

**Fire Station No. 80 - FIRE STATION NO. 80 - TRAINING  
CENTER, 6585 CHERRY AVENUE, FONTANA, CALIFORNIA**

**Project**

**BID NO.: DE-26-01-SP**

Addendum No. 5

Information

09/25/2025

- 1.** Revised “NOTICE INVITING SEALED BIDS FOR CONSTRUCTION” are hereby included and shall replace the previously released **VOLUME 1 SPECIFICATIONS FOR THE CONSTRUCTION OF FIRE STATION NO. 80 - TRAINING CENTER 6585 CHERRY AVENUE, FONTANA, CALIFORNIA** **BID NO.: DE-26-01-SP** page 9. Changes are to include:

  - a. The bid opening date has been extended to October 1<sup>st</sup> at 2:00pm.
    - i. PUBLIC NOTICE IS HEREBY GIVEN that the City OF FONTANA, as City, invites sealed bids to be received only by submitting electronically at [www.fontanapurchasing.org](http://www.fontanapurchasing.org), for the above stated project and will receive such bids no later than the hour of **2:00 P.M. on the 1st day of October, 2025**, at which time or thereafter said bids will be electronically opened and available online. Bids received after this time will not be able to submit electronically.
- 2.** Revised “Appendix I – SOLID WASTE DISPOSAL AND RECYCLING REPORT” are hereby to be included in the previously released **VOLUME 1 SPECIFICATIONS FOR THE CONSTRUCTION OF FIRE STATION NO. 80 - TRAINING CENTER 6585 CHERRY AVENUE, FONTANA, CALIFORNIA** **BID NO.: DE-26-01-SP**.

  - a. The “City of Fontana Construction and Demolition Recycling Program” brochure as attached.



- 3.** “VOLUME 2 – ARCHITECT PROJECT MANUAL” is hereby included and shall follow the changes, omissions and/or additions to the previously released **VOLUME 2 – ARCHITECT PROJECT MANUAL AND DRAWINGS.**

**See attached.**



**1.**

**NOTICE INVITING SEALED BIDS  
FOR CONSTRUCTION OF**

**FIRE STATION NO. 80 - TRAINING CENTER 6585 CHERRY  
AVENUE, FONTANA, CALIFORNIA**

**BID NO.: DE-26-01-SP**

PUBLIC NOTICE IS HEREBY GIVEN that the **City OF FONTANA**, as **City**, invites sealed bids to be received only by submitting electronically at [www.fontanapurchasing.org](http://www.fontanapurchasing.org), for the above stated project and **will receive such bids no later than the hour of 2:00 P.M. on the 1st day of October, 2025**, at which time or thereafter said bids will be electronically opened and available online. Bids received after this time will not be able to submit electronically.

A non-mandatory pre-bid conference will be held at the **City of Fontana on September 9, 2025, at 10:00 a.m., in the DSO Conference Room 125**. Bidders are encouraged to attend.

The **City** reserves the right to reject any or all bids, to waive any irregularity, to accept any bid or portion thereof, and to take all bids under advisement for a period of ninety (90) calendar days.

The work of improvement consists of furnishing all materials, equipment, tools, labor, and incidentals as required by the Plans, Specifications and Contract Documents for the above stated project. The general items of work to be done hereunder consist of on-site and off-site improvements required for the construction of the Fire Station 80- Training Center Project, located at 6585 Cherry Avenue; and all project related improvements as indicated in the project plans and specifications.

Bid must be submitted electronically for the exact item(s) requested in the bid specifications. Copies of the plans, specifications, and contract documents are available **for free** from the City's Purchasing website [www.fontanapurchasing.org](http://www.fontanapurchasing.org).

Each Bid submitted electronically is required to be accompanied by the Proposal Documents; Proposal, Bidder's Information, Contractor's Licensing Statement, List of Subcontractors (enter online), References, Designator of Sureties, Bid Bond, Non-Collusion affidavit, Certificate of Non-Discrimination by Contractors, Proposal Bid Sheet (enter online), Addendum Acknowledgement, and all additional documentation required by the Instructions to Bidders. Bids must be submitted on the City's bid forms. Any questions pertaining to this project should be directed to **Sid Lambert at phone number (909) 350-7678 or email at [slambert@fontana.org](mailto:slambert@fontana.org)**.

Proposals must be accompanied by a proposal guarantee in the form of cash, cashier's check, a certified check or bid bond available to the **City** in the amount of at least ten percent (10%) of the total amount bid. Any proposal not accompanied by such a guarantee will not be considered. A payment bond and a performance bond, each in an



## **2. APPENDIX I – SOLID WASTE DISPOSAL AND RECYCLING REPORT**



## Fontana Construction & Demolition Disposal Regulations

Per City Code [Sec. 24-15 (a)], self-hauling of refuse from a construction or demolition site is not permitted. Contractors/homeowners wishing to self-haul recyclable materials must own the collection container and vehicle that the recyclable materials are hauled in, and obtain a self-haul permit from the City.

## Residential C&D Projects

Temporary Containers (7-day rental) for construction & demolition or clean-up projects can only be ordered from the City's Franchised hauler, Burrtec Waste Industries. Containers should be entirely on residential property and should not extend into the public right-of-way. Call Code Compliance Department for permission if container will be on property for longer than two weeks. Residential properties that are part of a Homeowners Association (HOA) may have to obtain approval for placement of temporary containers from the HOA.

## Multi-Family, Commercial, and Industrial C&D Projects

Temporary Containers (7-day rental) and Permanent Containers for construction & demolition projects can be ordered from the City's Franchised hauler, Burrtec Waste Industries.

## Burrtec Construction and Demolition Processing Facilities

**To get started please call: (909) 822-9739**

### **Burrtec Fontana Division**

9820 Cherry Ave. • Fontana, CA 92335

### **West Valley MRF - (909) 889-0911**

13373 Napa Street • Fontana, CA 92335

### **Agua Mansa MRF - (951) 786-0655**

1830 Agua Mansa Road • Riverside, CA 92509

### **Important Phone Numbers**

Building & Safety .....	(909) 350-7640
Code Compliance.....	(909) 854-8020
Economic Development .....	(909) 350-6741
Engineering.....	(909) 350-7610
Planning.....	(909) 350-7640
Police Department (Office Hours).....	(909) 350-7740
Police Department (Non-emergency 24-hour).....	(909) 350-7700
Public Works .....	(909) 350-6760
Mid-Valley Landfill Info. ....	386-8701
CA Recycling Info.....	1-800-CLEAN-UP
CA Redemption Center Info .....	1-800-732-9253
Co. Household Haz. Waste .....	1-800-645-9228
Commercial Hazardous Waste Waste Exchange Program	
SB Co. Environmental Health.....	884-4056
Pest Control	



**BURRTEC**  
"We'll Take Care Of It"

[www.burrtec.com](http://www.burrtec.com)

# City of Fontana Construction & Demolition Recycling Program





## Why Recycle Construction and Demolition Debris?

Reuse and recycling of C&D materials is a key component of sustainable or green building construction. The efficient use of resources is a fundamental principal of green building construction. This means reducing, reusing and recycling most if not all material that remain after a construction or renovation project. Many of these materials can be reused or recycled, thus prolonging our supply of natural resources and potentially saving money in the process.

## How Do I Start?

There are many ways to recycle and reduce waste on your job site. The following are some basic recommendations:

**Plan Ahead** - Prior to starting your project, contact Burrtec to find out what options will work best for your site. Planning ahead will assist in diverting as much material as possible and as cost effectively as possible.

**Source Separation** - Provide one container on your site for one specific kind of material, such as wood, concrete, asphalt, cardboard, landscaping or metal.

**Mixed Recycling Containers** - Providing one container for mixed recyclables is ideal for projects with space limitations or that generate a large amount of varied materials at once.

**Reuse or Donations** - Depending on the characteristics of your project, you may have the opportunity to reuse or donate items.

## What is LEED and CALGreen?

Leadership in Energy and Environmental Design, LEED, is helping to deliver energy and water efficient, healthy, environmentally-friendly, cost saving buildings, homes and communities. Projects earn points to satisfy green building requirements. Within each of the LEED credit categories, projects must satisfy prerequisites and earn points. The number of points the project earns determines its level of LEED certification. For the purposes of Solid Waste and Recycling, these points are in the area of Materials & Resources credits which encourage using sustainable building materials and reducing waste. Other credit categories include, sustainable sites, water efficiency, energy and atmosphere, and indoor environmental quality.

CALGreen is the California statewide Green Building Code. It is composed of several parts. The basic CALGreen code, which is mandatory, must be adopted by all local jurisdictions prior to January 1, 2017. For the purposes of Solid Waste and Recycling, a project site must divert at least 65% of construction waste from the landfill.

## How Burrtec Will Help

Burrtec's C&D program assists in meeting new State regulations that require construction and demolition projects to divert 65% of C&D materials from local landfills. Burrtec can facilitate compliance, providing a minimum of 77% waste diversion guarantee on construction and demolition mixed waste disposal at our West Valley Material Recovery Facility. The program also helps to comply with local ordinance requirements, LEED certification and CalGreen building standards. Burrtec is a one stop solution for your C&D material; we can take care of it all or meet specific needs. Burrtec will partner with customers to develop on-site solutions, provide equipment, transport the material, process the material and report diversion and recycling data.

## Typical Construction and Demolition Material

- Wood (tree trimmings, construction/demo wood, palm, cabinets, furniture)
- Mixed C&D
- Inerts (concrete, brick, gravel)
- Asphalt based – composite roofing
- Metal
- Tires
- Cardboard
- Injection molded plastic
- Mattresses
- Gypsum wall board
- Carpet and pad

## Types of Containers



1.5 - 3 yard temporary and permanent bins



10 - 40 yard debris roll-off boxes



### **3. VOLUME 2 – ARCHITECT PROJECT MANUAL AND DRAWINGS**





September 25, 2025

TO : All Bidders  
FROM : PBK  
PROJECT : Fontana Fire Station No. 80  
PROJECT # : W2100100AR  
SUBJECT : Addendum 5

The following changes, omissions, and/or additions to the Project Manual and/or Drawings shall apply to proposals made for and to the execution of the various parts of the work affected thereby, and all other conditions shall remain the same.

Careful note of the Addendum shall be taken by all parties of interest so that the proper allowances may be made in strict accordance with the Addendum, and that all trades shall be fully advised in the performance of the work which will be required of them.

Bidder shall acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

In case of conflict between Drawings, Project Manual, and this Addendum, this Addendum shall govern.

## **PROJECT MANUAL**

- 1.1 SECTION 03 30 00 – CAST-IN-PLACE CONCRETE
  - A. 2.5 VAPOR BARRIER
    - 1. C. MANUFACTURERS
      - a. ADD ITEM: "6. ISI Building Products, [www.isibp.com](http://www.isibp.com)."
- 1.2 SECTION 04 73 00 – MANUFACTURED STONE MASONRY
  - A. 2.2 STONE VENEER
    - 1. D. TRIM SHAPES
      - a. REVISE ITEM: "1. Wall Cap: 18" x 24" x 2.5" Flagstone."
      - b. REVISE ITEM: "2. Stone Post Cap: 20" x 20" x 3.5" Flagstone."



1.3 SECTION 07 19 00 – WATER REPELLENTS

A. 3.6 SCHEDULE

1. OMIT ITEM "A. Exterior concrete masonry site walls."

1.4 SECTION 32 13 13 – CONCRETE PAVING

A. 2.10 CONCRETE MIX

1. B. PROVIDE CONCRETE OF THE FOLLOWING CHARACTERISTICS:

- a. REVISE ITEM: "2. Sidewalks, curbs, gutters and utility slabs:  
Compressive Strength of 4,000 psi at 28 days."

1.5 SECTION 32 80 00 – IRRIGATION SYSTEM

A. 2.1 MATERIALS

1. N. SUBSURFACE DRIPLINE

- a. REVISE ITEM: "1. Rain Bird XFSP-09-18 with factory installed, pressure-compensating, inline emitters welded to the inner circumference of the copper-colored polyethylene tubing at spacing specified by model number."

B. 3.2 IRRIGATION SYSTEM INSTALLATION

1. C. IRRIGATION PIPELINE INSTALLATION - GENERAL: EXECUTE TRENCH EXCAVATING AND BACKFILLING, INCLUDING THE DEPTH OF COVER OVER THE PIPELINE, IN ACCORDANCE WITH REQUIREMENTS OF SUBSECTION 3.2(B) AND SSPWC SECTION 306-1.2.13, WHICHEVER IS MORE STRINGENT.

- a. REVISE ITEM: "8. Place all lines under paving in Schedule 40 Purple PVC sleeves. Oversize the sleeves sufficiently to house the pipe, fittings and the directed burial control wires, unless otherwise indicated."

1.6 SECTION 32 93 00 – LANDSCAPE PLANTING

A. 2.1 MATERIALS

1. F. HEADER BOARD AND MOW STRIP



- a. REVISE ITEM: "1. Concrete Mow Strip: 6-inches square x 4-inches in depth, complete with tooled control joint 10-feet apart; at the beginning and end of curve, and at changes of direction; and where header abuts an existing or new structures and improvements, or as indicated on the Contract Drawings."
- 2. REVISE ITEM: "1. Root Barrier: Install root barrier in all tree planters where tree is within five 5-feet of paving. 18-inches depth, extending a minimum of 8'-0" on each side of the tree centerline."
- B. 3.4 GRADING AND SITE PREPARATION
  - 1. C. TOPSOIL PREPARATION AND CONDITIONING
    - a. REVISE ITEM: "1. Type and Thickness: Place approved Imported/Class A topsoil over the entire rough graded site, in accordance with Subsection 2.1 (A), to a depth of 6-inches."

## **DRAWINGS**

### CIVIL

- 1.7 SHEET C1 GRADING, DRAINAGE, STORM DRAIN, AND UTILITY PLAN TITLE SHEET
  - A. ADD ABBEVIATION: "'TP' TOP OF PILASTER."
- 1.8 SHEET C5.0 GRADING AND DRAINAGE PLAN
  - A. REPLACE: Sheet in its entirety with the attached C5.0. Revisions highlighted.
- 1.9 SHEET C5.1 GRADING AND DRAINAGE PLAN DETAIL SHEET
  - A. REPLACE: Sheet in its entirety with the attached C5.1. Revisions highlighted.
- 1.10 SHEET C6 UTILITY PLAN
  - A. REPLACE: Sheet in its entirety with the attached C6. Revisions highlighted.



## ARCHITECTURAL

### 1.11 SHEET A1.1 SITE PLAN

- A. REPLACE: Sheet in its entirety with the attached A1.1. Revisions highlighted.

### 1.12 SHEET A1.2 ENLARGED SITE PLANS & SITE DETAILS

- A. REPLACE: Sheet in its entirety with the attached A1.2. Revisions highlighted.

### 1.13 SHEET A1.3 SITE DETAILS

- A. ADD ANNOTATION: "DETAIL 21/A1.3, PROVIDE (4) #4 VERTICAL BARS WITH #3 TIES AT 12" O.C."

### 1.14 SHEET A1.4 TRASH ENCLOSURE & SITE DETAILS

- A. REPLACE: Sheet in its entirety with the attached A1.4. Revisions highlighted.

### 1.15 SHEET A5.1 DOOR, WINDOW & FINISH SCHEDULES

- A. REPLACE: Sheet in its entirety with the attached A5.1. Revisions highlighted.

### 1.16 SHEET A5.2 DOOR DETAILS

- A. REPLACE: Sheet in its entirety with the attached A5.1. Revisions highlighted.

### 1.17 SHEET A8.4 SPECIALTY DETAILS

- A. ADD NOTE: "DETAIL 2/A8.4, 5. ALL DIMENSIONED CLEARANCES SHOULD BE FROM TOILET FIXTURES TO FINISH FACE OF WALL."

### 1.18 SHEET A8.5 SIGNAGE DETAILS

- A. REPLACE: Sheet in its entirety with the attached A8.5. Revisions highlighted.

## STRUCTURAL

### 1.19 SHEET S0.3 WOOD FRAMING DETAILS

- A. REPLACE: Sheet in its entirety with the attached S0.3. Revisions highlighted.



1.20 SHEET S1.1 FONDATION PLAN

A. REPLACE: Sheet in its entirety with the attached S1.1. Revisions highlighted.

1.21 SHEET S3.1 ROOF FRAMING PLAN

A. REPLACE: Sheet in its entirety with the attached S3.1. Revisions highlighted.

1.22 SHEET S4.2 WALL SECTIONS

A. REPLACE: Sheet in its entirety with the attached S4.2. Revisions highlighted.

ELECTRICAL

1.23 SHEET E0.1 GENERAL NOTES AND SYMBOL LIST

A. REVISE SYMBOL ANNOTATION: "SYMBOL LIST 'WAP', WIRELESS ACCESS POINT. TWO (2) CAT6 TO IDF."

1.24 SHEET E0.2 SINGLE LINE DIAGRAM

A. REVISE ANNOTATION ON SINGLE LINE DIAGRAM: "(5) 5\"C. TO TRANSFORMER PER UTILITY REQUIREMENTS."

1.25 SHEET E0.3 PANEL SCHEDULES

A. REPLACE: Sheet in its entirety with the attached E0.3. Revisions highlighted.

1.26 SHEET E0.4 LIGHT FIXTURE SCHEDULES

A. REVISE LIGHTING FIXTURE SCHEDULE: "TYPE 'T', VISION LIGHTING #MLB-2-T3-24LC-3-4K-UNV-WM-\*-PC120 OR APPROVED EQUAL."

1.27 SHEET E1.1 SITE PLAN

A. REVISE ANNOTATION: "TRANSFORMER, (5) 5\"C. TO TRANSFORMER PER UTILITY REQUIREMENTS."

1.28 SHEET E2.2 POWER PLAN

A. REPLACE: Sheet in its entirety with the attached E2.2. Revisions highlighted.

1.29 SHEET E2.3 SIGNAL PLAN

A. REPLACE: Sheet in its entirety with the attached E2.3. Revisions highlighted.



1.30 SHEET E3.1 TRAINING TOWER LIGHTING PLANS

A. REPLACE: Sheet in its entirety with the attached E3.1. Revisions highlighted.

1.31 SHEET E3.2 TRAINING TOWER LIGHTING PLAN

A. REPLACE: Sheet in its entirety with the attached E3.2. Revisions highlighted.

1.32 SHEET E3.3 TRAINING TOWER LIGHTING PLAN

A. REPLACE: Sheet in its entirety with the attached E3.3. Revisions highlighted.

1.33 SHEET E3.4 TRAINING TOWER LIGHTING PLAN

A. REPLACE: Sheet in its entirety with the attached E3.4. Revisions highlighted.

LANDSCAPE

1.34 SHEET L1.1 IRRIGATION PLAN

A. REPLACE: Sheet in its entirety with the attached L1.1. Revisions highlighted.

1.35 SHEET L1.2 IRRIGATION DETAILS

A. REPLACE: Sheet in its entirety with the attached L1.2. Revisions highlighted.

1.36 SHEET L2.1 LANDSCAPE PLAN

A. REPLACE: Sheet in its entirety with the attached L2.1. Revisions highlighted.

1.37 SHEET L2.2 LANDSCAPE DETAILS

A. REPLACE: Sheet in its entirety with the attached L2.2. Revisions highlighted.

WHP TRAINING TOWER

1.38 SHEET 1 FIRST AND TOWER BASEMENT FLOOR PLANS

A. REVISE SHEET NAME: "FIRST FLOOR PLAN AND SECTION."



Addendum 5  
Fontana Fire Station No. 80  
W2100100AR  
September 25, 2025  
Page 7

## **MISCELLANEOUS**

### STRUCTURAL CALCULATIONS

- 1.39 STRUCTURAL CALCULATIONS FOR FONTANA FIRE STATION NO. 80 PHASE 1:  
TRAINING CENTER
  - A. ADD TO STRUCTURAL CALCULATIONS: "SUPPLEMENTAL CALCS FOR  
RETAINING WALLS."

## **END OF ADDENDUM 5**

Submitted by,



JAIME MORENO  
Senior Associate, Senior Project Manager

Attachments:

Drawings:

Civil Drawings: C5.0, C5.1, C6  
Architectural Drawings: A1.1, A1.2, A1.4, A5.1, A5.2, A8.5  
Structural Drawings: S0.3, S1.1, S3.1, S4.2  
Electrical Drawings: E0.3, E2.2, E2.3, E3.1, E3.2, E3.3, E3.4  
Landscape Drawings: L1.1, L1.2, L2.1, L2.2

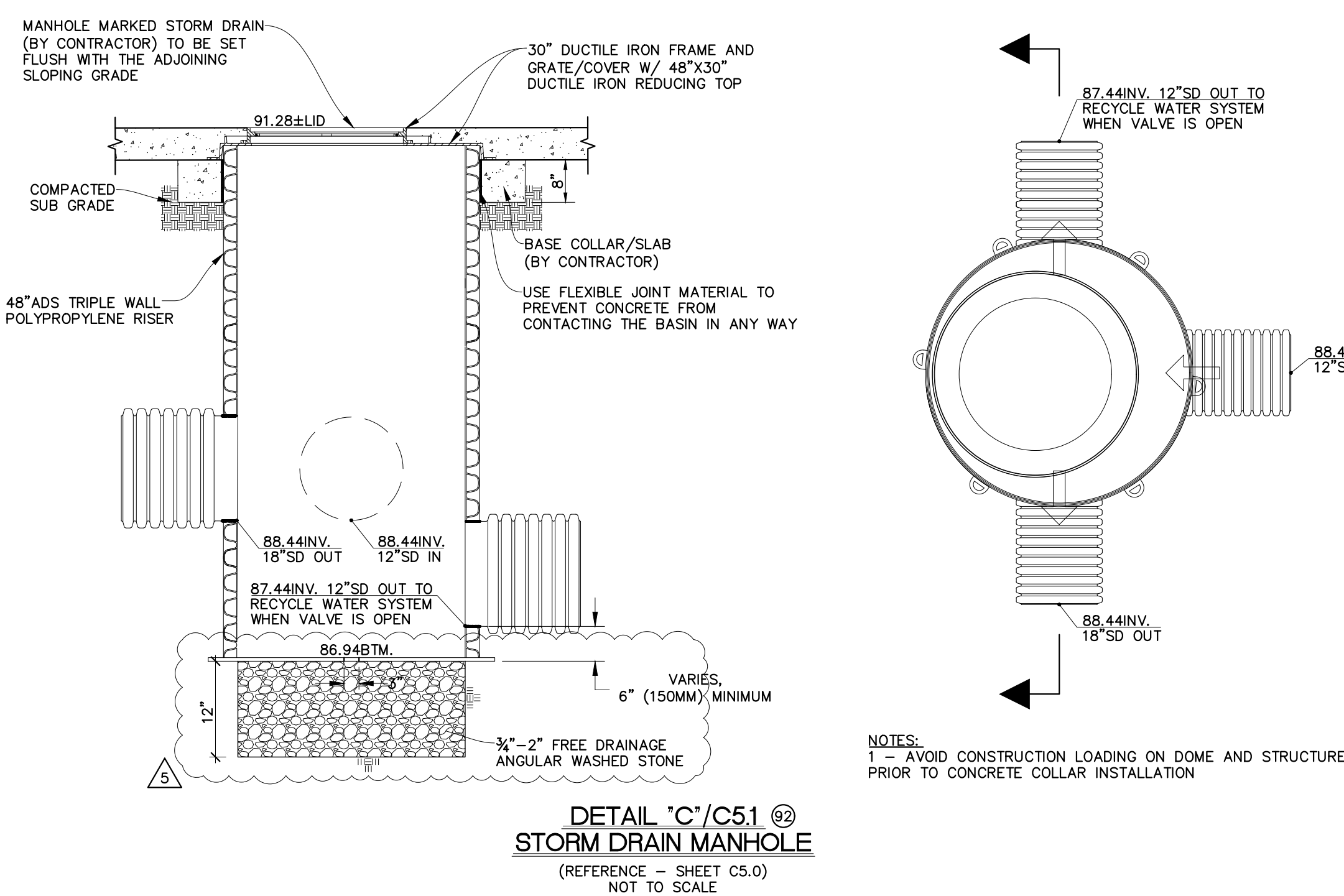
Miscellaneous:

Structural Calculations for Fontana Fire Station No. 80 Phase 1: Training Center  
(SUPPLEMENTAL CALCS FOR RETAINING WALLS)

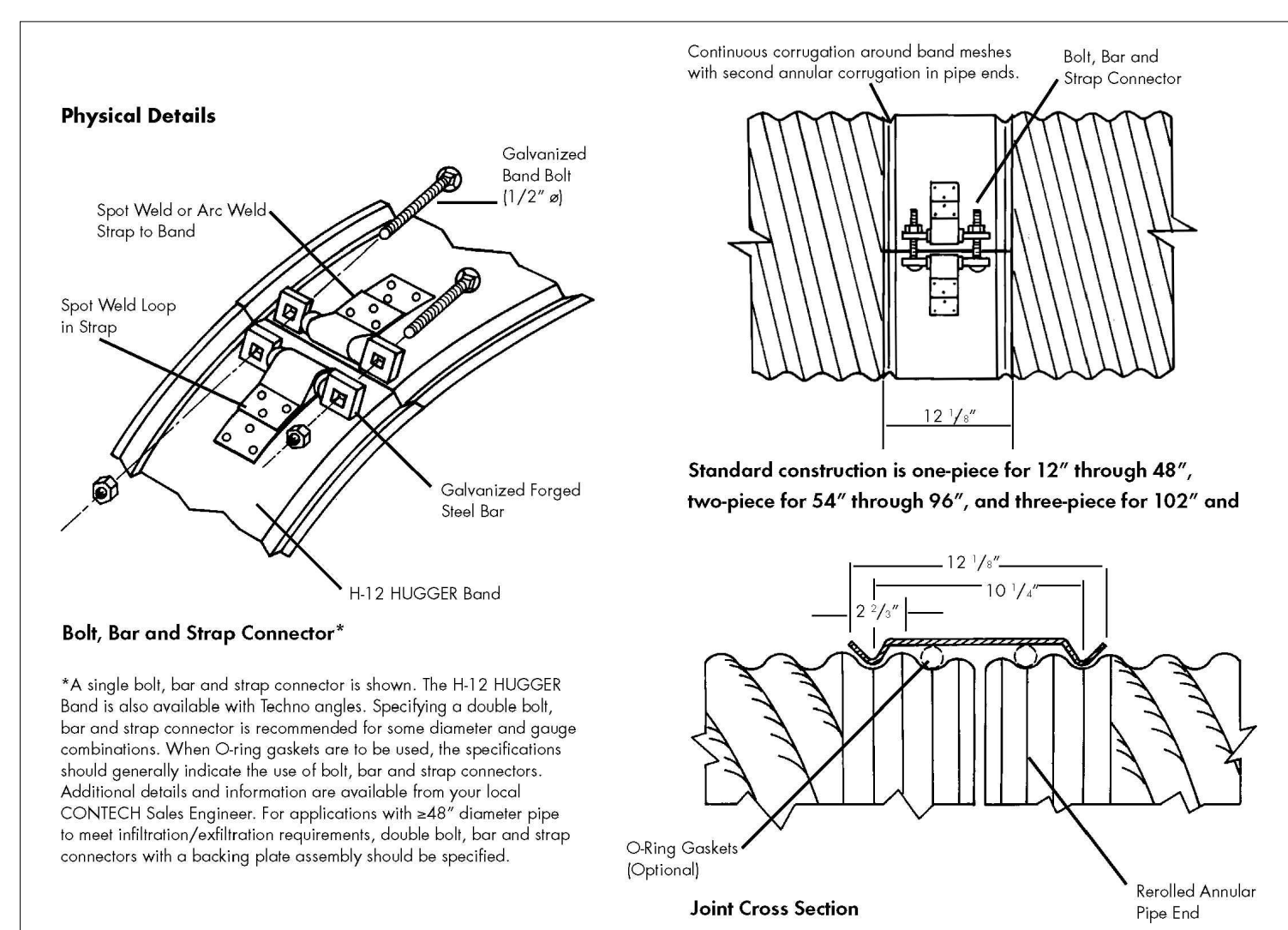




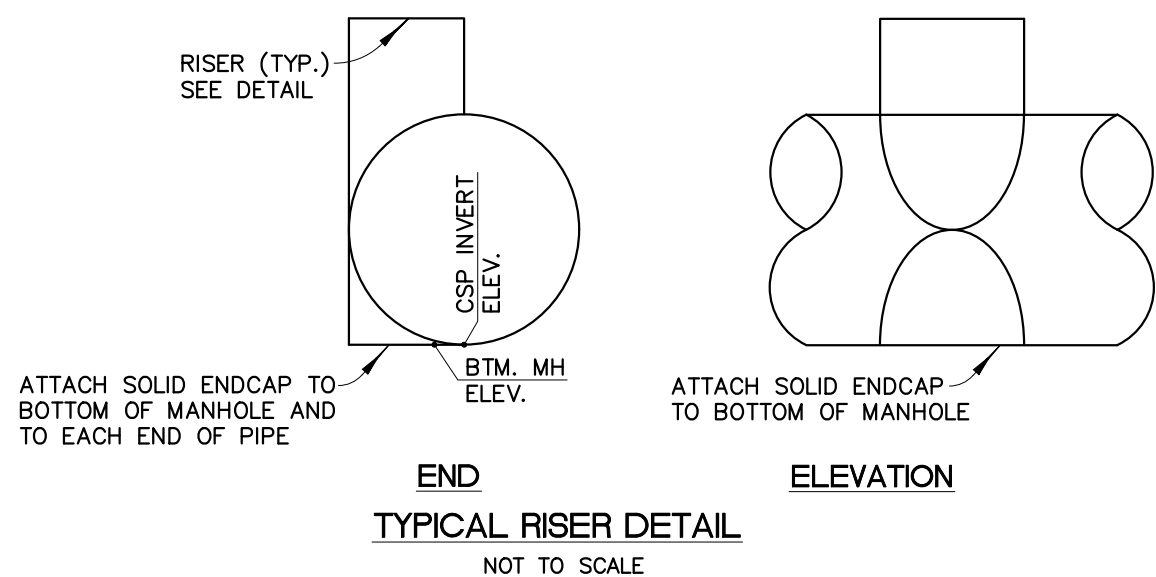




**CONSTRUCTION LOADING NOTE**  
 PROVIDE A 42 INCH MINIMUM TEMPORARY SOIL COVER  
 OVER THE UNDERGROUND DETENTION PIPE BEFORE ANY  
 HEAVY CONSTRUCTION EQUIPMENT IS ALLOWED TO BE  
 OVER THE PIPE.



IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDE LINES FOR SAFE PRACTICES.



- (1) CONSTRUCT #6 CONCRETE CURB PER DETAIL "A" SHOWN ON SHEET C02.
- (2) CONSTRUCT VARYING HEIGHT CURB FACE TRANSITION PER DETAIL "A" SHOWN ON SHEET C02.
- (3) CONSTRUCT #6 CONCRETE CURB PER DETAIL "A" SHOWN ON SHEET C02.
- (4) CONSTRUCT 4,000 PSI #6 CONCRETE CURB AND 18" GUTTER OVER 6" MINIMUM THICK CLASS 2 AGGREGATE BASE COMPACTED TO AT LEAST 90% OF ITS MAXIMUM DENSITY OVER 12" MINIMUM THICK SUBGRADE SOIL MOISTURE CONDITIONED TO WITHIN 3% ABOVE OPTIMUM MOISTURE CONTENT AND COMPACTED TO AT LEAST 90% OF ITS MAXIMUM DENSITY OVER 6" MINIMUM THICK SCARIFIED 90% COMPACTED NATIVE SOIL MOISTURE CONDITIONED AS NECESSARY. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF CONSTRUCTION JOINTS, THICKENED EDGES, COLOR, DOWELS, REINFORCEMENT AND TEXTURE. MINIMUM REINFORCING TO CONSIST OF #4 REBAR AT 18" ON CENTER EACH WAY AT MID-HEIGHT OF SLAB.
- (5) CONSTRUCT 8" THICK 4,000 PSI REINFORCED CONCRETE SIDEWALK OVER 4" THICK CLASS 2 AGGREGATE BASE COMPACTED TO AT LEAST 90% OF ITS MAXIMUM DENSITY OVER 12" MINIMUM THICK SUBGRADE SOIL MOISTURE CONDITIONED TO WITHIN 3% ABOVE OPTIMUM MOISTURE CONTENT AND COMPACTED TO AT LEAST 90% OF ITS MAXIMUM DENSITY OVER 6" MINIMUM THICK SCARIFIED 90% COMPACTED NATIVE SOIL MOISTURE CONDITIONED AS NECESSARY. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF CONSTRUCTION JOINTS, THICKENED EDGES, COLOR, DOWELS, REINFORCEMENT AND TEXTURE. MINIMUM REINFORCING TO CONSIST OF #4 REBAR AT 18" ON CENTER EACH WAY AT MID-HEIGHT OF SLAB.
- (6) CONSTRUCT 8" WIDE #8 THICK 4,000 PSI REINFORCED CONCRETE DRAINAGE SWALE OVER 4" THICK CLASS 2 AGGREGATE BASE COMPACTED TO AT LEAST 90% OF ITS MAXIMUM DENSITY OVER 12" MINIMUM THICK SUBGRADE SOIL MOISTURE CONDITIONED TO WITHIN 3% ABOVE OPTIMUM MOISTURE CONTENT AND COMPACTED TO AT LEAST 90% OF ITS MAXIMUM DENSITY OVER 6" MINIMUM THICK SCARIFIED 90% COMPACTED NATIVE SOIL MOISTURE CONDITIONED AS NECESSARY PER DETAIL "C" SHOWN ON SHEET C02. MINIMUM REINFORCING TO CONSIST OF #4 REBAR AT 18" ON CENTER EACH WAY AT MID-HEIGHT OF CONCRETE.
- (7) PAINT PARKING LOT SPACE AND ADA STRIPING ON TOP OF THE NEW PAVEMENT PER DETAILS SHOWN ON ARCHITECTURAL DRAWINGS.
- (8) CONSTRUCT A 24"x36" CONCRETE DRAIN BOX, GRATE AND FRAME PER DETAIL "D" SHOWN ON SHEET C02.
- (9) CONSTRUCT A 18"x18" DRAIN BOX, GRATE AND FRAME PER DETAIL "E" SHOWN ON SHEET C02.
- (10) INSTALL FLO-GARD PLUS SHALLOW DEPTH TRASH AND DEBRIS GUARD MODEL NO. FGP-2436SF FROM CURB TO CURB WITH 18" FILTER POLYPROPYLENE ROOF FILTER MEDIA TO CLEANUP URUBAN STORM WATER RUNNING FROM DETAIL "F" SHOWN ON SHEET C02.
- (11) INSTALL "NO RUMPING FLOWS TO CREEK" SIGNAGE ON TOP OF THE DRAIN BOX WALL PER CITY STD. PLAN NO. 6002 SHOWN ON SHEET C09.
- (12) CONSTRUCT SITE WALL PER DETAILS SHOWN ON ARCHITECTURAL AND STRUCTURAL DRAWINGS AND PER CITY ELEVATIONS SHEETS. DESIGNER, CONTRACTOR TO OBTAIN A SEPARATE PERMIT FROM THE CITY BUILDING AND SAFETY DEPARTMENT.
- (13) CONSTRUCT PAVEMENT TRENCH DRAIN PER DETAIL "T" SHOWN ON SHEET C02.
- (14) NOTE NOT USED.
- (15) CONSTRUCT #6 WIDE REINFORCED CONCRETE MOW CURB WITH A TUBE STEEL FENCING WITH PRIVACY FENCE SCREENING ON TOP.
- (16) CONSTRUCT #6 WIDE REINFORCED CONCRETE MOW CURB.
- (17) CONSTRUCT TRANSFORMER ENCLOSURE PER ARCHITECTURAL & STRUCTURAL PLANS.
- (18) CONSTRUCT 4" MINIMUM THICK ON-SITE A.C. PAVEMENT OVER 6" THICK CLASS 2 AGGREGATE BASE COMPACTED TO AT LEAST 90% OF ITS MAXIMUM DENSITY OVER 12" MINIMUM THICK SUBGRADE SOIL MOISTURE A BASE COMPACTED TO AT LEAST 90% OF ITS MAXIMUM DENSITY OVER 6" MINIMUM THICK SCARIFIED 90% COMPACTED NATIVE SOIL MOISTURE CONDITIONED AS NECESSARY. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF CONSTRUCTION JOINTS, THICKENED EDGES, COLOR, DOWELS, REINFORCEMENT AND TEXTURE. MINIMUM REINFORCING TO CONSIST OF #4 REBAR AT 18" ON CENTER EACH WAY AT MID-HEIGHT OF CONCRETE.

(98) PUMP HOUSE AND UNDERGROUND STORAGE TANK PER PLUMBING PLANS.

**\*\*8" THICK 4,000 PSI REINFORCED CONCRETE SLAB  
OVER 15 MIL MINIMUM VAPOR RETARDER  
STEGOWRAP IMPERMEABLE MEMBRANE OVER 2"  
THICK CLEAN SAND OVER 6" TO 8" OF CLASS 2  
AGGREGATE BASE OVER COMPACTED AND MOISTURE  
CONDITIONED CERTIFIED GROUND. REFER TO  
ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR  
AREAS OF DEPRESSED OR RAISED SLABS.**

CALL BEFORE YOU DIG

Call: Toll Free  
**811**  
TWO WORKING DAYS  
BEFORE YOU DIG

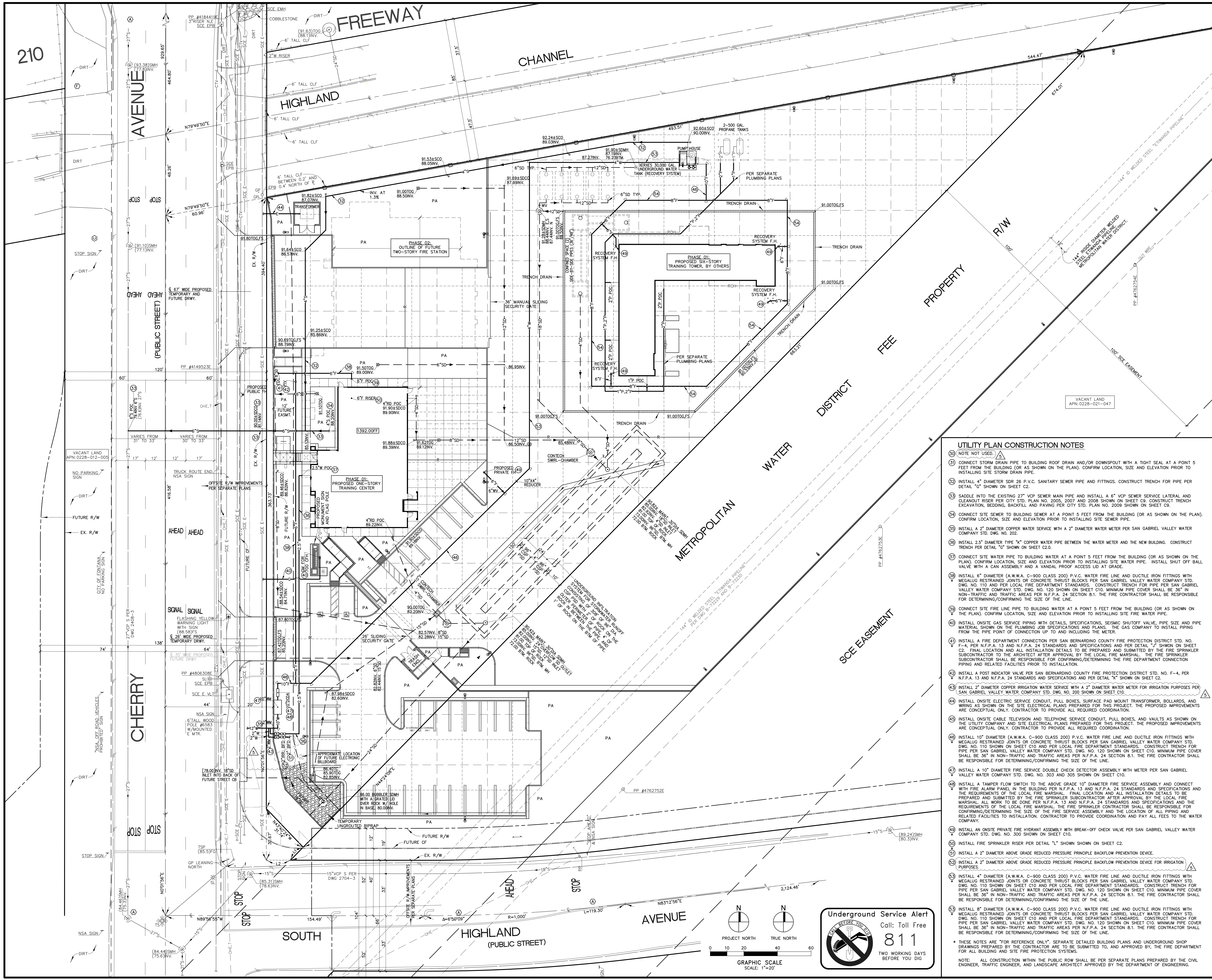


5	09/26/25	ADDENDUM 5	
NO	DATE	BY	DESCRIPTION
#	REVISIONS		

PROJECT NUMBER: W01001001D
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## DRAWING NUMBER: C51





### UTILITY PLAN CONSTRUCTION NOTES

NOTE NOT USED.

CONNECT STORM DRAIN PIPE TO BUILDING ROOF DRAIN AND/OR DOWNSPOUT WITH A TIGHT SEAL AT A POINT 5 FEET FROM THE DRAIN (OR AS SHOWN ON THE PLAN). CONFIRM LOCATION, SIZE AND ELEVATION PRIOR TO INSTALLING SITE STORM DRAIN PIPE.

INSTALL 4" DIAMETER SDR 26 P.V.C. SANITARY SEWER PIPE AND FITTINGS. CONSTRUCT TRENCH FOR PIPE PER DETAIL "G" SHOWN ON SHEET C2.

SADDLE INTO THE EXISTING 27" VCP SEWER MAIN PIPE AND INSTALL A 6" VCP SEWER SERVICE LATERAL AND CLEANOUT RISER PER CITY STD. PLAN NO. 2005, 2007 AND 2008 SHOWN ON SHEET C9. CONSTRUCT TRENCH EXCAVATION, BEDDING, BACKFILL AND PAVING PER CITY STD. PLAN NO. 2009 SHOWN ON SHEET C9.

CONNECT SITE SEWER TO BUILDING SEWER AT A POINT 5 FEET FROM THE BUILDING (OR AS SHOWN ON THE PLAN). CONFIRM LOCATION, SIZE AND ELEVATION PRIOR TO INSTALLING SITE SEWER PIPE.

INSTALL A 2" DIAMETER COPPER WATER SERVICE WITH A 2" DIAMETER WATER METER PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 202.

INSTALL 2.5" DIAMETER TYPE "K" COPPER WATER PIPE BETWEEN THE WATER METER AND THE NEW BUILDING. CONSTRUCT TRENCH PER DETAIL "G" SHOWN ON SHEET C2.0.

CONNECT SITE WATER PIPE TO BUILDING WATER AT A POINT 5 FEET FROM THE BUILDING (OR AS SHOWN ON THE PLAN). CONFIRM LOCATION, SIZE AND ELEVATION PRIOR TO INSTALLING SITE WATER PIPE. INSTALL SHUT OFF BALL VALVE WITH A CAN ASSEMBLY AND A VANDAL PROOF ACCESS LID AT GRADE.

INSTALL 6" DIAMETER (A.W.W.A. C-900 CLASS 200) P.V.C. WATER FIRE LINE AND DUCTILE IRON FITTINGS WITH METALIC RESTRAINED JOINTS OR CONCRETE THRUST BLOCKS PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 110 AND PER LOCAL FIRE DEPARTMENT STANDARDS. CONSTRUCT TRENCH FOR PIPE PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 120 SHOWN ON SHEET C10. MINIMUM PIPE COVER SHALL BE 36" IN NON-TRAFFIC AND TRAFFIC AREAS PER N.F.P.A. 24 SECTION 8.1. THE FIRE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING/CONFIRMING THE SIZE OF THE LINE.

CONNECT SITE FIRE LINE PIPE TO BUILDING WATER AT A POINT 5 FEET FROM THE BUILDING (OR AS SHOWN ON THE PLAN). CONFIRM LOCATION, SIZE AND ELEVATION PRIOR TO INSTALLING SITE FIRE WATER PIPE.

INSTALL ON SITE GAS SERVICE PIPING WITH DETAILS, SPECIFICATIONS, SEISMIC SHUTOFF VALVE, PIPE SIZE AND PIPE MATERIAL SHOWN ON THE PLUMBING JOB SPECIFICATIONS AND PLANS. THE GAS COMPANY TO INSTALL FIRING FROM THE PIPE POINT OF CONNECTION UP TO AND INCLUDING THE METER.

INSTALL A FIRE DEPARTMENT CONNECTION PER SAN BERNARDINO COUNTY FIRE PROTECTION DISTRICT STD. NO. F-4, PER N.F.P.A. 13 AND N.F.P.A. 24 STANDARDS AND SPECIFICATIONS AND PER DETAIL "J" SHOWN ON SHEET C2. FINAL LOCATION AND INSTALLATION DETAILS TO BE PREPARED AND SUBMITTED BY THE FIRE SPRINKLER SUBCONTRACTOR TO THE ARCHITECT AFTER APPROVAL BY THE LOCAL FIRE MARSHAL. THE FIRE SPRINKLER SUBCONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING/DETERMINING THE FIRE DEPARTMENT CONNECTION PIPING AND RELATED FACILITIES PRIOR TO INSTALLATION.

INSTALL A POST INDICATOR VALVE PER SAN BERNARDINO COUNTY FIRE PROTECTION DISTRICT STD. NO. F-4, PER N.F.P.A. 13 AND N.F.P.A. 24 STANDARDS AND SPECIFICATIONS AND PER DETAIL "K" SHOWN ON SHEET C2.

INSTALL 2" DIAMETER COPPER IRRIGATION WATER SERVICE WITH A 2" DIAMETER WATER METER FOR IRRIGATION PURPOSES PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 200 SHOWN ON SHEET C10.

INSTALL ON SITE ELECTRIC SERVICE CONDUIT, PULL BOXES, SURFACE PAD MOUNT TRANSFORMER, BOLLARDS, AND WIRING AS SHOWN ON THE SITE ELECTRICAL PLANS PREPARED FOR THIS PROJECT. THE PROPOSED IMPROVEMENTS ARE CONCEPTUAL ONLY. CONTRACTOR TO PROVIDE ALL REQUIRED COORDINATION.

INSTALL ON SITE CABLE TELEVISION AND TELEPHONE SERVICE CONDUIT, PULL BOXES, AND VAULTS AS SHOWN ON THE UTILITY COMPANY AND SITE ELECTRICAL PLANS PREPARED FOR THIS PROJECT. THE PROPOSED IMPROVEMENTS ARE CONCEPTUAL ONLY. CONTRACTOR TO PROVIDE ALL REQUIRED COORDINATION.

INSTALL 10" DIAMETER (A.W.W.A. C-900 CLASS 200) P.V.C. WATER FIRE LINE AND DUCTILE IRON FITTINGS WITH METALIC RESTRAINED JOINTS OR CONCRETE THRUST BLOCKS PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 110 SHOWN ON SHEET C10 AND PER LOCAL FIRE DEPARTMENT STANDARDS. CONSTRUCT TRENCH FOR PIPE PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 120 SHOWN ON SHEET C10. MINIMUM PIPE COVER SHALL BE 36" IN NON-TRAFFIC AND TRAFFIC AREAS PER N.F.P.A. 24 SECTION 8.1. THE FIRE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING/CONFIRMING THE SIZE OF THE LINE.

INSTALL A 10" DIAMETER FIRE SERVICE DOUBLE CHECK DETECTOR ASSEMBLY WITH METER PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 303 AND 305 SHOWN ON SHEET C10.

INSTALL A TAMPER FLOW SWITCH TO THE ABOVE GRADE 10" DIAMETER FIRE SERVICE ASSEMBLY AND CONNECT WITH FIRE ALARM PANEL IN THE BUILDING PER N.F.P.A. 13 AND N.F.P.A. 24 STANDARDS AND SPECIFICATIONS AND THE REQUIREMENTS OF THE LOCAL FIRE MARSHAL. FINAL LOCATION AND INSTALLATION DETAILS TO BE PREPARED AND SUBMITTED BY THE FIRE SPRINKLER SUBCONTRACTOR AFTER APPROVAL BY THE LOCAL FIRE MARSHAL. ALL WORK TO BE DONE PER N.F.P.A. 13 AND N.F.P.A. 24 STANDARDS AND SPECIFICATIONS AND THE REQUIREMENTS OF THE LOCAL FIRE MARSHAL. THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING/DETERMINING THE SIZE OF THE FIRE SERVICE ASSEMBLY AND THE LOCATION OF ALL PIPING AND RELATED FACILITIES TO INSTALLATION. CONTRACTOR TO PROVIDE COORDINATION AND PAY ALL FEES TO THE WATER COMPANY.

INSTALL AN ON SITE PRIVATE FIRE HYDRANT ASSEMBLY WITH BREAK-OFF CHECK VALVE PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 300 SHOWN ON SHEET C10.

INSTALL FIRE SPRINKLER RISER PER DETAIL "L" SHOWN SHOWN ON SHEET C2.

INSTALL A 2" DIAMETER ABOVE GRADE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE.

INSTALL A 2" DIAMETER ABOVE GRADE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE FOR IRRIGATION PURPOSES.

INSTALL 4" DIAMETER (A.W.W.A. C-900 CLASS 200) P.V.C. WATER FIRE LINE AND DUCTILE IRON FITTINGS WITH METALIC RESTRAINED JOINTS OR CONCRETE THRUST BLOCKS PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 110 SHOWN ON SHEET C10 AND PER LOCAL FIRE DEPARTMENT STANDARDS. CONSTRUCT TRENCH FOR PIPE PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 120 SHOWN ON SHEET C10. MINIMUM PIPE COVER SHALL BE 36" IN NON-TRAFFIC AND TRAFFIC AREAS PER N.F.P.A. 24 SECTION 8.1. THE FIRE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING/CONFIRMING THE SIZE OF THE LINE.

INSTALL 8" DIAMETER (A.W.W.A. C-900 CLASS 200) P.V.C. WATER FIRE LINE AND DUCTILE IRON FITTINGS WITH METALIC RESTRAINED JOINTS OR CONCRETE THRUST BLOCKS PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 110 SHOWN ON SHEET C10 AND PER LOCAL FIRE DEPARTMENT STANDARDS. CONSTRUCT TRENCH FOR PIPE PER SAN GABRIEL VALLEY WATER COMPANY STD. DWG. NO. 120 SHOWN ON SHEET C10. MINIMUM PIPE COVER SHALL BE 36" IN NON-TRAFFIC AND TRAFFIC AREAS PER N.F.P.A. 24 SECTION 8.1. THE FIRE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING/CONFIRMING THE SIZE OF THE LINE.

THESE NOTES ARE FOR REFERENCE ONLY. SEPARATE DETAILED BUILDING PLANS AND UNDERGROUND SHOP DRAWINGS PREPARED BY THE CONTRACTOR ARE TO BE SUBMITTED TO, AND APPROVED BY, THE FIRE DEPARTMENT FOR ALL BUILDING AND SITE FIRE PROTECTION SYSTEMS.

NOTE: ALL CONSTRUCTION WITHIN THE PUBLIC ROW SHALL BE PER SEPARATE PLANS PREPARED BY THE CIVIL ENGINEER, TRAFFIC ENGINEER, AND LANDSCAPE ARCHITECT APPROVED BY THE DEPARTMENT OF ENGINEERING.

**RANCHO CUCAMONGA**  
8163 ROCHESTER AVENUE, SUITE 100  
RANCHO CUCAMONGA, CA 91730  
909-987-0909 P

**FONTANA FIRE STATION No. 80 & TRAINING CENTER**

**SAN BERNARDINO COUNTY FIRE DEPARTMENT**  
Northeast of Cherry Avenue and South Highland Avenue  
FONTANA, CA 92335

CONSULTANT  
**MSL ENGINEERING, INC.**  
CIVIL ENGINEERS AND LAND SURVEYORS  
SPECIALIZING IN SITE DEVELOPMENT  
101 N. SAN DIMAS AVENUE  
SAN DIMAS, CA 91773  
(909) 350-2395 FAX (909) 305-2397  
*Mark & Lamoreux*  
MARK S. LA MOREUX (R.C.E. 36382) 08-18-25  
DATE

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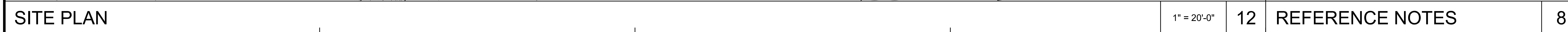
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DATE: 07/01/2025 SCALE: AS SHOWN  
PROJECT NUMBER: W2100100AR

**UTILITY PLAN**

DRAWING NUMBER: **C6**

9/24/2025 11:30:58 PM MSL ENGINEERING, INC. (JGA)

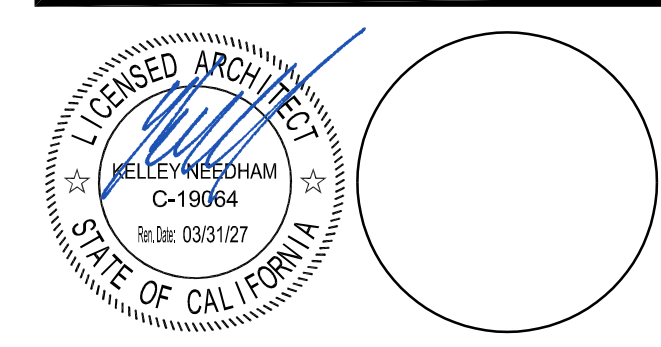




SITE INFORMATION		1
TYPE OF PARKING SPACE	QUANTITY	
STANDARD - CREW	5	
STANDARD - VISITOR	21	
ACCESSIBLE/ VAN ACCESSIBLE (TABLE 11B-208.2, CBC 2022)	1/1+*2	
CLEAN AIR/ VANPOOL/ EV/ VAN ACCESSIBLE/ AMBULATORY	6/1/1+8	
TOTAL	36	
ACCESSIBLE PARKING SPACES REQUIRED (CBC 2022)	2	
EV CAPABLE PARKING SPACES REQUIRED (CGBSC 2022)	8	

1. SEE CIVIL, MECHANICAL, PLUMBING, ELECTRICAL AND LANDSCAPE SITE PLANS FOR LOCATION OF ADDITIONAL SITE ITEMS.
2. EXTEND CONCRETE PAVEMENT TO TRASH ENCLOSURE, TRANSFORMER ENCLOSURE AND EMERGENCY GENERATOR ENCLOSURE.
3. SEE DETAIL 3A1.3 FOR EDGE CONDITION AT CONCRETE SIDE WALK TO LANDSCAPE.
4. SEE DETAIL 19A1.3 FOR FRIE LANE CURB.
5. HAZARDOUS MATERIALS FROM ANY TRAINING ACTIVITIES SHALL NOT BE PERMITTED TO FLOW INTO METROPOLITAN'S FEE PROPERTY.
6. VEHICLES THAT IMPOSE A LOAD NO GREATER THAN THAT IMPOSED BY AN AASHTO H+20 VEHICLE MAY BE USED WITHIN OUR FEE PROPERTY RIGHT-OF-WAY.
7. VEHICLES OF VARIABLE WHEEL CONFIGURATION SUCH AS READY-MIX CONCRETE TRUCKS WITH LIFTABLE OR ADJUSTABLE AUXILIARY AXLES SHALL BE OPERATED IN THEIR HIGHWAY LEGAL CONFIGURATION WHEN THEY ARE WITHIN 25 FEET OF THE CENTERLINE OF METROPOLITAN'S PEELINE.
8. NO VIBRATORY COMPACTION EQUIPMENT IN VIBRATORY MODE SHALL BE USED WITHIN 25 FEET OF THE CENTERLINE OF THE PIPELINE.
9. PLEASE NOTE THAT ANY STOCKPILING OF MATERIALS OR STORAGE OF EQUIPMENT WITHIN METROPOLITAN'S RIGHT-OF-WAY IS NOT PERMITTED.
10. TRANSFORMER TO BE COMPLETELY SCREEN.
11. RAIN GUTTERS TO BE ON THE INTERIOR WHEN VISIBLE FROM THE PUBLIC RIGHT OF WAY.
12. NOTIFY ESSE FRANCO, WATER SYSTEM OPERATIONS GROUP, (818) 468-5158, AT LEAST TWO WORKING DAYS PRIOR TO THE START OF ANY WORK WITHIN THE VICINITY OF OUR FACILITIES - MWD.
13. SITE FULLY COMPLIES WITH T-24, ACCESSIBILITY STANDARDS: AND SUBJECT TO FIELD VERIFICATION.

SS		
	<b>MATERIAL LEGEND &amp; NOTES</b>	<b>4</b>



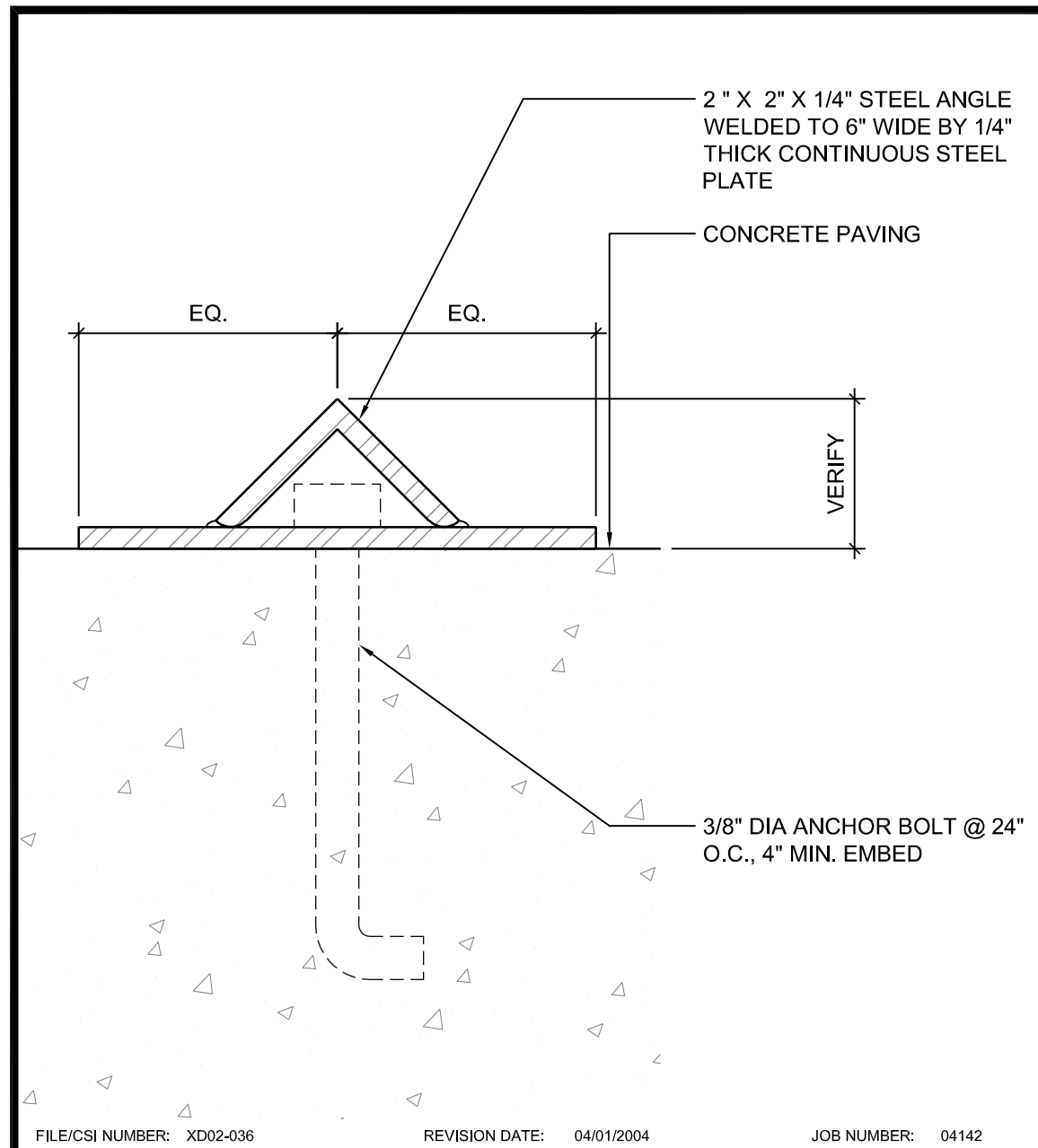
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<b>DATE:</b> 09/25/2025	<b>SCALE:</b> AS NOTED
<b>PROJECT NUMBER:</b> W2100100AR	

SITE PLAN	
DRAWING NUMBER:	A1.1

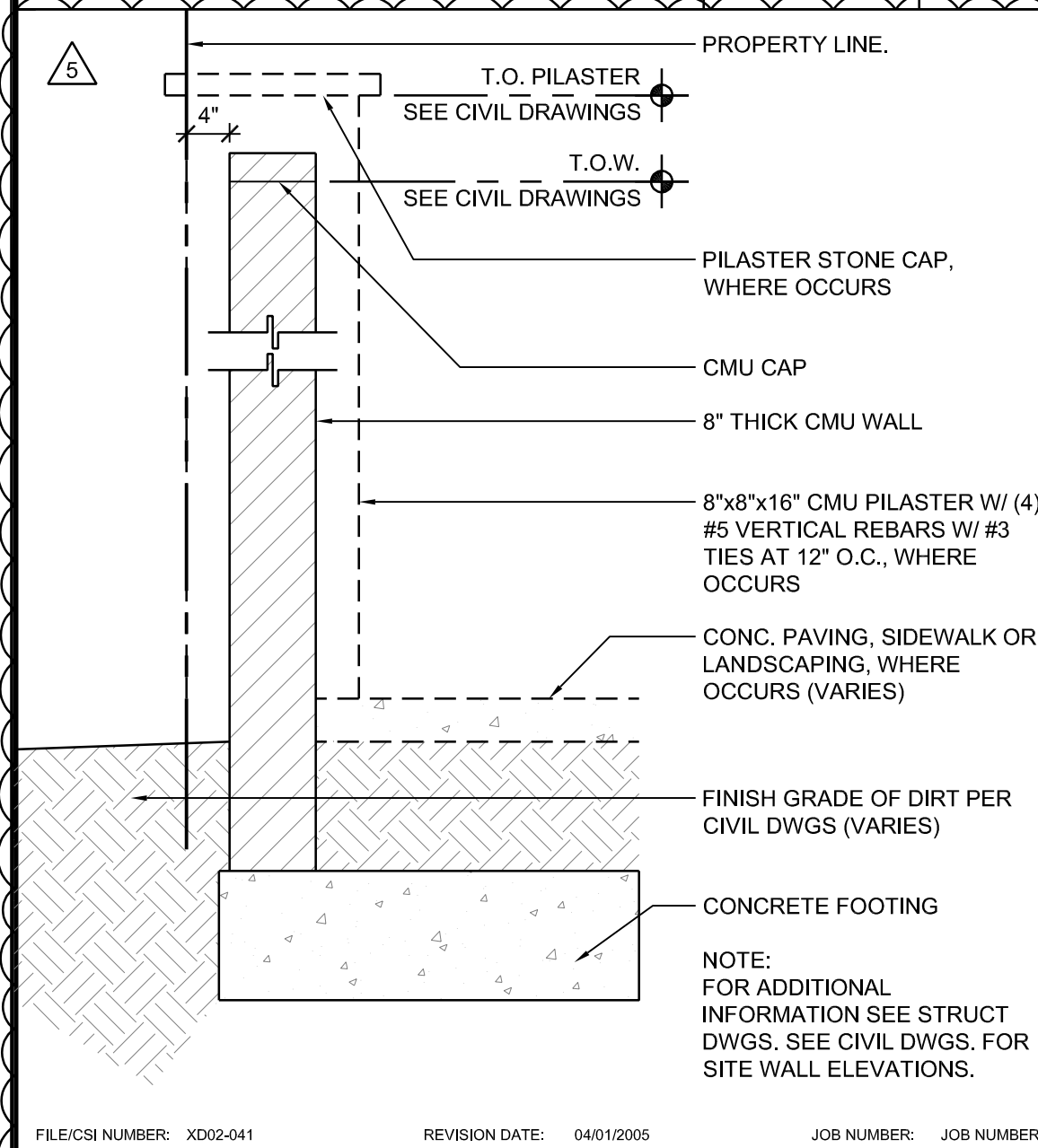




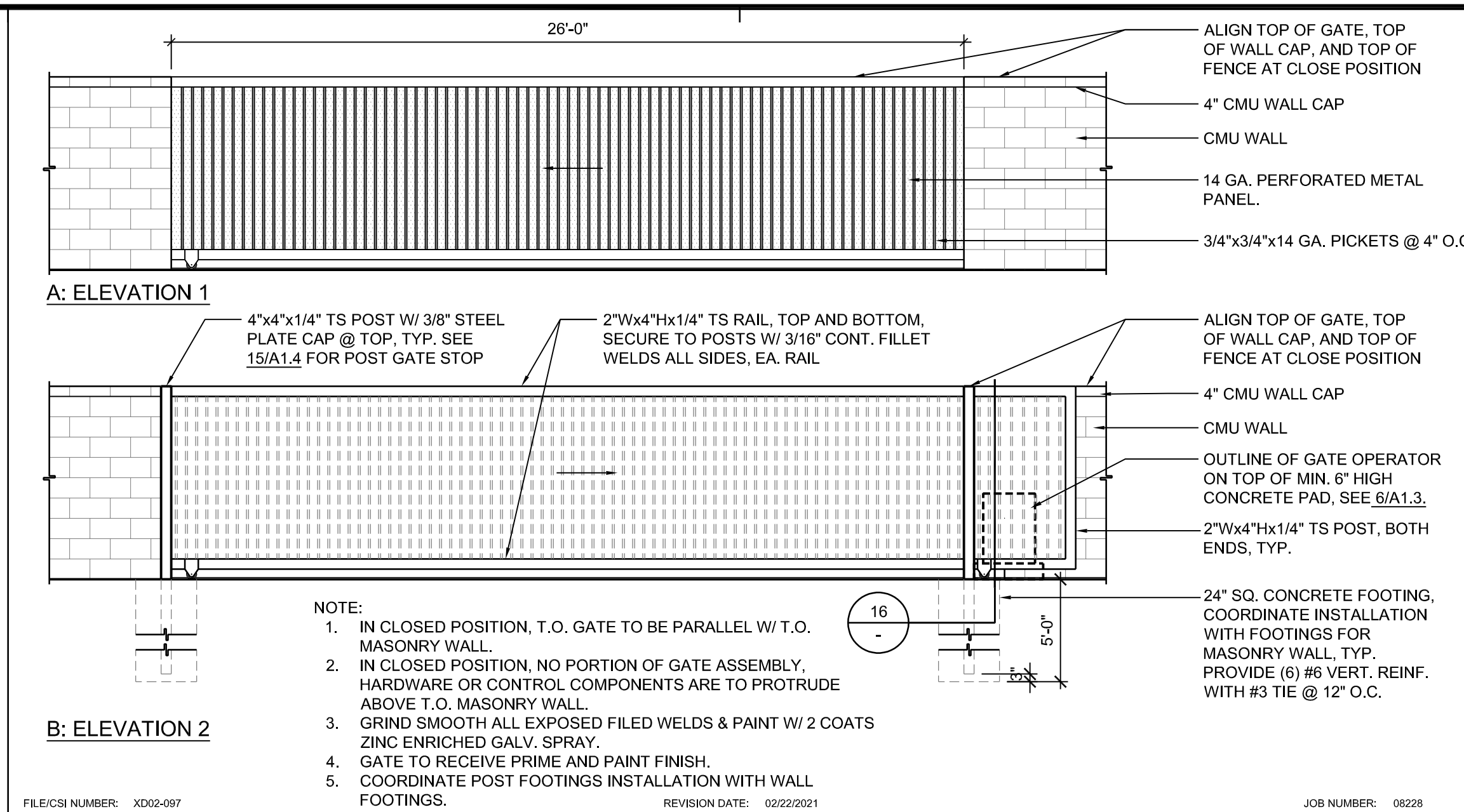




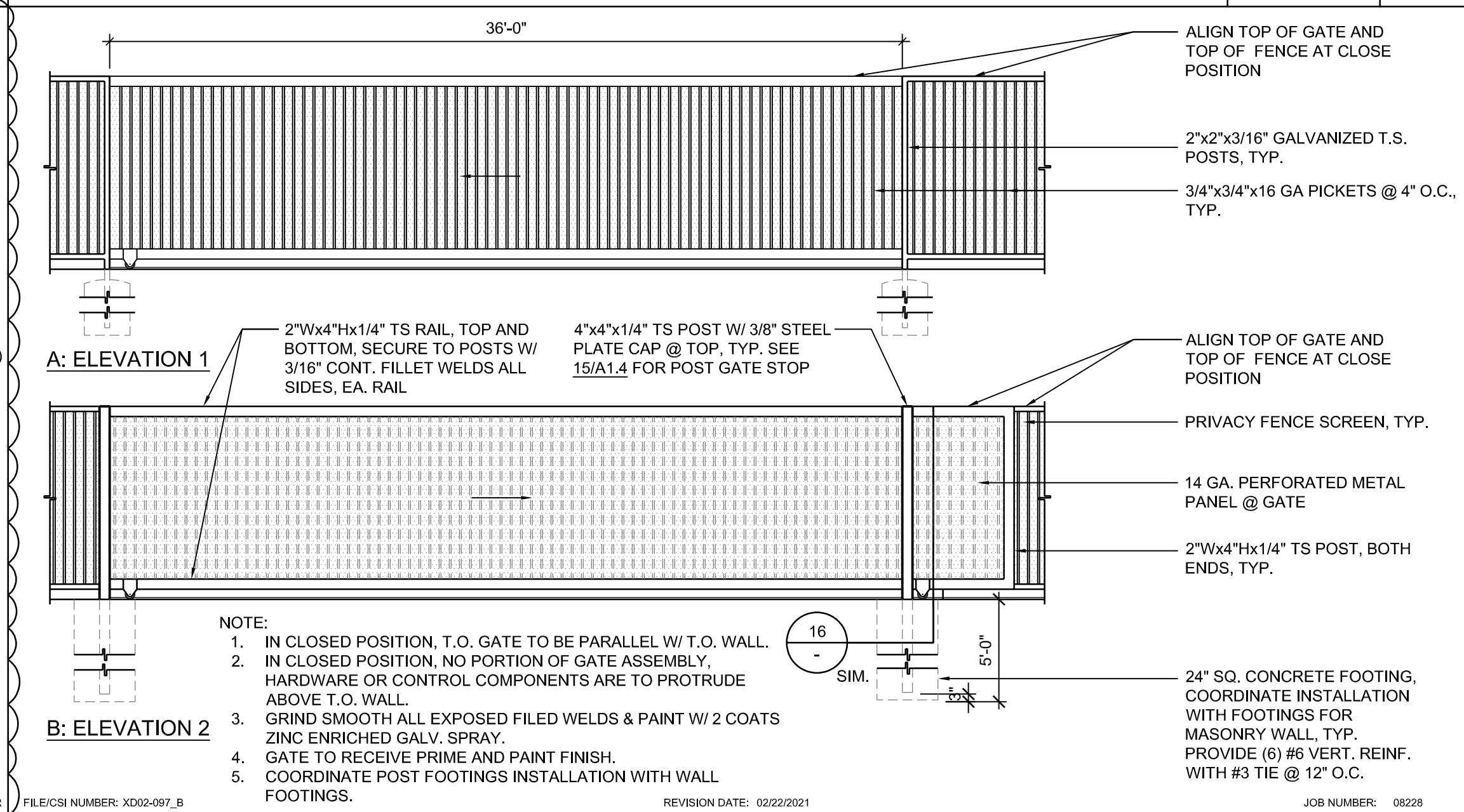
ROLLING GATE TRACK HALF 21



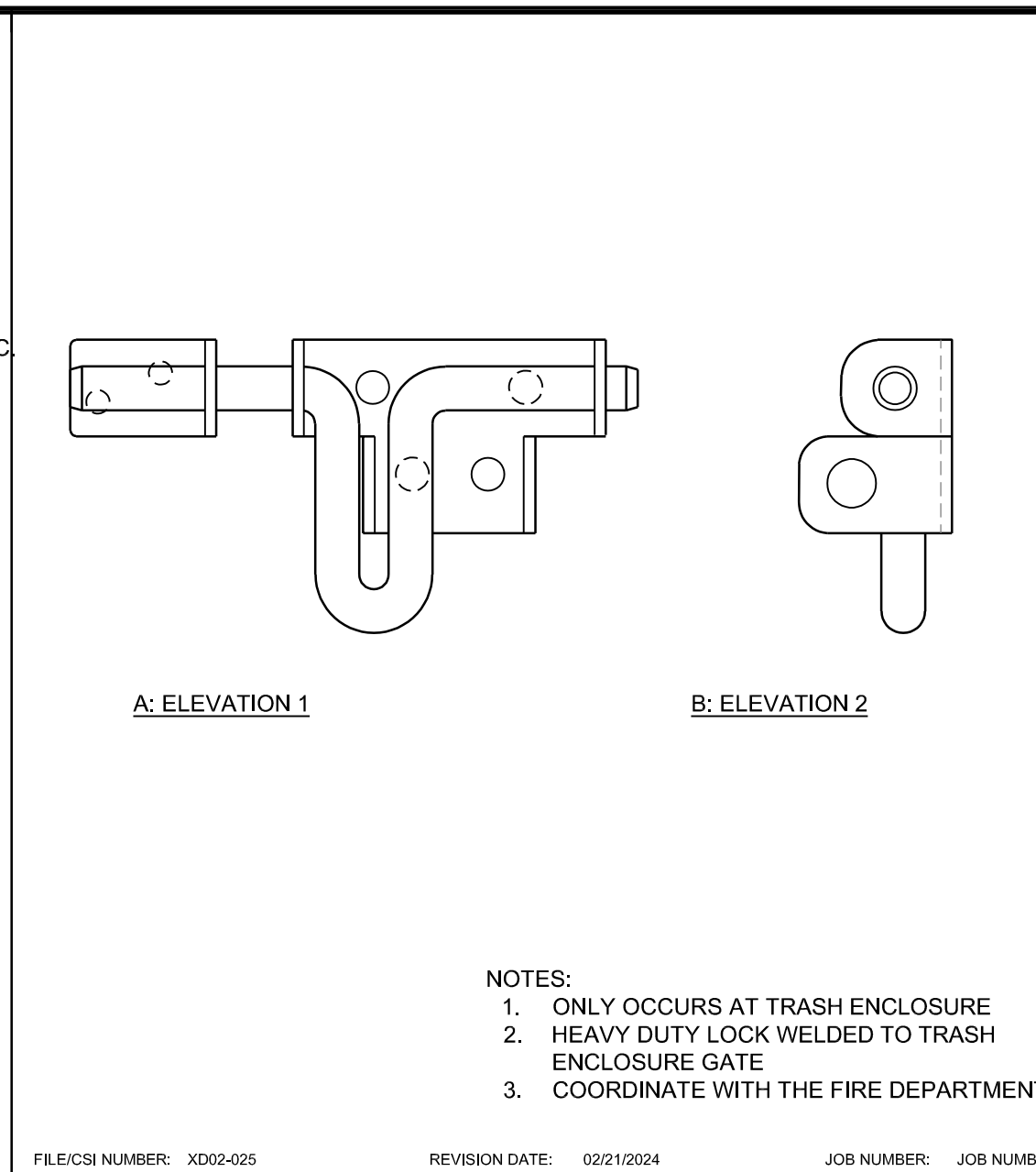
SITE WALL @ PL 3/4"=1'-0" 22



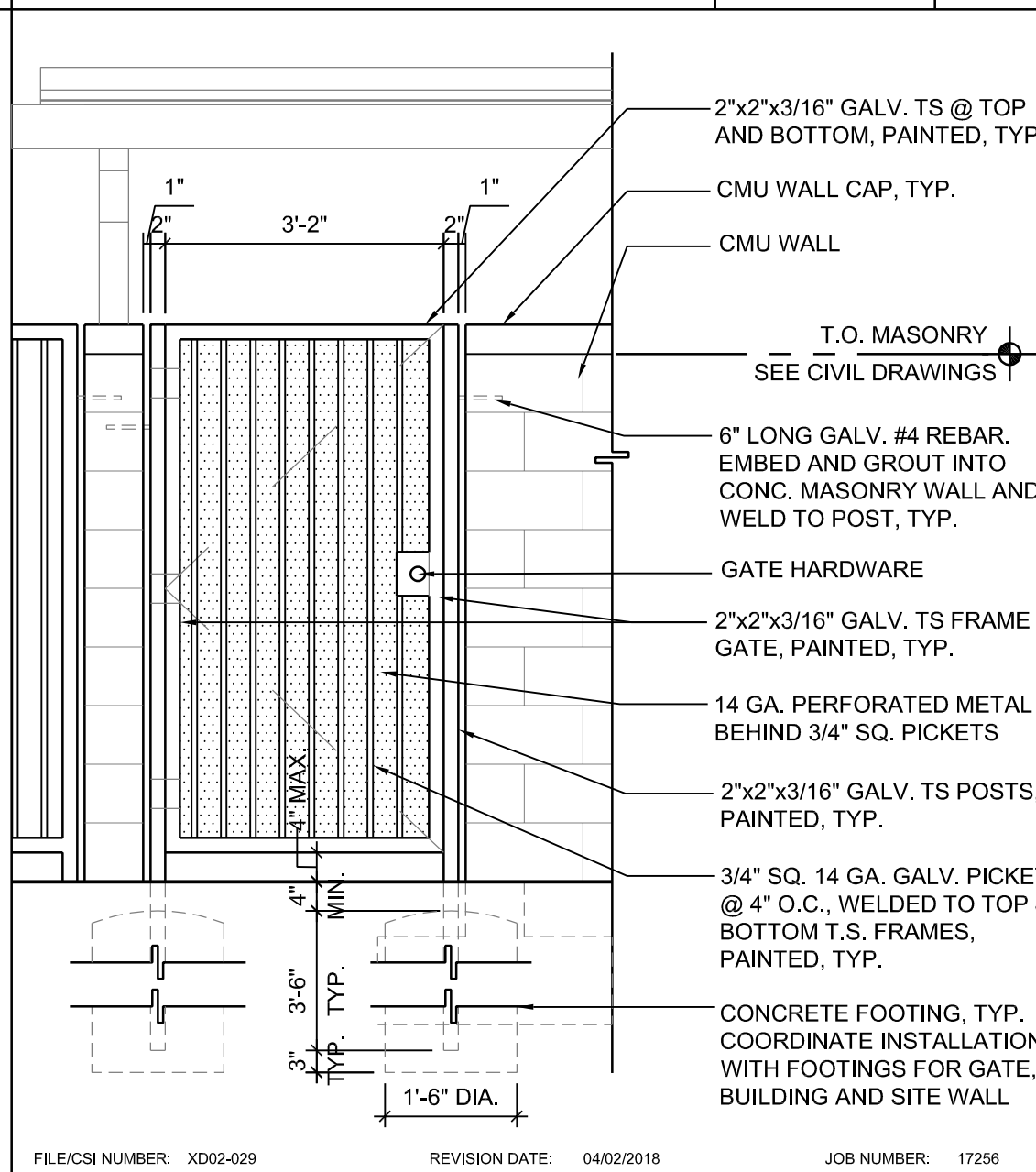
TUBE STEEL SITE ROLLING GATE ELEVATIONS 1/4"=1'-0" 13



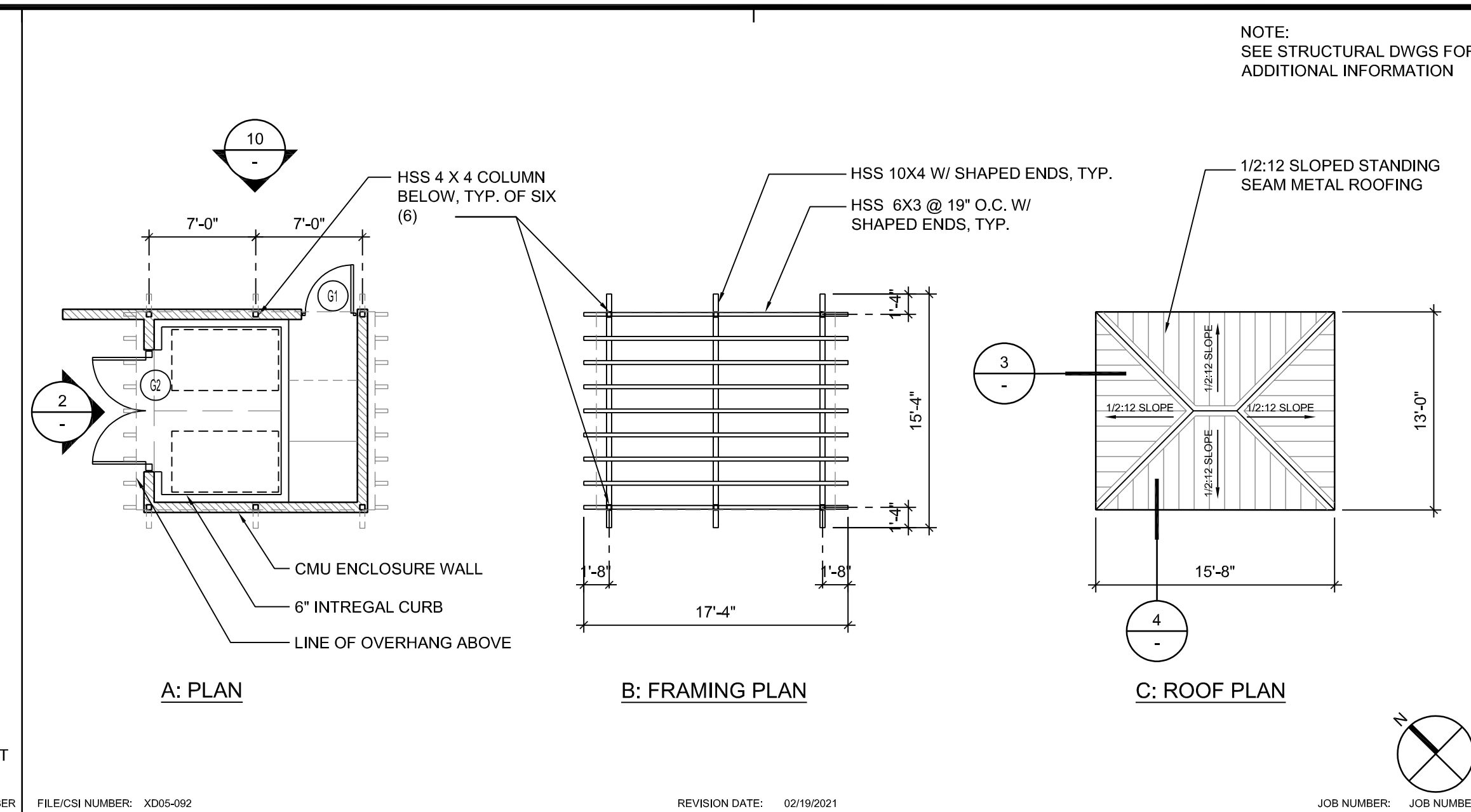
TUBE STEEL SITE MANUAL ROLLING GATE ELEVATIONS 1/4"=1'-0" 14



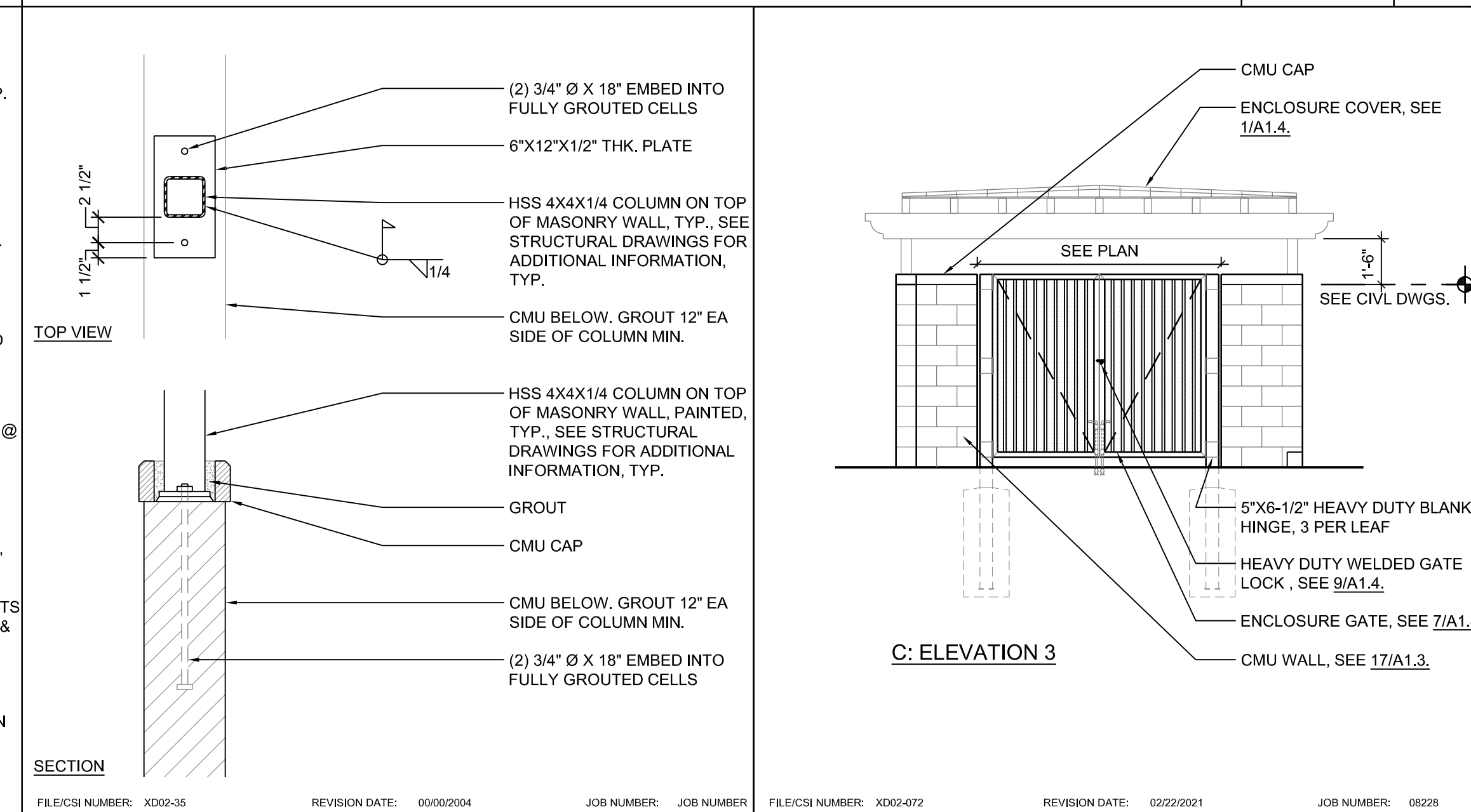
WELDED GATE LOCK FULL 9



SITE GATE G1 (TRASH) ELEVATION 1/2"=1'-0" 10



TRASH ENCLOSURE COVER 1/8"=1'-0" 1



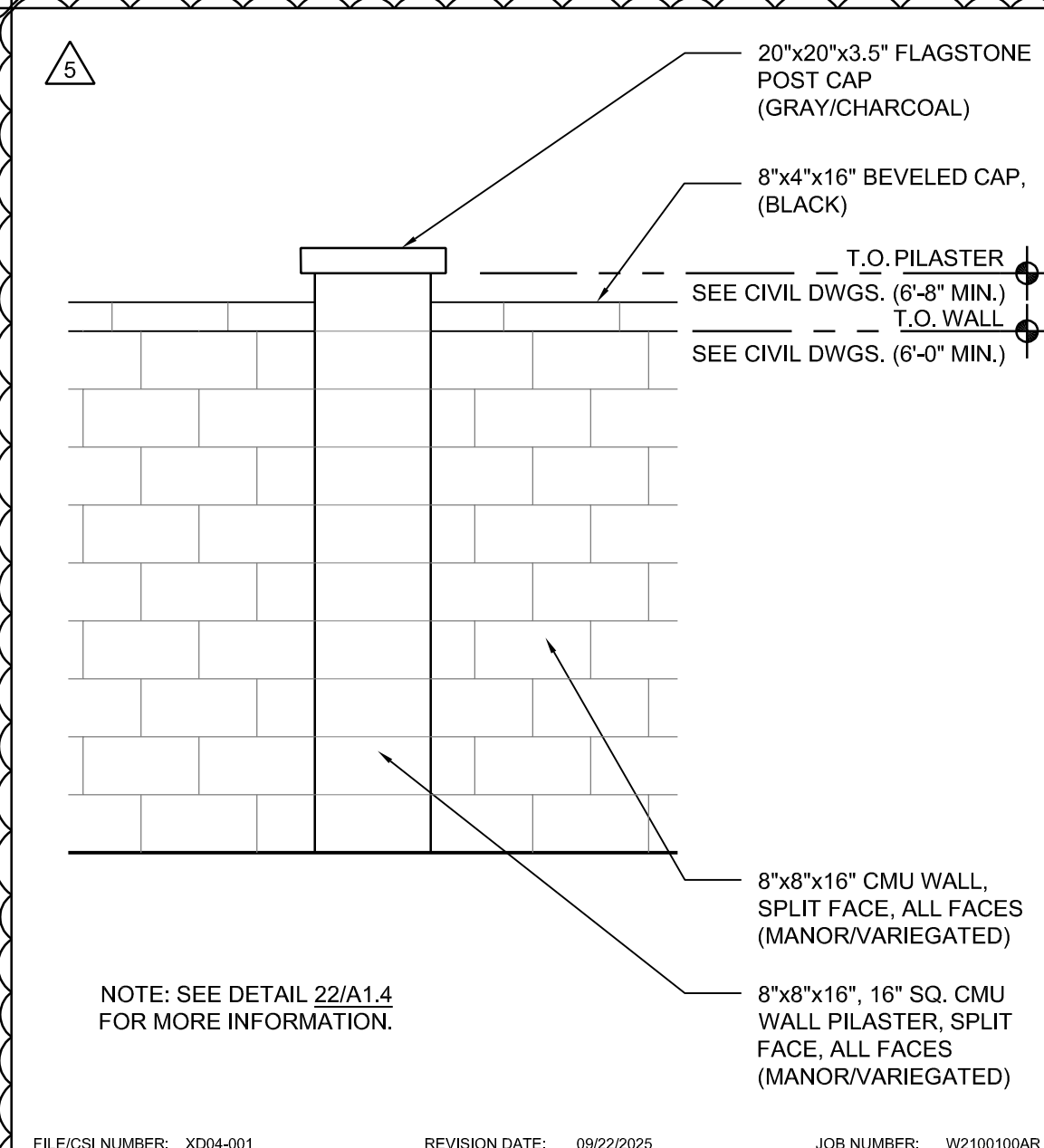
HSS COLUMN TO CMU 1"=1'-0" 6

**PRK**

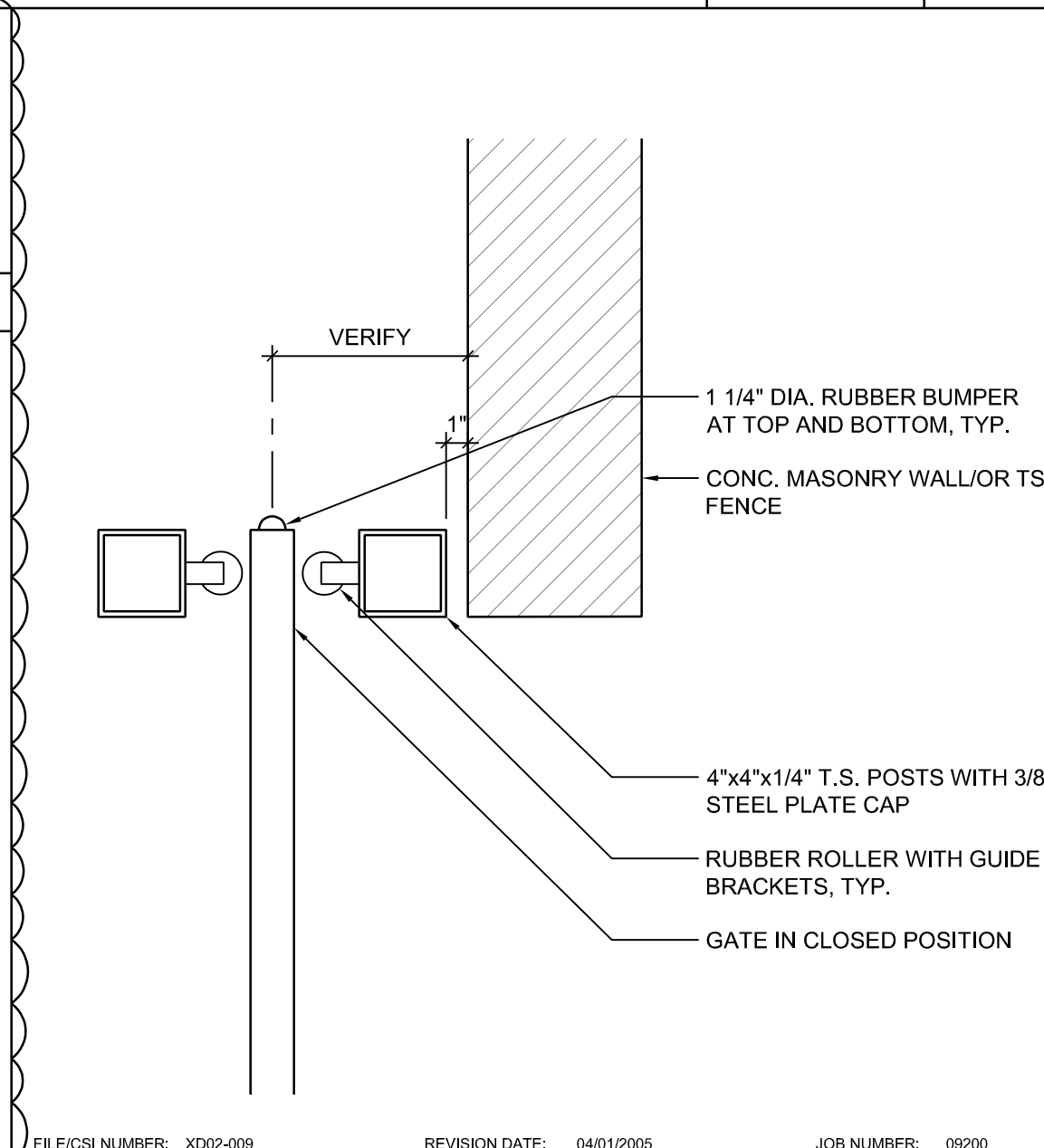
**RANCHO CUCAMONGA**  
8163 ROCHESTER AVENUE, SUITE 100  
RANCHO CUCAMONGA, CA 91730  
909-987-0909 P

**FONTANA FIRE STATION No. 80 & TRAINING CENTER**

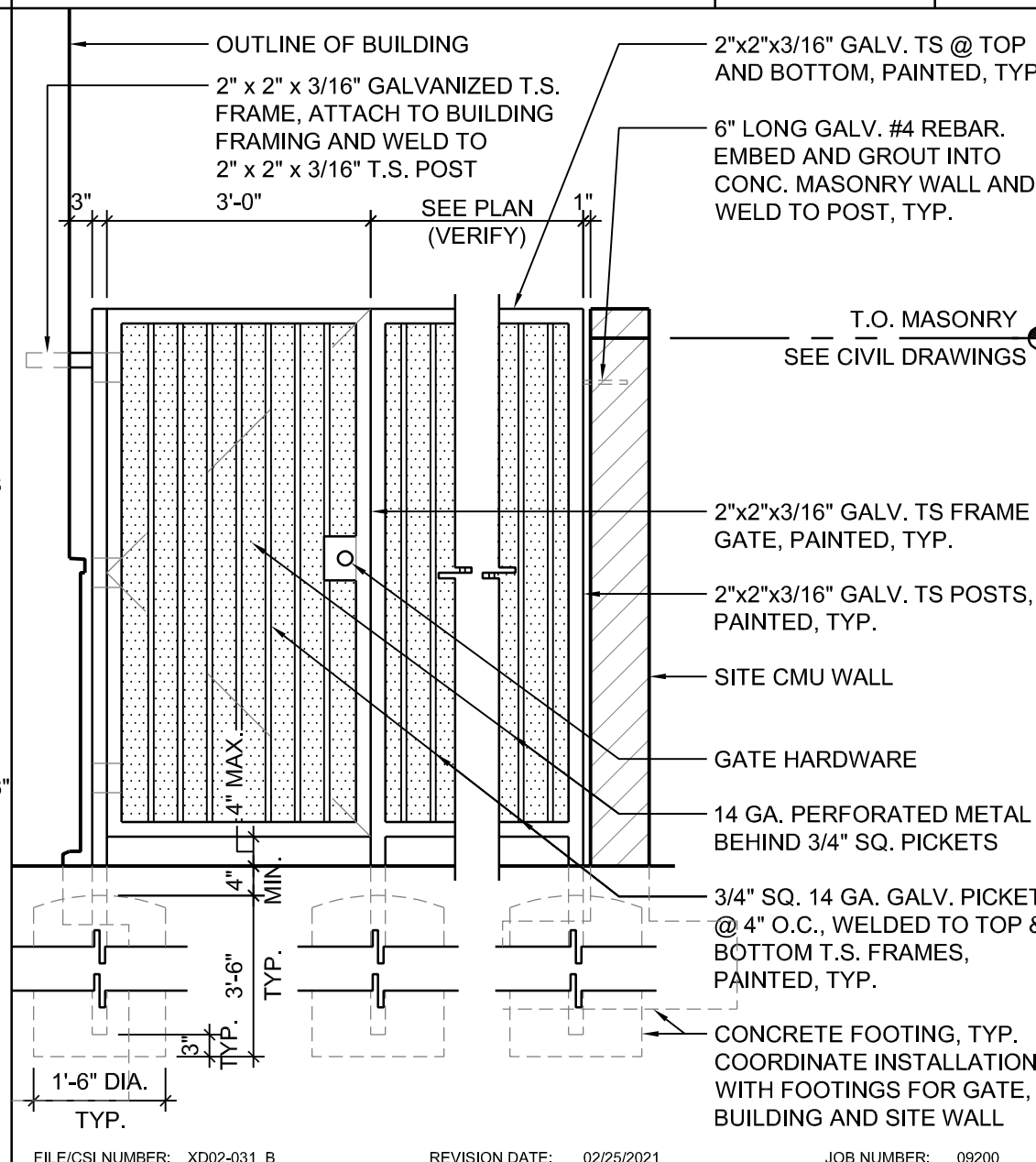
**SAN BERNARDINO COUNTY FIRE DEPARTMENT**  
6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenue



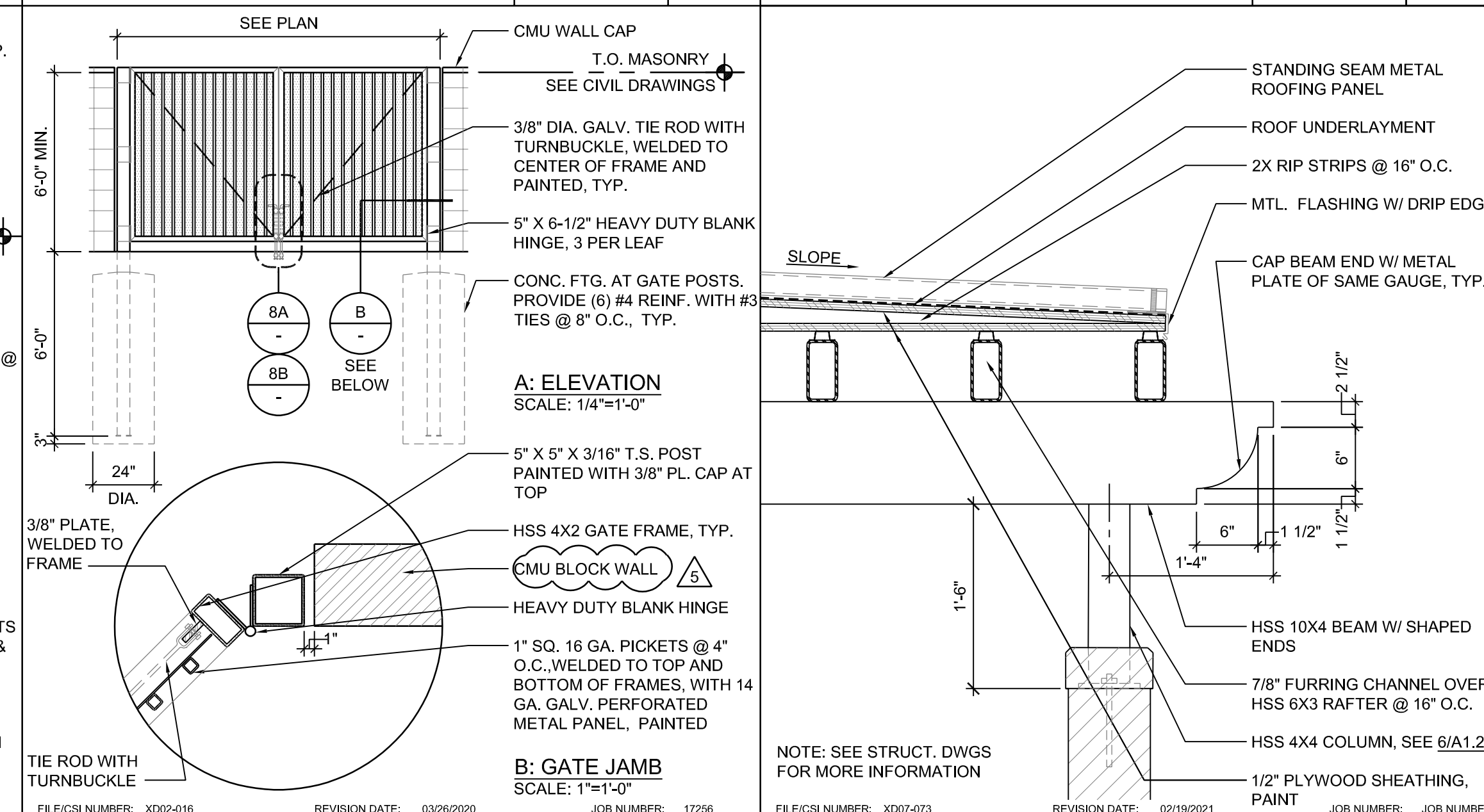
CMU WALL ELEVATION, TYP. 1/2"=1'-0" 19



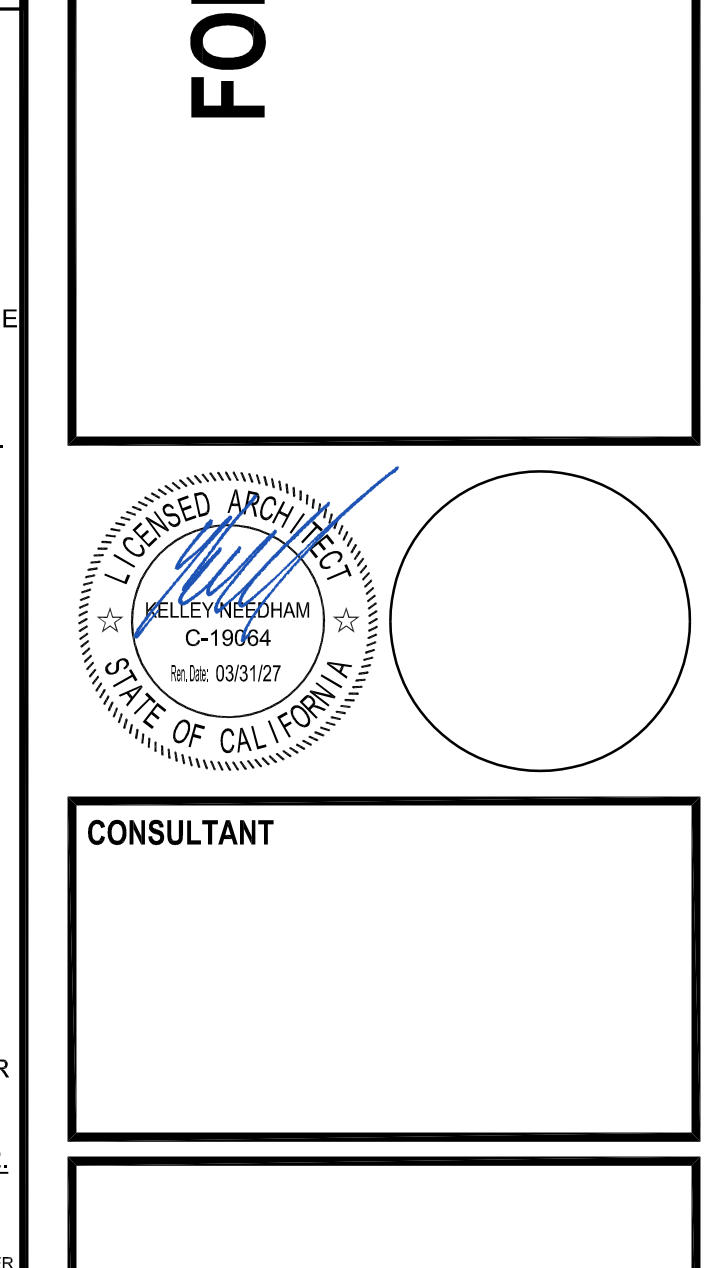
GATE STOP 1 1/2"=1'-0" 15



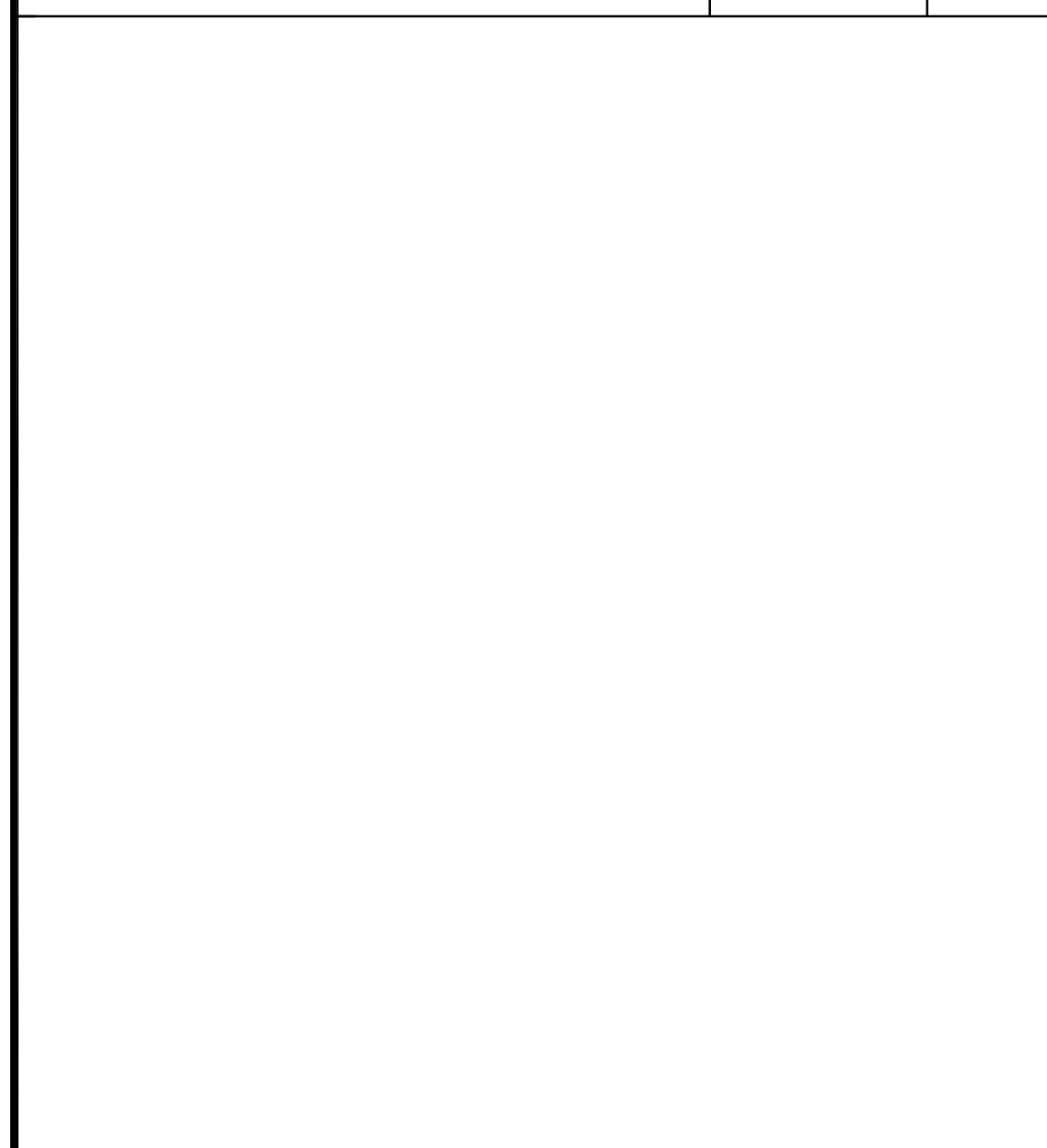
SITE GATE G4 ELEVATION 1/2"=1'-0" 11



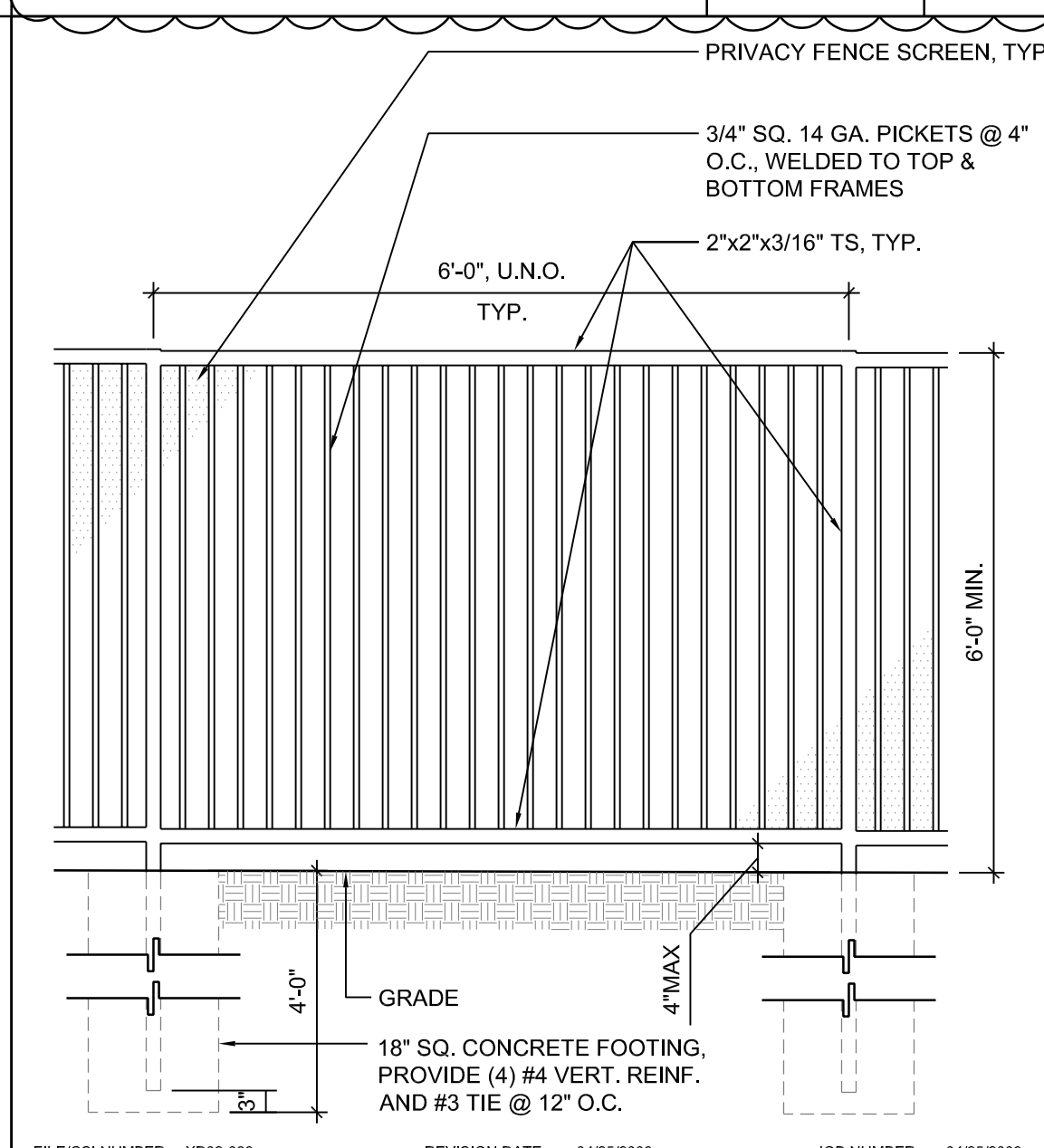
ENCLOSURE GATE AS NOTED 7



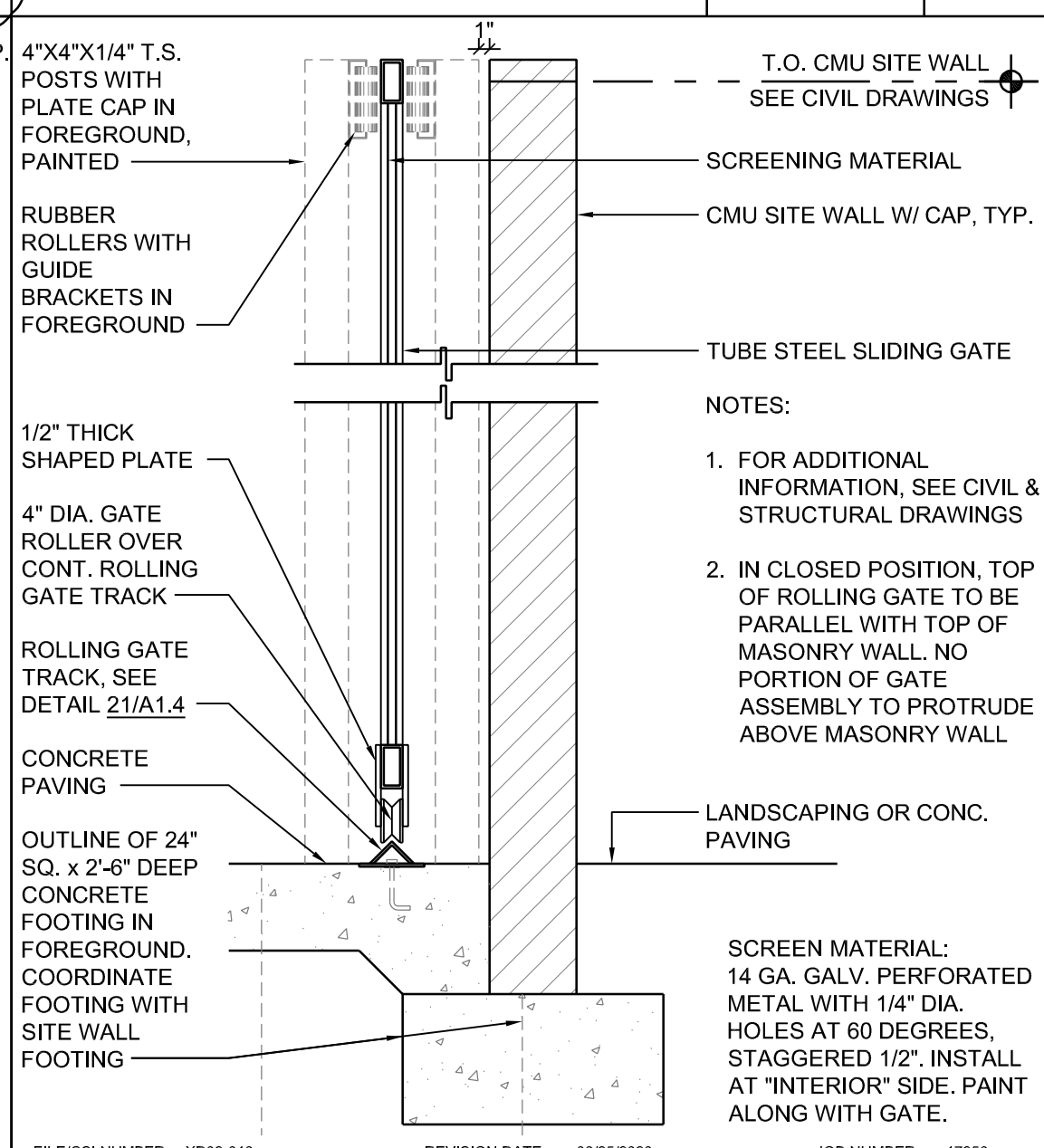
ROOF 1"=1'-0" 3



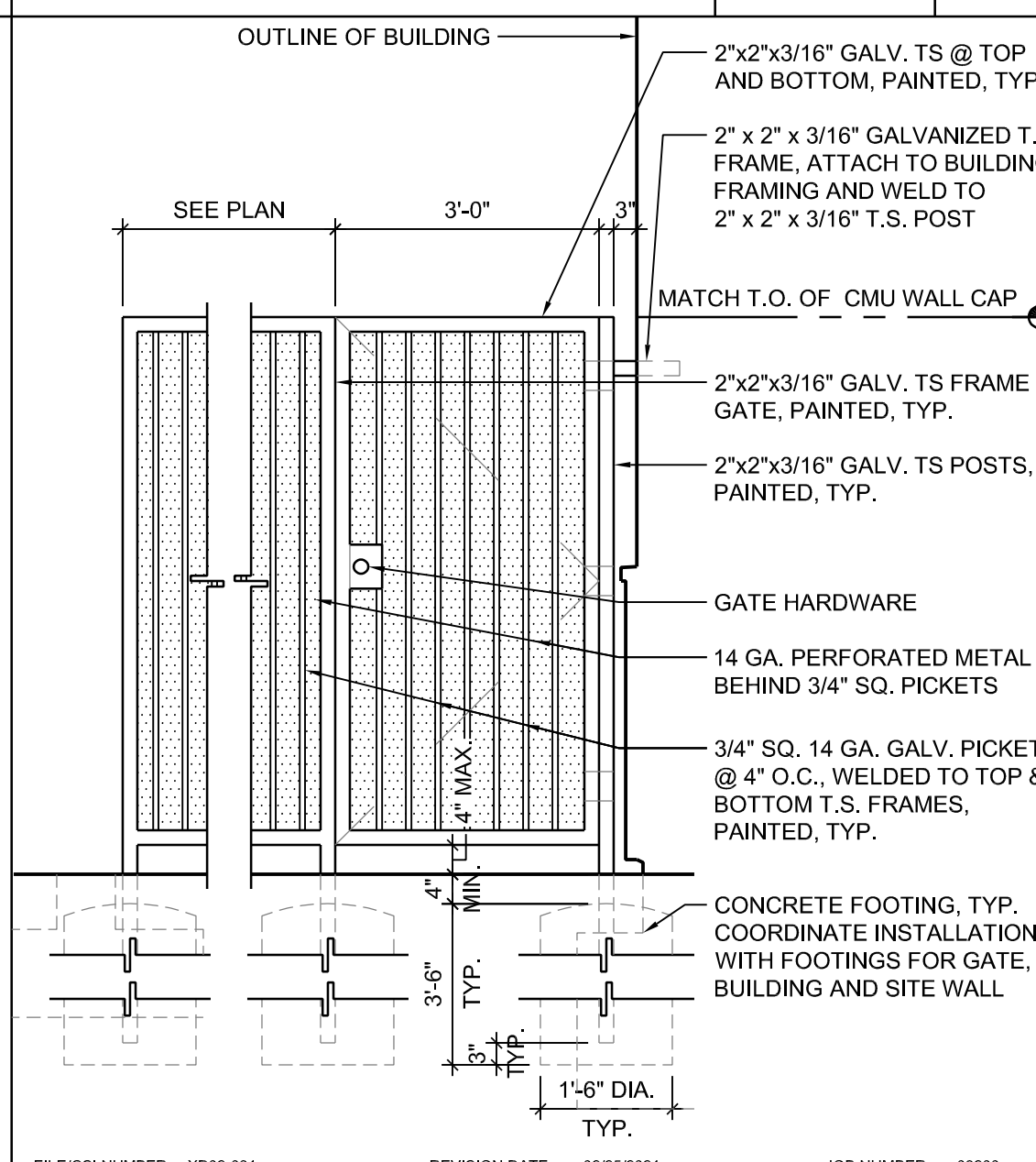
TUBE STEEL FENCE 1/2"=1'-0" 24



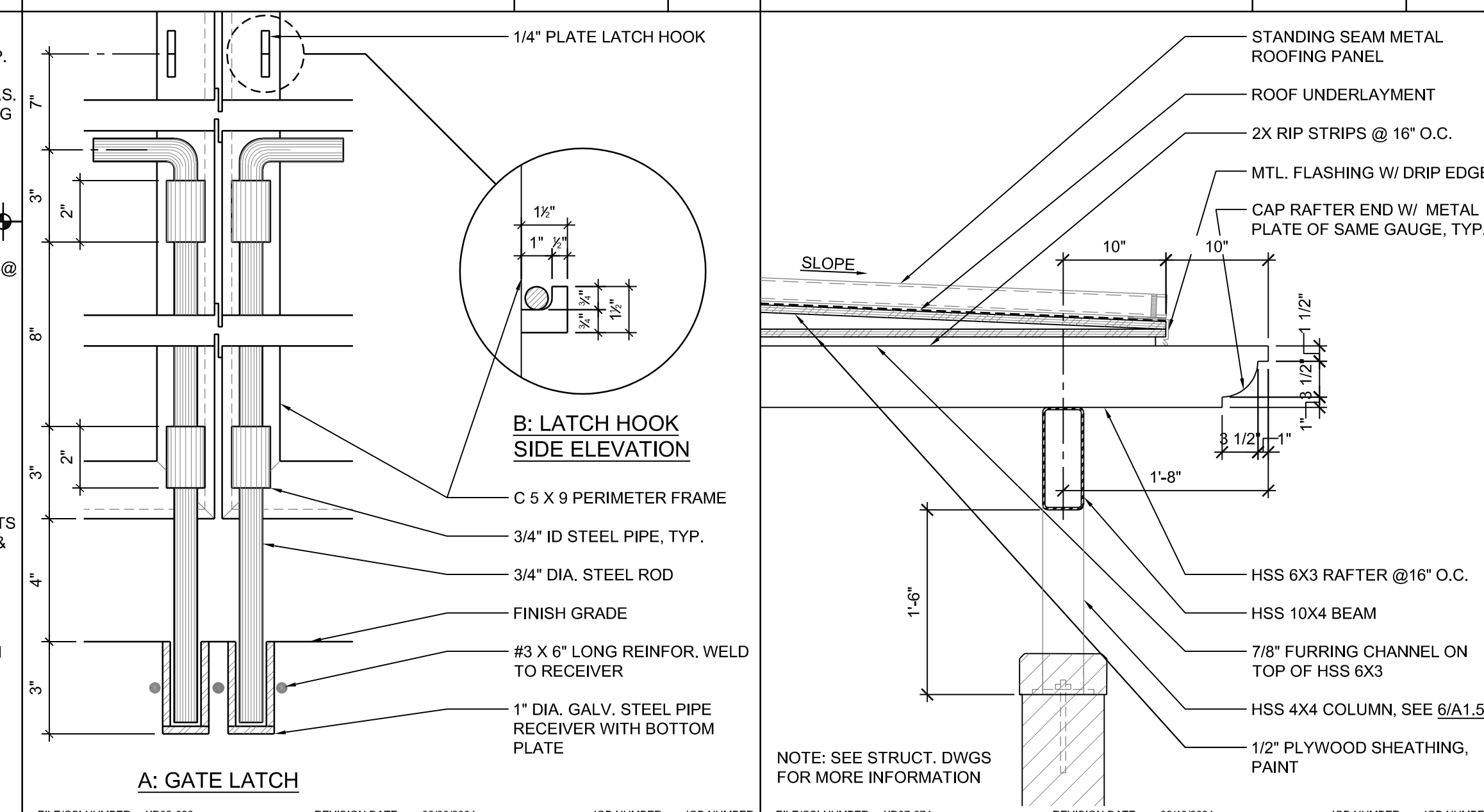
WALL AT GATE 3/4"=1'-0" 20



SITE GATE G5 ELEVATION 1/2"=1'-0" 16



GATE LATCH 3"=1'-0" 8



ROOF 1"=1'-0" 4

**CONSULTANT**

**ADDENDUM 5**

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**REVISIONS**

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**DRAWN:** JM **CHECKED:** KN  
**DATE:** 09/25/2025 **SCALE:** AS NOTED  
**PROJECT NUMBER:** W2100100AR

**TRASH ENCLOSURE & SITE DETAILS**

**DRAWING NUMBER:** A1.4

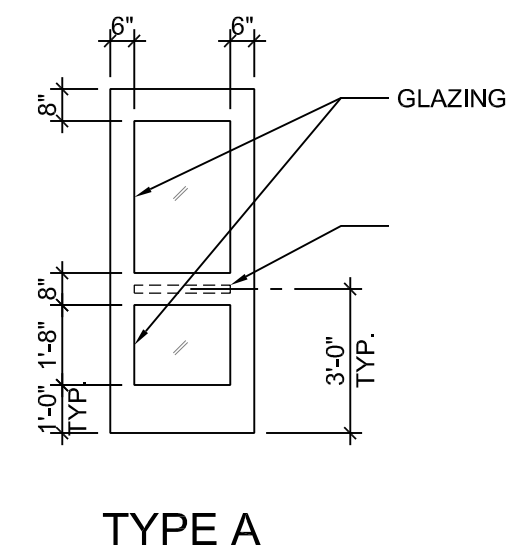


#	ROOM NAME	BASE	FLOOR	WAINSCOT				WALLS				INTERIOR ELEVATION SHEET	REMARKS
				NORTH	EAST	SOUTH	WEST	NORTH	EAST	SOUTH	WEST		
101	LOBBY	RES	LVT	-	-	-	-	GYP	GYP	GYP	GYP	13/A7.1	-
102	VESTIBULE	RES	LVT	-	-	-	-	GYP	GYP	GYP	GYP	6/A7.1	-
103	ACCESSIBLE RESTROOM	POR	POR	-	-	-	-	POR	POR	POR	POR	14/A7.1	DEPRESS CONCRETE SLAB 2-1/2"
104	CUSTODIAL STORAGE	RES	CONC	CER	-	-	-	IRG	IRG	IRG	IRG	15/A7.1	-
105	HALLWAY	RES	LVT	-	-	-	-	GYP	GYP	GYP	GYP	-	-
106	TRAINING OFFICE 1	RES	CPT	-	-	-	-	GYP	GYP	GYP	GYP	16/A7.1	-
107	TRAINING OFFICE 2	RES	CPT	-	-	-	-	GYP	GYP	GYP	GYP	16/A7.1	-
108	MEN'S RESTROOM	POR	POR	-	-	-	-	POR	POR	POR	POR	5/A7.2	DEPRESS CONCRETE SLAB 2-1/2"
109	MEN'S LOCKER / SHOWER	POR	POR	-	-	-	-	POR	POR	POR	POR	5/A7.2	DEPRESS CONCRETE SLAB 2-1/2"
110	UNISEX BATHROOM	POR	POR	-	-	-	-	POR	POR	POR	POR	8/A7.1	DEPRESS CONCRETE SLAB 2-1/2"
111	WOMEN'S RESTROOM	POR	POR	-	-	-	-	POR	POR	POR	POR	6/A7.2	DEPRESS CONCRETE SLAB 2-1/2"
112	WOMEN'S LOCKERS / SHOWER	POR	POR	-	-	-	-	POR	POR	POR	POR	6/A7.2	DEPRESS CONCRETE SLAB 2-1/2"
113	UNISEX BATHROOM	POR	POR	-	-	-	-	POR	POR	POR	POR	8/A7.1	DEPRESS CONCRETE SLAB 2-1/2"
114	TRAINING ROOM	RES	CPT	-	-	-	-	GYP	GYP/PLAM	GYP	GYP/PLAM	8/A7.2	-
115	TRAINING STORAGE	RES	CONC	-	-	-	-	IRG	IRG	IRG	IRG	-	-
116	ELECTRICAL ROOM	RES	CONC	-	-	-	-	GYP	GYP	GYP	GYP	-	-
117	FIRE RISER ROOM	RES	CONC	-	-	-	-	GYP	GYP	GYP	GYP	-	-

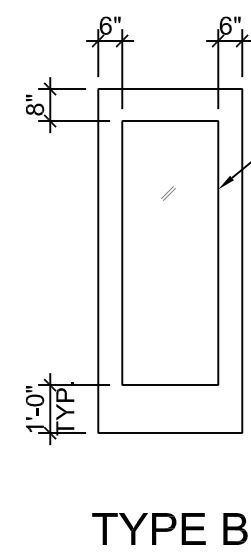
FINISH NOTES:	MATERIAL LEGEND:
1. ALL GYP. BOARD SURFACES TO BE PAINTED, TYP.	BASE
2. WALL, FLOOR AND CEILING FINISHES SHALL NOT EXCEED THE FLAME SPREAD CLASSIFICATIONS IN 2022 CBC TABLE 803.13.	CER CERAMIC TILE BASE
3. PROVIDE FULL HEIGHT FRP FINISH AT ALL MOP SINK LOCATIONS, U.N.O.	CONC EXPOSED CONCRETE CURB
4. FOR TYPICAL WALL BASE, SEE DETAIL <u>3/A8.2</u> .	RES RESILIENT BASE
5. FOR WALL BASE AT TILED LOCATION, SEE DETAIL <u>8/A8.2</u> .	EPXY EPOXY BASE
6. ALL EXPOSED CONCRETE BASE TO HAVE 3/4" RADIUS COVE.	FLOOR
7. FOR FLOOR TRANSITIONS, SEE DETAIL <u>9/A8.2</u> .	ATL ATHLETIC FLOORING
8. DEPRESS CONCRETE SLAB 2-1/2" WHERE PORCELAIN FLOOR FINISH IS SCHEDULED, U.N.O.	CONC EXPOSED CONCRETE, SEALED WITH ASHFORD FORMULA, AND UL-390 E-ZEE SEAL BY ALLIED INTERNATIONAL
9. VERIFY ALL FLOOR PATTERNS WITH ARCHITECT, SEE <u>SHEET A6.2</u> .	CER CERAMIC TILE
10. PORCELAIN TILE TO BE OVER TYPE X TILE BACKER BOARD AT ALL WALL AND CEILING LOCATIONS, U.N.O.	CPT CARPET
11. FOR TYPICAL WALL TILE PATTERN, SEE DETAIL <u>7/A8.2</u> .	EPXY EPOXY FLOORING
12. FOR TYPICAL SHOWER STALL, SEE DETAIL <u>1/A8.2</u> .	LVT LUXURY VINYL TILE
13. FOR SECTION THROUGH TYPICAL SHOWER STALL, SEE DETAIL <u>3/A8.2</u> .	PC POLISHED CONCRETE
14. 7/8" FURRING CHANNELS AT 16" O.C. SHALL BE USED ON ALL MASONRY SURFACES SCHEDULED TO RECEIVE GYPSUM BOARD FINISH AND 1-1/2" MIN. WHERE THERE IS CONDUT, U.N.O.	POR PORCELAIN TILE
15. VERIFY ADA CLEARANCES ARE TO THE FINISH TILE.	RES RESILIENT FLOORING
	RUB RUBBER FLOORING
	WALL
	AEG ACOUSTICALLY ENHANCED GYPSUM BOARD
	CMU EXPOSED CONCRETE MASONRY
	CONC EXPOSED CONCRETE
	CER CERAMIC TILE
	FRP FIBERGLASS REINFORCED PANELS OVER GYPSUM BOARD
	GYP GYPSUM BOARD
	IRG IMPACT RESISTANT / ABUSE RESISTANT GYPSUM BOARD
	MIR MIRROR OVER IR GYPSUM BOARD
	MRG MOISTURE RESISTANT GYPSUM BOARD
	PLAM PLASTIC LAMINATE PANEL
	POR PORCELAIN TILE
	PVC PVC INTERLOCKING PANEL

## FINISH SCHEDULE AND NOTES

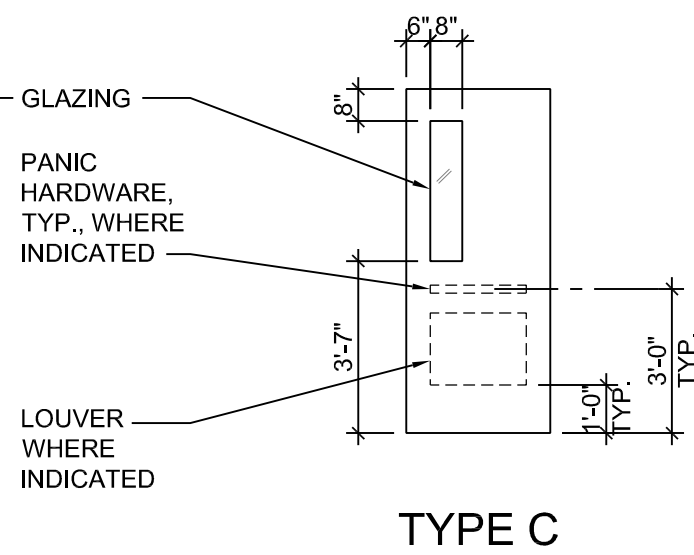
- NOTES:
- ALL LOUVERS TO HAVE 50% FREE AREA.
  - FOR TYPICAL FRAME PROFILE, SEE DETAIL 1/A5.2.
  - FOR TYPICAL DOOR ANCHORAGE, SEE DETAIL 2/A5.2.
  - FOR RUSH PLATE AND PICK PLATE INFORMATION, SEE DETAIL 3/A5.2.
  - FOR TYPICAL FRAMING AT DOOR, SEE DETAIL 10/A5.2.



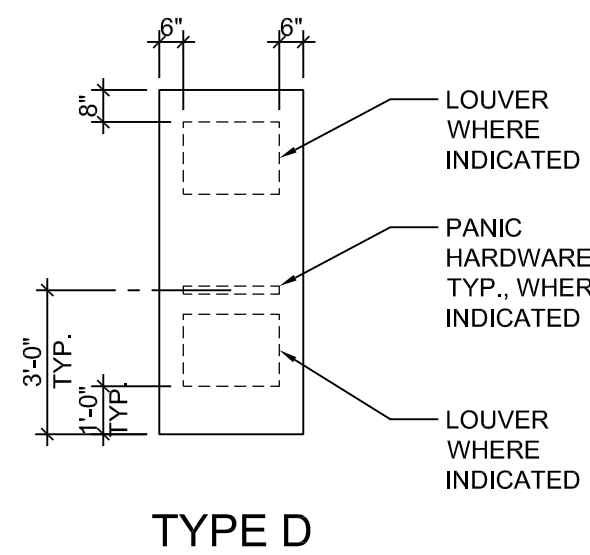
TYPE A



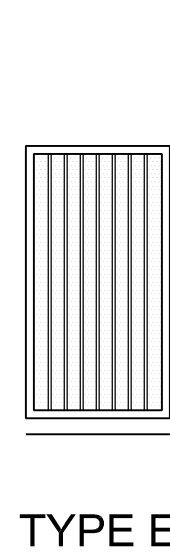
TYPE B



TYPE C



TYPE D



TYPE E

## DOOR SCHEDULE AND NOTES

#	DOOR SIZE	TYPE	THICKNESS	LABEL (MIN.)	GROUP	SELF CLOSING	PANIC	DOOR	FRAME	DOOR	FRAME	REMARKS
101A	3'-0" x 7'-2"	A	1 3/4"	-	1	Y	Y	HM	HM	P	P	5, 7, 9, 10
101B	3'-0" x 7'-2"	A	1 3/4"	-	2	Y	Y	HM	HM	P	P	8
103	3'-0" x 7'-2"	D	1 3/4"	-	3	Y	-	WS	HM	PL	P	8, 9A
104	3'-0" x 7'-2"	C	1 3/4"	-	4	Y	-	WS	HM	PL	P	8, 9B
105A	3'-0" x 7'-2"	A	1 3/4"	-	5	Y	Y	HM	HM	P	P	6, 7, 4
105B	3'-0" x 7'-2"	A	1 3/4"	-	6	Y	-	HM	HM	P	P	6, 5, 6, 7, 4
105C	3'-0" x 7'-2"	A	1 3/4"	-	6	Y	-	HM	HM	P	P	6, 5, 6, 7, 4
105D	3'-0" x 7'-2"	A	1 3/4"	-	6	Y	-	HM	HM	P	P	6, 5, 6, 7, 4
105E	3'-0" x 7'-2"	A	1 3/4"	-	5	Y	Y	HM	HM	P	P	6, 5, 6, 7, 4
106	3'-0" x 7'-2"	B	1 3/4"	-	7	Y	-	WS	HM	PL	P	8, 5, 8, 9B
107	3'-0" x 7'-2"	B	1 3/4"	-	7	Y	-	WS	HM	PL	P	8, 5, 8, 9B
108	3'-0" x 7'-2"	D	1 3/4"	-	8	Y	-	WS	HM	PL	P	8, 9A
110	3'-0" x 7'-2"	D	1 3/4"	-	9	Y	-	HM	HM	P	P	6, 7, 4
111	3'-0" x 7'-2"	D	1 3/4"	-	8	Y	-	WS	HM	PL	P	8, 9A
113	3'-0" x 7'-2"	D	1 3/4"	-	9	Y	-	HM	HM	P	P	6, 7, 4
114A	3'-0" x 7'-2"	C	1 3/4"	-	10	Y	Y	WS	HM	PL	P	8, 9B
114B	3'-0" x 7'-2"	C	1 3/4"	-	10	Y	Y	WS	HM	PL	P	8, 9B
115	3'-0" x 7'-2"	C	1 3/4"	-	7	Y	-	WS	HM	PL	P	8, 9B
116	3'-6" x 7'-2"	D	1 3/4"	-	11	Y	Y	HM	HM	P	P	6, 7, 4
117	3'-0" x 7'-2"	D	1 3/4"	-	12	-	-	HM	HM	P	P	6, 7, 4

#	DOOR SIZE	TYPE	THICKNESS	LABEL (MIN.)	GROUP	SELF CLOSING	PANIC	DOOR	FRAME	DOOR	FRAME	REMARKS
G1	7'-0" x HEIGHT	-	-	-	SG1	-	-	ST	ST	P	P	-
G2	3'-0" x HEIGHT	E	-	-	SG2	Y	-	ST	ST	P	P	-
G3	2'-0" x HEIGHT	-	-	-	SG3	-	-	ST	ST	P	P	-
G4	3'-0" x HEIGHT	E	-	-	SG4	Y	-	ST	ST	P	P	-
G5	3'-0" x HEIGHT	E	-	-	SG4	Y	-	ST	ST	P	P	-
G6	3'-0" x HEIGHT	-	-	-	SG3	-	-	ST	ST	P	P	-
G7	9'-0" x HEIGHT	-	-	-	SG5	-	-	ST	ST	P	P	-

#	DOOR SIZE	TYPE	THICKNESS	LABEL (MIN.)	GROUP	SELF CLOSING	PANIC	DOOR	FRAME	DOOR	FRAME	REMARKS
G1	7'-0" x HEIGHT	-	-	-	SG1	-	-	ST	ST	P	P	-
G2	3'-0" x HEIGHT	E	-	-	SG2	Y	-	ST	ST	P	P	-
G3	2'-0" x HEIGHT	-	-	-	SG3	-	-	ST	ST	P	P	-
G4	3'-0" x HEIGHT	E	-	-	SG4	Y	-	ST	ST	P	P	-
G5	3'-0" x HEIGHT	E	-	-	SG4	Y	-	ST	ST	P	P	-
G6	3'-0" x HEIGHT	-	-	-	SG3	-	-	ST	ST	P	P	-
G7	9'-0" x HEIGHT	-	-	-	SG5	-	-	ST	ST	P	P	-

#	DOOR SIZE	TYPE	THICKNESS	LABEL (MIN.)	GROUP	SELF CLOSING	PANIC	DOOR	FRAME	DOOR	FRAME	REMARKS
G1	7'-0" x HEIGHT	-	-	-	SG1	-	-	ST	ST	P	P	-
G2	3'-0" x HEIGHT	E	-	-	SG2	Y	-	ST	ST	P	P	-
G3	2'-0" x HEIGHT	-	-	-	SG3	-	-	ST	ST	P	P	-
G4	3'-0" x HEIGHT	E	-	-	SG4	Y	-	ST	ST	P	P	-
G5	3'-0" x HEIGHT	E	-	-	SG4	Y	-	ST	ST	P	P	-
G6	3'-0" x HEIGHT	-	-	-	SG3	-	-	ST	ST	P	P	-
G7	9'-0" x HEIGHT	-	-	-	SG5	-	-	ST	ST	P	P	-

#	DOOR SIZE	TYPE	THICKNESS	LABEL (MIN.)	GROUP	SELF CLOSING	PANIC	DOOR	FRAME	DOOR	FRAME	REMARKS
G1	7'-0" x HEIGHT	-	-	-	SG1	-	-	ST	ST	P	P	-
G2	3'-0" x HEIGHT	E	-	-	SG2	Y	-	ST	ST	P	P	-
G3	2'-0" x HEIGHT	-	-	-	SG3	-	-	ST	ST	P	P	-
G4	3'-0" x HEIGHT	E	-	-	SG4	Y	-	ST	ST	P	P	-
G5	3'-0" x HEIGHT	E	-	-	SG4	Y	-	ST	ST	P	P	-
G6	3'-0" x HEIGHT	-	-	-	SG3	-	-	ST	ST	P	P	-
G7	9'-0" x HEIGHT	-	-	-	SG5	-	-	ST	ST	P	P	-

#	WINDOW SIZE (WIDTH X HEIGHT)	TYPE	GLAZING	FRAME	DETAILS				REMARKS
					HEAD	JAMB	SILL	OTHER	
A	7'-4" x 11'-0"	W1	-	A	1"	HM	P	1	1, 2, 3
A1	7'-4" x 7'-4"	W2	-	A	1"	HM	P	6	6
B	4'-0" x 4'-0"	W3	-	A	1"	HM	P	1	1
C	2'-8" x 1'-4"	W4	-	A	1"	HM	P	5	5
D	4'-8" x 4'-0"	W5	-	A	1"	HM	P	5	5
E	1'-4" x 1'-4"	W6	-	A	1"	HM	P	1	1
E1	1'-4" x 1'-4"	W6	-	C	1"	HM	P	6	6
F	5'-4" x 7'-4"	W7	-	A	1"	HM	P	1	1
F1	5'-4" x 7'-4"	W7	-	C	1"	HM	P	6	6
G	2'-0" x 3'-4"	W8	-	A	1"	HM	P	9	9
G1	2'-0" x 3'-4"	W8	-	A	1"	HM	P	1	1
H	2'-0" x 2'-0"	W9	-	A	1"	HM	P	9	9

#	WINDOW SIZE (WIDTH X HEIGHT)	TYPE	GLAZING	FRAME	DETAILS				REMARKS
					HEAD	JAMB	SILL	OTHER	
A	7'-4" x 11'-0"	W1	-	A	1"	HM	P	1	1, 2, 3
A1	7'-4" x 7'-4"	W2	-	A	1"	HM	P	6	6
B	4'-0" x 4'-0"	W3	-	A	1"	HM	P	1	1
C	2'-8" x 1'-4"	W4	-	A	1"	HM	P	5	5
D	4'-8" x 4'-0"	W5	-	A	1"	HM	P	5	5
E	1'-4" x 1'-4"	W6	-	A	1"	HM	P	1	1
E1	1'-4" x 1'-4"	W6	-	C	1"	HM	P	6	6
F	5'-4" x 7'-4"	W7	-	A	1"	HM	P	1	1
F1	5'-4" x 7'-4"	W7	-	C	1"	HM	P	6	6
G	2'-0" x 3'-4"	W8	-	A	1"	HM	P	9	9
G1	2'-0" x 3'-4"	W8	-	A	1"	HM	P	1	1
H	2'-0" x 2'-0"	W9	-	A	1"	HM	P	9	9

WINDOW SCHEDULE AND NOTES									
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**SAN BERNARDINO COUNTY FIRE DEPARTMENT**  
6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenue

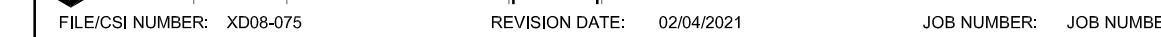


5	09/25/25		ADDENDUM 5
NO	DATE	BY	DESCRIPTION
#	REVISIONS		

<b>DRAWN:</b> JM	<b>CHECKED:</b> KN
<b>DATE:</b> 09/25/2025	<b>SCALE:</b> AS NOTED
<b>PROJECT NUMBER:</b> W2100100AR	

## DOOR DETAILS

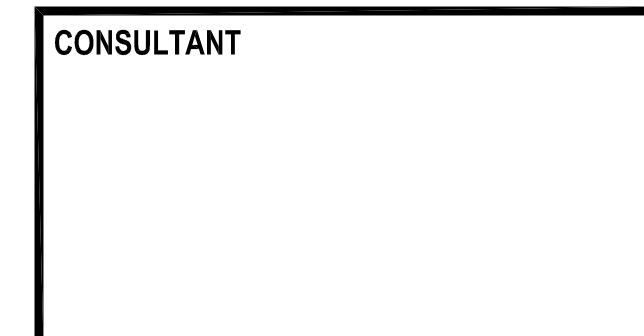
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<b>DRAWN:</b> JM	<b>CHECKED:</b> KN
<b>DATE:</b> 09/25/2025	<b>SCALE:</b> AS NOTED
<b>PROJECT NUMBER:</b> W2100100AR	

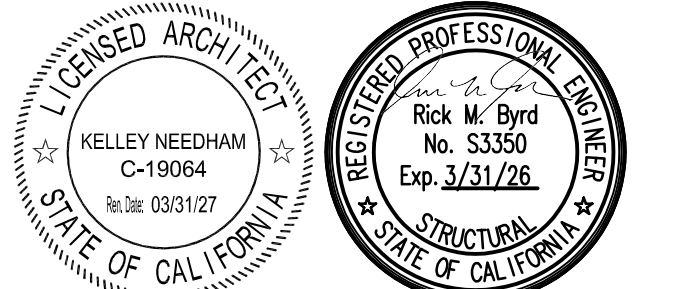
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WID SET\_ADDENDUM 5



## FONTANA FIRE STATION No. 80 & TRAINING CENTER

**SAN BERNARDINO COUNTY FIRE DEPARTMENT**  
6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenue



**CONSULTANT**  
**miyamoto.**  
1047 West 5th Street, Suite A  
Ontario, CA 91762  
miyamotointernational.com

NO	DATE	BY	DESCRIPTION
	09/25/25		ADDENDUM 5

DRAWN: JA CHECKED: RB  
DATE: 05/11/2025 SCALE: AS NOTED  
PROJECT NUMBER: W2100100AR

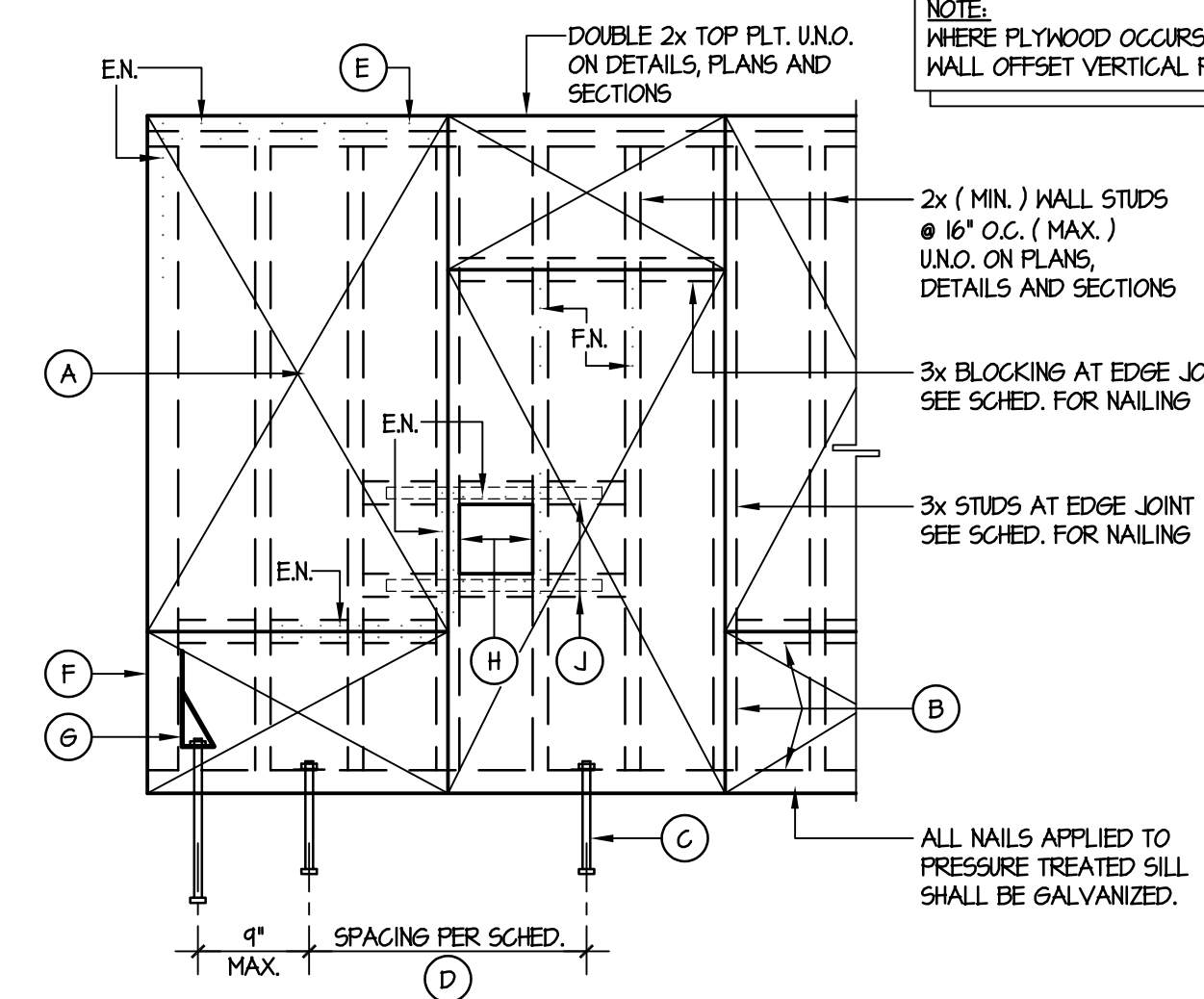
**WOOD FRAMING DETAILS**

DRAWING NUMBER: **S0.3**

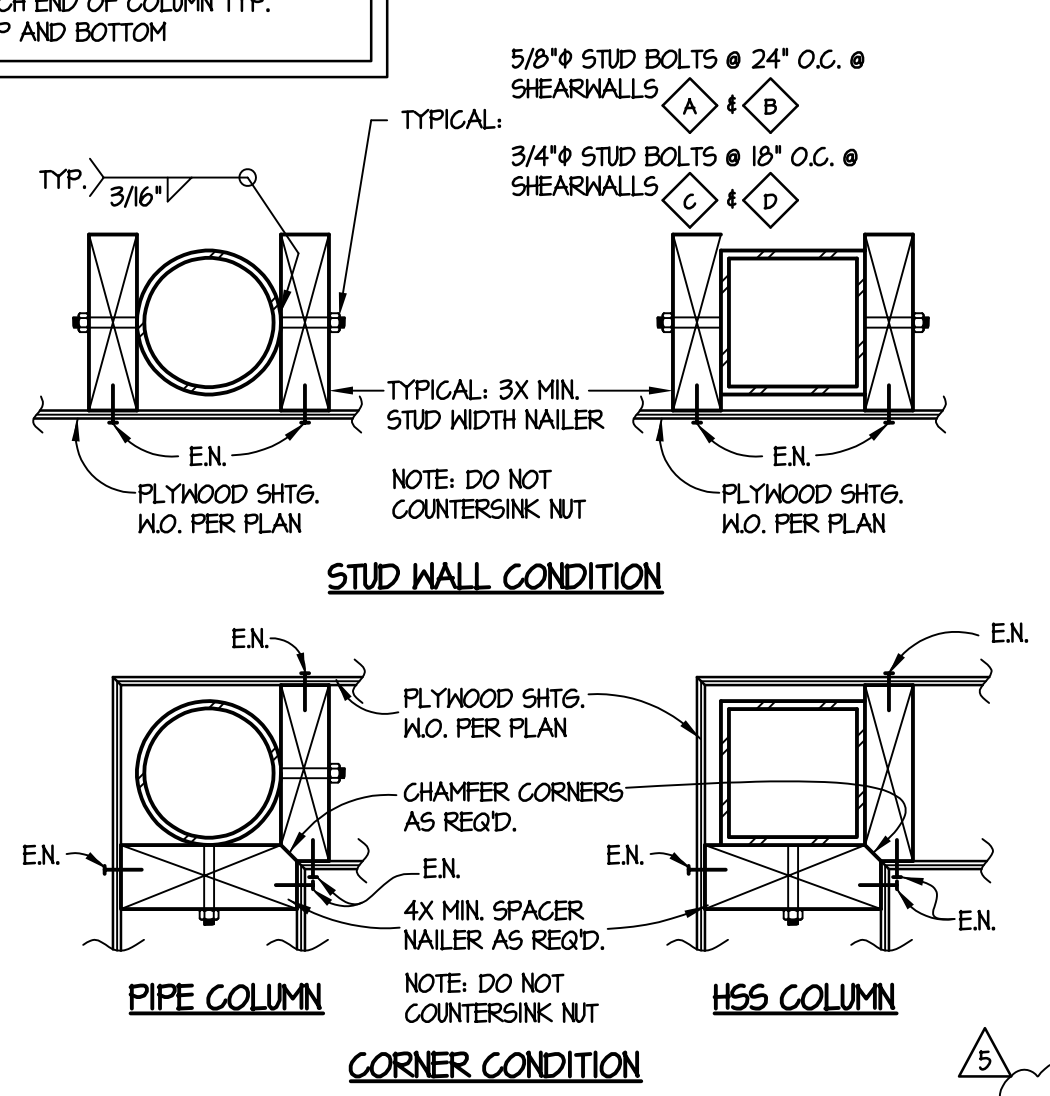
SHEARWALL SCHEDULE				
STRUCTURAL I				
TYPE	EDGE	FIELD	A.B. SPACING	ALLOWABLE SHEAR
A	10d @ 8" O.C.	10d @ 12" O.C.	42" O.C.	340KFT.
B	10d @ 4" O.C.	10d @ 12" O.C.	28" O.C.	510KFT.
C	10d @ 3" O.C.	10d @ 12" O.C.	21" O.C.	665KFT.
D	10d @ 2" O.C.	10d @ 12" O.C.	16" O.C.	870KFT.

- ALL PLYWOOD TO BE 1/2" STRUCTURAL I. SEE NOTES ON S01
- PROVIDE 3x (MIN.) MEMBERS AT ALL ADJOINING PANEL EDGE AND SILLS WHERE PLYWOOD OCCURS BOTH SIDES OFFSET VERTICAL PLYWOOD JOINTS.
- ANCHOR BOLTS TO BE 5/8" x 12" MIN. SEE SHEARWALL SCHEDULE FOR SPACING. PROVIDE 2 BOLTS PER PANEL MIN. PROVIDE SIMPSON SP5 5/8"-5/8" AT ALL ANCHOR BOLTS AT 4" NOMINAL WIDE SILL PLATES. PROVIDE SIMPSON SP5 5/8"-6" AT ALL 6" NOMINAL WIDE SILL PLATES. A CUT WASHER SHALL BE UTILIZED BETWEEN THE NUT AND THE TOP OF THE SLOTTED WASHER. THE WASHER SHALL BE POSITIONED SUCH THAT THE EDGE OF THE PLATE WASHER IS WITHIN 1/2" OF THE SHEARED EDGE OF THE SILL PLATE. WHERE PLYWOOD OCCURS EACH SIDE OF THE WALL, THE WASHER SHALL BE PLACED WITHIN 1/2" OF EACH FACE OF SILL PLATE.
- REDUCE SPACING BY 1/2 WHERE SHEARWALL OCCURS BOTH SIDES
- STAGGER NAILS FOR TYPE 'C' AND 'D' SHEARWALLS @ DOUBLE TOP PLATES
- 4x MIN. POST @ HOLD DOWN LOCATIONS. UNO. ON PLANS, DETAILS OR SECTIONS
- HOLD DOWN, SEE PLAN FOR TYPE AND (T) 502 FOR INSTALLATION
- H 1/2" SQUARE MAX. OPENING. (STUDS SHALL NOT BE CUT UNLESS SPECIFICALLY DETAILED)
- PROVIDE SIMPSON LSTA36" ABOVE AND BELOW OPENINGS AT SHEARWALL TYPES 'C' AND 'D' AND ALL DOUBLE SIDED.

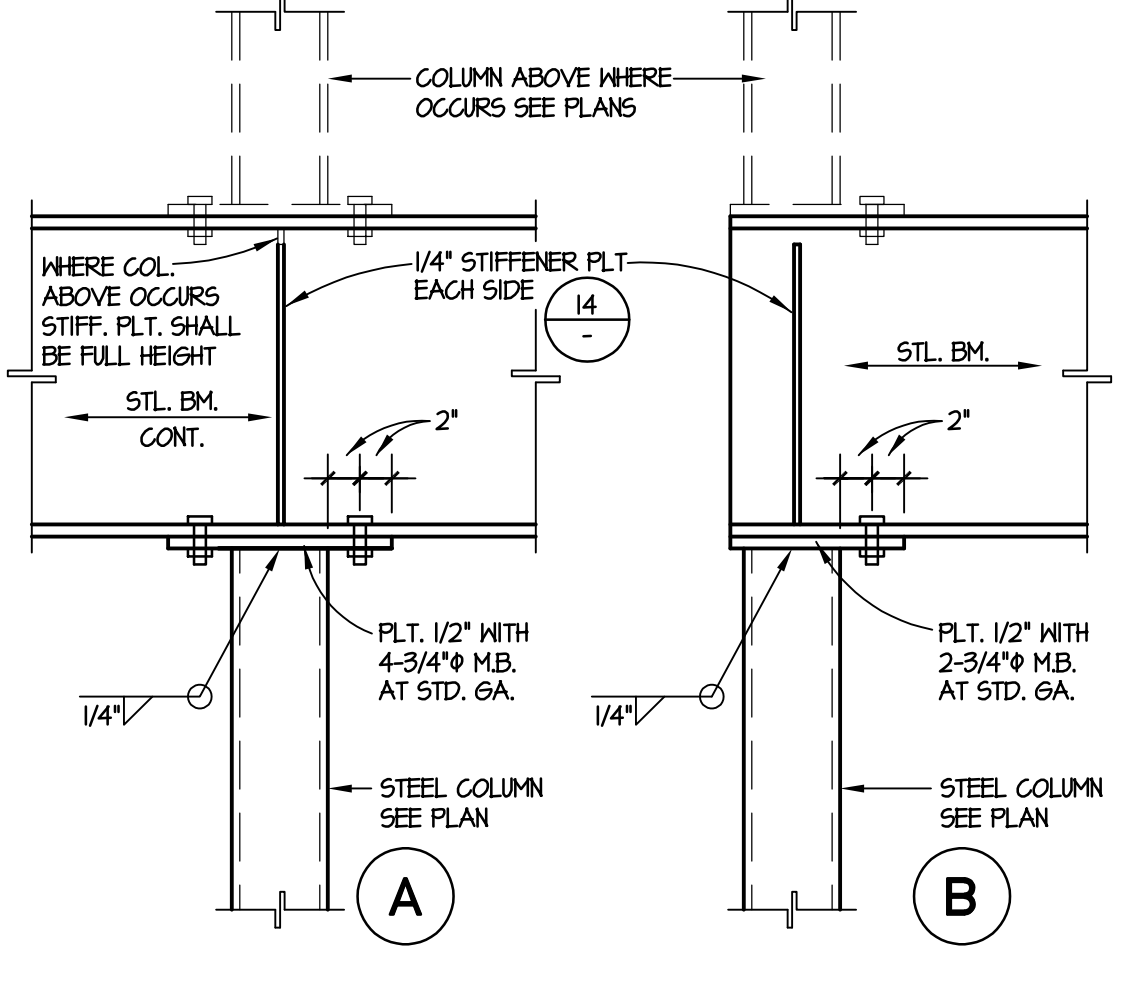
**TYPICAL PLYWOOD SHEARWALL DETAIL**  
SCALE: N.T.S.



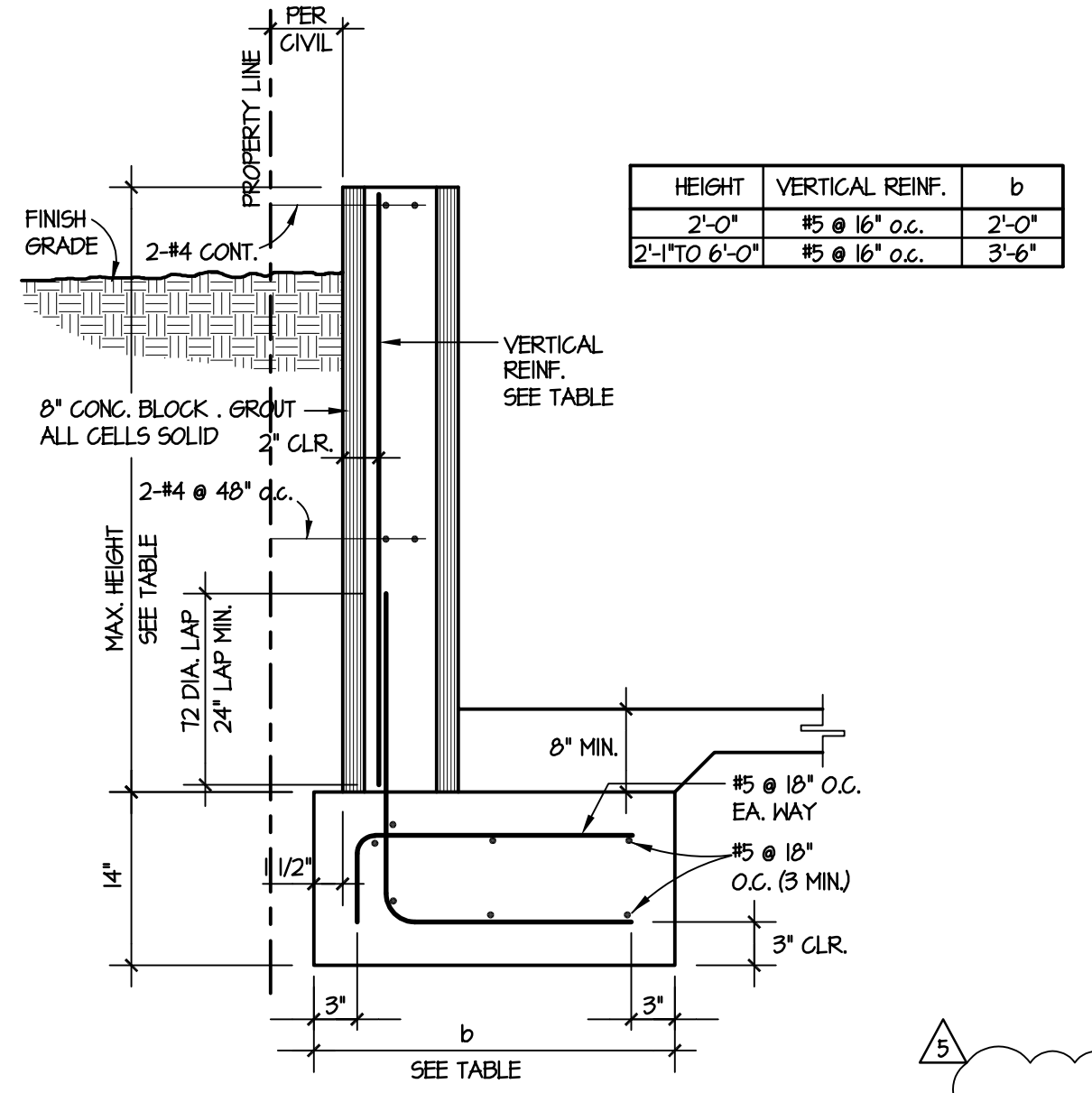
NOTE: WHERE PLYWOOD OCCURS EACH SIDE OF WALL OFFSET VERTICAL PLYWOOD JOINTS



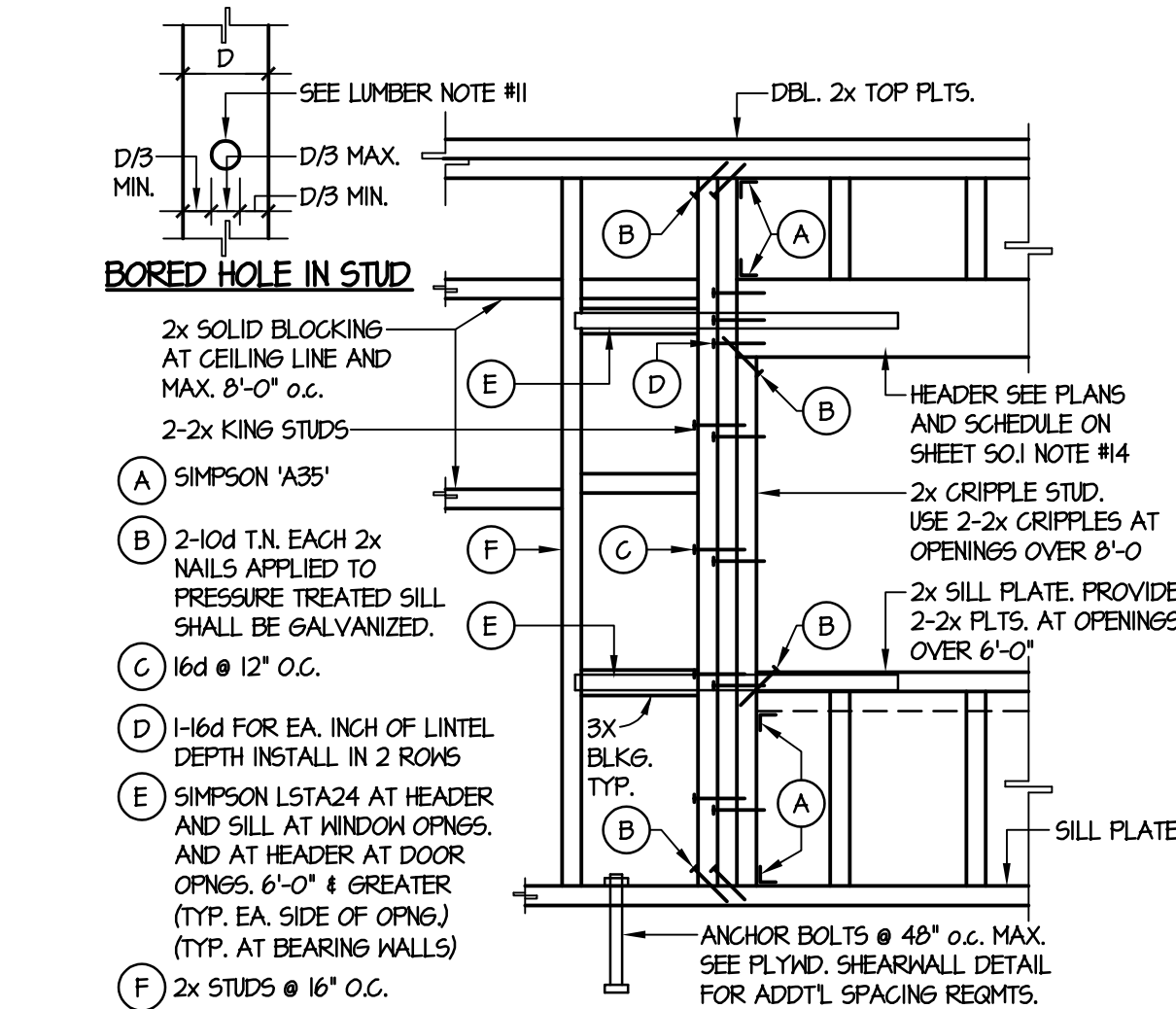
**TYPICAL WOOD NAILER TO COLUMN DETAIL**  
SCALE: N.T.S.



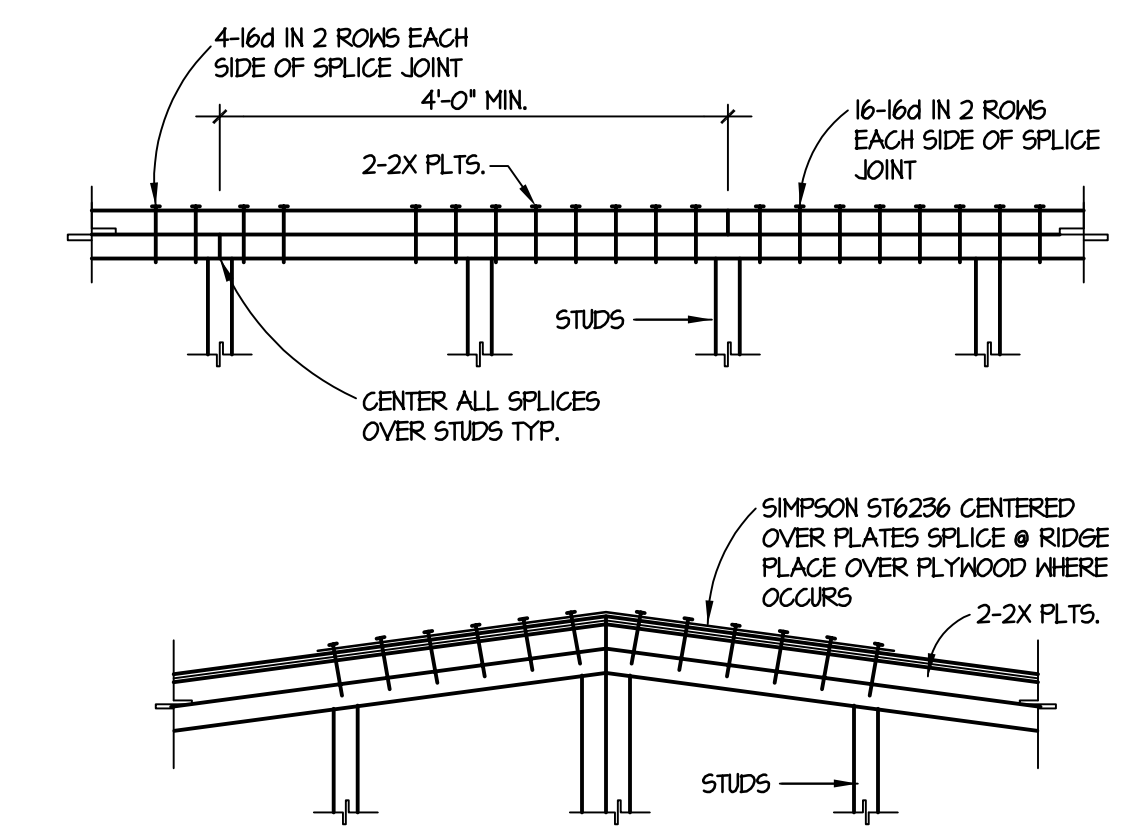
**TYPICAL COLUMN TO BEAM DETAILS**  
SCALE: N.T.S.



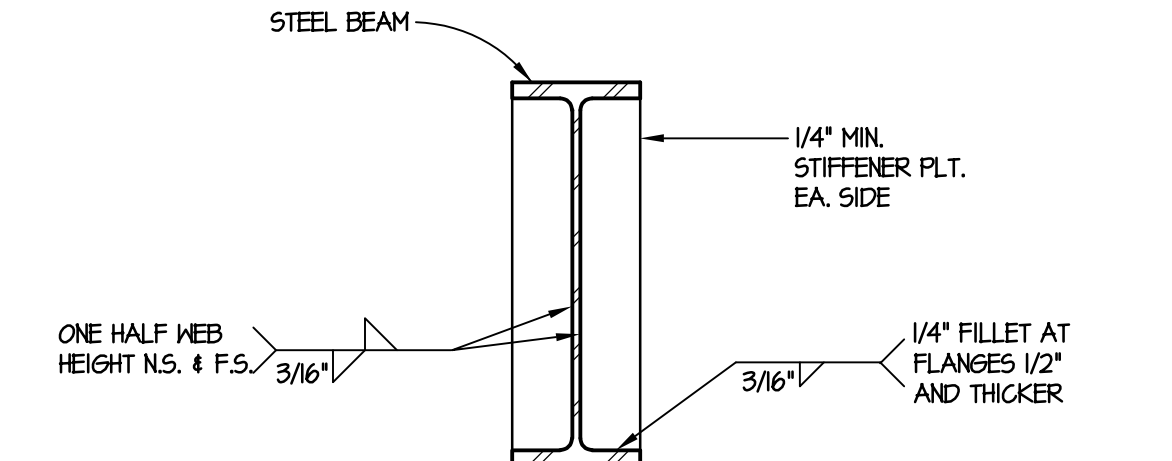
**RETAINING WALL DETAIL (PROPERTY LINE CONDITION)**  
SCALE: N.T.S.



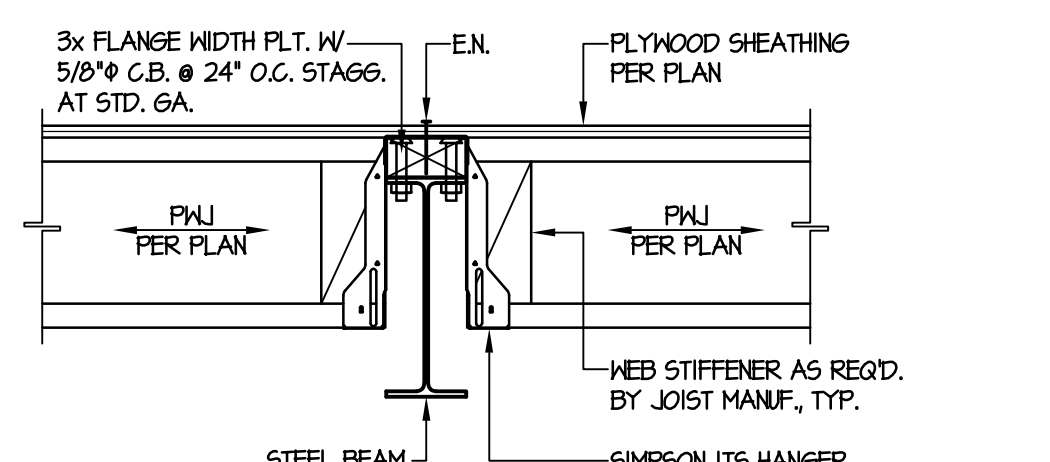
**TYPICAL STUD WALL FRAMING DETAIL**  
SCALE: N.T.S.



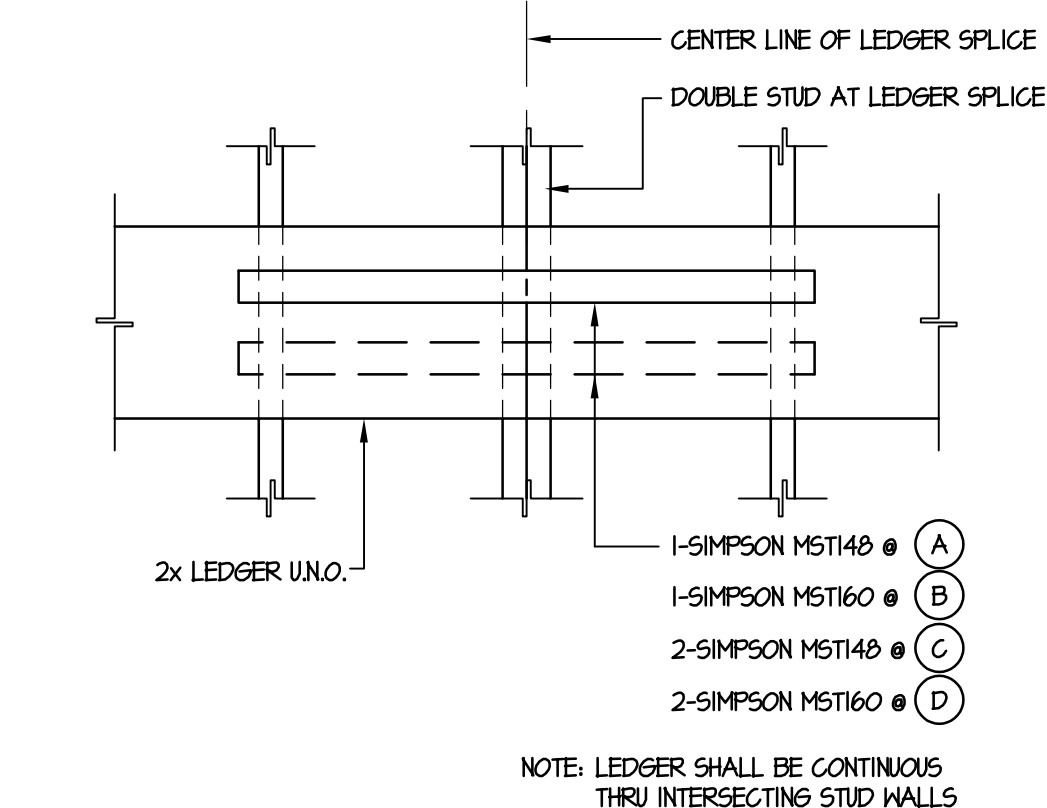
**TYPICAL MINIMUM PLATE SPLICE DETAIL**  
SCALE: N.T.S.



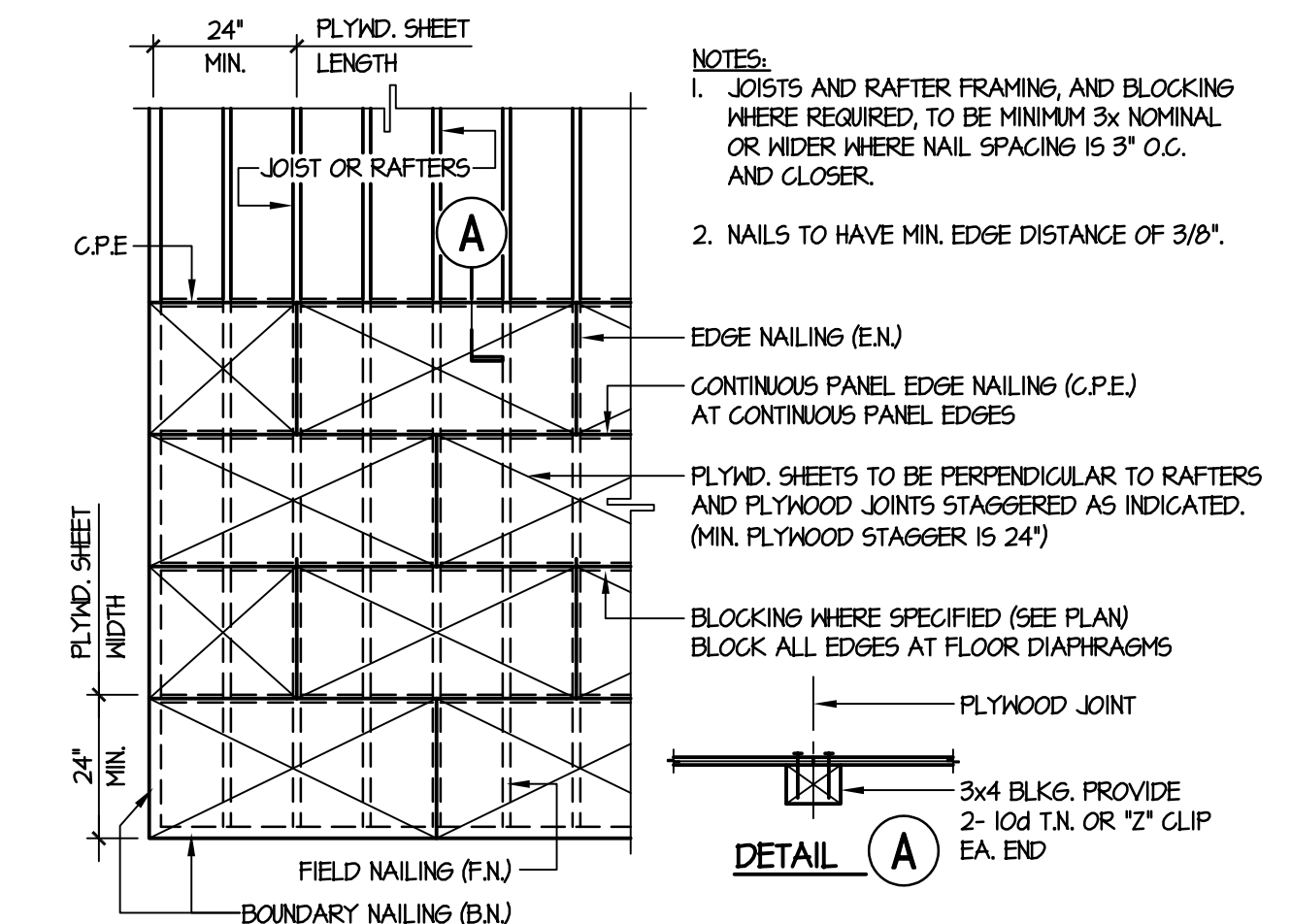
**TYPICAL STIFFENER PLATE DETAIL**  
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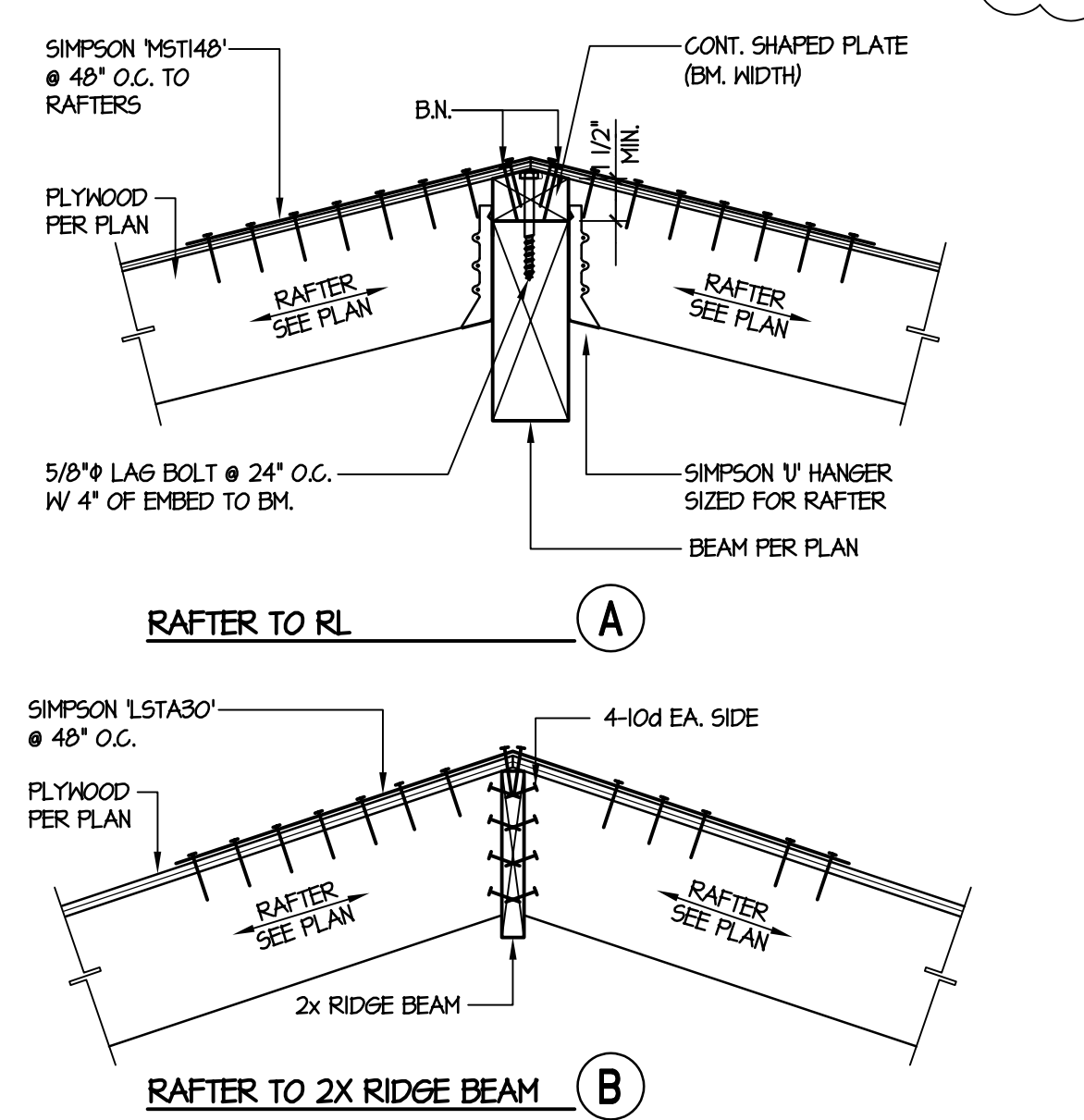
**TYPICAL RAFTER TO STEEL BEAM DETAIL**  
SCALE: N.T.S.



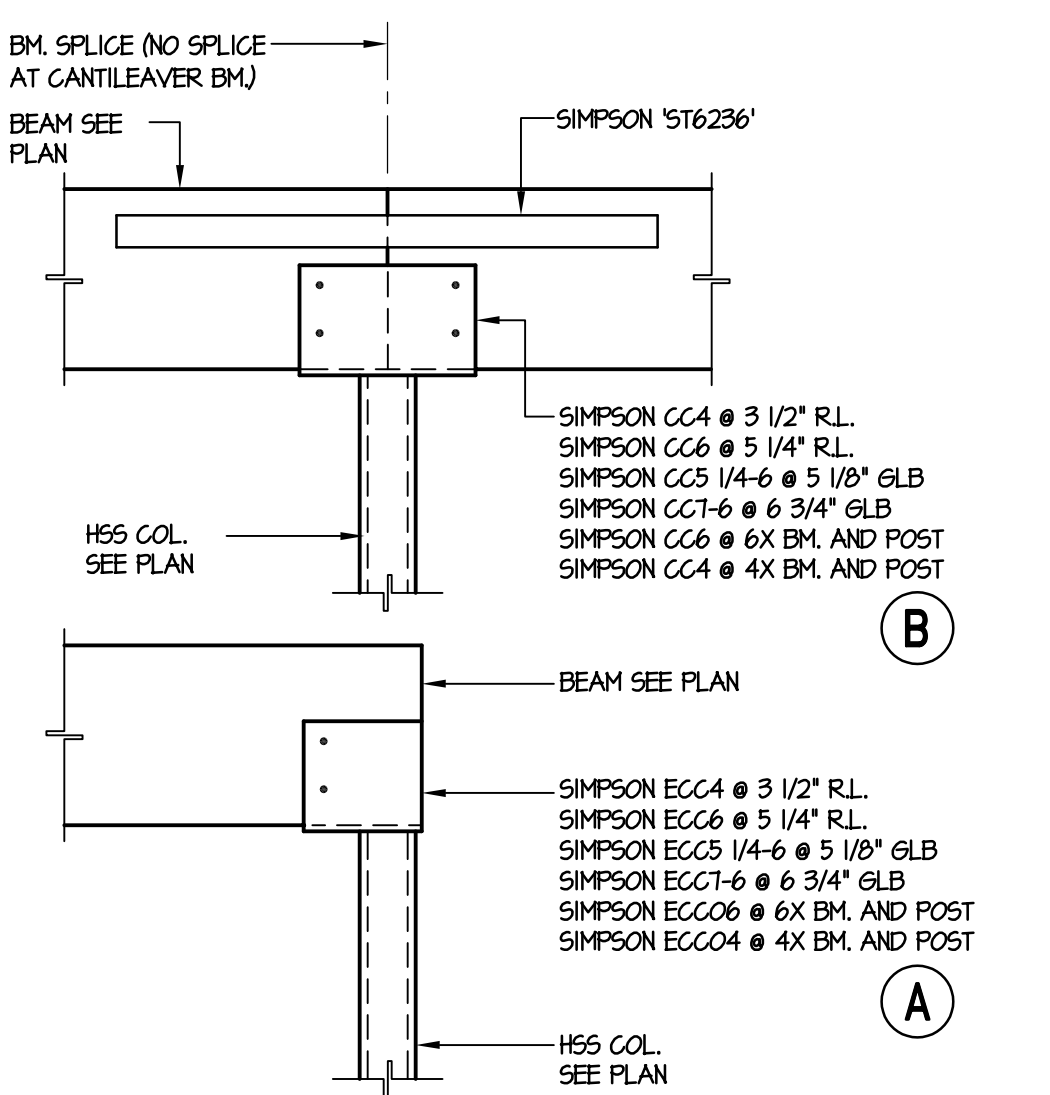
**TYPICAL LEDGER SPLICE DETAIL**  
SCALE: N.T.S.



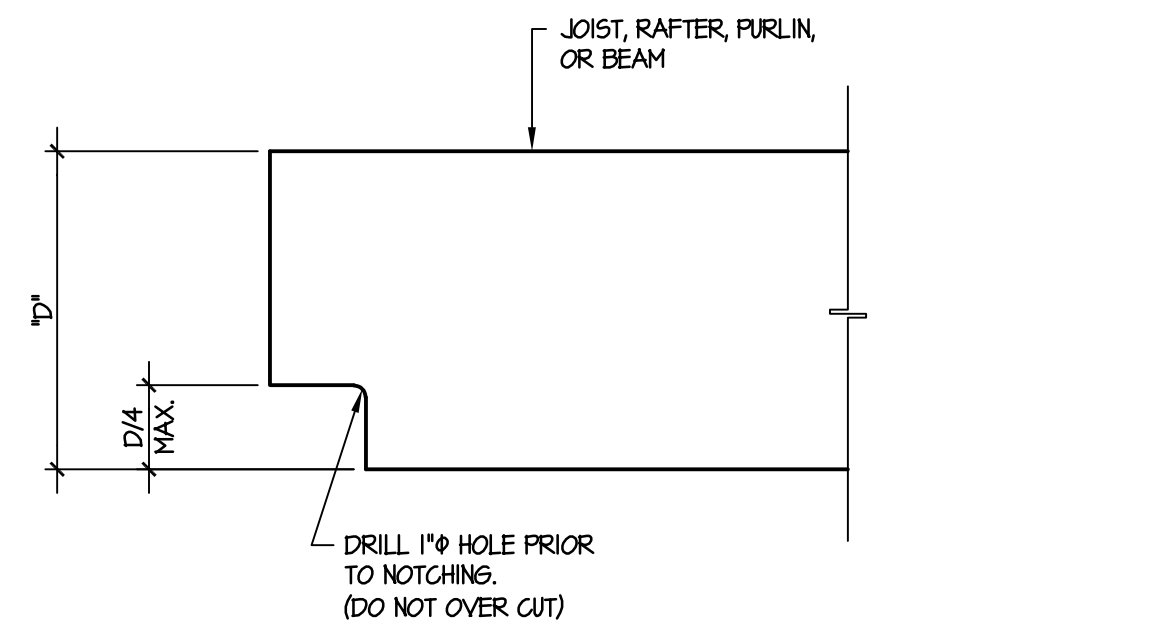
**TYP. PLYWOOD DIAPHRAGM SHEATHING DETAIL**  
SCALE: N.T.S.



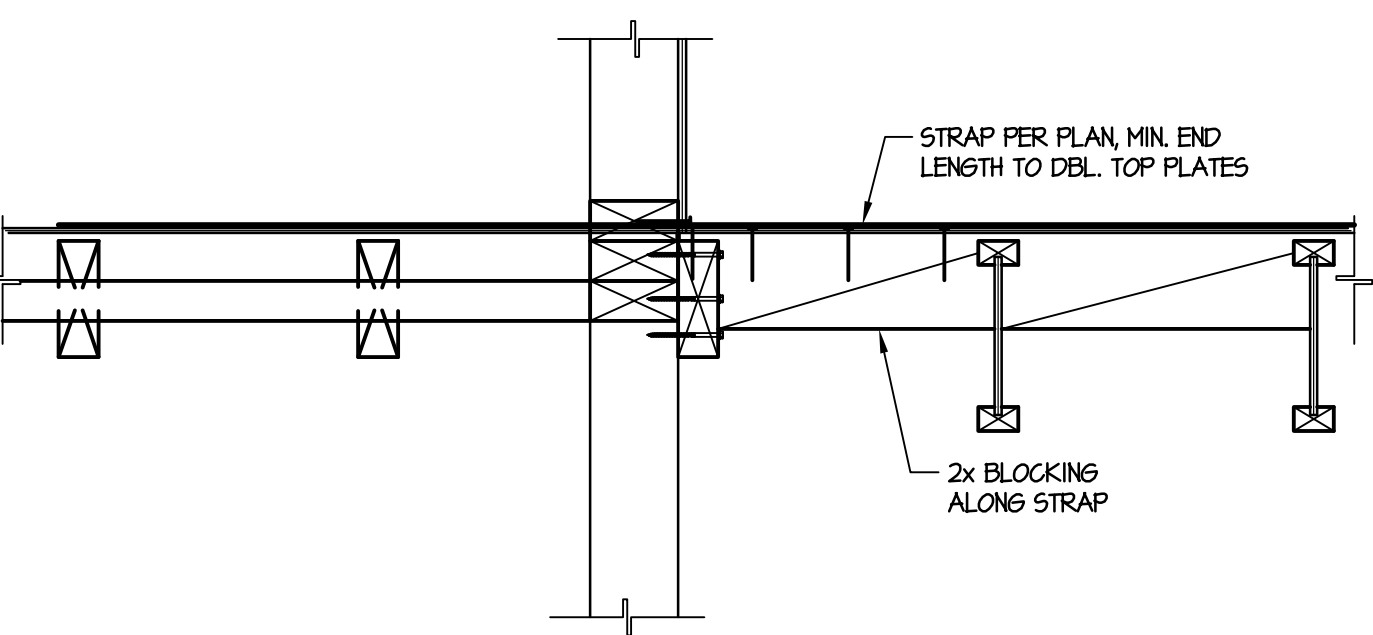
**TYPICAL RIDGE BEAM AND RIDGE BOARD**  
SCALE: N.T.S.



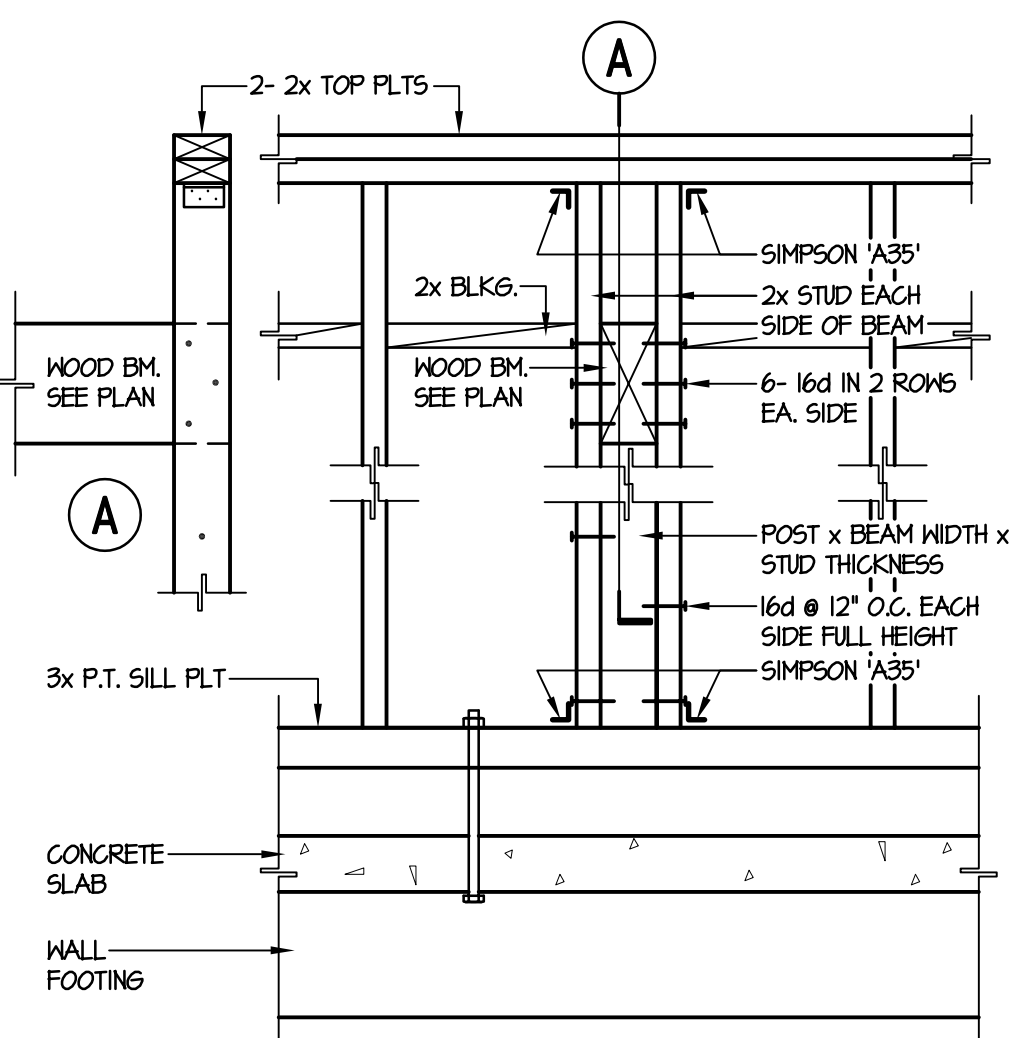
**TYPICAL BEAM TO STEEL COLUMN**  
SCALE: N.T.S.



**TYPICAL NOTCHING DETAIL**  
SCALE: N.T.S.

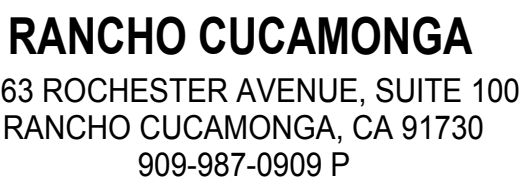


**DRAQ DETAIL**  
SCALE: N.T.S.



**WOOD BEAM TO WALL DETAIL**  
SCALE: N.T.S.





**FONTANA FIRE STATION No. 80 & TRAINING CENTER**

**SAN BERNARDINO COUNTY FIRE DEPARTMENT**  
6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenue



**miyamoto.**

1047 West Sixth Street, Suite A  
Ontario, CA 91762  
M12328021.00

5.	09/25/25		ADDENDUM 5
△			
△			
△			
△			
△			
NO	DATE	BY	DESCRIPTION
#	REVISIONS		

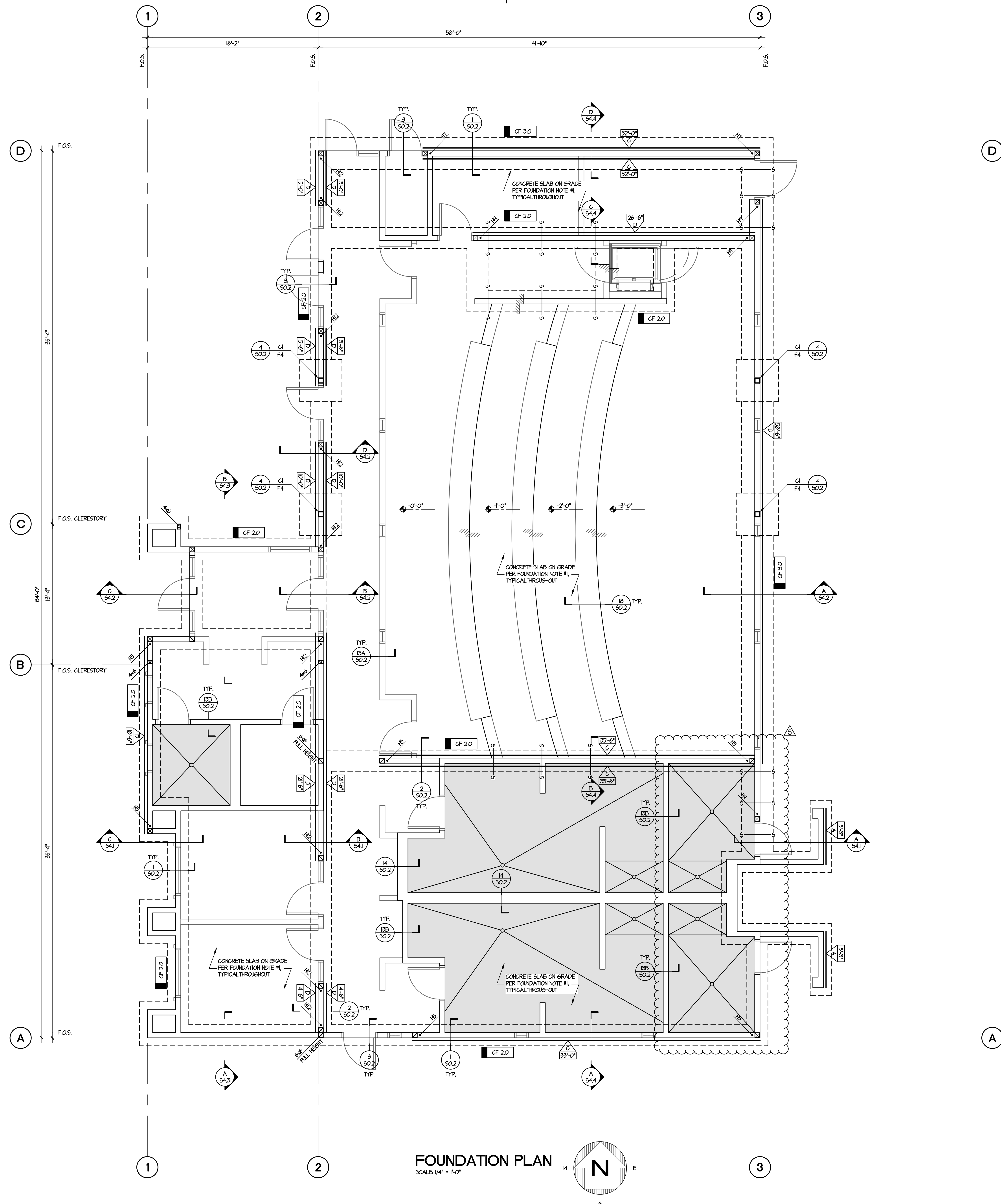
DRAWN: JA	CHECKED: RB
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DATE: 05/11/2025	SCALE: AS NOTED
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










PROJECT NUMBER: W2100100AR

## FOUNDATION PLAN

DRAWING NUMBER: S1.1



## FOUNDATION PLAN NOTES

5. 7" THICK CONC. SLAB W/ #4 @ 18" O.C. E.K. 0.4' SLAB OVER 15 MIL. VAPOR BARRIER OVER 2" CLEAN SAND OVER 4" AGGREGATE BASE PER SPECIFICATIONS AND DETAILS.
6. ALL EXTERIOR WALLS AND PARAPETS WHICH ARE NOT ALREADY INDICATED AS SHEAR WALLS SHALL RECEIVE PLYWOOD AND NAILING PER SHEAR WALL TYPE 1.
7.  DENOTES SHEARWALL TYPE SEE  1
8.  DENOTES MIN. SHEARWALL LENGTH.
9. (NOTE: PLYWD. SHALL EXTEND FULL LENGTH OF WALL AT INTERIOR SHEAR WALLS AS REQ'D FOR FLUSH FINISH)
10. SEE ARCH. DWGS FOR ALL DIMENSIONS NOT SHOWN AND VERIFY ALL DIMENSIONS WITH ARCHIT. DRAWINGS
11. TYPICAL FOUNDATION FORMING DETAILS PER  1
12. STEP FOOTINGS PER TYPICAL STEP FOOTING DETAIL.  2
13. FRAMING AT OPENINGS PER TYP. HOLD WALL FRAMING DETAIL.  2
14.  HOLD DOWN SIZE FOR TYPICAL JOIST DETAIL SEE  1
15.  WIDEN FOOTING AS REQ'D. BY  1 IN THE VICINITY OF H.D. BOLTS
16. STEP FOOTINGS AT PLUMBING LINES PER  3
17. ALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE
18. PRIOR TO REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE SOIL ENGINEER SHALL INSPECT AND APPROVE THE FOUNDATION EXCAVATIONS.
19. HOLD DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
20. VERIFY ALL CURB HEIGHTS WITH ARCHITECTURAL DRAWINGS.
21.  SHADED AREA INDICATES EXTENTS OF SLAB DEPRESSION PER PLAN, VERIFY WITH ARCHIT. DRAWINGS.
22. 4" HIGH CONC. HOUSE KEEPING PAD, SEE  11

### CONTINUOUS FOOTING SCHEDULE

MARK	WIDTH	THICK	REINFORCEMENT
CF2.0	2'-0"	2'-0"	2- #5 TOP & BOTTOM
CF3.0	3'-0"	2'-0"	2- #5 TOP & 4- #5 BOTT. W/ #4 TRANSVERSE @ 24" O.C. BOTT.

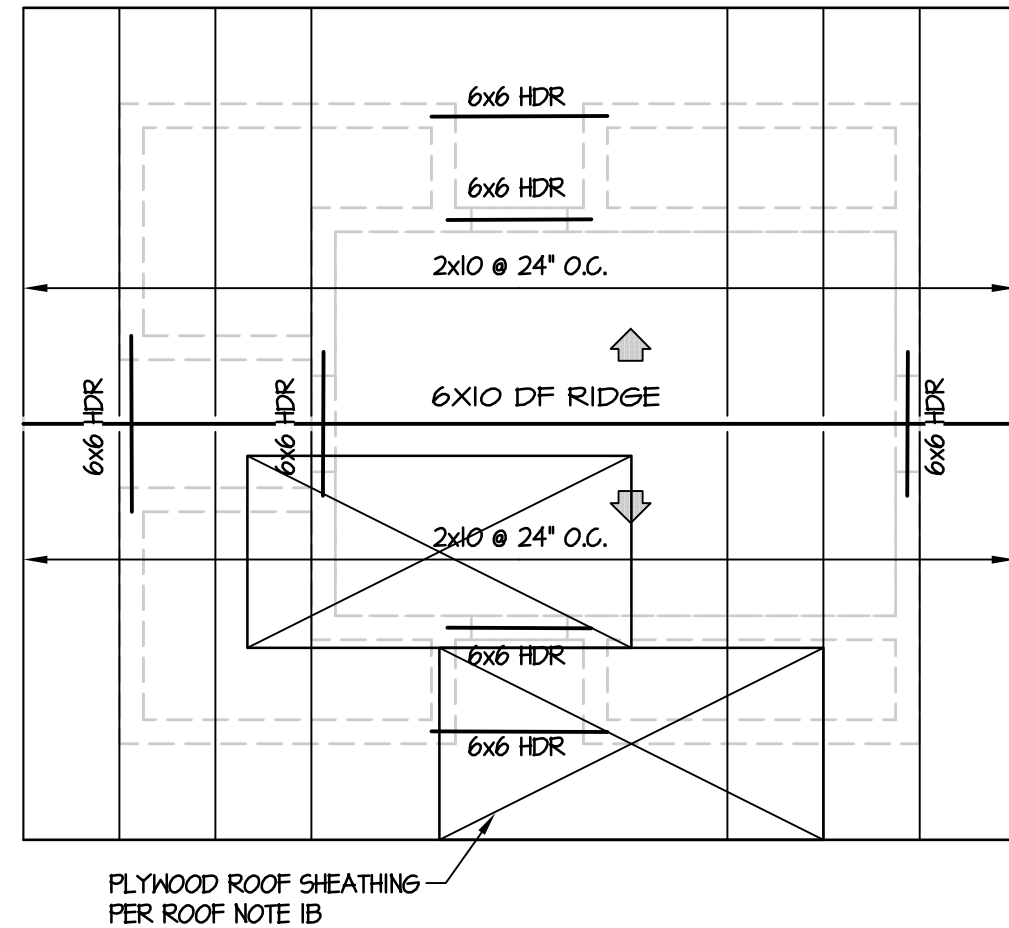
## PAD FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT
F4	4'-0" x 4'-0" x 1'-6"	4- #5 EACH WAY

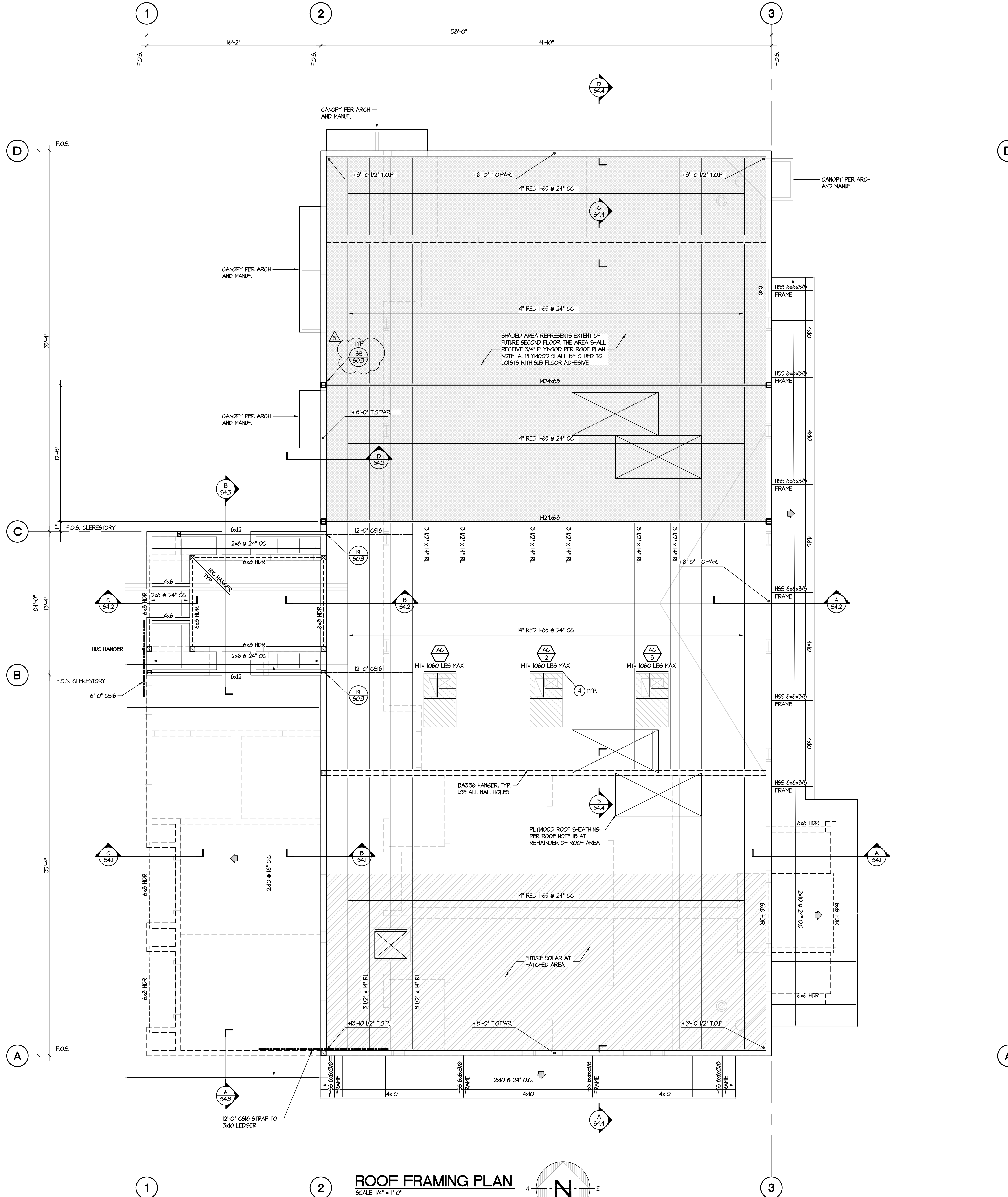
## COLUMN SCHEDULE

MARK	COLUMN SIZE	BASE PLT.	WELD SIZE	SIZE & NO. OF A.B. UNO.
C1	HSS 4x4x1/4	3/4" THICK	3/16"	4- 3/4" x 12" LONG





CLERESTORY ROOF PLAN  
SCALE: 1/4" = 1'-0"



ROOF FRAMING PLAN  
SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN NOTES

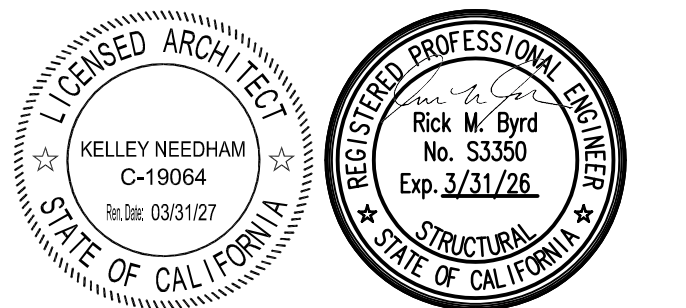
- 1A. 3/4" STRUCT. I-PLYWOOD W/ 10d @ 4" O.C. B.N. 10d @ 6" O.C. E.N. 10d @ 12" O.C. F.N. BLOCK ALL EDGES TYP. SEE (3) 503
- 1B. 5/8" STRUCT. I-PLYWOOD W/ 10d @ 4" O.C. B.N. 10d @ 6" O.C. E.N. 10d @ 12" O.C. F.N. BLOCK ALL EDGES TYP. SEE (3) 503
2. ALL RAFTERS AND BEAMS DESIGNATED AS (STRUT) SHALL RECEIVE 2 ROWS (E.N.) EDGE NAILING AT TOP STAGGERED.
3. ALL (T.O.P.) TOP OF PLYWOOD HEIGHTS AND (T.O.PAR) TOP OF PARAPET HEIGHTS ARE FROM (REF. 0'-0").
4. FOR MECHANICAL UNIT FRAMING AND DETAILS, REFER TO THE FOLLOWING DETAILS, CONDENSING UNIT (4) 501 EXHAUST FAN (1) 501 MECH. UNIT (2) 501
- THE FRAMING IN THE VICINITY OF THE MECHANICAL UNITS WAS DESIGNED FOR THE UNIT SIZE AND HEIGHT AS SHOWN ON THE MECHANICAL DRAWINGS. ANY COSTS INCURRED FROM ANY SUBSTITUTION MADE BY THE CONTRACTOR WHICH REQUIRES RE-DESIGN OR MODIFICATIONS TO THE CONSTRUCTION DOCUMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MAY WISH TO INQUIRE AS TO THE PROBABLE EXTENT OF THESE COSTS PRIOR TO INTRODUCING A SUBSTITUTION.
5. FOR ALL HEADER SIZES NOT IDENTIFIED SEE LUMBER NOTE IS ON SHEET 501
6. ALL LEDGERS SHALL BE SPLICED PER (1A) 503 U.N.O.
7. SHADED PORTIONS INDICATE CALIFORNIA FRAMING
8. ALL EXTERIOR WALLS AND PARAPETS WHICH ARE NOT ALREADY INDICATED AS SHEAR WALLS SHALL RECEIVE PLYWOOD AND NAILING PER SHEAR WALL TYPE 'A' (1) 503
9. NO CUTTING OR NOTCHING OF P.N.J. FLANGES IS PERMITTED.
10. RED-1 PREFABRICATED WOOD I-JOIST ARE IDENTIFIED BY A STAMP THAT INCLUDES THE PRODUCT DESIGNATION, EVALUATION REPORT NUMBER (ICC-ES ESR-2044), MANUFACTURER'S NAME (REDUBUILT) OR LOGO, PLANT NUMBER, PRODUCTION DATE, AND THE NAME OR LOGO OF THE INSPECTOR AGENCY (IFES CORPORATION) CALCULATIONS AND SHOP DRAWINGS, STAMPED BY A LICENSED CALIFORNIA CIVIL OR STRUCTURAL ENGINEER SHALL BE SUBMITTED FOR REVIEW AND APPROVAL TO THE ENGINEER OF RECORD PRIOR TO SUBMITTAL TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL.
11. SEE ARCHIT. DWGS FOR ALL DIMENSIONS NOT SHOWN AND VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS
12. FRAMING AT OPENINGS PER TYP. STUD WALL FRAMING DETAIL (2) 503



RANCHO CUCAMONGA  
8163 ROCHESTER AVENUE, SUITE 100  
RANCHO CUCAMONGA, CA 91730  
909-987-0909 P

FONTANA FIRE STATION No. 80 & TRAINING CENTER

SAN BERNARDINO COUNTY FIRE DEPARTMENT  
6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenue



CONSULTANT  
**miyamoto.**  
1047 West 58th Street, Suite A  
Ontario, CA 91762  
miyamotointernational.com

NO	DATE	BY	DESCRIPTION
1	09/25/25		ADDENDUM 5
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DRAWN: JA CHECKED: RB  
DATE: 05/11/2025 SCALE: AS NOTED  
PROJECT NUMBER: W2100100AR

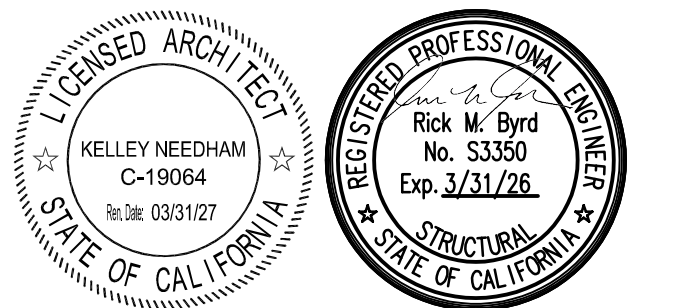
ROOF FRAMING PLAN

DRAWING NUMBER: S3.1



**FONTANA FIRE STATION No. 80 & TRAINING CENTER**

**SAN BERNARDINO COUNTY FIRE DEPARTMENT**  
6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenue



CONSULTANT

**miyamoto.**

1047 West Sixth Street, Suite A  
Ontario, CA 91762  
MT2328021.00

5	09/25/25		ADDENDUM 5
NO	DATE	BY	DESCRIPTION
#	REVISIONS		

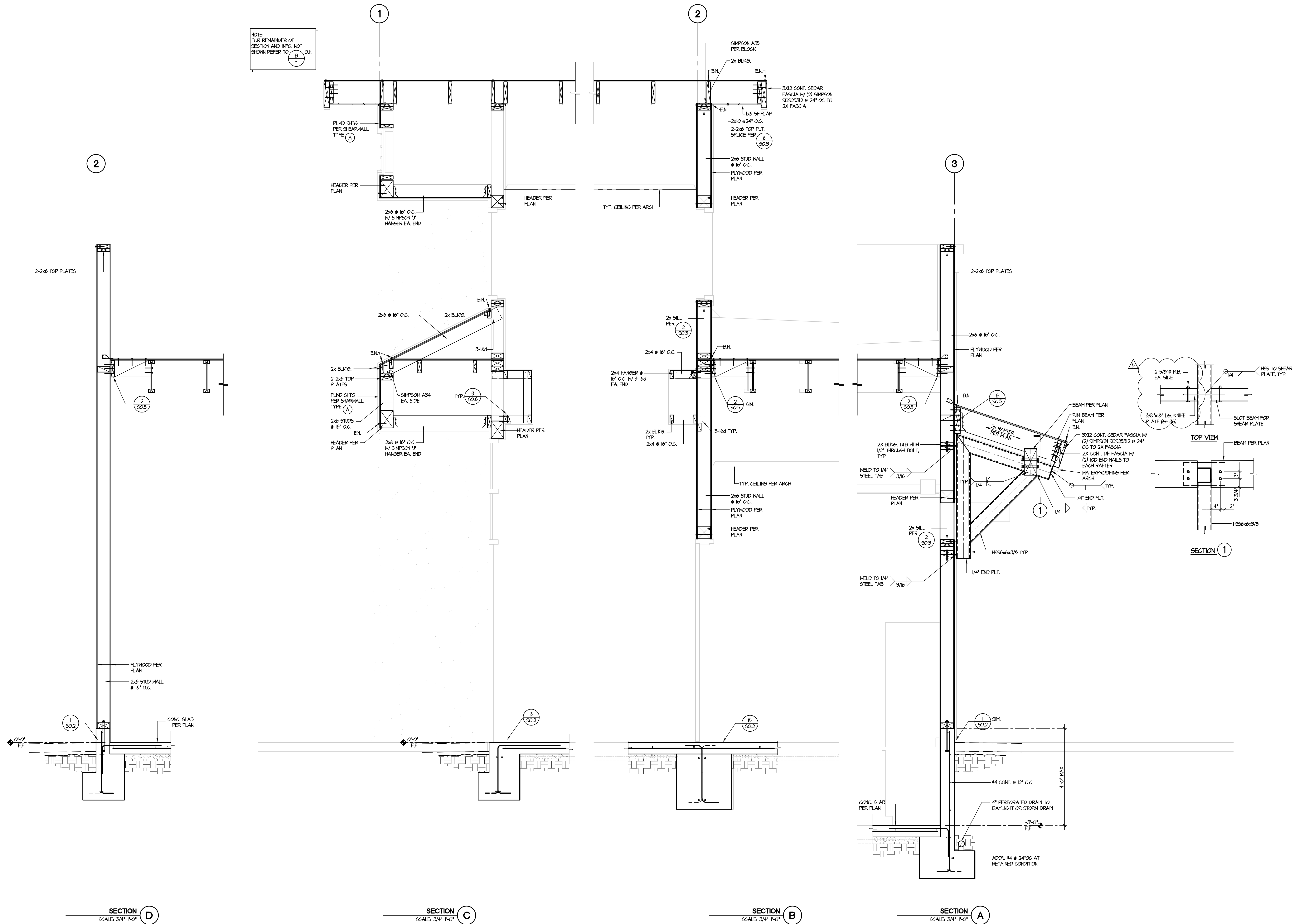
DRAWN: JA	CHECKED: RB
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DATE: 05/11/2025	SCALE: AS NOTED
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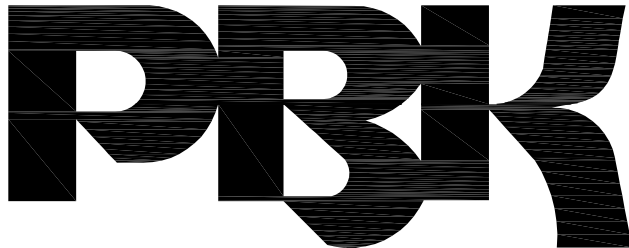
PROJECT NUMBER: W2100100AR

WALL SECTIONS

DRAWING NUMBER: S4.2







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RANCHO CUCAMONGA, CA 91730  
909-987-0909 P

## FONTANA FIRE STATION No. 80 & TRAINING CENTER

SAN BERNARDINO COUNTY FIRE DEPARTMENT  
6885 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenue

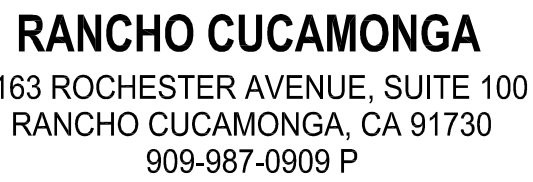
PANEL "LA"				MAIN BREAKER: 100A										SCA:			
VOLTAGE: 208/120V-4-WIRE				BUS SIZE										MOUNT: SURFACE			
LOCATION: ELECTRICAL RM 116				COPPER: 100A										ENTRY: BOTTOM			
DESCRIPTION	QKT	BKR	P	LTS	REC	MSC	MTR	A-VA	B-VA	C-VA	AMPS						
RMS 105-115-117 LTG.	1	20	1	17				467									
RM 114 LIGHTING	3	20	1	44						1596							
RMS 101-104 106-113 LTG.	5	20	1	53							1483						
EXTERIOR BLDG LTS	7	20	1	29						634							
SITE / VIS. PRKG. LTS.-WEST	9	20	2	9						313							
W/CKT 9	11										313						
STAFF PARKING LTS.	13	20	2	5					455								
W/CKT 13	15									455							
SITE NORTHEAST LTS.	17	20	2	11							825						
W/CKT 17	19									825							
TRAINING TOWER LTS.	21	20	2	5						650							
W/CKT 21	23										550						
FIRE STATION SIGN	25	20	1						1200								
FIRE STATION ADDRESS SIGN	27	20	1							1200							
MONUMENT SIGN	29	20	1								1200						
MONUMENT SIGN	31	20	1							1200							
MONUMENT SIGN	33	20	1								1200						
SPACE	35																
SPACE	37																
SPACE	39																
SPACE	41																
SUB TOTAL VOLT/AMPS:								4781	5414	4471							
SPARE	2	20	1														
SPARE	6	20	1														
SPARE	8	20	1														
SPARE	10	20	1														
SPARE	12	20	1														
SPARE	14	20	1														
SPARE	16	20	1														
SPARE	20	20	1														
SPARE	22	20	1														
SPARE	24	20	1														
SPARE	26	20	1														
SPARE	28	20	1														
SPARE	30	20	1														
SPACE	32																
SPACE	34																
SPACE	36																
SPACE	38																
SPACE	40																
SUB TOTAL VOLT/AMPS:								0	0	0							
PANEL SUB TOTAL VOLT/AMPS:								4781	5414	4471							
TOTAL LQ/PHASE:								1155	1354	1118							
TOTAL VOLT/AMPS:								5976	6768	5589							
TOTAL AMPS/PHASE:								50	58	47							
CONNECTED	14666	VA															
25% OF MTR:	VA																
25% OF LCL:	2166.5	VA															
CALCULATED:	16833	VA	=	46.72	AVERAGE AMPS												

PANEL "LB"										MAIN BREAKER: 150A.										SCA:									
VOLTAGE 208/120V-4-WIRE										BUS SIZE										MOUNT: SURFACE									
LOCATION ELECTRICAL RM 116										COPPER: 225A										ENTRY: BOTTOM									
DESCRIPTION	QKT	BKR	P	LTS	REC	MSC	MTR	A-VA	B-VA	C-VA	AMPS																		
MENS / WOMENS R.R. REC.	1	20	1	3							540																		
MENS / WOMENS R.R. REC.	3	20	1	3																									
EXTERIOR DRINK FOUNTAIN	5	20	1	1							360																		
OFFICE RECEPTACLES	7	20	1	6							1080																		
OFFICE RECEPTACLES	9	20	1	6																									
OFFICE CONTROL RECEPTS.	11	20	1	6																									
LOBBY/VESTIBULE REC.	13	20	1	5							900																		
LOBBY CONTROL RECEPTS	15	20	1	2							360																		
LOBBY/VESTIBULE REC.	17	20	1	2																									
TRAINING STOR. RECEPT	19	20	1	4							720																		
DOOR CONTROL PANEL	24	20	1	1							500																		
SECURITY CONTROL PANEL	23	20	1	1																									
FIRE ALARM CONTROL PANEL	25	20	1	1							500																		
NIGHT NECTY	27	20	1	1																									
NIGHT ARP	29	20	1	1																									
PROJECTOR	31	20	1	1							500																		
RACK RECEPTACLE	35	20	2	1																									
W/CKT. 35	37										500																		
RACK RECEPTACLE	39	20	2	1																									
W/CKT. 39	41																												
CHAIR LIFT	43	20	1	1							500																		
W/CKT 43	45																												
W/CKT. 43	47																												
SPARE	49	20	1																										
GATE OPERATOR	51	20	1	1																									
ROOF RECEPTACLE	53	20	1	1																									
SUB TOTAL VOLT/AMPS:										6240	7380	4590	4590																
TRAINING RM. DESK RECEPTS	2	20	1	6							1080																		
TRAINING RM. DESK RECEPTS	4	20	1	4							720																		
TRAINING RM. DESK RECEPTS	6	20	1	4																									
TRAINING RM. DESK RECEPTS	8	20	1	4							720																		
TRAINING RM. DESK RECEPTS	10	20	1	6																									
TRAINING RM. DESK RECEPTS	12	20	1	4																									
TRAINING RM. DESK RECEPTS	14	20	1	4							720																		
TRAINING RM. DESK RECEPTS	16	20	1	4																									
TRAINING RM. DESK RECEPTS	18	20	1	6																									
TRAINING RM. DESK RECEPTS	20	20	1	4							720																		
TRAINING RM. DESK RECEPTS	22	20	1	4																									
TRAINING RM. DESK RECEPTS	24	20	1	2																									
SPARE	26	20	1																										
TRAINING RM. RECEPTACLES	28	20	1	3							540																		
TRAINING RM. RECEPTACLES	30	20	1	3																									
TRAINING RM. RECEPTACLES	32	20	1	3																									
TRAINING STORAGE RECEPTS	34	20	1	3							540																		
HALLWAY RECEPTACLES	36	20	1	4																									
ELEC. RM. TEL. BACKBOARD	38	20	1	1							360																		
ELEC. RM. TEL. BACKBOARD	40	20	1	1																									
HALLWAY DRINK FOUNTAIN	42	20	1	1																									
TP-3 (FIRE PUMP)	44	20	1	1							360																		
SPARE	46	20	1																										
SPARE	48	20	1																										
SPARE	50	20	1																										
SPARE	52	20	1																										
SPARE	54	20	1																										
SUB TOTAL VOLT/AMPS:										4500	4680	4500																	
PANEL SUB TOTAL VOLT/AMPS:										5740	5650	5340																	
TOTAL VOLT/AMPS:										0	0	0																	
TOTAL VOLT/AMPS:										9740	9650	9340																	
TOTAL AMPS/PHASE:										81	81	78																	
CONNECTED 28740 VA																													
25% OF MTR VA																													
25% OF MCL 0 VA																													
CALCULATED 28740 VA =										79.77										AVERAGE AMPS									









**SAN BERNARDINO COUNTY FIRE DEPARTMENT**  
6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenues



5	09/25/25		ADDENDUM 5
NO	DATE	BY	DESCRIPTION
#	REVISIONS		

<b>DRAWN:</b> LS	<b>CHECKED:</b> RES
<b>DATE:</b> 05/11/2025	<b>SCALE:</b> AS NOTED
<b>PROJECT NUMBER:</b> W2100100AR	

## DRAWING NUMBER: E2.3

$$1/4" = 1'-0"$$

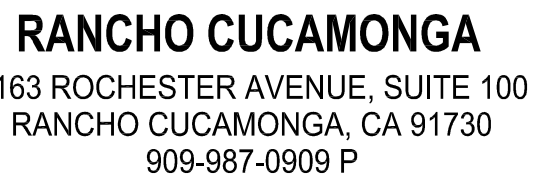
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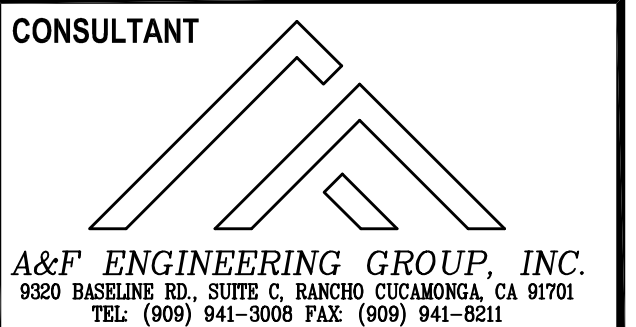








**SAN BERNARDINO COUNTY FIRE DEPARTMENT**  
6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenue



<b>DRAWN:</b> LS	<b>CHECKED:</b> RES
<b>DATE:</b> 05/11/2025	<b>SCALE:</b> AS NOTED
<b>PROJECT NUMBER:</b> W2100100AR	

# TRAINING TOWER LIGHTING PLAN

**DRAWING  
NUMBER:** E3.2

PLAN NOTES:

- ① REFER TO GENERAL NOTES, DRAWING E01, FOR ADDITIONAL REQUIREMENTS.
- ② USE PVC SCHEDULE 40 OR 80 CONDUIT AND NON-METALLIC FITTINGS, AND BOXES FOR ALL RACEWAYS INSTALLED IN THIS BUILDING. USE STEEL MOUNTING HARDWARE (SCREWS, BRACKETS, ETC.) FOR MOUNTING OF EQUIPMENT/FIXTURES.
- ③ REFER TO LIGHTING FIXTURES, DRAWING E03, FOR TYPE OF FIXTURE TO BE PROVIDED AND INSTALLED.
- ④ THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL CEILING MOUNTED FIXTURES AND DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.

NO EXPOSED CONDUIT WILL BE ALLOWED.


$$1/4'' = 1'-0''$$

1



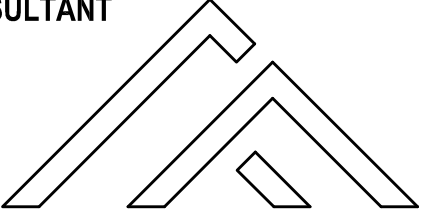


**FONTANA FIRE STATION No. 80 & TRAINING CENTER**








**SAN BERNARDINO COUNTY FIRE DEPARTMENT**  
6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenues



## CONSULTANT



**A&F ENGINEERING GROUP, INC.**  
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701  
TEL: (909) 941-3008 FAX: (909) 941-8211

	09/25/25	ADDENDUM 5	
			
			
			
			
			
<b>NO</b>	<b>DATE</b>	<b>BY</b>	<b>DESCRIPTION</b>
	<b>REVISIONS</b>		

<b>DRAWN:</b> LS	<b>CHECKED:</b> RES
<b>DATE:</b> 05/11/2025	<b>SCALE:</b> AS NOTED
<b>PROJECT NUMBER:</b> W2100100AR	

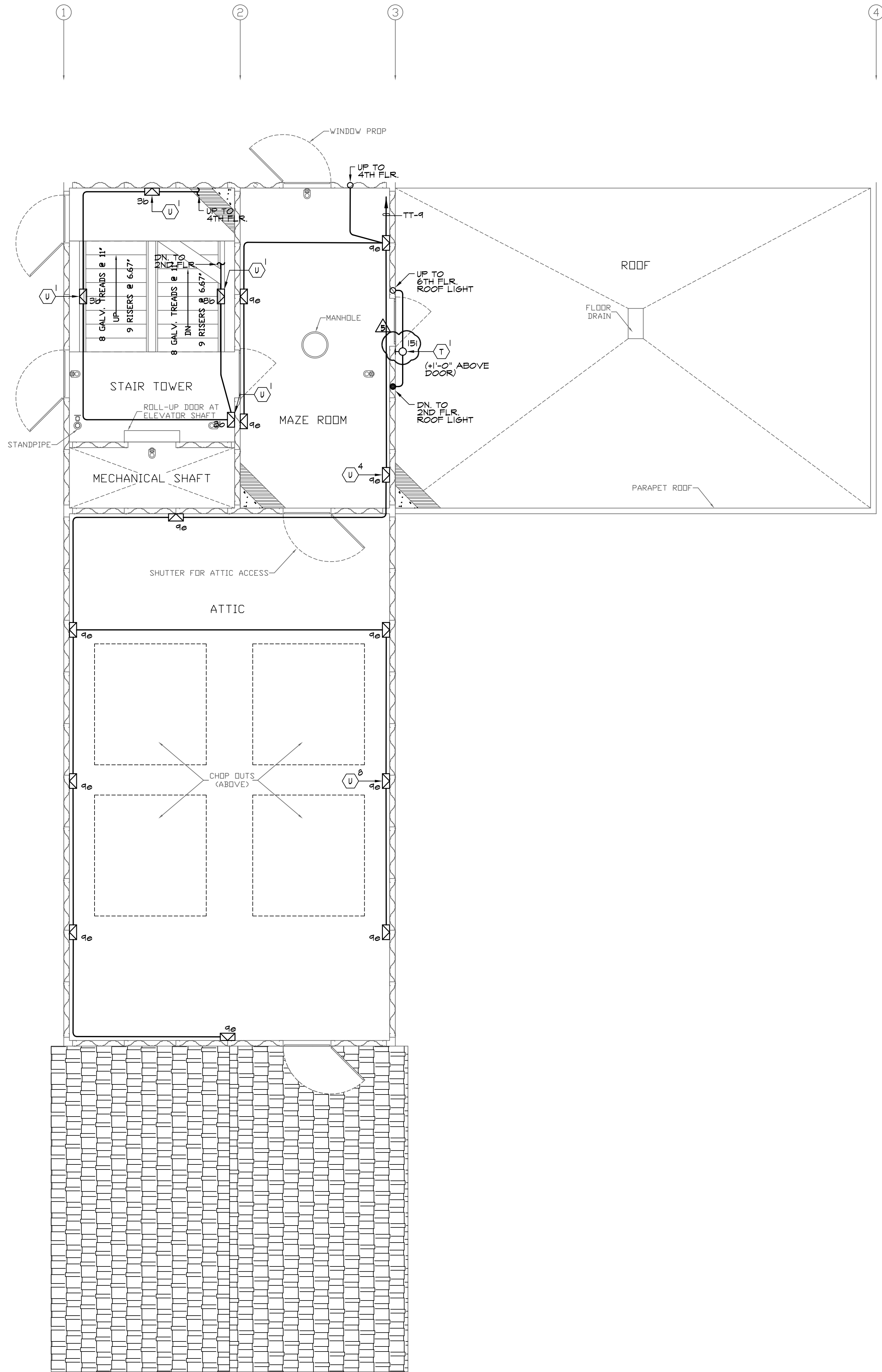
# TRAINING TOWER LIGHTING PLANS

**DRAWING  
NUMBER:** E3.3

PLAN NOTES:

- ① REFER TO GENERAL NOTES, DRAWING E01, FOR ADDITIONAL REQUIREMENTS.
- ② USE FVCC SCHEDULE 40 OR 80 CONDUIT AND NON-METALLIC FITTINGS, AND BOXES FOR ALL RACEWAYS INSTALLED IN THIS BUILDING. USE STAINLESS STEEL HARDWARE (SCREWS, BRACKETS, ETC.) FOR MOUNTING OF EQUIPMENT FURNITURE.
- ③ REFER TO LIGHTING FIXTURE SCHEDULE, DRAWING E03, FOR TYPE OF FIXTURE TO BE PROVIDED AND INSTALLED.
- ④ THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL CEILING INSTALLED FIXTURES AND DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.

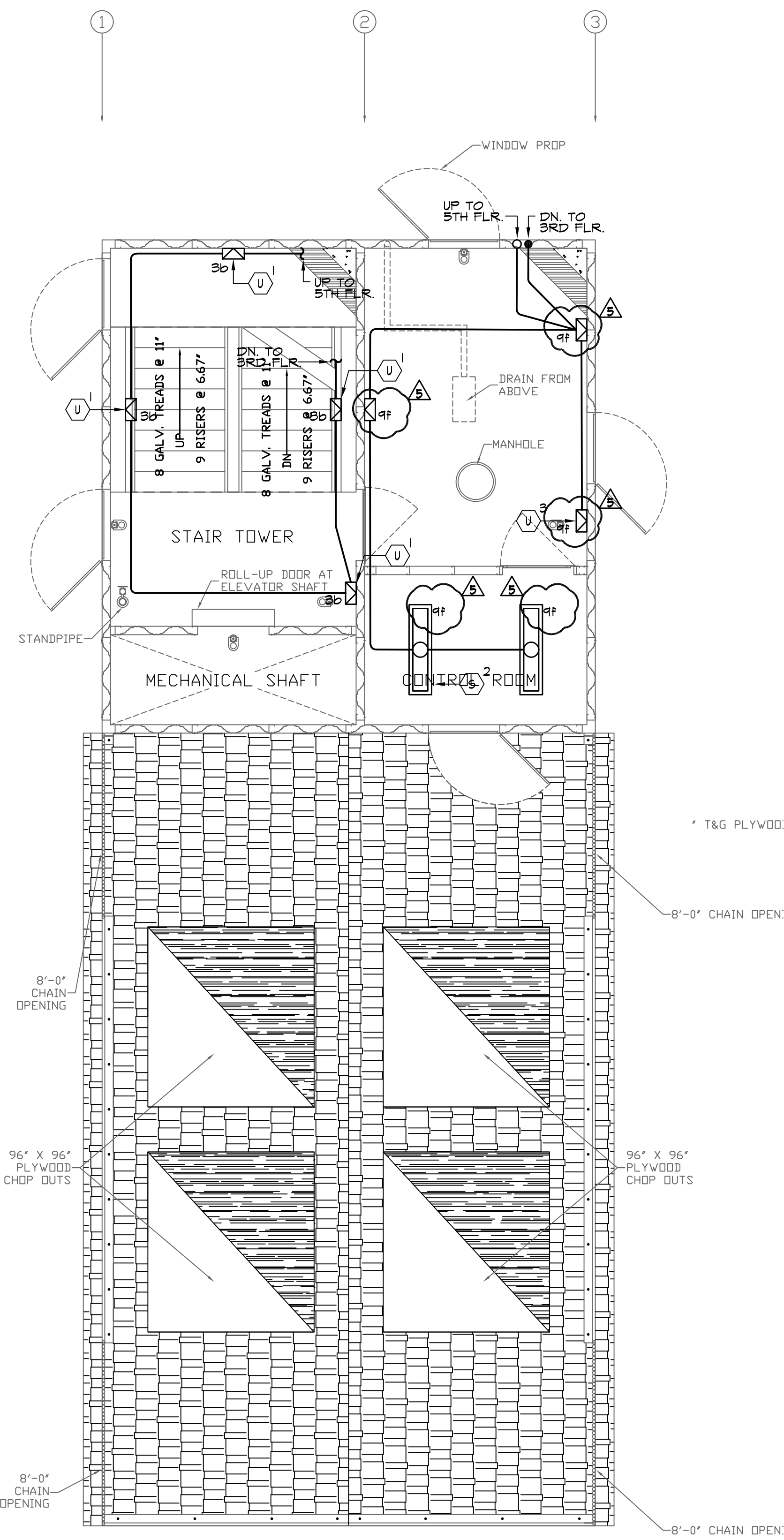
NO EXPOSED CONDUIT WILL BE ALLOWED.



### THIRD FLOOR TOWER LIGHTING PLAN

$$1/4" = 1'-0"$$

1

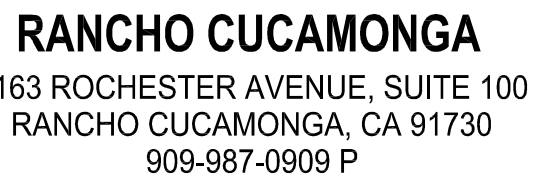


## FOURTH FLOOR TOWER LIGHTING PLAN

$$1/4'' = 1'-0''$$

2





**SAN BERNARDINO COUNTY FIRE DEPARTMENT**

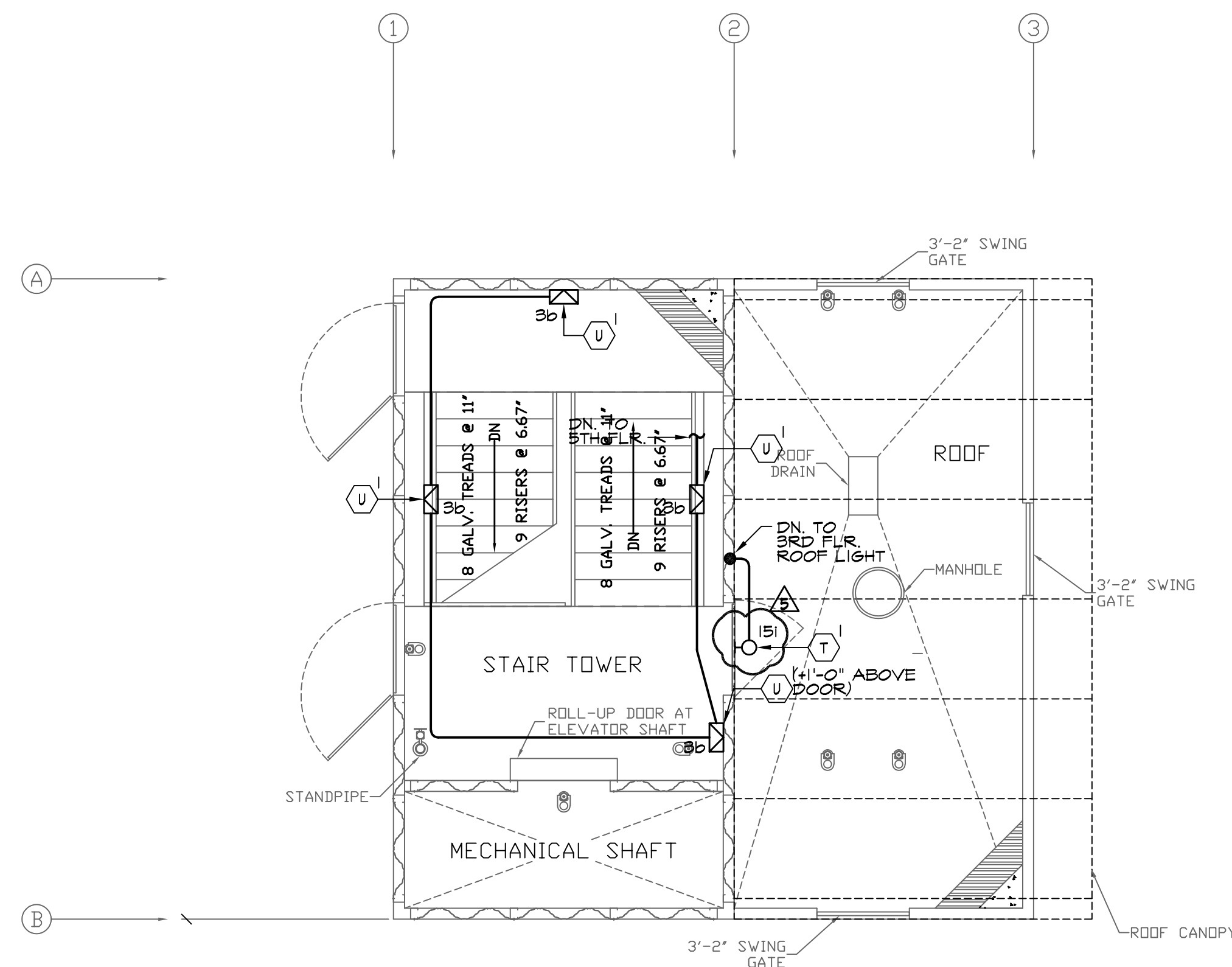
6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenue



<b>DRAWN:</b> LS	<b>CHECKED:</b> RES
<b>DATE:</b> 05/11/2025	<b>SCALE:</b> AS NOTED
<b>PROJECT NUMBER:</b> W2100100AR	

# TRAINING TOWER LIGHTING PLANS

DRAWING NUMBER: E3.4



PLAN NOTES:

- ① REFER TO GENERAL NOTES, DRAWING E01, FOR ADDITIONAL REQUIREMENTS.
- ② USE FIVE SCHEDULE 40 OR 80 CONDUIT AND NON-METALLIC FITTINGS, AND BOXES FOR ALL RACEWAYS INSTALLED IN THIS BUILDING. USE STAINLESS STEEL HARDWARE (SCREWS, BRACKETS, ETC.) FOR MOUNTING OF EQUIPMENT.
- ③ REFER TO LIGHTING FIXTURE SCHEDULE, DRAWING E03, FOR TYPE OF FIXTURES TO BE PROVIDED AND INSTALLED.
- ④ THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL MOUNTED LIGHTING FIXTURES AND DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.

NO EXPOSED CONDUIT WILL BE ALLOWED.

## FIFTH FLOOR TOWER LIGHTING PLAN

$$1/4" = 1'-0"$$

1

## SIXTH FLOOR TOWER LIGHTING PLAN

1/4" = 1'-0"

2

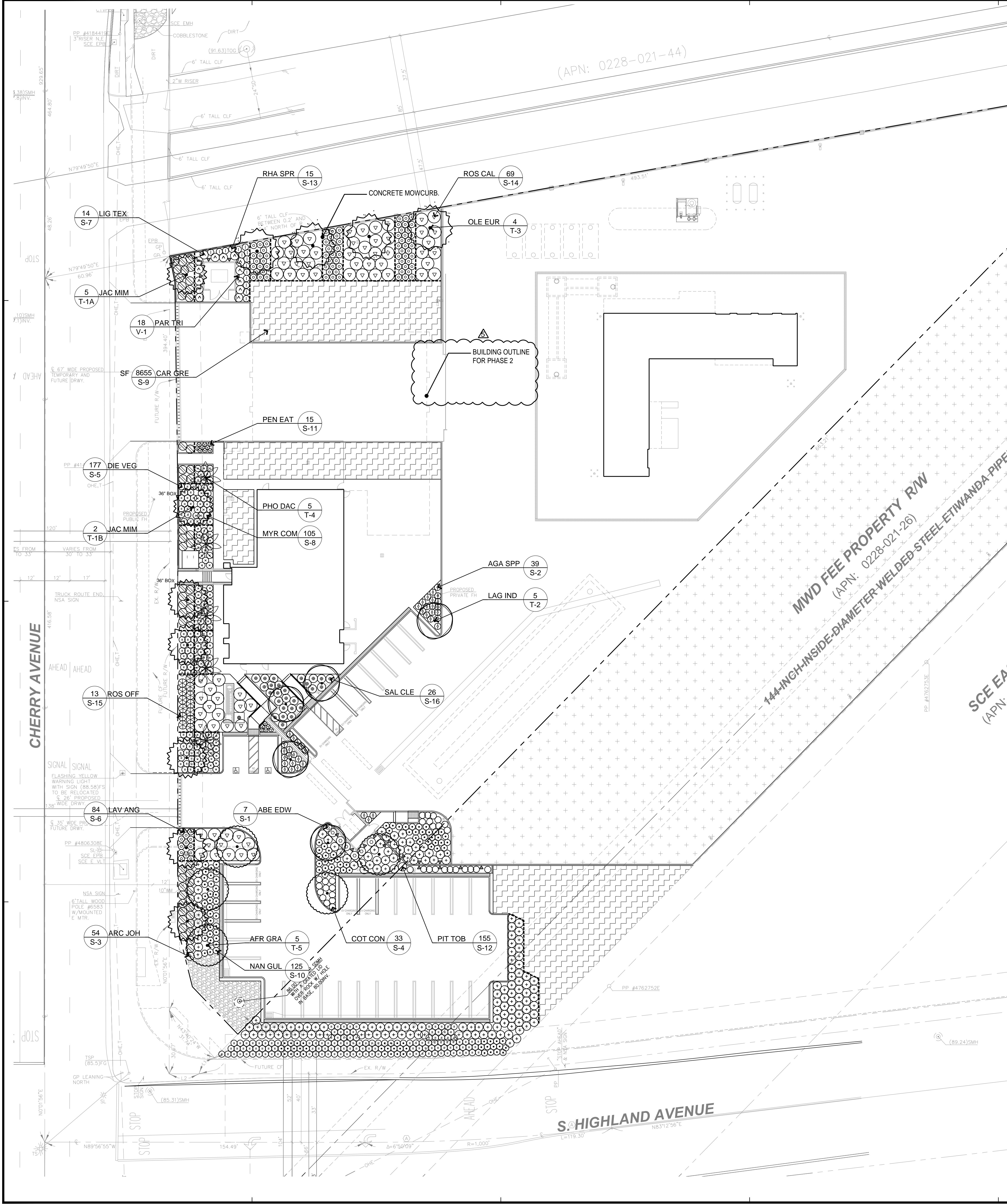






ADD SET\_ADDENDUM 5





PLANTING LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	WUCOLS	DETAIL REF.
TREES						
T-1A	JACARANDA MIMOSIFOLIA	JACARANDA	SINGLE TRUNK, MIN. 1.5', 24" BOX	5	M	DETAIL A, E/ SHEET L-2.2
T-1B	JACARANDA MIMOSIFOLIA	JACARANDA	SINGLE TRUNK, MIN. 2.5', 36" BOX	2	M	DETAIL A, E/ SHEET L-2.2
T-2	LAGERSTROEMIA INDICA X FAURIEI 'NATCHEZ'	NATCHEZ CRAPE MYRTLE	SINGLE TRUNK, MIN. 1.5', 24" BOX	5	M	DETAIL A, E/ SHEET L-2.2
T-3	OLEA EUROPAEA 'SWAN HILL'	SWAN HILL OLIVE	SINGLE TRUNK, MIN. 1.5', 24" BOX	4	L	DETAIL A, E/ SHEET L-2.2
T-4	PHOENIX DACTYLIFERA	DATE PALM	25 FEET BROWN TRUNK HEIGHT	5	L	DETAIL F/ SHEET L-2.2
T-5	AFROCARPUS GRACILIOR	FERN PINE	SINGLE TRUNK, MIN. 1.5', 24" BOX	5	M	DETAIL A, E/ SHEET L-2.2
SHRUBS / GROUND COVER						
S-1	ABELIA X 'EDWARD GOUCHER'	EDWARD GOUCHER ABELIA	5 GAL. @ 4' O.C.	7	M	DETAIL B, F/ SHEET L-2.2
S-2	AGAPANTHUS SPP	LILY OF THE NILE	5 GAL. @ 3' O.C.	39	M	DETAIL B, F/ SHEET L-2.2
S-3	ARCTOSTAPHYLOS 'JOHN DOURLEY'	JOHN DOURLEY MANZANITA	5 GAL. @ 4' O.C.	54	L	DETAIL B, F/ SHEET L-2.2
S-4	COTONEASTER CONGESTUS 'LIKIANG'	PYRENEES COTONEASTER	5 GAL. @ 3' O.C.	33	M	DETAIL B, F/ SHEET L-2.2
S-5	DIETES VEGETA	FORTNIGHT LILY	5 GAL. @ 3' O.C.	177	M	DETAIL B, F/ SHEET L-2.2
S-6	LAVANDULA ANGUSTIFOLIA	ENGLISH LAVENDER	5 GAL. @ 3' O.C.	84	L	DETAIL B, F/ SHEET L-2.2
S-7	LIGUSTRUM 'TEXANUM'	TEXAS PRIVET	5 GAL. @ 4' O.C.	14	M	DETAIL B, F/ SHEET L-2.2
S-8	MYRTUS COMMUNIS 'COMPACTA'	DWARF MYRTLE	5 GAL. @ 3' O.C.	105	M	DETAIL B, F/ SHEET L-2.2
S-9	CARISSA 'GREEN CARPET'	GREEN CARPET NATAL PLUM	5 GAL. @ 5' O.C.	8,655 SF (435)	L	DETAIL B, F/ SHEET L-2.2
S-10	NANDINA 'GULF STREAM'	HEAVENLY BAMBOO	5 GAL. @ 3' O.C.	125	M	DETAIL B, F/ SHEET L-2.2
S-11	PENNISSETUM 'EATON CANYON'	EATON CANYON FOUNTAIN GRASS	5 GAL. @ 2' O.C.	15	L	DETAIL B, F/ SHEET L-2.2
S-12	PITTOSPORUM TOBIRA	DWARF MOCK ORANGE	5 GAL. @ 4' O.C.	155	M	DETAIL B, F/ SHEET L-2.2
S-13	RHAPHIOLEPIS 'SPRINGTIME'	PINK INDIA HAWTHORN	5 GAL. @ 3' O.C.	15	M	DETAIL B, F/ SHEET L-2.2
S-14	ROSA CALIFORNICA	CALIFORNIA WILDROSE	5 GAL. @ 6' O.C.	69	L	DETAIL B, F/ SHEET L-2.2
S-15	ROSMARINUS OFFICINALIS	ROSEMARY	5 GAL. @ 4' O.C.	13	L	DETAIL B, F/ SHEET L-2.2
S-16	SALVIA CLEVELANDII	CLEVELAND BLUE SAGE	5 GAL. @ 4' O.C.	26	L	DETAIL B, F/ SHEET L-2.2
VINES						
V-1	PARTHENOCESSUS TRICUSPIDATA	BOSTON IVY	5 GAL. @ 10' O.C.	18	M	DETAIL C/ SHEET L-2.2

LANDSCAPE CONCRETE MOWCURB

LANDSCAPE COVERAGE CALCULATION:

SITE	98,855 S.F.
SITE LANDSCAPE	16,977 S.F.
SITE LANDSCAPED AREA PERCENTAGE	17%
MWD SITE	69,504 S.F.
MWD SITE LANDSCAPE	7,061 S.F.
MWD LANDSCAPED AREA PERCENTAGE	10%
TOTAL (SITE + MWD SITE)	168,359 S.F.
TOTAL LANDSCAPED AREA (SITE + MWD SITE)	24,038 S.F.
TOTAL LANDSCAPED AREA PERCENTAGE	14%

BOTANICAL NAME (ABBREVIATED)  
PLANT COUNT  
PLANT REF. SF 100 SFE GEN SFE GEN 100 A-1

DIAL BEFORE YOU DIG  
1-800-422-4133  
DIG ALERT  
PLAY IT SAFE. DIAL BEFORE YOU DIG!  
AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING  
SERVING NINE SOUTHERN CALIFORNIA COUNTIES

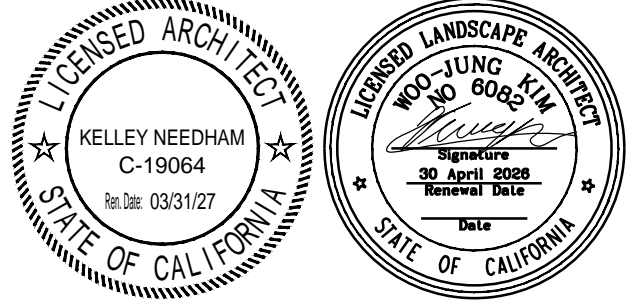
CITY OF FONTANA, CALIFORNIA		
LANDSCAPE PLAN		
DRAWN BY: JL	FONTANA FIRE STATION NO. 80 6585 CHERRY AVENUE, FONTANA, CA 92336	SCALE: 1" = 20'-0"
DESIGNED BY: JK	LANDSCAPE PLAN	DATE: 06/05/2025
CHECKED BY: JK	APPROVED BY: GIA LAM KIM / CITY ENGINEER DATE: R.C.E 62296	DRAWING NO:










RANCHO CUCAMONGA  
8163 ROCHESTER AVENUE, SUITE 100  
RANCHO CUCAMONGA, CA 91730  
909-987-0909 P

FONTANA FIRE STATION No. 80 & TRAINING CENTER

SAN BERNARDINO COUNTY FIRE DEPARTMENT  
6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenue



CONSULTANT  
CORNERSTONE STUDIOS, INC.  
151 E Santa Ana Blvd. Suite 200  
Santa Ana, CA 92701  
714.973.2330  
LANDSCAPE ARCHITECTURE • URBAN DESIGN • PLANNING • RESOURCE ANALYSIS

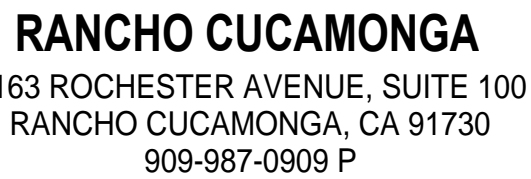
	09/25/25	ADDENDUM 5	
			
			
			
			
			
<b>NO</b>	<b>DATE</b>	<b>BY</b>	<b>DESCRIPTION</b>
	<b>REVISIONS</b>		

DRAWN: JL  
DATE: 08/12/2025  
PROJECT NUMBER: W2100100AR

LANDSCAPE PLAN

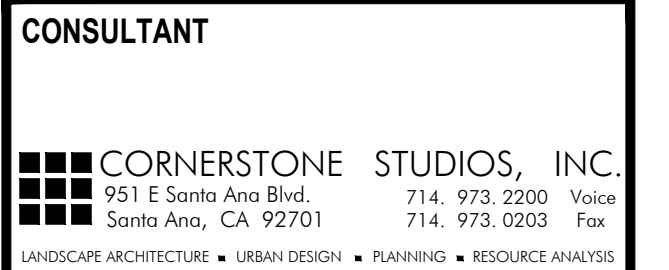
DRAWING NUMBER: L2.1  
SHEET 6 OF 7





**SAN BERNARDINO COUNTY FIRE DEPARTMENT**

6585 Cherry Avenue, Fontana, CA 92336  
Northeast of Cherry Avenue and South Highland Avenue



DRAWING NUMBER: **L2.2**  
SHEET 7 OF 7



3. WORK SHALL MEET THE REQUIREMENTS OF ALL LOCAL, STATE, AND FEDERAL GOVERNING CODES, ORDINANCES, LAWS, REGULATIONS, SAFETY ORDERS AND DIRECTIVES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF/HERSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES.
3. CONTRACTOR MUST CHECK ALL SITE CONDITIONS PRIOR TO COMMENCING WORK. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
4. ALL PLANT QUANTITIES ARE IDENTIFIED BY TYPICAL SYMBOLS. REFER TO PLANT LEGEND FOR QUANTITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM ALL PLANT QUANTITIES PRIOR TO AWARDDING. IN THE EVENT OF DISCREPANCIES IN PLANT COUNT, QUANTITIES INDICATED BY PLANT SYMBOLS SHALL PREVAIL.
5. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF, PRIOR TO AWARDDING, ANY SPECIFIED PLANT MATERIAL IS FOUND TO BE UNAVAILABLE.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FURNISH PLANT MATERIAL FREE OF PESTS OR DISEASE.
7. ALL PLANT MATERIAL DELIVERED TO THE SITE SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
8. ALL AREAS LESS THAN 4:1 SLOPE SHALL BE COVERED WITH 3" ORGANIC MULCH. SUBMIT 1 CU. FT. SAMPLE PRIOR TO APPLICATION.
9. MINIMUM 2 SOIL SAMPLES SHALL BE TAKEN BY CONTRACTOR AFTER GRADING OPERATIONS ARE COMPLETED FOR SOIL FERTILITY AND AGRICULTURAL SUITABILITY TESTING AND RECOMMENDATIONS BY AN APPROVED LABORATORY. SEE SPECIFICATIONS FOR SOIL AMENDMENTS SPECIFIED FOR BIDDING PURPOSES ONLY. SUBMIT SOIL REPORT TO LANDSCAPE ARCHITECT. SOIL AMENDMENTS SHALL BE AS PER RECOMMENDATIONS IN SOILS REPORT.
10. CONTRACTOR SHALL NOTIFY THE OWNER 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO COORDINATE OPERATIONS.
11. THE OWNER SHALL BE THE SOLE JUDGE AS TO WHEN THE MAINTENANCE PERIOD BEGINS.
12. ALL TREES, STUMPS, ROCKS AND ASSOCIATED VEGETATION AND SOILS RESULTING PRIMARILY FROM LAND CLEARING SHALL BE REUSED OR RECYCLED AS REQUIRED BY CALGREEN 5.73.8.3 EXCEPTION: REUSE EITHER ON- OR OFF-SITE, OF VEGETATION OR SOIL CONTAMINATED BY DISEASE OR PEST INFESTATION. ROCKS GREATER THAN 3" IN DIAMETER SHALL BE REMOVED.
13. CONTRACTOR TO PROVIDE WARRANTY OF MIN. ONE YEAR FOR ALL TREES. ANY DEAD TREES SHALL BE REPLACED WITHIN THE WARRANTY PERIOD.

5	09/25/25		ADDENDUM 5
NO	DATE	BY	DESCRIPTION
#	REVISIONS		

<b>DRAWN:</b> JL	<b>CHECKED:</b> JK
<b>DATE:</b> 08/12/2025	<b>SCALE:</b> AS NOTED
<b>PROJECT NUMBER:</b> W2100100AR	

PLAN CHECK NUMBER: LSPC24-00023			
<b>CITY OF FONTANA, CALIFORNIA</b> <b>LANDSCAPE DETAILS</b>			
DRAWN BY: JL	FONTANA FIRE STATION NO. 80 6585 CHERRY AVENUE, FONTANA, CA 92336	SCALE: NTS	
DESIGNED BY: JK	<b>LANDSCAPE DETAILS</b>	DATE: 06/05/2025	
CHECKED BY: JK	APPROVED BY: GIA LAM KIM / CITY ENGINEER CITY ENGINEER	DATE: R C 6/22/26	DRAWING NO.:

PLAN CHECK NUMBER: LSPC24-00023

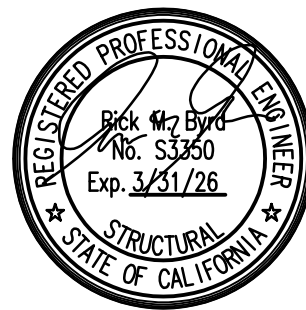


# Structural Calculations for Fontana Fire Station No. 80 Phase 1: Training Center

SUPPLEMENTAL CALCS FOR RETAINING WALLS

Fontana, CA

Initial Permit Submittal  
MI2328021.00  
9-24-25







**SAN BERNARDINO COUNTY FIRE DEPARTMENT**  
Northeast of Cherry Avenue and South Highland Avenue  
FONTANA, CA 92335

**SAN BERNARDINO COUNTY FIRE DEPARTMENT**  
Northeast of Cherry Avenue and South Highland Avenue  
FONTANA, CA 92335



**CONSULTANT**  
**MSL ENGINEERING, INC.**  
**CIVIL ENGINEERS AND LAND SURVEYORS**  
**SPECIALIZING IN SITE DEVELOPMENT**  
301 N. SAN DIMAS AVENUE  
SAN DIMAS, CA. 91773  
(909) 305-2395 FAX (909) 305-2397

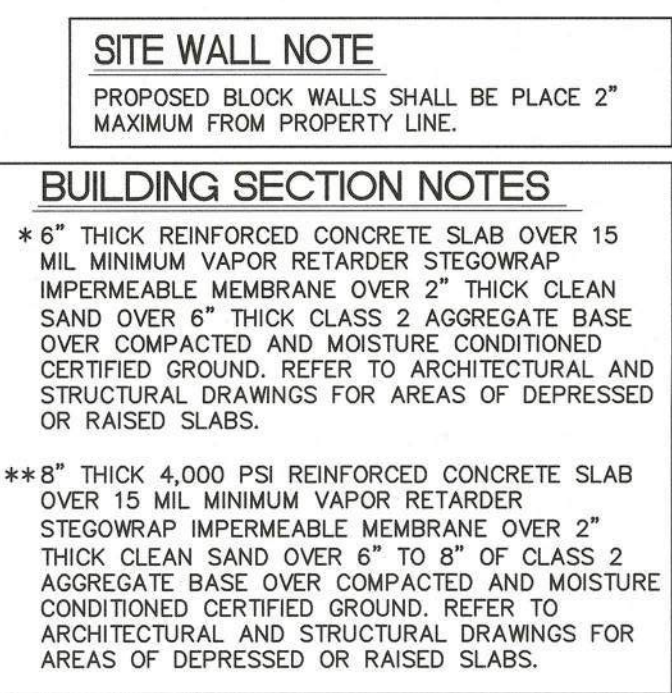
*Mark S. Karamouz*

MSL E. 1 A UNIV. BLVD. (OFF 36099) 08-18-25

<b>DRAWN:</b> JGA	<b>CHECKED:</b> MSL
<b>DATE:</b> 07/01/2025	<b>SCALE:</b> AS SHOWN
<b>PROJECT NUMBER:</b> W2100100AR	

DRAWING NUMBER: C50

DRAWING NUMBER: C50





## RETAIN WALL DESIGN:

ALLOWABLE SOIL BP = 2500 psf

ACTIVE SOIL PRESS. = 38 psf/ft

PASSIVE PRESSURE = 290 psf

SOIL DENSITY = 120 pcf

SEE ENERCALC RESULTS FOR

< 2'-0"

and

2'-1" to 5'-0" MAX RETAIN WALL

RESULTS.



## Cantilevered Retaining Wall

Project File: 2.2) Enercalc - 2328021.00 Fontana FS #80.ec6

LIC# : KW-06018304, Build:20.23.04.05

MIYAMOTO INTERNATIONAL INC

(c) ENERCALC INC 1983-2023

**DESCRIPTION:** 2ft max retain

### Code Reference:

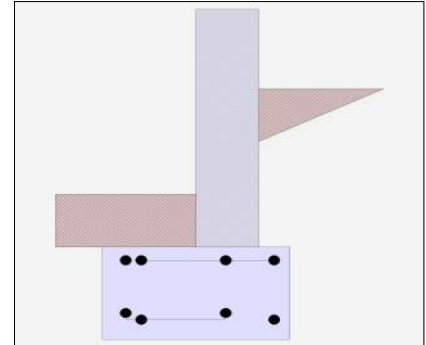
Calculations per IBC 2018 1807.3, CBC 2019, ASCE 7-16

#### Criteria

Retained Height	=	2.00 ft
Wall height above soil	=	1.00 ft
Slope Behind Wall	=	0.00
Height of Soil over Toe	=	8.00 in
Water table above bottom of footing	=	0.0 ft

#### Soil Data

Allow Soil Bearing	=	2,500.0 psf
Equivalent Fluid Pressure Method		
Active Heel Pressure	=	38.0 psf/ft
	=	
Passive Pressure	=	290.0 psf/ft
Soil Density, Heel	=	120.00 pcf
Soil Density, Toe	=	120.00 pcf
Footing  Soil Friction	=	0.400
Soil height to ignore for passive pressure	=	12.00 in



#### Surcharge Loads

Surcharge Over Heel	=	0.0 psf
Used To Resist Sliding & Overturning		
Surcharge Over Toe	=	0.0
Used for Sliding & Overturning		

#### Axial Load Applied to Stem

Axial Dead Load	=	0.0 lbs
Axial Live Load	=	0.0 lbs
Axial Load Eccentricity	=	0.0 in

#### Lateral Load Applied to Stem

Lateral Load	=	0.0 #/ft
...Height to Top	=	0.00 ft
...Height to Bottom	=	0.00 ft
Load Type	=	Wind (W) (Service Level)
Wind on Exposed Stem	=	0.0 psf (Strength Level)

#### Adjacent Footing Load

Adjacent Footing Load	=	0.0 lbs
Footing Width	=	0.00 ft
Eccentricity	=	0.00 in
Wall to Ftg CL Dist	=	0.00 ft
Footing Type	=	Spread Footing
Base Above/Below Soil at Back of Wall	=	0.0 ft
Poisson's Ratio	=	0.300



## Cantilevered Retaining Wall

Project File: 2.2) Enercalc - 2328021.00 Fontana FS #80.ec6

LIC# : KW-06018304, Build:20.23.04.05

MIYAMOTO INTERNATIONAL INC

(c) ENERCALC INC 1983-2023

**DESCRIPTION:** 2ft max retain

### Design Summary

#### Wall Stability Ratios

Overtuning	=	3.54	OK
Sliding	=	3.05	OK
Global Stability	=	4.27	

Total Bearing Load	=	597	lbs
...resultant ecc.	=	0.00	in

Eccentricity within middle third

Soil Pressure @ Toe	=	255	psf	OK
Soil Pressure @ Heel	=	255	psf	OK
Allowable	=	2,500	psf	

Soil Pressure Less Than Allowable

ACI Factored @ Toe	=	357	psf	
ACI Factored @ Heel	=	357	psf	
Footing Shear @ Toe	=	0.2	psi	OK
Footing Shear @ Heel	=	1.4	psi	OK
Allowable	=	82.2	psi	

#### Sliding Calcs

Lateral Sliding Force	=	190.5 lbs	
less 100% Passive Force	-	342.4 lbs	
less 100% Friction Force	= -	238.9 lbs	
Added Force Req'd	=	0.0 lbs	OK
....for 1.5 Stability	=	0.0 lbs	OK

Vertical component of active lateral soil pressure IS considered in the calculation of soil bearing pressures.

#### Load Factors

Building Code	
Dead Load	1.200
Live Load	1.600
Earth, H	1.600
Wind, W	1.600
Seismic, E	1.000

### Stem Construction

#### Design Height Above Ftg

Wall Material Above "Ht"	=	Masonry
Design Method	=	ASD
Thickness	=	8.00
Rebar Size	=	# 5
Rebar Spacing	=	16.00
Rebar Placed at	=	Center

#### Design Data

fb/FB + fa/Fa	=	0.038
---------------	---	-------

#### Total Force @ Section

Service Level	lbs =	76.0
Strength Level	lbs =	

#### Moment....Actual

Service Level	ft-# =	50.7
Strength Level	ft-# =	

Moment.....Allowable	=	1,314.3
----------------------	---	---------

#### Shear.....Actual

Service Level	psi =	0.8
Strength Level	psi =	

Shear.....Allowable	psi =	50.3
---------------------	-------	------

Anet (Masonry)	in2 =	91.50
----------------	-------	-------

Wall Weight	psf =	0.0
-------------	-------	-----

Rebar Depth 'd'	in =	3.81
-----------------	------	------

#### Masonry Data

f'm	psi =	2,000
Fs	psi =	20,000
Solid Grouting	=	Yes
Modular Ratio 'n'	=	16.11
Equiv. Solid Thick.	in =	7.63
Masonry Block Type	=	
Masonry Design Method	=	ASD

#### Concrete Data

f'c	psi =	
Fy	psi =	



## Cantilevered Retaining Wall

Project File: 2.2) Enercalc - 2328021.00 Fontana FS #80.ec6

LIC# : KW-06018304, Build:20.23.04.05

MIYAMOTO INTERNATIONAL INC

(c) ENERCALC INC 1983-2023

**DESCRIPTION:** 2ft max retain

### Footing Data

Toe Width	=	1.00 ft
Heel Width	=	1.00
Total Footing Width	=	2.00
Footing Thickness	=	14.00 in
Key Width	=	0.00 in
Key Depth	=	0.00 in
Key Distance from Toe	=	0.00 ft
f'c =	3,000 psi	Fy = 60,000 psi
Footing Concrete Density	=	150.00 pcf
Min. As %	=	0.0018
Cover @ Top	2.00	@ Btm.= 3.00 in

### Footing Design Results

	<u>Toe</u>	<u>Heel</u>
Factored Pressure	= 357	357 psf
Mu' : Upward	= 179	20 ft-#
Mu' : Downward	= 204	102 ft-#
Mu: Design	= -25 OK	82 ft-# OK
phiMn	= 34,574	15,501 ft-#
Actual 1-Way Shear	= 0.15	1.35 psi
Allow 1-Way Shear	= 82.16	82.16 psi
Toe Reinforcing	= # 8 @ 12.00 in	
Heel Reinforcing	= # 5 @ 12.30 in	
Key Reinforcing	= None Spec'd	
Footing Torsion, Tu	=	0.00 ft-lbs
Footing Allow. Torsion, phi Tu	=	0.00 ft-lbs

**If torsion exceeds allowable, provide supplemental design for footing torsion.**

#### Other Acceptable Sizes & Spacings

Toe: #4@ 7.93 in, #5@ 12.30 in, #6@ 17.46 in, #7@ 23.80 in, #8@ 31.34 in, #9@ 39.68 in, #10@ 50.39 in

Heel: #4@ 7.93 in, #5@ 12.30 in, #6@ 17.46 in, #7@ 23.80 in, #8@ 31.34 in, #9@ 39.68 in, #10@ 50.39 in

Key: No key defined

Min footing T&S reinf Area 0.60 in2  
 Min footing T&S reinf Area per foot 0.30 in2 /ft

#### If one layer of horizontal bars:

#4@ 7.94 in  
 #5@ 12.30 in  
 #6@ 17.46 in

#### If two layers of horizontal bars:

#4@ 15.87 in  
 #5@ 24.60 in  
 #6@ 34.92 in



## Cantilevered Retaining Wall

Project File: 2.2) Enercalc - 2328021.00 Fontana FS #80.ec6

LIC# : KW-06018304, Build:20.23.04.05

MIYAMOTO INTERNATIONAL INC

(c) ENERCALC INC 1983-2023

**DESCRIPTION:** 2ft max retain

### Summary of Overturning & Resisting Forces & Moments

.....OVERTURNING.....				.....RESISTING.....			
Item	Force lbs	Distance ft	Moment ft-#		Force lbs	Distance ft	Moment ft-#
HL Act Pres (ab water tbl)	190.5	1.06	201.1	Soil Over HL (ab. water tbl)	80.0	1.83	146.7
HL Act Pres (be water tbl)				Soil Over HL (bel. water tbl)		1.83	146.7
Hydrostatic Force				Water Table			
Buoyant Force	=			Sloped Soil Over Heel	=		
Surcharge over Heel	=			Surcharge Over Heel	=		
Surcharge Over Toe	=			Adjacent Footing Load	=		
Adjacent Footing Load	=			Axial Dead Load on Stem	=		
Added Lateral Load	=			* Axial Live Load on Stem	=		
Load @ Stem Above Soil	=			Soil Over Toe	=	80.0	40.0
	=			Surcharge Over Toe	=		
				Stem Weight(s)	=		
				Earth @ Stem Transitions	=		
				Footing Weight	=	350.0	350.0
				Key Weight	=		
				Vert. Component	=	87.2	174.3
				<b>Total =</b>	597.2 lbs	<b>R.M.=</b>	711.0
<b>Resisting/Overturning Ratio</b>		=	<b>3.54</b>	* Axial live load NOT included in total displayed, or used for overturning resistance, but is included for soil pressure calculation.			
Vertical Loads used for Soil Pressure =		597.2	lbs				

\* Axial live load NOT included in total displayed, or used for overturning resistance, but is included for soil pressure calculation.

Vertical component of active lateral soil pressure IS considered in the calculation of Sliding Resistance.

Vertical component of active lateral soil pressure IS considered in the calculation of Overturning Resistance.

### Tilt

#### Horizontal Deflection at Top of Wall due to settlement of soil

(Deflection due to wall bending not considered)

Soil Spring Reaction Modulus 250.0 pci  
 Horizontal Defl @ Top of Wall (approximate only) 0.011 in

The above calculation is not valid if the heel soil bearing pressure exceeds that of the toe, because the wall would then tend to rotate into the retained soil.



Cantilevered Retaining Wall

Project File: 2.2) Enercalc - 2328021.00 Fontana FS #80.ec6

LIC# : KW-06018304, Build:20.23.04.05 MIYAMOTO INTERNATIONAL INC (c) ENERCALC INC 1983-2023

DESCRIPTION: 2ft max retain

Rebar Lap & Embedment Lengths Information

Stem Design Segment: Bottom

Stem Design Height: 0.00 ft above top of footing

Calculated Rebar Stress, fs = 770.98 psi

Lap Splice length for #5 bar specified in this stem design segment (25.4.2.3a) = 25.00 in

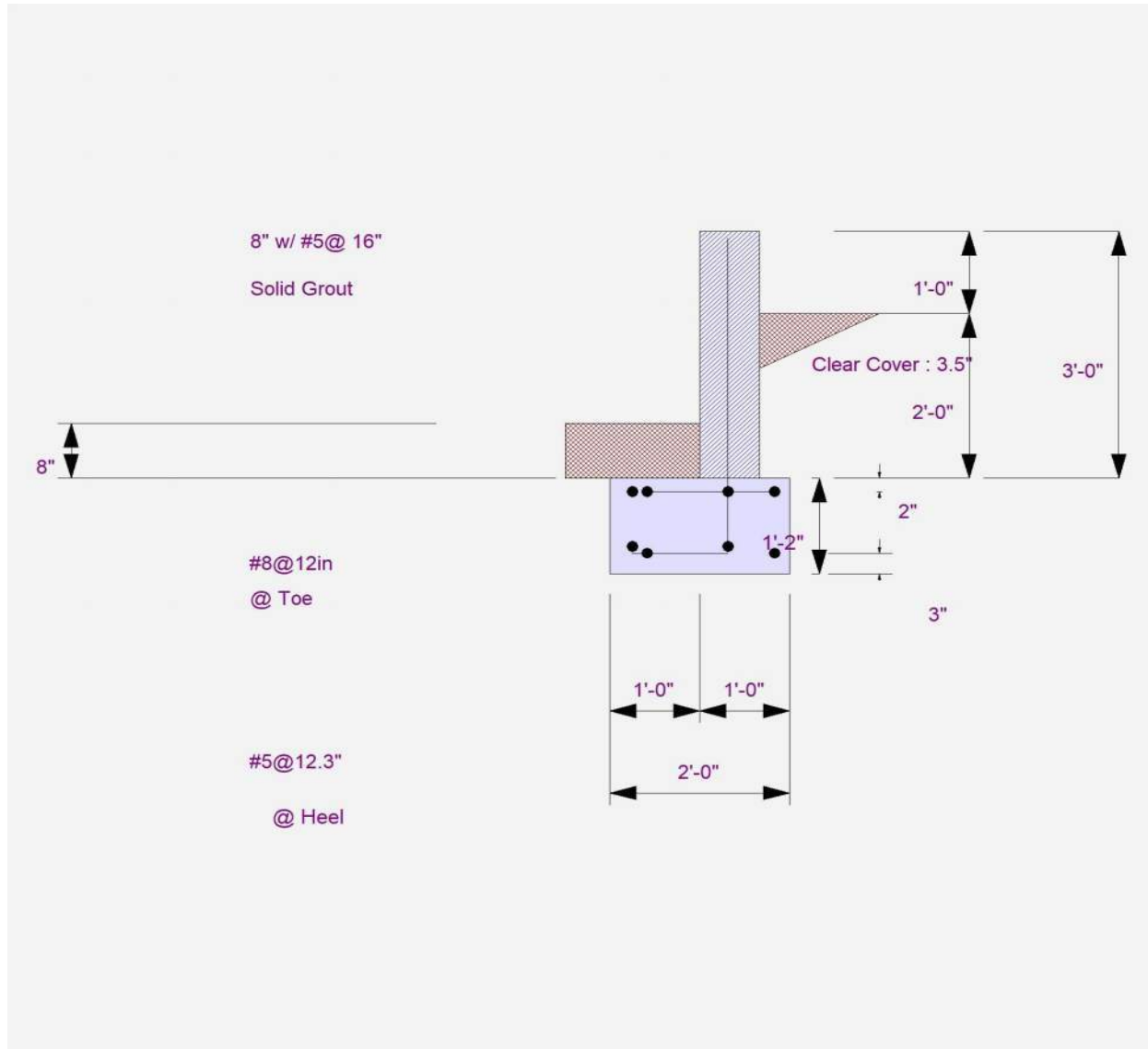
Development length for #5 bar specified in this stem design segment = 12.00 in

Hooked embedment length into footing for #5 bar specified in this stem design segment = 6.39 in

As Provided = 0.2325 in2/ft

As Required = 0.0089 in2/ft





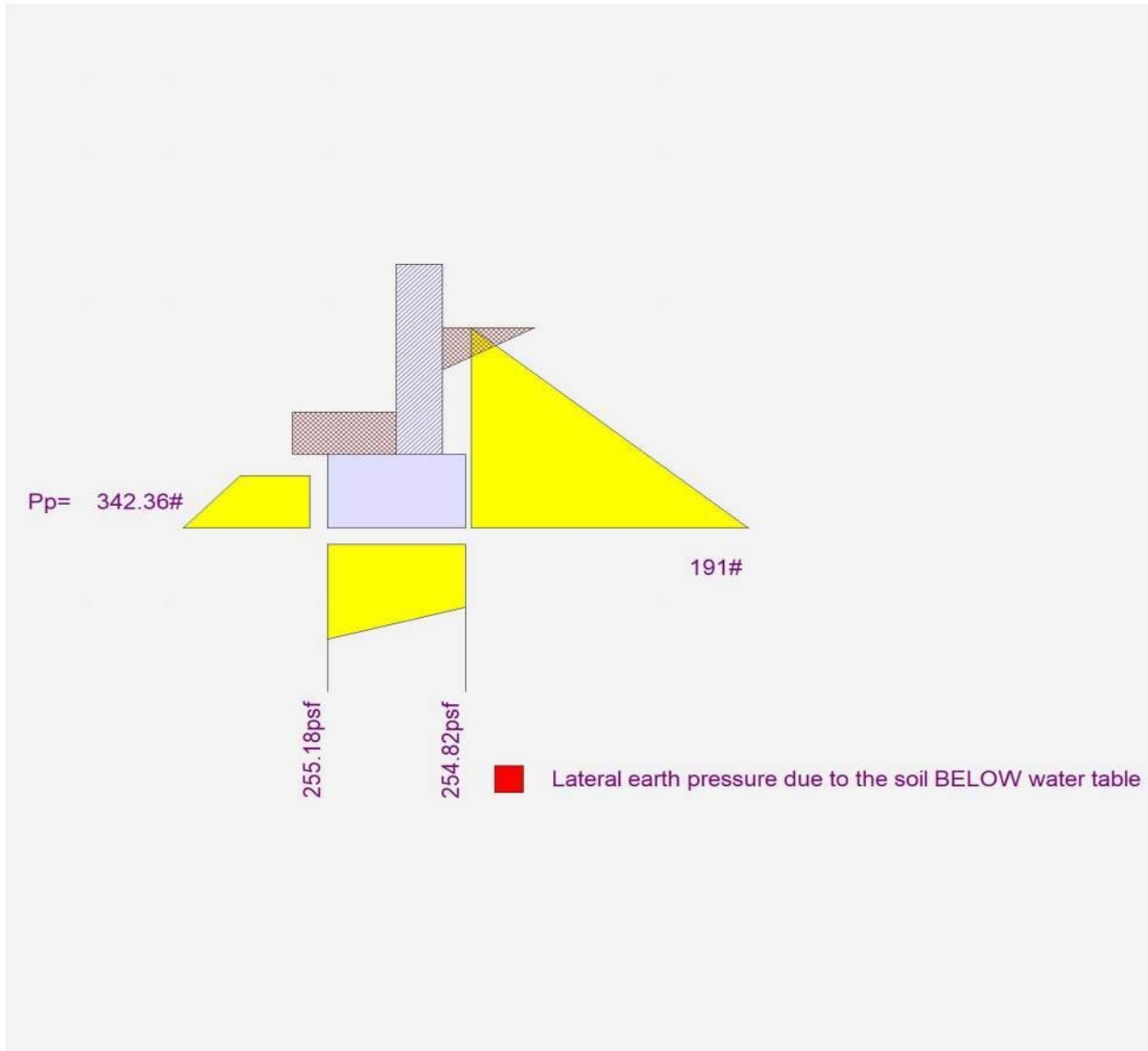


Cantilevered Retaining Wall

Project File: 2.2) Enercalc - 2328021.00 Fontana FS #80.ec6

LIC# : KW-06018304, Build:20.23.04.05  
MIYAMOTO INTERNATIONAL INC  
(c) ENERCALC INC 1983-2023

DESCRIPTION: 2ft max retain





## Cantilevered Retaining Wall

Project File: 2.2) Enercalc - 2328021.00 Fontana FS #80.ec6

LIC# : KW-06018304, Build:20.23.04.05

MIYAMOTO INTERNATIONAL INC

(c) ENERCALC INC 1983-2023

**DESCRIPTION:** 2ft to 5 ft retain

### Code Reference:

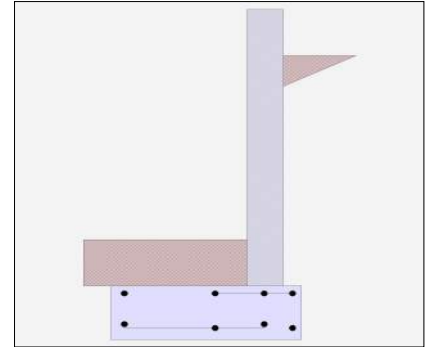
Calculations per IBC 2018 1807.3, CBC 2019, ASCE 7-16

#### Criteria

Retained Height	=	5.00 ft
Wall height above soil	=	1.00 ft
Slope Behind Wall	=	0.00
Height of Soil over Toe	=	12.00 in
Water table above bottom of footing	=	0.0 ft

#### Soil Data

Allow Soil Bearing	=	2,500.0 psf
Equivalent Fluid Pressure Method		
Active Heel Pressure	=	38.0 psf/ft
	=	
Passive Pressure	=	290.0 psf/ft
Soil Density, Heel	=	120.00 pcf
Soil Density, Toe	=	120.00 pcf
Footing  Soil Friction	=	0.400
Soil height to ignore for passive pressure	=	12.00 in



#### Surcharge Loads

Surcharge Over Heel	=	0.0 psf
Used To Resist Sliding & Overturning		
Surcharge Over Toe	=	0.0
Used for Sliding & Overturning		

#### Axial Load Applied to Stem

Axial Dead Load	=	0.0 lbs
Axial Live Load	=	0.0 lbs
Axial Load Eccentricity	=	0.0 in

#### Lateral Load Applied to Stem

Lateral Load	=	0.0 #/ft
...Height to Top	=	0.00 ft
...Height to Bottom	=	0.00 ft
Load Type	=	Wind (W) (Service Level)
Wind on Exposed Stem	=	0.0 psf (Strength Level)

#### Adjacent Footing Load

Adjacent Footing Load	=	0.0 lbs
Footing Width	=	0.00 ft
Eccentricity	=	0.00 in
Wall to Ftg CL Dist	=	0.00 ft
Footing Type	=	Spread Footing
Base Above/Below Soil at Back of Wall	=	0.0 ft
Poisson's Ratio	=	0.300



## Cantilevered Retaining Wall

Project File: 2.2) Enercalc - 2328021.00 Fontana FS #80.ec6

LIC# : KW-06018304, Build:20.23.04.05

MIYAMOTO INTERNATIONAL INC

(c) ENERCALC INC 1983-2023

**DESCRIPTION:** 2ft to 5 ft retain

### Design Summary

#### Wall Stability Ratios

Overtuning	=	2.20	OK
Sliding	=	1.54	OK
Global Stability	=	2.09	

Total Bearing Load	=	1,443 lbs	
...resultant ecc.	=	1.74 in	

Eccentricity within middle third

Soil Pressure @ Toe	=	397 psf	OK
Soil Pressure @ Heel	=	239 psf	OK
Allowable	=	2,500 psf	

Soil Pressure Less Than Allowable

ACI Factored @ Toe	=	556 psf	
ACI Factored @ Heel	=	334 psf	
Footing Shear @ Toe	=	1.5 psi	OK
Footing Shear @ Heel	=	5.2 psi	OK
Allowable	=	82.2 psi	

#### Sliding Calcs

Lateral Sliding Force	=	722.5 lbs	
less 100% Passive Force	=	535.7 lbs	
less 100% Friction Force	=	577.2 lbs	
Added Force Req'd	=	0.0 lbs	OK
....for 1.5 Stability	=	0.0 lbs	OK

Vertical component of active lateral soil pressure IS considered in the calculation of soil bearing pressures.

#### Load Factors

Building Code	
Dead Load	1.200
Live Load	1.600
Earth, H	1.600
Wind, W	1.600
Seismic, E	1.000

### Stem Construction

#### Design Height Above Ftg

ft =	0.00
Wall Material Above "Ht"	= Masonry
Design Method	= ASD
Thickness	= 8.00
Rebar Size	= # 5
Rebar Spacing	= 16.00
Rebar Placed at	= Center

#### Design Data

fb/FB + fa/Fa	=	0.602
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#### Total Force @ Section

Service Level	lbs =	475.0
Strength Level	lbs =	

#### Moment....Actual

Service Level	ft-# =	791.7
Strength Level	ft-# =	

Moment.....Allowable	=	1,314.3
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#### Shear.....Actual

Service Level	psi =	5.2
Strength Level	psi =	

Shear.....Allowable	psi =	50.3
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Anet (Masonry)	in2 =	91.50
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Wall Weight	psf =	0.0
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Rebar Depth 'd'	in =	3.81
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#### Masonry Data

f'm	psi =	2,000
Fs	psi =	20,000
Solid Grouting	=	Yes
Modular Ratio 'n'	=	16.11
Equiv. Solid Thick.	in =	7.63
Masonry Block Type	=	
Masonry Design Method	=	ASD

#### Concrete Data

f'c	psi =	
Fy	psi =	



## Cantilevered Retaining Wall

Project File: 2.2) Enercalc - 2328021.00 Fontana FS #80.ec6

LIC# : KW-06018304, Build:20.23.04.05

MIYAMOTO INTERNATIONAL INC

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**DESCRIPTION:** 2ft to 5 ft retain

### Footing Data

Toe Width	=	2.50 ft
Heel Width	=	1.00
Total Footing Width	=	3.50
Footing Thickness	=	14.00 in
Key Width	=	0.00 in
Key Depth	=	0.00 in
Key Distance from Toe	=	0.00 ft
f'c =	3,000 psi	Fy = 60,000 psi
Footing Concrete Density	=	150.00 pcf
Min. As %	=	0.0018
Cover @ Top	2.00	@ Btm.= 3.00 in

### Footing Design Results

	<u>Toe</u>	<u>Heel</u>
Factored Pressure	= 556	334 psf
Mu' : Upward	= 1,572	19 ft-#
Mu' : Downward	= 1,254	280 ft-#
Mu: Design	= 318 OK	261 ft-# OK
phiMn	= 34,574	15,501 ft-#
Actual 1-Way Shear	= 1.48	5.25 psi
Allow 1-Way Shear	= 82.16	82.16 psi
Toe Reinforcing	= # 8 @ 12.00 in	
Heel Reinforcing	= # 5 @ 12.30 in	
Key Reinforcing	= None Spec'd	
Footing Torsion, Tu	=	0.00 ft-lbs
Footing Allow. Torsion, phi Tu	=	0.00 ft-lbs

**If torsion exceeds allowable, provide supplemental design for footing torsion.**

#### Other Acceptable Sizes & Spacings

Toe: #4@ 7.93 in, #5@ 12.30 in, #6@ 17.46 in, #7@ 23.80 in, #8@ 31.34 in, #9@ 39.68 in, #10@ 50.39 in

Heel: #4@ 7.93 in, #5@ 12.30 in, #6@ 17.46 in, #7@ 23.80 in, #8@ 31.34 in, #9@ 39.68 in, #10@ 50.39 in

Key: No key defined

Min footing T&S reinf Area 1.06 in<sup>2</sup>  
 Min footing T&S reinf Area per foot 0.30 in<sup>2</sup> /ft

#### If one layer of horizontal bars:

#4@ 7.94 in  
 #5@ 12.30 in  
 #6@ 17.46 in

#### If two layers of horizontal bars:

#4@ 15.87 in  
 #5@ 24.60 in  
 #6@ 34.92 in



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### Summary of Overturning & Resisting Forces & Moments

	.....OVERTURNING.....				.....RESISTING.....			
Item	Force lbs	Distance ft	Moment ft-#		Force lbs	Distance ft	Moment ft-#	
HL Act Pres (ab water tbl)	722.5	2.06	1,485.2	Soil Over HL (ab. water tbl)	200.0	3.33	666.7	
HL Act Pres (be water tbl)				Soil Over HL (bel. water tbl)		3.33	666.7	
Hydrostatic Force				Water Table				
Buoyant Force	=			Sloped Soil Over Heel	=			
Surcharge over Heel	=			Surcharge Over Heel	=			
Surcharge Over Toe	=			Adjacent Footing Load	=			
Adjacent Footing Load	=			Axial Dead Load on Stem	=			
Added Lateral Load	=			* Axial Live Load on Stem	=			
Load @ Stem Above Soil	=			Soil Over Toe	=	300.0	1.25	375.0
	=			Surcharge Over Toe	=			
				Stem Weight(s)	=			
				Earth @ Stem Transitions	=			
				Footing Weight	=	612.5	1.75	1,071.9
				Key Weight	=			
				Vert. Component	=	330.5	3.50	1,156.9
<b>Total</b>	=	722.5	<b>O.T.M.</b> =	1,485.2	<b>Total =</b>	1,443.0 lbs	<b>R.M.=</b>	3,270.4
<b>Resisting/Overturning Ratio</b>			=	<b>2.20</b>				
Vertical Loads used for Soil Pressure =		1,443.0	lbs					

\* Axial live load NOT included in total displayed, or used for overturning resistance, but is included for soil pressure calculation.

Vertical component of active lateral soil pressure IS considered in the calculation of Sliding Resistance.

Vertical component of active lateral soil pressure IS considered in the calculation of Overturning Resistance.

### Tilt

#### Horizontal Deflection at Top of Wall due to settlement of soil

(Deflection due to wall bending not considered)

Soil Spring Reaction Modulus 250.0 pci  
 Horizontal Defl @ Top of Wall (approximate only) 0.019 in

The above calculation is not valid if the heel soil bearing pressure exceeds that of the toe, because the wall would then tend to rotate into the retained soil.



Cantilevered Retaining Wall

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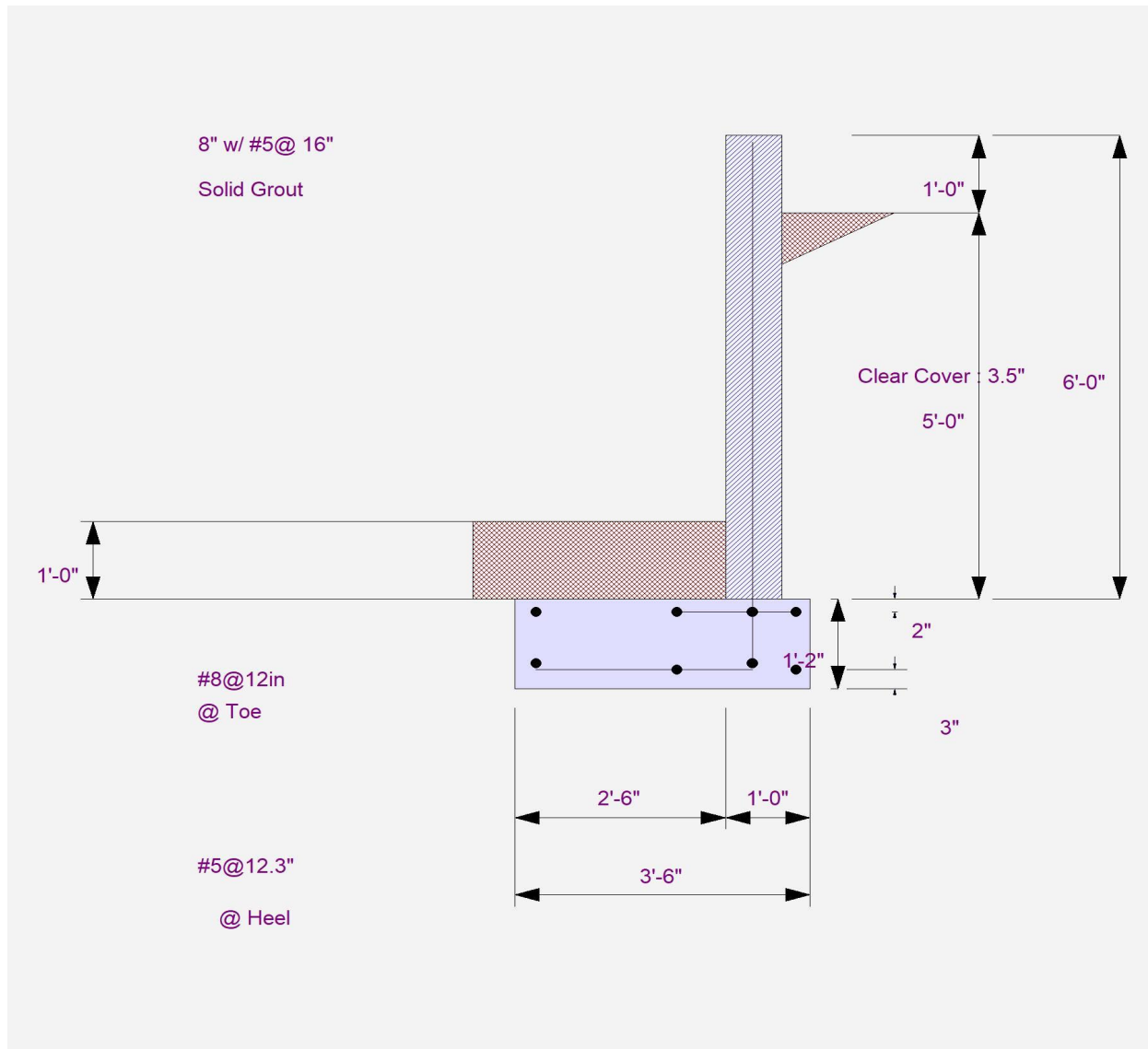
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Rebar Lap & Embedment Lengths Information

Stem Design Segment: Bottom	
Stem Design Height:	0.00 ft above top of footing
Calculated Rebar Stress, fs =	12046.51 psi
Lap Splice length for #5 bar specified in this stem design segment (25.4.2.3a) =	25.00 in
Development length for #5 bar specified in this stem design segment =	15.06 in
Hooked embedment length into footing for #5 bar specified in this stem design segment =	6.39 in
As Provided =	0.2325 in2/ft
As Required =	0.1401 in2/ft







Cantilevered Retaining Wall

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