

Date	Description
07.08.2019	Footing/Foundation Permit
08.21.2019	Permit

STRUCTURAL NOTES

CANNERY TRAIL RESIDENCES - 1750 N OXFORD AVE. - EAU CLAIRE, WI

S000

10/3/2019 12:04:27 AM

DESIGN DATA

APPLICABLE CODES/STANDARDS:
....INTERNATIONAL BUILDING CODE - 2018
....ASCE 7-16 MIN DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE/SEI

STRUCTURAL DESIGN STANDARDS (DESIGN SHALL CONFORM TO THE CURRENT EDITION UNDER THE APPLICABLE CODE):
....ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY
....ACI 530/531 BLDG CODE REQUIREMENTS AND SPECS FOR MASONRY STRUCTURES (AND RELATED COMMENTARIES)
....ANSI/AISC 360-16 SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS
....AWS D1.1/D1.1M STRUCTURAL WELDING CODE-STEEL

DEFLECTION LIMITS			
MEMBERS	LIVE	SNOW or WIND	DEAD + LIVE or SNOW
ROOF MEMBERS			
SUPPORTING GYPSUM BOARD CEILINGS	L/360	L/360	L/240
SUPPORTING FLEXIBLE CEILINGS	L/360	L/360	L/240
NOT SUPPORTING CEILING	L/240	L/240	L/180
SUPPORTING RIGID MATERIALS (BRICK, MASONRY, ETC.)	L/600	L/600	L/600
FLOOR MEMBERS			
SUPPORTING RIGID MATERIALS (BRICK, MASONRY, ETC.)	L/600	L/600	L/600
SUPPORTING GYPSUM BOARD CEILINGS	L/540	N/A	L/360
SUPPORTING FLEXIBLE MATERIALS	L/540	N/A	L/260
WOOD TRUSSES	L/480	L/360	L/240
LINTEL/HEADER/BEAM MEMBERS			
SUPPORTING RIGID MATERIALS (BRICK, MASONRY, ETC.)	L/600	L/600	L/600
SUPPORTING FLEXIBLE MATERIALS (EIFS, SIDING, ETC.)	L/360	L/360	L/240
EXTERIOR WALLS			
WITH RIGID FINISHES (BRICK, MASONRY, ETC.)	N/A	L/600	N/A
WITH FLEXIBLE FINISHES (EIFS, SIDING, ETC.)	N/A	L/360	N/A

BUILDING DESIGN LOADS/CRITERIA

DESIGN LIVE LOADS:
....FLOOR FRAMING (RETAIL, OFFICE, RESTAURANT, RECREATIONAL) 100 psf

....FLOOR FRAMING (RESIDENTIAL AREAS) 40 psf
....STAIRWAYS, EXITS 100 psf
....BALCONIES 75 psf
....PRIVATE GARAGES (PASSENGER VEHICLES ONLY) 40 psf
....INTERIOR PARTITION WALLS (UNIFORMLY DISTRIBUTED WEIGHT) 15 psf
....CORRIDORS FIRST FLOOR 100 psf
....CORRIDORS 2nd & 3rd FLOORS 40 psf
....CORNICES 60 psf

SNOW LOADS & DESIGN DATA:
....DESIGN SNOW LOAD 42 psf (BALANCED SNOW LOAD)
....FLAT ROOF SNOW LOAD (Pf) = (0.7Ce'Cl'sPg) 42 psf
....SNOW EXPOSURE FACTOR (Ce) 1.0
....SNOW LOAD IMPORTANCE FACTOR (Is) 1.0
....ROOF THERMAL FACTOR (Cl) 1.0
....GROUND SNOW (Pg) 60 psf
....SLOPED ROOF FACTOR (Cs) 1.0

WIND DESIGN DATA:
....WIND IMPORTANCE FACTOR (Iw) 1.0
....RISK CATEGORY II
....BASIC WIND SPEED (5-SECOND GUST, ULTIMATE) 115 MPH
....BASIC WIND SPEED (5-SECOND GUST, NOMINAL) 90 MPH
....MEAN ROOF HEIGHT 33 FT
....WIND EXPOSURE CATEGORY B
....WIND EXPOSURE CLASSIFICATION ENCLOSED
....VELOCITY EXPOSURE COEFFICIENT Kz 0.720
....TOPOGRAPHIC FACTOR (Kt) 1.0
....DESIGN PROCEDURE METHOD 1 (SIMPLIFIED PROCEDURE)

NET PRESSURE COEFFICIENTS C_{net}		
AREA	C_{net} INTERNAL PRESSURE	C_{net} INTERNAL PRESSURE
WINDWARD WALL	0.43	0.73
LEEWARD WALL	-0.51	-0.21
SIDEWALL	-0.66	-0.35
PARAPET WINDWARD WALL	1.28	
PARAPET LEEWARD WALL	-0.85	
FLAT ROOF	-1.09	-0.79

DESIGN WIND PRESSURES P_{net}		
AREA	P_{net} INTERNAL PRESSURE	P_{net} INTERNAL PRESSURE
WINDWARD WALL	10.5 psf	17.8 psf
LEEWARD WALL	-12.4 psf	-5.1 psf
SIDEWALL	-16.1 psf	-8.5 psf
PARAPET WINDWARD WALL	31.2 psf	
PARAPET LEEWARD WALL	-20.7 psf	
FLAT ROOF	-26.6 psf	-19.3 psf

EARTHQUAKE DESIGN DATA:
....OCCUPANCY CATEGORY II
....SEISMIC IMPORTANCE FACTOR (Ie) 1
....MAPPED SPECTRAL ACCELERATIONS AT SHORT PERIODS (Ss) 0.045 g
....MAPPED SPECTRAL ACCELERATIONS AT (1) SECOND PERIODS (S1) 0.038 g
....SITE CLASSIFICATION B
....SOIL COEFFICIENT (Ps) 1.0
....SITE COEFFICIENT (Fv) 1.0
....DESIGN SPECTRAL RESPONSE COEFFICIENT AT SHORT PERIODS (Sds) 0.030 g
....DESIGN SPECTRAL RESPONSE COEFFICIENT AT (1) SECOND PERIODS (Sd1) 0.025 g
....SEISMIC DESIGN CATEGORY A
....BASIC SEISMIC-FORCE-RESISTING SYSTEM LIGHT FRAME WOOD WALLS WITH STRUCTURAL WOOD SHEAR PANELS
....ANALYSIS PROCEDURE FOR SEISMIC DESIGN EQUIVALENT LATERAL FORCE ANALYSIS

SOIL DESIGN VALUES:
....SOIL UNIT WEIGHT 125 PCF (ASSUMED)
....LATERAL EARTH PRESSURE
....AT-REST (BASEMENT WALLS) 62.5 PSF/FT OF DEPTH (ASSUMED)
....PASSIVE 340 PSF (ASSUMED)
....COEFFICIENT OF SLIDING FRICTION 0.30 (ASSUMED)
....SUBGRADE MODULUS 260 PCI (ASSUMED)
....ALLOWABLE SOIL BEARING PRESSURE 3000 PSF

REFER TO SOILS REPORT NO. 17002 DATED 2/10/2017 PREPARED BY ITCO ALLIED ENGINEERING CO. FOR DESCRIPTION OF SOIL CONDITIONS, GEOTECHNICAL RECOMMENDATIONS, AND DESIGN VALUES

FOUNDATION AND EARTHWORK

1. ALL EXTERIOR FOOTINGS MUST BEAR BELOW LOCAL FROST LINE RELATIVE TO ADJACENT FINISH EXTERIOR GRADE.
2. DO NOT PLACE ANY FOOTINGS ON FROZEN SUBGRADE.
3. BACK FILLING SHALL BE DONE SIMULTANEOUSLY ON BOTH SIDES OF FOUNDATION WALLS.
4. DO NOT PLACE BACK FILL AGAINST BASEMENT WALLS UNTIL THE TOP AND BOTTOM OF THE WALL ARE ADEQUATELY BRACED BY THE SLAB ON GRADE AND THE FLOOR FRAMING AT THE TOP OF THE WALL.
5. REMOVE ANY EXISTING CONCRETE 2'-0" BELOW NEW CONCRETE FOOTINGS AND SLABS ON GRADE, UNLESS NOTED OTHERWISE.
6. SHORING/OR UNDERPINNING SHALL BE DESIGNED TO LIMIT HORIZONTAL AND VERTICAL MOVEMENT OF EXISTING CONSTRUCTION TO 1/4" MAXIMUM IN ANY DIRECTION.
7. CENTER PIER AND COLUMN FOOTINGS ON COLUMN CENTERLINES AND WALL FOOTINGS ON WALL CENTERLINES UNLESS SPECIFICALLY NOTED OTHERWISE.
8. ALL BACK FILL WITHIN 3'-0" OF RETAINING WALLS AND BASEMENT WALLS SHALL BE FREE DRAINING GRANULAR MATERIAL APPROVED BY A SOILS ENGINEER AND COMPACTED TO 90% STANDARD PROCTOR.
9. TOP OF FOOTING ELEVATIONS SHOWN ON THESE CONSTRUCTION DOCUMENTS REPRESENT MINIMUM FOOTING DEPTHS FOR FROST PROTECTION AND BEST JUDGMENT OF A SUITABLE BEARING STRATUM. ACTUAL GRADE CONDITIONS AND SUITABLE BEARING STRATUM MUST BE VERIFIED BY THE CONTRACTOR AND A SOILS ENGINEER AT THE TIME OF EXCAVATION.

10. FOOTING EXCAVATIONS MUST EXTEND TO COMPETENT BEARING MATERIAL. CONTRACTOR SHALL HIRE A SOILS ENGINEER TO FIELD VERIFY NET ALLOWABLE SOIL BEARING CAPACITY STATED ON THESE CONSTRUCTION DOCUMENTS AND IN GEOTECHNICAL REPORT FOR THIS PROJECT. THE SUITABLE BEARING STRATUM DOES NOT EXIST AT FOOTING ELEVATION STATED ON CONSTRUCTION DOCUMENTS. EXCAVATION SHOULD BE EXTENDED UNTIL SOIL WITH APPROPRIATE BEARING CAPACITY IS REACHED. PLACE GRANULAR MATERIAL OR FILL FOOTINGS OR EXTEND FOOTINGS DOWN TO SUITABLE BEARING STRATUM. ENGINEERED FILL BELOW SLABS ON GRADE AND FOOTINGS SHALL BE FREE DRAINING GRANULAR MATERIAL COMPAKTED TO 95% MODIFIED PROCTOR AND PLACED PER THE SOIL ENGINEERS RECOMMENDATIONS. ALL FIELD CONDITIONS THAT WILL AFFECT DESIGN AS PRESENTED MUST BE COORDINATED WITH STRUCTURAL ENGINEER.

11. REFER TO DESIGN DATA FOR DESCRIPTION OF SOIL CONDITIONS, GEOTECHNICAL RECOMMENDATIONS, AND DESIGN VALUES.

CONTINUITY:

ALL REINFORCING SHALL BE CONTINUOUS UNLESS NOTED OTHERWISE. CONTINUITY AT CORNERS AND INTERSECTIONS SHALL BE ACHIEVED USING CORNER BARS AND CONTACT LAP SPLICES. SEE TYPICAL DETAIL. CONTINUITY AT OTHER LOCATIONS MAY BE ACHIEVED USING CONTACT LAP SPLICES SHOWN ON APPROVED SHOP DRAWINGS. LOCATION OF LAP SPLICES SHALL BE SHOWN ON THE SHOP DRAWINGS. UNLESS NOTED OTHERWISE, THE FOLLOWING LAP SPLICES SHALL BE USED: (ALL LAP SPLICES ARE CLASS B 3 SPLICES)

LOCATION:	#3	#4	#5	#6	#7	#8	#9	#10	#11
3,000 & 3,500 PSI CONCRETE:									
- TOP BARS (*)	21"	19"	35"	46"	71"	93"	118"	149"	184"
- OTHER BARS:	16"	22"	27"	35"	55"	71"	91"	115"	142"
4,000 & 4,500 PSI CONCRETE:									
- TOP BARS (*)	16"	19"	25"	36"	61"	80"	102"	129"	159"
- OTHER BARS:	16"	16"	19"	28"	47"	62"	78"	99"	123"

(*) TOP BARS ARE HORIZONTAL REINFORCING WHERE MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCING.

(**) FOR 44 EPOXY COATED REBAR, USE 27" SPLICE LENGTH AT 3,000 AND 3,500 PSI CONCRETE AND 19" AT 4,000 AND 4,500 PSI.

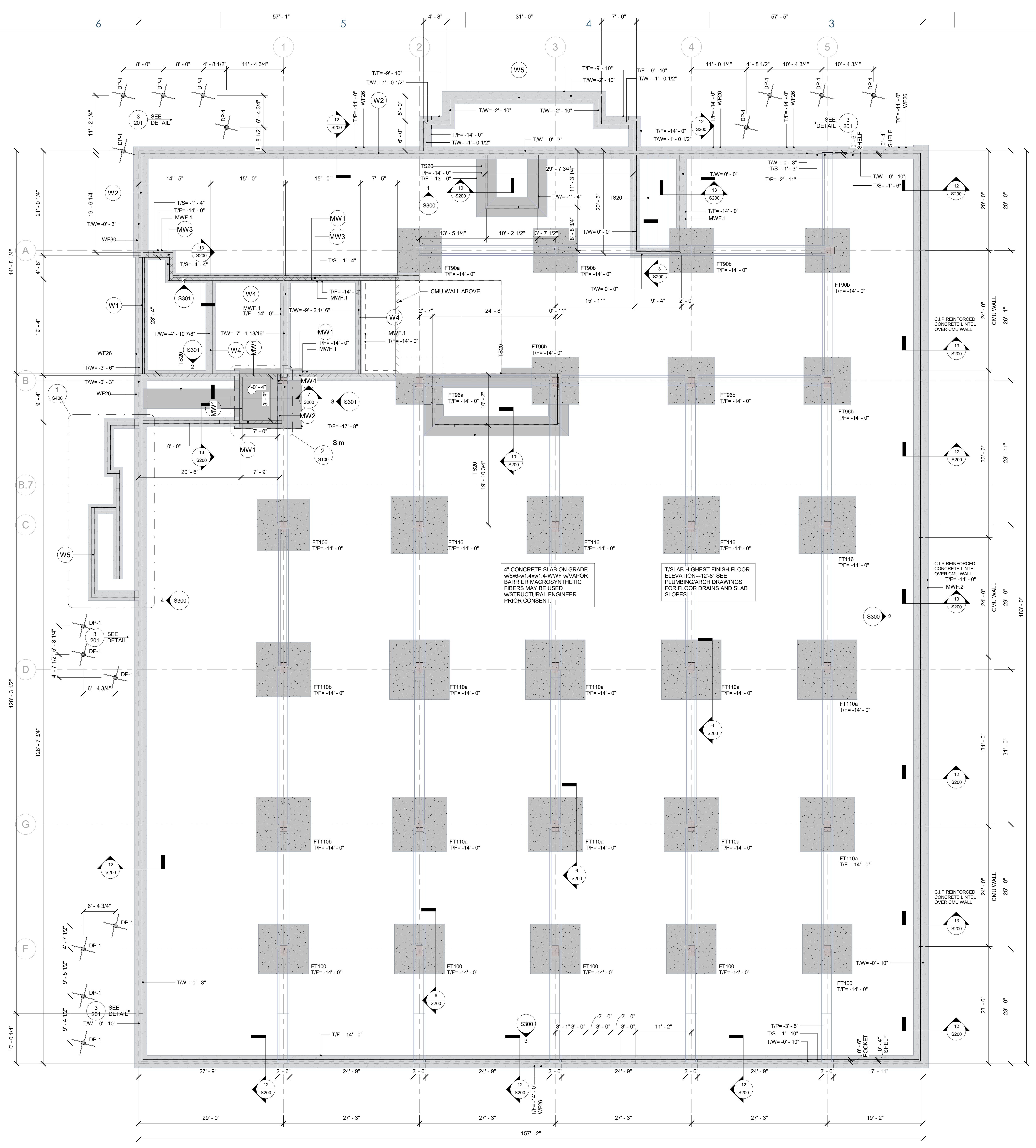
MECHANICAL CONNECTIONS MAY BE USED IN LIEU OF LAP SPLICES PROVIDED APPROVAL IS OBTAINED FROM THE ARCHITECT/ENGINEER. CONNECTIONS SHALL DEVELOP IN TENSION 125 PERCENT OF THE SPECIFIED YIELD STRENGTH OF THE REINFORCING. MECHANICAL SPLICES SHALL BE SHOWN ON THE SHOP DRAWINGS AND BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE PRODUCT'S ICC-ES REPORT. SUBMIT THE PRODUCT'S ICC-ES REPORT FOR MECHANICAL SPLICE PRODUCTS WITH SHOP DRAWINGS.

STEEL/METAL:

REINFORCING STEEL:
....ALL ASTM A615, GRADE 60, DEFORMED Fy = 60,000 PSI
....STEEL WELDED WIRE REINFORCEMENT, FLAT SHEETS Fy = 60,000 PSI

STRUCTURAL STEEL:
....ROLLED WIDE FLANGE SHAPES, ASTM A992 GRADE 50 Fy = 50,000 PSI
....CHANNELS, ANGLES, AND S SHAPES, ASTM A36 Fy = 36,000 PSI
....PLATE AND BAR, ASTM A36 Fy = 36,000 PSI
....TUBE SHAPES, ASTM A505 GRADE B Fy = 46,000 PSI
....PIPE ASTM A53, TYPE E or S, GRADE B Fy = 46,000 PSI
....ALL OTHER ROLLED SHAPES, ASTM A36 Fy = 36,000 PSI

STRUCTURAL BOLTS:



MASONRY WALL REINFORCING SCHEDULE			
MARK	WALL THICKNESS	VERTICAL REINFORCEMENT & SPACING	REINFORCEMENT LOCATION IN CELL
MW.1	8"	#5 AT 48" o/c MAX	CENTER
MW.2	8"	#6 AT 16" o/c MAX	INSIDE FACE

MASONRY WALL REINFORCING SCHEDULE NOTES:
1. GROUT CONCRETE MASONRY UNITS SOLID FULL HEIGHT OF BUILDING AT REINFORCEMENT LOCATIONS.
2. UNLESS NOTED, USE #5 14" O.C. VERT. REINFORCEMENT.
3. PROVIDE ONE MASONRY UNIT WALL REINFORCING ABOVE AND BELOW ALL MASONRY OPENINGS: EXTEND THE LENGTH OF THE REBARS BY 23" OR 40 BAR DIAMETERS PAST THE EDGE OF THE OPENING.
4. REINFORCING TO BE HOT-DIPPED GALVANIZED.
5. PROVIDE STANDARD (W1.7) HORIZONTAL JOINT REINFORCING AT 10' ON CENTER VERTICALLY (8' ON CENTER IN PARAPET WALLS) UNO.
6. MASONRY FIREWALL CONSTRUCTION ASSUMES MASONRY BLOCKS COMPRISED OF LIMESTONE.

MASONRY WALL FOOTING SCHEDULE			
MARK	WIDTH	THICKNESS	LONGITUDINAL
MWF.1	2'-0"	1'-0"	(2) #5
MWF.2	3'-0"	1'-2"	(3) #5

MASONRY WALL FOOTING SCHEDULE:
1. REFER TO STRUCTURAL NOTES SHEET FOR LAPs IN STEEL REINFORCEMENT.
2. REFER TO FOUNDATION PLANS FOR TOP OF FOOTING ELEVATIONS.
3. ALL FOOTING EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.

THICKENED SLAB SCHEDULE			
MARK	DIMENSIONS	REINFORCEMENT	REMARKS
TS20	2'-0" X (CONT)	1'-0"	(2) #5
			THICKENED SLAB, REFER TO 11/

THICKENED SLAB SCHEDULE NOTES:
1. REFER TO STRUCTURAL NOTES SHEET FOR LAPs IN STEEL REINFORCEMENT.
2. REFER TO FOUNDATION PLANS FOR TOP OF FOOTING ELEVATIONS.
3. ALL FOOTING EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.

WALL FOOTING SCHEDULE			
MARK	DIMENSIONS	REINFORCEMENT	
WF26	2'-6" X (CONT)	1'-2"	(3) #5 @ 12" BOTTOM FACE
WF26	3'-0" X (CONT)	1'-2"	(3) #5 @ 12" BOTTOM FACE

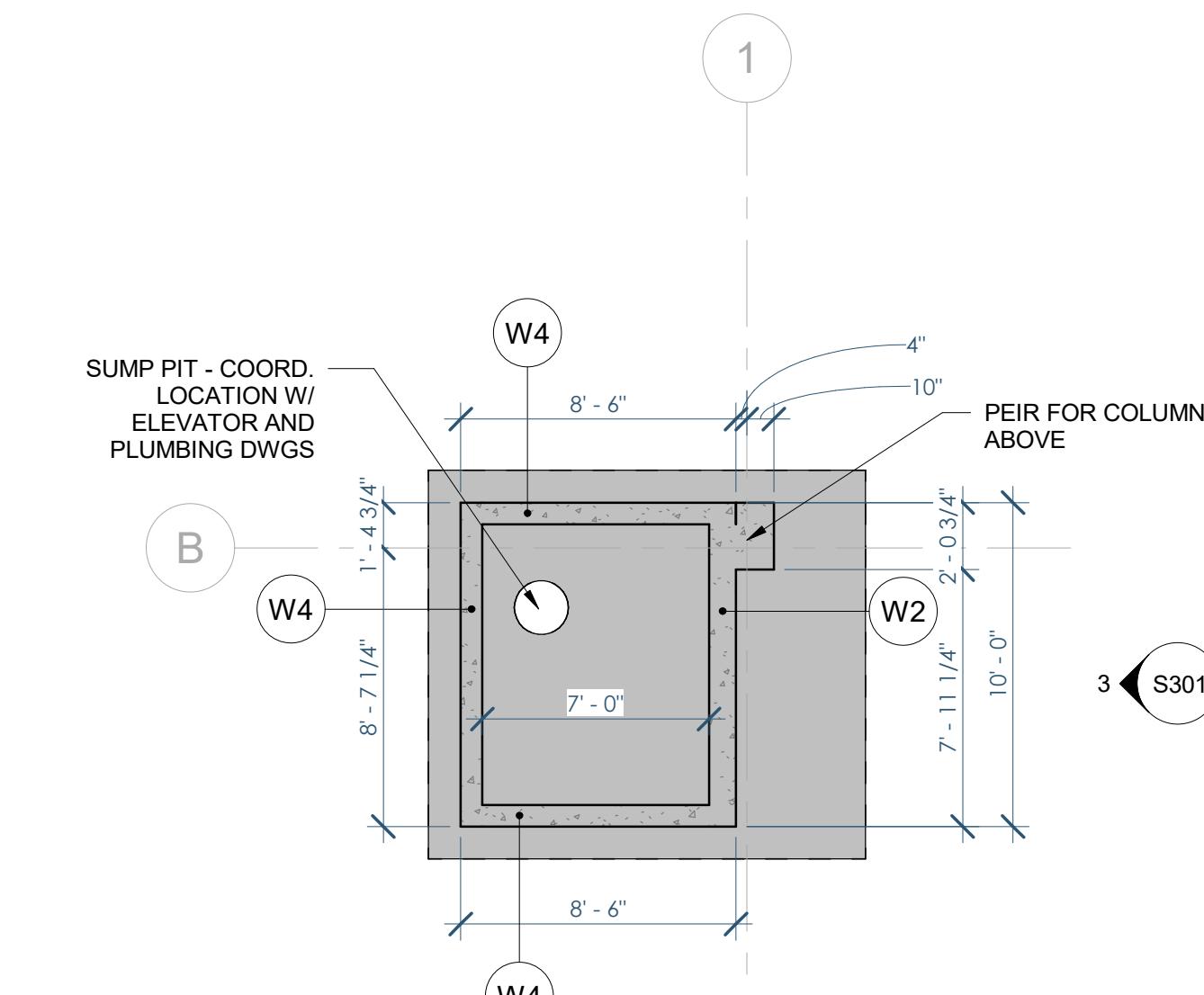
COLUMN FOOTING SCHEDULE NOTES:
1. REFER TO STRUCTURAL NOTES SHEET FOR MINIMUM COVER REQUIREMENTS.
2. REFER TO FOUNDATION PLANS FOR TOP OF FOOTING ELEVATIONS.
3. ALL FOOTING EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
4. ALL LAPs IN STEEL REINFORCING SHALL BE CLASS "B" LAP SPLICES UNLESS NOTED OTHERWISE.

COLUMN FOOTING SCHEDULE					
MARK	W	L	D	BOTTOM REINFORCING	COLUMNS
FT90a	9'-0"	9'-0"	1'-8"	(10) #7	A1 A2
FT90b	9'-0"	9'-0"	1'-8"	(10) #8	A3 A4 A5
FT96a	9'-6"	9'-6"	1'-8"	(10) #7	B2
FT96b	9'-6"	9'-6"	1'-8"	(10) #8	B3 B4 B5
FT110	10'-0"	10'-0"	2'-1"	(11) #8	F1 F2 F3 F4 F5
FT110	10'-6"	10'-6"	2'-3"	(11) #8	C1
FT110a	11'-0"	11'-0"	2'-1"	(12) #8	G2 G3 G4 G5
FT110b	11'-0"	11'-0"	2'-3"	(12) #8	D1 G1
FT116	11'-6"	11'-6"	2'-1"	(12) #8	C2 C3 C4 C5
FT120	12'-0"	12'-0"	2'-3"	(13) #8	D2 D3 D4 D5

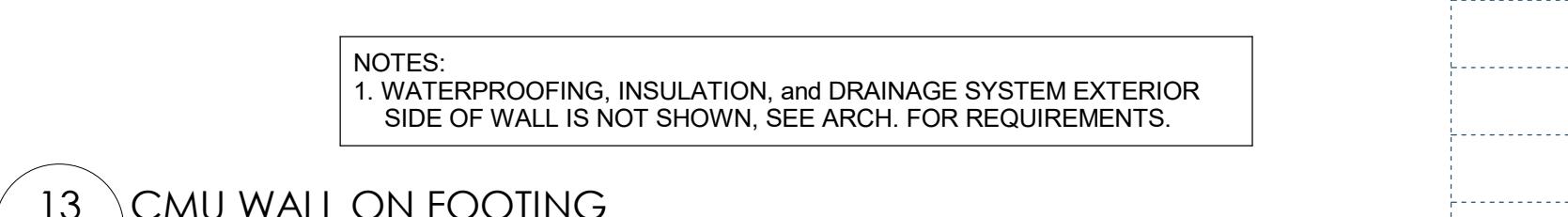
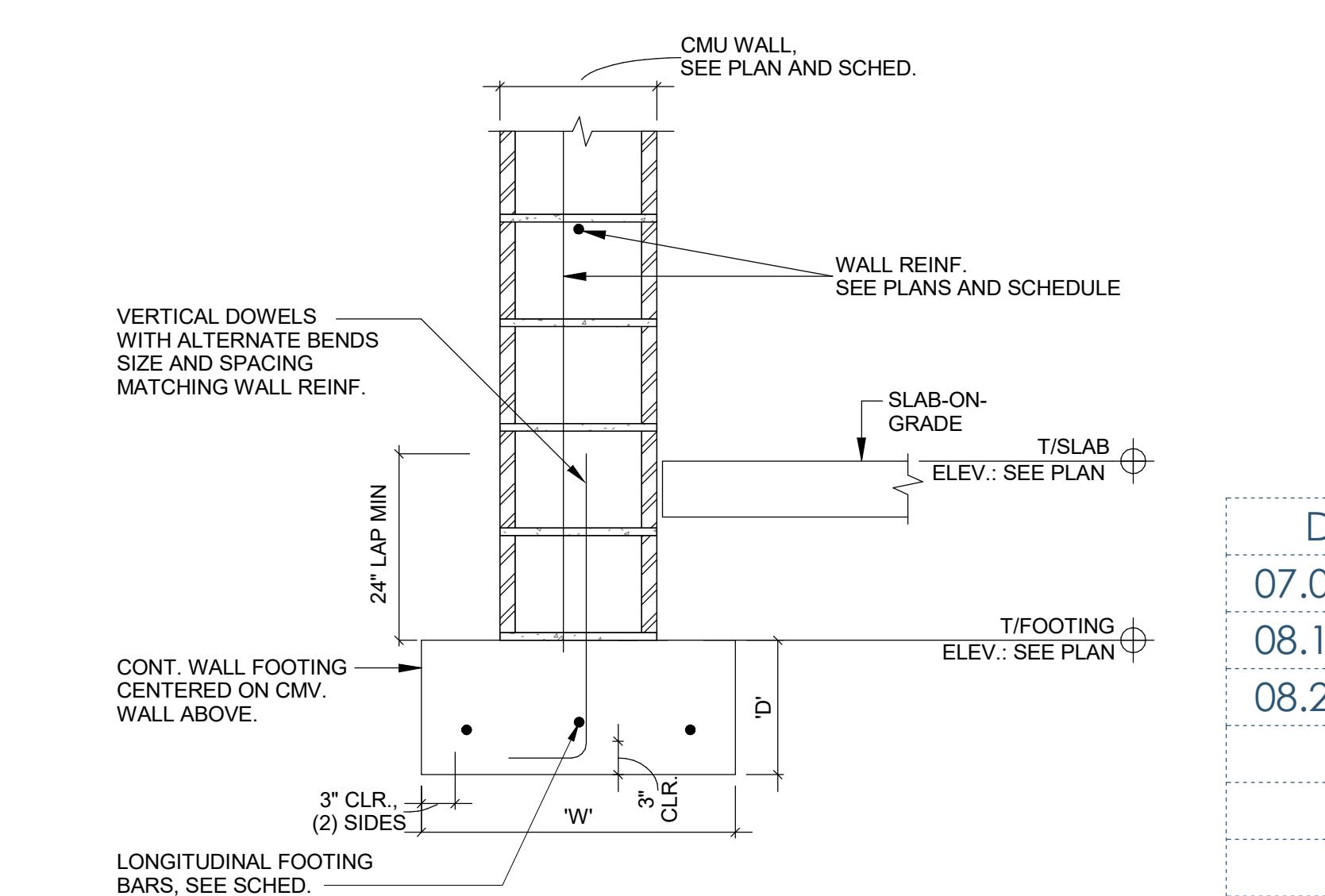
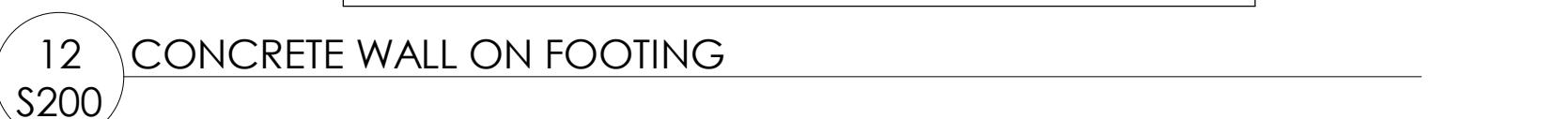
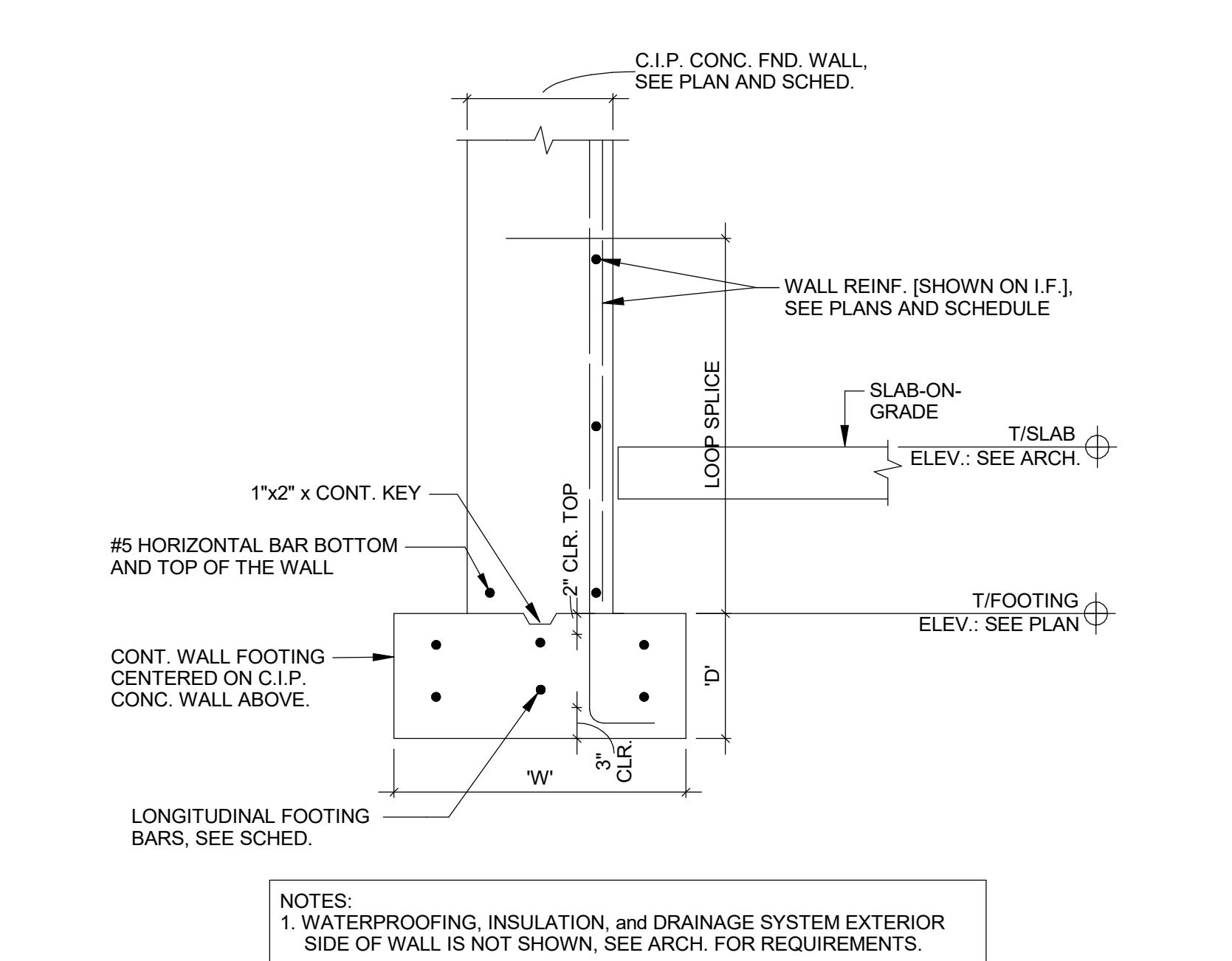
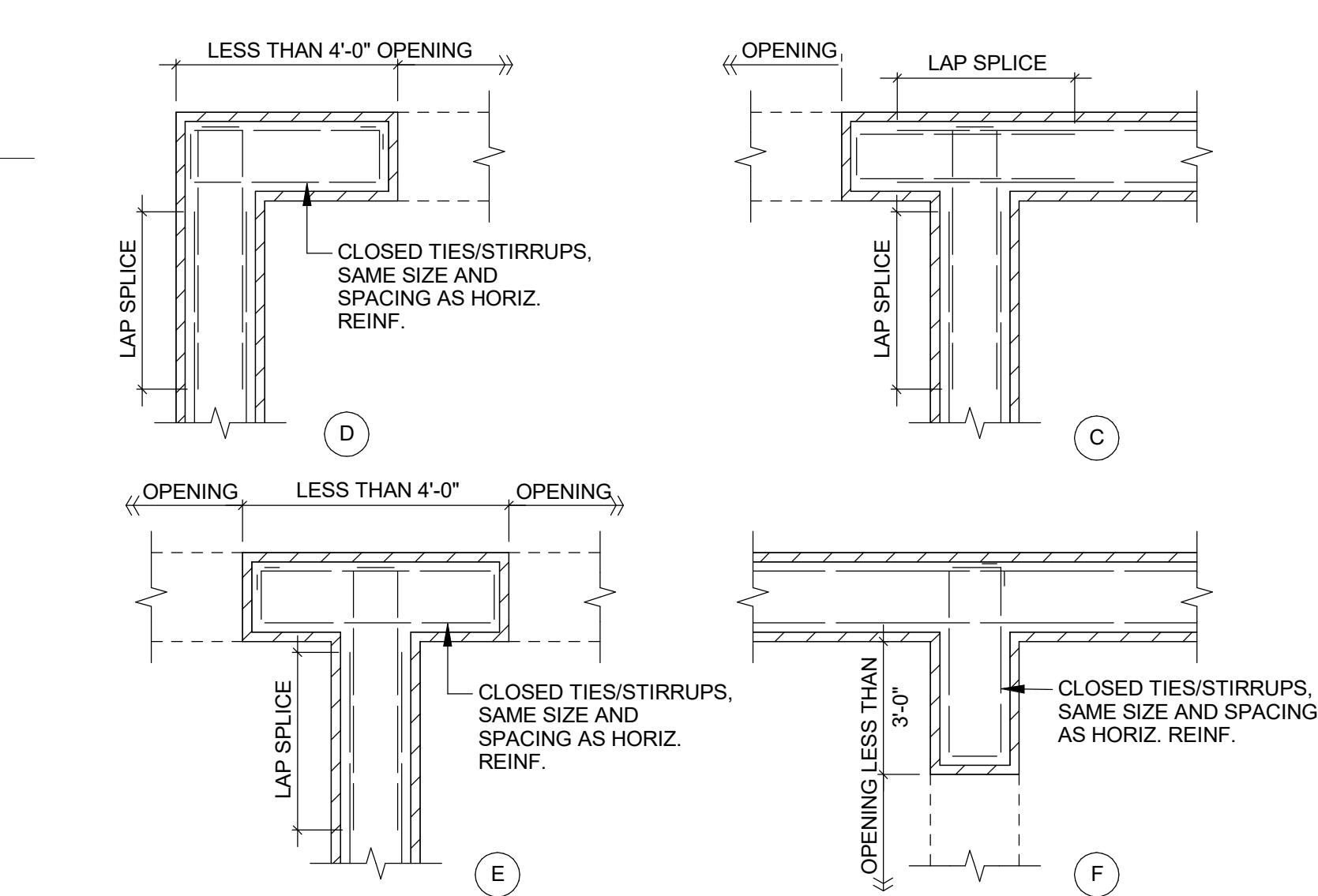
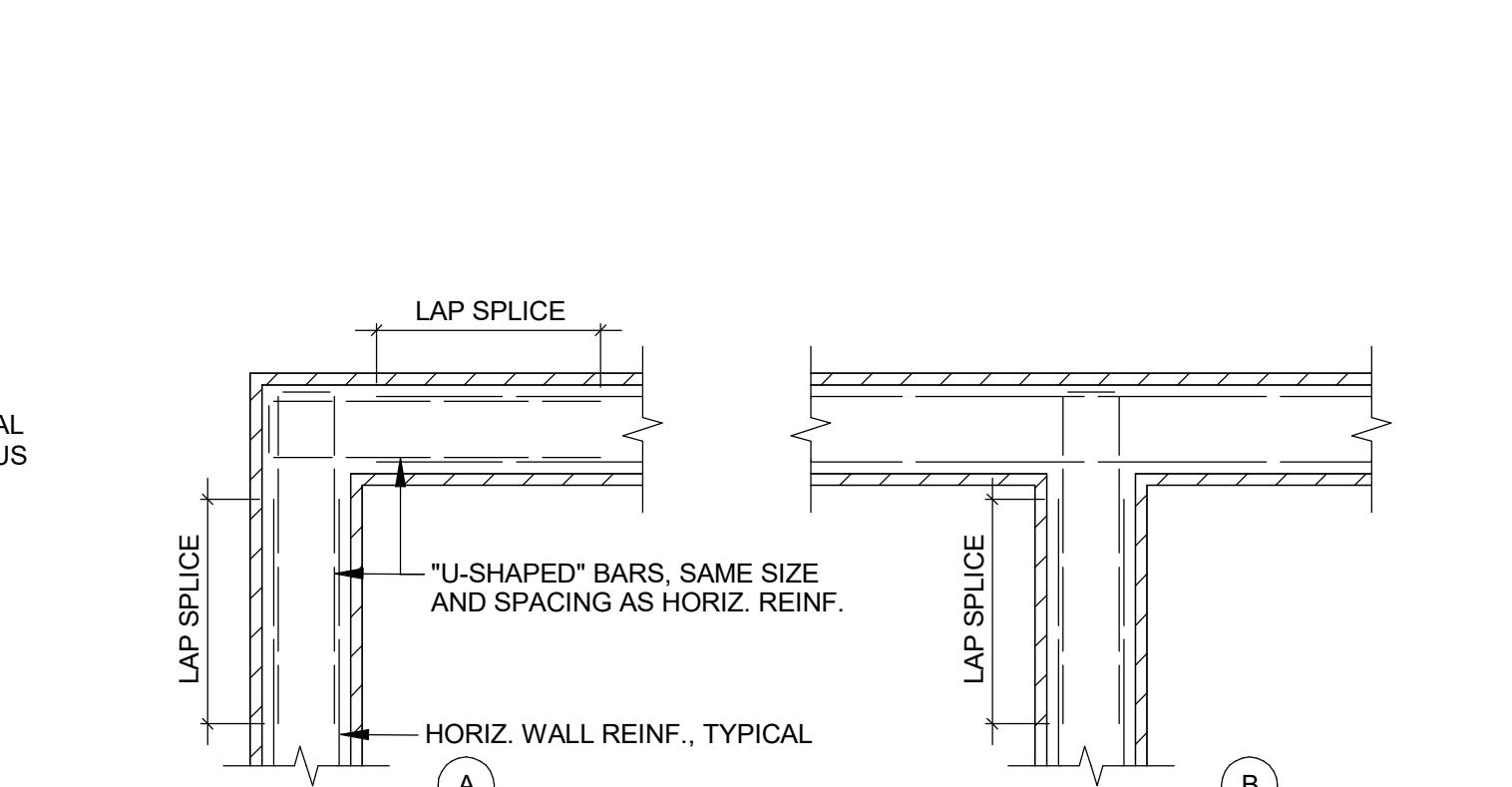
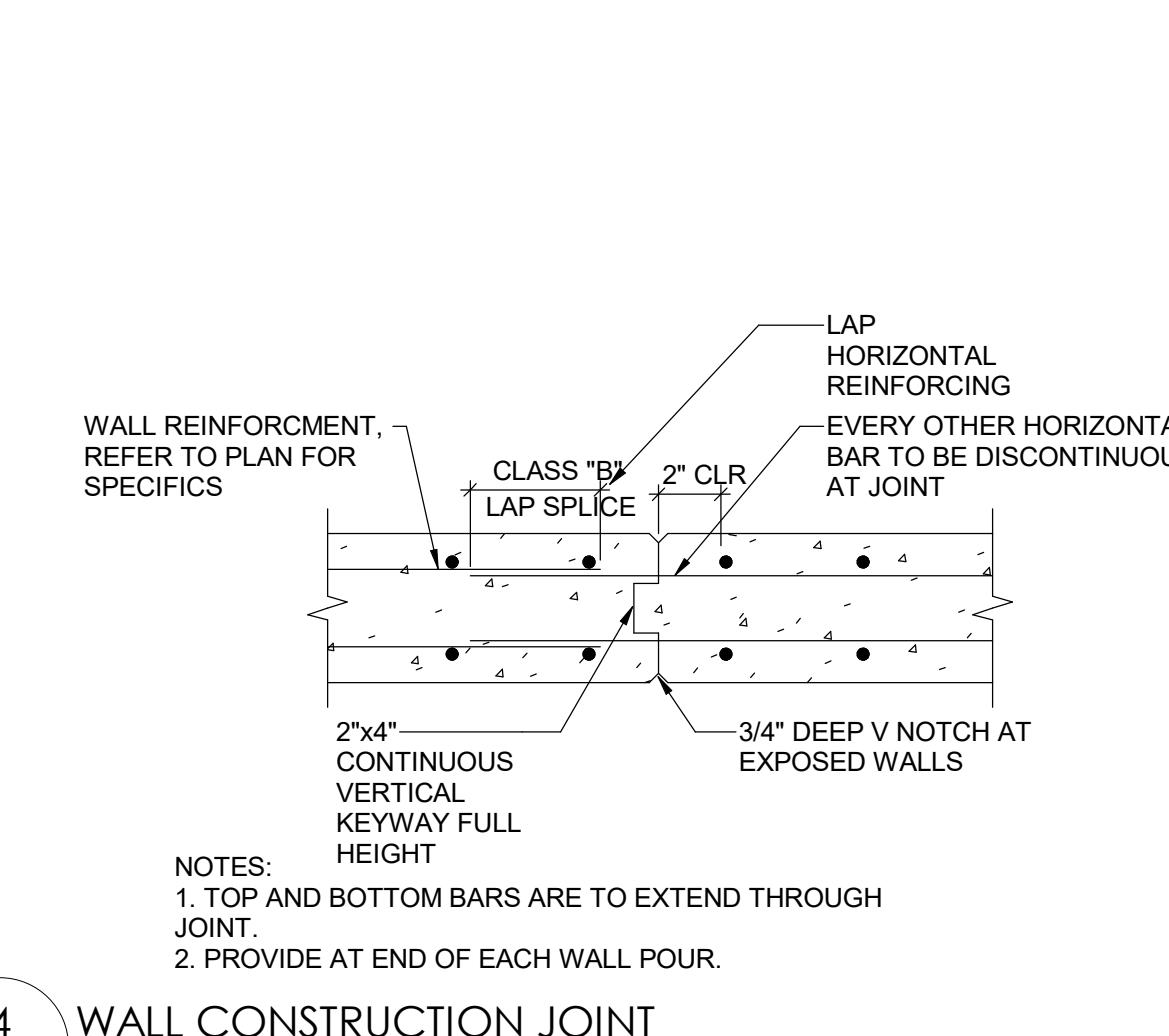
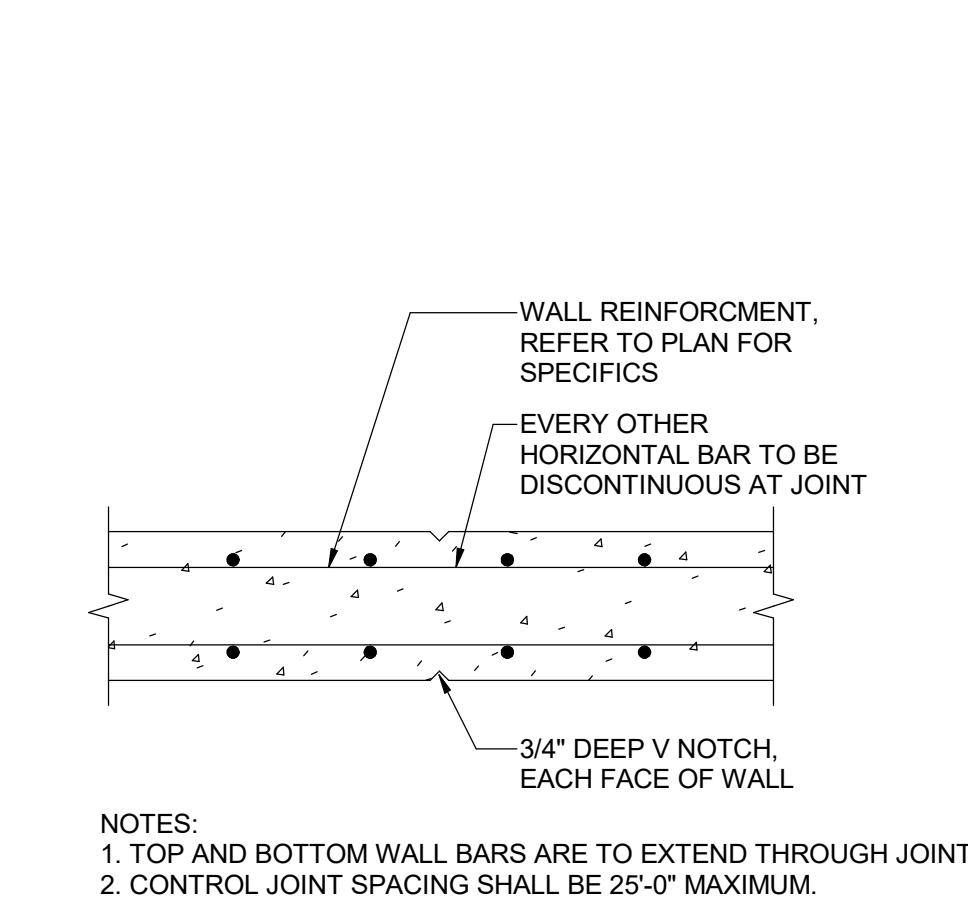
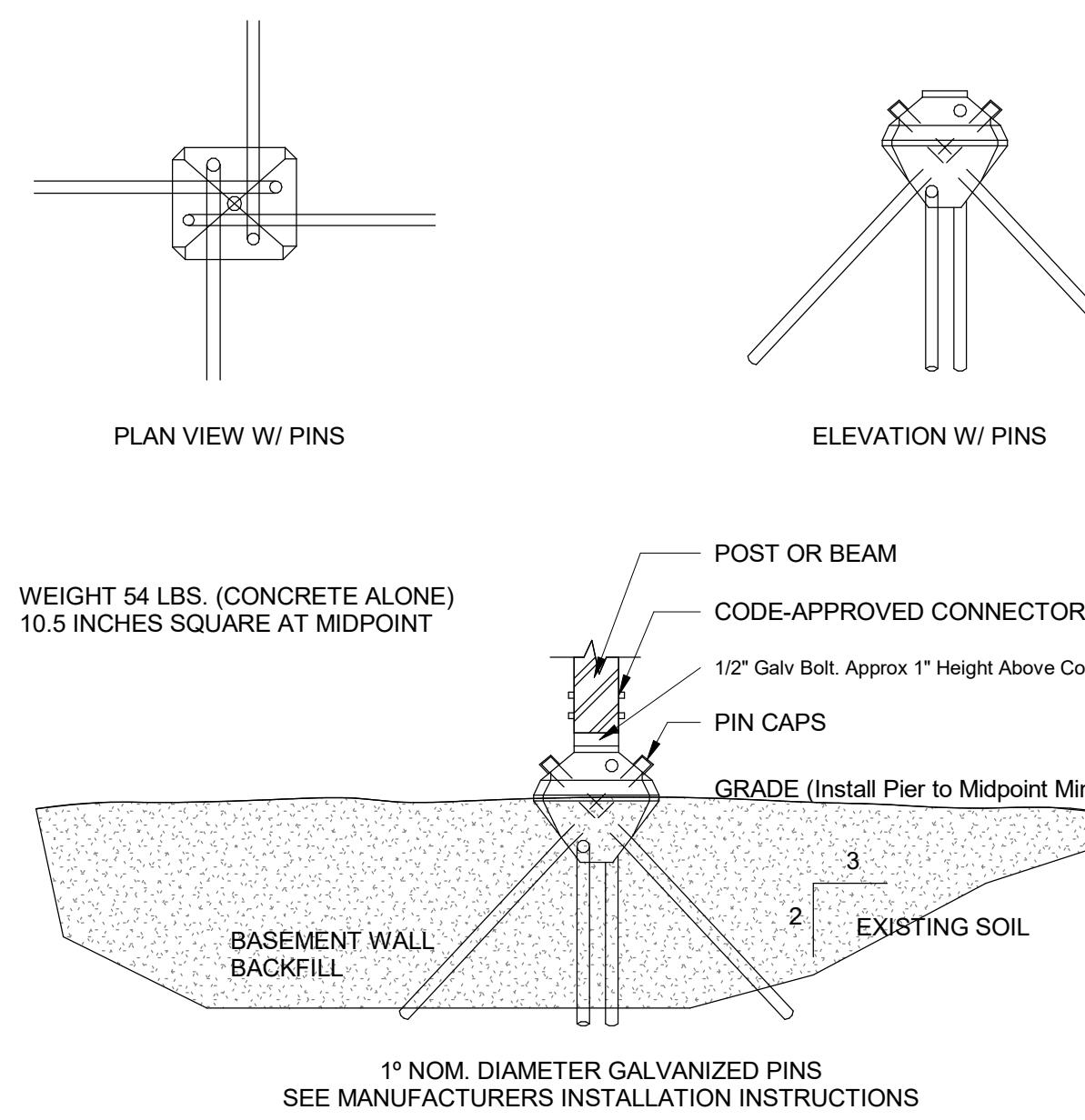
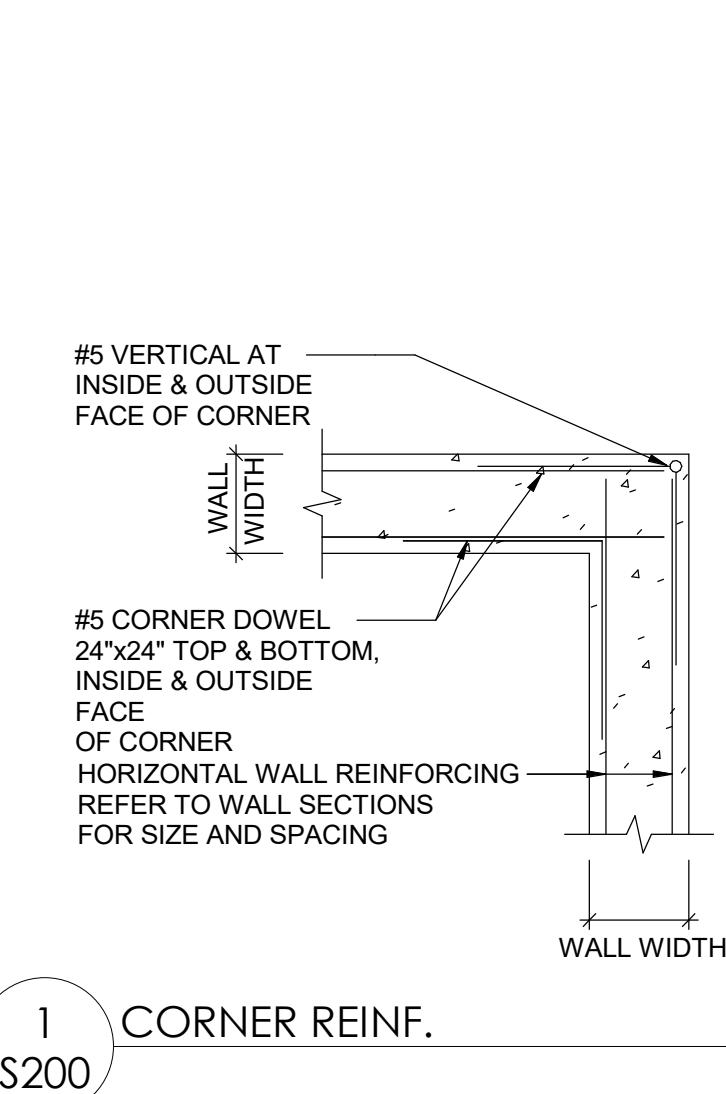
COLUMN FOOTING SCHEDULE:
1. REFER TO STRUCTURAL NOTES SHEET FOR LAPs IN STEEL REINFORCEMENT.
2. REFER TO FOUNDATION PLANS FOR TOP OF FOOTING ELEVATIONS.
3. ALL FOOTING EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.

CONCRETE WALL REINFORCING SCHEDULE					
MARK	TYPE	THICKNESS	REINFORCEMENT		REMARKS
W1	CONCRETE	14"	5#s AT 18" o.c.	5#s AT 12" o.c.	Inside face
W2	CONCRETE	10"	5#s AT 12" o.c.	5#s AT 12" o.c.	Inside face
W3	CONCRETE	10"	6#s AT 12" o.c.	6#s AT 12" o.c.	Inside face
W4	CONCRETE	8"	4#s AT 12" o.c.	3#s AT 12" o.c.	centered in wall thickness

CONCRETE WALL REINFORCING SCHEDULE NOTES:
1. REFER TO STRUCTURAL NOTES SHEET FOR LAPs IN STEEL REINFORCEMENT.
2. COORDINATE AND VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS AND EXIST. CONDITIONS



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1 CORNER REINF.

2 DIAMOND PIER DP-50

3 WALL CONTROL JOINT

4 WALL CONSTRUCTION JOINT

5 MASONRY WALL - REINF. DETAILS

6 PRECAST COLUMN ON CONCRETE FOOTING

7 ELEVATOR PIT SECTION

8 ELEVATOR PIT SUMP CROCK

9 REINFORCEMENT AROUND CONCRETE WALL OPENING

10 INTERIOR STUD WALL ON THICKENED SLAB

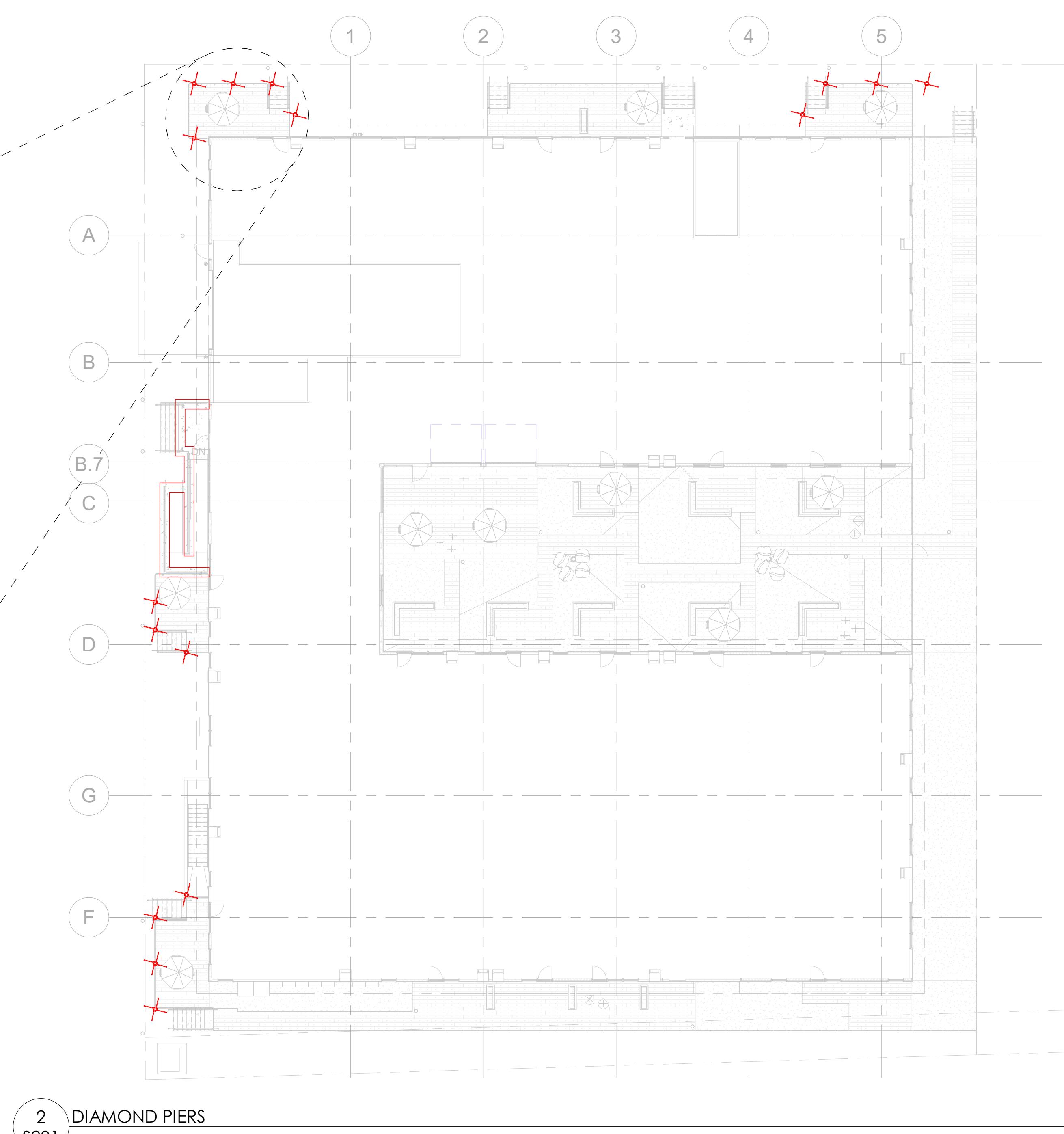
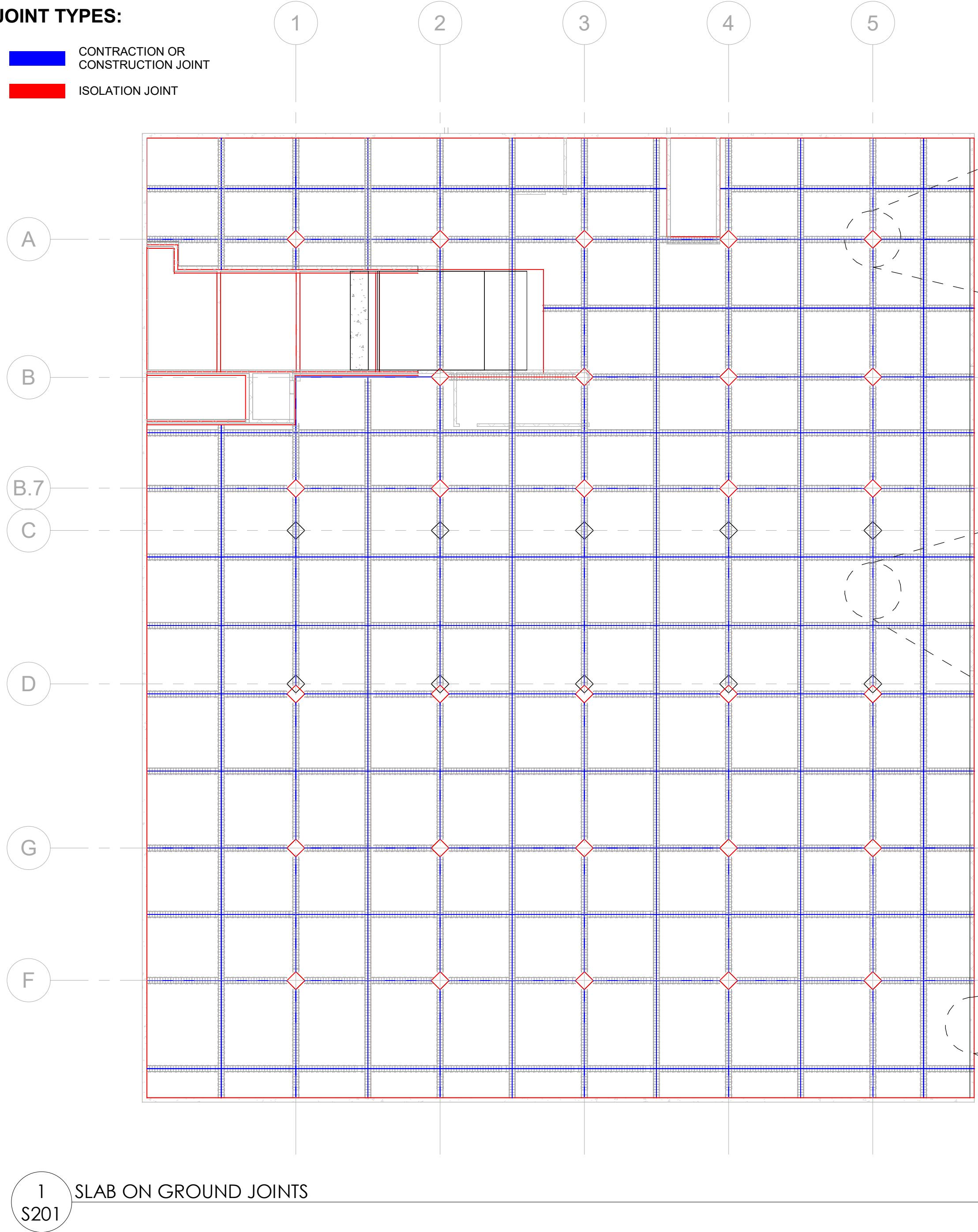
11 PIPE PENETRATION AT FOUNDATION WALL


12 CONCRETE WALL ON FOOTING


13 CMU WALL ON FOOTING

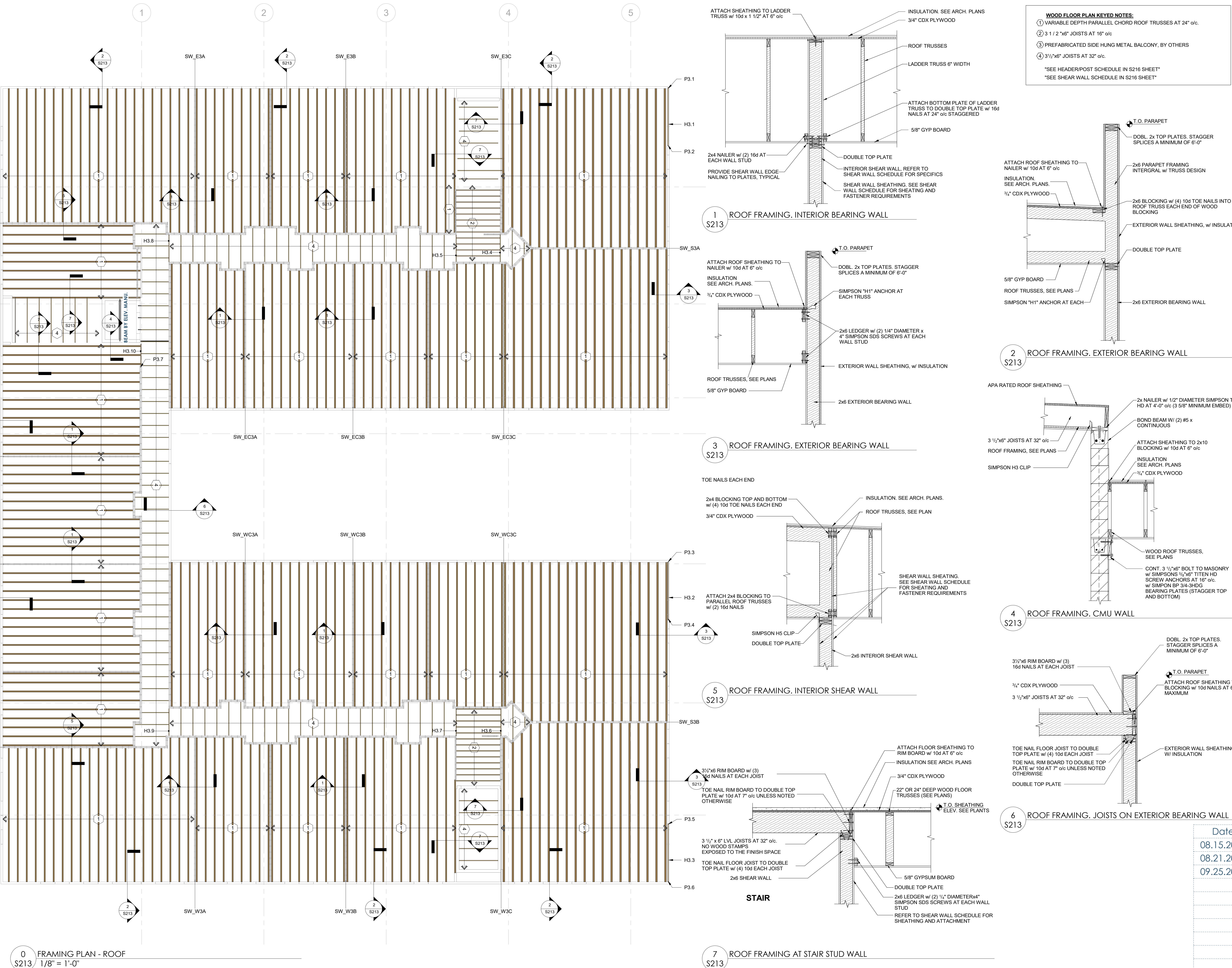
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Architect: OpeningDesign
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Madison, WI 53703
ryan@openingdesign.com | 773.425.6456

The logo for Royal Construction. It features a gold crown icon to the left of the word "ROYAL" in a large, bold, red sans-serif font. Below "ROYAL" is a thin horizontal red line. To the right of the line is the word "CONSTRUCTION" in a slightly smaller, bold, red sans-serif font.

The logo for Cedar Corporation features the word "Cedar" in a large, bold, green sans-serif font. The letter "C" is stylized with a thick, rounded top and a thin vertical stroke on the right. Below "Cedar", the word "corporation" is written in a smaller, lowercase, green sans-serif font.

Civil Engineer: CEDAR CORPORATION
604 Wilson Avenue | Menomonie, WI 54751
kevin.ouim@cedarcorp.com | 715-235-9081

The logo for Ennovation Engineering Services Incorporated features the company name in a bold, blue, sans-serif font. The word "Ennovation" is on top, and "Engineering Services Incorporated" is on the line below it. The logo is set against a white background and is framed by a thick, stylized blue border that has a wavy, dynamic feel, resembling a ribbon or a bridge.

Structural Engineer of Record: Ennovation
4729 Dale-Curtain Dr, McFarland, WI 53558
kfrey@ennovationbuilt.com

The logo for Tailored Engineering features a stylized 'T' and 'E' icon where the 'T' is a blue circle and the 'E' is a grey outline. To the right of the icon, the word 'TAILORED' is written in large, bold, blue capital letters, and 'ENGINEERING' is written in a smaller, bold, grey sans-serif font below it.

Plumbing Engineer: TAILORED ENGINEERING
1600 Aspen Commons | Ste 210 | Middleton, WI
53562

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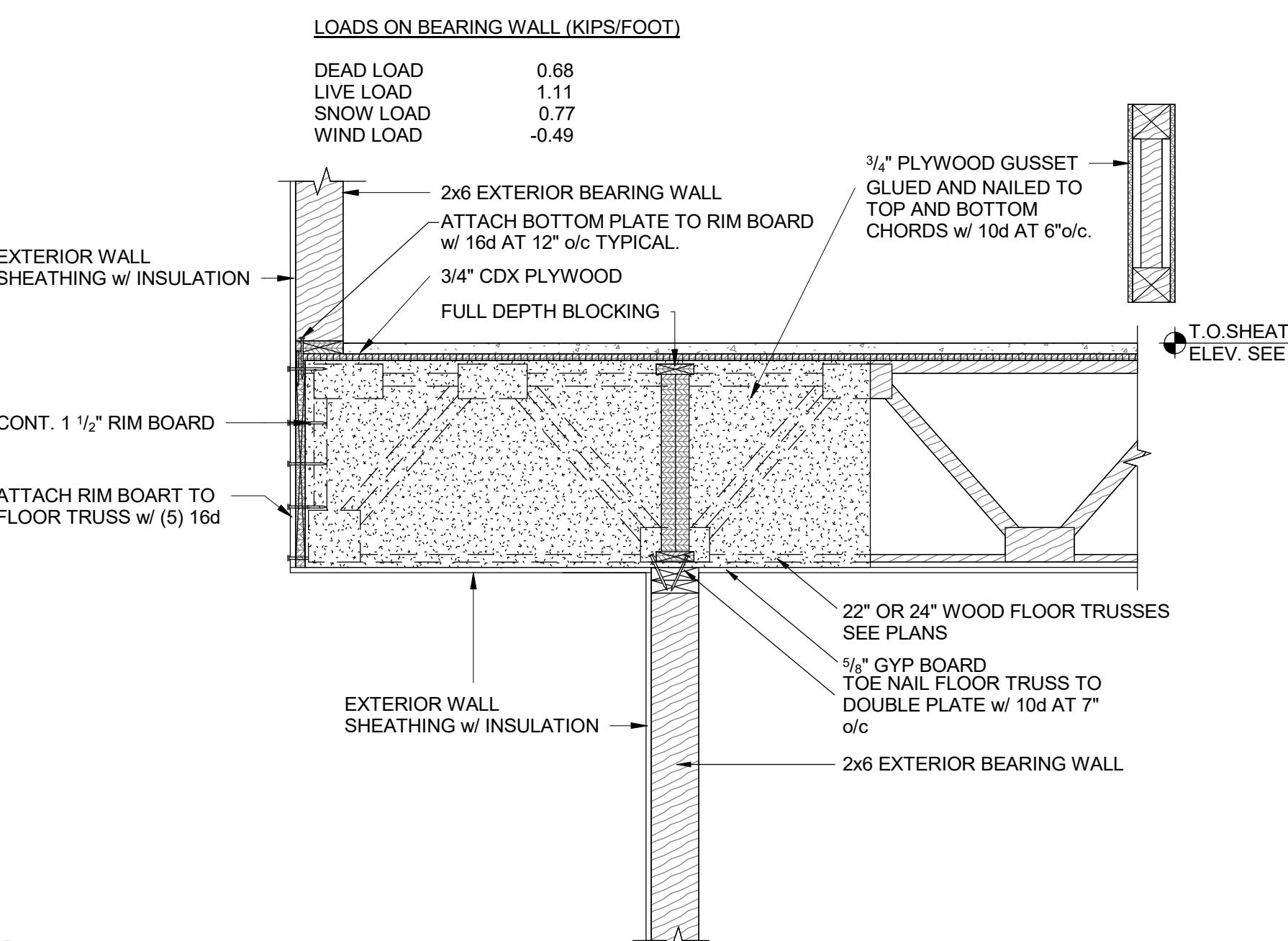
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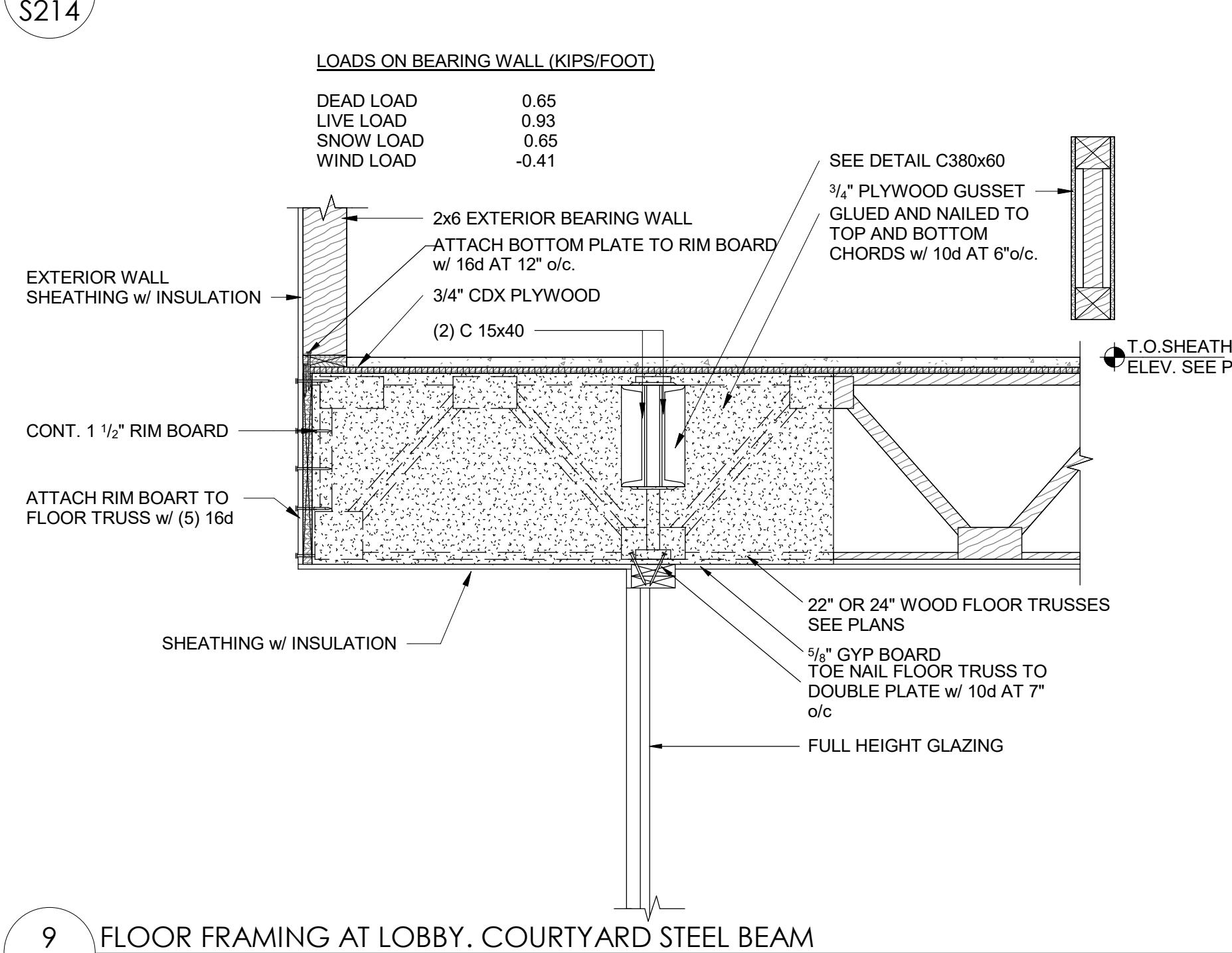
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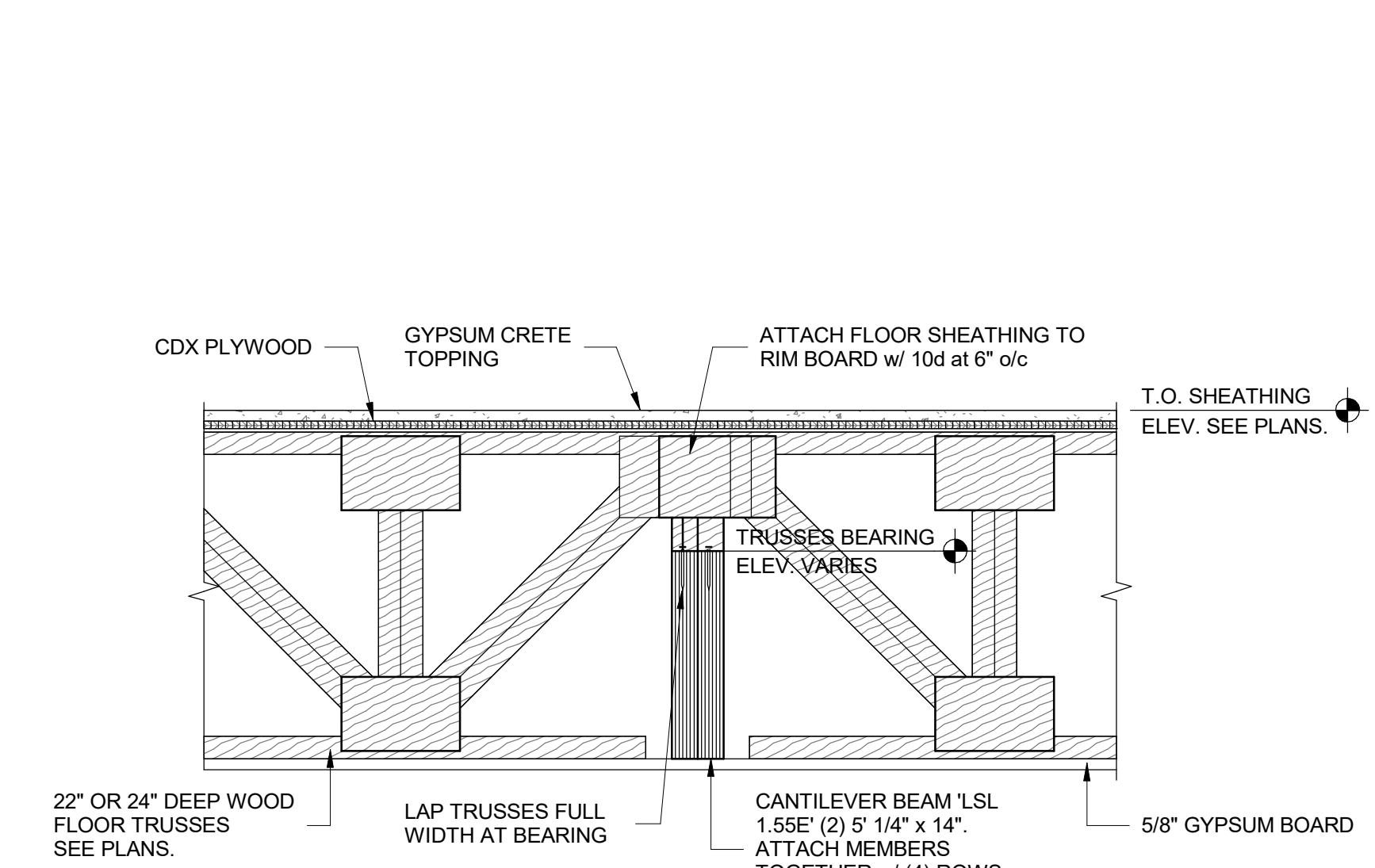
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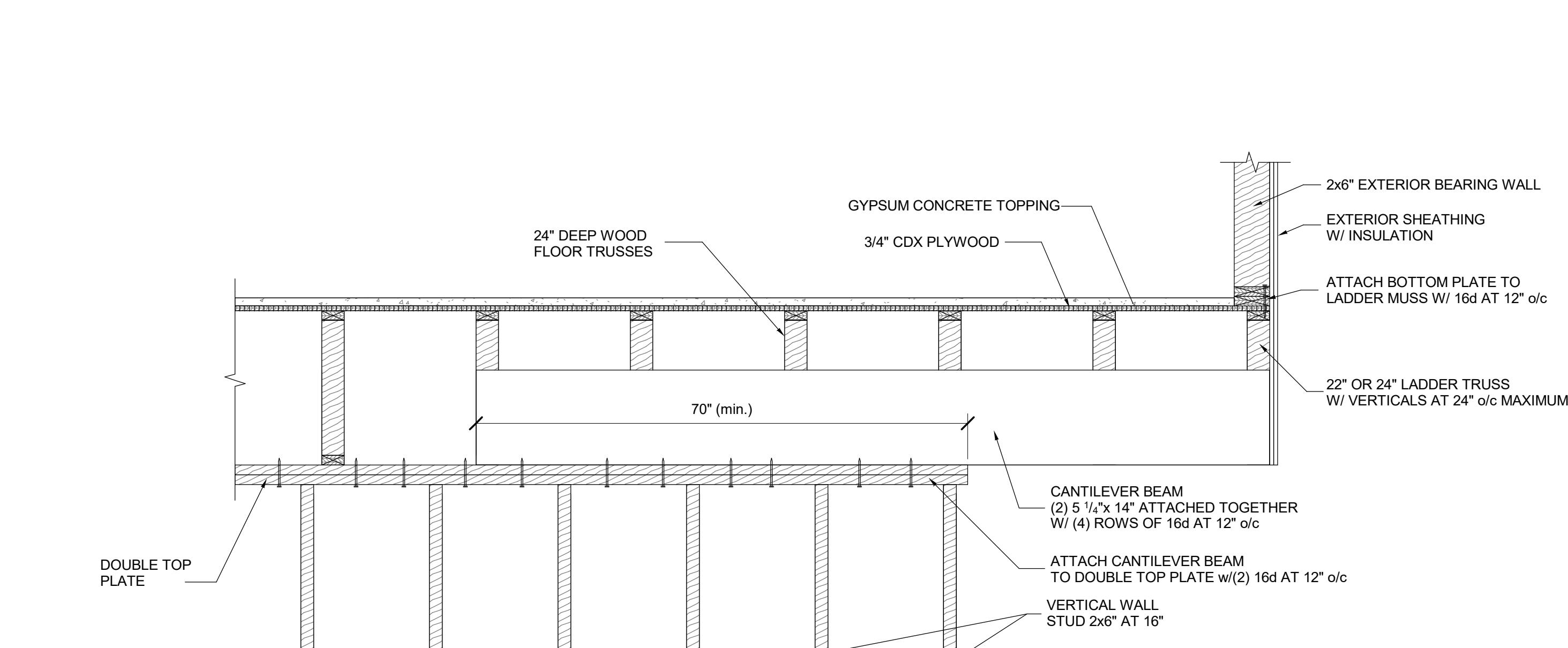
6 FLOOR FRAMING AT SECOND FLOOR, EXTERIOR BEARING WALL



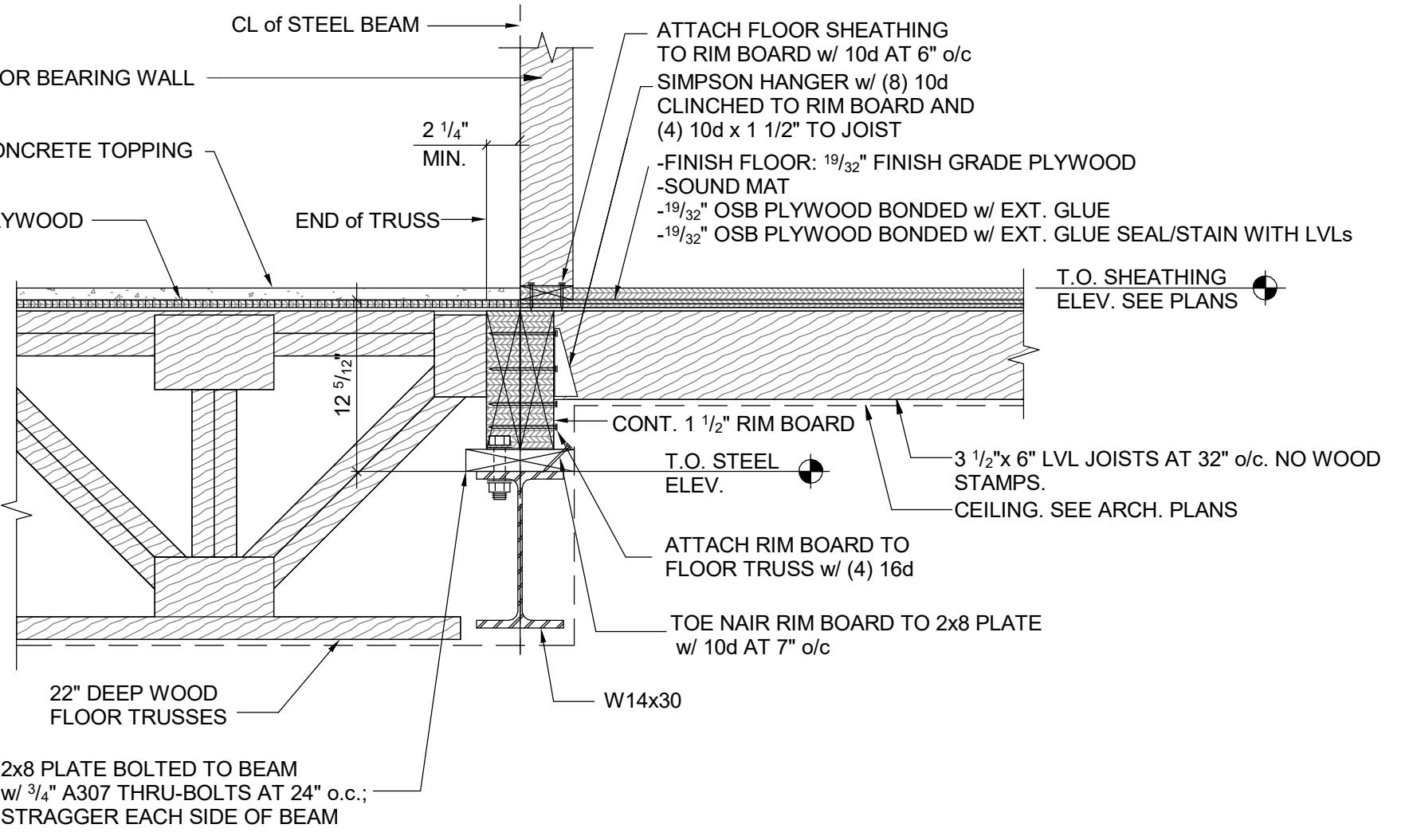
7 FLOOR FRAMING AT LOBBY, COURTYARD STEEL BEAM



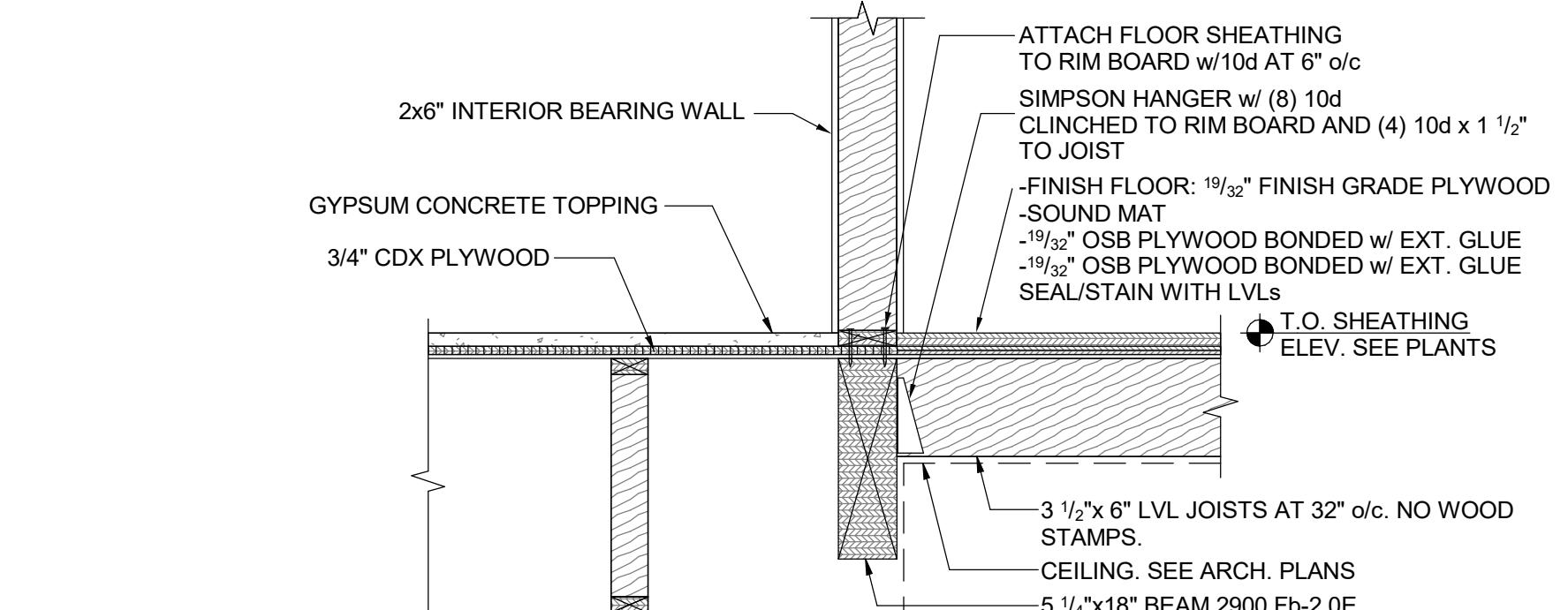
7 CANTILEVER SECTION



8 CANTILEVER, LATERAL VIEW



9 FLOOR FRAMING AT LOBBY, COURTYARD STEEL BEAM



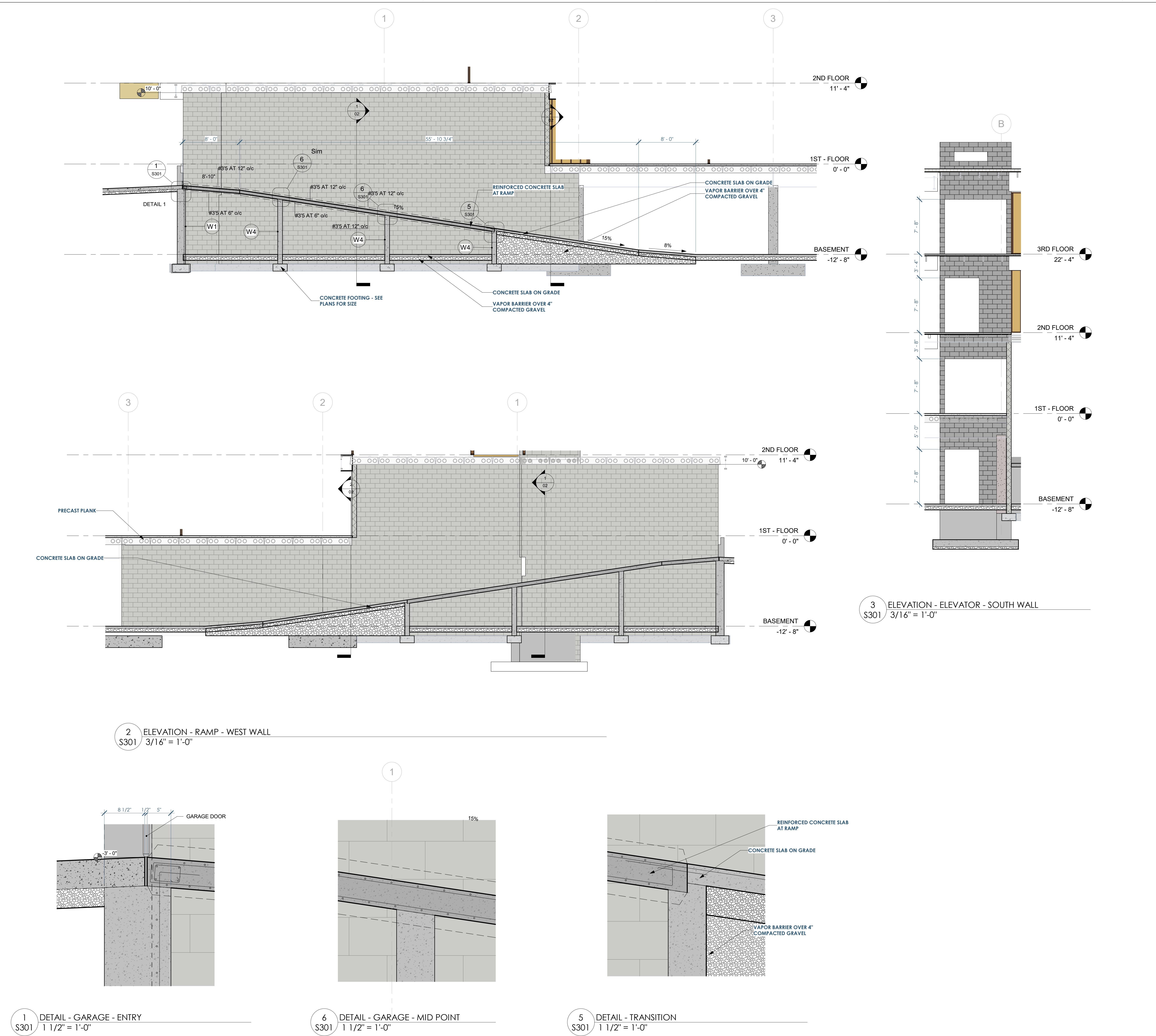
10 FLOOR FRAMING AT LOBBY, CORRIDOR STEEL BEAM



Date	Description
08.15.2019	75% CD Set
08.21.2019	Permit
09.25.2019	<Progress>

Date	Description
08.15.2019	75% CD Set
08.21.2019	Permit
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WOOD SHEAR WALL SCHEDULE													
Shear wall	Sheathing material	Panel thickness	Bucking	Minimum distance from framing member or blocking	Fastener type and size	Panel edge fastener spacing	Notched or inset capacity w/ wood	Hold-down anchor capacity	Hold down studs	Hold down anchor type	Nails for 1/8" thick sheathing (1 in. 4 inch embedment depth)	Bottom plate attachment (floor to floor)	
ID		(in)		(in)	(in)	(in)	(in)	(kip)					
SW_N3A	Wood structural panels - sheathing	3/8	YES	1-3/8	8d 4	840	2	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 25 in. o/c; 30 fasteners in 2 rows.	
SW_N3B	Wood structural panels - sheathing	3/8	NO	1-3/8	8d 6	560	-	-	-	-	-	16d (d= 0.268 in) nails at 24 in. o/c; 16 fasteners in 1 row.	
SW_N3C	Wood structural panels - sheathing	3/8	NO	1-3/8	8d 6	560	-	-	-	-	-	16d (d= 0.268 in) nails at 21 in. o/c; 35 fasteners in 2 rows.	
SW_N3D	Wood structural panels - sheathing	3/8	YES	1-3/8	8d 4	840	2	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 25 in. o/c; 30 fasteners in 2 rows.	
SW_N2A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 4	1430	4	(2)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 14 in. o/c; 52 fasteners in 2 rows.	
SW_N2B	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 6	950	-	-	-	-	-	16d (d= 0.268 in) nails at 13 in. o/c; 28 fasteners in 1 row.	
SW_N2C	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 6	950	1	(1)	Simpson HDU4-SDS2.5	-	-	16d (d= 0.268 in) nails at 12 in. o/c; 59 fasteners in 2 rows.	
SW_N2D	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 4	1430	4	(2)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 14 in. o/c; 52 fasteners in 2 rows.	
SW_N1A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 3	1860	7	(3)	Simpson HDU11-SDS2.5	10	36	SDWS log screw (d= 0.197 in) at 12 in. o/c; 58 fasteners in 2 rows.	
SW_N1B	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 6	950	-	-	-	-	11	16d (d= 0.268 in) nails at 19 in. o/c; 36 fasteners in 2 rows.	
SW_N1C	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 6	950	3	(1)	Simpson HDU4-SDS2.5	11	36	wood screws 20 (d= 0.32 in) at 19 in. o/c; 40 fasteners in 2 rows.	
SW_N1D	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 3	1860	7	(3)	Simpson HDU11-SDS2.5	10	36	SDWS log screw (d= 0.197 in) at 12 in. o/c; 60 fasteners in 2 rows.	
SW_S3A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 6	950	2	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.	
SW_S3B	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 6	950	2	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.	
SW_S2A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 3	1860	6	(2)	Simpson HDU11-SDS2.5	-	-	SDWS log screw (d= 0.197 in) at 13 in. o/c; 54 fasteners in 2 rows.	
SW_S2B	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 3	1860	6	(2)	Simpson HDU11-SDS2.5	-	-	SDWS log screw (d= 0.197 in) at 13 in. o/c; 54 fasteners in 2 rows.	
SW_S1A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 2	2435	11	(4)	Simpson HD19	10	36	SDWS log screw (d= 0.197 in) at 8 in. o/c; 76 fasteners in 2 rows.	
SW_S1B	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 2	2435	11	(4)	Simpson HD19	10	36	SDWS log screw (d= 0.197 in) at 8 in. o/c; 76 fasteners in 2 rows.	
SW_E3A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 4	1430	3	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 16 in. o/c; 46 fasteners in 2 rows.	
SW_E3B	Wood structural panels - sheathing	3/8	NO	1-3/8	8d 6	560	-	-	-	-	-	16d (d= 0.268 in) nails at 12 in. o/c; 30 fasteners in 1 row.	
SW_E3C	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 4	1430	6	(2)	Simpson HDU11-SDS2.5	-	-	SDWS log screw (d= 0.197 in) at 15 in. o/c; 32 fasteners in 2 rows.	
SW_E2A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 3	1860	7	(3)	Simpson HDU11-SDS2.5	-	-	SDWS log screw (d= 0.197 in) at 11 in. o/c; 64 fasteners in 2 rows.	
SW_E2B	Wood structural panels - sheathing	3/8	NO	1-3/8	8d 6	560	1	(1)	Simpson HDU4-SDS2.5	-	-	16d (d= 0.268 in) nails at 14 in. o/c; 51 fasteners in 2 rows.	
SW_E2C	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 2	2435	11	(4)	Simpson HD19	-	-	SDWS log screw (d= 0.197 in) at 9 in. o/c; 54 fasteners in 2 rows.	
SW_E1A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 2	2435	13	(4)	Simpson HD19	7	36	SDWS log screw (d= 0.197 in) at 7 in. o/c; 64 fasteners in 2 rows.	
SW_E1B	Wood structural panels - sheathing	3/8	NO	1-3/8	8d 6	560	-	-	-	-	11	16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.	
SW_E1C	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 2	2435	9	(3)	Simpson HD19	11	36	SDWS log screw (d= 0.197 in) at 10 in. o/c; 72 fasteners in 2 rows.	
SW_W3A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 4	1430	3	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 16 in. o/c; 46 fasteners in 2 rows.	
SW_W3B	Wood structural panels - sheathing	3/8	NO	1-3/8	8d 6	560	-	-	-	-	-	16d (d= 0.268 in) nails at 12 in. o/c; 30 fasteners in 1 row.	
SW_W3C	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 4	1430	6	(2)	Simpson HDU11-SDS2.5	-	-	SDWS log screw (d= 0.197 in) at 15 in. o/c; 32 fasteners in 2 rows.	
SW_W2A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 3	1860	7	(3)	Simpson HDU11-SDS2.5	-	-	SDWS log screw (d= 0.197 in) at 11 in. o/c; 64 fasteners in 2 rows.	
SW_W2B	Wood structural panels - sheathing	3/8	NO	1-3/8	8d 6	560	1	(1)	Simpson HDU4-SDS2.5	-	-	16d (d= 0.268 in) nails at 14 in. o/c; 51 fasteners in 2 rows.	
SW_W2C	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 2	2435	11	(4)	Simpson HD19	-	-	SDWS log screw (d= 0.197 in) at 9 in. o/c; 54 fasteners in 2 rows.	
SW_W1A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 2	2435	13	(4)	Simpson HD19	9	30	SDWS log screw (d= 0.197 in) at 7 in. o/c; 64 fasteners in 2 rows.	
SW_W1B	Wood structural panels - sheathing	3/8	NO	1-3/8	8d 6	560	-	-	-	-	11	16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.	
SW_W1C	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 2	2435	9	(3)	Simpson HD19	11	36	SDWS log screw (d= 0.197 in) at 10 in. o/c; 72 fasteners in 2 rows.	
SW_EC3A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 6	950	0	-	-	-	-	16d (d= 0.268 in) nails at 18 in. o/c; 42 fasteners in 2 rows.	
SW_EC3B	Wood structural panels - sheathing	3/8	NO	1-3/8	8d 6	560	-	-	-	-	-	16d (d= 0.268 in) nails at 60 in. o/c; 7 fasteners in 1 row.	
SW_EC3C	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 6	950	3	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 19 in. o/c; 40 fasteners in 2 rows.	
SW_EC2A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 3	1860	2	(1)	Simpson HDU4-SDS2.5	-	-	wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.	
SW_EC2B	Wood structural panels - sheathing	3/8	NO	1-3/8	8d 6	560	-	-	-	-	-	16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.	
SW_EC2C	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 3	1860	6	(2)	Simpson HDU11-SDS2.5	-	-	SDWS log screw (d= 0.197 in) at 12 in. o/c; 58 fasteners in 2 rows.	
SW_EC1A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 2	2435	11	(4)	Simpson HD19	6	36	SDWS log screw (d= 0.197 in) at 9 in. o/c; 42 fasteners in 2 rows.	
SW_EC1B	Wood structural panels - sheathing	3/8	NO	1-3/8	8d 6	560	-	-	-	-	11	16d (d= 0.268 in) nails at 22 in. o/c; 17 fasteners in 1 row.	
SW_EC1C	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 2	2435	11	(4)	Simpson HD19	11	36	SDWS log screw (d= 0.197 in) at 9 in. o/c; 82 fasteners in 2 rows.	
SW_WC3A	Wood structural panels - sheathing	19/32	YES	1-1/2	10d 6	950	0</						



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S301

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<Progress>



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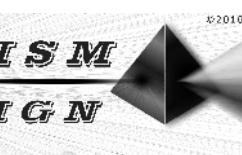
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