

[illegible]

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DESIGNED BY: <b>MDH</b>	DRAWN BY: <b>MDH</b>	CHECKED BY:	REVIEWED BY: G
PROJECT No.: <b>VGFD2001</b>	DATE: <b>JULY 2022</b>	SCALE: <b>AS SHOWN</b>	

CLIENT

**VAILS GATE FIRE  
DISTRICT**

**New Storage Building (Phase I)**  
**New Fire Station (Phase II)**



872 Blooming Grove Turnpike  
New Windsor, NY 12553

CONTRACT

**CONTRACT G**

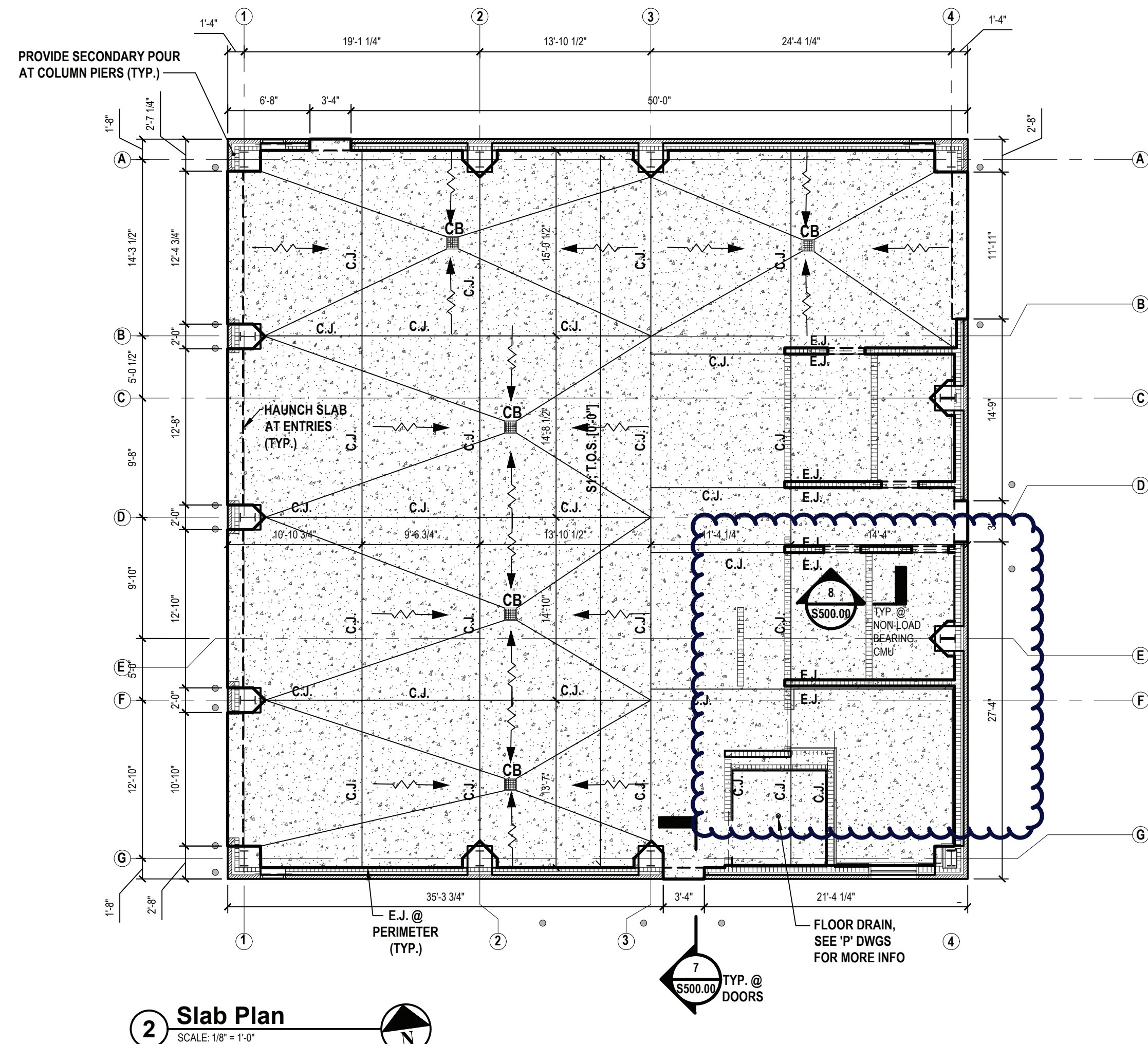
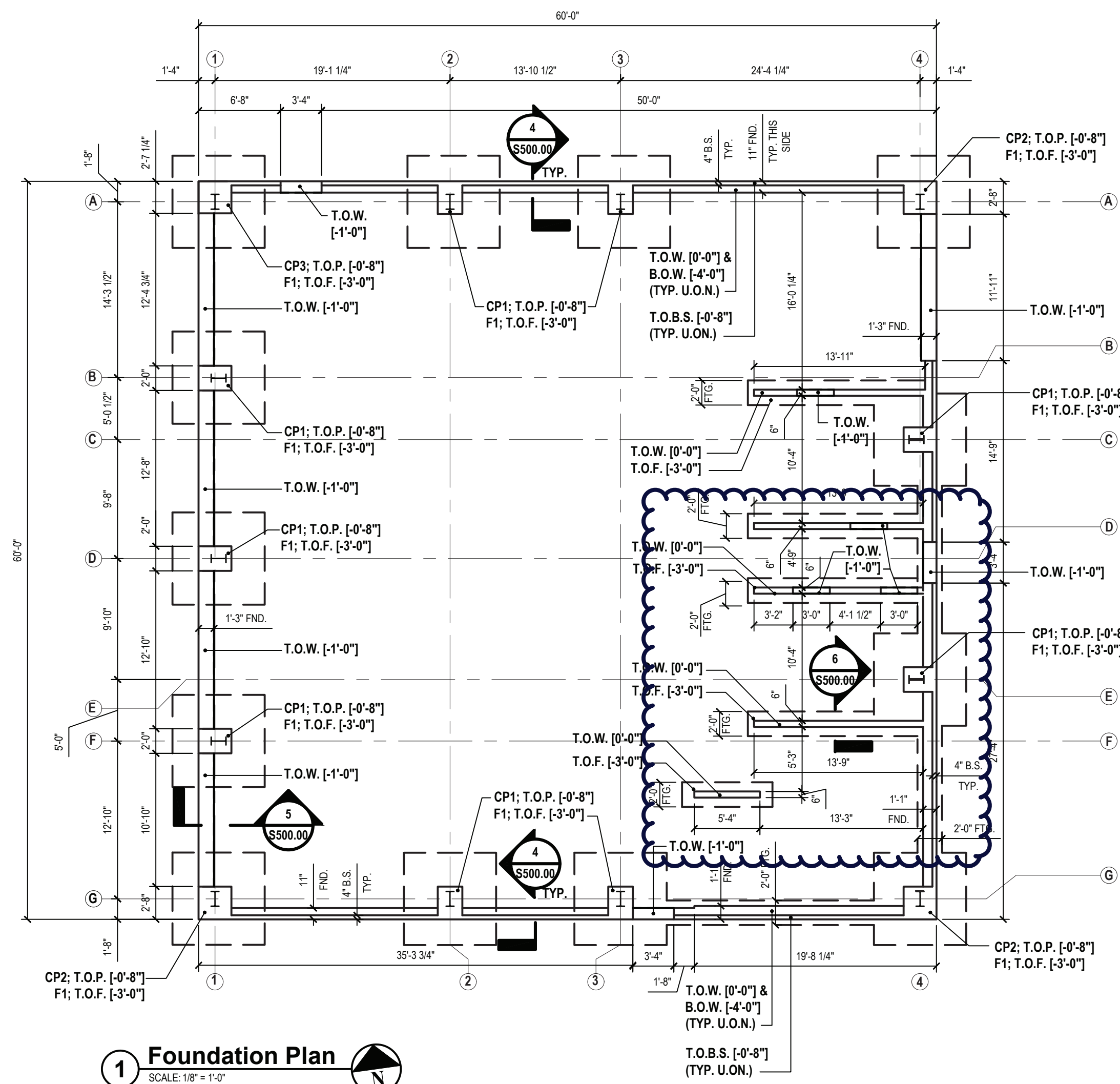
**GENERAL CONSTRUCTION**

STATUS	<b>FINAL BID DOCUMENT</b>
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SHEET TITLE

**FOUNDATION, FIRST FLOOR  
SLAB, & MEZZANINE  
CONSTRUCTION PLANS**

DRAWING No. **S1 100.02**



**LEGEND:**

T.O.P. = TOP OF PIER  
T.O.W. = TOP OF WALL  
T.O.B.S. = TOP OF BRICK SHELF  
B.O.W. = BOTTOM OF WALL  
T.O.F. = TOP OF FOOTING  
T.O.S. = TOP OF SLAB  
E.J. = EXPANSION JOINT  
C.J. = CONTROL JOINT  
C.B. = CATCH BASIN  
U.O.N. = UNLESS OTHERWISE NOTED

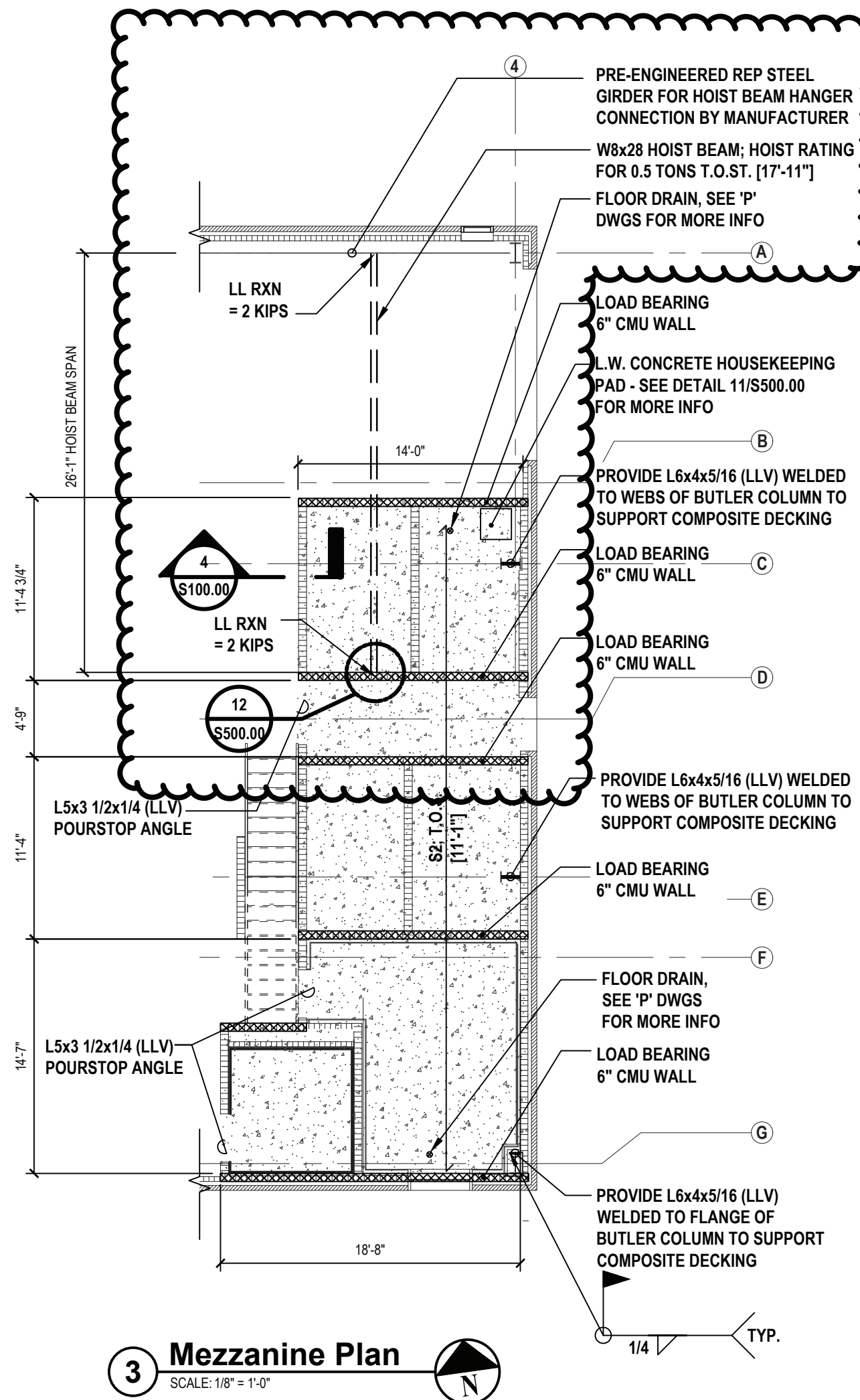
**S1** = INDICATES SPAN OF 8" CONCRETE SLAB ON GRADE REINFORCED W/ (2) LAYERS OF 6x6 - W4.0xW4.0 W.W.F.

S2 = INDICATES SPAN OF 5" CONCRETE  
SLAB REINFORCED W/ 6x6-W1.4xW1.4  
W.W.F. AND 3VLI-36 16GA COMPOSITE  
METAL FORM DECK AS  
MANUFACTURED BY VULCRAFT  
NUCOR OR APPROVED EQUAL.

 = INDICATES 1/8:12 SLAB PITCH

## 1 Foundation Plan

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



### DESIGN CRITERIA:

ALL DESIGN LOADS ARE IN ACCORDANCE WITH 2020 BC-NYS AND ASCE 7-16  
STRUCTURAL OCCUPANCY (RISK) CATEGORY IV

## 1. BUILDING DESIGN LOADS

FIRST FLOOR LIVE LOAD:	100 PSF
FIRST FLOOR COLLATERAL DEAD LOAD:	10 PSF
MEZZANINE LIVE LOAD:	125 PSF
MEZZANINE DEAD LOAD:	50 PSF
ROOF LIVE LOAD:	20 PSF
ROOF DEAD LOAD:	PERFORMED BY BUTLER BUILDING
ROOF COLLATERAL DEAD LOAD:	10 PSF

## 2. SNOW LOADS

GROUND SNOW LOAD: Pg = 30 PSF  
EXPOSURE FACTOR: Ce = 1.0  
THERMAL FACTOR: Ct = 1.0  
IMPORTANCE FACTOR: Is = 1.20  
FLAT ROOF SNOW LOAD: Pf = 24 PSF

### 3. WIND LOADS:

BASIC WIND SPEED: 125 MPH  
EXPOSURE: B  
EXPOSURE ADJUSTMENT FACTOR: 1.0  
INTERNAL PRESSURE COEFFICIENT:  $G_{cp} = \pm 0.18$  (ENCLOSED BLDG)

	EXPOSURE B WIND LOADS	EXPOSURE ADJUSTMENT COEFFICIENT	ASD DESIGN WIND LOADS
MWFRS WALL (END ZONE)	34.3 PSF	x 1.0	34.3 PSF
MWFRS WALL (INT. ZONE)	22.9 PSF	x 1.0	22.9 PSF
MWFRS ROOF (END ZONE)	-9.1 PSF	x 1.0	-9.1 PSF
MWFRS ROOF (INT. ZONE)	-5.0 PSF	x 1.0	-5.0 PSF
C&C ROOF (UPLIFT)	-29.8 PSF	x 1.0	-29.8 PSF
C&C (END WALL PRESSURE)	28.15 PSF	x 1.0	28.15 PSF
C&C (END WALL SUCTION)	-37.7 PSF	x 1.0	-37.7 PSF
C&C (INT. WALL PRESSURE)	28.15 PSF	x 1.0	28.15 PSF
C&C (INT. WALL SUCTION)	-30.55 PSF	x 1.0	-30.55 PSF
C&C (END ROOF PRESSURE)	17.05 PSF	x 1.0	17.05 PSF
C&C (END ROOF SUCTION)	-75.85 PSF	x 1.0	-75.85 PSF
C&C (INT. ROOF PRESSURE)	17.05 PSF	x 1.0	17.05 PSF
C&C (INT. ROOF SUCTION)	-52.05 PSF	x 1.0	-52.05 PSF

**4. SEISMIC CRITERIA:**

SITE CLASS: C	
IMPORTANCE FACTOR	Ie = 1.50
Ss = 0.242g	S1 = 0.058g
Fa = 1.30	Fv = 1.50
Sms = 0.314g	Sm1 = 0.086g
Sds = 0.209g	Sd1 = 0.058g
SEISMIC DESIGN CATEGORY: C	

5. ALLOWABLE SOIL BEARING CAPACITY = 4,000 PSF;

AS PER CARLIN SIMPSON & ASSOCIATES GEOTECHNICAL REPORT DATED 3/12/2021

6. ANY BUILDING COMPONENTS NOTED AS DELEGATED DESIGN ITEMS IN DRAWINGS AND/OR SPECIFICATIONS SHALL BE DESIGNED IN ACCORDANCE WITH MINIMUM LOADS SPECIFIED ABOVE. ANY DEVIATION FROM NOTED LOAD VALUES SHALL BE SUBMITTED BY CONTRACTOR FOR REVIEW AND APPROVAL TO EOR PRIOR TO SUBMITTING SHOP DRAWINGS AND CALCULATIONS.

**FOUNDATION PLAN NOTES:**

1. DATUM FOR ALL ELEVATIONS SHOWN ON THIS PLAN ARE SET RELATIVE TO FINISHED FIRST FLOOR ELEVATION [261.00'].
2. ALL CONCRETE PEDESTALS SHALL BE SIZED AS SHOWN IN THE COLUMN PIER SCHEDULE AND CONSTRUCTED AS PER DETAIL 2/S500.00 UNLESS OTHERWISE NOTED.
3. ALL EXCAVATED EARTH SHALL BE REPLACED WITH CONTROLLED FILL AS PER SPECIFICATION 312323. AS STATED IN GEOTECHNICAL REPORT, COMPLETELY REMOVE & REPLACE EXISTING FILL THROUGHOUT BUILDING EXTENTS DOWN TO A DEPTH RANGING FROM 5'-0" TO 8'-5" BELOW EXISTING GROUND SURFACE.
4. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL REINFORCING AND CONDUIT PENETRATION WALL WITH ALL OTHER WORK. PROVIDE PIPE SLEEVES AND REINFORCEMENT AROUND PENETRATIONS AS PER DETAIL 9 ON S500.00.
5. REFER TO 'FOOTING SCHEDULE' FOR FOOTING SIZE AND REINFORCEMENT REQUIREMENTS.
6. COORDINATE LOCATIONS OF REINFORCEMENT DOWELS INTO BUILDING WALLS WITH MASONRY TRADE.
7. REFER TO 'A' DWGS FOR WATERPROOFING AND INSULATION REQUIREMENTS.
8. REFER TO THE PROJECT SPECIFICATION SECTION 133419 FOR METAL BUILDING LOAD REQUIREMENTS NOT OUTLINED.
9. GRID LOCATIONS AND DESIGNATIONS ARE SHOWN FOR REFERENCE. INDIVIDUAL COLUMN SIZES, LOCATIONS, AND ANCHOR BOLT OFFSETS SHALL BE ESTABLISHED FROM THE FOUNDATION EDGE AS PER THE APPROVED BUILDING MANUFACTURER'S DETAILS. ANCHOR BOLT SIZES, LOCATIONS, & EMBEDMENT SHALL BE PROVIDED BY BUTLER MANUFACTURING.
10. CONTRACTOR SHALL COORDINATE INSTALLATION OF ANCHOR BOLTS WITH LAYOUT PER BUILDING MANUFACTURER'S DETAILS. THE CONTRACTOR SHALL COORDINATE THE REQUIRED ANCHOR BOLT AND ADHESIVE TYPES ALONG WITH NECESSARY EMBEDMENT DEPTH OF ANCHOR, WITH RESPECT TO THE BUILDING COLUMN AXIAL AND SHEAR REACTIONS, WITH CONSIDERATION FOR CAPACITY REDUCTION DUE TO ANCHOR EDGE DISTANCE. CALCULATIONS FOR ADHESIVE ANCHOR INSTALLATION SHALL BE PREPARED UNDER THE SUPERVISION OF A NEW YORK STATE PROFESSIONAL ENGINEER AND SHALL BE SUBMITTED TO E/A OF RECORD FOR APPROVAL.

**SLAB PLAN NOTES:**

1. DATUM FOR ALL ELEVATIONS SHOWN ON THIS PLAN ARE SET  
RELATIVE TO FINISHED FIRST FLOOR ELEVATION [261.00'].

2. PROVIDE 1/2" PRE-MOLDED EXPANSION JOINT AROUND PERIMETER OF CONCRETE SLAB ON GRADE WHERE IT ABUTS THE FOUNDATION WALL OF THE BUILDING.
3. COORDINATE DIMENSIONS OF STAIR LANDING FRAMING WITH STAIR MANUFACTURER. SEE 'A' DWGS FOR ADDITIONAL INFORMATION.

**MASONRY NOTES:**

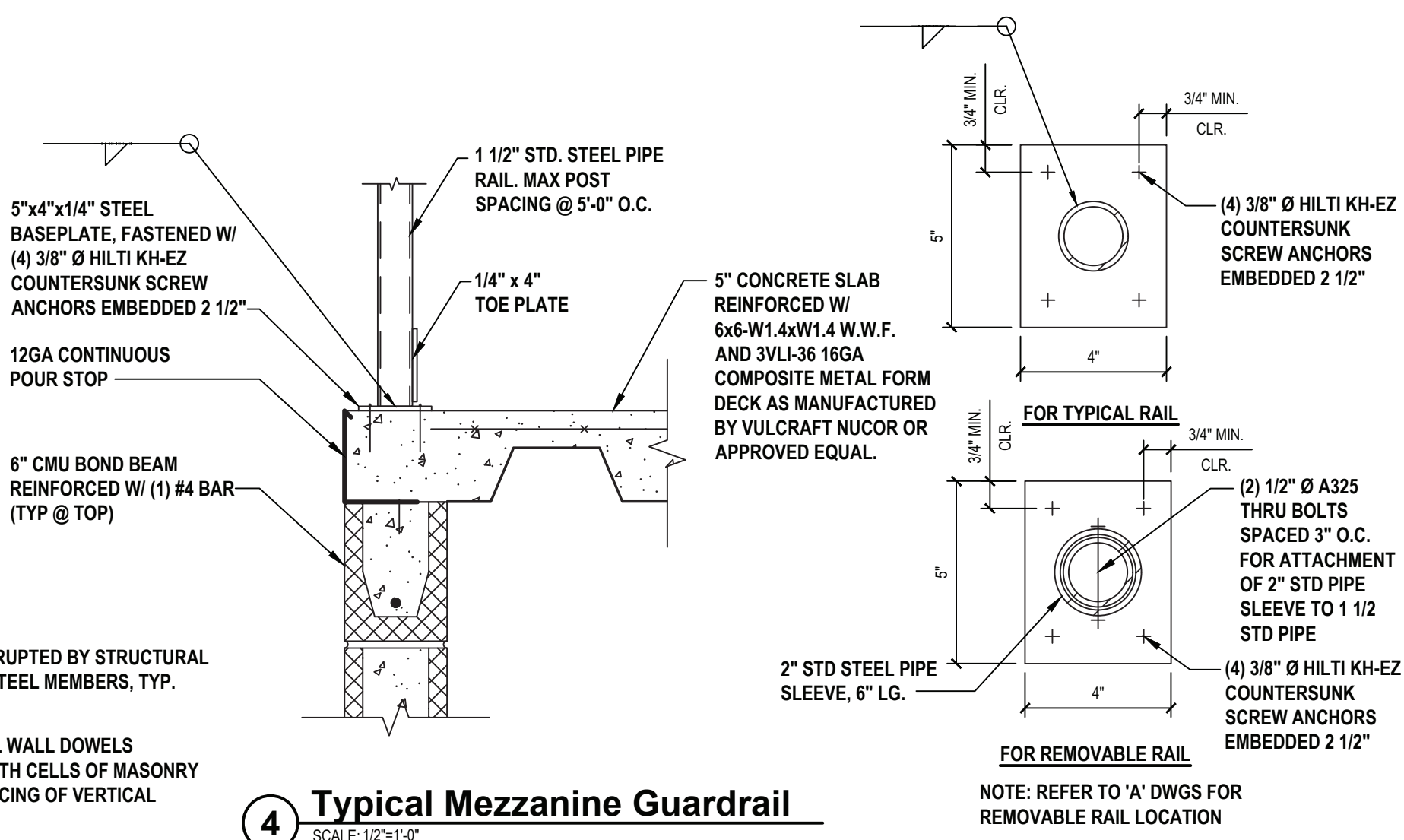
1. ALL VERTICAL MASONRY WALL REINFORCEMENT SHALL BE #5 BARS SPACED AT 48" O.C., TYP. UNLESS OTHERWISE NOTED.
2. THE FIRST CELL ADJACENT TO MASONRY OPENINGS, AS WELL AS ALL CORNERS, SHALL CONTAIN (1) CONT. #5 BAR, TYP. AT EACH SIDE OF OPENING.
3. FILL ALL MASONRY CELLS CONTAINING REINFORCEMENT SOLID WITH MORTAR, TYP.
4. ALL VERTICAL REINFORCEMENT INTERRUPTED BY STRUCTURAL STEEL SHALL BE WELDED TO TOP OF STEEL MEMBERS, TYP.
5. COORDINATE PLACEMENT OF VERTICAL WALL DOWELS EMBEDDED INTO FOUNDATION WALL WITH CELLS OF MASONRY WALL. DOWEL SPACING TO MATCH SPACING OF VERTICAL REINFORCEMENT IN WALLS, TYP.

### COLUMN PIER SCHEDULE

DESIGNATION	SIZE	REINFORCEMENT	TIES
CP1	24"x32"	(3) #6 BARS E-W FACE (4) #6 BARS N-S FACE (10 BARS TOTAL)	#3 BARS @ 12" O.C.
CP2	32"x32"	(4) #6 BARS E-W FACE (4) #6 BARS N-S FACE (12 BARS TOTAL)	#3 BARS @ 12" O.C.
CP3	31.25"x32"	(4) #6 BARS E-W FACE (4) #6 BARS N-S FACE (12 BARS TOTAL)	#3 BARS @ 12" O.C.

### FOOTING SCHEDULE

MARK	SIZE	THICKNESS	REINFORCEMENT	LOCATIONS
F1	7'-6"x7'-6"	12"	(7) #5 BARS E.W. BOTT.	SEE FND. PLAN





CONSULTANTS:

MARK	DATE	DESCRIPTION
2	12/22/2022	REVS. PER TOWN COMMENTS



DESIGNED BY: MDH	DRAWN BY: MDH	CHECKED BY:	REVIEWED BY:
PROJECT NO: VGFD2001	DATE: JULY 2022	SCALE:	AS SHOWN

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**VAILS GATE FIRE DISTRICT**

New Storage Building (Phase I)  
New Fire Station (Phase II)



872 Blooming Grove Turnpike  
New Windsor, NY 12553

CONTRACT

**CONTRACT G  
GENERAL CONSTRUCTION**

STATUS

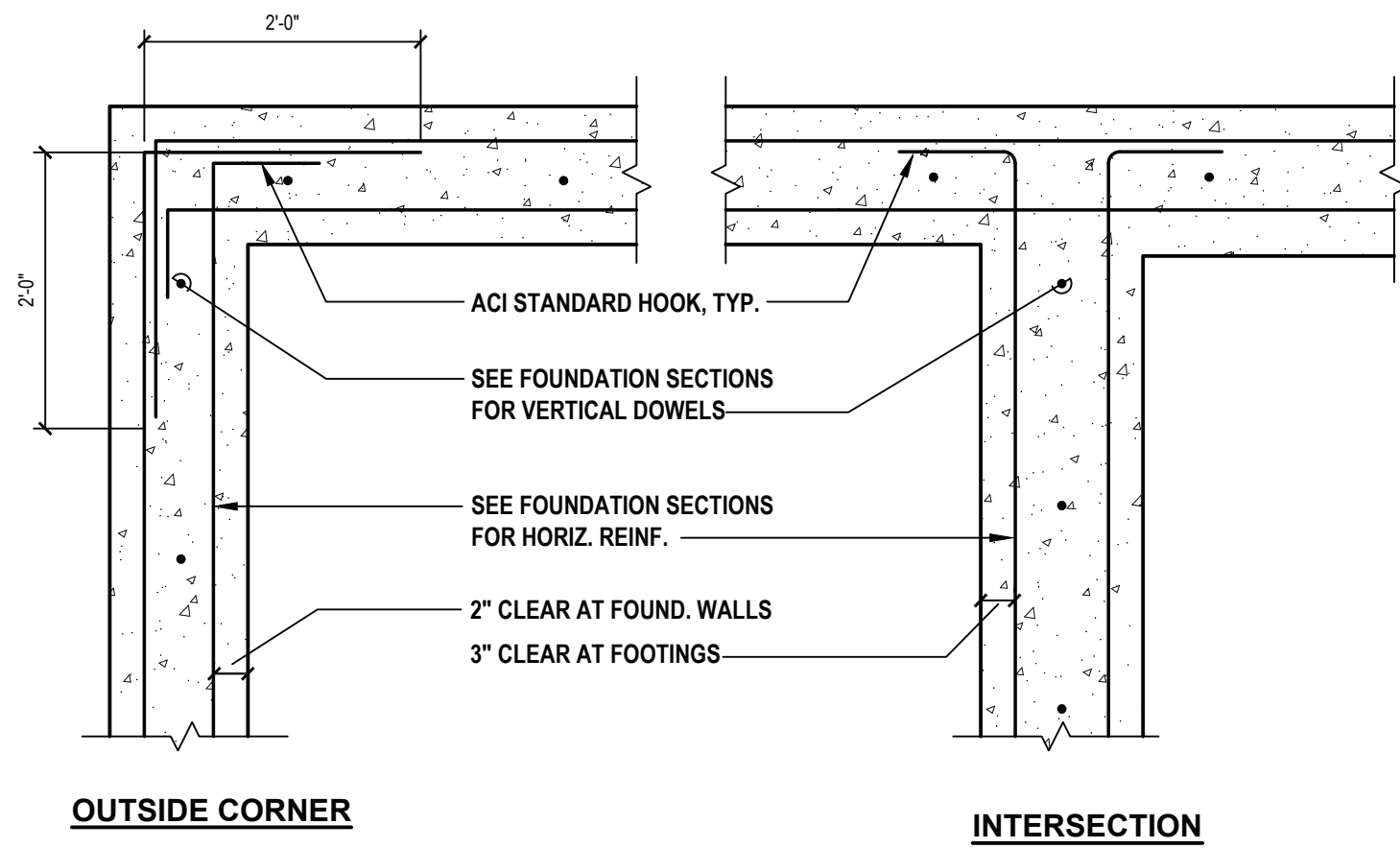
**FINAL BID DOCUMENT**

SHEET TITLE

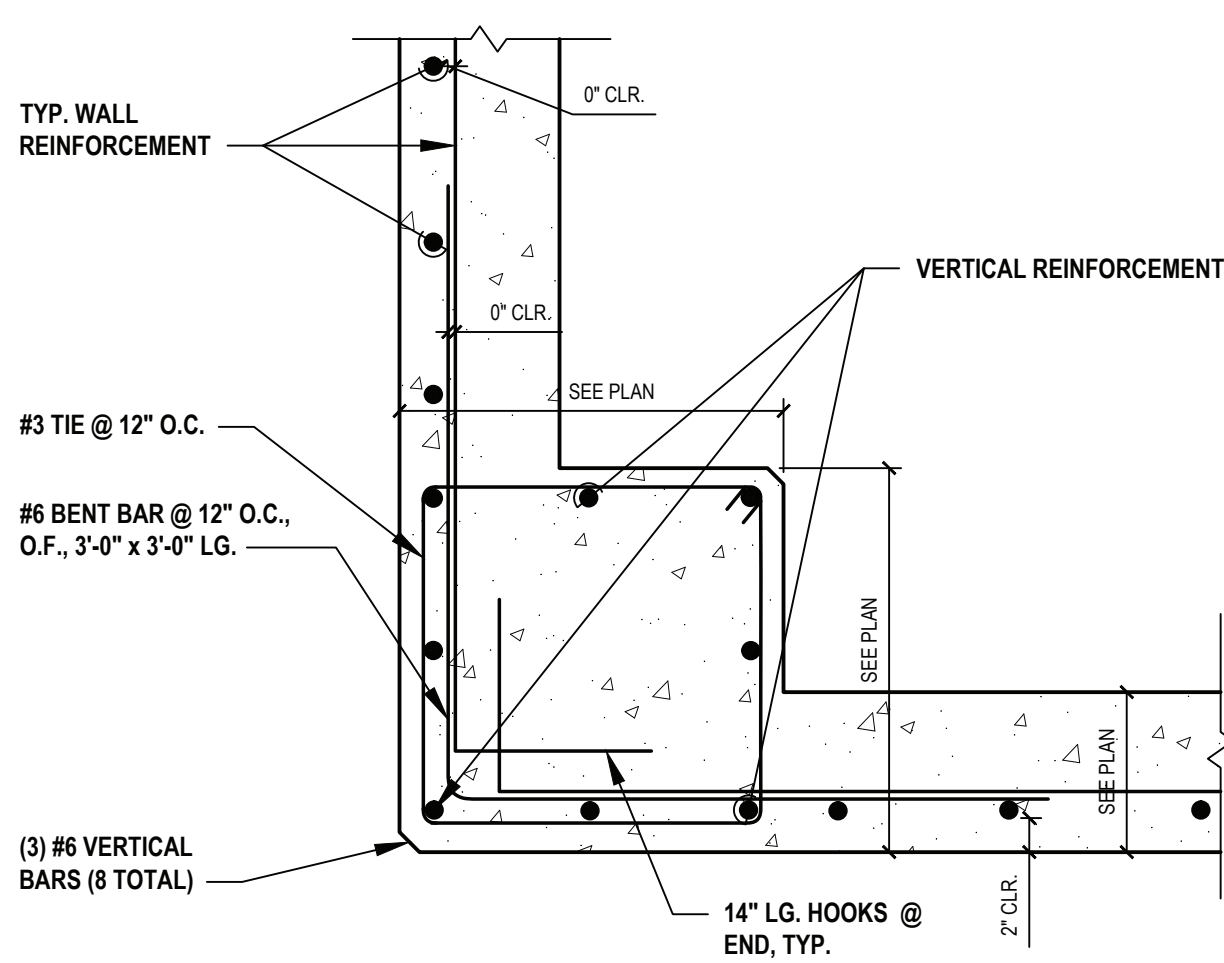
**STRUCTURAL DETAILS**

DRAWING No.

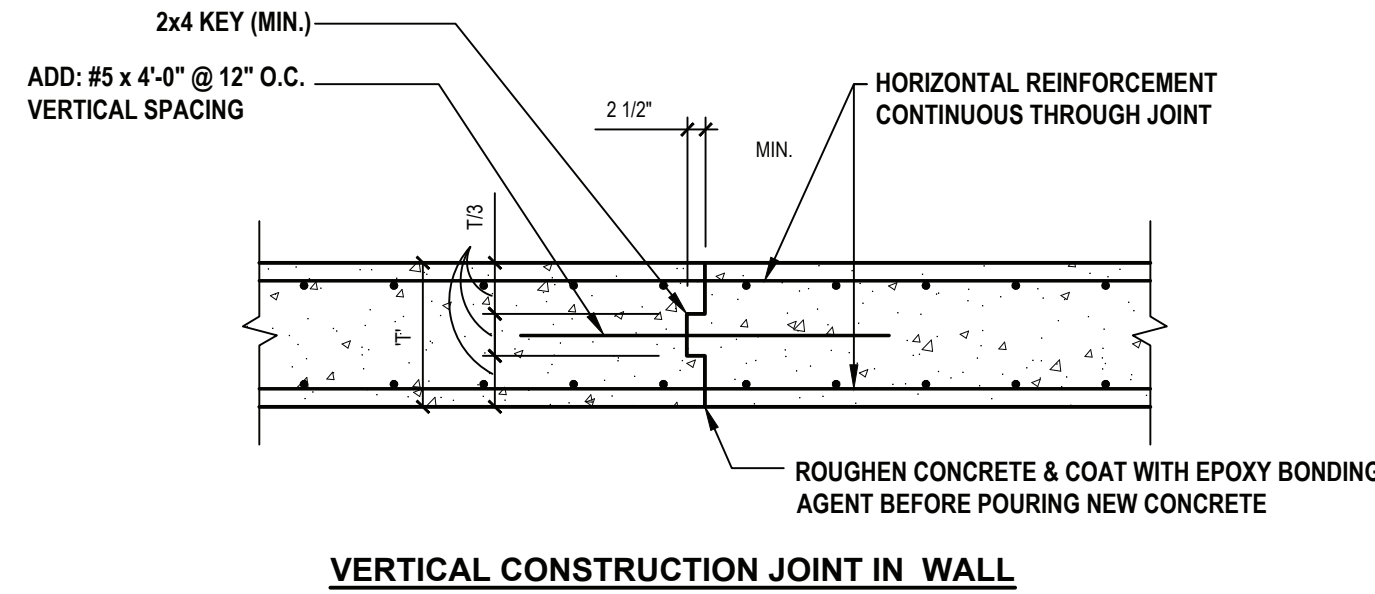
**S1 500.02**



**1 Typical Corner Horizontal Reinforcement at Foundation Wall or Footing**  
SCALE: N.T.S.



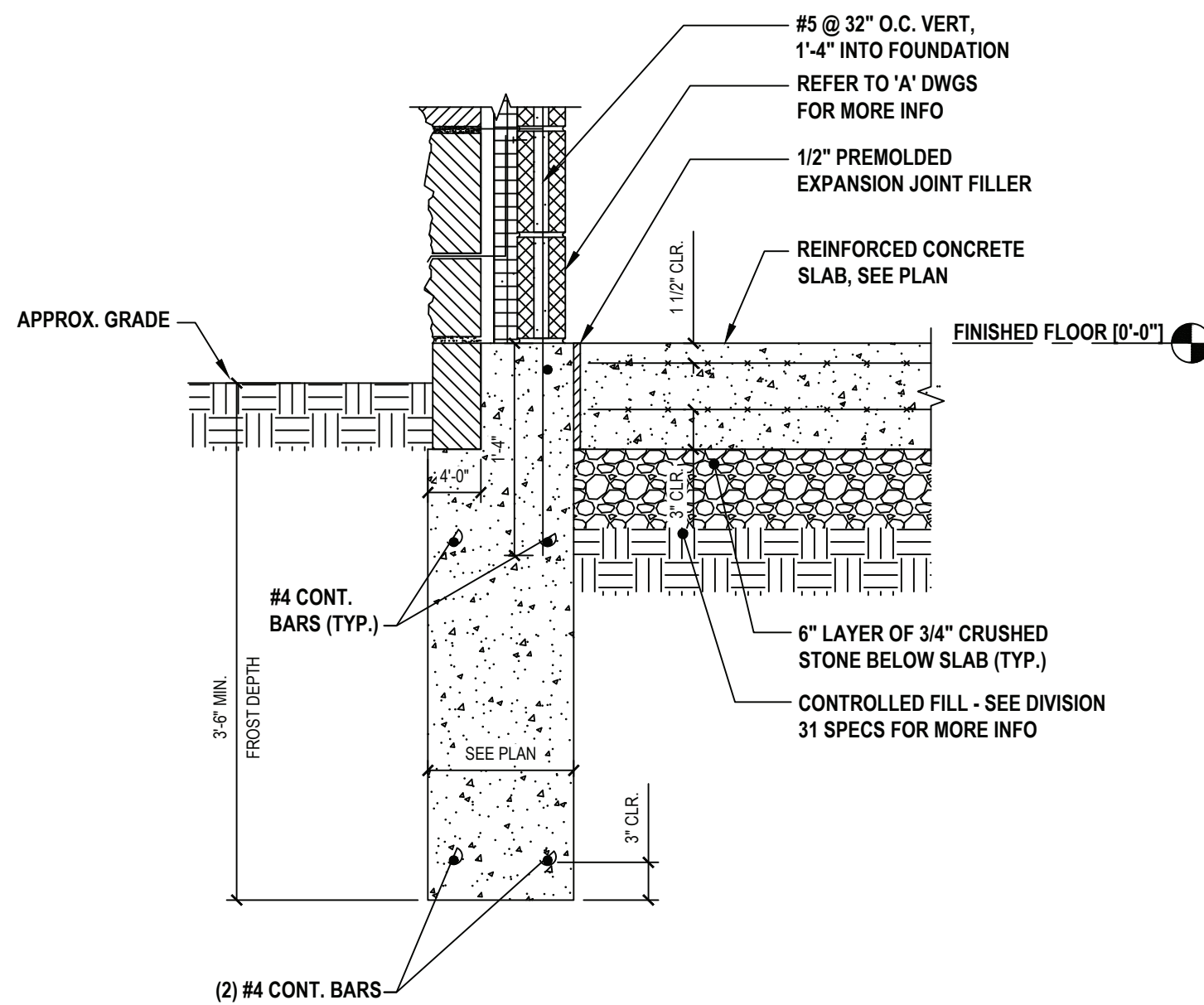
**2 Typical Corner Pier/Foundation Wall Intersection**  
SCALE: N.T.S.



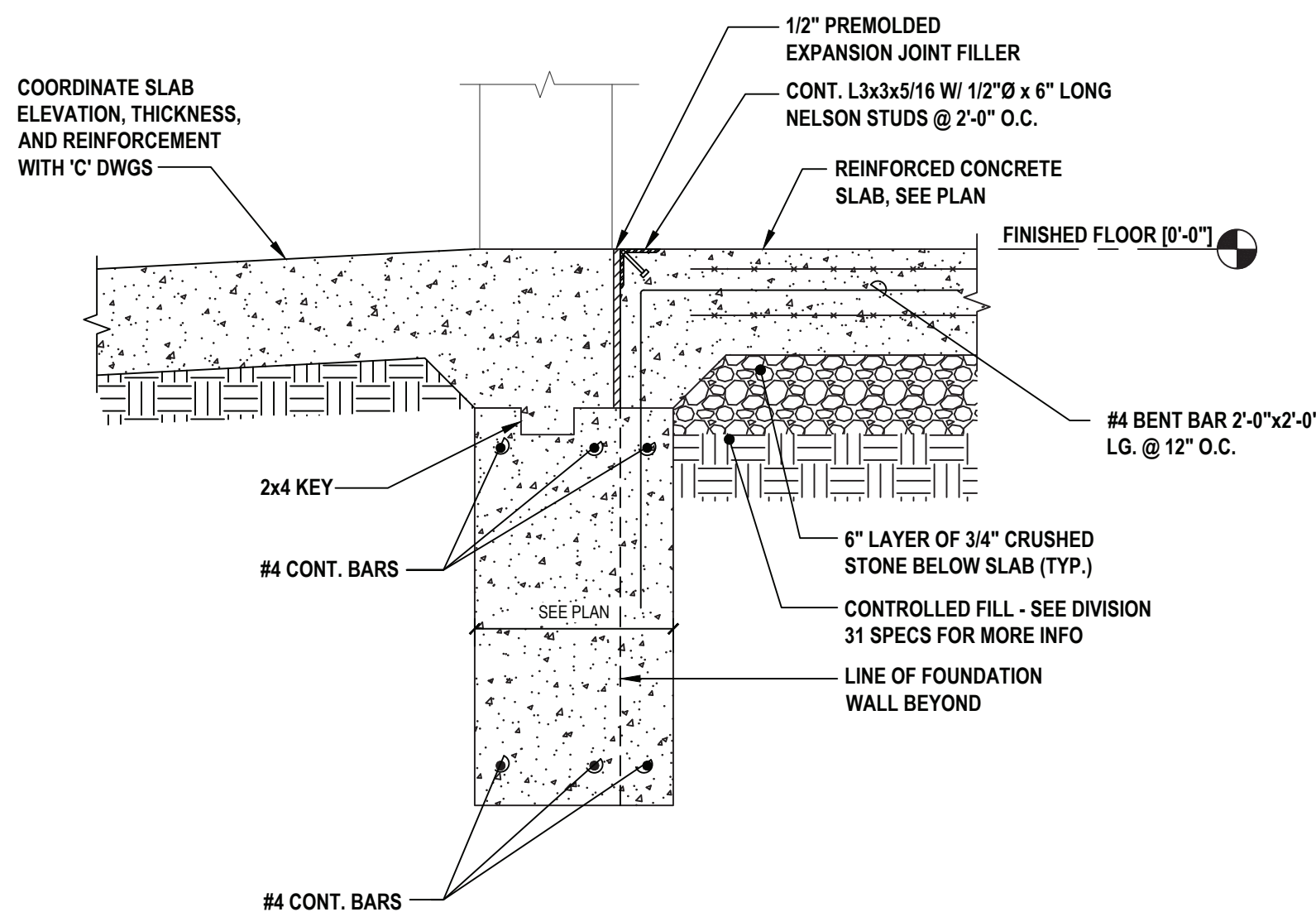
**NOTES:**

- KEY WIDTH NOT TO EXCEED 1/3 WIDTH OF WALL. VERTICAL CONSTRUCTION JOINT PERMITTED IN WALL OR GRADE. AT ANY POINT 4'-0" MIN. AWAY FROM FACE OF SUPPORTING PIER, BUTTRESS AND/OR WALL OPENING. PROVIDE ONE VERTICAL CONSTRUCTION JOINT FOR EVERY 40'-0" OF A STRAIGHT RUN OF WALL.
- SUBMIT CONSTRUCTION JOINT LAYOUT FOR ALL CONCRETE STRUCTURES FOR ENGINEER'S REVIEW.

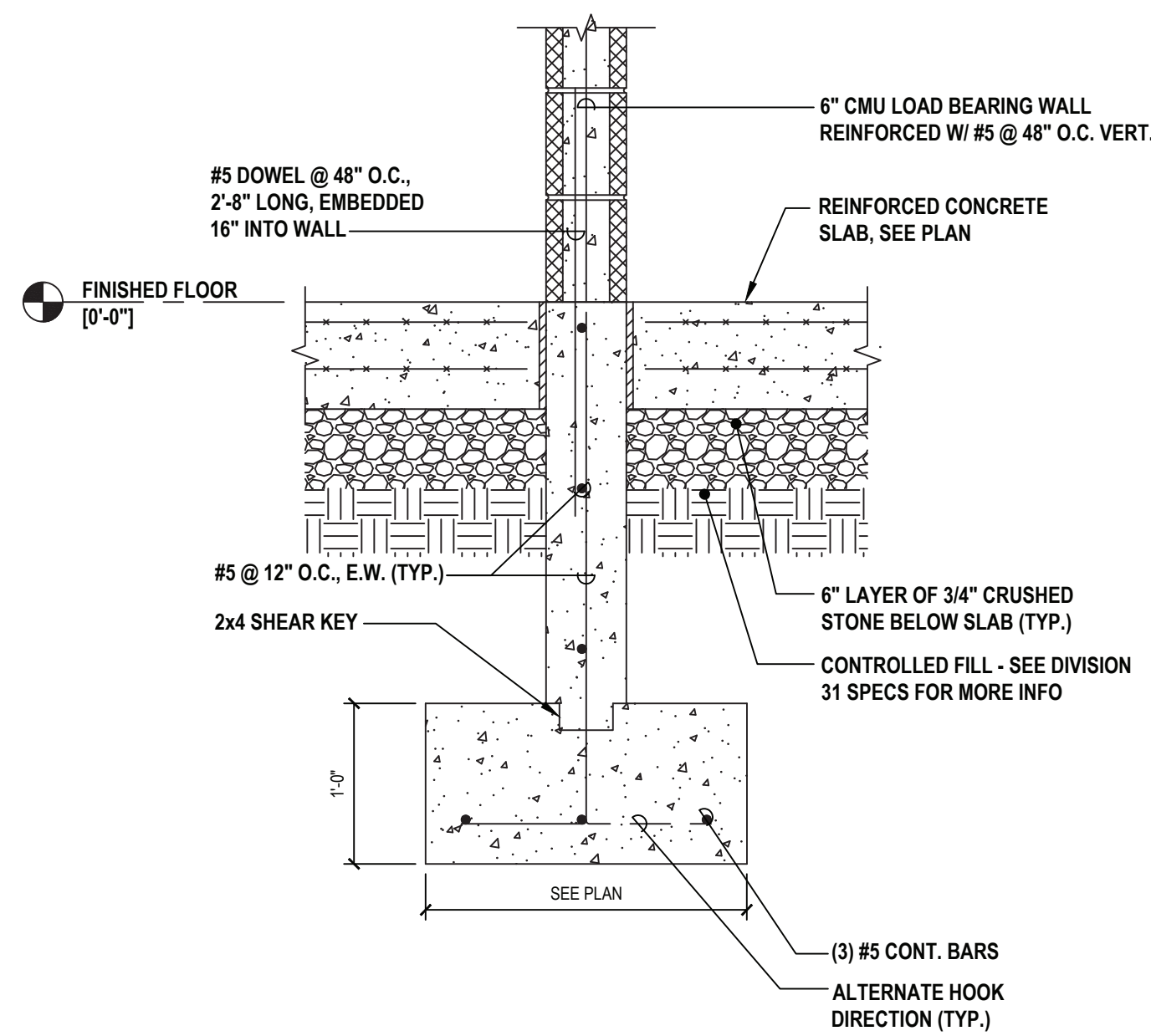
**3 Construction Joint Detail**  
SCALE: N.T.S.



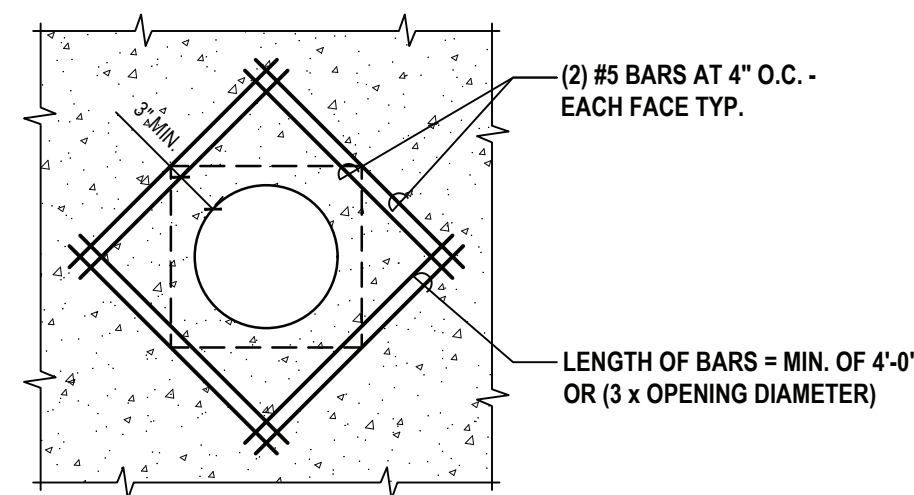
**4 Typical Exterior Foundation Wall**  
SCALE: N.T.S.



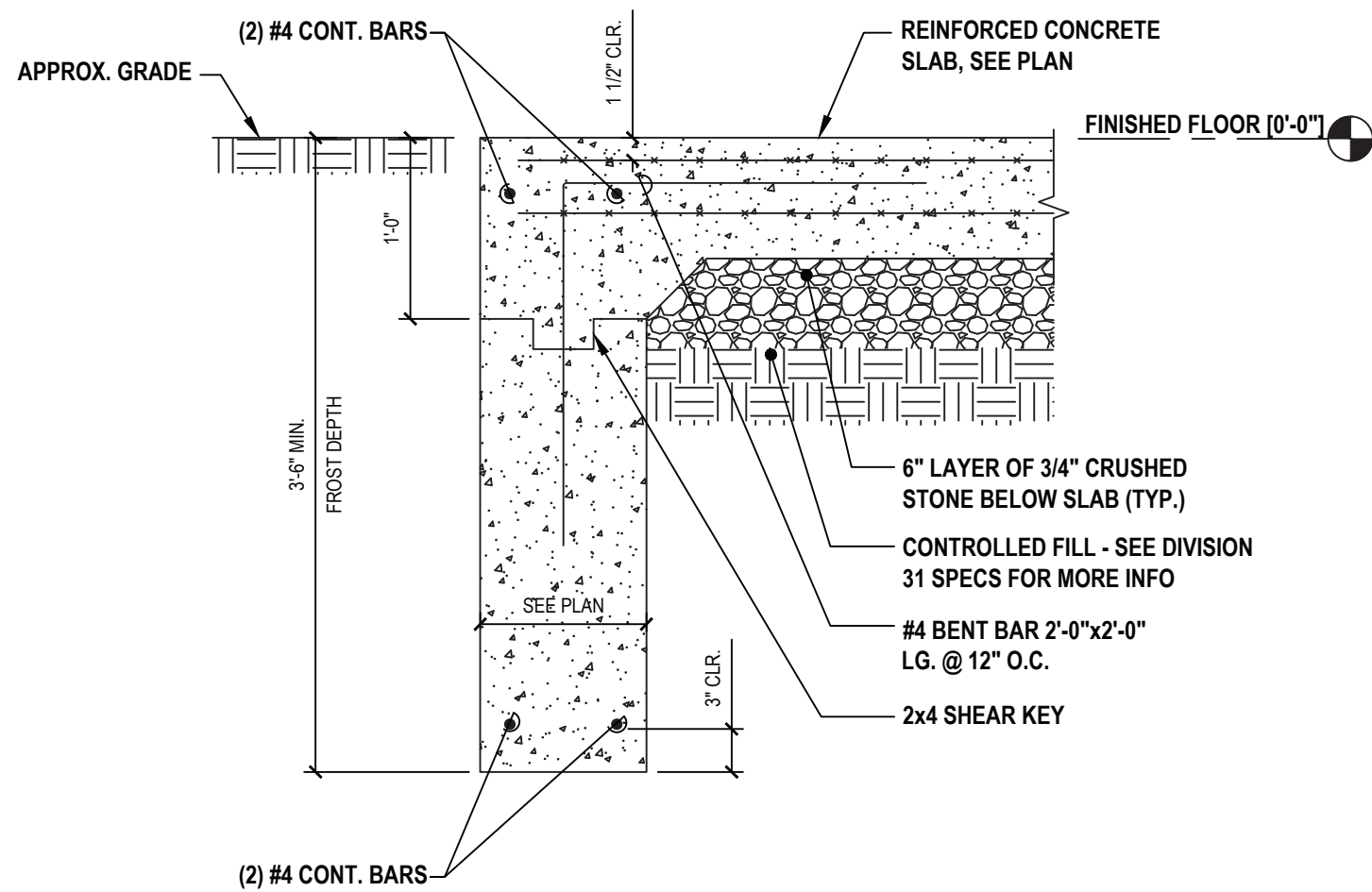
**5 Typical Section at Truck Apron**  
SCALE: N.T.S.



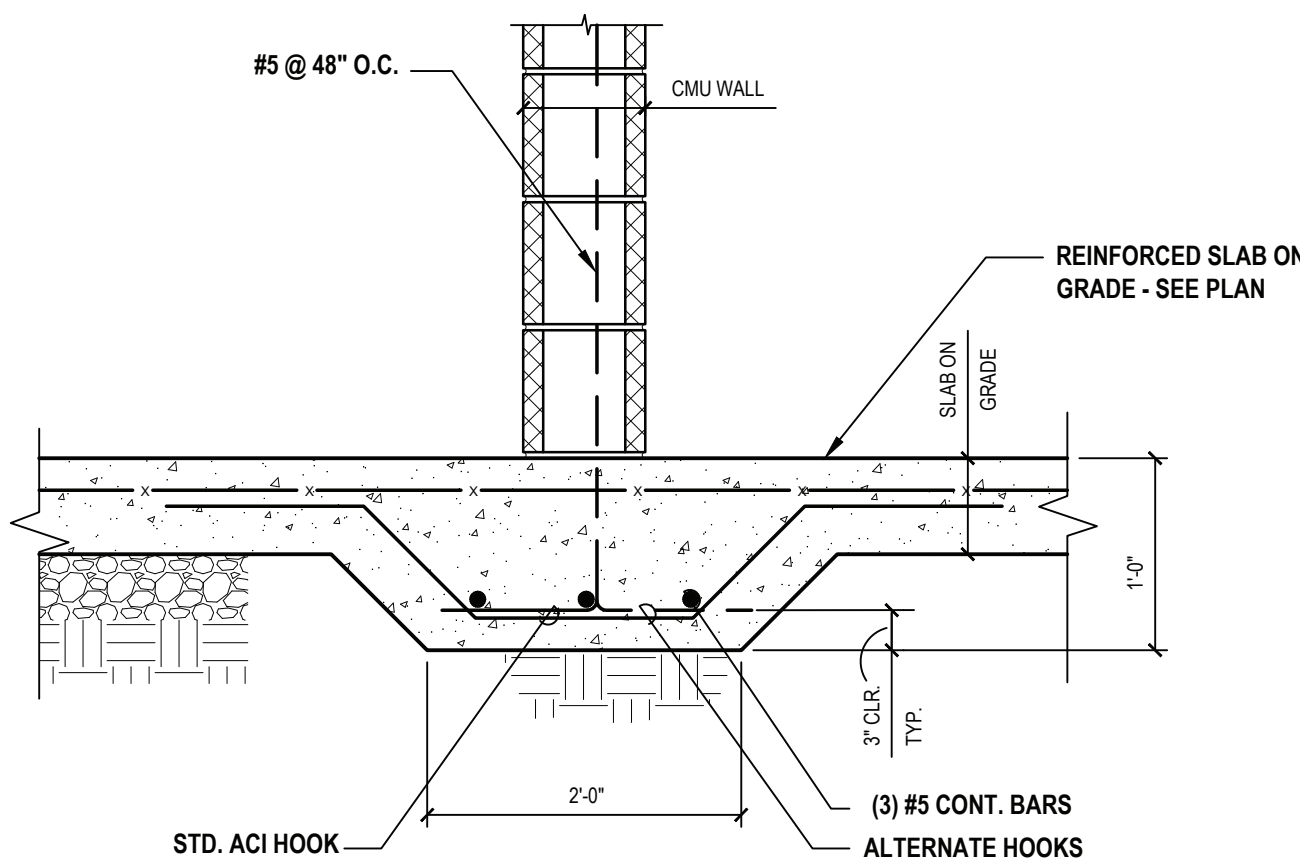
**6 Typical Interior Load Bearing Foundation**  
SCALE: N.T.S.



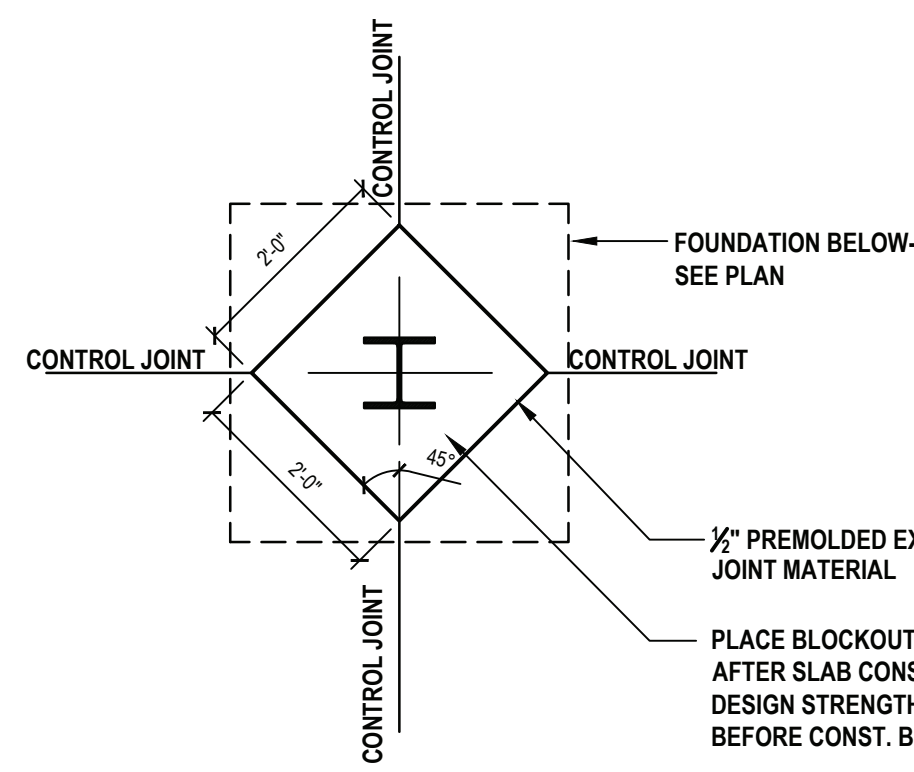
**9 Typical Pipe Penetration at Wall or Slab**  
SCALE: N.T.S.



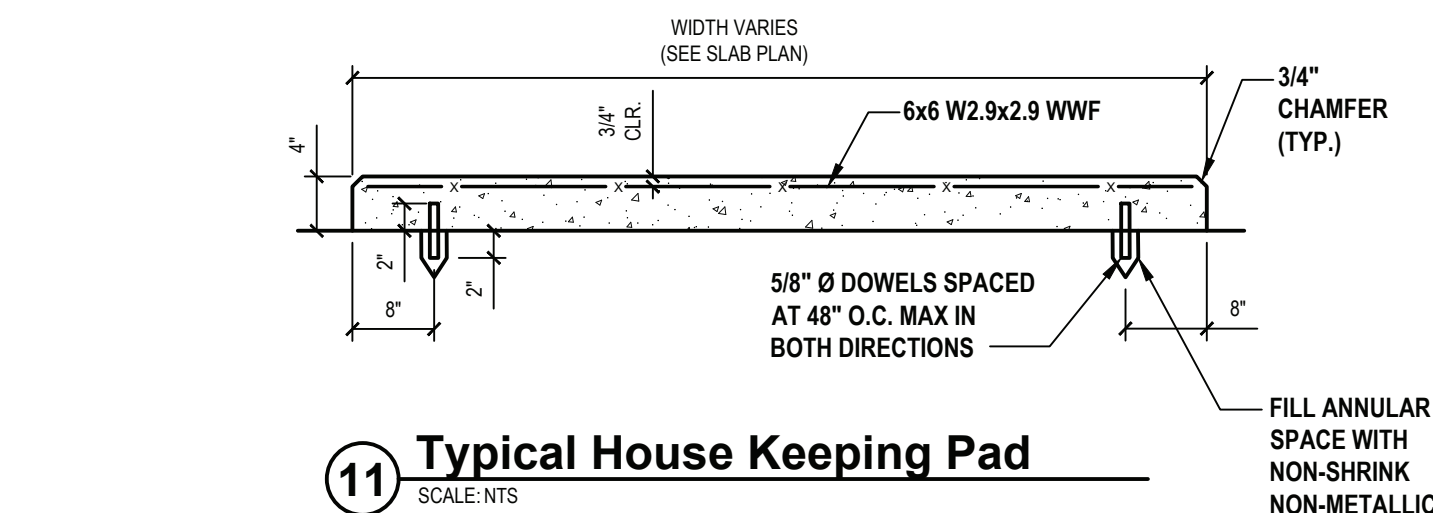
**7 Typical Foundation at Exterior Doors**  
SCALE: N.T.S.



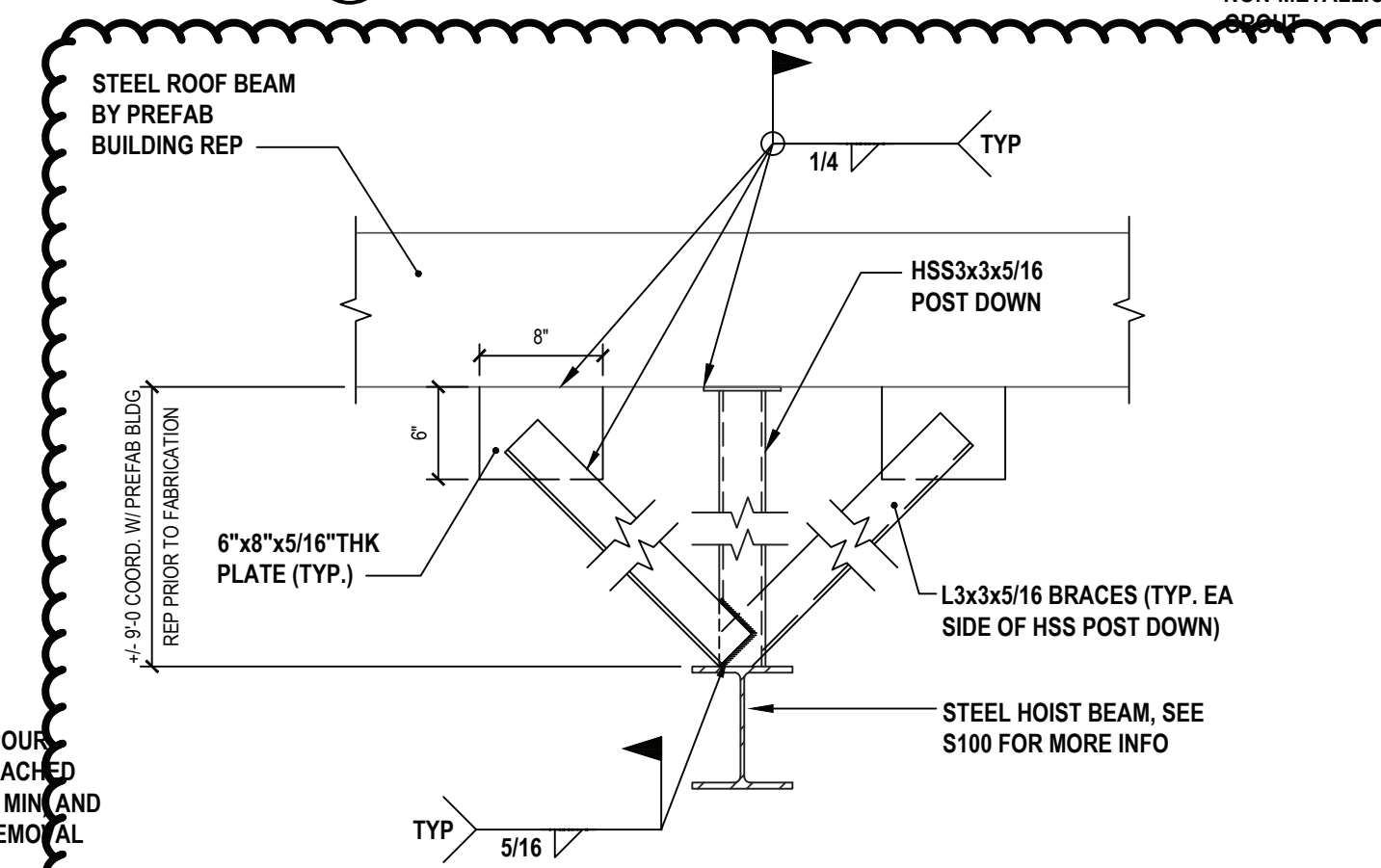
**8 Typical Haunched Slab at Masonry Partitions**  
SCALE: N.T.S.



**10 Column Expansion Joint Details**  
SCALE: N.T.S.



**11 Typical House Keeping Pad**  
SCALE: N.T.S.



**12 Hoist Beam Support Detail**  
SCALE: N.T.S.