



OREGON FIRE & RESCUE DEPARTMENT
5002 Seaman Road
Oregon, Ohio 43616
(419) 698-7020
FAX (419) 698-7101



July 1, 2021

ADDENDUM No. 1

Oregon Central Fire Station

BIDS TO BE OPENED: Thursday, July 15th, 2021 at 2:00PM

Plan holders of the Oregon Fire Station Project are hereby notified of the following amendments to the Contract Documents. The following additions, alterations, deletions and/or clarifications shall be part of the bid specifications as much as if they were originally included in the Contract Documents. This Addendum No. 1 is hereby made a part of the Contract Documents and must be receipted for on the proposal form.

NOTE: Addenda are emailed only to official plan holders who obtained plans and specifications from the Newfax Corporation, Inc., who is responsible for distribution of said plans and specifications. Each Prime Contractor is responsible for notifying subcontractors of any addenda issued.

Notice to Bidders – Revised Bid Opening Date

The Bid Opening has been moved back to **2:00 PM.**, local time, on **Thursday, July 15th, 2021.**

Delete and Replace the text for paragraph 1 of the **Notice to Bidders** with the following revised bid opening time:

“Sealed proposals marked for **“Oregon Central Fire Station - 2021”** will be received by the City of Oregon, Ohio, at the Office of the Mayor at the Oregon Municipal Building, 5330 Seaman Road, Oregon, Ohio 43616-2608, **until 2:00 P.M., local time, on Thursday, July 15th, 2021**, and then opened and read aloud for furnishing the Oregon Fire with the following work:”

Pre-Bid Meeting

- The following companies were represented at the voluntary pre-bid held on June 29, 2021; see also attached sign in sheet.
 - The Lathrop Company
 - Midwest Contracting Inc.
 - The Dotson Company
 - Habitec Security
 - Mosser Construction, Inc.
 - Miller Diversified, Inc.
 - Geo. Gradel Co.
 - The Spieker Company
 - The Delventhal Company
 - Great Lakes Electric

CONTRACT CHANGES

1) PROJECT BID FORMS

- Replace PAGES 12 - 15 in the Project Bid Book with the attached **REVISED BID FORM PAGES 12 – 15 Addendum #1 (Issued 7/1/21).**

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2) Specification 01 23 00 Alternates

- Under 2.1.A. Alternate #1 to include the following; Contractor shall provide and install complete irrigation system in all lawn areas and shrub/landscape beds. Irrigation system shall provide full and complete coverage in areas to be irrigated. Irrigation backflow prevention and wiring shall be per code. All valves shall be located in valve boxes flush with grade. The irrigation system shall be installed as per manufacturer's specifications along winterization of system. Contractor shall sleeve the irrigation line under all pavements and sidewalks. Contractor shall install rain sensor(s) on vertical surfaces; coordinate final location of sensor(s) with architect. Riser extensions may be required to achieve proper coverage in some areas. Contractor shall coordinate inspections as required by local agencies and ordinances during the course of construction as required. Contractor to provide all power and data provisions as required to operate system.
- Under 2.3.A. Alternate #3, the actual digital sign will now be provided by owner under a separate contract with general contractor to include coordination of installation within their scope; this alternate will still include all masonry base and electrical requirements.
- Under 2.9.A. Alternate #9, integral blinds shall be provided in lieu of window shades specified in spec section 124940, except in Dorm 134. Dorm 134 shall receive black-out shades under base bid whether alternate is accepted or not.

3) Specification 04 43 00 Stone Masonry

- Under 2.1 Remove reference to "Window Heads"; no window heads are to be provided within the project.
- Under 2.2.A.1. Remove reference "to match existing building"; this is a new structure therefore matching an existing building is not necessary.
- Under 2.2.A.1. Remove reference to "to match existing building"; this is a new structure therefore matching an existing building is not necessary.

4) Specification 04 20 00 Unit Masonry

- Under 2.1.B. Remove reference to "Insulated Concrete Masonry Units"; no insulated concrete masonry units are to be provided within the project.
- Under 2.2.A.1. Remove reference to "to match existing building"; this is a new structure therefore matching an existing building is not necessary.
- Under 2.2.A.1. Remove reference "to match existing building"; this is a new structure therefore matching an existing building is not necessary.

5) Specification 05 50 00 Metal Fabrication

- Under 2.10 Remove reference to "3" x 3"" and replace with "5" x 5""

6) Specification 07 10 00 Dampproofing

- Remove section 1.1.B; this is a new structure therefore existing foundations do not exist.
- Under 3.1.A. Replace reference to "waterproofing" with "dampproofing"
- Under 3.1.B. Replace reference to "waterproofing" with "dampproofing"
- Under 3.2.A. Replace reference to "waterproofing" with "dampproofing"
- Under 3.2.B. Replace reference to "waterproofing" with "dampproofing"
- Under 3.4.A. Replace reference to "waterproofing" with "dampproofing"

7) Specification 07 25 00 Weather Barrier

- Under 2.1.A. DRYline Building Wrap Systems is an approved manufacturer as long as they abide by all specifications and project requirements.

8) Specification 07 62 00 Sheet Metal Flashing and Trim

- Under 2.2.E Remove reference to "3" (3" x 3")" and replace with "5" (5" x 5")"

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9) Specification 08 36 00 Sectional Doors

- Remove section 2.4.D.2)
- Under 2.5.A. Remove reference to "Black"; exterior face shall match interior and be clear anodized.

10) Specification 08 41 13 Aluminum Framed Storefronts

- Under 2.5.A. Remove reference to "Black"; exterior face shall match interior and be clear anodized.

11) Specification 08 71 00 Door Hardware

- Under 2.5. Hardware Set #6, Remove "138B"
- Under 2.5. Hardware Set #21, Replace "138A" with "138B"
- Under 2.5. Hardware Set #17, Include the following notation "Note: Above listed products are approved for use with Curries StormPro 320 Door and Frame Assembly. These products have been tested as a complete door system to meet FEMA361/320 guidelines and ANSI ICC500-2014 standards. Substitutions are not permitted unless entire assembly meets standards and has been approved by architect."

12) Specification 10 14 53 Exterior Signage

- Under 2.2.A. & 2.2.B. Remove section; the digital sign will now be provided by owner under a separate contract with general contractor to include coordination of installation within their scope.
- Include new section:
- 2.4 Digital Sign Address "1040"
- 1) Furnish and install custom 10-gauge stainless steel numbers on exterior walls as shown on the elevations and detail J8.5/A8.5. See detail for sizes and locations.
- 2) Furnish brackets for installation of metal letters.

13) Specification 10 14 00 Interior Signage

- Under 2.1.A, sign type shall be framed, except the 20"x12" sign, which may be unframed if a standard frame is not available.
- Under 2.2.A, sign sizes may be adjusted to fit standard frame sizes.
- Under 3.1.A, line should read "Attach sign to substrate with white vinyl foam tape."

14) Specification 10 28 13 Toilet Accessories

- Under 2.3.A. Saniflow SpeedFlow Plus is an approved manufacturer as long as they abide by all specifications and project requirements.

15) Specification 22 11 19 Domestic Water Specialties

- Water Hose Reel in Apparatus Bay shall be Reelcraft Model D83075 OLP with 75 ft of ¾" hose.

16) Specification 26 32 13 Packaged Engine Generators

- Under 1.2.H. Caterpillar is an approved manufacturer as long as they abide by all specifications and project requirements.

17) Specification 28 31 00 Fire Detection and Alarm

- Add " 1.7 APPROVED MANUFACTURERS
- Johnson Controls / Simplex equipment is the approved manufacturer for all new fire alarm equipment."

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18) Specification 28 23 00 Video Surveillance

- Under 2.1.AA Avigilon CCTV is an approved manufacturer as long as they abide by all specifications and project requirements.
- Under 2.3.A.8) Avigilon CCTV is an approved manufacturer as long as they abide by all specifications and project requirements.
- Under 2.3.B.8) Avigilon CCTV is an approved manufacturer as long as they abide by all specifications and project requirements.
- Under 2.3.C.8) Avigilon CCTV is an approved manufacturer as long as they abide by all specifications and project requirements.

19) Drawing C-101

- See attached revised drawing C-101 for revised notes.

20) Drawing C-102

- See attached revised drawing C-102 for revised notes.

21) Drawing C-104

- See attached revised drawing C-104 for additional concrete pavement details and notes about alternate bid #2.

22) Drawing C-108

- See attached revised drawing C-108 for additional notation of footer tile connection and change to size of conduit for Buckeye Cable.

23) Drawing C-110

- See attached revised drawing C-110 for updated landscaping notes.

24) Drawing C-111

- See attached revised drawing C-111 for updated landscaping notes.

25) Drawing C-112

- See attached revised drawing C-112 for updated irrigation notes.

26) Drawing A1.3

- Blocking requirements for Equipment Coded Notes #66, #124, and #125 can be found within Specification Section 27 41 19.
- Blocking requirements for Equipment Coded Notes #128, & #129 can be 24" +/- x 24" +/-.

27) Drawing A1.5

- See attached revised drawing A1.5 for adjusted mislabeled shelf.
- See attached revised drawing A1.5 for additional Item #26 (Metal Shelf) that has been added and referenced back to interior drawings.

28) Drawings A3.1 & A6.1

- See attached revised drawing A3.1 & A6.1 for revised snow guard representation to indicate a (2) row staggered appearance.

29) Drawing A4.1, A7.1, & A8.4

- See attached revised drawings A4.1, A7.1, and A8.4 for revised ceiling heights and material within rooms #136, #137, #138, #139, and #140.

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30) Drawings A6.1, A8.1, A8.2, A8.3, A8.4, A8.9, & A10.3

- See attached revised drawings that include updated sections and elevations have been corrected to reflect limestone window sill and decorative banding and referenced back to details on A8.4. Detail B8.4/A8.4 in regards to limestone banding and window sills has been adjusted.

31) Drawings A6.1

- See attached revised drawing A6.1 for adjusted cast iron boot notation to indicate that cast iron boots are to be provided at all downspout locations.
- See attached revised drawing A6.1 for additional notation for composite trim at triangle louvers above overhead doors.

32) Drawing A7.1

- See attached revised drawing A7.1 for revised tag reference on Building Section A1.1/A7.2.
- See attached revised drawing A7.1 for revised wall section heights on Building Section A1.1/A7.1.

33) Drawing A7.2

- See attached revised drawing A7.2 for revised wall section heights on Building Section B1.1/A7.2.

34) Drawings A8.1 & A10.2

- See attached revised drawings A8.1 & A10.2 for revised OH door details to match structural.

35) Drawing A8.5

- See attached revised drawing A8.5 for revised digital sign details.

36) Drawing A10.1

- See attached revised drawing A10.1 for revised door hardware sets for doors #138A and #138B.

37) Drawing S2.0

- See attached revised drawing S2.0 for window lintels.

38) Drawing S3.0

- See attached revised drawing S3.0 for revised foundation sections.

39) Drawing S6.0

- See attached revised drawing S6.0 for revised lintel schedule.

40) Drawing M1.1

- See attached revised drawing M1.1 for elimination of brick (3) vents and modification of exhaust terminations for exhaust fans EF-1.

41) Drawing M1.2

- See attached revised drawing M1.2 for addition of (2) L-5 louvers and modification of exhaust terminations for exhaust fans EF-1.

42) Drawing M2.0

- See attached revised drawing M2.0 for modifications of schedules for condensing Units, Heat pump VRV, Louvers and Exhaust fans.

43) Drawing E1.1

- See attached revised drawing E1.1 for additional soffit layer turned on above bunk locations within Dorm #134.

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44) Drawing E2.1, E4.1, and E4.2

- See attached revised drawing E2.1, E4.1, and E4.2 for revisions due to HVAC revisions.

45) ATTACHMENTS:

- Revised Drawing C-101
- Revised Drawing C-102
- Revised Drawing C-104
- Revised Drawing C-108
- Revised Drawing C-110
- Revised Drawing C-111
- Revised Drawing C-112
- Revised Drawing A1.5
- Revised Drawing A3.1
- Revised Drawing A4.1
- Revised Drawing A6.1
- Revised Drawing A7.1
- Revised Drawing A7.2
- Revised Drawing A8.1
- Revised Drawing A8.2
- Revised Drawing A8.3
- Revised Drawing A8.4
- Revised Drawing A8.5
- Revised Drawing A8.9
- Revised Drawing A10.1
- Revised Drawing A10.2
- Revised Drawing A10.3
- Revised Drawing S2.0
- Revised Drawing S3.0
- Revised Drawing S6.0
- Revised Drawing M1.1
- Revised Drawing M1.2
- Revised Drawing M2.0
- Revised Drawing E1.1
- Revised Drawing E2.1
- Revised Drawing E4.1
- Revised Drawing E4.2

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ANSWERS TO SUBMITTED QUESTIONS

- 1) **Bidder Question:** *Please confirm if the entire Volume 1 book needs to be submitted with the bid or just the Bid Forms section? Page 2 of Notice to Bidders seems to say submit all the documents received and not removed from the manual.*

Architect/Engineer Response: The entirety of **PROJECT MANUAL – VOLUME 1 – BID AND CONTRACT DOCUMENTS** is to be submitted with the bid. If there are any addendum pages related to this book they should be inserted or stapled to the replaced pages.

- 2) **Bidder Question:** *Please confirm that the only plantings to include are those specifically labeled on C-110 (not including those on the west side or on the perimeter berming).*

Architect/Engineer Response: Plantings on the west side and on perimeter berm are to be included in the base bid plantings. These plantings are generically marked with symbol as deciduous or evergreen tree. Quantities of specific types of these trees are listed in the top right corner of Sheet C-110. The final placement of these various trees is to be coordinate between the owner and contractor. The intention is to place these specified quantities of trees randomly in the approximate locations shown for the generically marked tree locations.

- 3) **Bidder Question:** *Please clarify locations for silt fencing - none appears to be shown or labeled on C-115.*

Architect/Engineer Response: Per Notes on Sheet C-113, the contractor shall be responsible for developing a Storm Water Pollution Prevention Plan in compliance with the Ohio EPA's Construction General Permit #OHC000005. The erosion control measures shown on the plans and described in the notes shall be used as a guide for minimum measures and requirements. Following the development of the SWPPP and during the project, additional measures may need to be taken by the contractor to control erosion and sedimentation.

- 4) **Bidder Question:** *Can you clarify the funding source for the project and whether there are federal dollars that are part of that?*

Architect/Engineer Response: All funding on the project is from local sources. There are no Federal or State funding sources.

- 5) **Bidder Question:** *Spec section 015000 item 1.4 says owner will provide water at no cost - however general terms & conditions in volume 1, item 51 says by contractor. If by owner, please clarify where the water source will be - from a hydrant meter?*

Architect/Engineer Response: Water will be provided at no cost to the contractor by the Owner. Contractor will be required to obtain a water meter (\$900 deposit to be refundable upon the return of the meter) from the Oregon Water Department. The water source shall be from the new fire hydrant that is to be installed on the site.

*** * * END OF ADDENDUM NO. 1 * * ***

City of Oregon

Central Fire Station

Pre-Bid Meeting - Attendance Sheet

Those in attendance for the Pre-Bid Meeting held at the City of Oregon
on Tuesday, June 29, 2021 at 10:00 AM were as follows:

<u>Name</u>	<u>Representing</u>	<u>Phone No.</u>	<u>Cell Phone No.</u>
TIM MEYER	LATHROP	419-893-7000	419-392-4865
RUBEN FUERS	MIDWEST CONTRACTORS	419-866-4560	866-4570
Ben Dotson	The Dotson Company	419-877-5176	419-466-9304
Jeff Long	Habitec Security	419-344-3111	419-349-3111
MIKE TORLAW	MOSSER CONST.	419-334-3801	419-460-7266
Dakota Windmyle	Miller Diversified	419-862-9119	419-787-8014
Leary Fields	Geo Gradel Co		419-261-1240
Gabe Intagliata	Spicker Co	419-360-7292	419-360-7292
Matt Hankenhof	Lathrop	419-704-0331	←
Todd Carman	Lathrop	419-343-6274	←
GABE HICKMAN	THE DELVENTHAL COMPANY	419-463-0722	419-463-0722
MARK JAMSCHROBER	BRENT LAKES ETC.	734-848-4445	419-266-9195
Tyler Lockwood	Habitec Security	419-205-1760	567-698-2912
MICHAEL ROWE	BUEHLER GROUP	419-893-9021	419-344-9794

Pre-Bid Meeting - Attendance Sheet

Those in attendance for the Pre-Bid Meeting held at the City of Oregon on Tuesday, June 29, 2021 at 10:00 AM were as follows:

[illegible]



BID PROPOSAL FORM



To the: **Oregon Fire Chief**
Municipal Building
5330 Seaman Road
Oregon, Ohio 43616-2633

- I. The undersigned, having familiarized _____ with the local conditions affecting the cost of the work and with the Contract Documents, hereby proposes to perform everything required to be performed and to provide and furnish all of the labor, materials, necessary tools, expendable equipment, and all utility and transportation services necessary to perform and complete in a workmanlike manner all of the work required for the construction of an approximately 21,668 SF Fire Station with five drive-through apparatus bays, living and sleeping quarters, administrative offices and training room. Work includes general trades, mechanical, plumbing, electrical, technology, fire protection, paving, landscaping and miscellaneous work required to complete the project for the CITY OF OREGON, OHIO, all in accordance with the specifications for the following prices, to wit:

PROJECT BASE BID – ALL TRADES: Oregon Central Fire Station – 2021

TOTAL PROJECT LUMP SUM BASE BID PRICE IN FIGURES:
--

\$

(Note: Bidders shall not add any conditions or qualifying statement to this Bid as otherwise the Bid may be declared irregular as not being responsive to the Advertisement for Bids.)

UNIT PRICES (GENERAL CONTRACT)

The Bidder must enter in the applicable blanks the price per unit of measure for each and every Unit Price Item listed. Unit prices will be used solely for the purpose of establishing a unit price for contingency items to complete the Project as provided in the Contract Documents. Bidder acknowledges that (1) each bid unit price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

<u>REF NO.</u>	<u>ODOT ITEM#</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT PRICE BID</u>	<u>UNIT</u>
U-1	203	Excavation of Subgrade (Undercut of Unsuitable Materials)		SY
U-2	304	Aggregate Base (Structural Fill for Undercut)		CY

ALTERNATE BID ITEMS

The Bidder must fill in the applicable blanks with an increased or decreased amount for each Alternate Bid Item. The Owner reserves the right to accept or reject any or all bids on Alternates, in whole or in part, and in any order. If no change in the bid amount is required, indicate "No Change".

ALTERNATE 1 - Site Irrigation

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 1</u> Lump Sum Bid Price In Figures:	\$
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ALTERNATE 2 - Site Memorial

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 2</u> Lump Sum Bid Price In Figures:	\$
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ALTERNATE 3 - Digital Signage (Base for Sign Only per Addendum #1)

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 3</u> Lump Sum Bid Price In Figures:	\$
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ALTERNATE 4 - Epoxy Flooring in Apparatus Bay

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 4</u> Lump Sum Bid Price In Figures:	\$
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ALTERNATE 5 – Landscape River Rock

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 5</u> Lump Sum Bid Price In Figures:	\$
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ALTERNATE 6 - Stainless Steel countertops in Kitchen 117

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 6</u> Lump Sum Bid Price In Figures:	\$
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ALTERNATE 7 - Quartz Countertops in Kitchen 117

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 7</u> Lump Sum Bid Price In Figures:	\$
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ALTERNATE 8 - Apparatus Bay Air Purifiers

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 8</u> Lump Sum Bid Price In Figures:	\$
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ALTERNATE 9 - Integral Blinds in Windows

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 9</u> Lump Sum Bid Price In Figures:	\$
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ALTERNATE 10 - Pergola

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 10</u> Lump Sum Bid Price In Figures:	\$
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ALTERNATE 11 - Concrete Paving

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 11</u> Lump Sum Bid Price In Figures:	\$
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ALTERNATE 12 - Diesel Generator

If Alternate is accepted: **Add to / Deduct from** Base Bid (Circle appropriate choice)

Total <u>ALTERNATE 12</u> Lump Sum Bid Price In Figures:	\$
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Any alteration or erasure of items inserted on the Bid Form shall be initialed by the Bidder.

- II. Time of Completion. The undersigned agrees to complete the work covered by the contract 365 days following the Notice to Proceed.
- III. Accompanying this Bid is a Certified Check or Bid Bond in the amount of _____ Dollars (\$ _____), payable to the City of Oregon, Ohio, which it is agreed, shall be retained as liquidated damages to the City of Oregon, Ohio, if the undersigned fails to execute the Contract in conformity with the Form of Contract incorporated in the Contract Documents and furnish performance bond as specified within ten (10) days after notification of the award of the Contract to the undersigned.

IV. In submitting this Bid, it is understood that the right is reserved by the City of Oregon, Ohio, to reject any and all bids. It is agreed that this Bid may not be withdrawn for a period of 60 days from the opening thereof.

- V. The following documents are attached to and made a condition of this Bid:
- A. Best Bid Criteria Form
 - B. Delinquent Real Property Tax
 - C. Delinquent Personal Property Tax
 - D. Non-Collusion Affidavit
 - E. Acknowledgement of Income Tax Policies
 - F. Affidavit of Compliance with Ohio Revised Code Section 3517.13

VI. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, if any, and the following Addenda, receipt of all of which is hereby acknowledged.:

Addendum No.	Date Received	Addendum No.	Date Received
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

DATE _____, 20____

FIRM NAME _____BY _____
Authorized Signature

Print Name

ADDRESS _____ TITLE _____

_____ TELEPHONE _____

_____ E.I. NO. _____

CONTACT PERSON FOR CONTRACT PROCESSING: _____

EMAIL ADDRESS _____

(Note: The successful bidder will be required to provide a Performance Bond in an amount not less than 100% of the contract price in favor of the City of Oregon, Ohio conditioned upon the faithful performance of the Contract.)

GENERAL

SPECIFICATIONS
EXCEPT AS MODIFIED BY THESE PLANS AND THE DETAIL SPECIFICATIONS PERTAINING THERETO, ALL WORK THIS PROJECT SHALL BE GOVERNED BY THE OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS, DATED JANUARY 1, 2019 AND BY SUCH SUPPLEMENTAL SPECIFICATIONS AS MAY BE IN EFFECT FOURTEEN (14) CALENDAR DAYS PRIOR TO AWARD OF THIS CONTRACT, IN THE AFORESAID STATE SPECIFICATIONS, THE WORDS "STATE," "DIRECTOR," AND "ENGINEER" SHALL BE HELD TO MEAN THE SERVICE DIRECTOR, CITY OF OREGON, OR HIS DULY APPOINTED REPRESENTATIVE.

A PRECONSTRUCTION CONFERENCE SHALL BE SCHEDULED BY THE CONTRACTOR WITH THE CITY OF OREGON DEPARTMENT OF PUBLIC SERVICE. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION AT THE TIME OF THE PRECONSTRUCTION CONFERENCE.

- CERTIFICATES OF INSURANCE
- SHOP DRAWING SUBMITTAL FOR ALL MATERIAL AND EQUIPMENT
- MAXIMUM OF 6 COPIES (2 COPIES FOR CITY)
- PROJECT SCHEDULE
- CONTRACTOR PROJECT REPRESENTATIVE
- CONTRACTOR 24-HOUR EMERGENCY CONTACT NUMBERS
- HAUL ROUTES

SAFETY REQUIREMENTS
THE CONTRACTOR SHALL AT ALL TIMES FOLLOW STATE AND LOCAL SAFETY REQUIREMENTS DURING CONSTRUCTION OF THIS PROJECT. SPECIAL CARE SHALL BE TAKEN DURING ALL TRENCHING OPERATIONS. SHEETING, BRACING, CRIBBING, ETC., SHALL BE INSTALLED AS REQUIRED TO PROVIDE MAXIMUM SAFETY TO THE WORKERS IN FULL COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.

INSURANCE
NO CONTRACTOR OR SUBCONTRACTOR SHALL START ANY WORK UNTIL THE APPROVED CERTIFICATE OF LIABILITY IS FILED WITH THE CITY OF OREGON NAMING THE CITY OF OREGON AS INSURED.

EXISTING SURVEY POINTS
SURVEY MONUMENTS, PROPERTY PINS, BENCHMARKS AND EXISTING CONTROL POINTS DAMAGED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE REPLACED BY AN OHIO REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE. SHOULD THE CONTRACTOR FAIL TO REPLACE THESE POINTS THE OWNER SHALL REPLACE THEM AT THE CONTRACTOR'S EXPENSE AFTER THREE WEEKS NOTICE.

REMOVAL ITEMS
PAYMENT FOR REMOVAL OF ALL EXISTING OBSTRUCTIONS WHICH ARE NOT ITEMIZED FOR PAYMENT AND WHICH WOULD NORMALLY BE REMOVED FOR THE INSTALLATION OF NEW WORK SHALL BE INCLUDED IN THE BID FOR THE PERTINENT ITEM OF WORK.

CONSTRUCTION NOISE
ALL LAND USES AND ACTIVITIES ADJACENT TO THIS PROJECT MAY BE AFFECTED BY NOISE DURING CONSTRUCTION OF THIS PROJECT. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER OPERATED CONSTRUCTION TYPE DEVICE SHALL NOT BE OPERATED BETWEEN 9:00 P.M. AND 7:00 A.M. IN ADDITION, ANY POWER OPERATED CONSTRUCTION TYPE DEVICE SHALL NOT BE OPERATED IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

HAUL ROUTES
ALL HAUL ROADS AND STREETS WITHIN THE PROJECT LIMITS ON WHICH TRAFFIC IS TO BE MAINTAINED SHALL BE KEPT RELATIVELY FREE FROM DUST AND DIRT TO THE SATISFACTION OF THE CONSTRUCTION ENGINEER. IF THEY ARE NOT MAINTAINED TO THE SATISFACTION OF THE CONSTRUCTION ENGINEER, HE MAY REQUIRE THE USE OF MECHANICAL CLEANING EQUIPMENT TO REMOVE DUST AND PARTICLES FROM THE ROADWAY SURFACE AND MINIMIZE THE CHANCE OF SUCH PARTICLES FROM BECOMING AIR-BORNE.

ACCESS
THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION PHASES AND OPERATIONS IN A MANNER THAT PROVIDES ACCESS TO PROPERTY OWNERS AND/OR TENANTS AFFECTED BY THE WORK AT ALL TIMES, UNLESS OTHERWISE AGREED TO BY THE OWNER/TENANT.

UTILITIES
THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT BUT THE CITY OF OREGON DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE LOCATION OF ALL EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE APPROXIMATE. DETERMINATION OF THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CONTENTS OF THE CONDUIT THROUGH THE UTILITY OWNER PRIOR TO BID. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UTILITIES CAUSED BY HIS OPERATIONS. THE OWNER SHALL NOT BE RESPONSIBLE FOR DELAYS DUE TO ABANDONED UTILITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING/REPAIRING ANY SERVICES THAT MAY BE DAMAGED DURING CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE TO SUPPORT AND PROTECT ALL UTILITIES EXPOSED DURING ANY EXCAVATION PERFORMED AS A RESULT OF THIS PROJECT.

ABOVE GROUND (AERIAL) UTILITIES, INCLUDING POWER, TELEPHONE AND CABLE TELEVISION, SHALL REMAIN IN SERVICE AT ALL TIMES. ANY ANTICIPATED DISRUPTION OF SERVICE SHALL BE WITH FULL KNOWLEDGE OF THE UTILITY COMPANY AND REQUIRED ADVANCE NOTICE TO AFFECTED USERS. REMOVAL OF GUY WIRES, SAFETY INSULATING OR WIRES AND HOLDING POLES SHALL BE DONE AS REQUIRED TO COMPLETE THE WORK. SHALL BE AGREED UPON BY THE UTILITY COMPANY AND THE CONTRACTOR. ARBITRARY DISRUPTION OF UNDERGROUND AND AERIAL UTILITY SERVICES WILL NOT BE PERMITTED.

THE FOLLOWING IS A LIST OF UTILITIES THAT ARE KNOWN TO BE WITHIN THE LIMITS OF CONSTRUCTION (NOT ALL MAY APPLY):

BUCKEYE BROADBAND 2700 OREGON ROAD NORTHWOOD, OHIO 43619 (419) 724-3713	COLUMBIA GAS OF OHIO, INC. 3222 CENTRAL AVENUE TOLEDO, OHIO 43606 (419) 539-6065
AT&T OHIO 130 NORTH ERIE STREET, ROOM 714 TOLEDO, OHIO 43604 (419) 245-5007	TOLEDO EDISON COMPANY 6099 ANGOLA HOLLAND, OHIO 43528 (419) 249-5218
CITY OF OREGON 5330 SEAMAN ROAD OREGON, OHIO 43616 (419) 698-7047 (SERVICE DEPT.) (419) 698-7016 (STREET DEPT.) (419) 698-7038 (WATER DEPT.)	

UTILITY NOTIFICATION
THE CONTRACTOR SHALL NOTIFY ALL INVOLVED UTILITY COMPANIES AT LEAST FIVE (5) WORKING DAYS BEFORE ANY CONSTRUCTION WORK IS PERFORMED.

THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITIES PROTECTION SERVICE (OUPS) AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING WORK, AT (800) 362-2764. NON-MEMBERS MUST BE CONTRACTED SEPARATELY.

UTILITY RELOCATIONS
ALL EXPENSES IN RELOCATING THE AFFECTED UTILITY LINES SHALL BE BORNE BY OWNERS. THE CONTRACTOR AND THE OWNERS ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

BUCKEYE BROADBAND REQUIREMENTS
CONDUIT FOR BUCKEYE BROADBAND SHALL BE (3") SCHEDULE 40 PVC BURIED MINIMUM 36" DEEP. 36" SWEEPS SHALL BE USED FOR TURNS AND COMING UP OUT OF THE GROUND. STUB AND CAP CONDUIT 6"-10" ABOVE GRADE AT THE POLE. PLACE PULL STRING.

CONSTRUCTION LAYOUT STAKING
THIS WORK SHALL BE EXECUTED IN ACCORDANCE WITH ITEM 623 OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS EXCEPT AS MODIFIED BY THE FOLLOWING:

LAND SURVEY MONUMENTS, SECTION CORNERS, BENCHMARKS, PROPERTY CORNERS, ENGINEERING SURVEY MARKERS AND ANY OTHER CONTROL POINTS SHALL BE PROTECTED AND PRESERVED IN ACCORDANCE WITH SECTION 107.12 AND THE FOLLOWING:

1) BEFORE ANY CONTROL POINTS ARE DISTURBED OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT, SUFFICIENT REFERENCE MEASUREMENTS SHALL BE MADE TO INSURE PROPERTY LOCATION OF THE POINT WHEN IT IS RE-ESTABLISHED.

2) PLAN ELEVATIONS OF SITE BENCH MARKS AND REFERENCES FOR THE CENTERLINE OF SURVEY CONTROL POINTS SHALL BE VERIFIED PRIOR TO CONSTRUCTION OF THIS PROJECT. CENTERLINE SURVEY CONTROL POINTS SHALL BE RE-ESTABLISHED IF REQUIRED AND CENTERLINE OF CONSTRUCTION ESTABLISHED. ADDITIONAL SITE BENCH MARKS SHALL BE ESTABLISHED IF REQUIRED.

3) THE CONTRACTOR SHALL PROVIDE A REGISTERED LAND SURVEYOR TO PERFORM THE ABOVE DESCRIBED WORK. THE SURVEYOR TO PERFORM THE ABOVE DESCRIBED WORK. THE SURVEYOR SHALL MAKE A WRITTEN RECORD CLEARLY IDENTIFYING CONTROL, REFERENCE OR BENCH MARK POINTS AND MEASUREMENTS TO THESE POINTS AND SHALL PROVIDE A COPY OF THIS RECORD TO THE CITY OF OREGON.

4) IF VERIFICATION OF CONTROL POINTS OR REFERENCE MEASUREMENTS ARE NOT ACCOMPLISHED TO THE SATISFACTION OF THE ENGINEER, THE ENGINEER WILL PROMPTLY NOTIFY THE CONTRACTOR OF THE NATURE OF THE PROBLEM. IF THE PROBLEM IS NOT ATTENDED TO PROMPTLY, THE CITY WILL TAKE THE NECESSARY ACTION TO CORRECT THE PROBLEM WITH THE COST OF SUCH SERVICE DEDUCTED FROM ANY MONIES DUE TO THE CONTRACTOR.

PAYMENT FOR PRESERVING CONTROL POINTS IN ACCORDANCE WITH THE ABOVE STATED STIPULATIONS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES.

DRIVEWAY REQUIREMENTS
THE CONCRETE DRIVEWAYS SHALL HAVE A 1 INCH LIP WHERE THE CONCRETE MEETS THE ASPHALT AT WYNN ROAD.

ADA RAMPS
ADA RAMPS SHALL BE PER ODOT ITEM 608 AND ODOT SCD BP-7.1.

DRAINAGE
ALL PIPE MUST HAVE BELL AND SPIGOT JOINTS

REVIEW OF DRAINAGE FACILITIES
BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE, REPRESENTATIVES OF THE CITY OF OREGON AND THE CONTRACTOR SHALL MAKE AND INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS.

ALL CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED.

ALL EXISTING SEWERS INSPECTED INITIALLY SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLE COMPARABLE TO WHAT WAS DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE PROJECT ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT SS 811 CONDUIT ITEMS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES
WHERE PLANS PROVIDE FOR A CONDUIT TO BE CONNECTED TO, CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE PROJECT ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT SS 811 CONDUIT ITEM.

MAINTENANCE OF SEWER FLOWS
THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SUCH THAT THE FLOW OF ALL SEWERS WHICH ARE TO REMAIN IN SERVICE SHALL BE MAINTAINED AT ALL TIMES. ANY ADDITIONAL COST OR LABOR INVOLVED IN MAINTAINING THIS FLOW, BY PUMPING OR ANY OTHER APPROVED METHOD, SHALL BE INCLUDED WITHIN THE CONTRACT PRICE, FOR THE PERTINENT SS 811 CONDUIT ITEM.

MAINTAINING TRAFFIC
METHODS OF MAINTAINING TRAFFIC SHALL BE IN ACCORDANCE WITH ITEM 614, THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (THE OHIO MANUAL) AND THE FOLLOWING:

THE CONTRACTOR SHALL SUBMIT, TO THE CITY OF OREGON, A DESCRIPTION OF THE PROPOSED SEQUENCE OF CONSTRUCTION OPERATIONS FOR REVIEW AND APPROVAL, A MINIMUM OF 10 WORKING DAYS PRIOR TO STARTING THE WORK. THE SEQUENCE OF CONSTRUCTION SHALL REFLECT ABSOLUTE MINIMUM DURATIONS FOR TEMPORARY TRAFFIC LANE USE.

WHEN NECESSITATED BY CONSTRUCTION ONE-WAY TRAFFIC FLOW MAY BE WHERE CONSTRUCTION ACTIVITIES INDICATED IN THE PLANS NECESSITATE LANE CLOSURES, THE CONTRACTOR SHALL PLAN TO COORDINATE THESE ACTIVITIES SO AS TO MINIMIZE THE OCCURRENCE AND DURATION OF ANY DISRUPTION TO TYPICAL TRAFFIC FLOW CONDITIONS. THE CONTRACTOR IS HEREBY ADVISED THAT THE PROXIMITY OF SCHOOLS IN THE PROJECT VICINITY NECESSITATES THE MINIMAL DISRUPTION TO SCHOOL CONSTITUENTS. IN ADDITION TO STANDARDS AND CUSTOMARY PRACTICES, PARTICULAR CONSIDERATION FOR THIS WILL BE REQUIRED FOR CITY OF OREGON APPROVAL OF CONTRACTOR PROPOSED SEQUENCES OF CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL MEASURES.

A TRAFFIC LANE AT LEAST (9) FEET WIDE SHALL BE PROVIDED WITH TRAFFIC FLOW CONTROLLED BY AT LEAST TWO FLAGGERS. IN NO CASE WILL ONE-WAY FLOW BE PERMITTED UNTIL ADEQUATE TRAFFIC CONTROL DEVICES AND FLAGGERS ARE IN PLACE AND APPROVED BY THE PROJECT ENGINEER. THE ONE-WAY TRAFFIC OPERATION SHALL BE

LIMITED TO DAY LIGHT HOURS ONLY. THE ROAD SHALL BE REOPENED TO TWO WAY TRAFFIC FLOW AT NIGHT AND AT ALL TIMES WHEN THE CONTRACTOR IS NOT WORKING SUCH AS WEEKENDS, HOLIDAYS, OR WHEN WORK IS SUSPENDED DUE TO WEATHER CONDITIONS.

DRIVEWAY ACCESS SHALL BE MAINTAINED AT ALL PERIODS OF CONSTRUCTION BY USE OF THE EXISTING AND PROPOSED PAVEMENT, BERMS OR SHOULDERS TO THE SATISFACTION OF THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE EACH PROPERTY OWNER A MINIMUM OF FORTY-EIGHT (48) HOUR NOTICE WHEN ACCESS TO THEIR DRIVEWAY(S) WILL BE RESTRICTED DUE TO CONSTRUCTION.

PROTECTION AND RESTORATION OF PROPERTY
THE CONTRACTOR SHALL COMPLY WITH STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 107.10 WITH RESPECT TO THE PRESERVATION OF ADJACENT PROPERTY DURING THE CONSTRUCTION PROCESS.

ALL EXISTING FEATURES DISTURBED DUE TO CONSTRUCTION SUCH AS PAVEMENTS, DRIVEWAYS, PARKING AREAS, CURBS, GUTTERS, CATCH BASINS, HEADWALLS, DRAINS, FIELD TILES, CONDUIT PIPES, CABLES, FENCES, GRASSED AREAS, AND OTHER EXISTING FACILITIES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION IN ACCORDANCE WITH ANY APPLICABLE ODOT AND CITY OF OREGON SPECIFICATIONS AND THE TO THE SATISFACTION OF THE CITY OF OREGON.

ALL DISTURBED LAWN AREAS, UNLESS OTHERWISE SPECIFIED, SHALL BE PREPARED, SEEDED, FERTILIZED AND MULCHED ACCORDING TO ODOT 659. THE SEED MIXTURE SHALL BE PER ODOT CLASS 1.

EXISTING MAIL BOXES AND TRAFFIC SIGNS IN THE LINE OF CONSTRUCTION SHALL BE REMOVED AND ERECTED IN TEMPORARY LOCATIONS IN A MANNER SATISFACTORY TO OWNER, AND AFTER COMPLETION OF CONSTRUCTION, MOVED TO AND RE-ERECTED IN THEIR ORIGINAL LOCATIONS OR NEW LOCATIONS SATISFACTORY TO OWNER.

WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF THESE CONTRACT DOCUMENTS AND, WHERE NOT INCLUDED HEREIN, THE REQUIREMENTS OF APPLICABLE ODOT ITEMS AS APPROVED BY ENGINEER.

IN ANY EVENT, CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY CAUSED BY MOVEMENT OF EQUIPMENT OR BY OTHER OPERATIONS AND SHALL REPAIR OR REPLACE ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS OPERATIONS.

CONSIDER THE COST OF THIS WORK AS INCIDENTAL TO THE PROJECT AND SHALL BE INCLUDED IN THE COST OF PERTINENT PAY ITEMS.

WATER MAINS AND SERVICES
ONLY THE CITY OF OREGON MAY OPERATE VALVES

WATERLINE SHALL BE INSTALLED, TESTED, AND STERILIZED UNDER THE DIRECT SUPERVISION OF THE CITY OF OREGON DIVISION OF WATER. NO DEVIATION FROM THESE SPECIFICATIONS WILL BE PERMITTED.

PVC WATERLINE AND FITTINGS
THE SPECIFICATIONS OF THE AMERICAN NATIONAL STANDARDS INSTITUTE (AMERICAN WATER WORKS ASSOCIATION), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND THE AMERICAN SOCIETY OF TESTING AND MATERIALS HEREIN REFERRED TO FOR WATER SERVICE MAIN PIPE GATE VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES, UNLESS OTHERWISE NOTED, SHALL BE THE LAST SPECIFICATIONS AND PIPE LAYING, PVC PIPE SHALL BE DR 18, PR 235.

ALL PIPE FITTINGS AND SPECIALS SHALL BE LAID IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND WITH AWWA C600 AND NFPA.

PIPE INTERIORS SHALL BE THOROUGHLY CLEANED OF DIRT AND FOREIGN MATTER BEFORE LAYING, BY BRUSHING, SWABBING, PRESSURE WASHING OR OTHER METHOD APPROVED BY THE CITY ENGINEER, AND MEANS SHALL BE PROVIDED TO PREVENT ENTRY OF DIRT OR FOREIGN MATERIAL DURING THE PROGRESS OF INSTALLATION.

ALL FITTINGS SHALL BE DUCTILE IRON IN CONFORMANCE WITH AWWA C110 OR AWWA C153. ALL FITTINGS SHALL BE RATED FOR 350 PSI WORKING PRESSURE, HAVE MECHANICAL JOINTS AND BE COATED AND CEMENT-MORTAR LINED IN ACCORDANCE WITH THE DIP SPECIFICATIONS.

PVC WATERLINE AND FITTINGS (CONTINUED)

1. PIPE 12 INCH AND SMALLER: AWWA C900, 14 INCH AND LARGER: AWWA C905 AS MODIFIED HEREIN OR UNLESS OTHERWISE INDICATED ELSEWHERE IN CONTRACT DOCUMENTS, SUITABLE FOR POTABLE WATER USE.

A) CLASS AND THICKNESS: DR18 OR AS NOTED ON THE DRAWINGS, WITH DIP EQUIVALENT OUTER DIAMETERS.

B) POTABLE WATER USE: NSF61

C) PIPE MARKINGS: AWWA C900 AND AWWA C905

D) JOINING PIPES: UTILIZE ELASTOMERIC GASKET PUSH ON JOINTS FOLLOWING AWWA C900 AND C905

E) APPROVED MANUFACTURERS:

IPEX.

UPONOR ETI.

JM EAGLE OR APPROVED EQUAL

2. FITTINGS:

A) DUCTILE IRON SPECIFIED HEREIN.

B) PUSH-ON RUBBER GASKETED JOINTS: INJECTION-MOLDED MEETING AWWA C907, CLASS 150, OR FABRICATED MEETING AWWA C900, CLASS 200 OR AWWA C905, CLASS 235.

C) APPROVED MANUFACTURERS:

HARRINGTON CORPORATION (HARCO), MULTIFITTINGS.

FREEDOM PLASTICS OR APPROVED EQUAL

3. SERVICE SADDLES:

A) GENERAL:

1) USE FOR 2 INCH AND SMALLER CONNECTIONS.

2) MANUFACTURE SADDLES WITH CLAMPS FOR UNDERGROUND SERVICES:

A. RATED FOR MINIMUM SERVICE OF 150 PSI

B. PROVIDE FULL SUPPORT AROUND THE CIRCUMFERENCE OF PIPE.

C. DO NOT DISTORT, SCRATCH, OR DAMAGE PIPE WHEN TIGHTENED.

D. CONTAINS THICK TAPPING BOSS, WHICH HAS BEEN PRECISION-MACHINED WITH FULL-LENGTH THREADS FOR WATERTIGHT CONNECTION THAT RESISTS PULLOUT.

E. THREADS: AWWA C800 WITH STANDARD CORPORATION STOP THREAD.

F. BRASS OR BRONZE ALLOY MEETING ASTM B62 OR B584 AND AWWA C800

G. CASTINGS:

(1) UNIFORM QUALITY, TRUE TO PATTERN, OF EVEN GRAIN, SOUND AND SMOOTH, AND WITHOUT COLD SHUTS, SWELLS, SCALES, BLISTERS, SAND HOLES, CRACKS OR OTHER DEFECTS.

(2) SURFACES: SMOOTH WITH NO BURNT-ON SAND.

H. USE WATERTIGHT GASKETS OF BUNA-N RUBBER MEETING ASTM D2000 OR NITRITE AROUND TOP.

B) SADDLES FOR PVC AWWA C900 AND C905 PIPE:

1) USE TAPPING SADDLE MANUFACTURED SPECIFICALLY FOR AWWA C900 AND C905 PVC PIPE WITH STAINLESS STEEL WIDE BAND STRAPS, NUTS AND WASHERS

2) APPROVED MANUFACTURERS AND MODELS:

A. FORD METER BOX CO., INC. 202BS

B. SMITH BLAIR, INC., 32S.

C. MUELLER COMPANY SERIES DR2S

D. OR APPROVED EQUAL

ALL PVC PIPE USED THROUGHOUT THIS PROJECT SHALL CONFORM TO AWWA C900 DR18 (PR 235PSI) SPECIFICATION, WITH GASKETS MEETING ASTM F477, AND JOINTS IN COMPLIANCE WITH ASTM D3139.

CONTRACTOR TO INSTALL PVC PIPE IN STRICT ACCORDANCE WITH: AWWA C605 AND AWWA M 23 LATEST REVISIONS THEREOF. IF ANY OF THESE DOCUMENTS ARE FOUND TO CONFLICT, THE MOST RESTRICTIVE OF THE REQUIREMENTS SHALL BE MET. PARTICULAR ATTENTION SHALL BE PAID TO THE FOLLOWING ITEMS FROM THESE REFERENCES:

1. ANY SCRATCH OR GOUGE IN THE PIPE THAT IS MEASURED AS 10% OR MORE OF THE WALL SHALL BE CAUSE FOR REJECTION OF THAT PIPE. FOR 8 INCH DR 18 THIS EQUALS 0.0503 INCH, AND FOR 8 INCH DR 14 EQUAL 0.0646 INCH, 12-INCH DR14 EQUALS 0.0943 INCH ETC.

2. SPECIAL CARE SHALL BE TAKEN IN HANDLING OF PVC PIPE IN COLD WEATHER (40 OR LESS) OR WARM WEATHER (73.4 OR MORE)

3. NO PIPE SHOWING EVIDENCE OF SUN BURNING SHALL BE INSTALLED

4. ANY/ALL DEFLECTIONS SHALL BE MADE PER THE MANUFACTURE'S RECOMMENDATIONS AND/OR STANDARDS

5. PVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C605, INCLUDING A MINIMUM OF 4 INCHES OF BEDDING BACKFILL AROUND THE PIPE AND TO A HEIGHT OF MINIMUM ONE FOOT OVER THE PIPE WITH 1/2-INCH AND LESS CRUSHED STONE OR PEA GRAVEL. THIS BACKFILL SHALL BE COMPACTED IN 8-INCH LIFTS.

6. ALL FITTINGS, VALVES, FIRE HYDRANTS AND OTHER IRON APPURTENANCES, AS WELL AS ANY NUTS AND BOLTS, SHALL BE PROTECTED FROM CORROSION WITH TWO LAYERS OF POLYETHYLENE ENCASEMENT IN ACCORDANCE WITH AWWA C105 INSTALLED WITH ENOUGH TAPE SO AS TO HOLD THE POLYETHYLENE MATERIALS IN PLACE DURING THE BACKFILLING PROCESS.

7. THRUST BLOCKS SHALL BE INSTALLED ON ALL FITTINGS, VALVES, FIRE HYDRANTS, ETC. ASSOCIATED WITH THE USE OF PVC PIPE. NO RESTRAINT DEVICES SHALL BE ALLOWED ON PVC PIPE AS THESE MAY CUT INTO THE PIPE WALL RESULTING IN SCRATCHING OR GOUGING WHICH WILL REDUCE THE SURGE RESISTANCE OF THE PIPE.

8. CONTRACTOR SHALL FOLLOW ALL APPROPRIATE GUIDELINES WITH REGARD TO SAFELY TAPPING PRESSURIZED PVC PIPE. CONTRACTOR ASSUMES ALL LIABILITY RELATIVE TO SAFETY AND INJURY RESULTING FROM TAPPING PVC PIPE.

9. ALL FITTINGS, VALVES, FIRE HYDRANTS, ETC. SHALL BE SUPPORTED SUCH THAT THE WEIGHT OF SUCH APPURTENANCE WILL NOT BE TRANSFERRED TO THE ADJOINING PVC PIPE.

RESTRAINED JOINT (RJ) PVC WATERLINE
THE SPECIFICATIONS OF THE AMERICAN NATIONAL STANDARDS INSTITUTE (AMERICAN WATER WORKS ASSOCIATION), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND THE AMERICAN SOCIETY OF TESTING AND MATERIALS HEREIN REFERRED TO FOR WATER SERVICE MAIN PIPE GATE VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES, UNLESS OTHERWISE NOTED, SHALL BE THE LAST SPECIFICATIONS AND PIPE LAYING, RESTRAINED JOINT (RJ) PVC PRESSURE PIPE SHALL BE DR 18, CLASS 235, AWWA C900.

THE RJ PVC PRESSURE PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH THE DIMENSIONS, MATERIALS, QUALITY CONTROL, AND MARKING SPECIFICATIONS FOUND IN AWWA C900. THE PVC PIPE AND COUPLING MATERIAL CONFORMS TO A MINIMUM CELL CLASS OF 12454 AS DEFINED BY ASTM D1784. THE PIPE AND COUPLING COMPOUNDS ARE LISTED IN PPI TR-4 AS A STANDARD GRADE MATERIAL WITH A HYDROSTATIC DESIGN BASIS (HDB) OF 4000 PSI. THE STANDARD PIPE LAYING LENGTH IS 20 FEET.

THE RJ PRESSURE PVC PIPE AND COUPLING SYSTEM PROVIDES A RESTRAINED JOINT BY UTILIZING PRECISION-MACHINED GROOVES ON THE PIPE SPIGOT ENDS AND IN THE COUPLING. WHEN ASSEMBLED, SPLINES ARE INSERTED THROUGH ENTRY HOLES IN THE COUPLING, RESULTING IN A CONTINUOUS CIRCUMFERENTIAL RESTRAINED JOINT THAT LOCKS THE PIPE AND COUPLING TOGETHER. FLEXIBLE ELASTOMERIC GASKETS LOCATED IN GROOVES ON BOTH SIDES OF THE COUPLING PROVIDE A HYDRAULIC PRESSURE SEAL.

THE RJ PRESSURE PVC PIPE JOINTS SHALL MEET THE REQUIREMENTS OF ASTM D3139. ALL PRODUCTS ARE SUPPLIED WITH ISOPRENE/STYRENE-BUTADIENE RUBBER BLEND (IR/SBR) GASKETS. ALL GASKET MATERIAL OPTIONS SHALL MEET THE REQUIREMENTS OF ASTM F477.

ALL PIPE FITTINGS AND SPECIALS SHALL BE LAID IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND WITH AWWA C605 AND NFPA.

PIPE INTERIORS SHALL BE THOROUGHLY CLEANED OF DIRT AND FOREIGN MATTER BEFORE LAYING, BY BRUSHING, SWABBING, PRESSURE WASHING OR OTHER METHOD APPROVED BY THE CITY ENGINEER, AND MEANS SHALL BE PROVIDED TO PREVENT ENTRY OF DIRT OR FOREIGN MATERIAL DURING THE PROGRESS OF INSTALLATION.

TRACER TAPE/WIRE
THE CONTRACTOR SHALL FURNISH AND INSTALL DURING BACKFILL OPERATION FOR THE WATERLINE, 2 INCH IN WIDTH PRINTED POLYETHYLENE BLUE (WATER) TAPE. THIS IS TO BE PLACED THREE (3) FEET ABOVE THE CROWN OF THE PIPE.

NO SEPARATE OR EXTRA PAYMENT WILL BE MADE FOR THE FURNISHING AND INSTALLATION OF THE MARKER TAPE AND ALL COSTS SHALL BE INCLUDED FOR PAYMENT UNDER THE APPLICABLE BID ITEM(S) TO WHICH IT IS RELATED.

ALL DETECTABLE TRACING WIRE SHALL BE INSTALLED WITH PVC WATER MAINS. THE WIRE SHALL BE INSULATED NO. 12 COPPER ELECTRICAL WIRE (THW). SPLICES IN TRACKING WIRE SHALL BE MADE WITH SHRINK TYPE BUTT-END ELECTRICAL CONNECTORS. AFTER INSTALLATION, THE TRACER WIRE SHALL BE TESTED FOR CONTINUITY BETWEEN ALL ACCESS POINTS TO THE TRACER WIRE, SUCH AS FIRE HYDRANTS, VALVES BOXES, ETC. ANY DISCONTINUITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.

THE TRACING WIRE SHALL BE CONNECTED TO EACH VALVE AND SHALL BE PLACED UNDER THE PIPE.

GENERAL NOTES

CITY OF OREGON
CENTRAL FIRE STATION

MECHANICAL JOINT RESTRAINT

RESTRAINED JOINTS SHALL BE PROVIDED AT ALL FITTINGS AND TO THE LENGTHS, IN FEET, IN ACCORDANCE WITH MANUFACTURES’S RECOMMENDATIONS AND NFPA STANDARD.

ALL NUTS AND BOLTS SHALL BE 316 STAINLESS STEEL OR EQUAL.

THRUST BLOCKING AS A MEANS OF JOINT RESTRAINT WILL NOT BE PERMITTED UNLESS OTHERWISE STATED,

PIPE SHALL BE ANCHORED AT DEAD ENDS, BENDS, TEES, VALVES AND OTHER FITTINGS REQUIRING RESTRAINT BY MEANS OF MECHANICAL JOINT RESTRAINT. MECHANICAL JOINT RESTRAINT SHALL BE INCORPORATED IN THE DESIGN OF THE FOLLOWER GLAND AND SHALL INCLUDE A RESTRAINING MECHANISM WHICH, WHEN ACTUATED, IMPARTS MULTIPLE WEDGING ACTION AGAINST THE PIPE, INCREASING ITS RESISTANCE AS THE PRESSURE INCREASES. FLEXIBILITY OF THE JOINT SHALL BE MAINTAINED AFTER BURIAL. GLANDS SHALL BE MANUFACTURED OF DUCTILE IRON CONFORMING TO ASTM A 536–80. RESTRAINING DEVICES SHALL BE OF DUCTILE IRON HEAT TREATED TO A MINIMUM HARDNESS OF 370 BHN. DIMENSIONS OF THE GLAND SHALL BE SUCH THAT IT CAN BE USED WITH THE STANDARDIZED MECHANICAL JOINT BELL AND TEE–HEAD BOLTS CONFORMING TO ANSI/AWWA A21.11 AND ANSI/AWWA C153/A21.53 OF LATEST REVISION. TWIST–OFF NUTS SHALL BE USED TO INSURE PROPER ACTUATING OF THE RESTRAINING DEVICES. THE MECHANICAL JOINT RESTRAINT DEVICE SHALL HAVE A WORKING PRESSURE OF AT LEAST 250 PSI WITH A MINIMUM SAFETY FACTOR OF 2:1.

VALVES AND APPURTENANCES – GENERAL

THIS ITEM COVERS GATE VALVES AND TAPPING SLEEVES AND VALVES WHICH MAY BE REQUIRED IN CONNECTION WITH THE INSTALLATION OF THE WATER MAINS. ALL VALVES SHALL BE PROVIDED WITH A VALVE BOX OR SHALL BE INSTALLED WITHIN A MANHOLE AS SUBSEQUENTLY SPECIFIED. VALVES INSTALLED WITH CLASS 52 DUCTILE PIPE SHALL BE WRAPPED AS PREVIOUSLY SPECIFIED.

GATE VALVES

GATE VALVES SHALL BE IRON BODY, BRONZE MOUNTED, DOUBLE DISC, PARALLEL SEAT TYPE MEETING THE REQUIREMENTS OF AWWA C500, OR IRON BODY RESILIENT SEAT TYPE MEETING THE REQUIREMENTS OF AWWA C509. VALVES SHALL BE DESIGNED FOR A WORKING WATER PRESSURE OF 200 PSI AND SHALL BE OF THE NON–RISING STEM TYPE WITH A STANDARD AWWA NUT. THE MANUFACTURER SHALL FURNISH AN AFFIDAVIT INDICATING THAT ALL TESTS AND PROVISIONS OF THE APPLICABLE STANDARD HAVE BEEN MET. VALVES SHALL HAVE MECHANICAL JOINT ENDS. STEM SEALS SHALL CONSIST OF AT LEAST TWO “O” RINGS. VALVES SHALL OPEN BY TURNING TO THE RIGHT (CLOCKWISE). IF REQUIRED, OPERATORS SHALL BE PROVIDED WITH EXTENSION STEMS SUCH THAT THE OPERATING NUT TERMINATES APPROXIMATELY 4 FEET BELOW GRADE. EXTENSION STEMS SHALL BE CENTERED IN THE VALVE BOXES BY APPROVED STEM GUIDES. VALVES SHALL BE SET PLUMB, WITH THE VALVE BOX ACCURATELY CENTERED OVER THE VALVE. THE FOLLOWING MAKES AND MODELS OF VALVES WILL BE PERMITTED:

AMERICAN FLOW CONTROL -- SERIES 500
KENNEDY -- 4571–R
MUELLER -- A2360

ALL FITTINGS SHALL BE DUCTILE IRON, SHALL CONFORM TO AWWA C110 AND C153 AND SHALL BE OF MECHANICAL JOINT OR PUSH–ON TYPE.

ONLY THE CITY OF OREGON MAY OPERATE VALVES.

TAPPING VALVES

TAPPING SLEEVES AND VALVES SHALL BE FURNISHED BY THE CONTRACTOR. THE TAPPING SLEEVE AND VALVE WILL BE INSTALLED BY THE CITY OF OREGON. ALL EXCAVATION AND BACKFILL WILL BE PERFORMED BY THE CONTRACTOR.

A. INSTALLATION REQUIREMENTS – THE EXISTING WATER MAIN INTO WHICH A PRESSURE CONNECTION IS TO BE MADE CANNOT BE SHUT DOWN OR TAKEN OUT OF SERVICE. THE INSTALLATION SHALL BE MADE BY PERSONNEL SKILLED AND EXPERIENCED IN THE MAKING OF PRESSURE TAPS. THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN THE SELECTION AND ADJUSTMENT OF DRILLING EQUIPMENT AS WELL AS IN THE INSTALLATION, INSPECTION AND CUTTING PROCEDURES. PRIOR TO ORDERING ANY TAPPING SLEEVE ASSEMBLY, THE CONTRACTOR SHALL EXPOSE A SECTION OF THE EXISTING MAIN AND VERIFY THE CIRCUMFERENCE OF THE PIPE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, PROPER ASSEMBLY, ALIGNMENT AND FITTING OF THE TAPPING SLEEVE AND VALVE TO THE MAIN. IN THE EVENT OF ANY MISMATCH OF ANY PURCHASED MATERIALS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REFIT THEM IN THE FIELD OR TO MAKE THE NECESSARY ARRANGEMENTS WITH THE MANUFACTURER FOR FACTORY REFIT.

THE SEVERED SECTION OF WATER MAINS SHALL BE REMOVED THROUGH THE TAPPING VALVE AND GIVEN TO THE CITY OR THEIR ENGINEER AS PROOF OF SATISFACTORY EXECUTION OF THE OPERATION. THE ENGINEER, AT HIS OPTION, MAY RETAIN THE COUPON FOR SUCH ANALYSIS OR TESTS AS ARE NECESSARY TO EVALUATE THE CONDITION OF THE EXISTING WATER MAIN, WATER TREATMENT, DEPOSITS, ETC.

THE CITY OF OREGON, DIVISION OF WATER, HAS THE NECESSARY EQUIPMENT AND EXPERIENCED PERSONNEL TO MAKE PRESSURE TAPS AND WILL PERFORM SAME AT THE REQUEST AND EXPENSE OF THE CONTRACTOR.

B. TAPPING SLEEVES – TAPPING SLEEVES SHALL BE MADE IN TWO HALVES FOR ASSEMBLY AROUND THE MAINS. GASKETS SHALL EXTEND THE ENTIRE LENGTH OF THE SLEEVES TO FORM WATERTIGHT JOINTS WHEN THE SIDE BOLTS ARE TIGHTENED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS. BRANCH FLANGES SHALL HAVE FEMALE FACES TO ACCOMMODATE MALE FACES OF TAPPING VALVES.

C. TAPPING VALVES – TAPPING VALVES SHALL BE GATE VALVES AS PREVIOUSLY SPECIFIED, EXCEPT AS MODIFIED BY THE FOLLOWING SUPPLEMENTARY REQUIREMENTS:

TAPPING VALVES SHALL BE OF THE CAST IRON BODY, RESILIENT SEAT TYPE, MEETING THE REQUIREMENTS OF AWWA C509–LATEST REVISION.

VALVE OUTLETS SHALL BE MECHANICAL JOINT IN COMPLIANCE WITH AWWA C111. THE CYLINDRICAL SECTION OF THE INTERIOR ANNULAR RECESS OF THE BELL SHALL BE MACHINED WITH THE BORE THROUGH THE SEAT RINGS TO PROVIDE ALIGNMENT FOR THE DRILLING MACHINE.

VALVE LOCATION AND SETTING

MAIN LINE VALVES SHALL BE INSTALLED AT INTERSECTIONS SO AS TO BE ABLE TO ISOLATE THE LINE AND PREVENT BACK FEET AND AT INTERVALS AS SHOWN ON THE PLANS. A GATE (WATCH) VALVE SHALL BE INSTALLED WITH EACH FIRE HYDRANT AS SUBSEQUENTLY SPECIFIED.

MAIN LINE VALVES INSTALLED IN EXISTING OR PROPOSED PAVED AREAS OR AS OTHERWISE REQUIRED BY THE CITY SHALL BE INSTALLED IN MANHOLES. VALVES INSTALLED AT ALL OTHER LOCATIONS SHALL BE WITH A VALVE BOX AS SUBSEQUENTLY SPECIFIED. VALVES SHALL SET PLUMB WITH THE MANHOLE ACCURATELY CENTERED OVER THE VALVE AND WITH THE TOP OF THE MANHOLE COVER FLUSH WITH THE SURFACE OF THE GROUND OR PAVEMENT.

WATCH VALVES INSTALLED WITH FIRE HYDRANTS AND ALL OTHER MAIN LINE VALVES SHALL BE INSTALLED WITH VALVE BOXES. VALVES SHALL BE SET PLUMB WITH VALVE BOX CENTERED OVER THE VALVE AND WITH THE TOP OF THE BOX FLUSH WITH THE SURFACE OF THE GROUND OR PAVEMENT.

VALVE BOXES

VALVE BOXES SHALL BE CONSTRUCTED OF A GOOD GRADE OF CAST IRON; SHALL BE COATED; SHALL BE OF THE THREE PIECE SCREW TYPE; SHALL HAVE A 5 1/4 INCH SHAFT; AND SHALL BE PROVIDED WITH A HEAVY NEED FITTING COVER HAVING THE WORD “WATER” CAST ON THE TOP. BASES SHALL COVER THE ENTIRE BONNET SECTION OF THE VALVE. BOXES SHALL CORRECTLY SET ON VALVE BODY AND SHALL EXTEND TO THE GROUND ELEVATION WITH SUFFICIENT LENGTH FOR EACH SECTION TO BE PROPERLY ENGAGED.

VALVE MANHOLES

ALL MAIN LINE VALVES SHALL BE ENCLOSED IN STANDARD VALVE MANHOLES AS SHOWN IN ATTACHED DETAILS. MANHOLES SHALL BE CONSTRUCTED OF EITHER APPROVED SOLID CONCRETE (CIRCULAR) BLOCK OR APPROVED PRECAST MANHOLE SECTIONS MEETING ASTM C–478. MANHOLE WALLS SHALL REST ON A CLASS 1 REINFORCED CONCRETE OR BERM STONE (ODOT ITEM 411) FOUNDATION AS SHOWN. IF BLOCK IS USED, A 1/2” COAT OF CEMENT MORTAR, INSIDE AND OUT, MUST BE PROVIDED. WHERE PIPE PASSES THROUGH THE WALLS PROVIDE A GASKETED FLEXIBLE WATERTIGHT CONNECTION (KOR–N–SEAL, OR EQUAL), OR 1/2” JUTE ROPING OR NEOPRENE GASKET MATERIAL.

WHERE SPECIFIED, MANHOLE STEPS MEETING ASTM C–478 SHALL BE PROVIDED AND SHALL BE OF ALUMINUM OR REINFORCED POLYPROPYLENE.

FOR PRECAST SECTIONS, TOPS SHALL BE OF THE ECCENTRIC OR FLAT SLAB TYPE AND SHALL BE CONSTRUCTED OF CLASS 1 REINFORCED CONCRETE. IF PRECAST SECTIONS ARE USED, A MINIMUM OF 6” OF ADJUSTING RINGS MUST BE PROVIDED.

VALVES MUST BE POSITIONED INSIDE MANHOLE SO AS TO ALLOW UNOBSTRUCTED ACCESS TO VALVE OPERATING NUT WITH VALVE WRENCH.

VALVE MANHOLE CASTINGS

VALVE MANHOLE FRAMES AND COVERS SHALL BE 22 INCH NEENAH R–1771, OR APPROVED EQUAL, ASTM–A48 WITH INTERCHANGEABLE PIECES AND MACHINED HORIZONTAL BEARING SURFACES.

IF CASTINGS ARE DELIVERED TO THE JOB UNPAINTED, THEY SHALL BE GIVEN ONE COAT OF ASPHALT VARNISH OR COAL–TAR PITCH PAINT BY THE CONTRACTOR.

MANHOLE/HYDRANT GRADES

CONTRACTOR SHALL ADJUST MANHOLE RIM GRADES AS SHOWN ON DRAWINGS TO ACTUAL SURROUNDING GRADE OR AS DIRECTED BY THE ENGINEER. NO ACTUAL PAYMENT IS ALLOWED FOR THESE ADJUSTMENTS.

FIRE HYDRANTS AND APPURTENANCES – GENERAL

THIS ITEM COVERS FIRE HYDRANTS, WATCH VALVES AND VALVE BOXES, HYDRANT TEES, ANCHORING FITTINGS AND ANCHORING PIPE WHICH MAY BE REQUIRED IN CONNECTION WITH THE INSTALLATION OF THE WATER MAINS. HYDRANTS IN NEW SUBDIVISIONS SHALL BE 4–FOOT UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE DIRECTOR OF PUBLIC SERVICE. FIRE HYDRANTS AND APPURTENANCES WHEN INSTALLED WITH CLASS 52 DUCTILE PIPE SHALL BE WRAPPED AS PREVIOUSLY SPECIFIED.

FIRE HYDRANTS

FIRE HYDRANTS SHALL BE OF THE COMPRESSION TYPE, OPENING AGAINST AND CLOSING WITH THE WATER PRESSURE IN THE MAIN, HAVING A 5–1/4 INCH VALVE OPENING, TWO 2–1/2 INCH HOSE NOZZLES (2.984 INCHES O.D., 8 THREADS PER INCH). HYDRANTS SHALL CONFORM TO AWWA C502, LATEST REVISION. THE MANUFACTURER SHALL FURNISH AN AFFIDAVIT INDICATING THAT ALL TESTS AND PROVISIONS OF AWWA C502 HAVE BEEN MET.

THE FOLLOWING MAKES AND MODELS OF HYDRANTS WILL BE PERMITTED:

AMERICAN–DARLING B–84–B
KENNEDY K–81A
MUELLER A–423, SUPER CENTURION 200

THE HYDRANT BARREL SHALL HAVE AN INSIDE DIAMETER OF NOT LESS THAN 6 INCHES AND SHALL BE IN TWO PARTS FASTENED TOGETHER WITH A FRANGIBLE SECTION LOCATED JUST ABOVE GROUND LINE. THE HYDRANT STEM SHALL HAVE A BREAKABLE COUPLING IN THE SAME PLANE AS THE FRANGIBLE SECTION. STEM SHALL TERMINATE AND 1.50 INCHES POINT TO FLAT. SEALS SHALL BE RUBBER O–RINGS. HYDRANTS SHALL BE SUITABLE FOR SETTING IN TRENCHES OF THE DEPTHS SHOWN OR AS REQUIRED. THE HYDRANTS SHALL BE DESIGNED SO THAT WHEN PROPERLY OPERATED WATER HAMMER WILL BE PREVENTED. HYDRANTS SHALL BE FURNISHED WITH A POSITIVE–OPERATING DRAIN VALVE AND SHALL BE FURNISHED WITH A 6 INCH MECHANICAL JOINT BASE. HYDRANTS SHALL OPEN BY TURNING TO THE LEFT (COUNTER–CLOCKWISE).

THE CONTRACTOR SHALL VERIFY THAT THE HYDRANT FURNISHED AND THAT THE HYDRANT PUMPER NOZZLE WITH 5 INCH STORZ FITTING, OPERATING NUT, OUTLET NOZZLE CAP NUTS AND HOSE THREADS CONFORM TO THOSE IN THE SYSTEM BEFORE NEW HYDRANTS ARE SHIPPED.

EACH HYDRANT EXTERIOR, IN ADDITION TO FINISHING AS REQUIRED BY AWWA C502, SHALL BE GIVEN ONE FIELD COAT OF ASPHALT VARNISH AFTER RECTION AND BEFORE BACKFILLING FROM GROUND LEVEL DOWN. THAT PART OF THE HYDRANT EXTERIOR ABOVE GROUND LEVEL SHALL BE FIELD PAINTED WITH TWO COATS OF PAINT AS REQUIRED BY THE OWNER AFTER BACKFILLING IS COMPLETE.

BONNET, 3 CAPS AND CHAINS – BLACK ENAMEL, GLIDDEN 4551, ICI DEVOE #43089990, OR CITY APPROVED EQUAL.

BARREL – MEDIUM YELLOW ENAMEL, GLIDDEN 4560, ICI DEVOE #43088600, OR CITY APPROVED EQUAL.

PROTECTION AND PAINTING

ALL IRON PARTS OF VALVES AND ACCESSORIES SHALL BE PAINTED BEFORE LEAVING THE SHOP WITH TWO COATS OF ACCEPTABLE HIGH GRADE BITUMINOUS PAINT.

THE VALVES SHALL BE PROTECTED AT ALL TIMES FROM RUST OR DAMAGES, BOTH BEFORE AND AFTER INSTALLATION, UNTIL THE COMPLETION OF THE CONTRACT.

WATCH VALVES AND VALVE BOXES

EACH HYDRANT SHALL BE CONTROLLED BY A WATCH VALVE WHICH SHALL BE A 6–INCH GATE VALVE AS PREVIOUSLY SPECIFIED IN PARAGRAPH 2.2, EXCEPT THE VALVES SHALL HAVE MECHANICAL JOINT ENDS FOR RECEIVING THE SPIGOT ENDS OF 6–INCH ANCHORING FITTINGS AND/OR ANCHORING PIPE. EACH VALVE SHALL BE INSTALLED COMPLETE WITH A VALVE BOX AS PREVIOUSLY SPECIFIED IN PARAGRAPH 2.5.

VALVE BOXES SHALL BE CONSTRUCTED OF A GOOD GRADE OF CAST IRON; SHALL BE COATED; SHALL BE OF THE THREE PIECE SCREW TYPE; SHALL HAVE A 5–1/4 INCH SHAFT; AND SHALL BE PROVIDED WITH A HEAVY NEAT FITTING COVER HAVING THE WORD “WATER” CAST ON THE TOP.

HYDRANT ANCHORING

EACH HYDRANT CONNECTION TO THE MAINS SHALL BE MADE BY MEANS OF ANCHORING PIPE AND ANCHORING FITTINGS AS SHOWN ON THE DETAILS HEREIN. ALL ANCHORING PIPE AND ANCHORING FITTINGS SHALL BE AS MANUFACTURED BY CLOW CORPORATION OR CITY APPROVED EQUAL.

HYDRANT INSTALLATION

HYDRANTS SHALL BE SET PLUMB AND TO THE GRADE OF THE CURB, STREET, ALLEY, HIGHWAY OR RIGHT–OF–WAY AT THE DIRECTION OF THE CITY OR THEIR ENGINEER AND SHALL BE OF THE OVER MAIN TYPE OR OFFSET TYPE AS SUBSEQUENTLY SPECIFIED. PUMPER NOZZLE SHALL ALWAYS BE SET TOWARD THE MIDDLE LINE OF THE STREET, HIGHWAY OR RIGHT–OF–WAY. EXCAVATION FOR HYDRANTS SHALL FIRST BE BACKFILLED WITH NO. 6 STONE TO A MINIMUM DEPTH OF TWO FEET AS SHOWN ON THE PLANS. REMAINDER OF EXCAVATION SHALL THEN BE BACKFILLED AS PREVIOUSLY SPECIFIED FOR PIPE LAYING.

FOR THE OVER THE MAIN TYPE, THE HYDRANT BASE SHALL REST ON A CREOSOTED WOOD TIMBER SUPPORTED BY TWO VERTICAL BLOCKS. THE TIMBER SHALL BE THE LARGEST NOMINAL SIZE SQUARE TIMBER WHICH WILL FIT BETWEEN THE HYDRANT BASE AND THE TOP OF THE MAIN, WITH THE BLOCKS TO BE THE SAME SIZE. THE HORIZONTAL TIMBER SHALL BE SPIKED TO THE VERTICAL BLOCKS TO PREVENT THE MOVEMENT OF SAME DURING SUBSEQUENT BACKFILLING OPERATIONS. EACH HYDRANT SETTING SHALL CONSIST OF A TEE, CLOW F–288 AND AN ANCHORING ELBOW CLOW F–1218 OR CITY APPROVED EQUAL, SET VERTICAL AND TIED SECURELY TO THE WATCH VALVE AND HYDRANT WITH ONE MINIMUM THREE FOOT LONG PIECE OF ANCHORING PIPE, CLOW F–1216 OR CITY APPROVED EQUAL. SEE DETAIL 4.

FOR THE OFFSET TYPE, THE HYDRANT BASE SHALL BE PROVIDED WITH A FOUNDATION SLAB OF CLASS 1 CONCRETE, 18–INCH SQUARE AND AT LEAST 6–INCHES THICK. EACH HYDRANT CONNECTION TO THE MAIN SHALL BE MADE BY MEANS OF AN ANCHORING TEE, CLOW F–1217 OR APPROVED EQUAL, TIED SECURELY TO THE WATCH VALVE AND HYDRANT WITH THE REQUIRED LENGTHS OF ANCHORING PIPE, CLOW F–1216 OR CITY APPROVED EQUAL. SEE DETAIL 5.

ANCHORS AND SUPPORTS

REINFORCED CONCRETE ANCHORS AND SUPPORTS (THRUST BLOCK) SHALL BE PROVIDED AT ALL FITTINGS, VALVES OR CHANGES IN DIRECTION OF THE PIPE. THEY SHALL BE CONSTRUCTED OF CLASS 1 CONCRETE, AS SHOWN ON DETAIL SHEET, AND SHALL BE PLACED AGAINST FIRM UNDISTURBED SOIL. ALL PLUG OR CAPS SHALL BE SECURELY STRAPPED OR BLOCKED.

INSTALLATION

ALL PIPE AND APPURTENANCES SHALL BE INSTALLED TRUE TO LINE, GRADE, AND LOCATION WITH JOINTS CENTERED; SPIGOTS HOME; PROPER SUPPORT AND BLOCKING PROVIDED; AND ALL VALVE STEMS PLUMB. CARE SHALL BE USED TO LAY THE PIPE SO THAT IT IS SUPPORTED BY THE FULL LENGTH OF THE BARREL. THE PIPE SHALL HAVE APPROXIMATELY 4’ OF COVER, WHERE CONFLICTS OCCUR WITH OTHER UTILITIES A MINIMUM OF 18–INCH VERTICAL SEPARATION IS REQUIRED. WHERE SPECIAL CONDITIONS WARRANT, THE DEPTH OF COVER MAY BE CHANGED. ALL TRENCHES AND EXCAVATIONS SHALL BE BACKFILLED IMMEDIATELY AFTER PIPE IS LAID THEREIN. NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS STONES, ROCK OR PIECES OF MASONRY, FROZEN EARTH, DEBRIS OF EARTH WITH AN EXCEPTIONALLY HIGH VOID CONTENT. TRENCHES OUTSIDE THE LIMITS OF 5 FEET FROM THE EDGE OF PAVEMENT SHALL BE BACKFILLED WITH THOROUGHLY TAMPED GRANULAR MATERIAL A MINIMUM OF 12 INCHES ABOVE THE TOP OF THE PIPE. THE REMAINDER OF THE TRENCH MAY BE FILLED WITH EXCAVATED MATERIAL, INSOFAR AS IT IS OF SUITABLE CHARACTER.

WATERLINE LENGTHS

ALL LENGTHS SHOWN ON PLAN VIEWS ARE MEASURED FROM CENTERLINE OF VALVE OR FITTINGS IF APPLICABLE

WHENEVER IT IS NECESSARY TO CUT THE PIPE AT FITTINGS, VALVES, SPECIALS, OR ELSEWHERE, THE REMAINING PORTIONS MAY BE USED WHERE POSSIBLE TO MINIMIZE THE NUMBER OF SCRAP PIECES WHEN THE PROJECT IS COMPLETE; HOWEVER, SCRAP PIECES LESS THAN 5–FEET IN LENGTH SHALL NOT BE USED.

PIPE LAYING

PIPE SECTIONS SHALL BE STRUNG ALONG THE ROUTE OF THE MAINS SO AS TO INTERFERE LEAST WITH PEDESTRIAN AND VEHICULAR TRAFFIC AND TO PROTECT THE PIPE AS FULLY AS POSSIBLE. CARE SHALL BE TAKEN AT ALL TIMES IN HANDLING THE PIPE SO AS NOT TO INJURE IT IN ANY WAY AND AT NO TIME SHALL OTHER PIPES OR MATERIAL BE PLACED IN THE PIPES.

RUBBER TIRED EQUIPMENT SHALL BE USED ON ALL PAVED SURFACES DURING PIPE LAYING AND ALL RELATED OPERATIONS. HEAVY EQUIPMENT SHALL NOT BE DRIVEN OVER STREETS, BUT SHALL BE MOVED BY TRAILER.

THE MAINS SHALL BE LAID IN THE LOCATIONS AND AT THE GRADES SHOWN ON THE PLANS, EXCEPT AS SPECIFICALLY PERMITTED OR ORDERED OTHERWISE BY THE CITY OR THEIR ENGINEER IN ORDER TO AVOID EXISTING OR PROPOSED UTILITY LINES OR ANY OTHER OBSTRUCTIONS ENCOUNTERED IN THE PROGRESS OF THE WORK; TO SECURE A MORE READILY ACCESSIBLE POSITION FOR TRENCHING; OR TO FACILITATE THE LOCATION OF VARIOUS APPURTENANCES OF THE MAINS.

EXISTING UTILITIES OR OTHER OBSTRUCTIONS ALONG THE ROUTE OF THE MAINS SHALL BE LOCATED AND THE ELEVATION DETERMINED AT LEAST 200 FEET IN ADVANCE OF PIPE LAYING.

ALL UTILITIES, WHEN ENCOUNTERED, SHALL BE ADEQUATELY SUPPORTED, SHORED UP OR OTHERWISE PROTECTED WHENEVER EXPOSED IN THE EXCAVATION TO THE SATISFACTION OF THE CITY OR THEIR ENGINEER. TIMBER SUPPORTS SHALL BE A MINIMUM OF 6–INCHES SQUARE. SUPPORT OF UTILITIES PERPENDICULAR TO THE EXCAVATION SHALL BE IN ACCORDANCE WITH DETAIL.

PLANS SHALL INDICATE THE LOCATION OF EXISTING UTILITIES, IN ACCORDANCE WITH THE BEST INFORMATION PRESENTLY AVAILABLE, BUT NEITHER THE CITY OR THEIR ENGINEER ASSUMES ANY RESPONSIBILITY FOR THE ACCURACY OF THEIR LOCATION OR THAT ALL UTILITIES ARE SHOWN.

WHEN ABRUPT CHANGES IN THE GRADE OF THE MAIN ARE NECESSARY TO AVOID EXISTING UTILITIES OR OTHER OBSTRUCTIONS, SUITABLE FITTINGS, USUALLY 1/8 BENDS, SHALL BE USED, UNLESS OTHERWISE SPECIFIED, SO AS TO SECURE AN EASY FLOW OF LIQUID AND TO PROVIDE SUFFICIENT COVER BELOW SAME. PIPE SHALL BE SO LOCATED WITH RESPECT TO OTHER UTILITIES AS TO ALLOW FOR TAPS TO BE INSERTED. A MINIMUM CLEARANCE OF ONE FOOT IN ALL DIRECTIONS SHALL BE MAINTAINED.

ALL PIPES SHALL BE THOROUGHLY CLEANED INSIDE AND OUTSIDE BEFORE BEING LOWERED INTO THE TRENCH; SHALL BE KEPT CLEAN DURING AND AFTER LAYING; AND THE END OF THE PIPE SHALL BE PLUGGED TO EXCLUDE WATER, ANIMALS OR OTHER MATTER WHEN PIPE LAYING IS STOPPED FOR ANY REASON.

BACKFILLING

ALL TRENCHES AND EXCAVATIONS SHALL BE BACKFILLED IMMEDIATELY AFTER PIPE IS LAID THEREIN, NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS STONES, ROCK OR PIECES OF MASONRY, FROZEN EARTH, DEBRIS OR EARTH WITH AN EXCEPTIONALLY HIGH VOID CONTENT. TRENCHES OUTSIDE THE LIMITS OF 5 FEET FROM THE EDGE OF PAVEMENT, PAVED OR STONE BERM OR BACK OF CURB SHALL BE BACKFILLED WITH THOROUGHLY TAMPED GRANULAR MATERIAL A MINIMUM OF 12 INCHES ABOVE THE TOP OF THE PIPE. THE REMAINDER OF THE TRENCH MAY BE FILLED WITH EXCAVATED MATERIAL, INSOFAR AS IT IS OF SUITABLE CHARACTER. TRENCHES WITHIN 5 FEET OF BACK OF THE CURB, EDGE OF PAVEMENT OR EDGE OF PAVED OR STONE BERM SHALL BE BACKFILLED WITH THOROUGHLY TAMPED GRANULAR MATERIAL TO THE PAVEMENT SUBGRADE. GRANULAR BACKFILL SHALL CONFORM TO THE GRADATION REQUIREMENTS OF THE CURRENT SPECIFICATIONS FOR ITEM 703.11, TYPE 1, (304 ONLY) OF THE 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS, STATE OF OHIO, DEPARTMENT OF TRANSPORTATION. (MAX. DRY DENSITY EXCEEDING 105LBS. PER CUBIC FEET AND COMPACTION TO 100% OF THE

STANDARD PROCTOR TEST). GRANULAR MATERIAL MAY BE COMPACTED WITH WATER IF SATISFACTORY DRAINAGE IS PROVIDED FOR THE EXCESS WATER. WHEN COMPACTING WITH WATER, THE GRANULAR MATERIAL MAY BE PLACED IN LAYERS NOT TO EXCEED 8 INCHES LOOSE DEPTH AND EACH LAYER THOROUGHLY SATURATED WITH WATER BY FLOODING OR JETTING. PRIOR TO THE PLACEMENT OF SOIL OVER THE GRANULAR MATERIAL, THE EXCESS WATER SHOULD BE DRAINED.

PRESSURE AND LEAKAGE TESTING

THE CONTRACTOR SHALL MAKE PRESSURE AND LEAKAGE TESTS OF ALL PIPE LINES ACCORDANCE WITH AWWA C600 LATEST REVISION UNLESS OTHERWISE DIRECTED BY THE CITY OF OREGON.

PRESSURE TESTS SHALL BE MADE IN ALL PIPE LINES OR VALVED SECTIONS THEREOF, AS DIRECTED. THE CONTRACTOR SHALL FURNISH THE PUMP, PIPE CONNECTIONS, TAPS, GAUGES AND ALL OTHER APPARATUS FOR MAKING THE TEST. BEFORE TESTING OF THE MAIN, THE CONTRACTOR SHALL FLUSH THE MAIN UNDER THE CITY OF OREGON DIRECTION TO EXPEL ANY WATER, DIRT, CHLORINE, ETC.

THE COST OF FURNISHING ALL MATERIAL, LABOR, EQUIPMENT AND THE TOTAL VOLUME OF WATER FOR TESTING SHALL BE INCLUDED IN THE BID.

DISINFECTION

THE CONTRACTOR SHALL CHLORINATE ALL PIPE LINES, AND THIS SHALL BE DONE PRIOR TO PRESSURE TESTING UNLESS OTHERWISE DIRECTED BY THE CITY. DISINFECTION SHALL MEET OR EXCEED AWWA C651.

THE COST TO COMPLETE SUCH WORK SHALL BE INCLUDED IN THE BID.

OHIO E.P.A. REQUIREMENTS

THE OHIO ENVIRONMENTAL PROTECTION AGENCY REQUIRES A CONFORMANCE TO THE 2012 EDITION OF “TEN STATES STANDARDS.” THIS STANDARD SHALL BE EQUALLED OR EXCEEDED FOR WATERLINES. SPECIAL ATTENTION SHALL BE GIVEN TO THE FOLLOWING SECTIONS OF PART 8.

- | | |
|-------|--|
| 8.1.1 | MATERIALS CONFORM TO AWWA STANDARDS |
| 8.2.2 | MINIMUM 6” DIAMETER FIRE PROTECTION |
| 8.4.4 | HYDRANT DRAINAGE |
| 8.7.3 | COVER |
| 8.7.6 | PRESSURE TESTING AWWA C–600* |
| 8.7.7 | DISINFECTION AWWA C–651* |
| 8.8.2 | 10’ HORIZONTAL SEPARATION WATER MAIN/SEWER |
| 8.8.3 | 18” VERTICAL SEPARATION WATER MAIN/SEWER |
| 8.8.6 | NO ENTRY AND/OR CONTACT WITH SEWER MANHOLE |

*NOTE: IT SHALL BE THE CONTRACTOR’S RESPONSIBILITY TO PERFORM THIS TEST PROPERLY AND THEIR RESPONSIBILITY FOR ADEQUATE SUPERVISION AND APPROVAL RESTS WITH THE APPROPRIATE GOVERNMENTAL AGENCY. ANY DEVIATION FROM THE ABOVE WILL NOT BE PERMITTED UNLESS SPECIFICALLY INCLUDED IN THE GENERAL NOTES OR OTHERWISE SHOWN ON THESE PLANS.

IN CASES WHERE ONE AND/OR MORE OF THE ABOVE MENTIONED OHIO E.P.A. STANDARDS FALL SHORT OF THE CITY OF OREGON, WATER DEPARTMENT, THE LATTER SHALL GOVERN.

SANITARY SEWER

SANITARY SEWER PIPE

4”–15” SANITARY SEWER SHALL BE PVC CONFORMING TO ASTM D–3034 WITH JOINTS CONFORMING TO ASTM D–3212, SDR–35 MINIMUM.

18” AND LARGER SANITARY SEWER SHALL BE PVC CONFORMING TO ASTM F–679 WITH JOINTS CONFORMING TO ASTM D–3212, SDR–35 MINIMUM.

QUANTITIES FOR BENDS, TEES, WYES, PLUGS AND OTHER FITTINGS ARE SHOWN ON THE PLANS FOR THE CONVENIENCE OF THE CONTRACTOR. THE COST OF ALL FITTINGS SHALL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT CONDUIT ITEM. THE COST OF ALL BEDDING, SPECIAL BACKFILL, CDF BACKFILL AND PAVEMENT REPLACEMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SANITARY SEWER PIPE.

SEWER–WATER LINE SEPARATION

SANITARY SEWER AND MANHOLE INSTALLATIONS SHALL BE LAID AT LEAST 10 FEET APART HORIZONTALLY AND HAVE 18” OF SEPARATION VERTICALLY.

INSTALLATION

THE PIPE SHALL BE LAID ON A PROPERLY SHAPED AND FIRM BEDDING OF THE TYPE SPECIFIED AND MEETING THE REQUIREMENTS OF ITEM 603.04. WHERE CONDITIONS WARRANT, UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH EITHER NO. 57 OR NO. 67 STONE.

ALL PIPE AND APPURTENANCES SHALL BE INSTALLED TRUE TO LINE, GRADE AND LOCATION; WITH JOINTS CENTERED, SPIGOTS HOME AND PROPER SUPPORT AND BLOCKING PROVIDED. CARE SHALL BE TAKEN TO LAY THE PIPE SO THAT IT IS SUPPORTED AND BEDDED THE FULL LENGTH OF THE BARREL.

WHEN NO BEDDING IS SPECIFIED, THE REQUIREMENTS FOR CLASS ‘B’ BEDDING SHALL APPLY.

CONNECTIONS TO EXISTING SEWERS

WHERE THE PLANS PROVIDE FOR THE PROPOSED CONDUIT TO BE CONNECTED TO OR TO CROSS EITHER OVER OR UNDER AN EXISTING SEWER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE THE EXISTING PIPE AS TO BOTH LINE AND GRADE BEFORE THEY START CONSTRUCTION OF THE PROPOSED SEWER.

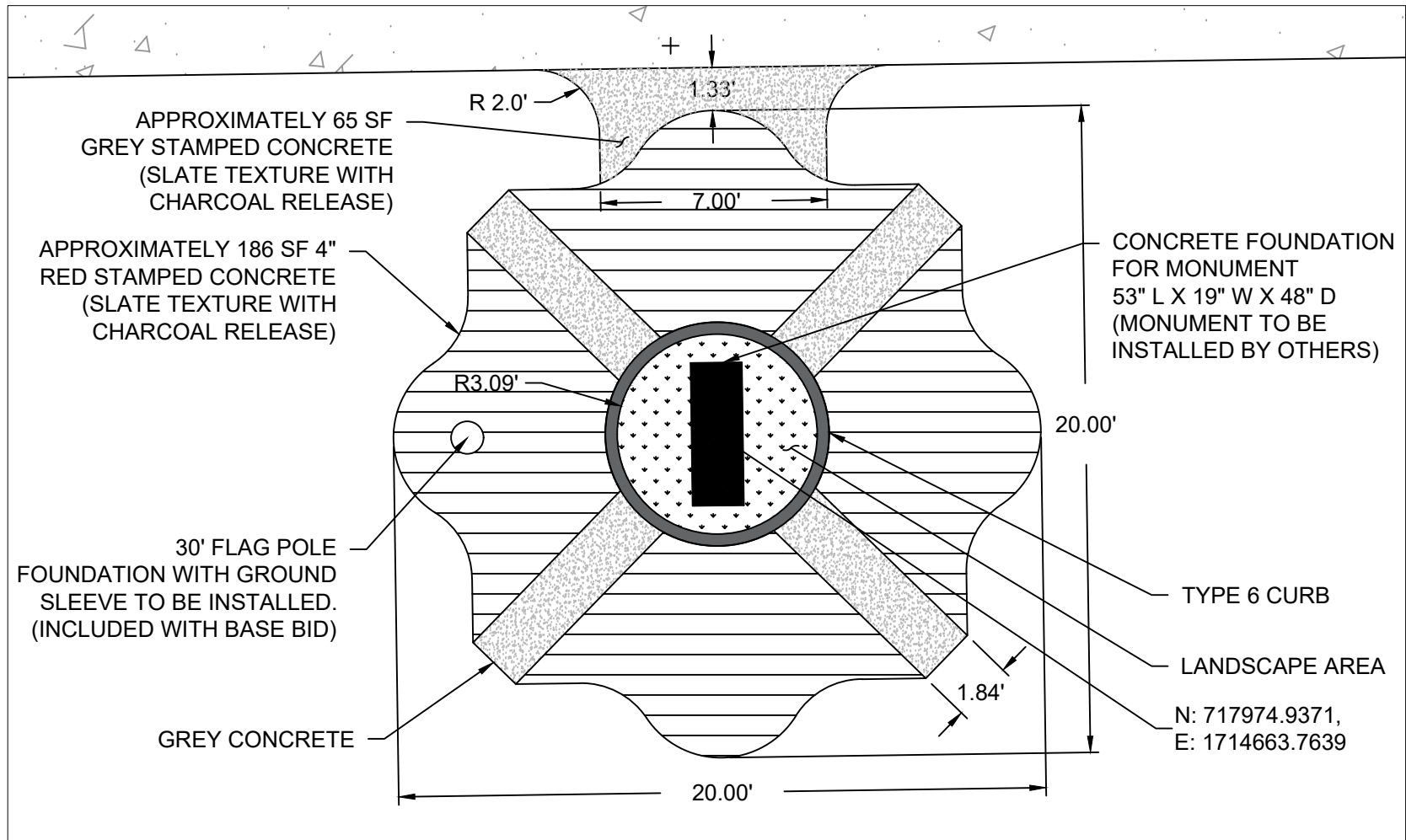
THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING SEWERS RESULTING FROM HIS OPERATION OR NEGLIGENCE.

BACKFILLING

ALL TRENCH AND EXCAVATIONS SHALL BE BACKFILLED IMMEDIATELY AFTER PIPE IS LAID THEREIN. NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS LARGE STONES, ROCKS OR PIECES OF MASONRY, FROZEN EARTH, DEBRIS, OR EARTH WITH A HIGH VOID CONTENT.

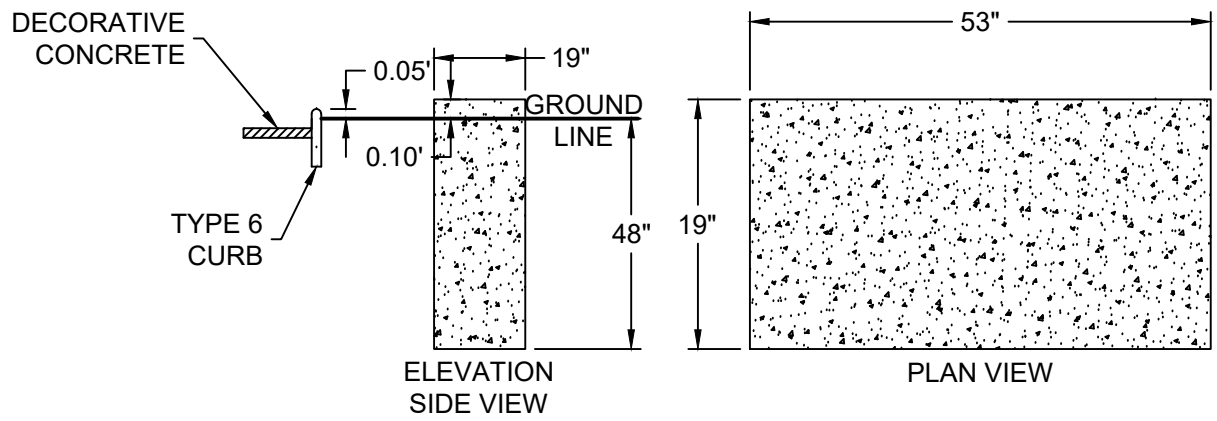
TRENCHES OUTSIDE THE LIMITS OF 5’ FROM THE BACK OF CURB OR EDGE OF PAVEMENT (TYPE C CONDUIT) SHALL BE BACKFILLED WITH THOROUGHLY TAMPED GRANULAR MATERIAL A MINIMUM OF 12” ABOVE THE TOP OF THE PIPE. THE REMAINDER OF THE TRENCH MAY BE FILLED WITH EXCAVATED MATERIAL, AS IT IS OF SUITABLE CHARACTER.

TRENCHES UNDER PAVEMENT OR WITHIN 5’ FROM THE BACK OF CURB OR EDGE OF PAVEMENT (TYPE B CONDUIT) SHALL BE BACKFILLED WITH THOROUGHLY TAMPED GRANULAR MATERIAL TO THE PAVEMENT SUBGRADE. GRANULAR BACKFILL MATERIAL SHALL CONFORM TO ODOT 304, OR AS MODIFIED BY THE CITY OF OREGON. COMPACTION OF GRANULAR SHALL BE 98% OF STANDARD PROCTOR.

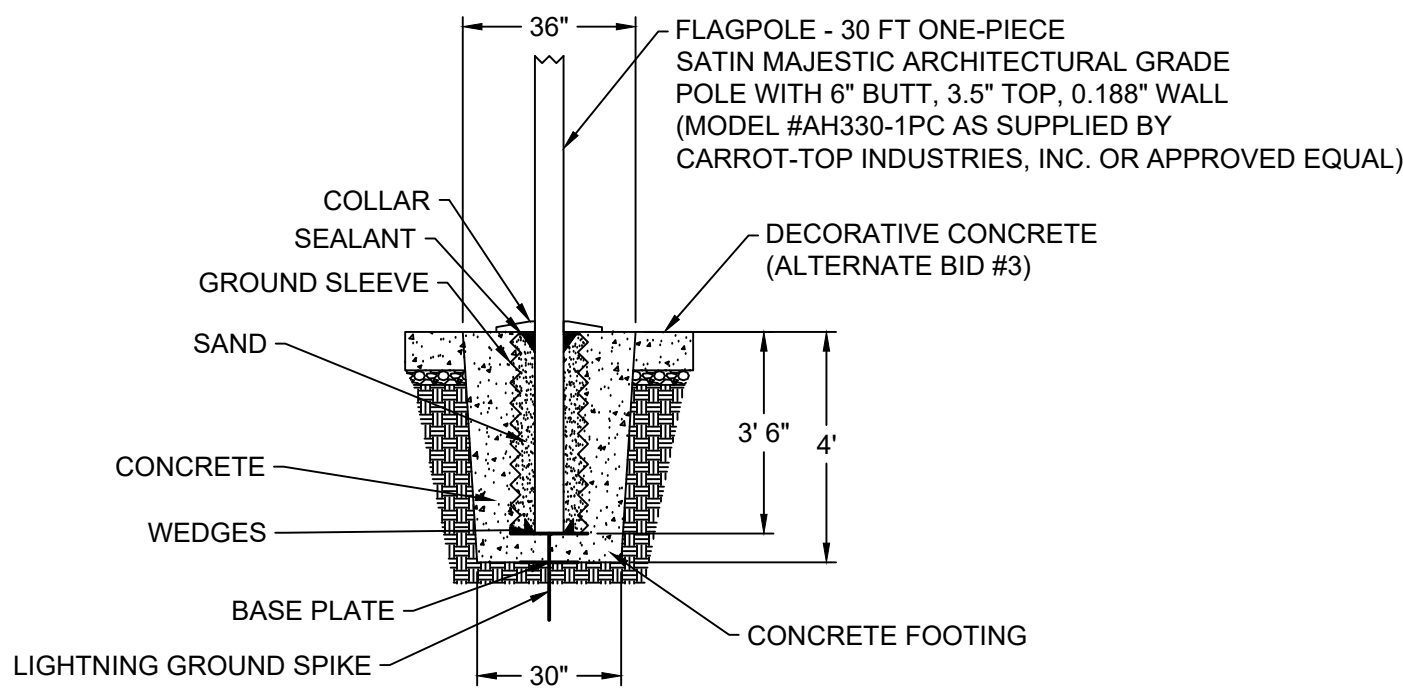


MEMORIAL DETAILS (ALTERNATE BID #2)
SCALE: 1"=5' H

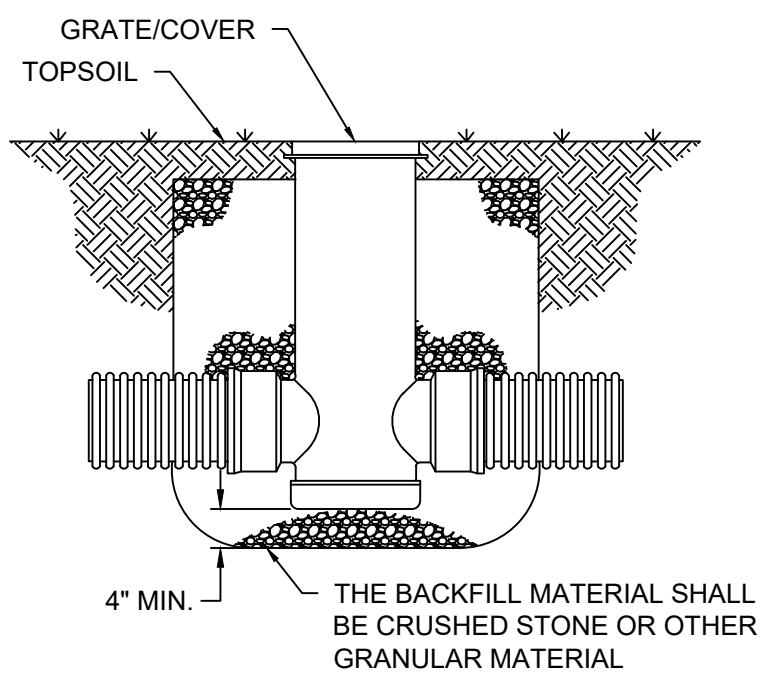
(SEE SHEET C-110 FOR LANDSCAPE PLAN FOR LANDSCAPE BED AND PLANTS TO BE INCLUDED WITH ALTERNATE BID #2)



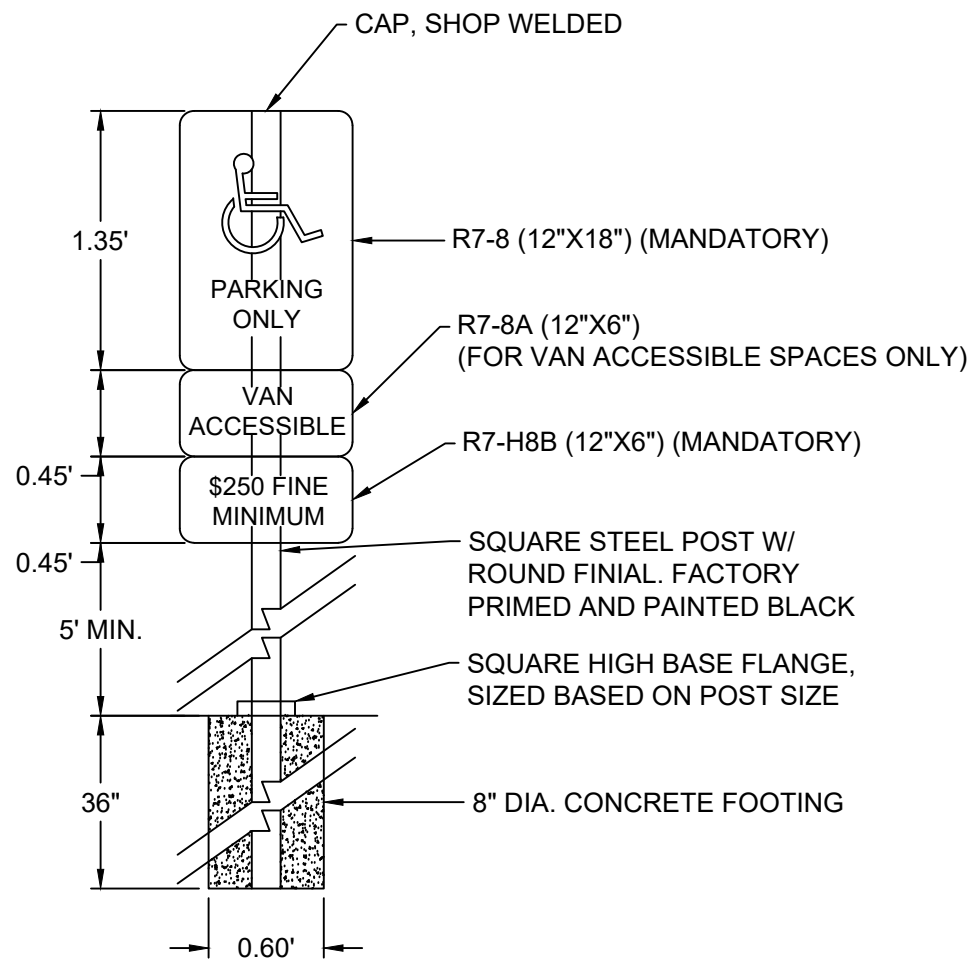
MONUMENT FOUNDATION (ALTERNATE BID #2)



FLAG POLE FOUNDATION (BASE BID)

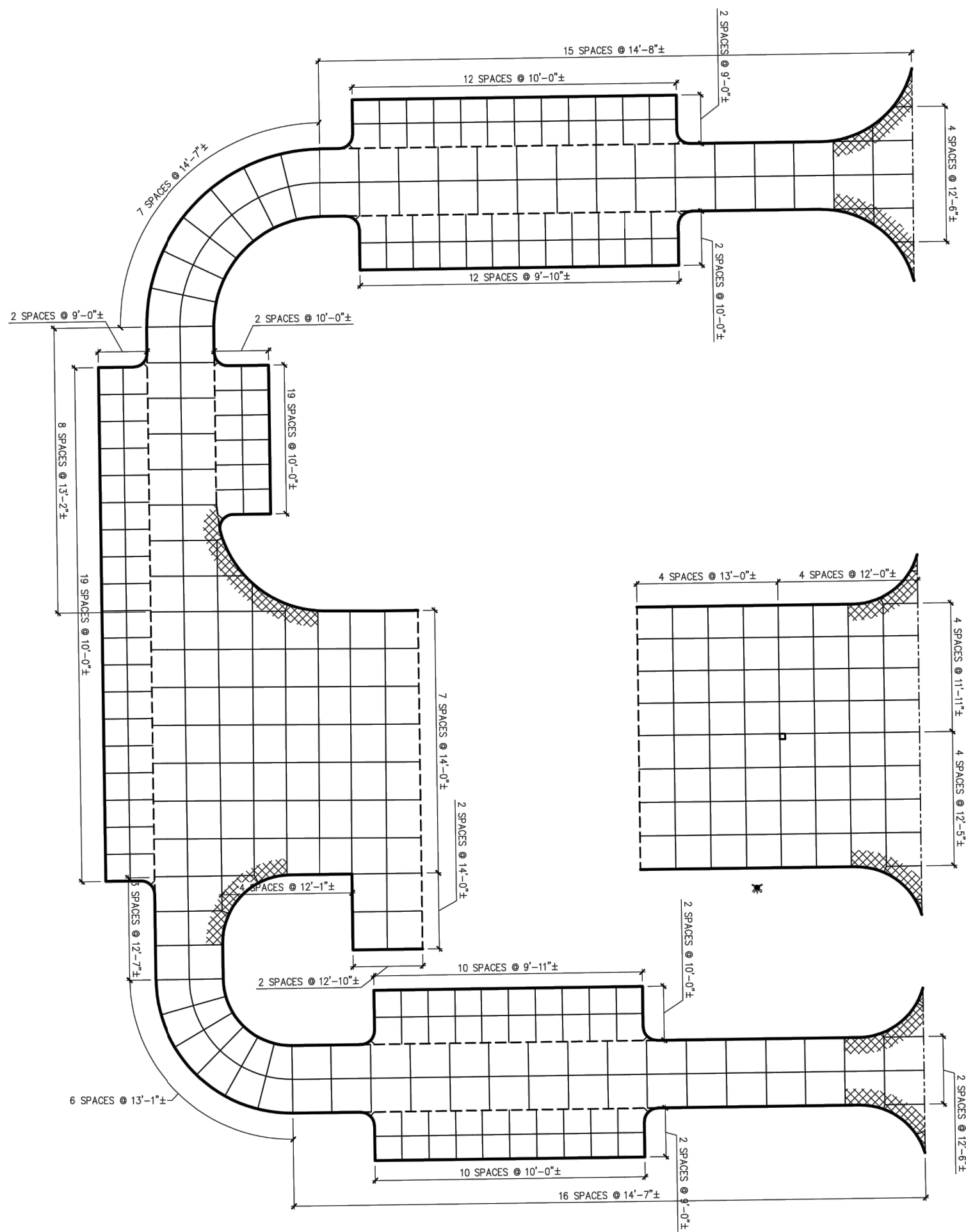


YARD BASIN
NTS

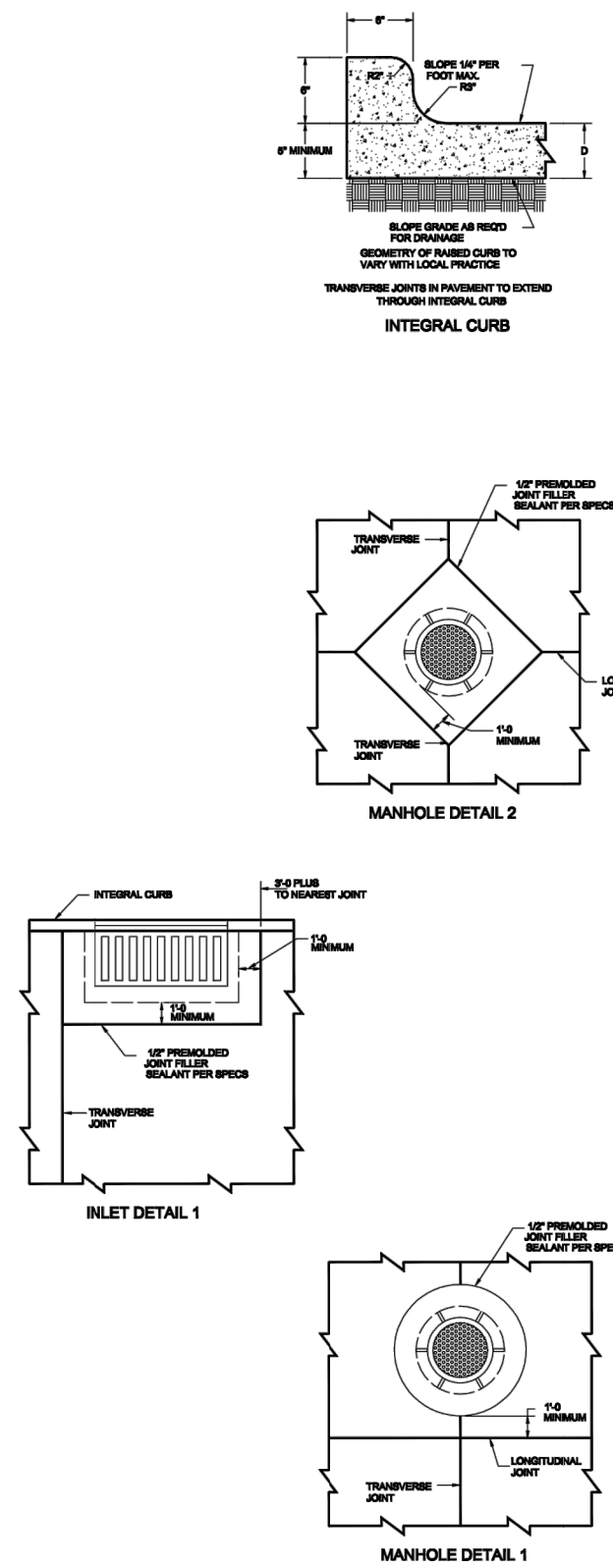


ADA PARKING SIGNS

7/1/2021

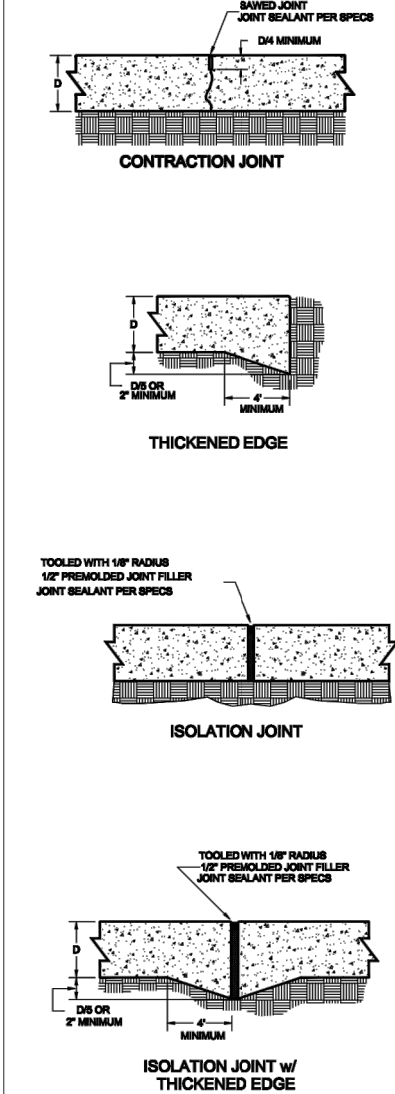


PARKING LOT JOINTING PLAN
SCALE: NO SCALE



SYMBOL AND LINE KEY
-CONTRACTION JOINT
-THICKENED EDGE
-ISOLATION JOINT
-ISOLATION JOINT W/ THICKENED EDGE
-EDGE TREATMENT
-WIRE MESH OR MACRO FIBERS

General Notes



No. Revision/Issue Date

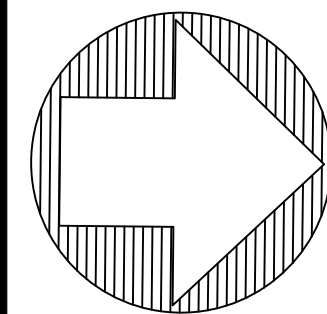


Project Name and Address
CITY OF OREGON
CENTRAL FIRE STATION
OREGON, LUC Co.
JUNE 17, 2021

Project Sheet
Date
Scale

DETAILS

CITY OF OREGON
CENTRAL FIRE STATION

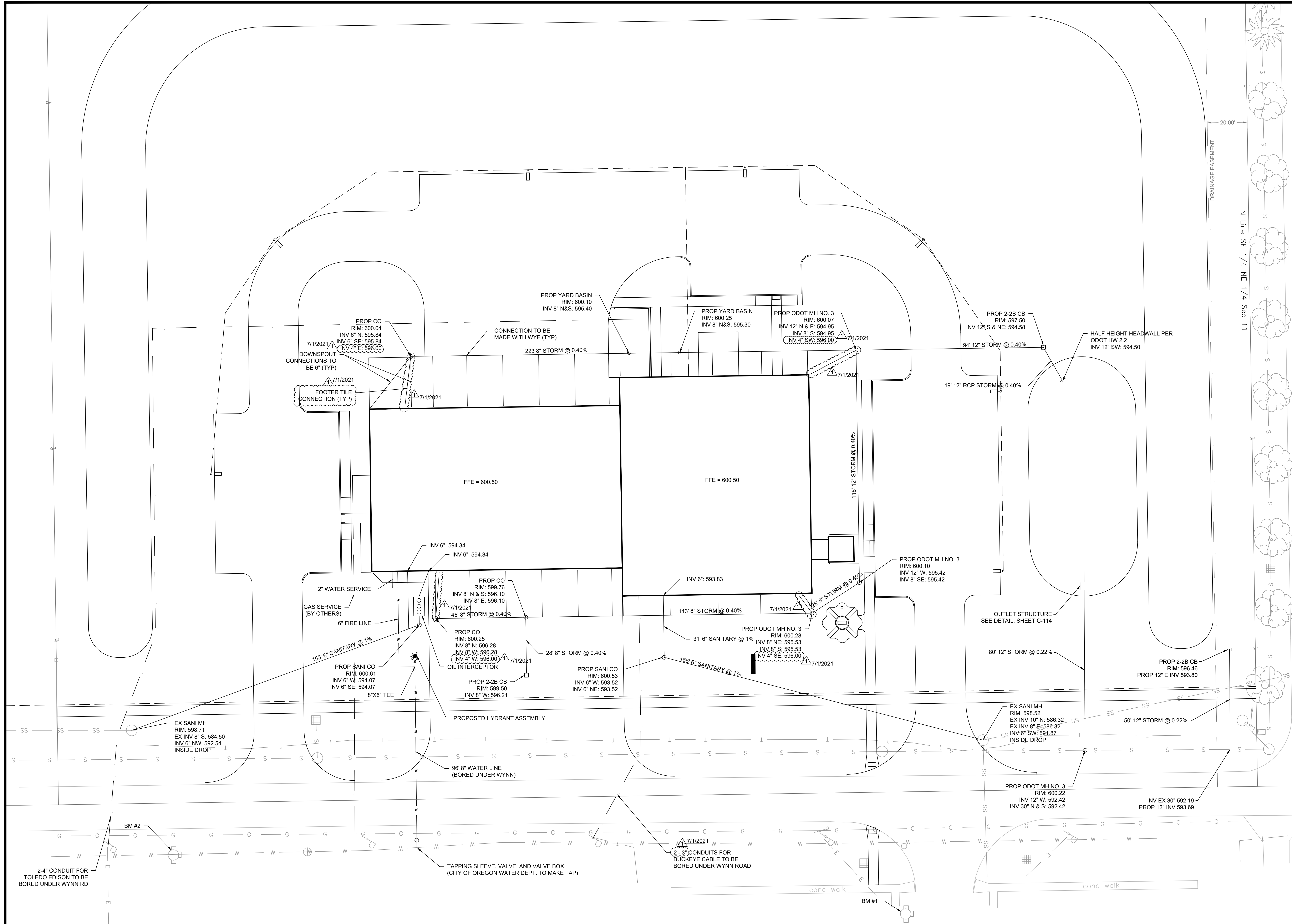


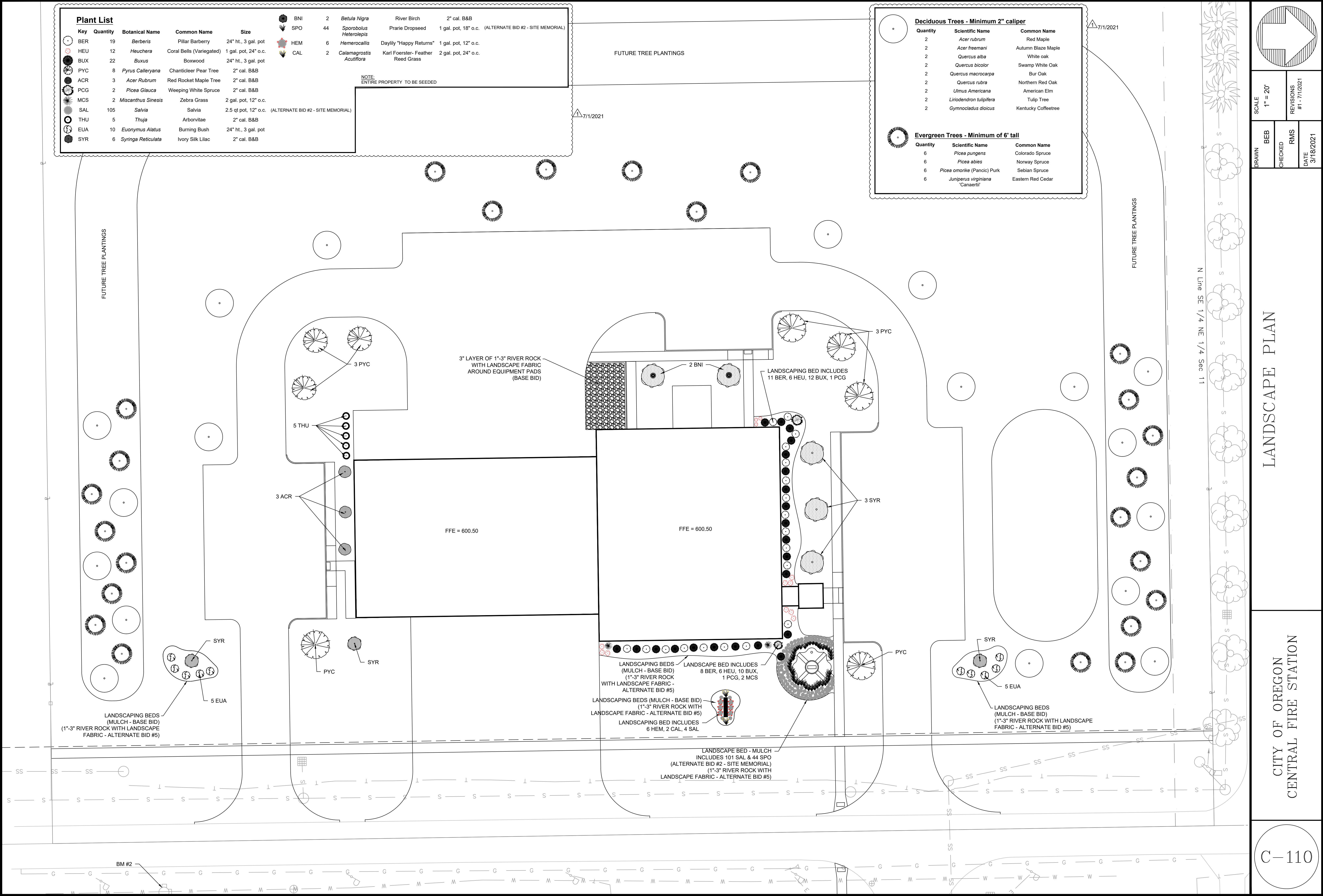
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DRAWN	BEB
CHECKED	RMS
DATE	3/18/2021
REVISIONS	#1 - 7/1/2021

UTILITY PLAN

CITY OF OREGON
CENTRAL FIRE STATION

C-108





LANDSCAPING NOTES

DESCRIPTION. THIS WORK CONSISTS OF FURNISHING AND PLANTING TREES, SHRUBS, VINES, AND OTHER MATERIALS.

PLANT MATERIALS. PLANT MATERIALS INCLUDE ALL TREES, SHRUBS, VINES, AND PLANTS REQUIRED FOR THE PROJECT. ENSURE THAT ALL PLANT MATERIALS CONFORM TO THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.

ENSURE THAT ALL PLANTS ARE HEALTHY REPRESENTATIVES, TYPICAL OF THEIR SPECIES OR VARIETY, AND EXHIBIT A NORMAL HABIT OF GROWTH. ENSURE THAT ALL PLANTS ARE HARDY UNDER CLIMATIC CONDITIONS AND GROW IN THE SAME HARDINESS ZONE OR COLDER AS THE ONE IN WHICH THE PROJECT IS LOCATED.

LABELING. ATTACH LEGIBLE LABELS TO ALL SPECIMENS, OR BOXES, BUNDLES, AND OTHER CONTAINERS, INDICATING DETAILED INFORMATION COVERING THE BOTANICAL GENUS AND THE SPECIES NAME, THE COMMON NAME, THE SIZE OR AGE OF EACH SPECIES OR VARIETY, AND THE QUANTITY CONTAINED IN THE INDIVIDUAL BUNDLES, BOXES, AND BALES. REMOVE ALL LABELS BEFORE THE COMPLETION OF THE ESTABLISHMENT PERIOD.

INSPECTION. THE ENGINEER WILL INSPECT AND SEAL ALL PLANT MATERIALS ON THE PROJECT SITE WITH DEPARTMENT SEALS BEFORE USE OR PLANTING. THE ENGINEER WILL INSPECT ALL PLANTS TO ENSURE THEY ARE HEALTHY, VIGOROUS, AND FREE FROM HARMFUL DEFECTS, DECAY, DISFIGURED STEMS AND ROOTS, PLANT DISEASES, AND INSECT PESTS.

THE DEPARTMENT WILL GIVE FINAL ACCEPTANCE OF ALL PLANT MATERIALS ONLY AFTER THE MATERIALS ARE PLANTED AND HAVE MET ALL THE REQUIREMENTS OF THIS ITEM. REMOVE THE DEPARTMENT SEALS FROM THE PLANT MATERIALS AFTER THE FINAL INSPECTION.

LOCATION AND SOURCE OF SUPPLY. SUPPLY THE ENGINEER WITH COMPLETE AND DETAILED INFORMATION CONCERNING THE SOURCE OF SUPPLY FOR EACH ITEM OF REQUIRED PLANT MATERIAL WITHIN 15 DAYS AFTER RECEIVING THE NOTICE OF AWARD OF THE CONTRACT.

SCHEDULING. DIG AND PLANT ALL PLANTS AFTER SEPTEMBER 15 AND BEFORE JUNE 1. PLANT REPLACEMENT PLANTS AFTER SEPTEMBER 15 AND BEFORE JUNE 1. WATER ACCORDING TO ITEM 662.

TRANSPORTATION, STORAGE, AND HANDLING. TRANSPORT ALL PLANTS FROM NURSERY SOURCES TO THE PROJECT SITE WITH THE ENTIRE LOAD COMPLETELY COVERED FOR PROTECTION FROM DRYING WINDS.

THOROUGHLY WATER ALL PLANTS THAT CANNOT BE IMMEDIATELY PLANTED SO AS TO KEEP THE ROOTS CONTINUALLY MOIST. THE ENGINEER MAY REJECT PLANTS THAT ARE NOT ADEQUATELY PROTECTED DURING TRANSPORTATION AND STORAGE. HANDLE ALL PLANT MATERIALS BY THE ROOT BALL OR CONTAINER.

LAYOUT OF PLANT MATERIALS. BEFORE DIGGING, USE SUITABLE STAKING TO LAY OUT THE LOCATIONS OF ALL PLANTING HOLES AND BEDS. OBTAIN THE ENGINEER'S APPROVAL OF THESE LOCATIONS BEFORE DIGGING.

PLANTING HOLES. DIG PLANTING HOLES THAT HAVE VERTICAL SIDES AND FLAT BOTTOMS. IF SETTING TREES AND SHRUBS AT GRADE, DIG THE PLANTING HOLES TO A DIAMETER 18 INCHES (450 MM) GREATER THAN THE ROOT STRUCTURE (EARTH BALL). SEE 661.12 FOR DEPTH OF PLANTING.

DIG PLANTING HOLES FOR VINES AND PERENNIALS TO A MINIMUM DEPTH AND DIAMETER OF 6 INCHES (150 MM). MAKE PLANTING HOLES FOR ROOTED CUTTINGS AND TREE SEEDLINGS LARGE ENOUGH TO ACCOMMODATE THE ROOT SYSTEM.

LANDSCAPING BEDS. LANDSCAPE BEDS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS TO A DEPTH OF TWELVE INCHES TO EIGHTEEN INCHES (12"-18") AND BACKFILLED WITH GOOD, MEDIUM-TEXTURED PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY LOAM). ADD FOUR INCHES TO SIX INCHES (4"-6") OF TOPSOIL OVER THE FILL MATERIAL AND CROWN A MINIMUM OF SIX INCHES (6") ABOVE THE TOP OF CURBS AND/OR WALKS AFTER EARTH SETTLING UNLESS OTHERWISE NOTED ON LANDSCAPE PLAN.

EDGING SHALL CONSIST OF $\frac{3}{8}$ " X 4" STEEL OR ALUMINUM EDGING MATERIAL.

BACKFILL MIX. FOR ALL PLANTINGS, USE BACKFILL MIX CONSISTING OF THE FOLLOWING:

- A. ONE PART EXCAVATED SOIL.
- B. ONE PART SPHAGNUM PEAT MOSS, SHREDDED PINE BARK, OR EPA RATED CLASS IV COMPOST.
- C. ONE PART SAND.
- D. A SLOW RELEASE COMMERCIAL FERTILIZER (0-20-20 OR EQUAL) ADDED AT A RATE OF 5 POUNDS PER CUBIC YARD TO THE BACKFILL MIX.

DO NOT USE BACKFILL MIX IN A FROZEN OR MUDDY CONDITION. MIX BACKFILL ON THE PROJECT SITE.

GRASS SEED

GRASS SEED SHALL BE 'WESTERN HOME' FROM TITGEMEIER'S OR APPROVED EQUAL. PERMANENT SEEDING OF MOUNDS AND SWALES SHALL BE COMPLETED BY OCTOBER 15, 2021.

PLANTING. SET PLANTS IN THE PLANTING HOLES AT A LEVEL SUCH THAT THE TOP OF THE ROOT STRUCTURE IS 1 INCH ABOVE THE SURROUNDING SOIL. SET EACH PLANT IN THE CENTER OF THE PLANTING HOLE, PLUMB, AND STRAIGHT.

IF THE ENGINEER DETERMINES THAT EXISTING SOILS ARE COMPACTED OR POORLY DRAINED, SET THE TREES AND SHRUBS WITH HALF OF THE ROOT STRUCTURE ABOVE THE EXISTING SOIL LEVEL. ADD BACKFILL MIX AROUND THE ROOT STRUCTURE SO THAT THE EDGES OF THE ROOT STRUCTURE ARE COVERED BY A MINIMUM OF 12 INCHES.

REMOVE ALL TWINE, BAGS, AND ROPING BEFORE BACKFILLING THE PLANTING HOLE. REMOVE THE TOP ONE-THIRD OF THE WIRE FROM ROOT BALLS HAVING WIRE BASKETS. REMOVE ALL ROT-PROOF BURLAP.

BACKFILL THE PLANTING HOLE WITH THE BACKFILL MIX. FILL THE HOLE GRADUALLY AND SETTLE THE BACKFILL WITH WATER TO THE TOP OF THE ROOT STRUCTURE. DO NOT FILL AROUND THE TRUNKS OR STEMS. SET BALLED AND BURLAPED, OR CONTAINERIZED STOCK AS SPECIFIED. SET GROUNDCOVERS AND VINES AS SHOWN ON THE PLANS. DO NOT PLANT GROUNDCOVERS AND VINES CLOSER THAN 12 INCHES TO TREE TRUNKS AND SHRUB STEMS OR WITHIN 6 INCHES OF THE EDGE OF PLANTING BEDS. BEFORE PLANTING SEEDLINGS, REMOVE ALL GRASS AND WEEDS BY SCALPING AN AREA THAT HAS A MINIMUM DIAMETER OF 12 INCHES. PLANT SEEDLINGS IN THE CENTER OF THE SCALPED AREA USING A SPADE OR PLANTING BAR.

TOPSOIL SHALL BE EVENLY DISTRIBUTED AND FINE GRADED OVER ALL AREAS TO RECEIVE LAWNS AT UNIFORM DEPTH OF FOUR INCHES (4" AFTER SETTLEMENT).

MULCH. SMOOTH AND SHAPE THE BACKFILL MIX TO FORM A SHALLOW BASIN SLIGHTLY LARGER THAN THE PLANTING HOLE. MULCH THESE AREAS WITH A 4-INCH LAYER OF FINELY SHREDDED HARDWOOD BARK OF UNIFORM TEXTURE AND SIZE. USE SHREDDED BARK AGED AT LEAST ONE YEAR. RAKE AND SMOOTH THE ENTIRE AREA OF THE PLANTING BEDS, MULCH TO A DEPTH OF 4 INCHES, AND WATER THOROUGHLY.

AFTER MULCHING AND BEFORE WATERING, ADD A SLOW RELEASE COMMERCIAL FERTILIZER (12-12-12 OR EQUAL), IN GRANULAR FORM, TO THE TOP OF THE MULCH AT A RATE OF 5 POUNDS PER 100 SQUARE FEET. DO NOT ALLOW THE FERTILIZER TO CONTACT THE STEMS, TRUNK, BRANCHES, OR LEAVES OF THE PLANTS.

PRUNING. TO BALANCE THE LOSS OF ROOTS AFTER PLANTING, PRUNE THE BRANCHES OF DECIDUOUS PLANTS TO PRESERVE THE NATURAL CHARACTERISTICS OF THE SPECIES, FOLLOWING STANDARD HORTICULTURAL PRACTICES. REMOVE BROKEN, DAMAGED, AND UNSYMMETRICAL BRANCHES AND OTHER GROWTH TO ENSURE HEALTHY AND SYMMETRICAL GROWTH OF NEW WOOD. DO NOT TRIM THE CENTRAL LEADER OF THE TREES.

BRACING. BRACE ALL TREES BY STAKING AS SHOWN ON THE ODOT STANDARD CONSTRUCTION DRAWING LA-1.2.

PERIOD OF ESTABLISHMENT. BEFORE FINAL INSPECTION, PLACE ALL PLANTS AND CARE FOR THEM FOR A PERIOD OF ESTABLISHMENT. THE PERIOD OF ESTABLISHMENT BEGINS IMMEDIATELY UPON COMPLETION OF THE PLANTING OPERATIONS AND CONTINUES UNTIL OCTOBER 1. THE MINIMUM PERIOD OF ESTABLISHMENT IS ONE GROWING SEASON, JUNE 1 THROUGH OCTOBER 1.

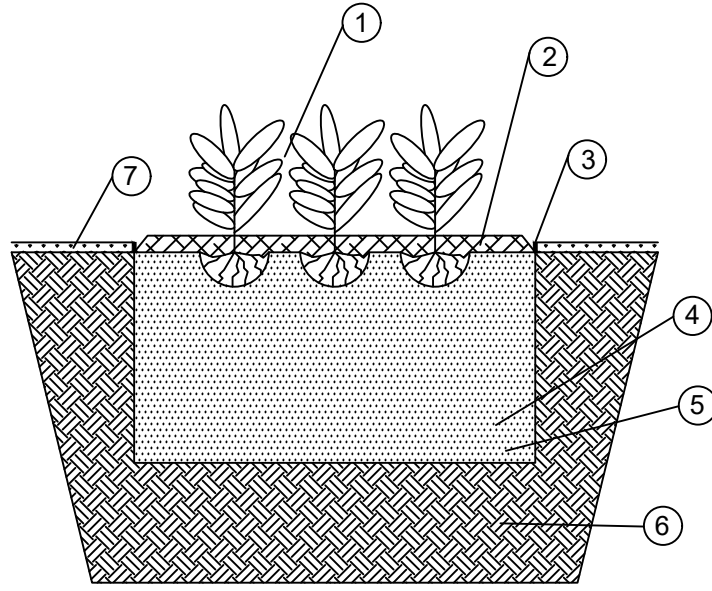
DURING THE PERIOD OF ESTABLISHMENT, FOLLOW STANDARD HORTICULTURAL PRACTICES TO ENSURE THE VIGOR AND GROWTH OF THE TRANSPLANTED MATERIAL. WATER, REMULCH, RESTAKE, GUY, AND CULTIVATE AS NECESSARY. PERFORM AT LEAST TWO WEEDING AND MOWING PROGRAMS (AROUND TREES, GUY STAKES, SHRUBS, AND BED EDGES) OF SUCH INTENSITY AS TO COMPLETELY RID THE PLANTED AND MULCHED AREAS OF WEEDS AND GRASSES. BEGIN THE FIRST PROGRAM ON OR ABOUT JUNE 15 AND THE SECOND APPROXIMATELY 8 WEEKS LATER.

ON OR ABOUT SEPTEMBER 15, THE ENGINEER WILL INSPECT THE PLANTING AND SUPPLY THE CONTRACTOR WITH A LIST OF MISSING AND DEAD PLANTS AND THOSE THAT HAVE DIED BACK BEYOND NORMAL PRUNING LINES. REPLANT AS REQUIRED ACCORDING TO THE SPECIFICATIONS OF THE ORIGINAL MATERIAL. REPLACEMENT PLANTS ARE SUBJECT TO A NEW PERIOD OF ESTABLISHMENT. IMMEDIATELY REPLACE PLANTS PLANTED INITIALLY IN THE FALL THAT HAVE DIED BEFORE THE SPRING PLANTING SEASON. CARE FOR THE REPLACEMENT PLANTS DURING THE NEW ESTABLISHMENT PERIOD.

REMOVAL OF STAKES AND WRAPPING. REMOVE ALL STAKES, GUY WIRES, AND WRAPPING MATERIAL FROM ALL PLANTS JUST BEFORE THE FINAL INSPECTION, WITH THE EXCEPTION OF THE REPLACEMENT PLANTINGS THAT HAVE NOT BEEN IN PLACE FOR A FULL GROWING SEASON. TAKE OWNERSHIP OF REMOVED ITEMS. USE ALL SUITABLE MATERIAL IN THE WORK.

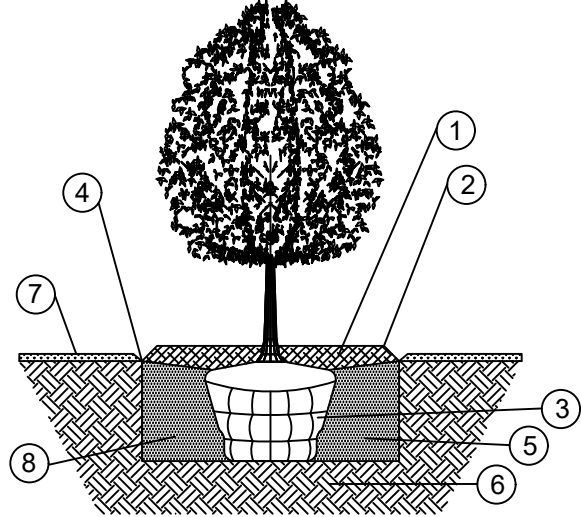
GUARANTEE

CONTRACTOR AGREES TO GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR. AT THAT TIME, THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT FOR A FINAL INSPECTION. PLANT MATERIAL WITH TWENTY-FIVE PERCENT (25%) DIE BACK, AS DETERMINED BY THE OWNER'S REPRESENTATIVE SHALL BE REPLACED. THIS GUARANTEE INCLUDES THE FURNISHING OF NEW PLANTS SHALL ALSO BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR.



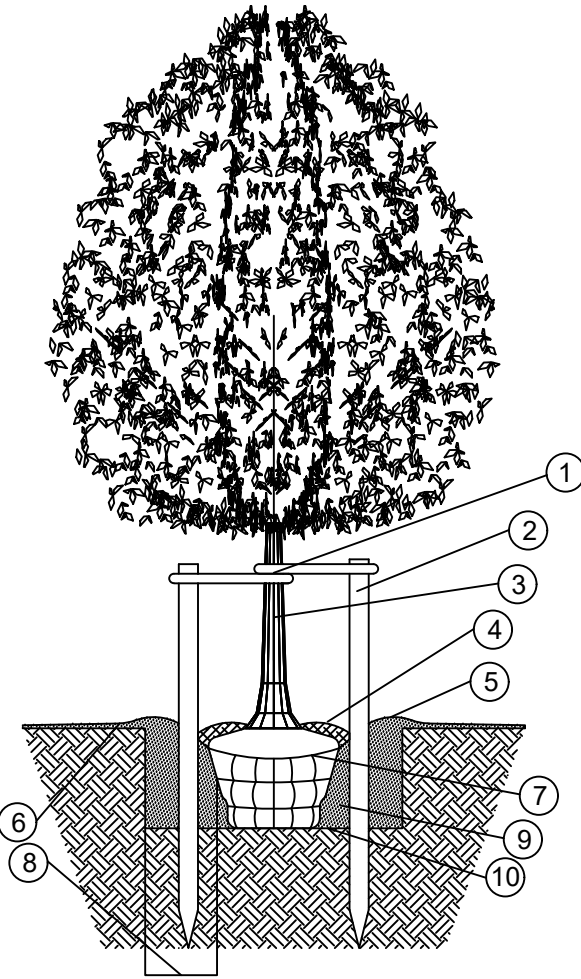
LANDSCAPE BEDS

- ① SEE PLANT LIST FOR SPACING DISTANCE
- ② SHREDDED HARDWOOD BARK OF A NATURAL COLOR MULCH AT 4" MIN. DEPTH
- ③ $\frac{3}{8}$ " X 4" STEEL OR ALUMINUM EDGING MATERIAL
- ④ EXCAVATE PLANTING BED AND BACKFILL WITH PREPARED PLANTING MIX AT A 12"-18" DEPTH
- ⑤ PLANTING MIX PER NOTES
- ⑥ UNDISTURBED SUBGRADE
- ⑦ LAWN



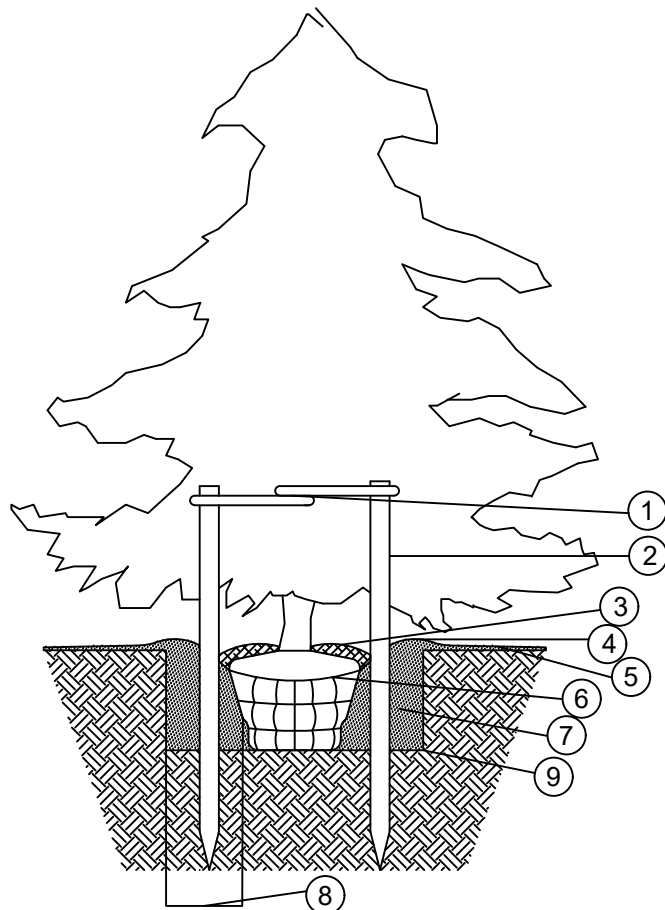
SHRUB

- ① SHREDDED BARK MULCH AT 4" MINIMUM DEPTH. MULCH SHALL BE NATURAL IN COLOR.
- ② FORM A SAUCER WITH MULCH AND SOIL AROUND THE SHRUB BED.
- ③ CUT AND REMOVE BURLAP AND BINDINGS FROM THE TOP ONE-THIRD OF THE ROOTBALL.
- ④ EDGING OR SPADED EDGE
- ⑤ EXCAVATE PLANTING HOLE AND BACKFILL WITH PREPARED PLANTING MIX.
- ⑥ UNDISTURBED SUBGRADE.
- ⑦ LAWN.
- ⑧ SCARIFY SUBGRADE.



DECIDUOUS TREE

- ① STAKE TREE JUST BELOW FIRST BRANCH USING 2"-3" WIDE BELT-LIKE MATERIAL OF NYLON, PLASTIC, OR OTHER ACCEPTABLE MATERIAL. (NO WIRE OR HOSE TO BE USED TO GUY TREES.) 3 GUYS EVENLY SPACED PER TREE. REMOVE AFTER 1 WINTER SEASON.
- ② 2x2 HARDWOOD STAKES. POSITION 6"-8" OUTSIDE OF ROOTBALL AND EXTEND 18" BELOW TREE PIT INTO UNDISTURBED SOIL.
- ③ APPLY TREE WRAP AND SECURE WITH A BIODEGRADABLE MATERIAL AT TOP AND BOTTOM. REMOVE AFTER 1 WINTER.
- ④ SHREDDED BARK MULCH OF A NATURAL COLOR AT 4" MINIMUM DEPTH. LEAVE A 3" CIRCLE OF BARE SOIL AT THE BASE OF THE TREE.
- ⑤ MOUND TO FORM TREE SAUCER.
- ⑥ FINISH GRADE SLOPED AWAY FROM TREE.
- ⑦ CUT AND REMOVE WIRE, BURLAP, AND BINDINGS FROM THE TOP ONE-THIRD OF THE ROOTBALL.
- ⑧ WIDTH OF ROOTBALL ON EACH SIDE.
- ⑨ PLANTING MIX SHALL BE AMENDED PER SITE CONDITIONS AND PLANT REQUIREMENTS.
- ⑩ SCARIFY BOTTOM AND SIDES OF PLANTING PIT TO 4" DEPTH.



EVERGREEN TREE

- ① STAKE TREE AS INDICATED USING 2"-3" WIDE BELT-LIKE MATERIAL OF NYLON, PLASTIC, OR OTHER ACCEPTABLE MATERIAL. (NO WIRE OR HOSE TO BE USED TO GUY TREES.) 3 GUYS EVENLY SPACED PER TREE. REMOVE AFTER 1 WINTER SEASON.
- ② 2x2 HARDWOOD STAKES. POSITION 6"-8" OUTSIDE OF ROOTBALL AND EXTEND 18" BELOW TREE PIT INTO UNDISTURBED SOIL.
- ③ SHREDDED BARK MULCH OF A NATURAL COLOR AT 4" MINIMUM DEPTH. LEAVE A 3" CIRCLE OF BARE SOIL AT THE BASE OF THE TREE.
- ④ MOUND TO FORM TREE SAUCER.
- ⑤ FINISH GRADE SLOPED AWAY FROM TREE.
- ⑥ CUT AND REMOVE WIRE, BURLAP, AND BINDINGS FROM THE TOP ONE-THIRD OF THE ROOTBALL.
- ⑦ PLANTING MIX SHALL BE AMENDED PER SITE CONDITIONS AND PLANT REQUIREMENTS.
- ⑧ WIDTH OF ROOTBALL ON EACH SIDE.
- ⑨ SCARIFY BOTTOM AND SIDES OF PLANTING PIT TO 4" DEPTH.

COMPLETE IRRIGATION SYSTEM

A. DESCRIPTION

THIS WORKS CONSISTS OF FURNISHING AND INSTALLING A COMPLETE IRRIGATION SYSTEM IN ALL LAWN AREAS AND SHRUB/LANDSCAPE BEDS — DESIGN AND INSTALLATION. IRRIGATION SYSTEM SHALL PROVIDE FULL AND COMPLETE COVERAGE IN AREAS TO BE IRRIGATED. IRRIGATION BACKFLOW PREVENTION AND WIRING SHALL BE PER CODE. ALL VALVES SHALL BE LOCATED IN VALVE BOXES FLUSH WITH GRADE. THE IRRIGATION SYSTEM SHALL BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS ALONG WINTERIZATION OF SYSTEM. CONTRACTOR SHALL SLEEVE THE IRRIGATION LINE UNDER ALL PAVEMENTS AND SIDEWALKS. CONTRACTOR SHALL INSTALL RAIN SENSOR(S) ON VERTICAL SURFACES; COORDINATE FINAL LOCATION OF SENSOR(S) WITH ARCHITECT. RISER EXTENSIONS MAY BE REQUIRED TO ACHIEVE PROPER COVERAGE IN SOME AREAS. CONTRACTOR SHALL COORDINATE INSPECTIONS AS REQUIRED BY LOCAL AGENCIES AND ORDINANCES DURING THE COURSE OF CONSTRUCTION AS REQUIRED. CONTRACTOR TO PROVIDE ALL POWER AND DATA PROVISIONS AS REQUIRED TO OPERATE SYSTEM. DESIGN WILL INCLUDE PLANS, DETAILS, AND SHOP DRAWINGS FOR ENGINEER'S REVIEW. INSTALLATION WILL INCLUDE METER SOURCE MANHOLES AND ALL IRRIGATION AND SUPPLEMENTAL EQUIPMENT.

7/1/2021

PLANS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTAL CONDITIONS AND SPECIFICATION SECTIONS, APPLY TO THE WORK OF THIS SECTION.

ANY NECESSARY CHANGES IN THE DESIGN DUE TO THE SITE CONDITIONS REQUIRE A WRITTEN AUTHORIZATION BY THE ENGINEER PRIOR TO INSTALLATION.

B. MATERIALS

ALL MATERIALS MUST BE AS SPECIFIED AND DETAILED ON THE PLANS PROVIDED BY THE IRRIGATION CONTRACTOR.

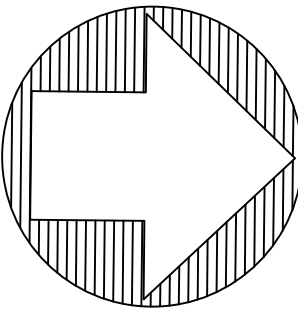
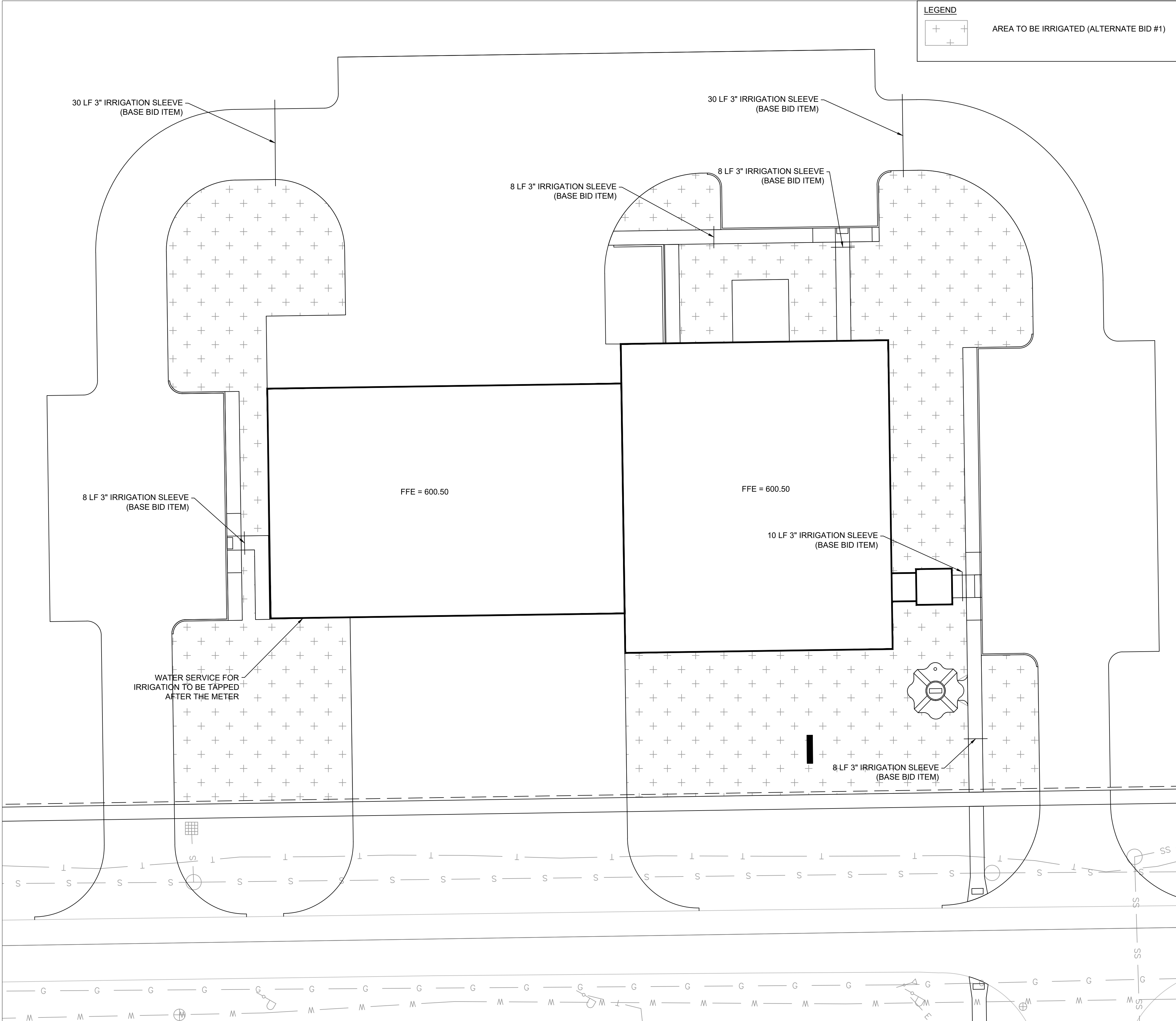
IRRIGATION PRODUCTS MUST BE BY A SINGLE MANUFACTURER. ALL IRRIGATION SYSTEM COMPONENTS MUST BE SUPPLIED BY THE REGIONALLY AUTHORIZED DISTRIBUTORS TO PROVIDE SINGLE SOURCE RESPONSIBILITY FOR WARRANTY, SERVICE, AND OPERATIONS TO CONFORM TO SPECIFICATIONS IN ALL RESPECTS.

ALL IRRIGATION EQUIPMENT FOR THE PROJECT MUST BE MANUFACTURED BY RAINBIRD OR APPROVED EQUAL.

LEGEND



AREA TO BE IRRIGATED (ALTERNATE BID #1)



SCALE

1" = 20'

DRAWN

BEB

CHECKED

RMS

DATE

3/18/2021

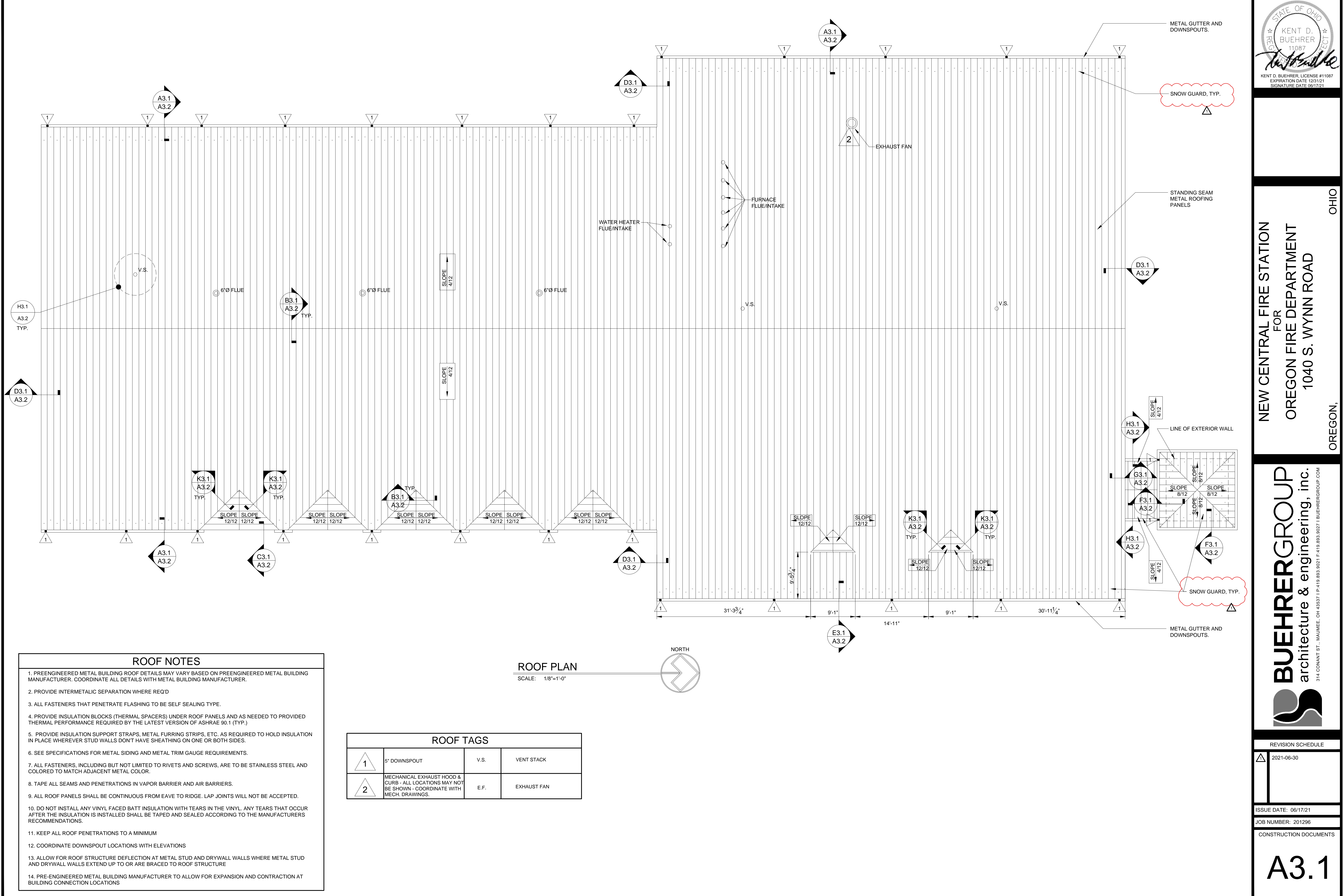
REVISIONS

#1 - 7/1/2021

IRRIGATION PLAN

CITY OF OREGON
CENTRAL FIRE STATION

C-112



ROOF NOTES

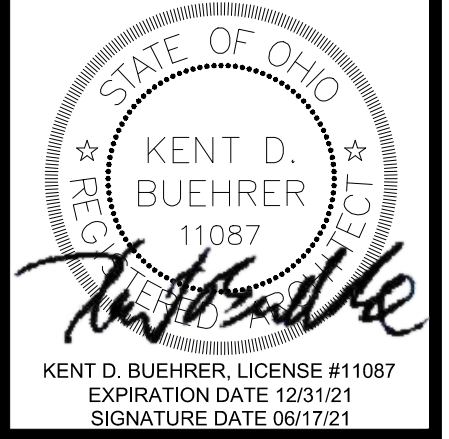
- 1. PREENGINEERED METAL BUILDING ROOF DETAILS MAY VARY BASED ON PREENGINEERED METAL BUILDING MANUFACTURER. COORDINATE ALL DETAILS WITH METAL BUILDING MANUFACTURER.
- 2. PROVIDE INTERMETALIC SEPARATION WHERE REQ'D
- 3. ALL FASTENERS THAT PENETRATE FLASHING TO BE SELF SEALING TYPE.
- 4. PROVIDE INSULATION BLOCKS (THERMAL SPACERS) UNDER ROOF PANELS AND AS NEEDED TO PROVIDED THERMAL PERFORMANCE REQUIRED BY THE LATEST VERSION OF ASHRAE 90.1 (TYP.)
- 5. PROVIDE INSULATION SUPPORT STRAPS, METAL FURRING STRIPS, ETC. AS REQUIRED TO HOLD INSULATION IN PLACE WHEREVER STUD WALLS DON'T HAVE SHEATHING ON ONE OR BOTH SIDES.
- 6. SEE SPECIFICATIONS FOR METAL SIDING AND METAL TRIM GAUGE REQUIREMENTS.
- 7. ALL FASTENERS, INCLUDING BUT NOT LIMITED TO RIVETS AND SCREWS, ARE TO BE STAINLESS STEEL AND COLORED TO MATCH ADJACENT METAL COLOR.
- 8. TAPE ALL SEAMS AND PENETRATIONS IN VAPOR BARRIER AND AIR BARRIERS.
- 9. ALL ROOF PANELS SHALL BE CONTINUOUS FROM EAVE TO RIDGE. LAP JOINTS WILL NOT BE ACCEPTED.
- 10. DO NOT INSTALL ANY VINYL FACED BATT INSULATION WITH TEARS IN THE VINYL. ANY TEARS THAT OCCUR AFTER THE INSULATION IS INSTALLED SHALL BE TAPED AND SEALED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.
- 11. KEEP ALL ROOF PENETRATIONS TO A MINIMUM
- 12. COORDINATE DOWNSPOUT LOCATIONS WITH ELEVATIONS
- 13. ALLOW FOR ROOF STRUCTURE DEFLECTION AT METAL STUD AND DRYWALL WALLS WHERE METAL STUD AND DRYWALL WALLS EXTEND UP TO OR ARE BRACED TO ROOF STRUCTURE
- 14. PRE-ENGINEERED METAL BUILDING MANUFACTURER TO ALLOW FOR EXPANSION AND CONTRACTION AT BUILDING CONNECTION LOCATIONS

ROOF PLAN

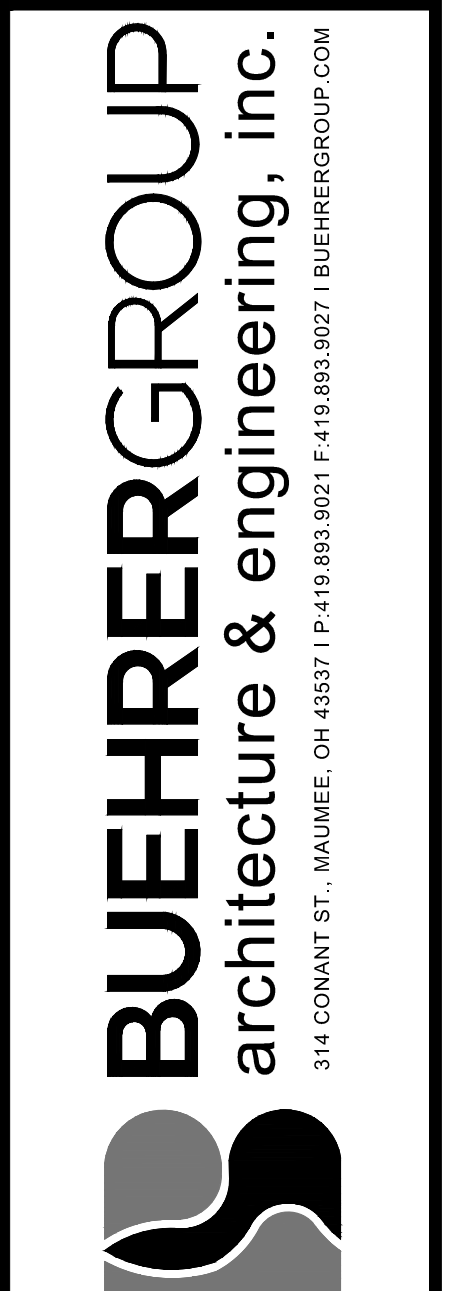
SCALE: 1/8"=1'-0"

ROOF TAGS

1	5" DOWNSPOUT	V.S.	VENT STACK
2	MECHANICAL EXHAUST HOOD & CURB - ALL LOCATIONS MAY NOT BE SHOWN - COORDINATE WITH MECH. DRAWINGS.	E.F.	EXHAUST FAN



NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON,
OHIO



REVISION SCHEDULE	
1	2021-06-30
ISSUE DATE: 06/17/21	
JOB NUMBER: 201296	
CONSTRUCTION DOCUMENTS	


A3.1

ROOM FINISH SCHEDULE																												
ROOM		FLOOR							BASE			WALLS					CEILING					REMARKS						
No.	NAME	EP1	V	SC	P	C	AF	W	EP2	R	P	EP1	NB	EP2	EP	GP	CP	CE	LP	FRP	A1	A2	LP	EX	EP	GP	HGT.	
		EPOXY SYSTEM #1	VINYL COMP. TILE	SEALED CONCRETE	PORCELAIN TILE	CARPET TILE	ATHLETIC FLOORING	WALK-OFF CARPET TILE	EPOXY SYSTEM #2 - ALTERNATE	4" RUBBER BASE	PORCELAIN TILE	EPOXY BASE #1	NO BASE	EPOXY BASE #2 - ALTERNATE	EPOXY PAINT	GYP. BOARD - PAINT	CONC. BLOCK - PAINT	CONC. BLOCK - EPOXY PAINT	METAL LINER PANEL (TO 8'-0")	FRP PANEL	2x2 ACOUSTICAL TILE - A1	2x2 ACOUSTICAL TILE - A2	METAL LINER PANEL	EXPOSED CONST. - PAINT	EPOXY PAINT	SUSPENDED M.R. GYP. BD. - FT.		
GROUND FLOOR																												
100	VESTIBULE							W		R						GP					A1						9'-0"	
101	TRIAGE	EP1										EP1				GP					A1						9'-8"	
102	LOBBY	EP1										EP1				GP					A1						9'-0"	
103	TOILET	EP1										EP1			EP										GP		8'-0"	
104	TOILET	EP1										EP1			EP										GP		8'-0"	
105	TRAINING ROOM					C				R						GP					A1						10'-0"	
106	STORAGE					C				R						GP					A1						9'-0"	
107	EXECUTIVE ASSISTANT					C				R						GP					A1						9'-8"	
108	WORK ALCOVE					C				R						GP					A1						9'-8"	
109	CORRIDOR 1					C				R						GP					A1						9'-0"	
110	CHIEF					C				R						GP					A1						9'-8"	
111	ASSISTANT CHIEF					C				R						GP					A1						9'-8"	
112	PLAN REVIEW					C				R						GP					A1						9'-8"	
113	ASSISTANT CHIEF					C				R						GP					A1						9'-8"	
114	VESTIBULE							W		R						GP					A1						9'-0"	
115	CONFERENCE					C				R						GP					A1						9'-0"	
116	DAYROOM	EP1				C				R		EP1				GP					A1						10'-0"	BASE: EP ON EAST SIDE ALONG WALK THROUGH SEE NOTE ON A9.1 AND A9.3
117	KITCHEN	EP1								R		EP1			EP	GP					A1	A2					10'-0"	
118	TOILET	EP1										EP1			EP										GP		8'-0"	
119	MECHANICAL			SC						R						GP					A1						9'-0"	
120	STORAGE			SC						R						GP					A1						9'-0"	
121	VESTIBULE							W		R						GP					A1						9'-0"	
122	ELECTRICAL			SC						R						GP									GP		9'-0"	
123	LOCKERS	EP1										EP1				GP					A1						9'-0"	
124	DUTY OFFICE					C				R						GP					A1						8'-0"	LAMINATE GYP. BOARD @ CMU WALLS.
125	LAUNDRY	EP1										EP1				GP			FRP	A1							9'-0"	FRP @ MOP SINK
126	SHOWER				P						P				EP										GP		9'-0"	EPOXY GROUT
127	SHOWER				P						P				EP										GP		9'-0"	EPOXY GROUT
128	SHOWER				P						P				EP										GP		9'-0"	EPOXY GROUT
129	CORRIDOR 2	EP1										EP1				GP	CP				A1						9'-0"	
130	STORAGE			SC						R						GP					A1						9'-0"	
131	CORRIDOR 3	EP1										EP1				GP					A1						9'-0"	
132	EMS DORM 1					C				R						GP					A1						9'-0"	
133	EMS DORM 2					C				R						GP					A1						9'-0"	
134	DORM	EP1				C				R						GP					A1						9'-8"	
135	WATCHROOM	EP1										EP1				GP					A1						10'-0"	
136	VESTIBULE	EP1										EP1						CE							GP	8'-0"	WALK OFF MATS BY OWNER	
137	EMS SUPPLY	EP1										EP1						CE							GP	8'-0"	8'-0"	
138	DECON SHOWER/TOILET			SC					EP2	R				EP2				CE							GP	8'-0"	8'-0"	6" RUBBER BASE
139	DECON ALCOVE			SC					EP2	R				EP2						FRP					GP	8'-0"	8'-0"	
140	VESTIBULE	EP1										EP1						CE							GP	8'-0"	8'-0"	WALK OFF MATS BY OWNER
141	STAIR			SC						R								CE							GP	20'-0"		
142	OUTDOOR STORAGE			SC						R									LP				EX				VARIES	
143	APPARATUS BAYS			SC					EP2	R				EP2				CE	LP				LP	EX			VARIES	ALT. FOR EPOXY SYSTEM FLOOR AND BASE
144	FIRE RISER			SC					EP2	R				EP2				CE	LP		A1						8'-6"	
145	TOOLS			SC					EP2	R				EP2				CE					LP	EX			VARIES	
146	LAUNDRY			SC						R								CE							GP	9'-2"		
147	SCBA			SC						R								CE	LP		A1						9'-2"	
148	CORRIDOR 4			SC					EP2	R				EP2				CE	LP		A1						8'-6"	
149	COMPRESSOR ROOM			SC						R								CE	LP		A1						8'-6"	
150	STORAGE			SC						R								CE						EX			9'-4"	
151	SHOWER	EP1										EP1			EP										GP		8'-6"	
152	FITNESS						AF			R					EP	GP		CE					LP	EX			VARIES	
MEZZANINE																												
200	MECH.				SC					R					EP	GP		CE							GP		9'-0"	
201	MEZZANINE				SC					R					EP	GP		CE							GP		9'-10"	
202	DATA				SC					R					EP	GP		CE							GP		9'-0"	
203	STAIR				SC					R								CE							GP		9'-0"	

STATE OF OHIO

KENT D. BUEHRER

11087




KENT D. BUEHRER, LICENSE #11087

EXPIRATION DATE 12/31/21

SIGNATURE DATE 06/17/21

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1040 S. WYNN ROAD

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A4.1

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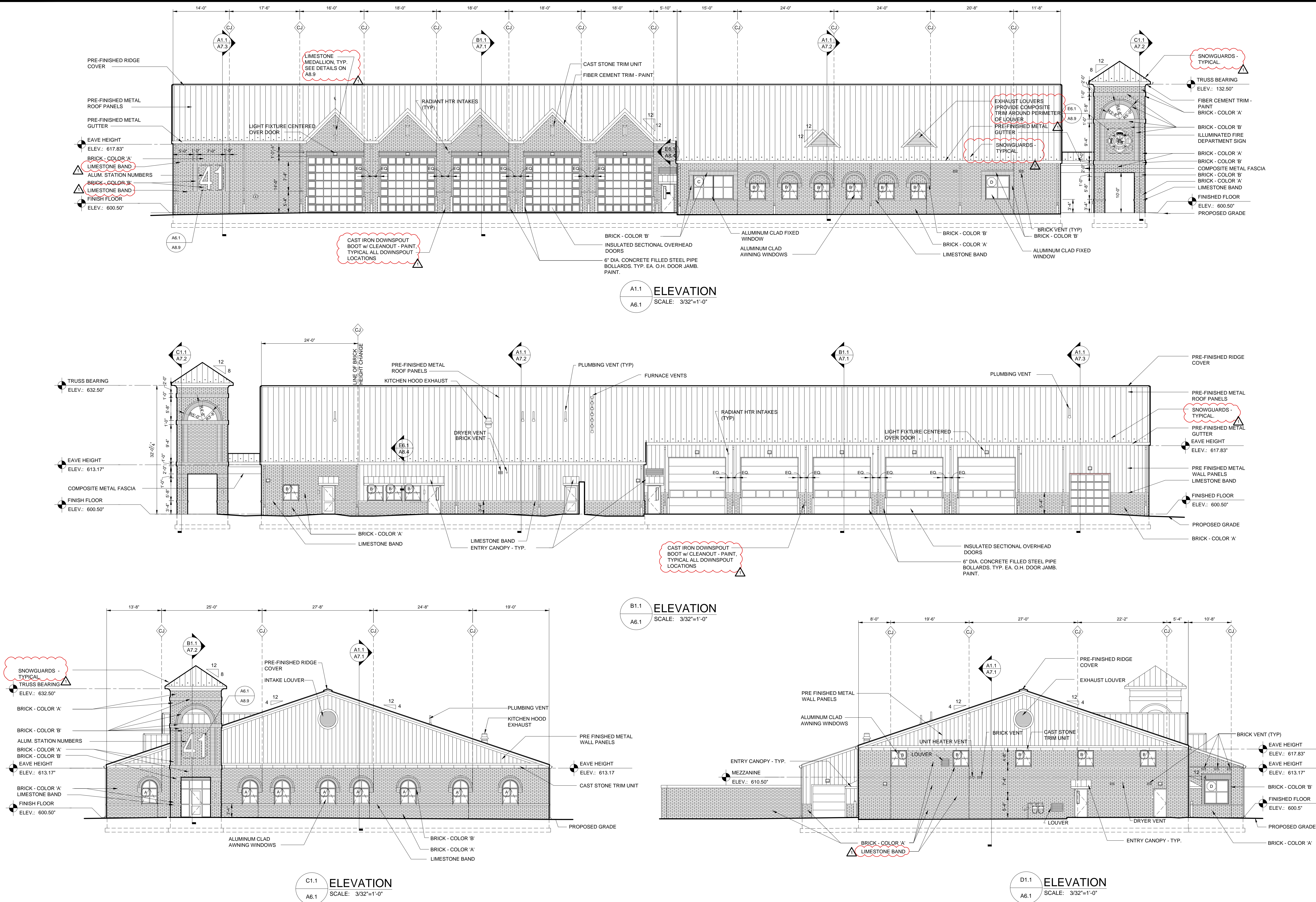
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A6.1





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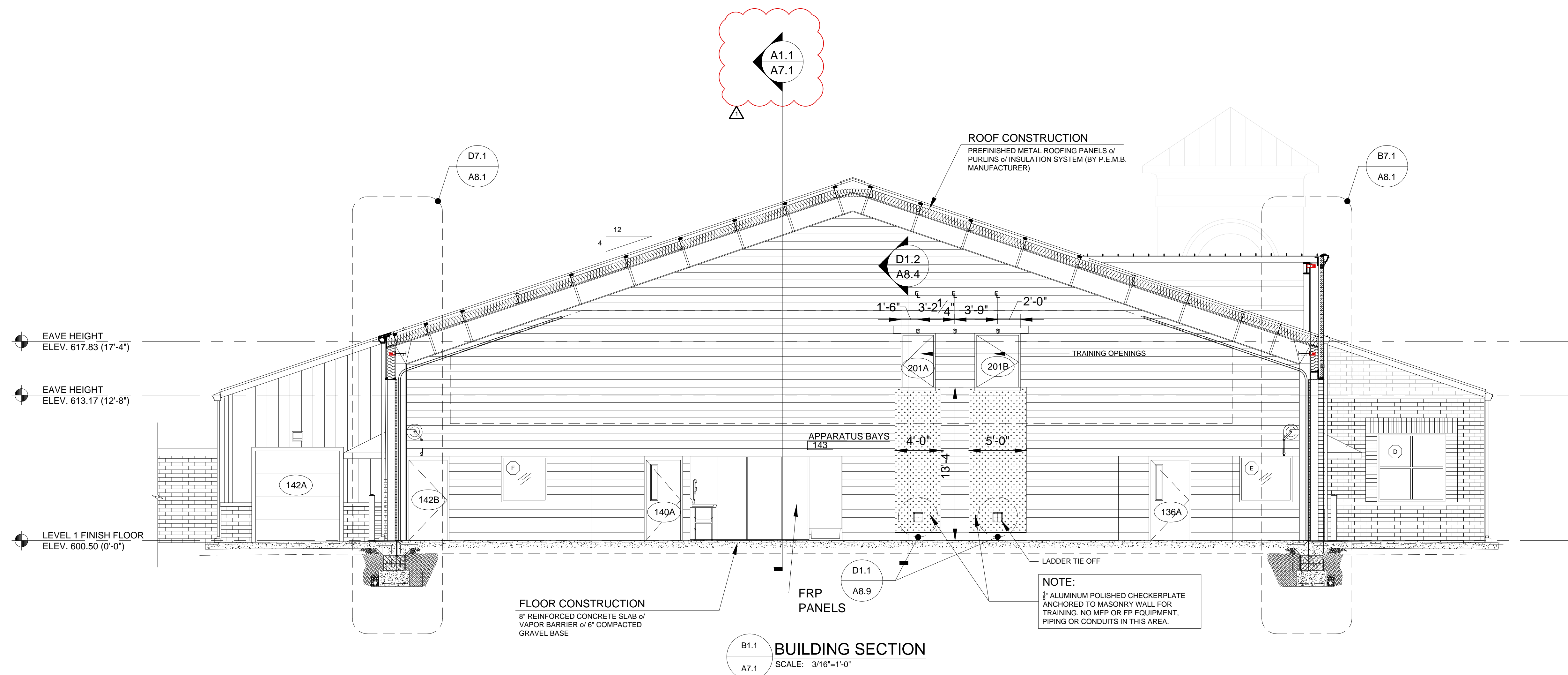
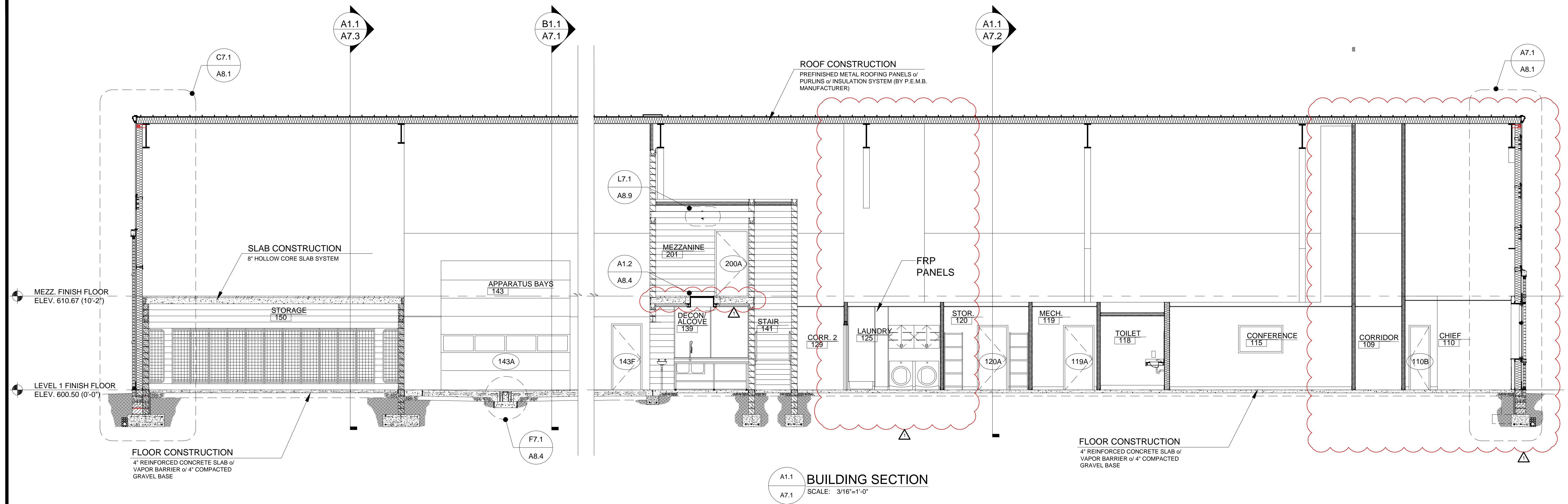
2021-06-30

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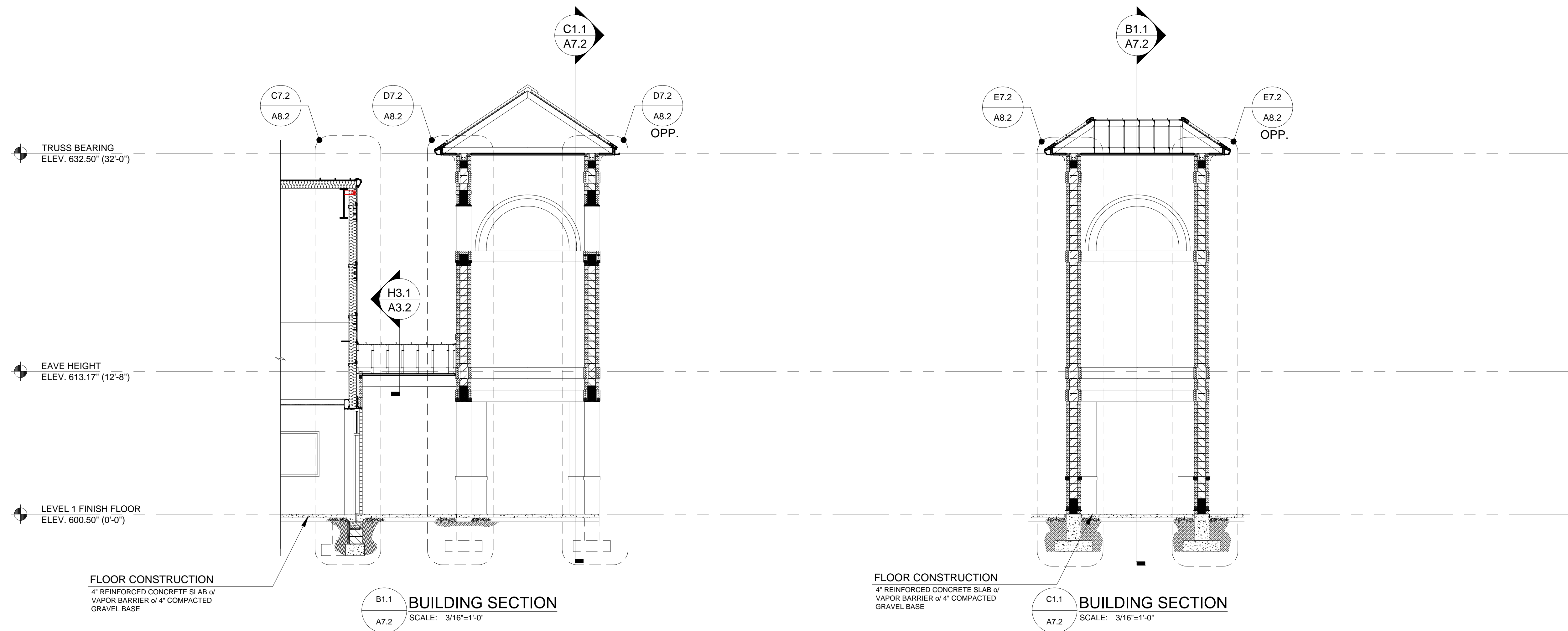
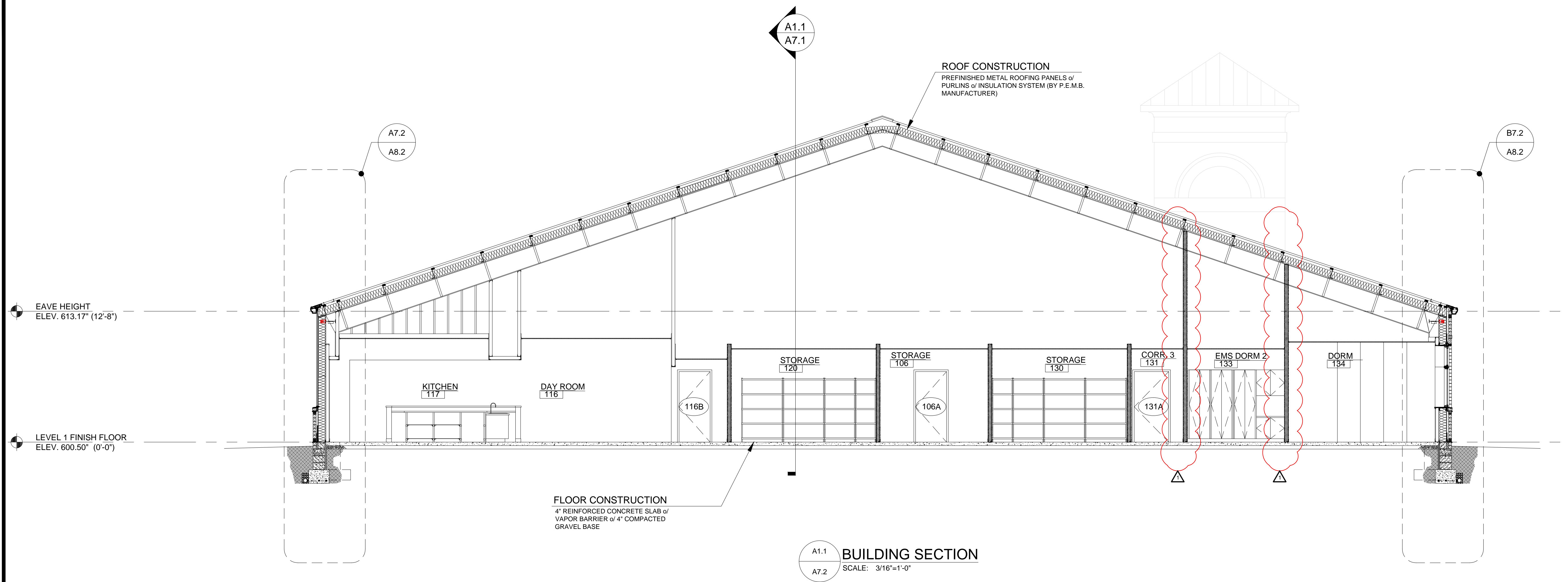
A7.1

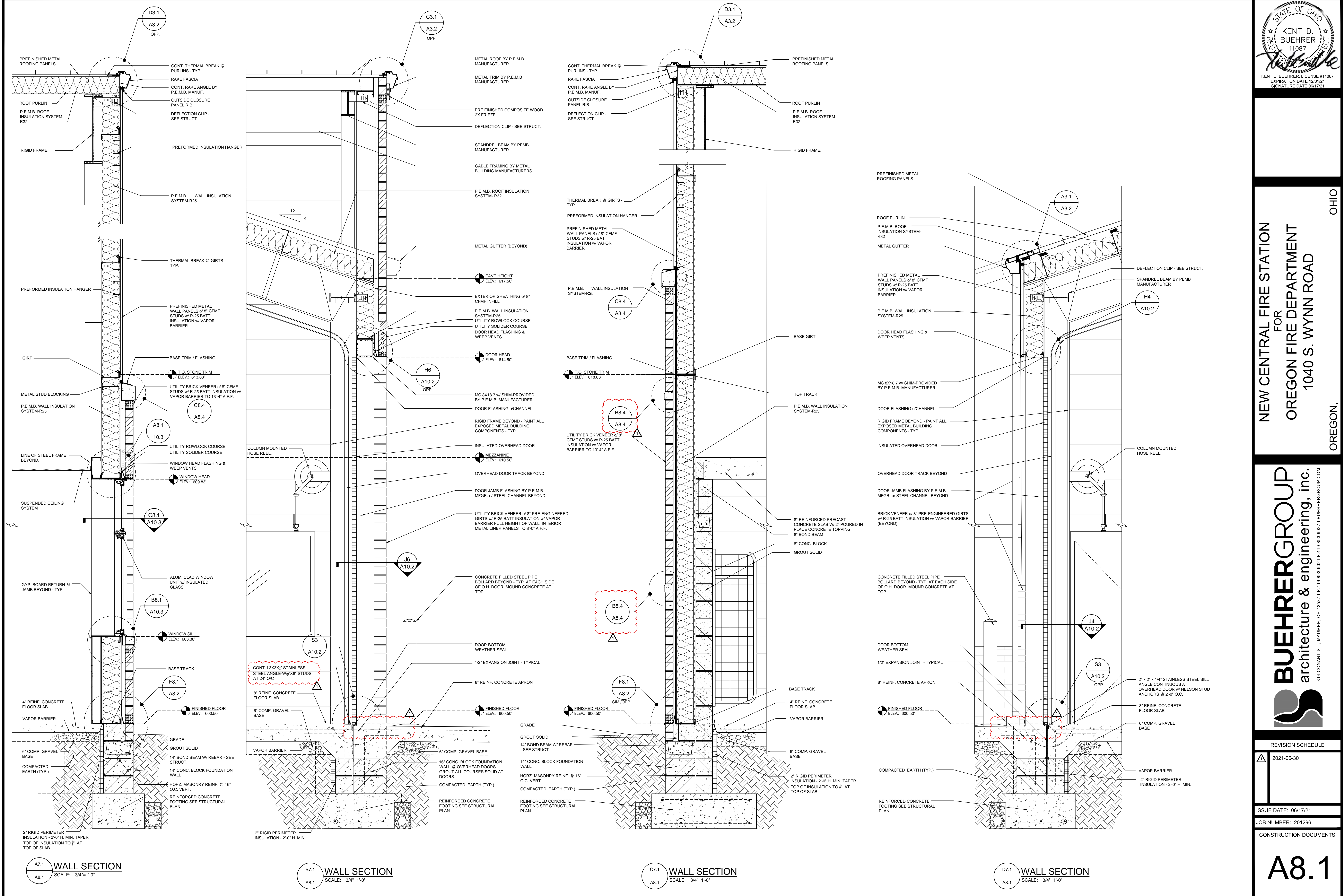




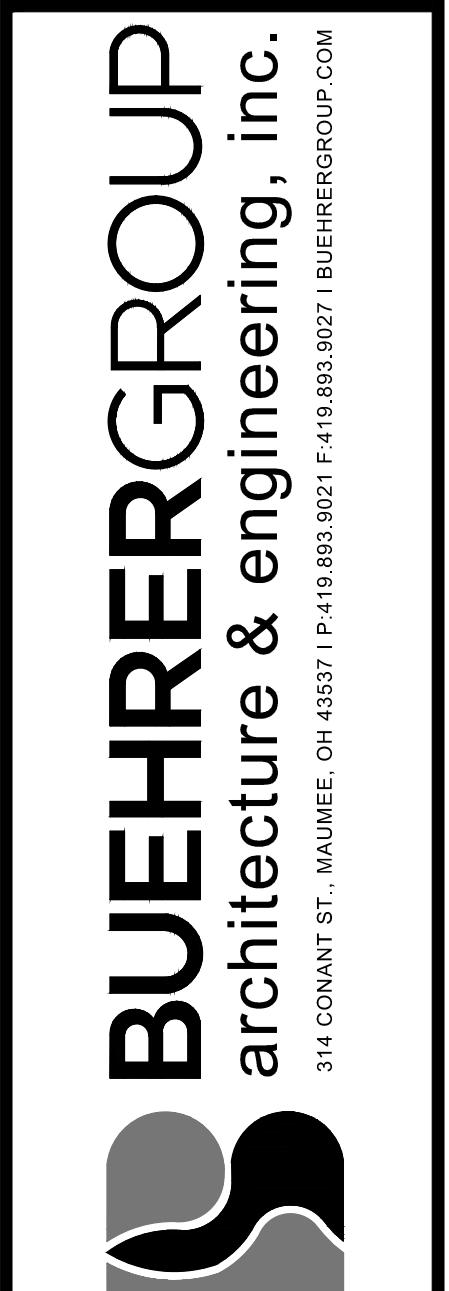
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	2021-06-30
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OB NUMBER: 201296	
CONSTRUCTION DOCUMENTS	

A7.2



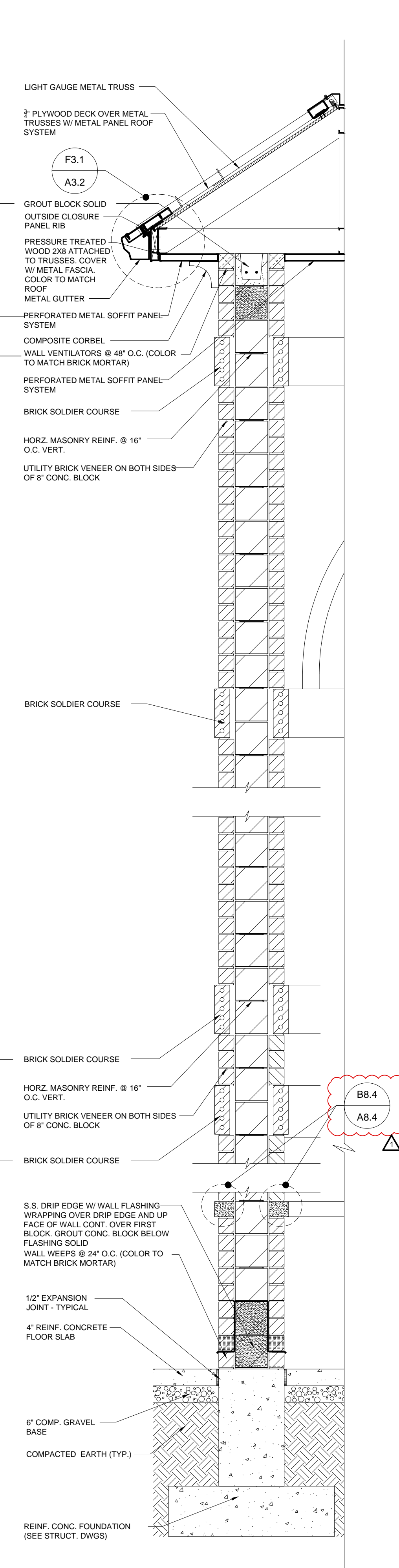
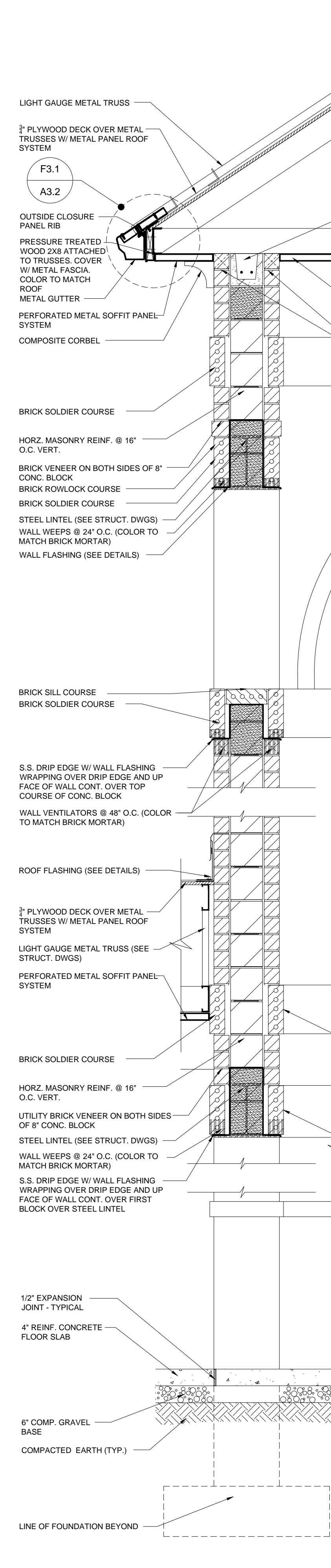
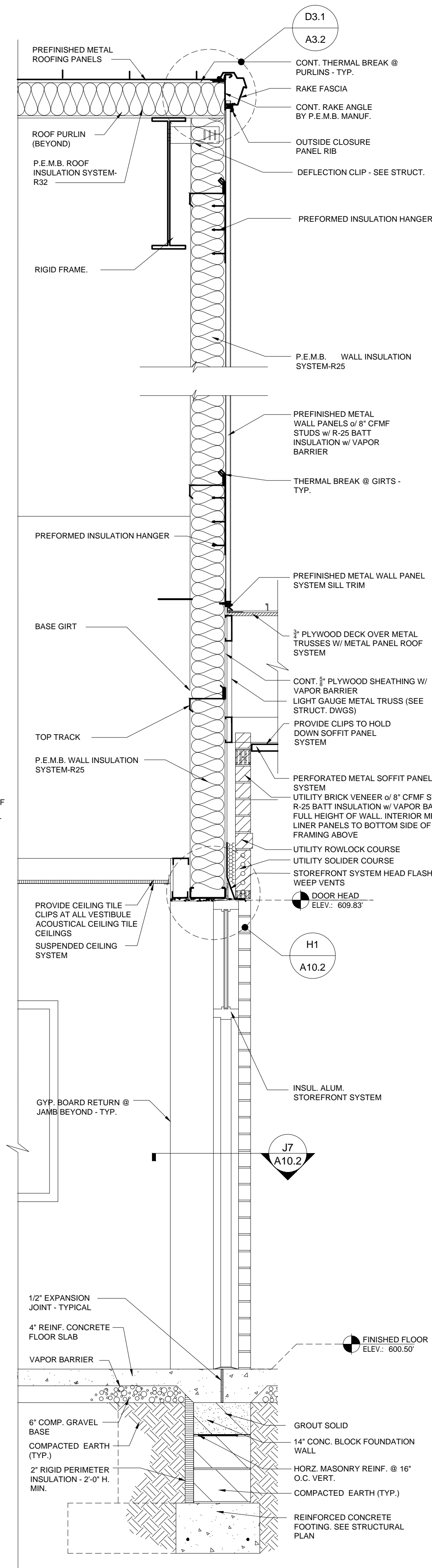
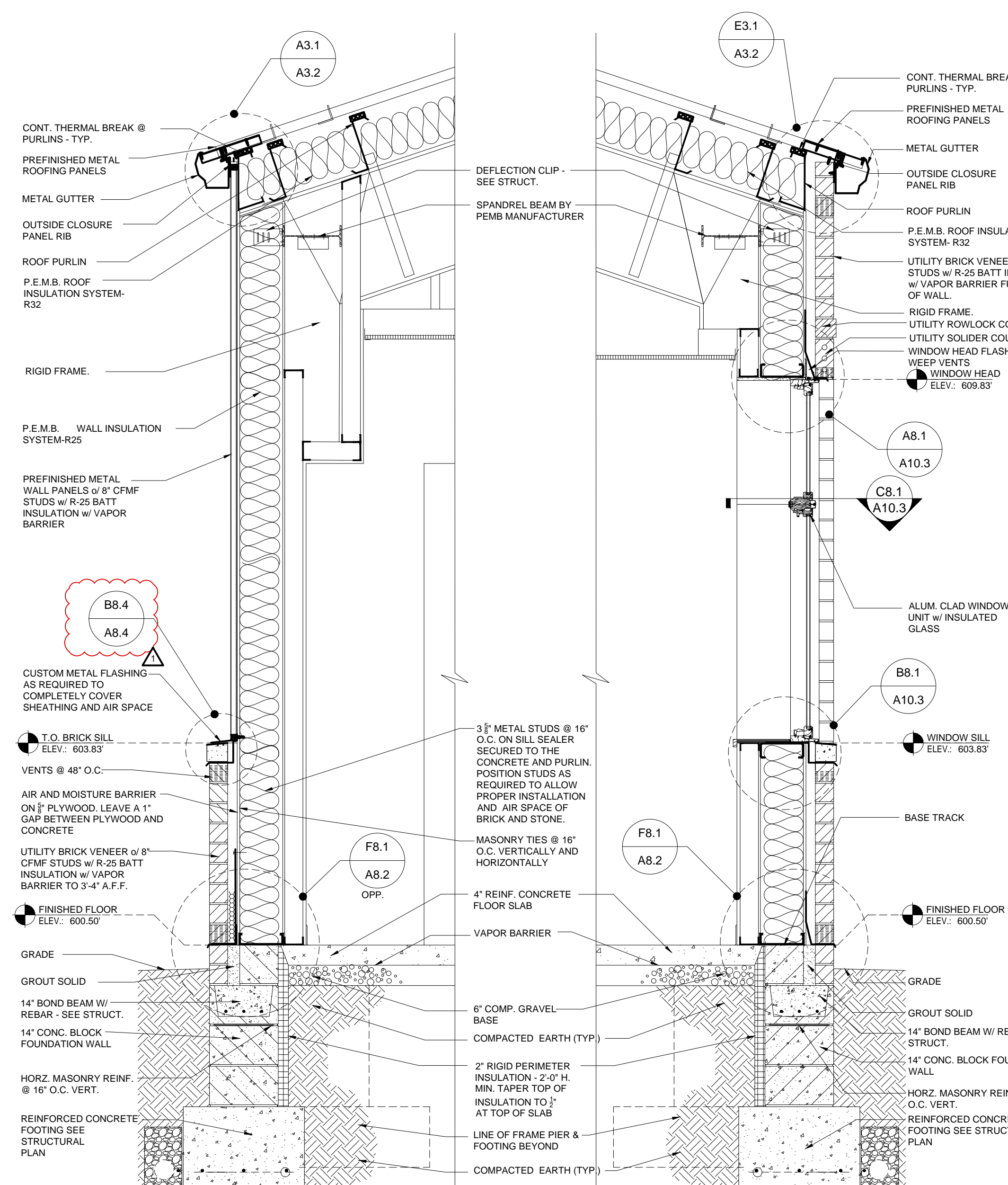
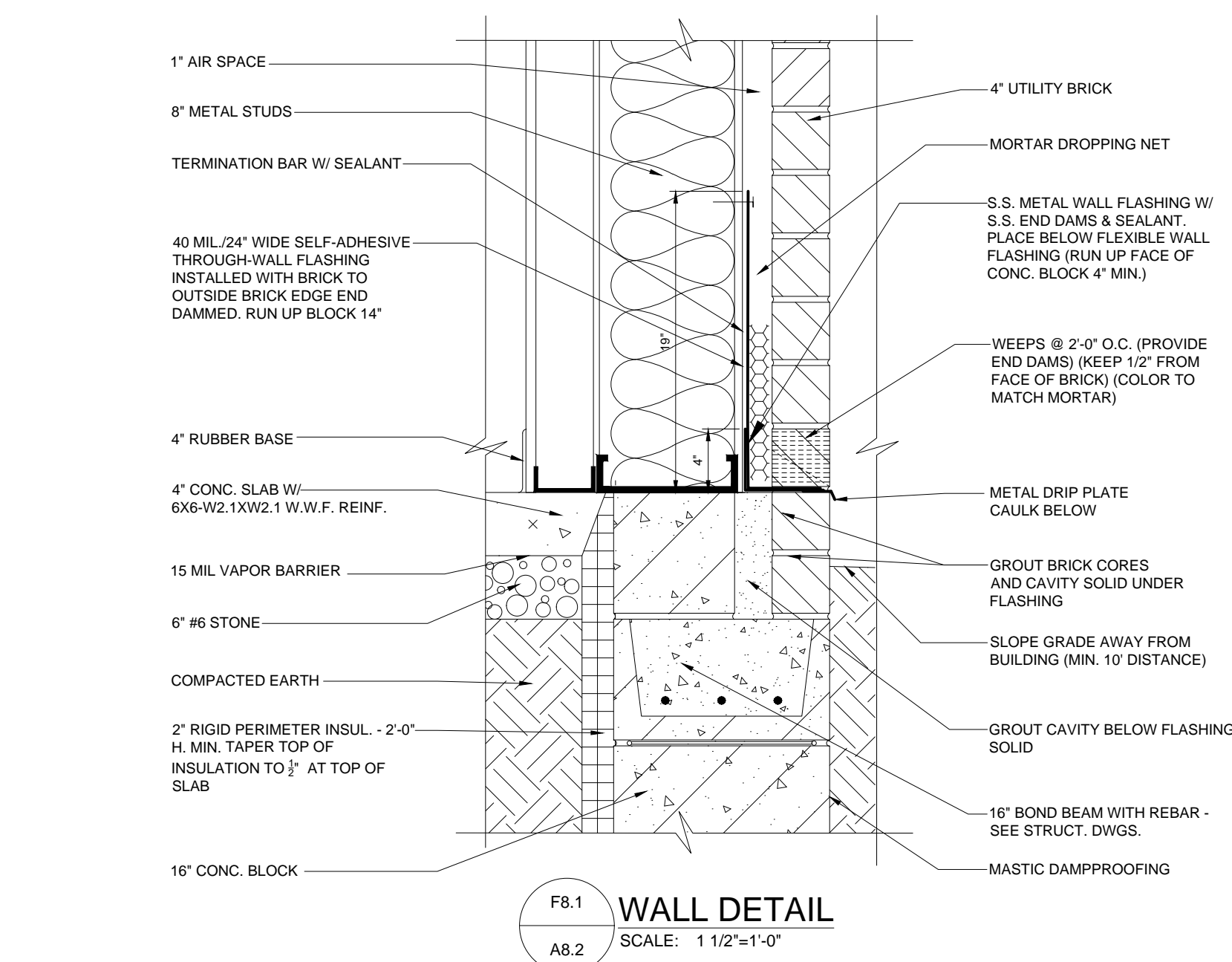


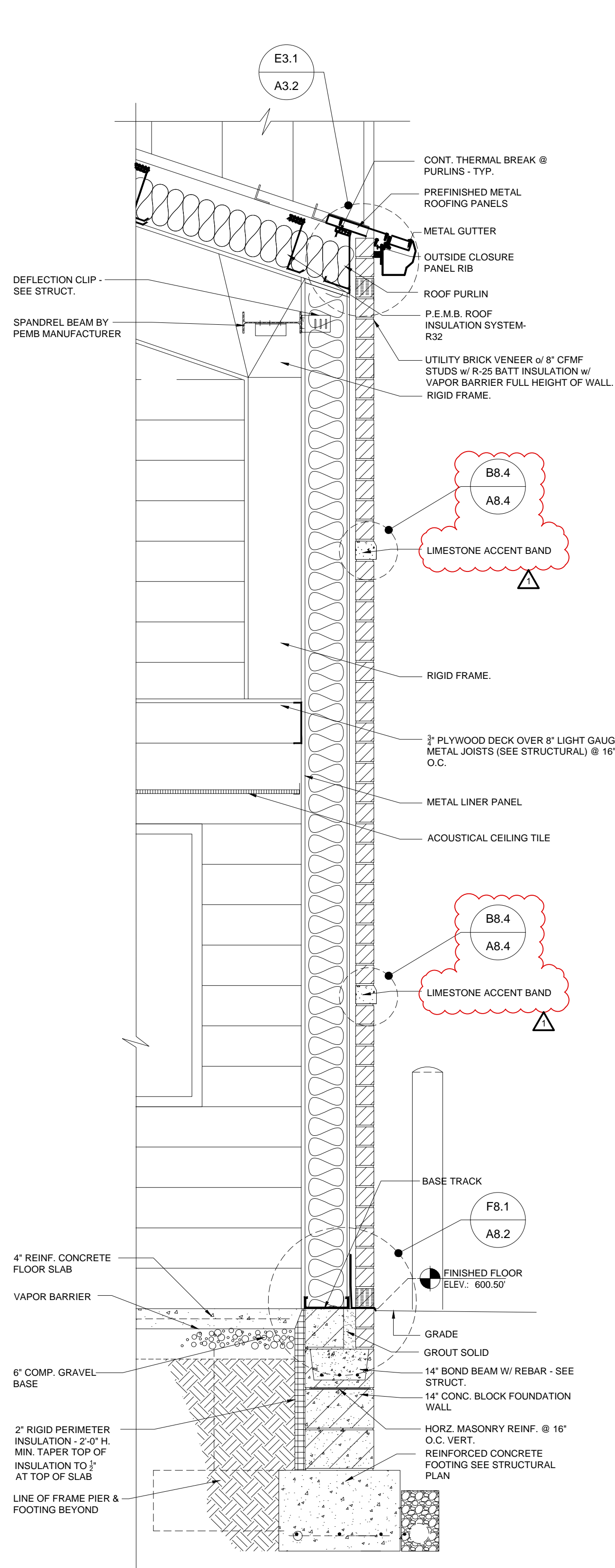
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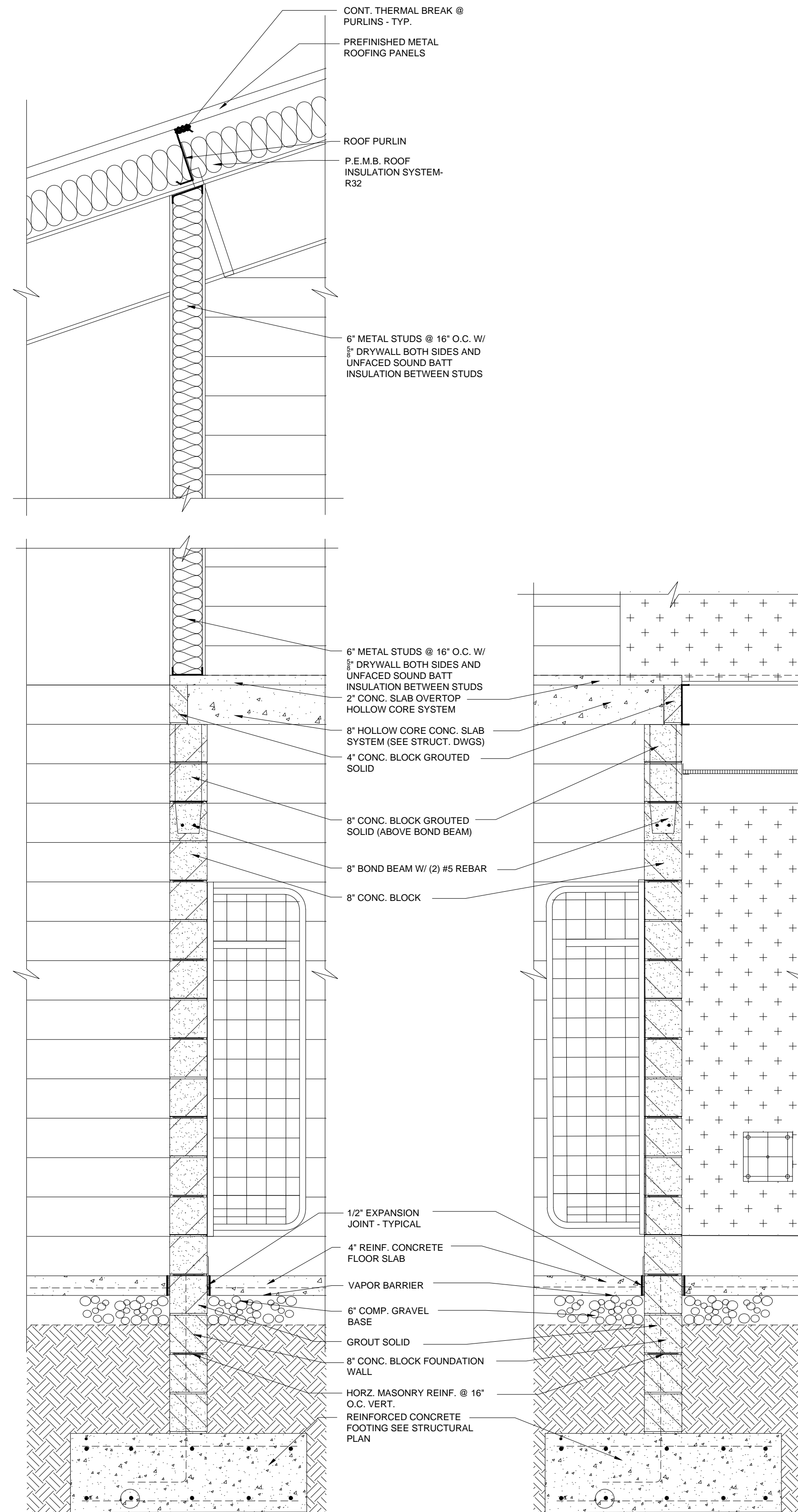
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CONSTRUCTION DOCUMENTS	

A8.1

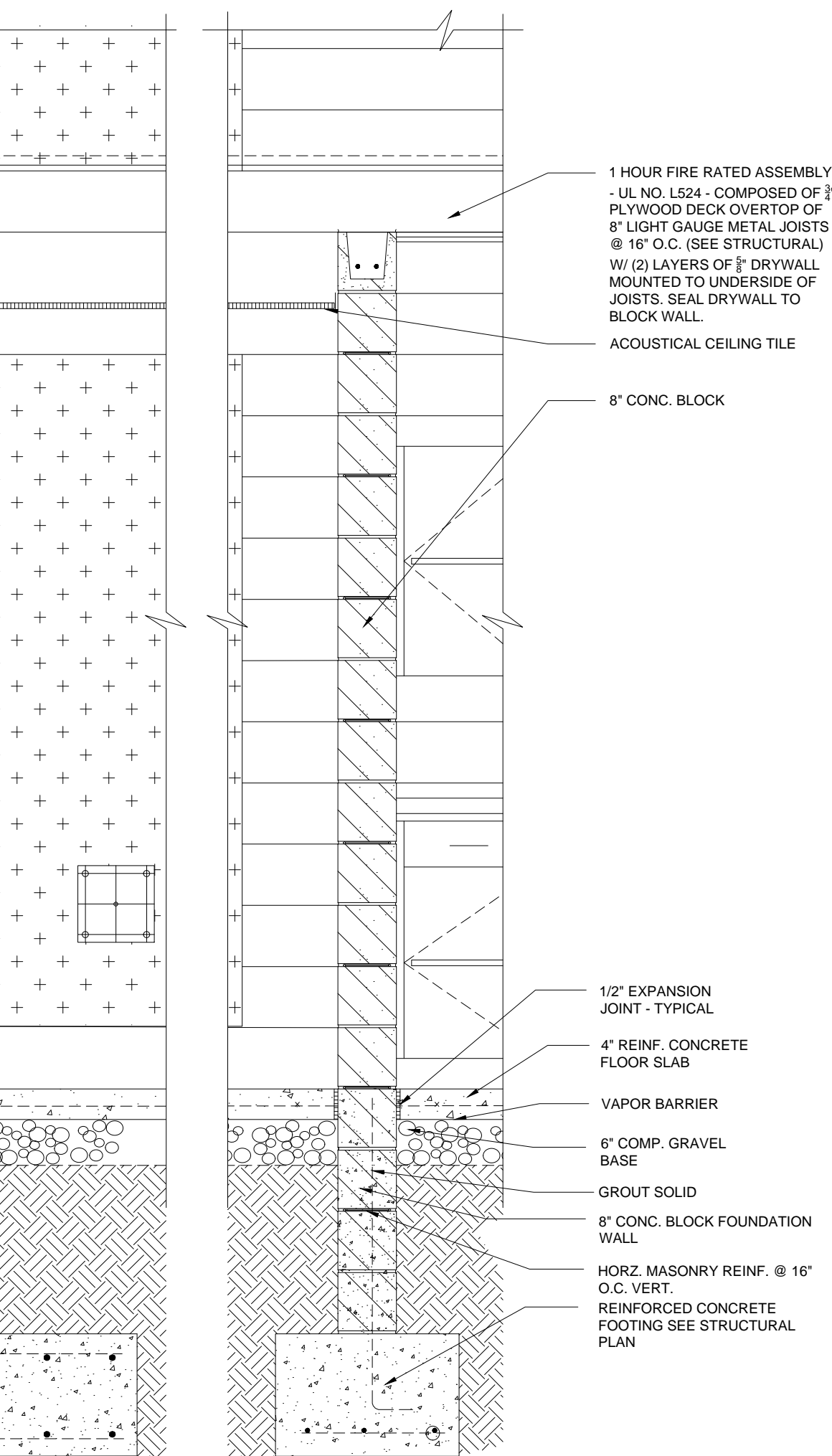




A7.3 WALL SECTION
SCALE: 3/4"=1'-0"



B7.3 WALL SECTION
SCALE: 3/4"=1'-0"



C7.3 WALL SECTION
SCALE: 3/4"=1'-0"

NEW CENTRAL FIRE STATION
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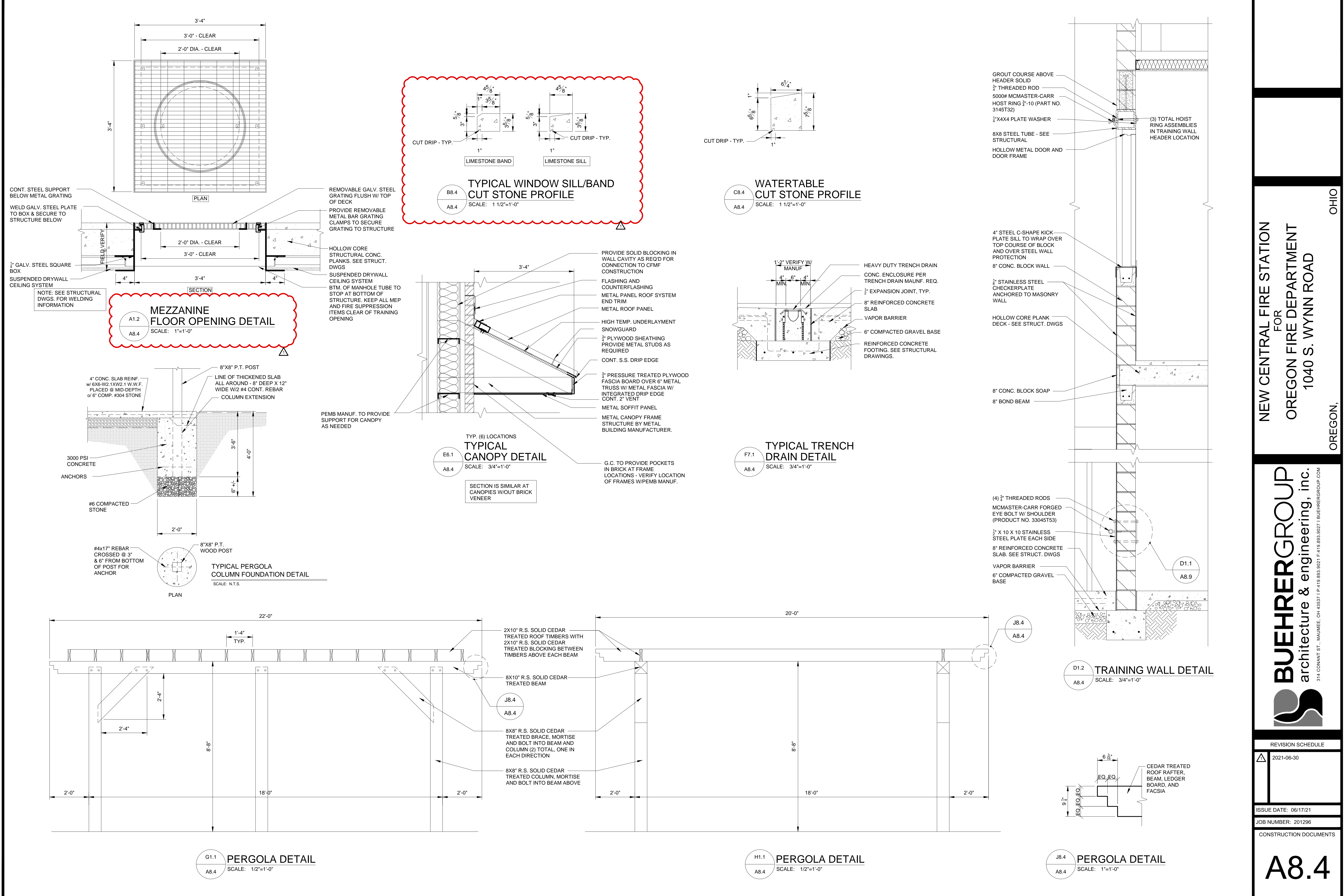
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A8.3



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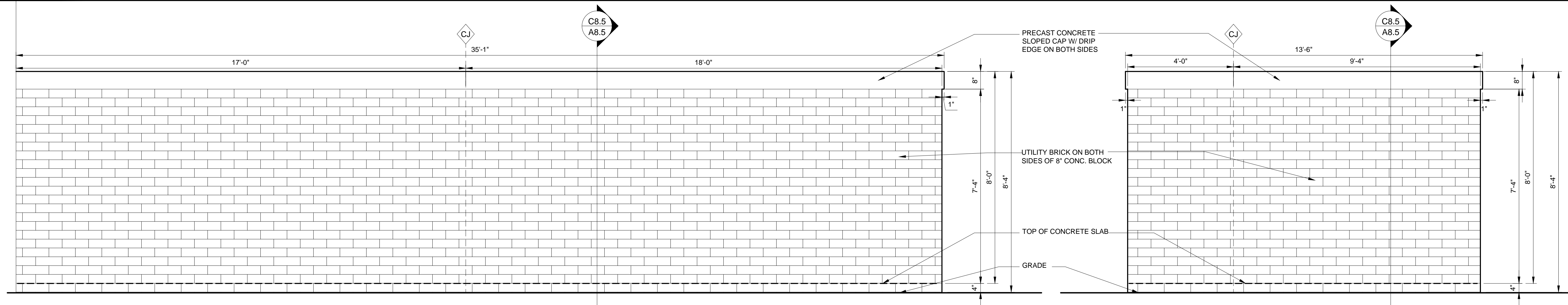
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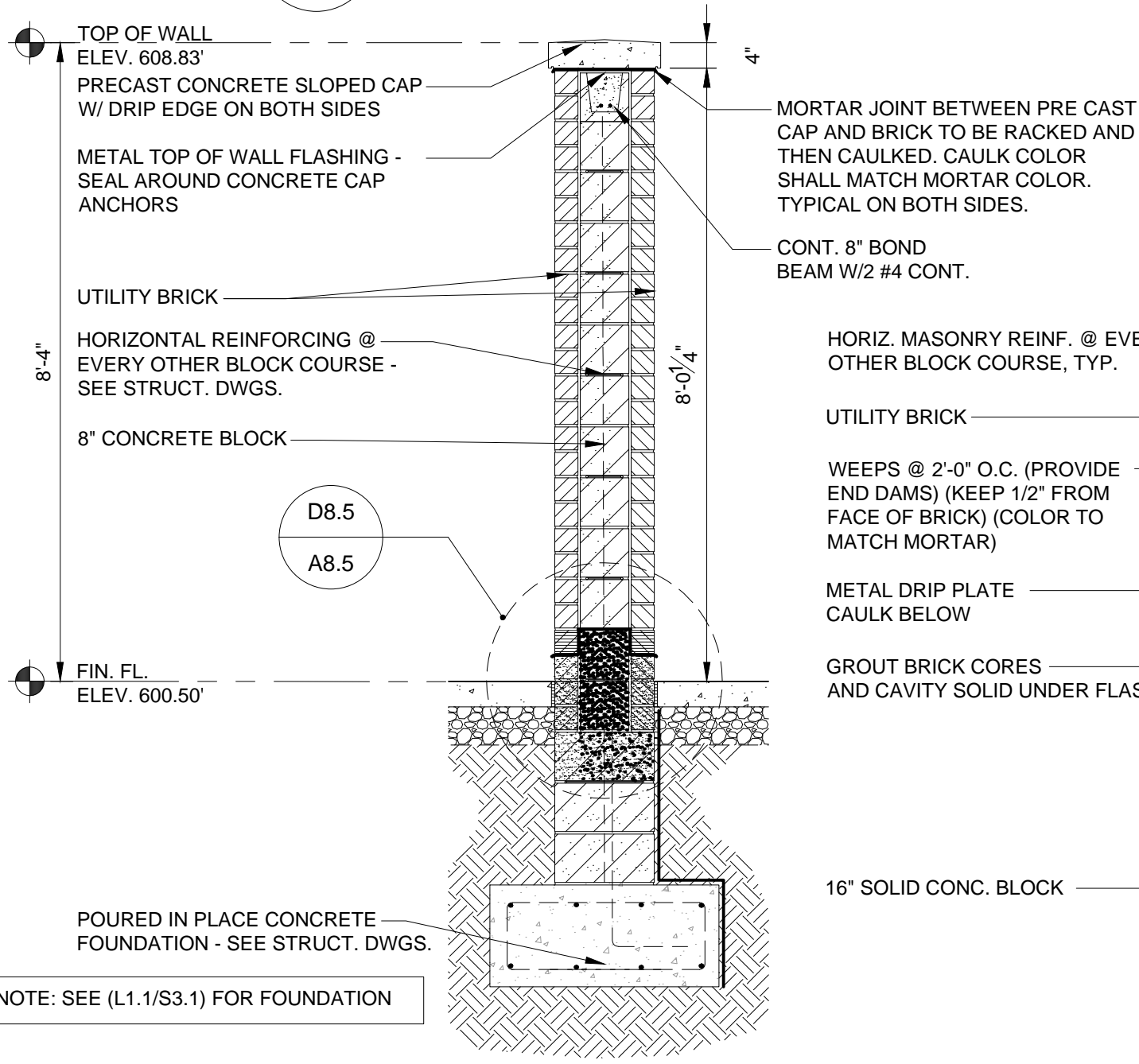
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Δ	2021-06-30

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A8.4

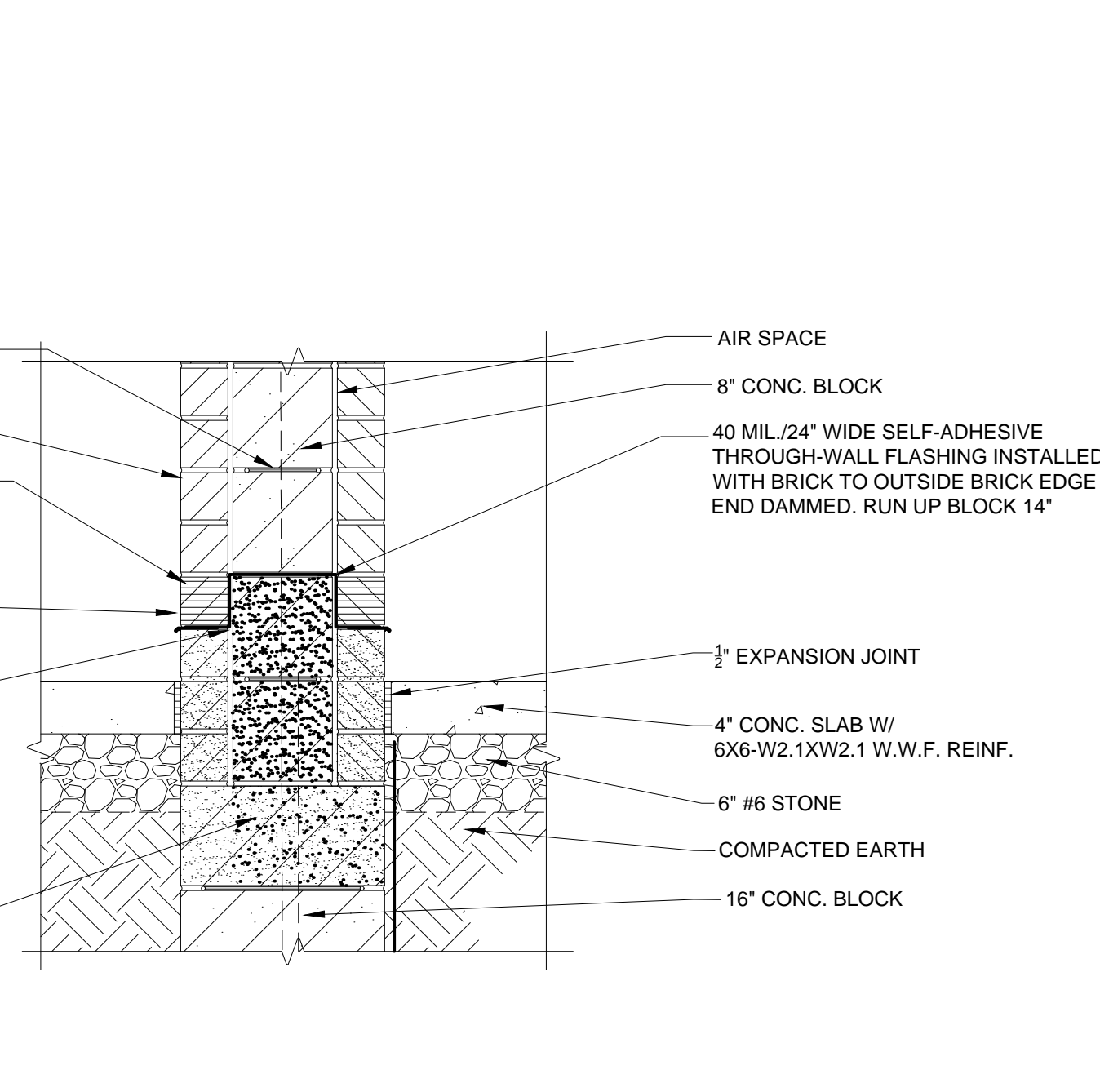


A1.1
A8.5
SCREEN WALL NORTH ELEVATION
SCALE: 1/2"=1'-0"

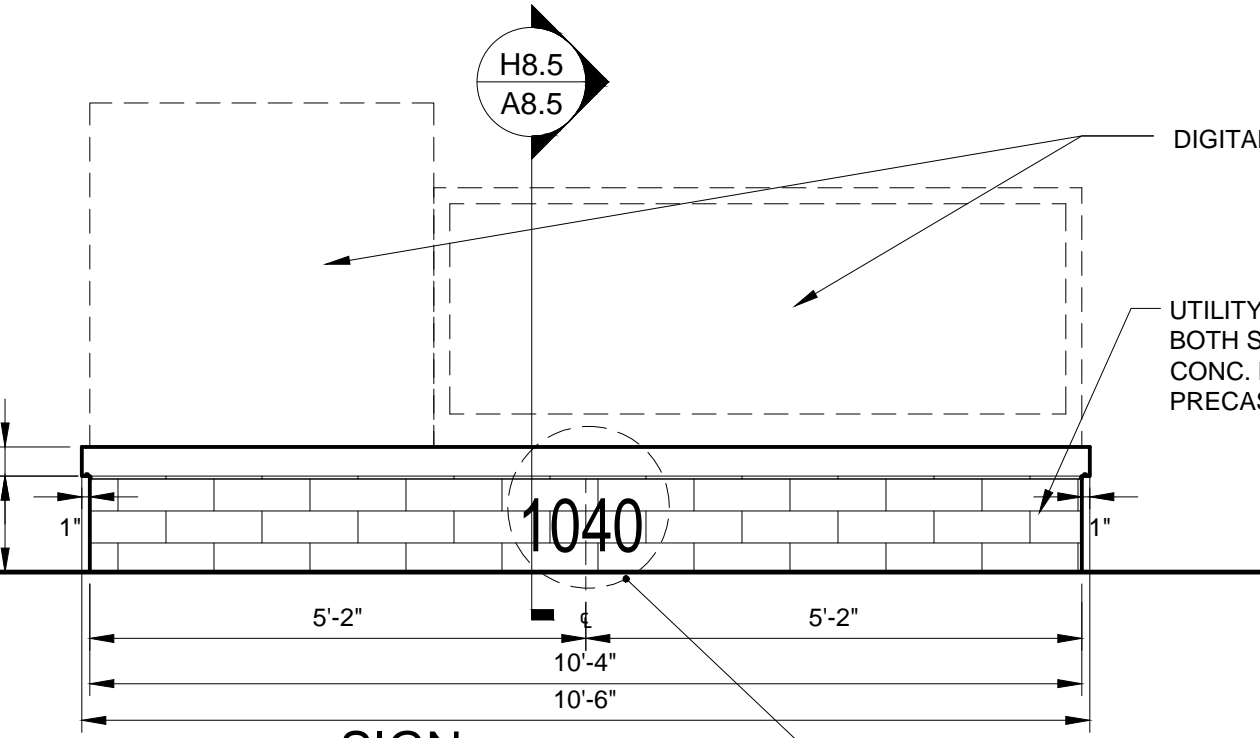


C6.5
A8.5
WALL SECTION
SCALE: 1/2"=1'-0"

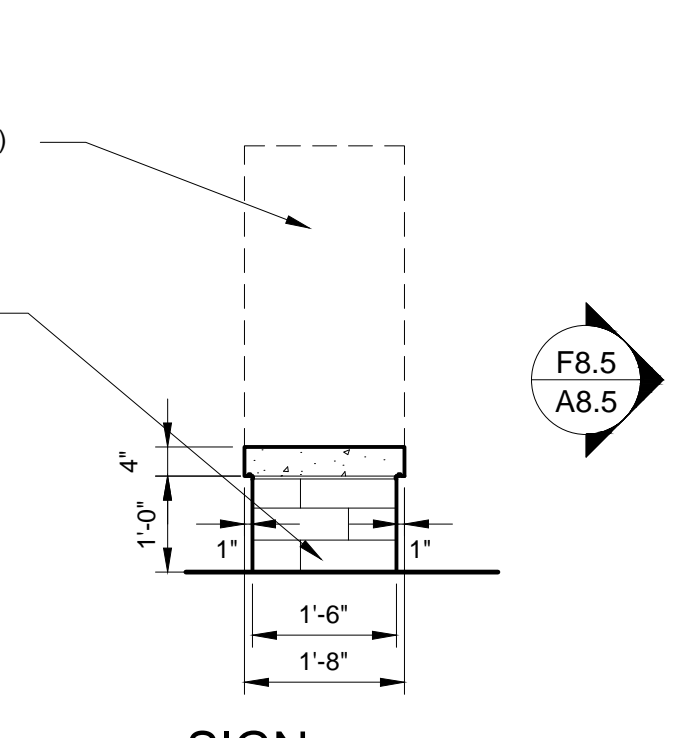
B1.1
A8.5
SCREEN WALL WEST ELEVATION
SCALE: 1/2"=1'-0"



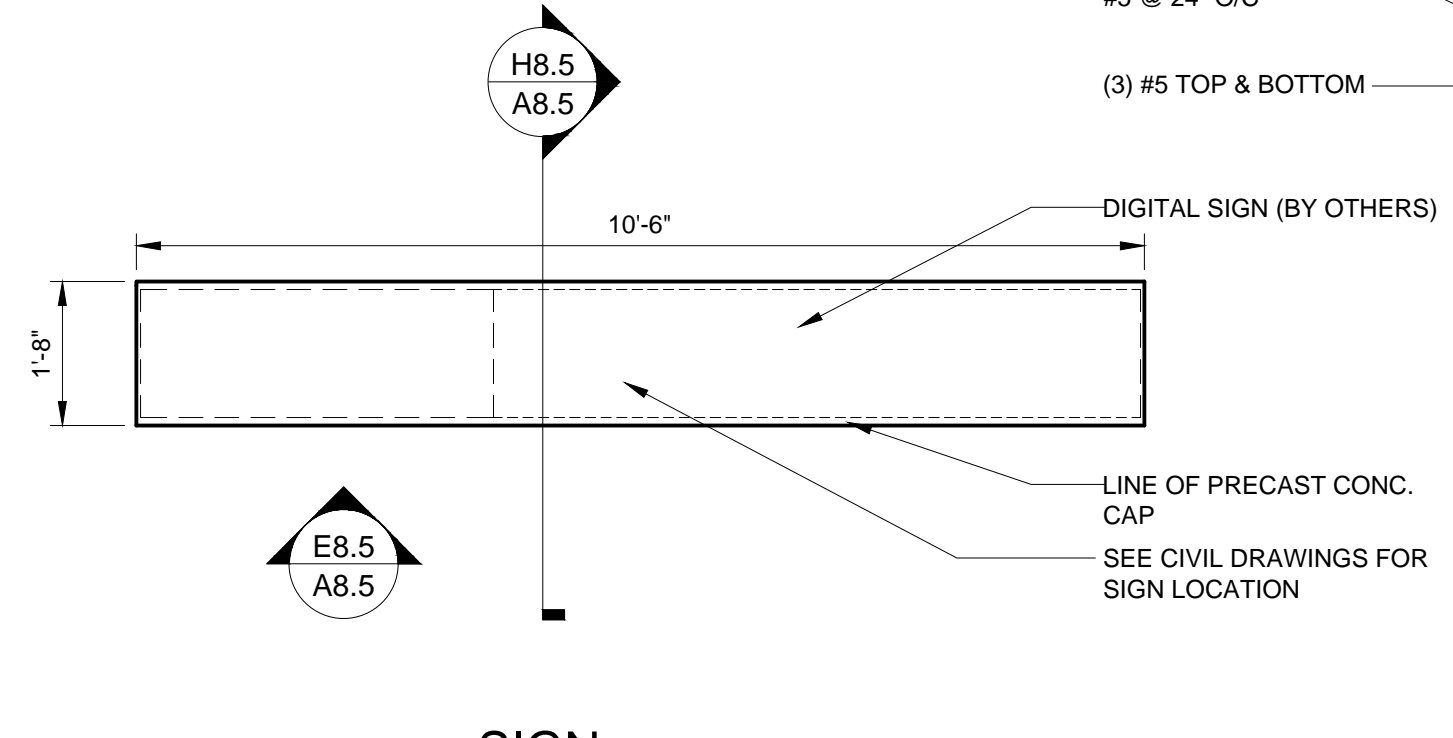
D8.5
A8.5
WALL DETAIL
SCALE: 1"=1'-0"



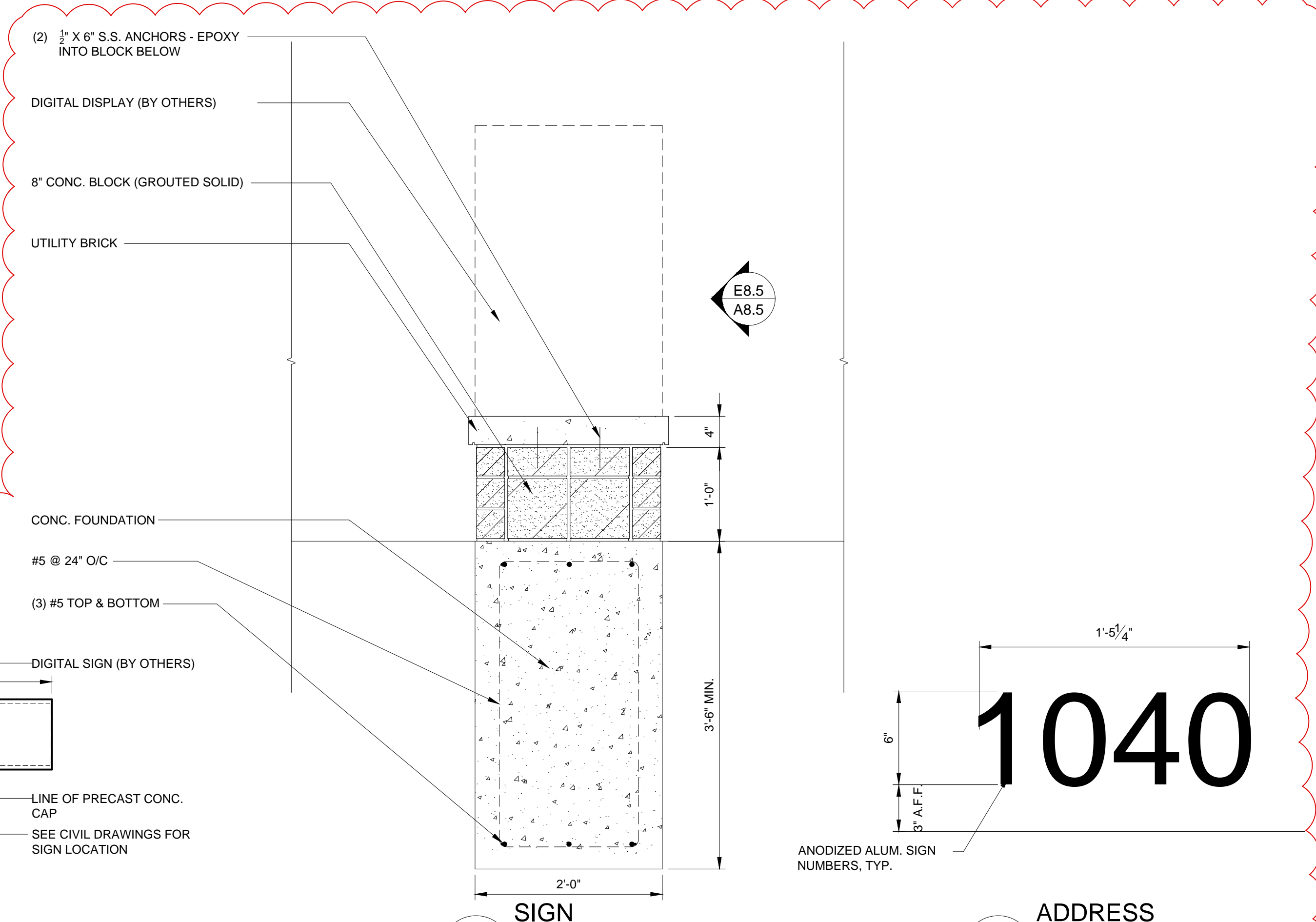
E8.5
A8.5
SIGN DISPLAY ELEVATION
SCALE: 1/2"=1'-0"



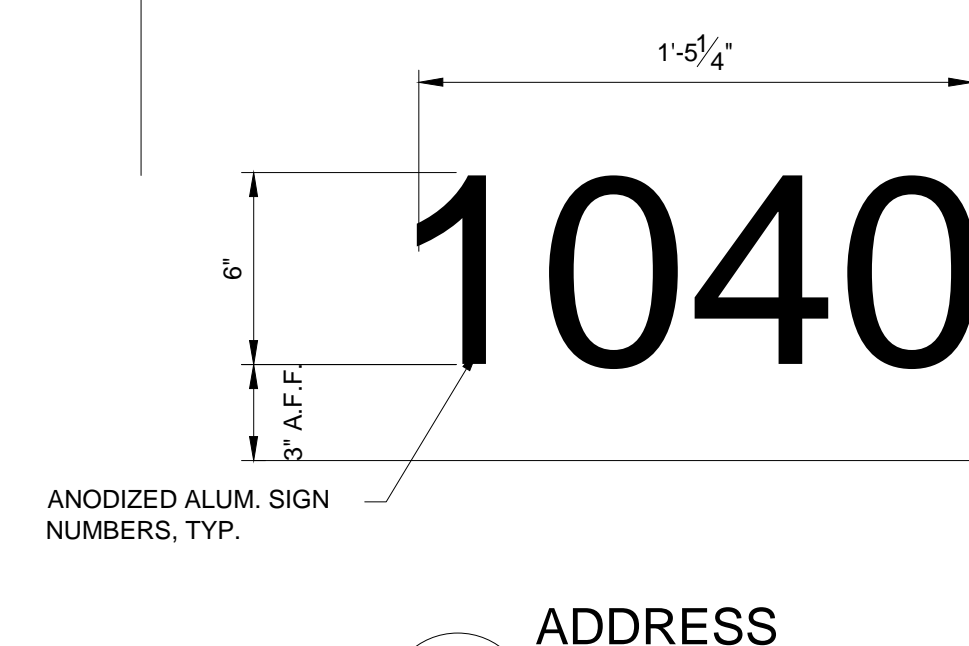
F8.5
A8.5
SIGN DISPLAY ELEVATION
SCALE: 1/2"=1'-0"



G8.5
A8.5
SIGN DISPLAY PLAN
SCALE: 1/2"=1'-0"



H8.5
A8.5
SIGN DISPLAY SECTION
SCALE: 1"=1'-0"



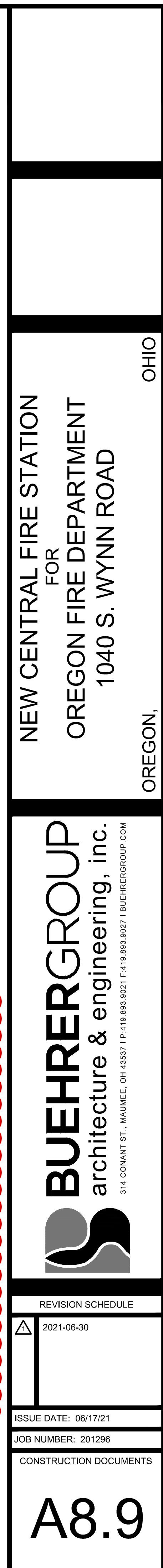
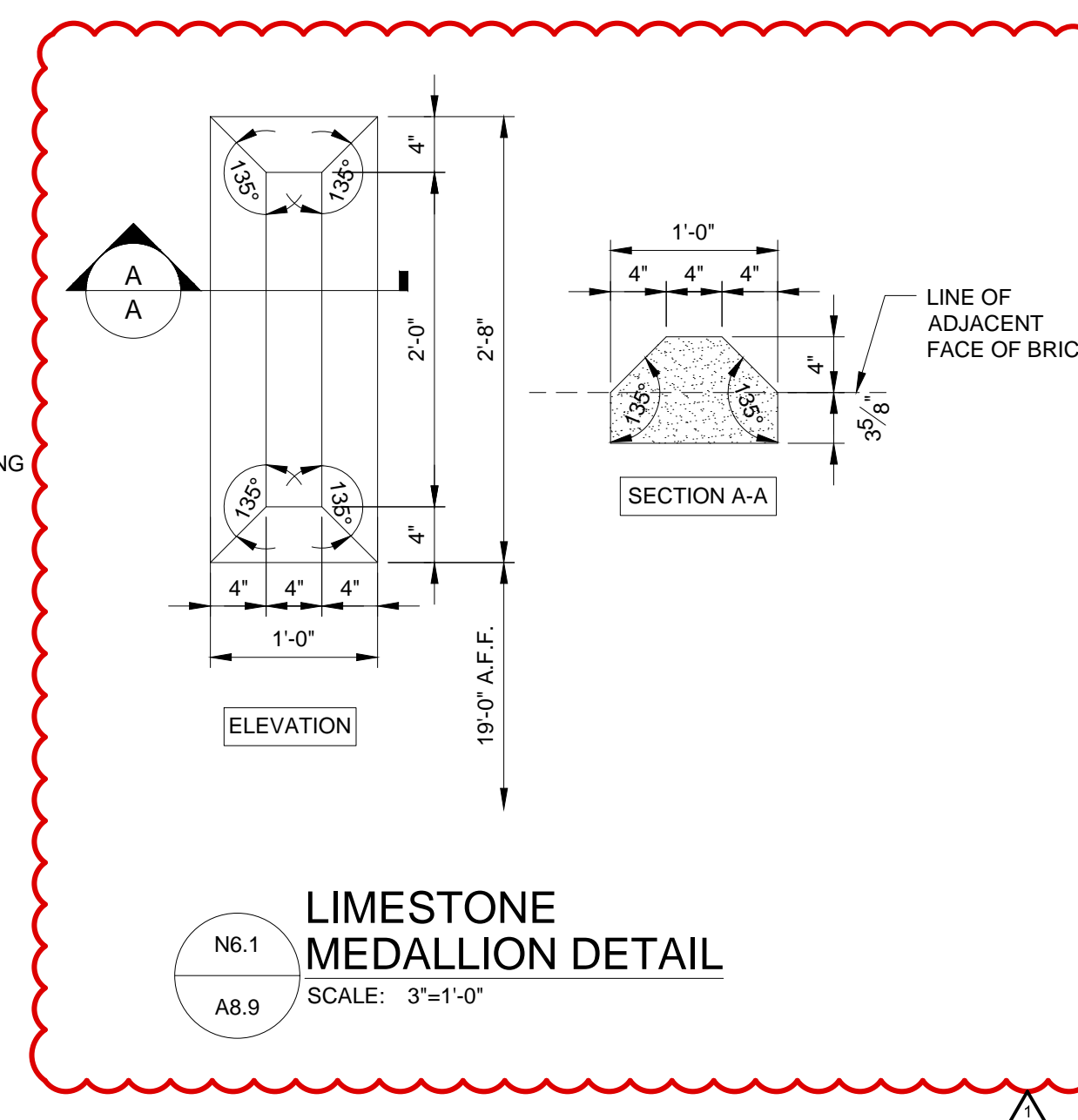
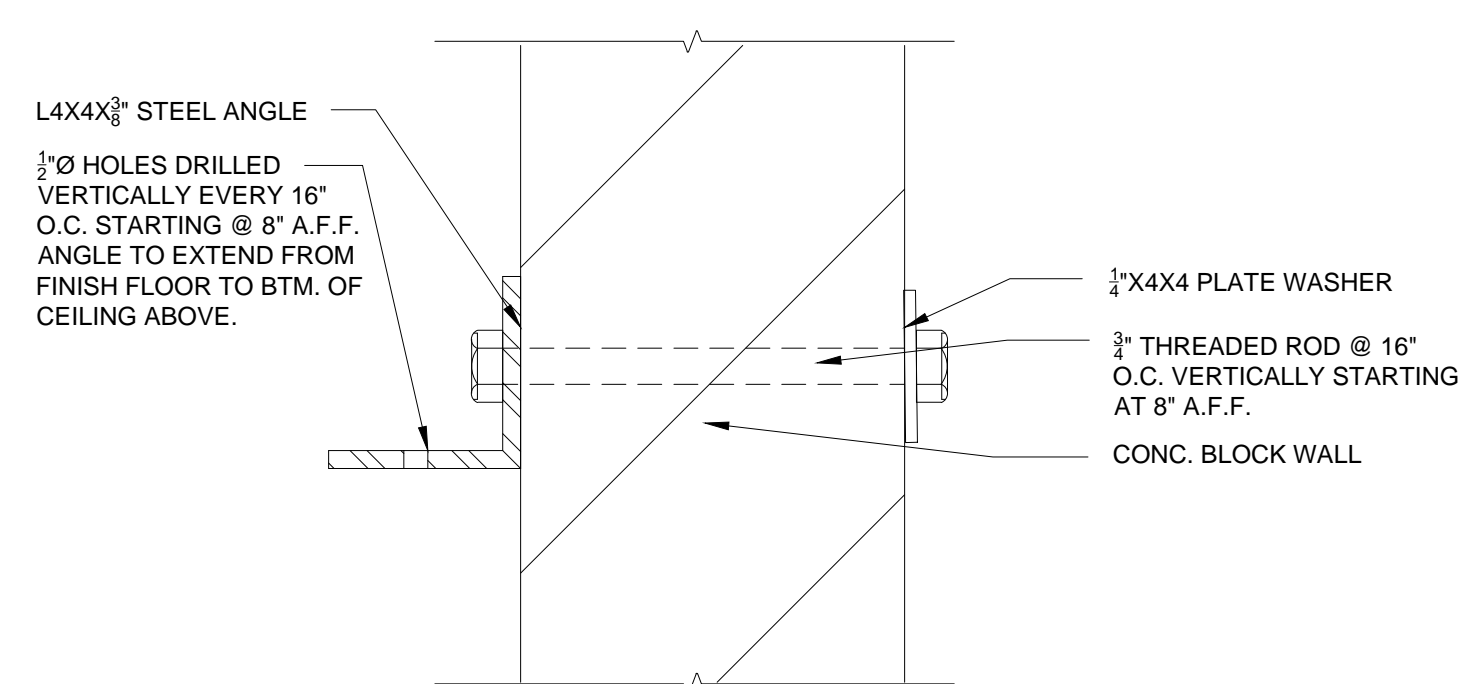
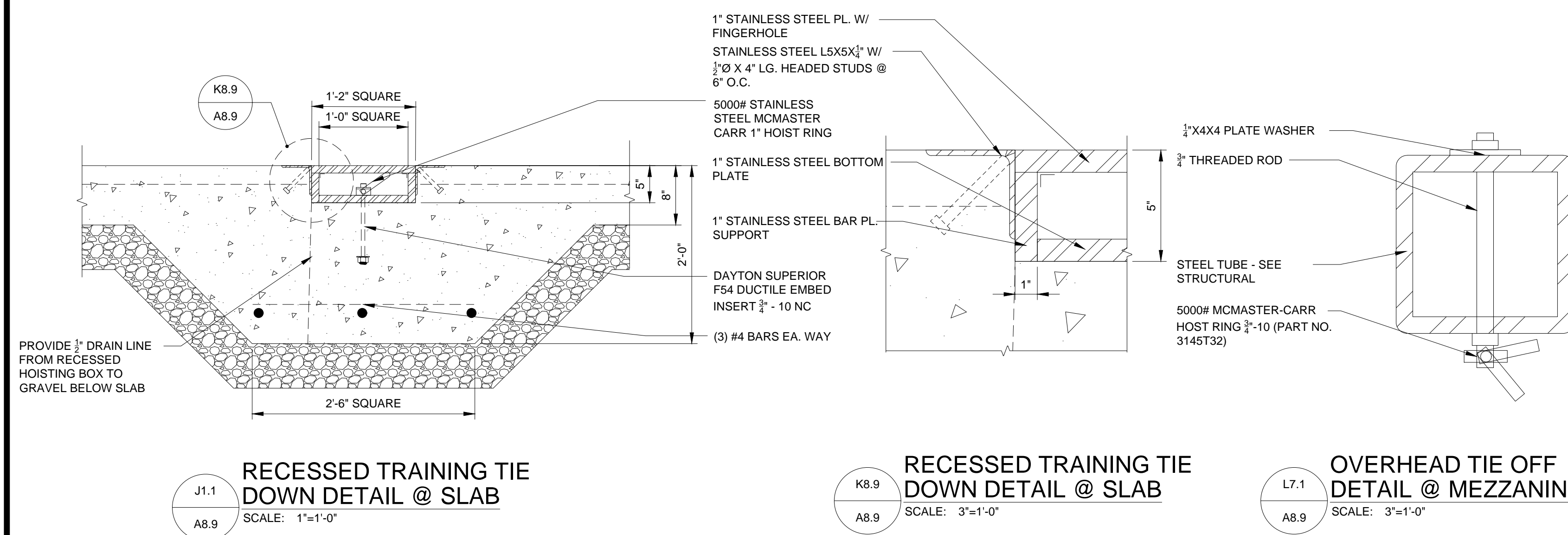
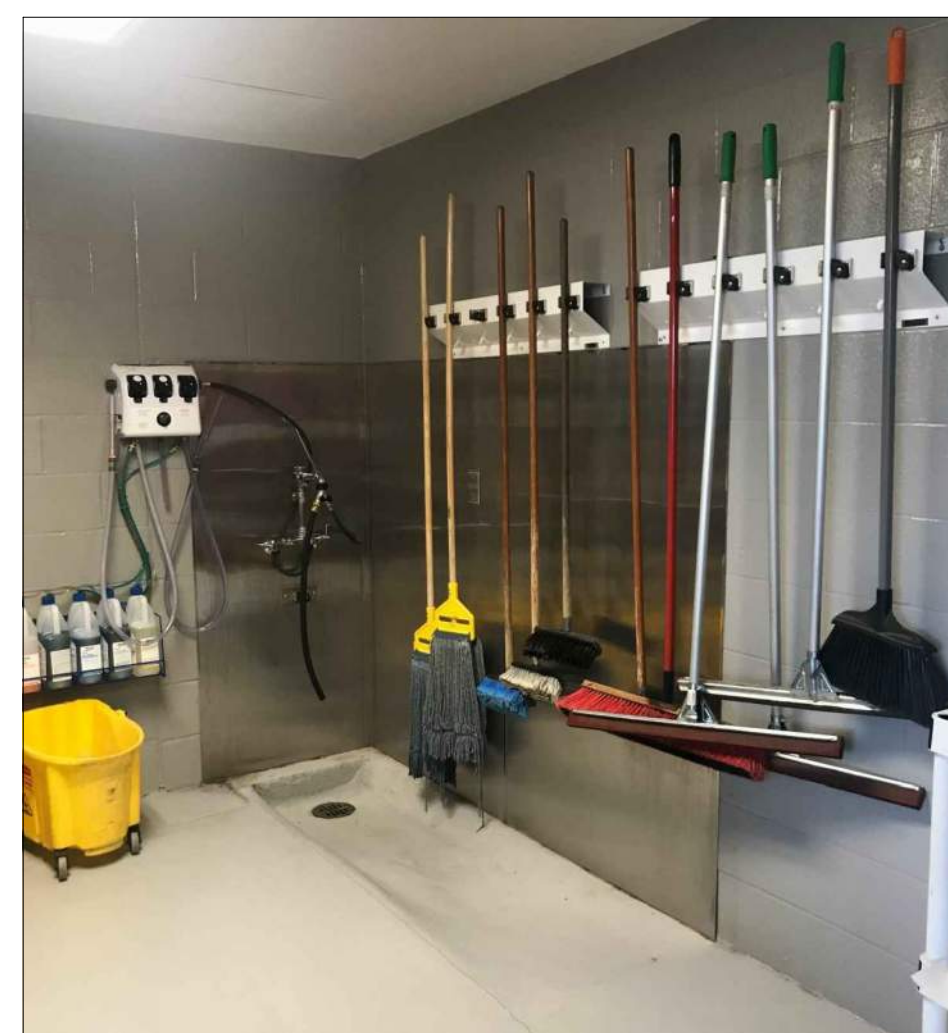
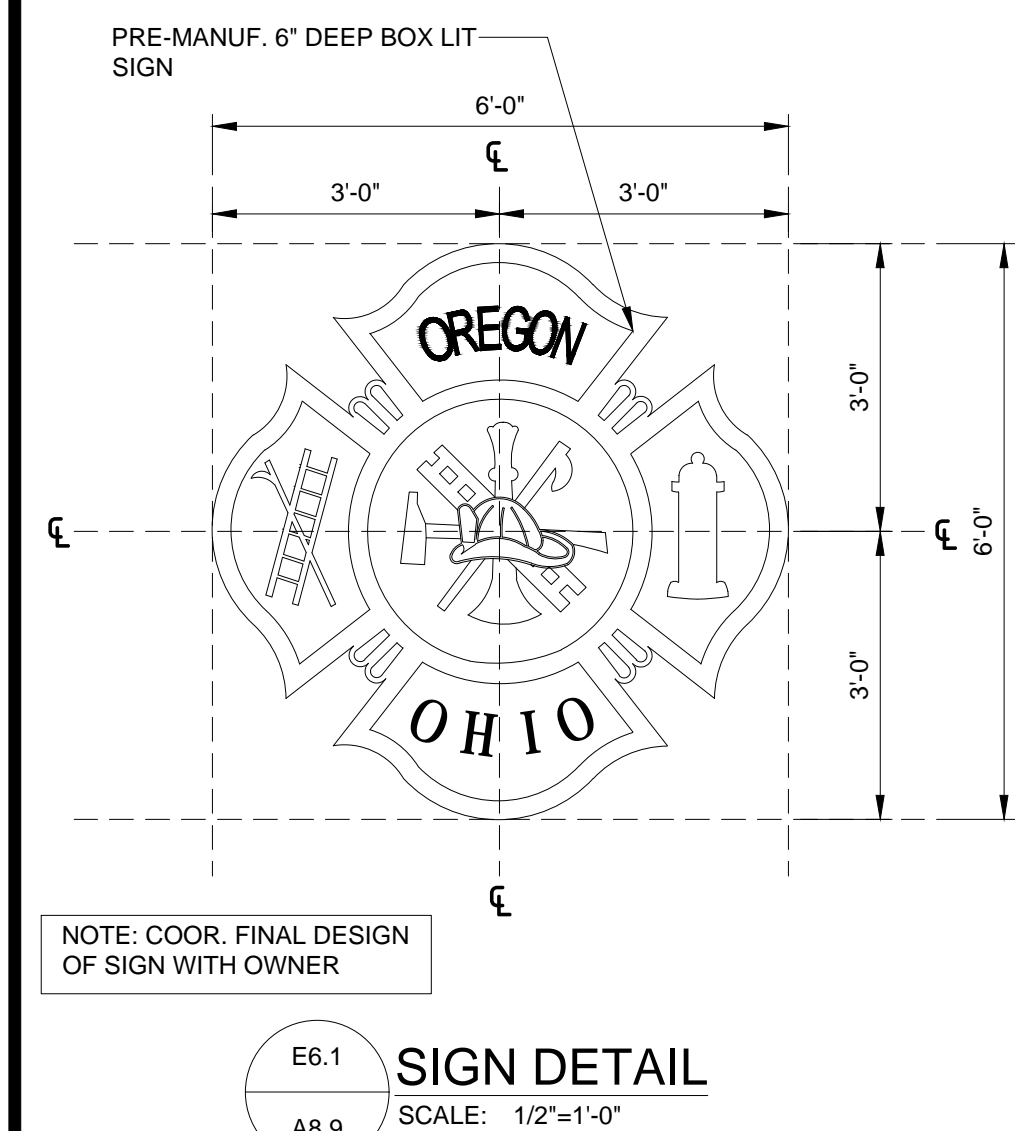
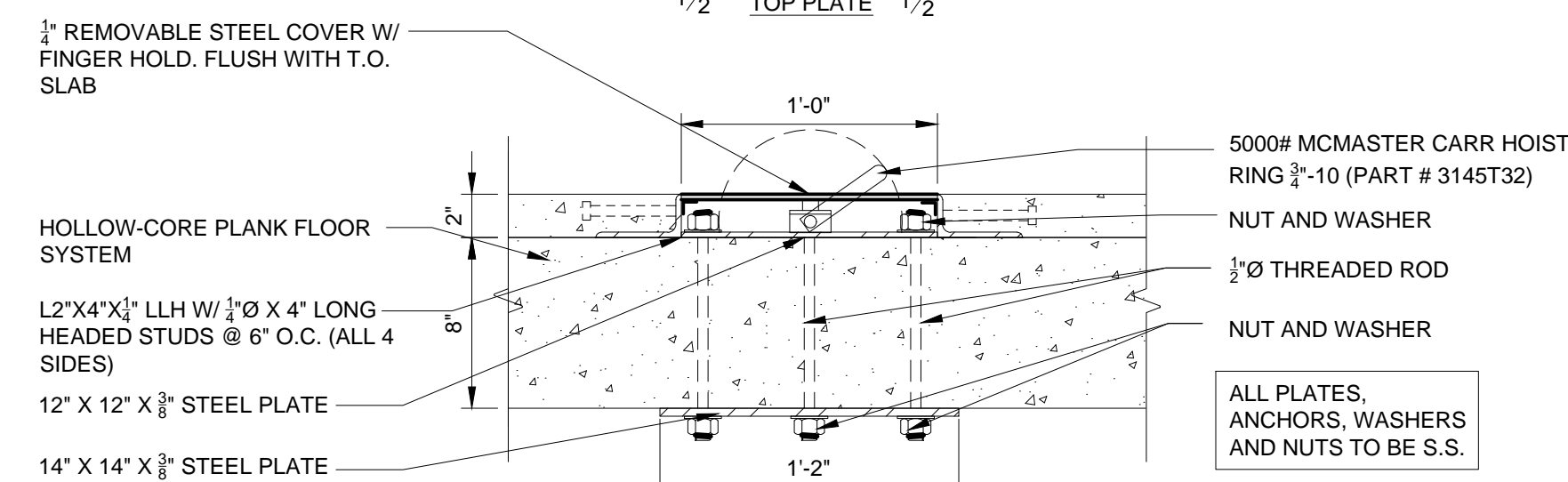
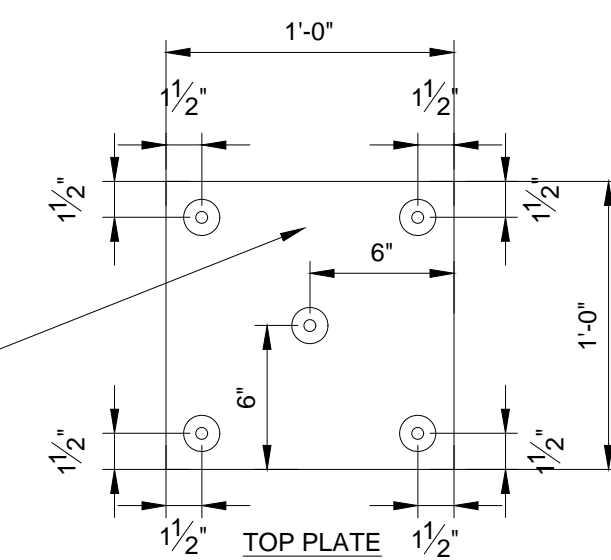
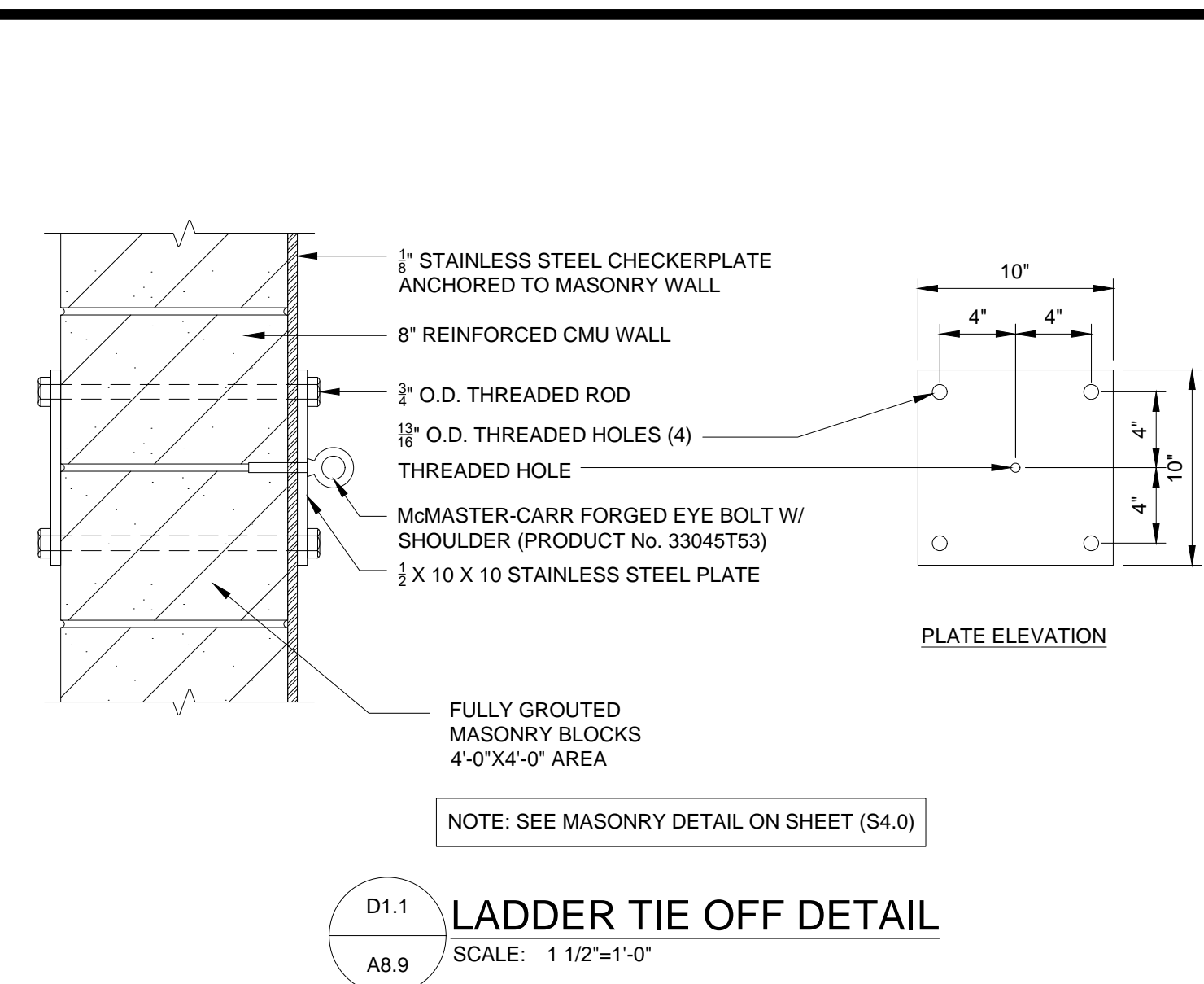
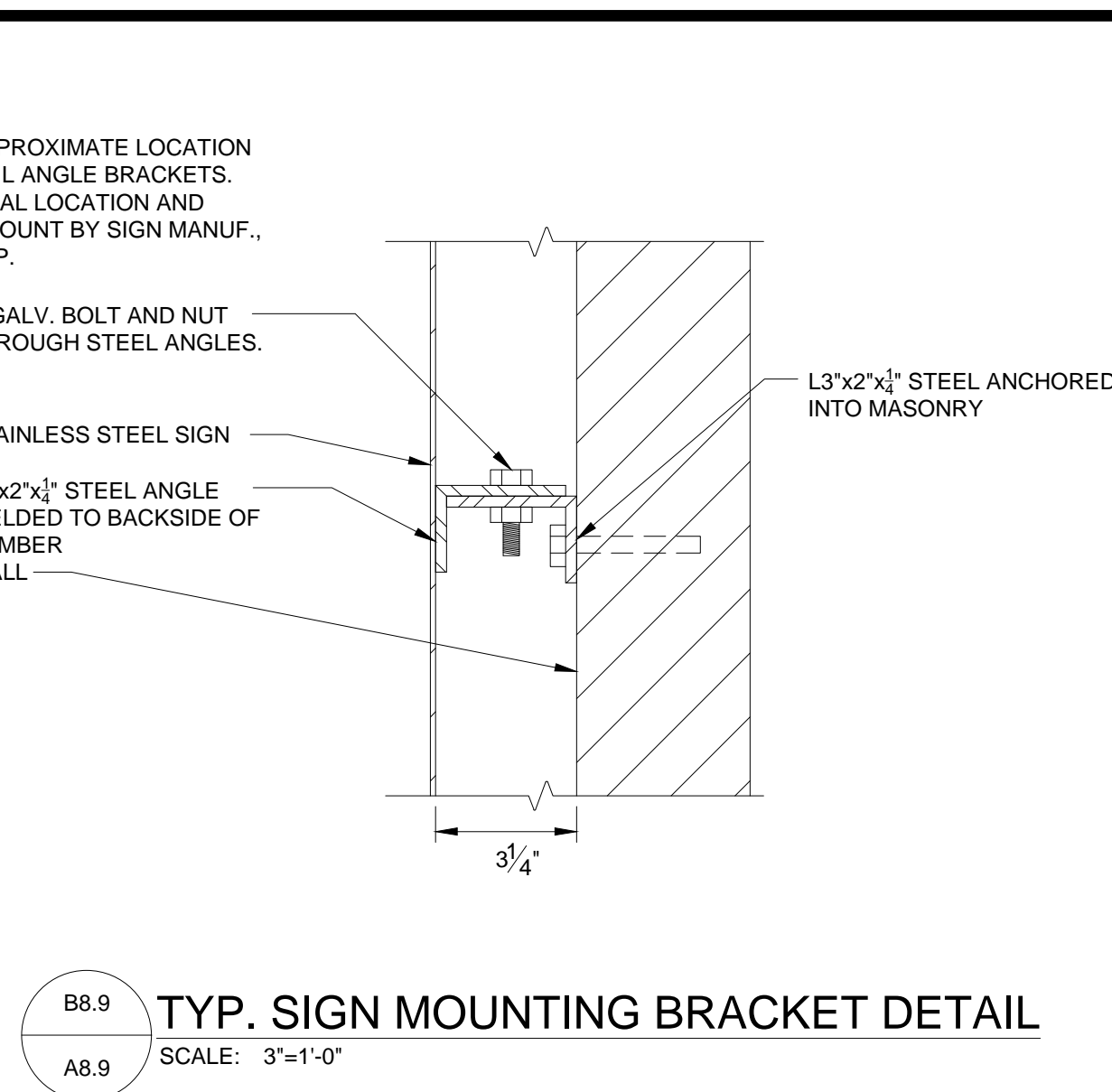
J8.5
A8.5
ADDRESS NUMBERS DETAIL
SCALE: 2"=1'-0"

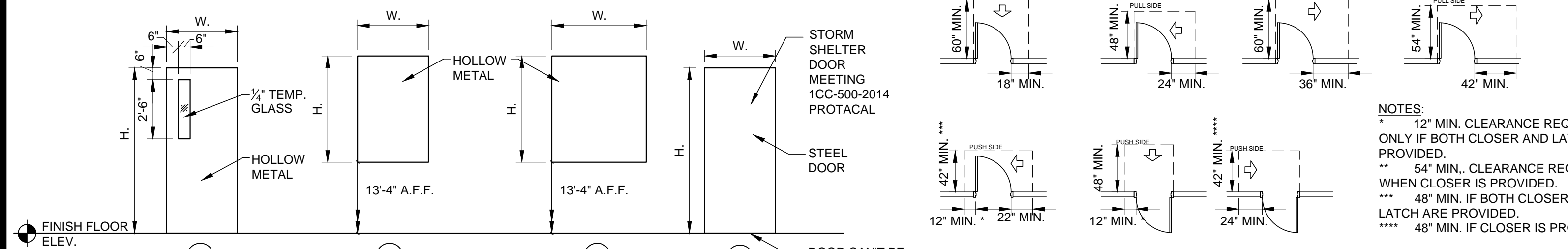
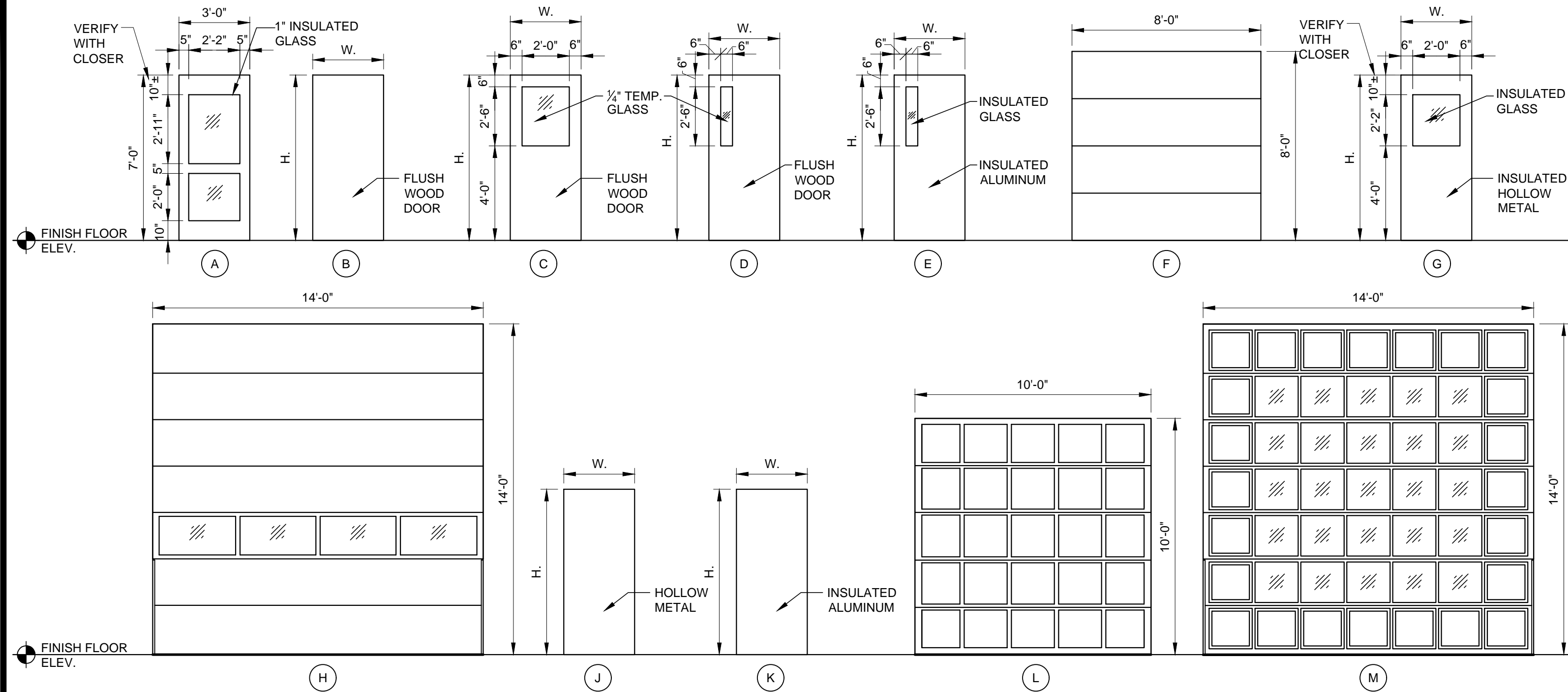
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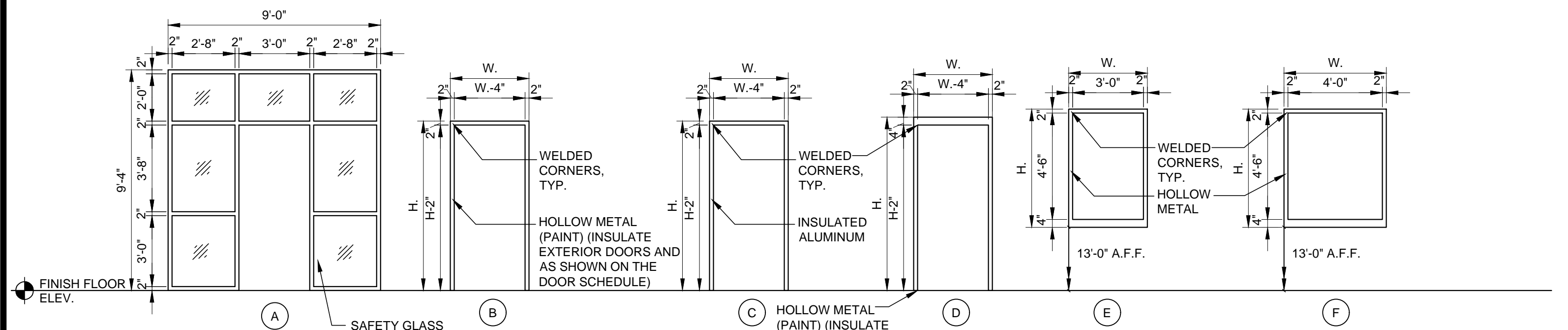
A8.5





DOOR TYPES

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



TYPE	LINTEL DIM.
A	(2) L3 3/2" X 3 3/2" X 3/8"
B	(1) L3 3/2" X 3 3/2" X 3/8" (HOT DIPPED GALV.)
PEMB	PRE-ENGINEERED METAL BUILDING

NOTE: SEE SHEET S6.0 FOR TYPICAL LGMF HEADER DETAILS

STORM SHUTTER DOOR NOTES

NOTE: STORM SHUTTER DOOR TO BE COMPLIANT WITH THE ICC 500 STANDARDS AND HARDWARE REQUIREMENTS FOR STORM SHELTERS, AS WELL AS CORRECT SIGNAGE AND INSTRUCTIONS OF USE POSTED. TESTED AND LABELED SHUTTERS ARE TO BE OPERATED FROM THE INSIDE AND ARE AVAILABLE WITH SELF LATCHING FEATURES.

- CONSTRUCTION OF 14 GA. SKIN DOOR AS FOLLOWS:
1. VERTICAL STEEL STIFFENERS
 2. CLOSER REINFORCEMENT
 3. 7 GA. HINGE REINFORCEMENT
 4. REINFORCED LOCK BOXES
 5. ADDITIONAL 14 GAUGE SKIN ATTACHED TO DOOR WITH 3/4" X 1/2" SELF TAPPING SCREWS W/ HEXAGON WASHER HEADS SPACED AT 6" O.C. ALONG PERIMETER AND 12" O.C. IN THE FIELD.

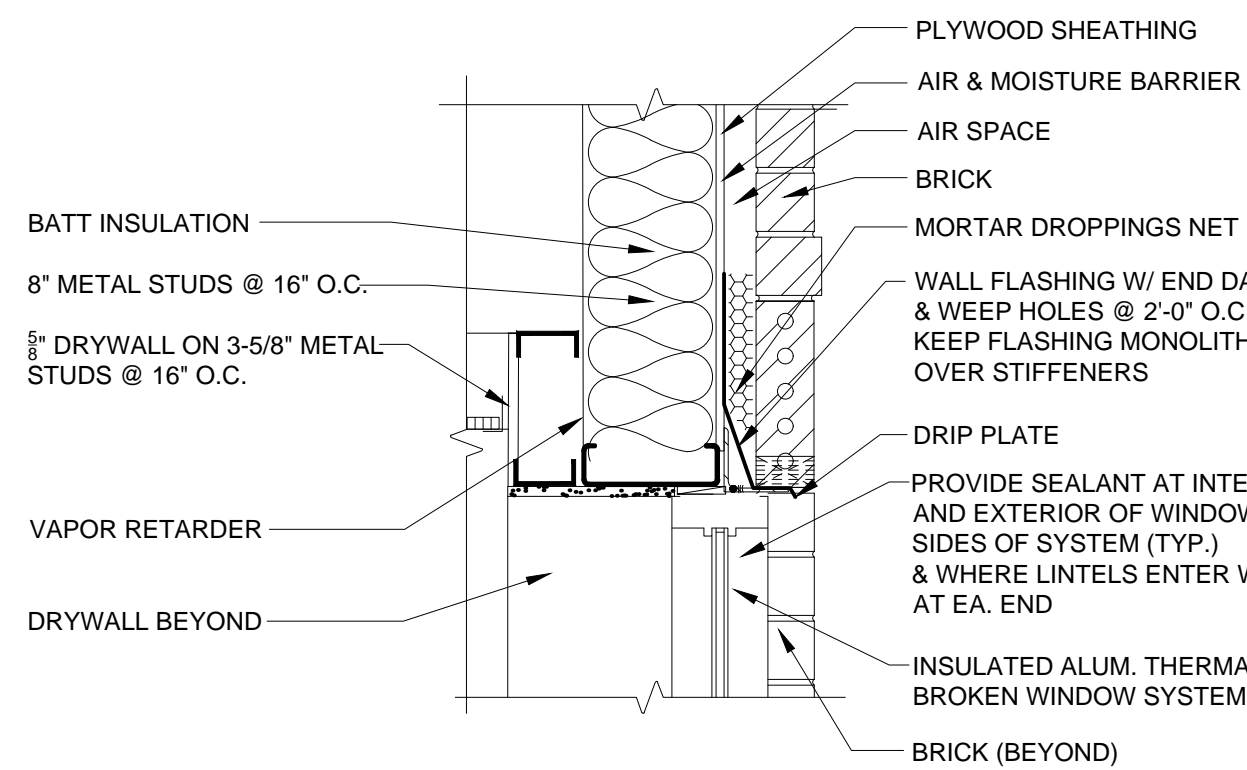
- CONSTRUCTION OF 12 GA. SKIN DOOR AS FOLLOWS:
1. 12 GA. VERTICAL STEEL STIFFENERS
 2. 12 GA. FULL PERIMETER CHANNEL ALONG THE DOOR EDGES (DOUBLED AT DOOR HEAD)
 3. 7 GA. HINGE REINFORCEMENT
 4. 12 GA. REINFORCED LOCK BOXES
 5. 7 GA. CLOSER REINFORCEMENT
 6. ADDITIONAL 14 GAUGE SKIN ATTACHED TO DOOR WITH 3/4" X 1/2" SELF TAPPING SCREWS W/ HEXAGON WASHER HEADS SPACED AT 6" O.C. ALONG PERIMETER AND 12" O.C. IN THE FIELD.

DOOR NOTES

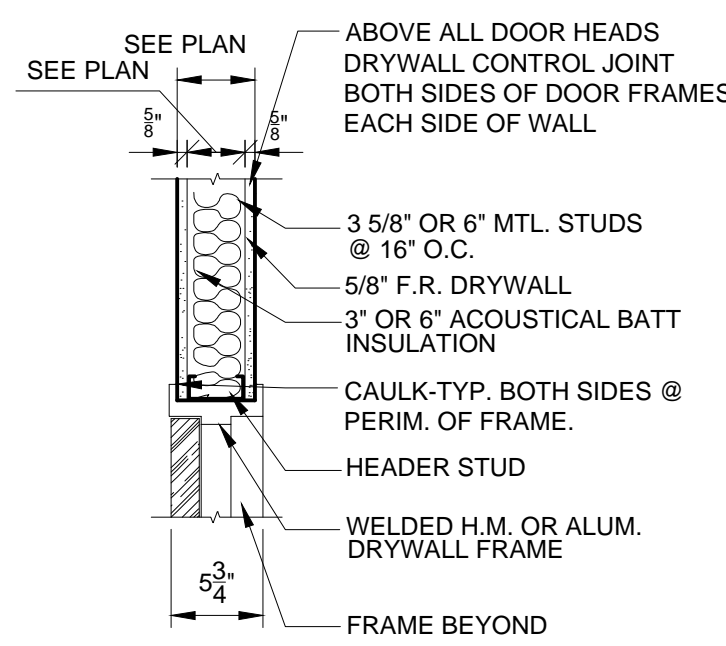
1. PROVIDE TACTILE SIGN STATING EXIT AND COMPLYING WITH ICC A 117.1 FOR DOORS 100A, 100B, 102A, 114A, 114B, 116A, 116B, 121A, 121B, 131A, 136A, 136B, 140A, 140B, 143F, 143M, 148A. SIGNS SHALL HAVE RAISED SYMBOLS AND BRAILLED CHARACTERS. RAISED LETTERS SHALL BE ONE MONOLITHIC PIECE WITH THE SIGN. LETTERS SHALL BE RAISED 1/32". SIGNS SHALL BE PLACED AT THE LATCH SIDE OF THE DOOR AND SHALL BE MOUNTED @ 60" ABOVE FINISH FLOOR
2. COORDINATE ALL KEYING OF DOOR LOCKS WITH OWNER. VERIFY DOOR HARDWARE SPECIFICATIONS INCLUDING BUT NOT LIMITED TO COLOR, STYLE, ETC. W/ OWNER
3. ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM SIDE OF EGRESS AND COMPLY W/ OBC 10010.1.9, ICC A117.1-2009 404.2.6 AND A117.1-2009 404.2.8. HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING PARTS ON DOORS ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP AND DOES NOT REQUIRED TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. HARDWARE SHALL BE 34" MINIMUM AND 48" MAXIMUM ABOVE THE FINISHED FLOOR. ALL FIRE DOORS SHALL HAVE A MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. THE FORCE FOR PUSHING OR PULLING A DOOR OTHER THAN FIRE DOORS TO BE 5 POUNDS MAX FOR INTERIOR HINGED DOOR, SLIDING OR FOLDING DOORS
4. FOAM INSULATE ALL VOIDS AROUND DOORS THAT CAN NOT BE INSULATED WITH BATT.
5. INSTALL ALL FLASHING PER THE DOOR AND SIDING MANUFACTURERS RECOMMENDATIONS.
6. PROVIDE JAMB EXTENSIONS FOR ALL DOORS AS REQUIRED. FIELD VERIFY WIDTH OF WALL.
7. ALL EXTERIOR GLASS TO BE 1" INSULATING GLASS, LOW-E, 1/4" TEMPERED TINTED AND 1/4" TEMPERED.
8. ALL INTERIOR GLASS, ALL GLASS IN DOORS AND IN DOOR FRAMES, AND ANY GLASS IN HAZARDOUS LOCATIONS AS DEFINED IN OBC SECTION 2404.01 TO BE 1/4" TEMPERED GLASS AND COMPLY WITH OBC SECTION 2406.1 THROUGH 2406.1.4.
10. FIRE PROTECTION RATED GLAZING SHALL MEET SECTION 715.

DOOR SCHEDULE

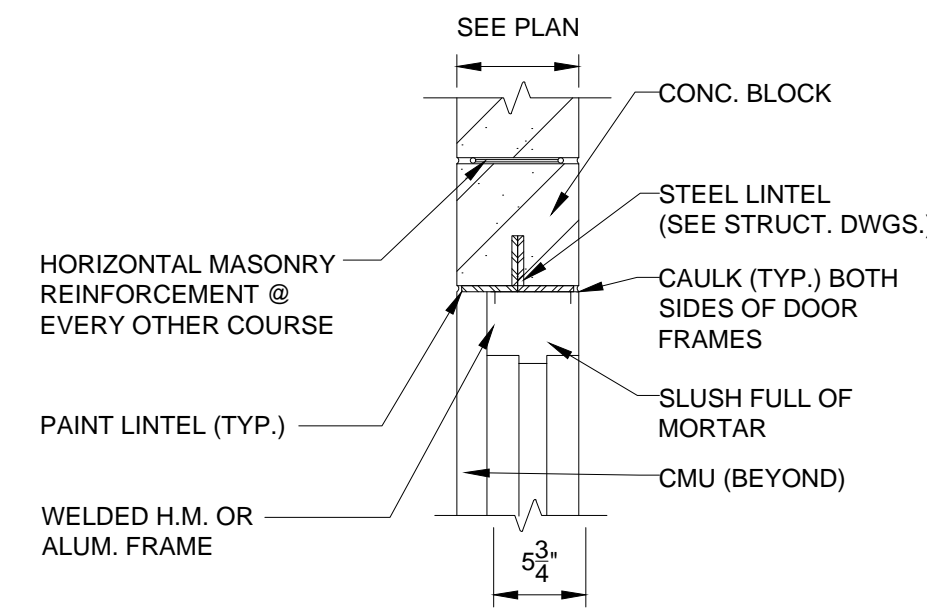
OPENING No.	DOOR							FRAME				DETAILS			OPENING		HARDWARE		LINTEL MARK	REMARKS	
	SIZE			TYPE	LOUVER		MATERIAL/ FINISH	SIZE		TYPE	MATERIAL/ FINISH	HEAD	JAMB	SILL	U.L. LABEL	HAND	SET No.	KEYSIDE RM. No.			
	W	H	T		W	H		W	H												
100A	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	9'-0"	9'-4"	A	INSULATED ALUMINUM	H1/10.2	J7/A10.2	S1/10.2	-	LHR	1	EXTERIOR	SEE STRUCT.	SAFETY GLAZING	
100B	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	9'-0"	9'-4"	A	INSULATED ALUMINUM	H2/10.2	J2/A10.2	-	-	LHR	2	100	:		
101A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	3	100	:		INCLUDE BLANK HDWE. ON VEST#100 SIDE
101B	3'-4"	7'-0"	1 3/4"	B	-	-	WOOD	3'-8"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	4	102	:		
102A	3'-0"	7'-0"	1 3/4"	C	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	5	102	:		
103A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	6	102	:		
104A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LHR	6	102	:		
105A	3'-0"	7'-0"	1 3/4"	C	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	4	102	:		
105B	3'-0"	7'-0"	1 3/4"	C	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LHR	7	131	:	180 DEGREE DOOR	
106A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	7	105	:	SOUND SEALS FOR VENDING AREA	
110A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	8	109	:		
110B	2'-0"	7'-0"	1 3/4"	B	-	-	WOOD	2'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LHR	7	110	:		
111A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	4	109	:		
113A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	4	109	:		
114A	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	3'-4"	7'-4"	H	INSULATED ALUMINUM	H1/10.2	J7/A10.2	S2/10.2	-	RHR	9	EXTERIOR	SEE STRUCT.		
114B	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H2/10.2	J2/A10.2	-	-	RHR	10	114	:		
115A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	8	109	:		
116A	3'-0"	7'-0"	1 3/4"	E	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H5/10.2	J7/A10.2 LC J6/A10.2 HI	S2/10.2	-	RHR	11	EXTERIOR	SEE STRUCT.	TINTED GLASS - SEE SPECS FOR TINT	
116B	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	4	109	:		
118A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	6	116	:		
119A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	7	116	:		
120A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	7	116	:		
121A	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H5/10.2	J7/A10.2 LC J6/A10.2 HI	S2/10.2	-	RHR	9	EXTERIOR	B		
121B	3'-0"	7'-0"	1 3/4"	A	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H2/10.2	J2/A10.2	-	-	RHR	10	121	:		
122A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	12	123	:		
124A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-4"	B	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	4	123	B		
125A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	7	129	:		
126A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	6	129	:		
127A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	6	129	:		
128A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LH	6	129	:		
130A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	7	131	:		
131A	3'-4"	7'-0"	1 3/4"	C	-	-	WOOD	3'-8"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RHR	13	102	:		
132A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	45	LHR	14	131	B	
133A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	45	LHR	14	131	:	
134A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	45	LHR	14	129	:	
134B	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	45	LHR	14	131	:	
135A	3'-0"	7'-0"	1 3/4"	D	-	-	WOOD	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	4	136	A		
136A	3'-4"	7'-0"	1 3/4"	G	-	-	INSULATED HOLLOW METAL	3'-8"	7'-4"	D	INSULATED HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RHR	5	143	A		
136B	3'-4"	7'-0"	1 3/4"	C	-	-	WOOD	3'-8"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	7	131	A		
137A	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	LH	5	136	A		
138A	3'-0"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	6	139	A		
138B	3'-0"	7'-0"	1 3/4"	B	-	-	WOOD	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	21	129	A		
140A	3'-0"	7'-0"	1 3/4"	G	-	-	INSULATED HOLLOW METAL	3'-4"	7'-4"	D	INSULATED HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RHR	5	143	A		
140B	3'-0"	7'-0"	1 3/4"	C	-	-	WOOD	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	LH	7	129	A		
142A	8'-0"	8'-0"	1 3/4"	F	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
142B	3'-0"	7'-0"	1 3/4"	J	-	-	INSULATED HOLLOW METAL	3'-4"	7'-4"	D	INSULATED HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RH	7	143	A		
143A	14'-0"	14'-0"	1 3/4"	H	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
143B	14'-0"	14'-0"	1 3/4"	H	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
143C	14'-0"	14'-0"	1 3/4"	H	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
143D	14'-0"	14'-0"	1 3/4"	H	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
143E	14'-0"	14'-0"	1 3/4"	H	-	-	PRE-FINISHED STEEL	-	-	-	BY MANUF.	H4/10.2	J6/A10.2 LC J4/A10.2 HI	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
143F	3'-0"	7'-0"	1 3/4"	E	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H5/10.2	J1/A10.2 LC J6/A10.2 HI	S2/10.2	-	LHR	11	EXTERIOR	SEE PEMB		
143G	14'-0"	14'-0"	1 3/4"	M	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H6/10.2	J6/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
143H	14'-0"	14'-0"	1 3/4"	M	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H6/10.2	J6/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
143J	14'-0"	14'-0"	1 3/4"	M	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H6/10.2	J6/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
143K	14'-0"	14'-0"	1 3/4"	M	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H6/10.2	J6/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
143L	14'-0"	14'-0"	1 3/4"	M	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H6/10.2	J6/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
143M	3'-0"	7'-0"	1 3/4"	E	-	-	INSULATED ALUMINUM	3'-4"	7'-2"	C	INSULATED ALUMINUM	H1/10.2 SIM.	J7/A10.2 SIM.	S2/10.2	-	RHR	11	EXTERIOR	B		
146A	3'-6"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-10"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	20	RH	7	148	A	
147A	3'-6"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-10"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	LH	7	148	A		
148A	3'-0"	7'-0"	1 3/4"	E	-	-	INSULATED ALUMINUM	3'-4"	7'-4"	H	INSULATED ALUMINUM	H1	J1/A10.2	S2/10.2	-	RHR	9	EXTERIOR	B		
149A	3'-6"	7'-0"	1 3/4"	K	-	-	INSULATED ALUMINUM	3'-10"	7'-4"	H	INSULATED ALUMINUM	H1	J1/A10.2	S2/10.2	-	RHR	16	EXTERIOR	B		
150A	3'-6"	7'-0"	1 3/4"	Q	-	-	STEEL	3'-10"	7'-4"	G	HOLLOW METAL	H7/10.2	J9/A10.2	-	-	LH	17	143/150	A	STORM SHELTER DOOR ICC-500-2014 STANDARDS PROVIDE SIGN - SEE DETAIL H10.3A10.3	
150B	3'-6"	7'-0"	1 3/4"	Q	-	-	STEEL	3'-10"	7'-4"	G	HOLLOW METAL	H7/10.2	J9/A10.2	-	-	LHR	17	148/150	A	STORM SHELTER DOOR ICC-500-2014 STANDARDS PROVIDE SIGN - SEE DETAIL H10.3A10.3	
151A	3'-0"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	LH	6	152	A		
152A	10'-0"	10'-0"	1 3/4"	L	-	-	PRE-FINISHED ALUMINUM	-	-	-	BY MANUF.	H4/10.2	J4/A10.2	S3/A10.2	-	-	15	EXTERIOR	SEE PEMB	OVERHEAD DOOR	
152B	3'-0"	7'-0"	1 3/4"	N	-	-	HOLLOW METAL	3'-4"	7'-4"	D	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	LH	7	143	A		
200A	3'-0"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	RH	19	201	:		
201A	3'-0"	4'-6"	1 3/4"	O	-	-	HOLLOW METAL	3'-4"	5'-0"	E	HOLLOW METAL	H3/10.2 SIM.	J3/A10.2	-	-	RHR	18	201	A	WITH HOLD OPEN	
201B	4'-0"	4'-6"	1 3/4"	P	-	-	HOLLOW METAL	4'-4"	5'-0"	F	HOLLOW METAL	H3/10.2 SIM.	J3/A10.2	-	-	LHR	18	201	A	WITH HOLD OPEN	
202A	3'-0"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-4"	7'-2"	B	HOLLOW METAL	H2/10.2	J2/A10.2	-	-	LHR	19	201	:		
203A	3'-0"	7'-0"	1 3/4"	J	-	-	HOLLOW METAL	3'-4"	7'-2"	B	HOLLOW METAL	H3/10.2	J3/A10.2	-	-	RHR	20	203	A		



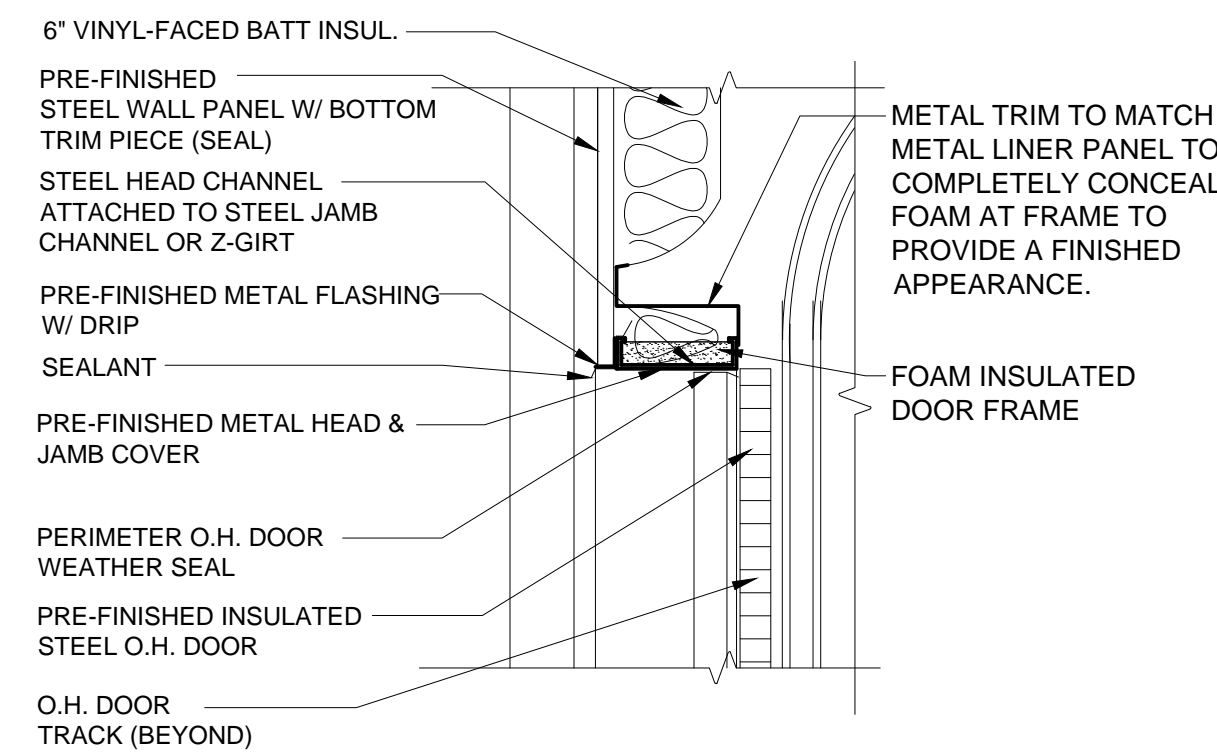
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A10.2
HEAD DETAIL
SCALE: 1"=1'-0"



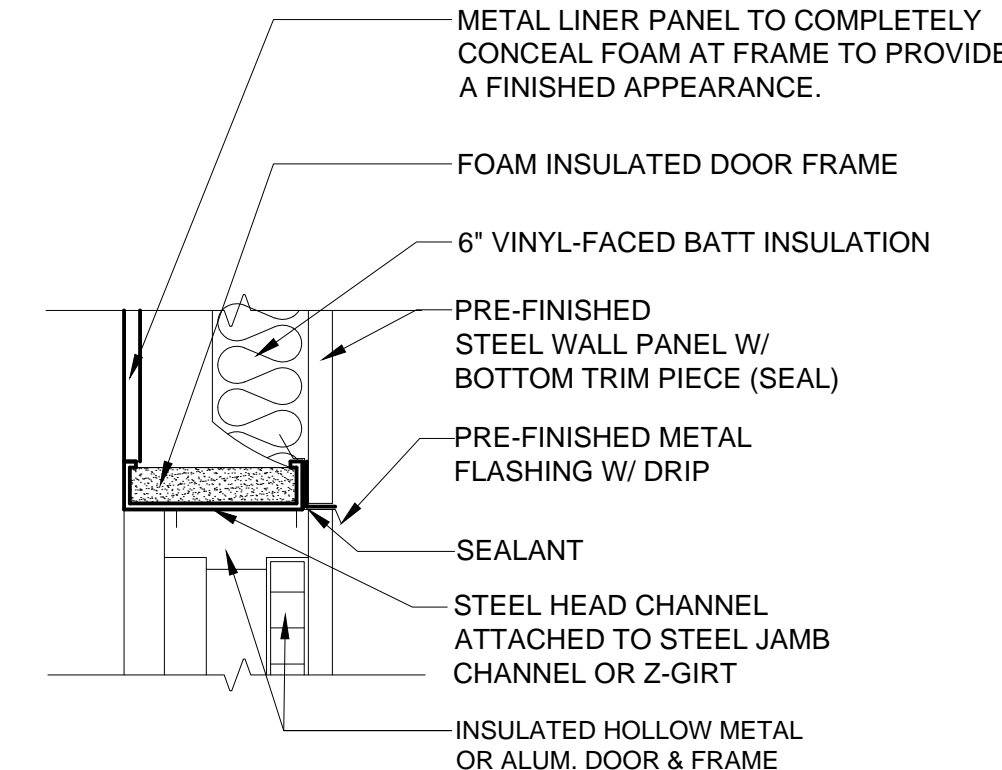
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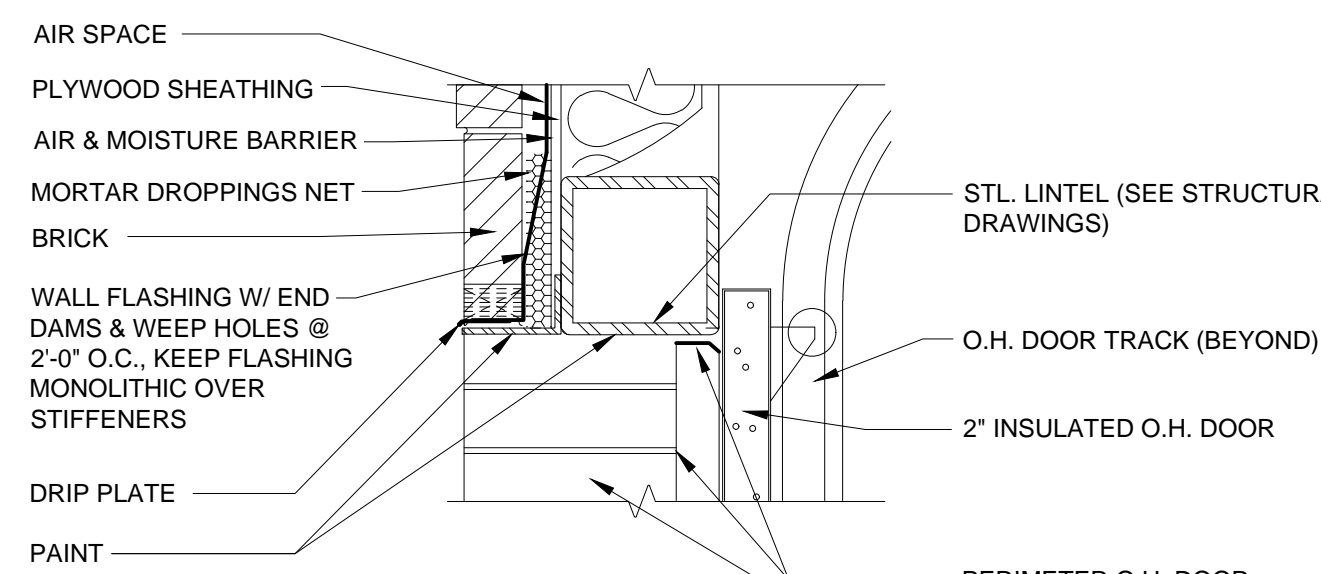
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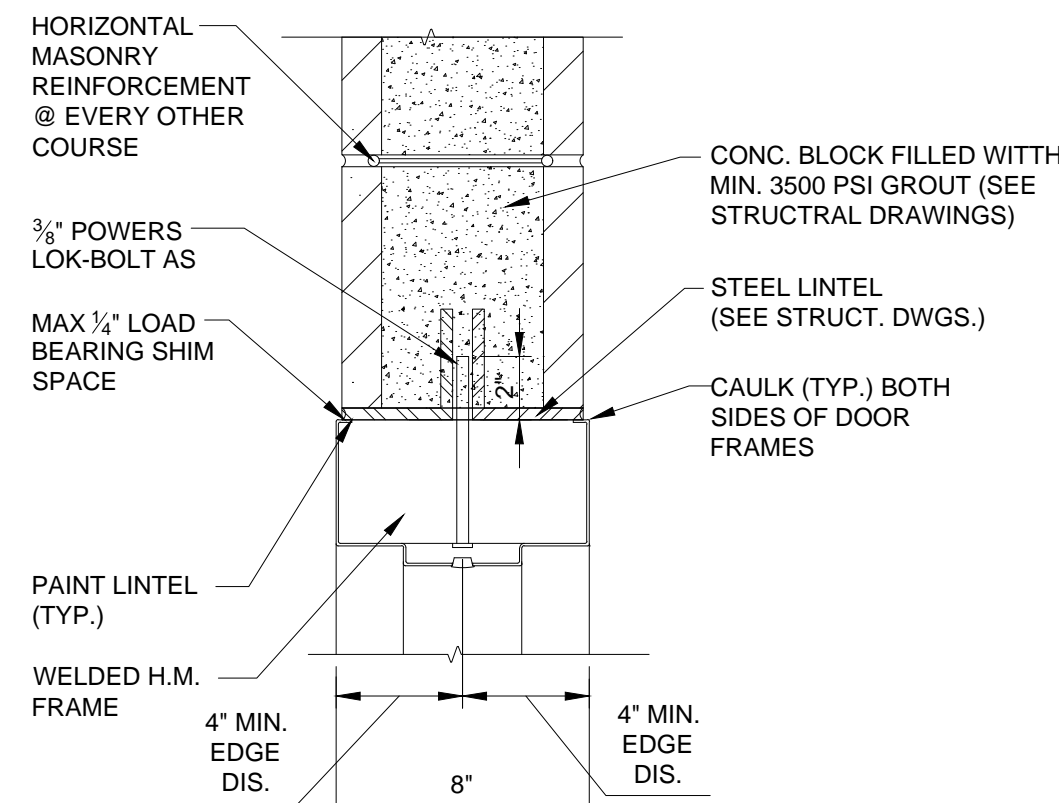
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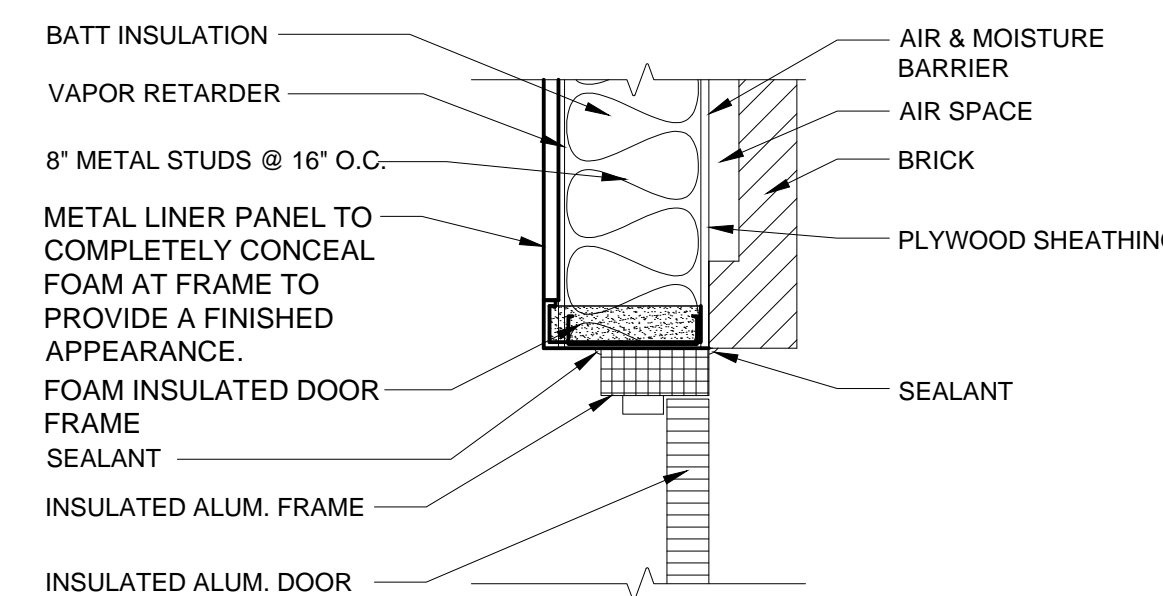
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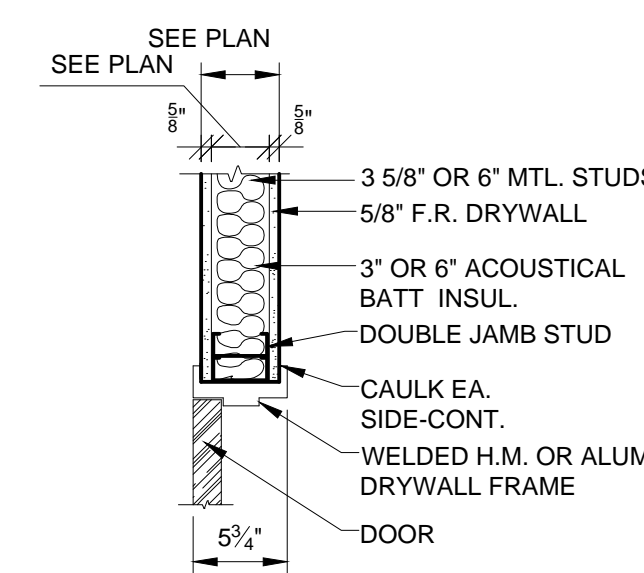
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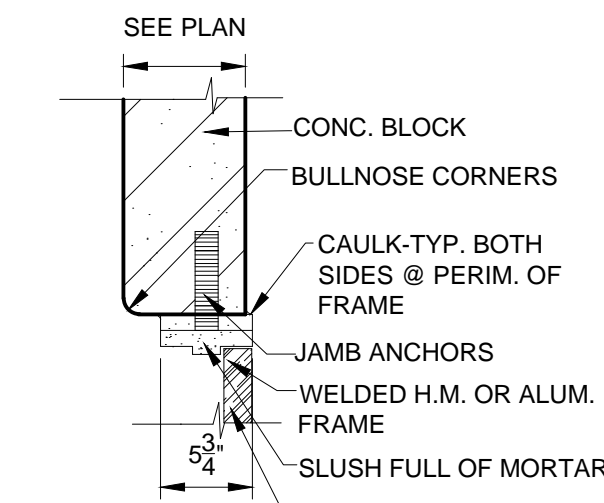
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A10.2
HEAD DETAIL
SCALE: 1 1/2"=1'-0"



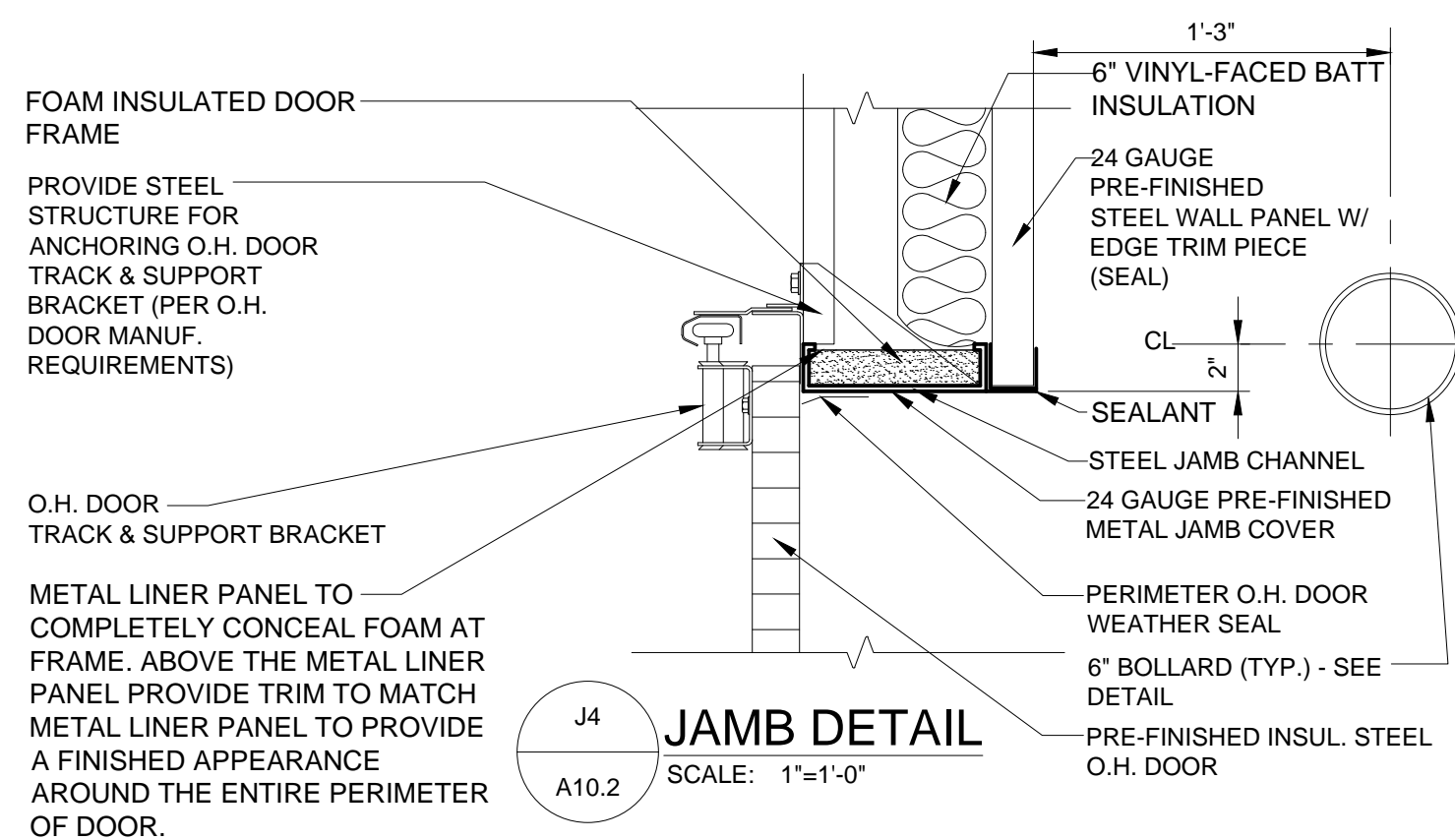
J1
A10.2
JAMB DETAIL
SCALE: 1"=1'-0"



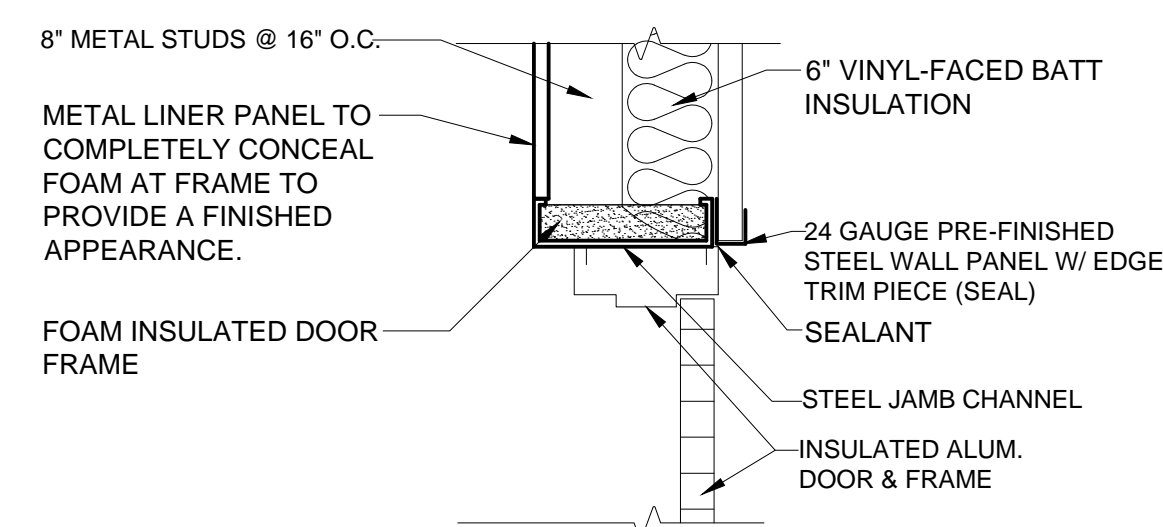
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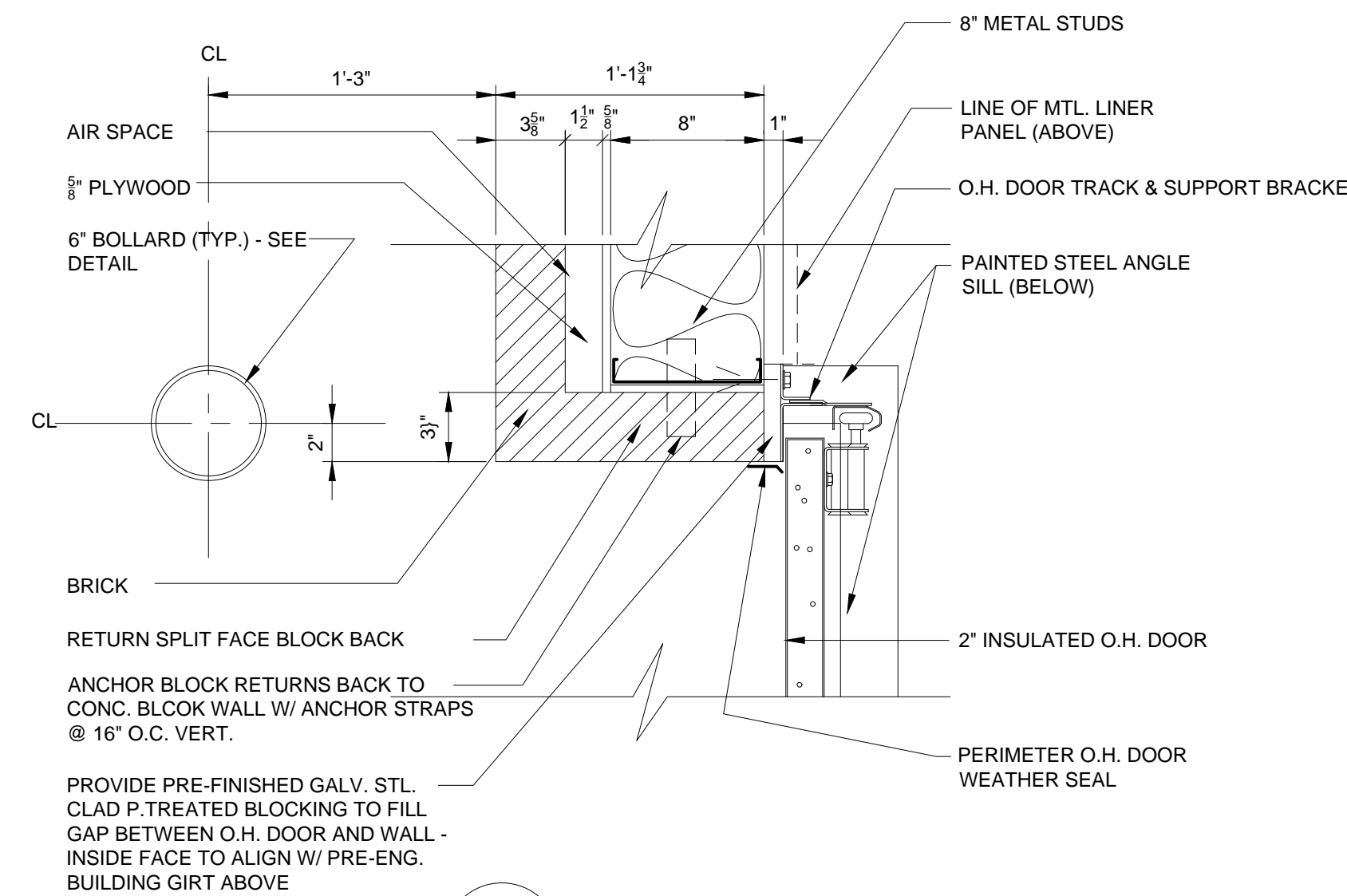
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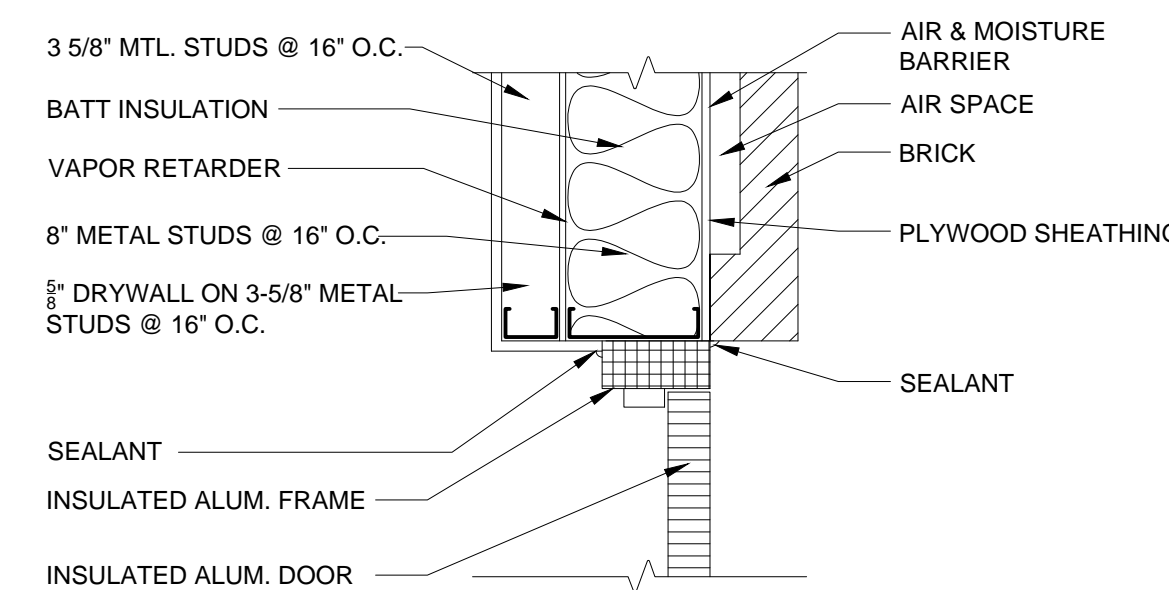
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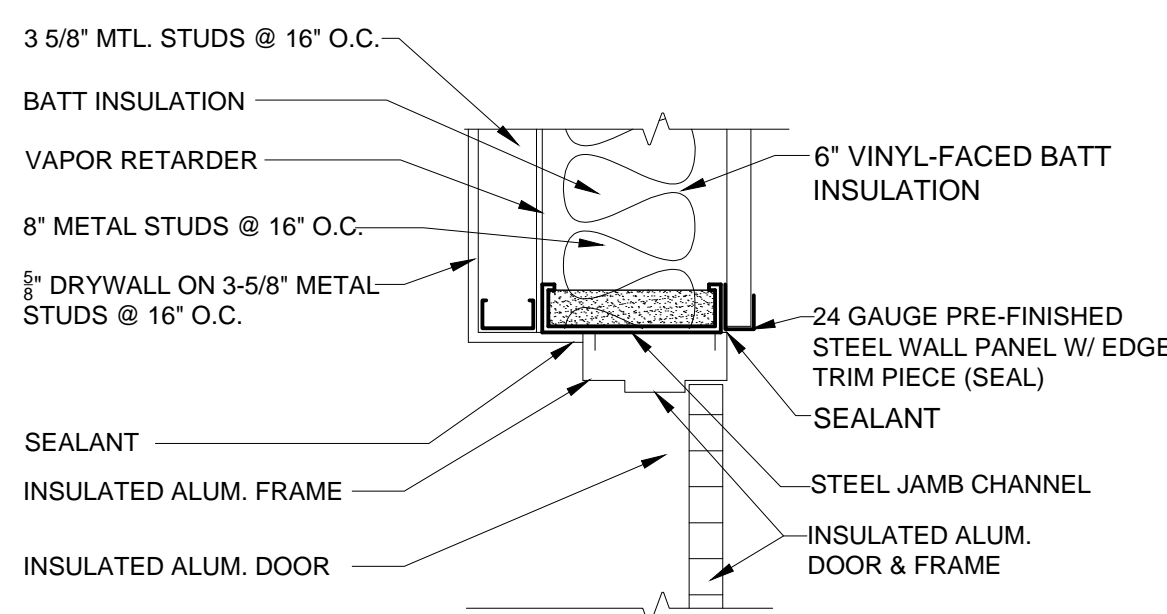
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JAMB DETAIL
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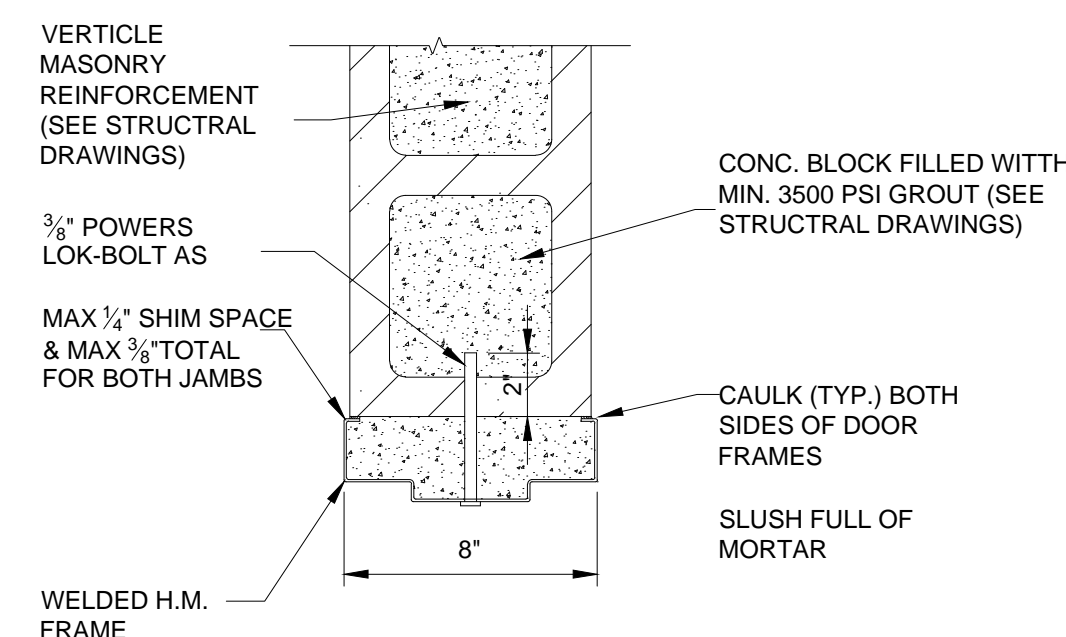
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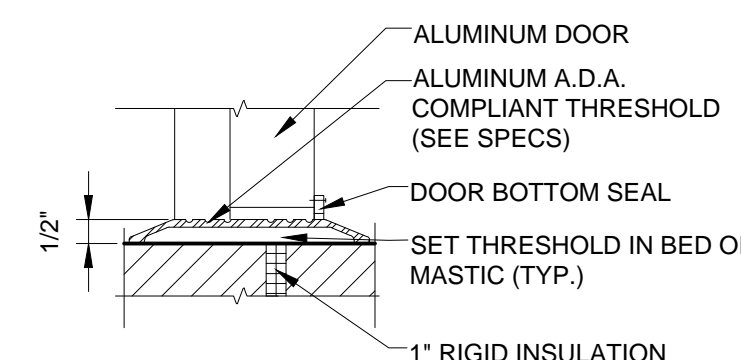
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JAMB DETAIL
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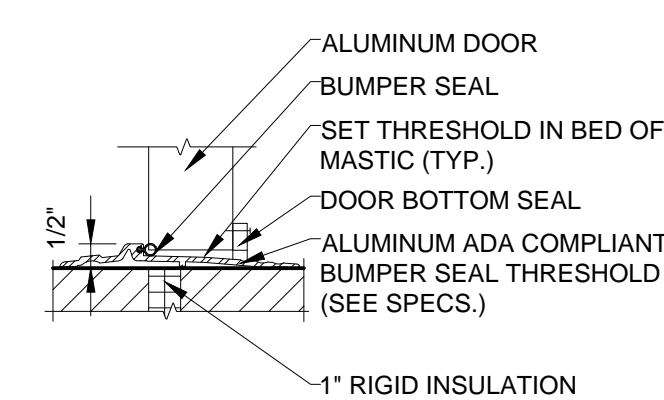
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A10.2
JAMB DETAIL
SCALE: 1"=1'-0"



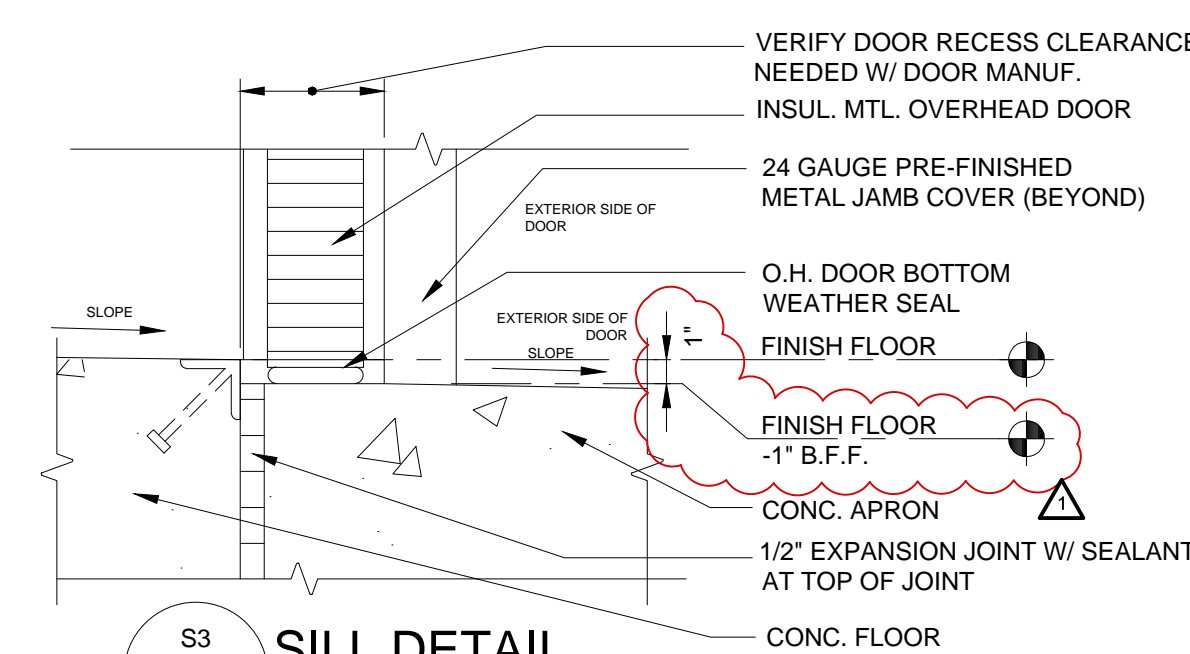
J9
A10.2
JAMB DETAIL
SCALE: 1 1/2"=1'-0"



S1
A10.2
SILL DETAIL
SCALE: 3"=1'-0"



S2
A10.2
SILL DETAIL
SCALE: 3"=1'-0"



S3
A10.2
SILL DETAIL
SCALE: 3"=1'-0"

DOOR DETAILS
SEE ELEVATIONS & SCHEDULE ON SHEET A10.1

NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD

OHIO

OREGON

BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., WAUWATSEGA, WI 53095
P: 414.893.9021 | F: 414.893.9027 | BUEHRERGROUP.COM

REVISION SCHEDULE

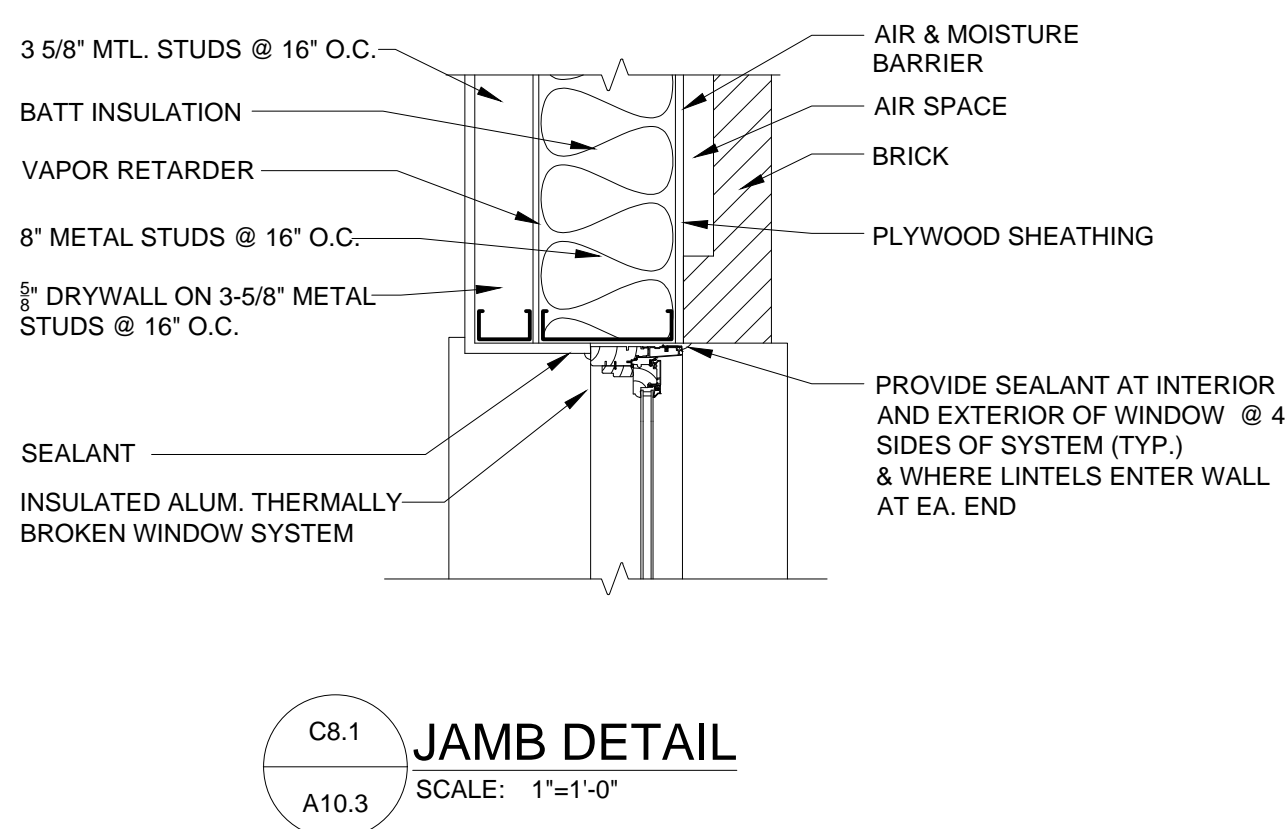
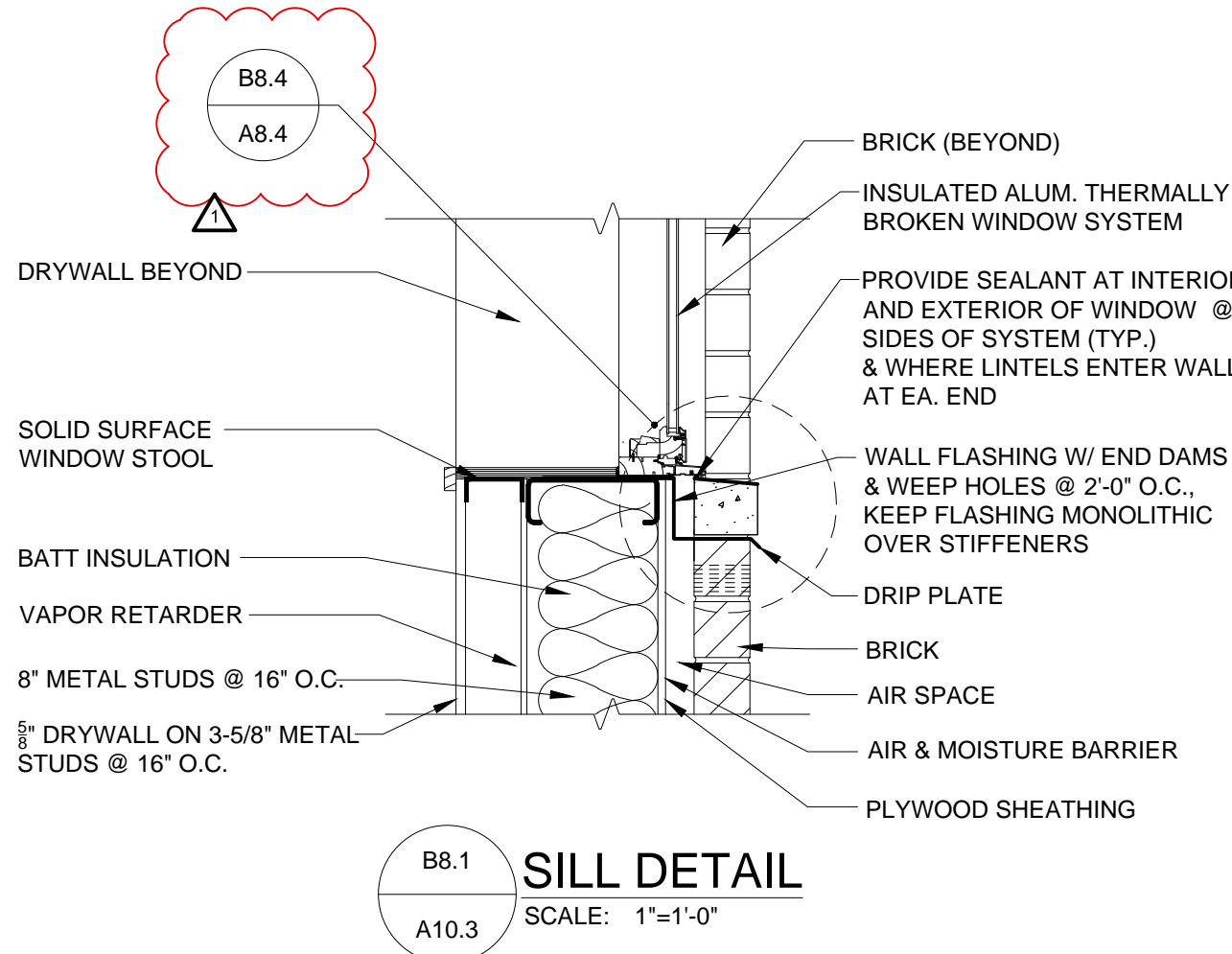
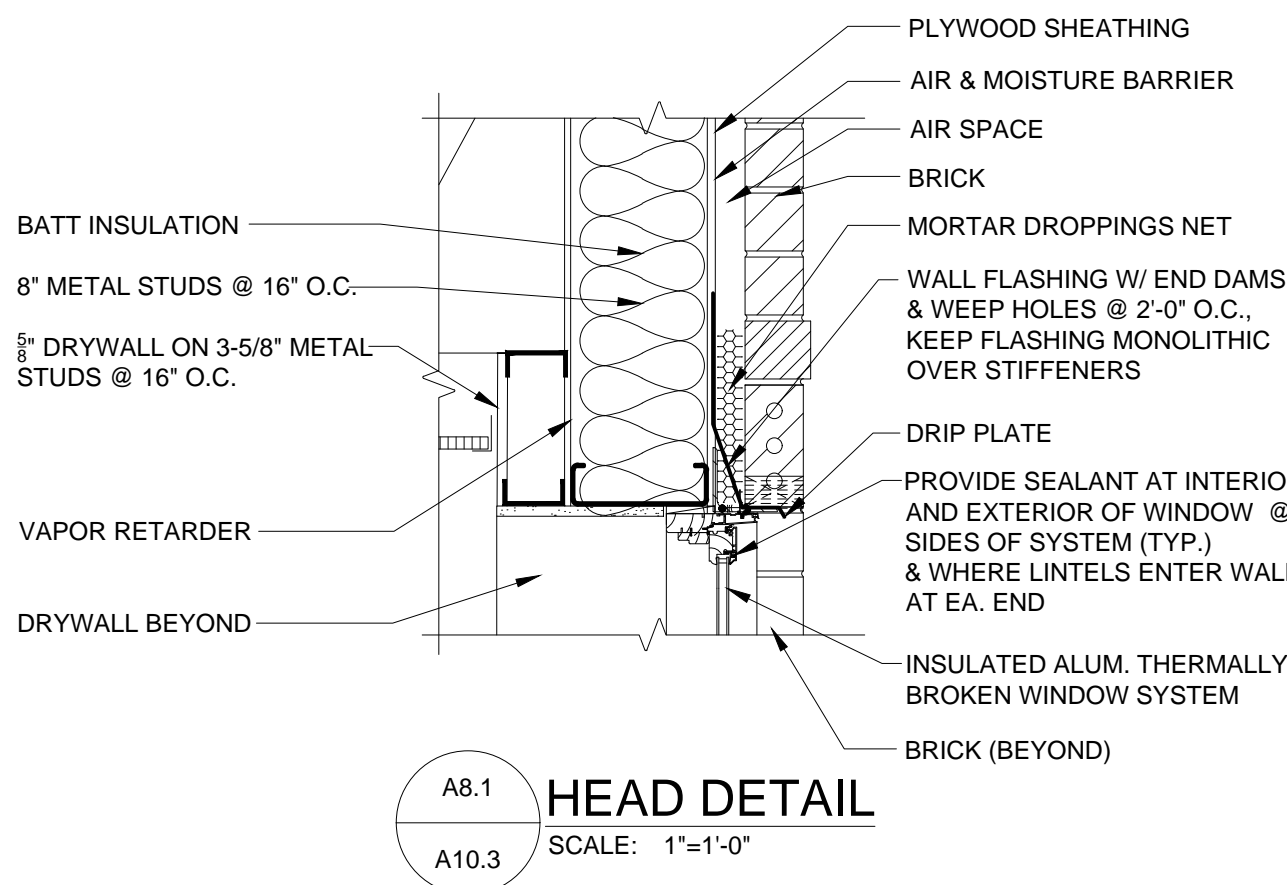
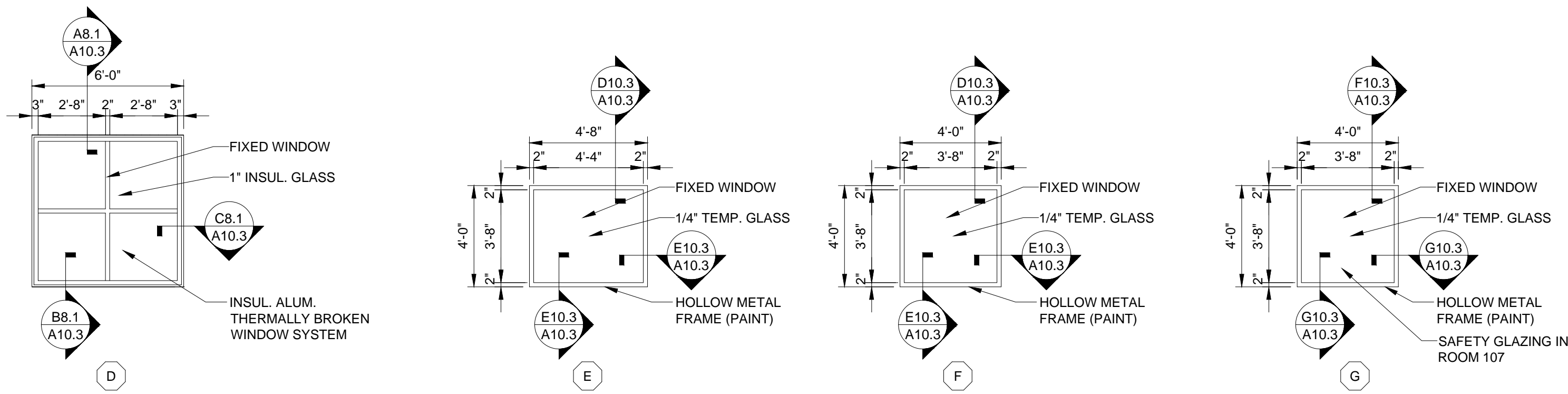
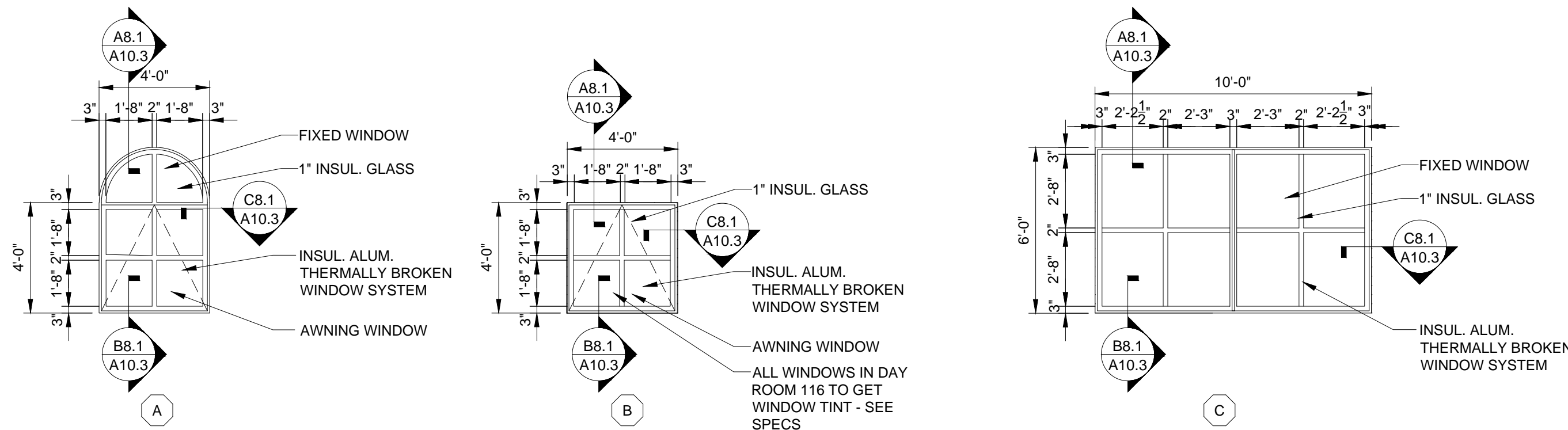
2021-06-30

ISSUE DATE: 06/17/21

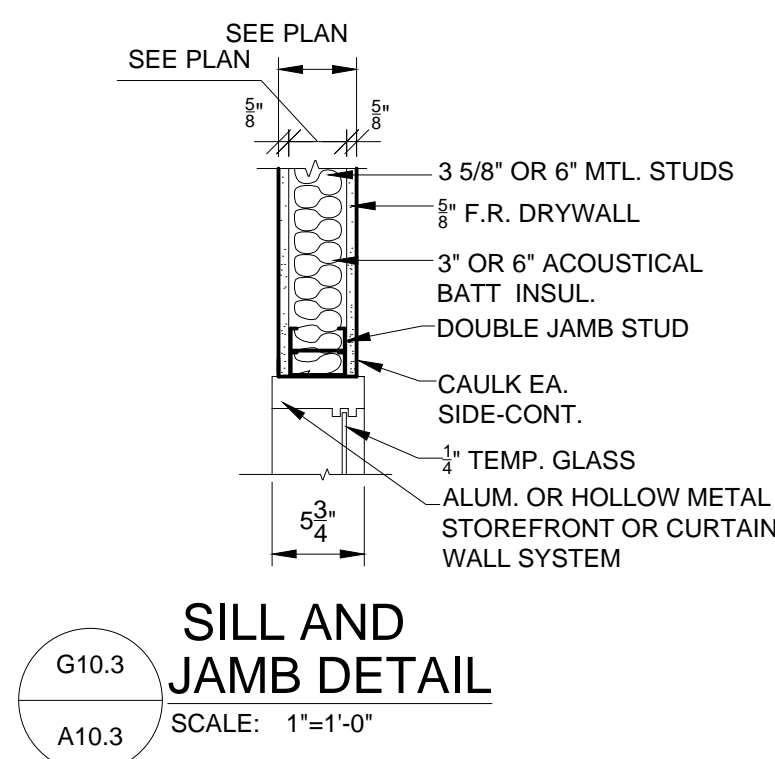
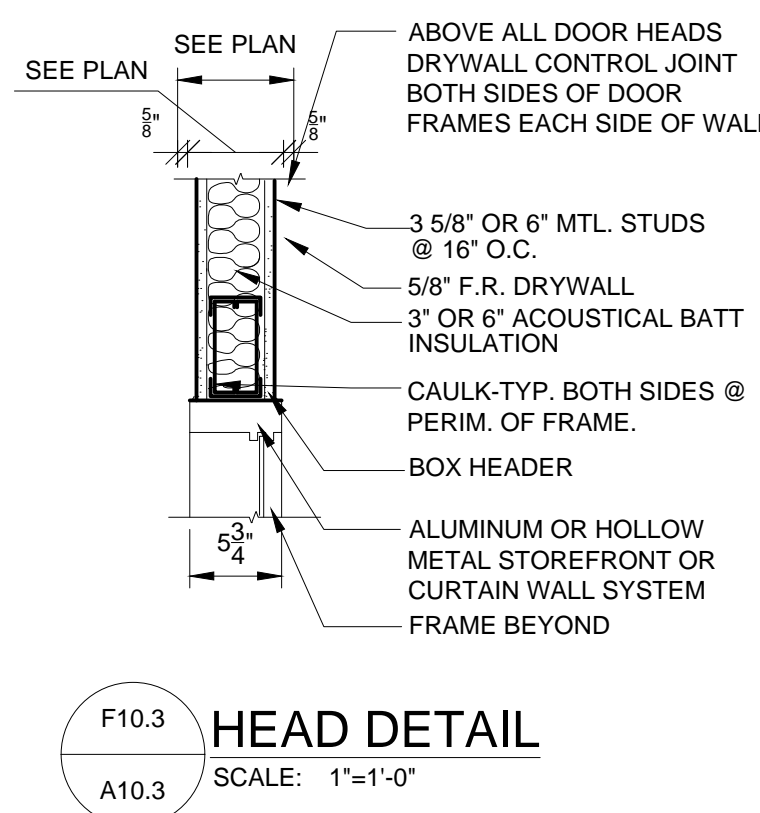
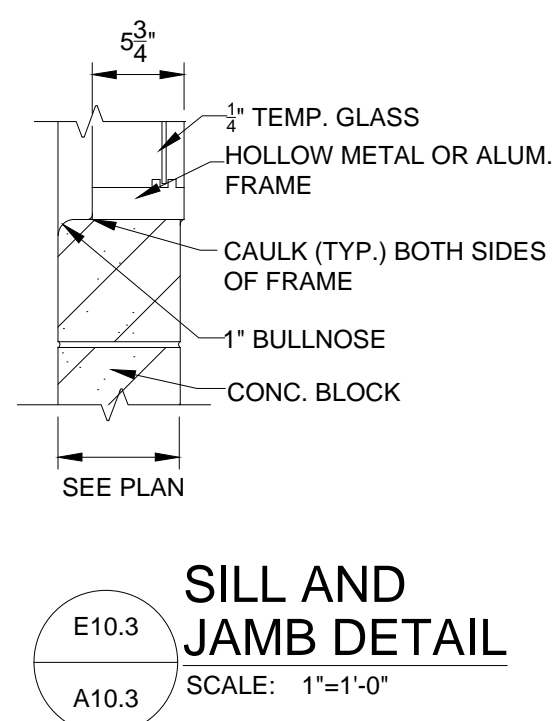
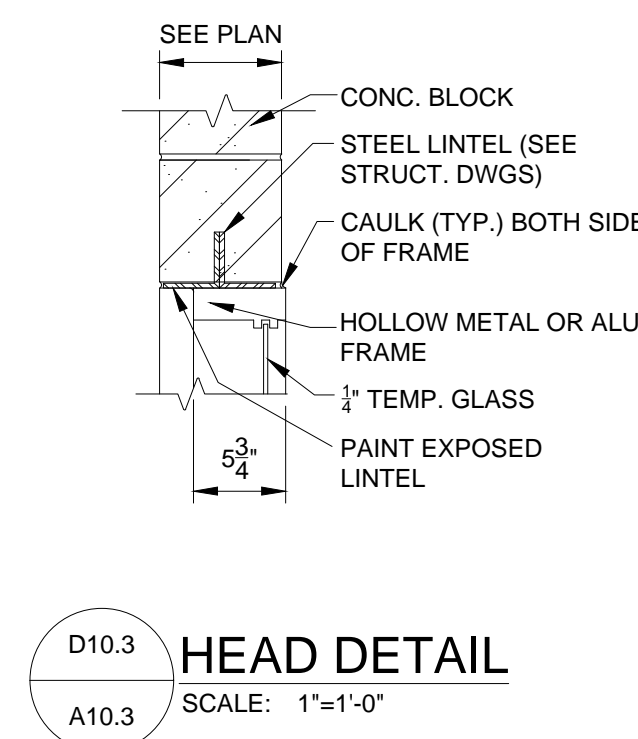
JOB NUMBER: 201296

CONSTRUCTION DOCUMENTS

A10.2

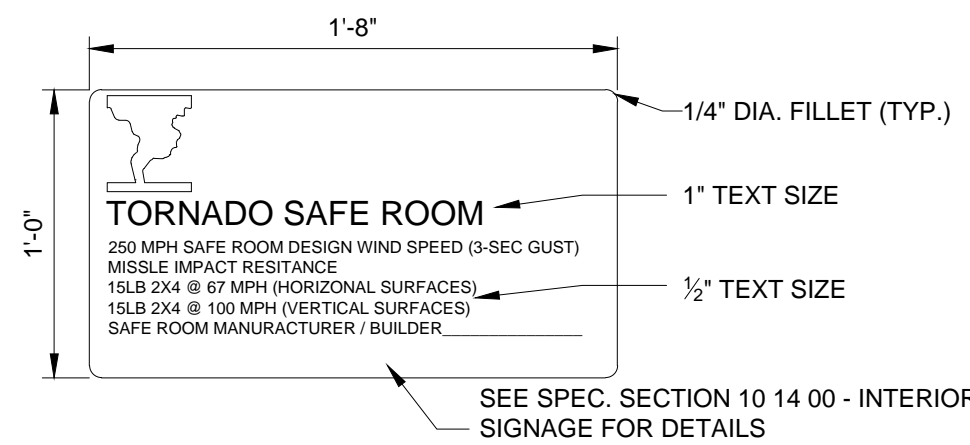


- WINDOW NOTES**
1. PROVIDE INTERMETALIC SEPARATION WHERE REQ'D
 2. COLOR ALL WALL VENTILATORS AND WALL WEEPS TO MATCH COLOR OF MORTAR.
 3. SEAL W/ CAULK OR TAPE ALL RIGID INSULATION JOINTS
 4. KEEP ALL FLASHING MONOLITHIC OVER LINTEL STIFFENERS
 5. SPRAY FOAM INSULATE ALL EXTERIOR WINDOW FRAMES TYP.



- ALTERNATE 9**
- UNDER ALTERNATE #9 PROVIDE INTEGRAL BLINDS FOR ALL EXTERIOR WINDOWS

WINDOW DETAILS
SCALE: 1"=1'-0"



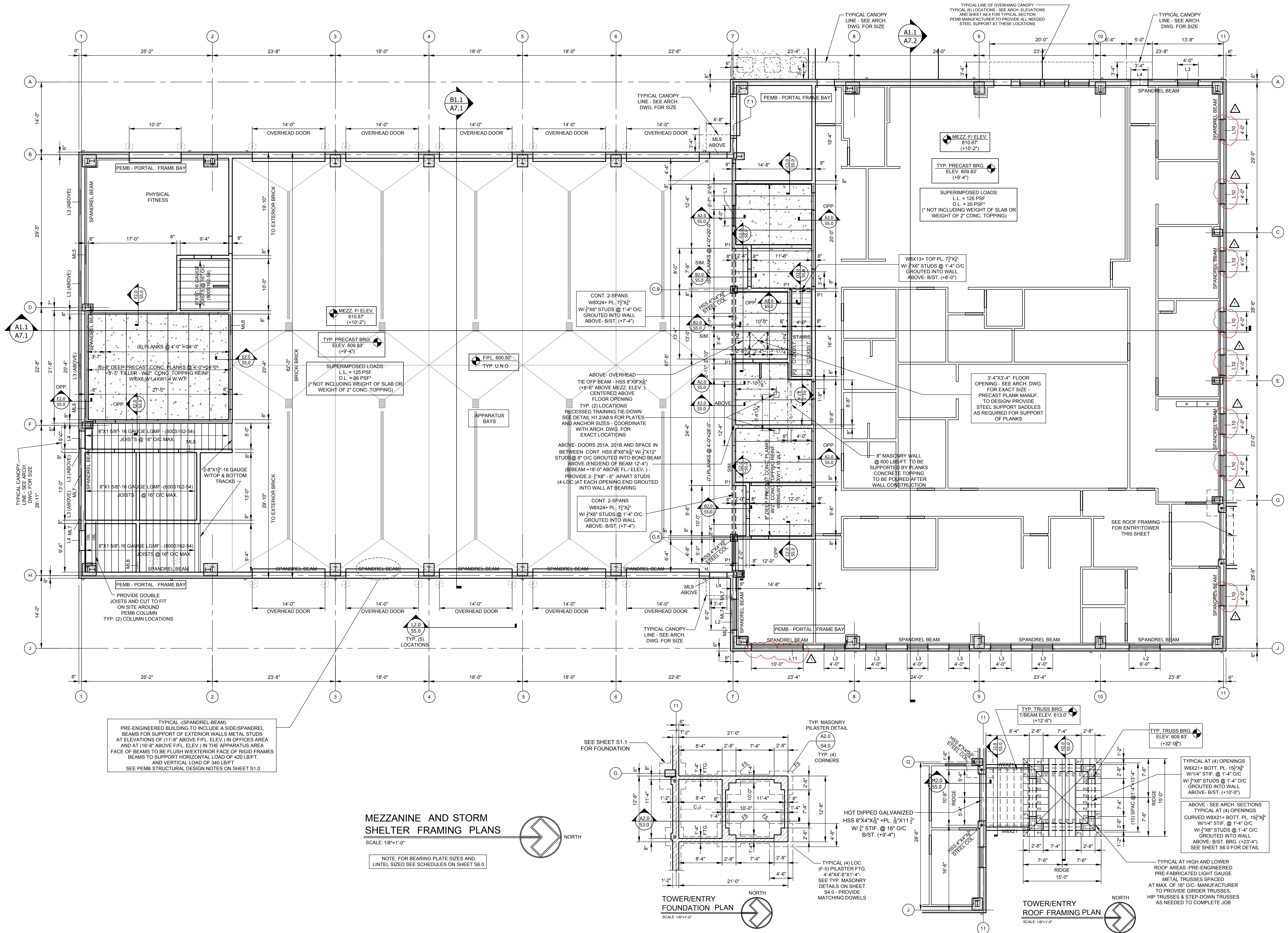
- STORM SHUTTER SIGN NOTES**
- SIGNAGE CRITERIA (REFERENCE ICC-500)
1. INSTALL PLAQUE, SIGN, OR OTHER MARKING TO CLEARLY IDENTIFY:
 - 1.1. 250 MPH, 3-SECOND GUST SAFE ROOM DESIGN WIND SPEED
 - 1.2. MISSILE IMPACT RESISTANCE RATING FOR:
 - 1.2.1. 15-LB. 2X4 TRAVELING HORIZANTALLY AT 100 MPH.
 - 1.2.2. 15-LB. 2X4 TRAVELING VERTICALLY AT 67 MPH.
 - 1.2.3. NAME OF DOOR MANUFACTURE
 2. THE SIGN SHALL BE MOUNTED ON THE INSIDE WALL OF THE SHELTERSPACE IN A PROMINENT LOCATION 60" ABOVE THE FLOOR.

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A10.3

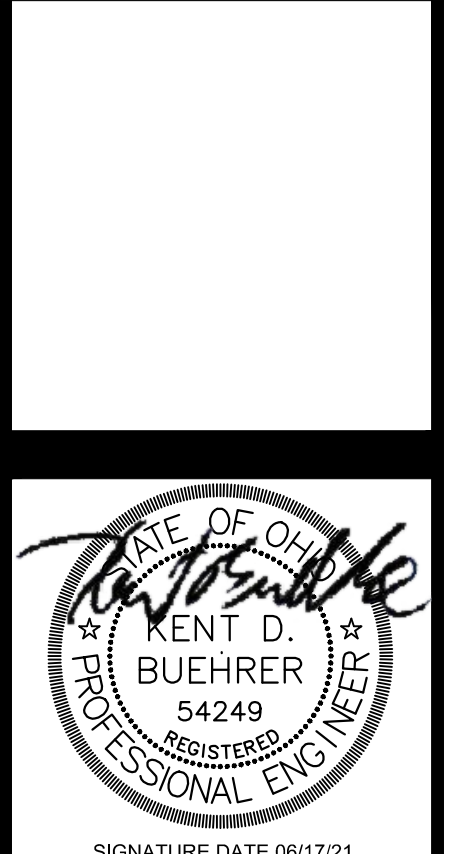
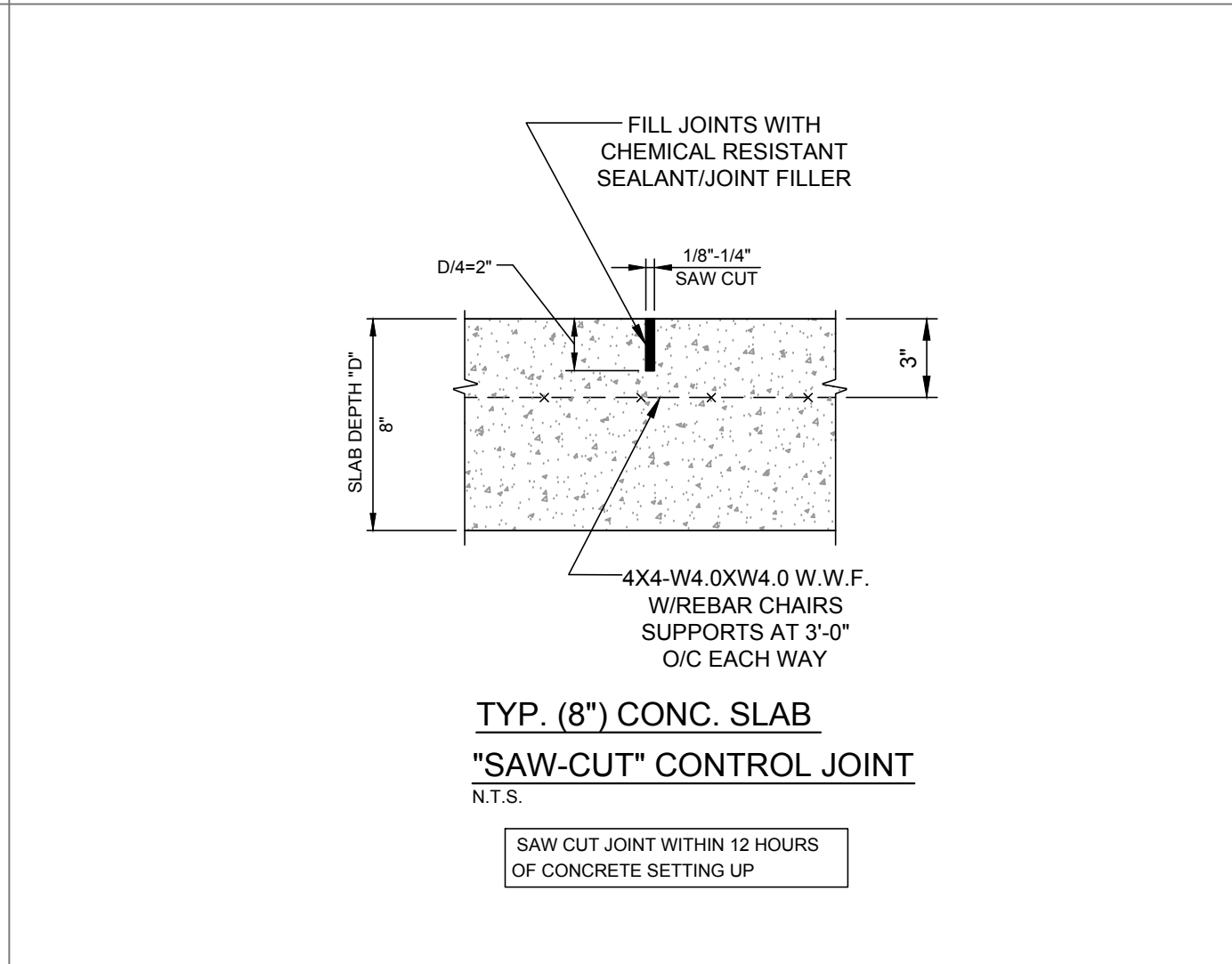
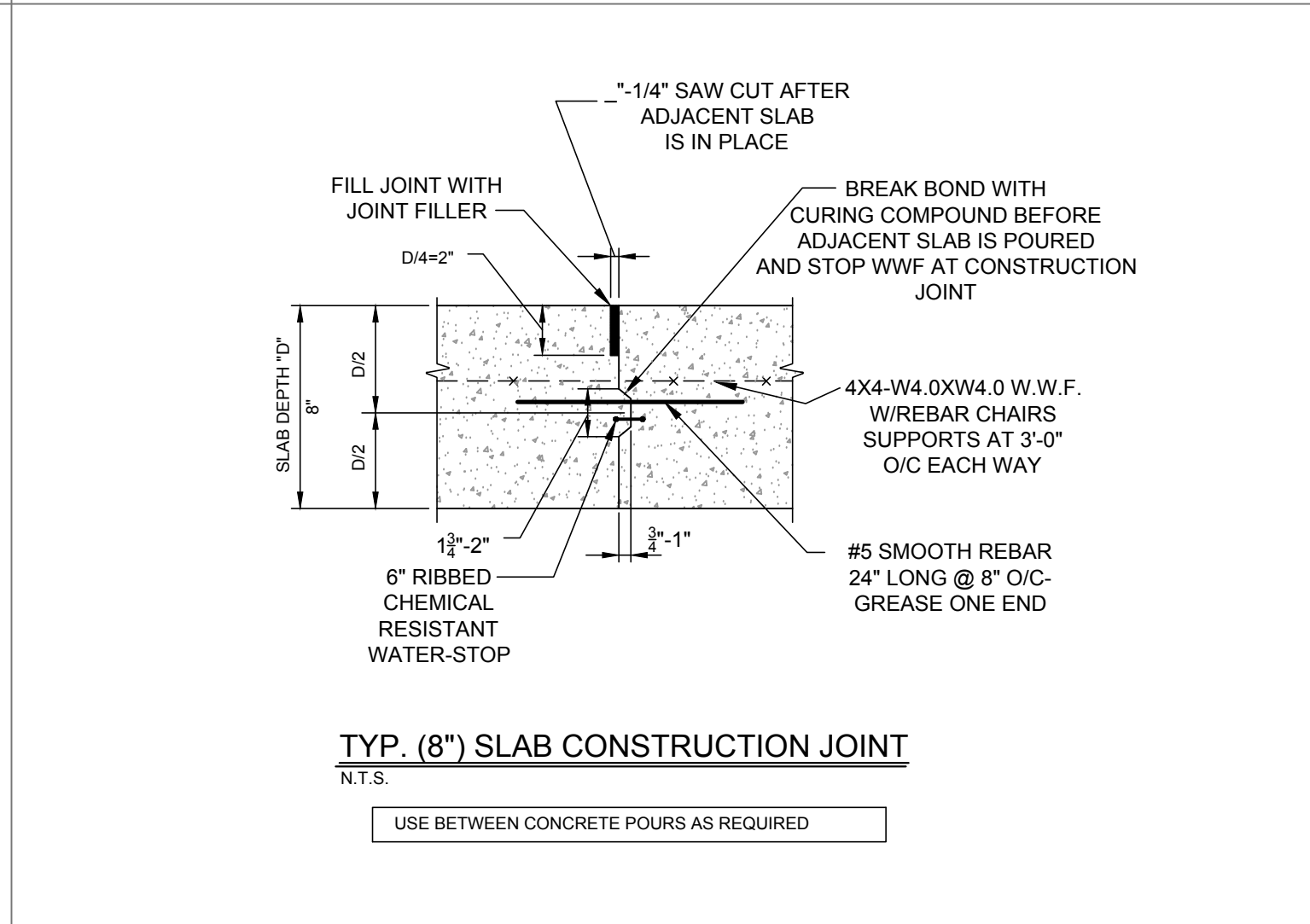
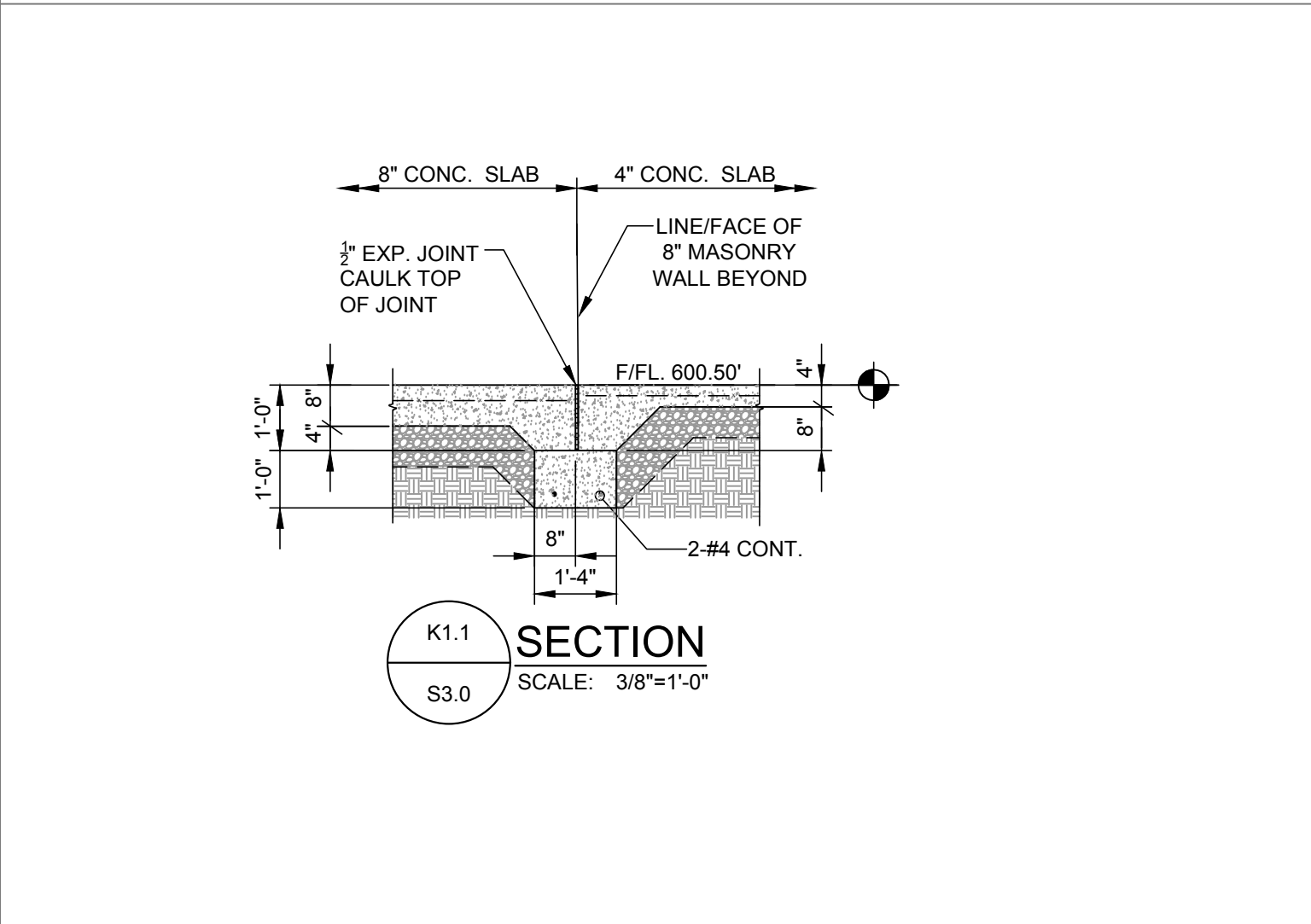
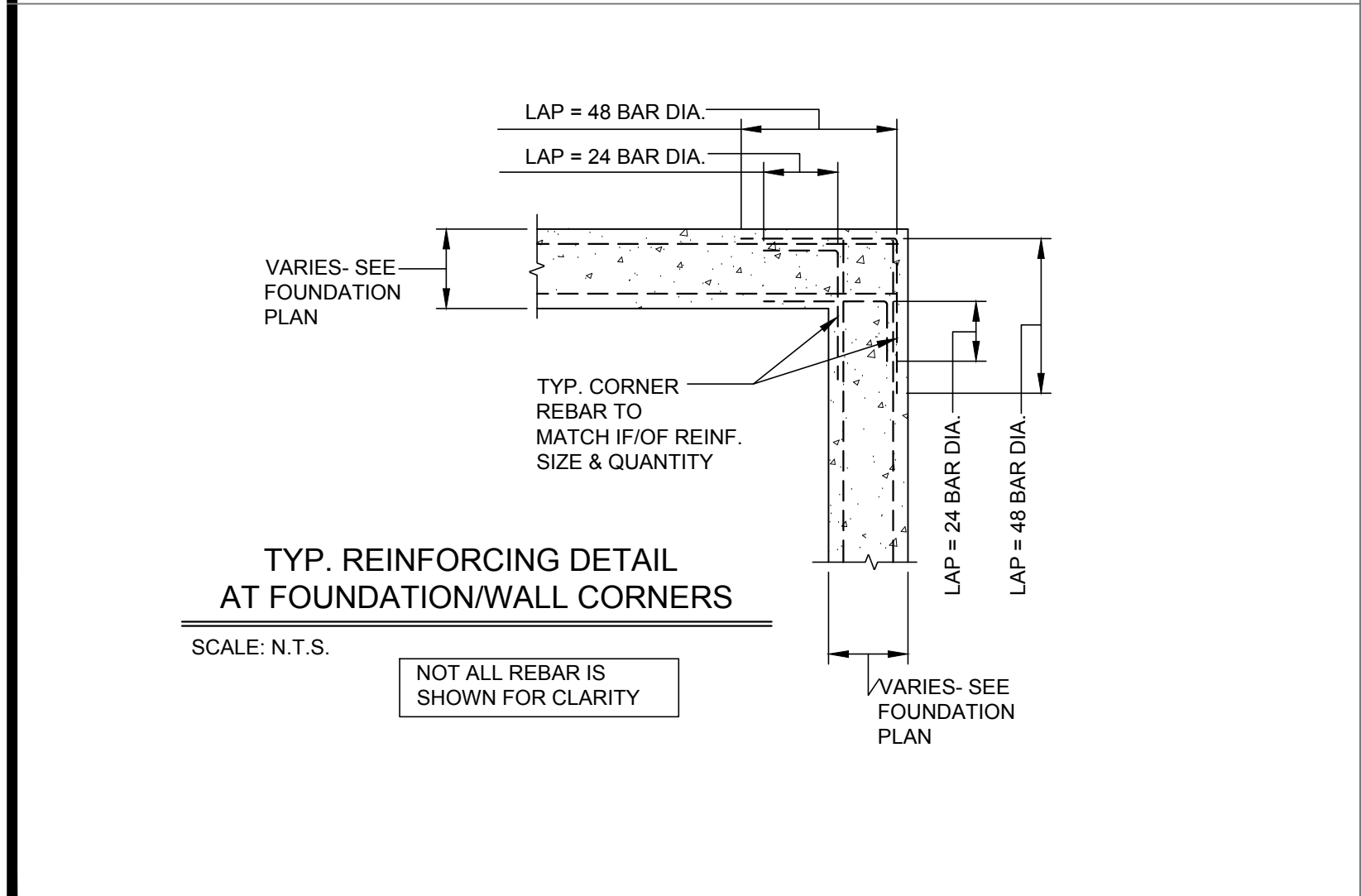
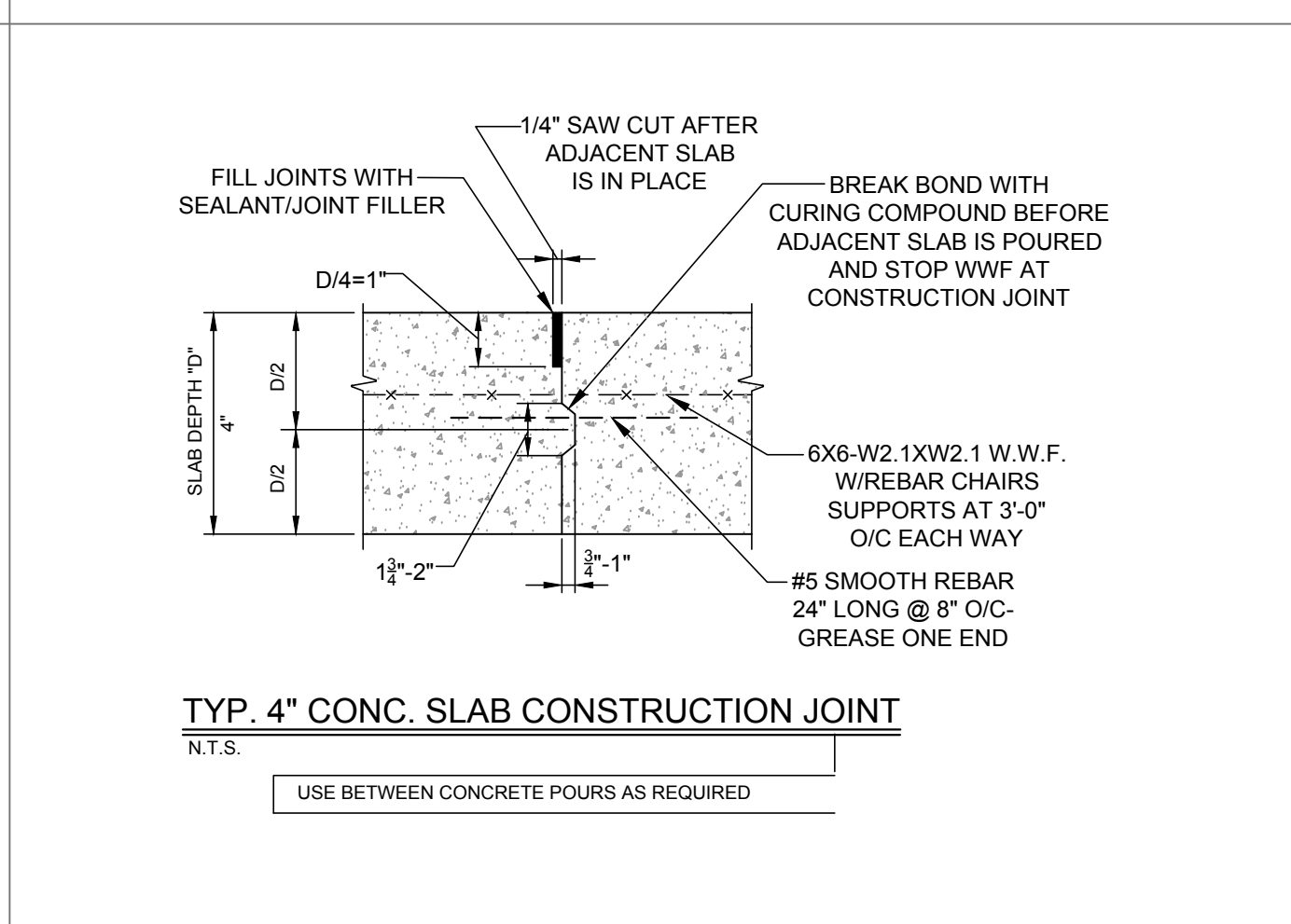
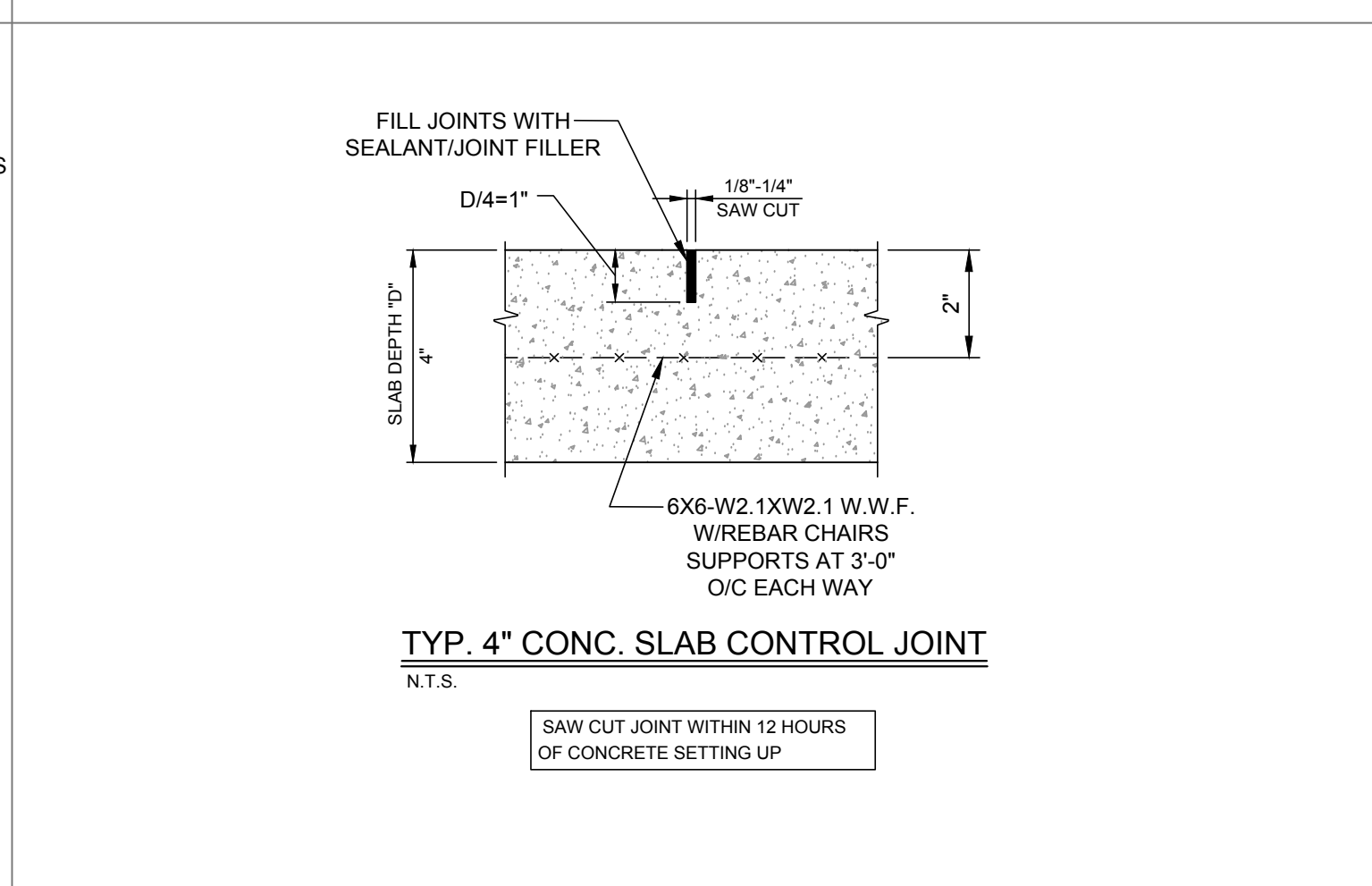
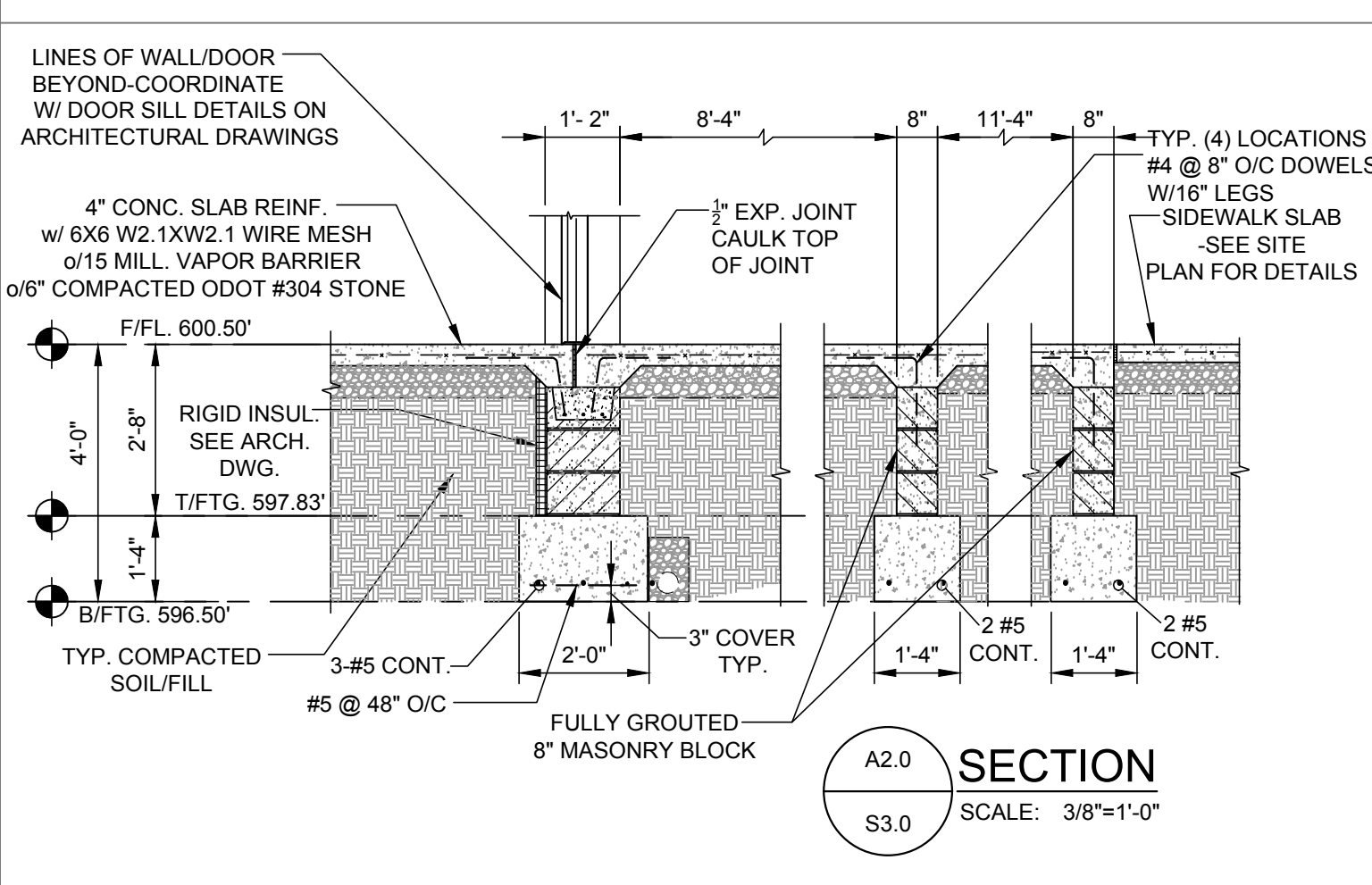
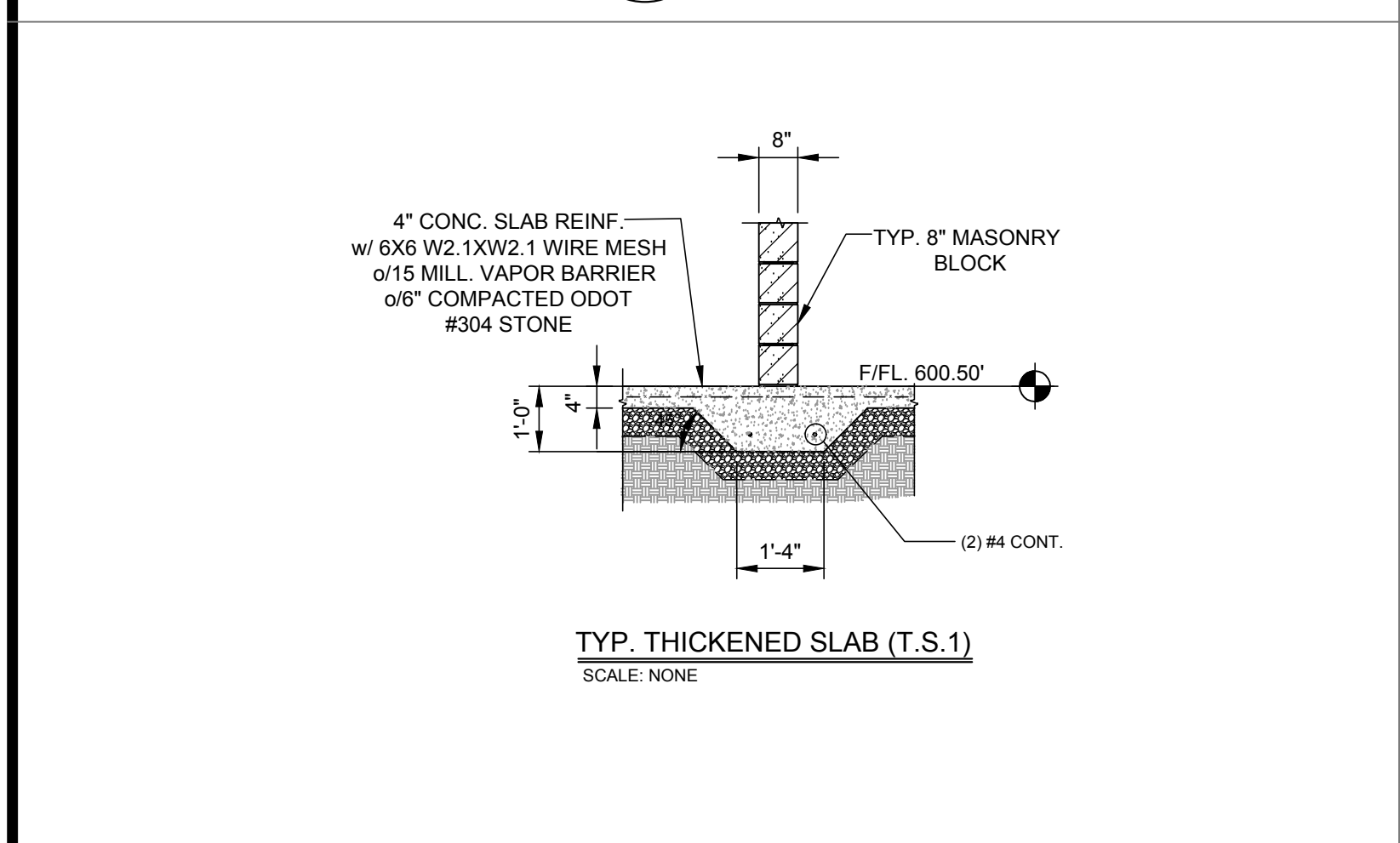
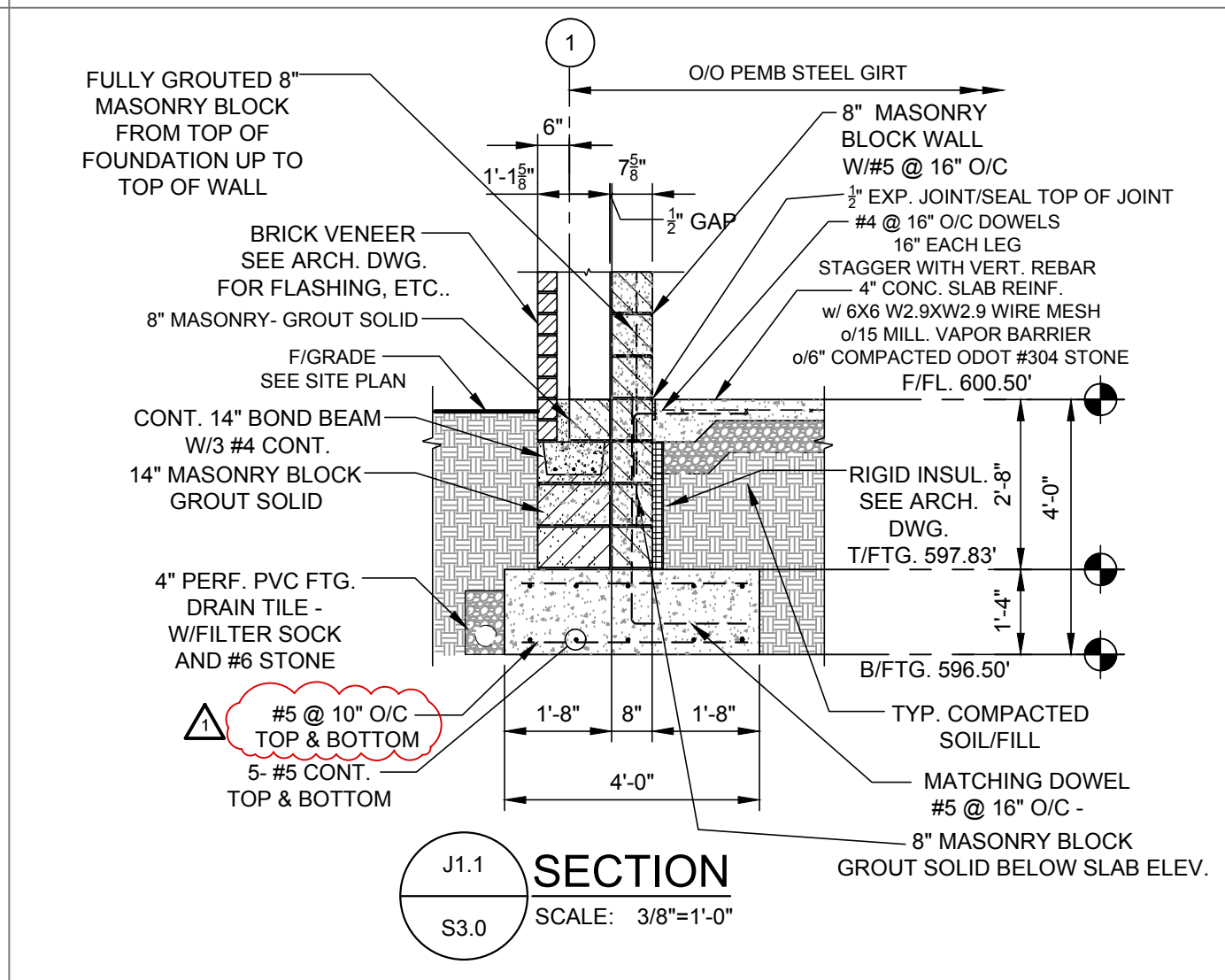
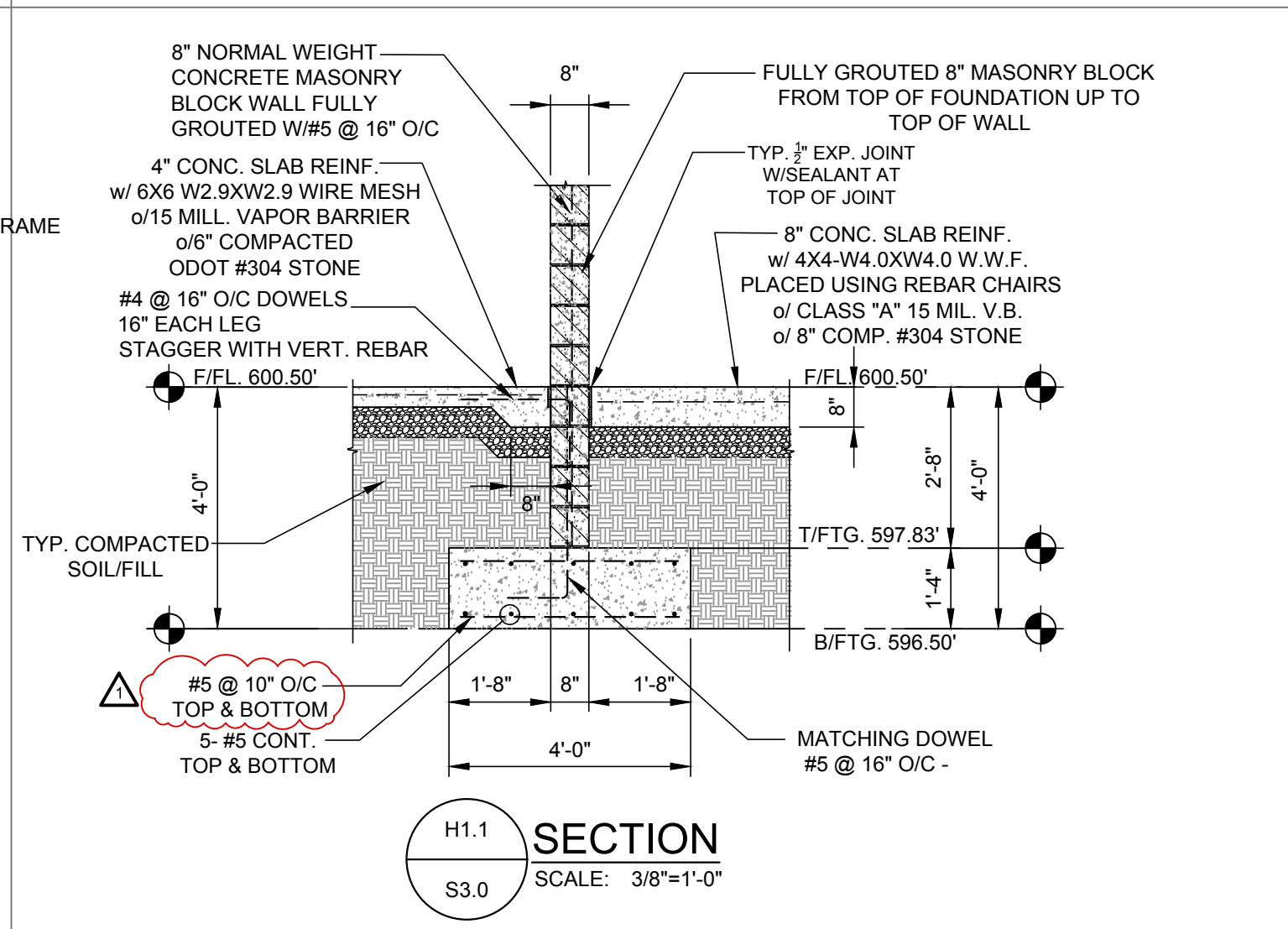
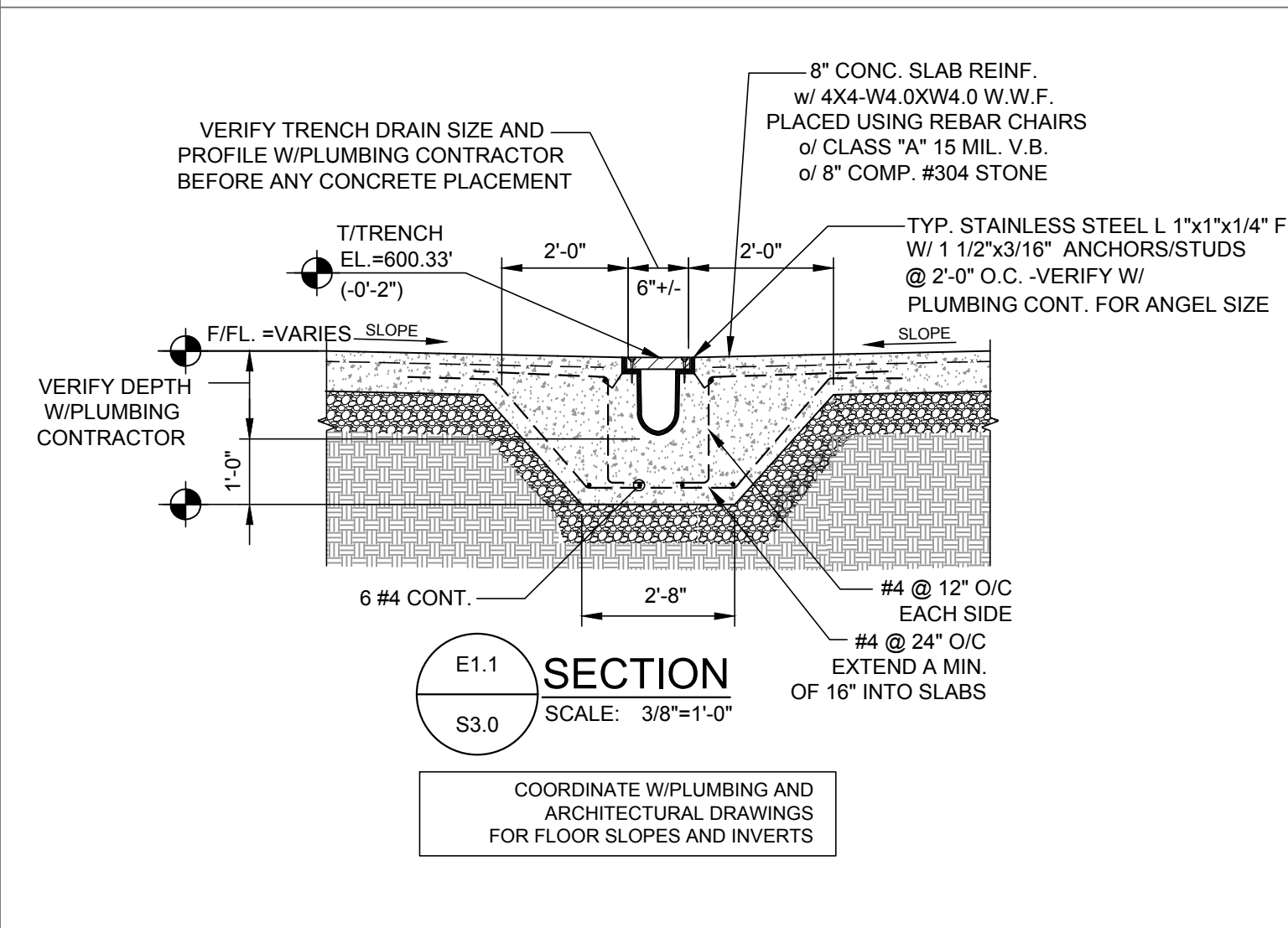
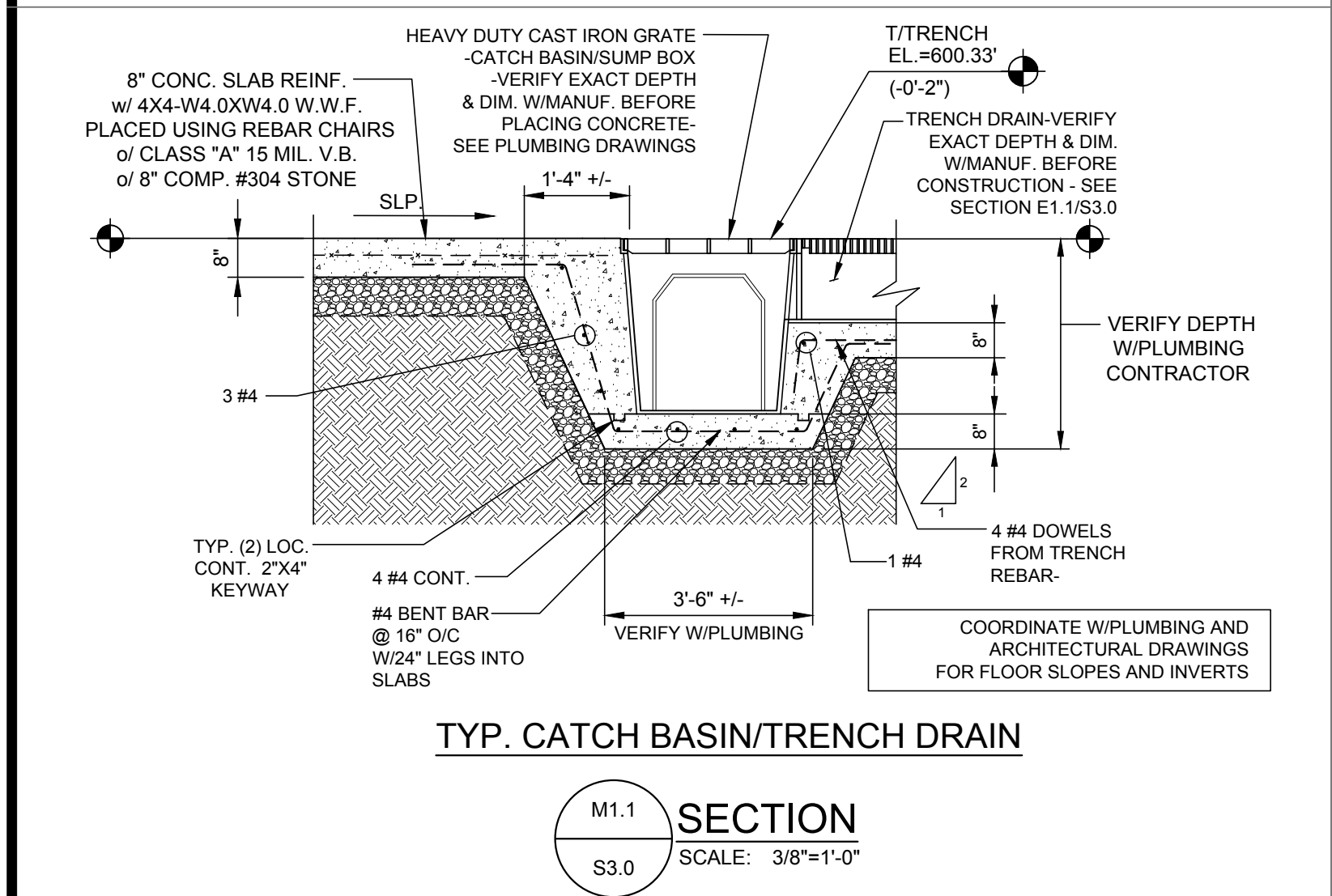
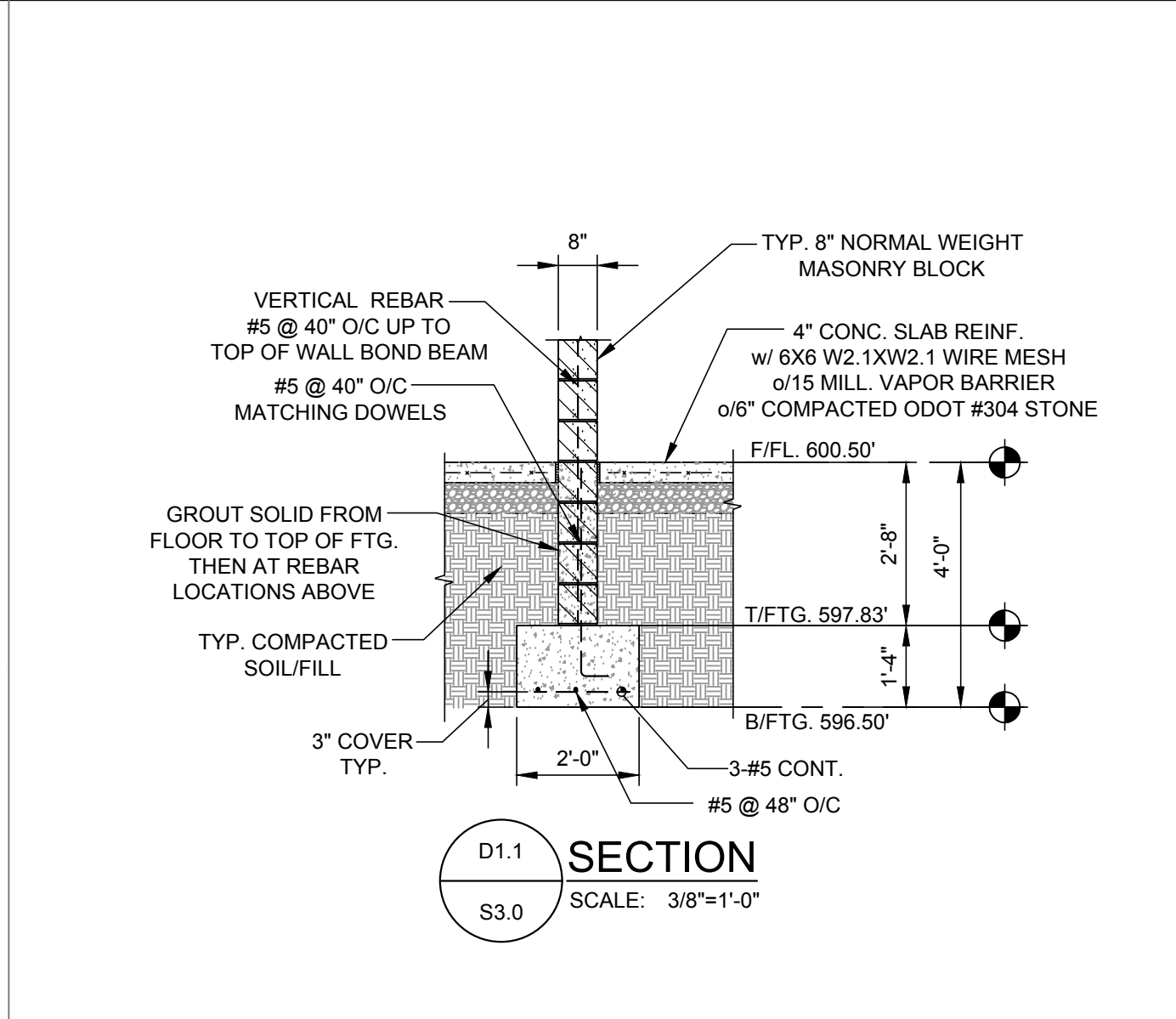
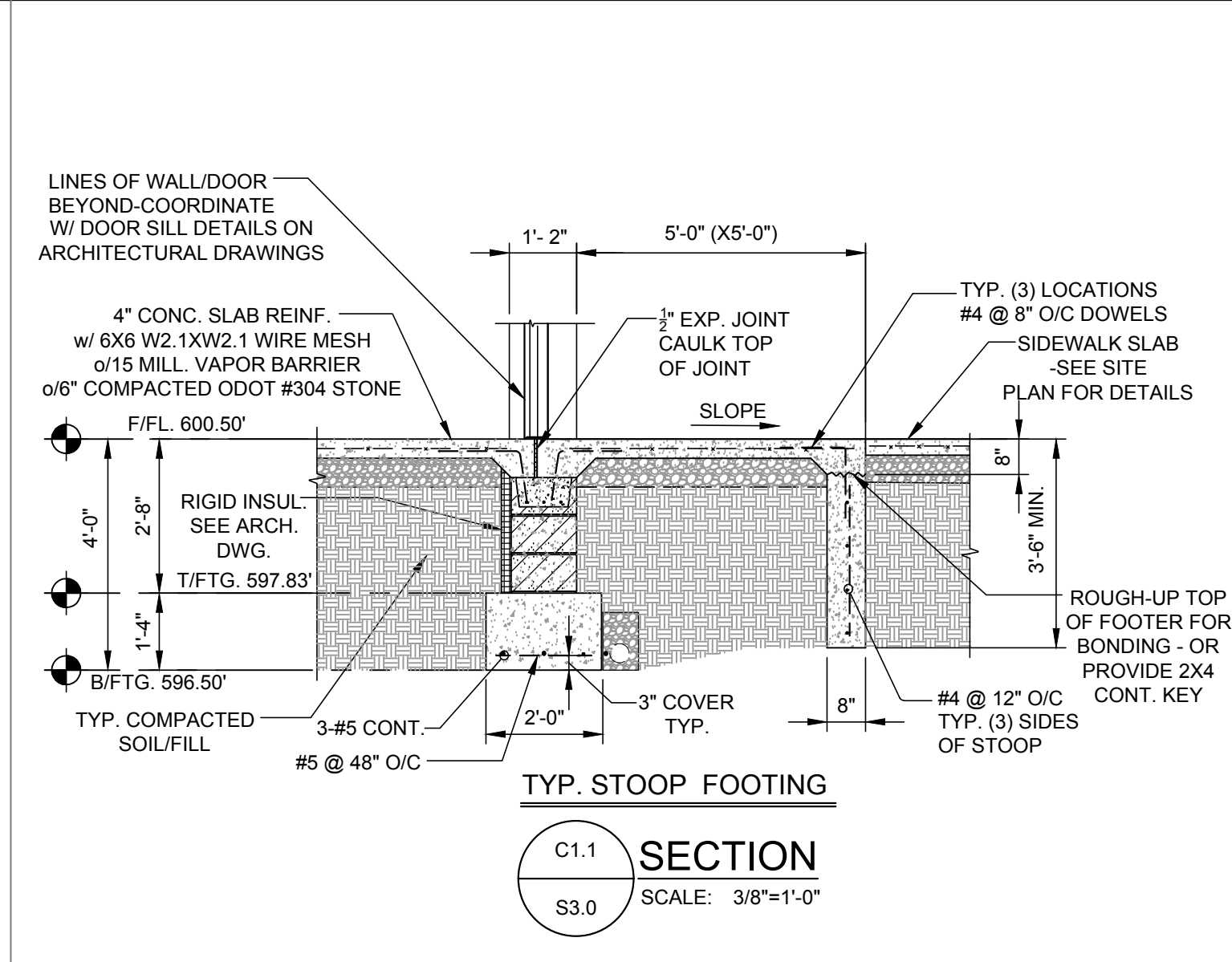
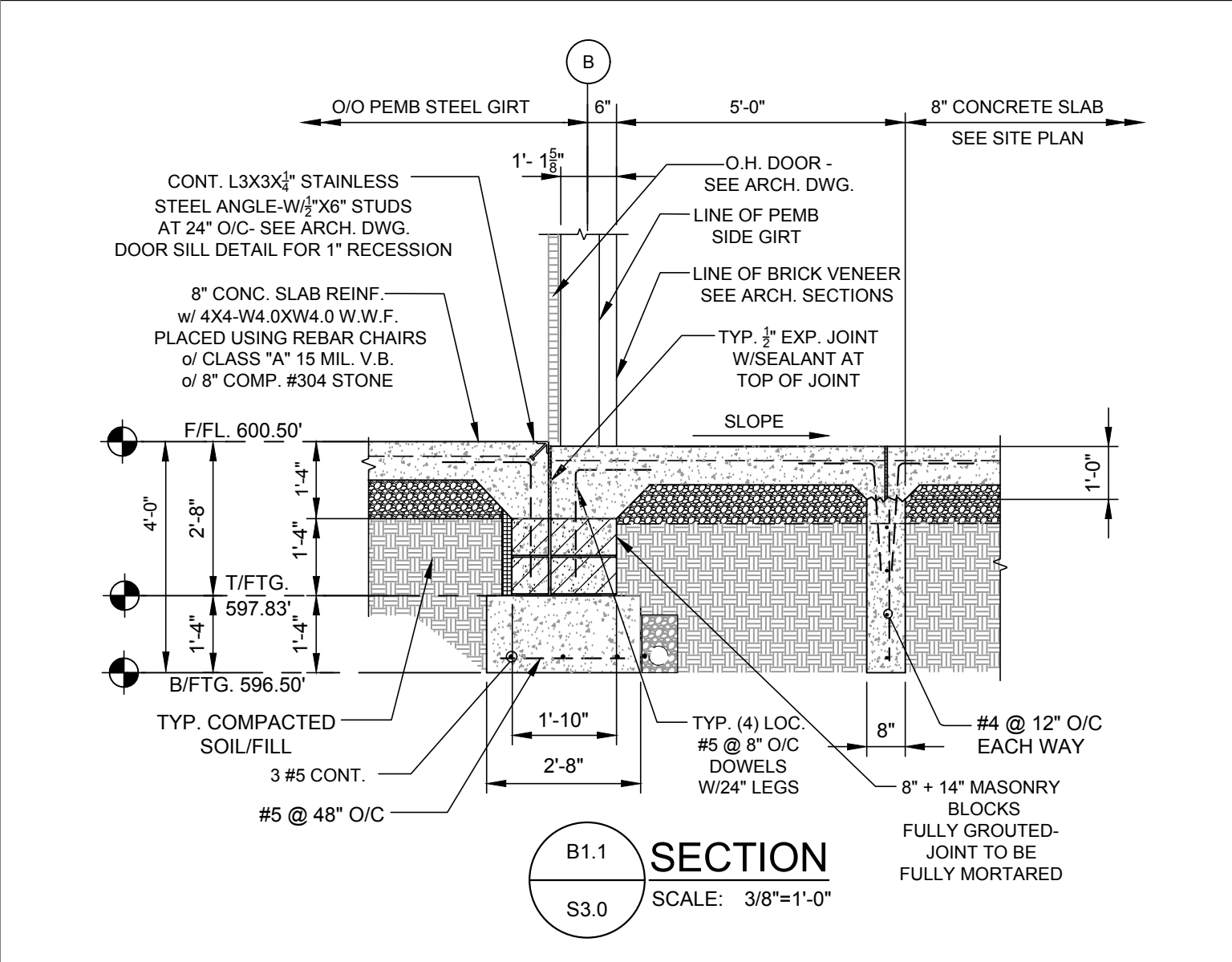
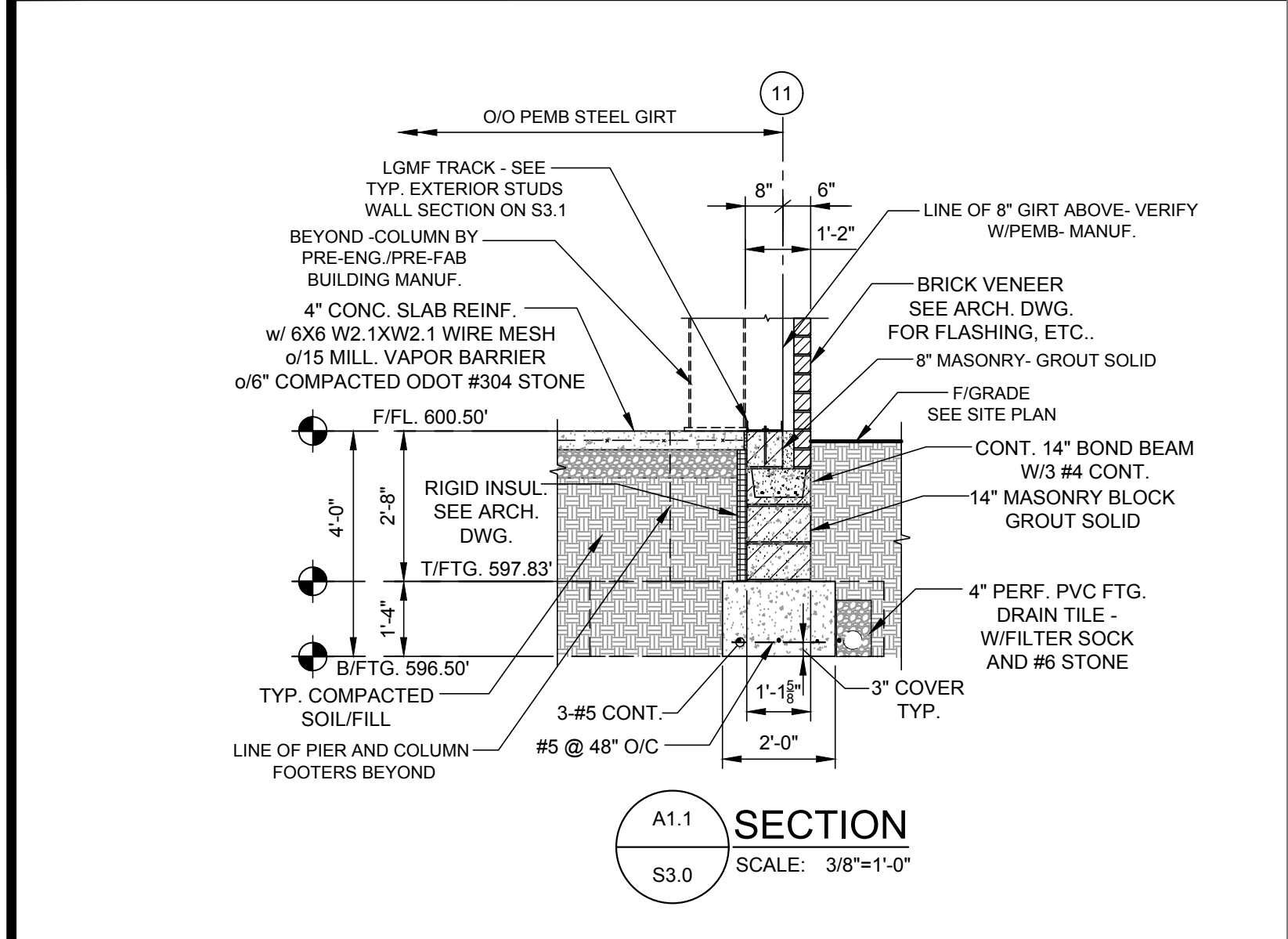


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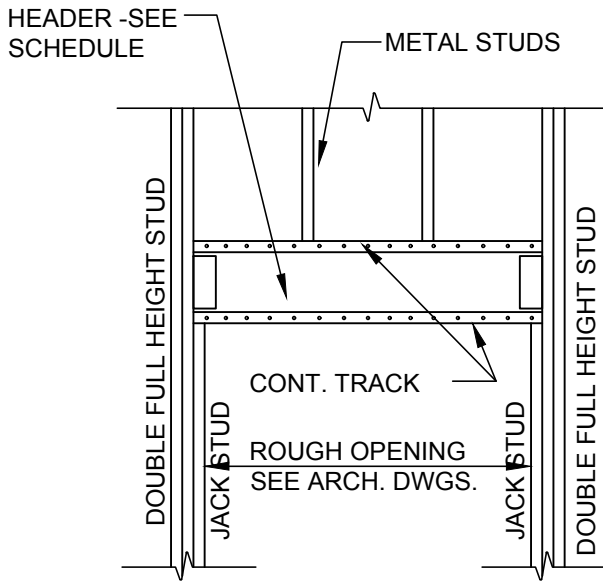
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COLD-FORMED METAL HEADER SCHEDULE								
MARK	OPENING	QUANTITY	TYPE	GAUGE	WALL STUD THICKNESS	JAMB STUDS		LOCATION
						JACK	FULL-HT.	
MISC. OPENINGS DOORS WINDOWS IN NON-LOAD BEARING WALLS	UP TO 5'-4"	SEE FLOOR PLAN	(2) 8"x1 5/8"-TOP/BOT TRACKS (2-800S162-43)	18 GA.	4", 6", 8"	SINGLE	SINGLE	SEE DOOR SCHEDULE AND FLOOR PLANS
	5'-4" TO 7'-4"	SEE FLOOR PLAN	(2) 10"x1 5/8"-TOP/BOT TRACKS (2-1000S162-43)	18 GA.	4", 6", 8"	SINGLE	SINGLE	SEE DOOR SCHEDULE AND FLOOR PLANS
	7'-6" TO 10'-0"	SEE FLOOR PLAN	(2) 12"x1 5/8"-TOP/BOT TRACKS (2-1200S162-43)	18 GA.	4", 6", 8"	DOUBLE	SINGLE	SEE DOOR SCHEDULE AND FLOOR PLANS
NOTE: TOP AND BOTTOM TRACK TO MATCH WALL THICKNESS AND GAUGE								

NOTES: 1. COORDINATE WITH DOOR AND WINDOW ELEVATIONS FOR EXACT SIZE OF OPENINGS.
2. COORDINATE WITH TYPICAL COLD FORMED WALL DETAILS FOR BRACING AND CONSTRUCTION
3. ALL HEADER TRACKS AND STUDS MUST SPAN THE ENTIRE OPENING WITH OUT ANY SPLICES



COLD-FORMED METAL
TYPICAL FRAMED OPENING
N.T.S.

JAMB/COLUMN STUDS TO BE SAME
AS WALL STUDS SIZES AND GAUGE

CFMF - MEMBER LEGEND

1000S162-54
THICKNESS MILS (16 GAUGE)
FLANGE WIDTH IN INCHES (1 5/8")
MEMBER TYPE - S=STUDS, T=TRACK
MEMBER DEPTH IN INCHES- 1000=10", 600=6", 800=8"

MILS	GAUGE
33	20 GA.
43	18 GA.
54	16 GA.
68	14 GA.
97	12 GA.

NOTE: QUANTITIES OF WINDOW & MISC. LINTELS, MECH. LINTELS AND BEARING PLATES ARE GIVEN AS AN AID TO THE CONTRACTOR.
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK THE QUANTITIES FOR BIDDING AND CONSTRUCTION, AND TO SUPPLY AND INSTALL NEEDED MISC. STEEL TO COMPLETE JOB

BEARING PLATE SCHEDULE

MARK	SIZE	QUANTITY	STUDS SIZE	LEVELING PLATE	NOTES
P1	6 1/2"x8"x3/8"	15	1/2" ANCHORS	NONE	SLOTTED FOR (2) 1/2" DIA. ANCHOR BOLTS - EMBED A MIN. OF 8"
P2	7 1/4"x7 1/4"x3/8"	30	2 (1/2" DIA.)X12"	NONE	
P3	7 1/2"x12"x3/8"	8	1/2" ANCHORS	NONE	SLOTTED FOR (2) 1/2" DIA. ANCHOR BOLTS - EMBED A MIN. OF 8"
P4	18"x8"x3/8"	2	2 (1/2" DIA.)X12"	NONE	FOR TIE-OFF BEAM ABOVE MEZZ.

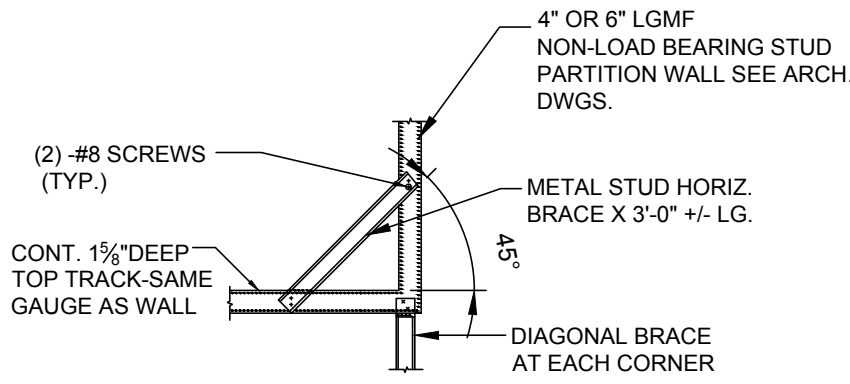
WINDOW, MECH. AND MISC. LINTEL SCHEDULE

MARK	TYPE	MASONRY OPENING	BEARING LENGTH	TOTAL LENGTH	QUANTITY	WALL THICKNESS	LOCATION	CONFIGURATION
L1	(2) L4X3X3/8" LLV	4'-0"	8"	5'-4"	1	8"	WINDOW IN DUTY OFFICE 12A	L
L2	HOT-DIPPED GALVANIZED (1) L4X3X3/8" LLV	6'-0"	8"	7'-4"	2	4"	WINDOW IN EAST WALL S. RM. 156	L
L3	HOT-DIPPED GALVANIZED (1) L4X3X3/8" LLV	4'-0"	8"	5'-4"	12	4"	WINDOWS IN EAST & SOUTH WALLS S. RM. 113	L
L4	HOT-DIPPED GALVANIZED (1) L4X3X3/8" LLV	3'-4"	8"	4'-8"	4	4"	EXTERIOR DOORS 114A, 143A, 148A, 148A	L
ML5	HOT-DIPPED GALVANIZED (1) L4X3X3/8" LLV	2'-0"	8"	3'-4"	1	4"	MECHANICAL LOUVER IN SOUTH WALL	L
ML6	(2) L4X3X3/8" LLV	3'-0"	8"	4'-4"	2	8"	MECHANICAL OPENERS IN STORAGE 155	L
ML7	HOT-DIPPED GALVANIZED (1) L4X3X3/8" LLV	1'-0"	8"	2'-0"	5	4"	BRICK VENTS IN SOUTH WALL RM. 145, 147, 155	L
ML8	(2) L4X3X3/8" LLV	1'-4"	8"	2'-8"	2	8"	MECHANICAL TA IN RM. 145 & 146	L
ML9	HOT-DIPPED GALVANIZED (1) L4X3X3/8" LLV	3'-0"	8"	4'-4"	4	4"	MECHANICAL LOUVER IN EASTWEST WALLS	L
L10	HOT-DIPPED GALVANIZED CURVED L3X3X3/8" SEE DETAIL THIS SHEET	4'-0"	8"	5'-0"	8	4"	EXTERIOR WINDOWS IN EAST WALL	L
L11	HOT-DIPPED GALVANIZED (1) L7X4X3/8" LLV	10'-0"	8"	11'-4"	1	4"	WINDOWS 11" IN EAST WALL	L

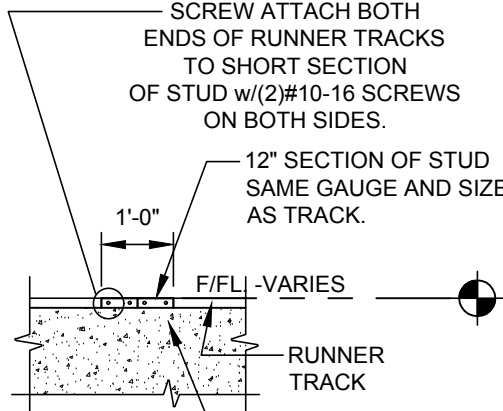
LINTELS NOTES:

- G.C. TO SUPPLY AND INSTALL ANY MISC. LINTEL NOT SHOWN IN THE SCHEDULES ABOVE TO COMPLETE JOB.
- LINTELS W/1" TO HAVE 1/2" DIA. X8" STUDS @ 2'-0" O/C WELDED TO TOP OF BEAM AND GROUTED INTO MASONRY WALL ABOVE
- ALL LINTELS EXPOSED TO WEATHER TO BE HOT-DIPPED GALVANIZED
- ALL BEAMS TO BE CENTERED ON THE MASONRY BLOCK WALLS THEY ARE SUPPORTING
- SEE DOOR SCHEDULE ON SHEET (A10.1) FOR INTERIOR DOOR LINTELS

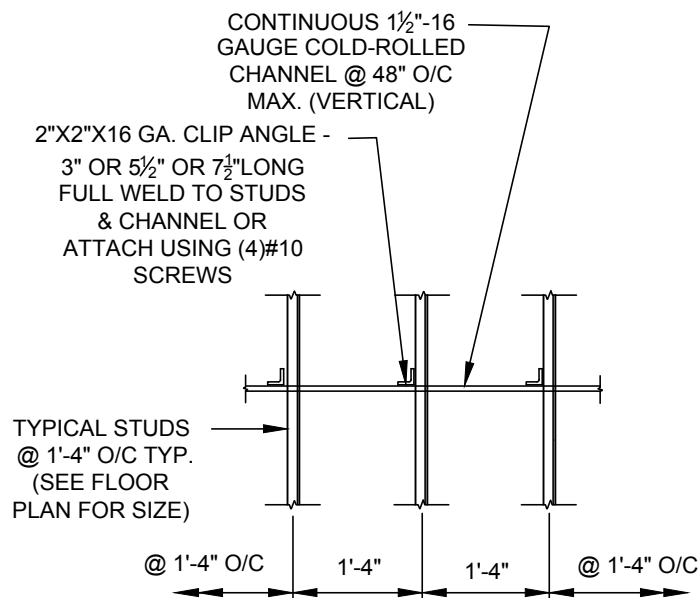
NOTE: FOR MISC. STEEL LINTELS NOT SHOWN IN THE SCHEDULES ABOVE- USE (1) L3 3/4"x3 3/4"x5/8" FOR EVERY 4" OF WALL THICKNESS OF UP TO 4'-0" WIDE OPENINGS. PROVIDE A MIN. OF 6" BEARING AT EACH END. ALL EXTERIOR LINTELS TO BE HOT-DIPPED GALVANIZED



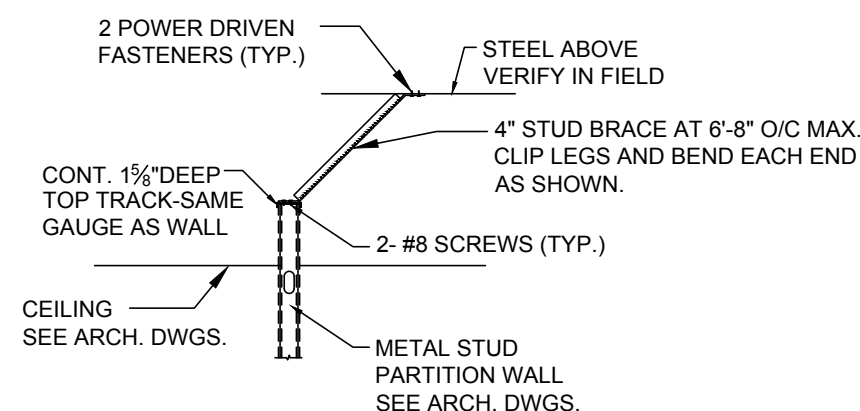
PLAN- PARTITION WALL
TYPICAL DIAGONAL BRACE
N.T.S.



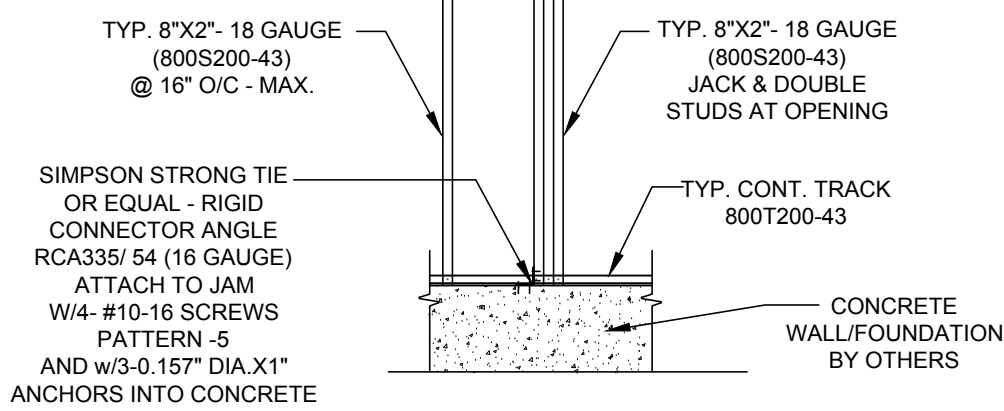
TYPICAL BOTTOM
TRACK SPLICE
N.T.S.



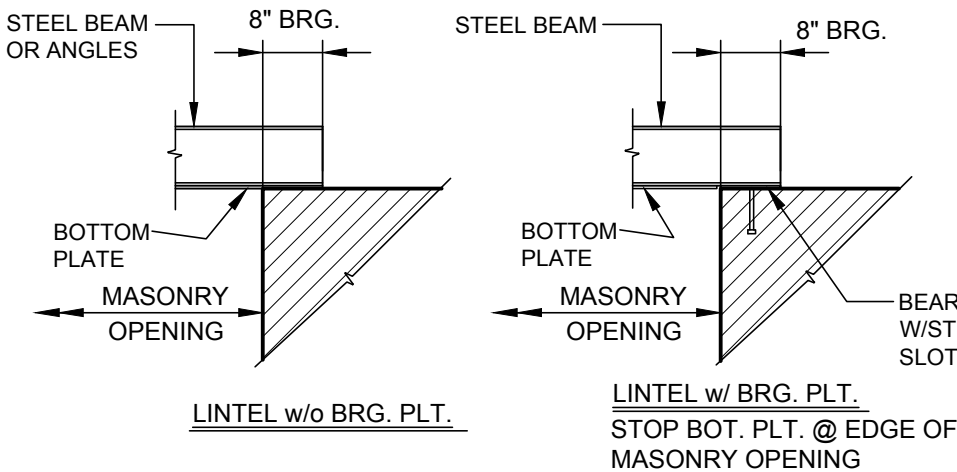
TYPICAL STUD WALL
LATERAL BRIDGING
N.T.S.



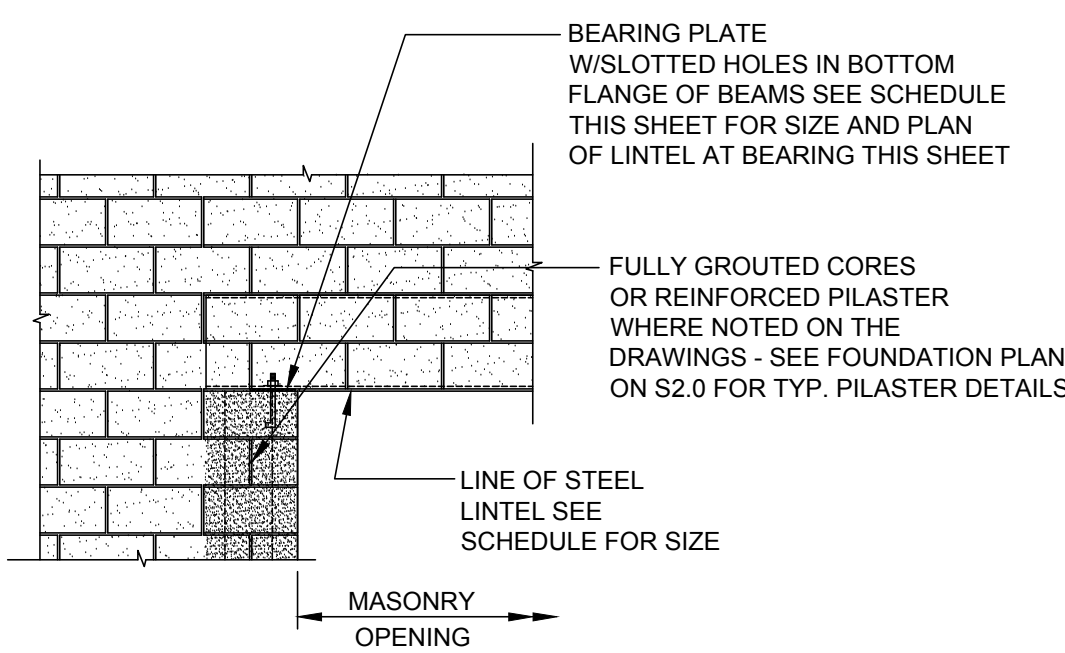
PARTITION WALL
TYPICAL DIAGONAL BRACE
N.T.S.



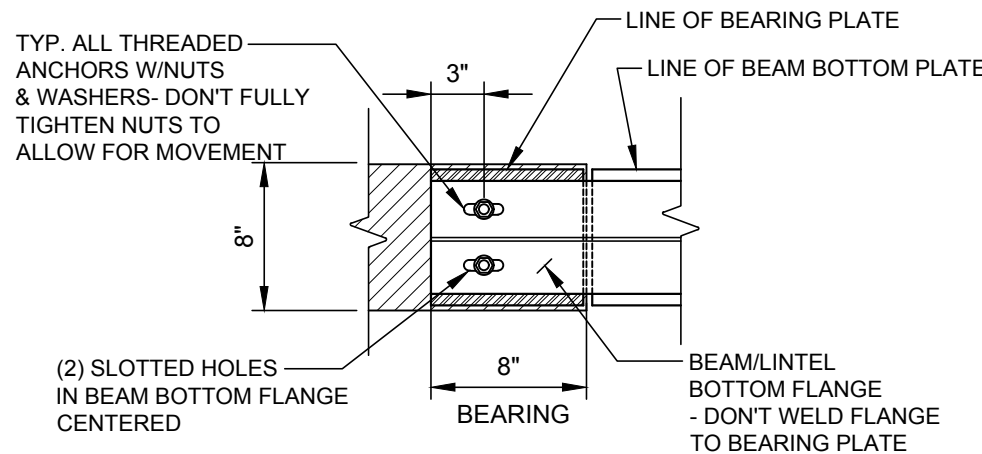
EXTERIOR DOORS
TYPICAL BASE OF JAM DETAIL
N.T.S.



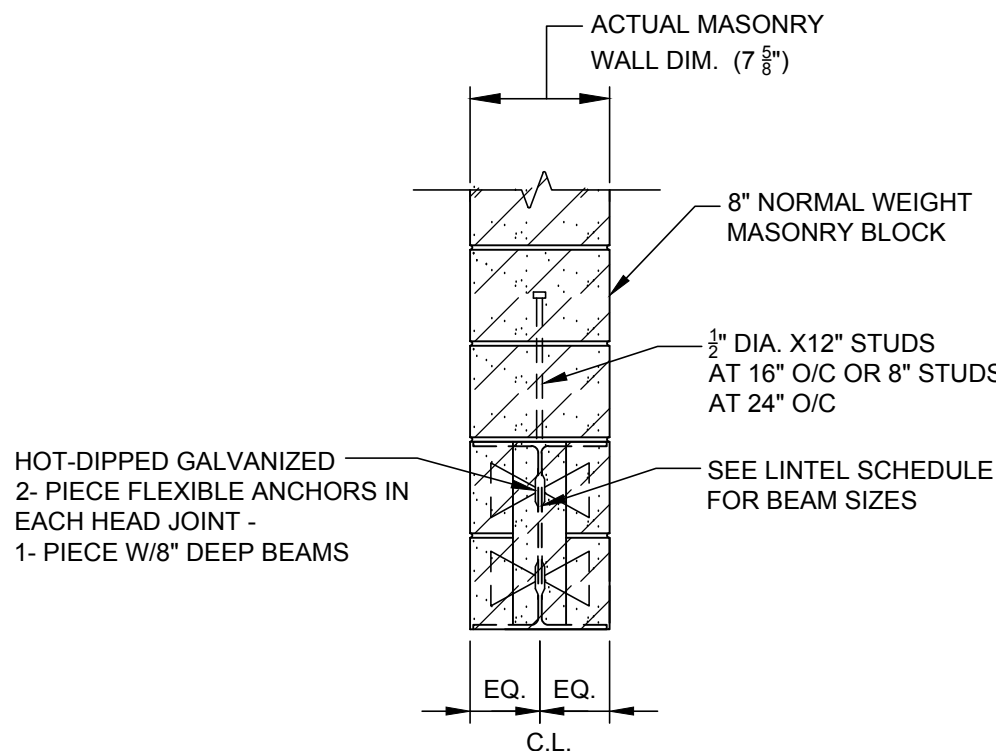
TYPICAL BEAM LINTEL DETAILS
SCALE: N.T.S.



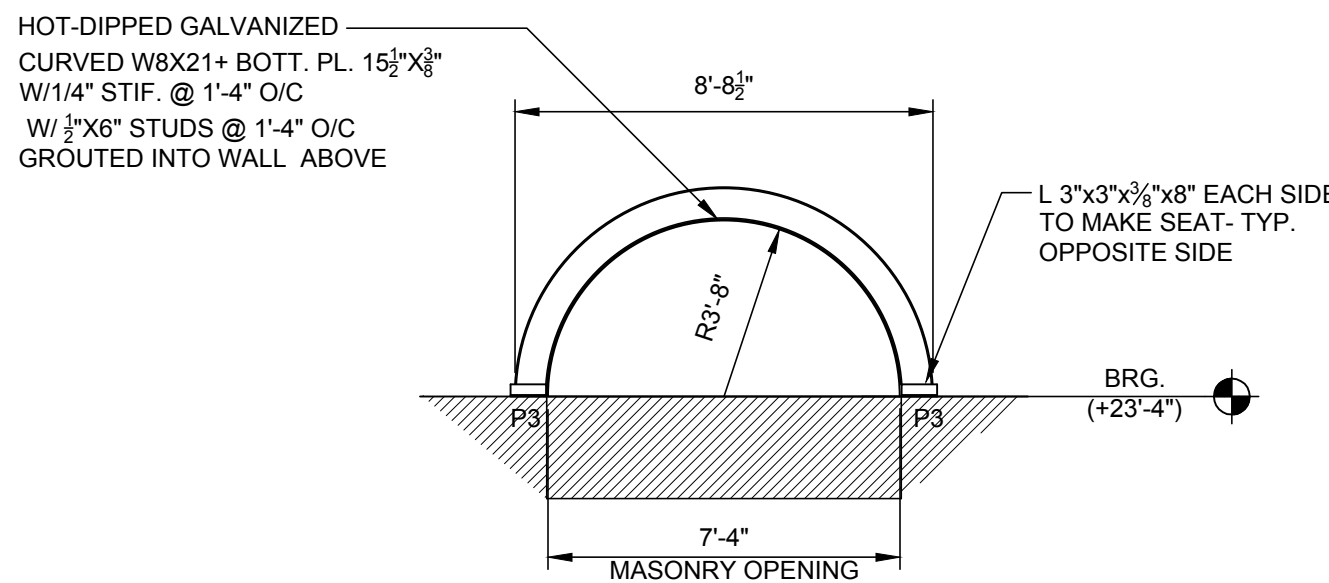
TYPICAL LINTEL BEARING DETAIL
SCALE: N.T.S.



TYP. PLAN OF LINTEL/BEARING
BEARING PLATE ON 8" MASONRY
SCALE: NONE

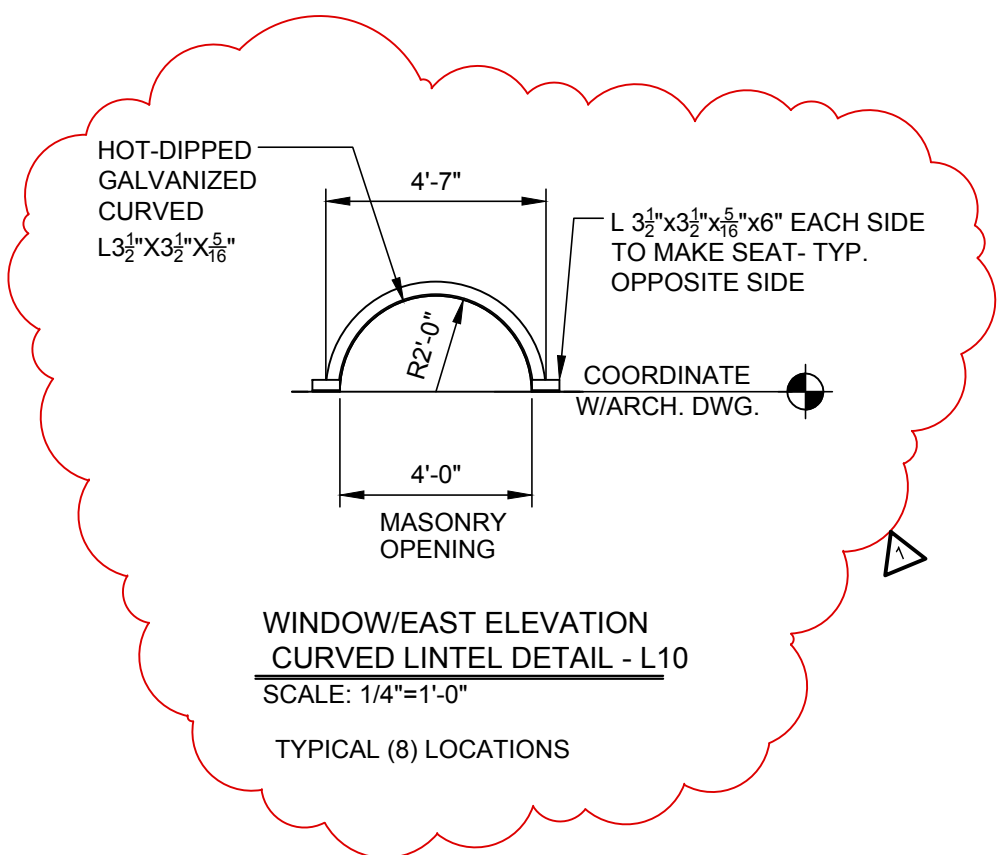


TYPICAL LINTEL DETAILS
SCALE: N.T.S.



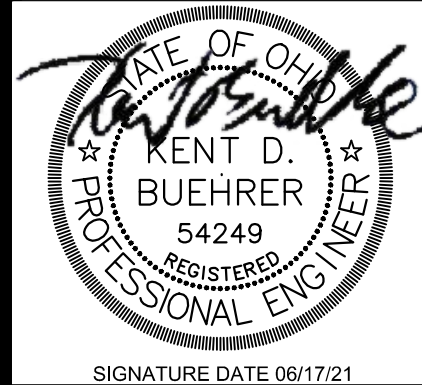
TOWER-ENTRY CURVED BEAM DETAIL
SCALE: 1/4"=1'-0"

TYPICAL (4) LOCATIONS



WINDOW/EAST ELEVATION
CURVED LINTEL DETAIL - L10
SCALE: 1/4"=1'-0"

TYPICAL (8) LOCATIONS



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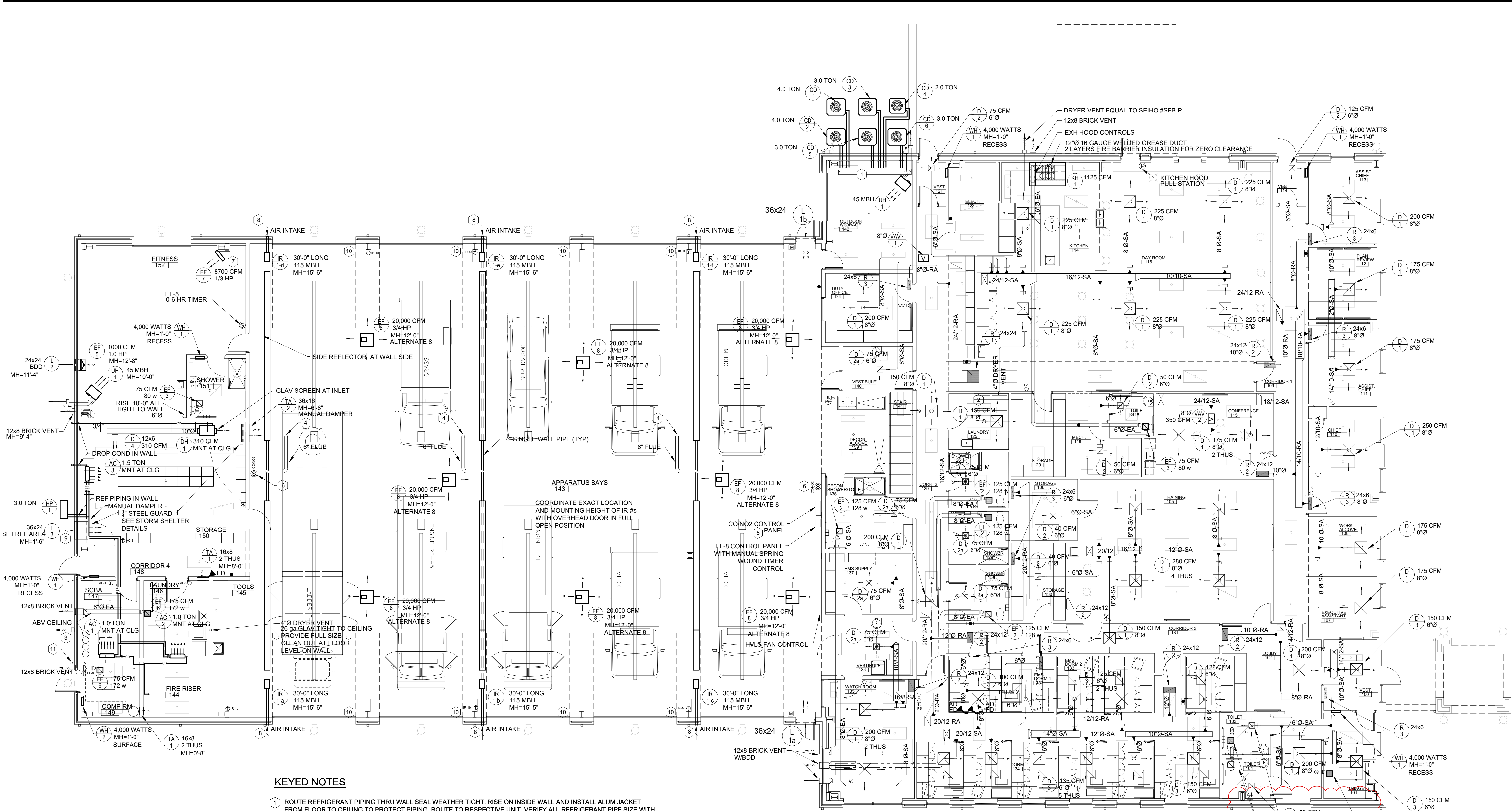
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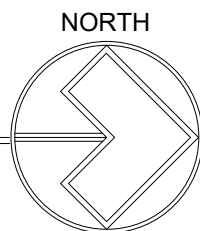
S6.0



KEYED NOTES

- 1 ROUTE REFRIGERANT PIPING THRU WALL SEAL WEATHER TIGHT. RISE ON INSIDE WALL AND INSTALL ALUM JACKET FROM FLOOR TO CEILING TO PROTECT PIPING. ROUTE TO RESPECTIVE UNIT. VERIFY ALL REFRIGERANT PIPE SIZE WITH MNF.
- 2 4" OVAL DRYER VENT IN WALL WITH 4" Ø INLET AT WALL. COORDINATE M.H. WITH OWNER PURCHASED EQUIPMENT. VENT MATERIAL SHALL BE 4" ALUMINUM MIN 26 GAUGE. SEAL AND TAPE WITH METALLIC TAPE. NO FASTENERS PERMITTED. DUCT SHALL BE SUPPORTED AT 4'-0" INTERVALS WITH 1"x22 GA METAL STRAPS SECURED TO STRUCTURE ABOVE. DO NOT PENETRATE DUCT WITH FASTENERS. INSTALL PERMANENT STENCILED SIGN STATING "DRYER VENT TOTAL EQUIVALENT LENGTH 65 FEET INCLUDING 5 FEET EQUIVALENT LENGTH FOR ELBOWS. INSTALL DRYER RATED FOR LONG VENT SYSTEM ONLY". PROVIDE FULL SIZE CLEAN OUT AT FLOOR LEVEL ON WALL.
- 3 TERMINATE WITH EQUAL TO 4" Ø ALUMINUM DRYER VENT EQUAL TO SEIHO MODEL SFB-P. VENT MATERIAL SHALL BE 4" ALUMINUM MIN 26 GAUGE. SEAL AND TAPE WITH METALLIC TAPE. NO FASTENERS PERMITTED. DUCT SHALL BE SUPPORTED AT 4'-0" INTERVALS WITH 1"x22 GA METAL STRAPS SECURED TO STRUCTURE ABOVE. DO NOT PENETRATE DUCT WITH FASTENERS. TOTAL EQUIVALENT LENGTH 35 FEET INCLUDING 5 FEET EQUIVALENT LENGTH FOR ELBOWS.
- 4 6" Ø SINGLE WALL VENT PIPE UP THRU ROOF WITH THIMBLE THRU ROOF. TERMINATE 2'-0" ABOVE ROOF WITH 8" VENT CAP.
- 5 ENERGIZE EF-4 WITH CO/NO2 DETECTION ALARM. OPEN L-1a & L-1b DAMPER WITH EF-4 OPERATION. INSTALL ADDITIONAL CONTROLS/CONTACTS ADJACENT TO CONTROL BOX FOR SIMPLE MANUAL OPERATION OF EF-4.
- 6 MOUNT CO/NO2 SENSORS IN STRICT ACCORDANCE WITH MNF INSTRUCTIONS. INSTALL CONDUIT IN WALL.
- 7 MOUNT CIRCULATION 45 LB FAN ON WALL WITH STEEL AS REQUIRED. COORDINATE WITH OWNER FOR EXACT LOCATION.
- 8 AIR INTAKES EQUAL TO SEIHO MODEL SFX-S 4" Ø STAINLESS STEEL. COORDINATE WITH DOWNSPOUTS.
- 9 EQUAL TO GREENHECK MODEL ESDE-635-50. STATIONARY DRAINABLE BLADE EXTRUDED ALUMINUM LOUVER DESIGNED TO PROTECT AIR INTAKE AND EXHAUST OPENINGS IN BUILDING EXTERIOR WALLS. ESD-635DE IS TESTED IN ACCORDANCE WITH AMCA 500-L AIR PERFORMANCE AND WATER PENETRATION. ESD-635DE IS TESTED IN ACCORDANCE WITH AMCA 540 TEST METHOD FOR LOUVERS IMPACTED BY WIND BORNE DEBRIS (BASIC PROTECTION, MISSILE LEVEL D).
- 10 TRACK MOUNT SWITCH SUPPLIED WITH EF-8 SYSTEM TO ENERGIZE EF-8. ALTERNATE #8
- 11 3" SOLDERED COPPER PIPING W/GOOSE NECK AND SS SCREEN COVER TO 2'-0" ABV GRADE. ROUTE TO COMPRESSOR WITH 2" CONNECTION. INSTALL TEE WITH 2" LONG DIRT LEG AND DRAIN VALVE.

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



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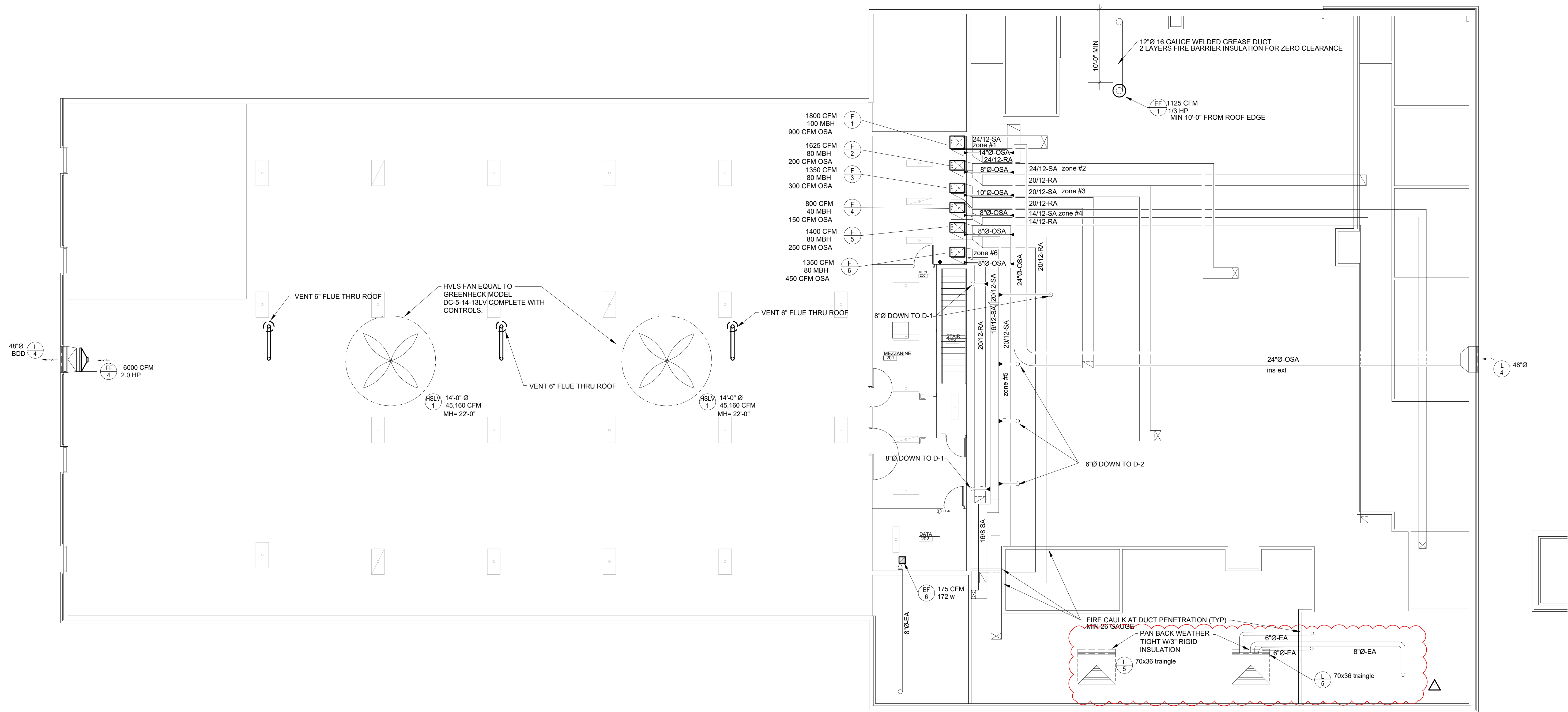
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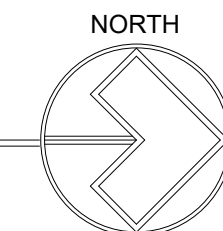
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M1.1

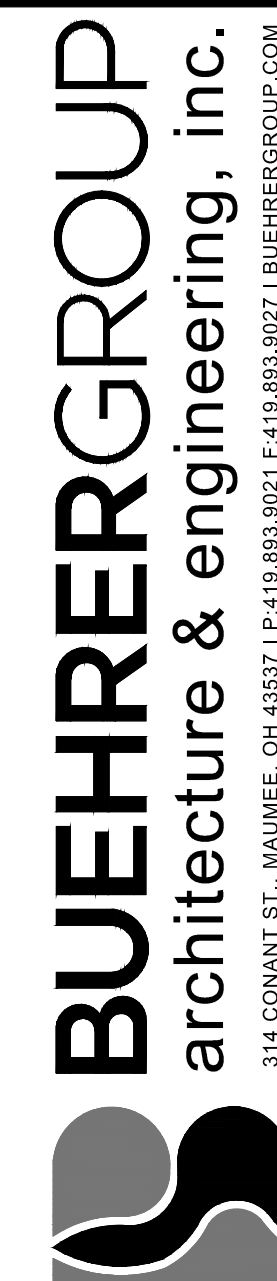


MECHANICAL
SECOND FLOOR PLAN
SCALE: 1/8"=1'-0"



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ELECTRIC WALL HEATER SCHEDULE						
MARK NO.	BTU	WATTS	AMPS	ELECT.	TYPE	DESCRIPTION Q-MARK
WH-1	13,650	4,000	19.5	208-1P	WALL	SSH04008
WH-2	13,650	4,000	19.5	208-1P	WALL	SSH04008

- ☐ BUILT-IN ELECTRONIC DIGITAL LCD TOUCH SCREEN DISPLAY
- ☐ EQUAL BY MARKEL OR WARREN

RADIANT HEATERS							
MARK NO.	ROBERTS GORDON MODEL	MBH MIN/MAX	REFLECTOR	ELECT.	AMPS	TUBE LENGTH	WEIGHT LBS
IR-1a-f	CTH3-115 MODULATING	75/115	HIGH EFFICIENCY	115-1Ø	1.3 A	31 FT	167 lbs

- ☐ HANG ON CHAIN AS RECOMMENDED BY MANUFACTURER
- ☐ PROVIDE INSULATED BASE FOR ALL THERMOSTATS
- ☐ PROVIDE 2" RIBBED OR WAFFLED NEOPRENE PAD
- ☐ EQUAL BY MARKEL OR WARREN

DIFFUSER, LOUVER & GRILLE SCHEDULE										
MARK NO.	MAX CFM	STATIC PRESS. (IN H ₂ O)	DAMP.	NECK SIZE	AIR PATTERN	FINISH	THROW (FT)	N.C.	DESCRIPTION PRICE	COMMENTS
D-1	300	.12	-	8"Ø	4-WAY	WHT	12-20	25	SMD 24x24 face	INSULATE BACK OF PAN LOUVERED FACE
D-2	150	.09	-	6"Ø	4-WAY		4-10	20	SMD 12x12 face	INSULATE BACK OF PAN
D-2a	150	.09	VOL	6"Ø	4-WAY		4-10	20	SMD 12x12 face	INSULATE BACK OF PAN PLASTER FRAME
D-3	150	.12	-	6"Ø	4-WAY		8-18	25	SMD 24x24 face	INSULATE BACK OF PAN LOUVERED FACE
D-4	310	.05	-	12x6	ADJ		14-26	25	620	LUMINUM DUCT MOUNT
R-1	2000	.03	-	24x24	-	WHT	-	25	80-TSF	EGG CRATE
R-2	1000	.03	-	24x12	-		-	25	80-TSF	EGG CRATE
R-3	450	.03	-	24x6	-		-	25	80-TSF	EGG CRATE
L-1	3000	.17	-	36x24		BY ARCH	-	-	GREENHECK ESD-435	4" DEEP-EXHAUST 70% KYNAR
L-2	1000	.05	-	24x24			-	-	GREENHECK ESD-435	4" DEEP-EXHAUST 70% KYNAR
L-3	-	-	MANUAL	36x24			-	-	GREENHECK ESD-435	MANUAL INSULATED DAMPER
L-4	8000	.10	-	48x30			-	-	GREENHECK ESD-435	4" DEEP-EXHAUST 70% KYNAR
L-5	-	-	-	70x30 TRIANGLE			-	-	GREENHECK ESD-435	4" DEEP-EXHAUST 70% KYNAR
TA-1	200	.05	-	16x8	-	WHT	-	20	535	WITH 1-1/2 HR FIRE DAMPER
TA-2	-	-	-	36x16	-	WHT	-	-	535	

- ☐ THROWS ARE SHOWN FROM 150 fpm TO 50 fpm

FAN SCHEDULE								
MARK NO.	CFM	S.P. (IN H ₂ O)	HP	ELECT.	DAMPER	DESCRIPTION GREENHECK	INLET SONES	COMMENTS
EF-1	1125	0.75	1/3	208-3Ø	-	CUBE-100-3	10.7	W/SLOPED ROOF CURB KITCHEN HOOD EXHAUST
EF-2	125	.250	128w	115-1Ø	BDD	SP-B150	3.5	12x8 BRICK VENT W/BDD
EF-3	75	.250	80w	115-1Ø	BDD	SP-B110	1.5	12x8 BRICK VENT W/BDD
EF-4	6000	.250	2.0	208-3Ø	BDD	AER-E30C-1225-VG	1.0	DIRECT DRIVE VARI GREENE GUARD & WALL HOUSING
EF-5	1000	.125	1.0	115-1Ø	BDD	AER-E30C-605-VG	4.7	DIRECT DRIVE VARI GREENE GUARD & WALL HOUSING 1/2 HR TIMER
EF-6	175	.250	172w	115-1Ø	BDD	SP-B200	4.5	WALL MOUNT KIT OSCILLATING (2) THERMOSTATS 45 LBS
EF-7	8700	0	1/3	115-1Ø	-	30" AIR KING 3 SPEED	-	WALL MOUNT CONTROL PANEL MANUAL OPERATION
EF-8	20,000	0	3/4	115-1Ø	-	AIRVAC 911	-	EQUAL BY MAGNEGRIP ALTERNATE 8

- ☐ EQUAL BY ACME, PENN OR COOK

HVLS FAN SCHEDULE						
MARK NO.	SIZE	CFM	HP	ELECT.	DESCRIPTION GREENHECK	WEIGHT LBS
HVLS-1	14'-0"	45,160	175 w	115-1Ø	DC-5-14-13LV	122

- ☐ EQUAL BY BIG ASS FAN, REFRESH FANS OR SKY BLADE

UNIT HEATER SCHEDULE										
MARK NO.	MBH IN	MBH OUT	EFF	CFM	HP	ELECT.	MCA	FLUE	COMB	WEIGHT
UH-1	45	36.9	83%	725	1/15	115-1Ø	-	3"	3"	60 LBS

- ☐ EQUAL BY TRANE OR REZNOR

MINIMUM OUTSIDE AIR CALCULATIONS ASHRAE STD. 62.1-2010 COMPLIANCE MULTIPLE ZONE SYSTEM W/O ZONE LEVEL RECIRCULATION						
ZONE	F-1	F-2	F-3	F-4	F-5	F-6
OCCUPANCY CATEGORY	OFFICE BREAK RM	OFFICE SPACE	MULTIPURPOSE ASSEMBLY	OFFICE SPACE	BARRACKS SLEEPING AREA	OFFICE SPACE
SUPPLY AIR VOLUME	1800 CFM	1625 CFM	1350 CFM	800 CFM	1400 CFM	1350 CFM
PEOPLE OUTDOOR AIR RATE (CFM/PERSON) (R _p)	5.0 CFM	5.0 CFM	7.5 CFM	5.0 CFM	5.0 CFM	5.0 CFM
AREA OUTDOOR AIR RATE (CFM/SQ. FT.) (R _a)	0.12	0.06	0.06	0.06	0.06	0.06
AREA (SQ. FT.) (A _z)	2000 SF	970 SF	800 SF	850 SF	1275 SF	290 SF
CALCULATED OCCUPANCY (NUMBER OF PEOPLE) (P _z)	10 PPL	10 PPL	20 PPL	4 PPL	11 PPL	3 PPL
ZONE AIR DISTRIBUTION EFFECTIVENESS (E _z)	0.8	0.8	0.8	0.8	0.8	0.8
PEOPLE OUTDOOR AIR (R _p x A _z)	50 CFM	75 CFM	180 CFM	20 CFM	55 CFM	15 CFM
AREA OUTDOOR AIR (R _a x A _z)	240 SF	77 CFM	48 CFM	51 CFM	77 CFM	77 CFM
BREATHING ZONE OUTDOOR AIR (R _a x A _z)	290 SF	152 CFM	228 CFM	71 CFM	132 CFM	92 CFM
ZONE OUTDOOR AIR FLOW (V _{oz})	363 CFM	189 CFM	285 CFM	89 CFM	164 CFM	114 CFM
DESIGN OUTDOOR AIR FLOW	900 CFM	200 CFM	300 CFM	150 CFM	250 CFM	450 CFM

AIR BALANCE SCHEDULE				
SERVING ZONE	SA CFM	ZONE EXH CFM	MIN OSA CFM	ZONE PRESSURE
F-1	1800	1200	900	NEG
F-2	1625	0	200	POS
F-3	1350	0	300	POS
F-4	800	325	150	NEG
F-5	1400	0	250	POS
F-6	1350	500	450	NEG
TOTAL	8325	2025	2250	POS

- ☐ ALL EXHAUST FANS RUNNING

DEHUMIDIFIER SCHEDULE						
MARK NO.	CFM	ESP	INLET/OUTLET SIZE	DESCRIPTION (APRILAIRE)	VOLT	AMPS
DH-1	310	0.2	10"Ø	1870	120-1Ø	8.3

FURNACE SCHEDULE						
MARK NO.	F-1	F-2	F-3	F-4	F-5	F-6
TYPE	UP FLOW	UP FLOW	UP FLOW	UP FLOW	UP FLOW	UP FLOW
MODEL	S9X2C120U5PSB	S9X1B080U4PSB	S9X1B080U4PSB	S9V2B040UPSBA	S9X1B080U4PSB	S9X1B080U4PSB
FUEL	NAT GAS	NAT GAS	NAT GAS	NAT GAS	NAT GAS	NAT GAS
MFG	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
APPROX WEIGHT	215 LBS	188 LBS	188 LBS	154 LBS	188 LBS	188 LBS
FAN PERFORMANCE						
TYPE	ECM	ECM	ECM	ECM	ECM	ECM
CFM@0.5 wg	1800 CFM	1625 CFM	1350 CFM	800 CFM	1400 CFM	1350 CFM
E.S.P.	0.50	0.50	0.50	0.50	0.50	0.50
MOTOR H.P.	1.0 HP	1.0 HP	1.0 HP	1/2	3/4 HP	3/4 HP
VOLTAGE	115-1Ø	115-1Ø	115-1Ø	115-1Ø	115-1Ø	115-1Ø
FLA	14.4 AMPS	14.4 AMPS	10.3 AMPS	9.3 AMPS	10.3 AMPS	10.3 AMPS
COOLING COILS						
TONS	4.0	4.0	3.0	2.0	3.0	3.0
COIL	MATCH TO CD	MATCH TO CD	MATCH TO CD	MATCH TO CD	MATCH TO CD	MATCH TO CD
HEAT EXCHANGER	2-STAGE					
STAINLESS STEEL						
AFUE	96.0%	96.0%	96.0%	95.0%	96.0%	96.0%
FLUE/INTAKE	3"Ø	3"Ø	3"Ø	3"Ø	3"Ø	3"Ø
TEMP RISE	55°F	51°F	51°F	45°F	51°F	51°F
INPUT MBH	120 MBH	80 MBH	80 MBH	40 MBH	80 MBH	80 MBH
OUTPUT MBH	107 MBH	75 MBH	75 MBH	38 MBH	75 MBH	75 MBH
MISC.						
FILTERS	TRANE PERF FIT 5" MERV 8					
FLUE /INTAKE	CONCENTRIC TOUCH SCREEN 4H/2C DEHUMID					
THERMOSTAT						
MIN OSA	AS NOTED AT TAG					

- ☐ WITH HUMIDITY SENSOR
- ☐ SET ON RIBBED OR WAFFLED NEOPRENE PAD
- ☐ EQUAL BY DAKIN, LENNOX or YORK

AIR COOLED CONDENSING UNIT SCHEDULE (TRANE)							
MARK	MODEL	STAGES	SEER	TONS	ELECT.	MCA	OPERATING WEIGHT
CD-1	4TTA7048	2	17.0	4.0	208-3Ø	18 AMPS	308 LBS
CD-2	4TTA7048	2	17.0	4.0	208-3Ø	18 AMPS	308 LBS
CD-3	4TTA7036	2	17.0	3.0	208-3Ø	15 AMPS	283 LBS
CD-4	4TTR7024	2	17.0	2.0	208-1Ø	15 AMPS	190 LBS
CD-5	4TTA7036	2	17.0	3.0	208-3Ø	15 AMPS	283 LBS
CD-6	4TTA7024	2	17.0	3.0	208-3Ø	15 AMPS	283 LBS

- ☐ SUPPLY W/ RUBBER ISOLATOR KIT & ANTI SHORT CYCLE TIMER
- ☐ EQUAL BY DAKIN or YORK

VAV BOX SCHEDULE						
MARK NO.	CFM	DISCH. INLET SIZE	DESCRIPTION (TRANE)	CLG CFM	HTG CFM	MIN CFM
VAV-1	200	15	8"Ø	VCCF	100%	50%
VAV-2	350	15	8"Ø	VCCF	100%	50%

- ☐ PROVIDE UNIT-MOUNTED CONTROL POWER TRANSFORMER AND DISCONNECT
- ☐ EQUAL BY ETI, ENVIRO-TEC OR KRUEGER

HEAT PUMP VRV SCHEDULE							
MARK NO.	CLG MBH	HTG MBH	CFM	ELECT	POWER MCA	POWER MOP	DESCRIPTION DAIKIN
AC-1	12.0	14.7	290/180	208-1Ø	0.4 A	15 A	FTXS-12LVJU
AC-2	12.0	14.7	290/180		0.4 A	15 A	FTXS-12LVJU
AC-3	18.0	20.0	500/400		0.5 A	15 A	FTXS-18LVJU
HP-1	34.4	36.6	-		32.5 A	35 A	4MXL36TVJU

- ☐ HARD WIRED T-STAT
- ☐ CONDENSATE PUMP
- ☐ LOW AMBIENT OPERATION (wind baffel)
- ☐ PIPE COVER SYSTEM
- ☐ REFRIGERANT PIPE SIZE PER MANUFACTURER
- ☐ HEATING: INDOOR: 70°F DB/60°F WB; OUTDOOR: 2°F DB/5°F WB
- ☐ COOLING: INDOOR: 80°F DB/67°F WB; OUTDOOR: 95°F DB/75°F WB
- ☐ EQUAL BY LG OR TRANE

LEGEND	
TI	THERMOSTAT AND DEVICE CONTROLLED WITH LOCKING THERMOSTAT GUARD
RA	TENNANT IMPROVEMENTS CONTRACTOR
SA	RETURN AIR
EA	SUPPLY AIR
OSA	EXHAUST AIR
TA	OUT SIDE AIR
E.C.	TRANSFER AIR
→	ELECTRIC CONTRACTOR
→	RETURN AIR
→	EXHAUST AIR
→	OUTSIDE INTAKE AIR
→	SUPPLY AIR
24/12	DUCT SIZE (WIDTH/HEIGHT)
ins int	INSULATE INTERIOR OF DUCT
ins ext	INSULATE EXTERIOR OF DUCT
M	MOTOR OPERATED DAMPER
BD	BALANCE DAMPER
□	RETURN/EXH AIR
⊗	SUPPLY AIR
DUCT	DUCT AIR
TURNING VANES	TURNING VANES
FLEXIBLE CONNECTION	FLEXIBLE CONNECTION
SD	FIRE/SMOKE DAMPER
FD	90 MIN FIRE DAMPER
AD	ACCESS DOOR IN DUCT



NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

BUEHRERGROUP
architecture & engineering, inc.
314 CONANT ST., NAUMEE, OH 43337 | P 419.893.8021 | F 419.893.8027 | BUEHRERGROUP.COM

REVISION SCHEDULE	
Δ	06/30/21
ISSUE DATE: 06/17/21	
JOB NUMBER: 201296	
CONSTRUCTION DOCUMENTS	

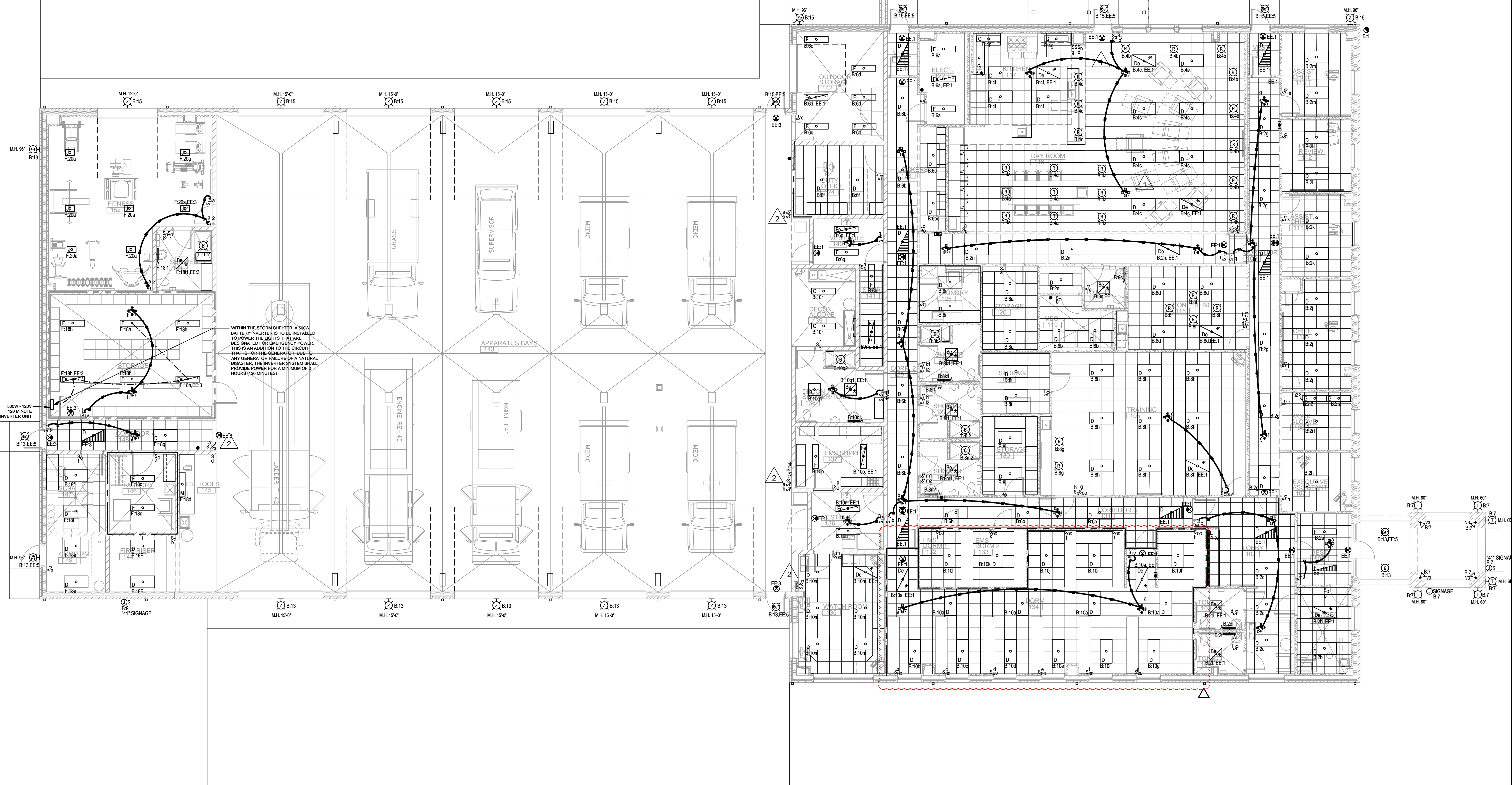
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GENERAL LIGHTING NOTES

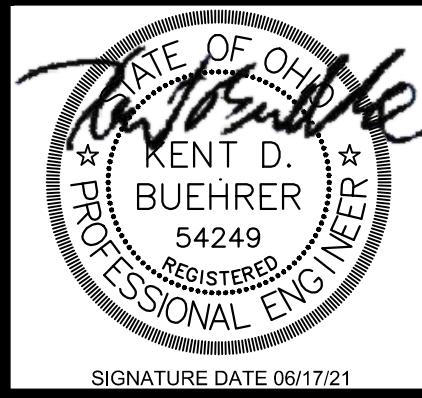
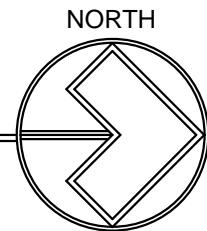
- INTERIOR LIGHTING SHALL BE 4000K, EXTERIOR LIGHTING SHALL BE 5000K.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REFERRING TO THE LIGHTING CONTROL SCHEMATICS & LIGHTING ZONES SWITCH LEGS ON LIGHTING PLANS.
- MOUNTING HEIGHTS FOR LIGHTING FIXTURES SHALL BE COORDINATED WITH ARCHITECTURAL PLANS AND ELEVATIONS:
 - FOR GRID TYPE CEILINGS, LIGHT FIXTURES ARE TO BE MOUNTED INSIDE GRID TILES.
 - FOR DRYWALL TYPE CEILINGS, LIGHT FIXTURES SHALL BE MOUNTED IN DRYWALL.
 - FOR OPEN CEILINGS, LIGHT FIXTURES SHALL BE MOUNTED VIA AIRCRAFT CABLE AT A HEIGHT COORDINATED WITH ARCHITECTURAL DRAWINGS, UNLESS OTHERWISE NOTED.
- EXTERIOR LIGHTING SHALL BE INTEGRATED WITH PHOTOCELL AND CONTACTOR LIGHTING CONTROL.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL DIMMING WIRES TO FIXTURES THAT ARE TO BE DIMMED.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LOW-VOLTAGE CABLES FOR ALL LIGHTING CONTROL SYSTEM COMPONENTS.
- SUSPENDED LINEAR LIGHT FIXTURES SHALL BE LEVEL AND PARALLEL TO FLOOR.
- PROVIDE (1) GENERATOR TRANSFER DEVICE (GTD) PER SWITCHED CIRCUIT. THIS SHALL BE DESIGNATED WITH AN "X".
- EXHAUST FANS THAT SERVE A BATHROOM SHALL BE INTERLOCKED WITH MAIN ROOM LIGHTING SWITCH.
- REFER TO 6/E0.2 FOR WIRING DIAGRAM OF EXTERIOR LIGHTING CONTROLS.

KEYED LIGHTING NOTES

- OCCUPANCY SENSORS IN DAY ROOM, DINING, AND KITCHEN AREA TO OPERATE AS VACANCY SWITCH 'OFF' AND LAST STATE MODE 'ON'. WIRE ON BRANCH CIRCUIT AHEAD OF SWITCHES.
- APPARATUS BAY LIGHTS SHOWN ON PLAN E1.2. SWITCH CONTROLS SHOWN ON E1.1. FOR SAFETY PURPOSES, NO VACANCY SHUT OFF. CONTROLS AT EVERY ENTRANCE AND WATCH ROOM. MEDIC (NORTH SIDE) SWITCHED INDEPENDENTLY FROM LARGE ENGINES (SOUTH SIDE).



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



NEW CENTRAL FIRE STATION
FOR
OREGON FIRE DEPARTMENT
1040 S. WYNN ROAD
OREGON, OHIO

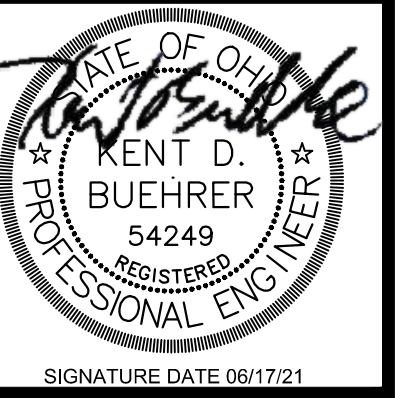
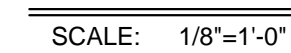


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E1.1

1. QUALITY ASSURANCE: ALL WORK SHALL BE IN ACCORDANCE WITH THE NFPA 70 - NATIONAL ELECTRICAL CODE 2017. ALL NEW AND UTILIZED MATERIALS SHALL BE UL - UNDERWRITER'S LABORATORY LISTED. OCCUPATIONAL HEALTH AND SAFETY ASSOCIATION SHALL COMPLY WITH ALL APPLICABLE OSHA STANDARDS.
2. ALL PANEL, BOARD AND EQUIPMENT WORK SHALL HAVE LABELED TYPED DIRECTORY'S PROVIDED, INDICATING ALL CIRCUITS, AND A COPY INSERTED INSIDE THE PANEL DOOR.
3. ALL LOCATIONS SHOWN ARE APPROXIMATE.
4. UNLESS NOTED OTHERWISE, ALL CIRCUIT HOMERUNS ON THIS SHEET SHALL BE #12AWG WITH DEDICATED #12AWG NEUTRAL AND SHARED #12AWG GROUND WIRE, IN 3/4" CONDUIT.
5. MOUNTING HEIGHTS FOR TV DEVICES & ASSOCIATED DEVICES TO BE COORDINATED WITH ARCHITECTURAL ELEVATIONS AND TV MOUNTING BRACKETS PRIOR TO ROUGH-IN.
6. 120V POWER FOR DOOR ACCESS CONTROL PANELS IS SHOWN ON SHEET T1.1.
7. STATION ALERTING SYSTEM TO BE DESIGNED BY VENDOR. ALL DEVICE REQUIREMENT INFORMATION, LOCATION AND MOUNTING TO BE COORDINATED PRIOR TO ROUGH-IN. SYSTEM SHALL INCLUDE, BUT NOT LIMITED TO:
 - 7.1. HEAD END PANEL IN DATA ROOM, POWERED BY ISOLATED GROUND (SURGE SUPPRESSION) RECEPTACLE.
 - 7.2. CONTROL UNIT IN WATCH ROOM
 - 7.3. (12) CEILING SPEAKERS & (8) WALL MOUNT SPEAKERS
 - 7.4. VOLUME CONTROLS
 - 7.5. (2) COUNTDOWN TIMERS IN MEDIC BAY
 - 7.6. (2) NOTIFICATION LIGHTS IN EMT DORM ROOMS
8. CAD MONITORING SYSTEM TO BE BY VENDOR. ALL DEVICE/SOFTWARE REQUIREMENTS AND LOCATIONS SHALL BE COORDINATED PRIOR TO ROUGH-IN.
9. ALL RECEPTACLES IN DORMITORIES SHALL BE AFCI AND TAMPER RESISTANT.
10. ALL RECEPTACLES WITHIN 6'0" OF A SINK SHALL BE GFCI TYPICAL. IN ADDITION, PROVIDE GFCI PROTECTION FOR RECEPTACLES IN KITCHEN AND OTHER AREAS AS REQUIRED BY NEC.
11. FLOOR BOY STYLE AND TRIM COMPONENTS SHALL BE COORDINATE WITH SPECIFIC FLOORING TYPE PRIOR TO ORDERING

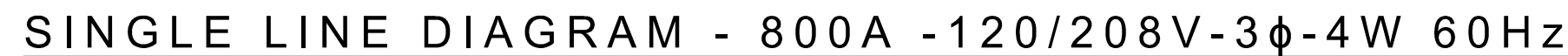
1. DISHWASHER, FOR RESIDENTIAL STYLE DISHWASHERS AND DISPOSALS FOR DISHWASHER, LOCATE AND LABEL (1) 20A-1P DISCONNECT BELOW ADJACENT SINK. FOR DISPOSAL LOCATE AND LABEL (1) 20A-1P DISCONNECT ABOVE COUNTER, LOCATE TO SINK
2. INTERLOCK OVERHEAD DOOR WITH RED/ GREEN LIGHT DISPLAY (ACCESSORY ORDERED WITH DOOR) . COORDINATE MOUNTING LOCATION WITH OWNER AND ARCHITECT.
3. ALTERNATE #1
IRRIGATION SYSTEM
4. ALTERNATE #8
AIR CLEANER, FANS EF-8, TYPICAL OF (8)
5. COORDINATE ALL ELECTRICAL DEVICES WITH CASEWORK
6. PROVIDE 120V POWER TO DOOR ACCESS
7. ALTERNATE #10
PROVIDE (4) FREE STANDING PEDESTAL MOUNT RECEPTACLES, GFI AND WEATHER-PROOF ENCLOSURE.
8. ALTERNATE #12
200KW DIESEL GENERATOR, IN LIEU OF NATURAL GAS GENERATOR



OREGON,

[illegible]

E2.1



1. CONNECT THE SERVICE NEUTRAL CONDUCTOR ACCORDING TO NEC 250.24(A)(1), AND AS IDENTIFIED IN NEC 250.26.
2. IF AN OUTDOOR TRANSFORMER IS SUPPLYING SERVICE TO THE BUILDING, AT LEAST ONE ADDITIONAL GROUNDING CONNECTION SHALL BE MADE FROM THE GROUNDED SERVICE CONDUCTOR TO A GROUNDING ELECTRODE PER NEC 250.24(A)(2).
3. THE MAIN BONDING JUMPER AS WELL AS THE SYSTEM BONDING JUMPER AS IDENTIFIED BY 205.28 SHALL BE SIZED PER 250.102(C)(1).
4. WHEN GROUNDING A SEPARATELY DERIVED SYSTEM FOR A GROUNDED SYSTEM, ALL GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH 250.30(A).
5. PER NEC 250.52, ELECTRODES PERMITTED FOR GROUNDING INCLUDE: METAL UNDERGROUND WATER PIPE, THE METAL FRAME OF THE BUILDING OR STRUCTURE, AND CONCRETE ENCASED ELECTRODES.
- 5.1. WHEN USING THE METAL UNDERGROUND WATER PIPE AS THE GROUNDING ELECTRODE, THE BONDING SHALL BE MADE WITHIN THE FIRST 6 FEET OF ENTERING THE BUILDING.
6. IF A SINGLE GROUND ROD IS BEING USED AS A SUPPLEMENTAL ELECTRODE TO A METAL UNDERGROUND WATER PIPE PER 250.53(D)(2) AND HAS A RESISTANCE OF LESS THAN 25 Ω , THEN A SUPPLEMENTAL GROUND ROD IS REQUIRED AND BE SPACED AT 6' APART PER NEC 250.53(A) EXCEPTION AND 250.53(B).
7. THE BONDING JUMPER USED TO CONNECT THE GROUNDING ELECTRODES TOGETHER SHALL BE SIZED PER TABLE 250.66.
- 7.1. THE BONDING JUMPER WHERE CONNECTED TO THE SUPPLEMENTAL GROUND ROD IS NOT REQUIRED TO BE LARGER THAN #6 AWG CU OR #4 AWG AL.
8. GROUNDING ELECTRODE CONDUCTOR(S) AND BONDING JUMPERS INTERCONNECTING GROUNDING ELECTRODES SHALL BE INSTALLED IN ACCORDANCE WITH 250.64(F)(1)(2), OR (3).
- 8.1. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE PERMITTED TO BE RUN TO ONE OR MORE GROUNDING ELECTRODE(S) INDIVIDUALLY.
- 8.2. BONDING JUMPER(S) FROM GROUNDING ELECTRODE(S) SHALL BE PERMITTED TO BE CONNECTED TO AN ALUMINUM OR COPPER BUS BAR NOT LESS THAN 1/4" x 2" AND FASTENED SECURELY TO AN ACCESSIBLE LOCATION.



"G" INDICATES GFIC
 "ST" INDICATES SHUNT TRIP DEIVCE
 "L" INDICATES RED, LOCK-ON BREAKER

MDP



PANEL "A"															
MAINS:	400	A MLO		V:	120/208V	3	PH.	4	WIRE		FEED THRU LUG				
MOUNTING:	SURFACE	LOCATION:		ELEC #122		3		4	FED FROM:		MDP				
	LOAD										LOAD				
DESCRIPTION	TYPE	A	B	C	POLE	#	#	POLE	A	B	C	TYPE	DESCRIPTION		
ELEC RM RECEPT	R	2600				20	1	2	20	1800		R	SHORE PWR		
RECEPTACLES	R		800			20	3	4	20		1800	R	SHORE PWR		
UH-1	EH			100		20	5	6	20			R	SHORE PWR		
DUTY OFFICE	R	800				20	7	8	20	1800		R	SHORE PWR		
RECEPTACLES	R		1000			20	9	10	20		1800	R	SHORE PWR		
RECEPTACLES	R			800		20	11	12	20		1800	R	SHORE PWR		
HAND DRYER	EH	1725				20	13	14	20	1800		R	SHORE PWR		
SPARE						20	15	16	20		1800	R	SHORE PWR		
EMS VENDING	R			1000		20	17	18	20			R	SHORE PWR		
RECEPTACLES	R	800				20	19	20	20	1800		R	SHORE PWR		
ICE MAKER	K		1000			20	21	22	20				SPARE		
VENDING	K			1000		20	23	24	20				SPARE		
MEZZ RECEPTACLES	R	800				20	25	26		1261			OHD #143A, #143E & #143D		
MEZZ RECEPTACLES	R		800			20	27	28			1261	M			
MEZZ CORD REEL	R			200		20	29	30							
F-1	HVAC	1728				20	31	32		841			OHD #143B & 143C		
F-2	HVAC		1236			20	33	34			841	M			
F-3	HVAC			1236		20	35	36				841			
F-4	HVAC	1116				20	37	38		841			OHD #143A & 152A		
F-5	HVAC		1236			20	39	40			841	M			
F-6	HVAC			1236		20	41	42				841			
EF-6	HVAC	172				20	43	44	20	1000		R	RECEPTACLES		
HOT WATER HEATER	R		1000			20	45	46	20		600	R	RECEPTACLES		
HOT WATER HEATER	R			1000		20	47	48	20		468	HVAC	IR-d, IR-e, IR-f		
CP-1	M	528				20	49	50	20				SPARE		
MOTORIZED DAMPER	M		100			20	51	52	20				SPARE		
PERGOLA	R			800		20	53	54	20				SPARE		
FUTURE GATE						20	55	56	20				SPARE		
SPARE						20	57	58	20				SPARE		
SPARE						20	59	60	20				SPARE		
SPACE							61	62					SPACE		
SPACE							63	64					SPACE		
SPACE							65	66					SPACE		
SPACE							67	68					SPACE		
SPACE							69	70					SPACE		
SPACE							71	72					SPACE		
SPACE							73	74					SPACE		
SPACE							75	76					SPACE		
SPACE							77	78					SPACE		
SPACE							79	80					SPACE		
SPACE							81	82					SPACE		
SPACE							83	84					SPACE		
SUBTOTAL #1		10269	7172	7372						11142	8942	8810	SUBTOTAL #2		
SUBTOTAL #1, #2 & B		21411	16114	16182											
TOTAL PANEL LOAD:	53.7	KW		149.1	AMPS						DEMANDED:	302.9	A MINIMUM FEEDER		

PANEL "D"															
MAINS:	200	A MLO		V:	120/208V	3		PH.	4	WIRE					
MOUNTING:	SURFACE		LOCATION:		VESTIBULE #136				FED FROM:		MDP				
	LOAD				AMPS	CKT	CKT	AMPS				LOAD			
DESCRIPTION	TYPE	A	B	C	POLE	#	#	POLE	A	B	C	TYPE	DESCRIPTION		
IR-a, IR-b, IR-c	HVAC	2600			20	1	2	20	841			M	OHD #143L &143K		
SPARE					20	3	4			841					
RECEPTACLES	R		800		20	5	6				841				
RECEPTACLES	R	400			20	7	8	20	1261			M	OHD #143J, 143H &143G		
UC FRIDGE	R		500		20	9	10			1261					
RECEPTACLES	R			600	20	11	12				1261				
FLOOR RECEPT	R	1000			20	13	14	20	1000			R	RECEPTACLES		
RECEPTACLES	R		600		20	15	16	20		800		R	RECEPTACLES		
RECEPTACLES	R			800	20	17	18	20			200	R	CITY DOOR ACCESS		
RECEPTACLES	R	800			20	19	20	20					SPARE		
RECEPTACLES	R		800		20	21	22	20		500		R	TRAINING AMP		
VENDING	R			1000	20	23	24	20					SPARE		
RECEPTACLES	R	400			20	25	26	20	1725			EH	HAND DRYER		
RECEPTACLES	R		600		20	27	28	20					SPARE		
RECEPTACLES	R			800	20	29	30	20				1725	EH	HAND DRYER	
RECEPTACLES	R	1000			20	31	32	20					SPARE		
CARDIAC MONITOR	R		200		20	33	34	20		1000		R	RECEPTACLES		
EF-6	HVAC			172	20	35	36	20			1200	R	RECEPTACLES		
WH-1	EH	1997			30	37	38	20	1200			R	RECEPTACLES		
		1997			39	40	20		1200			R	RECEPTACLES		
EWC	R			500	20G	41	42	20			1400	R	RECEPTACLES		
RECEPTACLES	R	1200			20	43	44	20	1200			R	RECEPTACLES		
C02 CONTROL PNL	R		200		20	45	46	20					SPARE		
MOTORIZED DAMPER				100	20	47	48	20					SPARE		
SPARE					20	49	50	20					SPARE		
SPARE					20	51	52	20					SPARE		
SPARE					20	53	54	20					SPARE		
SUBTOTAL #1			9392	4992	5772					7226	5601	6626	SUBTOTAL #2		
SUBTOTAL #1 + #2			16623	10498	11398										
TOTAL PANEL LOAD:		38.5	KW		106.9	AMPS					DEMANDED:	95.7	A MINIMUM FEEDER		

PANEL "B"															
MAINS:		400	A MLO		V:	120/208V		3		PH.	4	WIRE			
MOUNTING:		SURFACE		LOCATION:		ELEC #122						FED FROM:		MDP VIA A	
	LOAD					AMPS	CKT	CKT	AMPS					LOAD	
DESCRIPTION	TYPE	A	B	C	POLE	#	#	POLE	A	B	C	TYPE	DESCRIPTION		
P.C. & CONTACTOR	R	2600				20	1	2	20	1152		L	LIGHTS		
EXT. POLE LIGHTS	L		868			20	3	4	20		1058		L	LIGHTS	
EXT. POLE LIGHTS	L			651		20	5	6	20		1000		L	LIGHTS	
EXT TOWER LTS	L	590				20	7	8	20	1373			L	LIGHTS	
EXT. SOUTH "41"	L		200			20	9	10	20		1282		L	LIGHTS	
EXT. FLOOD LTS	L			48		20	11	12	20			300	L	LIGHTS	
EXT. BLDG & CANOPY	L	831				20	13	14	20	1540			L	HIGH BAY LTS NORTH	
EXT. BLDG & CANOPY	L		940			20	15	16	20		1694		L	HIGH BAY LTS SOUTH	
ELECTRONIC SIGN	R			566		20	17	18	20		1000	HVAC			
ELECTRONIC SIGN	R	566				20	19	20	20	1000		HVAC			
ELECTRONIC SIGN	R		566			20	21	22	20		1200	R	RECEPTACLES		
GAS RANGE SHUNT TRIP	K			200		20	23	24	20		1200	R	FLOOR BOXES		
						20	ST								
							25	26	20	1000		R	80" TV		
HOOD & GAS SHUTOFF	K		400			20	27	28	20		800		R	MEDIA CENTER	
KITCHEN RECEPT	K			600	20G	29	30	20			800	R	ASSIST CHIEF 113		
FRIDGE	K	1500			20G	31	32	20	800			R	ASSIST CHIEF 113		
FRIDGE	K		1500		20G	33	34	20	800			R	PLAN REVIEW 112		
FRIDGE	K			1500	20G	35	36	20			600	R	PLAN REVIEW 112		
FRIDGE	K	1500			20G	37	38	20	800			R	ASSIST CHIEF 111		
DISPOSAL & OUTLETS	K		900		20G	39	40	20		1000		R	ASSIST CHIEF 111		
DISPOSAL & OUTLETS	K			900	20G	41	42	20			800	R	CHIEF 110		
DISHWASHER	K	600			20G	43	44	20	1000			R	WORK ALCOVE		
USB OUTLETS	K		400		20G	45	46	20		1500		R	COPIER		
COFFEE MAKER	K			500	20G	47	48	20			600	R	EXEC ASSIST 107		
RECEPTACLES	R	1000			20	49	50	20	600			R	EXEC ASSIST 107		
RECEPTACLES	R		600		20	51	52	20		600		R	CHEM SYS & RECEPT		
HAND DRYER	EH			1725	20	53	54	20			1500	R	WASHER		
SPARE					20	55	56		1500				EH	DRYER	
FREEZER	K		1800		20G	57	58	30		1500					
FREEZER	K			1800	20G	59	60	20			800	R	RECEPTACLES		
FREEZER	K	1800			20G	61	62	20	1725			EH	HAND DRYER		
UC FRIDGE	K		500		20G	63	64	20					SPARE		
UC ICE MAKER	K			500	20G	65	66	20			1725	EH	HAND DRYER		
MICROWAVE	K	500			20G	67	68	20					SPARE		
COFFEE MAKER	K		500		20G	69	70	20	600			R	RECEPTACLES		
RECEPTACLES	R			1000	20	71	72	20			1725	EH	HAND DRYER		
GEN. BATTERY	R	200			20	73	74	20					SPARE		
GEN. RECEPT	R		200		20	75	76			1997			EH	WH-1	
GEN. BLOCK HTR	R			200	20	77	78	30			1997				
SPARE					20	79	80	20						SPARE	
SPARE					20	81	82	20						SPARE	
SPARE					20	83	84	20						SPARE	
SUBTOTAL #1			11687	9374	10190					12490	14031	14047	SUBTOTAL #2		
SUBTOTAL #1 + #2			24177	23405	24237										
TOTAL PANEL LOAD:		71.8	KW		199.4	AMPS					DEMANDED:		175.0	A MINIMUM FEEDER	