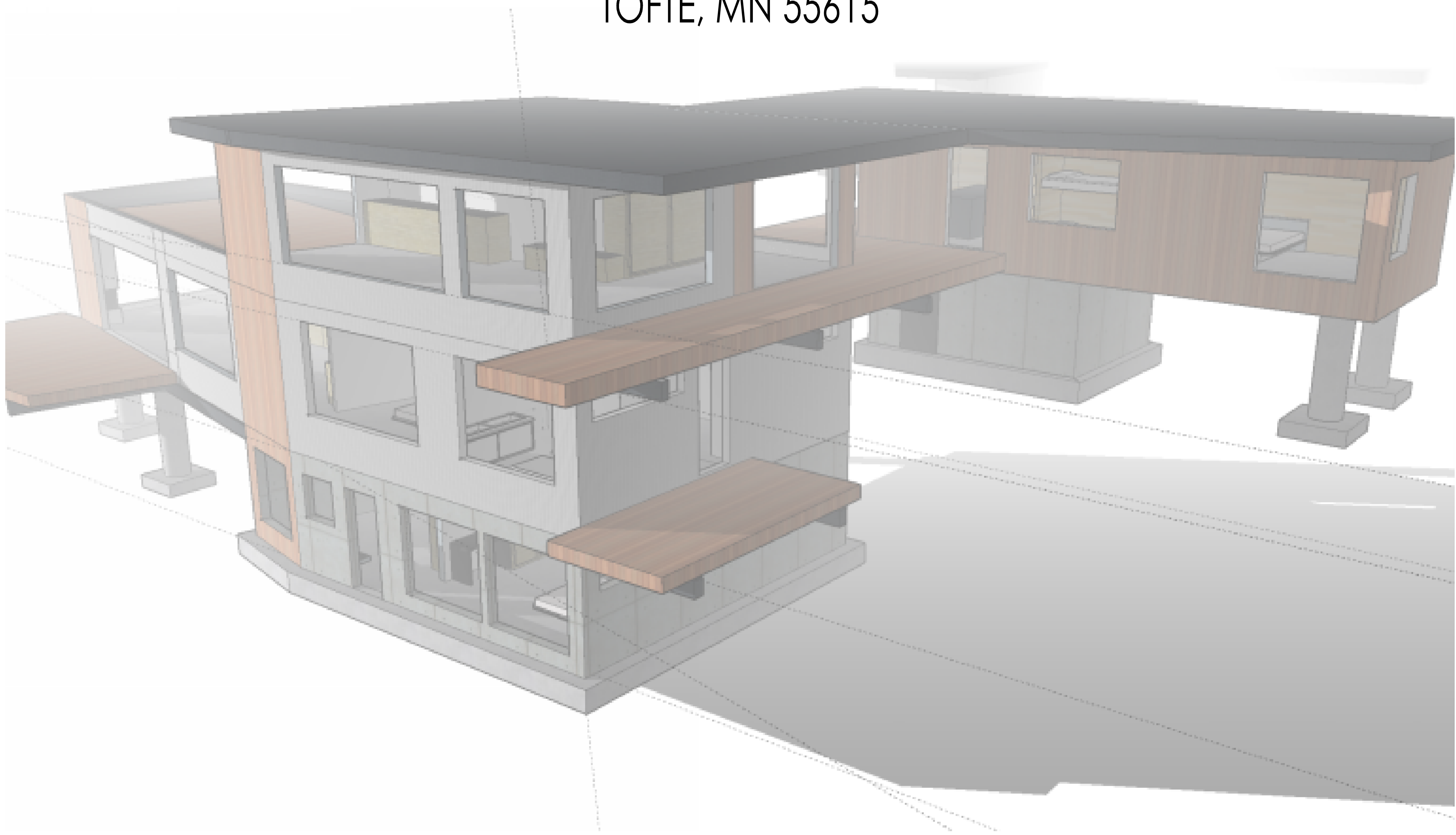


MAHON / MORTRUDE

7106 W. HWY 61

TOFTE, MN 55615





MSE
Mortarless Systems Engineering, Inc.
325 Alliance Place NE
Rochester, MN 55906
(507) 535-3526

REV. NO.	REVISION	DATE
1	ISSUED FINAL PLANS	5/30/2019
PROJECT NUMBER:		S19-0041
DRAWN BY:		KYLE B.
REVIEWED BY:		CAMERON R.
DATE:		5/17/2019
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PROJECT NAME:

MAHON / MORTRUDE

TOFTE MINNESOTA
SHEET NUMBER:

TITLE SHEET

SHEET NUMBER:

D0

SHEET DRAWING INDEX

D0	TITLE SHEET	S0	PROJECT SPECIFICATIONS	S1.4	THIRD FLOOR FRAMING PLAN
D1.0	FIRST LEVEL FLOOR PLAN	S0.1	PROJECT SCHEDULES	S1.5	THIRD LEVEL FRAMING PLAN
D1.1	SECOND LEVEL FLOOR PLAN	S1.0	FOUNDATION PLAN	S1.6	ROOF FRAMING PLAN
D1.2	THIRD LEVEL FLOOR PLAN	S1.1	FIRST LEVEL FRAMING PLAN	S2.0	BUILDING CROSS SECTIONS
D1.3	ROOF PLAN	S1.2	SECOND FLOOR FRAMING PLAN	S2.1	BUILDING CROSS SECTIONS
		S1.3	SECOND LEVEL FRAMING PLAN	S3.0	BUILDING DETAILS

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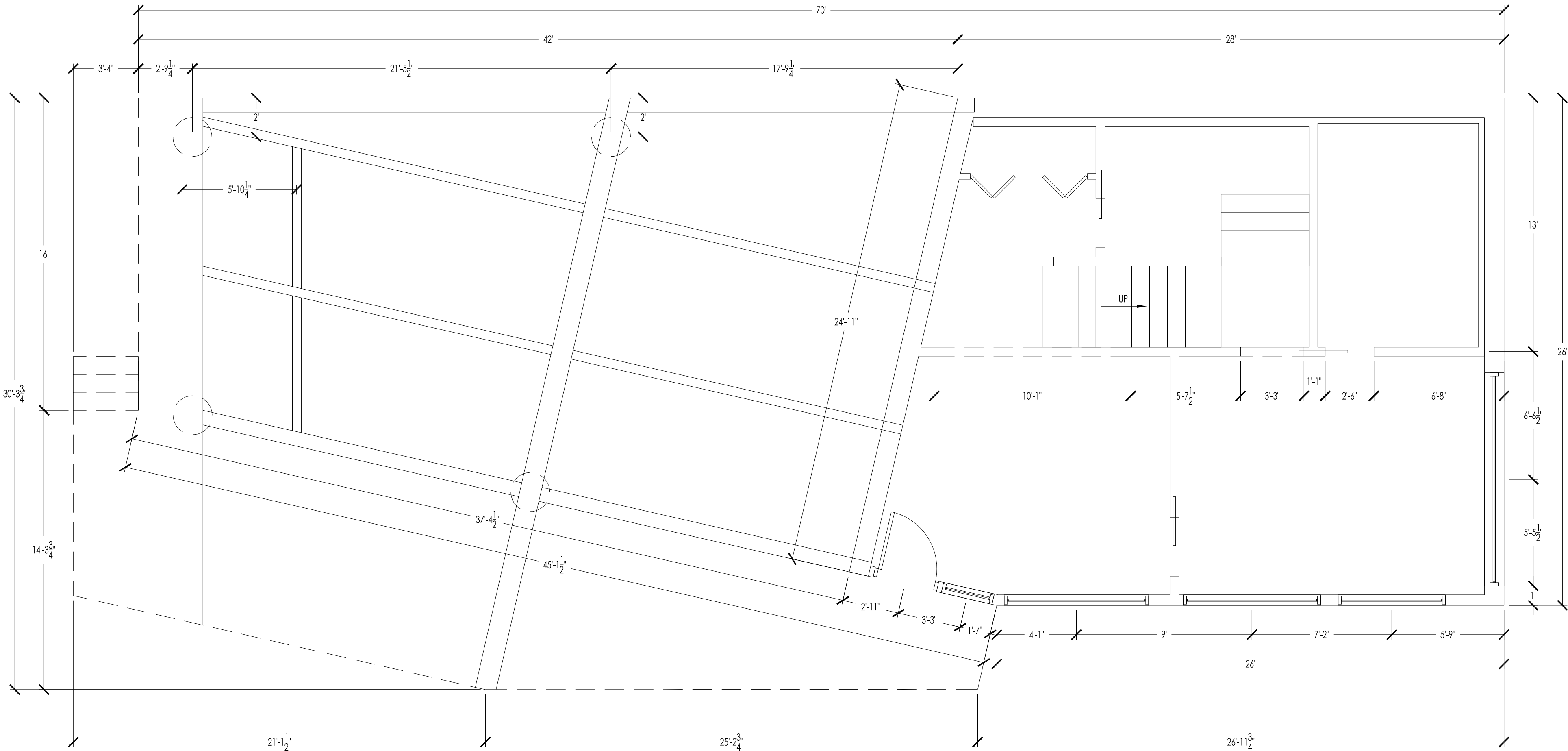
TO/FE MINNESOTA

SHEET NUMBER:

FIRST LEVEL
FLOOR PLAN

SHEET NUMBER:

D1.0



1

D1.0

FIRST LEVEL FLOOR PLAN

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

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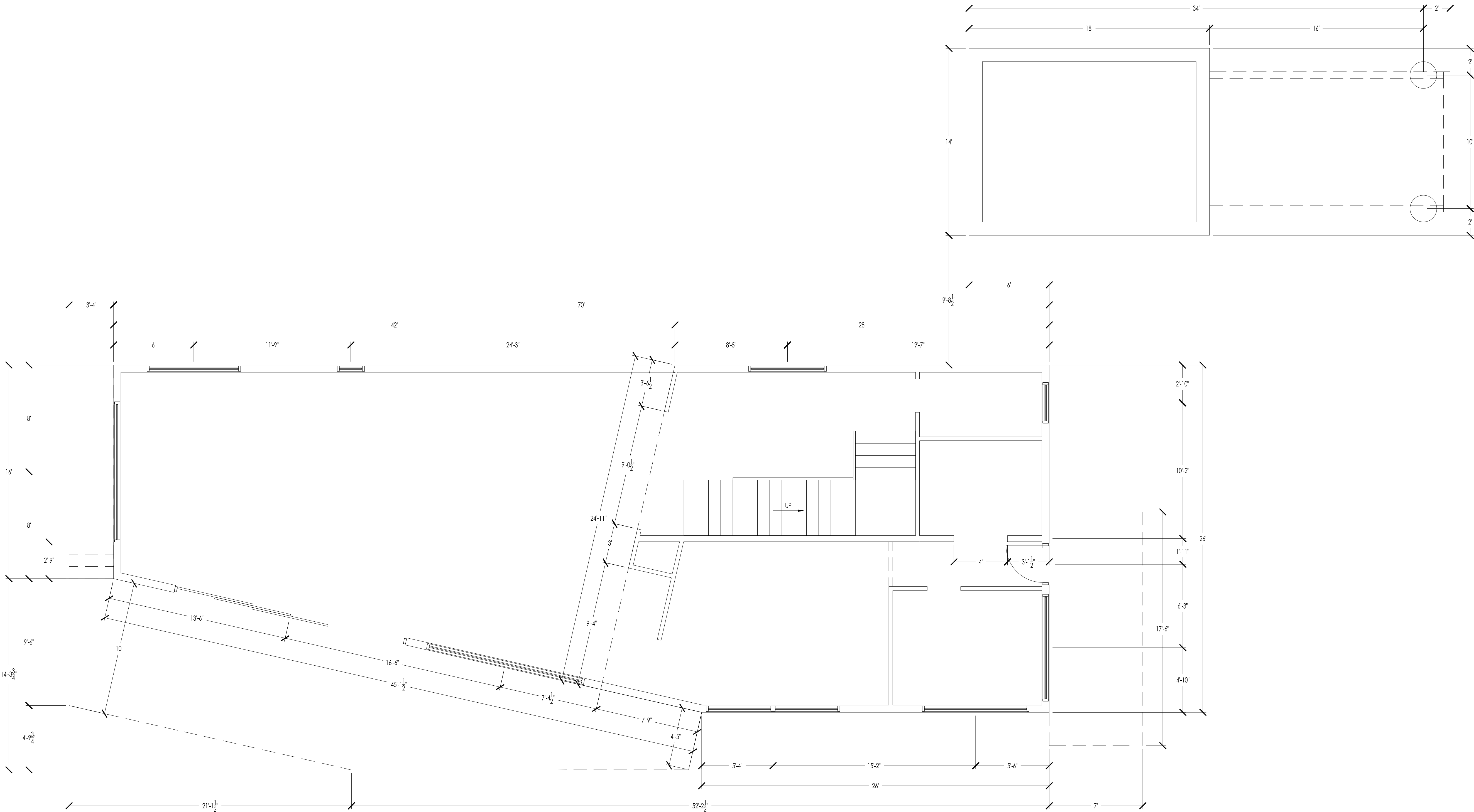
TO/FE MINNESOTA

SHEET NUMBER:

SECOND LEVEL
FLOOR PLAN

SHEET NUMBER:

D1.1



1

D1.1

SECOND LEVEL FLOOR PLAN

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



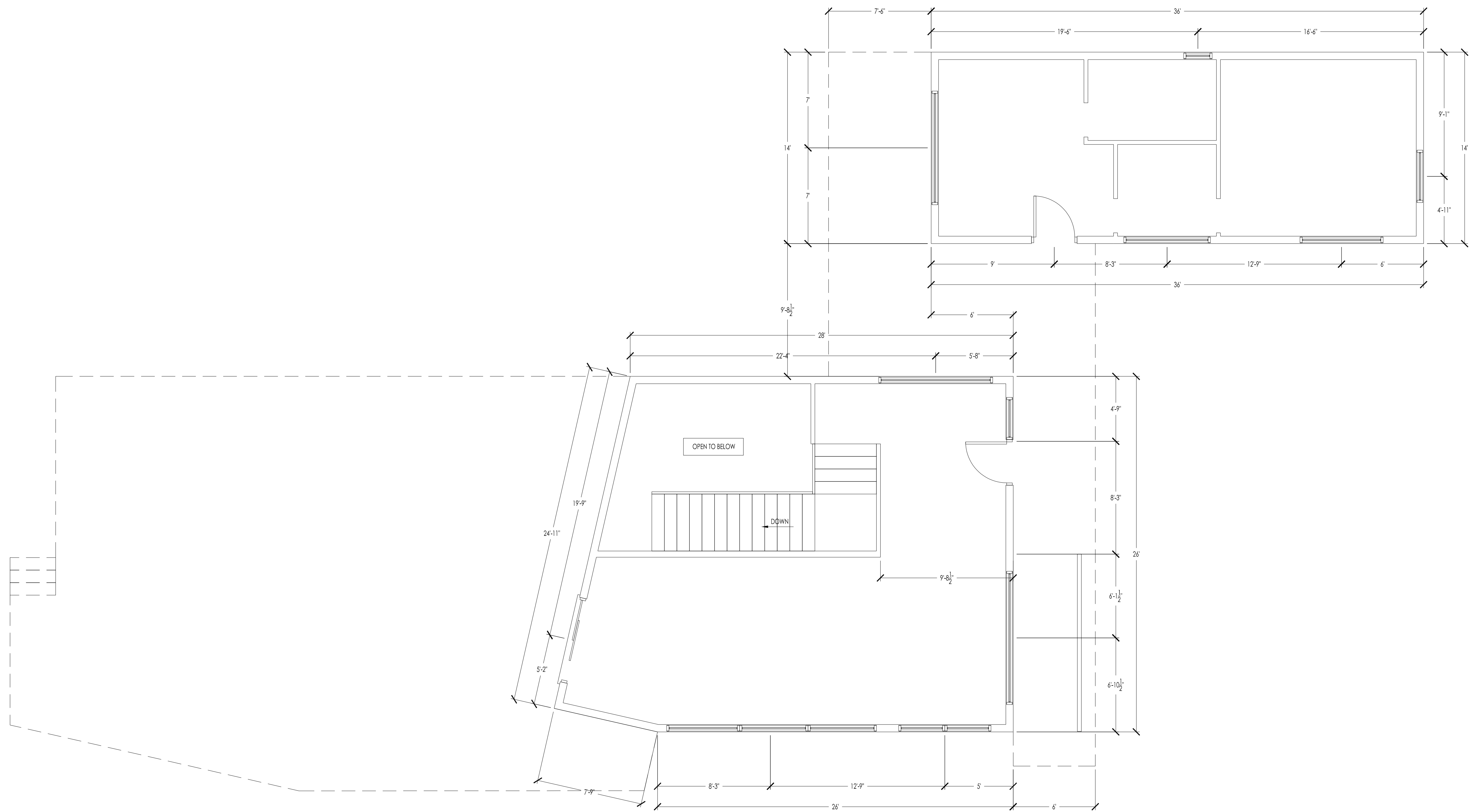
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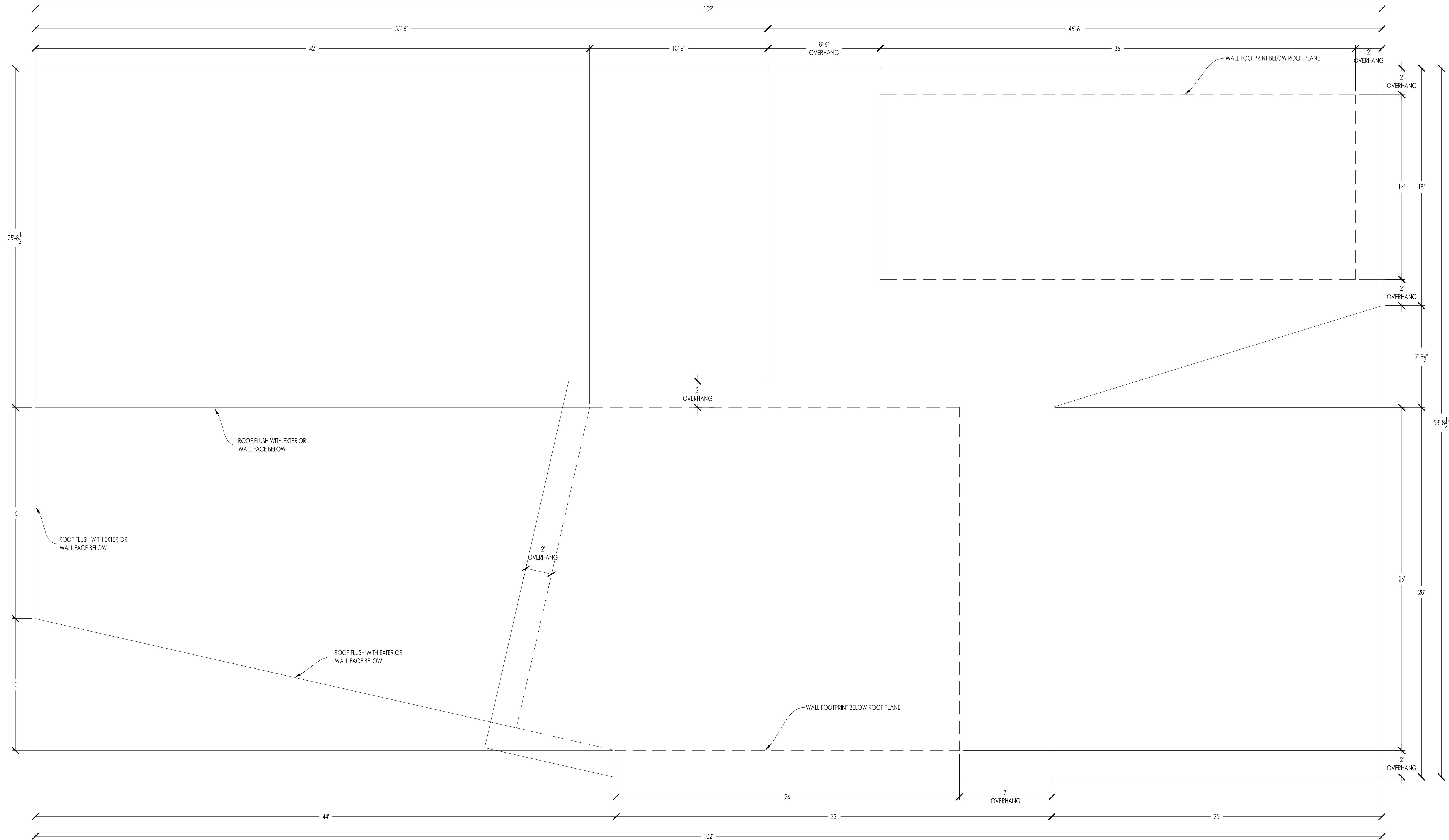
MAHON /
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FIRST LEVEL FLOOR PLAN

D1.2



1 THIRD LEVEL FLOOR PLAN
D1.2 SCALE: 1/4" = 1'-0"



1

D1.3

ROOF PLAN

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

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PROJECT NAME:

MAHON /
MORTRUDE

TO/FE MINNESOTA

SHEET NUMBER:

ROOF PLAN

SHEET NUMBER:

D1.3

1. DESIGN CRITERIA

- 1.1. CODES & MANUALS
- 1.1.1. INTERNATIONAL BUILDING CODE 2015 EDITION WITH STATE OF MN AMENDMENTS (IBC 2015)
- 1.1.2. AMERICAN SOCIETY OF CIVIL ENGINEERS STANDARDS 7 2010 EDITION (ASCE7-10)
- 1.1.3. AMERICAN CONCRETE INSTITUTE 318-14 (ACI)
- 1.1.4. NATIONAL DESIGN SPECIFICATION FOR WOOD DESIGN 2015 (NDS)
- 1.2. LOADS
- 1.2.1. LATERAL LOAD
- 1.2.1.1. WIND LOAD
- NOMINAL WIND SPEED: V_{ASD} = 89 MPH (3 SECOND GUSTS)
ULTIMATE WIND SPEED: V_{ULT} = 115 MPH (3 SECOND WIND GUSTS)
WIND EXPOSURE: D
RISK CATEGORY: II
IMPORTANCE FACTOR: I_w = 1.0
- 1.2.1.2. SEISMIC LOAD
- IMPORTANCE FACTOR = I_e = 1.0
SEISMIC DESIGN CATEGORY = II
SPECTRAL RESPONSE: S_s = 0.042, S_1 = 0.016
SPECTRAL RESPONSE COEFF: SD_1 = 0.045, SD_2 = 0.025
SITE CLASS: B
- 1.2.2. LIVE LOAD
- 1.2.2.1. ROOF CONSTRUCTION LOAD: 20 PSF
- 1.2.2.2. FLOOR LOAD: 40 PSF
- 1.2.3. SNOW LOAD
- 1.2.3.1. BALANCED LOAD
- GROUND SNOW LOAD: P_g = 60 PSF
IMPORTANCE FACTOR: I_s = 1.0
EXPOSURE FACTOR: C_e = 0.9
THERMAL FACTOR: C_t = 1.0
SLOPE FACTOR: C_s = 1.0
ROOF SNOW LOAD: P_f = 39 PSF
- 1.2.3.2. UNBALANCED SNOW LOAD
- ***SEE ROOF LOADING PLAN IF APPLICABLE***
- 1.2.4. DEAD LOAD
- 1.2.4.1. ROOF LOAD
- TOP CHORD: 10 PSF
BOTTOM CHORD: 10 PSF (INTERIOR) & 5 PSF (EXTERIOR)
LL DEFLECTION LIMITS = $L/240$
TL DEFLECTION LIMITS = $L/360$
- 1.3.4.2. FLOOR LOAD
- TOP CHORD: 23 PSF (INTERIOR) & 10 PSF (EXTERIOR)
BOTTOM CHORD: 10 PSF (INTERIOR) & 5 PSF (EXTERIOR)
LL DEFLECTION LIMITS = $L/240$
TL DEFLECTION LIMITS = $L/480$

2. GENERAL CONSTRUCTION

- 2.1. THE CONTRACTOR SHALL VERIFY ALL CONTRACT DOCUMENTS, SITE ELEVATIONS, DIMENSIONS AND CONDITIONS PRIOR TO STARTING WORK AND SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
- 2.2. REFERENCE STANDARDS, UNLESS NOTED OTHERWISE (U.N.O.), SHALL BE THE CURRENT EDITION, IF APPLICABLE.
- 2.3. SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES.
- 2.4. TEMPORARY BRACING, SHORING AND DEWATERING TO BE THE RESPONSIBILITY OF CONTRACTOR.
- 2.5. NO PENETRATIONS TO BE PLACED WITHIN STRUCTURAL MEMBERS PRIOR TO APPROVAL OF THE STRUCTURAL ENGINEER.
- 2.6. THE STRUCTURE SHALL NOT BE LOADED WITH CONSTRUCTION MATERIALS OR EQUIPMENT THAT EXCEEDS FINAL DESIGN LOADING.
- 2.7. CANTILEVER BEAMS WILL CREEP OVER TIME. IT IS LIKELY THAT MAXIMUM DEFLECTION LIMITS WILL BE REACHED. AS SUCH, AESTHETIC STRAINS WILL LIKELY BE DEMONSTRATED.

3. SHOP DRAWINGS

- 3.1. SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR APPROVAL, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER.
- 3.2. PRIOR TO SUBMITTAL, CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS AND MAKE ANY CORRECTIONS REQUIRED. THE CONTRACTOR SHALL STAMP AND SIGN THE SHOP DRAWINGS PRIOR TO SUBMITTING THE ENGINEER.
- 3.3. THE ENGINEER'S REVIEW OF SHOP DRAWINGS ARE FOR GENERAL CONFORMANCE OF THE DESIGN CONCEPT.
- 3.4. SHOP DRAWINGS SHALL INCLUDE COMPLETE DETAIL SCHEDULES, PROCEDURES AND DIAGRAMS FOR THE FABRICATION AND ASSEMBLY OF STRUCTURAL MEMBERS.
- 3.5. ERECTION PLANS ARE THE RESPONSIBILITY OF THE FABRICATOR.

4. FOUNDATIONS

- 4.1. ALLOWABLE BEARING CAPACITY:
- 4.1.1. 12,000 PSF
- 4.1.2. BEARING VALUE TO BE VERIFIED BY GEOTECHNICAL ENGINEER (SITE OBSERVED BY MSE ON 5/20/2019).
- 4.2. FOOTINGS AND FOUNDATION SHALL NOT BE EARTH FORMED.
- 4.3. FOOTING AND FOUNDATION EXCAVATIONS SHALL BE FREE OF DELETERIOUS MATERIAL AND WATER PRIOR TO PLACING CONCRETE.
- 4.4. BACKFILL SHALL BE COMPACTED BY MECHANICAL MEANS.
- 4.5. BACKFILL AND COMPACTION SHALL BE INSPECTED AND CERTIFIED BY A LICENSED GEOTECHNICAL ENGINEER. REPORTS ARE TO BE SUBMITTED TO THE ENGINEER OF RECORD. IF AN INSPECTION AND REPORT IS NOT COMPLETED, CONTRACTOR / OWNER SHALL TAKE FULL RESPONSIBILITY TO ENSURE PROPER BACKFILL COMPACTION.
- 4.6. BACKFILL SHALL BE PLACED IN ALTERNATING LIFTS ON EACH SIDE OF THE FOUNDATION WALLS TO MAINTAIN STABILITY OF FOUNDATION WALLS.
- 4.7. PROTECT FOUNDATIONS EXCAVATIONS FROM FROST. DO NOT PLACE CONCRETE ON FROZEN GROUND.
- 4.8. MINIMUM OF 8" COMPACTED GRANULAR SUBGRADE BELOW SLABS.

5. CONCRETE

- 5.1. CONCRETE CONSTRUCTION SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE (ACI) CODES AND SPECIFICATIONS, LATEST EDITION.
- 5.2. CONCRETE COVER FOR STEEL REINFORCEMENT SHALL BE AS SHOWN ON THE DRAWINGS. COVER DISTANCES NOT SHOWN REFERENCE ACI 318.
- 5.3. ALL VERTICAL BARS MUST BE EXTENDED TO WITHIN 3" OF THE TOP AND BOTTOM OF THE FOUNDATION WALLS. U.N.O.
- 5.4. REINFORCING STEEL LAP SPLICE OF HORIZONTAL BARS WITHIN FOUNDATION WALLS AND FOOTINGS SHALL BE 53 x DIA BAR (IN TENSION) AND 30 x DIA BAR (IN COMPRESSION).
- 5.5. REINFORCING STEEL SHALL BE BENT, SPLICED, AND PLACED IN ACCORDANCE WITH ACI 801 (LATEST EDITION).
- 5.6. ALL CONCRETE REINFORCEMENT STEEL SHALL MEET ASTM SPECIFICATION A615, GRADE 60. ALL REINFORCING STEEL SIZES, SPACING, DIMENSIONS, LOCATIONS, ETC. SHALL BE AS SHOWN ON THE STRUCTURAL DRAWINGS.
- 5.7. PROVIDE ADEQUATE SUPPORT BARS AND ACCESSORIES TO HOLD REINFORCEMENT BARS FIRMLY IN PLACE TO SPECIFIED COVERS.
- 5.8. CONTRACTOR SHALL COORDINATE THE TESTING AND INSPECTION SERVICES, BY OTHERS, IN ACCORDANCE WITH THE PROGRESS OF THE WORK. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE TO THE TESTING OR INSPECTION AGENCY FOR THE REQUIRED WORK TO ALLOW ALLOCATION OF PERSONNEL. THE COST OF ANY RE-TESTING OR ADDITIONAL INSPECTIONS, AS A RESULT OF UNINSPECTED WORK, FAILED TESTS, OR REJECTED WORK, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 5.9. CONCRETE MIX DESIGNS SHALL BE BY AN INDEPENDENT TESTING LABORATORY.
- 5.9.1. CONCRETE STRENGTH (f'c @ 28 DAYS)
- 5.9.1.1. FOOTINGS, PIERS & FOUNDATIONS STEM WALLS = 4,000 PSI
- 5.9.1.2. COLUMNS = 4,000 PSI
- 5.9.2. MAXIMUM WATER / CEMENT RATIO = 0.55
- 5.9.3. ALL EXTERIOR CONCRETE, PERMANENTLY EXPOSED TO WEATHER, SHALL BE AIR ENTRAINED TO GIVE THE CONCRETE AN AIR CONTENT OF 4% - 6% BY VOLUME. NATURALLY OCCURRING AIR CONTENT SHALL NOT EXCEED 3% FOR NON-AIR ENTRAINED MIXES.

6. WOOD

- 6.1. GLU-LAMINATED [GLU-LAM] TIMBERS PROPERTIES, MINIMUM
- 6.1.1. 24F V4 - 1.8E DF
- 6.2. LAMINATED VENEER LUMBER (LVL) PROPERTIES, MINIMUM
- 6.2.1. E = 1,900,000 PSI
- 6.2.2. F_b = 2,400 PSI
- 6.2.3. F_v = 285 PSI
- 6.3. ALL SHEATHING SHALL BE APA RATED.
- 6.4. CUTTING, NOTCHING, OR DRILLING OF BEAMS OR JOISTS SHALL BE PERMITTED ONLY AS DETAILED OR APPROVED BY THE ENGINEER.
- 6.5. ALL NAILING SHALL CONFORM TO THE NAILING SCHEDULE LOCATED IN THE IBC TABLE 2304.9.1, U.N.O.
- 6.6. SILL PLATES SHALL BE BOLTED TO FOUNDATION WALLS w/ $\frac{1}{2}$ " Ø HOT DIPPED GALVANIZED ANCHOR BOLTS @ 4' O.C. BOLTS SHALL EXTEND A MINIMUM OF 10" INTO FOUNDATION. EACH SILL PLATE TO HAVE A MINIMUM OF TWO BOLTS WITH ONE BOLT LOCATED WITHIN 12" OF EACH END OF EACH PIECE.
7. MANUFACTURED WOOD TRUSSES
- 7.1. WOOD TRUSS DESIGN SHALL BE DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF IBC WOOD SECTION 2303.4.
- 7.2. LOCATIONS FOR LATERAL RESTRAINT SHALL BE IDENTIFIED ON THE TRUSS DRAWINGS.
- 7.3. TRUSS BRIDGING, BRACING, AND/OR BLOCKING PER TRUSS MANUFACTURER.
- 7.4. SUBMIT COMPLETE SHOP DRAWINGS FOR APPROVAL, SHOWING THE ERECTION PLAN, ALL BEARING CONDITIONS AND CONNECTIONS FOR THE WOOD TRUSSES. CALCULATIONS CERTIFIED BY A PROFESSIONAL ENGINEER SHALL BE REQUIRED FOR ALL WOOD TRUSSES.
- 7.5. WOOD TRUSS SUPPLIER SHALL DETAIL ALL TRUSS BEARINGS SO AS NOT TO EXCEED BEARING CAPACITY OF SUPPORTING PLATES.



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PROJECT NAME:

MAHON /
MORTRUDE

TO/FE	MINNESOTA
SHEET NUMBER:	

PROJECT NOTES

SHEET NUMBER:

50

SHEAR WALL SCHEDULE								
MARK	DESCRIPTION	SHEATHING REQUIREMENT	FASTENER TYPE	FASTENING PATTERN	TOTAL SHEAR (UNFACTORED)	LENGTH	HOLD-DOWN FORCE EACH END (UNFACTORED)	HOLD-DOWN
SW100	SPF #2 2x6 16" O.C. BLOCKED	7/16" SHEATHING (ONE SIDE)	8d NAILS	4" O.C. (PERIMETER) & 12" O.C. (FIELD)	4275 LBS	18'-0" (PERFORATED)	--	--
SW101	SPF #2 2x4 16" O.C. BLOCKED	7/16" SHEATHING (ONE SIDE)	8d NAILS	4" O.C. (PERIMETER) & 12" O.C. (FIELD)	8600 LBS	12'-3"	5620 LBS	SIMPSON HDU5-SD52.5
SW102	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	2400 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER
SW200	SPF #2 2x6 16" O.C. BLOCKED	1/2" GYPSUM (BOTH SIDES)	NO. 6 TYPE S OR W FRYWALL SCREWS 1 1/2" LONG	6" O.C. (PERIMETER) & 12" O.C. (FIELD)	3100 LBS	20'-9"	--	--
SW201	SPF #2 2x4 16" O.C. BLOCKED	7/16" SHEATHING (ONE SIDE)	8d NAILS	4" O.C. (PERIMETER) & 12" O.C. (FIELD)	6200 LBS	9'-3"	6050 LBS	SIMPSON HDU5-SD52.5
SW202	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	1875 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER
SW204	SPF #2 2x6 16" O.C. BLOCKED	7/16" SHEATHING (BOTH SIDES)	8d NAILS	4" O.C. (PERIMETER) & 12" O.C. (FIELD)	4000 LBS	3'-0"	9340 LBS	SIMPSON HDU8-SD52.5
SW205	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	1750 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER
SW206	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	3900 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER
SW300	SPF #2 2x6 16" O.C. BLOCKED	1/2" GYPSUM (ONE SIDE)	NO. 6 TYPE S OR W FRYWALL SCREWS 1 1/2" LONG	6" O.C. (PERIMETER) & 12" O.C. (FIELD)	1540 LBS	20'-9"	--	--
SW301	SPF #2 2x4 16" O.C. BLOCKED	1/2" GYPSUM (BOTH SIDES)	NO. 6 TYPE S OR W FRYWALL SCREWS 1 1/2" LONG	4" O.C. (PERIMETER) & 16" O.C. (FIELD)	3100 LBS	8'-3"	3010 LBS	SIMPSON HDU2-SD52.5
SW302	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	950 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER
SW303	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	1750 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER
SW304	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	2450 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER
SW305	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	860 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER
SW306	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	1390 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER
SW307	SPF #2 2x4 16" O.C. BLOCKED	1/2" GYPSUM (BOTH SIDES)	NO. 6 TYPE S OR W FRYWALL SCREWS 1 1/2" LONG	4" O.C. (PERIMETER) & 16" O.C. (FIELD)	3070 LBS	10'-2"	2460 LBS	SIMPSON HDU2-SD52.5
SW308	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	1010 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER
SW309	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	1950 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER
SW310	SIP PANEL	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	1010 LBS	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER

BEAM/HEADER SCHEDULE				
MARK	SIZE/DESCRIPTION	HANGERS	TOP OF BEAM ELEVATION	COMMENTS
B100	3 PLY 1 1/2" x 14" LVL		108'-1 1/2"	4 PLY SPF #2 2x6 JACK STUDS EACH END
B101	TRT 5 1/2" x 12" GLU-LAM		108'-0"	GLU-LAM EMBEDDED IN SIP PANEL @ EXTERIOR WALL. SIP MANUFACTURER TO DESIGN STRUCTURAL COLUMN WITHIN SIP PANEL
B102	TRT 8 1/2" x 18" GLU-LAM	SEE S1.1	107'-1 1/2"	--
B103	TRT 12 1/2" x 24" GLU-LAM	SIMPSON VGT (EACH SIDE @ EACH CONCRETE SUPPORT)	107'-1 1/2"	MOISTURE BARRIER REQUIRED @ WOOD TO CONCRETE CONNECTION
B104	TRT 5 1/2" x 15" GLU-LAM	SIMPSON MGUS.50-SDS (@ GLU-LAM) SIMPSON MGUS.50-SDS&KL13 & MSGUS.0-SDS&SKR13 (SKEWED LOCATIONS)	107'-1 1/2"	--
B105	TRT 5 1/2" x 12" GLU-LAM		108'-0"	GLU-LAM EMBEDDED IN SIP PANEL @ EXTERIOR WALL. SIP MANUFACTURER TO DESIGN STRUCTURAL COLUMN WITHIN SIP PANEL
B200	TRT 4 PLY SP SS 2x12		108'-1 1/2"	
B201	2 PLY SPF #2 2x12		108'-1 1/2"	
B202	7/8" x 15" GLU-LAM		118'-10 1/2"	SHIM TOP OF GLU-LAM 3/4" @ 2x12 STICK FRAMING TO MATCH ADJACENT FLOOR PANEL
B204	5/8" x 12 GLU-LAM		118'-10 1/2"	
B205	2 PLY SPF #2 2x12	SIMPSON HU212-2 (EACH END)	108'-1 1/2"	
B206	2 PLY SPF #2 2x12	SIMPSON HU212-2&SKR13 (@ SKEW) SIMPSON HU212-2	108'-1 1/2"	
B207	2 PLY SPF #2 2x12	SIMPSON HU212-2 (@ BEAM)	108'-1 1/2"	
B300	2 PLY 1 1/2" x 20" LVL	SIMPSON HUC416 (@ SIP PANEL)	119'-10"	RECESSED IN TO FLOOR SYSTEM
B301	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	DESIGNED BY SIP MANUFACTURER	RECESSED IN SIP PANEL
B302	DESIGNED BY TRUSS MANUFACTURER	DESIGNED BY TRUSS MANUFACTURER	DESIGNED BY TRUSS MANUFACTURER	RECESSED IN TO FLOOR SYSTEM
B303	DESIGNED BY TRUSS MANUFACTURER	DESIGNED BY TRUSS MANUFACTURER	DESIGNED BY TRUSS MANUFACTURER	RECESSED IN TO FLOOR SYSTEM
B400	3 PLY SPF #2 2x12	SIMPSON HU210-3 (EACH END)	128'-8 1/2"	
H100	DESIGNED BY SIP MANUFACTURER		--	--
H101	REINFORCED CONCRETE		--	SEE 7/63.0
H200	DESIGNED BY SIP MANUFACTURER		--	--
H201	2 PLY SPF #2 2x6		ABOVE DOOR OPENING	(1) SPF #2 2x4 JACK & KING STUD EACH END
H300	DESIGNED BY SIP MANUFACTURER		--	--

FLOOR JOISTS/RIMS/LEDGERS/TRUSS SCHEDULE				
MARK	SIZE/DESCRIPTION	HANGERS	TOP OF BEAM ELEVATION	COMMENTS
BLK200	SPF #2 2x12 BLOCKING		108'-1 1/2"	
F1300	20" FLOOR TRUSS BY COMPONENT SUPPLIER	DESIGNED BY COMPONENT SUPPLIER	119'-10"	24" O.C. MAX SPACING
J200	TRT SP SS 2x12 12" O.C. (2 PLY @ REQUIRED JOISTS LENGTH > 22')	SIMPSON H2.5A (@ GLU-LAM) SIMPSON JB212A (@ SP BEAM)	108'-10 1/2"	FASTEN TO ADJACENT JOIST w/ 2 ROWS SDS25300 SCREWS 12" O.C. @ 2 PLY JOISTS
J201	TRT SP SS 2x12 12" O.C.	SIMPSON HU212&SKL13 (@ BEAM)	108'-1 1/2"	
J202	SPF #2 2x12 16" O.C.	SIMPSON JB212A (@ BEAM)	108'-1 1/2"	
J203	TRT SP SS 2x12 16" O.C.	SIMPSON H2.5A (@ GLU-LAM)	108'-1 1/2"	
J204	2 PLY TRT SP SS 2x12 12" O.C.	SIMPSON HU212-2&SKL13 (@ BEAM)	108'-1 1/2"	
J300	TRT SP SS 2x12 JOISTS 16" O.C.		119'-10"	
J300	TRT SP SS 2x12 JOISTS 16" O.C.	SIMPSON H2.5A (@ GLU-LAM) SIMPSON JB212A (@ SP LEDGER)	119'-10"	
J301	SPF #2 2x12 JOISTS 16" O.C.		119'-10 1/2"	
J400	SPF #2 2x10 16" O.C.	SIMPSON JB212A (EACH END)	128'-8 1/2"	
J401	SPF #2 2x10 24" O.C.		128'-8 1/2"	OVERHANG DESIGNED BY SIP MANUFACTURER
J402	SPF #2 2x10 24" O.C.	SIMPSON JB212A (EACH END)	128'-8 1/2"	
L200	TRT SP SS 2x12		108'-10 1/2"	FASTEN TO ADJACENT STRUCTURE w/ 2 ROWS SDS25300 SCREWS 12" O.C.
L300	TRT SP SS 2x12		119'-10"	FASTEN TO ADJACENT STRUCTURE w/ 2 ROWS SDS25300 SCREWS 12" O.C.
R200	2 PLY TRT SP SS 2x12		108'-10 1/2"	
R201	SPF #2 2x12		108'-1 1/2"	
R202	TRT SP SS 2x12		108'-1 1/2"	
R203	TRT SP SS 2x12		108'-10 1/2"	
R300	TRT SP SS 2x12		119'-10"	
R301	SPF #2 2x12		119'-10 1/2"	

SIP PANEL STRUCTURAL MEMBER				
MARK	SIZE/DESCRIPTION	HANGERS	TOP OF BEAM ELEVATION	COMMENTS
SPS200	PANEL SPLINE PER SIP MANUFACTURER		108'-1 1/2"	
SPS201	2 PLY SPF #2 2x12		108'-1 1/2"	
SPS202	PANEL PERIMETER LUMBER PER SIP MANUFACTURER		108'-1 1/2"	
SPS203	SPF #2 2x12		108'-1 1/2"	4" O.C. MAX SPACING
SPS300	2 PLY SP MSR2400F-2.0E 2x12		119'-10 1/2"	4" O.C. MAX SPACING
SPS301	PANEL PERIMETER LUMBER PER SIP MANUFACTURER		119'-10 1/2"	
SPS302	2 PLY 1 1/2" x 18" LVL		119'-2"	8" O.C. MAX SPACING
SPS303	2 PLY 1 1/2" x 18" LVL		119'-2"	4" O.C. MAX SPACING
SPS304	PANEL PERIMETER LUMBER PER SIP MANUFACTURER		119'-2"	
SPS400	3 PLY SP MSR2400F-2.0E 2x10		128'-8 1/2"	4" O.C. MAX SPACING
SPS401	2 PLY SP MSR2400F-2.0E 2x10		128'-8 1/2"	4" O.C. MAX SPACING
SPS402	PANEL PERIMETER LUMBER PER SIP MANUFACTURER		128'-8 1/2"	
SPS403	4 PLY 1 1/2" x 9 1/2" LVL	SEE S1.6	128'-8 1/2"	
SPS = STRUCTURAL PANEL SPLINE (SIP MANUFACTURER TO DESIGN ALL CONNECTIONS WITHIN SIP PANELS & CONNECTIONS TO ADJACENT STRUCTURE)				
ALL SIP STRUCTURAL MEMBERS TO BE VERIFIED BY SIP MANUFACTURER TO ENSURE PROPER MEMBER/PANEL INTERACTION				

INTERIOR BEARING WALL SCHEDULE			
MARK	DESCRIPTION	VERTICAL LOAD	NOTES
BW100	SPF #2 2x6 @ 16" O.C.	SNOW LOAD = 494 PLF DEAD LOAD = 260 PLF	SEE SHEAR WALL SCHEDULE FOR WALL SHEATHING REQUIREMENTS
BW101	SPF #2 2x4 @ 16" O.C.	FLOOR LOAD = 180 PLF DEAD LOAD = 149 PLF	
BW200	SPF #2 2x6 @ 16" O.C.	SNOW LOAD = 494 PLF DEAD LOAD = 555 PLF FLOOR LOAD = 260 PLF	SEE SHEAR WALL SCHEDULE FOR WALL SHEATHING REQUIREMENTS
BW300	SPF #2 2x6 @ 16" O.C.	SNOW LOAD = 494 PLF DEAD LOAD = 1075 PLF FLOOR LOAD = 780 PLF	SEE SHEAR WALL SCHEDULE FOR WALL SHEATHING REQUIREMENTS

NAILING SCHEDULE		
CONNECTION	FASTENING	LOCATIONS
JOIST TO SILL OR GIRDER	(3) 8d COMMON NAILS	TOE NAIL
BRIDGING TO JOIST	(2) 8d COMMON NAILS	TOE NAIL EACH END
SILL PLATE TO JOIST/BLOCKING	(2) 16d COMMON NAILS (JOIST) 16d COMMON NAILS 8" O.C. (BLOCKING)	FACE NAIL
TOP PLATE TO STUD	(2) 16d COMMON NAILS	END NAIL
STUD TO SILL PLATE	(2) 16d COMMON NAILS (4) 8d COMMON NAILS	END NAIL TOE NAIL
MULTIPLE PLY STUDS	16d COMMON NAILS @ 24" O.C. 16d COMMON NAILS @ 16" O.C.	FACE NAIL FACE NAIL
DOUBLE TOP PLATES	(8) 16d COMMON NAILS	LAP SPLICE
JOIST BLOCKING TO TOP PLATE	(3) 8d COMMON NAILS	TOE NAIL
RIM TO TOP PLATE	8d COMMON NAILS 8" O.C.	TOE NAIL
TOP PLATES (LAPS & INTERSECTIONS)	(2) 16d COMMON NAILS	FACE NAIL
HEADER TO STUD	(4) 8d COMMON NAILS	TOE NAIL
BUILT-UP CORNER STUDS	16d COMMON NAILS 24" O.C.	FACE NAIL
BUILT-UP GIRDERS & BEAMS	20d COMMON 32" O.C.	FACE NAIL (TOP & BOTTOM STAGGERED ON OPPOSITE SIDES)
	(2) 20d COMMON	FACE NAIL @ ENDS & EACH SPLICE
PROJECT DETAILS & SPECIFIC COMPONENT NOTES SUPERCEDE NAILING SCHEDULE		

HANGER FASTENING SCHEDULE		
DESCRIPTION	FASTENING @ SUPPORT MEMBET	FASTENING @ CARRIED MEMBER
JB212A	(6) 0.162 x 3 1/2"	(2) 0.148 x 1 1/2"
SIMPSON HUC210-2	(18) 0.162 x 3 1/2"	(10) 0.148 x 3"
SIMPSON HUC210-3	(18) 0.162 x 3 1/2"	(10) 0.148 x 3"
SIMPSON H6	(8) 0.131 x 2 1/2"	(8) 0.131 x 2 1/2"
SIMPSON DT122-SDS	(1) 1/2" ANCHOR	(8) 1/2" x 2 1/2" SDS
SIMPSON HDU5-SDS2.5	(1) 3/8" ANCHOR	(14) 1/2" x 2 1/2" SDS
SIMPSON DTT1Z	(1) 3/8" ANCHOR	(8) 0.148 x 1 1/2"
SIMPSON H2.5A	(5) 0.131 x 1 1/2"	(5) 0.131 x 2 1/2"
SIMPSON HUC416	(26) 0.162 x 3 1/2"	(12) 0.148 x 3"
SIMPSON HU212	(10) 0.162 x 3 1/2"	(6) 0.148 x 1 1/2"
SIMPSON HU212-2	(22) 0.162 x 3 1/2"	(10) 0.148 x 3"
SIMPSON HUC416	(26) 0.162 x 3 1/2"	(12) 0.148 x 3"
SIMPSON VGT	(1) 3/8" ANCHOR (TO CONCRETE)	(16) 1/2" x 3" SDS
SIMPSON MGUS.50-SDS	(24) 1/2" x 2 1/2" SDS	(16) 1/2" x 2 1/2" SDS
SIMPSON HHG9.00-SDS	(44) 1/2" x 2 1/2" SDS	(28) 1/2" x 2 1/2" SDS
SIMPSON EGP	(4) 1" BOLTS	(2) 1" BOLTS
SIMPSON HDU2-SDS2.5	(1) 3/8" ANCHOR	(6) 1/2" x 2 1/2" SDS
SIMPSON HDU8-SDS2.5	(1) 1/2" ANCHOR	(20) 1/2" x 2 1/2" SDS
ALL NAILING SUBSTITUTIONS SHALL REFERENCE MANUFACTURERS SPECIFICATIONS FOR LOAD REDUCTIONS.		



REV. NO.	REVISION	DATE
1	ISSUED FINAL PLANS	5/30/2019

PROJECT NUMBER:	S19-0041
DRAWN BY:	KYLE B.
REVIEWED BY:	CAMERON R.
DATE:	5/17/2019
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PROJECT NAME:

MAHON /
MORTRUDE

TOTFE MINNESOTA
SHEET NUMBER:

PROJECT
SCHEDULES

SHEET NUMBER:

S0.1

REV. NO.	REVISION	DATE
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PROJECT NUMBER: S19-0041

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PROJECT NAME:

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MORTRUDE

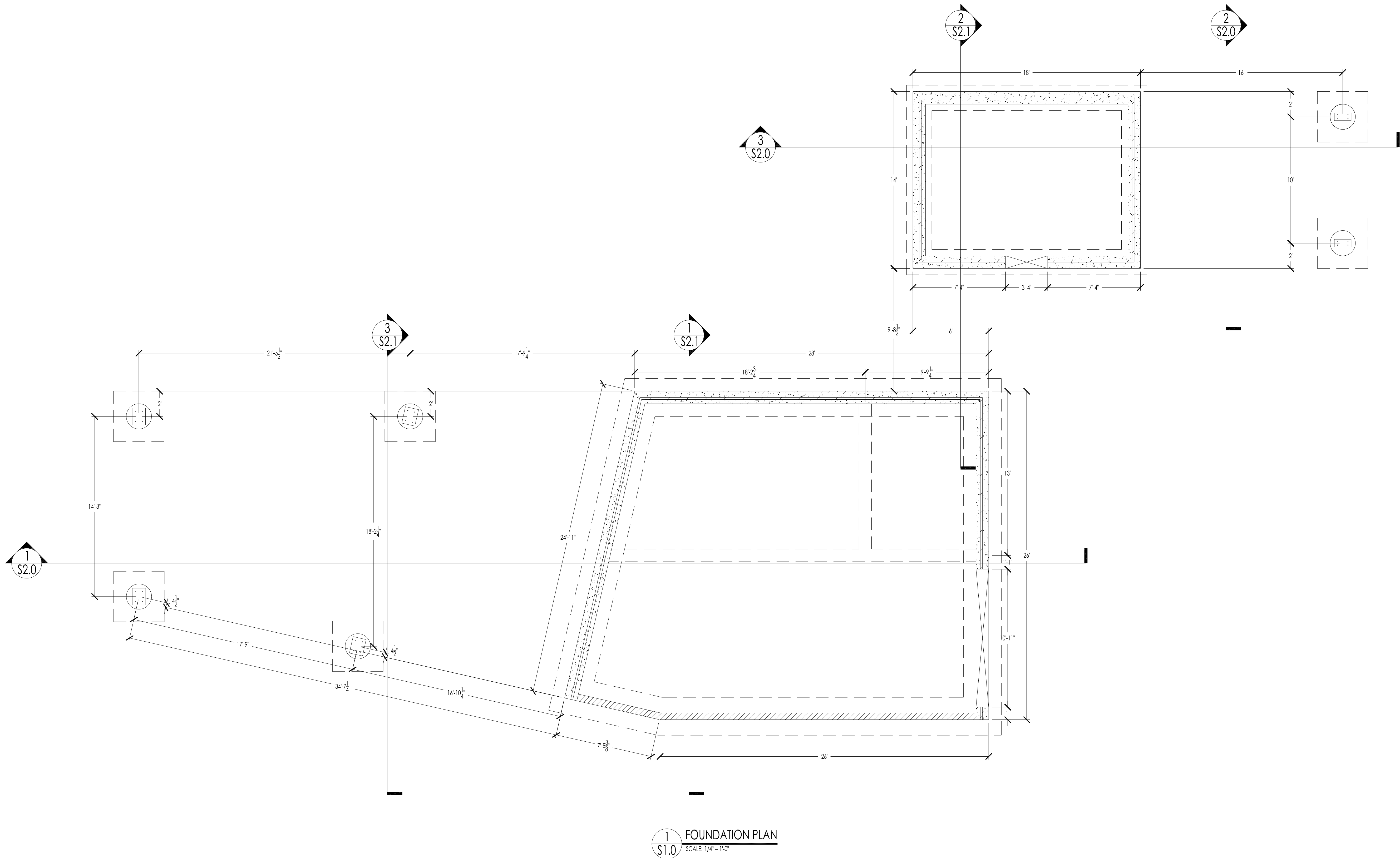
TO/FE MINNESOTA

SHEET NUMBER:

FOUNDATION
PLAN

SHEET NUMBER:

S1.0



REV. NO.	REVISION	DATE
1	ISSUED FINAL PLANS	5/30/2019

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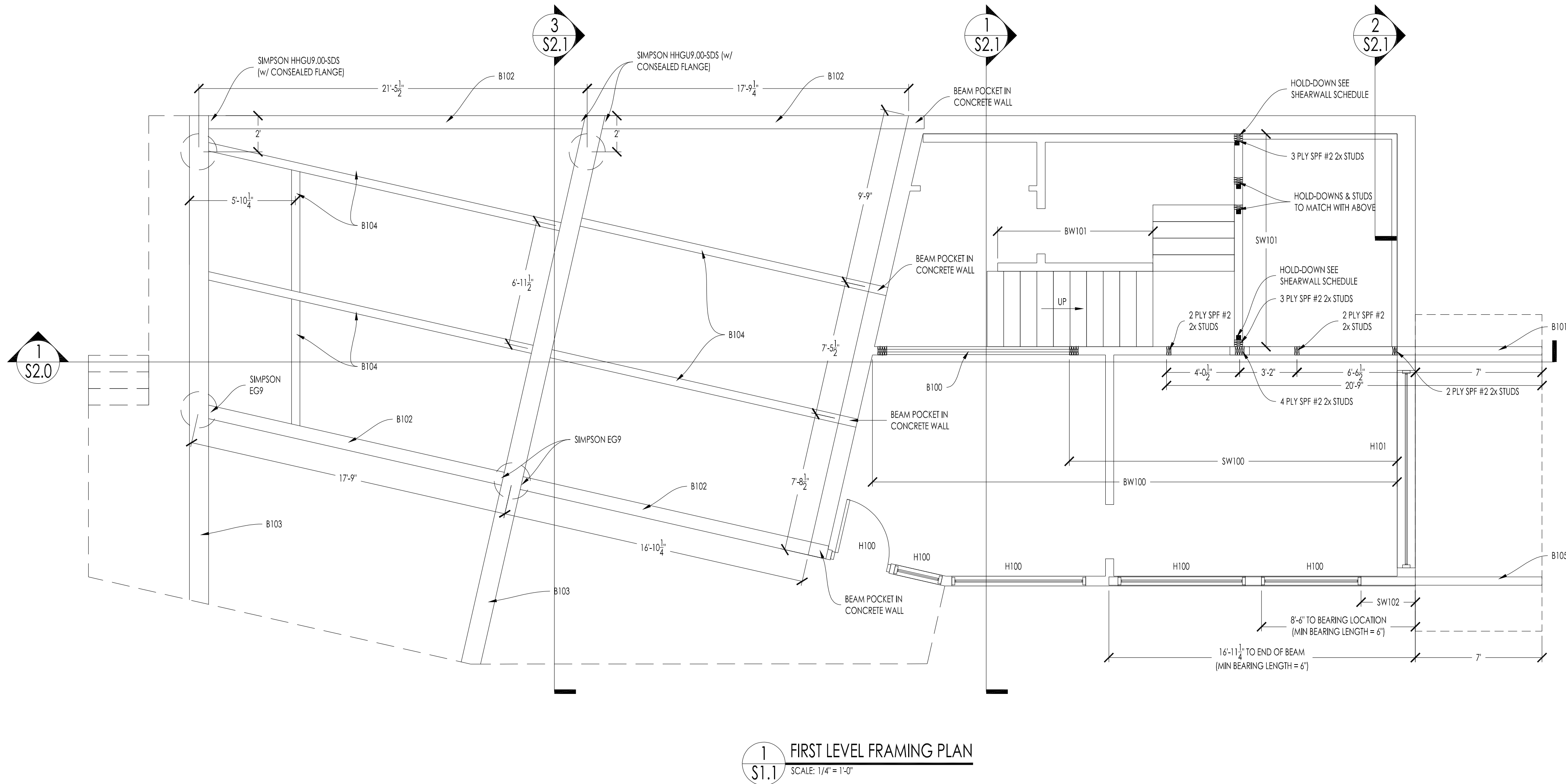
MAHON /
MORTRUDE

TO/FE MINNESOTA
SHEET NUMBER:

FIRST LEVEL
FRAMING PLAN

SHEET NUMBER:

S1.1



1
S1.1 FIRST LEVEL FRAMING PLAN
SCALE: 1/4" = 1'-0"

REV. NO.	REVISION	DATE
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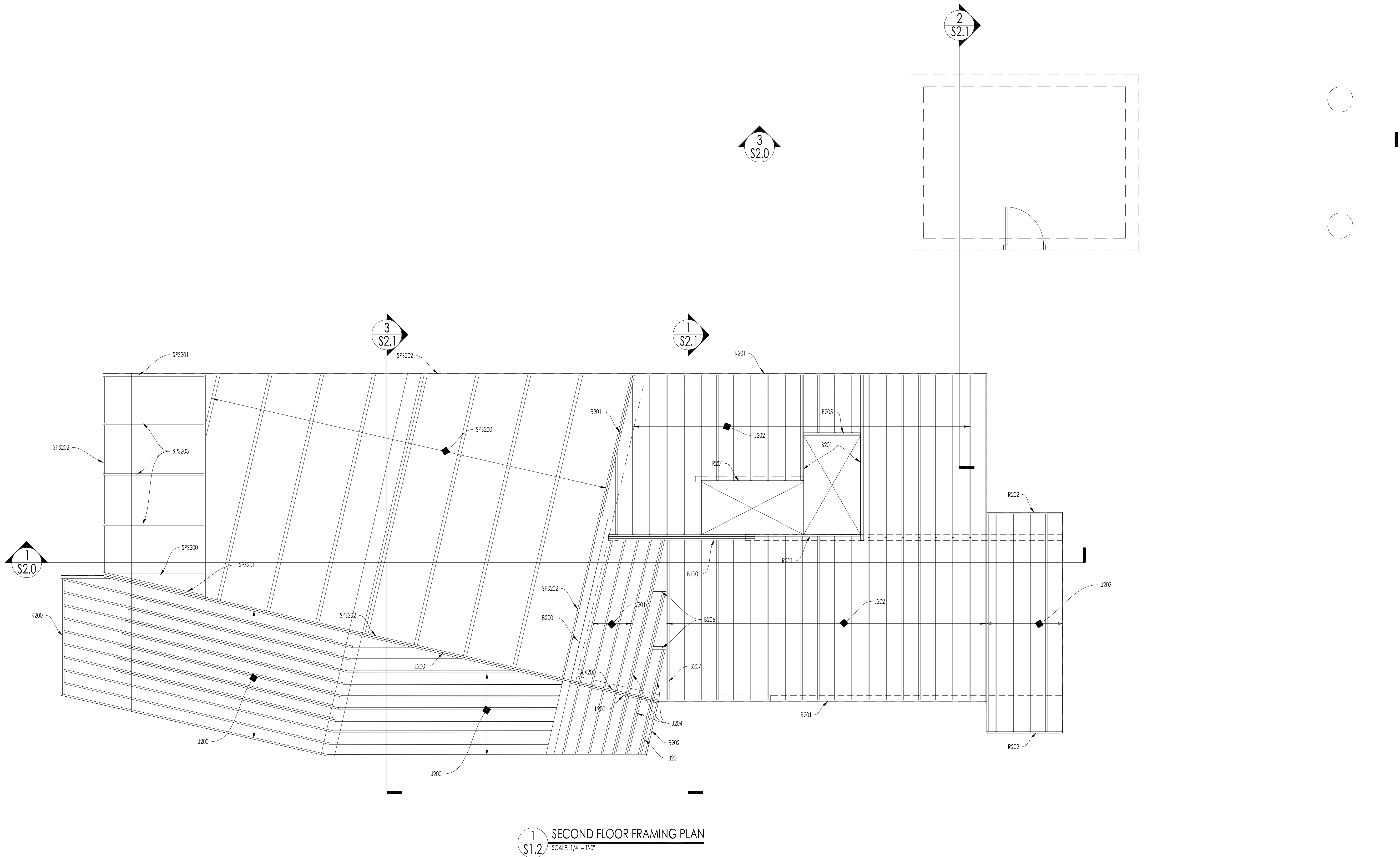
MAHON /
MORTRUDE

TOTFE MINNESOTA
SHEET NUMBER:

SECOND
FLOOR
FRAMING PLAN

SHEET NUMBER:

S1.2



REV. NO.	REVISION	DATE
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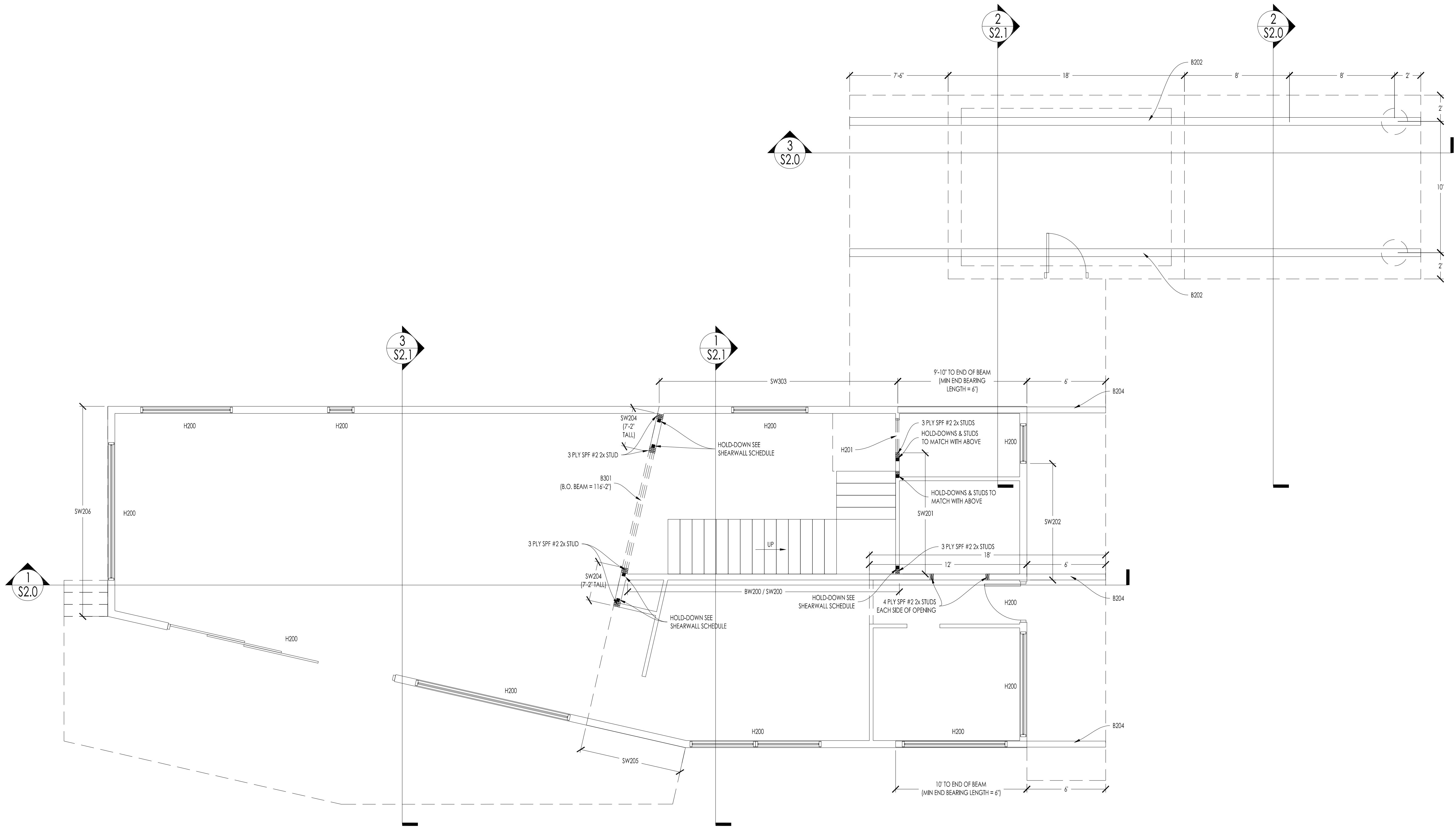
TO/FTE WINNESOTA

SHEET NUMBER:

SECOND LEVEL
FRAMING PLAN

SHEET NUMBER:

S1.3



1 SECOND LEVEL FRAMING PLAN
S1.3 SCALE: 1/4" = 1'-0"

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REVIEWED BY: CAMERON R.

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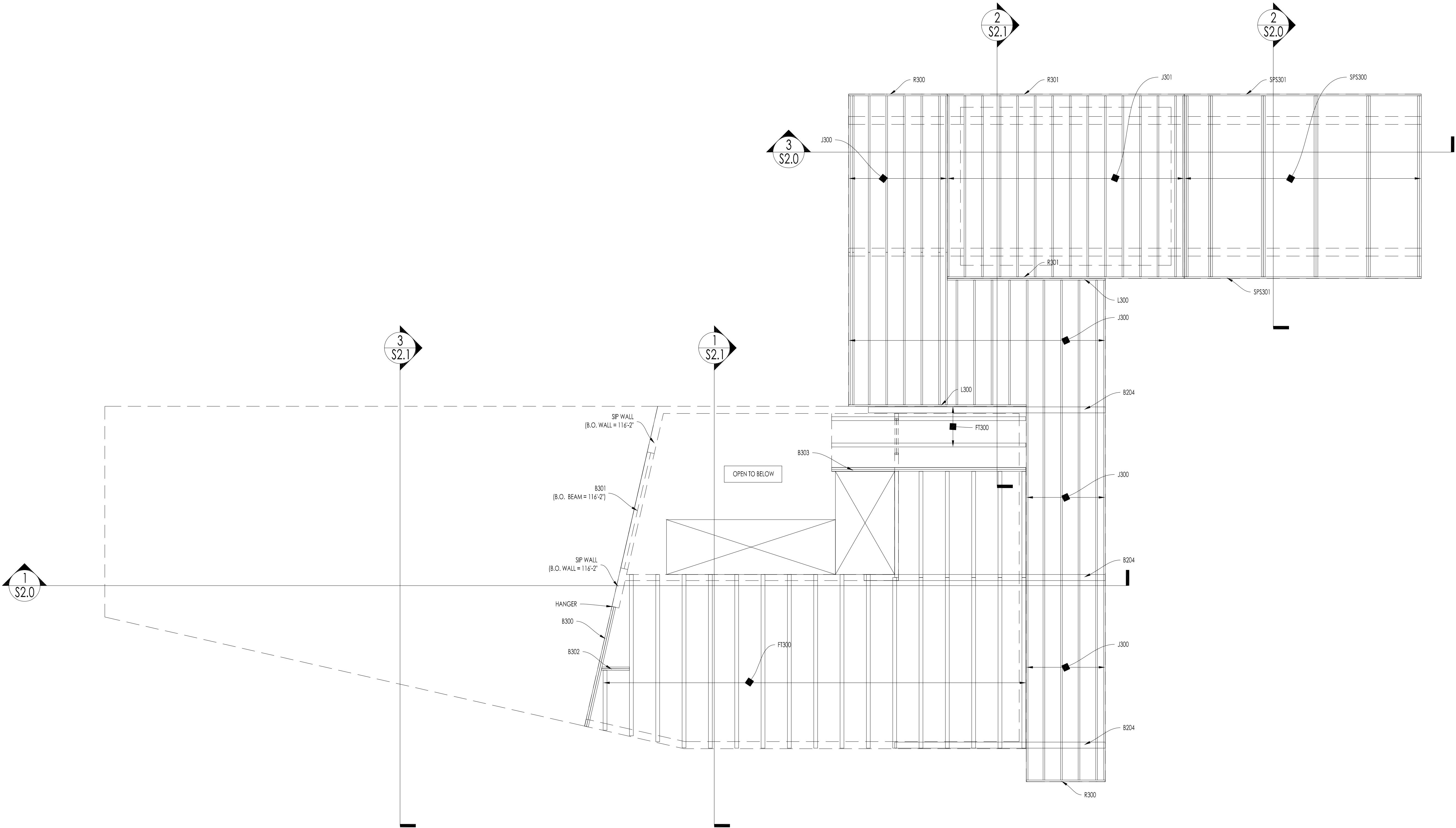
TO/FE MINNESOTA

SHEET NUMBER:

THIRD FLOOR
FRAMING PLAN

SHEET NUMBER:

S1.4



1

THIRD FLOOR FRAMING PLAN

S1.4

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

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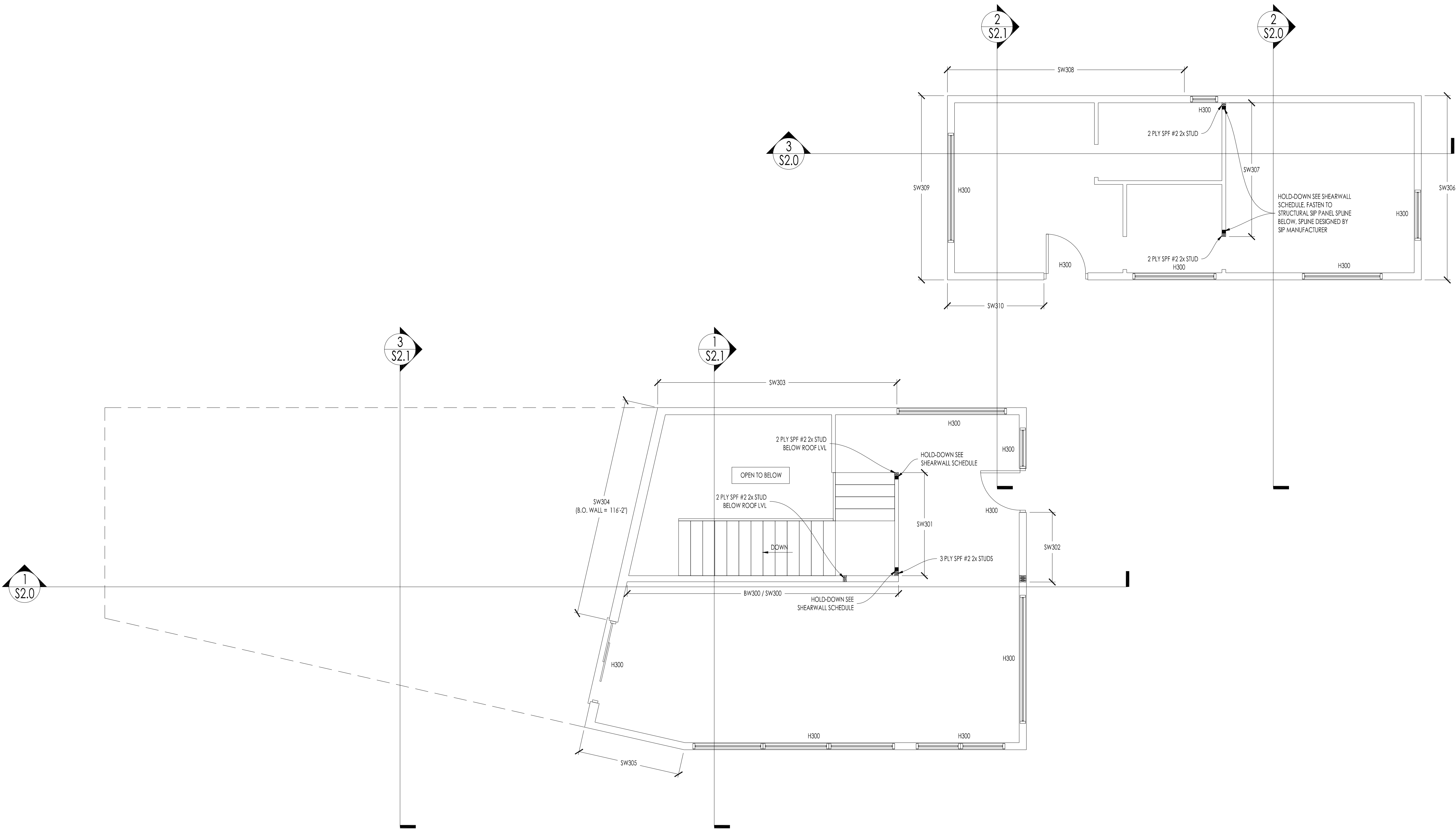
MAHON /
MORTRUDE

TO/FE MINNESOTA
SHEET NUMBER:

THIRD LEVEL
FRAMING PLAN

SHEET NUMBER:

S1.5



1
S1.5
THIRD LEVEL FRAMING PLAN
SCALE: 1/4" = 1'-0"

REV. NO.	REVISION	DATE
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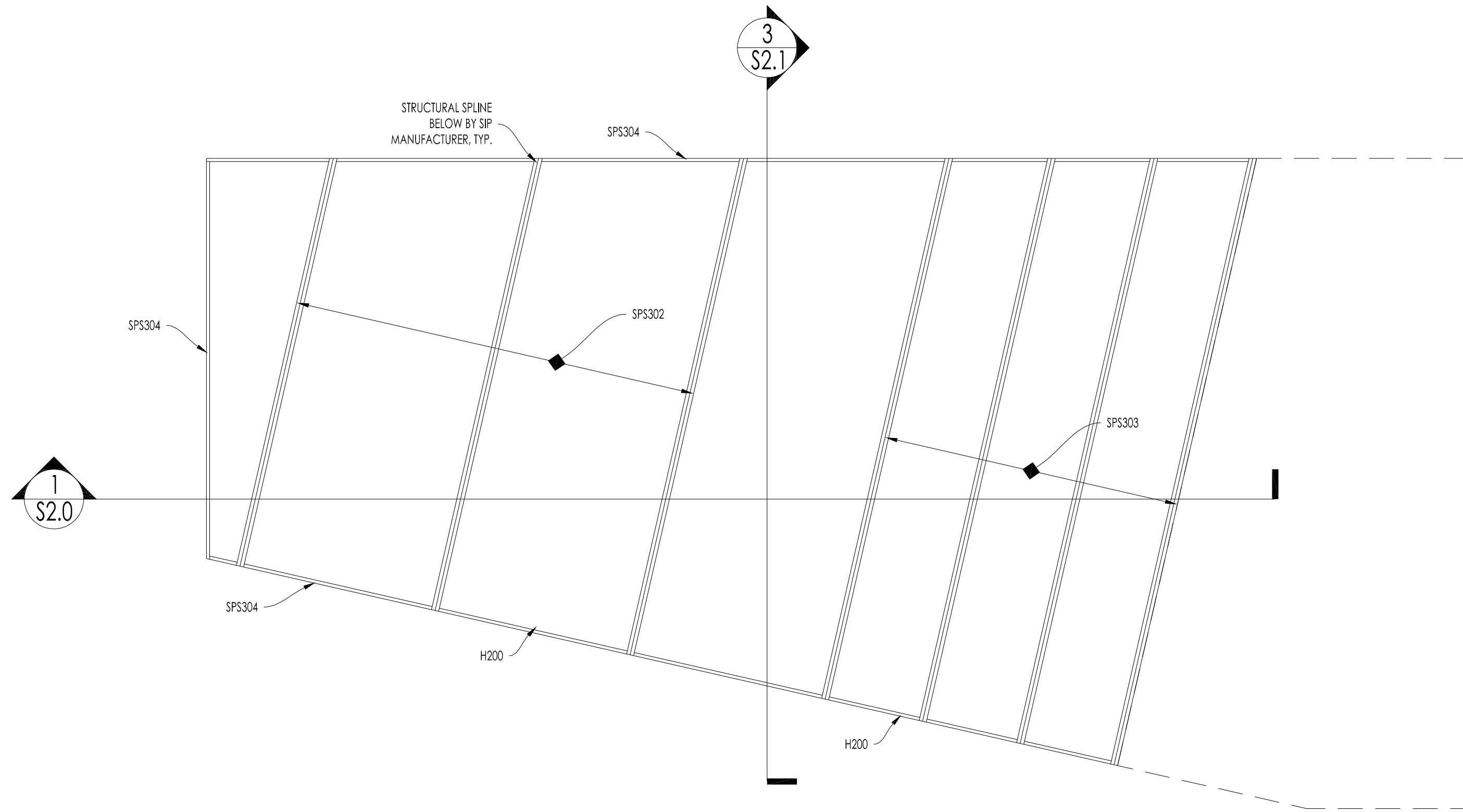
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TO/FE WINNESOTA
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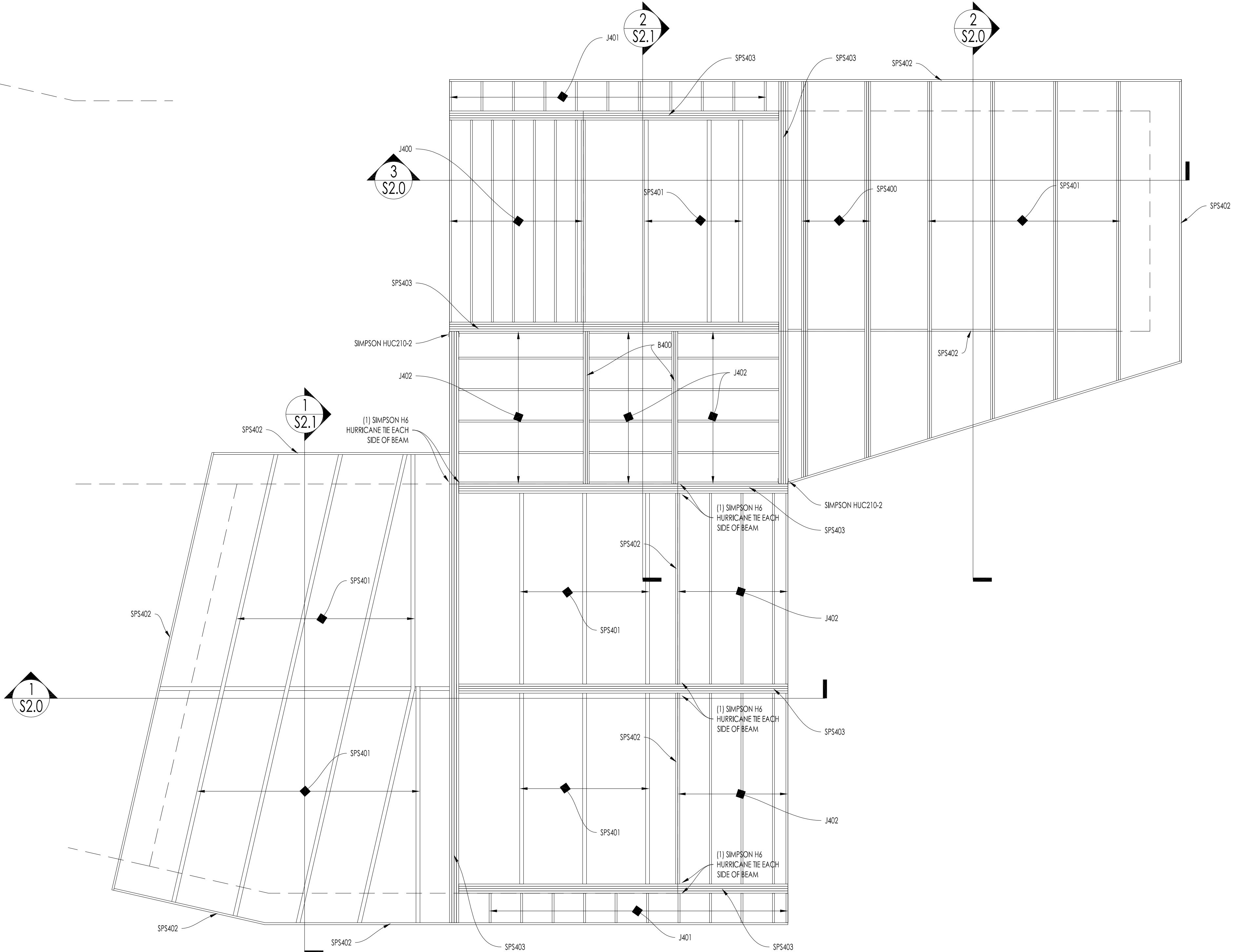
ROOF FRAMING
PLAN

SHEET NUMBER:

S1.6



1
S1.6 LOWER ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"



2
S1.6 UPPER ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

[illegible]

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PROJECT NAME

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MORTRUDE

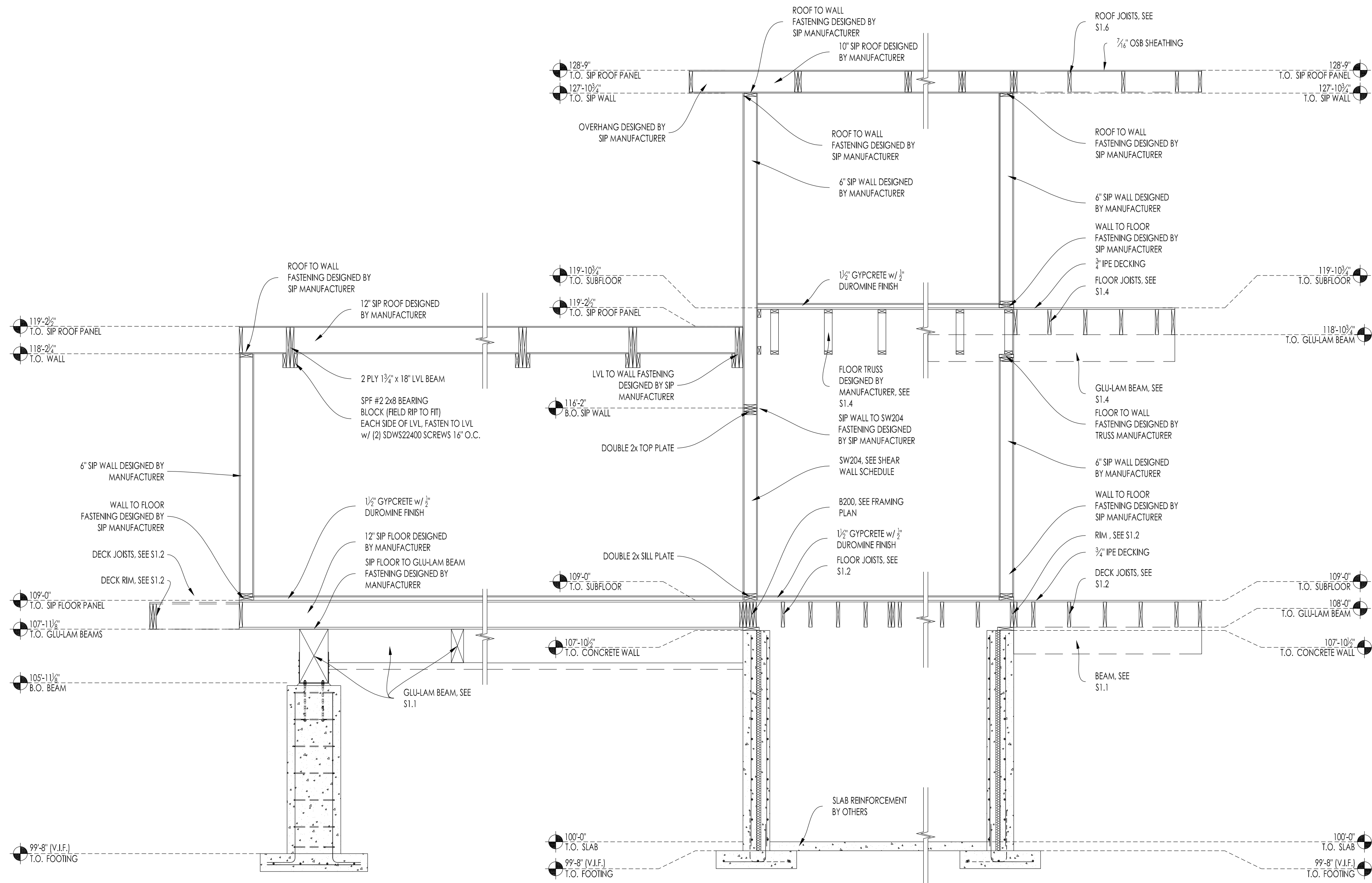
TOFTE MINNESOTA

SHEET NUMBER:

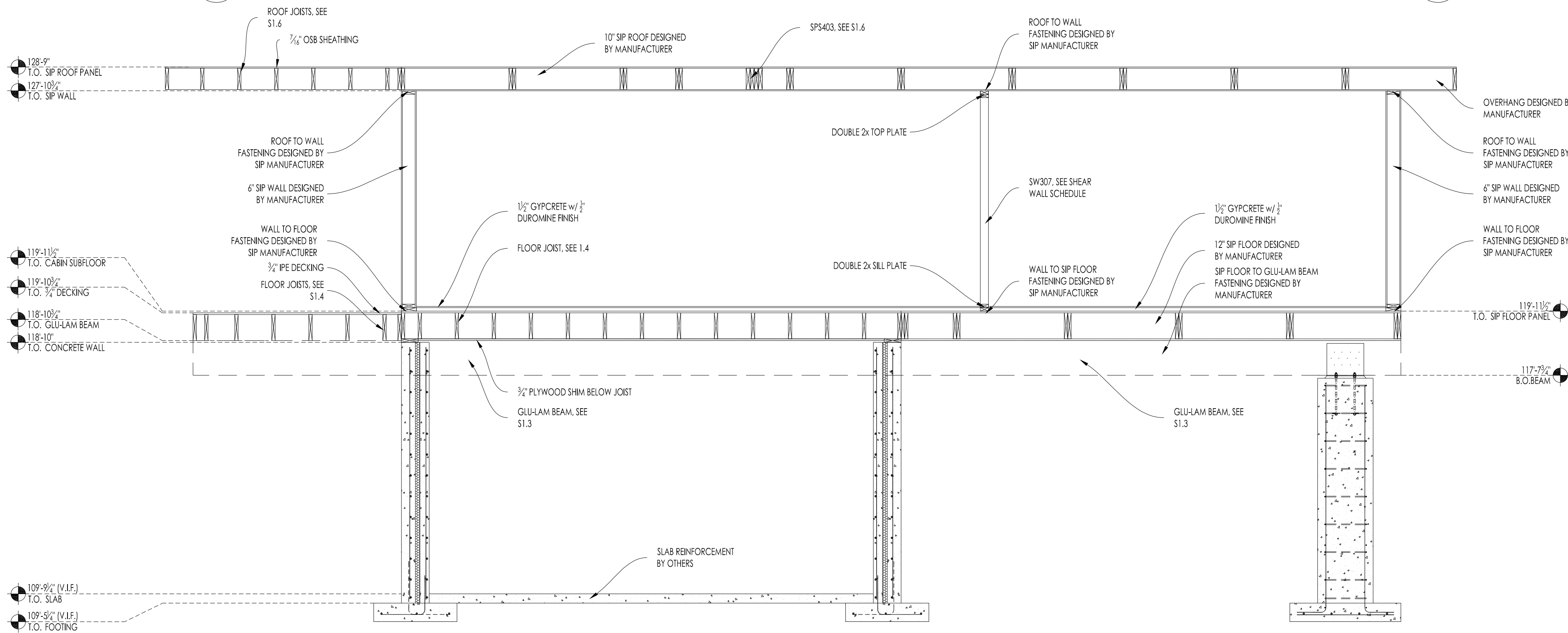
BUILDING SECTIONS

SHEET NUMBER:

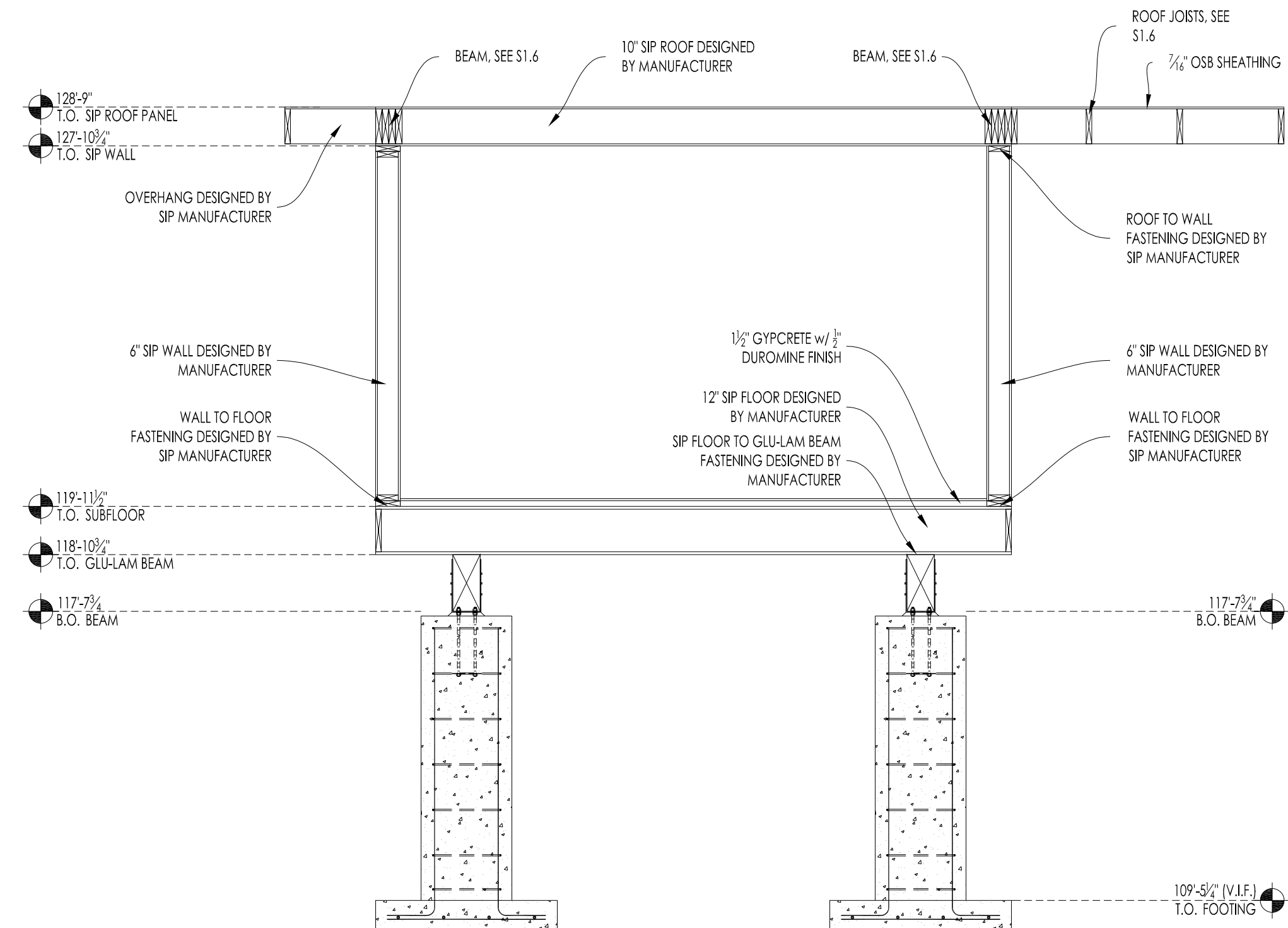
S2.0



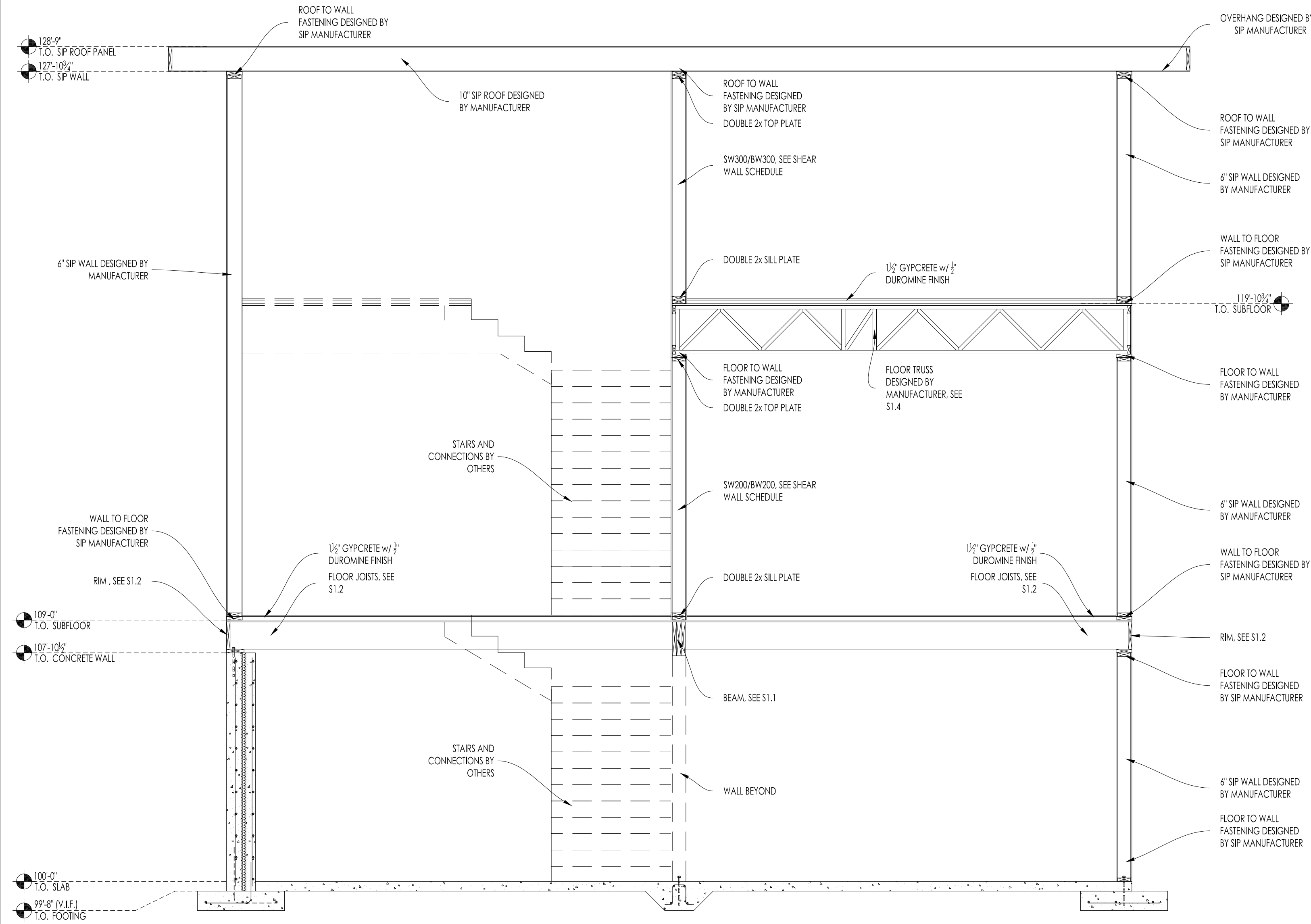
1 BUILDING CROSS SECTION
S2.0 SCALE: 3/8" = 1'-0"



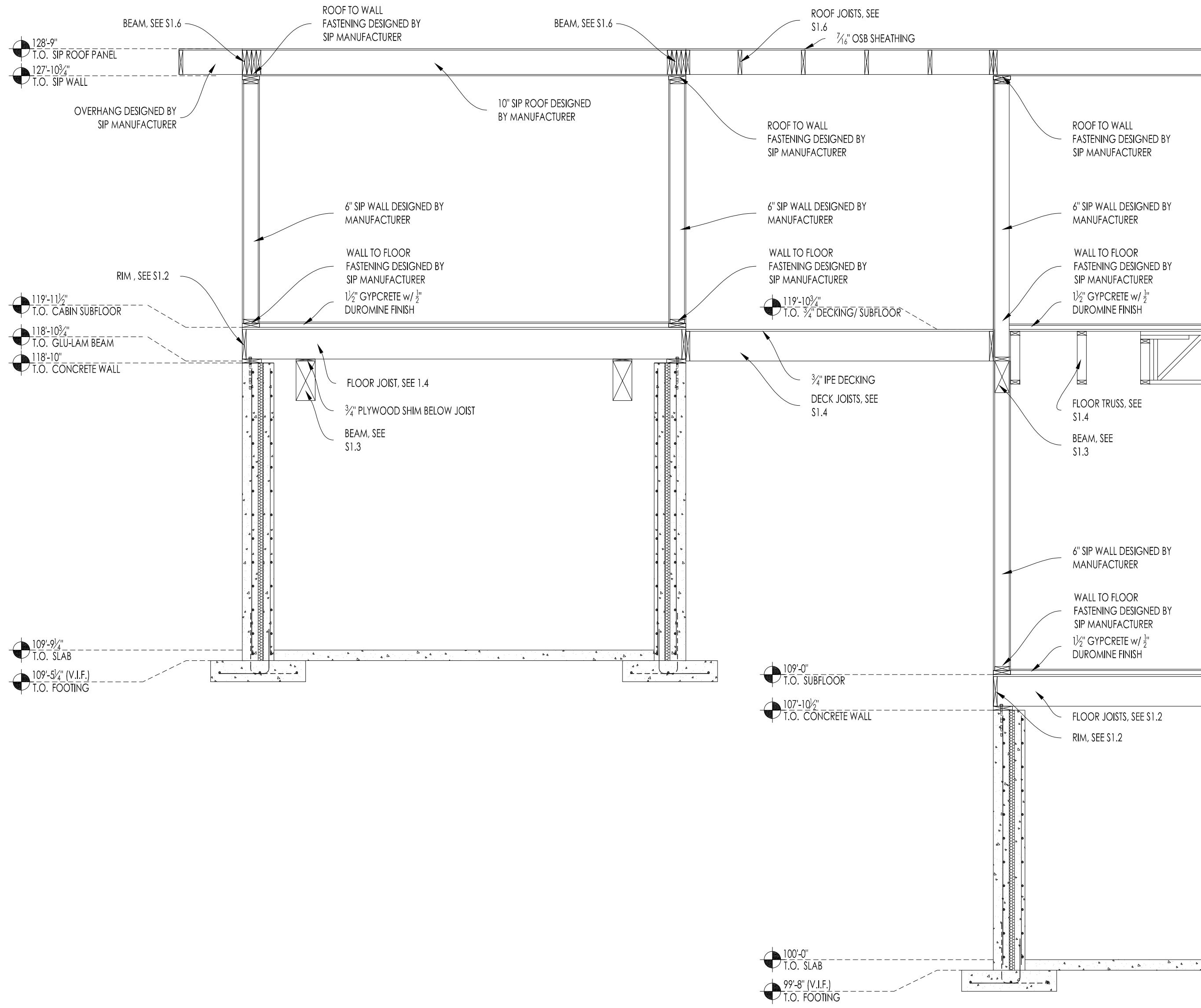
3 BUILDING CROSS SECTION
S2.0 SCALE: 3/8" = 1'-0"



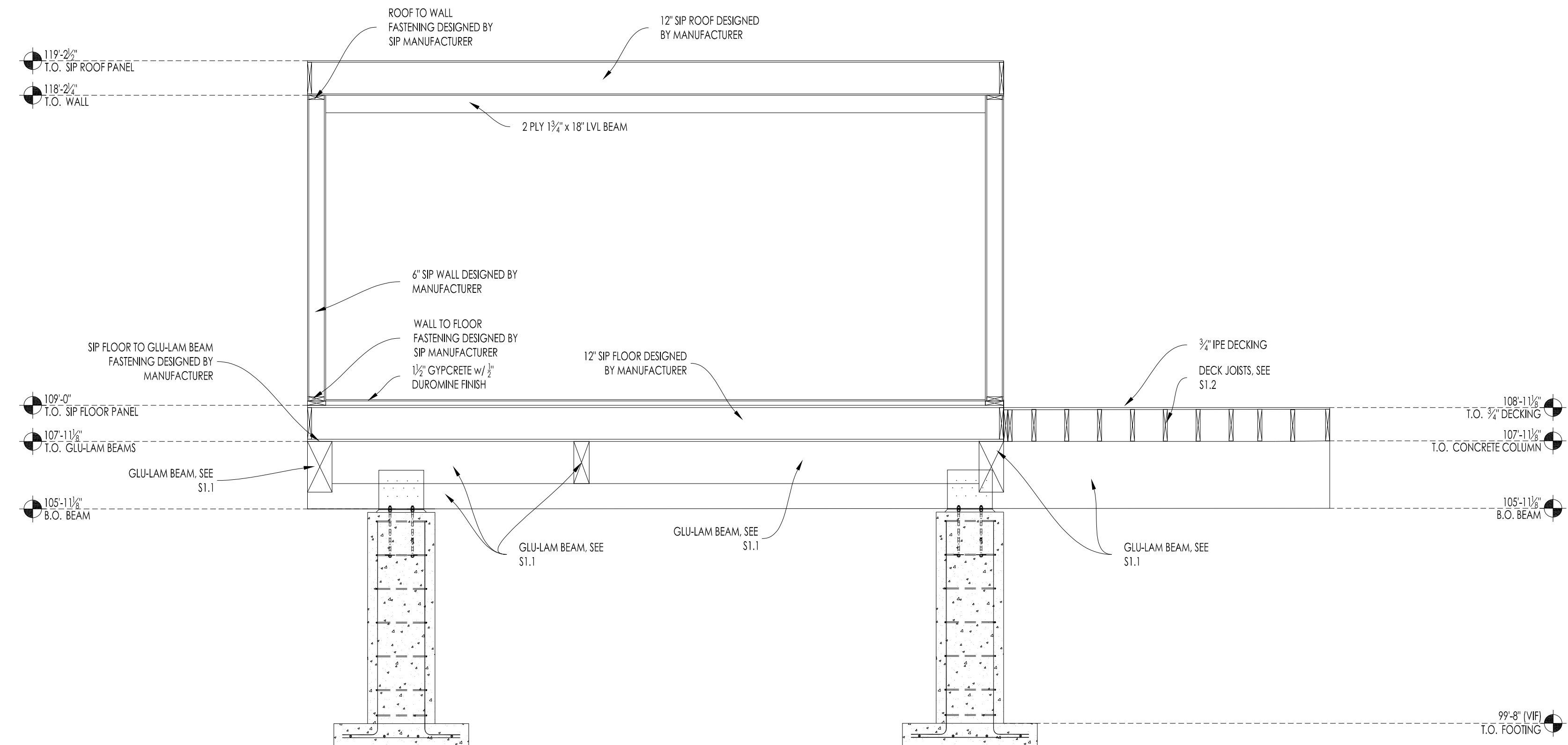
2 BUILDING CROSS SECTION
S2.0 SCALE: 3/8" = 1'-0"



1
S2.1 BUILDING CROSS SECTION
SCALE: 3/8" = 1'-0"



2
S2.1 BUILDING CROSS SECTION
SCALE: 3/8" = 1'-0"



3
S2.1 BUILDING CROSS SECTION
SCALE: 3/8" = 1'-0"

REV. NO.	REVISION	DATE
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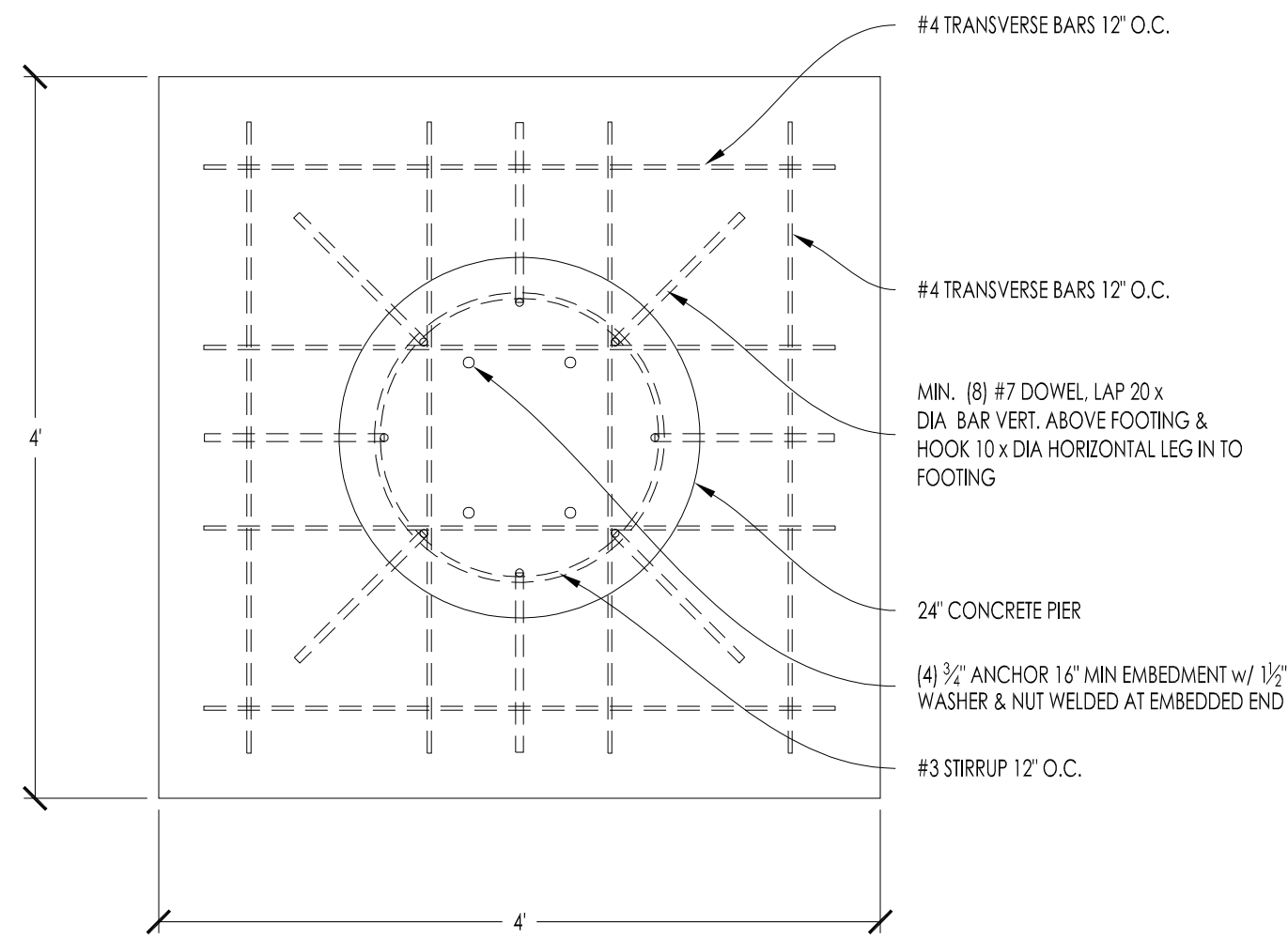
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TO/FE MINNESOTA
SHEET NUMBER:

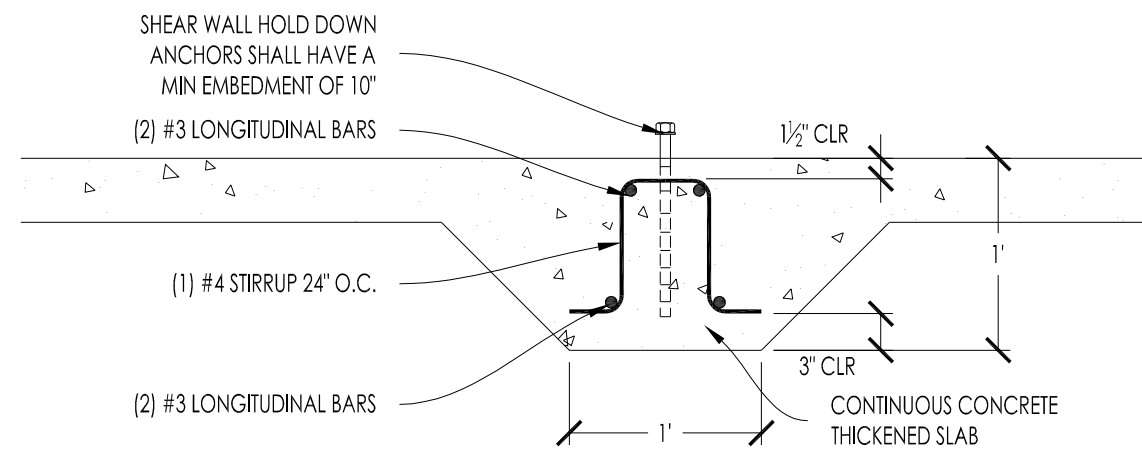
BUILDING
SECTIONS

SHEET NUMBER:

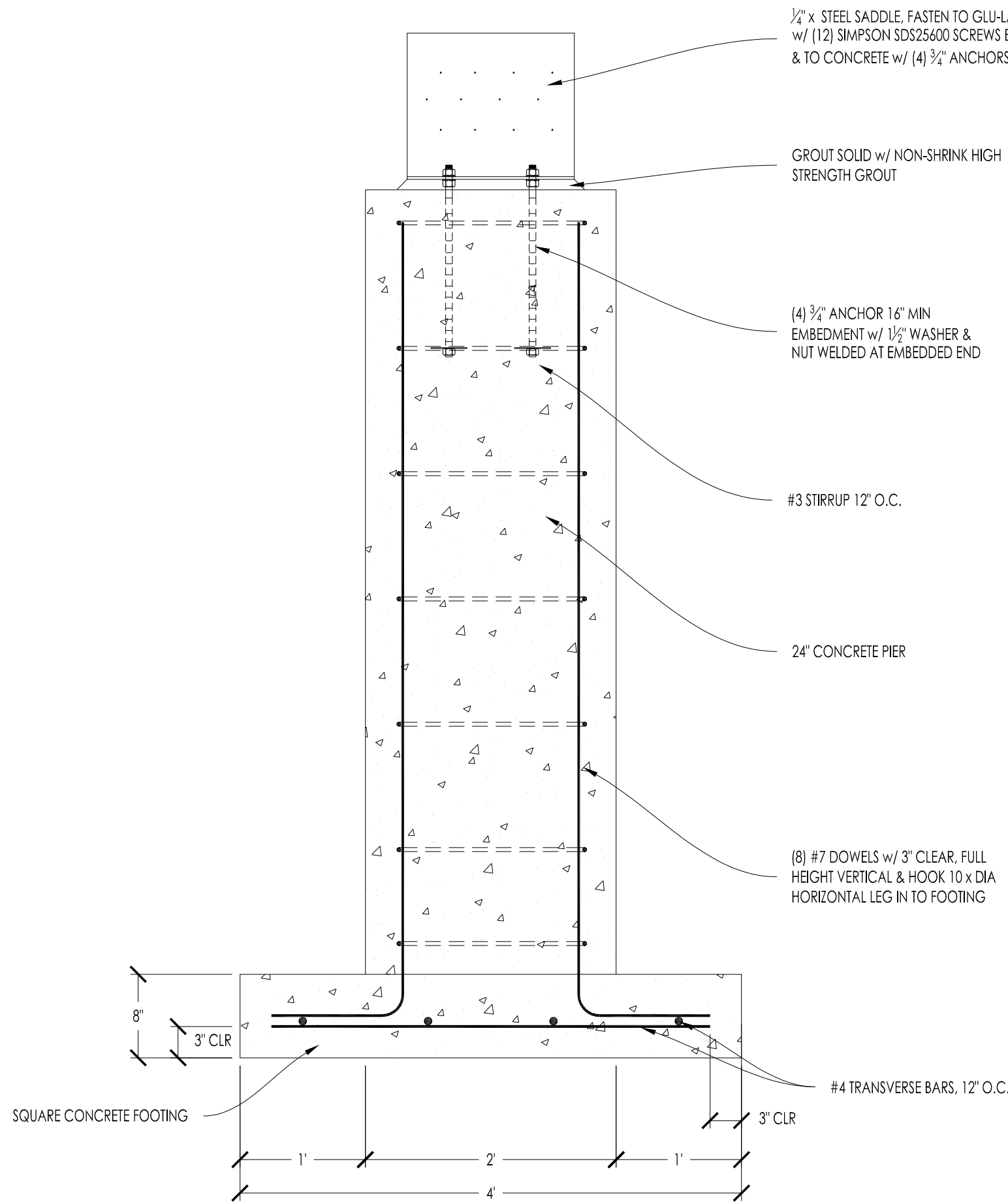
S2.1



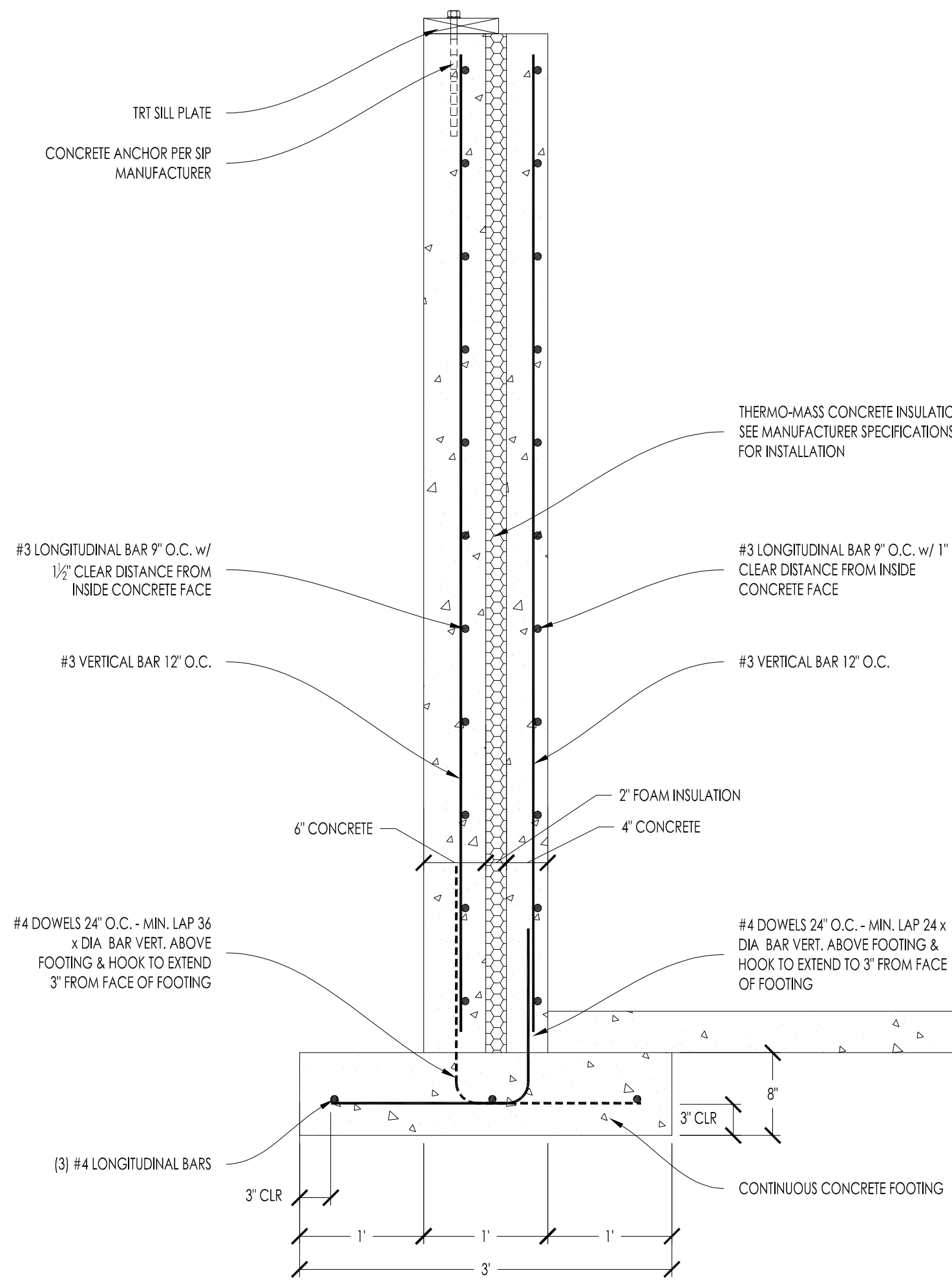
1
S3.0 TYP. SQUARE FOOTING PLAN VIEW
SCALE: 1" = 1'-0"



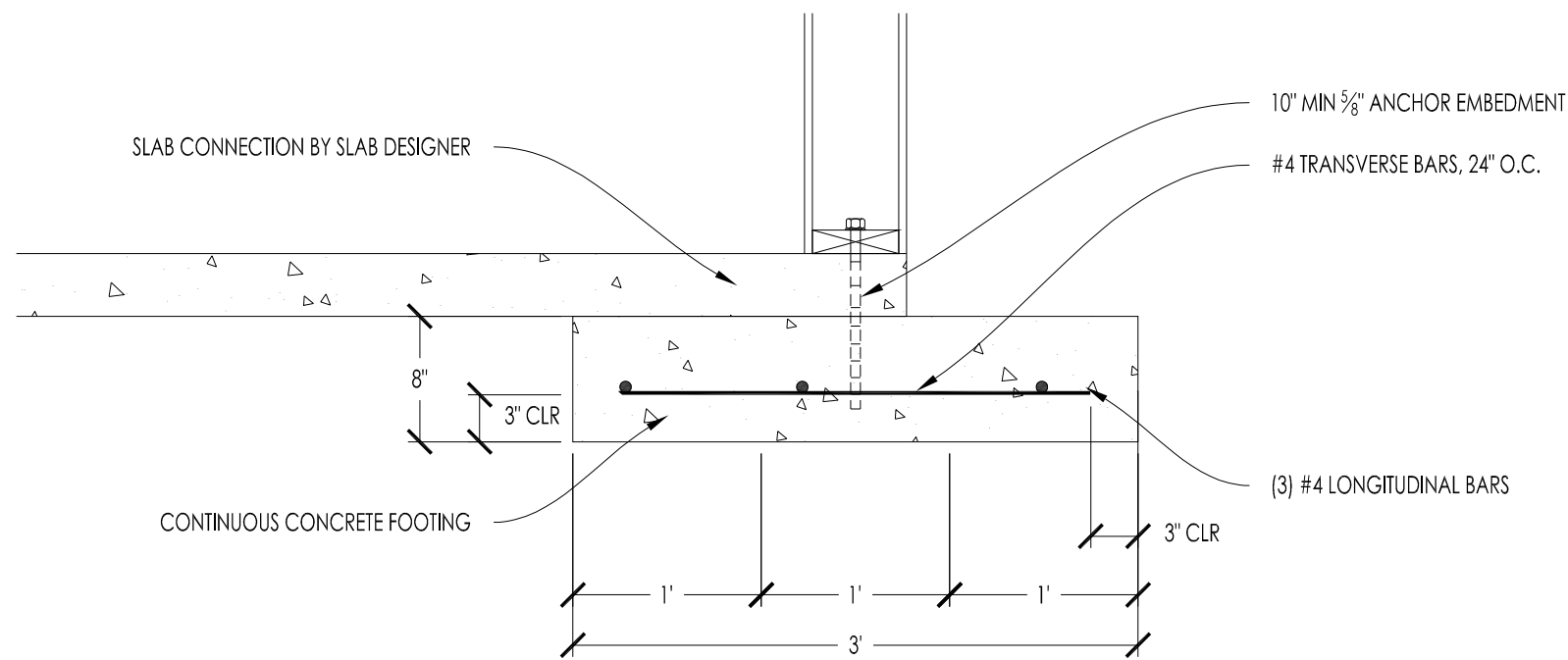
2
S3.0 TYP. INTERIOR THICKENED SLAB DETAIL
SCALE: 1" = 1'-0"



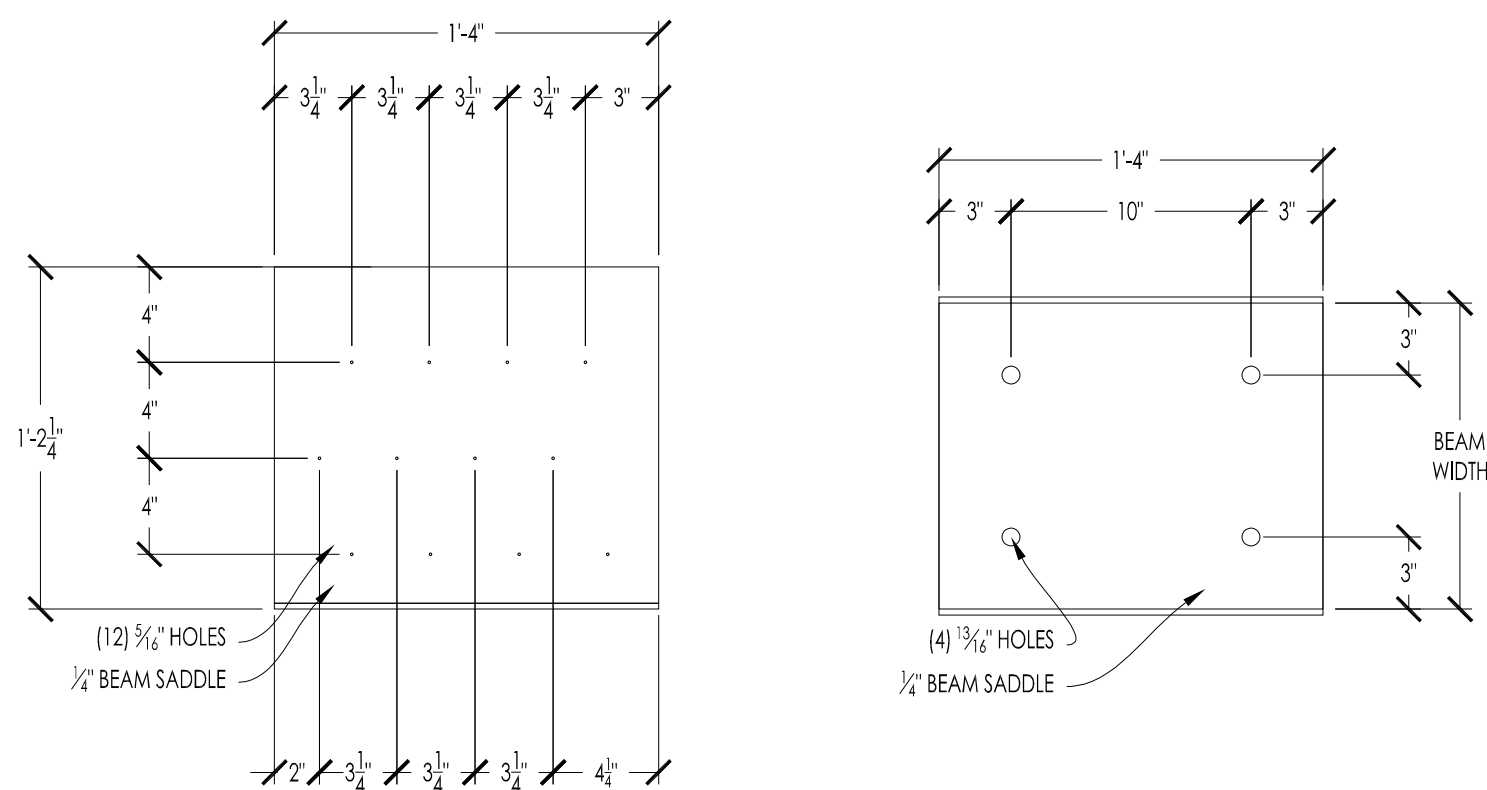
3
S3.0 TYP. COLUMN & FOOTING DETAIL
SCALE: 1" = 1'-0"



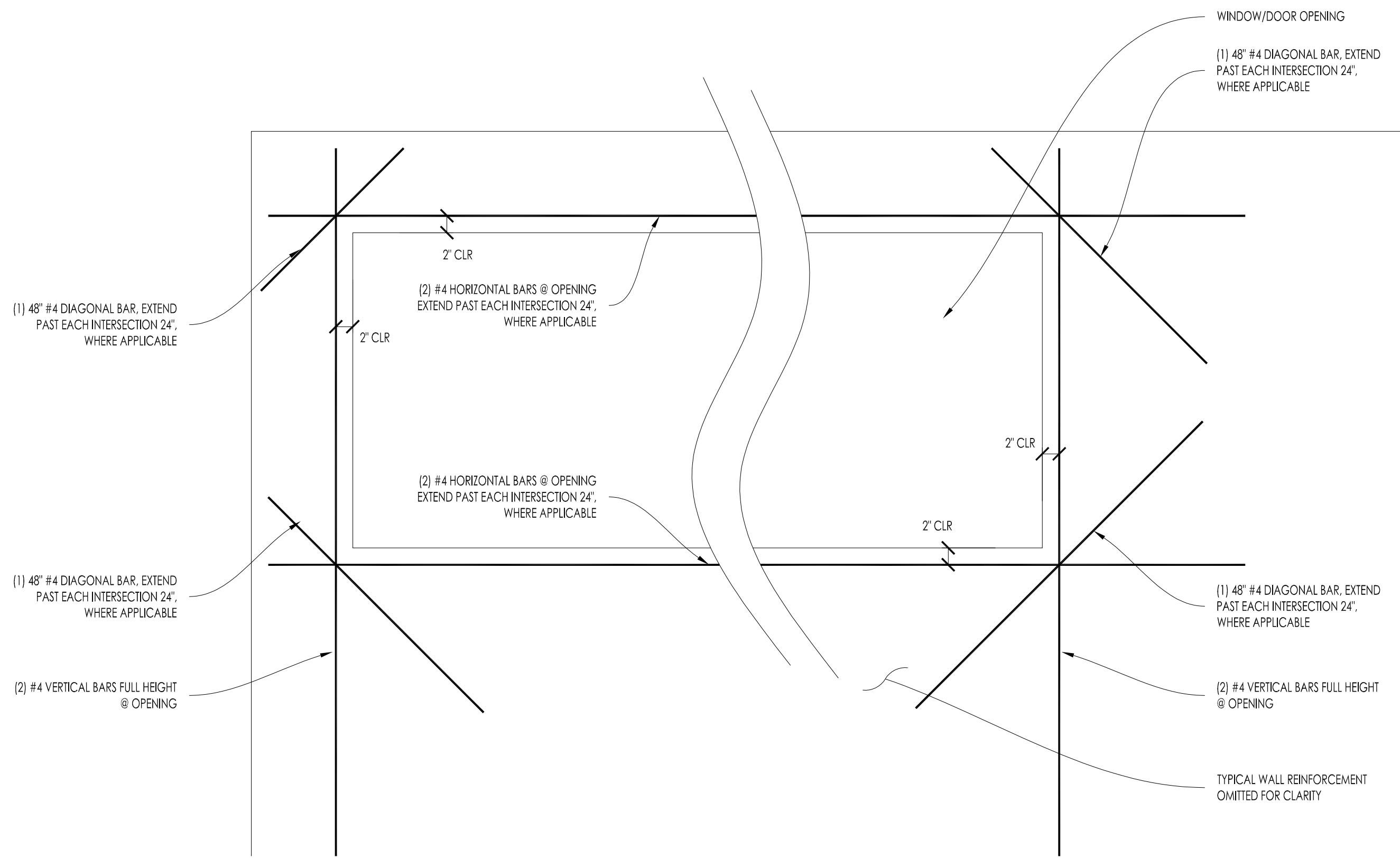
4
S3.0 TYP. CONCRETE WALL & FOOTING DETAIL
SCALE: 1" = 1'-0"



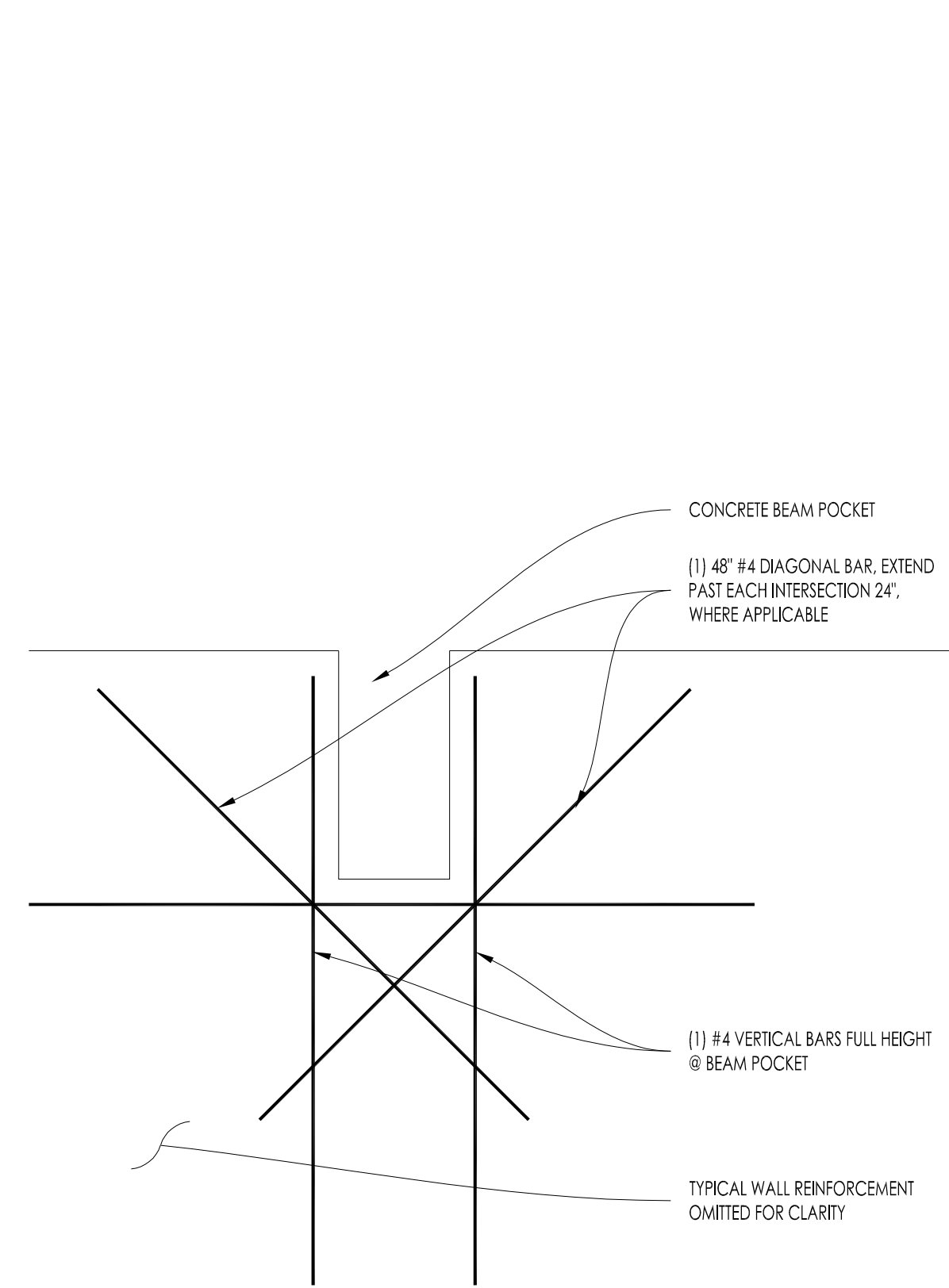
5
S3.0 TYP. WALKOUT FOOTING DETAIL
SCALE: 1" = 1'-0"



6
S3.0 CONCRETE/ GLU-LAM BEAM SADDLE DETAILS
SCALE: 1-1/2" = 1'-0"



7
S3.0 TYP. DOOR/WINDOW OPENING DETAIL
SCALE: 1" = 1'-0"



8
S3.0 TYP. BEAM POCKET DETAIL
SCALE: 1" = 1'-0"

REV. NO.	REVISION	DATE
1	ISSUED FINAL PLANS	5/30/2019

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PROJECT NAME:

MAHON /
MORTRUDE

TO/FE MINNESOTA
SHEET NUMBER:

BUILDING
DETAILS

SHEET NUMBER:

S3.0