, but shall be brought to the attention of the Architect for their possible effect on the intent of the specifications.

1.8 INSTALLATION

A. Safety

1. The systems shall conform to all applicable code requirements and shall be in conformance with industry standards of operation and practices. All materials, arrangements, and procedures shall comply with applicable code requirements, allowing the users to arrange and operate a safe assembly and working environment for audience and user personnel.
2. Installation practices shall be in accordance with OSHA Safety and Health Standards and all local codes. All welding must be performed in full compliance with the Structural Welding Code (ANSI/AWS D1.1-20).

B. Environmental Requirements.

1. Obtain approval of Owner before performing operations that generate contaminants.

C. Trade Coordination.

1. Coordinate principal structural steelwork where it pertains to the stage rigging equipment.
2. Coordinate location and routing of sprinkler pipes and heads, roof drains, conduit, HVAC ducting, roof smoke hatches and other trades installing equipment in the areas of the stage rigging equipment.

D. Materials Delivery

1. Coordinate delivery with Construction Manager prior to shipment to site. Deliver equipment to the site only after the building has been closed in. Coordinate storage at the site and ensure the materials and components are undamaged.

E. Materials Storage and Handling.

1. The Rigging Contractor shall be responsible for storage of stage equipment, tools, and equipment during the period of the installation. Products provided under this section to be delivered, stored, and handled as stipulated in the “General Conditions” section of the specifications.

F. Installation

1. Install equipment as shown on the approved drawings. All specified equipment shall be installed by fully trained superintendents and workmen who are fully responsible to, and fully represent the stage rigging company. Equipment shall be installed in a workman like manner, per plans and specifications. Install items plumb, straight, square and level in location indicated on the contract documents and as shown on approved shop drawings. Equipment shall be aligned, adjusted, and trimmed for the most efficient operation, the greatest safety and for the best visual appearance.

2. Protect the surrounding environment from damage by the Work. Clean surfaces as necessary prior to commencing the Work.

3. All finishes which are disturbed during shipping and installation shall be touched up to match the original.

4. Provide adequate protection for all materials and equipment against damage by dirt, paint, damp or physical abuse until system is accepted and handed over to the users. Systems will only be accepted in "as new" condition.

5. The Contractor shall be responsible for clean up, including removal of packing materials etc. and the protection of surfaces or equipment provided by other contractors.

G. Inspection

1. Final inspection will be made by the Architect and/or Consultant (or their appointed representatives) following receipt in writing from the Contractor that the installation is complete. At the time of this inspection, the Rigging Contractor shall furnish sufficient workers to operate all equipment and to perform such adjustments and tests as may be required by the Owner's representative.

2. If inspection reveals any detail of construction, fabrication or installation not in strict accord with the Specification and Contract requirements, approval will be withheld and Contractor shall be given thirty (30) days to replace the rejected items with those confirming to specification requirements.

I. Startup and Commissioning

1. The Contractor shall arrange and demonstrate to the Architect that the equipment provided performs per the intent of these Contract Documents prior to acceptance of the systems.

J. Warranty.

1. The Rigging Contractor shall provide a written guarantee against defects in materials or workmanship for two years starting on the date of acceptance of equipment by the Owner's representative. The guarantee shall not cover equipment that has become defective due to misuse, abuse, neglect, accident, act of God, alteration, vandalism, ordinary wear and tear, improper maintenance, or used not in a manner intended.

2. Ordinary wear and damage due to improper usage is not covered by this warranty.

K. Clean Up

1. It shall be the responsibility of the Contractor to remove all debris from the building or site caused by this operation to a common trash point or receptacle on the job site, as determined by the Owner.

PART 2 - PRODUCTS

2.1 STAGE DRAPERY

A. General Drapery Construction

1. All fabric material shall be new and unused. Full and continuous lengths shall be used for the full height of each curtain face, with no piecing or cross-seams allowed. All drapery of the same color shall be constructed of fabric from the same dye lot.

2. Unless specified otherwise herein, sew fabrics with nylon filament thread. Employ matching thread throughout.

3. All Stage and Studio curtains shall be sewn with 50% added fullness, unless specified otherwise on drawings or schedule. Pleats shall be box style and utilize a minimum of 6"

of additional fabric for 50%, 9” of fabric for 75% or 12” of fabric for 100% fullness. All pleats shall be consistent throughout the various curtains (with same specified fullness) and all curtains with less material than specified will be rejected.

4. Scrims, Muslin Cycloramas, and Chroma-Key fabrics will be sewn flat, with 0% added fullness.
5. Fabric fullness shall be considered the calculation of total unfinished fabric piece width divided by the finished width of the piece. No less than a half-strip of fabric shall be included into the piece.
6. The velour pile nap for velour curtains shall be sewn in the “down” direction.
7. Bi-parting Traveler curtains shall be constructed in two matching halves, sized to allow minimum 24” overlap at the centerline of curtains.
8. Field dimensions shall be the contractor’s responsibility to obtain, to guarantee that proper sight lines are taken into consideration. Audience sight lines must never permit visual “holes”, in which case drapery dimensions shall be increased as needed to insure proper aesthetic masking of offstage and overhead areas.
9. Seams between strips shall be single stitched without puckers using thread of matching color. All fabrics with a grain or pile shall have all strips running in the same direction.
10. A label shall be attached 6 feet from the bottom of every curtain displaying curtain height, width, fabric name, inherent flame retardance, and date of fabrication.

B. Front Setting Fabric

1. Velour shall be 100% Polyester, 25-26 ounce Velour. Fabric shall be Inherently Flame Retardant. Submit certificates showing dye lot and flame test. Architect to select color

“Charisma” Velour from K&M Fabrics;

“Dante” Velour from JB Martin;

C. Midstage and Rear Setting Fabric

1. Velour shall be 100% Polyester, 22 ounce Velour. Fabric shall be Inherently Flame Retardant. Submit certificates showing dye lot and flame test. Architect to select color.

“Encore” Velour from Milliken & Co.;

“Apollo” Velour from JB Martin;

D. Cyclorama Fabric

1 Fabric shall be seamless Poly Muslin manufactured from Inherently Flame Retardant 100% Avora polyester. Submit certificates showing dye lot and flame test. Architect to select color.

E. Construction

1. Traveler Curtains: Top hem shall be turned and reinforced with continuous 3” heavy polypropylene webbing weighing a minimum 2.8 ounces per yard, and double-stitched at the top. Webbing shall be double stitched to the top of the curtain with 1/2" of face fabric turned under the webbing. Fullness shall be sewn in with box pleats approximately 12” on center. A #3 brass anodized black grommet shall be inserted on every pleat and at ends with minimum ½” fabric remaining above top edge of grommet. Bit snaps or ADC model CC-2 snaps shall be provided for attachment to carriers at each pleat and ends of curtain. Bottom hem shall be 5” and contain a continuous No. 8 jack chain held in a muslin pocket sewn securely to be held 1” above the bottom of the hem. Jack chain shall

be secured to muslin pocket every 9”. Side hems shall be a minimum of 9” on the leading edge and 3” on the offstage edge. Vertical seams with selvages shall be snipped every 36” for proper hanging.

2. Valance and Border Curtains: Top hem shall be turned and reinforced with continuous 3” heavy polypropylene webbing weighing a minimum 2.8 ounces per yard, and double-stitched at the top. Webbing shall be double stitched to the top of the curtain with ½” of face fabric turned under the webbing. Fullness shall be sewn in with box pleats approximately 12” on center. A #3 brass anodized black grommet shall be inserted on every pleat and at ends and contain a 30” piece of #4 black tie line for tying curtain to pipe. Bottom hem shall be 5”. Side hems shall be a minimum of 3”. Vertical seams with selvages shall be snipped every 36” for proper hanging.
3. Tormentors and Side Leg Curtains: Top hem shall be turned and reinforced with continuous 3” heavy polypropylene webbing weighing a minimum 2.8 ounces per yard, and double-stitched at the top. Webbing shall be double stitched to the top of the curtain with 1/2" of face fabric turned under the webbing. Fullness shall be sewn in with box pleats approximately 12” on center. A #3 brass anodized black grommet shall be inserted on every pleat and at ends with minimum 1/2” fabric remaining above top edge of grommet. For Track installation insert bit snaps or ADC model CC-2 snaps into each grommet for attachment to carriers at each pleat and ends of curtain. For Pipe installations a 30” piece of #4 black tie line shall be provided in each grommet for tying curtain to pipe. Bottom hem shall be 5” and contain a continuous No. 8 jack chain held in a muslin pocket sewn securely to be held 1” above the bottom of the hem. Jack chain shall be secured to muslin pocket every 36”. Side hems shall be a minimum of 3” turn back on the onstage edge and 3” on the offstage edge. Vertical seams with selvages shall be snipped every 36” for proper hanging.
4. Cycloramas: Top hem shall be turned and sewn flat with continuous 3” heavy nylon webbing weighing a minimum 2.8 ounces per yard, and double-stitched at the top. Webbing shall be double stitched to the top of the curtain with 1/2" of face fabric turned under the webbing. A #3 brass anodized black grommet shall be inserted every 12”and at ends with minimum 1/2” fabric remaining above top edge of grommet. For pipe installation insert a 30” piece of #4 black tie-line into each grommet for tying curtain to pipe. Jack chain shall be secured to muslin pocket every 9”. Pipe mounted cycloramas shall contain a 5” pipe pocket reinforced with muslin.

F. Drapery Schedule

The Stage and Studio Drapery shall consist of the following separate pieces in the quantities and fullness listed, in approximate dimensions (final dimensions shall be field-verified prior to fabrication):

Piece	Face Fabric	Qty	Height	Width	Pleat	Track/Pipe
Valance	25 oz. Velour	1	3’-0”	36’-0”	50%	Pipe
Front Traveler	25 oz. Velour	2	12’-0”	18’-0”	50%	Track 416B
Borders	22 oz. Velour	2	3’-0”	36’0”	50%	Pipe
Sides	22 oz. Velour	4	12’-0”	5’-6”	50%	Pipe
Rear Traveler	22 oz. Velour	2	12’-0”	36’-0”	50%	Track 416B
Cyclorama	Poly-Muslin	1	12’-0”	36’-0”	0%	58’ Track 416B

2.2 TRAVERSE TRACKS

A. Draw Curtains

1. Curtains over 16’ tall and/or over 5 pounds load per carrier on straight draw tracks shall utilize H&H Specialties 401B series black track and components or pre-approved equal. Curtains over 5 pounds per carrier shall utilize #416B track.
2. Curtains less than 16’ tall and/or less than 5 pounds per carrier on straight draw tracks shall utilize H&H Specialties 201 series black track and components or pre-approved equal.
3. Curtains over 16’ tall and/or more than 7 pounds per carrier on curved draw tracks shall utilize H&H Specialties 500B series black track and components or pre-approved equal.
4. Curtains less than 16’ tall and/or less than 7 pounds per carrier on curved draw tracks shall utilize H&H Specialties 316B series black track and components or pre-approved equal. Less than 5 pounds per carrier shall utilize 301B Series.

B. Straight Curtains

1. Curtains less than 16’ tall and/or less than 3 pounds load per carrier on straight tracks shall utilize H&H Specialties 101B series black track and components or pre-approved equal. Curtains up to 5 pounds per carrier shall utilize #116B track.

C. Indexing Pivot

1. Where shown on drawings provide H&H Specialties 40XB with 40BKB Indexing Pivot Device for 400 Series Track. Provide 10’ of track with 1 3/8” OD pipe for mounting of curtain.

2.3 SUSPENSION RIGGING

A. “Dead-Hung” Suspension Equipment for Drapery and Traverse Tracks:

1. The stationary equipment shall be suspended by means of dead-hung Pipe Battens, consisting of 1-1/2” schedule 40 steel pipe. Splices shall be accomplished by using the Mega-Quick Pipe Splice by The Light Source for interconnecting pipes with the exception of the Electric Pipes which shall utilize DOM inserted in 24” lengths and through bolted in place. The Pipe Battens shall be painted black.
2. The stationary equipment shall be suspended from structural steel by means of properly sized beam clamps and related corrosion-resistant plated fasteners as required.
    a. Adjustable Beam Clamps that have been engineered, manufactured, and properly sized for the anticipated static and dynamic loads imposed, attached with vibration-resistant fasteners, directly to the overhead structural steel members. Appropriate clamping devices shall be used to make connection to support steel or ceiling. Chain is not to be wrapped around support members.
3. All pipes for curtains and tracks shall be suspended with 7x19 Galvanized Aircraft Cable with ends secured by copper oval sleeves, or 1/4 proof coil using rated fasteners.
    a. Galvanized Aircraft Cable with copper Nico-press sleeves or forged Cable Clips properly spaced and applied with chain wrapped (or 680# pipe clamps) and terminated with ¼” Domestic Shackles
    b. 1/4" grade 30 Proof Coil Chain with chain wrapped (or 680# pipe clamps) and terminated with ¼” Domestic Shackles

PART 3 - EXECUTION

3.1 INSTALLATION

A. All stage equipment shall be installed in accordance with the highest standards of the industry. All equipment shall be securely anchored, and installed plumb, straight, and true. All components shall function properly, safely, quietly, and without binding or rubbing.

B. The installation process shall be done in two parts. Part 1 installation of all dead-hung pipes and track (including the three electric pipes). Part 2 installation of stage curtains when facility is dust free.

3.2 FIELD QUALITY CONTROL

A. An experienced installation supervisor, regularly employed by the Stage Equipment Contractor, shall be present during the entire installation, and shall actively direct and supervise the work.

B. The Stage Equipment Contractor shall consult with trades doing related or adjoining work in order to ensure an installation of first class quality.

3.3 DEMONSTRATION AND INSTRUCTION

A. The Stage Equipment Contractor shall provide instruction in safe and proper operation of the equipment to the owner's designated representative

END SECTION

ACOUSTICS
Golterman & Sabo
www.gsacoustics.com

Acousti-Panels AP
ACOUSTICAL TREATMENT
Specification Section 09 80 00

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Acoustical wall panels.

1.2 REFERENCES

A. ASTM C 423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method; 2000.

B. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2000a.

1.3 PERFORMANCE REQUIREMENTS

A. Acoustical Absorption: Perform testing in accordance with ASTM C 423, Type A mounting method unless otherwise specified.

B. Flame Spread Rating: Provide all components with Class A flame spread rating when tested in accordance with ASTM E 84, unless otherwise specified.

1.4 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.
4. Independent testing agency test reports.

C. Selection Samples: For each product specified, two complete sets of color samples representing manufacturer's full range of available colors and patterns.

D. Verification Samples: For each product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Minimum 10 years of experience in producing acoustical products of the types specified herein.

B. Installer Qualifications: Acceptable to the manufacturer of the acoustical products being installed.

C. Mock-Up: Provide a mock-up for evaluation of installed appearance.
   1. Install acoustical products in areas designated by Architect.
   2. Do not proceed with remaining work until Architect approves workmanship and appearance.
   3. Approved mock-up may remain as part of the work.

D. Dimensional Tolerances of Finished Units: Plus or minus 1/16 inch for the following:
   1. Thickness.
   2. Edge straightness.
   3. Overall length and width.
   4. Squareness from corner to corner.
   5. Chords, radii and diameters.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect acoustical products from moisture during shipment, storage, and handling.

B. Store products in manufacturer's unopened packaging until ready for installation.
   1. Store materials flat, in dry, well-ventilated space.
   2. Do not stand panels on end.
   3. Protect edges from damage.

C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.7 PROJECT CONDITIONS

A. Do not begin installation of acoustic products until building has been enclosed and environmental conditions approximate those that will prevail when building is occupied.

B. Environmental Requirements: Do not install panels until wet work, such as concrete and plastering, is complete; the building is enclosed; and the temperature and relative humidity are stabilized at 60 – 80 degrees F (16 – 27 degrees C) and 40% to 50% respectively, by the building HVAC system. Use of propane heaters in areas with acoustic panels can cause chemical reactions with resin spots causing them to become visible through the face of the panels. Do not use propone heaters in areas where panels are installed.

1.8 EXTRA MATERIALS

A. See Section 01600 - Product Requirements, for additional provisions.

B. Provide 5 percent, but not less than 1 of each type of acoustical unit actually installed, for Owner's use in maintenance.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: G&S Acoustics; 3555 Scarlet Oak Blvd., St. Louis, MO 63122. Tel: (636) 225-8800 or (800) 737-0307. Email: inquiry@gsacoustics.com. www.gsacoustics.com.

B. Substitutions: Or Equal

C. Requests for substitutions will be considered in accordance with the provisions of Section 01600.

D. Provide all acoustical products specified herein by a single manufacturer.

2.2 ACOUSTICAL WALL PANELS (4'x4'x2" panels as indicated on drawings)

A. Wrapped Fiberglass Panels: Acousti-Panels AP; fiberglass core of 6 to 7 pcf (96 to 112 kg/cu m) with chemically hardened edges, seamless finish material wrapped and bonded to back side of panels.

1. Thickness: 2 inch (51 mm); NRC 1.05.
2. Size: As indicated on drawings.
3. Finish: Manufacturer's standard polyester fabric.
4. Color: As scheduled for locations. (2 Colors from standard selection)
5. Edges: Square,
6. Corners: Square,
7. Mounting: Two-Part hanger bar and Z-clip.

2.3 ACCESSORIES

A. Two-Part hanger bar and Z-clip. Manufacturer's standard mounting bar mechanically attached to the substrate and the metal Z-Clips are attached to the back of the units.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install acoustical units in accordance with manufacturer's instructions.

3.4 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION