

**ADDENDUM NO. ONE (1)**  
TO THE DRAWINGS AND SPECIFICATIONS FOR

**NEW CLASSROOM / TORNADO SHELTER ADDITION FOR  
BENTON HIGH SCHOOL**  
449 Fairburn Drive  
Bossier City, Louisiana 71112

BPSB Project No. 26-02  
BA Project No. 2511

27 February 2026



The following revisions shall be incorporated into the drawings and specifications for the project:

**Item 1. Sign in Sheet for Pre-Bid Conference Meeting**

As an item of record the Pre-Bid Sign In sheet for the Pre-Bid Conference Meeting is attached.

**Item 2. Specifications, Section 01 0110 – TABLE OF CONTENTS, DIVISION 08 - OPENINGS**

**Delete the following section:**

08 4413 – Glazed Aluminum Curtain Walls

**Item 3. Specifications, Section 00 100 – INSTRUCTIONS TO BIDDERS, ARTICLE 7 – 7.2**

**Revise as follows:**

Add the word “hours” following the phrase “within forty-eight (48)”.

**Item 4. Specifications, Section 00 500 – AIA DOCUMENT A101-2017 Construction Agreement,  
Paragraph 4.5 Liquidated damages:**

**Revise as follows:**

Delete where the sum of “Five hundred and no/100s Dollars (\$500.00) and insert the sum of “One Thousand One Hundred and no/100s Dollars (\$1,100.00)”.

**Item 5. Specifications, Section 00 700 – AIA Document A201-2017 General Conditions of the  
Contract for Construction, ARTICLE 3.9 Superintendent**

**Add the following :**

The superintendent shall be full-time and continuously present on the Project site during all working hours in which any Work is being performed by the Contractor, Subcontractors, or suppliers. The Superintendent shall have authority to act on behalf of the Contractor, including authority to receive instructions, issue directions, coordinate the Work of Subcontractors, and implement the Contractor’s safety and quality-control programs. The Superintendent shall be responsible for day-to-day supervision, site logistics, scheduling and sequencing, protection of completed Work, and maintenance of required records, including daily reports, manpower logs, deliveries, and inspections. Absences by the superintendent shall be covered by a comparably qualified acting superintendent. Repeated or unapproved absences from the site shall constitute noncompliance with the Contract Documents. The Superintendent’s salary and related costs shall be deemed included in the contract sum.

**Item 6. Specifications, Section 04 2000 – Unit Masonry, 2.01 Concrete Masonry Units, Part A. 4.a.1  
Exterior Burnished Block Veneer:**

Remove “Featherlite Building Products, color: Texas Cream” and insert “Not Applicable to project”.

**Item 7. Specifications, Section 07 9513 – Expansion Joint Cover Assemblies, 2.01 Manufacturers:**

Add the following as an approved manufacturer: Erie Metal Specialties, Inc: [www.eriametal.com](http://www.eriametal.com)

**Item 8. Specifications, Section 08 3300 – Tornado Resistant Coiling Doors, 2.01 Part A. Basis of Design:**

Add the following as an approved manufacturer: Cookson – Storm Defender Series

**Item 9. Specifications, Section 08 4313 – Aluminum-Framed Storefronts, 2.05 HARDWARE, A: Revise to read as follows:**

“For each door include weatherstripping, all additional hardware to be provided by hardware vendor.”

**Item 10. Specifications, Section 09 3000 – Tiling, Part 2 Products, 2.01 Tile part B.2. Product: Add the following:**

“Matte finish.”

**Item 11. Specifications, Section 09 6500 – Resilient Flooring, 2.01 TILE FLOORING, A part 4:**

Revise from “Color: to match existing; TBD.” read as the following:

Color to match:

VCT-1: Tarkett VCT II – 582 Ivory Tower

VCT-2: Tarkett VCT II – 557 Shooting Star

VCT-3: Tarkett VCT II – 522 Steel Works

**Item 12. Drawings Sheet G1, Chapter 4 - Siting:**

**REVISE** “Type of Shelter” to read as “Not Flood Hazard Area”.

**Item 13. Drawings Sheet A2.0, 02 ENLARGED FLOOR PLAN:**

In “Mens H121” revised elevation key note “29/A7.1” to read “27/A7.1 OPP. HD.”

**Item 14. Drawings Sheet A2.0, KEY NOTES, #25:**

Revise to read as follows:

“Tornado and hurricane shelter system coiling door. Approx. 11’-6” x 15’-0” opening size. Field verify opening.”

**Item 15. Drawings Sheet A2.1, 01 DIMENSION FLOOR PLAN:**

Corridor “H101” dimensions have be modified to reflect the change in the HVAC closet door sizes. See Item #11.” The revised sheet A2.1 is attached.

**Item 16. Drawings Sheet A3.0, ROOM FINISH SCHEDULE BUILDING “A”:**

Revise the room finish schedule title to read as follows:

“ROOM FINISH SCHEDULE BUILDING “H”.

**Item 17. Drawings Sheet A3.0, OPENING SCHEDULE BUILDING “A” FIRST FLOOR:**

Revise the opening schedule title to read as follows:

“OPENING SCHEDULE BUILDING “H”.

**Item 18. Drawings Sheet A3.0, Opening Schedule Building “H” First Floor:**

Revise the following door openings to read as “4-0 x 7x0 x 1 ¾:

H101F

H101G

H101N

H1010

H117B

**Item 19. Drawings Sheet A3.0, ROOM FINISH SCHEDULE BUILDING “H”:**

Revise the floor finishes in the following rooms from “VCT” to “LVT”:

H102 Classroom

H103 Classroom

H104 Classroom

H105 Classroom  
H106 Classroom  
H107 Classroom  
H108 Classroom  
H109 Classroom  
H110 Classroom  
H111 Classroom  
H112 Computer Classroom

**Item 20. Drawings Sheet A3.0, ROOM FINISH SCHEDULE BUILDING “H”:**

Revise the floor finishes in room #H116 IDF from “VCT” to “SC”:

**Item 21. Drawings Sheet A7.1, Item 20:**

Revise the following note “Ceramic tile base as scheduled. Align with wall tile.” to read as follows:  
“RFS Cove Base.”

**Item 22. Drawings Sheet A5.1 – Wall Sections 05 & 06:**

Revise the note that reads “Impact Resistant  $\frac{3}{4}$ ” Type “X” Gyp. Bd. to 8’-0” A.F.F. in Corridors” to read as  
“(2) Layers  $\frac{3}{4}$ ” Type “X” Gyp. Bd.”.

**Item 23. Drawings Sheet A9.0 – Fixture and Equipment List:**

Revise the following equipment items descriptions to read as follows:

Symbol “A4” – Marker Board, 72” Wide, 48” High

Symbol “B1” – Tackboard, 48” Wide, 48” High

**Item 24. Drawings Sheet ID2.1 – Resinous Cove Base Detail (RFS):**

Insert the “Resinous Cove Base Detail (RFS)” as detail 03/ID2.1. (Drawing attached.)

**END OF ARCHITECTURAL ADDENDUM 1:**

Refer to the attached: Pre-Bid Conference Sign-In Sheet

Full Sheet Drawing: A2.1

Letter size sheet of detail 03/ID2.1

**STRUCTURAL:**

Refer to the attached Structural Addendum: Total 7 pages of Full Sheet Drawings – Sheets: S1, S1.2, S1.3, S2, S3, S3.1, S4

**MEP:**

Refer to the attached Mechanical Addendum, Total 3 pages and 1 Full Sheet Drawing – Sheet: M3.0

**END OF ADDENDUM 1**

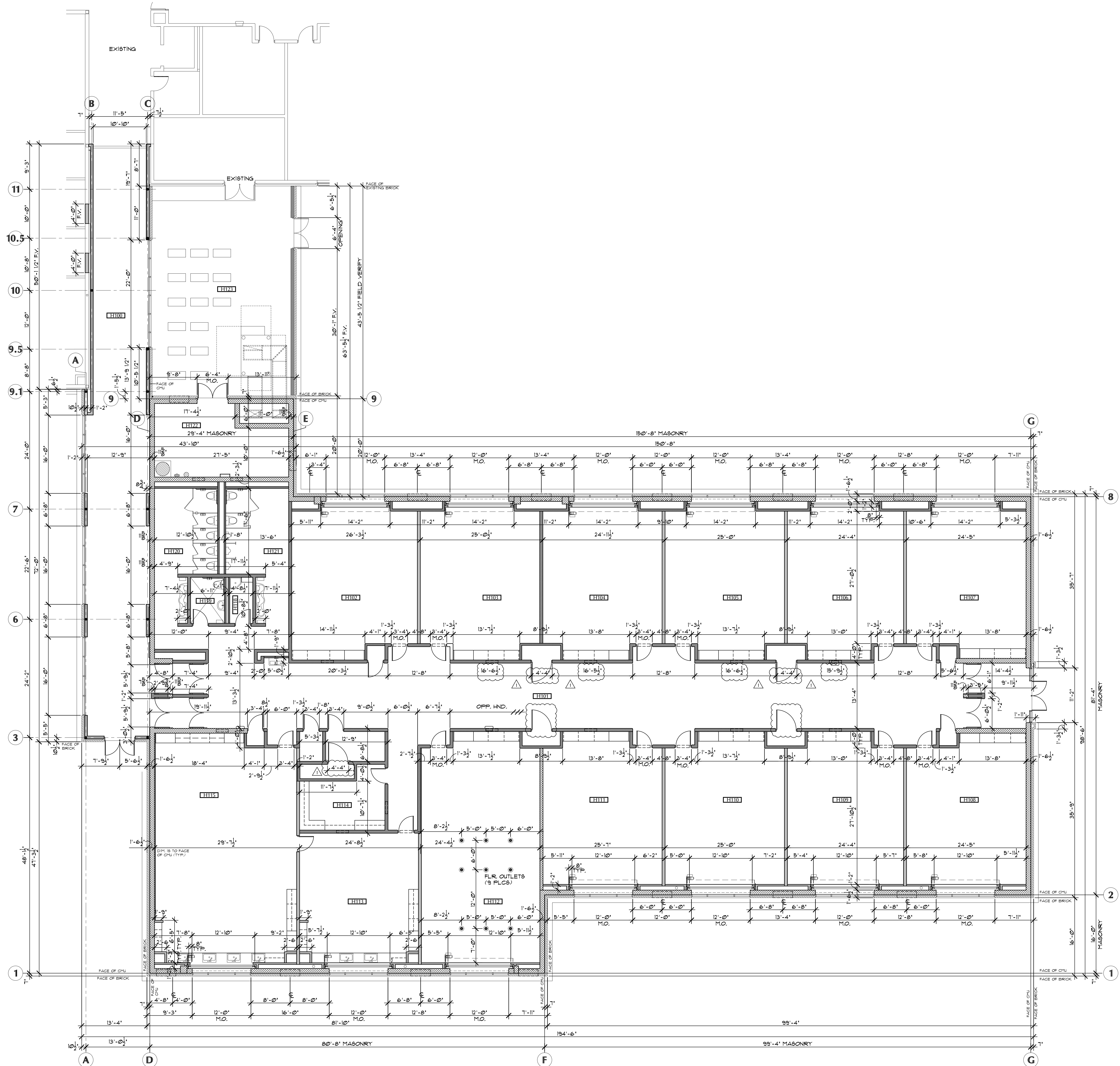
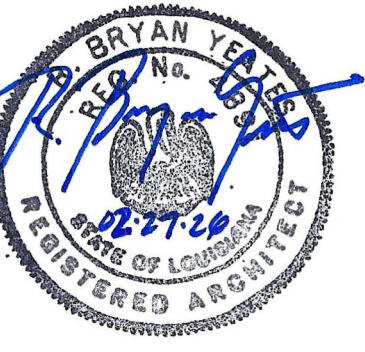
**SIGN IN SHEET FOR**  
**New Classroom / Tornado Shelter Addition for Benton HS – BPSB Proj.#26-02**

**PRE-BID CONFERENCE MEETING**

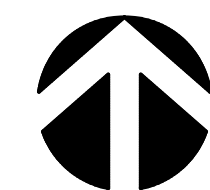
10:00 AM, February 24, 2026 @ Benton HS Library  
 449 Fairburn Avenue, Benton, LA 71006

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18.	Superior Floors	Todd Schroder	870-231-6901	t.schroder@tmail.com
19.	Hand Construction	Will Cox	318-886-4170	wcox@handconstruction.com
20.	True Bond Masonry	Tylez Watts	(318) 572-9977	TrueBondMasonry@proton.me
21.	McConnell Painting	MARC MCCONNELL	(318) 572-2510	marc@mcconnellpainting.net
22.	Rhodes Properties & Development	India Rhodes	504-377-6920	estimates@rhodespropanddev.com
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27.				
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34.				



**01** DIMENSION FLOOR PLAN  
A2.1 SCALE: 1/8" = 1'-0"



NEW CLASSROOM / TORNADO SHELTER ADDITION for  
BENTON HIGH SCHOOL  
BOSSIER PARISH SCHOOL BOARD  
449 FAIRBURN AVENUE  
BENTON, LOUISIANA 71006

DIMENSION FLOOR PLAN



BPSB PROJECT #26-02

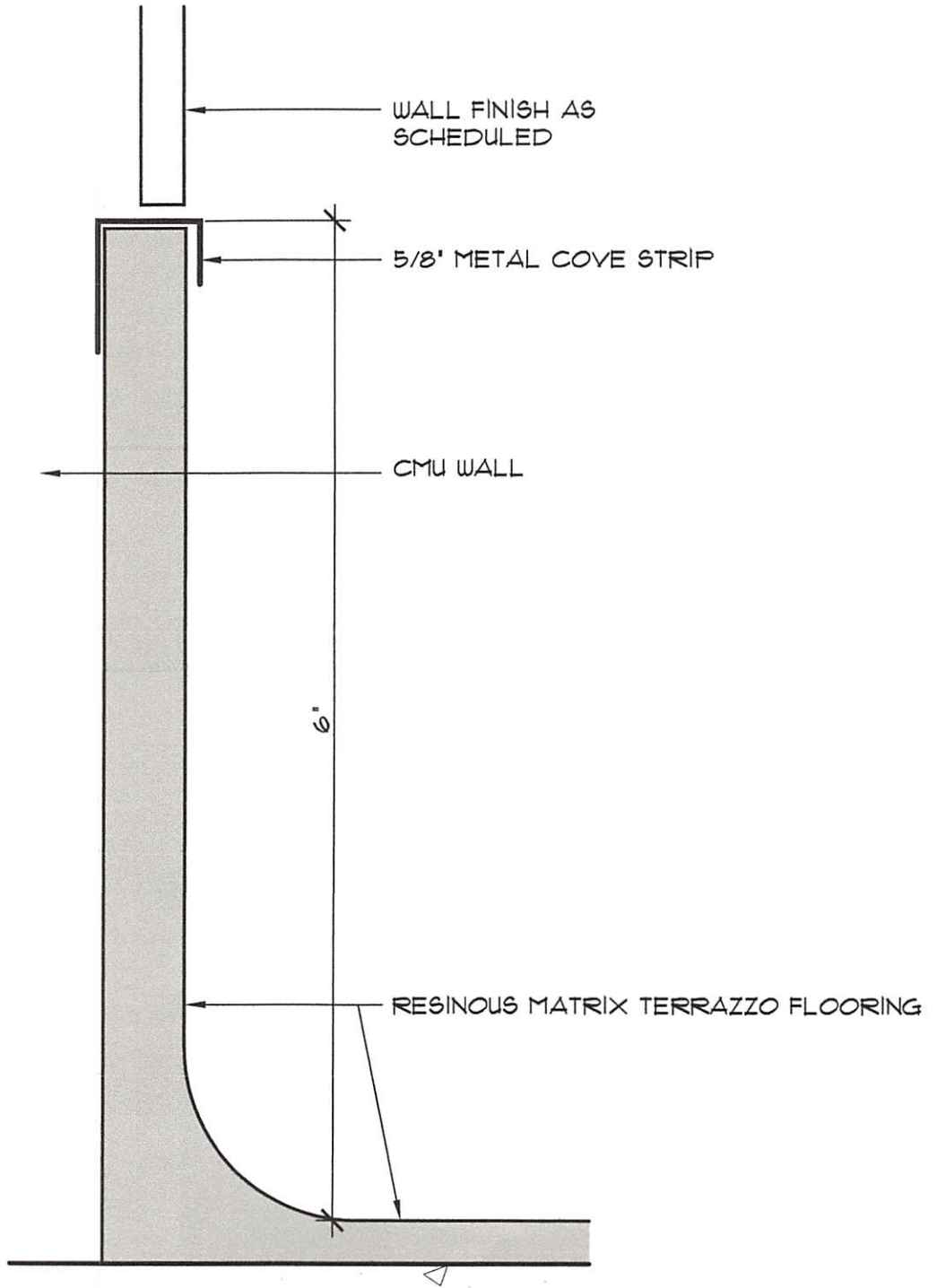
JOB NO. 2511

REVISIONS:  
▲ ADDENDA | 02-21-2026

14 JAN 2026

SHEET

**A2.1**



**03** COVE BASE DETAIL (RFS)  
**ID2.1** SCALE: 1'-0" = 1'-0"



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2511  
 02-27-26  
**ID2.1**

# 1 GENERAL NOTES

## CODES AND SPECIFICATIONS

- A. GENERAL BUILDING CODE: IBC 2021
- B. CONCRETE CODES: ACI 318-19
- C. STRUCTURAL STEEL CODE: ANSIAISC 360-16
- D. WIND AND SEISMIC CODE: ASCE 7-16
- E. MASONRY CODES-TMS 402/602-216
- F. STORM SHELTER CODES-ICC 500-2020

## CONFLICTS IN STRUCTURAL REQUIREMENTS

Where conflict exists between the various publications as specified herein, the strictest requirements of the various publications shall govern unless noted otherwise. Where conflict exists among the various parts of the Structural Contract Documents, Structural Drawings, General Notes, Specifications) the strictest requirements shall govern.

## TYPICAL DETAILS

Details labeled "Typical Details" on the drawings shall apply to all situations occurring on the project that are the same or similar to those specifically detailed. Such details shall apply whether or not they are keyed in at each location. Questions regarding applicability of Typical Details shall be determined by the Engineer.

## DESIGN CRITERIA

### BUILDING MOVEMENT AND DEFLECTIONS

1. Roof members. Span over 240 for total loads.
2. Floor members. span/360 for live loads.
3. Member supporting plaster or masonry. Span over 600 and less than 58" for total loads.
4. Drift - Mean roof height over 400 for 10 year wind loads.

### FOUNDATION - GENERAL

- A. GEOTECHNICAL REPORT  
Foundation design is based on the geotechnical investigation provided by Anderson Engineering Consultants Inc. (No. 17851) dated December 3, 2025.

### FOUNDATION APPROVAL AND INSPECTION BY AUTHORIZED INSPECTOR

Unless authorized otherwise by the Owner or Architect, the General Contractor shall notify the Geotechnical Engineer or other authorized inspector for review of foundation bearing surface, inspection of foundation installation, and foundation installation methods and shall not place concrete prior to inspector's approval.

### FOUNDATION REINFORCING STEEL INSPECTION BY STRUCTURAL ENGINEER

1. The Contractor shall notify the Engineer and Testing Laboratory a minimum of 72 hours in advance of any major foundation pour.
2. The Contractor shall not pour any foundation concrete without inspection and approval of all reinforcing steel placement by the Structural Engineer or special inspector.

### SLAB-ON-GRADE CONSTRUCTION

1. Specification. Unless specified otherwise, slab on grade construction shall follow the recommendations of Guide for Concrete Floor and Slab Construction ACI 302.1R.
2. Subgrade Preparation
  - a. Areas containing slab on grade construction shall be stripped 12" minimum to remove all top soil and organics, a minimum density of 5' beyond the building perimeter.
  - b. The pad shall then be proof rolled with a minimum 15 ton tandem axle vehicle under the direction of the Geotechnical Engineer. Any loose or pumping soils shall be excavated and replaced as directed by the project Geotechnical Engineer.
  - c. The pad shall be scarified 12" and recompacted to a minimum of 95% of the standard proctor density at a moisture content between 0% to +2% of optimum.
  - d. The building pad shall then be constructed of select fill material. See item 2 below. Soil replacement shall continue to an elevation of 4" below the bottom of finished floor.
  - e. A final 1/4" of granular base shall be placed over the select fill, and a 15 mil vapor barrier shall be placed directly below the slab. All joints shall be lapped 6" minimum and shall be sealed.
  - f. Slab on grade concrete shall not be poured against a final prepared subgrade containing free water, ice, frost, mud or other unsuitable material.
3. Select Fill
  - a. Material designated in these General Notes, drawings, or specifications as select backfill shall consist of sandy lean clay or clayey sand with a plasticity index between 8 and 18, a liquid limit of less than 35. All fill shall be free of organic materials, debris, and rock fragments greater than 3" in diameter. Fill shall have a maximum of 60% material passing sieve No. 200.
  - b. The General Contractor shall submit to the Architect, Structural Engineer, and Geotechnical Engineer, the source of all fill material with samples to be tested by the General Contractor's testing laboratory for approval prior to placement on the job. Verification will be required by the testing laboratory each time the source or character of the material changes.
  - c. Fill material shall be placed in maximum 8" loose lifts and compacted to at least 98% of the Standard Proctor Density (ASTM D698) at a moisture content +2% of optimum moisture content.
4. Reinforcing Steel
  - a. See the drawings for typical slab reinforcement requirements.
  - b. All welded wire fabric shall be furnished in flat sheets. Lap ends and sides one cross wire spacing plus 4" at splices.
  - c. Lap continuous slab on grade reinforcing steel 30 bar diameters at splices but not less than 12".
  - d. Steel for slabs on grade shall be chaired with slab bolsters designed for support on soil to provide specified cover to reinforcing steel.
5. Construction and Control Joints. See details on the drawings for requirements of construction joints, control joints, and pour size and sequence for slab-on-grade construction.

## SPREAD FOOTING FOUNDATION

- A. SPECIFICATION  
Spread footing construction shall conform to the requirements of the Standard Building Code Requirements for structural concrete (ACI 318-11) published by the American Concrete Institute, except as modified hereafter by these General Notes, the structural drawings, or the specifications.

### DESIGN SOIL PRESSURES

All foundation grade beams and footings shall bear on an approved building pad. Design soil pressures are 2000psf for isolated footings and 2000psf for continuous footings.

### CONCRETE COVER

1. The minimum protection for reinforcement shall be 3" clear from face of soil.

### TOP ELEVATION

The top elevations of all footings are shown on the drawings.

### BEARING ELEVATION

The bottom of all footings shall bear a minimum of 2 feet below the finished slab subgrade or adjacent exterior grade, whichever is deeper. Continuous footings shall bear a minimum of 24" below finished floor elevation.

### TEMPLATES FOR ANCHOR BOLTS

Vertical reinforcing steel and anchor bolts for column base plates shall be accurately set in footing and pedestal tops using 3/4" plywood or 1/8" steel templates.

## CONCRETE

### CLASSES OF CONCRETE

All concrete shall conform to the requirements as specified in the table below unless noted otherwise on the drawings:

USAGE	28-DAY SLUMP	MAX AGG	W/C	NOTES
1. SLAB	3500	4" 1.25"	.5	NO AIR
2. GRADE BEAMS AND FTGS	3500	3" 1.5"	.52	
3. SHELTER DECK	4000	4" .75"	.52	

### CONCRETE MIX DESIGNS

1. Engineer Approval. Concrete mix designs must be submitted a minimum of 15 days prior to the start of the work for Engineer and Owner's testing laboratory approval prior to placement of concrete in the plant or field. Any adjustments in approved mix designs including changes in admixtures must be submitted in writing to the Engineer and Owner's testing laboratory for approval prior to use in the field.
2. Pumped Concrete. Concrete designed to be pumped shall be so noted on the mix designs and shall have mix proportions compatible with the pumping process.
3. Calcium Chloride is strictly prohibited.
4. Air in panels and interior slabs shall not be added>

### CONCRETE FORMWORK

- A. RESPONSIBILITY  
The design, construction, and safety of all formwork shall be the responsibility of the General Contractor. All forms, shores, backshores, falsework, bracing, and other temporary supports shall be designed to support all loads imposed including the wet weight of concrete, construction equipment, live loads, lateral loads due to wind and wet concrete imbalance. The Contractor shall also be responsible for determining when temporary supports, shores, backshores, and other bracing may be safely removed.

### CONCRETE FINISH

Refer to the Specifications for concrete finish requirements including concrete surface tolerances (flatness and levelness).

### CONCRETE REINFORCEMENT

- A. SPECIFICATION
  1. Reinforcing Steel. ASTM A 615 Grade 60 unless noted otherwise on the drawings. Welded Reinforcing Steel - ASTM A 706.
  2. Formed Bar Anchors. ASTM A 496 minimum yield strength 70,000 PSI (reinforcing bars may not be substituted for deformed bar anchors without Engineer approval).

3. Welded Wire Fabric. Welded smooth wire fabric, ASTM A 185, yield strength 65,000 PSI. Welded deformed wire fabric, ASTM A 497, yield strength 70,000 PSI. All welded wire fabric shall be furnished in flat sheets only. The Contractor shall submit mill certificates of all reinforcing steel products signed by producer and by the Contractor.

### DETAILING AND BAR SUPPORTS

Detailing of and bar supports for reinforcing steel shall be in accordance with the ACI Standard Details and Detailing of Concrete Reinforcement as reported by ACI Committee 315.

### MANUAL OF CONCRETE PRACTICE

Unless noted otherwise, methods of estimating, detailing, fabricating, placing and contracting for reinforcing materials shall follow the Manual of Standard Practices as published by the Concrete Reinforcing Steel Institute.

### SHRINKAGE AND TEMPERATURE REINFORCEMENT

Provide shrinkage and temperature reinforcement at right angles to main top and bottom bars for all slabs unless detailed otherwise on the drawings. See drawings for sizes and spacings.

### REINFORCING STEEL COVERAGE

Reinforcing steel coverage shall conform to the requirements specified on the plans and specifications. The reinforcing steel detailer shall adjust reinforcing steel cage sizes at intersecting structural members as required to allow clearance for intersecting reinforcing bar layers maintaining minimum specified cover. Cover not indicated on the plans and specifications shall conform to the requirements of ACI 318-95 Section 7.7 unless specified otherwise on the drawings.

### CONCRETE COVER SHALL BE AS FOLLOWS, UNLESS SHOWN OTHERWISE:

1. Concrete cast against earth, 3"
2. Concrete cast against cardioacoid void boxes, 2"
3. Concrete exposed to weather, 1 1/2"
4. All other concrete, 3/4"

### STRUCTURAL MASONRY

- A. SPECIFICATION  
Masonry units - ASTM C-90, Fm = 2500psi  
Mortar - ASTM C-270, Type S  
Grout strength - 3000psi  
Rebar uses-ASTM A615, Grade 60

### INSPECTION

Visual inspection of all reinforcement is required. Masonry prism results to be submitted.

### REINFORCEMENT

1. Typical reinforcement shall be: See schedule
2. Horizontal joint reinforcing: 9ga. ladder type at 16"o.c.
3. Bond beams: See schedule
4. There shall be a min. of (1) bar on all openings in concrete which are less than 48" RE: E/S:1
5. Reinforcement bar lap..... See schedule

### CONSTRUCTION

1. Lap all bond beams where stepped 4'-0".
2. At corners and wall intersections, grout the adjacent cores with a vertical bar and lap the bond beam steel or provide corner bars of equal size. RE: S/A: 1.
3. All dowels from the foundation shall match the size and location of vertical masonry, unless noted differently, extend dowel a full cap dimension.
4. Vertical expansion joints shall be provided in the CMU walls as shown on the elevations & 30' o.c. Max. Re: arch. See: C/S:4.1 for joint detail.
5. Reference the Architectural drawings for type of block used.
6. All vertical bars shall be terminated in the upper grade beam with 90° STD. hooks.

## STRUCTURAL STEEL

### MATERIAL

1. Hot Rolled Structural Members. ASTM Specification A6.
2. ASTM Specification and Grade  
Clearly mark the grade of steel on each piece, with a distinguishing mark visible from floor surfaces for the purpose of field inspection of proper grade of steel. Unless noted otherwise on the drawings, structural steel shall be as follows:
  - a. Wide Flange Sections. ASTM A572 or A992 Grade 50
  - b. Edge Angles and Bent Plates. ASTM A 36.
  - c. Tube Sections. Square or rectangular, ASTM A500, Grade B. Round, ASTM A500 Grade C.
- d. Baseplates. All baseplates shall conform to ASTM A36.
- e. Connection Material.
  - (1) Beam, Column Stiffener Plates and Doubler Plates. Beam column stiffener plates and doubler plates shall be the grade of steel to which they are connected (highest grade if more than one grade is used).
  - (2) All connection material, except as noted otherwise herein or on the drawings, including bearing plates, gusset plates, stiffener plates, filler plates, angles, etc. shall be A36 steel unless a higher or matching grade of steel with the members connected is required by strength or stiffness calculation and provided the resulting sizes are compatible with the connected members.
- f. Other Steel.  
Any other steel not indicated otherwise shall conform to ASTM A36.

### CONNECTIONS

1. Typical connection details are indicated on the drawings.
2. Design Procedure.
  - a. Connection types to be used are indicated on the drawings.
  - b. The design of all steel connections for the project shall be based on standard AISC LRFD tabulated connections.
  - c. Fabricator is responsible for the design of all non standard connections or variations from details shown.
  - d. Fabricator is responsible for the design of all brace connections.
3. Design Intent. It is the intention of the plans and specifications that shop connections be welded or bolted and that field connections be bolted, unless detailed otherwise on the drawings.
  - a. All typical beam simple connections shall be standard AISC connections.
  - b. Sealed connections shall not be used unless approved by EOR.
  - c. N/A

## LIGHT GAUGE STEEL

- A. All light gauge members shall be designed in accordance with American Iron and Steel Institute.
- B. All light gauge metal framing members shall be of the type, size, and gauge as shown on the plans, minimum 43 mil.
- C. All posts, joints, and accessories shall be primed with rust inhibitive paint meeting the performance requirements of TT-P-636C, or shall be formed steel having a G-60 galvanized coating conforming to ASTM A924.
- D. All members shall meet the requirements of ASTM A607 Class 2 Grade 55 with a minimum yield of 55,000 PSI.
- E. Welding, where permitted, is to be done per manufacturer's recommendations on rod type and amperage. Minimum gauge for welding shall be 54 mil. Welds within exterior framing walls shall be touched up with zinc rich primer.
- F. All light gauge metal framing shall be installed per manufacturer's recommendations regarding minimum installation standards for bearing, bridging, and bracing.
- G. Light gauge member designations are per the 2012 AISI North American specifications.
- H. All connections shall be welded, screwed or powder fastened as indicated on these drawings.  
Welds: All welded connections shall be performed in accordance with the last edition of the AWS D 1.3 specification for welding steel in structures. All welding shall be performed by AWS certified welders. All welds shall be cleaned and coated with rust inhibitive zinc paint.  
Screws: #10 self drilling screws manufactured by grabber or Hilti and installed per the fastener manufacturer's specifications. Minimum 1/2" length for light gauge to light gauge connections. (Minimum 1 1/2" length for light gauge to timber connections.) Screws shall be spaced at a minimum of 1/2" between adjacent screws and from metal edges.  
Powder Activated Fasteners (P.A.F.) - 0.138" minimum shank diameter P.A.F. manufactured by Ramset or Hilti and installed per the fastener manufacturer's specifications.  
Provide minimum 1 1/4" long P.A.F. for light gauge connections to concrete. P.A.F. in concrete shall be spaced a minimum of 4" between adjacent P.A.F. and a minimum of 3" from concrete edges. Minimum P.A.F. embedment in concrete shall be 1 1/8".  
Provide minimum 1/2" long P.A.F. with knurled shanks for light gauge connections to structural steel. P.A.F. shall be spaced a minimum of 1 1/2" between adjacent P.A.F. in structural steel and a minimum of 1/2" from steel edges. The P.A.F. point shall be driven completely through the back side of the structural steel member.  
Masonry Anchors - 1/4" diameter x 2" long self-drilling screw anchors manufactured by Ramset (Tapcon) or Hilti (Kwik Con II) and installed per the fastener manufacturer's specifications for light gauge connections to concrete masonry.  
Driven Expansion Anchors (Mushroom Head) - 1/4" diameter x 1 1/4" long Zamac Nailin by Rawl, metal by Hilti or Hammer Set by Ramset and installed per the manufacturer's specifications. Anchors in concrete shall be spaced a minimum of 4" between adjacent anchors and a minimum of 3" from concrete edges. Minimum anchor embedment in concrete shall be 1 1/8".  
Expansion Anchors - Provide minimum 3/8" diameter Kwik Bolt II Expansion anchors by Hilti or equal, with a minimum 2 1/2" embedment into concrete. Minimum spacing between adjacent expansion anchors to be 5". Expansion anchors shall be located a minimum of 3" from concrete edges. Use oversize washers for attaching light gauge with expansion anchors. Install per the manufacturer's specifications for light gauge connections to concrete.
- I. All members shall be cut square for attachment to perpendicular members or slope cut as required for an angular fit against abutting members.
- J. Field cutting of light gauge members shall be done by sawing or shearing. Torch cutting of light gauge members is not permitted.
- L. Do not cut or splice light gauge framing members unless indicated by these drawings.
- M. Do not bear or connect light gauge members within twelve inches of the punched openings in the member webs unless the members are reinforced with a minimum 18" long punched track or stud at the punch opening. The track or stud reinforcing piece shall be the same size and gauge as the punched member. Fasten the reinforcing piece to the member with a minimum of four screws.

# 4 STRUCTURAL NOTES

- N. The light gauge framing has been designed to support the loads indicated in the calculations. Additional temporary bracing and shoring shall be provided as required to stabilize the framing and to support construction loads. Temporary bracing shall remain in place until permanent bracing is installed and/or additional construction loads are removed.

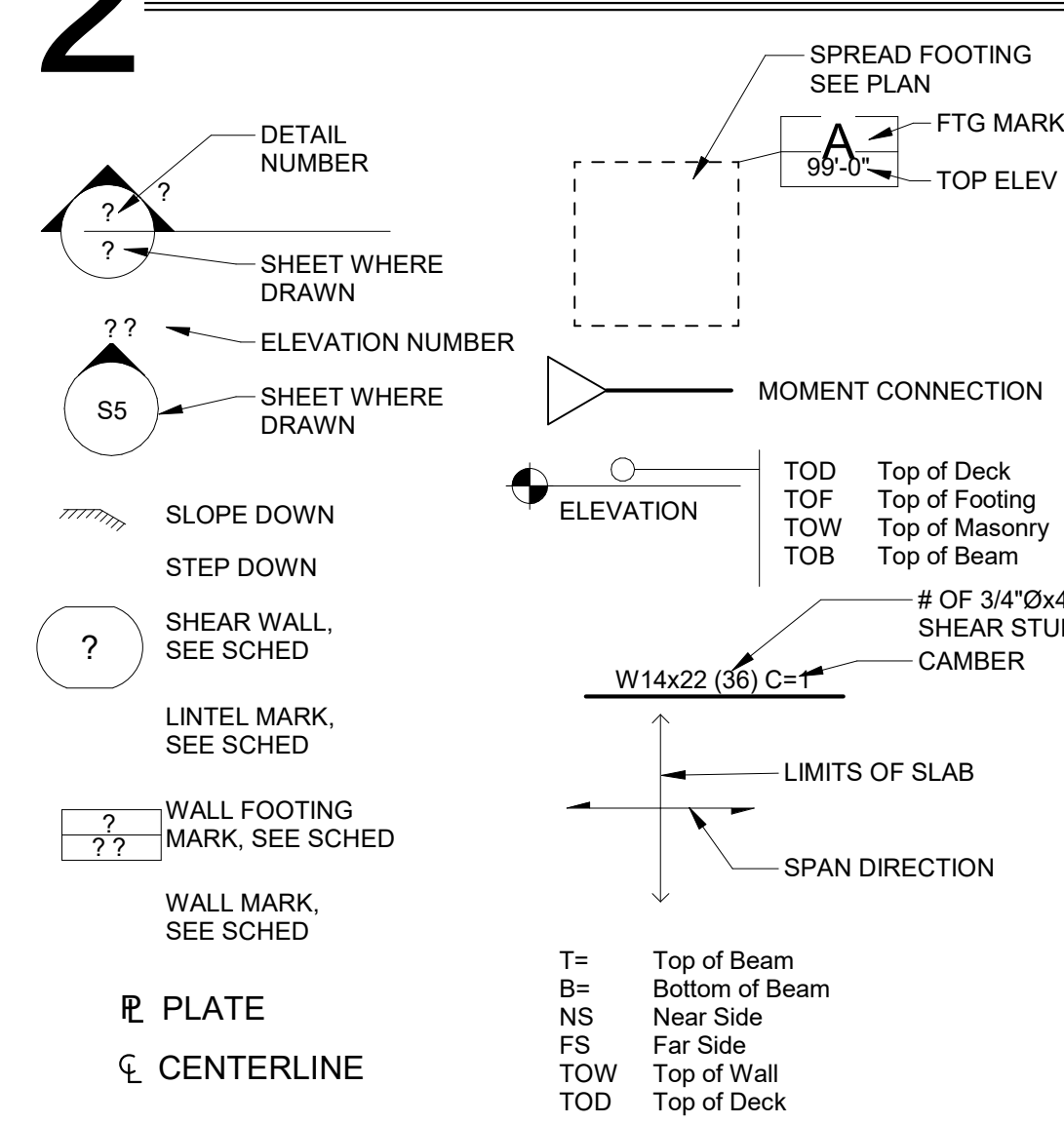
## ANCHOR BOLTS

- A. SPECIFICATION  
All anchor bolts shall be made from threaded round stock conforming to ASTM F-1554 grade 36 steel unless otherwise detailed on the drawings.
- B. NUTS  
All nuts with anchor bolts shall be hex head conforming to ASTM Specification A563.
- C. WASHERS  
Where indicated, base plates shall have plate washers, 1/4" thick, extending minimum 1" from edge of base plate holes on each side with AISC standard holes. Washers shall conform to ASTM A36 steel.
- D. TEMPLATES  
All anchor bolts set in concrete shall utilize 1/8" thick steel or 3/4" thick plywood templates same size as the base plate. Templates shall be detailed on the shop drawings.

## NON-SHRINK GROUT FOR BASE PLATES AND BEARING PLATES

- A. TYPE  
Grout for base plates and bearing plates shall be a non-metallic, shrinkage resistant, premixed, non-corrosive, non-staining product containing Portland cement, silica sands, shrinkage compensating agents, and fluidity improving compounds.
- B. SPECIFICATIONS  
Non-shrink grout shall conform to Corps of Engineers Specification for Non-Shrink Grout, CE-GRD-C621.
- C. COMPRESSIVE STRENGTH  
Twenty-eight day compressive strength as determined by grout cube tests, shall be 7,500 PSI.
- D. PLACEMENT  
Grout shall be placed in a fluid flowable state under baseplates that have a form built around them for grout confinement. Grout shall be cured according to manufacturer's recommendations.
- E. MINIMUM THICKNESS  
Minimum thickness of grout under all baseplates and bearing plates shall be 1 1/2", unless specified otherwise on the drawings.

# 2 STRUCTURAL LEGEND



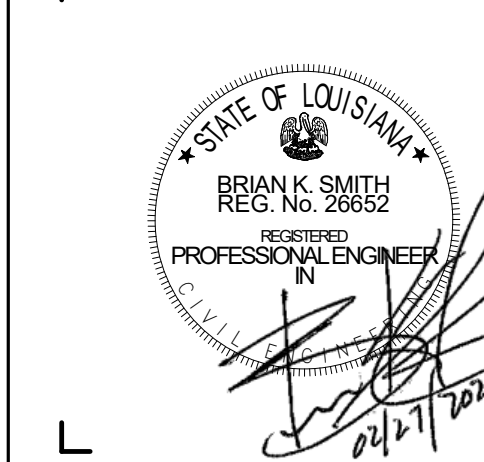
# 3 DESIGN LOADS

LOADS:	PSF:
<b>ROOF LOADS:</b>	
ROOFING:	1.0
RIGID INSULATION:	6.0
METAL DECK:	2.5
JOISTS:	2.5
STORM SHELTER SLAB & DECK:	60.0
BAR JOISTS:	2.5
<b>COLATERAL LOADS:</b>	
MECHANICAL EQUIPMENT DUCTING/PIPING:	SEE PLAN
ELECTRICAL SPRINKLER:	2.0
MSC:	2.0
<b>SLAB LIVE LOADS:</b>	100
<b>ROOF LIVE LOADS:</b>	CONNECTOR: 20 REDUCIBLE STORM SHELTER: 100
<b>SNOW LOADS:</b>	5 GROUND
<b>WIND:</b>	EXP. C, CAT III CONNECTOR Vult = 112 MPH Vasd = 87 MPH ENCLOSED (GCpl=±0.18) STORM SHELTER Vult = 250 MPH Vasd = 250 MPH Kc = 1.0 Ks = 1.0 ENCLOSED (GCpl = ±0.18)
<b>SEISMIC:</b>	RISK CAT III IMPORTANCE FACTOR 1.25 Ss = 0.112, S1 = 0.07 SITE CLASS D Sds = 0.119, Sd1 = 0.112 SEISMIC DESIGN CATEGORY B BASE SHEAR COEFFICIENT: 136.55k BASE SHEAR SHELTER: 1.89k FORCE RESISTING SYSTEM: CONNECTOR: ORDINARY MOMENT FRAMES SHELTER: INTERMEDIATE MASONRY SHEAR WALLS Ca = 0.047 R = 3.0 ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

STRUCTURAL SHEET LIST			
Sheet No.	Sheet Name	Issue Date	Current Revision
S1	GENERAL NOTES AND SCHEDULES	01/14/2026	1
S1.1	SPECIAL INSPECTIONS	01/14/2026	
S1.2	SCHEDULES	01/14/2026	1
S1.3	STORM SHELTER NOTES AND DETAILS	01/14/2026	1
S2	FOUNDATION PLAN	01/14/2026	1
S2.1	ENLARGED JAMB PLANS	01/14/2026	
S3	FRAMING PLAN	01/14/2026	1
S3.1	SHELTER ELEVATIONS	01/14/2026	1
S4	FOUNDATION SECTIONS	01/14/2026	1
S4.1	FOUNDATION DETAILS	01/14/2026	
S5	FRAMING SECTIONS	01/14/2026	
S5.1	FRAMING SECTIONS	01/14/2026	
S6	FRAMING DETAILS	01/14/2026	
S6.1	FRAMING DETAILS	01/14/2026	



**BLED SOE**  
ARCHITECTS  
735 ROBINHOOD STREET  
SHREVEPORT, LA 71106  
PHONE: (318)219-2295  
FAX: (318)219-2296



**BK SMITH**  
ENGINEERING CO., INC.  
1914 CITIZENS BANK DR.  
BOSSIER CITY, LOUISIANA

NEW CLASSROOM / TORNADO SHELTER ADDITION FOR  
BENTON HIGH SCHOOL  
BOSSIER PARISH SCHOOL BOARD  
449 FARBURN AVENUE  
BENTON, LOUISIANA 71006



job no: 2511

REVISIONS  
1 COORDINATION 02/27/26

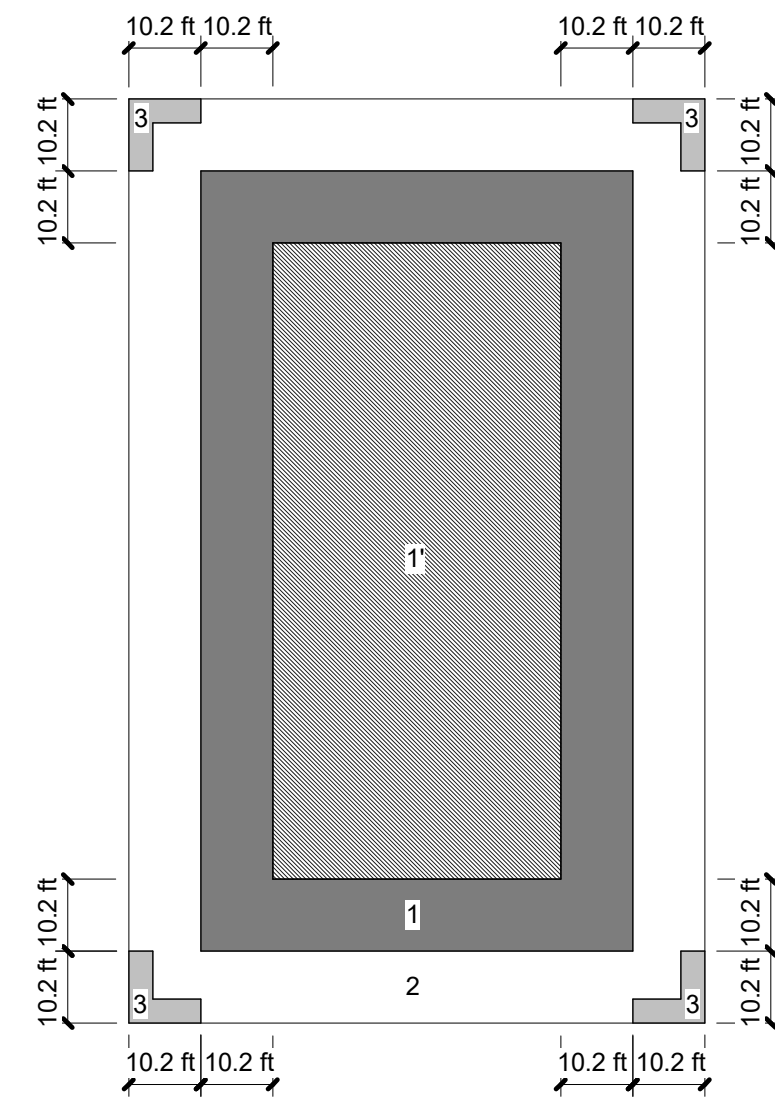
14 JAN. 2026

SHEE  
**S1**

# 1 C&C WIND PRESSURE

CONNECTOR ASCE 7-16 ULTIMATE WIND PRESSURES, W FOR COMPONENTS AND CLADDING (psf)				
ZONE	EFFECTIVE WIND AREA (sqft)	PRESSURE		
		POSITIVE	NEGATIVE	
ROOF	1	≤10	16.0	-44.4
	1	100	16.0	-34.6
	1	200	16.0	-31.7
	1	500	16.0	-27.8
	1'	10	16.0	-25.5
	1'	100	16.0	-25.5
	1'	500	16.0	-16.0
	1'	1000	16.0	-16.0
	2	10	16.0	-58.5
	2	100	16.0	-46.0
	2	200	16.0	-42.3
	2	500	16.0	-37.3
WALLS	4	≤10	25.5	-27.6
	4	50	22.9	-25.0
	4	200	20.6	-22.7
	4	500	19.1	-21.2
	5	10	25.5	-34.0
	5	50	22.9	-28.7
	5	200	20.6	-24.2
	5	500	19.1	-21.2

\* REFERENCE FIGURE BELOW FOR LOCATIONS OF ZONE 1, 2, AND 3. ZONE 4 INCLUDES THOSE WALL ELEMENTS LOCATED OUTSIDE OF 6.8 FEET OF A BUILDING CORNER, AND ZONE 5 INCLUDES THOSE WALL ELEMENTS LOCATED WITHIN 6.8 FEET OF A BUILDING CORNER.



# 2 CONCRETE LAP SCHEDULE

TENSION SPLICES (IN.)					
3,500 psi CONCRETE					
NORMAL REBAR					
BAR SIZE	TOP BARS		OTHER BARS		
	A	B	A	B	
#3	20	26	16	20	
#4	27	35	21	27	
#5	33	43	26	33	
#6	40	52	31	40	
#7	58	75	45	58	
#8	66	86	51	66	
#9	75	97	58	75	
#10	84	109	65	84	
#11	93	121	72	93	

# 3 CMU REINFORCEMENT LAP SCHEDULE

LAP SPLICES (IN.)			
8" CMU			
2,500 psi CMU			
BAR SIZE	CENTERED (1 PER CELL)		EDGE (2 PER CELL)
	A	B	
#3	12	15	
#4	12	26	
#5	18	41	
#6	34	76	
#7	46	104	
#8	71	156	

LAP SPLICES (IN.)			
12" CMU			
2,500 psi CMU			
BAR SIZE	CENTERED (1 PER CELL)		EDGE (2 PER CELL)
	A	B	
#3	12	15	
#4	12	26	
#5	12	41	
#6	21	58	
#7	29	78	
#8	45	117	

**BLED SOE**  
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BENTON, LOUISIANA 71006

SCHEDULES

**BPSB**  
BOSSIER SCHOOLS  
"Win the Day!"

BPSB PROJECT # 26-02

job no: 2511

REVISIONS		
1	COORDINATION	02/27/26

14 JAN. 2026

SHEET  
**S1.2**

SE of

CMU WALL SCHEDULE			
MARK	SIZE	Vertical	Bond Beams
CMU-1	8 in	#5@40"oc	(2)#5 @ 8"oc
CMU-2	8 in	#5@40"oc	(2)#5 @ 4"oc
CMU-3	12 in	#6@8"oc	(2)#6 @ 4"oc

FOOTING SCHEDULE				
Type Mark	Length	Width	Reinforcement	Footing Thickness
A1	4' - 0"	4' - 0"	(5) #5s EA WAY	1' - 3"
A2	5' - 0"	5' - 0"	(6) #5s EA WAY	1' - 3"
B1	4' - 0"	4' - 0"	(5) #5s EA WAY	1' - 3"
B2	5' - 0"	5' - 0"	(6) #5s EA WAY	1' - 3"

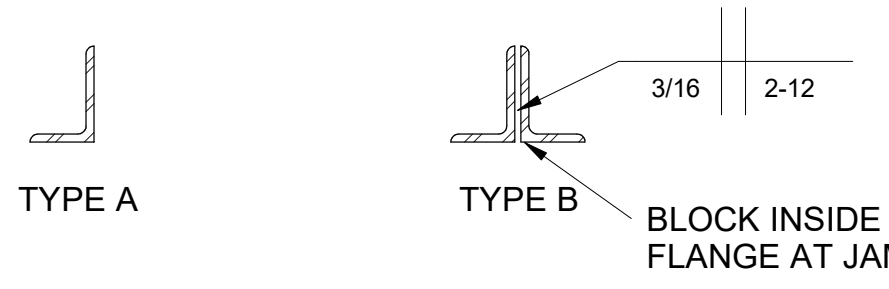
CMU LINTEL SCHEDULE						
TYPE MARK	LINTEL DEPTH	REINFORCEMENT			JAMB	BRG
		TOP	BOTTOM	STIRRUPS		
A	8 in	N/A	(2) #5	N/A	(2) #6 EA. CELL	8 in
B	16 in	(2) #6	(2) #6	N/A	(2) #6 EA. CELL	16 in
C	40 in	(2) #6	(2) #6	N/A	(2) #6 EA. CELL	24 in
D	16 in	(2) #6	(2) #6	N/A	(2) #6 EA. CELL	24 in
E	16 in	(2) #5	(2) #5	N/A	(2) #5 EA. CELL	24 in
F	16 in	(2) #5	(2) #5	N/A	(2) #5 EA. CELL	8 in
G	16 in	(2) #6	(2) #6	N/A	(2) #6 EA. CELL	12 in
H	24 in	(2) #5	(2) #5	N/A	(2) #6 EA. CELL	8 in

WALL FOOTING				
TYPE MARK	WIDTH	THICKNESS	LONG BARS	SHORT BARS
WF-1	24"	12"	(3) #5	#5@12"oc
WF-2	30"	12"	(3) #5	#5@12"oc
WF-3	36"	12"	(4) #5	#5@12"oc
WF-4	48"	12"	(5) #5	#5@12"oc
WF-5	60"	12"	(5) #5	#5@12"oc

LIGHT GAUGE HEADER SCHEDULE				
SPAN	HEADER	SILL	JAMB STUDS	CLIPS
0' < L ≤ 42"	(2) 600S162-43	600T125-43	(2) 600I62-43	(2) L3x3x12ga 5x5 1/2 W/ (10) #10
42" < L ≤ 72"	(2) 600S200-54	600T125-43	(2) 600I200-54	(2) L3x3x12ga 5x5 1/2 W/ (10) #10
72" < L ≤ 120"	(2) 800S200-54	600T125-43 + 600S162-43	(2) 800I200-54	(2) L3x3x12ga 5x7 1/2 W/ (16) #10
120" < L ≤ 144"	(2) 1000S200-54	600T125-43 + 600S162-43	(2) 600I300-68	(2) L3x3x12ga 5x9 1/2 W/ (24) #10
144" < L ≤ 192"	(2) 1000S200-54	600T125-43 + (2) 600S200-54	(2) 600I300-68	(2) L3x3x12ga 5x9 1/2 W/ (24) #10

NOTE: RE: T/S6.1 FOR HEADER DETAIL

LOOSE LINTEL SCHEDULE				
SPAN	TYPE	MEMBER	BRG	NOTES
0' < L < 36"	A	L7x4x3/8	6	
36" < L < 72"	A	L7x4x3/8	8	
72" < L				SEE STRUCTURAL



# 1 STORM SHELTER NOTES

## STORM SHELTER

1. DESIGN INFORMATION
  - A. Shelter Type : Community Tornado Storm Shelter
  - B. Storm Shelter Use: Building Occupants
  - C. Design Code : IBC 2021 and ICC 500-2020 Standard for the Design and Construction of Storm Shelters
2. WIND LOADS
  - A. Shelter Design Wind Speed  $V_t = 250$  mph
  - B. Wind Exposure Classification  $C_s = +/- 0.18$
  - C. Internal Pressure Coefficient  $C_{pi} = +/- 0.18$
  - D. Topographic Factor  $K_t = 1.0$
  - E. Directionality Factor  $K_d = 1.0$
  - F. C&C Wind Pressures  $C_e = 3/S1.3$
3. FLOOD SUSCEPTIBILITY
  - A. The Community Tornado Storm Shelter is not located in an area susceptible to flooding. See Civil drawings for additional information. Per Table 402.1, Storm Shelter is NOT subject to the requirements of Section 402.
4. COMMUNITY TORNADO STORM SHELTER ENVELOPE REPORTS
  - A. In accordance with ICC 500-2020, Section 106.2.1 Item 12, the following reports are included by reference as substantiating documentation indicating the storm shelter wall and roof assemblies meet the missile impact test requirements. See Architectural Drawings for components protecting openings in the storm shelter envelope unless specifically included in the structural drawings (ex: structural bracing at openings).
    - a. Report: Debris Impact Resistance of Building Assemblies submitted to National Institute of Science and Technology, A Compilation of Testing performed by The Wind Science and Engineering Research Center Texas Tech University & Florida A&M University, Florida State University, and University of Florida; August 2006
    - b. Construction Materials Threshold Testing, Wind Science and Engineering Research Center, Texas Tech University, November 2004
5. STORM SHELTER ENVELOPE
  - A. Community Tornado Storm shelter wall and roof assemblies are consistent with previously tested assemblies documented in the referenced Community Tornado Storm Shelter Envelope Reports. Assembly testing was conducted in accordance with procedures of ICC500-2020 Section 803 to meet criteria outlined in Section 305.1.1. Minimum threshold missile speed is equal to or greater than 100 mph for vertical surfaces (wall) and equal to or greater than 67 mph for horizontal surfaces (roof).
    - B. Vertical Surfaces
      - a. Storm Shelter wall components consist of solid grouted concrete masonry unit walls with horizontal and vertical reinforcing.
      - b. See Section A3 of Construction Materials Threshold Testing Report
    - C. Horizontal Surfaces
      - a. Storm Shelter roof components consist of a 4" concrete over 2" composite deck (6" Total Thickness) slab with specified reinforcing placed over composite steel bar joist.
      - b. See Section A1 of Construction Materials Threshold Testing Report.
    - D. Storm Shelter Foundation Capacity (\*)
      - a. Ground Floor Live Load 100 psf
      - b. Roof Live Load 100 psf
      - c. Maximum Wall Pressure 101 psf (1),(2)
      - d. Maximum Roof positive pressure 5 psf (1),(3)
      - e. Maximum Roof negative (uplift) pressure -111 psf (1),(3)
      - f. Overturning and Uplift (4)

**Note:**

- (\*) See Table for Components and Cladding wind pressures
- (1) Wind pressures are for the Main Windforce Resisting System (MWFRS)
- (2) Wind pressures are LRFD combined windward and leeward pressures and act in either direction
- (3) Positive wind pressures act vertically downward toward the foundation. Negative (uplift) pressures act vertically upward away from the foundation and are LRFD gross uplift pressures
- (4) Storm shelter foundation structural components designed for combined overturning and uplift induced by Design Wind Load Quality Assurance Plan

6. See Statement of Special Inspections 1/S1.1 for special inspections and testing in accordance with the Building Code. Additional Special Inspections for post-installed anchors:
  - A. Provide special inspection of anchors post-installed in concrete when used for anchorage of shelter components forming part of the storm shelter enclosure or for anchorage of the shelter structure to the foundation.
    - a. Special inspection to verify anchor installation and capacity.
7. See 2.5/S1.3 for Main Windforce Resisting components. Components of the Main Windforce Resisting System are subject to Special Inspection in accordance with the Storm Shelter Statement of Special Inspections. The Storm Shelter special inspections, type, and frequency are specific to the storm shelter structural components and are in addition to special inspections required for the host building.
8. Structural Observations will be conducted in accordance with ICC 500-2020, Section 111 or general conformance to the structural drawings. Observations will occur at the following construction stages:
  - A. Immediately prior to placement of concrete for grade beams.
  - B. Continuous during wall grouting operations and embed placement.
  - C. Immediately prior to placement of elevated composite concrete slab.
  - D. After completion of installation of all storm shelter structural components.

Contractor to schedule structural observations with Engineer. Work shall remain accessible and exposed until completion of each structural observation and required special inspections

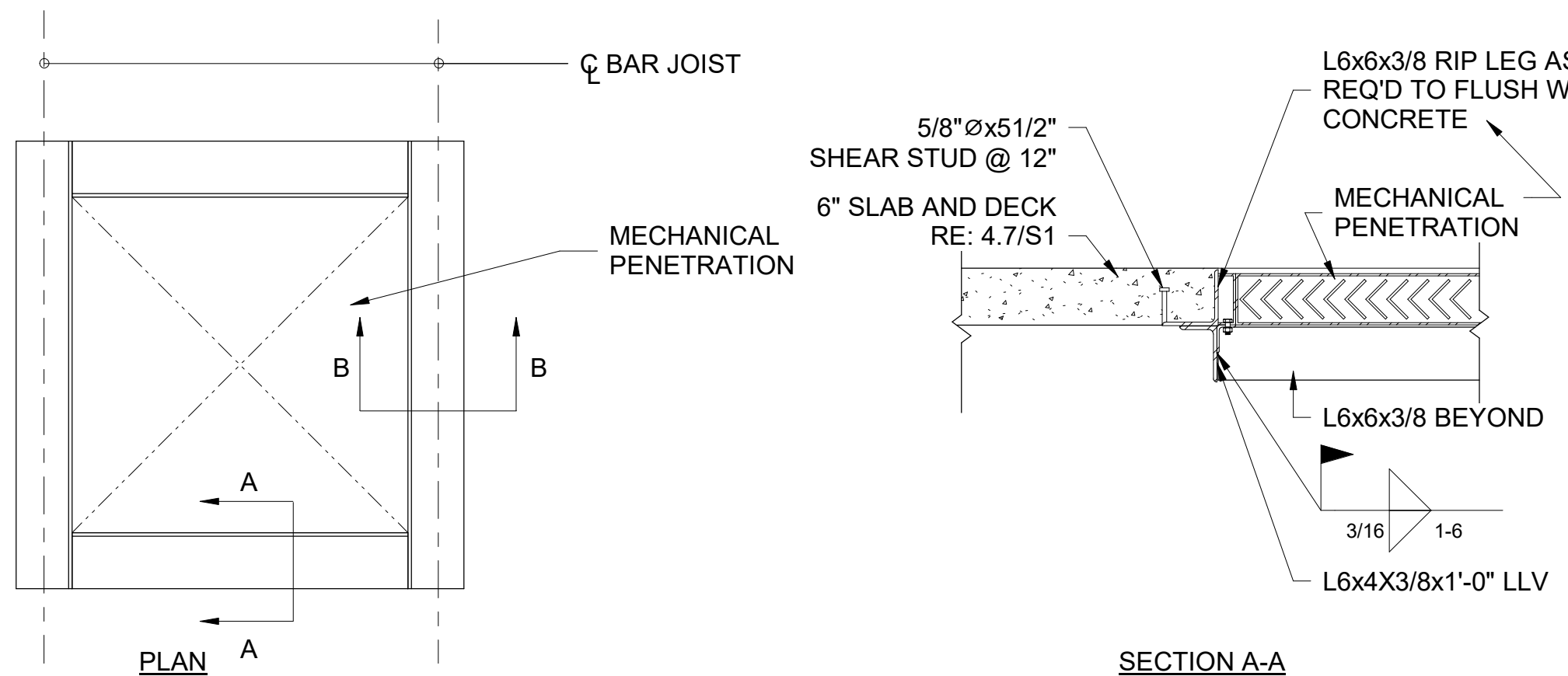
9. Noncompliant or remedial work will require re-inspection or Special Inspection respectively.
10. Provide test reports for the Storm Shelter in a manner consistent with requirements specified for the host building in the Project Specifications.

11. CONTRACTOR RESPONSIBILITY
 

Each contractor responsible for the construction, fabrication or installation of a main windforce-resisting system or any component listed in the quality assurance plan shall submit a written statement of responsibility to the authority having jurisdiction, the Engineer of record and the Owner prior to the commencement of work on the system or component. The contractor's statement of responsibility shall contain the following:

  - A. Acknowledgement of awareness of the special requirements contained in the quality assurance plan.
  - B. Acknowledgement that control will be exercised to obtain compliance with the construction documents.
  - C. Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of reports.
  - D. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.
12. OPENING PROTECTION
 

Opening protective devices have very specific connections tested for ICC 500-2020 compliance. Deviations from the specified connections and tolerances will not be acceptable. Special care and coordination are required to layout the openings for the shelter to coordinate with the protection devices. Additional shims and alternate connections will not be allowed. All opening protective devices must have a Testing Lab compliance sticker stating ICC 500-2020 testing compliance visible for verification.



EQUIPMENT FRAME AT STORM SHELTER

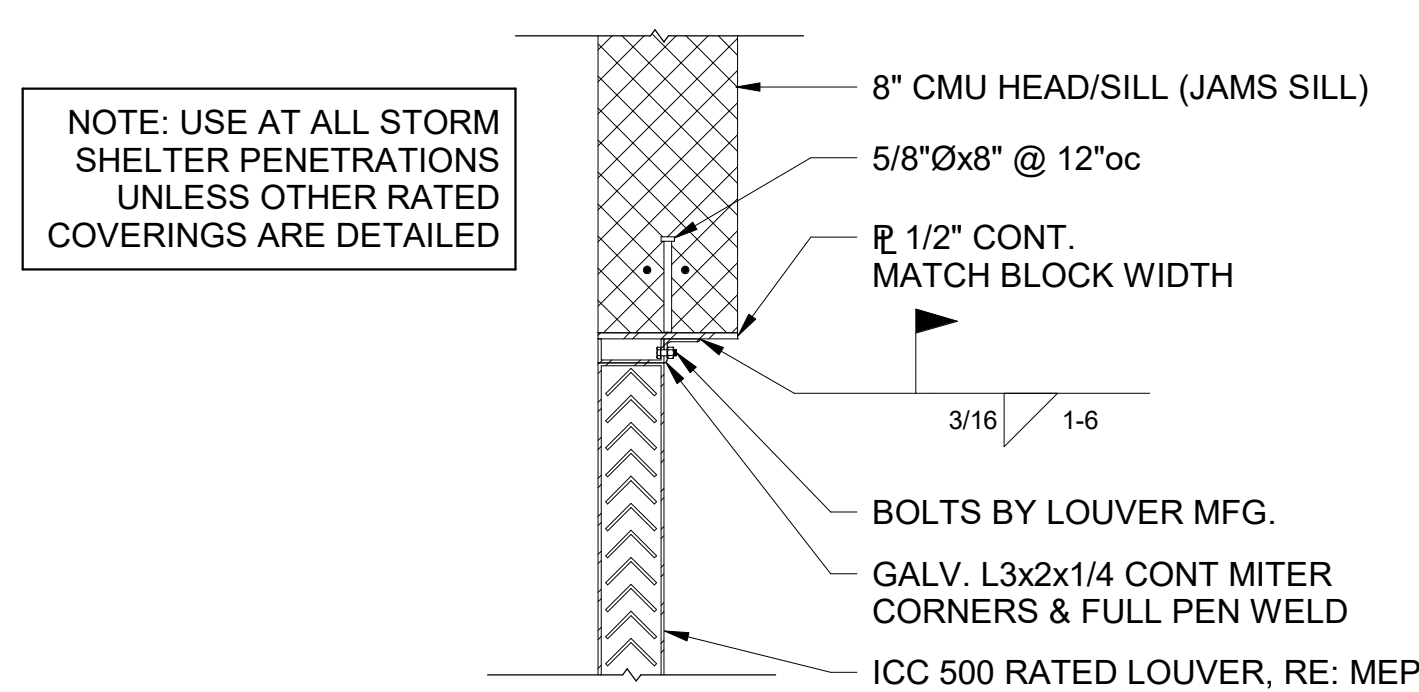
SCALE: 3/4" = 1'-0"

# 2 QUALITY ASSURANCE PLAN

1. Special inspections and testing shall be performed in accordance with ICC 500, section 106.2 and as described below for the main wind force resisting systems and wind resisting components.
2. Structural observations by a registered design professional shall be performed in accordance with ICC 500, section 106.4. The general contractor shall notify the owner, architect, engineer, registered design professional in responsible charge, and independent registered design professional not less than 48 hours prior to concealing each significant stage of construction and prior to each concrete pour.
3. Reports of each inspection, test and/or observation shall be submitted in writing within 72 hours to the owner, architect, engineer, registered design professional in responsible charge, independent registered design professional, and the general contractor.
4. All deficiencies from the contract documents noted during special inspections, testing and/or structural observations shall be included in the report and submitted to the authority having jurisdiction.
5. Main Wind Force Resisting Systems (MWFRS):
  - A. The MWFRS consists of a cast-in-place roof slab over composite bar joist, reinforced concrete masonry walls bearing on cast-in-place footings with drilled shafts. The following sections describe the requirements for inspection of each component of the MWFRS.
    - B. Foundation Elements:
      - a. Cast-in-place concrete footings support the storm shelter.
    - C. Main Wind Force Resisting System Connections to the Foundation:
      - a. The reinforced masonry concrete walls are anchored to the foundations using cast-in-place rebar dowels.
    - D. Main Wind Force Resisting Systems, including Shear Walls:
      - a. The MWFRS includes ordinary reinforced masonry shear walls.
    - E. Wall Connections to Roof and Floor Diaphragms and Framing:
      - a. The reinforced concrete masonry walls are connected to the roof diaphragm by steel embeds with cast in place headed concrete anchors.
    - F. Roof and Floor Diaphragm Systems, including Connectors, Drag Struts and Boundary Elements:
      - a. The roof diaphragm is a cast in place concrete slab over a composite metal deck. Shear stud connectors anchor the roof slab to the steel joist.
    - G. Wind Resisting Components:
      - a. Roof cladding and soffits: Refer to architectural for requirements.
    - H. Critical Support Systems and Connections and Debris Impact Protection of the Components and Connections:
      - a. Special inspections and testing shall be performed in accordance with special inspections on 1/S1.1.
      - b. Refer to Architectural and MEP for add'l requirements.
    - I. Fabrication and installation of components and assemblies of the shelter envelope required to meet Missile Impact Test Requirements of ICC 500, Chapter 3:
      - a. Steel enclosures provide missile impact resistance at penetrations of the storm shelter roof.
      - b. Special inspections and testing shall be performed in accordance with 1/S1.1.
      - c. Inspection of fabricators shall be performed in accordance with section on 1/S1.1.
      - d. Refer to architectural for add'l requirements.
    - J. Wall Cladding and Wall Cladding Connections:
      - a. Refer to architectural for requirements.
    - K. Missile Impact Test Requirements:
      - a. Perimeter Walls: The wall assembly meets or exceeds the requirement for a 8" CMU wall with #4 rebar at 8"o.c. and truss type horizontal joint reinforcing at 16"o.c. per "Debris Impact Testing Report" published by Texas Tech University.
      - b. Roof System: The roof shall meet or exceeds the requirement for a 4" concrete slab reinforced with #4 at 12"o.c.e.w. per "Debris Impact Testing Report" published by Texas Tech University.
      - c. Building Penetrations: The louvers used for penetrations larger than 4" have been tested and are ICC 500 compliant.

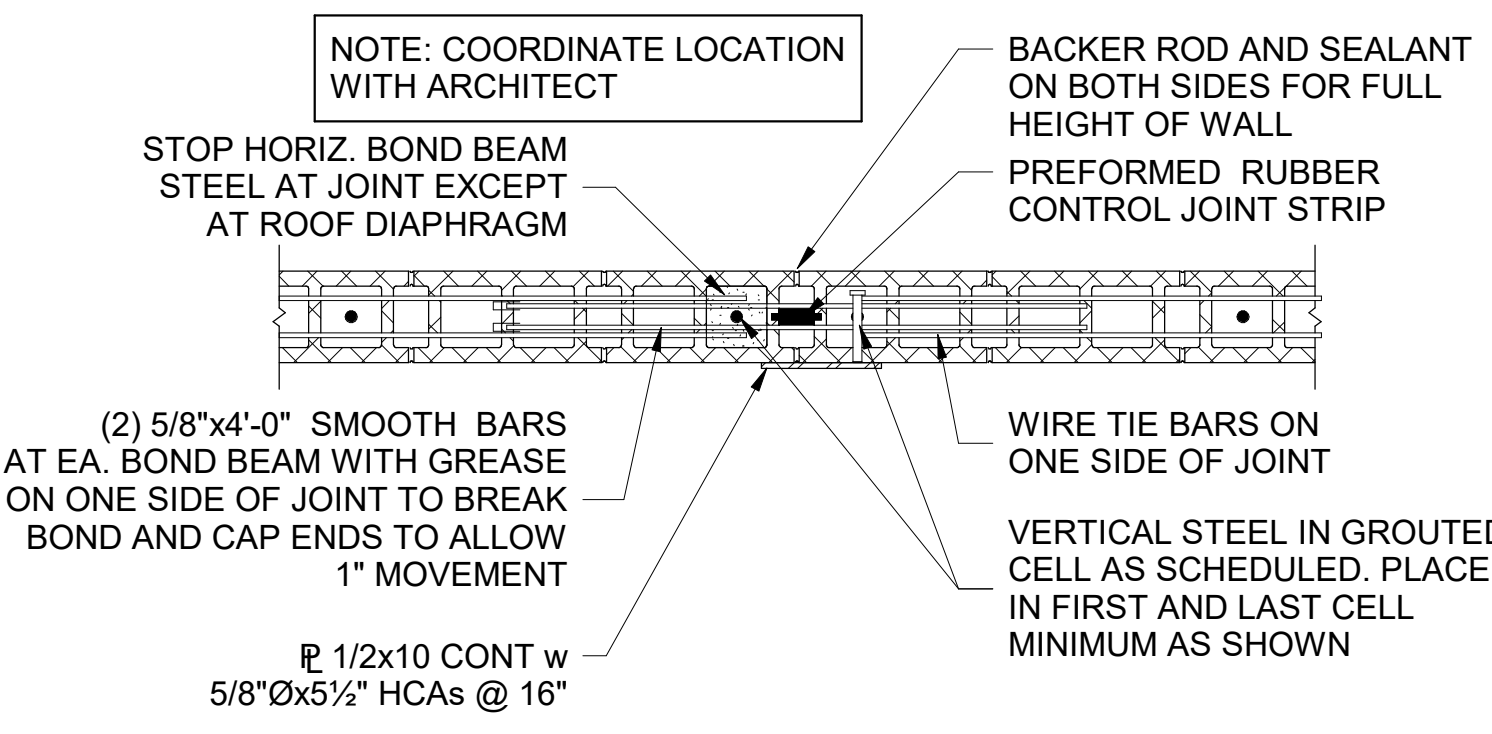
**NOTE:** Prior to beginning any work on the storm shelter, general contractor shall prepare and submit to E.O.R. a penetration plan showing:

1. The elevation of each wall with all penetrations clearly marked in both horizontal and vertical dimensions; and,
2. A plan of the roof showing all penetrations with dimensions.



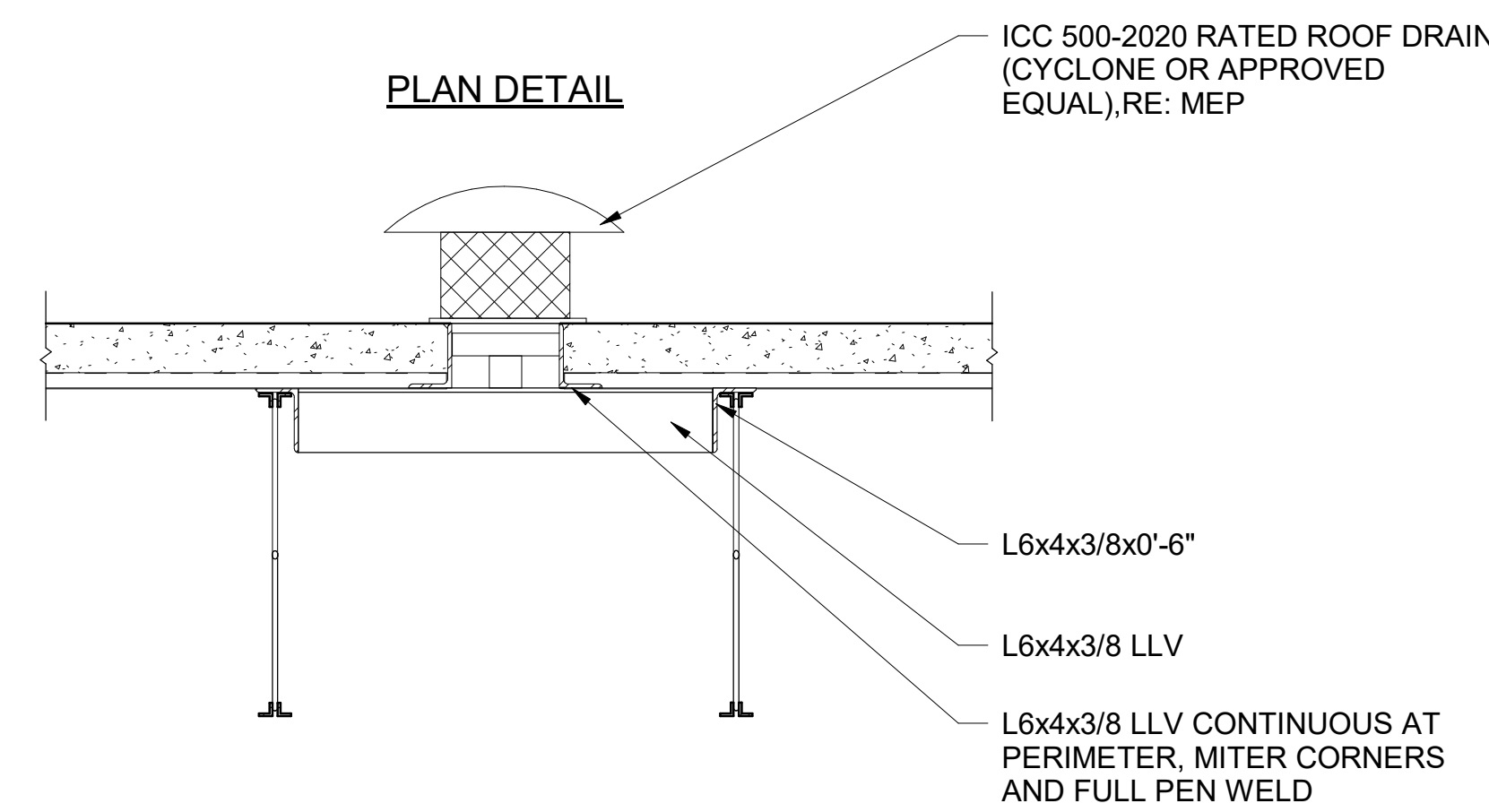
LOUVER ATTACHMENT DETAIL

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



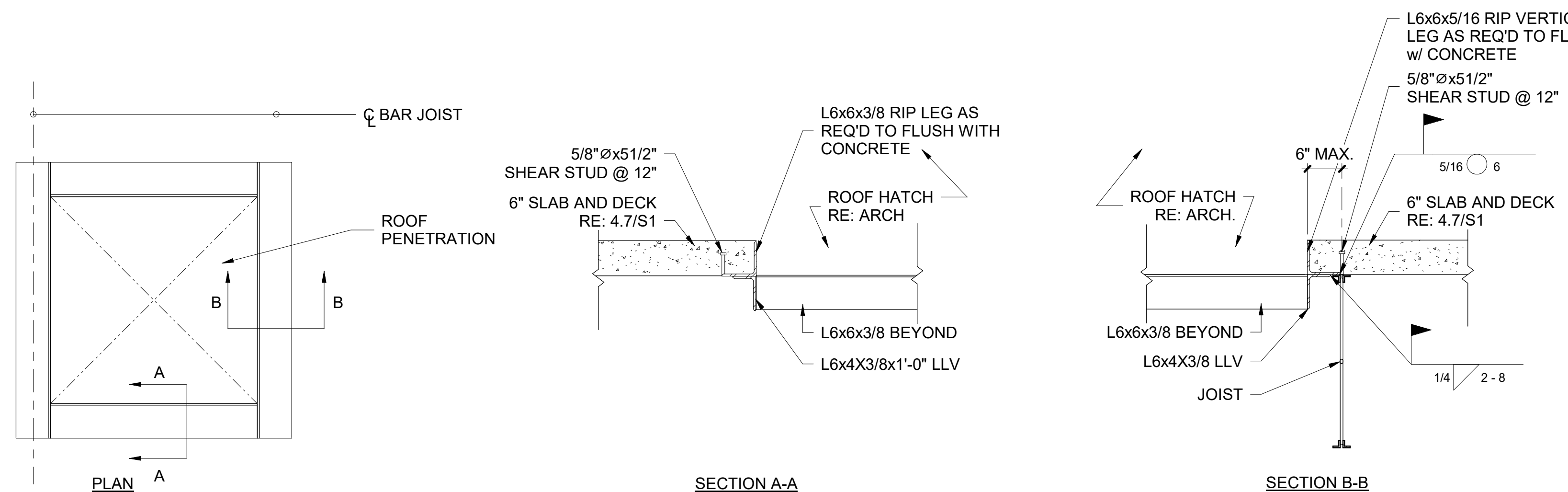
MASONRY CONTROL JOINT AT STORM SHELTER

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



ROOF DRAIN AT STORM SHELTER

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



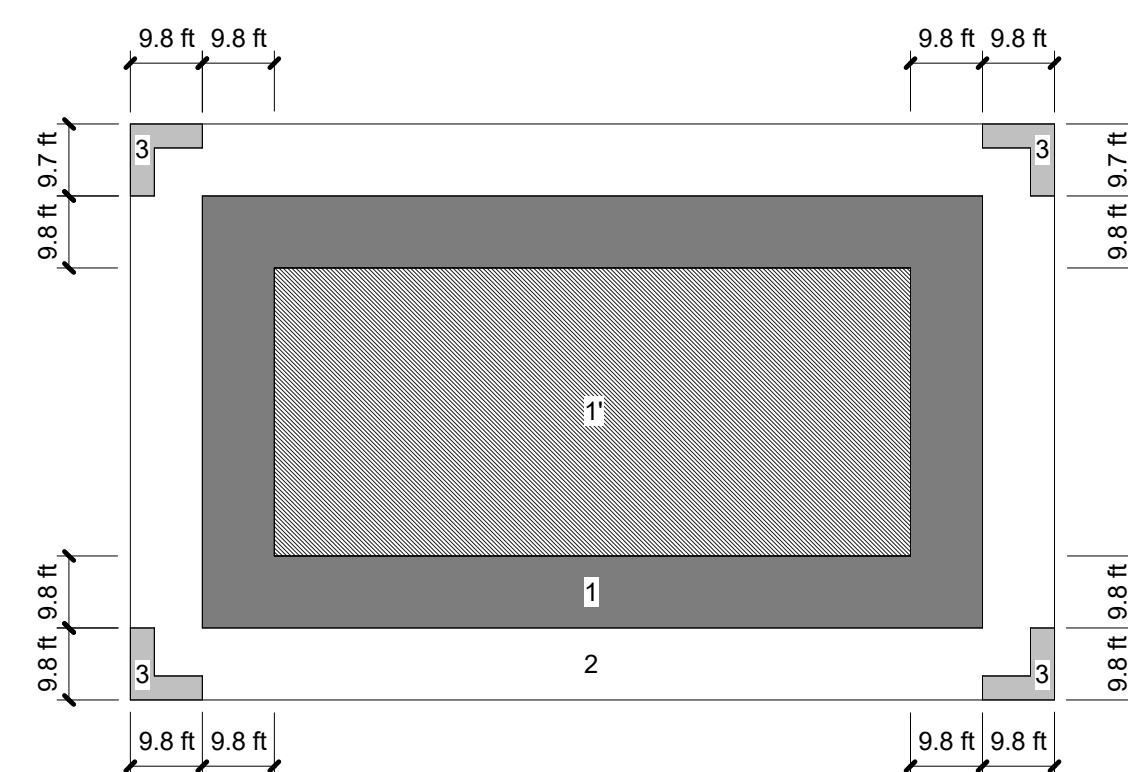
ROOF HATCH AT STORM SHELTER

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

# 3 C&C WIND PRESSURE STORM SHELTER

STORM SHELTER ASCE 7-16 ULTIMATE WIND PRESSURES, W FOR COMPONENTS AND CLADDING (psf)				
	ZONE	EFFECTIVE WIND AREA (sqft)	POSITIVE PRESSURE	NEGATIVE PRESSURE
ROOF	1	≤10	65.8	-257.8
	1	100	52.1	-201.3
	1	200	52.1	-184.3
	1	500	52.1	-161.8
	1'	10	65.8	-148.1
	1'	100	52.1	-148.1
	1'	500	52.1	-100.2
	1'	1000	52.1	-79.5
	2	10	65.8	-340.1
	2	100	52.1	-267.4
WALLS	4	≤10	148.1	-160.4
	4	50	132.9	-145.2
	4	200	119.7	-132.1
	4	500	111.1	-123.4
	5	10	148.1	-197.5
	5	50	132.9	-167.0
	5	200	119.7	-140.8
	5	500	111.1	-123.4

\* REFERENCE FIGURE BELOW FOR LOCATIONS OF ZONE 1, 2, AND 3. ZONE 4 INCLUDES THOSE WALL ELEMENTS LOCATED OUTSIDE OF 6.5 FEET OF A BUILDING CORNER, AND ZONE 5 INCLUDES THOSE WALL ELEMENTS LOCATED WITHIN 6.5 FEET OF A BUILDING CORNER.



**bledsoe**  
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**BK SMITH**  
ENGINEERING CO., INC.  
1914 CITIZEN BANK DR.  
BOSSIER CITY, LOUISIANA

NEW CLASSROOM / TORNADO SHELTER ADDITION for  
BENTON HIGH SCHOOL  
BOSSIER PARISH SCHOOL BOARD  
449 FAIRBURN AVENUE  
BENTON, LOUISIANA 71006

STORM SHELTER NOTES AND DETAILS

**BPSB**  
BOSSIER SCHOOLS  
"Win the Day!"

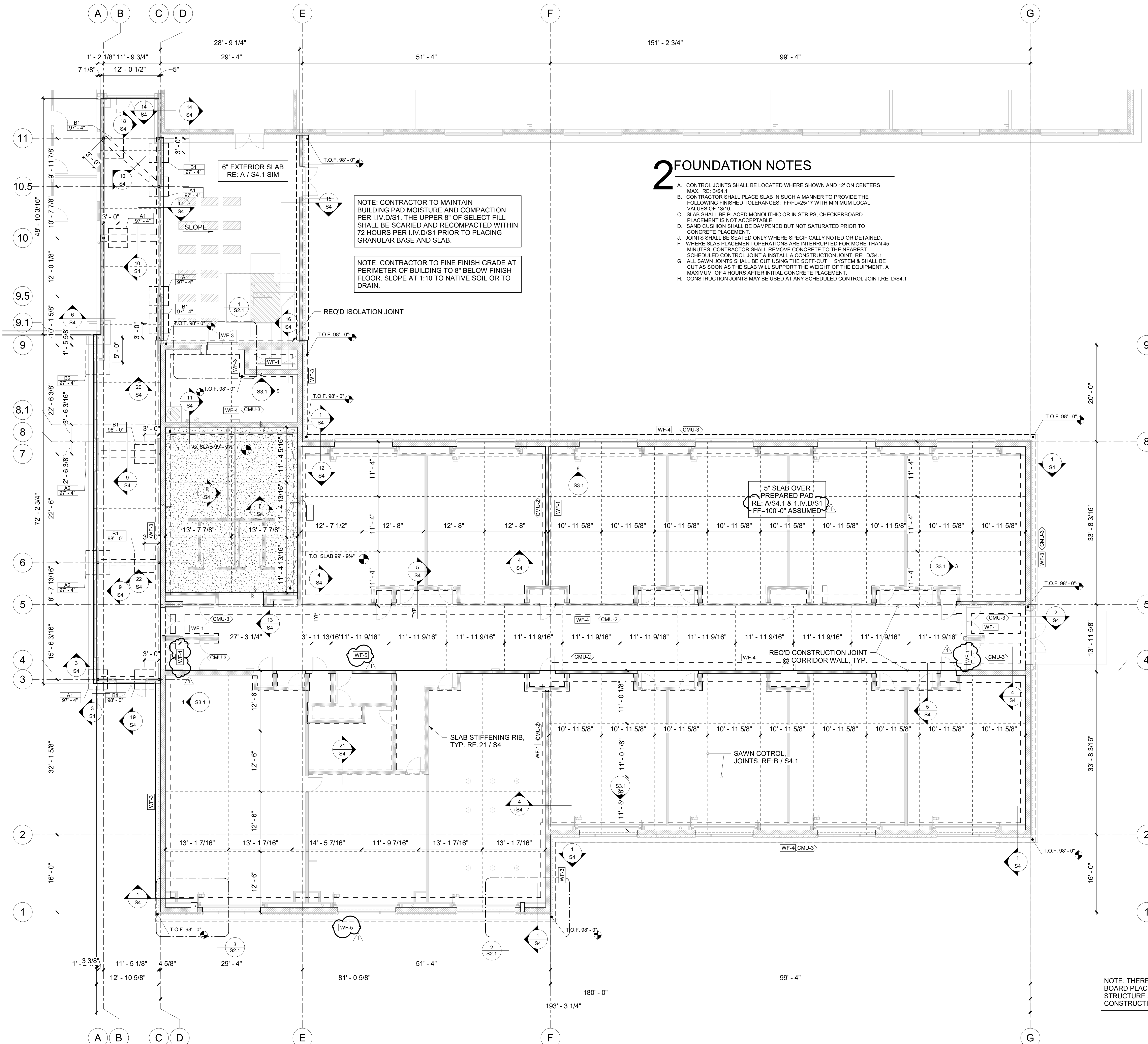
BPSB PROJECT #  
26-02

job no: 2511

REVISIONS	
1	COORDINATION 02/27/26

14 JAN. 2026

SHEET  
**S1.3**



## 2 FOUNDATION NOTES

- A. CONTROL JOINTS SHALL BE LOCATED WHERE SHOWN AND 12' ON CENTERS MAX. RE: D/S4.1
- B. CONTRACTOR SHALL PLACE SLAB IN SUCH A MANNER TO PROVIDE THE FOLLOWING FINISHED TOLERANCES: FF/FL=25/17 WITH MINIMUM LOCAL VALUES OF 13/10.
- C. SLAB SHALL BE PLACED MONOLITHIC OR IN STRIPS, CHECKERBOARD PLACEMENT IS NOT ACCEPTABLE.
- D. SAND CUSHION SHALL BE DAMPENED BUT NOT SATURATED PRIOR TO CONCRETE PLACEMENT.
- J. JOINTS SHALL BE SEATED ONLY WHERE SPECIFICALLY NOTED OR DETAINED.
- F. WHERE SLAB PLACEMENT OPERATIONS ARE INTERRUPTED FOR MORE THAN 45 MINUTES, CONTRACTOR SHALL REMOVE CONCRETE TO THE NEAREST SCHEDULED CONTROL JOINT & INSTALL A CONSTRUCTION JOINT. RE: D/S4.1
- G. ALL SAWN JOINTS SHALL BE CUT USING THE SOFF-CUT SYSTEM & SHALL BE CUT AS SOON AS THE SLAB WILL SUPPORT THE WEIGHT OF THE EQUIPMENT, A MAXIMUM OF 4 HOURS AFTER INITIAL CONCRETE PLACEMENT.
- H. CONSTRUCTION JOINTS MAY BE USED AT ANY SCHEDULED CONTROL JOINT. RE: D/S4.1

## 1 FOUNDATION PLAN

SCALE: 1/8" = 1'-0"

**b** ARCHITECTS  
**BLED SOE**  
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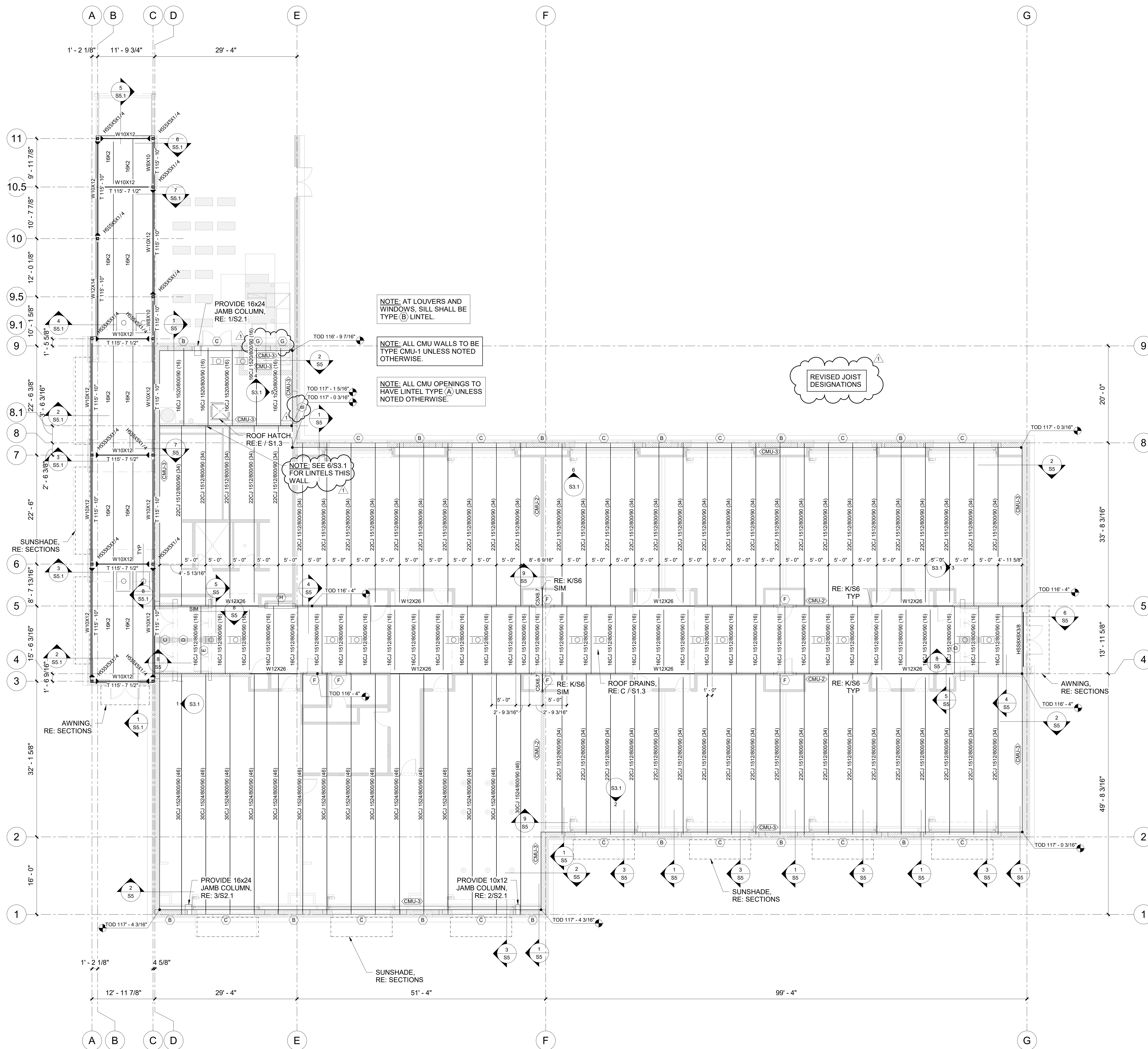
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SHEET  
**S2**



**1 FRAMING PLAN**  
SCALE: 1/8" = 1'-0"

NEW CLASSROOM / TORNADO SHELTER ADDITION for  
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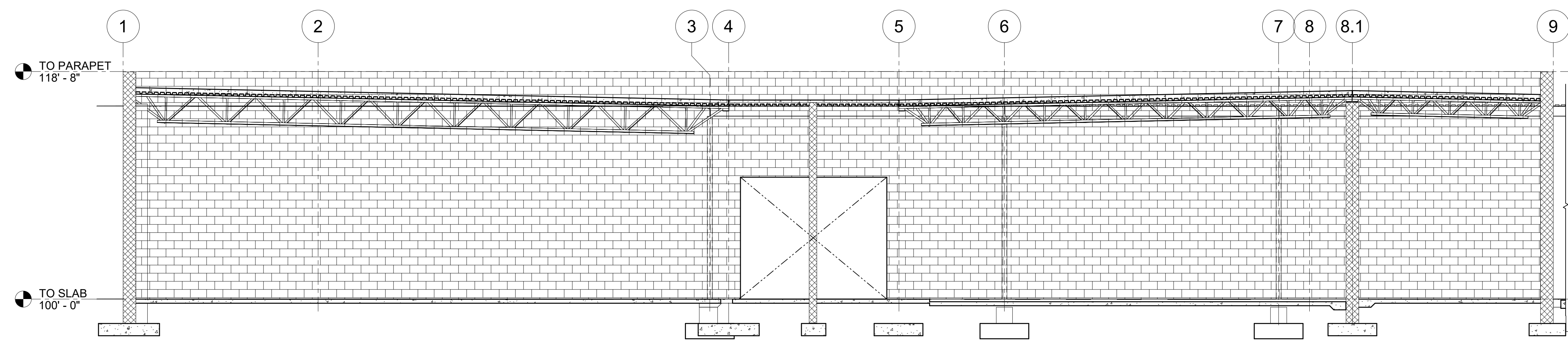
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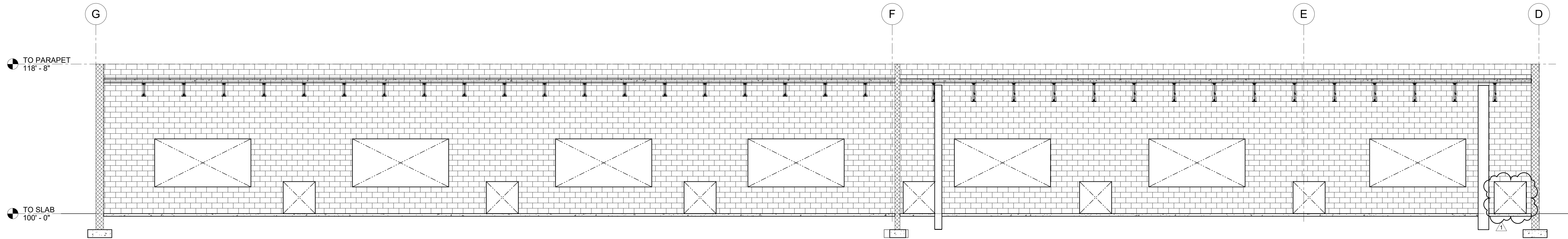
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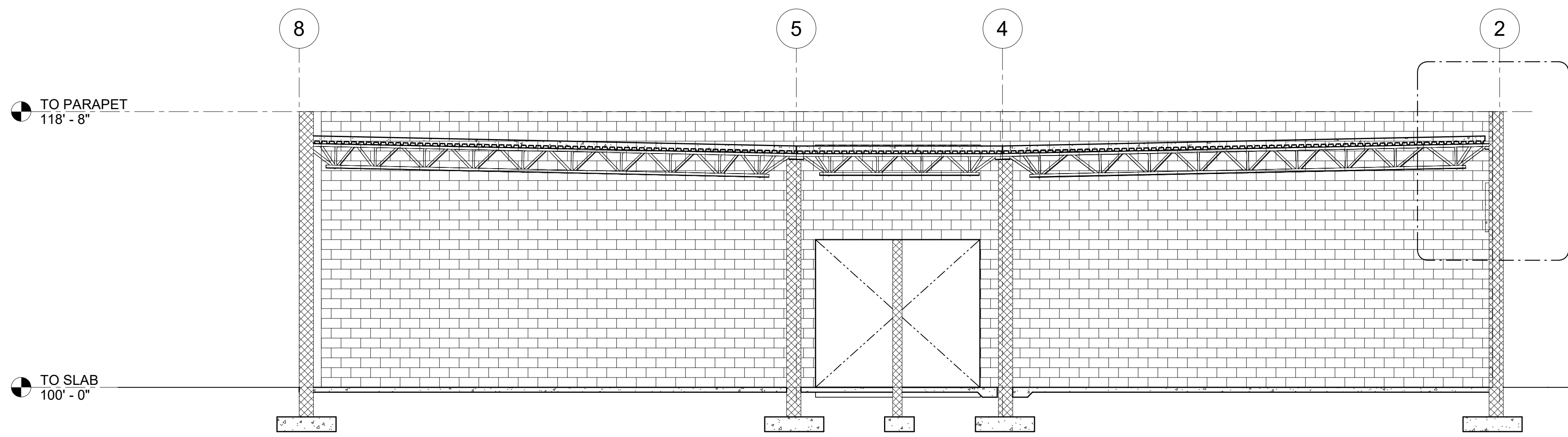
SHEET  
**S3**



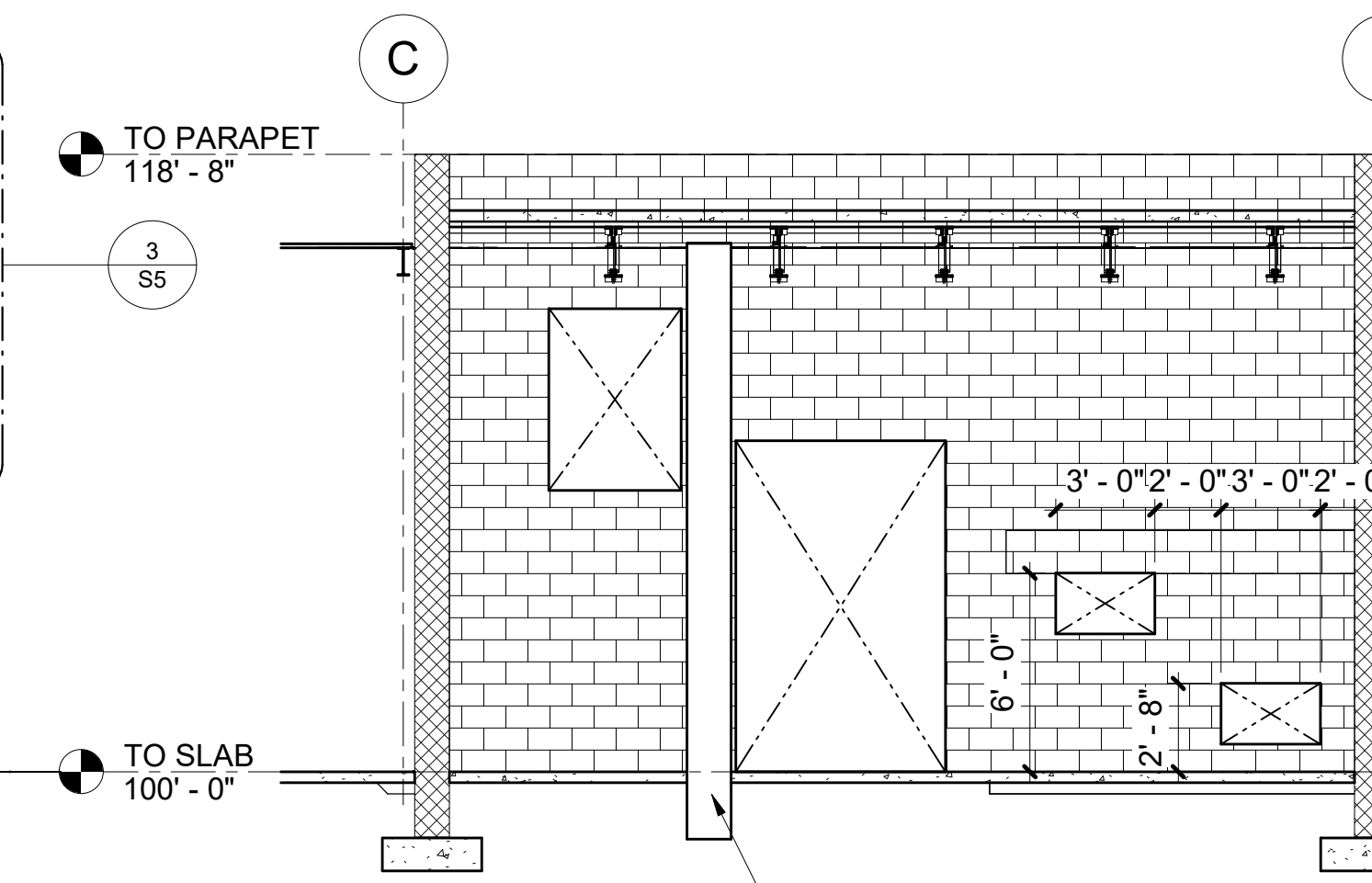
**1 WEST SHELTER WALL ELEVATION**  
SCALE: 3/16" = 1'-0"



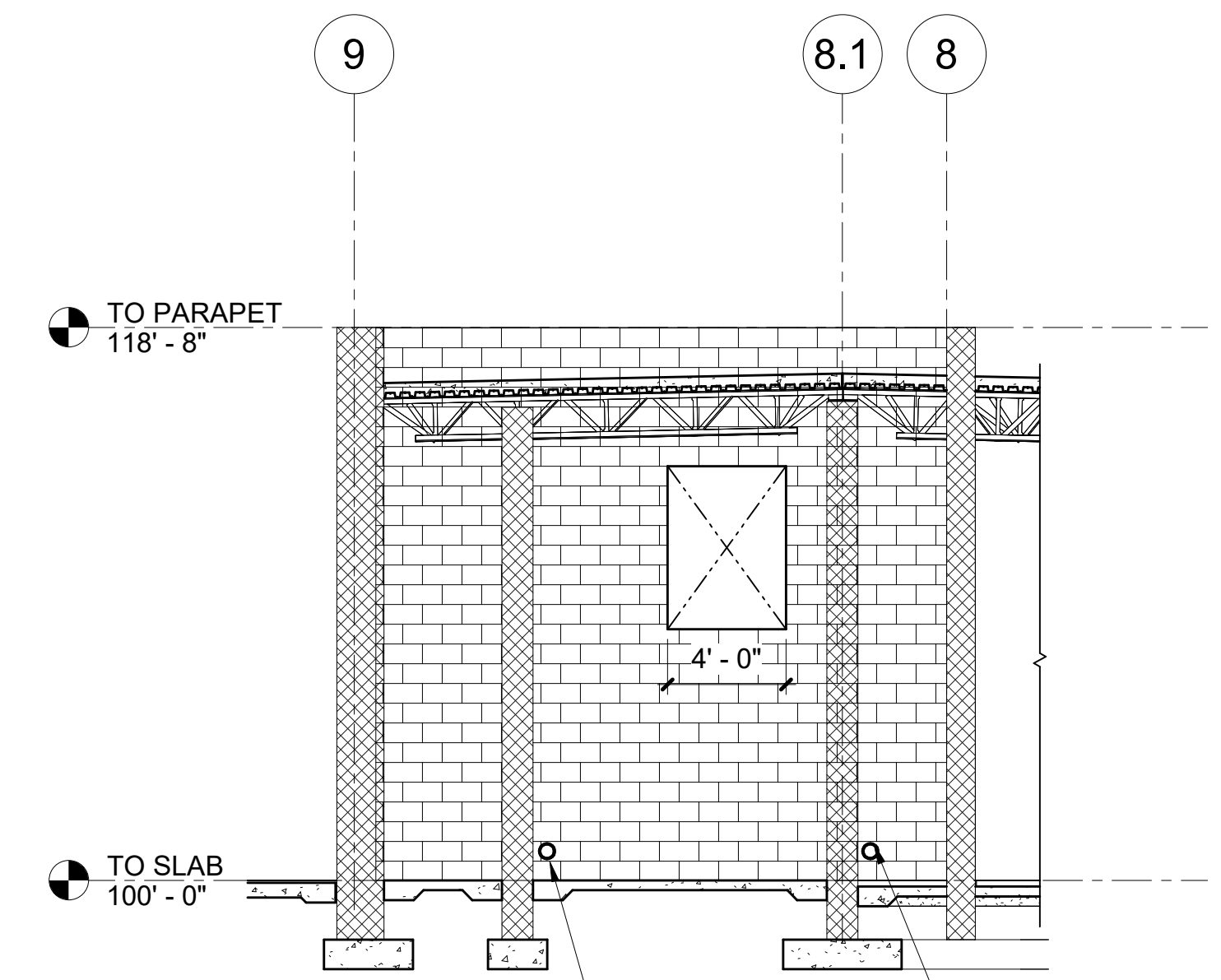
**2 SOUTH SHELTER WALL ELEVATION**  
SCALE: 3/16" = 1'-0"



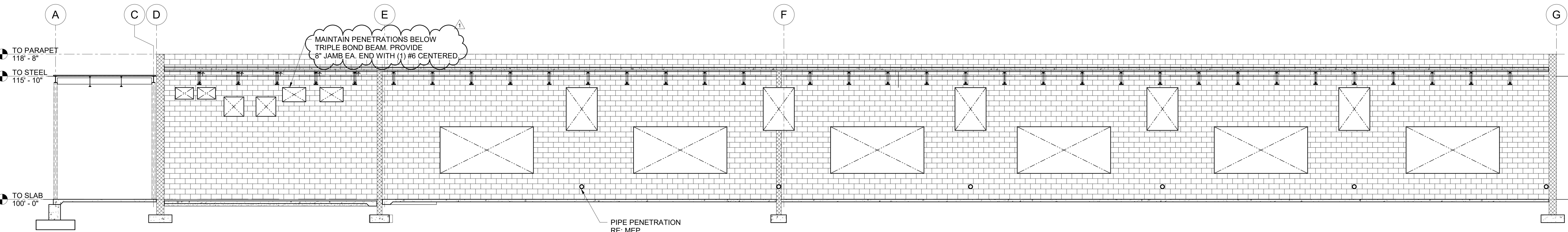
**3 EAST SHELTER WALL ELEVATION**  
SCALE: 3/16" = 1'-0"



**4 NORTH SHELTER WALL (GRID 9) ELEVATION**  
SCALE: 3/16" = 1'-0"



**5 EAST SHELTER WALL (GRID E) ELEVATION**  
SCALE: 3/16" = 1'-0"



**6 NORTH SHELTER WALL ELEVATION**  
SCALE: 3/16" = 1'-0"



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SHELTER ELEVATIONS



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PROJECT #  
26-02

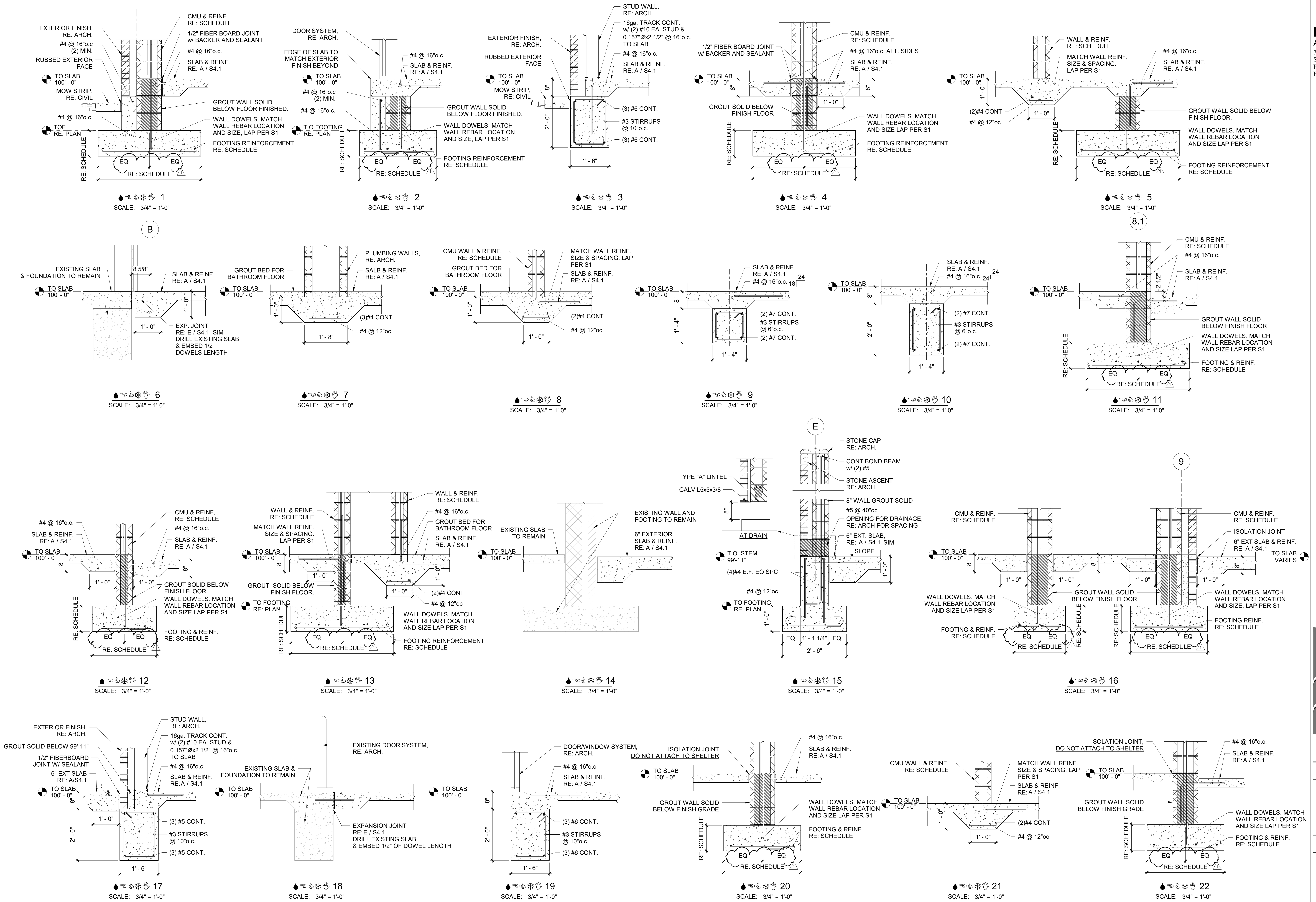
job no: 2511

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14 JAN. 2026

SHEET  
**S3.1**

SE of



# ADDENDUM 1

## Benton High School

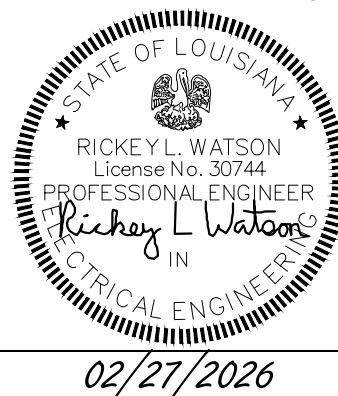
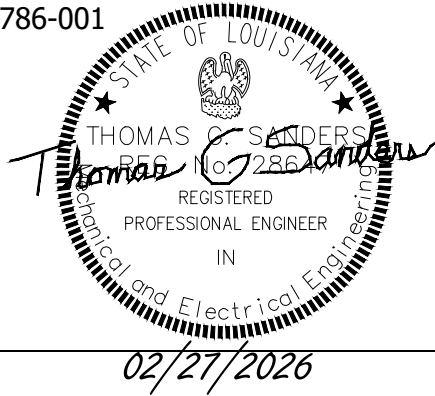
New Classroom/Tornado Shelter Addition



DESIGN SOLVE ENHANCE

EMA Engineering & Consulting, Inc.  
Texas Registered Engineering Firm #F-893  
Louisiana Registered Engineering Firm #EF-5818

EMA Job #5-188-1786-001



February 27, 2026

### GENERAL:

The following is a list of products, materials, and/or manufacturers prior approved to bid the respective equipment or materials. Note that approval of a material or manufacturer does not constitute approval of a specific product. Products must meet or exceed plans and specifications in every aspect, must fit in available spaces and are subject to shop drawing review. No other substitutions will be accepted. Contractor is responsible for the cost associated with any changes required for using products that differ from the basis of design.

#### Equipment

- Manual Volume Dampers (specified gauges)
- Duct Take-offs (specified gauges)
- Roof Pipe Supports
- Variable Speed Split System Heat Pump Air Conditioners
- Mini-Split Heat Pump Systems
- DOAS
- Water Cooler/Bottle Filler
- POU Mixing Valve

#### Manufacturer

- Dace
- Dace
- Miro
- LG
- LG
- Greenheck
- Murdock
- Acorn

#### Lighting

- LA1 DAY-BRITE 2FGXG48L835-4-RS-UNV-DIM
- LA1E DAY-BRITE 2FGXG48L835-4-RS-UNV-DIM-EM10
- LA2 DAY-BRITE 2FGXG60L835-4-RS-UNV-DIM
- LA2E DAY-BRITE 2FGXG60L835-4-RS-UNV-DIM-EM10
- LAF DAY-BRITE 2FGXG43L835-4-RS-UNV-DIM/ FMA24
- LAFE DAY-BRITE 2FGXG43L835-4-RS-UNV-DIM-EM10/ FMA24
- LA6 DAY-BRITE 2FPZ48L835-4-ADS-UNV-DIM
- LD1E LIGHTOLIER BY SIGNIFY 6RNEM6/ P6RDL10935MCLZ10U
- LD2 LIGHTOLIER BY SIGNIFY 6RN/ P6RDL20935MCLZ10U
- LD2E LIGHTOLIER BY SIGNIFY 6RNEM6/ P6RDL20935MCLZ10U
- LF1 DAY-BRITE FLP430L835-R-UNV-DIM/ HCH10-VHOOK

LK4	KENALL AUCLED-I-MW-20L35K-48-VOLTAGE-MS
X1	CHLORIDE ER55LD3WR
X1E	CHLORIDE 55LD3WR
CONTROLS	WATTSTOPPER

**MECHANICAL:**

**Plans:**

Sheet M1.1

1. Provide a multi-channel programmable digital timeclock with full 7-day programming for on-off control and holiday scheduling of each split system and DOAS unit equal to Intermatic ET91615CR, 120V/1 phase. Install timeclock in Work Room/Control H114. Provide all required relays, contactors, terminal switches and wiring. Install and connect in strict accordance with manufacturer's instructions and wiring diagrams.

Sheet M2.0

1. Outdoor heat pump MSHP-H1 shall be located in Mechanical Yard H123, north of HP-H13; maintain manufacturer's required service and access clearances. Install on 6" thick reinforced concrete housekeeping pad as detailed. Provide refrigerant piping "long line" components and accessories for extended length refrigerant piping per manufacturer's requirements.
2. Mechanical contractor is responsible for the welded structural galvanized steel support platform with pipe or I-beam columns and base plates anchored to the concrete pad for installation of DOAS-H1. Coordinate exact platform requirements with reviewed and approved DOAS unit prior to material order, fabrication and installation.

Sheet M3.0

2. Replace this sheet in it's entirety with attached sheet; schedules and HVAC section have been updated.

**ELECTRICAL:**

**Plans:**

Sheet ME1.1:

1. SWEPCO will provide a Primary Riser on existing Pole #328024. Contractor shall bore under existing drive to new pad mount transformer shown on Sheet ME1.1. Contractor shall provide underground pull boxes per NEC and SWEPCO requirements.

Sheet E1.1:

1. Provide 120V circuit for HVAC timeclock referenced above.

Sheet E2.1:

1. Remove light fixture 'LF1' and switch in Electrical room closet.

2. Remove LD1E light at exterior canopy H100 and H101. Replace with mullion mount fixture EELP OMEL10WWEMXXSW277SD or equal.

END OF ADDENDUM

HEAT RECOVERY DEDICATED OUTSIDE AIR UNIT SCHEDULE (DOAS)																		
DOAS NO.	EVAPORATOR DATA										COMPRESSOR		FILTERS		ELECTRICAL			
	FAN CFM	FAN H.P.	EXT. S.P.	TOTAL S.P.	E.A.T. (DB/WB)	L.A.T. (DB/WB)	TOT. CAP. (MBH)	SENS. CAP. (MBH)	STAGES	QTY	POWER (KW)	REFRIGERANT	TYPE	FACE AREA (FT <sup>2</sup> )	EFFICIENCY	VOLTAGE/HZ /PHASE	MCA (A)	MROPD (A)
H1	4000	4.4	1.5*	3.43*	81.4/70.1	54.3/54.3	191.9	111.8	MODULATING	1	12.29	R32	INVERTER SCROLL	9.0	30% 2" MERV 8	208/60/3	113.5	175

DOAS NO.	HOT GAS REHEAT					HEATING DATA					OUTSIDE AIR		EST. WEIGHT		DAIKIN MODEL NO.		
	COIL TYPE	FACE AREA (FT <sup>2</sup> )	TOT. CAP. (MBH)	E.A.T. (DB)	L.A.T. (DB/WB)	AIR P.D. (IN)	TYPE	STAGES	INPUT (MBH)	OUTPUT (MBH)	E.A.T. (DBP)	L.A.T. (DBF)	AIR CFM	OUTSIDE AIR TEMP.		TOTAL	SENS
H1	ALUMINUM TUBE MICRO-CHANNEL	14.8	76.7	48.7	72.0/60.8	0.06"	NAT GAS	MODULATING 10:1 TURNDOWN	200.0	162.0	43.7	86.0	4000	100°F	2385		DPS17B

ENERGY RECOVERY - ENTHALPY WHEEL																	
OA NO.	SUMMER CONDITIONS					WINTER CONDITIONS					DOAS NO.						
	EXHAUST CFM	WHEEL P.D.	OA TEMP	RA TEMP	WHEEL LEAVING TEMP	MIXED AIR TEMP	RECOVERED CAPACITY (MBH)	EFFECTIVENESS TOTAL	SENS	OA TEMP		RA TEMP	WHEEL LEAVING TEMP	MIXED AIR TEMP	RECOVERED CAPACITY (MBH)	EFFECTIVENESS TOTAL	SENS
4000	3600	1.05"	91.0/79.0	75.0/62.0	81.6/73.3	81.6/73.3	142.5	0.64	0.65	20.0/19.0	70.0/50.0	48.1/31.2	48.1/31.2	142.5	0.64	0.65	H1

THE MECHANICAL CONTRACTOR SHALL COORDINATE THE EXACT VOLTAGE & PHASE OF EACH AND EVERY EQUIPMENT ITEM WITH THE ELECTRICAL CONTRACTOR, PRIOR TO ORDER.

ACCESSORIES/OPTIONS: POWER BLOCK, PHASE FAILURE MONITOR, 0-5VDC DUCT MOUNTED HUMIDITY SENSOR, DIGITAL DDC SENSOR WITH ADJUSTABLE SETPOINT AND USER OVERRIDE.

NOTES:

- PROVIDE FILTER RACKS ON BOTH THE SUPPLY AND THE EXHAUST, UPSTREAM OF THE HEAT RECOVERY WHEEL; PROVIDE (3) THREE COMPLETE SETS OF 30% EFFICIENT PLEATED 2" THICK FILTERS IN ADDITION TO START-UP FILTERS.
- PROVIDE FACTORY FULL HALL GUARDS AND COIL GUARDS.
- PROVIDE 5 YEAR FULL COMPRESSOR WARRANTY, INCLUDING REFRIGERANT, PARTS & LABOR - NON PRORATED.
- PROVIDE STAINLESS STEEL HEAT EXCHANGER WITH 15 YEAR NON-PRORATED WARRANTY.
- PROVIDE INVERTER OR TRUE VARIABLE SPEED COMPRESSOR ALONG WITH MODULATING HOT GAS REHEAT FOR CAPACITY AND HUMIDITY CONTROL.
- PROVIDE HINGED PANELS AT ALL ACCESS SECTIONS.
- PROVIDE LOW VOLTAGE AND SINGLE PHASE PROTECTION; HEAVY-DUTY DISCONNECT SWITCHES (SEE ELECTRICAL PLANS FOR SIZE AND TYPE).
- PROVIDE FIELD FABRICATED STRUCTURAL STEEL PLATFORM WITH FULL-PERIMETER SUPPORT RAILS IN MECHANICAL YARD; RE: STRUCTURAL PLANS.
- APPROXIMATE WEIGHT INCLUDES SCHEDULED ACCESSORIES.
- PROVIDE REMOTE INTERFACE WITH A SPACE AND HUMIDITY SENSOR WITH USER ADJUSTABLE SETPOINT AND DIGITAL DISPLAY.
- USE ONLY COPPER SUPPLY WIRING WITH AMPACITY BASED ON 75°C CONDUCTOR RATING; CONNECTIONS TO TERMINALS SHALL BE MADE WITH COPPER LUGS AND COPPER WIRE - COORDINATE WITH ELECTRICAL CONTRACTOR.
- PROVIDE STAND-ALONE DDC CONTROLS WITH THE FOLLOWING FACTORY INSTALLED SENSORS: LEAVING COIL/ENTERING FAN, BUILDING STATIC PRESSURE, DISCHARGE AIR TEMPERATURE, OUTSIDE AIR TEMPERATURE, DIRTY FILTER ON/OFF SWITCH, AIR FLOW PROVING SWITCH, LEAVING COIL/ENTERING FAN TEMPERATURE, RETURN AIR TEMPERATURE, SUPPLY LEAVING WHEEL TEMPERATURE, EXHAUST LEAVING WHEEL TEMPERATURE, AND RETURN AIR RELATIVE HUMIDITY. DOAS SHALL BE INTERLOCKED WITH 7-DAY PROGRAMMABLE TIMECLOCK FOR SCHEDULING.
- PROVIDE FIELD POWERED 115V WEATHERPROOF GFI RECEPTACLE.

AIR DISTRIBUTION DEVICE SCHEDULE									
TYPE	DESCRIPTION	MOUNTING	MANUFACTURER CATALOG NO.	MATERIAL	FINISH	ACCESSORIES/REMARKS			
D1	SQUARE CEILING SUPPLY DIFFUSER	LAY-IN CEILING	PRICE ASCD	ALUMINUM	BAKED WHITE ENAMEL	24/24 FULLY LOUVERED PANEL; 10" DIAMETER NECK UNLESS NOTED OTHERWISE; 4-WAY THROW; SQUARE TO ROUND NECK ADAPTOR AS REQUIRED			
D2	SQUARE CEILING DIRECTIONAL CORE SUPPLY DIFFUSER	LAY-IN CEILING	PRICE AMD	ALUMINUM	BAKED WHITE ENAMEL	24/24 FULLY LOUVERED PANEL; NECK SIZE AS INDICATED; THROW AS NOTED/INDICATED; SQUARE TO ROUND NECK ADAPTOR AS REQUIRED; TYPE 1 ALUMINUM SURFACE MOUNT PLASTER FRAME W/CONCEALED FASTENERS AS REQUIRED FOR RIGID CEILING.			
D3	SQUARE CEILING DIRECTIONAL CORE SUPPLY DIFFUSER	CEILING SURFACE	PRICE AMD	ALUMINUM	BAKED WHITE ENAMEL	12/12 FULLY LOUVERED PANEL; NECK SIZE AS INDICATED; THROW AS NOTED/INDICATED; SQUARE TO ROUND NECK ADAPTOR AS REQUIRED; TYPE 1 ALUMINUM SURFACE MOUNT PLASTER FRAME WITH CONCEALED FASTENERS			
D4	LINEAR SLOT CEILING SUPPLY DIFFUSER	LAY-IN CEILING	PRICE SDB100/4/14/10"	ALUMINUM	BAKED WHITE ENAMEL	48" LONG; (4) 1" SLOTS; SBDI INSULATED PERFORMANCE PLENUM WITH 10" INLET; TYPE 12 T-BAR FRAME COMPATIBLE WITH LAY-IN CEILING (RE: ARCH ROP); TYPE Z FLUSH END CAPS			
D5	SIDEWALL SUPPLY DIFFUSER	WALL SURFACE	PRICE 620DAL/W/S	ALUMINUM	PAINT GRIP MILL FINISH FOR FIELD PAINTING	DOUBLE-DEFLECTION; HORIZONTAL FRONT AND VERTICAL REAR VANES AT 22 1/2° DEFLECTION; ALUMINUM OBD; SIZE AS INDICATED ON PLAN.			
G1	CEILING RETURN/EXHAUST GRILLE	CEILING LAY-IN	PRICE 800-TB	ALUMINUM	BAKED WHITE ENAMEL	24/24 PANEL; 1/2" X 1/2" X 1/2" EGG CRATE CORE; ALUMINUM OPPOSED BLADE DAMPER ADJUSTABLE THROUGH FACE; LAY-IN T-BAR PERIMETER BORDER/FRAME			
G2	CEILING RETURN/EXHAUST GRILLE	CEILING LAY-IN	PRICE 800-TB	ALUMINUM	BAKED WHITE ENAMEL	24/24 PANEL; 1/2" X 1/2" X 1/2" EGG CRATE CORE; ALUMINUM OPPOSED BLADE DAMPER ADJUSTABLE THROUGH FACE; LAY-IN T-BAR PERIMETER BORDER/FRAME			
G3	CEILING RETURN/EXHAUST GRILLE	CEILING SURFACE	PRICE 80D	ALUMINUM	BAKED WHITE ENAMEL	12/12 PANEL; 1/2" X 1/2" X 1/2" EGG CRATE CORE; TYPE 1 ALUMINUM SURFACE MOUNT PLASTER FRAME WITH CONCEALED FASTENERS; ALUMINUM OPPOSED BLADE DAMPER ADJUSTABLE THROUGH FACE			
G4	LINEAR SLOT CEILING RETURN GRILLE	CEILING SURFACE	PRICE SDR100/4/7	ALUMINUM	BAKED WHITE ENAMEL	48" LONG; (4) 1" SLOTS; TYPE 7 FLANGE SURFACE MOUNT CONCEALED MOUNTING FRAME WITH TYPE XX MITERED END FLANGE; PERFORMANCE PLENUM WITH 10" OULTE.			
G5	SIDEWALL RETURN GRILLE	WALL SURFACE	PRICE 630DAL	ALUMINUM	BAKED WHITE ENAMEL	HORIZONTAL VANES 3/4" ON CENTER AT 45 DEGREE DEFLECTION; SIZE AS NOTED; ALUMINUM OBD; FLAT SURFACE MOUNT FRAME			

NOTES:

- REFERENCE THE ARCHITECTURAL REFLECTED CEILING PLAN TO CONFIRM AIR DEVICE MOUNTING TYPES, PERIMETER FRAME TYPE REQUIRED AND LOCATIONS PRIOR TO ORDERING AIR DEVICES. PROVIDE SURFACE MOUNT PLASTER FRAMES WITH CONCEALED FASTENERS FOR ALL LAY-IN T-BAR DEVICES INSTALLED IN RIGID CEILINGS AND FOR ALL AIR DEVICES SMALLER THAN FULL T-BAR GRID DIMENSIONS.
- PROVIDE ALUMINUM OPPOSED BLADE DAMPERS IN RETURN GRILLE NECK/THROAT ONLY WHERE DUCT MOUNTED MANUAL VOLUME DAMPERS CANNOT BE INSTALLED.
- SEE HVAC GENERAL NOTES FOR DAMPER GEAR OPERATORS, FLEXIBLE SHAFT EXTENSIONS, ETC.
- PROVIDE THE FOLLOWING CORE STYLES FOR DIRECTIONAL CORE DIFFUSERS D2 AND D4 THROW LISTED/INDICATED (UNLESS NOTED OTHERWISE ON PLAN): 1-WAY = STYLE 1S; 2-WAY = STYLE 2S; 3-WAY = STYLE 3A
- ALL BRANCH DUCT RUNOUTS TO D6 SLOT DIFFUSERS SHALL HAVE ALUMINUM OPPOSED BLADE DAMPERS WITH REMOTE DAMPER GEAR OPERATORS, LINKAGE, SHAFT EXTENSIONS, ETC. PER HVAC GENERAL NOTE 13 UNLESS SPECIFICALLY NOTED OTHERWISE ON PLAN.

HVAC LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SUPPLY AIR DIFFUSER OR DUCT		MINISPLIT AIR-COOLED HEAT PUMP
	RETURN AIR GRILLE, REGISTER OR DUCT		ENTERING AIR TEMPERATURE
	EXHAUST AIR GRILLE, REGISTER OR DUCT		LEAVING AIR TEMPERATURE
	ADJUSTABLE SPLITTER TEE W/TURNING VANES (SA ONLY)		SUPPLY AIR
	DUCT TRANSITION - CONCENTRIC, ECCENTRIC		RETURN AIR
	UNDERGROUND DUCT		EXHAUST AIR
	FLEXIBLE DUCT		OUTSIDE AIR
	LINED DUCTWORK		OPPOSED BLADE DAMPER
	ELBOW W/DOUBLE THICKNESS VANES		UNDER FLOOR
	MANUAL VOLUME DAMPER		EXISTING
	MOTORIZED DAMPER		CONNECT TO EXISTING ADJUSTABLE SCOOP
	THERMOSTAT/ROOM TEMPERATURE SENSOR		MANUAL SPLITTER
	FIRE DAMPER		HUMIDISTAT
	REFRIGERANT LIQUID SUCTON		OPEN SITE DRAIN
	REFRIGERANT SUCTON		HUB DRAIN
	DRAIN LINE		CUBIC FEET PER MINUTE
	AUXILIARY DRAIN LINE		TYPICAL
	ABOVE FINISHED FLOOR		UNLESS NOTED OTHERWISE
	UNDER SLAB		VARIABLE FREQUENCY DRIVE
	EXHAUST FAN		SWING CHECK VALVE
	UNIT HEATER		PRESSURE REDUCING VALVE OR REGULATOR
	NIGHT SETBACK THERMOSTAT		SOLENOID VALVE
	ABOVE FINISHED FLOOR		GRAVITY BACKDRAFT DAMPER
	CARBON DIOXIDE SENSOR		VARIABLE-SPEED HEAT PUMP
	MINISPLIT AIR HANDLING UNIT		VARIABLE-SPEED AIR HANDLING UNIT

NOTE: NOT ALL SYMBOLS USED.

MISCELLANEOUS	
	DETAIL NUMBER
	SHEET NUMBER
	AIR DEVICE DESIGNATION
	SECTION DESIGNATION

300 CFM - AIRFLOW  
D1, 10" - DEVICE DESIGN, NECK SIZE (TYPE 4)  
"A" - QUANTITY (IF MORE THAN ONE)

VARIABLE SPLIT SYSTEM HEAT PUMP SCHEDULE			
MARK - INDOOR UNIT	HPAHU - 'A'	HPAHU - 'B'	HPAHU - 'C'
LOCATION	REFER DRAWINGS VERT DRAW THRU	REFER DRAWINGS VERT DRAW THRU	REFER DRAWINGS VERT DRAW THRU
FAN			
AIRFLOW	CFM 1050/900/750	1525/1290/1060	1800/1530/1260
ESP	IN WG 0.1 - 0.9	0.1 - 0.9	0.1 - 0.9
OUTSIDE AIR	CFM N/A	N/A	N/A
DRIVE TYPE / SPEEDS	DIRECT / ADJ 1/2	DIRECT / ADJ 3/4	DIRECT / ADJ 1
MOTOR			
COOLING	HP		
AIRFLOW	CFM 1050	1525	1800
EAT (DB/WB)	F 74.0/62.0	74.0/62.0	74.0/62.0
RATED COOLING CAPACITY	MBH 29.4	39.2	49.0
SENSIBLE CAPACITY	MBH 20.1	28.2	36.0
AMBIENT AIR TEMPERATURE	F 100	100	100
HEATING			
AIRFLOW	CFM 1050	1525	1800
EAT	F 70	70	70
RATED HEATING CAPACITY	MBH 41.1	55.5	70.0
SOURCE AIR TEMPERATURE	F 47	47	47
SUPPLEMENTARY ELECTRIC HEAT	N/A	N/A	N/A
ELECTRICAL			
VOLTS / PHASE	208 / 1	208 / 1	208 / 1
MCA	AMP 4.9	6.5	8.6
MOP	AMP 15.0	15.0	15.0
MANUFACTURER	"DAIKIN"	"DAIKIN"	"DAIKIN"
MODEL NO	RXTA 36 AAVJU	RXTA 48 AAVJU	RXTA 60 AAVJU
MARK - OUTDOOR UNIT	HP - 'A'	HP - 'B'	HP - 'C'
NOMINAL TONS	3	4	5
REFRIGERANT	R32	R32	R32
NUMBER OF COMPRESSORS	ONE	ONE	ONE
SER2 / IER (DUCTED)	23 / 16	20 / 16	20.5 / 16
GAS PIPE CONNECTION	IN 5/8"	5/8"	5/8"
LIQUID PIPE CONNECTION	IN 3/8"	3/8"	3/8"
CONDENSATE DRAIN (MIN)	IN 1"	1"	1"
COOLING INPUT POWER	KW 3.13	4.85	4.85
HEATING INPUT POWER	KW 3.12	4.00	4.00
VOLTS / PHASE	208 / 1	208 / 1	208 / 1
MCA	16.5	29.1	29.1
MOP	25.0	35.0	35.0
MANUFACTURER	"DAIKIN"	"DAIKIN"	"DAIKIN"
MODEL NO	FXTA 36 AAVJUD	FXTA 48 AAVJUD	FXTA 60 AAVJUD
HSPF	9.5	9.5	9.5

THE MECHANICAL CONTRACTOR SHALL COORDINATE THE EXACT VOLTAGE & PHASE OF EACH AND EVERY EQUIPMENT ITEM WITH THE ELECTRICAL CONTRACTOR, PRIOR TO ORDER. ELECTRICAL DESIGN, PANEL/SERVICE LOADS AND POWER SUPPLY CONDUCTORS/CONDUIT SIZES ARE BASED UPON ABOVE SCHEDULED EQUIPMENT; MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR USING EQUIPMENT BY OTHER MANUFACTURERS; COORDINATE WITH ELECTRICAL CONTRACTOR ACCORDINGLY.

OUTDOOR DESIGN CONDITIONS: SUMMER - 100°F/80°F, WINTER - 18°F

NOTES:

- HEATING DATA TAKEN AT ARI CONDITIONS (LOW 70/17 AND HIGH 70/47)
- EXTERNAL STATIC PRESSURE DOES NOT INCLUDE FILTER, HEATER, WET COIL, AND ANY OTHER PRESSURE DROPS INTERNAL TO THE UNIT.
- MANUFACTURER SHALL CERTIFY SYSTEM PERFORMANCE WITH REQUIRED EXTENDED LENGTH REFRIGERANT PIPING AND COMPONENTS; PROVIDE WRITTEN PERFORMANCE CERTIFICATION AND COMPLIANCE BASED ON ACTUAL REQUIRED LINE LENGTHS OF EACH SYSTEM.
- SUPPLY FAN DRIVE SHALL BE VARIABLE SPEED ECM.
- REFRIGERANT PIPING SHALL BE SIZED BY MANUFACTURER BASED ON ACTUAL LINEAR LINE LENGTHS. PROVIDE REFRIGERANT "LONG-LINE" COMPONENTS AS REQUIRED BY FIELD ROUTING AND ACTUAL INSTALLATION REQUIREMENTS OF PIPING. SUBMIT PIPING DIAGRAM INCLUDING PROPOSED LINE LENGTHS, ELEVATION OFFSETS AND SIZES WITH SHOP DRAWING SUBMITTAL.
- PROVIDE 2" FILTER RACKS WITH HINGED ACCESS & THREE SETS OF 30% EFF PLEATED 2" THICK FILTERS IN ADDITION TO START-UP FILTERS.
- PROVIDE LOW AMBIENT CONTROL FOR COOLING TO 30° AMBIENT, HIGH CAPACITY FILTER DRYERS, CRANKCASE HEATERS, ANTI-SHORTCYCLE TIMER.
- HEAT PUMPS SHALL INCLUDE VARIABLE-SPEED INVERTER CONTROLLED COMPRESSORS, FACTORY FULL HALL GUARDS AND COIL GUARDS.
- PROVIDE MINIMUM 10 YEAR FULL COMPRESSOR WARRANTY, INCLUDING REFRIGERANT, PARTS & LABOR - NON PRORATED.
- SCHEDULED COOLING CAPACITIES ARE NET FOR HIGH STAGE.
- PROVIDE INTUITIVE TOUCHSCREEN AUTO-CHANGEOVER MULTI-STAGE WIFI BLUETOOTH THERMOSTAT WITH GUARD.
- REFRIGERANT SHALL BE R32 OR EQUIVALENT.
- PROVIDE FACTORY DISCONNECT SWITCH ON EACH OUTDOOR HEAT PUMP.

HEAT PUMP AIR HANDLING UNITS (HPAHU/HP) H-WING					
ROOM NUMBER	ROOM FUNCTION	AIR HANDLING UNIT	HEAT PUMP	SYSTEM NOMINAL TONNAGE	HPAHU/HP TYPE
H107	CLASSROOM	HPAHU-H1	HP-H1	4	B
H108	CLASSROOM	HPAHU-H2	HP-H2	4	B
H106	CLASSROOM	HPAHU-H3	HP-H3	3	A
H109	CLASSROOM	HPAHU-H4	HP-H4	3	A
H105	CLASSROOM	HPAHU-H5	HP-H5	3	A
H110	CLASSROOM	HPAHU-H6	HP-H6	3	A
H104	CLASSROOM	HPAHU-H7	HP-H7	3	A
H111	CLASSROOM	HPAHU-H8	HP-H8	3	A
H103	CLASSROOM	HPAHU-H9	HP-H9	4	B
H112	COMPUTER CLASSROOM	HPAHU-H10	HP-H10	5	C
H102	CLASSROOM	HPAHU-H11	HP-H11	4	B
H113	ART	HPAHU-H12	HP-H12	4	B
H114	WORK ROOM/CONTROL	HPAHU-H12	HP-H12	4	B
H115	ART CLASSROOM	HPAHU-H13	HP-H13	5	C
H101	CORRIDOR	HPAHU-H14	HP-H14		
H118	JANITOR	HPAHU-H14	HP-H14		
H119	STAFF TOILET	HPAHU-H14	HP-H14	5	C
H120	MENS	HPAHU-H14	HP-H14		
H121	WOMENS	HPAHU-H14	HP-H14		
H100	CONNECTING CORRIDOR	HPAHU-H15	HP-H15	5	C

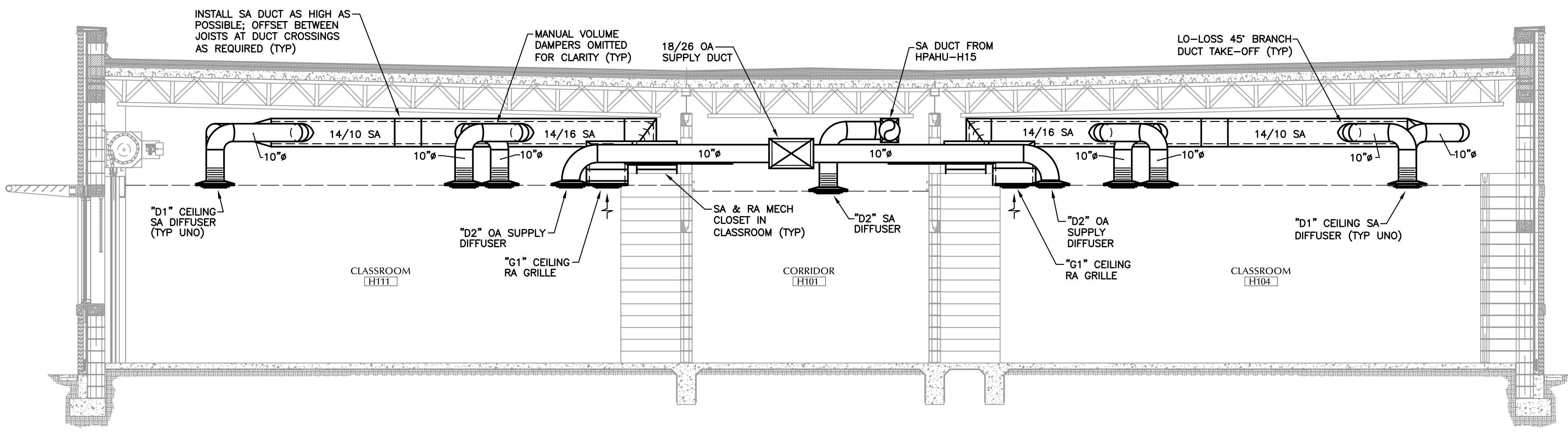
+MINI-SPLIT HEAT PUMP SYSTEM UNIT SCHEDULE														
INDOOR UNIT*					OUTDOOR UNIT**									
DESIGN	BLOWER CFM	SOUND PRESSURE (dBA)	VOLTS/PH	COOLING MBH	EAT (DB/WB)	HEATING MBH@47	DAIKIN(+) MODEL	DESIGN	COOLING MBH	O/A TEMP	SEER	VOLTS/PH	MCA/MOP	DAIKIN(+) MODEL
MS-H1	132-473	19-45	208/1	13.3/12.0	80/67	16.4	ENTRA R-32 FTXC12AXVJU	MSPH-H1	13.3/12.0	95/14	18.0	208/1	9.36/15.0	RXC12AXVJU

THE MECHANICAL CONTRACTOR SHALL COORDINATE THE EXACT VOLTAGE & PHASE OF EACH AND EVERY EQUIPMENT ITEM WITH THE ELECTRICAL CONTRACTOR, PRIOR TO ORDER.

\* INDOOR AIR UNIT SHALL INCLUDE: WIRELESS INTERFACE ADAPTOR, ENVI INTELLIGENT THERMOSTAT KIT WITH TOUCHSCREEN THERMOSTAT (WIRELESS AND BLUETOOTH COMPATIBLE), INLINE OR INTEGRAL CONDENSATE PUMP(PUMP MUST HAVE MINIMUM 48" OF LIFT), PHOTOCATALYTIC AIR-PURIFYING FILTER.

\*\* OUTDOOR UNIT SHALL INCLUDE: AIR DIRECTION ADJUSTMENT GRILLE, BML DRAIN PAN HEATER, FIELD-FABRICATED LOUVERED HALL GUARDS POWDER-COATED TO MATCH EQUIPMENT HOUSING FACTORY FINISH, EACH SYSTEM SHALL INCLUDE START-UP BY FACTORY AUTHORIZED TECHNICIAN; PROVIDE START-UP REPORT WITH PROJECT O&M MANUALS AND CLOSE-OUT DOCUMENTS.

+ SYSTEM FEATURES: R-32 REFRIGERANT, SWING COMPRESSOR WITH INVERTER; AUTO-DEFROST, AUTO-FAN SPEED AND AUTO-RESTART AFTER POWER FAILURE; POWER AIRFLOW BAFFLE; TITANIUM APATITE AIR PURIFYING FILTER; SELF-DIAGNOSIS; MINIMUM 10 YEAR PARTS AND COMPRESSOR WARRANTY.



TYPICAL CLASSROOM HVAC SECTION

1/4"=1'-0"



735 ROBINHOOD STREET SHREVEPORT, LA 71106



NEW CLASSROOM / TORNADO SHELTER ADDITION FOR BENTON HIGH SCHOOL BOSSIER PARISH SCHOOL BOARD 449 FAIRBURN AVENUE BENTON, LOUISIANA 71006

JOB NO. 2511

REVISIONS:

14 JAN 2026

SHEET



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