

ADDENDUM No. 2

TO THE DRAWINGS AND PROJECT MANUAL FOR THE

DRC-23L009 LoCI AUTO SCHOOL

State of Ohio, Department of Rehabilitation and Correction

October 15, 2025

**RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED ON
DOCUMENT 00 41 13 – BID FORM**

TO ALL BIDDERS:

This Addendum supplements and amends the Original Drawings and Project Manual dated August 25, 2025 and potentially Addendum#1 and shall be taken into account in preparing proposals and hereby become part of the Contract Documents. Questions that came in after 10/13 may not be included in this addendum.

General Project Clarifications include the following:

1. Pre-con Mtg EEO Handout 2024 State Logo included
2. The Drug-free program name in the original procurement and contract documents has changed to the Substance use Prevention and Recovery (SUPR) Program.
3. Note 11 on drawing C-110 shall be omitted.
4. On Drawing C130 note 3 calls for a 1,250 gal oil separator. There is a callout on C-130 calling for an off-the-shelf product or approved equal.
5. For Alternate #2, assume the interior side of block is to be painted per I-111.
6. Provide conduit from thermostat to the piece of equipment it controls for the control wiring. Thermostats and equipment are identified on the mechanical drawings.
7. Contractor shall include in base bid 3500 cubic yards of soil removal followed by replacement with properly and compacted engineered fill. This includes soils below the building slab-on-grade and below the anticipated subgrade elevations in pavement areas. Refer to Sections 4.2 and 4.4 in the geotechnical report for additional information.
8. Contractor shall include in base bid 375 cubic yards of soil removal below foundation bearing elevation followed by backfilling with low strength mortar (LSM). See Section 4.1 in the geotechnical report for additional information.

RFI Questions and Responses are as follows:

1. Is the GC installing the site gas line or will the utility company do so? Note #4 on C-130 indicates contractor is to locate the existing line (215' or so away), but is unclear who is responsible to run the line.
Response: The contractor will install the line per the utility requirements.
2. Please confirm that the only provisions we should include in our bid to deal with poor soils is to plan on removing 3' of fill under the building. We are not to include any poor soil / soft spot removal under paved areas. The total "poor soil" quantities for the whole project are: 1) Remove 2,500 cy of material and hauled off site & 2) Place 2,000 cy of engineered fill imported.
Response: The area for poor soils corresponds to the building and the site. The Bid Form (Document 00 41 13) provided states that Unit Price A will be for the "Cost of undercutting and removing unsuitable subgrade soils and replacing with TX 160 Geogrid and ODOT 304 aggregate base material, as directed by the engineer." The unit of measurement is square yard at 24" deep. A Unit Price B has also been added to address poor soils at the foundations beyond what is called out for base bid on S-101.
3. The phone number provided on item 7-c) of the Pre-bid meeting agenda, appears to be disconnected "614-752-9292".
Response: This number should be revised to read: "614-466-2785".
4. We are unable to find section 9.47 ORC it appears to be deleted, please confirm if this requirement was listed in error? And if not, how to obtain such certification/apply for one.
Response: Replace "issued pursuant to Section 9.47 ORC by the State Equal Opportunity Center." with: "See attachment for Contractor EEO compliance requirements."
5. On the mezzanine framing plan sheet S-111, there are several tube steel columns that are unidentified. Examples are bubbled on the attached dwg. These do not appear to be a part of the PEMB steel, but are added to frame the mezzanine. Please let us know what these should be.
Response: See revised Sheet S-111.
6. Per Addendum 1 the questions show that changes were made on the drawings. Can you please provide the drawings because they were not with the addendum.
Response: There were no drawings intended for recirculation in Addendum #1, just referenced to.
7. Can you please clarify the construction of the exterior building mounted sign shown on the south elevation on A-201, and in detail D3/A-501? It appears to be a sign cabinet with a retainer, but it doesn't call out at all the construction, and whether or not the sign is illuminated. Please advise
Response: This is intended as non-illuminated, exterior signage. See new section 10 14 23 - PANEL SIGNAGE attached to this addendum #2.
8. Are the car lifts the only items from the FF&E plan A-103 that the GC is responsible for installing? Install by the GC is not indicated for anything else
Response: Correct, that is the established scope. Note revised A-103 sheet attached: the GC must also relocate the lifts from their original site on campus.
9. Please confirm what level of gyp board finish you would like on the ceiling and walls that are exposed.
Response: See 09 29 00.3.6.D.
10. What does MB-1 stand for on page I-203? Is there a spec for this?
Response: Marker Board. See I-102 and attached specification section 101100 - VISUAL DISPLAY UNITS
11. In the bidding notes, it states that the UPS and power strips are by the TC; however, in the rack elevation, it mentions "UPS by owner."

Response: Rack mount UPS is Owner provided.

12. There are several items in the specs that call for delegated design and just want to make sure you want these items stamped by a PE or if shop drawing are sufficient? Snow guards, dimensional letter signage, grab bars, wire mesh partitions, metal ducts, hanger and supports for electrical systems, hangers and supports for communication systems.

Response: These should be confirmed in each applicable spec section under required submittals and meet the criteria of section 014000.1.3.

13. Please confirm if you are intending on the PEMB structure to be painted?

Response: Yes, if the question is about internal structure, per A-122.

14. Referring to question 11 in addendum 1. The utility company won't let us touch their line before the gas meter. They won't even give us rough budget as our name isn't on the account. They will only give that information to the account holder. Would we be able to include an allowance to carry in our bid to cover this work before the gas meter?

Response: Similar to Question #1: The gas utility has a single master meter that serves the entire site at the site entrance. They consider the gas lines on the site "house lines" that are owned and maintained by the landowner. In this case, the utility's only concern is that the proposed gas loads combined with the existing gas loads don't exceed the supply. Once that requirement is met, their position is that the "house lines" are the landowner's responsibility. Therefore, the contractor will need to coordinate with the utility, but the contractor will be responsible for tapping the existing and installing the new "house lines" per the gas utility's requirements.

15. What does OPI stand for on page A-103?

Response: Ohio Penal Industries. This just means owner at this point in the project's design development.

16. Please confirm that the HVAC temperature controls are stand-alone and do not tie into a local or campus-wide BAS.

Response: These are Stand Alone.

17. Question: Alternate #2, will a brick masonry unit basis of design and size be provided?

Response: Yes, See revised specification section 04 20 00 – Unit Masonry attached.

18. Question: Spec 402000-part 2.4 Concrete Masonry Units, B, clarify if all CMU for this project require being manufactured with IWR additive.

Response: IWR required at all exterior masonry walls required for Alternate #2. See revised specification section 04 20 00 – Unit Masonry attached.

19. Question: Spec 071900 Water Repellents, clarify if all CMU require post applied sealer or does this only apply to the alternate #2 brick veneer. The room finish schedule indicates all walls to be painted.

Response: Required at all exterior masonry walls required for Alternate #2 only.

20. We are looking to potentially bid this project as a sub-contractor. Is there a way to get access to the drawings? We have a salesforce login but it gives me an error when I log in.

Response: Check with Bidexpress. GPD is unfamiliar with any other Plan Room sites.

21. Please confirm if there are any storage tanks, gas-diesel tanks, water tanks, fire suppression tanks, wastewater tanks.

Response: Refer to the Existing Conditions Exhibit, prepared by Dynotec and dated 1/30/25 for a depiction of existing conditions. Additionally, refer to note #3 on sheet C-110.

22. The existing asphalt drive. How should be handle the repair of this at the completion of the project? With the heavy equipment / concrete trucks etc we will cause damage to this and just want to confirm who is to repair this.

Response: The contractor is responsible for any off-site restoration required. Refer to plan notes on sheets C-100 and C-110.

23. Please advise if the LoCI Facility/prison has any preferred HVAC Controls vendors we need to reach out to?

Response: Trane

24. Will background checks be required and if so, what is the procedure?

Response: See Addendum#1. There is a form that requires filled out and submitted to ODRC.

25. Will institutional sprinkler heads be required in areas with ceilings?

Response: No, these are not required.

26. Page S-101: Note 4 at the bottom right of the page. If there is more than 2,500 CY of material that needs to be removed, will this be pulled out of an allowance?

Response: See attached, revised 01 21 00 Allowances section. See revised sheet S-101 and clarification items 7 and 8 above for additional information.

Changes to the Project Manual include the following:

1. Specification Section 26 09 24 Lighting Controls: Add Cooper Lighting Solutions as a System Manufacturer under Basis of Design System.
2. Specification Section 10 14 23 - Panel Signage: Added as a New Section.
3. Specification section 10 11 00 - Visual Display Units: Added as a new section.
4. Specification section 04 20 00 - Unit Masonry: Revised to include brick criteria.
5. Specification section 01 23 00 - Alternates: Revised to include new Alternate #6 (Technology Site Conduit Routing).
6. Specification section 01 21 00 - Allowances: #1 revised to include foundation scope.
7. Contract section 01 23 00 - Bid Form Revised to include new Alternate #6 (Technology Site Conduit Routing).
8. Contract section 00 10 00 -Solicitation: Revised to include new Alternate #6 (Technology Site Conduit Routing).
9. Contract section 01 22 00 - Unit Prices: Revised to include new Unit Price B.

Changes to the Drawings include the following:

1. S-101: Revised Sheet
2. S-111: Revised Sheet
3. S-201: Revised Sheet
4. S-202: Revised Sheet
5. A-103: Revised Sheet
6. A-201: Revised Sheet:
7. A-501: Revised Sheet
8. A-601: Revised Sheet
9. P-101: Revised Sheet
10. P-102: Revised Sheet
11. P-701: Revised Sheet
12. P-702: Revised Sheet
13. T-001: Revised bidding note for Owner provided UPS.
14. T-401: Revised backbone diagram for Bid Alternate 6 scope.
15. TSP-101: Revised site conduit routing for Bid Alternate 6 scope.



Substitution Requests

1. PEMB- Schulte Building Systems is requested to be considered for section 13 34 19.
Response: Subject to the design requirements, this manufacturer may be considered for use in the bid.
2. Carrier / Bryant approved for the gas furnaces and split systems?
Response: This manufacturer may be considered for use in the bid.
3. Scranton Products is requested be considered for section 10 21 13.17 - Phenolic -Core Toilet Compartments
Response: Subject to the design requirements, this manufacturer may be considered for use in the bid.
4. Scranton Products is requested be considered for section 10 51 13 - Metal Lockers
Response: Subject to the design requirements, this manufacturer may be considered for use in the bid.

Contractors' AA/EEO Responsibilities – State and state assisted construction projects

All contractors shall comply with Equal Employment Opportunity (EEO) and Affirmative Action requirements while performing on state and state assisted construction contracts pursuant to Ohio Administrative Code (OAC) 123:2-3 through 123:2-11, Ohio Revised Code 125.111 and 153.59.

Construction Sites: Lead contractor to ensure all subcontractors are in compliance with applicable requirements

All companies are mandated to maintain a working environment free of discrimination, harassment, and Intimidation. Contractors shall **Post** and **Maintain** on the job site, the following:

- Each company's EEO Policy Statement, Sexual Harassment/Anti-Harassment Policy
 - Ohio Posters – Minimum Wage, EEO is the Law, Minor Laws and Notice to Employees-Unemployment Compensation
 - Federal Labor Law Posters – Minimum Wage (FLSA), Job Safety and Health, "It's the Law!" (OSHA 3165), Employee Polygraph Act (EPPA), Equal Employment Opportunity Is the Law (EEO), Family and Medical Leave Act (FMLA), and the Uniformed Services Employment and Reemployment Rights Act (USERRA).
- Where a company's workforce is not proficient in English, the company **must** provide the posters and policies in the language the employee(s) speak(s).
- **Posters and policies must be posted in a prominent and accessible place where it may be easily seen by employees. The posters and policies cannot be in a folder, manual, truck cab, toolbox, or not displayed.**
- Lead contractors may need to provide a neutral location for all subcontractors to post required postings.

Certificate of Compliance with an Affirmative Action Program (OAC 9.47)

All lead contractors must secure a valid Certificate of Compliance from the Ohio Department of Development. The application must be filed electronically through the Ohio Business Gateway (OBG), <https://gateway.ohio.gov>. Ohio DOD will evaluate the application to determine the following.

- Does the company meet all applicable Affirmative Action Program requirements?
 - Has the company been found in violation of any AAP requirements with other governmental agencies?
 - Are there any discrimination complaints filed against the company?
 - Did the company have hiring opportunities while performing on state construction contracts?
 - Did company comply with the work hour utilization reporting (Input Form 29) requirement?
 - Is the company under any agreement or corrective action plan with any governmental agency?
- No lead company will be awarded a state contract without securing an approved Certificate of Compliance.

Affirmative Action/Equal Employment Opportunity Responsibilities

Companies with fifty or more employees and a state contract of \$50,000 (50/\$50,000) or more or has a state contract that exceeds \$500,000 regardless of the number of employees must have an Affirmative Action Program.

All companies **must** comply with AA/EEO requirements while performing on a state or state-assisted construction contracts. The affirmative action requirements for companies include the following:

- Workhour utilization goals for minorities; and
- Workhour utilization goals for women during the performance of a state contract.

The female utilization goal is **6.9%** and the minority goal(s) is a minimum of **10%** for **All Trades**.

Utilization Goal Achievement

Pursuant to rule 123:2-3-02(A)(b) of the Ohio Administrative Code (OAC), companies **must meet** the state workhour utilization goals. When the goals are not met, companies **must** be able to demonstrate good faith efforts and the specific steps taken toward achievement of the state's workhour utilization goals.

A company will have met the goals of an AAP, either the state's AAP or a company developed and state approved AAP, if the company can establish one of the following:

1. The company's workhours utilization for minorities and women meet or exceed the goals of the AAP for the total of all the company's projects within the designated geographic areas.
2. The company is a member of a contractor association or other employer organization which has as one of its purposes expanded workhours utilization for minorities and women and the total workhours utilization of minorities and women, by all member contractors and subcontractors of the association or organization on all projects in which they are involved within the designated area, meet the workhour utilization goals for the designated geographic area.
3. The company has a collective bargaining agreement with a labor union that supplies the company with over 80 percent of the company's needed workforce and the total workhour utilization in the crafts the labor union has referred on all projects within the designated area meet the workhour utilization goals for the designated geographic area.

➤ **Sanctions and penalties may be imposed on any company that fails to meet the utilization goals.**

Work Hour Utilization Report - Input Form 29 (OAC 123:2-9-01)

All contractors regardless of the number of employees or the state contract amount are required to submit monthly utilization reports (Input Form 29) covering the contractor's total workforce (**public & private**) by trade within the state of Ohio.

The reports must be filed electronically by the 10th of each month, beginning with the contract award and continuing until the contractor or subcontractor completes performance of the state contract. Electronically submit Input Form 29 through EOD's webpage: <https://ohiobusinessgateway.ohio.gov>

**State of Ohio Construction Affirmative Action Program
77 South High Street Columbus, Ohio 43215**

<http://development.ohio.gov/business/construction-compliance>

EEO Poster Link:

<http://das.ohio.gov/employee-relations/policies/labor-employment-law-postings-requirements>

Ohio Facilities Construction Commission EEO Compliance Contact

David Moore, (614) 715-7866 - david.moore@ofcc.ohio.gov

Document 00 10 00 - Solicitation (General Contracting / Electronic Bid) State of Ohio Standard Requirements for Public Facility Construction

Electronic bids will be received by:

Ohio Facilities Construction Commission
<https://bidexpress.com>

for the following Project:

LoCI Auto School Building
1580 OH-56, London, OH 43140

in accordance with the Contract Documents prepared by:

GPD Group
520 S. Main Str, Akron, OH 44311
T: 216.927.8689
Rick DeMarco, Project Manager
rdemarco@gpdgroup.com
gpdgroup.com
c/c: Kevin Cummings, Architectural Lead
kcummings@gpdgroup.com

In compliance with Section 153.08 of the Ohio Revised Code and Section 153:1-8-01 of the Ohio Administrative Code, Bids for this Project are being received, opened, and published through electronic means using the State's electronic bidding service.

To access this Project through the electronic bidding service, you must first register at <https://bidexpress.com> by clicking on the "REGISTER FOR FREE" button and following the instructions. In order to bid, you must create and enable a digital ID within the service. This process requires the submission of notarized paperwork and may take up to five business days to complete. There are no fees to register, create and enable a digital ID, or to download bid documents. There is a small expense on a monthly or per bid basis to submit a bid. The electronic bidding service offers customer support that may be reached at 888.352.2439 or via email at support@bidexpress.com.

Bidders may submit requests for consideration of a proposed Substitution for a specified product, equipment, or service to the Architect/Engineer ("A/E") no later than 10 days prior to the bid opening. Additional products, equipment, and services may be accepted as approved Substitutions only by written Addendum.

From time to time, the Commission issues new editions of the "State of Ohio Standard Requirements for Public Facility Construction" and may issue interim changes. Bidders must submit Bids that comply with the version of the Standard Requirements included in the Contract Documents.

Prevailing Wage rates and Equal Employment Opportunity requirements are applicable to this Project.

This Project is subject to the State of Ohio's Encouraging Diversity, Growth, and Equity ("EDGE") Business Development Program. A Bidder is required to submit with its Bid and with its Bidder's Qualifications form, certain information about the certified EDGE Business Enterprise(s) participating on the Project with the Bidder. Refer to **Section 6.1.10** of the **Instructions to Bidders**.

The EDGE Participation Goal for the Project is **«5.0» percent**.

For more information about EDGE certification, contact the State of Ohio, Department of Development, Minority Business Division at www.minority.ohio.gov or email certifications@development.ohio.gov.

The Bidder may be subject to a Pre-Award Affirmative Action Compliance Review in accordance with Section 123:2-5-01 of the Ohio Administrative Code including a review of the Bidder's employment records and an on-site review.

The Bidder must indicate on the electronic Bid Form, the locations where its services will be performed in the spaces provided or by attachment in accordance with the requirements of Executive Order 2019-12D related to providing services only within the United States and the requirements of Executive Order 2022-02D prohibiting purchases from or investment in any Russian institution or company. Failure to do so may cause the Bid to be rejected as non-responsive.

DOMESTIC STEEL USE REQUIREMENTS AS SPECIFIED IN OHIO REVISED CODE SECTION 153.011 APPLY TO THIS PROJECT. COPIES OF OHIO REVISED CODE SECTION 153.011 CAN BE OBTAINED FROM ANY OF THE OFFICES OF THE OHIO FACILITIES CONSTRUCTION COMMISSION.

Bidders are encouraged to be enrolled in and to be in good standing in a Substance Use Prevention and Recovery (“SUPR”) Program approved by the Ohio Bureau of Workers' Compensation (“OBWC”) prior to submitting a Bid and provide, on the Electronic Bid Form with its Bid, certain information relative to their enrollment in such a program; and, if awarded a Contract, shall comply with other SUPR criteria described in **Section 1.6** of the **General Conditions**.

Electronic bids will be received for:

<u>Trade</u>	<u>Estimate</u>
General Contract	\$6,975,840
Alternate 1	\$30,000
Alternate 2	\$95,000
Alternate 3	\$10,000
Alternate 4	\$45,000
Alternate 5	\$14,000
Alternate 6	\$160,000

until **October 20, 2025, 1pm.**, when all Bids will be electronically opened. Bid tabulations will be posted no later than 5:00 p.m. on the day Bids are opened.

All Bidders are strongly encouraged to attend the Pre-Bid Meeting on **October 1, 2025, 9:30 am**, at the following location:
LOCI TEC Building, 1580 OH-56, London, OH 43140

**** ALL PARTIES WISHING TO ATTEND MUST REGISTER VIA EMAIL: rdemarco@gpdgroup.com**
TO ATTEND THE PRE-BID WALKTHROUGH**

THOSE REGISTERING MUST PROVIDE THE ATTENDEE’S NAME, COMPANY, AND EMAIL ADDRESS BY SEPTEMBER 26,
2025.

A MAXIMUM OF 2 PERSONS PER COMPANY WILL BE PERMITTED TO ATTEND THE IN-PERSON WALKTHROUGH.
*****ALL ATTENDEES MUST AVOID TAKING PHOTOS OF INMATES*****

The Contractor is responsible for scheduling the Project, coordinating the Subcontractors, and providing other services identified in the Contract Documents.

Bid advertisement will be published in the Columbus Dispatch.

The Contract Documents may be downloaded as electronic PDF files from the State’s electronic bidding service at <https://bidexpress.com> at no charge.

END OF DOCUMENT

Document 00 41 13 - Bid Form (General Contract / Electronic Bid)

State of Ohio Standard Requirements for Public Facility Construction

THIS SAMPLE BID FORM IS PROVIDED WITH THE PROJECT
MANUAL AS A PLACEHOLDER ONLY – SUBMIT YOUR BID USING
THE ELECTRONIC BID FORM ON [HTTPS://BIDEXPRESS.COM](https://bidexpress.com)

General Info	Alt Total:	Bid Total:
Deadline October 20, 2025, 1 PM EST	Description LoCI Auto School Building New PEMB building with (2) garages spaces and supporting general building and administrative spaces.	
Advertised September 22, September 29, and October 06, 2025		
Number DRC-23L009		
Business Name Ohio Department of Rehabilitation & Correction PO Box 430 Columbus Ohio 43216		

Procurement Documents
00 11 13 Advertisement for Bids
00 21 13 Instructions to Bidders
00 22 00 Supplementary Instructions
00 41 13 Bid Form
00 43 13 Bid Security Form
00 45 13 Bidder's Qualifications
00 45 39 EDGE Affidavit
00 52 00 Agreement Form
00 52 14 Subcontract Form (OAC 153:1-03-02)
00 61 13 Performance and Payment Bond Form
00 71 00 Contracting Definitions
00 72 13 General Conditions
00 73 00 Supplementary Conditions
00 73 43 Wage Rate Requirements
«4» Attachments

Contract Times and Addenda								
Contract Times The time for Substantial Completion of all Work is 364 consecutive days from the Notice to Proceed.								
Acknowledgement of receipt of Addenda								
<table><tr><td>Date Addendum #1 Received</td><td>Date Addendum #2 Received</td><td>Date Addendum #3 Received</td><td>Date Addendum #4 Received</td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table>	Date Addendum #1 Received	Date Addendum #2 Received	Date Addendum #3 Received	Date Addendum #4 Received				
Date Addendum #1 Received	Date Addendum #2 Received	Date Addendum #3 Received	Date Addendum #4 Received					

■ Allowance Instructions

Allowance amounts are fixed and no entry of data is required by the Bidder. Include each and every Allowance amount in the Base Bid. The Bidder's Fee (overhead and profit) and costs for unloading and handling on the Site, labor, installation costs, and other expenses contemplated for the Allowance must be included in the Base Bid and NOT in the Allowance amount.

■ Allowances (General Contract)

Item	Description	Allowance Amount*	Extension
Allowance 1	Undercutting & Removing unsuitable soils and replacing	\$50,000	-

■ Unit Price Instructions

Enter the price per unit of measure in the Bid Form and the extension will be automatically calculate. Include the Extension for each and every Unit Price in the Base Bid. Unit prices will be used solely for the purpose of determining the adjustment to the Contract Sum for differences between the estimated quantities on the electronic Bid Form and the actual quantities provided.

■ Unit Prices (General Contract)

Item	Description	Quantity	Unit Price*	Unit of Measure	Extension
Unit Price A	Cost of undercutting and removing unsuitable subgrade soils and replacing with TX 160 Geogrid and ODOT 304 aggregate base material, as directed by the engineer.	-	_____	Square Yards/24" Deep	
Unit Price B	Cost of undercutting and removing unsuitable subgrade soils and replacing with Compacted Granular Engineered Fill Or Low Strength Mortar (LSM) per S-101, Note 4.	-	_____	Cubic Yards	
«5» Items					Total:

■ Base Bid Instructions

Enter the amount of the Base Bid for ALL LABOR AND MATERIALS to complete the scope of Work. Include the amount of each Allowance (if applicable) and the subtotal of each Unit Price Extension (if applicable) in the Base Bid amount. Failure to include Allowance or Unit Price Extensions in the Base Bid is the responsibility of the Bidder and will not be sufficient reason for adjustment of the Bid amount after the Bid deadline. Do not include Alternates (if applicable) in the Base Bid amount.

■ Base Bid (General Contract)

Item	Description	Base Bid Amount*	Extension
Base Bid	All Labor and Materials (include Allowances and Unit Price Extensions above)	_____	

1 Item	Total:
▣ Alternate Instructions Enter the amount of each and every Alternate to ADD TO or DEDUCT FROM the Base Bid. Indicate amounts to DEDUCT FROM the Base Bid by entering a minus sign (-) before the amount entered. Do not include Alternate amounts in the Base Bid.	

▣ Alternates (General Contract)			
Item	Description	Alternate Amount*	Extension
! Alternate: Owner-agency may award independently from entire bid.			
! Alternates are not included in bid total.			
Alternate 1	Canopy		
Alternate 2	Masonry Wainscot		
Alternate 3	Building Color		
Alternate 4	Clerestory Windows		
Alternate 5	Office Casework & Plumbing		
Alternate 6	Technology Site Conduit Routing		
«5» Items		Alternate Total:	Total:

▣ Bidder Affirmation and Disclosure					
The Bidder acknowledges that by submitting its Bid, the Bidder has read and understands the applicable Executive Orders regarding the prohibitions of performance of offshore services, locating State data offshore in any way, or purchasing from Russian institutions or companies. If awarded a Contract, the Bidder will become the Contractor and affirms that both the Contractor and its Subcontractors shall perform no services requested under this Contract outside of the United States. The Bidder shall provide the locations where services under this Contract will be performed in the spaces provided below or by attachment. Failure to provide this information as part of its Bid may cause the Bidder to be deemed non-responsive and no further consideration will be given to its Bid. If the Bidder will not be using Subcontractors, indicate "Not Applicable" in the appropriate spaces.					
1. Principal business location of Contractor: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Contractor Address*</td> <td style="width: 50%; border: none;">City, State, and Zip*</td> </tr> <tr> <td style="border: 1px solid black; height: 25px;"></td> <td style="border: 1px solid black; height: 25px;"></td> </tr> </table>		Contractor Address*	City, State, and Zip*		
Contractor Address*	City, State, and Zip*				
Name / Principal business location of Subcontractor(s), if known at time of Bid deadline: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Subcontractor Name*</td> <td style="width: 50%; border: none;">Address, City, State, and Zip*</td> </tr> <tr> <td style="border: 1px solid black; height: 25px;"></td> <td style="border: 1px solid black; height: 25px;"></td> </tr> </table>		Subcontractor Name*	Address, City, State, and Zip*		
Subcontractor Name*	Address, City, State, and Zip*				
2. Location(s) where services will be performed by Contractor (Project Sites): <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Name*</td> <td style="width: 50%; border: none;">Address, City, State, and Zip*</td> </tr> <tr> <td style="border: 1px solid black; height: 25px;"></td> <td style="border: 1px solid black; height: 25px;"></td> </tr> </table>		Name*	Address, City, State, and Zip*		
Name*	Address, City, State, and Zip*				

Name(s) / Location(s) where services will be performed by Subcontractors (Project Sites):

Subcontractor Name**Address, City, State, and Zip**

3. Location(s) where State data will be located by Contractor:

Address***City, State, and Zip***

Location(s) where State data will be located by Subcontractor(s), if known at time of Bid deadline:

Subcontractor Name**Address, City, State, and Zip**

Bidder also affirms, understands and agrees that the Contractor and its Subcontractors are under a duty to disclose to the State any change or shift in location of services performed by the Contractor or its Subcontractors before, during and after execution of any Contract with the State. Bidder agrees it shall so notify the State immediately of any such change or shift in location of its services. The State has the right to immediately terminate the contract, unless a duly signed waiver from the State has been attained by the Contractor to perform the services outside the United States.

On behalf of the Bidder, I acknowledge that I am duly authorized to execute this electronic Bid Form including this Bidder Affirmation and Disclosure form and have read and understand that this form is a part of any Contract that Bidder may enter into with the State and is incorporated therein.

■ EDGE Program Commitment to Participate

Option A

The Bidder commits to meet or exceed the advertised EDGE Participation Goal of the Contract award amount, calculated as a portion of the Base Bid plus all accepted Alternates, by using EDGE-certified Business(es).

The Bidder agrees that if selected for consideration of the Contract, it shall provide (if not provided with the Bidder's Bid) to the Contracting Authority, at the location required and within 3 business days after receiving notice from the Contracting Authority, its fully completed Bidder's Qualification Form, including an EDGE Affidavit form for each EDGE-certified Business proposed for use by the Bidder if awarded the Contract for this Project.

Option B (indicate percentage of participation below)

The Bidder declares that it does not meet the advertised EDGE Participation Goal percentage, but, if awarded the Contract for this Project, commits to provide the percentage of the Contract award amount, indicated above, calculated as a portion of the Base Bid plus all accepted Alternates, by using EDGE-certified Business(es).

The Bidder acknowledges it understands the requirement for it to provide and agrees to provide to the Contracting Authority, if selected for consideration of the Contract, within 3 business days after notice from the Contracting Authority, a detailed Demonstration of Good Faith form describing its efforts undertaken prior to submitting its Bid to meet the advertised EDGE Participation Goal percentage for the Contract for this Project.

The Bidder commits to provide to the Contracting Authority at the location required, and within 3 days after receiving notice from the Contracting Authority, its fully completed Bidder's Qualifications Form, including an EDGE Affidavit form for each EDGE-certified Business proposed for use by the Bidder if awarded the Contract for this Project.

Option C

The Bidder declares that the Bidder is an EDGE-certified Business and that if awarded this Contract, the EDGE Participation percentage will be 100 percent of the Contract award amount.

Select EDGE option above*

Choices...

If option B selected, enter percentage

■ Certifications (State Prevailing Wages)

1. The Bidder has read and understands the proposed Contract Documents and agrees to comply with all requirements of the proposed Contract Documents, regardless of whether the Bidder has actual knowledge of the requirements and regardless of any statement or omission made by the Bidder, which might indicate a contrary intention.
2. The Bidder represents that the Bid is based upon the Basis of Design and Acceptable Components specified by the proposed Contract Documents.
3. The Bidder has visited the Site, become familiar with local conditions, and has correlated personal observations about the requirements of the proposed Contract Documents. The Bidder has no outstanding questions regarding the interpretation or clarification of the proposed Contract Documents.
4. The Bidder understands that the execution of the Project will require sequential, coordinated, and interrelated operations, which may involve interference, disruption, hindrance, or delay in the progress of the Bidder's Work. The Bidder agrees that the Contract Sum, as amended from time to time, shall cover all amounts due from the State resulting from interference, disruption, hindrance, or delay that is not caused by the State or its agents and employees. The Bidder agrees that any such interference, disruption, hindrance, or delay is within the contemplation of the Bidder and the State and that the Contractor's sole remedy from the State for any such interference, disruption, hindrance, or delay shall be an extension of time in accordance with the proposed Contract Documents.
5. During the performance of the Contract, the Bidder agrees to comply with Ohio Administrative Code ("OAC") Chapters 123:2-3 through 123:2-9 and agrees to incorporate the monthly reporting provisions of OAC Section 123:2-9-01 into all subcontracts on the Project, regardless of tier. The Bidder understands the State's Equal Opportunity Coordinator or the Contracting Authority may conduct pre-award and post-award compliance reviews to determine if the Bidder maintains nondiscriminatory employment practices, maintains an affirmative action program, and is exerting good faith efforts to accomplish the goals of the affirmative action program. For a full statement of the rules regarding Equal Employment Opportunity in the Construction Industry, see OAC Chapters 123:2-1 through 123:2-9.
6. The Bidder and each Person submitting a Bid on behalf of the Bidder certifies, and in the case of a Bid by a joint venture each member thereof certifies as to such member's entity, under penalty of perjury, that to the best of the undersigned's knowledge and belief: (a) the Base Bid, any Unit Prices, and any Alternate bid in the Bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition as to any matter relating to such Base Bid, Unit Prices or Alternate bid with any other Bidder; (b) unless otherwise required by law, the Base Bid, any Unit Prices and any Alternate bid in the Bid have not been knowingly disclosed by the Bidder and shall not knowingly be disclosed by the Bidder prior to the bid opening, directly or indirectly, to any other Bidder who would have any interest in the Base Bid, Unit Prices, or Alternate bid; (c) no attempt has been made or shall be made by the Bidder to induce any other Person to submit or not to submit a Bid for the purpose of restricting competition.
7. The Bidder shall execute the Agreement with the Contracting Authority, if a Contract is awarded on the basis of this Bid, and if the Bidder does not execute the Agreement for any reason, other than as authorized by law, the Bidder and the Bidder's Surety are liable to the State as provided in Article 5 of the Instructions to Bidders.
8. The Bidder certifies that the upon the award of a Contract, as the Contractor it shall make a good faith effort to ensure that all of the Contractor's employees, while working on the Site, shall not purchase, transfer, use, or possess illegal drugs or alcohol or abuse prescription drugs in any way.
9. The Bidder acknowledges that it read all of the Instructions to Bidders, and in particular, Section 2.10 - Submittals With Bid Form, and by submitting its Bid certifies that it has read the Instructions to Bidders and it understands and agrees to the terms and conditions stated in them.
10. The Bidder agrees to furnish any information requested by the Contracting Authority or the Architect/Engineer to evaluate the responsibility of the Bidder.
11. The Bidder agrees to furnish the submittals required by Section 6.1 of the Instructions to Bidders for execution of the Agreement within 10 days of the date of the Notice of Intent to Award.
12. When the Bidder is a corporation, partnership or sole proprietorship, an officer, partner or principal of the Bidder, as applicable, shall enter the legal name of the Bidder and the name of the officer, partner or principal of the Bidder (in lieu of signing the Bid Form) in the data fields provided.
13. When the Bidder is a joint venture, an officer, partner or principal, as applicable, of each member of the joint venture shall enter the legal name of the applicable member and the name of the officer, partner or principal (in lieu of signing the Bid Form) in the data fields provided.
14. The Bidder understands that the Contract is subject to all the provisions, duties, obligations, remedies and penalties of Ohio Revised Code Chapter 4115 and that the Bidder shall pay any wage increase in the locality during the term of the Contract.
15. The Bidder represents that the individual that is submitting and digitally signing the electronic Bid is legally authorized to do so.

16. Bidder acknowledges that by the act of submitting an electronic Bid that it is digitally signing the actual Bid, which shall serve as the Bidder's authorization for the further consideration and activity in the bidding and contract process.

☐

The Bidder hereby acknowledges that the above representations in this Bid are material and not mere recitals.*

☐

The Bidder hereby acknowledges that the above representations in this Bid are material and not mere recitals.*

■ Procurement Forms

Document 00 43 13 - Bid Security Form

→ Upload below and provide original document within 3 days

Document 00 45 13 - Bidder's Qualifications

→ Upload below or provide within 3 days of request

Document 00 45 39 - EDGE Affidavit

→ Upload below or provide within 3 days of request

3 Attachments

■ Instructions for Providing Bid Submittals

Submission of Electronic Facsimile of Bid Guaranty with Electronic Bid

The Bidder SHALL UPLOAD and ATTACH TO ITS BID an ELECTRONIC FACSIMILE (scanned PDF document) OF ITS BID GUARANTY, payable to the Contracting Authority, in the form of either: (1) the signed and sealed Document 00 43 13 - "Bid Security Form" contained in the Contract Documents (and provided for the Bidder's convenience in the block above) for the amount of the Base Bid plus all additive Alternates; or (2) a certified check, cashier's check, or letter of credit, for 10 percent of the Base Bid, plus all additive Alternates – a letter of credit shall expressly provide that it is revocable only by the Contracting Authority. Refer to Sections 2.10.1.1 and 5.1 of Document 00 21 13 - "Instructions to Bidders."

Submission of Original Bid Guaranty

In addition to the Electronic Facsimile above, the Bidder SHALL DELIVER ITS ORIGINAL UNALTERED BID GUARANTY to the Project Coordinator at the address identified below WITHIN 3 BUSINESS DAYS AFTER THE BID DEADLINE as provided in Ohio Administrative Code Section 153:1-8-01(H). THIS REQUIREMENT APPLIES TO ALL BIDDERS. Refer to Section 2.10.1.2 of the Instructions to Bidders.

Ohio Facilities Construction Commission

Sylvia Slivo

30 West Spring Street, 4th Floor,
Columbus, OH 43215

■ Required Bid Guaranty Upload

Name	File*
Document 00 43 13 - Bid Security Form → Upload a scan of the fully executed Bid Security Form AND submit the original document to the Contracting Authority within 3 days of the bid deadline	Select file... no file selected ☐ I am NOT enclosing this document because the omission terms have been met. (Bidder submitted a Cashier's check below)
Power of Attorney → Upload a scan of the fully executed Power of Attorney AND submit the original document to the Contracting Authority within 3 days of the bid deadline	Select file... no file selected ☐ I am NOT enclosing this document because the omission terms have been met. (Bidder submitted a Cashier's check below OR included with the Bid Security Form above)

Cashier's Check for 10% of the Bid

→ Upload a scan of the Cashier's Check AND submit the original check to the Contracting Authority within 3 days of the bid deadline

[Select file...](#) no file selected

☐ I am NOT enclosing this document because the [omission terms](#) have been met. (Bidder submitted the Bid Security Form AND Power of Attorney above)

3 Required Documents

■ Bidder's Qualifications and EDGE Affidavit Upload

Name

File*

Document 00 45 13 - Bidder's Qualifications

→ Upload fully completed form and attachments

[Select file...](#) no file selected

☐ I am NOT enclosing this document because the [omission terms](#) have been met. (Must be submitted to the Contracting Authority within 3 days of request)

Document 00 45 39 - EDGE Affidavit

→ Upload a completed form for each EDGE business

[Select file...](#) no file selected

☐ I am NOT enclosing this document because the [omission terms](#) have been met. (Must be submitted to the Contracting Authority within 3 days of request)

2 Required Documents

■ Bidder Signatory Information

Bidder Signatory

Name of Bidder's Authorized Signatory:*

Title of Authorized Signatory:*

All Bidders complete all information in this form. Duplicate and complete the block below for each Joint Venturer:

Bidder Information

Business Name:*

Business Mailing Address, City, State, Zip:*

Telephone Number:*

Facsimile Number:

Email Address:*

Federal Tax ID Number:*

State of Incorporation (if applicable):

Contact person for Contract processing:*

Date enrolled in an OBWC-approved DFSP (month/date/year):

President or Chief Executive Officer's Name:*

President or Chief Executive Officer's Title:*

END OF DOCUMENT

SECTION 01 21 00 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
 - 1. Certain work may be specified in the Contract Documents by allowances.
- B. Allowance's are for reimbursable services, products and or equipment only.

1.3 SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified by the Owner.
 - 1. Invoices or receipts for reimbursement are required to use the allowance amount for reimbursement.

1.4 ALLOWANCES

- A. Use the allowances only as directed by the Owner and only by written orders that indicate amounts to be charged to each designated allowance.
- B. Contractor's related costs for products, services and equipment ordered by Owner under the allowances are included in the allowances and are part of the base bid contract sum. These costs are inclusive and include but not limited to delivery, installation, insurance, equipment rental costs, mobilization, staging, labor, materials and all similar related costs.
- C. At Project close-out, a reconciliation of allowances shall be conducted to account for all monies used under the allowances. Any unused amounts remaining in the allowances shall be unilaterally deducted from the total contract amount.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Notify the A/E and owner when an allowance is needed before it is utilized. Coordinate services, products and or equipment and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.
1. Notify the AE and owner when an allowance is needed before it is utilized.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Lump-Sum Allowance: **\$50,000.**

1. This allowance is for ***all unforeseen costs beyond those shown in the civil and structural drawings and includes 1)*** the cost of undercutting and removing unsuitable subgrade soils and replacing with TX 160 Geogrid and ODOT 304 aggregate base material, as directed by the engineer ***for asphalt parking shown in the civil drawings.***
And 2) the quantities shown in the structural drawings for foundations and concrete slab-on-grade.
The 2'-0" cut and fill (slab and parking lot) and foundation cut and fill is in the base bid as noted in Geotech report and as additional noted on structural.
The limits will be determined in the field by the engineer and quantified. Pricing shall be determined by field measured quantities and unit pricing provided in section "01 22 00 – Unit Prices."
2. This allowance includes material cost, receiving, handling, installation, and Contractor overhead and profit.

SECTION 01 22 00 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Requirements:
 - 1. Section 01 40 00 "Quality Requirements" for general testing and inspecting requirements.

1.3 DEFINITIONS

- A. Unit price is a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
 - 1. The contractor needs to get approval for the number of units needed prior to doing the work. and also needs to prove the need for the number of units needed (photos, AE observation, etc.).
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
 - 1. Verify need to use the number of units and get approval prior to doing the work involved with unit pricing, etc.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Unit Price No. A:

1. Description: This quantity is for use for the cost of undercutting and removing unsuitable subgrade soils at the interior and exterior slabs and parking lots and replacing with TX 160 Geogrid and ODOT 304 aggregate base material, as directed by the engineer. ***This cost shall be applied as required for additional costs not covered by base bid but shall also be applied for any deduct costs required to adjust base bid quantities assumed in the drawings that are found in the field to be less than those estimated.***
2. Unit Cost per 24" deep SY: _____/SY
3. Unit of Measurement: Square Yard

B. Unit Price No. B:

1. ***Description: This quantity is for use for the cost of undercutting and removing unsuitable subgrade soils at the foundations and replacing with Compacted Granular Engineered Fill Or Low Strength Mortar (LSM) per S-101, Note 4. This cost shall be applied as required for additional costs not covered by base bid but shall also be applied for any deduct costs required to adjust base bid quantities assumed in the drawings that are found in the field to be less than those estimated.***
2. ***Unit Cost per CY: _____/CY***
3. ***Unit of Measurement: Cubic Yard***

SECTION 01 22 00

SECTION 01 23 00 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

- A. Alternate No. 1: Canopy
 - 1. Provide add alternate price to provide Entrance canopies at storefront.
 - 2. See Architectural Elevations and Roof plan.
- B. Alternate No. 2: Masonry Wainscot
 - 1. Provide add alternate price to provide 4'H Exterior masonry Base Wall
 - 2. See Architectural elevations
- C. Alternate No. 3: Building Color
 - 1. Provide add alternate price to provide additional exterior paint region
 - 2. See Architectural elevations
- D. Alternate No. 4: Clerestory Windows
 - 1. Provide add alternate price to provide additional exterior windows
 - 2. See Architectural elevations
- E. Alternate No. 5: Office Casework & Plumbing
 - 1. Provide add alternate price to provide casework and associated sink plumbing within Office 106
 - 2. See Architectural Floor and plumbing plans.
- F. Alternate No. 6: Technology site conduit routing**
 - 1. Provide add alternate price to provide a new pathway from the proposed new building to the existing campus MDF in the Central Control building in lieu of reducing new pathways and attempting to re-use existing pathways where possible.**
 - 2. See Technology drawings T-001, T-401, and TSP-101.**

END OF SECTION

SECTION 04 20 00 - UNIT MASONRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Concrete masonry units.
2. **Brick.**
3. Mortar and grout materials.
4. Reinforcement.
5. **Ties and anchors.**
6. Embedded flashing.
7. Accessories.
8. Mortar and grout mixes.

B. Related Requirements:

- ~~1. Section 01 43 39 "Mockups" for integrated exterior mockup requirements.~~
- ~~2. Section 07 19 00 "Water Repellents" for water repellents applied to unit masonry assemblies.~~
3. Section 07 21 00 "Thermal Insulation" for cavity wall insulation.

1.2 DEFINITIONS

- A. CMU(s): Concrete masonry unit(s).
- B. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For the following:
1. Masonry Units: Indicate sizes, profiles, coursing, and locations of special shapes.
 2. Reinforcing Steel: Indicate bending, lap lengths, and placement of unit masonry reinforcing bars. Comply with ACI 315R.
 3. Fabricated Flashing: Detail corner units, end-dam units, and other special applications.
- C. Samples for Initial Selection:
1. Weep/cavity vents.
 2. **brick , in the form of straps of five or more bricks.**
 3. **Colored mortar.**

1.4 INFORMATIONAL SUBMITTALS

- A. Material Certificates: For each type of the following:
 - 1. Masonry units.
 - a. Include material test reports substantiating compliance with requirements.
 - b. For masonry units, include data and calculations establishing average net-area compressive strength of units.
 - 2. Integral water repellent used in CMUs.
 - 3. Cementitious materials. Include name of manufacturer, brand name, and type.
 - 4. Mortar admixtures.
 - 5. Preblended, dry mortar mixes. Include description of type and proportions of ingredients.
 - 6. Grout mixes. Include description of type and proportions of ingredients.
 - 7. Reinforcing bars.
 - 8. Joint reinforcement.
 - 9. Anchors, ties, and metal accessories.
- B. Mix Designs: For each type of mortar and grout. Include description of type and proportions of ingredients.
 - 1. Include test reports for mortar mixes required to comply with property specification. Test in accordance with ASTM C109/C109M for compressive strength, ASTM C1506 for water retention, and ASTM C91/C91M for air content.
 - 2. Include test reports, in accordance with ASTM C1019, for grout mixes required to comply with compressive strength requirement.
- C. Statement of Compressive Strength of Masonry: For each combination of masonry unit type and mortar type, provide statement of average net-area compressive strength of masonry units, mortar type, and resulting net-area compressive strength of masonry determined in accordance with TMS 602.
- D. Cold-Weather and Hot-Weather Procedures: Detailed description of methods, materials, and equipment to be used to comply with requirements.

1.5 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Installers: All masonry flashing installers must complete the International Masonry Institute Flashing Upgrade training course.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.
- B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.

- C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- D. Deliver preblended, dry mortar mix in moisture-resistant containers. Store preblended, dry mortar mix in delivery containers on elevated platforms in a dry location or in covered weatherproof dispensing silos.
- E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

1.7 FIELD CONDITIONS

- A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.
 - 1. Extend cover a minimum of 24 inches down both sides of walls, and hold cover securely in place.
 - 2. Where one wythe of multiwythe masonry walls is completed in advance of other wythes, secure cover a minimum of 24 inches down face next to unconstructed wythe, and hold cover in place.
- B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least three days after building masonry walls or columns.
- C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.
 - 1. Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.
 - 2. Protect sills, ledges, and projections from mortar droppings.
 - 3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
 - 4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.
- D. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in TMS 602.
 - 1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F and higher and will remain so until masonry has dried, but not less than seven days after completing cleaning.
- E. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in TMS 602.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

- A. For exposed masonry units and cementitious mortar components, obtain each color and grade from single source with resources to provide materials of consistent quality in appearance and physical properties.

2.2 PERFORMANCE REQUIREMENTS

- A. Provide unit masonry that develops indicated net-area compressive strengths at 28 days.
 - 1. Determine net-area compressive strength of masonry from average net-area compressive strengths of masonry units and mortar types (unit-strength method) in accordance with TMS 602.
 - 2. Determine net-area compressive strength of masonry by testing masonry prisms in accordance with ASTM C1314.

2.3 UNIT MASONRY, GENERAL

- A. Masonry Standard: Comply with TMS 602, except as modified by requirements in the Contract Documents.
- B. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated. Do not use units where such defects are exposed in the completed Work.
- C. Fire-Resistance Ratings: Comply with requirements for fire-resistance-rated assembly designs indicated.
 - 1. Where fire-resistance-rated construction is indicated, use the equivalent thickness method for masonry units in accordance with ACI 216.1.

2.4 CONCRETE MASONRY UNITS

- A. Shapes: Provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated.
 - 1. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
 - 2. Provide bullnose units for outside corners unless otherwise indicated.
- B. Integral Water Repellent: Provide units made with integral water repellent **at all exterior walls required per Alternate#2**.
 - 1. Integral Water Repellent: Liquid polymeric, integral water-repellent admixture that does not reduce flexural bond strength. Units made with integral water repellent, when tested in accordance with ASTM E514/E514M as a wall assembly made with mortar containing integral water-repellent manufacturer's mortar additive, with test period extended to 24 hours, will show no visible water or leaks on the back of test specimen.

- a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- 1) ACM Chemistries.
- 2) Euclid Chemical Company (The); an RPM company.
- 3) GCP Applied Technologies Inc.
- 4) Master Builders Solutions.

C. CMUs: ASTM C90, weight as indicated on Structural Drawings.

1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength as indicated on Structural Drawings.
2. Size (Width): Manufactured to dimensions 3/8 inch less than nominal dimensions.

D. Decorative CMUs: ASTM C90, weight as indicated on Structural Drawings.

1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength as indicated on Structural Drawings.
2. Size (Width): Manufactured to dimensions 3/8 inch less than nominal dimensions.
3. Pattern and Texture: Standard pattern, smooth-face finish.
4. Colors: Colored units as indicated on Architectural Drawings.

2.5 MORTAR AND GROUT MATERIALS

A. Portland Cement: ASTM C150/C150M, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.

1. Alkali content will not be more than 0.1 percent when tested in accordance with ASTM C114.

B. Hydrated Lime: ASTM C207, Type S.

C. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.

D. Colored Cement Products: Packaged blend made from portland cement and hydrated lime and mortar pigments, all complying with specified requirements, and containing no other ingredients.

1. Colored Portland Cement-Lime Mix:

a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following

- 1) Argos USA LLC
- 2) Heidelberg Materials
- 3) Holcim (US) Inc

2. Formulate blend as required to produce color indicated or, if not indicated, as selected from manufacturer's standard colors.
3. Pigments do not exceed 10 percent of portland cement by weight.

E. Aggregate for Mortar: ASTM C144.

1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.
 2. For joints less than 1/4 inch thick, use aggregate graded with 100 percent passing the No. 16 sieve.
 3. White-Mortar Aggregates: Natural white sand or crushed white stone.
 4. Colored-Mortar Aggregates: Natural sand or crushed stone of color necessary to produce required mortar color.
- F. Aggregate for Grout: ASTM C404.
- G. Water-Repellent Admixture: Liquid water-repellent mortar admixture intended for use with CMUs containing integral water repellent from same manufacturer.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. ACM Chemistries.
 - b. Euclid Chemical Company (The); an RPM company.
 - c. GCP Applied Technologies Inc.
 - d. Master Builders Solutions.
- H. Water: Potable.

2.6 REINFORCEMENT

- A. Uncoated-Steel Reinforcing Bars: ASTM A615/A615M or ASTM A996/A996M, Grade 60.
- B. Reinforcing Bar Positioners: Wire units designed to fit into mortar bed joints spanning masonry unit cells and to hold reinforcing bars in center of cells. Units are formed from 0.148-inch steel wire, hot-dip galvanized after fabrication. Provide units designed for number of bars indicated.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Heckmann Building Products, Inc.
 - b. Hohmann & Barnard, Inc.
 - c. Wire-Bond.
- C. Masonry-Joint Reinforcement, General: ASTM A951/A951M.
1. Interior Walls: Mill- galvanized carbon steel.
 2. Exterior Walls: Hot-dip galvanized carbon steel.
 3. Wire Size for Side Rods: 0.148-inch diameter.
 4. Wire Size for Cross Rods: 0.148-inch diameter.
 5. Wire Size for Veneer Ties: 0.148-inch diameter.
 6. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than 16 inches o.c.
 7. Provide in lengths of not less than 10 ft., with prefabricated corner and tee units.
- D. Masonry-Joint Reinforcement for Single-Wythe Masonry: Ladder or truss type with single pair of side rods.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. [Heckmann Building Products, Inc.](#)
- b. [Hohmann & Barnard, Inc.](#)
- c. [Wire-Bond.](#)

E. Masonry-Joint Reinforcement for Multiwythe Masonry:

1. **Manufacturers:** Subject to compliance with requirements, provide products by one of the following:
 - a. [Heckmann Building Products, Inc.](#)
 - b. [Hohmann & Barnard, Inc.](#)
 - c. [Wire-Bond.](#)
2. Adjustable (two-piece) type, either ladder or truss design, with one side rod at each face shell of backing wythe and with separate adjustable ties with pintle-and-eye connections having a maximum horizontal play of 1/16 inch and maximum vertical adjustment of 1-1/4 inches. Size ties to extend at least halfway through facing wythe but with at least 5/8-inch cover on outside face. Ties have hooks or clips to engage a continuous horizontal wire in the facing wythe.

2.7 EMBEDDED FLASHING

- A. Metal Flashing: Provide metal flashing complying with SMACNA's "Architectural Sheet Metal Manual" and as follows:
1. Stainless Steel: ASTM A240/A240M or ASTM A666, Type 316, 0.016 inch thick.
 2. Fabricate metal drip edges from stainless steel. Extend at least 3 inches into wall and 1/2 inch out from wall, with outer edge bent down 30 degrees and hemmed.
 3. Solder metal items at corners.
- B. Flexible Flashing: Use the following unless otherwise indicated:
1. Copper-Fabric Flashing: 5 oz./sq. ft. copper sheet bonded between two layers of glass-fiber cloth.
 - a. **Manufacturers:** Subject to compliance with requirements, provide products by one of the following:
 - 1) [Advanced Building Products Inc.](#)
 - 2) [Hohmann & Barnard, Inc.](#)
 - 3) [STS Coatings, Inc.](#)
 - 4) [Wire-Bond.](#)
 - 5) York Manufacturing, Inc.
- C. Adhesives, Primers, and Seam Tapes for Flashings: Flashing manufacturer's standard products or products recommended by flashing manufacturer for bonding flashing sheets to each other and to substrates.
- D. Termination Bars for Flexible Flashing: Stainless steel bars 0.075 inch by 1 inch.

2.8 ACCESSORIES

- A. Compressible Filler: Premolded filler strips complying with ASTM D1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from neoprene.

- B. Preformed Control-Joint Gaskets: Made from styrene-butadiene-rubber compound, complying with ASTM D2000, Designation M2AA-805 and designed to fit standard sash block and to maintain lateral stability in masonry wall; size and configuration as indicated.
- C. Bond-Breaker Strips: Asphalt-saturated felt complying with ASTM D226/D226M, Type I (No. 15 asphalt felt).
- D. Weep/Cavity Vents: Use the following where indicated:
 - 1. Cellular Plastic Weep/Vent: One-piece, flexible extrusion made from UV-resistant polypropylene copolymer, full height and width of head joint and depth 1/8 inch less than depth of outer wythe, in color selected from manufacturer's standard.
 - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) [Advanced Building Products Inc.](#)
 - 2) [Heckmann Building Products, Inc.](#)
 - 3) [Hohmann & Barnard, Inc.](#)
 - 4) [Wire-Bond.](#)
- E. Cavity Drainage Material: Free-draining mesh, made from polymer strands that will not degrade within the wall cavity.
 - 1. Mortar Deflector: Strips, full depth of cavity and 10 inches high, with dovetail-shaped notches that prevent clogging with mortar droppings.
 - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) [Advanced Building Products Inc.](#)
 - 2) [Hohmann & Barnard, Inc.](#)
 - 3) Keene Building Products.
 - 4) [Mortar Net Solutions.](#)
 - 5) [Wire-Bond.](#)
 - 6) York Manufacturing, Inc.
- F. Proprietary Acidic Masonry Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. [Diedrich Technologies, Inc.; a Hohmann & Barnard company.](#)
 - b. [EaCo Chem, Inc.](#)
 - c. [PROSOCO, Inc.](#)

2.9 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless otherwise indicated.

1. Do not use calcium chloride in mortar or grout.
 2. Use portland cement-lime mortar unless otherwise indicated.
- B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.
- C. Mortar for Unit Masonry: Comply with ASTM C270, Proportion Specification. Provide the following types of mortar for applications stated unless another type is indicated.
1. For masonry below grade or in contact with earth, use Type M.
 2. For reinforced masonry, use Type M.
 3. For exterior, above-grade, load-bearing, nonload-bearing walls, and parapet walls; for interior load-bearing walls; for interior nonload-bearing partitions; and for other applications where another type is not indicated, use Type N.
 4. For interior nonload-bearing partitions, Type O may be used instead of Type N.
- D. Grout for Unit Masonry: Comply with ASTM C476.
1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with TMS 602 for dimensions of grout spaces and pour height.
 2. Proportion grout in accordance with ASTM C476, paragraph 4.2.1.2 for specified 28-day compressive strength indicated, but not less than 2000 psi.
 3. Provide grout with a slump of 8 to 11 inches as measured in accordance with ASTM C143/C143M.

2.10 BRICK

- A. **Regional Materials: Verify brick is manufactured within 100 miles of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 100 miles of Project site.**
- B. ***General: Provide shapes indicated and as follows, with exposed surfaces matching finish and color of exposed faces of adjacent units:***
1. ***For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.***
 2. ***Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.***
- C. ***Building (Common) Brick: ASTM C62, Grade SW .***
1. ***Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 3000 psi.***

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
 - 1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
 - 2. Verify that foundations are within tolerances specified.
 - 3. Verify that reinforcing dowels are properly placed.
 - 4. Verify that substrates are free of substances that impair mortar bond.
- B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping connections.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Thickness: Build cavity and composite walls and other masonry construction to full thickness shown. Build single-wythe walls to actual widths of masonry units, using units of widths indicated.
- B. Build chases and recesses to accommodate items specified in this and other Sections.
- C. Leave openings for equipment to be installed before completing masonry. After installing equipment, complete masonry to match construction immediately adjacent to opening.
- D. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- E. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures. Mix units from several pallets or cubes as they are placed.
- F. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30 g/30 sq. in. per minute when tested in accordance with ASTM C67/C67M. Allow units to absorb water so they are damp but not wet at time of laying.

3.3 TOLERANCES

- A. Dimensions and Locations of Elements:
 - 1. For dimensions in cross section or elevation, do not vary by more than plus 1/2 inch or minus 1/4 inch.
 - 2. For location of elements in plan, do not vary from that indicated by more than plus or minus 1/2 inch.
 - 3. For location of elements in elevation, do not vary from that indicated by more than plus or minus 1/4 inch in a story height or 1/2 inch total.
- B. Lines and Levels:

1. For bed joints and top surfaces of bearing walls, do not vary from level by more than 1/4 inch in 10 ft., or 1/2-inch maximum.
2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 ft., 1/4 inch in 20 ft., or 1/2-inch maximum.
3. For vertical lines and surfaces, do not vary from plumb by more than 1/4 inch in 10 ft., 3/8 inch in 20 ft., or 1/2-inch maximum.
4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 ft., 1/4 inch in 20 ft., or 1/2-inch maximum.
5. For lines and surfaces, do not vary from straight by more than 1/4 inch in 10 ft., 3/8 inch in 20 ft., or 1/2-inch maximum.
6. For vertical alignment of exposed head joints, do not vary from plumb by more than 1/4 inch in 10 ft., or 1/2-inch maximum.
7. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than 1/16 inch except due to warpage of masonry units within tolerances specified for warpage of units.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch, with a maximum thickness limited to 1/2 inch.
2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than 1/8 inch.
3. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch or minus 1/4 inch.
4. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch.
5. For exposed bed joints and head joints of stacked bond, do not vary from a straight line by more than 1/16 inch from one masonry unit to the next.

3.4 LAYING MASONRY WALLS

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond; do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.
- C. Lay concealed masonry with all units in a wythe in running bond or bonded by lapping not less than 4 inches. Bond and interlock each course of each wythe at corners. Do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.
- D. Stopping and Resuming Work: Stop work by stepping back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar, remove loose masonry units and mortar, and wet brick if required before laying fresh masonry.
- E. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.
- F. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.

- G. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath, wire mesh, or plastic mesh in the joint below, and rod mortar or grout into core.
- H. Fill cores in hollow CMUs with grout 24 inches under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.
- I. Build non load-bearing interior partitions full height of story to underside of solid floor or roof structure above unless otherwise indicated.
 - 1. Install compressible filler in joint between top of partition and underside of structure above.
 - 2. At fire-rated partitions, treat joint between top of partition and underside of structure above to comply with Section 07 84 43 "Joint Firestopping."

3.5 MORTAR BEDDING AND JOINTING

- A. Lay CMUs as follows:
 - 1. Bed face shells in mortar and make head joints of depth equal to bed joints.
 - 2. Bed webs in mortar in all courses of piers, columns, and pilasters.
 - 3. Bed webs in mortar in grouted masonry, including starting course on footings.
 - 4. Fully bed entire units, including areas under cells, at starting course on footings where cells are not grouted.
 - 5. Fully bed units and fill cells with mortar at anchors and ties as needed to fully embed anchors and ties in mortar.
- B. Lay solid masonry units and hollow brick with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.
- C. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.
- D. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) unless otherwise indicated.
- E. Cut joints flush where indicated to receive waterproofing, cavity wall insulation, and/or air barriers unless otherwise indicated.

3.6 CAVITY WALLS

- A. Bond wythes of cavity walls together as follows:
 - 1. Masonry-Joint Reinforcement: Installed in horizontal mortar joints.
 - a. Use adjustable-type (two-piece-type) reinforcement to allow for differential movement regardless of whether bed joints align.
- B. Keep cavities clean of mortar droppings and other materials during construction. Bevel beds away from cavity, to minimize mortar protrusions into cavity. Do not attempt to trowel or remove mortar fins protruding into cavity.
- C. Installing Cavity Wall Insulation: Place small dabs of adhesive, spaced approximately 12 inches o.c. both ways, on inside face of insulation boards, or attach with plastic fasteners

designed for this purpose. Fit courses of insulation between wall ties and other confining obstructions in cavity, with edges butted tightly both ways. Press units firmly against inside wythe of masonry or other construction as indicated.

1. Fill cracks and open gaps in insulation with crack sealer compatible with insulation and masonry.

3.7 MASONRY-JOINT REINFORCEMENT

- A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of 6 inches.
 1. Space reinforcement not more than 16 inches o.c.
 2. Space reinforcement not more than 8 inches o.c. in foundation walls and parapet walls.
 3. Provide reinforcement not more than 8 inches above and below wall openings and extending 12 inches beyond openings in addition to continuous reinforcement.
- B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.
- C. Provide continuity at corners by using prefabricated L-shaped units.

3.8 CONTROL AND EXPANSION JOINTS

- A. General: Install control- and expansion-joint materials in unit masonry as masonry progresses. Do not allow materials to span control and expansion joints without provision to allow for in-plane wall or partition movement.
- B. Form control joints in concrete masonry as follows:
 1. Install preformed control-joint gaskets designed to fit standard sash block.
- C. Form control joints in concrete masonry veneer as follows:
 1. Form open joint full depth of brick wythe and of width indicated, but not less than 3/8 inch for installation of sealant and backer rod specified in Section 07 92 00 "Joint Sealants."
- D. Provide horizontal, pressure-relieving joints by either leaving an airspace or inserting a compressible filler of width required for installing sealant and backer rod specified in Section 07 92 00 "Joint Sealants," but not less than 3/8 inch.
 1. Locate horizontal, pressure-relieving joints beneath shelf angles supporting masonry.

3.9 FLASHING, WEEP HOLES, AND CAVITY VENTS

- A. General: Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated.
- B. Install flashing as follows unless otherwise indicated:
 1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on

- sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer.
2. At multiwythe masonry walls, including cavity walls, extend flashing through outer wythe, across airspace, and up exterior face of interior wythe at least 8 inches. Fasten upper edge of flexible flashing to masonry through termination bar.
 3. At lintels and shelf angles, extend flashing 6 inches minimum, to edge of next full unit at each end. At heads and sills, extend flashing 6 inches minimum, to edge of next full unit and turn ends up not less than 2 inches to form end dams.
 4. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch back from outside face of wall, and adhere flexible flashing to top of metal drip edge.
- C. Install weep holes in exterior wythes and veneers in head joints of first course of masonry immediately above embedded flashing.
1. Use specified weep/cavity vent products to form weep holes.
 2. Space weep holes a maximum of 24 inches o.c. unless otherwise indicated.
 3. Space weep holes formed from plastic tubing 16 inches o.c.
- D. Place cavity drainage material in airspace behind veneers to comply with configuration requirements for cavity drainage material in "Accessories" Article.

3.10 REINFORCED UNIT MASONRY

- A. Temporary Formwork and Shores: Construct formwork and shores as needed to support reinforced masonry elements during construction.
1. Construct formwork to provide shape, line, and dimensions of completed masonry as indicated. Make forms sufficiently tight to prevent leakage of mortar and grout. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.
 2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and that of other loads that may be placed on them during construction.
- B. Placing Reinforcement: Comply with requirements in TMS 602.
- C. Grouting: Do not place grout until entire height of masonry to be grouted has attained enough strength to resist grout pressure.
1. Comply with requirements in TMS 602 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
 2. Limit height of vertical grout pours to not more than 60 inches.

3.11 REPAIRING, POINTING, AND CLEANING

- A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.
- B. Pointing: During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for sealant application, where indicated.

- C. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.
- D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:
 - 1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
 - 2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
 - 3. Protect adjacent stone and non-masonry surfaces from contact with cleaner by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.
 - 4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
 - 5. Clean brick by bucket-and-brush hand-cleaning method described in BIA Technical Notes 20.
 - 6. Clean concrete masonry by applicable cleaning methods indicated in NCMA TEK 8-4A.
 - 7. Clean masonry with a proprietary acidic masonry cleaner applied according to manufacturer's written instructions.

3.12 MASONRY WASTE DISPOSAL

- A. Salvageable Materials: Unless otherwise indicated, excess masonry materials are Contractor's property. At completion of unit masonry work, remove from Project site.
- B. Waste Disposal as Fill Material: Dispose of clean masonry waste, including excess or soil-contaminated sand, waste mortar, and broken masonry units, by crushing and mixing with fill material as fill is placed.
 - 1. Crush masonry waste to less than 4 inches in each dimension.
 - 2. Mix masonry waste with at least two parts of specified fill material for each part of masonry waste. Fill material is specified in Section 31 20 00 "Earth Moving."
 - 3. Do not dispose of masonry waste as fill within 18 inches of finished grade.
- C. Masonry Waste Recycling: Return broken CMUs not used as fill to manufacturer for recycling.
- D. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above or recycled, and other masonry waste, and legally dispose of off Owner's property.

3.13 MASONRY SCHEDULE

A. Reference Keynote: 04 20 00.A01

- 1. **Face Brick Type 1 (Color to be selected from standard line)**
- 2. **Manufacturer/Product:**
 - a. **Watson town Brick Company**
 - b. **Glen Gery**
 - c. **Bowerston**
 - d. **Belden**
- 3. **Size (D x H x L): 3-5/8"D x 2-1/4"H x 7-5/8"L**
- 4. **Bond: Running Bond**

END OF SECTION 04 20 00

SECTION 10 11 00 - VISUAL DISPLAY UNITS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Visual display board assemblies.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, finishes, and accessories for visual display units.
- B. Shop Drawings: For visual display units.
 - 1. Include plans, elevations, sections, details, and attachment to other work.
 - 2. Show locations of panel joints.
 - 3. Show locations and layout of special-purpose graphics.
 - 4. Include sections of typical trim members.
- C. Samples for Initial Selection: For each type of visual display unit indicated, for units with factory-applied color finishes, and as follows:
 - 1. Samples of facings for each visual display panel type, indicating color and texture.
 - 2. Include accessory Samples to verify color selected.
 - a. Tackboard material.
- D. Product Schedule: For visual display units. Use same designations indicated on Drawings.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Test Reports: For each visual display unit, for tests performed by a qualified testing agency.
- C. Sample Warranties: For manufacturer's special warranties.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For visual display units to include in maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver factory-fabricated visual display units completely assembled in one piece. If dimensions exceed maximum manufactured unit size, or if unit size is impracticable to ship in one piece, provide two or more pieces with joints in locations indicated on approved Shop Drawings.

1.8 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install visual display units until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work above ceilings is complete, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

1.9 WARRANTY

- A. Special Warranty for Porcelain-Enamel Face Sheets: Manufacturer agrees to repair or replace porcelain-enamel face sheets that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Surfaces lose original writing and erasing qualities.
 - b. Surfaces exhibit crazing, cracking, or flaking.
 - 2. Warranty Period: 50 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Flame-Spread Index: 25 or less.
 - 2. Smoke-Developed Index: 450 or less.

2.2 VISUAL DISPLAY BOARD ASSEMBLY

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Claridge Products and Equipment, Inc.
 - 2. Educational Equipment.
 - 3. EverWhite.
 - 4. ghent; a GMi Company.
 - 5. K-Pro Specialty Products.
 - 6. Platinum Visual Systems.
- B. Visual Display Board Assembly: factory fabricated.
 - 1. Assembly: markerboard , tackboard and tackstrip.
 - 2. Corners: Square .
 - 3. Width: As indicated on Drawings .
 - 4. Height: As indicated on Drawings .
 - 5. Mounting Method: Direct to wall .
- C. Markerboard Panel: Porcelain-magnetic-enamel faced markerboard panel on core indicated.

1. Color: White , low gloss. .
- D. Aluminum Frames and Trim: Fabricated from not less than 0.062-inch- thick, extruded aluminum; standard size and shape .
 1. Finish: Black coated/anodic finish.
- E. Joints: Make joints only where total length exceeds maximum manufactured length. Fabricate with minimum number of joints, balanced around center of board, as acceptable to Architect .
- F. Chalktray: Manufacturer's standard; continuous.
 1. Box Type: Extruded aluminum with slanted front, grooved tray, and cast-aluminum end closures.
 2. Provide for markerboard assemblies.
- G. Special-Purpose Graphics: Fuse or paint music staff lines graphic onto surface of visual display unit , in locations indicated.

2.3 MARKERBOARD PANELS

- A. Magnetic, porcelain-Enamel Markerboard Panels: Balanced, high-pressure, factory-laminated markerboard assembly of three-ply construction, consisting of moisture-barrier backing, core material, and magnetic porcelain-enamel face sheet with low-gloss finish. Laminate panels under heat and pressure with manufacturer's standard, flexible waterproof adhesive.
 1. Face Sheet Thickness: 0.021 inch uncoated base metal thickness.
 2. Manufacturer's Standard Core: Minimum 1/4 inch thick, with manufacturer's standard moisture-barrier backing.
 3. Particleboard Core: 1/2 inch thick; with 0.005-inch- thick, aluminum foil backing.
 4. Laminating Adhesive: Manufacturer's standard moisture-resistant thermoplastic type.

2.4 MATERIALS

- A. Magnetic porcelain-Enamel Face Sheet: PEI-1002, with face sheet manufacturer's standard two- or three-coat process.
- B. Plastic-Impregnated-Cork Sheet: Seamless, homogeneous, self-sealing sheet consisting of granulated cork, linseed oil, resin binders, and dry pigments that are mixed and calendared onto fabric backing; with washable vinyl finish and integral color throughout ; with surface-burning characteristics indicated.
- C. Composite Wood Products: Verify products are made using ultra-low-emitting formaldehyde resins, as defined in the California Air Resources Board's "Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products," or are made with no added formaldehyde.
- D. Extruded Aluminum: ASTM B 221 , Alloy 6063.
- E. Adhesives for Field Application: Mildew-resistant, nonstaining adhesive for use with specific type of panels, sheets, or assemblies; and for substrate application; as recommended in writing by visual display unit manufacturer.
 1. Verify adhesives have a VOC content of 50 g/L or less.
 2. Verify adhesive complies with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of

Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

2.5 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM/NOMMA 500 for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.6 ALUMINUM FINISHES

- A. Clear Anodic Finish: AAMA 611, AA-M12C22A31, Class II, 0.010 mm or thicker.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances, surface conditions of wall, and other conditions affecting performance of the Work.
- B. Examine roughing-in for electrical power systems to verify actual locations of connections before installation of motorized, sliding visual display units.
- C. Examine walls and partitions for proper preparation and backing for visual display units.
- D. Examine walls and partitions for suitable framing depth where sliding visual display units will be installed.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions for surface preparation.
- B. Clean substrates of substances, such as dirt, mold, and mildew, that could impair the performance of and affect the smooth, finished surfaces of visual display boards.
- C. Prepare surfaces to achieve a smooth, dry, clean surface free of flaking, unsound coatings, cracks, defects, projections, depressions, and substances that will impair bond between visual display units and wall surfaces.

3.3 INSTALLATION

- A. General: Install visual display surfaces in locations and at mounting heights indicated on Drawings, or if not indicated, at heights indicated below. Keep perimeter lines straight, level, and plumb. Provide grounds, clips, backing materials, adhesives, brackets, anchors, trim, and accessories necessary for complete installation.
- B. Field-Assembled Visual Display Board Assemblies: Coordinate field-assembled units with grounds, trim, and accessories indicated. Join parts with a neat, precision fit.

VISUAL DISPLAY UNITS

London Correctional Institute Auto School
Bid Submittal

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2023352.03
10/10/2025

1. Make joints only where total length exceeds maximum manufactured length. Fabricate with minimum number of joints, balanced around center of board, as acceptable to Architect .
 2. Where size of visual display board assemblies or other conditions require support in addition to normal trim, provide structural supports or modify trim as indicated or as selected by Architect from manufacturer's standard structural support accessories to suit conditions indicated.
- C. Factory-Fabricated Visual Display Board Assemblies: Adhere to wall surfaces with egg-size adhesive gobs at 16 inches o.c., horizontally and vertically.
- D. Factory-Fabricated Visual Display Board Assemblies: Attach concealed clips, hangers, and grounds to wall surfaces and to visual display board assemblies with fasteners at not more than 16 inches o.c. Secure tops and bottoms of boards to walls.
- E. Visual Display Board Assembly Mounting Heights: Install visual display units at mounting heights indicated on Drawings, or if not indicated, at heights indicated below.
1. Mounting Height : 36 inches above finished floor to top of chalktray unless noted otherwise.
- 3.4 CLEANING AND PROTECTION
- A. Clean visual display units in accordance with manufacturer's written instructions. Attach one removable cleaning instructions label to visual display unit in each room.
- B. Touch up factory-applied finishes to restore damaged or soiled areas.
- C. Cover and protect visual display units after installation and cleaning.

END OF SECTION 10 11 00

SECTION 10 14 23 - PANEL SIGNAGE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Exterior non-illuminated Panel signs.
- B. Related Requirements:
 - 1. Section 13 34 19 - Metal Building Systems

1.2 DEFINITIONS

- A. Accessible: In accordance with the accessibility standard.
- B. Illuminated: Illuminated by lighting source integrally constructed as part of the sign unit.

1.3 COORDINATION

- A. Furnish templates for placement of sign-anchorage devices embedded in permanent construction by other installers.
- B. Furnish templates for placement of electrical service embedded in permanent construction by other installers.

1.4 ACTION SUBMITTALS

- A. Product Data:
 - 1. Panel signs.
- B. Shop Drawings: For panel signs.
 - 1. Include fabrication and installation details and attachments to other work.
 - 2. Show sign mounting heights, locations of supplementary supports to be provided by other installers, and accessories.
 - 3. Show message list, typestyles, graphic elements, including raised characters, and layout for each sign.
 - 4. Show locations of electrical service connections.
 - 5. Include diagrams for power, signal, and control wiring.
- C. Samples for Initial Selection: For each type of sign assembly, exposed component, and exposed finish.
 - 1. Include representative Samples of available typestyles and graphic symbols.

- D. Samples for Verification: For each type of sign assembly showing all components and with the required finish(es), in manufacturer's standard size unless otherwise indicated and as follows:
 - 1. Panel Signs: Not less than 12 inches (300 mm) square, including corner.
- E. Product Schedule: For panel signs. Use same designations indicated on Drawings or specified.
- F. Delegated Design Submittals: For signs indicated in "Performance Requirements" Article.
 - 1. Include structural analysis calculations for signs indicated to comply with design loads; signed and sealed by the qualified professional engineer responsible for their preparation.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For signs to include in maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer of products or an entity that employs installers and supervisors who are trained and approved by manufacturer.

1.8 FIELD CONDITIONS

- A. Field Measurements: Verify locations of anchorage devices embedded in permanent construction by other installers by field measurements before fabrication, and indicate measurements on Shop Drawings.

1.9 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Deterioration of finishes beyond normal weathering.
 - b. Deterioration of embedded graphic image.
 - c. Separation or delamination of sheet materials and components.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 01 40 00 "Quality Requirements," to design sign structure and anchorage of sign type(s) according to structural performance requirements.
- B. Structural Performance: Signs and supporting elements are to withstand the effects of gravity and other loads within limits and under conditions indicated.
 - 1. Uniform Wind Load: As indicated on Drawings.
 - 2. Other Design Load: As indicated on Drawings.
 - 3. Uniform and concentrated loads need not be assumed to act concurrently.

2.2 PANEL SIGNS

- A. Panel Sign: Sign with smooth, uniform surfaces; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. ASI Sign Systems, Inc.
 - b. Ellet Sign.
 - c. Interior Graphic Systems.
 - d. Sign Force.
 - e. Take Form.
 - 2. Solid-Sheet Sign: Steel and returns with finish specified in "Surface Finish and Applied Graphics" Subparagraph and as follows:
 - a. Thickness: Manufacturer's standard for size of sign.
 - b. Surface-Applied, Flat Graphics: Applied baked enamel or powder coat.
 - 3. Sign-Panel Perimeter: Finish edges smooth.
 - a. Edge Condition:
 - 1) Vertical Edges: Square cut.
 - 2) Horizontal Edges: Square cut.
 - b. Corner Condition in Elevation: Square.
 - 4. Frame: Entire perimeter.
 - a. Material: Steel.
 - b. Thickness: Manufacturer's standard for size of sign.
 - c. Profile: Square.
 - d. Corner Condition in Elevation: Square.
 - 5. Mounting: Manufacturer's standard method for substrates indicated.
 - 6. Surface Finish and Applied Graphics:

- a. Painted Finish and Graphics: Manufacturer's standard, factory-applied exterior-grade sign paint.
- 7. Text and Typeface: Similar to Arial font.
- 8. Flatness Tolerance: Sign is to remain flat or uniformly curved under installed conditions as indicated on Drawings and within a tolerance of plus or minus 1/16 inch (1.5 mm) measured diagonally from corner to corner.

2.3 PANEL-SIGN MATERIALS

A. Steel Materials:

- 1. Metallic-Coated Steel Sheet: ASTM A653/A653M, G90 (Z275) coating, either commercial or forming steel.
- 2. Steel Sheet: Uncoated, cold-rolled, ASTM A1008/A1008M, commercial steel, Type B, exposed or electrolytic zinc-coated, ASTM A879/A879M, Coating Designation 08Z (24G), with steel-sheet substrate according to ASTM A1008/A1008M, commercial steel, exposed].
- 3. Steel Members Fabricated from Plate or Bar Stock: ASTM A529/A529M or ASTM A572/A572M, 42,000-psi (290-MPa) minimum yield strength.
- 4. For steel exposed to view on completion, provide materials having flat, smooth surfaces without blemishes. Do not use materials whose surfaces exhibit pitting, seam marks, roller marks, rolled trade names, or roughness.

- B. Paints and Coatings for Sheet Materials: Inks, dyes, and paints that are recommended by manufacturer for optimum adherence to surface and are UV and water resistant for colors and exposure indicated.

2.4 ACCESSORIES

- A. Fasteners and Anchors: Manufacturer's standard as required for secure anchorage of signs, noncorrosive and compatible with each material joined, and complying with the following unless otherwise indicated:

- 1. Use concealed fasteners and anchors unless indicated to be exposed.
- 2. For exterior exposure, furnish nonferrous-metal, stainless steel, or hot-dip galvanized devices unless otherwise indicated.
- 3. Exposed Metal-Fastener Components, General:
 - a. Fabricated from same basic metal and finish of fastened metal unless otherwise indicated.
- 4. Sign Mounting Fasteners:
 - a. Concealed Studs: Concealed (blind), threaded studs welded or brazed to back of sign material or screwed into back of sign assembly unless otherwise indicated.
 - b. Projecting Studs: Threaded studs with sleeve spacer, welded or brazed to back of sign material or screwed into back of sign assembly, unless otherwise indicated.
 - c. Through Fasteners: Exposed metal fasteners matching sign finish, with type of head indicated, and installed in predrilled holes.

- 5. Inserts: Furnish inserts to be set by other installers into concrete or masonry work.

- B. Post-Installed Anchors: Fastener systems with bolts of same basic metal as fastened metal, if visible, unless otherwise indicated; with working capacity greater than or equal to the design

load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01, ICC-ES AC193, ICC-ES AC58, or ICC-ES AC308 as appropriate for the substrate.

1. Uses: Securing signs with imposed loads to structure.
 2. Type: Torque-controlled, expansion anchor.
 3. Material for Interior Locations: Carbon-steel components zinc-plated to comply with ASTM B633 or **ASTM F1941** (**ASTM F1941M**), Class Fe/Zn 5, unless otherwise indicated.
 4. Material for Exterior or Interior Locations and Where Stainless Steel Is Indicated: Alloy Group **1** (**A1**) or Group **2** (**A4**) stainless steel bolts, **ASTM F593** (**ASTM F738M**), and nuts, **ASTM F594** (**ASTM F836M**).
- C. Power-Actuated Anchors: Fastener systems with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.
- D. Adhesive: As recommended by sign manufacturer.
- E. Two-Face Tape: Manufacturer's standard high-bond, foam-core tape, **0.045 inch** (**1.14 mm**) thick, with adhesive on both sides.
- F. Hook-and-Loop Tape: Manufacturer's standard two-part tape consisting of hooked part on sign back and looped side on mounting surface.
- G. Magnetic Tape: Manufacturer's standard magnetic tape with adhesive on one side.
- H. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D1187/D1187M.

2.5 FABRICATION

- A. General: Provide manufacturer's standard sign assemblies according to requirements indicated.
1. Preassemble signs in the shop to greatest extent possible. Disassemble signs and assemblies only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation; apply markings in locations concealed from view after final assembly.
 2. Mill joints to a tight, hairline fit. Form assemblies and joints exposed to weather to resist water penetration and retention.
 3. Comply with AWS for recommended practices in welding and brazing. Provide welds and brazes behind finished surfaces without distorting or discoloring exposed side. Clean exposed welded and brazed connections of flux, and dress exposed and contact surfaces.
 4. Conceal connections if possible; otherwise, locate connections where they are inconspicuous.
 5. Internally brace signs for stability, to meet structural performance loading without oil-canning or other surface deformation, and for securing fasteners.
 6. Provide rabbets, lugs, and tabs necessary to assemble components and to attach to existing work. Drill and tap for required fasteners. Use concealed fasteners where possible; use exposed fasteners that match sign finish.
- B. Shop- and Subsurface-Applied Vinyl: Align vinyl film in final position and apply to surface. Firmly press film from the middle outward to obtain good bond without blisters or fishmouths.
- C. Brackets: Fabricate brackets, fittings, and hardware for bracket-mounted signs to suit sign construction and mounting conditions indicated. Modify manufacturer's standard brackets as required.

2.6 GENERAL FINISH REQUIREMENTS

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- C. Directional Finishes: Run grain with long dimension of each piece and perpendicular to long dimension of finished trim or border surface unless otherwise indicated.
- D. Organic, Anodic, and Chemically Produced Finishes: Apply to formed metal after fabrication but before applying contrasting polished finishes on raised features unless otherwise indicated.

2.7 METALLIC-COATED STEEL FINISHES

- A. Surface Preparation: Clean surfaces of oil and other contaminants. Use cleaning methods that do not leave residue. After cleaning, apply a conversion coating compatible with the organic coating to be applied over it. Clean welds, mechanical connections, and abraded areas and apply galvanizing repair paint, complying with SSPC-Paint 20, to comply with ASTM A780/A780M.
- B. Factory Prime Finish: After cleaning and pretreating, apply an air-dried primer compatible with the organic coating to be applied over it.
- C. Baked-Enamel or Powder-Coat Finish: After cleaning and pretreating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat to a minimum dry film thickness of 2 mils (0.05 mm).

2.8 STEEL FINISHES

- A. Surface Preparation: Remove mill scale and rust, if present, from uncoated steel, and prepare for coating according to coating manufacturer's written instructions.
 - 1. For Baked-Enamel or Powder-Coat Finish: After cleaning, apply a conversion coating compatible with the organic coating to be applied over it.
- B. Factory Prime Finish: After surface preparation and pretreatment, apply manufacturer's standard, fast-curing, lead- and chromate-free, universal primer.
- C. Baked-Enamel or Powder-Coat Finish: After cleaning and pretreating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat to a minimum dry film thickness of 2 mils (0.05 mm).

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

- B. Verify that sign-support surfaces are within tolerances to accommodate signs without gaps or irregularities between backs of signs and support surfaces unless otherwise indicated.
- C. Verify that anchorage devices embedded in permanent construction are correctly sized and located to accommodate signs.
- D. Verify that electrical service is correctly sized and located to accommodate signs.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install signs using mounting methods indicated and according to manufacturer's written instructions.
 - 1. Install signs level, plumb, true to line, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.
 - 2. Install signs so they do not protrude or obstruct according to the accessibility standard.
 - 3. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.
 - 4. Corrosion Protection: Coat concealed surfaces of exterior aluminum in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.
- B. Mounting Methods:
 - 1. Concealed Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
 - a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place sign in position and push until flush to surface, embedding studs in holes. Temporarily support sign in position until adhesive fully sets.
 - b. Thin or Hollow Surfaces: Place sign in position and flush to surface, install washers and nuts on studs projecting through opposite side of surface, and tighten.
 - 2. Projecting Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
 - a. Thin or Hollow Surfaces: Place spacers on studs, place sign in position with spacers pinched between sign and substrate, and install washers and nuts on stud ends projecting through opposite side of surface, and tighten.
 - 3. Through Fasteners: Drill holes in substrate using predrilled holes in sign as template. Countersink holes in sign if required. Place sign in position and flush to surface. Install through fasteners and tighten.
 - 4. Brackets: Remove loose debris from substrate surface and install backbar or bracket supports in position so that signage is correctly located and aligned.
 - 5. Adhesive: Clean bond-breaking materials from substrate surface and remove loose debris. Apply linear beads or spots of adhesive symmetrically to back of sign and of suitable quantity to support weight of sign after cure without slippage. Keep adhesive away from edges to prevent adhesive extrusion as sign is applied and to prevent visibility of cured adhesive at sign edges. Place sign in position, and push to engage adhesive. Temporarily support sign in position until adhesive fully sets.
 - 6. Two-Face Tape: Clean bond-breaking materials from substrate surface and remove loose debris. Apply tape strips symmetrically to back of sign and of suitable quantity to

support weight of sign without slippage. Keep strips away from edges to prevent visibility at sign edges. Place sign in position, and push to engage tape adhesive.

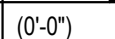
3.3 ADJUSTING AND CLEANING

- A. Remove and replace damaged or deformed signs and signs that do not comply with specified requirements. Replace signs with damaged or deteriorated finishes or components that cannot be successfully repaired by finish touchup or similar minor repair procedures.
- B. Remove temporary protective coverings and strippable films as signs are installed.
- C. On completion of installation, clean exposed surfaces of signs according to manufacturer's written instructions, and touch up minor nicks and abrasions in finish. Maintain signs in a clean condition during construction and protect from damage until acceptance by Owner.

END OF SECTION 10 14 23

- SEE SHEET S-001 FOR STRUCTURAL GENERAL NOTES.
- SEE SHEET S-002 FOR SPECIAL INSPECTIONS.
- BASE REFERENCE ELEVATION IS FROM FINISH FLOOR ELEVATION 1082.79 = (1'-0"). ALL ELEVATIONS ARE REFERENCED FROM BASE ELEVATION AND ARE SHOWN AS (1x-4').
- FOUNDATION ELEVATIONS SHOWN ON PLAN ARE TO TOP OF FOUNDATION AND ARE REFERENCED FROM BASE ELEVATION (0'-0").
- TOP OF EXTERIOR FOUNDATIONS ARE (1'-4") UNO
- TOP OF INTERIOR FOUNDATIONS ARE (1'-4") UNO
- PROVIDE SAWCUT CONTRACTION OR CONSTRUCTION JOINTS IN SLAB SPACED AT A MAXIMUM OF 11'-0" C/C IN BOTH DIRECTIONS WITH A MAXIMUM LENGTH TO WIDTH RATIO OF 2:1. MATCH LOCATION OF JOINTS WITH ARCHITECTURAL DRAWINGS WHEN SHOWN. PROVIDE MASONRY ISOLATION SLAB AT COLUMNS. SEE DMS-201.
- SPREAD FOOTINGS SHALL BE CENTERED BELOW COLUMNS. UNO.
- WALL FOOTING SHALL BE CENTERED BELOW WALLS. UNO.
- SEE ARCHITECTURAL DRAWINGS FOR EXTENT AND FINISH OF SLAB ON GRADE AND ANY FLOOR DEPRESSIONS.
- COORDINATE FLOOR DRAIN LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
- COORDINATE REQUIRED FOUNDATION DRAINAGE WITH ARCHITECTURAL, MECHANICAL AND CIVIL DRAWINGS. PROVIDE A MINIMUM 4" DIAMETER PERFORATED DRAIN PIPE AT ALL EXTERIOR WALLS.
- PROVIDE (2) #4x3'-0" LONG SLAB REINFORCEMENT AT ALL RE-ENTRANT CORNERS.
- MASONRY REINFORCEMENT:
PROVIDE THE FOLLOWING VERTICAL MASONRY REINFORCEMENT FULL HEIGHT OF WALLS. UNO. ALL REINFORCEMENT SHALL BE CENTERED IN MCM UNO.
 - 8" CMU INTERIOR WALLS: #5 @ 48" O.C. UNO
 - 8" CMU EXTERIOR WALLS: #5 @ 48" O.C. UNO

- "WFx" DENOTES WALL FOOTING MARK. SEE FOUNDATION SCHEDULE ON THIS SHEET.
- "Fx" DENOTES SPREAD FOOTING MARK. SEE FOUNDATION SCHEDULE ON THIS SHEET.
- "F.S." DENOTES FOOTING STEP LOCATION. SEE TYPICAL DETAIL ON SHEET S-201.

	4" NORMAL WEIGHT CONCRETE SLAB ON GRADE WITH 6-in. 3W.9W2 F. WWF (CENTERED) ON VAPOR RETARDER ON COMPACTED GRANULAR DRAINAGE FILL MATERIAL.
	6" NORMAL WEIGHT CONCRETE SLAB ON GRADE WITH 4 in. 1" O. C. E.W. (CENTERED) ON VAPOR RETARDER ON COMPACTED GRANULAR DRAINAGE FILL MATERIAL.
	8" NORMAL WEIGHT CONCRETE SLAB WITH (2) LAYERS OF 44-in. 3W.9W2 F. WWF (1.5 TO 1.0 in) ON VAPOR RETARDER ON COMPACTED GRANULAR DRAINAGE FILL MATERIAL.
XXX.XX	APPROXIMATE PROPOSED FINISH GRADE ELEVATION, SEE CIVIL DRAWINGS.

1. UNDERGROUND UTILITY LINE. COORDINATE WITH CIVIL, MECHANICAL, ELECTRICAL, AND PLUMBING. PROVIDE SLEEVE AS REQUIRED. NOT ALL SHOWN ON PLAN. SEE DETAILS ON SHEET S-201.
2. THICKENED SLAB BELOW ALL MASONRY PARTITIONS. SEE DETAIL C4/S-201.
3. SET TOP OF TRENCH DRAIN AT 1" SLOPE CONCRETE TO TRENCH DRAIN, MIN. 18" FT. MA 1/4" FT. SEE PLUMBING AND STRUCTURAL DRAWINGS.
4. PROVIDE (2) (1" $\times$ 1/4" $\times$ 1/4" C.I. JOIST) AT STAIR LANDING.
5. PROVIDE (2) CURTAINS OF HWY # 2 $\times$ 2" O.C. WITH DOWELS INTO FOOTING TO MATCH.
6. UNDERGROUND UTILITY LINE. COORDINATE WITH CIVIL, MECHANICAL, ELECTRICAL, AND PLUMBING. PROVIDE SLEEVE AS REQUIRED. NOT ALL SHOWN ON PLAN. SEE DETAILS ON S-201.
7. X-BRACING FOR LATERAL LOADS BY PEMB SUPPLIER.

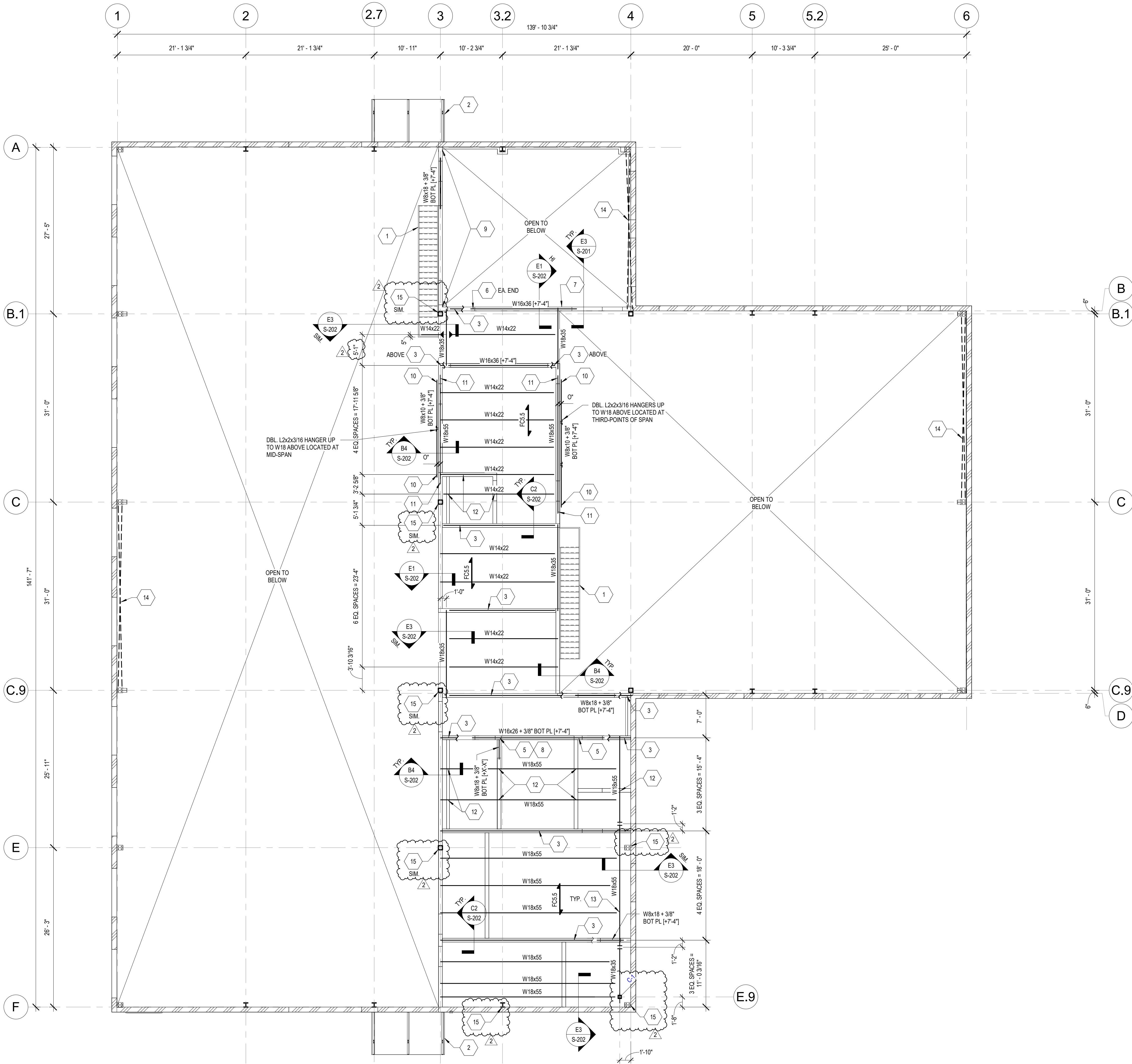
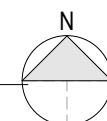
CONTINUOUS FOUNDATION SCHEDULE			
MARK	WIDTH	THICKNESS	REINFORCING
Bearing Footing - 36" x 12"	3' - 0"	1' - 0"	
WF2-0	2' - 0"	2' - 0"	(3)#5 CONT. TOP & BOTTOM
WF3-0	3' - 0"	2' - 0"	(3)#5 CONT. TOP & BOTTOM
WF4-0	4' - 0"	2' - 0"	#5 @ 8" O.C. TRANSVERSE TOP & BOT. (4) #5 LONG TOP & BOT.

SPREAD FOUNDATION SCHEDULE				
MARK	LENGTH	WIDTH	THICKNESS	REINFORCING
Bearing Footing - 36" x 12"	20' - 0.34'	3' - 0"		
F4.0	4' - 0"	4' - 0"	2'-0"	(5)#5 E.W. TOP & BOT.
F5.0	5' - 0"	5' - 0"	2'-0"	(8)#5 E.W. TOP & BOT.
F5.5	5' - 6"	5' - 6"	2'-0"	(8)#5 E.W. TOP & BOT.
F7.5	7' - 6"	7' - 6"	2'-0"	(7)#5 E.W. TOP & BOT.
F10.0	10' - 0"	10' - 0"	2'-0"	(10)#6 E.W. TOP & BOT.

1. FOUNDATION DESIGN IS BASED ON ANTICIPATED METEOROLOGICAL BUILDING REACTIONS AS DEVELOPED BY GPD GROUP IN CONSIDERATION OF THE PLANNED BUILDING TYPE, GABLE, BAL SPACING, AND SPANS. THE GENERAL CONTRACTOR SHALL FURNISH FOUNDATION REACTIONS SIGNED AND SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF OHIO FOR REVIEW PRIOR TO ORDERING MATERIALS FOR FOUNDATIONS.
2. SPREAD FOUNDATIONS CROSS SECTIONS SHOW ARE FOR BIDDING PURPOSES ONLY. REVISIONS MAY BE REQUIRED, DEPENDING ON THE FINAL SEALED REACTIONS. ANY REVISIONS TO THE FOUNDATIONS SHALL BE SUBMITTED FOR ANY REQUIRED, ADJUSTED COSTS ASSOCIATED WITH THE REDESKEN OF THE FOUNDATIONS.
3. FOUNDATION DESIGN IS BASED ON UNIFORM BEARING OF FOUNDATIONS EXCLUSIVELY ON PROPERLY COMPACTED NATIVE SOILS OR ENGINEERED FILL PER THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. ALL SHALLOW BEDROCK AT FOUNDATION LOCATIONS SHALL BE OVEREXCAVATED AND BACKFILLED.
4. FAT CLAY AND FAT CLAY WITH SAND WERE ENCOUNTERED DURING THE GEOTECHNICAL INVESTIGATION. WHERE HIGH PLASTICITY SOILS ARE ENCOUNTERED, FOUNDATIONS SHALL BE OVER-EXCAVATED TO A MINIMUM OF 3'-0" BELOW THE ENCOUNTERED SOILS. FOUNDATIONS SHALL BE REINFORCED WITH PROPERLY PLACED AND COMPACTED GRANULAR ENGINEERED FILL OR HIGH STRENGTH MORTAR LAMIN.

1

MEZZANINE FLOOR PLAN
1/8" = 1'-0"



GENERAL SHEET NOTES

- SEE SHEET S-001 FOR STRUCTURAL GENERAL NOTES.
- BASE REFERENCE ELEVATION IS FROM FINISH FLOOR ELEVATION 1082.79 = (0'-0"). ALL ELEVATIONS ARE REFERENCED FROM BASE ELEVATION AND ARE SHOWN AS (x'-x").
- TYPICAL TOP OF STEEL ELEVATION = (-11'-6 1/2") UNO.
- SEE LOOSE LINTEL SCHEDULE ON SHEET S-001 FOR LINTELS NOT SHOWN.
- FOR DIMENSIONS NOT SHOWN, SEE ARCHITECTURAL DRAWINGS.
- MASONRY REINFORCEMENT:
PROVIDE THE FOLLOWING VERTICAL MASONRY REINFORCEMENT FULL HEIGHT OF WALLS, UNO. ALL REINFORCEMENT SHALL BE CENTERED IN CMU UNO.
8", 10" AND 12" CMU INTERIOR WALLS: #6 @ 48" O.C. UNO
8" AND 10" CMU EXTERIOR WALLS: #6 @ 48" O.C. UNO
12" CMU EXTERIOR WALLS: #6 @ 24" O.C. UNO
- COORDINATE ALL OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. SEE SHEET FOR TYPICAL OPENING DETAILS.
- COORDINATE ALL EQUIPMENT SIZES, LOCATIONS AND WEIGHTS WITH THE MECHANICAL CONTRACTOR. NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR DEVIATIONS FROM WHAT IS SHOWN.
- PROVIDE (2) #4 x 3'-0" LONG SLAB REINFORCEMENT AT ALL RE-ENTRANT CORNERS.

LEGEND

- (x'-x") DENOTES TOP OF STEEL ELEVATION ABOVE FINISH FLOOR ELEVATION OF (0'-0").
- (x'-x") DENOTES BOTTOM OF STEEL ELEVATION ABOVE FINISH FLOOR ELEVATION OF (0'-0").
- <x'-x"> DENOTES TOP OF STEEL ELEVATION ABOVE OR BELOW ADJACENT ELEVATION.
- "MP" DENOTES MASONRY PIER. SEE FOUNDATION PLAN FOR PIER MARKS.
- "LW" DENOTES LINTEL. SEE LINTEL SCHEDULE ON SHEET S-202.
- C-1 DENOTES HSS6x6x5/16 COLUMN. SEE DETAIL E5/S-201 AND E6/S-201 FOR BASE PLATE AND ANCHOR ROD INFORMATION.
- 1 1/2x22 GALVANIZED WIDE RIB METAL ROOF DECK (TYPE B), 4" NORMAL WEIGHT CONCRETE SLAB ON 1 1/2x20 COMPOSITE METAL DECK, (5 1/2" TOTAL THICKNESS) REINFORCED WITH 4x4-W2.W2.W2.3 WWF. WWF SHALL BE LOCATED 3/4" FROM TOP OF SLAB.
- DENOTES FULLY-RESTRAINED MOMENT CONNECTION.
- DENOTES BEAM SPLICE.

SHEET KEYNOTES

- STAIR SUPPLIER TO DESIGN STRINGERS TO MATCH STAIR PROFILE PER ARCHITECTURAL DRAWINGS.
- CANOPY BY PEMB. SEE ARCHITECTURAL FOR ADDITIONAL INFO.
- CONT. PL. SEE B2/S-202. TPL = 11' - 6 1/2".
- PROVIDE LOOSE LINTEL. SEE LOOSE LINTEL SCHEDULE.
- CONTINUE LINTEL ACROSS MASONRY JAMB BELOW. PROVIDE BEARING PLATE PER SCHEDULE AND GROUT MASONRY JAMB SOLID. PROVIDE (2) #6 IN JAMB.
- BEARING PL 3/8" x 7 1/2" x 1/2" LG WITH (4)-1/2"Ø x 6" LG HD'D STUDS. GROUT MASONRY SOLID BELOW FULL HEIGHT. SEE TYP. DETAILS FOR ADDITIONAL REBAR REQMENTS AT JAMBS.
- STOP CONT. PL AT MEZZ. FLOOR EXTENTS.
- FRAME W8 LINTEL INTO W16 LINTEL.
- PROVIDE (2) CURTAINS OF #4V @ 2'-0" O.C. WITH DOWELS INTO FOOTING TO MATCH.
- BEAR W8 ONTO MASONRY.
- EXTEND W18 2'-0" PAST M.O.
- PROVIDE 12" GAP BETWEEN WALL AND BEAM FLANGE. BEAM SHALL NOT BEAR ON MASONRY. PROVIDE BACKER ROD AND SEALANT AT JOINT.
- PROVIDE FULL-DEPTH, FULL-CAPACITY, DOUBLE ANGLE SHEAR CONNECTION - TYPICAL.
- X-BRACING FOR LATERAL LOADING BY PEMB SUPPLIER.
- PEMB COLUMN PENETRATES MEZZANINE FRAMING. BENT PLATE TO FRAME AROUND COLUMN PER DETAIL C3/S-202.

DESCRIPTION	
ISSUED FOR ADDENDUM #2	

DATE	REV
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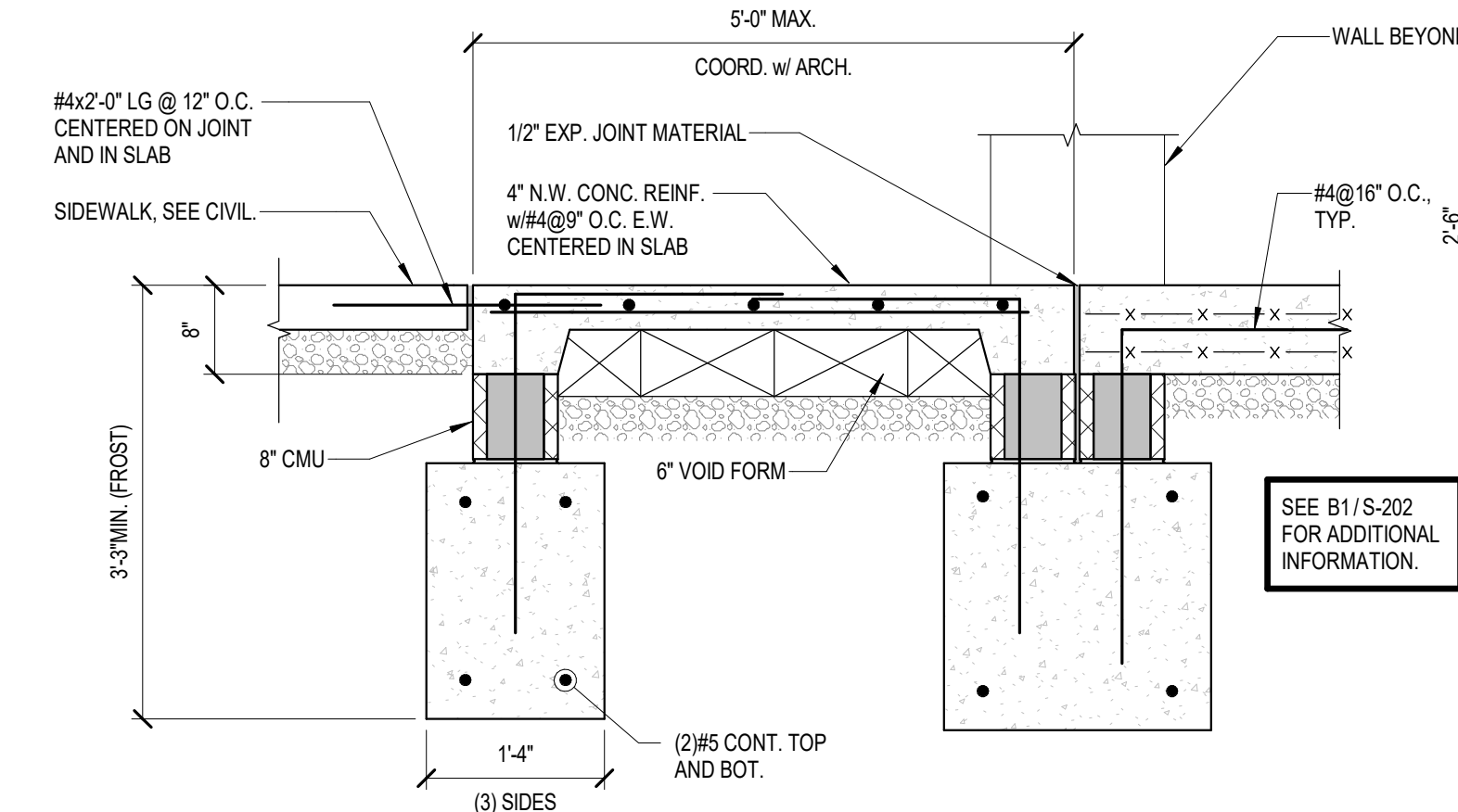
MEZZANINE PLAN

ISSUED FOR:	
PERMIT	08/25/2025
BID	08/25/2025
CONSTRUCTION	-/-/-/-/-
RECORD	-/-/-/-/-
PROJECT MANAGER	DESIGNER
RD	CE

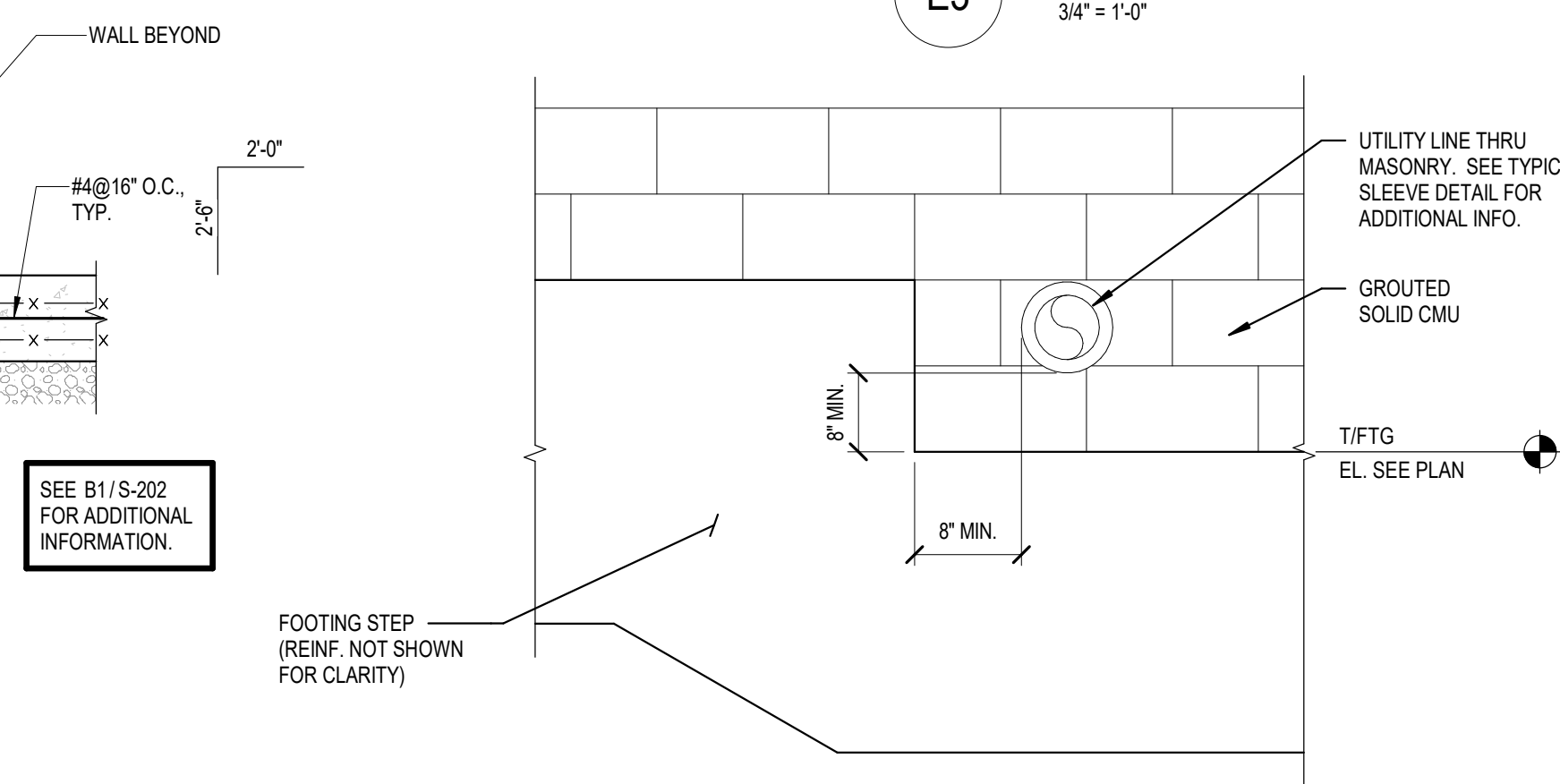
JOB NO.
2023352.01

S-111

E1 TYP. SLAB AT STAIR STRINGER
3/4" = 1'-0"

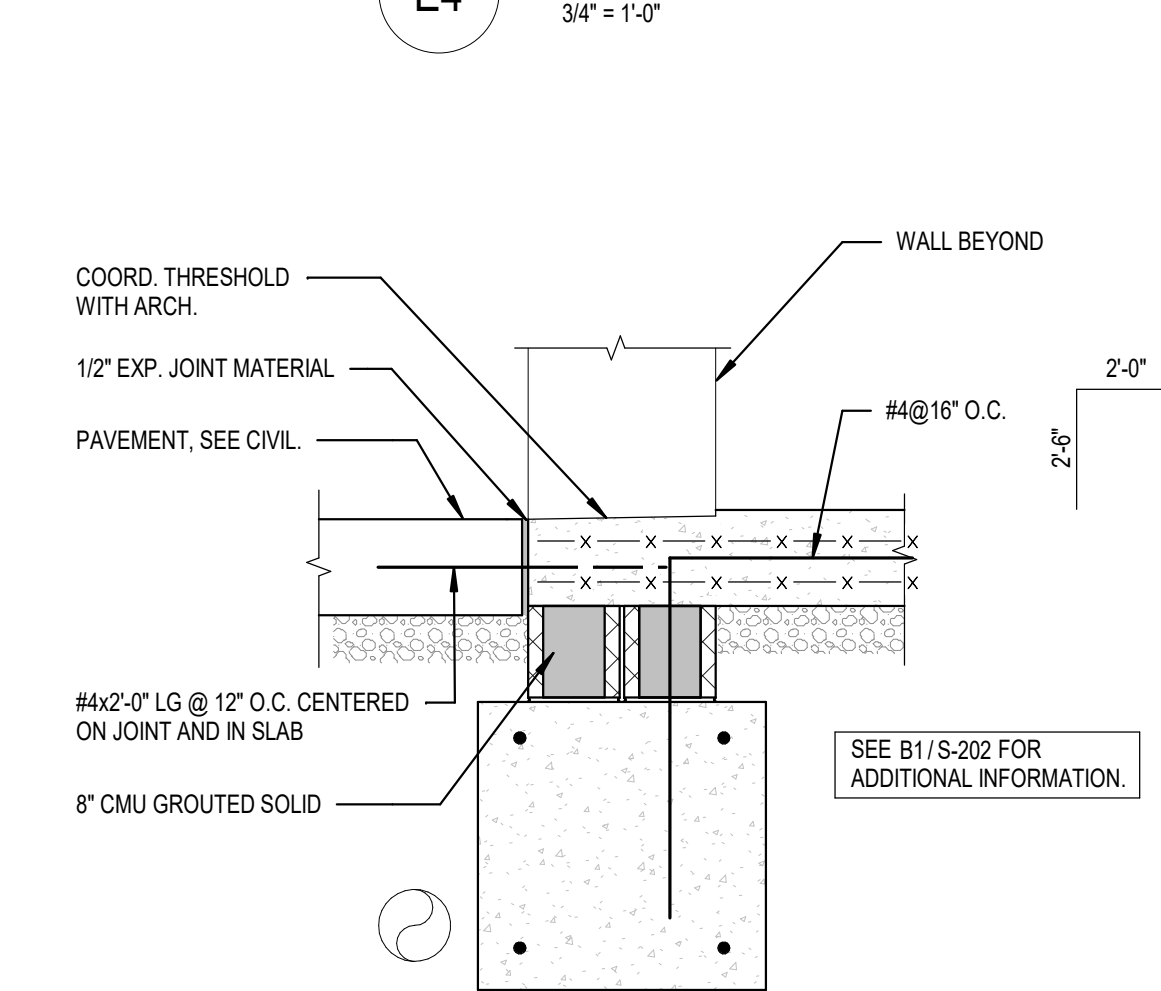


E2 SECTION
3/4" = 1'-0"

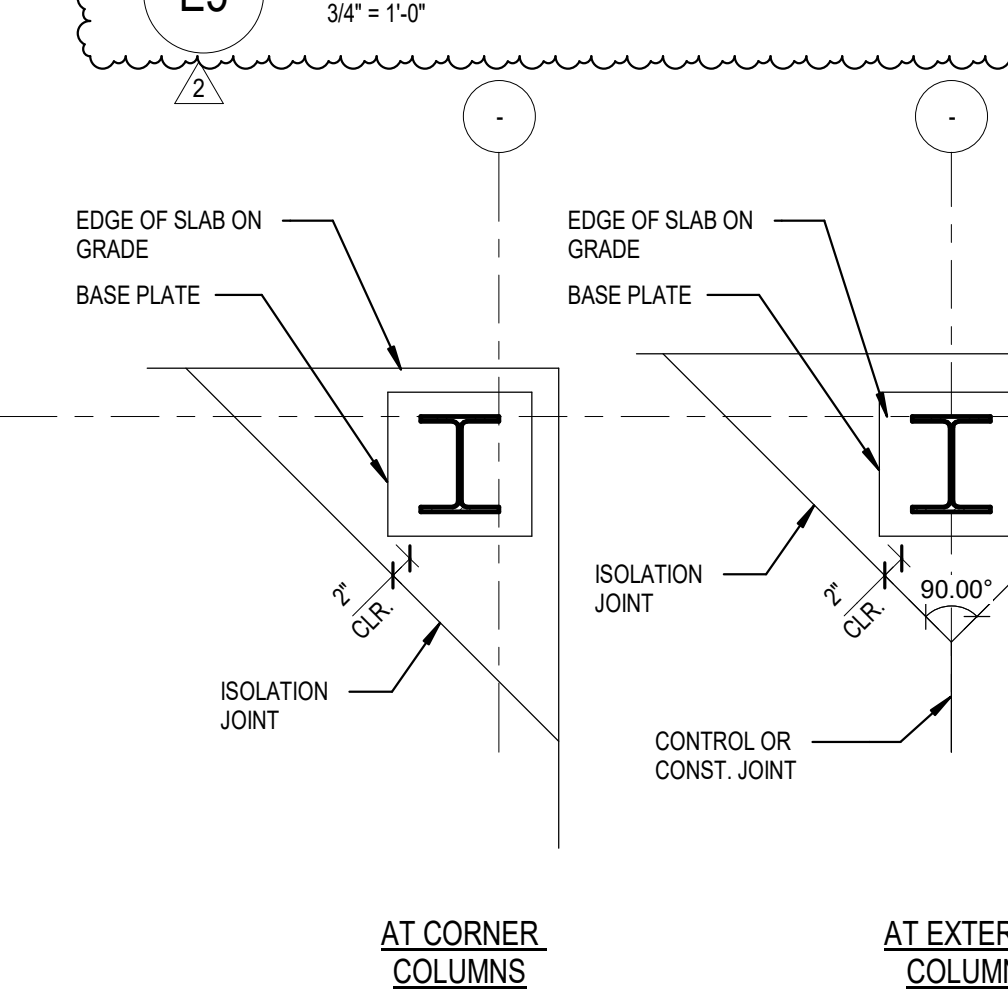


E3 TYP. LINTEL BEARING DETAIL
3/4" = 1'-0"

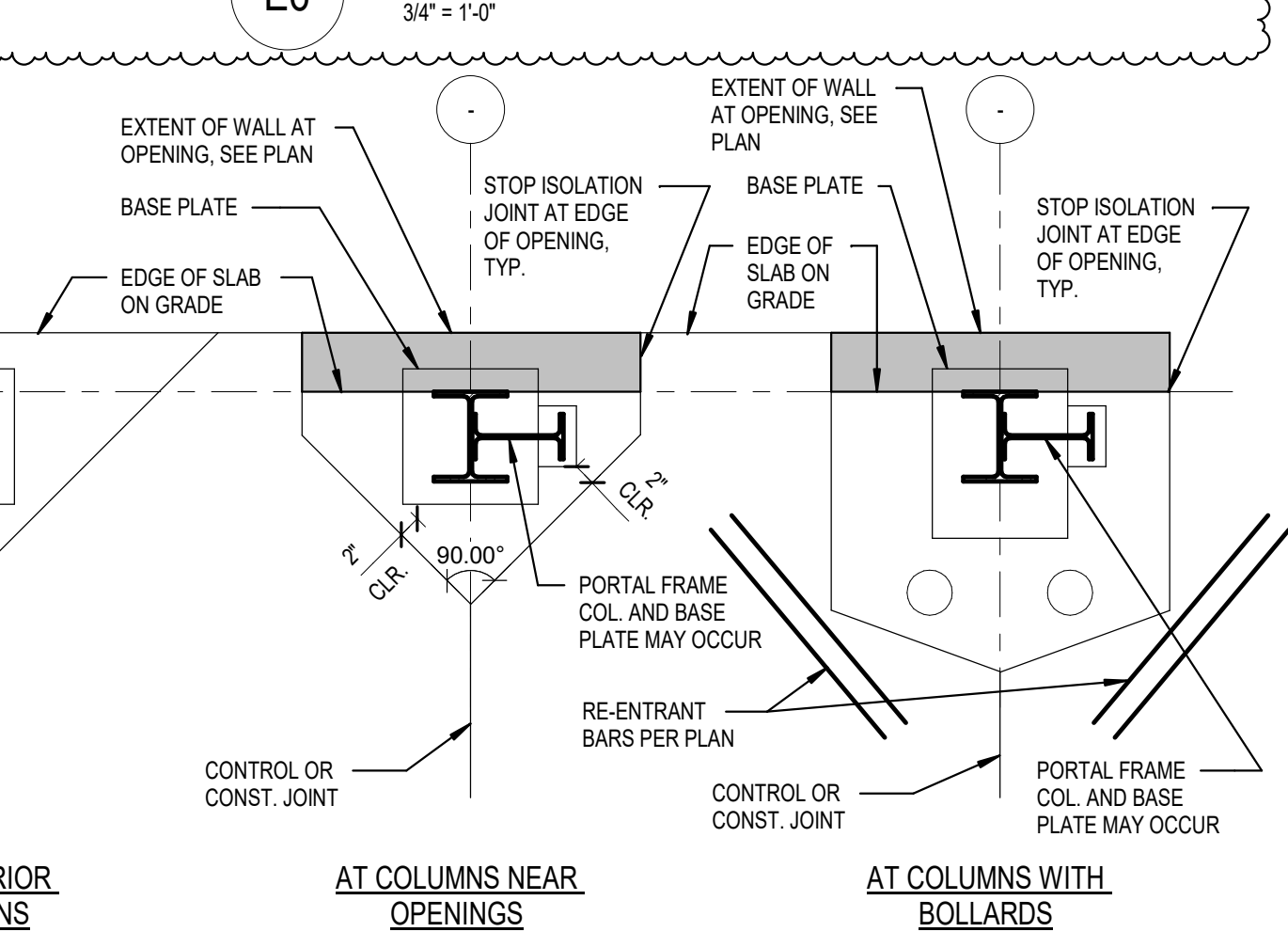
E4 TYP. SLEEVE DETAIL
3/4" = 1'-0"



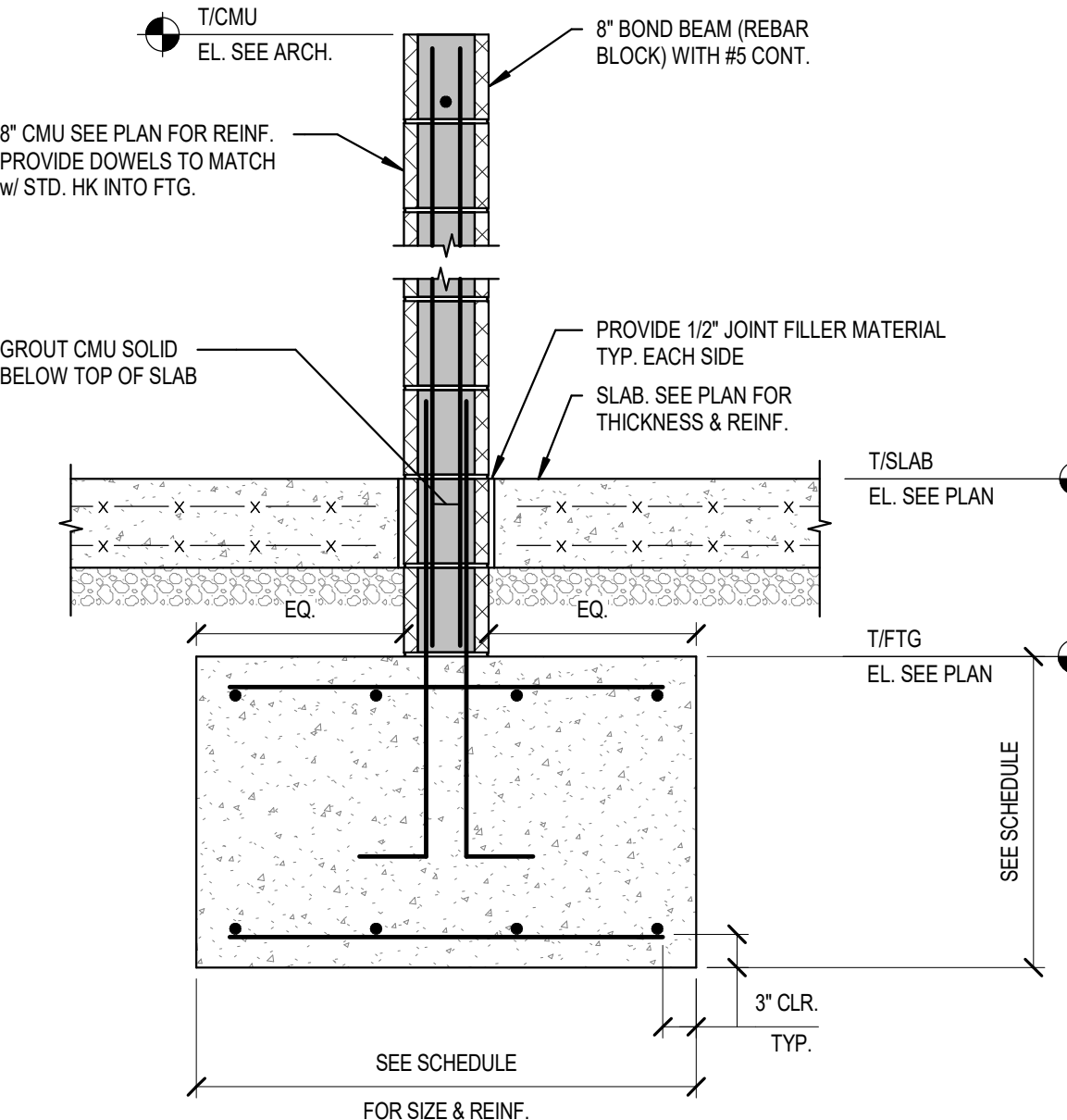
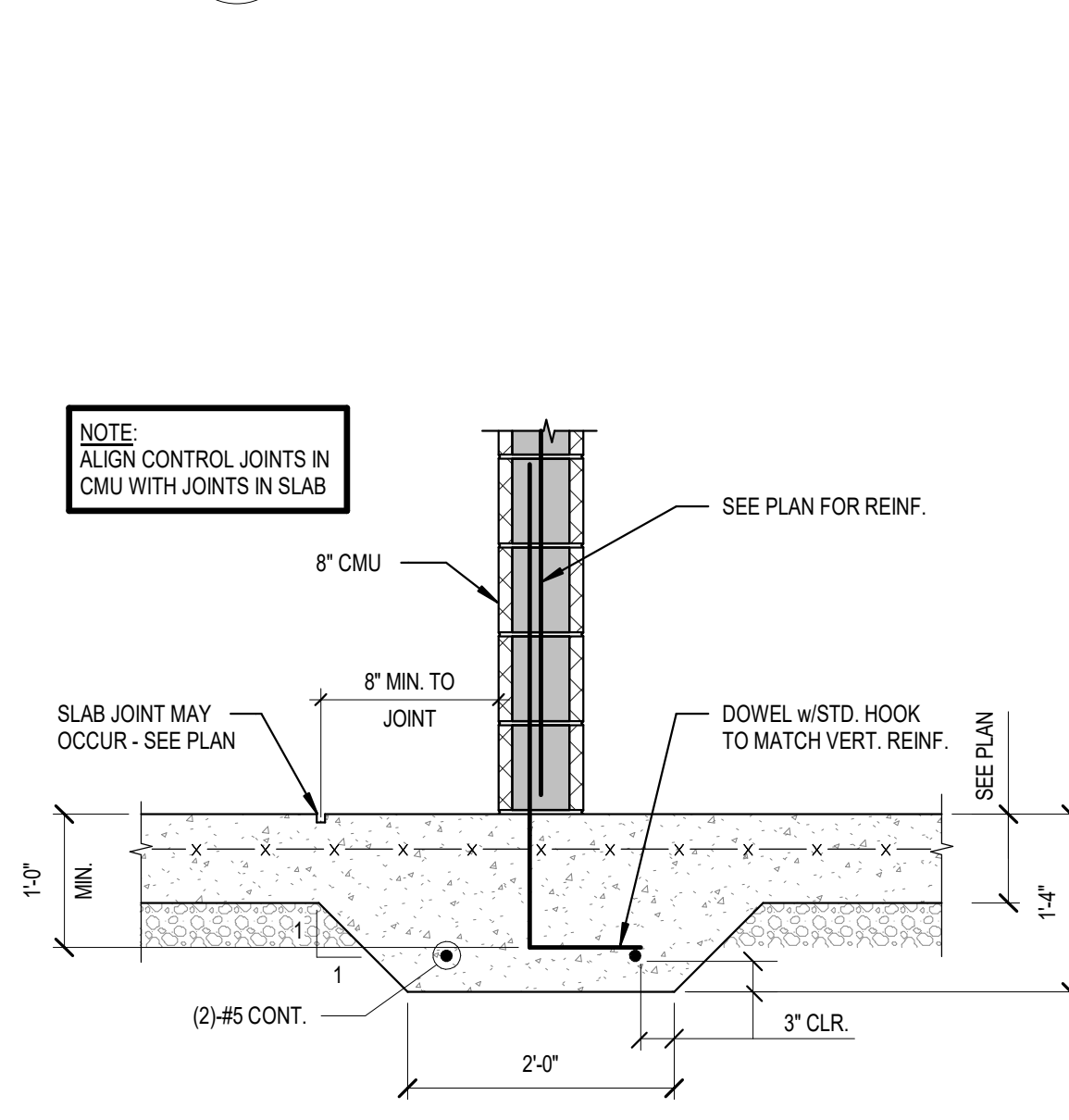
E5 COLUMN C-1 ANCHOR ROD DETAIL
3/4" = 1'-0"



E6 COLUMN C-1 BASE PLATE
3/4" = 1'-0"

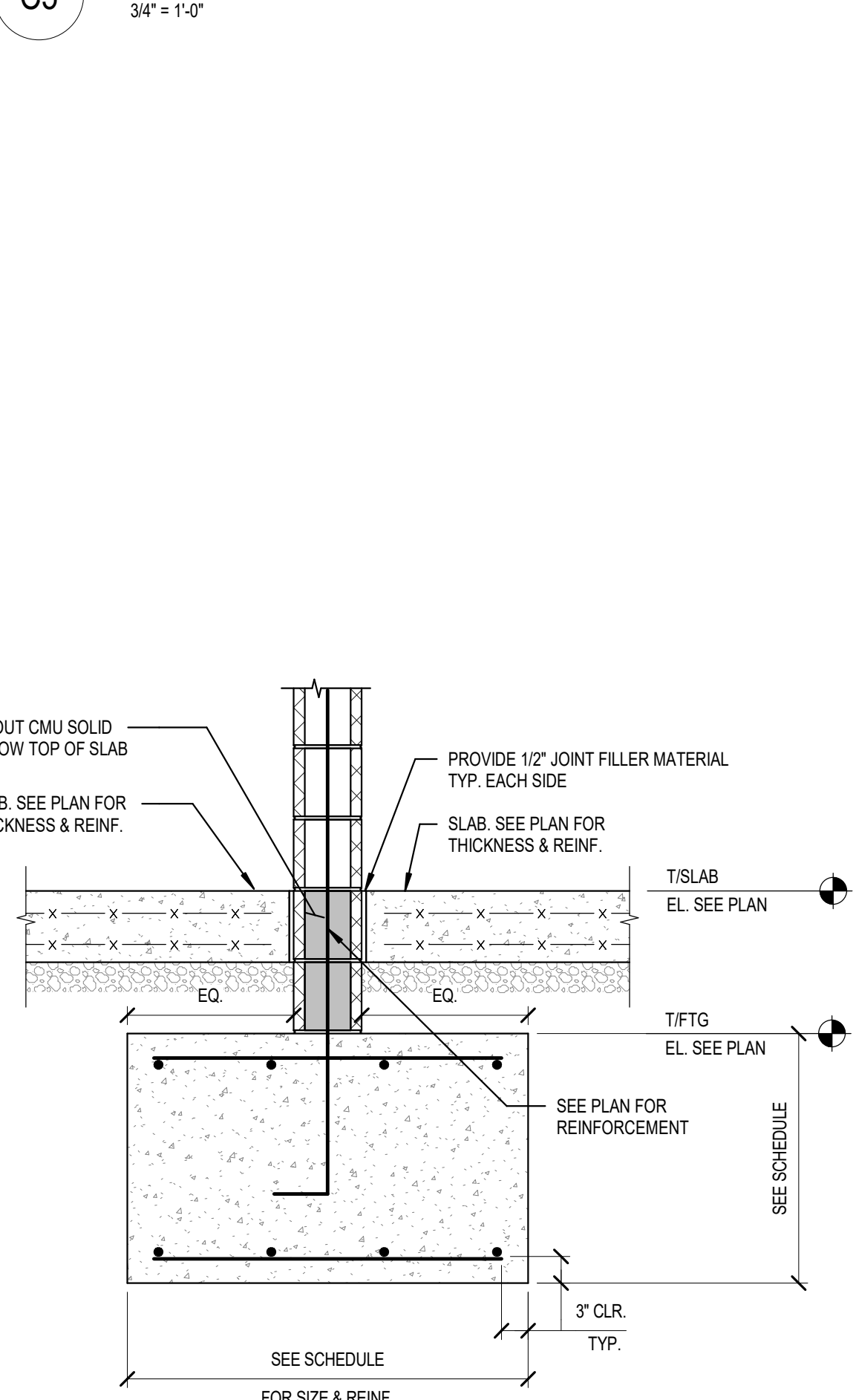


D4 TYP. SLAB ISOLATION JOINT DETAILS
3/4" = 1'-0"

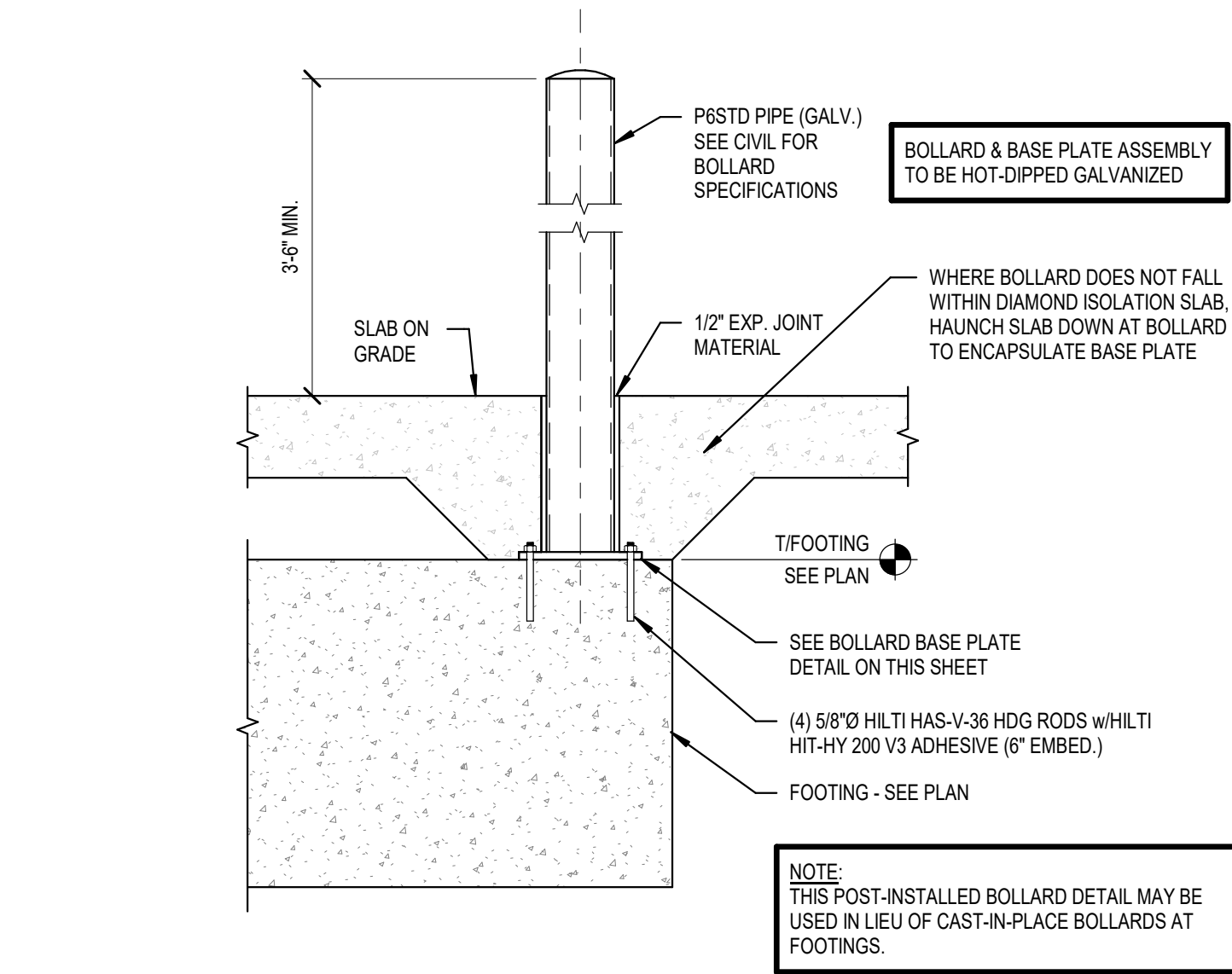


C4 TYP. THICKENED SLAB DETAIL
3/4" = 1'-0"

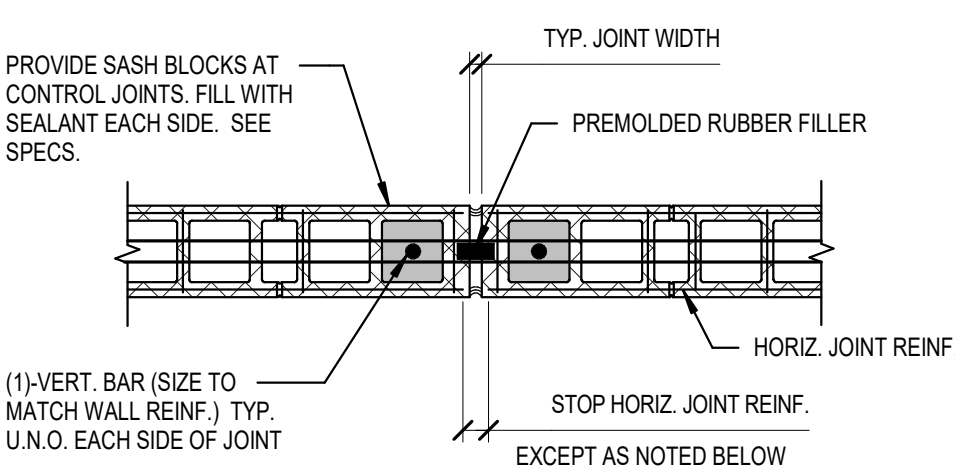
C5 SECTION
3/4" = 1'-0"



D1 TYP. FROST SLAB DETAIL
3/4" = 1'-0"

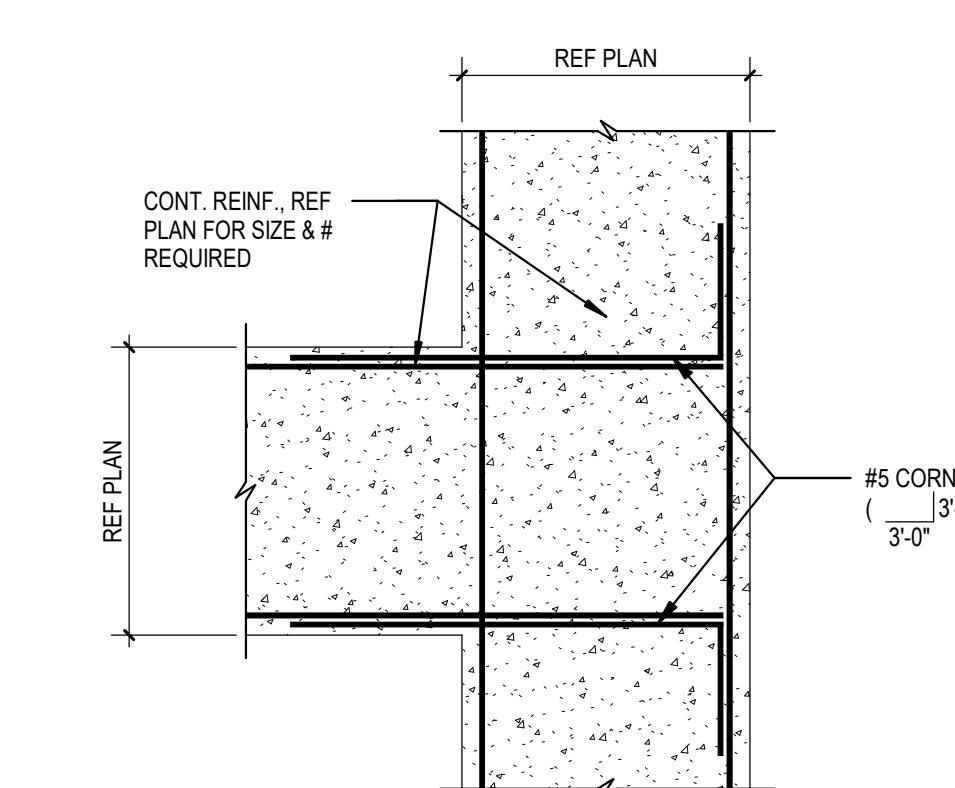


C1 POST-INSTALLED BOLLARD ON FOOTING DETAIL
3/4" = 1'-0"

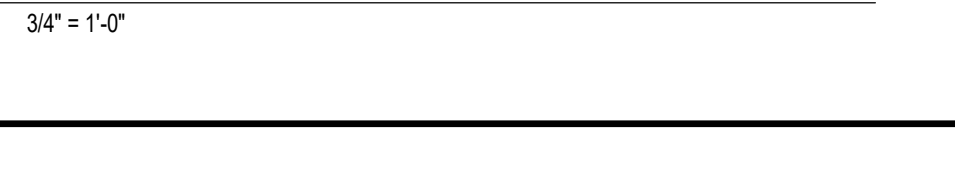


- NOTES:
- REFER TO ARCHITECTURAL DRAWINGS FOR JOINT LOCATIONS.
 - DO NOT LOCATE JOINT WITHIN REINFORCED ELEMENTS SUCH AS COLUMNS, LINTELS, PIERS, PLASTERS OR OPENING JAMBS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.
 - MAX. SPACING OF JOINTS: PANEL LENGTH/HEIGHT = 1.5 MAX., 20'-0" MAX.

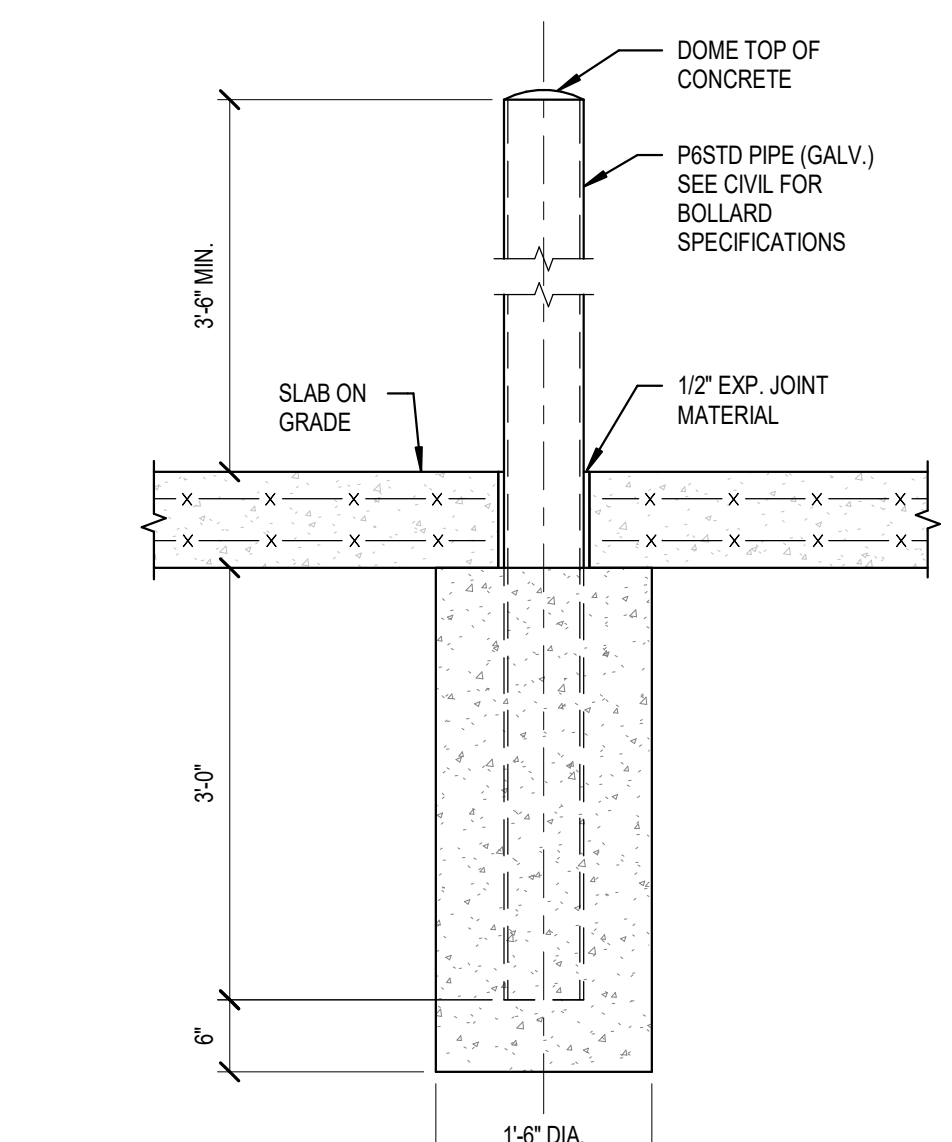
B1 TYP. MASONRY CONTROL JOINT DETAIL
3/4" = 1'-0"



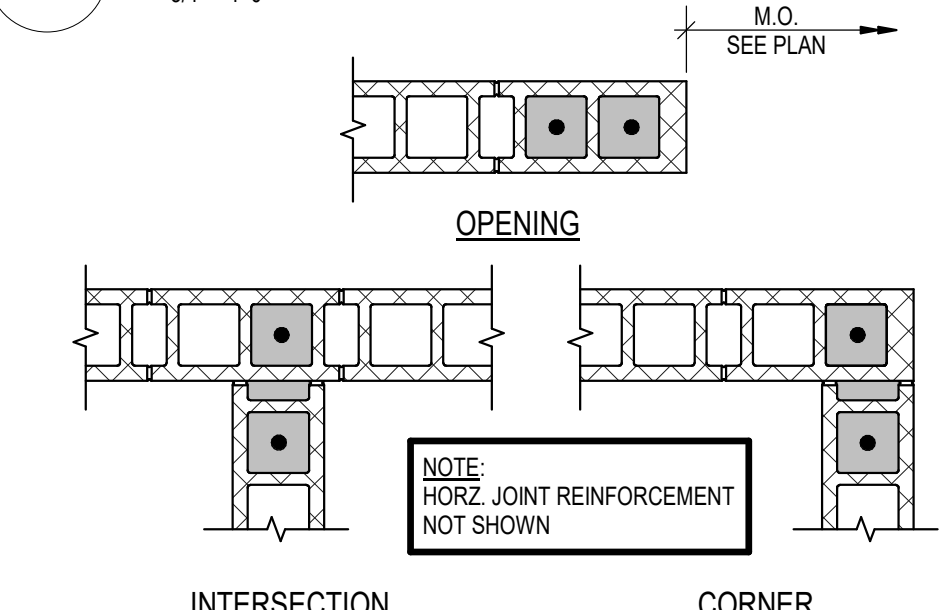
A1 TYP. CONCRETE FOOTING INTERSECTION
3/4" = 1'-0"



D2 TYP. UTILITY LINE ABOVE FOUNDATION DETAIL
3/4" = 1'-0"

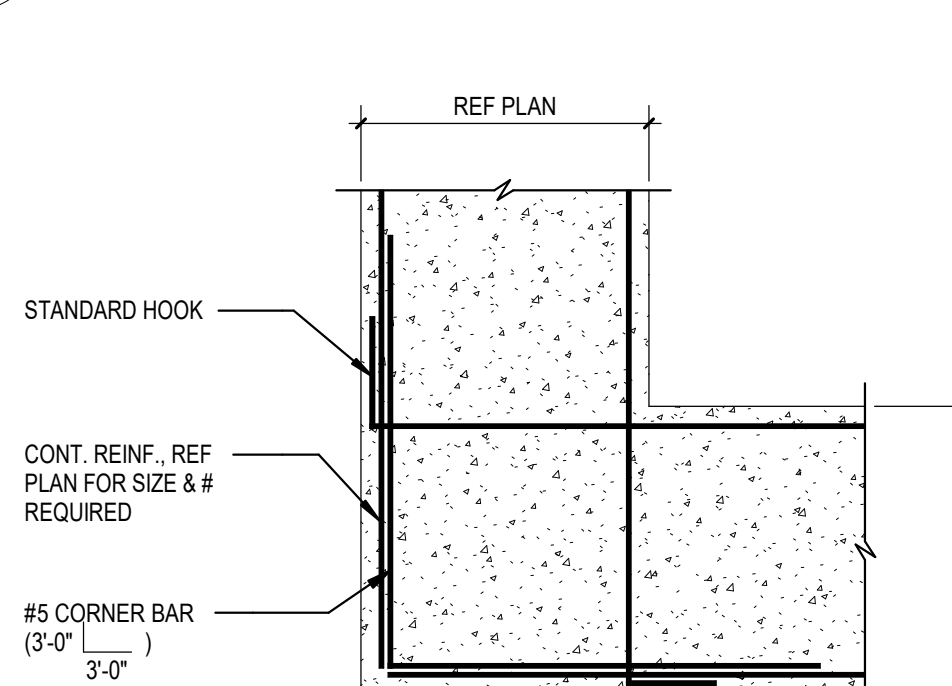


C2 TYP. INTERIOR BOLLARD DETAIL
3/4" = 1'-0"

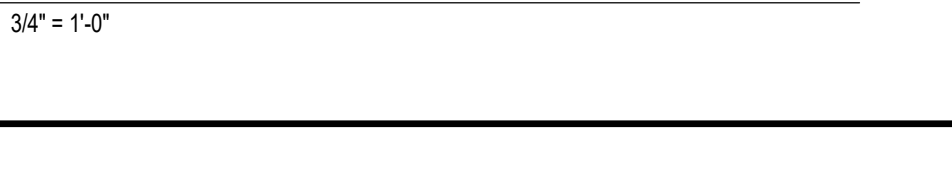


- NOTES:
- PROVIDE (2) VERTICAL BARS AT ALL CORNERS.
 - ALL INTERSECTING MASONRY CORNERS SHALL BE TIED BY MASONRY BOND WHERE THE TWO WALLS SHARE A COMMON FOOTING. WHERE A WALL BEARS ON A THICKENED SLAB, PROVIDE A CORRUGATED TIE WITH THE INTERSECTING WALL.
 - GROUT MASONRY SOLID AT VERTICAL REINFORCING.

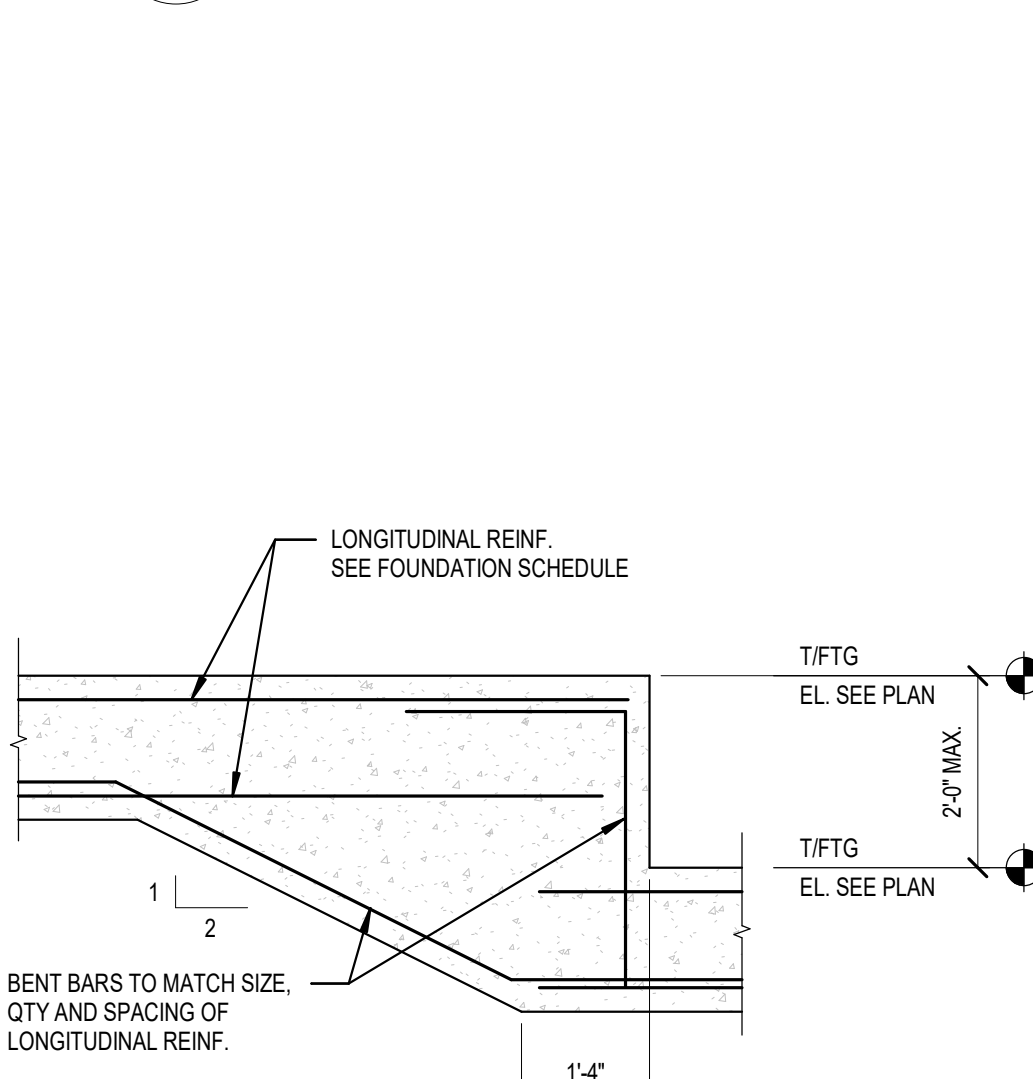
B2 TYP. MASONRY REINFORCEMENT DETAILS
3/4" = 1'-0"



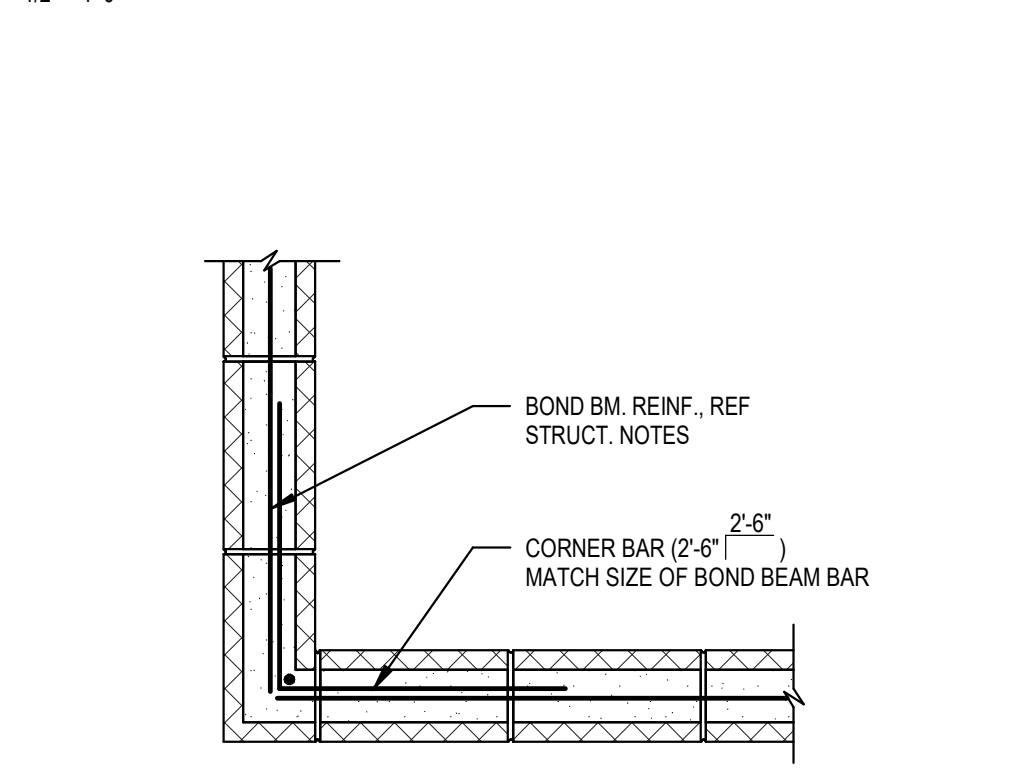
A2 TYP. AT CONCRETE FOOTING CORNER
3/4" = 1'-0"



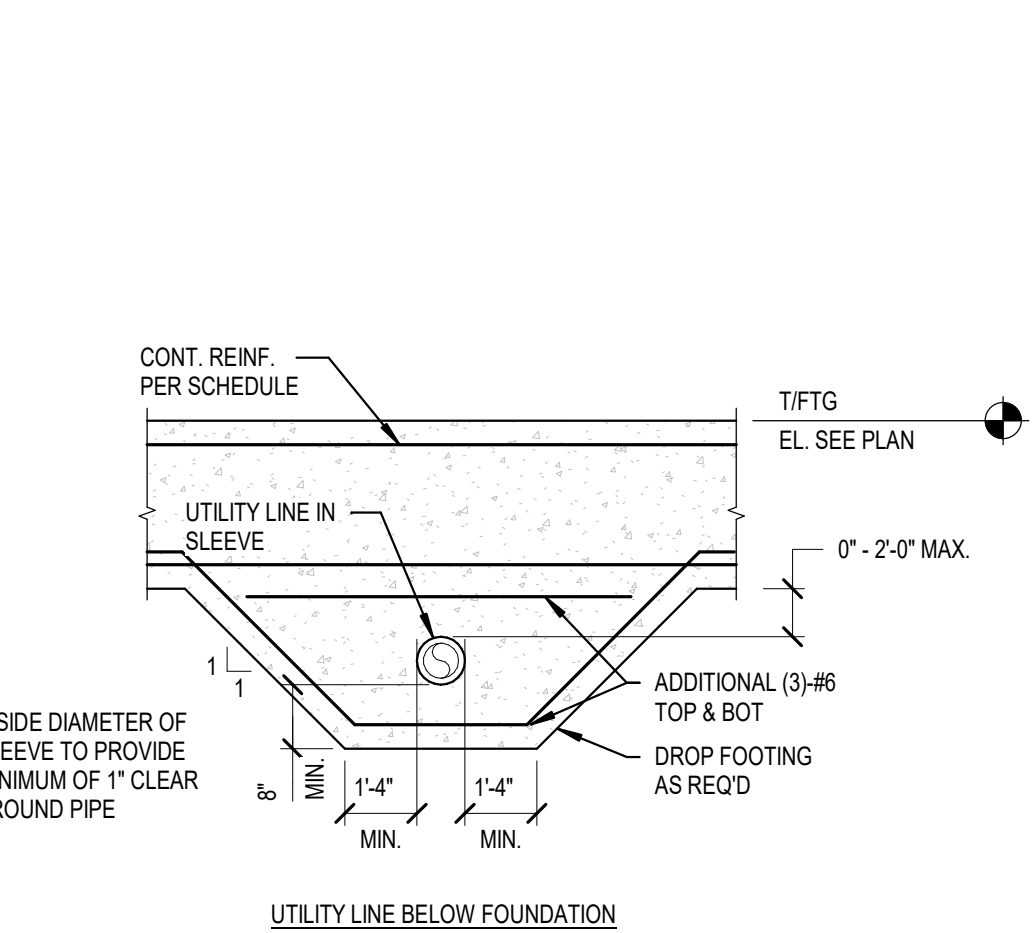
D3 SECTION
3/4" = 1'-0"



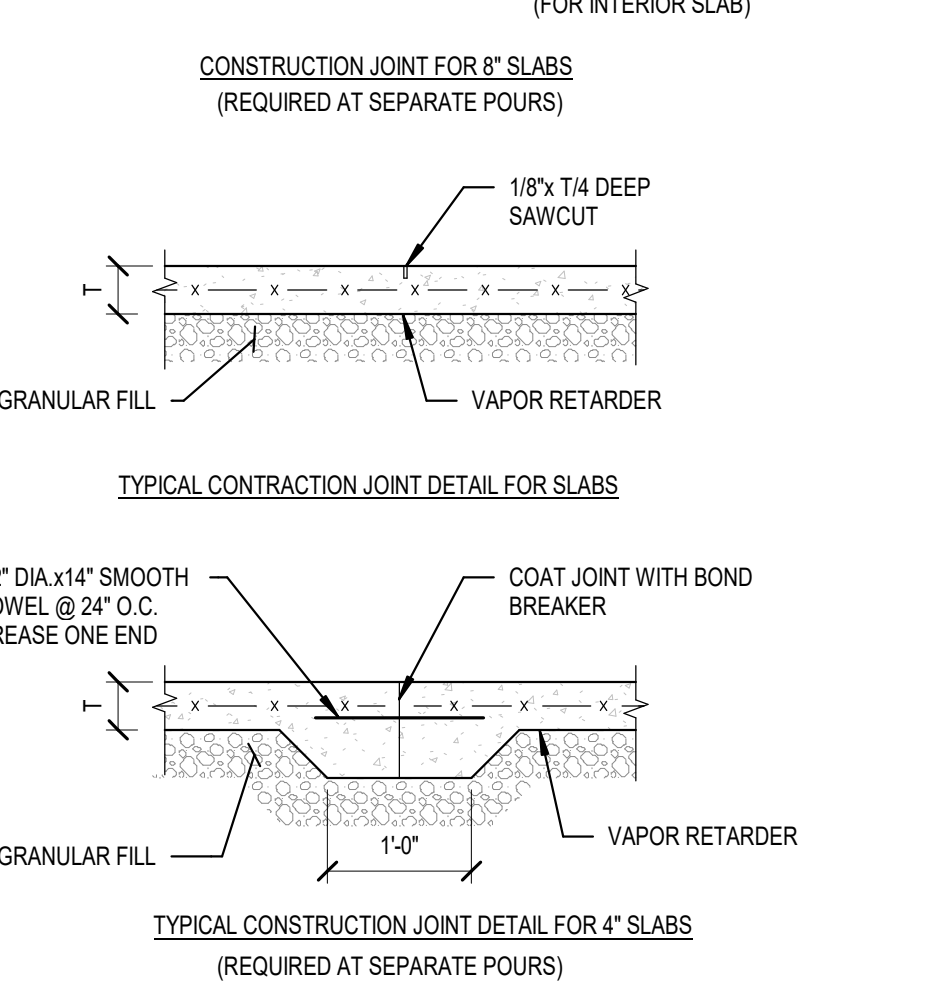
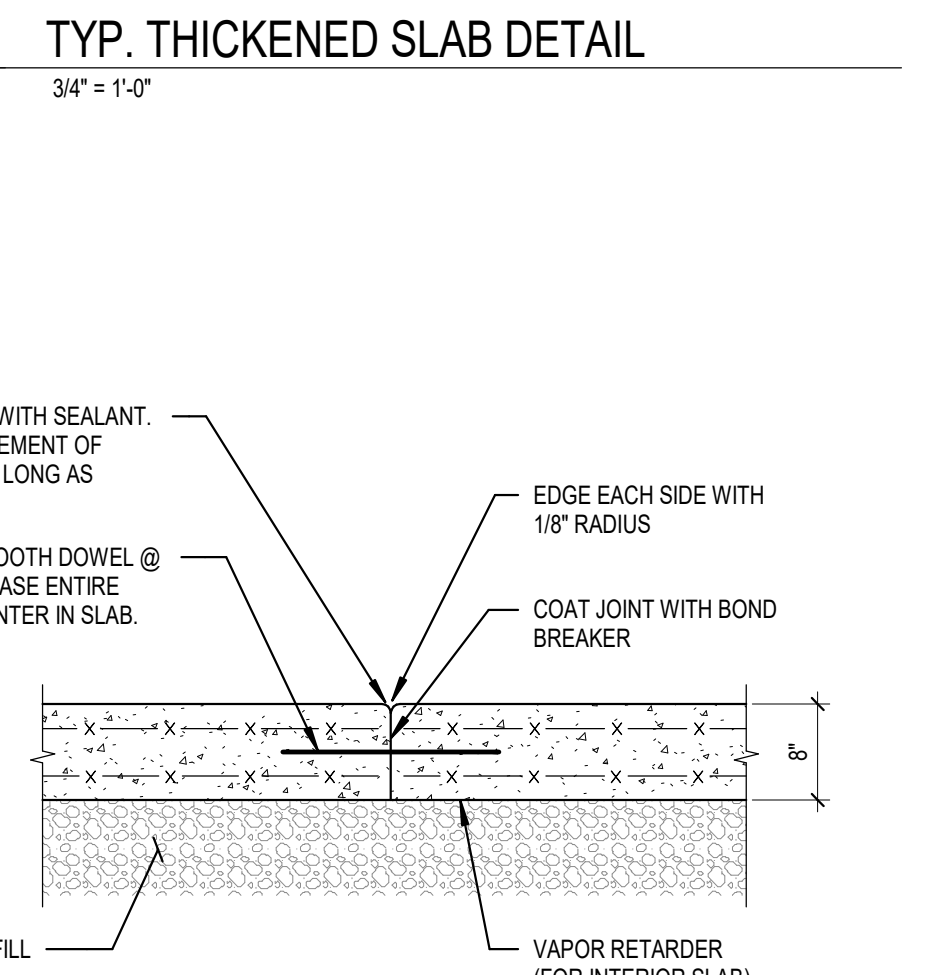
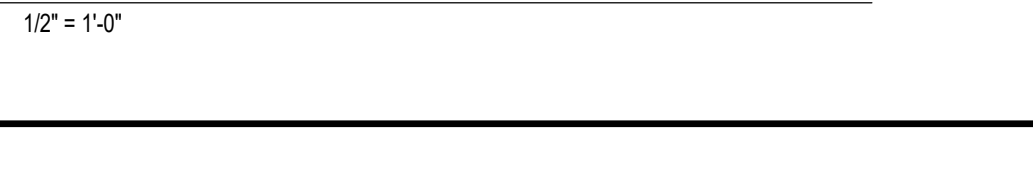
C3 TYP. FOOTING STEP DETAIL
1/2" = 1'-0"



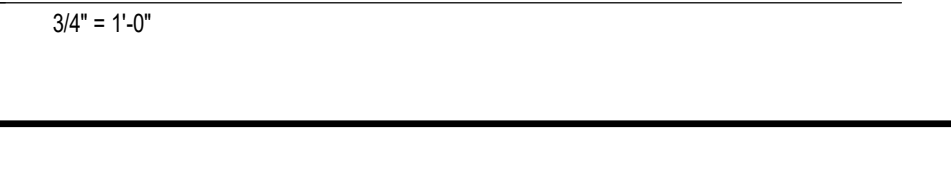
B3 TYPICAL AT 8" KNOCK-OUT BOND BEAM CORNER
3/4" = 1'-0"



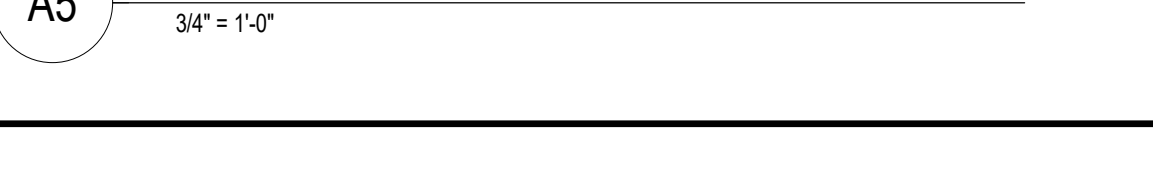
A3 TYP. UTILITY LINE BELOW FOUNDATION DETAIL
1/2" = 1'-0"



A4 TYP. SLAB JOINT DETAIL
3/4" = 1'-0"



A5 SECTION
3/4" = 1'-0"



DESCRIPTION
ISSUED FOR ADDENDUM #2
DATE
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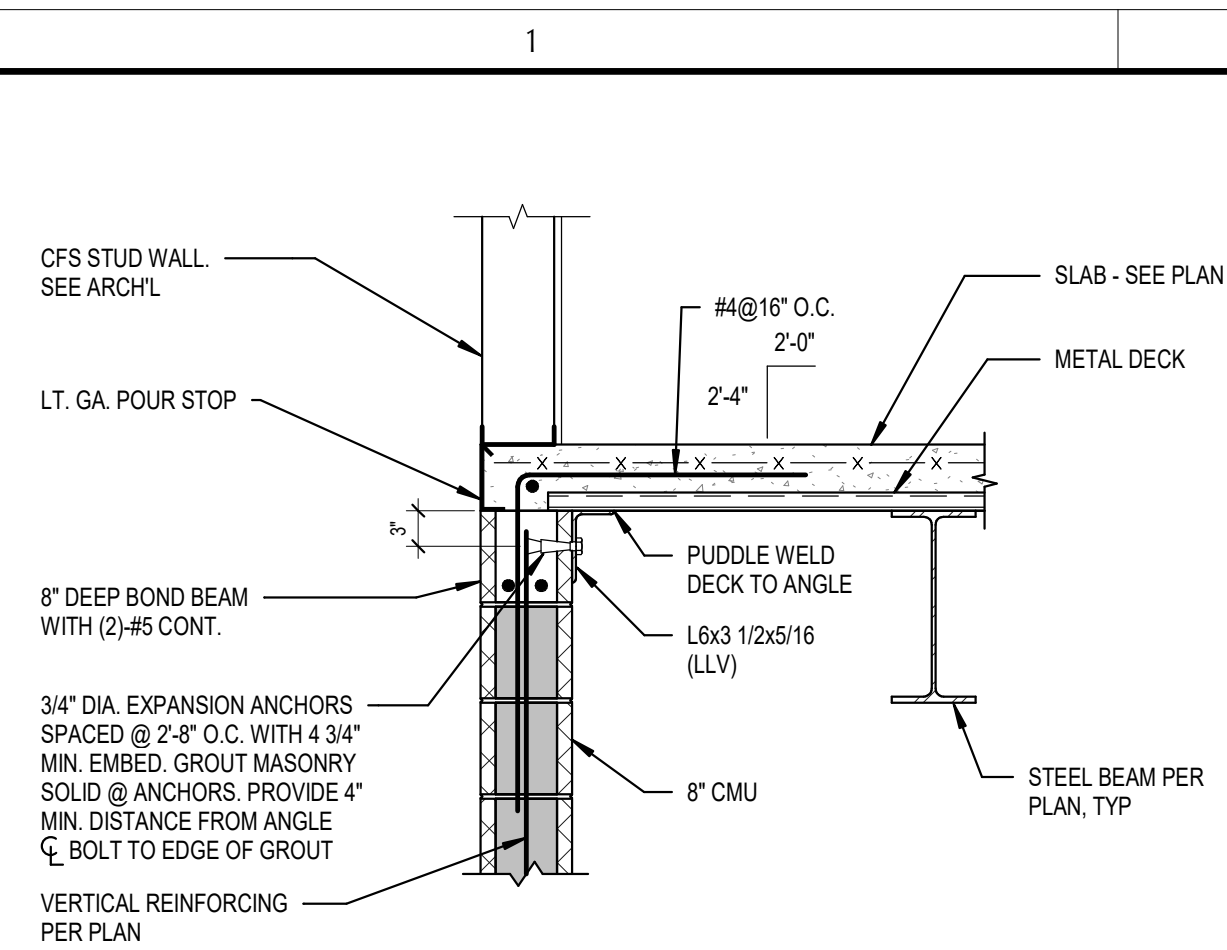
DRC-231009 LOCI AUTOMATIVE SCHOOL
1580 STATE ROUTE 56SW
LONDON, OH 43140

ISSUED FOR:	
PERMIT	08/25/2025
BID	08/25/2025
CONSTRUCTION	-/-/-/-/-
RECORD	-/-/-/-/-
PROJECT MANAGER	DESIGNER
RD	CE

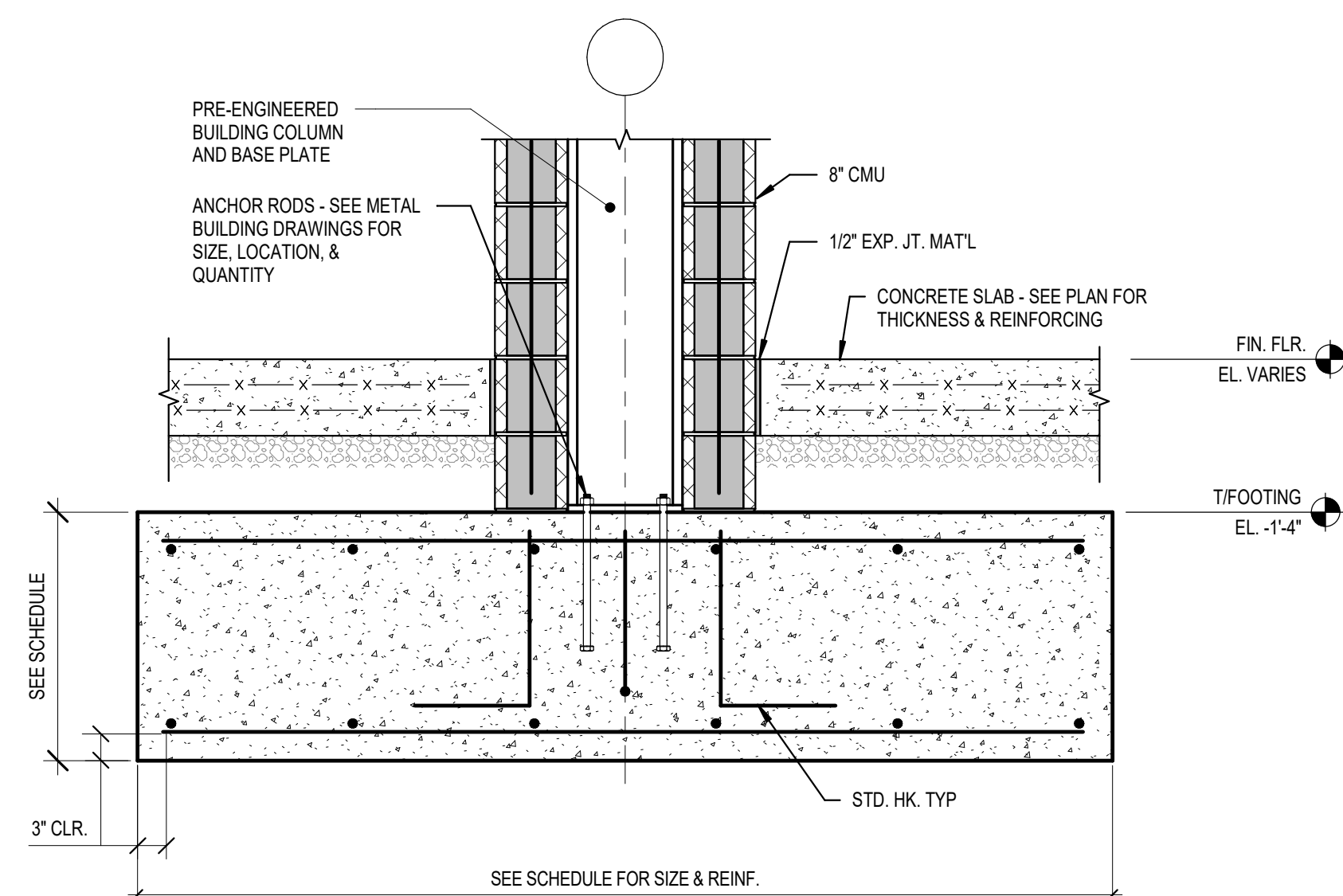
JOB NO.
2023352.01

S-201

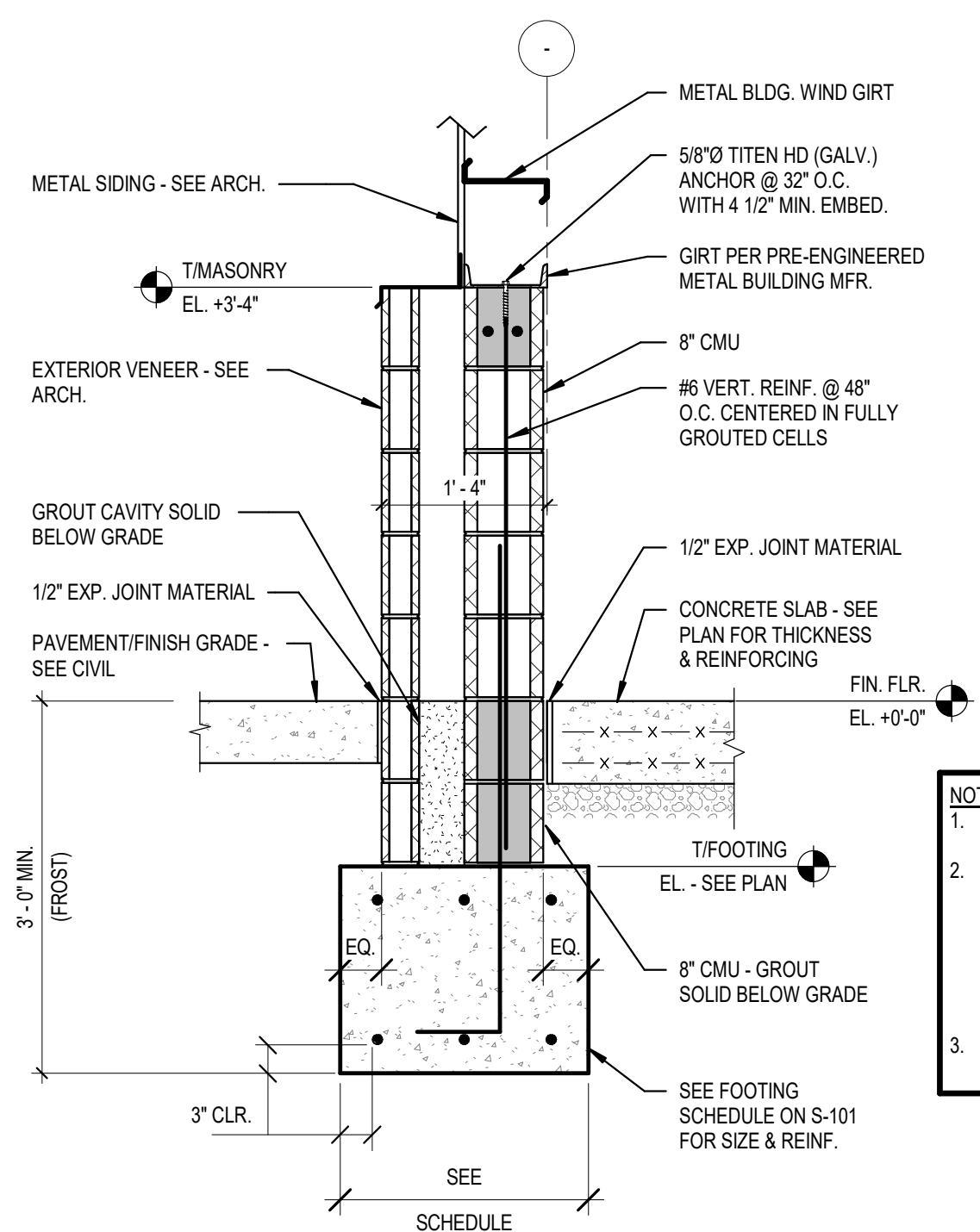
SECTIONS AND DETAILS



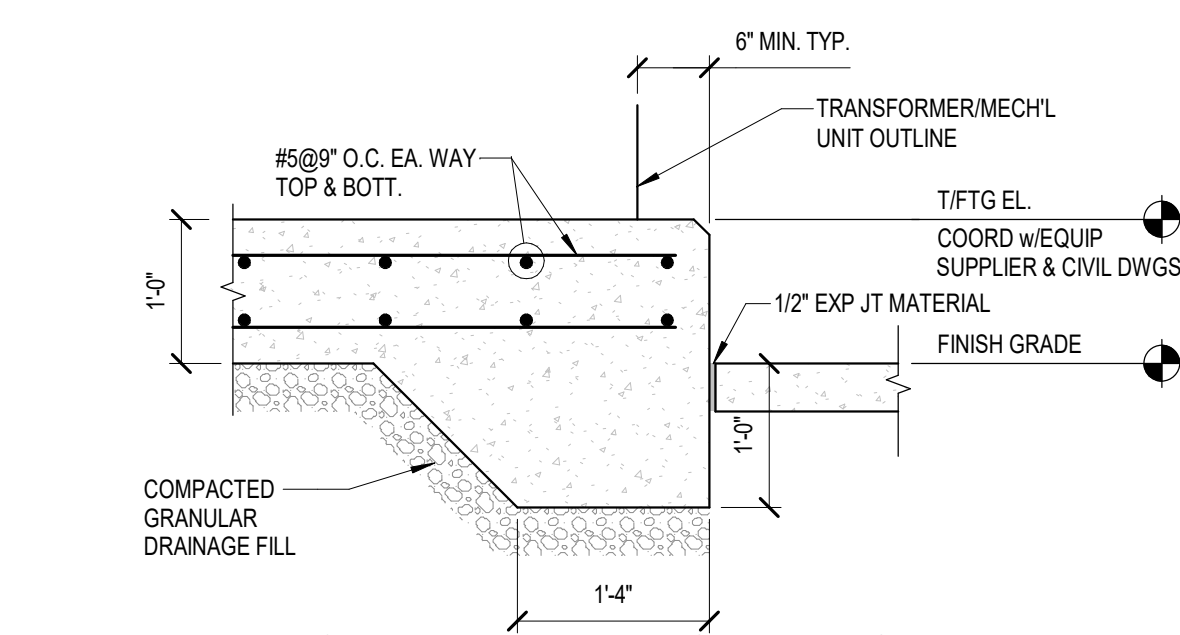
E1 SECTION
3/4" = 1'-0"



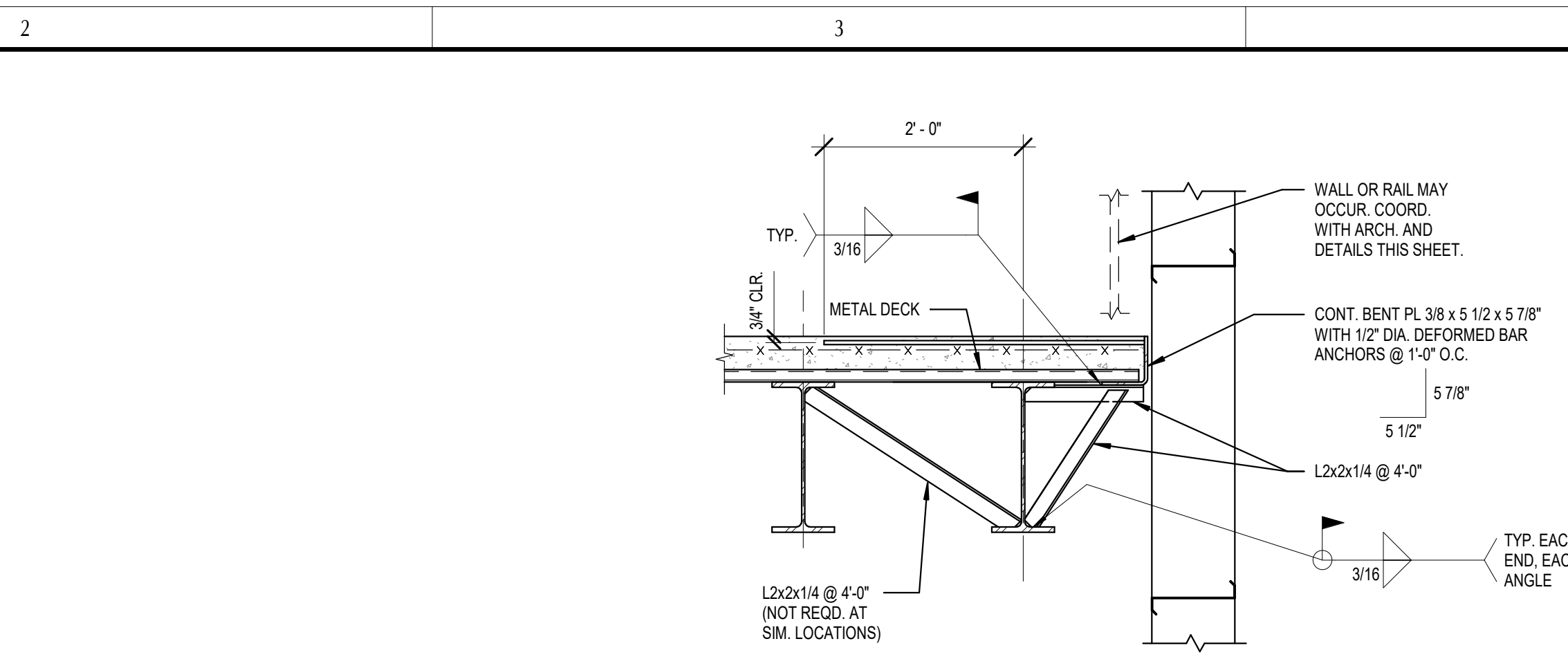
C1 SECTION
3/4" = 1'-0"



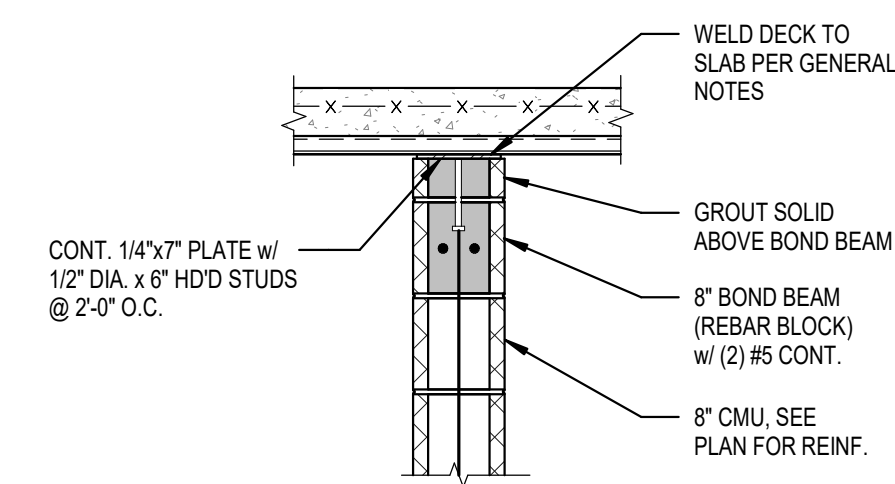
B1 SECTION (ALTERNATE #2)
3/4" = 1'-0"



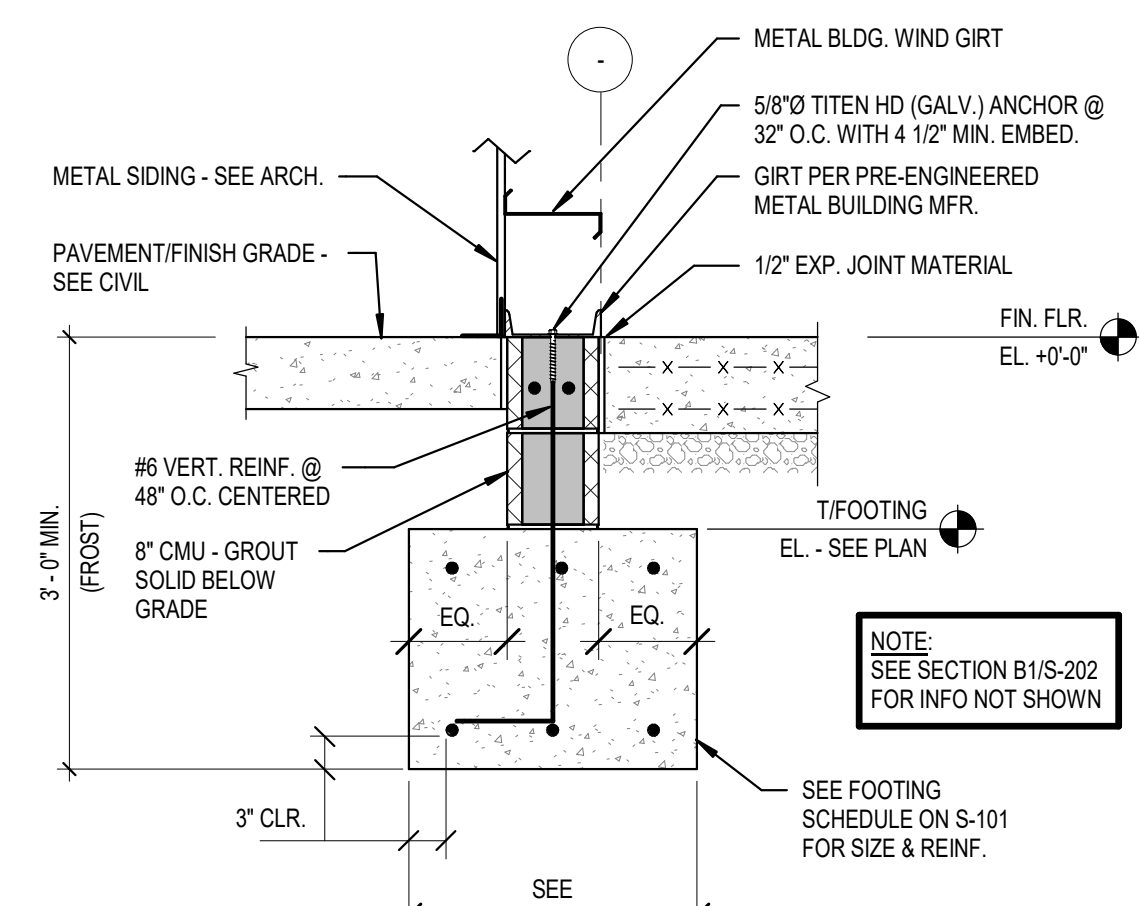
A1 SECTION
3/4" = 1'-0"



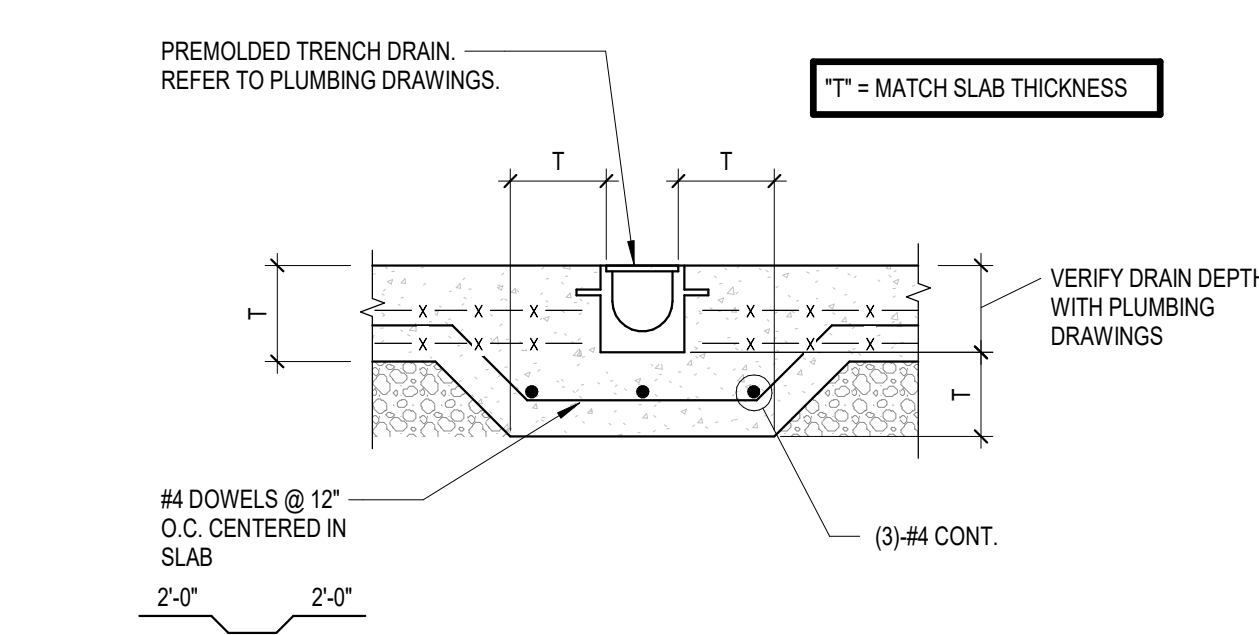
E3 SECTION
3/4" = 1'-0"



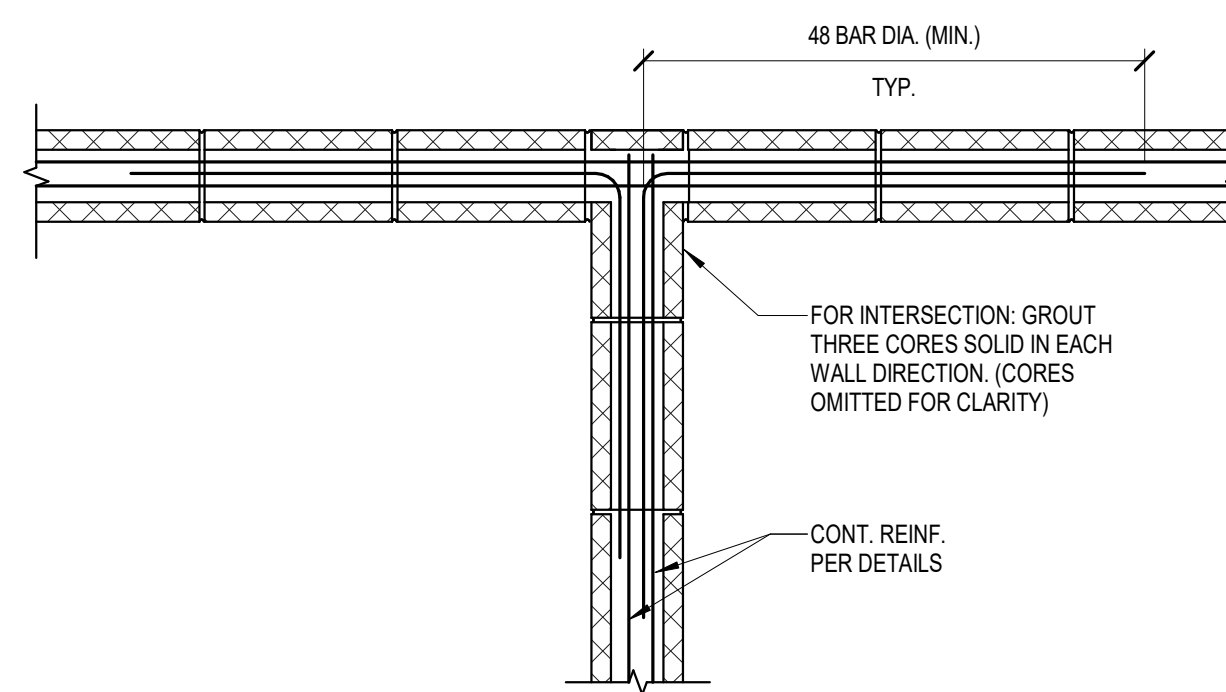
C2 SECTION
3/4" = 1'-0"



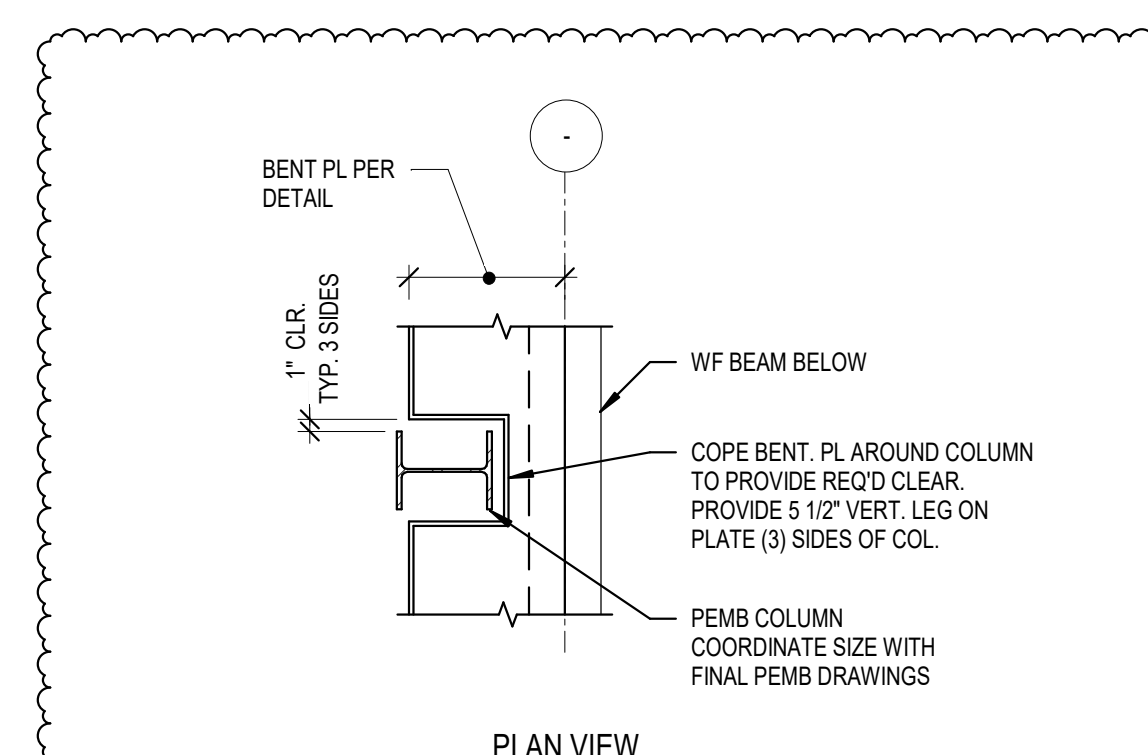
B2 SECTION
3/4" = 1'-0"



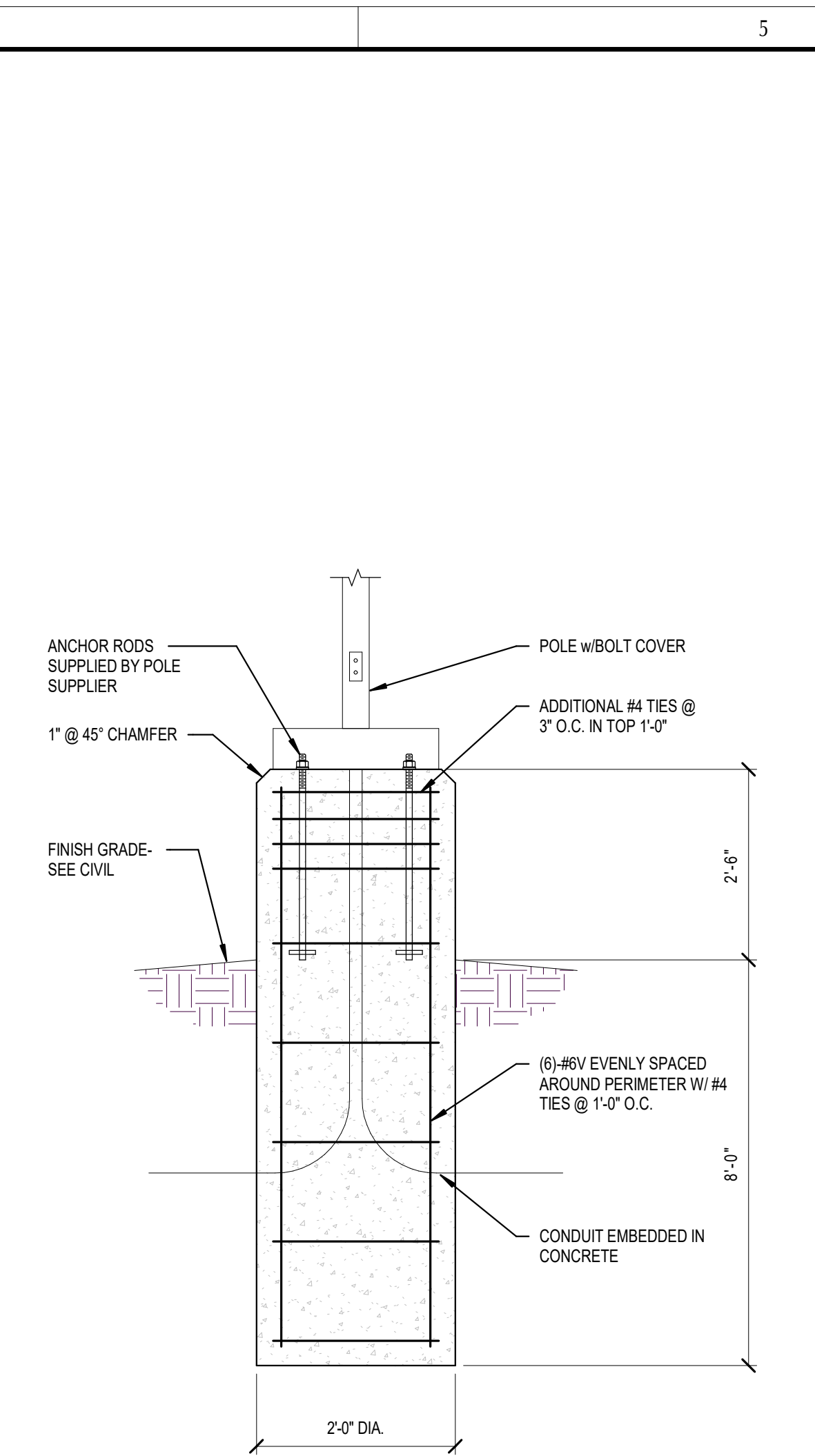
A2 SECTION
3/4" = 1'-0"



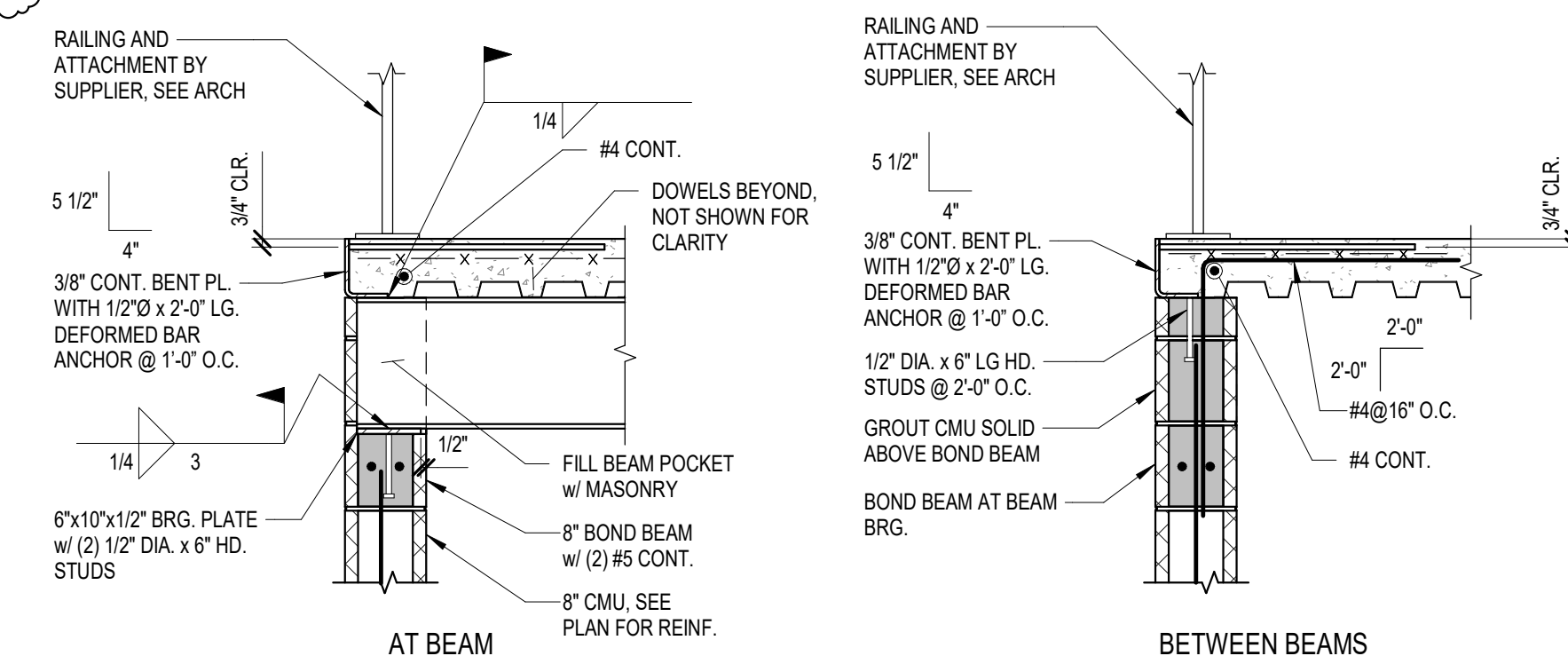
A3 SECTION
3/4" = 1'-0"



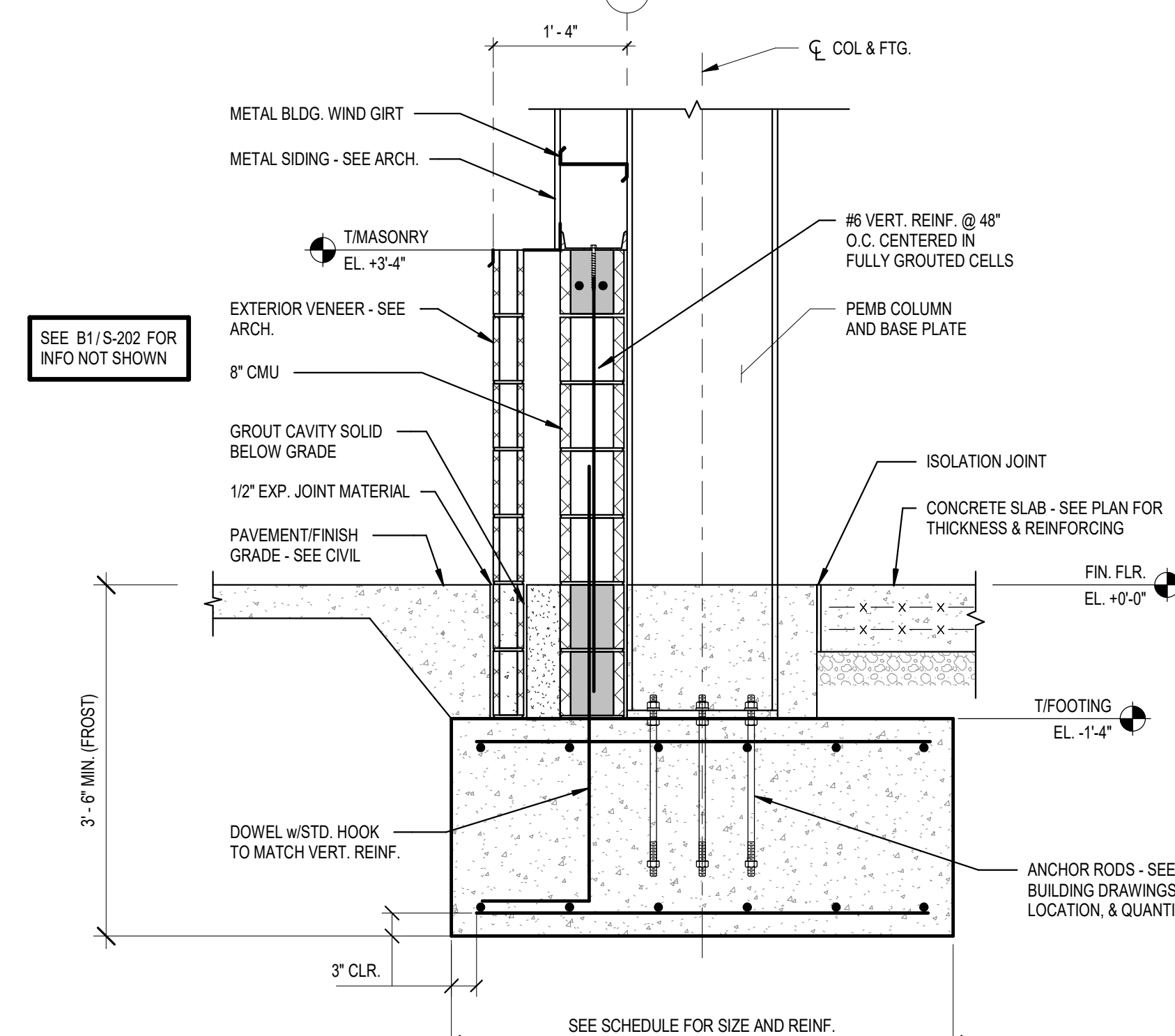
C3 SECTION
3/4" = 1'-0"



C4 SECTION
3/4" = 1'-0"



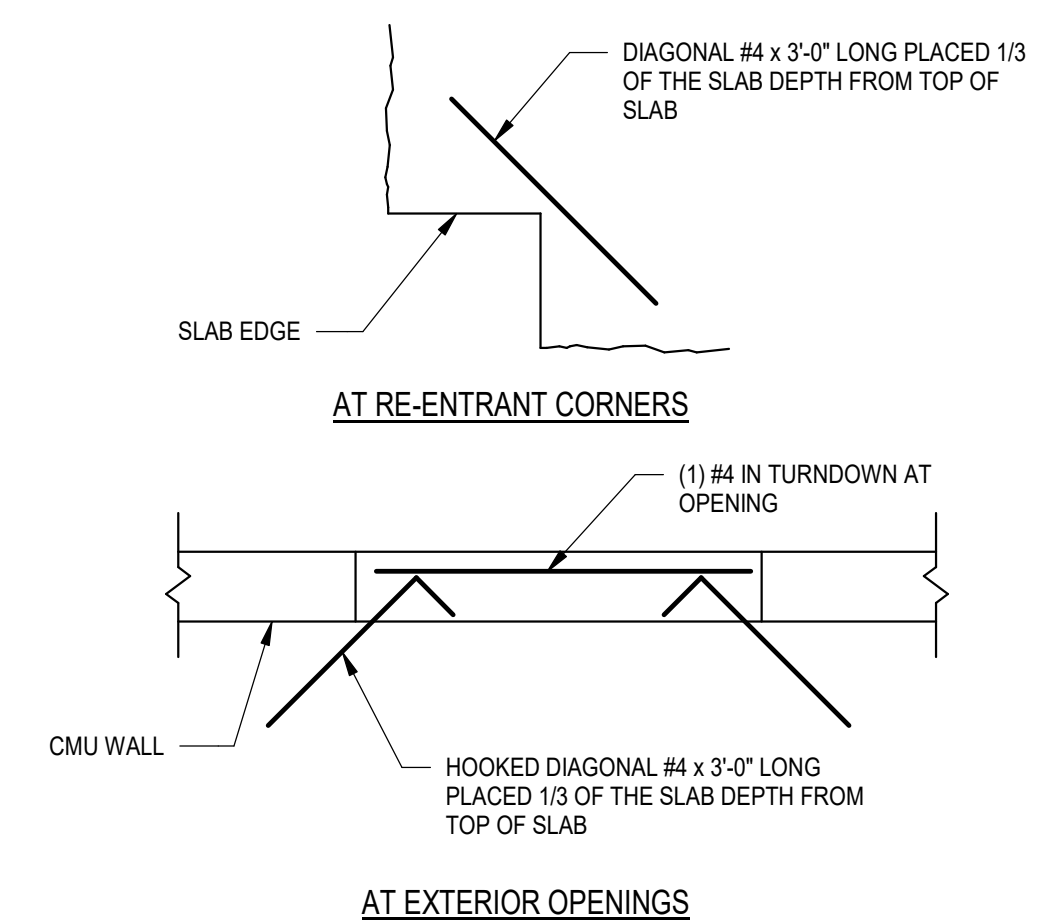
B4 SECTION
3/4" = 1'-0"



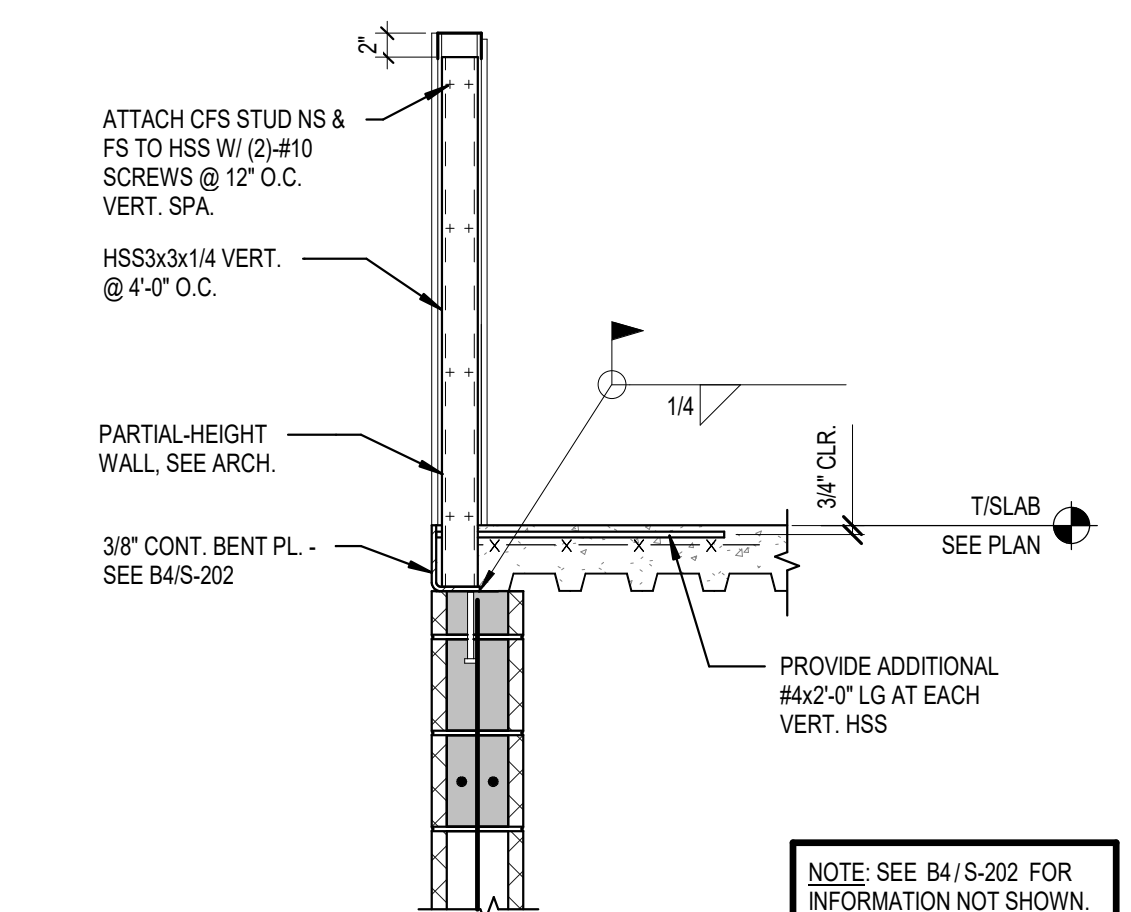
A4 SECTION
3/4" = 1'-0"

LOOSE LINTEL SCHEDULE			
CLEAR SPAN	SIZE FOR 8" WALLS*	CLEAR SPAN	SIZE FOR 6" WALLS
0' TO 4'-0"	L3 1/2x3 1/2x3/8	0' TO 5'-0"	WT4x9
>4'-0" TO 7'-0"	L6x3 1/2x3/8 LLV	>5'-0" TO 8'-0"	WT7x11

NOTES:
1. PROVIDE MINIMUM 3/8" THICKNESS FOR EXTERIOR ANGLES.
2. PROVIDE A MINIMUM BEARING LENGTH OF 8".
3. GALVANIZE ALL LINTELS.
4. USE ASTM A36 WITH 36,000 PSI MIN. YIELD STRENGTH.
5. ALL ANGLE AND WT LINTELS SHALL HAVE 9" OF SOLID MASONRY OR MASONRY GROUTED SOLID BELOW BEARING END UNLESS NOTED OTHERWISE.
* PROVIDE ONE ANGLE FOR EACH 4" WIDTH OF WALL THICKNESS.



C5 SECTION
3/4" = 1'-0"



B5 SECTION
3/4" = 1'-0"

DESCRIPTION

ISSUED FOR ADDENDUM #2

DATE
10/15/2025

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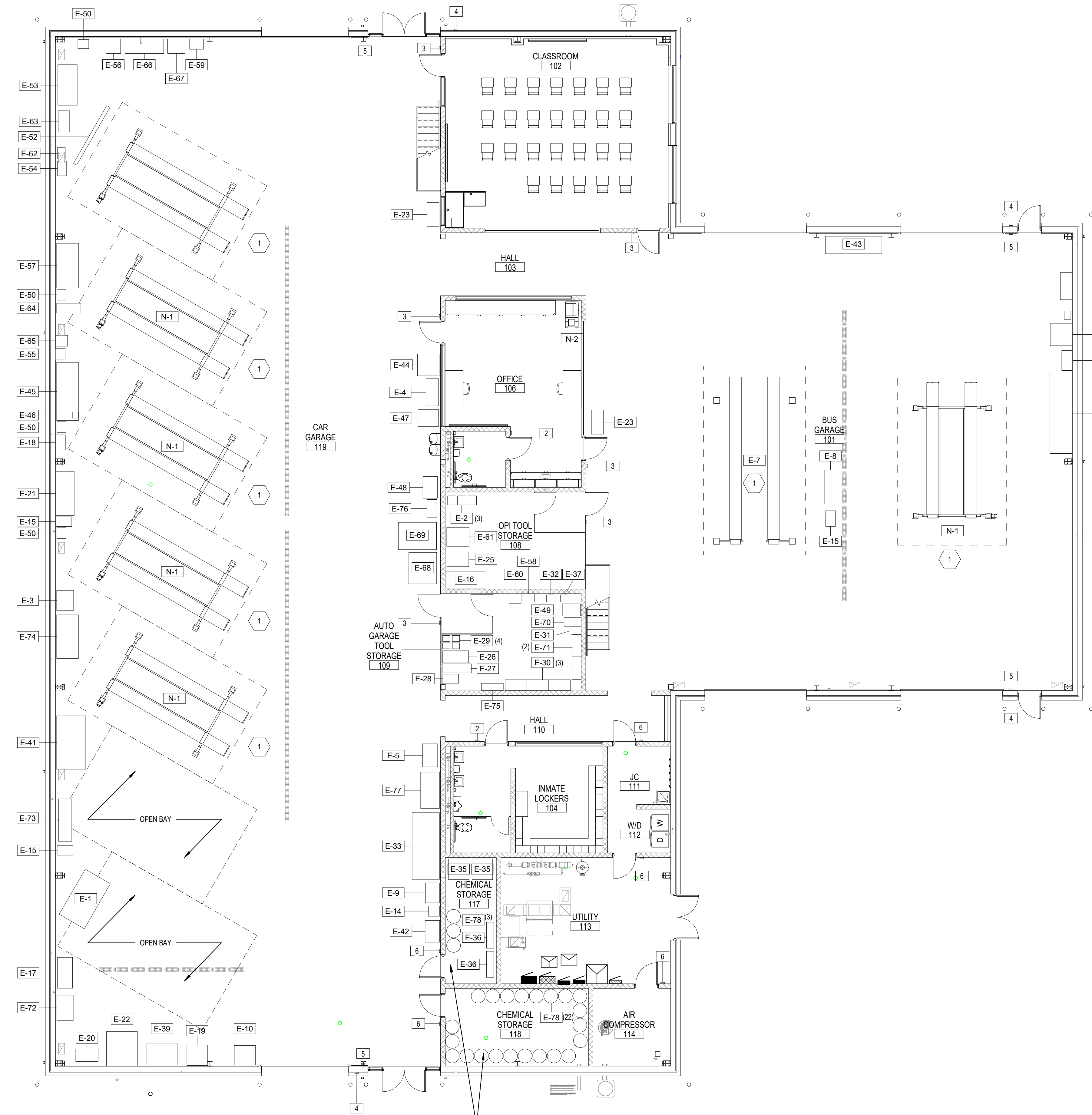
DRC-231009 LOCI AUTOMATIVE SCHOOL
1580 STATE ROUTE 56SW
LONDON, OH 43140

ISSUED FOR:	
PERMIT	08/25/2025
BID	08/25/2025
CONSTRUCTION	---
RECORD	---
PROJECT MANAGER	DESIGNER
RD	CE

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2023352.01

S-202

SECTIONS AND DETAILS



SECTION 307 | TABLE 307.1

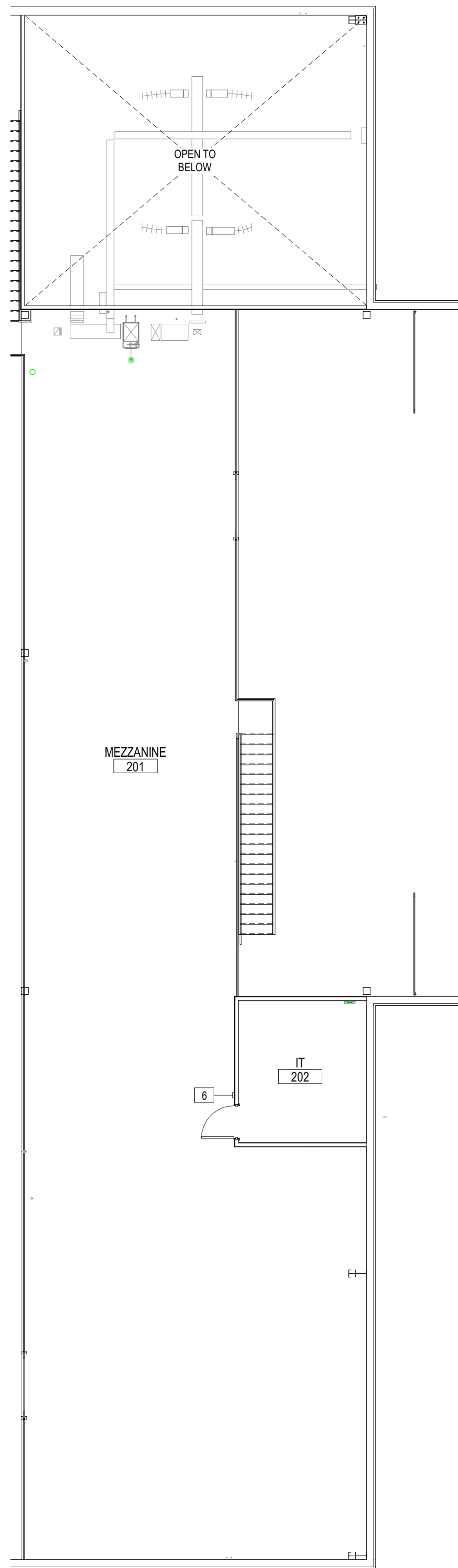
MATERIALS IN THE FLUIDS ROOM ARE CLASSIFIED AS HIB COMBUSTIBLE LIQUIDS. QUANTITIES SHALL NOT BE LIMITED PER NOTE(F) IF IN BUILDING EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM.

FLUIDS CONTAINERS

ISO-D #107 PM DEGREASER 160Z.
SEAFOAM MOTOR TREATMENT 160Z.
PERFECT MATCH SILVER PAINT 8 OZ.
DUPLO-COLOR BLACK GLASS PAINT 12 OZ.
GUNK ENGINE CLEANER 17 OZ.
MASS AIR FLOW CLEANER 17 OZ.
BLACKJACK CEMENT 8 OZ.
P.B. BLASTER 16 OZ.

BREAK ANTIFREEZE AND DRYER 32 OZ.
OREILLY 20-20-20 WINDSHIELD WASHER FLUID 55 GAL.
PERFECT MATCH CLEAR COAT 8OZ.
STARTING FLUID 12 OZ.
AYO GLOSS PAINT 12 OZ.
WHITE LITHIUM GREASE 10 OZ.
TRIM ADHESIVE 18 OZ.
AYD 4 IN 1 SPRAY 11 OZ.

A1 EQUIPMENT PLAN
1/8" = 1'-0"



A4 MEZZANINE EQUIPMENT PLAN
1/8" = 1'-0"

EXISTING EQUIPMENT SCHEDULE								
MARK	ITEM DESCRIPTION	COUNT	ROOM NO.	EXISTING / NEW	FURNISHED BY	INSTALL BY	MANUFACTURER	MODEL
E-1	ALIGNMENT MACHINE	1	119	EXISTING	OPI		John Bean	V3300
E-2	BATTERY CHARGER	3	108	EXISTING	OPI			
E-3	BEARING PRESS	1	119	EXISTING	OPI			
E-4	BLACK DRUM FAN	2	<varies>	EXISTING	OPI			
E-5	BRAKE LATHE	1	119	EXISTING	OPI		Pro-Cut	B17
E-7	4-POST CAR LIFT	1	101	EXISTING	OPI	G.C.	Challenger Lifts	4015XAO
E-8	DIESEL BAY	1	101	EXISTING	OPI			
E-9	DRILL PRESS	1	119	EXISTING	OPI		Jet	JPD-20MF
E-10	FILTER CRUSHER	1	119	EXISTING	OPI		OTC	Pro-Crush
E-11	FORKLIFT	1	101	EXISTING	OPI			
E-12	FORKLIFT CAGE	1	101	EXISTING	OPI			
E-13	FORKLIFT CHARGER	1	101	EXISTING	OPI			
E-14	GRINDER	1	119	EXISTING	OPI			
E-15	OIL DRAIN	3	<varies>	EXISTING	OPI			
E-16	PALLET JACK	1	108	EXISTING	OPI			
E-17	PARTS WASHER	1	119	EXISTING	OPI			
E-18	STRUT SPRING COMPRESSOR	1	119	EXISTING	OPI			
E-19	TIRE MACHINE	1	119	EXISTING	OPI			
E-20	TIRE SUPPLY CABINET	1	119	EXISTING	OPI			
E-21	WALL TABLE W/ VISE	1	119	EXISTING	OPI			
E-22	WHEEL BALANCER	1	119	EXISTING	OPI		Coats	1025
E-23	WHITE DRUM FAN	2	<varies>	EXISTING	OPI			
E-25	RED TOOL STORAGE CART	1	108	EXISTING	Loc			
E-26	JACK LIFT	1	109	EXISTING	Loc			
E-27	JACK LIFT	1	109	EXISTING	Loc			
E-28	JACK LIFT	1	109	EXISTING	Loc			
E-29	JACKS	4	109	EXISTING	Loc			
E-30	SHELVING UNIT	3	109	EXISTING	Loc			
E-31	LOCKER UNIT	1	109	EXISTING	Loc			
E-32	BATTERY CHARGER	1	109	EXISTING	Loc			
E-33	BRAKE SERVICE	1	119	EXISTING	Loc			
E-35	FLAMMABLE CABINET	2	117	EXISTING	Loc			
E-36	FLAMMABLE CABINET	2	117	EXISTING	Loc			
E-37	BATTERY CHARGER	1	109	EXISTING	Loc			
E-38	FAN	1	101	EXISTING	Loc			
E-39	WORKBENCH	1	119	EXISTING	Loc			
E-41	WORKBENCH	1	119	EXISTING	Loc			
E-42	SNAP-ON TOOL CABINET	1	119	EXISTING	Loc			
E-43	1-TON HYDRAULIC CRANE	1	101	EXISTING	Loc			
E-44	BATTERY CHARGER	1	119	EXISTING	Loc			
E-45	WORKBENCH	1	119	EXISTING	Loc			
E-46	BENCH VISE	1	119	EXISTING	Loc			
E-47	DOLLY W/ TANKS	1	119	EXISTING	Loc			
E-48	SNAP-ON TOOL CABINET	1	119	EXISTING	Loc			
E-49	AC MACHINE	1	109	EXISTING	Loc			
E-50	MECHANIC CHAIR	4	119	EXISTING	Loc			
E-52	ALIGNMENT MACHINE	1	119	EXISTING	Loc			
E-53	ALIGNMENT MACHINE SYSTEM	1	119	EXISTING	Loc			
E-54	STRUT SPRING COMPRESSOR	1	119	EXISTING	Loc			
E-55	STRUT SPRING COMPRESSOR	1	119	EXISTING	Loc			
E-56	FAN	1	119	EXISTING	Loc			
E-57	WORKBENCH	1	119	EXISTING	Loc			
E-58	TOOL STORAGE	1	109	EXISTING	Loc			
E-59	GRINDER	1	119	EXISTING	Loc			
E-60	TOOL STORAGE	1	109	EXISTING	Loc			
E-61	GREY CART	1	108	EXISTING	Loc			
E-62	AIR COMPRESSOR	1	119	EXISTING	Loc			
E-63	COMPRESSOR	1	119	EXISTING	Loc			
E-64	WELDER	1	119	EXISTING	Loc			
E-65	WELDER	1	119	EXISTING	Loc			
E-66	DRILL PRESS	1	119	EXISTING	Loc			
E-67	25-TON PRESS	1	119	EXISTING	Loc			
E-68	WHEEL BALANCER	1	119	EXISTING	Loc			
E-69	RIM CLAMP	1	119	EXISTING	Loc			
E-70	FILE CABINET	1	109	EXISTING	Loc			
E-71	SHELVING	2	109	EXISTING	Loc			
E-72	PARTS WASHER	1	119	EXISTING	Loc			
E-73	COMPRESSOR	1	119	EXISTING	Loc			
E-74	WORKBENCH	1	119	EXISTING	Loc			
E-75	PARTS STORAGE	1	109	EXISTING	Loc			
E-76	RED STORAGE	1	119	EXISTING	Loc			
E-77	BRAKE SERVICE STORAGE	1	119	EXISTING	Loc			
E-78	STORAGE DRUMS	25	<varies>	EXISTING	Loc			

NEW EQUIPMENT SCHEDULE								
MARK	ITEM DESCRIPTION	COUNT	ROOM NO.	EXISTING / NEW	FURNISHED BY	INSTALL BY	MANUFACTURER	MODEL
N-1	4-POST CAR LIFT	1	119	NEW	OWNER	G.C.	Rotary Lift	SM14-S
N-1	4-POST CAR LIFT	1	119	NEW	OWNER	G.C.	Rotary Lift	SM14-S
N-1	4-POST CAR LIFT	1	119	NEW	OWNER	G.C.	Rotary Lift	SM14-S
N-1	4-POST CAR LIFT	1	119	NEW	OWNER	G.C.	Rotary Lift	SM14-S
N-1	4-POST CAR LIFT	1	119	NEW	OWNER	G.C.	Rotary Lift	SM14-S
N-2	COPIER	1	106	NEW	OWNER	OWNER	-	-
N-1	4-POST CAR LIFT	1	101	NEW	OWNER	G.C.	Rotary Lift	SM14-S

GENERAL NOTES

A. ANY EQUIPMENT/FURNITURE NOT INCLUDED IN THE MATRIX IS NOT IN CONTRACT (NIC) AND PROVIDED BY THE OWNER AND SHOWN FOR REFERENCE ONLY FOR UTILITY COORDINATION.

SHEET NOTES

1. LOCATE LIFT PER MANUFACTURER REQUIREMENTS. CONTRACTOR TO RELOCATE EXISTING OWNER-PROVIDED LIFT ON-CAMPUS TO NEW PROPOSED BUILDING LOCATION (APPROXIMATELY 2007' AWAY).

SIGNAGE LEGEND

(SEE SHEET 1501 FOR SIGNAGE TYPES AND DETAILS)

#	SIGN TYPE/DESCRIPTION
1	MEN'S LOCKER
2	UNISEX RESTROOM
3	ROOM NUMBER
4	SMOKING/WEAPONS
5	EXIT
6	NOT AN EXIT
7	NAME ONLY

DESCRIPTION

ISSUED FOR ADDENDUM #2

DATE

10/15/2025

REV

2

DRC-23.1009 LOCI AUTOMATIVE SCHOOL
1580 STATE ROUTE 56SW
LONDON, OH 43140

FFE PLAN

ISSUED FOR:	
PERMIT	08/25/2025
BID	08/25/2025
CONSTRUCTION	---
RECORD	---
PROJECT MANAGER	DESIGNER
RD	KC

JOB NO.
2023352.01

A-103

GENERAL SHEET NOTES	
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- [illegible]

SHEET NOTES

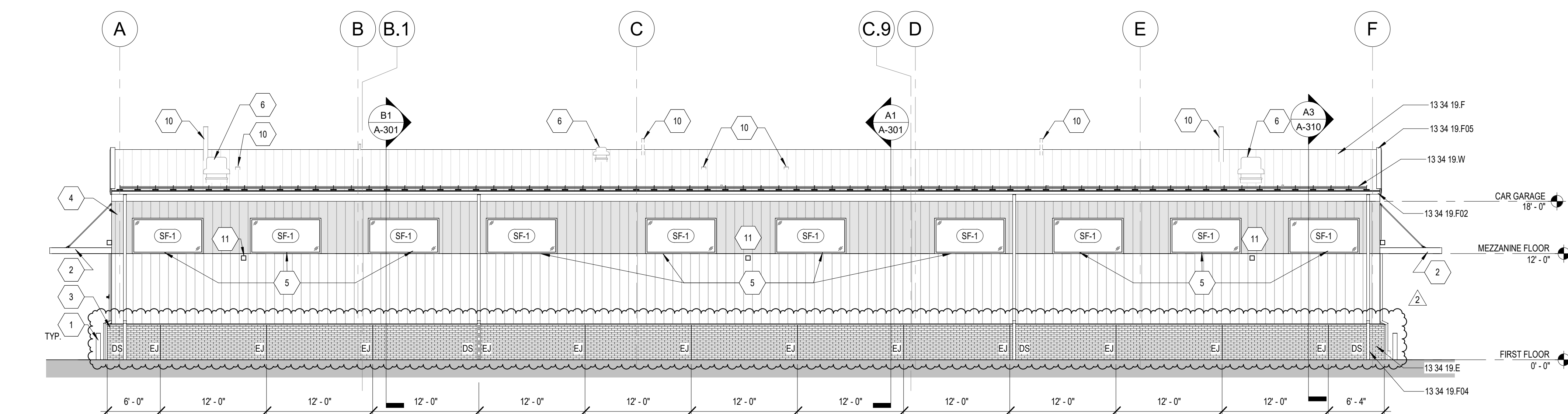
1. STEEL BOLLARD WITH COVER, TYPICAL. SEE BOLLARD LOCATION LAYOUT PLAN A-101 FOR LAYOUT DIMENSIONS AND LOCATIONS. SEE CIVIL FOR BOLLARDS DETAILS AND STRUCTURAL FOUNDATION DETAILS.
2. ALTERNATE #1: CANOPY
3. ALTERNATE #2: 4" HICK VENEER WAINSCOT
4. ALTERNATE #3: PROVIDE PANTHER ACENT BANDING
5. ALTERNATE #4: CLEAREST WINDOW
6. ROOF EXHAUST FAN - SEE MECHANICAL DRAWINGS.
7. AIR CONDENSING UNIT - SEE MECHANICAL DRAWINGS.
8. AIR CONDITIONING UNIT - SEE MECHANICAL DRAWINGS.
9. WALL HYDRANT - SEE PLUMBING DRAWINGS.
10. WENT THRU ROOF - SEE PLUMBING DRAWINGS.
11. LIGHT FIXTURE - CENTER OF OPENING 12' ABOVE UNO.
12. LOUVER - SEE MECHANICAL DRAWINGS. PROVIDE LOUVER FINISH TO MATCH ADJACENT EXTERIOR WALL PANEL FINISH.
13. SURFACE MOUNTED KNOX BOX.
14. BUILDING MOUNTED SIGNAGE - SEE DETAIL D33A-001.

REFERENCED KEYNOTES

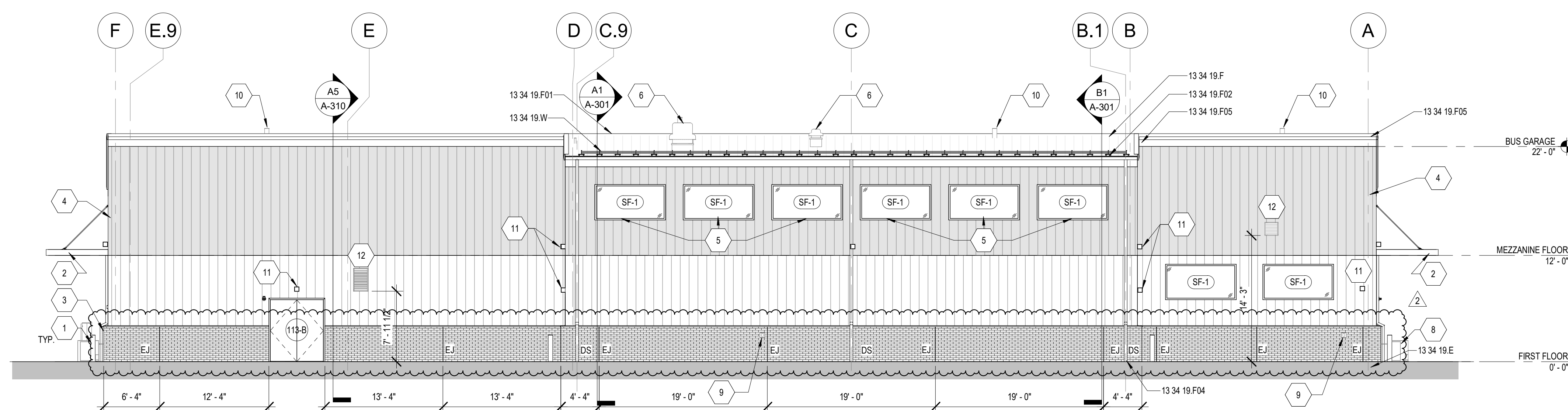
- | | |
|--------------|---------------------------------|
| 13 34 19.E | METAL WALL PANEL SYSTEM |
| 13 34 19.F | METAL ROOF PANEL SYSTEM |
| 13 34 19.F01 | METAL ROOF RIDGE TRIM |
| 13 34 19.F02 | METAL ROOF SCULPTURED GUTTER |
| 13 34 19.F04 | METAL ROOF DOWNSPOUT |
| 13 34 19.F05 | METAL ROOF SCULPTURED RAKE TRIM |
| 13 34 19.W | SNOW GUARD |

LEGEND

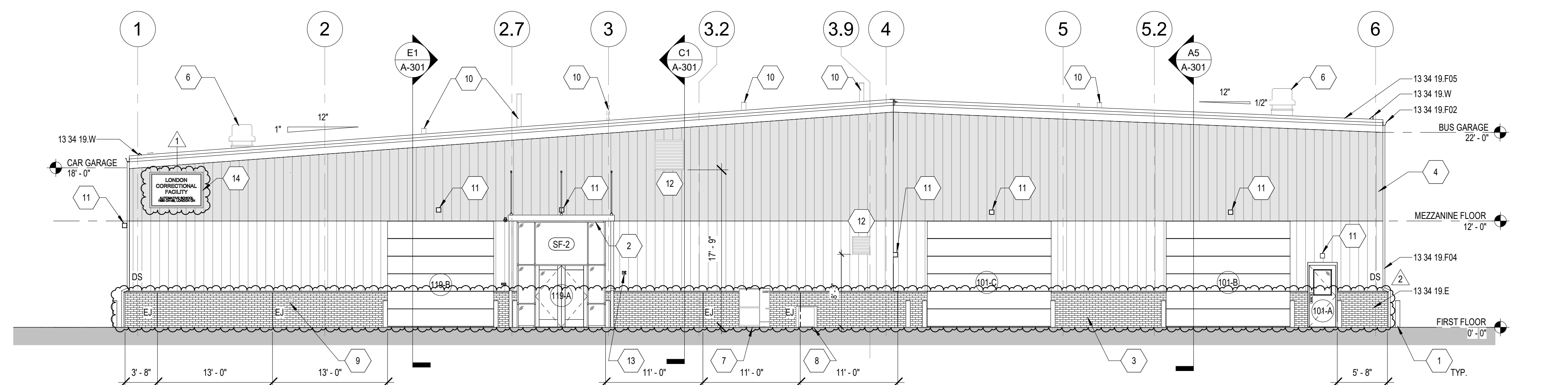
- | | |
|---|---|
|  | 13 49 19.E - METAL PANEL
COLOR 1 |
|  | 13 49 19.E - METAL PANEL
COLOR 2
[ALT #3] |
|  | 04 20 00.A1 - BRICK VENEER
[ALT #2] |



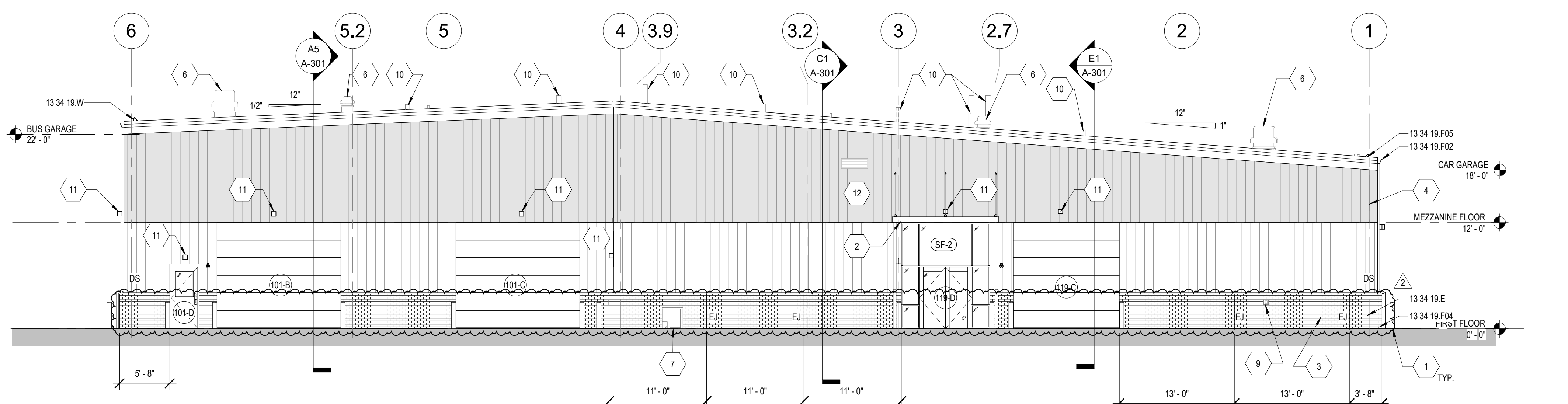
WEST ELEVATION



01 EAST ELEVATION



SOUTH ELEVATION



A4 NORTH ELEVATION

REV.	DATE	DESCRIPTION
1	10/01/2015	ISSUED FOR AGENDUM #1
2	10/15/2015	ISSUED FOR AGENDUM #2

DRC-23L009 LOCI AUTOMATIVE SCHOOL
1580 STATE ROUTE 56SW
LONDON, OH 43140

EXTERIOR ELEVATIONS

ISSUED FOR:	
PERMIT	08/25/2023
BID	08/25/2023
CONSTRUCTION	--/------
RECORD	--/------

PROJECT MANAGER	DESIGNER
RD	KC

JOB NO.
2023352.01

A-201

A. REFER TO 01 23 00 ALTERNATES FOR LIST OF ALL ALTERNATES

REFERENCED KEYNOTES

04 20 00.C14	STANDARD CMU [6x8x16]
04 20 00.C16	STANDARD CMU [8x8x16]
04 20 00.J	JOINT REINFORCEMENT
07 21 00.F03	MINERAL WOOL BLANKET [3 1/2"]
07 84 13.A	FIRESTOPPING MATERIAL
09 21 16.C2	GYPSTUM WALL BOARD [5/8"]
10 14 23	PANEL SIGNAGE
32 39 13.A	MANUFACTURED METAL BOLLARD

DETAILS

DRC-23L009 LOCI AUTOMATIVE SCHOOL
1580 STATE ROUTE 56SW
LONDON, OH 43140

ISSUED FOR:	
PERMIT	08/25/2025
BID	08/25/2025
CONSTRUCTION	--/------
RECORD	--/------
PROJECT MANAGER	DESIGNER
RD	KC

JOB NO.
2023352.01

A-501

07 84 13 A

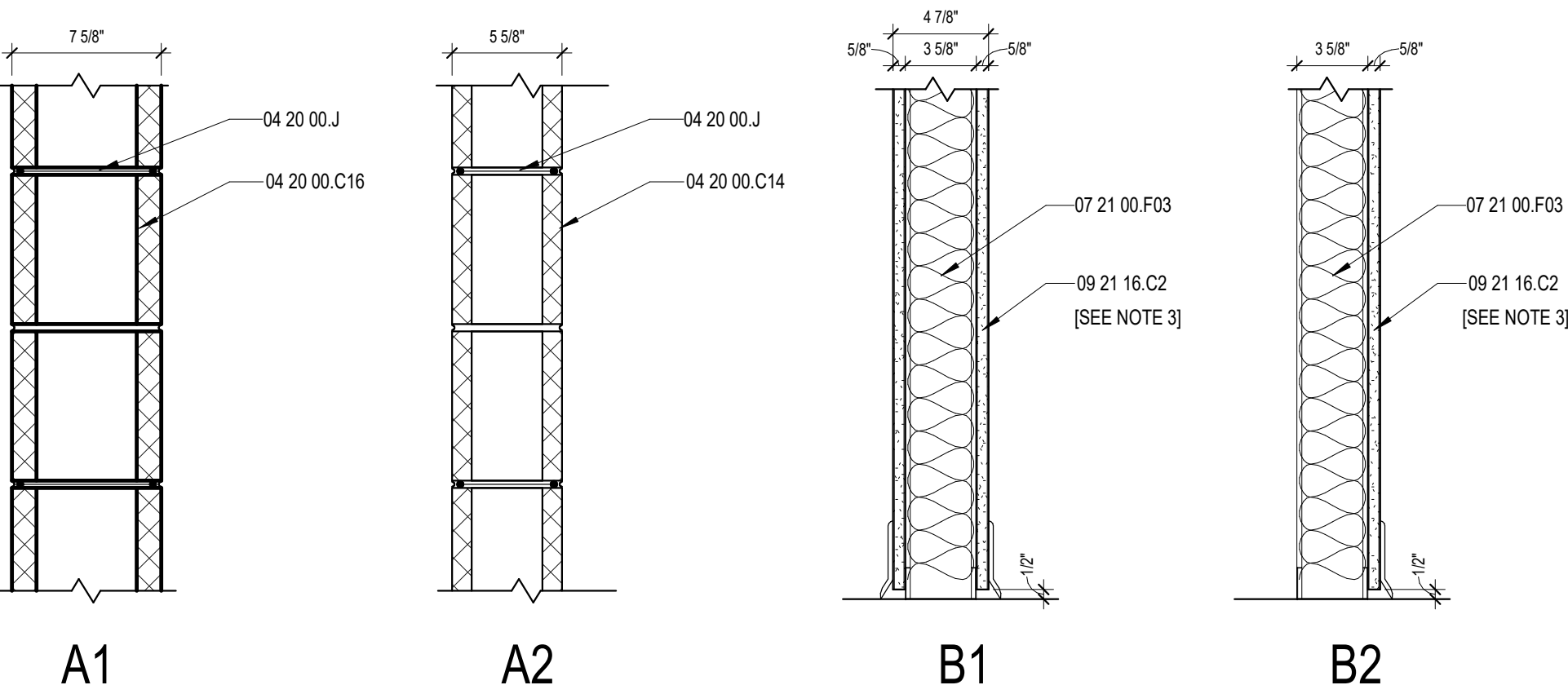
AT FIRE RATED PARTITIONS PROVIDE FIRE-RESISTANT HEAD OF WALL JOINT BETWEEN PARTITION AND FLOOR/CEILING CONSTRUCTION AND TOP OF WALL. FILL FLUTES IN METAL DECK WITH FIRE STOPPING MATERIAL. REFER TO LIFE SAFETY PLAN FOR LOCATIONS OF FIRE RATED PARTITIONS.

TYPICAL HEAD OF WALL CONDITIONS

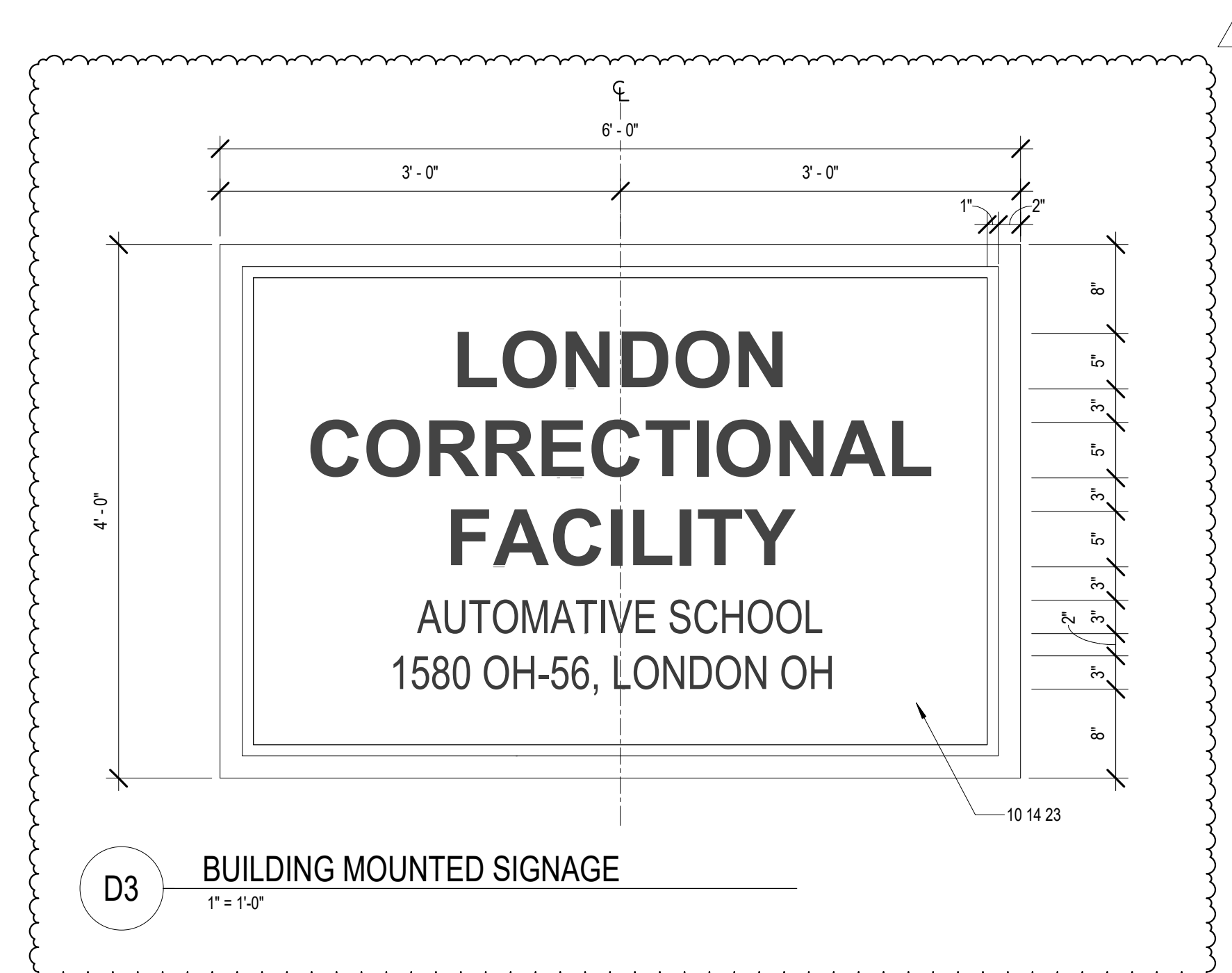
FLOOR SLAB, OR ROOF TRUSS BOTTOM CHORD, U.N.O.

AT NON-RATED PARTITIONS PACK FLUTES OF DECK WITH 072100 MINERAL WOOL BLANKET INSULATION FOR ACoustICAL PERFORMANCE.

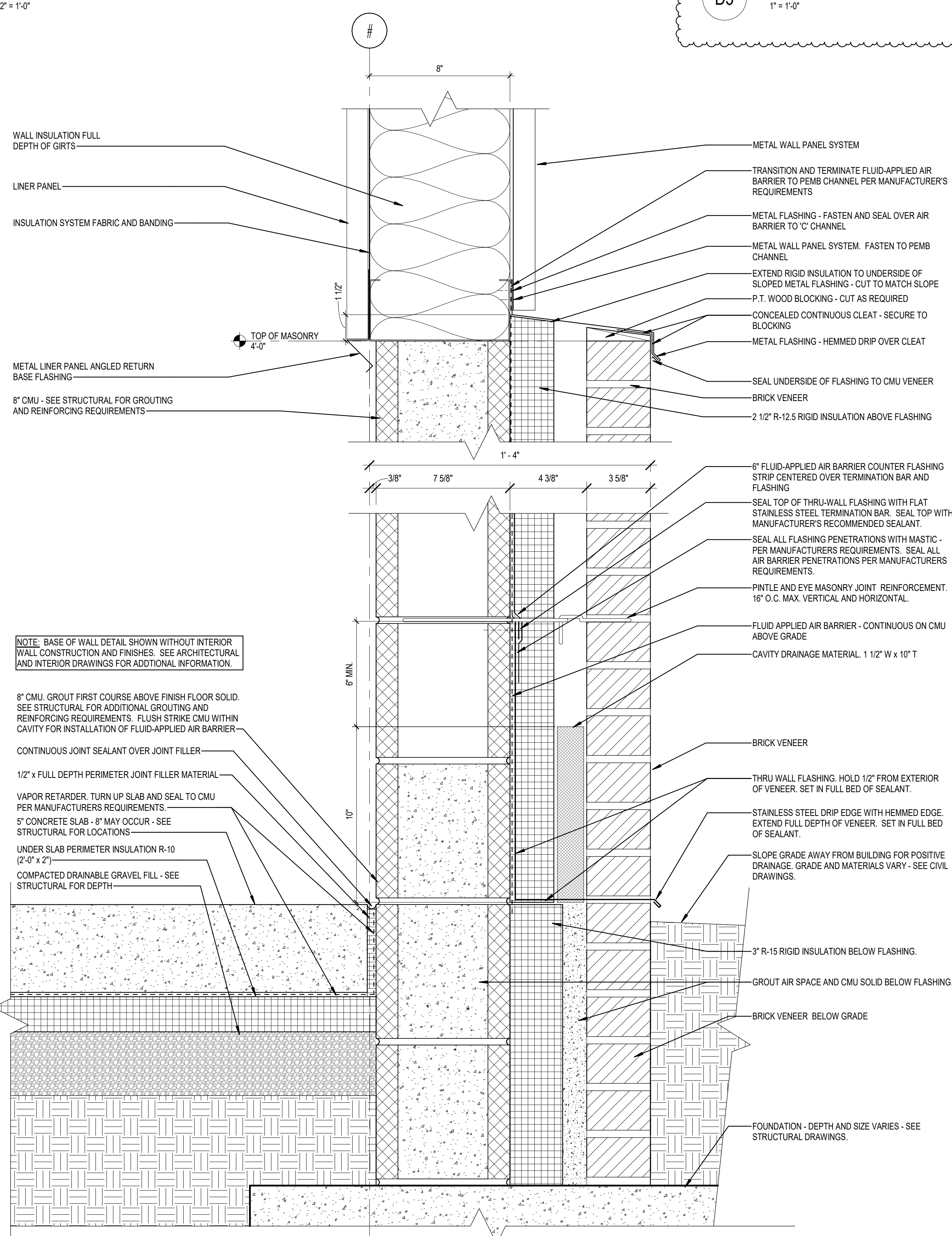
WALL CONSTRUCTION VARIES.



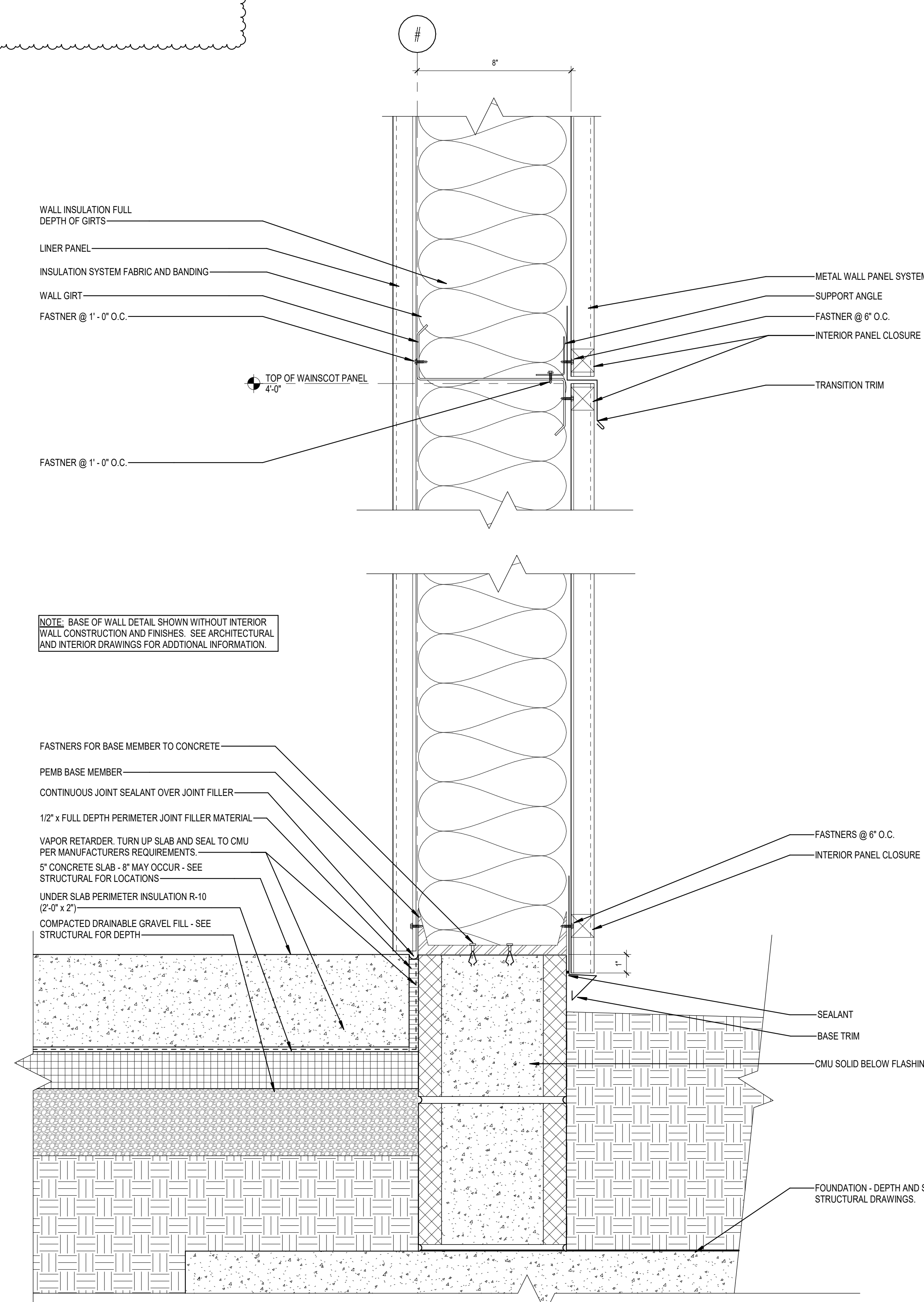
D1 WALL TYPE LEGEND



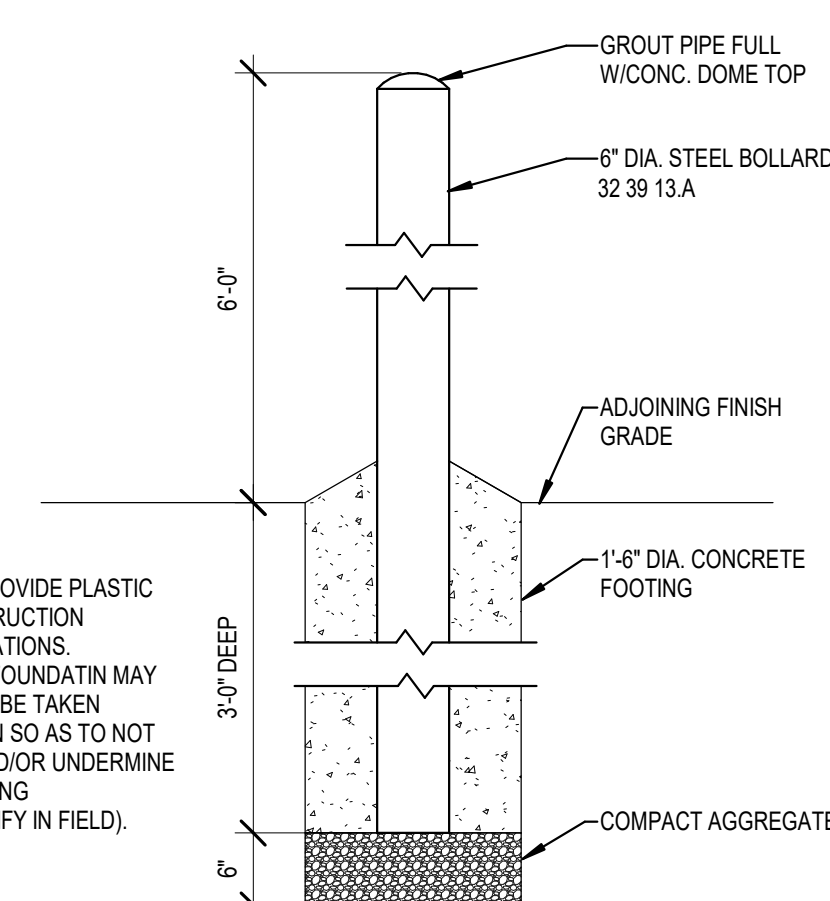
D3 BUILDING MOUNTED SIGNAGE



A1 BASE OF WALL
3" = 1'-0"



A4 BASE OF WALL
3" = 1'-0" (BASE RID)



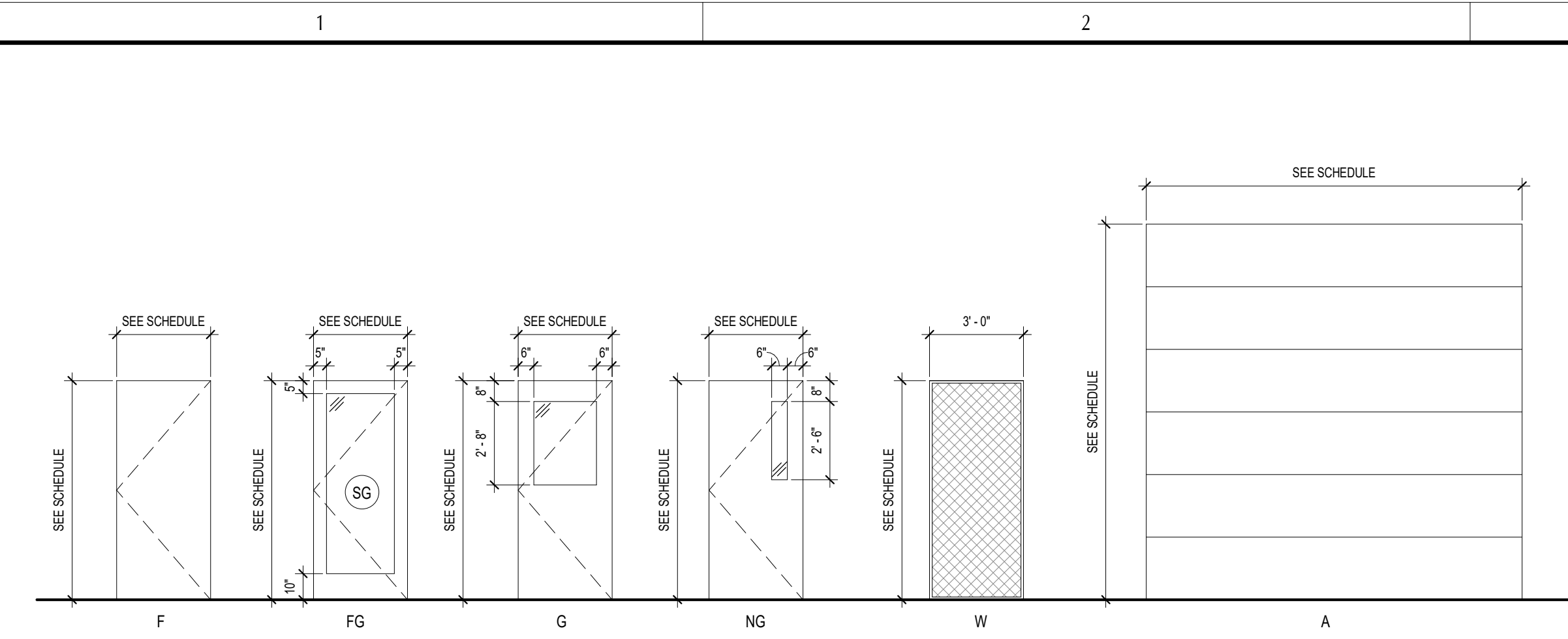
A6 **BOLLARD DETAIL**
3/4" = 1'-0"

NOTE:

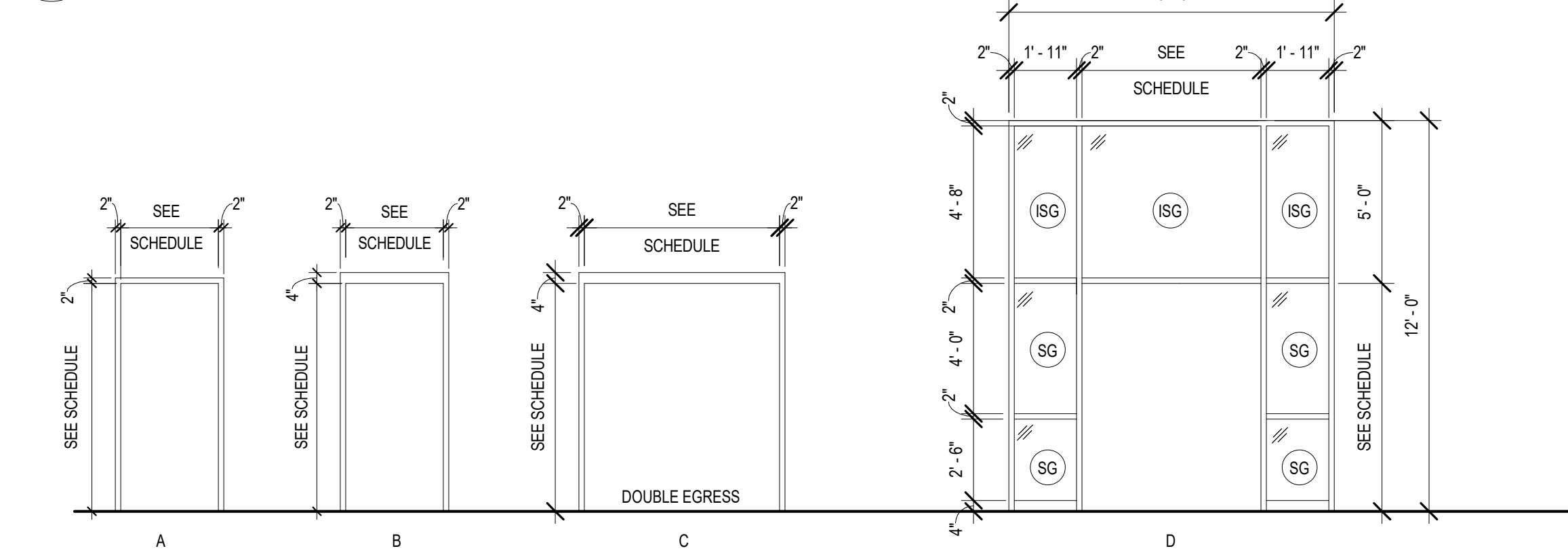
1. CONTRACTOR TO PROVIDE PLASTIC SLEEVE PER CONSTRUCTION MANAGER SPECIFICATIONS.
2. EXISTING BUILDING FOUNDATION MAY OCCUR. CARE MUST BE TAKEN DURING EXCAVATION SO AS TO NOT INTERFERE WITH AND/OR UNDERMINE THE EXISTING BUILDING FOUNDATIONS. (VERIFY IN FIELD).

10/10/2025 2:59:25 PM

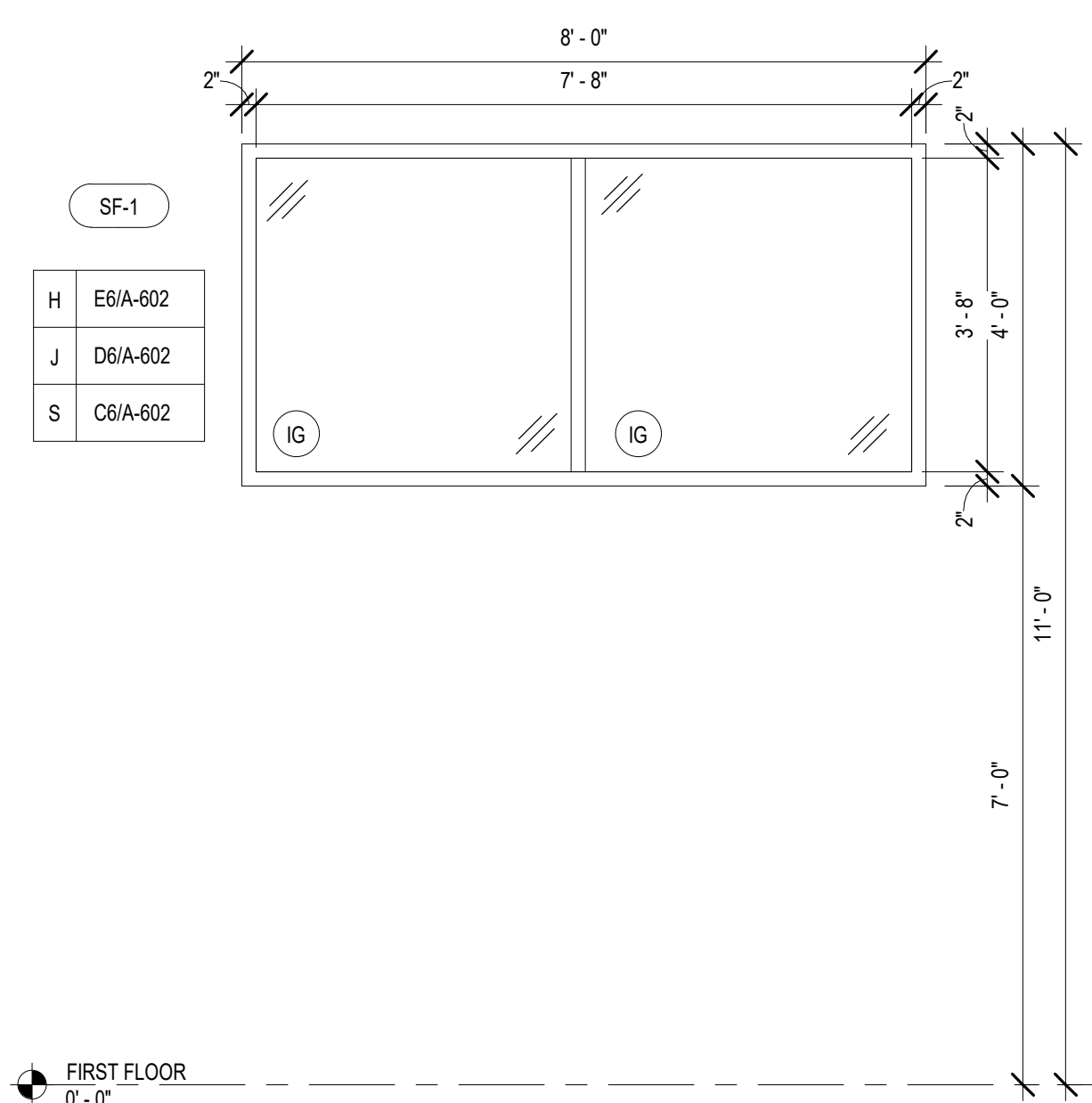
A
B
C
D
E



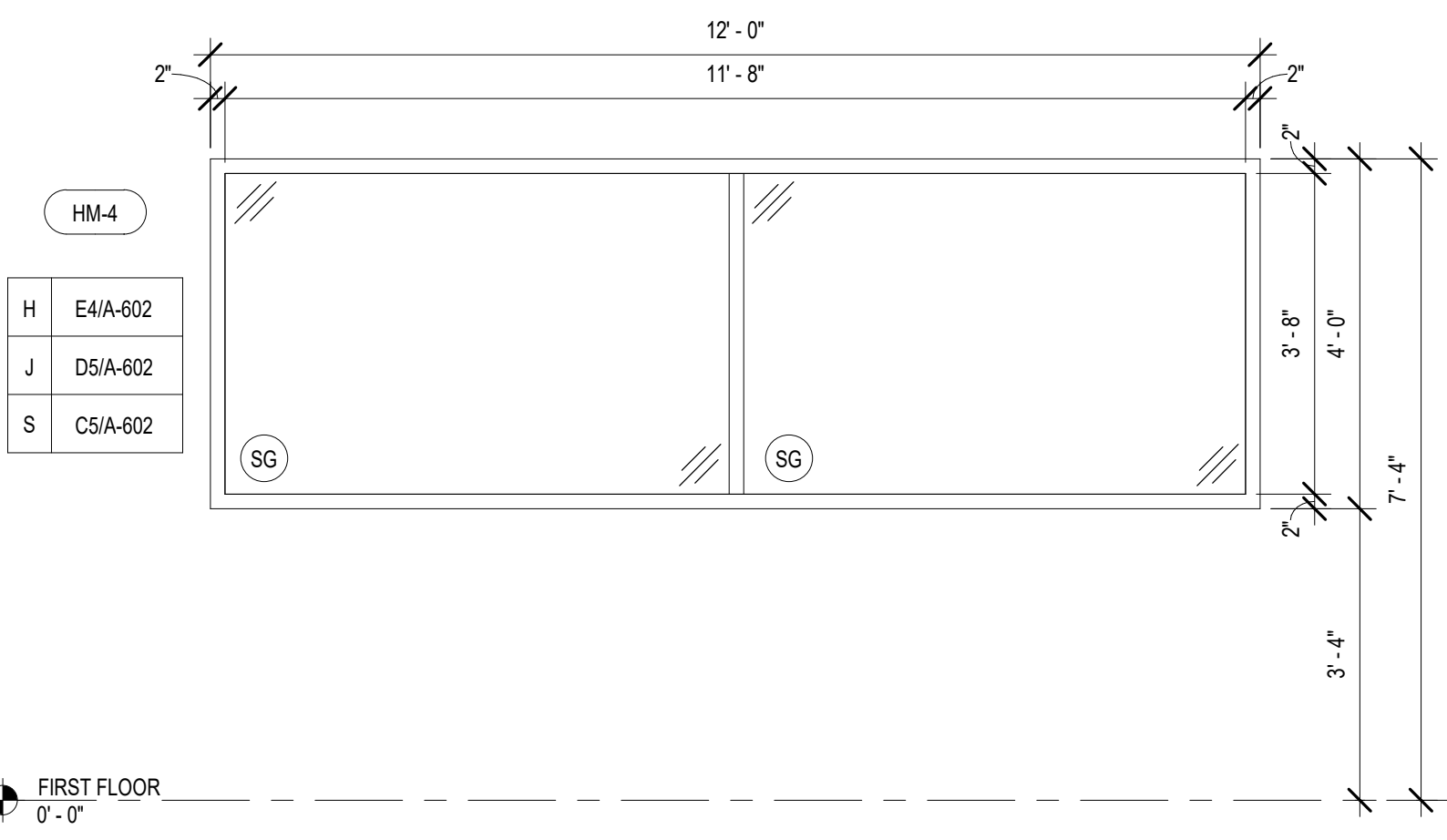
E1 DOOR TYPES
1/4" = 1'-0"



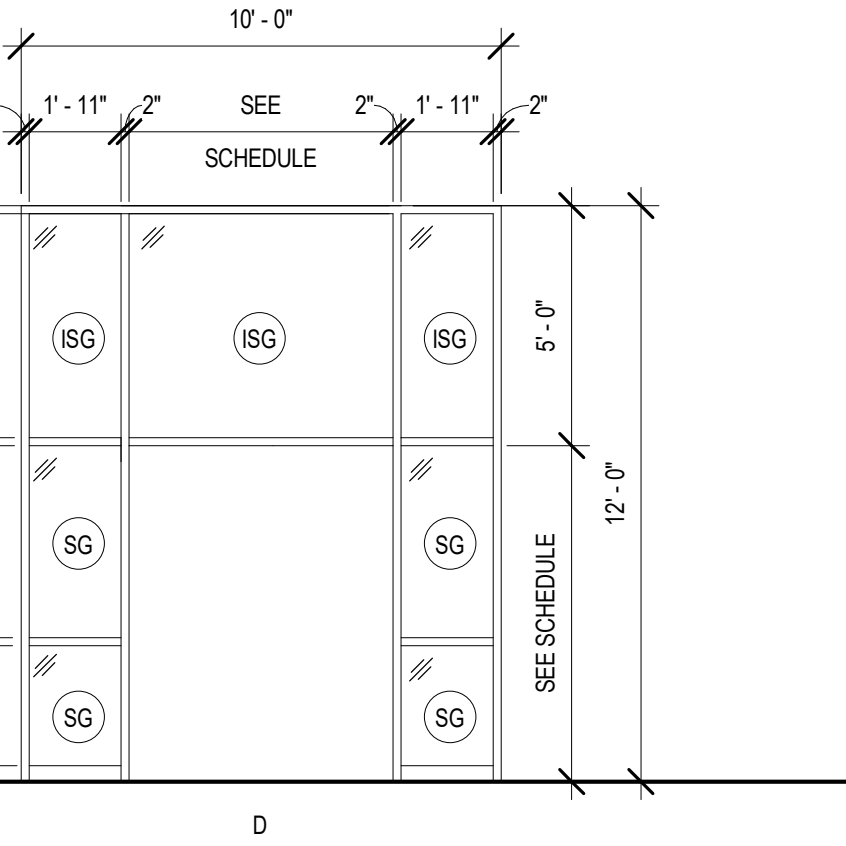
D1 FRAME TYPES
1/4" = 1'-0"



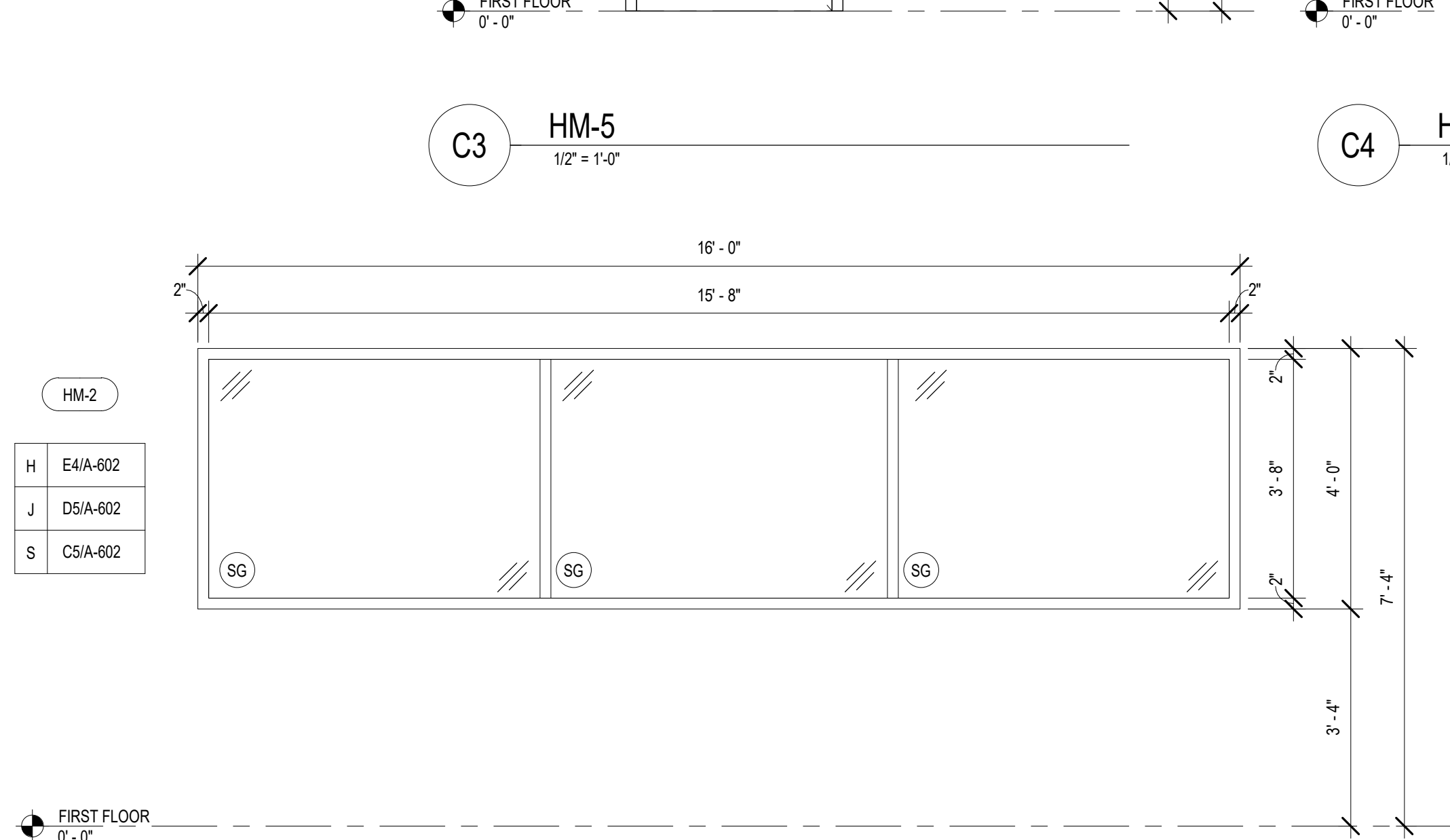
B1 SF-1
1/2" = 1'-0"



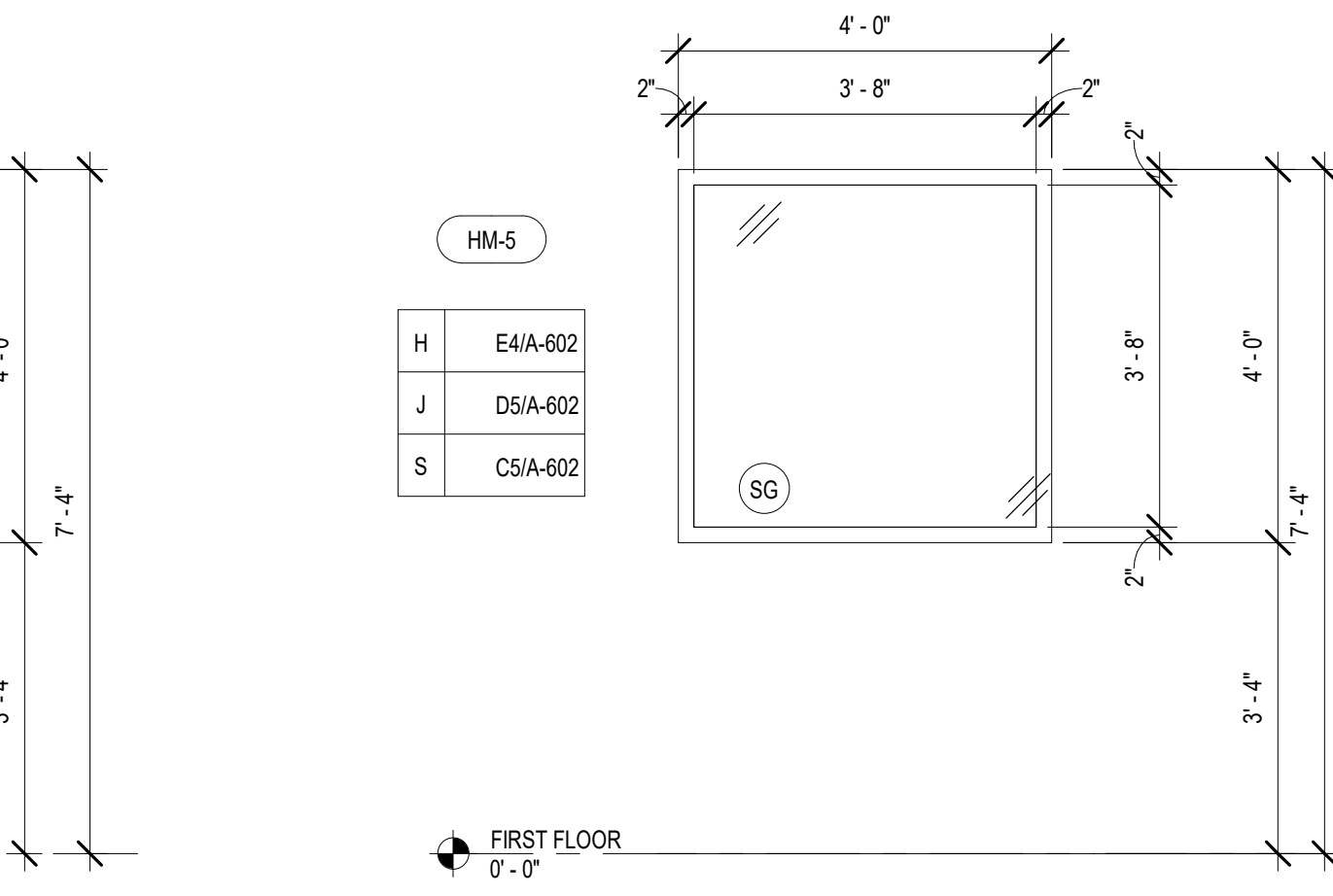
A1 HM-4
1/2" = 1'-0"



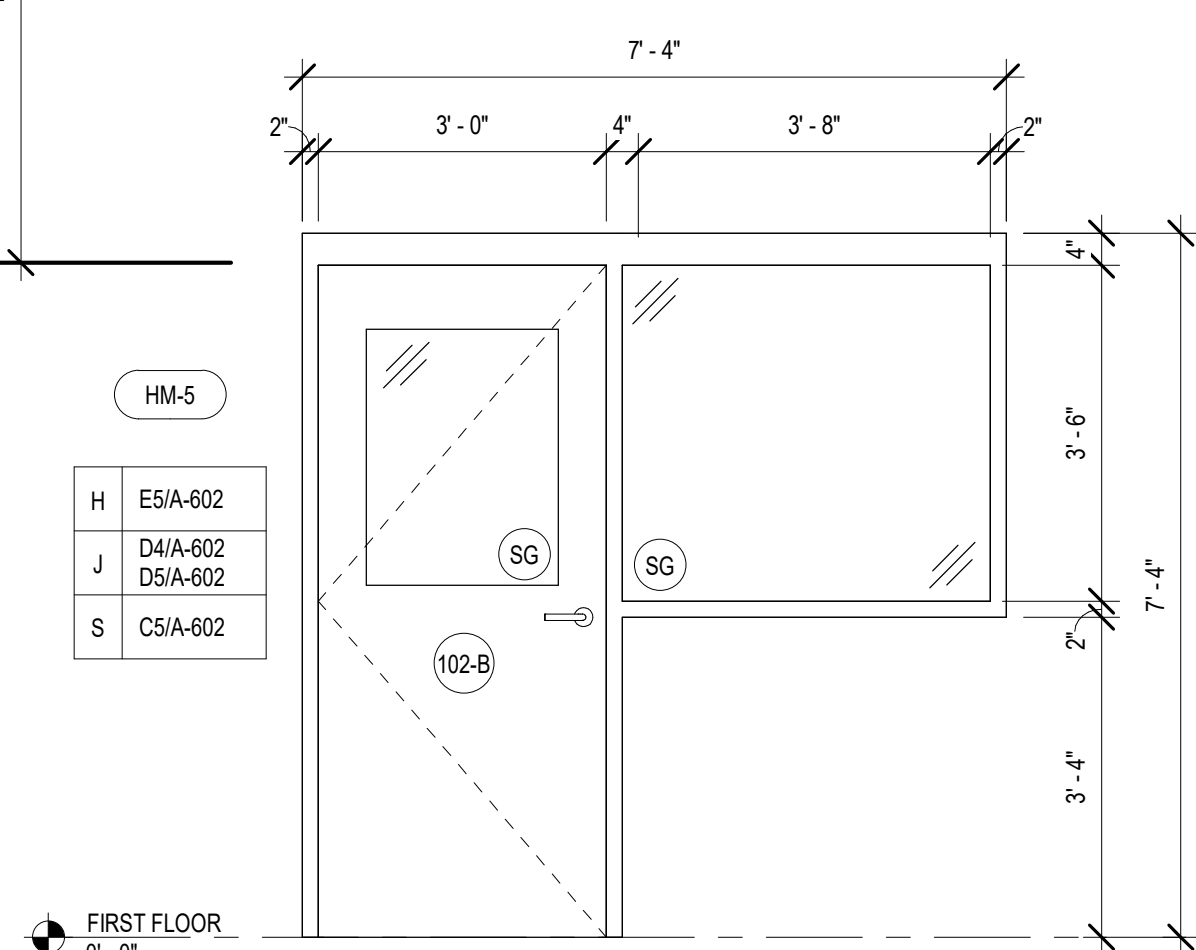
HM-5
1/2" = 1'-0"



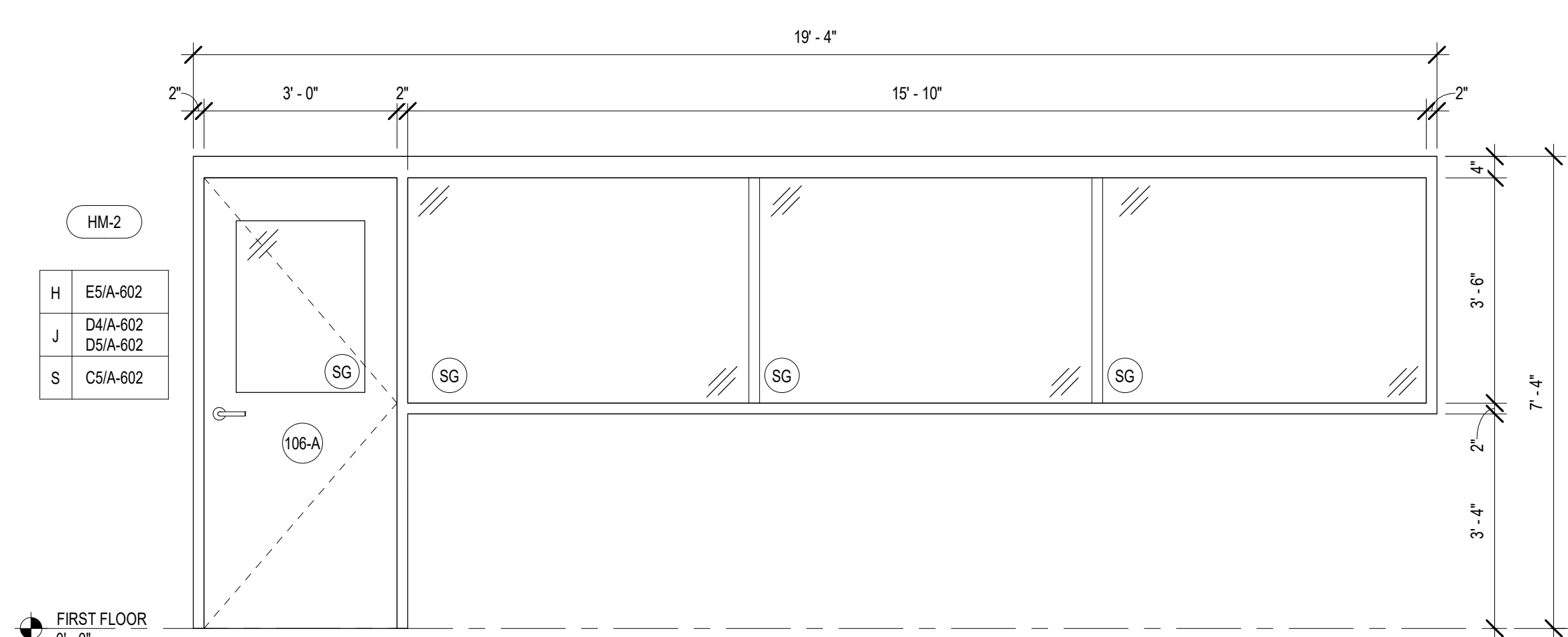
B3 HM-2
1/2" = 1'-0"



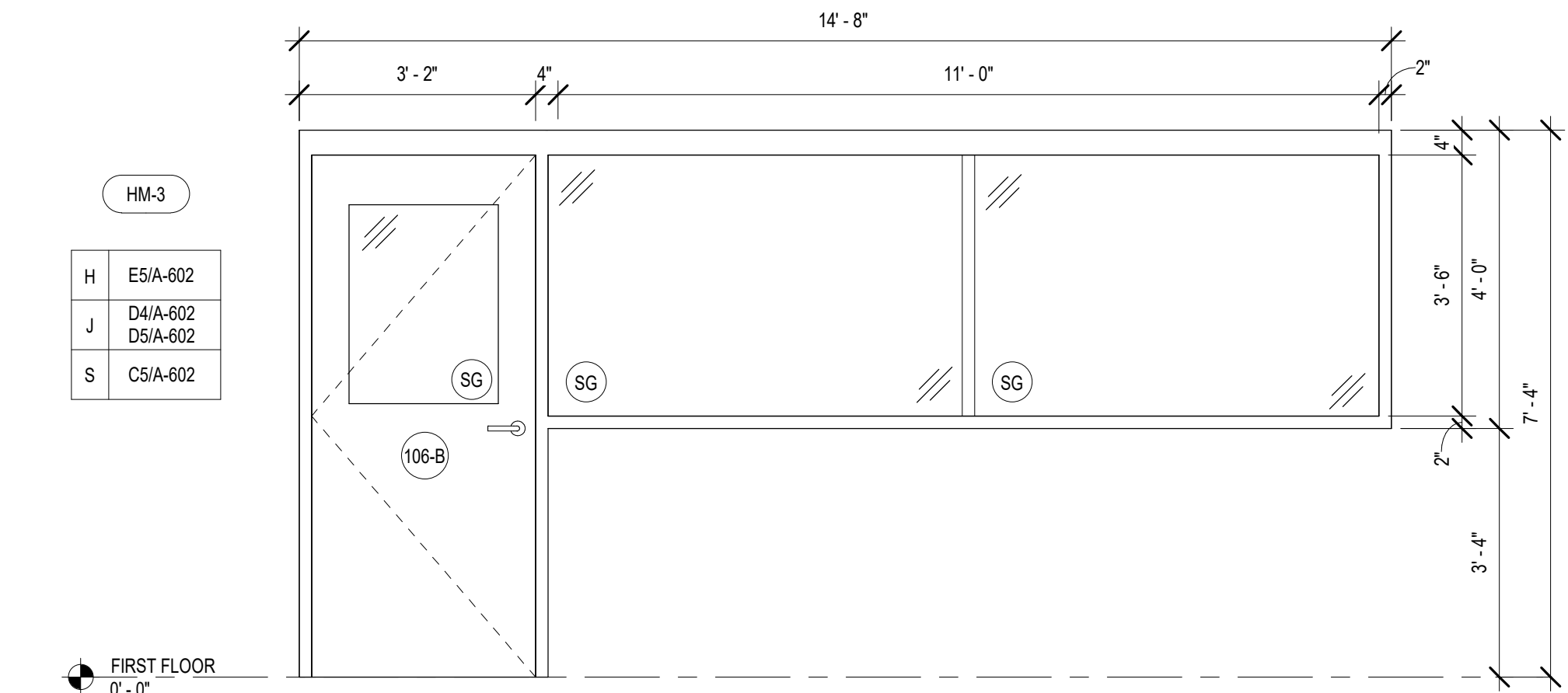
A2 HM-5
1/2" = 1'-0"



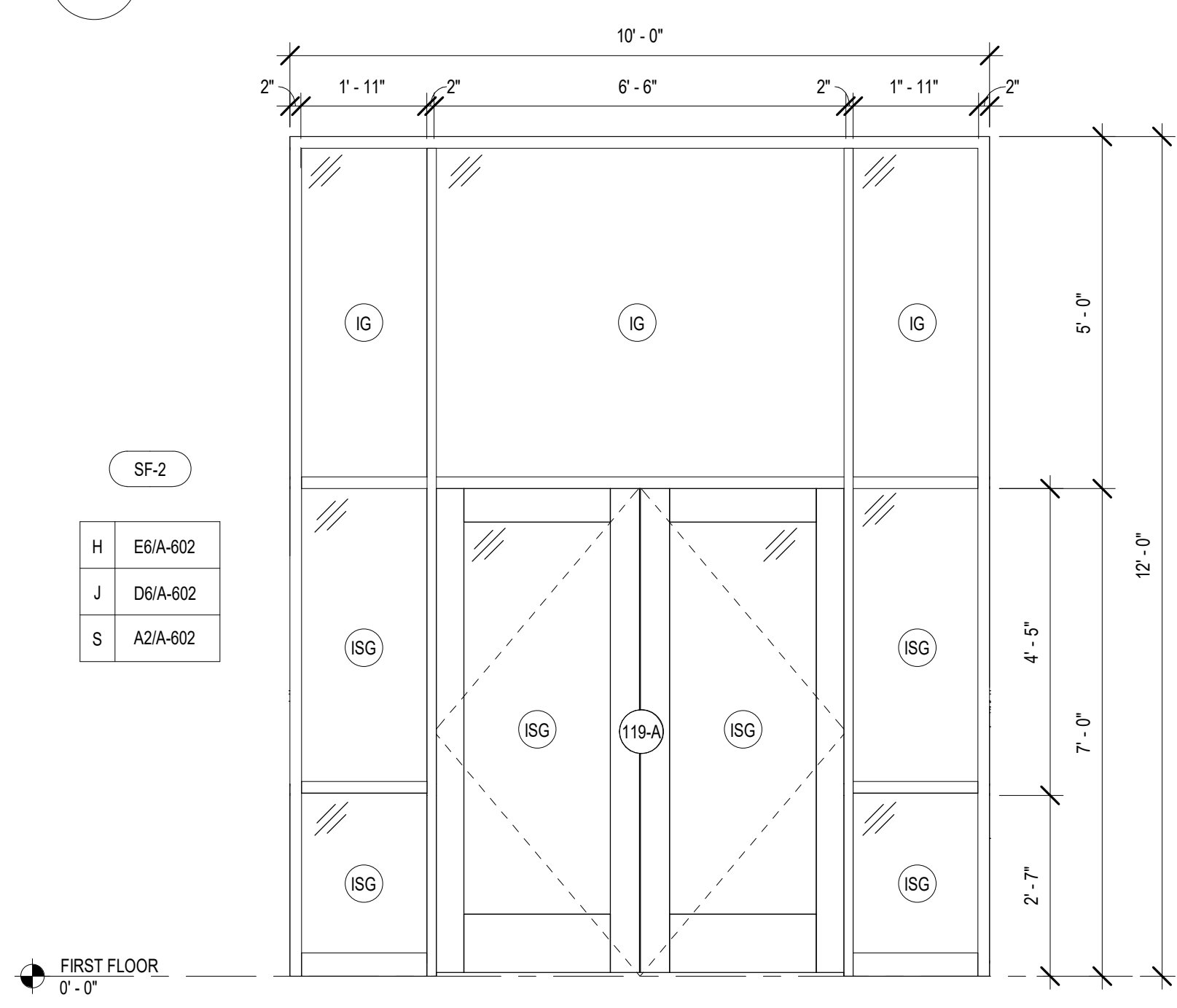
C3 HM-5
1/2" = 1'-0"



C4 HM-2
1/2" = 1'-0"



B4 HM-3
1/2" = 1'-0"



A4 SF-2
1/2" = 1'-0"

DOOR NO.	ROOM NO.	ROOM NAME	TYPE	NO. OF PANELS	DOOR				FRAME				FIRE RATING	FIN SET	HEAD	JAMB	SILL	COMMENTS	
					WIDTH	HEIGHT	THICKNESS	MTL	GLAZING	TYPE	MTL	FRAME DEPTH							
101-A	101	BUS GARAGE	G	1	3'-0"	7'-0"	1 3/4"	HM	ISO	-	B	HM	3"	05	C1/A-602	B1/A-602	A1/A-602		
101-B	101	BUS GARAGE	A	-	14'-0"	12'-0"	2"	HM	-	-	-	HM	3"	01	C3/A-602	B3/A-602	A3/A-602		
101-C	101	BUS GARAGE	A	-	14'-0"	12'-0"	2"	HM	-	-	-	HM	3"	01	C3/A-602	B3/A-602	A3/A-602		
101-D	101	BUS GARAGE	G	1	3'-0"	7'-0"	1 3/4"	HM	ISO	B	-	HM	3"	05	C1/A-602	B1/A-602	A1/A-602		
101-E	101	BUS GARAGE	A	-	14'-0"	12'-0"	2"	HM	-	B	-	HM	3"	01	C3/A-602	B3/A-602	A3/A-602		
101-F	101	BUS GARAGE	A	-	14'-0"	12'-0"	2"	HM	-	-	-	HM	3"	01	C3/A-602	B3/A-602	A3/A-602		
102-A	102	CLASSROOM	G	1	3'-0"	7'-0"	1 3/4"	HM	-	-	B	HM	5 3/4"	03	D1/A-602	E1/A-602	-		
102-B	102	CLASSROOM	G	1	3'-0"	7'-0"	1 3/4"	HM	-	-	B	HM	5 3/4"	03	D1/A-602	E1/A-602	-		
106-A	106	OFFICE	G	1	3'-0"	7'-0"	1 3/4"	HM	SG	B	-	HM	5 3/4"	03	D1/A-602	E1/A-602	-		
106-B	106	OFFICE	G	1	3'-0"	7'-0"	1 3/4"	HM	SG	B	-	HM	5 3/4"	03	D1/A-602	E1/A-602	-		
107-A	107	STAFF RR	F	1	3'-0"	7'-0"	1 3/4"	HM	-	-	B	HM	5 3/4"	04	D1/A-602	E1/A-602	A3/A-602		
108-A	101	BUS GARAGE	W	1	3'-0"	7'-0"	1 3/4"	STL	-	-	-	-	2"	02	-	-	-	1	
108-B	108	OPR TOOL STORAGE	W	1	3'-0"	10'-2"	1 3/4"	STL	-	-	-	-	2"	02	-	-	-	1	
109-A	119	CAR GARAGE	W	1	3'-0"	7'-0"	1 3/4"	STL	-	-	-	-	2"	02	-	-	-	1	
109-B	109	AUTO GARAGE TOOL STORAGE	W	1	3'-0"	10'-2"	1 3/4"	STL	-	-	-	-	2"	02	-	-	-	1	
111-A	111	JC	G	1	3'-0"	7'-0"	1 3/4"	HM	SG	B	-	HM	5 3/4"	08	D1/A-602	E1/A-602	-		
113-A	113	UTILITY	F	1	3'-0"	7'-0"	1 3/4"	HM	SG	B	-	HM	5 3/4"	60 MIN.	06	D1/A-602	E1/A-602	-	
113-B	113	UTILITY	F	2	3'-0"	7'-0"	1 3/4"	HM	-	-	C	HM	5 3/4"	60 MIN.	07	D1/A-602	E1/A-602	-	
114-A	114	AIR COMPRESSOR	F	1	3'-0"	7'-0"	1 3/4"	HM	-	-	B	HM	5 3/4"	60 MIN.	06	D1/A-602	E1/A-602	-	
116-A	105	RESTROOM	G	1	3'-0"	7'-0"	1 3/4"	HM	SG	B	-	HM	5 3/4"	08	D1/A-602	E1/A-602	-		
117-A	117	CHEMICAL STORAGE	G	1	3'-0"	7'-0"	1 3/4"	HM	SG	B	-	HM	5 3/4"	60 MIN.	06	D1/A-602	E1/A-602	-	
118-A	118	CHEMICAL STORAGE	G	1	3'-0"	7'-0"	1 3/4"	HM	SG	B	-	HM	5 3/4"	60 MIN.	06	D1/A-602	E1/A-602	-	
119-A	119	CAR GARAGE	FG	2	3'-0"	7'-0"	1 3/4"	AL	SG	D	-	AL	4 1/2"	09	C2/A-602	B2/A-602	A2/A-602		
119-B	119	CAR GARAGE	A	-	12'-0"	12'-0"	2"	HM	-	-	-	HM	3"	01	C3/A-602	B3/A-602	A3/A-602		
119-C	119	CAR GARAGE	A	-	12'-0"	12'-0"	2"	HM	-	-	-	HM	3"	01	C3/A-602	B3/A-602	A3/A-602		
119-D	119	CAR GARAGE	FG	2	3'-0"	7'-0"	1 3/4"	AL	SG	D	-	AL	4 1/2"	09	C2/A-602	B2/A-602	A2/A-602		
202-A	202	IT	F	1	3'-0"	7'-0"	1 3/4"	HM	-	-	A	HM	5 7/8"	06	E2/A-602	D2/A-602	-		

DOOR SCHEDULE COMMENTS

- WIRE MESH PARTITION GATE.

GENERAL NOTES

ABBREVIATIONS

- AL ALUMINUM
- HM HOLLOW METAL
- STL STEEL
- WD SOLID CORE WOOD

GLAZING TYPES

- (ISG) INSULATED SAFETY GLAZING
- (SG) SAFETY GLAZING
- (IG) INSULATED GLAZING

GPD GROUP
Glass, Poly, Schomer, Burns & Delhous, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2101
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REV	DATE	DESCRIPTION
1	10/09/2025	ISSUED FOR ADDENDUM #1

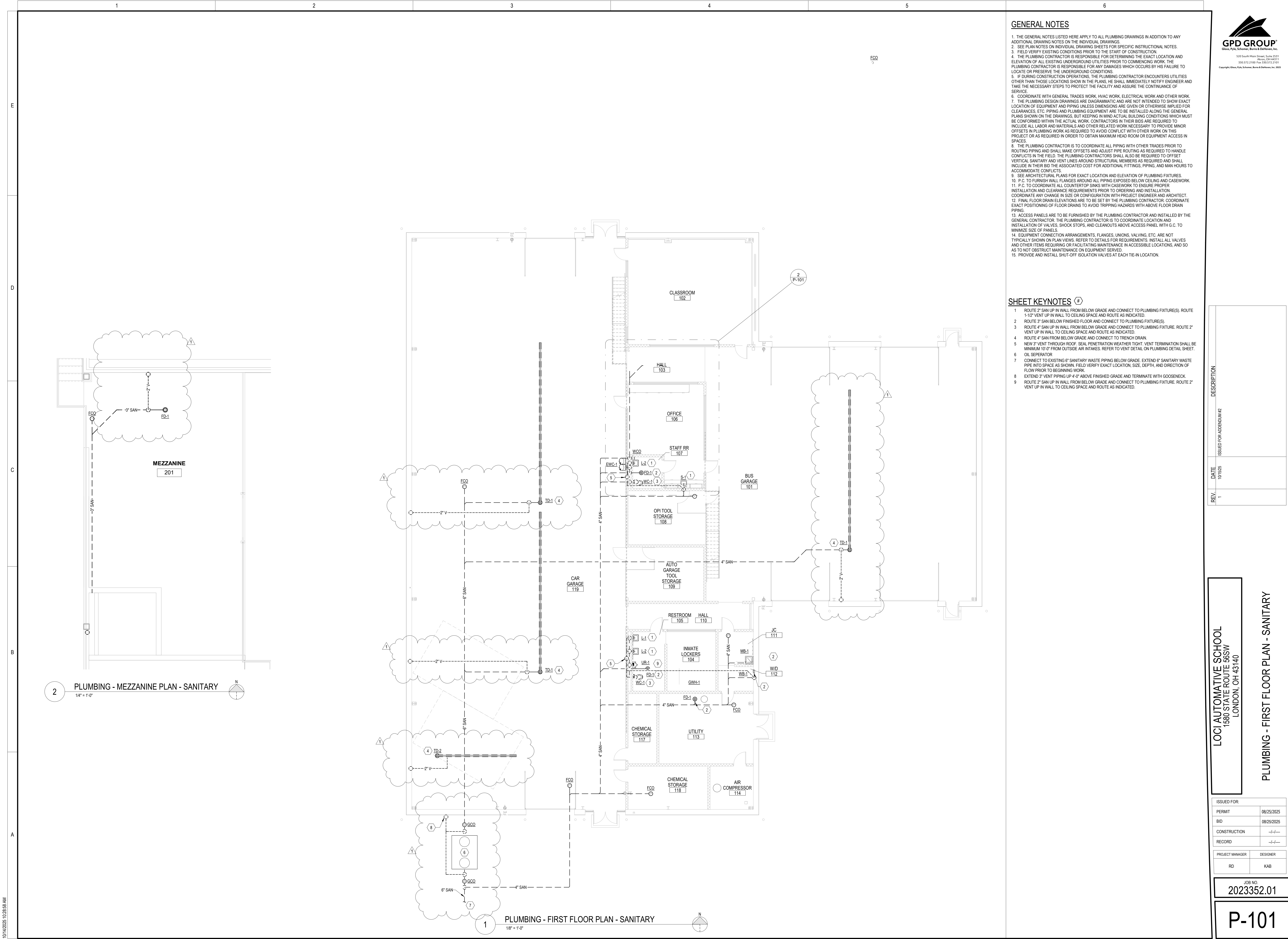
DRC-231009 LOCI AUTOMATIVE SCHOOL
1580 STATE ROUTE 56SW
LONDON, OH 43140

DOOR SCHEDULE AND DETAILS

ISSUED FOR:	
PERMIT	08/25/2025
BID	08/25/2025
CONSTRUCTION	-/-/-/-/-
RECORD	-/-/-/-/-
PROJECT MANAGER	DESIGNER
RD	KC

JOB NO.
2023352.01

A-601



GENERAL NOTES

1. THE GENERAL NOTES LISTED HERE APPLY TO ALL PLUMBING DRAWINGS IN ADDITION TO ANY ADDITIONAL DRAWING NOTES ON THE INDIVIDUAL DRAWINGS.
2. SEE PLAN NOTES ON INDIVIDUAL DRAWING SHEETS FOR SPECIFIC INSTRUCTIONAL NOTES.
3. FIELD VERIFY EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION.
4. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES WHICH OCCURS BY HIS FAILURE TO LOCATE OR PRESERVE THE UNDERGROUND CONDITIONS.
5. IF DURING CONSTRUCTION OPERATIONS, THE PLUMBING CONTRACTOR ENCOUNTERS UTILITIES OTHER THAN THOSE LOCATIONS SHOWN IN THE PLANS, HE SHALL IMMEDIATELY NOTIFY ENGINEER AND TAKE THE NECESSARY STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
6. COORDINATE WITH GENERAL TRADES WORK, HVAC WORK, ELECTRICAL WORK AND OTHER WORK.
7. THE PLUMBING DESIGN DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EXACT LOCATION OF EQUIPMENT AND PIPING UNLESS DIMENSIONS ARE GIVEN OR OTHERWISE IMPLIED FOR CLEARANCES, ETC. PIPING AND PLUMBING EQUIPMENT ARE TO BE INSTALLED ALONG THE GENERAL PLANS SHOWN ON THE DRAWINGS, BUT KEEPING IN MIND ACTUAL BUILDING CONDITIONS WHICH MUST BE CONFORMED WITHIN THE ACTUAL WORK. CONTRACTORS IN THEIR BIDS ARE REQUIRED TO INCLUDE ALL LABOR AND MATERIALS AND OTHER RELATED WORK NECESSARY TO PROVIDE MINOR OFFSETS IN PLUMBING WORK AS REQUIRED TO AVOID CONFLICT WITH OTHER WORK ON THIS PROJECT OR AS REQUIRED IN ORDER TO OBTAIN MAXIMUM HEAD ROOM OR EQUIPMENT ACCESS IN SPACES.
8. THE PLUMBING CONTRACTOR IS TO COORDINATE ALL PIPING WITH OTHER TRADES PRIOR TO ROUTING PIPING AND SHALL MAKE OFFSETS AND ADJUST PIPE ROUTING AS REQUIRED TO HANDLE CONFLICTS IN THE FIELD. THE PLUMBING CONTRACTORS SHALL ALSO BE REQUIRED TO OFFSET VERTICAL, SANITARY AND VENT LINES AROUND STRUCTURAL MEMBERS AS REQUIRED AND SHALL INCLUDE IN THEIR BID THE ASSOCIATED COST FOR ADDITIONAL FITTINGS, PIPING, AND MAN HOURS TO ACCOMMODATE CONFLICTS.
9. SEE ARCHITECTURAL PLANS FOR EXACT LOCATION AND ELEVATION OF PLUMBING FIXTURES.
10. P.C. TO FURNISH WALL FLANGES AROUND ALL PIPING EXPOSED BELOW CEILING AND CASEWORK.
11. P.C. TO COORDINATE ALL COUNTERTOP SINKS WITH CASEWORK TO ENSURE PROPER INSTALLATION AND CLEARANCE REQUIREMENTS PRIOR TO ORDERING AND INSTALLATION. COORDINATE ANY CHANGE IN SIZE OR CONFIGURATION WITH PROJECT ENGINEER AND ARCHITECT.
12. FINAL FLOOR DRAIN ELEVATIONS ARE TO BE SET BY THE PLUMBING CONTRACTOR. COORDINATE EXACT POSITIONING OF FLOOR DRAINS TO AVOID TRIPPING HAZARDS WITH ABOVE FLOOR DRAIN PIPING.
13. ACCESS PANELS ARE TO BE FURNISHED BY THE PLUMBING CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR IS TO COORDINATE LOCATION AND INSTALLATION OF VALVES, SHOCK STOPS, AND CLEANOUTS ABOVE ACCESS PANEL WITH G.C. TO MINIMIZE SIZE OF PANELS.
14. EQUIPMENT CONNECTION ARRANGEMENTS, FLANGES, UNIONS, VALVING, ETC. ARE NOT TYPICALLY SHOWN ON PLAN VIEWS. REFER TO DETAILS FOR REQUIREMENTS. INSTALL ALL VALVES AND OTHER ITEMS REQUIRING OR FACILITATING MAINTENANCE IN ACCESSIBLE LOCATIONS, AND SO AS TO NOT OBSTRUCT MAINTENANCE OR EQUIPMENT SERVED.
15. PROVIDE AND INSTALL SHUT-OFF ISOLATION VALVES AT EACH TIE-IN LOCATION.

SHEET KEYNOTES

1. ROUTE 2" SAN UP IN WALL FROM BELOW GRADE AND CONNECT TO PLUMBING FIXTURE(S). ROUTE 1-1/2" VENT UP IN WALL TO CEILING SPACE AND ROUTE AS INDICATED.
2. ROUTE 3" SAN BELOW FINISHED FLOOR AND CONNECT TO PLUMBING FIXTURE(S).
3. ROUTE 4" SAN UP IN WALL FROM BELOW GRADE AND CONNECT TO PLUMBING FIXTURE. ROUTE 2" VENT UP IN WALL TO CEILING SPACE AND ROUTE AS INDICATED.
4. ROUTE 4" SAN FROM BELOW GRADE AND CONNECT TO TRENCH DRAIN.
5. NEW 3" VENT THROUGH ROOF. SEAL PENETRATION WEATHER TIGHT. VENT TERMINATION SHALL BE MINIMUM 10'-0" FROM OUTSIDE AIR INTAKES. REFER TO VENT DETAIL ON PLUMBING DETAIL SHEET.
6. OIL SEPARATOR
7. CONNECT TO EXISTING 6" SANITARY WASTE PIPING BELOW GRADE. EXTEND 6" SANITARY WASTE PIPE INTO SPACE AS SHOWN. FIELD VERIFY EXACT LOCATION, SIZE, DEPTH, AND DIRECTION OF FLOW PRIOR TO BEGINNING WORK.
8. EXTEND 3" VENT PIPING UP 4'-0" ABOVE FINISHED GRADE AND TERMINATE WITH GOOSENECK.
9. ROUTE 2" SAN UP IN WALL FROM BELOW GRADE AND CONNECT TO PLUMBING FIXTURE. ROUTE 2" VENT UP IN WALL TO CEILING SPACE AND ROUTE AS INDICATED.

DESCRIPTION	
ISSUED FOR ADDENDUM #2	
DATE	10/10/25
REV	1

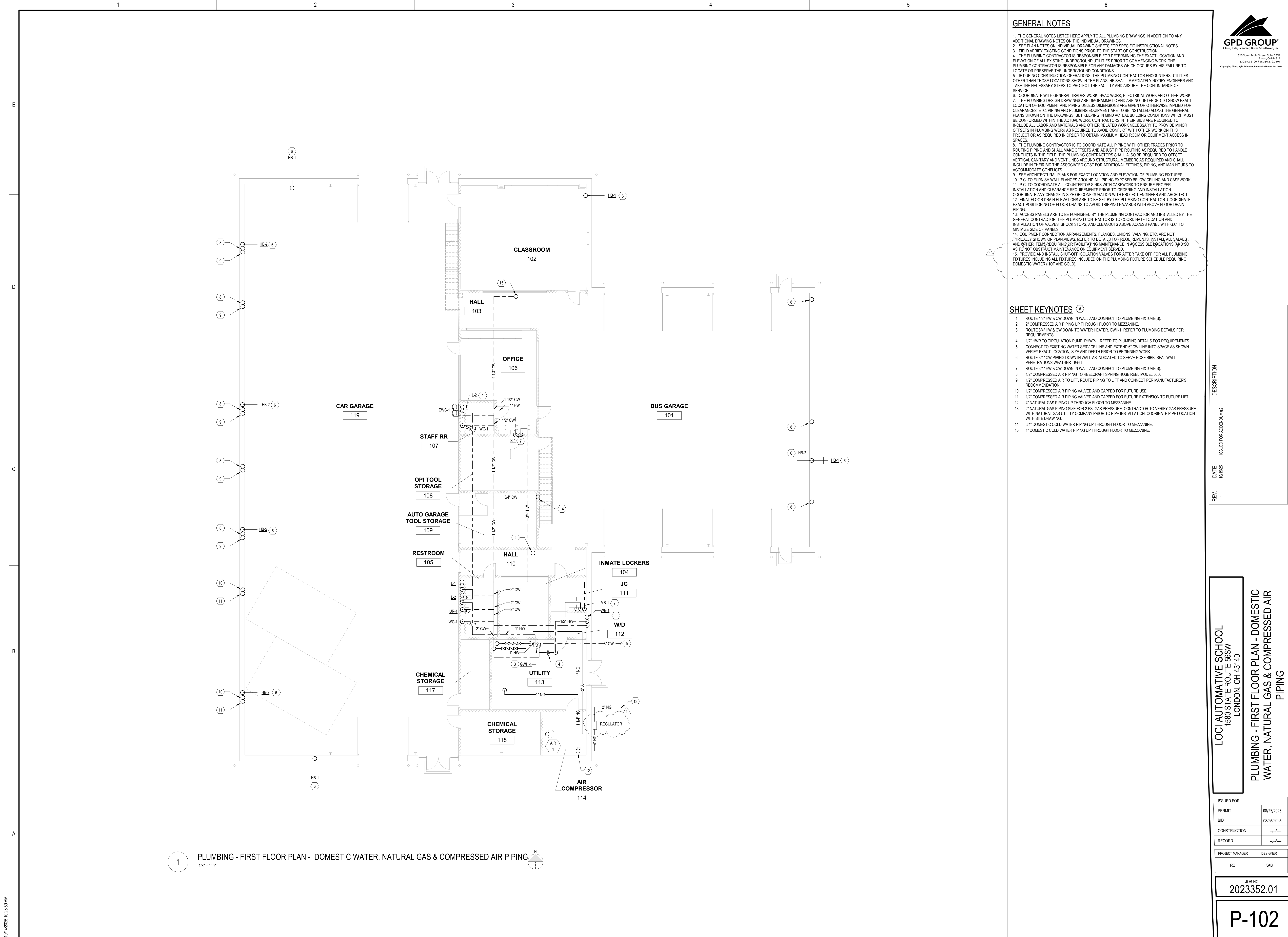
LOCUST AUTOMOTIVE SCHOOL
1580 STATE ROUTE 56SW
LONDON, OH 43140

PLUMBING - FIRST FLOOR PLAN - SANITARY

ISSUED FOR:	
PERMIT	08/25/2025
BID	08/25/2025
CONSTRUCTION	-----
RECORD	-----
PROJECT MANAGER	DESIGNER
RD	KAB

JOB NO.
2023352.01

P-101



GENERAL NOTES

1. THE GENERAL NOTES LISTED HERE APPLY TO ALL PLUMBING DRAWINGS IN ADDITION TO ANY ADDITIONAL DRAWING NOTES ON THE INDIVIDUAL DRAWINGS.
2. SEE PLAN NOTES ON INDIVIDUAL DRAWING SHEETS FOR SPECIFIC INSTRUCTIONAL NOTES.
3. FIELD VERIFY EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION.
4. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES WHICH OCCURS BY HIS FAILURE TO LOCATE OR PRESERVE THE UNDERGROUND CONDITIONS.
5. IF DURING CONSTRUCTION OPERATIONS, THE PLUMBING CONTRACTOR ENCOUNTERS UTILITIES OTHER THAN THOSE LOCATIONS SHOWN IN THE PLANS, HE SHALL IMMEDIATELY NOTIFY ENGINEER AND TAKE THE NECESSARY STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
6. COORDINATE WITH GENERAL TRADES WORK, HVAC WORK, ELECTRICAL WORK AND OTHER WORK.
7. THE PLUMBING DESIGN DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EXACT LOCATION OF EQUIPMENT AND PIPING UNLESS DIMENSIONS ARE GIVEN OR OTHERWISE IMPLIED FOR CLEARANCES, ETC. PIPING AND PLUMBING EQUIPMENT ARE TO BE INSTALLED ALONG THE GENERAL PLANS SHOWN ON THE DRAWINGS, BUT KEEPING IN MIND ACTUAL BUILDING CONDITIONS WHICH MUST BE CONFORMED WITHIN THE ACTUAL WORK. CONTRACTORS IN THEIR BIDS ARE REQUIRED TO INCLUDE ALL LABOR AND MATERIALS AND OTHER RELATED WORK NECESSARY TO PROVIDE MINOR OFFSETS IN PLUMBING WORK AS REQUIRED TO AVOID CONFLICT WITH OTHER WORK ON THIS PROJECT OR AS REQUIRED IN ORDER TO OBTAIN MAXIMUM HEAD ROOM OR EQUIPMENT ACCESS IN SPACES.
8. THE PLUMBING CONTRACTOR IS TO COORDINATE ALL PIPING WITH OTHER TRADES PRIOR TO ROUTING PIPING AND SHALL MAKE OFFSETS AND ADJUST PIPE ROUTING AS REQUIRED TO HANDLE CONFLICTS IN THE FIELD. THE PLUMBING CONTRACTORS SHALL ALSO BE REQUIRED TO OFFSET VERTICAL, SANITARY AND VENT LINES AROUND STRUCTURAL MEMBERS AS REQUIRED AND SHALL INCLUDE IN THEIR BID THE ASSOCIATED COST FOR ADDITIONAL FITTINGS, PIPING, AND MAN HOURS TO ACCOMMODATE CONFLICTS.
9. SEE ARCHITECTURAL PLANS FOR EXACT LOCATION AND ELEVATION OF PLUMBING FIXTURES.
10. P.C. TO FURNISH WALL FLANGES AROUND ALL PIPING EXPOSED BELOW CEILING AND CASEWORK.
11. P.C. TO COORDINATE ALL COUNTERTOP SINKS WITH CASEWORK TO ENSURE PROPER INSTALLATION AND CLEARANCE REQUIREMENTS PRIOR TO ORDERING AND INSTALLATION. COORDINATE ANY CHANGE IN SIZE OR CONFIGURATION WITH PROJECT ENGINEER AND ARCHITECT.
12. FINAL FLOOR DRAIN ELEVATIONS ARE TO BE SET BY THE PLUMBING CONTRACTOR. COORDINATE EXACT POSITIONING OF FLOOR DRAINS TO AVOID TRIPPING HAZARDS WITH ABOVE FLOOR DRAIN PIPING.
13. ACCESS PANELS ARE TO BE FURNISHED BY THE PLUMBING CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR IS TO COORDINATE LOCATION AND INSTALLATION OF VALVES, SHOCK STOPS, AND CLEANOUTS ABOVE ACCESS PANEL WITH G.C. TO MINIMIZE SIZE OF PANELS.
14. EQUIPMENT CONNECTION ARRANGEMENTS, FLANGES, UNIONS, VALVING, ETC. ARE NOT TYPICALLY SHOWN ON PLAN VIEWS. REFER TO DETAILS FOR REQUIREMENTS. INSTALL ALL VALVES AND OTHER ITEMS, REQUIRING OR FACILITATING MAINTENANCE IN ACCESSIBLE LOCATIONS, AND SO AS TO NOT OBSTRUCT MAINTENANCE OR EQUIPMENT SERVED.
15. PROVIDE AND INSTALL SHUT-OFF ISOLATION VALVES FOR AFTER TAKE OFF FOR ALL PLUMBING FIXTURES INCLUDING ALL FIXTURES INCLUDED ON THE PLUMBING FIXTURE SCHEDULE REQUIRING DOMESTIC WATER (HOT AND COLD).

SHEET KEYNOTES (#)

1. ROUTE 1/2" HW & CW DOWN IN WALL AND CONNECT TO PLUMBING FIXTURE(S).
2. 2" COMPRESSED AIR PIPING UP THROUGH FLOOR TO MEZZANINE.
3. ROUTE 3/4" HW & CW DOWN TO WATER HEATER, GWH-1. REFER TO PLUMBING DETAILS FOR REQUIREMENTS.
4. 1/2" HWR TO CIRCULATION PUMP, RHWP-1. REFER TO PLUMBING DETAILS FOR REQUIREMENTS.
5. CONNECT TO EXISTING WATER SERVICE LINE AND EXTEND 6" CW LINE INTO SPACE AS SHOWN. VERIFY EXACT LOCATION, SIZE AND DEPTH PRIOR TO BEGINNING WORK.
6. ROUTE 3/4" CW PIPING DOWN IN WALL AS INDICATED TO SERVE HOSE BIBB. SEAL WALL PENETRATIONS WEATHER TIGHT.
7. ROUTE 3/4" HW & CW DOWN IN WALL AND CONNECT TO PLUMBING FIXTURE(S).
8. 1/2" COMPRESSED AIR PIPING TO REEL CRAFT SPRING HOSE REEL MODEL 9650.
9. 1/2" COMPRESSED AIR TO LIFT. ROUTE PIPING TO LIFT AND CONNECT PER MANUFACTURER'S RECOMMENDATION.
10. 1/2" COMPRESSED AIR PIPING VALVED AND CAPPED FOR FUTURE USE.
11. 1/2" COMPRESSED AIR PIPING VALVED AND CAPPED FOR FUTURE EXTENSION TO FUTURE LIFT.
12. 4" NATURAL GAS PIPING UP THROUGH FLOOR TO MEZZANINE.
13. 2" NATURAL GAS PIPING SIZE FOR 2 PSI GAS PRESSURE. CONTRACTOR TO VERIFY GAS PRESSURE WITH NATURAL GAS UTILITY COMPANY PRIOR TO PIPE INSTALLATION. COORDINATE PIPE LOCATION WITH SITE DRAWING.
14. 3/4" DOMESTIC COLD WATER PIPING UP THROUGH FLOOR TO MEZZANINE.
15. 1" DOMESTIC COLD WATER PIPING UP THROUGH FLOOR TO MEZZANINE.

DESCRIPTION

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DATE

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REV

1

LOCI AUTOMATIVE SCHOOL
1580 STATE ROUTE 56SW
LONDON, OH 43140

PLUMBING - FIRST FLOOR PLAN - DOMESTIC
WATER, NATURAL GAS & COMPRESSED AIR
PIPING

ISSUED FOR:	
PERMIT	08/25/2025
BID	08/25/2025
CONSTRUCTION	---
RECORD	---
PROJECT MANAGER	DESIGNER
RD	KAB

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2023352.01

P-102

DESCRIPTION
ISSUED FOR ADDENDUM #2

DATE
10/16/25

REV
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LOCI AUTOMATIVE SCHOOL
1580 STATE ROUTE 56SW
LONDON, OH 43140

PLUMBING ISOMETRICS

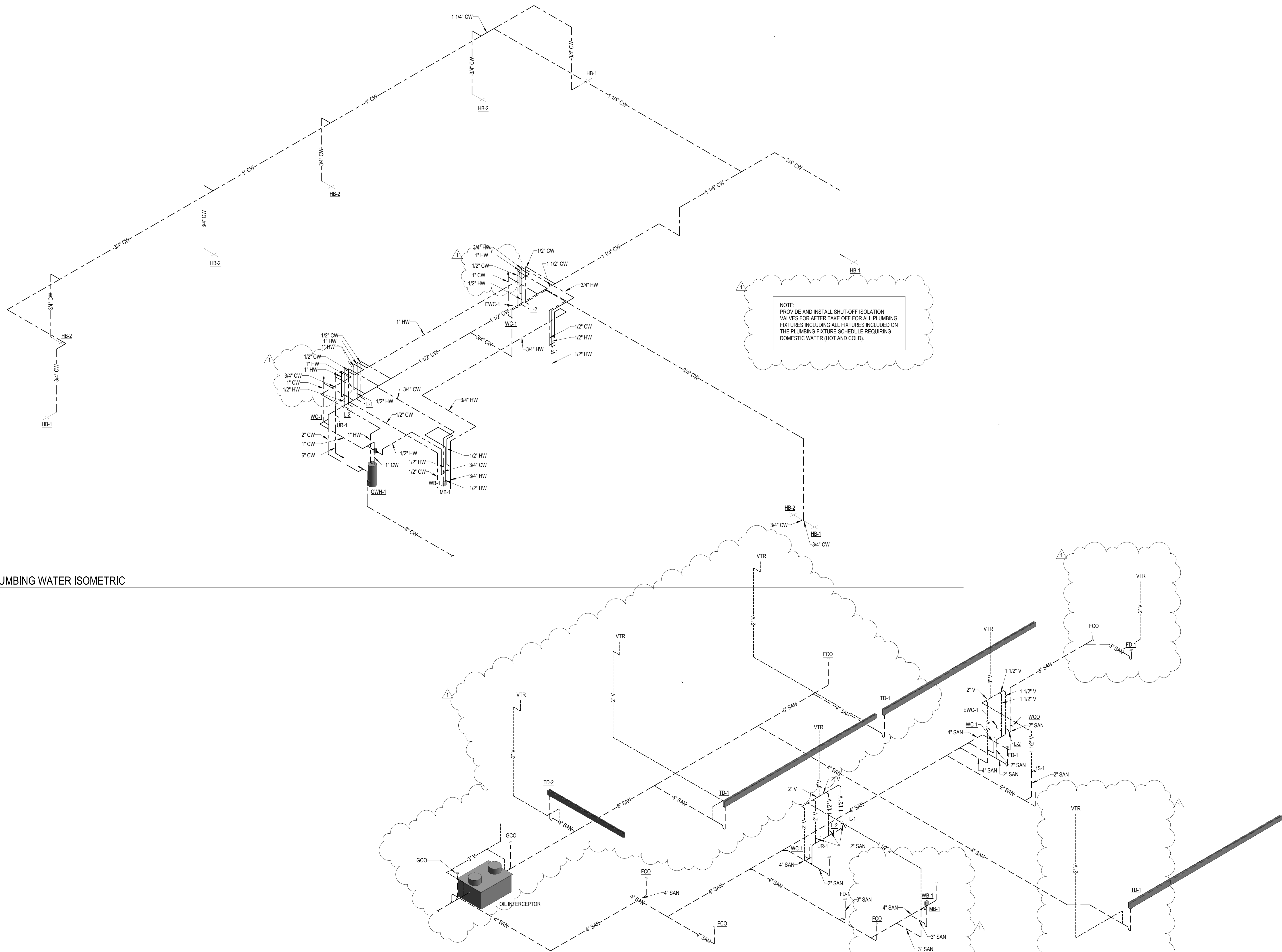
ISSUED FOR:	
PERMIT	08/25/2025
BID	08/25/2025
CONSTRUCTION	---
RECORD	---
PROJECT MANAGER	DESIGNER
RD	KAB

JOB NO.
2023352.01

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2 PLUMBING WATER ISOMETRIC
N.T.S.

1 PLUMBING SANITARY ISOMETRIC
N.T.S.



E

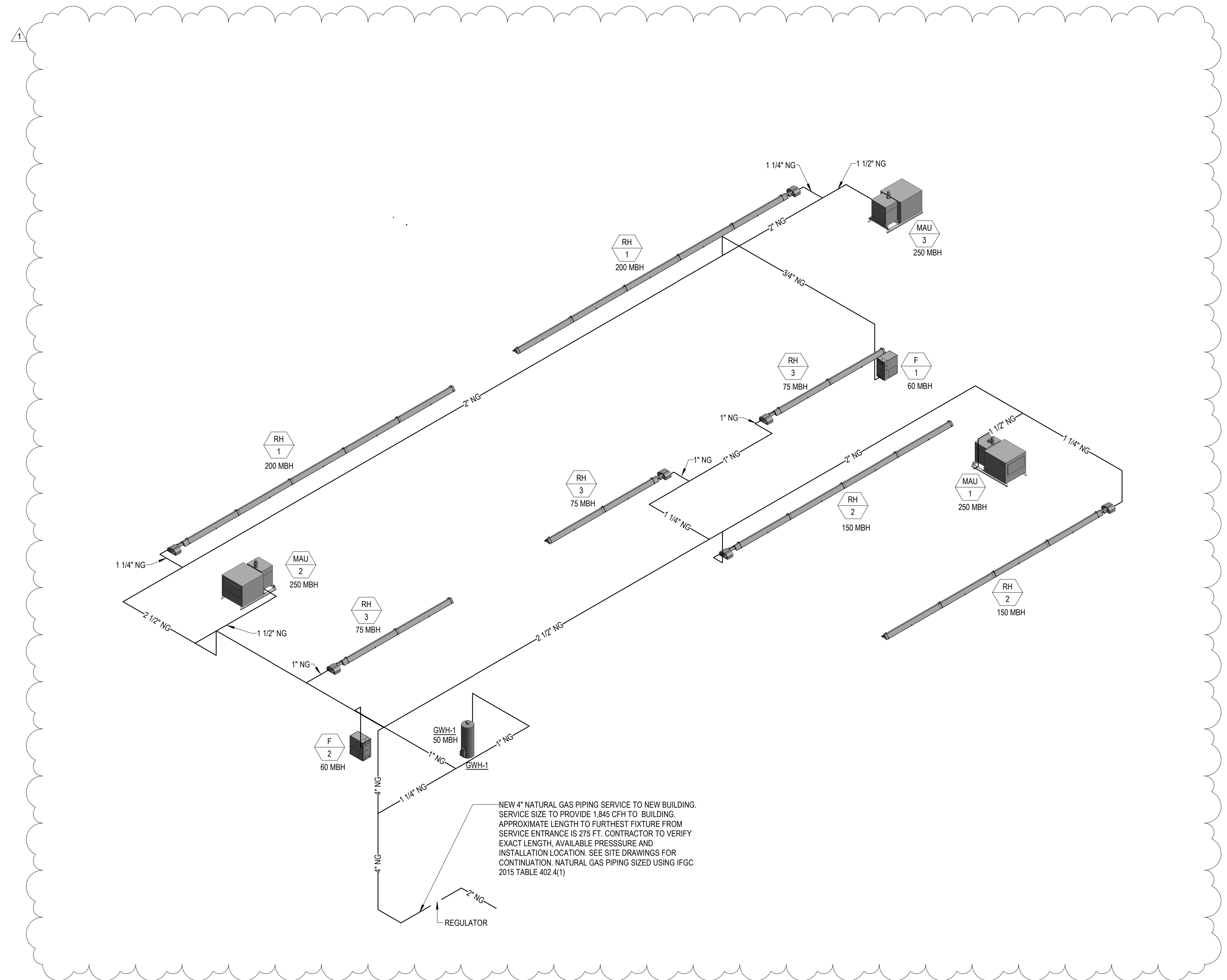
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C

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1 PLUMBING NATURAL GAS ISOMETRIC
N.T.S.

DESCRIPTION	
ISSUED FOR ADDENDUM #2	
DATE	10/10/25
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1580 STATE ROUTE 56SW
LONDON, OH 43140

PLUMBING NATURAL GAS ISOMETRICS

ISSUED FOR:	
PERMIT	08/25/2025
BID	08/25/2025
CONSTRUCTION	-----
RECORD	-----
PROJECT MANAGER	DESIGNER
RD	KAB

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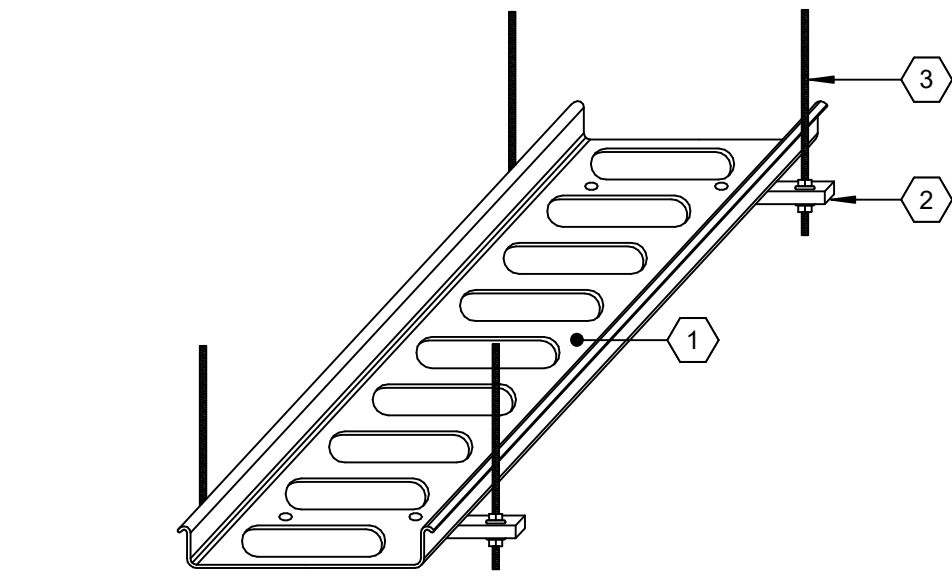


DIAGRAM NOTES:

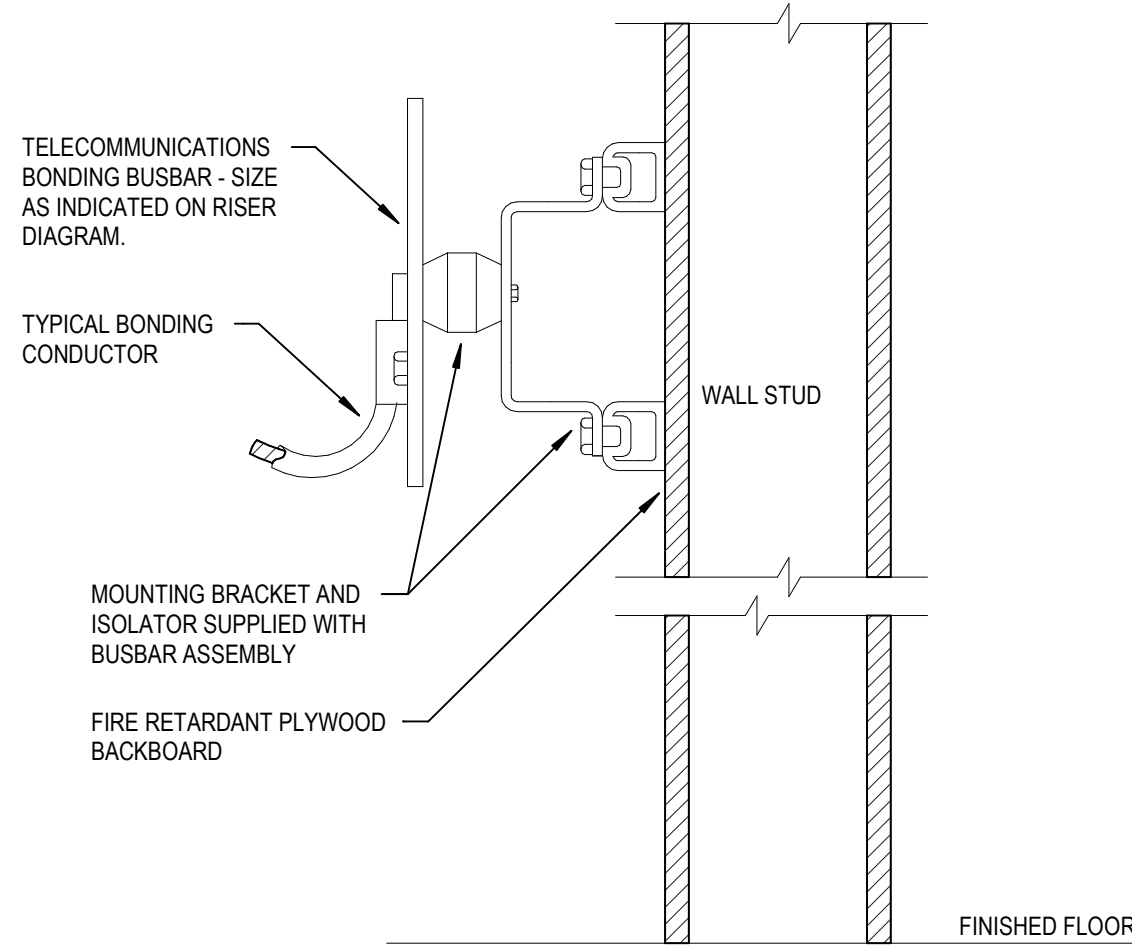
- A. CONTRACTOR SHALL ENSURE THERE IS AT LEAST 12" OF CLEAR SPACE ABOVE AND ON ONE SIDE OF THE CABLE TRAY TO ALLOW PROPER CLEARANCE FOR INSTALLATION OF CABLING.

KEY NOTES:

1. VERIFY CABLE TRAY TYPE AND SIZE WITH DRAWINGS AND SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL MOUNTING REQUIREMENTS.
2. UNISTRUT TRAPEZE - TO FASTEN FIELD DRILL AND ATTACH STRUT DIRECTLY TO UNDERSIDE OF TRAY BY MEANS OF NUT AND BOLT AS RECOMMENDED BY MANUFACTURER.
3. PROVIDE (2) THREADED RODS PER UNISTRUT TRAPEZE, TYPICAL. REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS FOR RECOMMENDED THREADED ROD SIZING AND TRAPEZE SPACING.

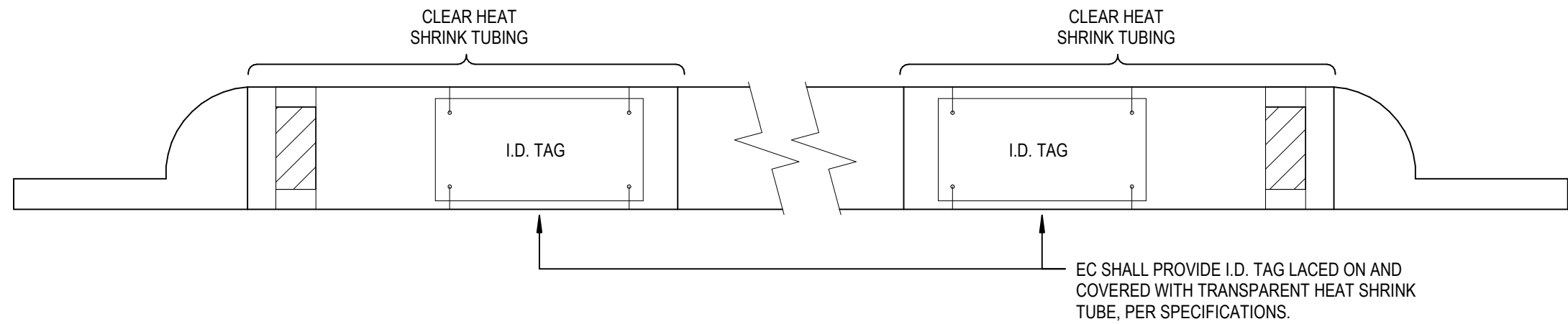
D1 TYPICAL CABLE TRAY MOUNTING DETAIL

N.T.S.



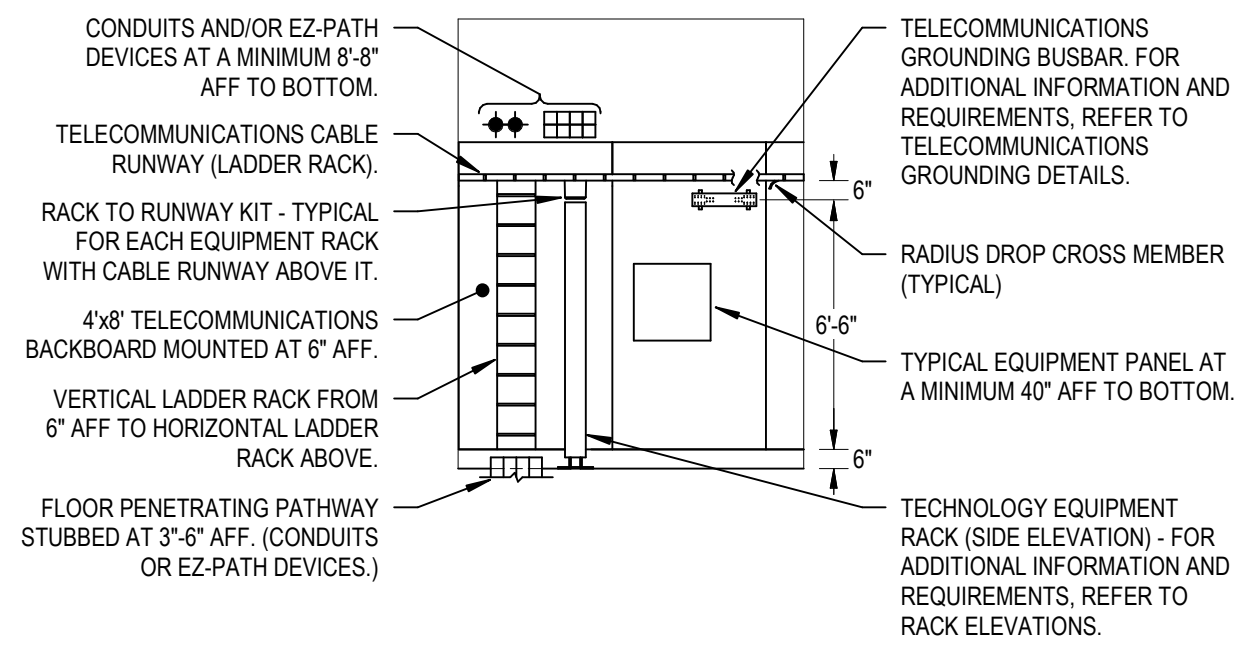
B1 TELECOMMUNICATIONS GROUNDING BUSBAR DETAIL

N.T.S.



A1 GROUND CONDUCTOR IDENTIFICATION DETAIL

N.T.S.

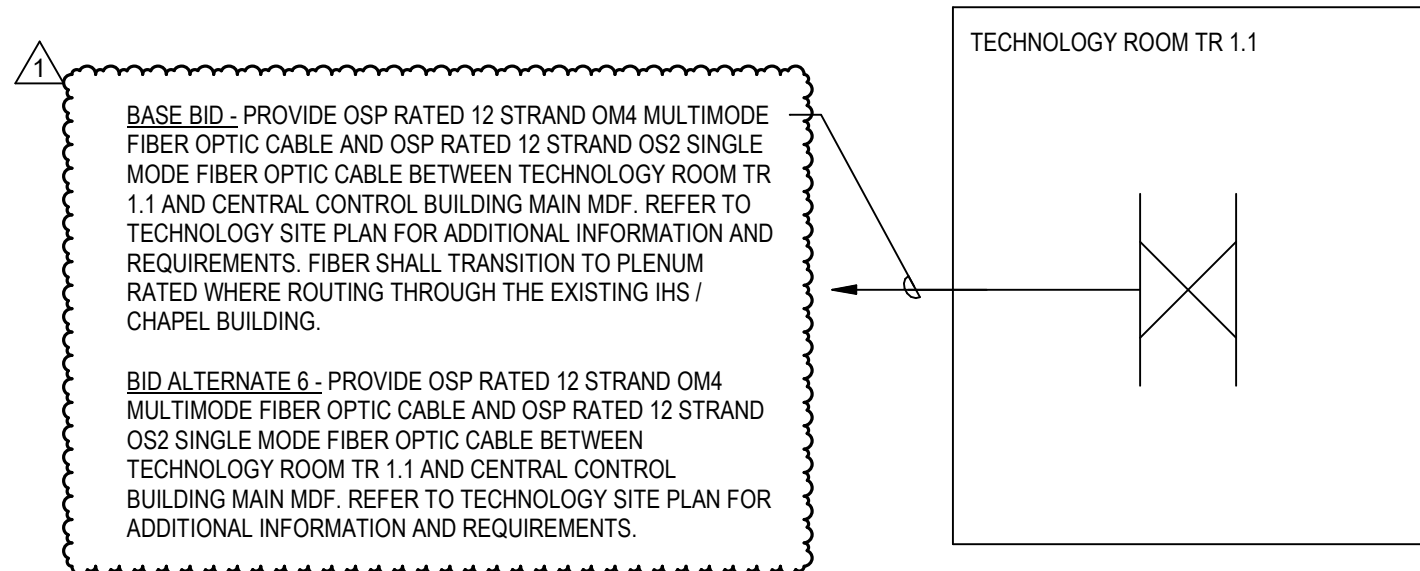


GENERAL NOTES:

- A. DETAIL INTENDED TO INDICATE TYPICAL ELEVATIONS OF TYPICAL TELECOMMUNICATIONS DEVICES. REFER TO FLOORPLANS FOR ADDITIONAL INFORMATION REGARDING DEVICE LOCATIONS AND QUANTITIES.

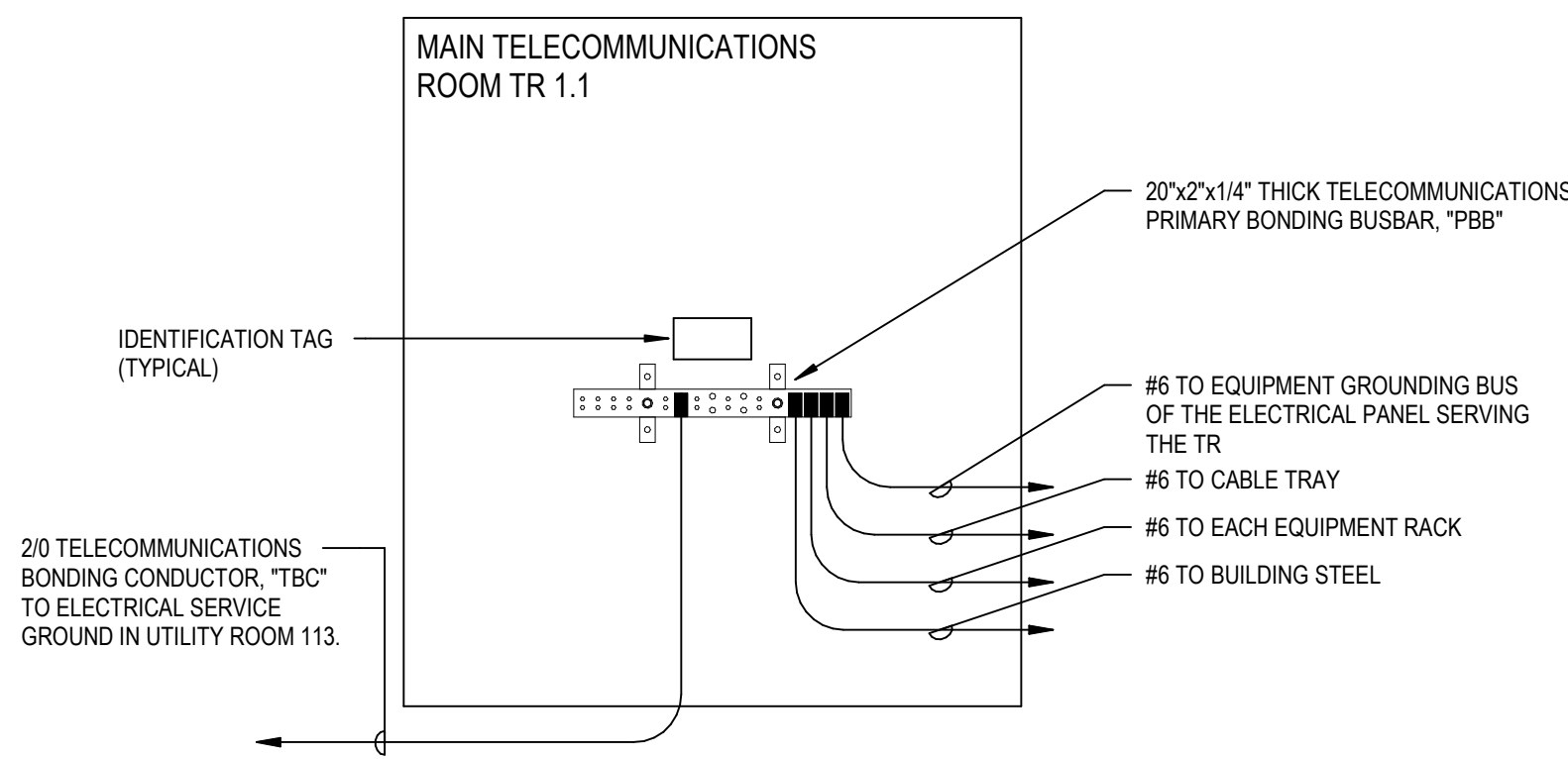
E3 TYPICAL TELECOMMUNICATIONS ROOM ELEVATION

N.T.S.



D3 TELECOMMUNICATIONS BACKBONE RISER

N.T.S.



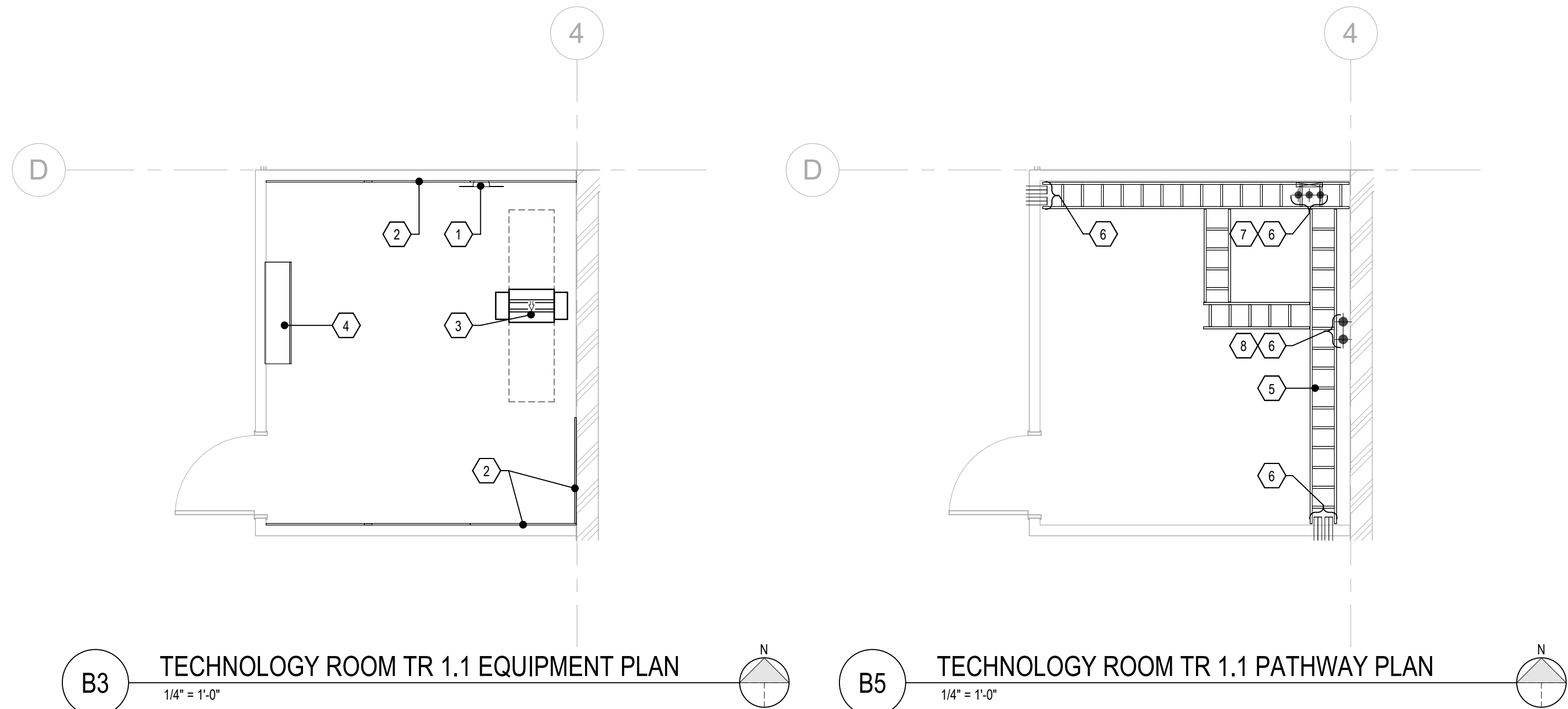
GENERAL NOTES:

- A. ALL HORIZONTAL RUNS SHALL BE SUPPORTED WITH "J-HOOKS" EVERY 5'-0" MAXIMUM. "J-HOOKS" SHALL BE INSULATED TYPE WHERE REQUIRED.
- B. CONDUCTOR SIZING IS BASED ON ANSITIA-607-D AND IS DEPENDANT ON OVERALL RUN LENGTH. CONTRACTOR SHALL SUBMIT DRAWING FOR REVIEW INDICATING INTENDED ROUTING PRIOR TO ORDERING ANY MATERIALS.
- C. BONDING CONDUCTORS SHALL NOT BE DAISY CHAINED.
- D. ALL GROUNDING ELECTRODES SHALL BE SECURED TO THE GROUND BAR WITH 2 HOLE IRREVERSIBLE COMPRESSION LUGS.
- ALL LUGS SHALL POSSESS AN INSPECTION WINDOW TO VISUALLY ASSURE FULL CONDUCTOR INSERTION.
 - ALL LUGS FOR CABLING LARGER THAN #6 SHALL BE SECURED TO THE REAR OF THE BAR.
 - ALL LUGS SHALL HAVE ANTI-OXIDANT APPLIED TO THE MATING SURFACE PRIOR TO INSTALLATION.
- E. TELECOMMUNICATIONS GROUNDING CONDUCTORS LOCATED IN PLENUM ENVIRONMENTS SHALL HAVE PLENUM RATED JACKET OR NON-JACKETED CABLING SHALL BE PROVIDED AND INSULATED FROM DIRECT CONTACT WITH CONDUITS, STRUCTURE, CABLE TRAY, OR ANYTHING CONDUCTIVE WITH INNERDUCT OR OTHER APPROVED METHOD. SUPPORT OF GROUND BUSS SHALL BE WITH INSULATED J-HOOK OR OTHER APPROVED METHOD.
- F. ALL BONDING CONDUCTORS SHALL BE LABELED AT THEIR TERMINATION POINTS IDENTIFYING THE LOCATION OF EACH CABLE END WITH FROM / TO TERMINOLOGY - IN ADDITION EACH LABEL SHALL HAVE THE FOLLOWING TEXT "IF THIS CONNECTOR OR CABLE IS LOOSE OR MUST BE REMOVED, PLEASE NOTIFY OWNERS IT REPRESENTATIVE OR BUILDING FACILITIES IMMEDIATELY". FOR ADDITIONAL REQUIREMENTS, REFER TO TECHNOLOGY GROUNDING SYSTEM SPECIFICATIONS.

NOTE:
ALL TELECOMMUNICATIONS BUSBARS (PBB OR SBB) SHALL HAVE A LAMINATED IDENTIFICATION TAG PERMANENTLY AFFIXED DIRECTLY ABOVE THE BUSBAR STATING "WARNING: TELECOMMUNICATIONS GROUNDING BUSBAR FOR DATA AND COMMUNICATIONS EQUIPMENT ONLY. NOT TO BE USED AS AN ELECTRICAL SYSTEMS GROUND. IF CONNECTORS OR CABLES SHOW SIGNS OF BECOMING LOOSE, OR REQUIRE REMOVAL, CONTACT THE FACILITIES TECHNOLOGY MANAGER IMMEDIATELY". FOR ADDITIONAL REQUIREMENTS, REFER TO TECHNOLOGY GROUNDING SYSTEM SPECIFICATIONS.

D4 TELECOMMUNICATIONS GROUNDING RISER

N.T.S.

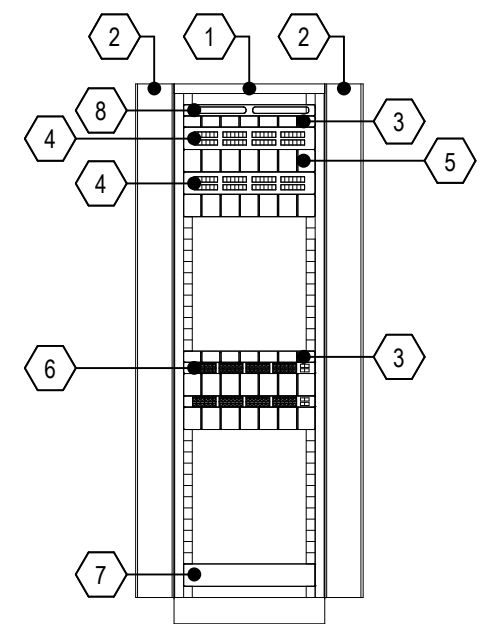


B3 TECHNOLOGY ROOM TR 1.1 EQUIPMENT PLAN

1/4" = 1'-0"

B5 TECHNOLOGY ROOM TR 1.1 PATHWAY PLAN

1/4" = 1'-0"



A5 TECHNOLOGY ROOM TR 1.1 RACK ELEVATION

N.T.S.

GENERAL SHEET NOTES

- A. CONTRACTOR SHALL PROVIDE PROPER FIRESTOPPING OF ALL PENETRATIONS IN FIRE RATED WALLS OR FLOORS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- B. TECHNOLOGY DEVICE LOCATIONS SHOWN ARE SCHEMATIC. COORDINATE WITH ARCHITECTURAL, FURNITURE, AND ELECTRICAL EQUIPMENT FOR FINAL LOCATION.
- C. LOW VOLTAGE CABLING OUTSIDE OF TECHNOLOGY ROOM SHALL BE SUPPORTED BY J-HOOK PATHWAY, UON. CABLING SHALL NOT BE SUPPORTED DIRECTLY BY STRUCTURE, PIPING, CEILING GRID, ETC.
- D. LOW VOLTAGE CABLING SHALL NOT BE PAINTED. CABLING SHALL BE PROTECTED IN PLACE IF INSTALLED PRIOR TO PAINT BEING APPLIED. ANY CABLING THAT HAS BEEN PAINTED MUST BE INSPECTED BY MANUFACTURER AND CONFIRMED IN WRITING THAT THE WARRANTY IS VALID. ANY CABLING THAT IS NO LONGER UNDER WARRANTY DUE TO PAINT CONTAMINATION SHALL BE REPLACED COMPLETELY AT NO COST TO THE OWNER.
- E. BRIDLE RINGS SHALL NOT BE UTILIZED TO SUPPORT TELEDATA CABLING.

REV.	DATE	DESCRIPTION
1	10/15/2025	Issued for Addendum #2

SHEET KEYNOTES (#)

1. TELECOMMUNICATIONS PRIMARY BONDING BUSBAR (PBB).
2. PROVIDE TELECOMMUNICATIONS 4X8 3/4" PLYWOOD BACKBOARD ON ALL WALLS AS INDICATED.
3. TWO-POST EQUIPMENT RACK WITH VERTICAL MANAGERS - REFER TO RACK ELEVATIONS FOR ADDITIONAL INFORMATION.
4. WALL MOUNTED MECHANICAL CRAC UNIT - SHOWN FOR REFERENCE ONLY.
5. 12" HORIZONTAL LADDER RACK, TYPICAL.
6. TELECOMMUNICATIONS PATHWAY - REFER TO TECHNOLOGY PLANS FOR ADDITIONAL INFORMATION.
7. 12" VERTICAL LADDER RACK MOUNTED FROM 6" AFF TO BOTTOM OF HORIZONTAL TRAY.
8. PROVIDE WALL MOUNT D-RING CABLE SUPPORTS AS PATHWAY FROM INCOMING CONDUITS TO HORIZONTAL CABLE TRAY ABOVE FOR INCOMING BACKBONE CABLING.

RACK ELEVATION KEYNOTES (#)

1. TWO-POST EQUIPMENT RACK - 7' (45RU) 19" RACK WITH BLACK FINISH.
2. 6" VERTICAL CABLE MANAGER.
3. 1RU HORIZONTAL CABLE MANAGER.
4. 2RU 48-PORT PATCH PANEL FOR TERMINATION OF (BLUE) DATA CABLING.
5. 2RU HORIZONTAL CABLE MANAGER, TYPICAL.
6. SPACE FOR OWNER PROVIDED NETWORK SWITCH, TYPICAL.
7. SPACE FOR OWNER PROVIDED UPS.
8. 1RU FIBER LIU FOR TERMINATION OF BACKBONE FIBER OPTIC CABLING.

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LONDON OH 43140

TECHNOLOGY ENLARGED PLANS

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BID	08/25/2025
CONSTRUCTION	---
RECORD	---
PROJECT MANAGER	DESIGNER
RD	SMT

JOB NO.

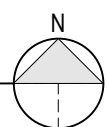
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1 TECHNOLOGY SITE PLAN
1" = 40'-0"



AUTOMOTIVE SCHOOL

FOOD SERVICE

IHS / CHAPEL

14

TPU

DORM

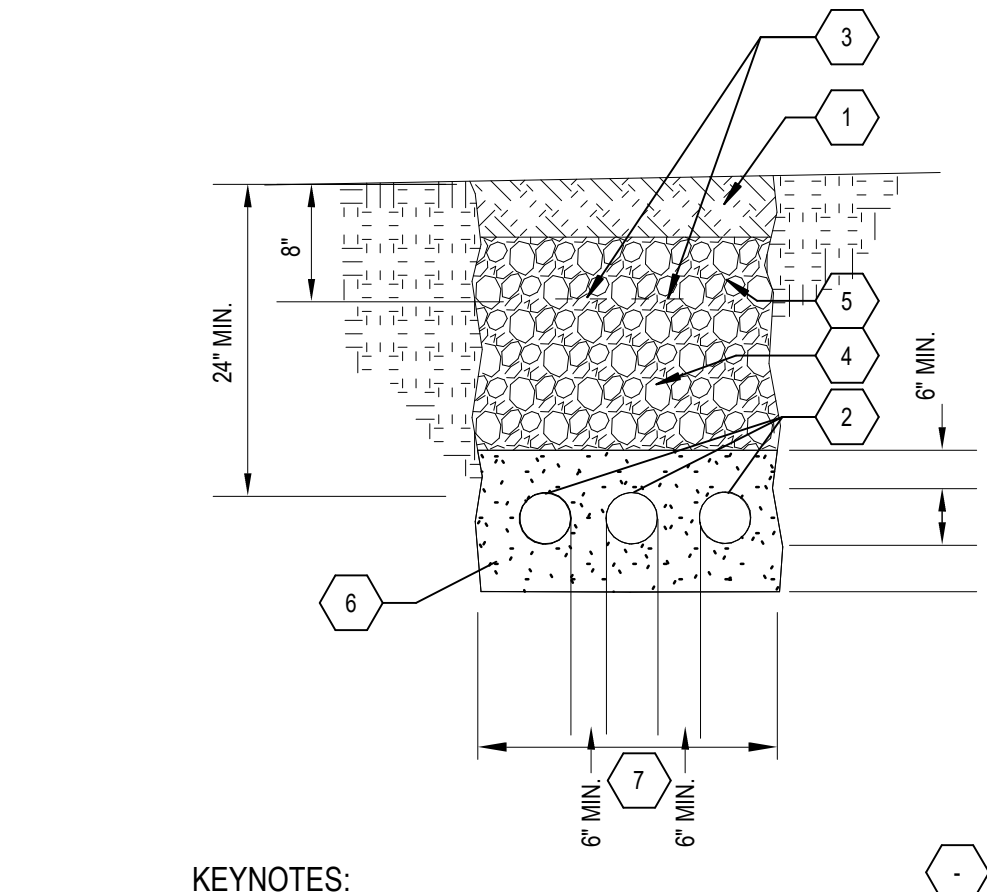
CENTRAL CONTROL
AND ADMIN AREA

GENERAL SHEET NOTES

- CONTRACTOR SHALL PROVIDE PROPER FIRESTOPPING OF ALL PENETRATIONS IN FIRE RATED WALLS AND FLOORS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- UNDERGROUND DUCTBANKS SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30" BELOW GRADE. DUCTS SHALL SLOPE TOWARDS MAINTENANCE HOLES TO FACILITATE DRAINAGE.
- CONTRACTOR SHALL PROVIDE A MINIMUM 48" BEND RADIUS ON ALL UNDERGROUND CONDUITS. COORDINATE ALL UNDERGROUND CONDUITS WITH EXISTING UTILITY LOCATIONS PRIOR TO COMMENCING WORK.
- ALL DEVICES AND PATHWAYS SHOWN ARE AS A RESULT OF FIELD VISITS MADE BY THE ENGINEER AND DRAWINGS PROVIDED BY THE OWNER TO REPRESENT GENERAL EXISTING SCOPE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE EXTENT OF THE SITE WORK PRIOR TO SUBMITTING BIDS.
- CONTRACTOR SHALL COORDINATE CONDUIT DUCTBANKS AND HANDHOLE ELEVATIONS WITH THE FINAL SUB GRADES.
- ALL DUCTS SHALL HAVE A 200# MIN. TENSILE STRENGTH PULLCORD.
- CONTRACTOR SHALL REMOVE CEILING TILES AND GRID AS REQUIRED TO COMPLETE WORK. AFTER WORK IS COMPLETE CONTRACTOR SHALL REINSTALL TILES MOVED AS A RESULT OF CONSTRUCTION. DAMAGED TILES AND GRID SHALL BE REPLACED BY THE CONTRACTOR AS NEEDED TO RETURN THE CEILING TO THE STATE IT WAS PRIOR TO CONSTRUCTION.
- ALL BUILDING PENETRATIONS SHALL BE INSTALLED WITH WATERTIGHT COLLARS AND IN A MANNER TO PREVENT LEAKS. ALL CONDUITS SHALL BE SEALED ONCE ALL CABLING IS PULLED - SEALING MUST PREVENT WATER, DERRIS, INSECT, OR ANIMAL INGRESS ONCE COMPLETE. ALL SEALS MUST BE REMOVABLE TO ALLOW FULL USE OF THE PATHWAY IN THE FUTURE.
- ALL EXTERIOR CONDUITS SHALL BE ENCASED IN CONCRETE WHERE ROUTED UNDER ANY DRIVEWAY, ROADWAY, AND PARKING LOTS. CONCRETE SHALL EXTEND 5' PAST EACH EDGE.

SHEET KEYNOTES (#)

- APPROXIMATE ROUTE OF EXISTING TELECOMMUNICATIONS DUCTBANK.
- APPROXIMATE LOCATION OF EXISTING "COMMUNICATIONS PULLBOX #1"
- APPROXIMATE LOCATION OF EXISTING "COMMUNICATIONS PULLBOX #2"
- APPROXIMATE LOCATION OF EXISTING CAMPUS MDF LOCATED ON LOWER LEVEL OF CENTRAL CONTROL.
- APPROXIMATE ROUTE OF EXISTING TELECOMMUNICATIONS PATHWAY STUBBING INTO MAIN IDF OF IHS / CHAPEL BUILDING.
- APPROXIMATE LOCATION OF EXISTING IHS / CHAPEL MAIN IDF. PROVIDE RACK MOUNT LIU FOR TERMINATION / TRANSITION OF OSP FIBER TO PLENUM RATED FIBER.
- APPROXIMATE LOCATION OF EXISTING IHS / CHAPEL SECONDARY IDF. PROVIDE RACK MOUNT LIU FOR TERMINATION / TRANSITION OF OSP FIBER TO PLENUM RATED FIBER.
- APPROXIMATE LOCATION OF NEW AUTOMOTIVE SCHOOL TR 1.1 ON MEZZANINE.
- TELECOMMUNICATIONS PATHWAY - PROVIDE (2) 4" CONDUITS SUB-GRADE FROM HAND HOLE "HH1" TO TR 1.1 LOCATED ON THE MEZZANINE LEVEL OF THE AUTOMOTIVE SCHOOL. CONDUITS SHALL ROUTE UP INTERIOR CHASE WALL AND STUB INTO TR 1.1 AT APPROXIMATELY 6" AFF.
- TELECOMMUNICATIONS PATHWAY - PROVIDE (2) 4" CONDUITS SUB-GRADE FROM HAND HOLE "HH1" TO HAND HOLE "HH2" AS NOTED.
- TELECOMMUNICATIONS PATHWAY - PROVIDE (2) 4" CONDUITS SUB-GRADE FROM HAND HOLE "HH2" TO HAND HOLE "HH3" AS NOTED. CONDUITS ROUTING BELOW THE EXISTING PERIMETER DOUBLE FENCE LINE SHALL BE DIRECTIONALLY BORED. TRENCHING OR TUNNELING UNDER OR BETWEEN PERIMETER FENCES IS NOT PERMITTED.
- TELECOMMUNICATIONS PATHWAY - PROVIDE (2) 4" CONDUITS SUB-GRADE FROM HAND HOLE "HH3" TO WALL MOUNTED PULL BOX AS NOTED.
- TELECOMMUNICATIONS PATHWAY - PROVIDE 24"W x 36"H x 8"D NEMA 4X RATED PULLBOX MOUNTED TO EXTERIOR WALL OF BUILDING. STUB (2) 4" CONDUITS FROM PULLBOX INTO EXISTING MECHANICAL ROOM CONTAINING IHS / CHAPEL SECONDARY IDF. COORDINATE EXACT LOCATION IN FIELD WITH OWNER.
- NEW PLENUM RATED BACKBONE FIBER OPTIC CABLING SHALL ROUTE THROUGH EXISTING IHS / CHAPEL BUILDING FROM SECONDARY IDF LOCATION TO MAIN IDF LOCATION UTILIZING EXISTING PATHWAY WHERE POSSIBLE. PROVIDE PLENUM RATED INNERDUCT FOR ALL FIBER OPTIC CABLING ROUTING THROUGH BUILDING. VERIFY ROUTING IN THE FIELD PRIOR TO BIDDING AND MAKE ALL NECESSARY ADJUSTMENTS TO BID FOR CEILING TRANSITIONS, OBSTACLES, ETC.
- UTILIZE EXISTING PATHWAY FOR NEW FIBER OPTIC BACKBONE CABLING.
- PROVIDE (1) 3-CELL MANHOLE FABRIC INNERDUCT IN EACH CONDUIT NOTED IN THIS PATHWAY.
- TELECOMMUNICATIONS PATHWAY - PROVIDE (2) 4" CONDUITS SUB-GRADE FROM HAND HOLE "HH2" TO "HH1" AS NOTED.
- TELECOMMUNICATIONS PATHWAY - PROVIDE (2) 4" CONDUITS SUB-GRADE FROM HAND HOLE "HH1" TO "HH2" AS NOTED.
- TELECOMMUNICATIONS PATHWAY - PROVIDE (2) 4" CONDUITS SUB-GRADE FROM HAND HOLE "HH2" TO "HH3" AS NOTED. CONDUITS ROUTING BELOW THE EXISTING PARKING LOT SHALL BE DIRECTIONALLY BORED.
- TELECOMMUNICATIONS PATHWAY - PROVIDE (2) 4" CONDUITS SUB-GRADE FROM HAND HOLE "HH3" TO WALL MOUNTED PULL BOX AS NOTED. CONDUITS ROUTING BELOW THE EXISTING PERIMETER DOUBLE FENCE LINE SHALL BE DIRECTIONALLY BORED. TRENCHING OR TUNNELING UNDER OR BETWEEN PERIMETER FENCES IS NOT PERMITTED.
- TELECOMMUNICATIONS PATHWAY - PROVIDE 24"W x 36"H x 8"D NEMA 4X RATED PULLBOX MOUNTED TO EXTERIOR WALL OF BUILDING. STUB (2) 4" CONDUITS FROM PULLBOX INTO EXISTING CAMPUS MDF. COORDINATE EXACT LOCATION IN FIELD WITH OWNER.
- BID ALTERNATE 6 - ALL WORK WITHIN DASHED AREA SHALL BE PRICED AS PART OF BID. ALTERNATE CONDUIT SHALL ROUTE FROM HAND HOLE "HH2" TO HAND HOLE "HH1" AND ALL WORK ASSOCIATED WITH ROUTING THROUGH THE EXISTING IHS / CHAPEL BUILDING SHALL BE EXCLUDED. REFER TO TELECOMMUNICATIONS BACKBONE RISER ON SHEET T-401 FOR BID ALTERNATE 6 CABLING REQUIREMENTS.



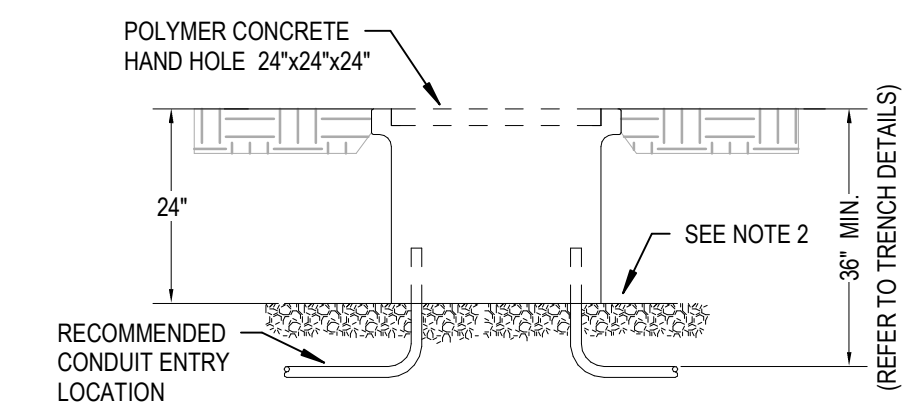
KEYNOTES:

- TOPSOIL AND SEED OR PAVEMENT, AS PER PLAN.
- PVC SCHEDULE 80 CONDUITS WITH NYLON PULLSTRINGS. PROVIDE CONDUITS IN CONCRETE ENCASMENT WHERE ROUTED UNDER ANY DRIVEWAY, ROADWAY, AND PARKING LOTS. CONCRETE SHALL EXTEND 5' PAST EACH EDGE. REFER TO TECHNOLOGY SITE PLAN FOR SIZE AND QUANTITY OF CONDUITS REQUIRED. QUANTITY IN DETAIL INDICATED FOR REFERENCE ONLY.
- DETECTABLE WARNING TAPE RED WITH BLACK LETTERING INDICATING "COMMUNICATIONS" AND ROUTED ALONG CONDUIT PATH.
- CLEAN ON-SITE MATERIALS MAY BE USED FOR BACKFILL IN LANDSCAPED AREAS. MATERIALS SHALL BE FREE OF STONES, RUBBLE, AND FROZEN BACKFILL. OTHERWISE, CONTRACTOR SHALL BRING IN CLEAN BACKFILL. COMPACT BACKFILL IN LIFTS.
- GRANULAR BACKFILL (ODOT ITEM 304 LIMESTONE) TO BE USED UNDER PAVEMENT AND IN RIGHT OF WAY. TO A DEPTH PER ODOT STANDARDS.
- SAND BEDDING.
- EXCAVATE WIDTH OF TRENCH AS REQUIRED. REFER TO TECHNOLOGY SITE PLAN FOR ROUTING AND ADDITIONAL REQUIREMENTS.

3

TECHNOLOGY TRENCH DETAIL

N.T.S.



NOTES:

- TIER 22, OLD CASTLE MODEL #2424-24 OR EQUIVALENT.
- #57 WASHED GRAVEL SHALL EXTEND 6" BELOW BOTTOM OF BOXPAD AND 6" BEYOND PERIMETER FLANGE OF BOXPAD.
- PROVIDE WITH SLIP RESISTANT T22 POLYMER CONCRETE LID MARKED AS APPLICABLE, "ELECTRIC," "COMMUNICATIONS," ETC.

2

COMMUNICATIONS HAND HOLE DETAIL

N.T.S.



DESCRIPTION

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10/15/2025

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1580 STATE ROUTE 56SW
LONDON OH 43140

TECHNOLOGY SITE PLAN

ISSUED FOR:

PERMIT 08/25/2025

BID 08/25/2025

CONSTRUCTION

RECORD

PROJECT MANAGER DESIGNER

RD SMT

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2023352.01

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