

1. GENERAL

- 1.01. THE STRUCTURE IS DESIGNED IN ACCORDANCE AND MEETS THE DESIGN CRITERIA OF THE FOLLOWING CODES:
2018 NORTH CAROLINA BUILDING CODE
ASCE 7-10, MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES
NDS-05, NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION
- 1.02. METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
- 1.03. THE GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL DETERMINE THE SCOPE OF THE STRUCTURAL WORK FROM THE CONTRACT DOCUMENTS TAKEN AS A WHOLE. THE STRUCTURAL DRAWINGS SHALL NOT BE CONSIDERED SEPARATELY FOR PURPOSES OF BIDDING THE STRUCTURAL WORK.
- 1.04. SCALES NOTED ON THE DRAWINGS ARE FOR GENERAL REFERENCE ONLY. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED BY DIRECT SCALING OF THE DRAWINGS.
- 1.05. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL RESULTING REVISIONS TO THE STRUCTURAL SYSTEM OR OTHER TRADES AS A RESULT OF ACCEPTANCE OF CONTRACTOR PROPOSED ALTERNATIVES OR SUBSTITUTIONS.
- 1.06. ELEVATIONS SHOWN ON PLAN ARE BASED ON FINISHED FLOOR ELEVATION +/-0'-0".
- 1.07. FOR THE PRE-ENGINEERED METAL BUILDING (PEMB), DRYE-MCGLAMERY IS RESPONSIBLE FOR THE FOUNDATION DESIGN ONLY. SUPERSTRUCTURE DESIGN IS THE RESPONSIBILITY OF THE MANUFACTURER.

2. DESIGN LOADS

- 2.01. DESIGN GRAVITY LOADS ARE AS FOLLOWS:
SUPERIMPOSED AREA DEAD LOAD (included but not limited to the following):
SINGLE PLY ROOF 3 PSF
AREA LIVE LOADS
ROOF..... 20 PSF
CONCENTRATED LIVE LOADS
ROOF..... 300 LBS
- 2.03. WIND LOAD
BASIC WIND SPEED (BUILDING FRAME - 3 SEC GUST) 115 MPH
WIND IMPORTANCE FACTOR (I) 1.0
BUILDING CATEGORY OPEN
WIND EXPOSURE CATEGORY C
INTERNAL PRESSURE COEFFICIENT +0.55/-0.55

3. MATERIAL STRENGTHS

- 3.01. CONCRETE (fc @ 28 DAYS)
ALL CONCRETE U.N. 3,000 PSI
- 3.02. REINFORCING STEEL (Fy)
REBAR (ASTM A615) 60,000 PSI
- 3.02. STRUCTURAL STEEL (Fy)
ANGLES, PLATES, MISC, (ASTM A36) 36,000 PSI
- 3.04. WOOD FRAMING (2005 NDS)
COLUMNS
SP - No. 1, 5"x5" AND LARGER
BEAMS / STUDS
SP - No. 2 OR SPF - No. 2
LVL BEAMS
Fb 2,600 PSI
Fv 285 PSI
Fc (PERP) 750 PSI
Fc 2,510 PSI
E 2,000,000 PSI
- 3.05. SOIL/SUBGRADE PROPERTIES (ASSUMED)
ALLOWABLE SOIL BEARING PRESSURE ASSUMED 2000 PSF

4. FOUNDATION AND SLAB ON GRADE

- 4.01. THE SUBSURFACE INFORMATION AND FOUNDATION DESIGN ARE BASED ON THE FOUNDATION SECTION OF THE BUILDING CODE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE FOUNDATION IS ASSUMED TO BE BEARING ON A SUBGRADE WITH A MINIMUM BEARING CAPACITY OF 2000PSF.
- 4.02. PIER AND WALL FOOTINGS SHALL BEAR ON ORIGINAL, UNDISTURBED SOIL.
- 4.03. CONTRACTOR TO KEEP EXCAVATIONS DRY AND PROTECTED FROM FROST AT ALL TIMES DURING THE FOUNDATION CONSTRUCTION.
- 4.04. FOUNDATION CONDITIONS ENCOUNTERED DURING CONSTRUCTION, WHICH DIFFER FROM THOSE DESCRIBED "ASSUMED VALUES" AND CONDITIONS SHALL BE REPORTED TO THE ENGINEER (DRYE-MCGMALERY ENGINEERING, PLLC), BEFORE FURTHER CONSTRUCTION IS ATTEMPTED.
- 4.05. SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND NOTES AND SHALL HAVE CONTRACTION JOINTS INSTALLED PER PLAN. CONTRACTION JOINTS SHALL BE TYPICALLY PROVIDED SUCH THAT NO AREA BOUNDED BY CONSTRUCTION AND/OR CRACK CONTROL JOINTS CONTAINS MORE THAN 450 SQUARE FEET OF SLAB AREA, THE SPACING OF THE JOINTS DOES NOT EXCEED 36 TIMES THE SLAB THICKNESS, AND THE RESULTING ASPECT RATIO OF THE DIMENSIONS OF SLAB AREA DOES NOT EXCEED 1.5 TO 1. CRACK CONTROL JOINTS SHALL BE MADE USING A "SOFT-CUT" CONCRETE SAW AS SOON AS THE SLAB WILL SUPPORT THE WEIGHT OF THE SAW AND OPERATOR WITHOUT DISTURBING THE FINAL FINISH. THE CRACK CONTROL JOINTS SHALL BE A MAXIMUM WIDTH OF 1/8" WIDE AND A MINIMUM DEPTH OF 1/3 THE SLAB THICKNESS. REFER TO DRAWINGS FOR PRESCRIBED LOCATIONS OF CONTRACTION / CRACK CONTROL JOINTS.

5. MASONRY

- 5.01. LOAD BEARING MASONRY UNTIS SHALL BE CONSTRUCTED OF STRUCTURAL LIGHTWEIGHT CONCRETE UNITS CONFORMING TO ASTM C90 TYPE N-1.
- 5.02. MAINTAIN MOISTURE CONTROL DURING STORAGE AND ERECTION AT JOB SITE TYPICAL.
- 5.03. ALL HEAD AND BED JOINTS SHALL BE FULL.
- 5.04. MASONRY TO BE LAYED IN RUNNING BOND PATTERN TYPICAL.
- 5.05. TOP 8" OF MASONRY WALLS AND PIERS TO BE GROUTED SOLID TYP.

7. TRUSS NOTES

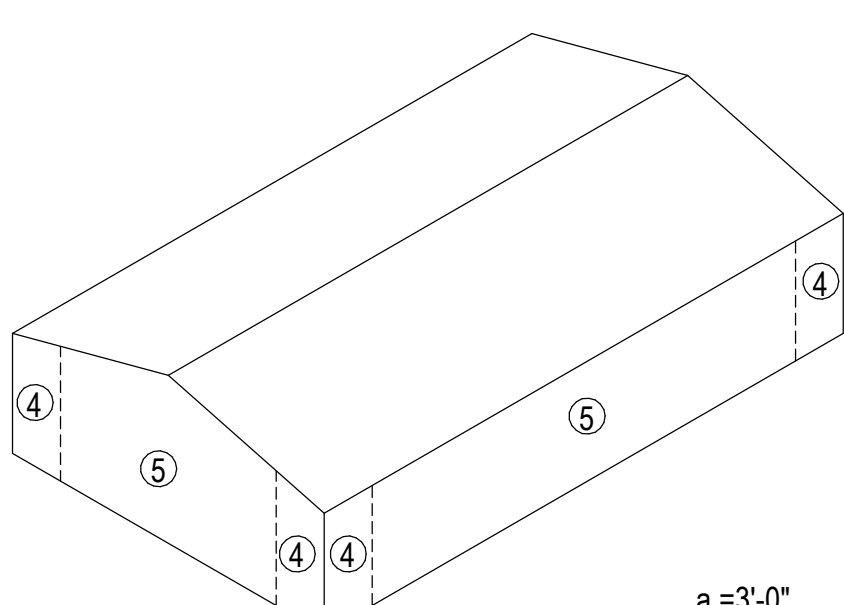
1. THE TRUSS ENGINEER SHALL DESIGN THE TRUSSES AND GIRDER TRUSSES FOR THE LOADS INDICATED ON THE STRUCTURAL DRAWINGS. SPECIAL LOAD CONSIDERATIONS, SUCH AS OVERFRAMING, ETC. SHALL BE ACCOUNTED FOR IN THE DESIGN.
2. THE TRUSS ENGINEER SHALL ACCEPT FULL RESPONSIBILITY FOR THE DESIGN. THE TRUSS ENGINEER SHALL PREPARE DESIGN CALCULATIONS AND DRAWINGS, WHICH SHALL BE SEALED, SIGNED, AND DATED BY THE RESPONSIBLE PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA.
3. THE DESIGN SHALL INCLUDE INTERNAL CONNECTIONS AND CONNECTIONS BETWEEN TRUSSES. CONNECTIONS TO OTHER STRUCTURAL MEMBERS AND ARCHITECTURAL SYSTEMS SHALL BE INCLUDED. TYPICAL DETAILS OF CONNECTIONS SHALL BE SHOWN.
4. THE MEMBER SIZE AND PROPERTIES FOR EACH MEMBER USED SHALL BE SHOWN, CLEARLY INDICATING WHERE EACH MEMBER IS BEING USED.
5. PARTICULAR ATTENTION SHALL BE GIVEN TO HEEL HEIGHTS AND TOP CHORD SLOPES TO ENSURE THAT THE FASCIA DETAILS ARE CONSISTENT, ALIGNED, AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE MAXIMUM SPACING OF THE TRUSSES SHALL BE 24 INCHES ON CENTER, (VERIFY SPACING WITH DETAILS).
7. A SAMPLE SUBMITTAL OF THE TYPICAL TRUSS AND TRUSS GIRDER TYPES SHALL BE SUBMITTED FOR PRELIMINARY REVIEW PRIOR TO COMPLETION OF DESIGN CALCULATIONS AND DRAWINGS.
8. COMPLETE ERECTION PLANS AND DETAILS SHALL BE SUBMITTED TO EACH TRADE FOR REVIEW.
9. THE TRUSS ENGINEER SHALL BE RESPONSIBLE FOR ANY FIELD COORDINATION ISSUES WHICH MAY ARISE REGARDING THE TRUSSES, OPENINGS IN TRUSSES, AND CONNECTIONS OF TRUSSES.
10. TRUSS ENGINEER SHALL VERIFY THAT DETAILS OF CONNECTIONS SHOWN ARE APPROPRIATE FOR HIS TRUSS DESIGN. IF NOT, HE SHALL SUBMIT PROPOSED REVISIONS TO DETAILS.
11. SHIM PLATES SHALL BE INSTALLED AS REQUIRED TO PROVIDE A POSITIVE BEARING SURFACE BETWEEN THE TRUSSES AND THE STRUCTURAL BEAMS AND/OR WALLS. EACH TRUSS SHALL BEAR ON EACH BEAM AND/OR WALL WITH WHICH IT INTERSECTS AS SHOWN ON THE PLAN AND IN THE LOADING DIAGRAMS. UNLESS SPECIFICALLY NOTED, THERE SHALL NOT BE ANY SPACE BETWEEN THE TRUSSES AND THE WALLS

8. WOOD CONSTRUCTION CONNECTORS

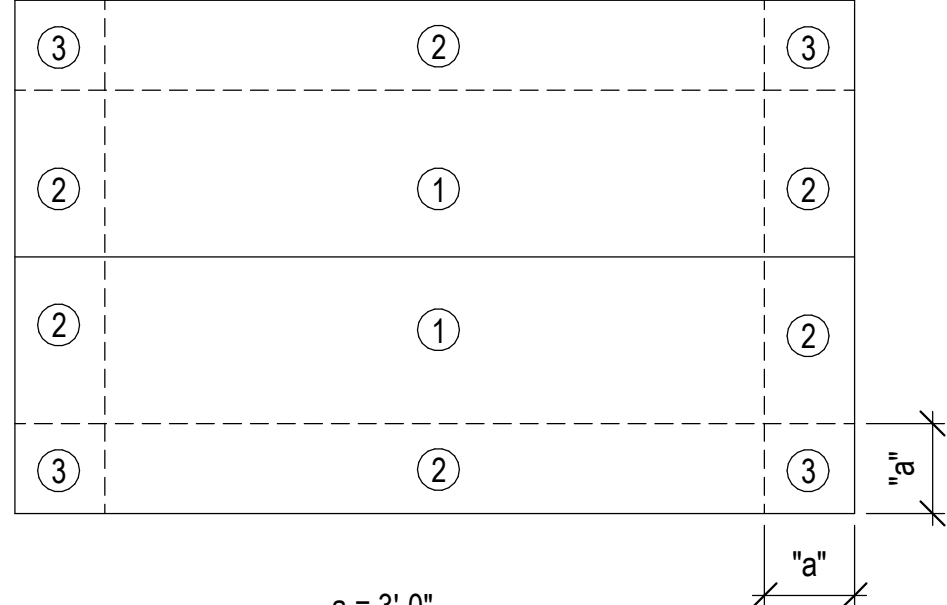
- 8.01. ALL WOOD CONSTRUCTION CONNECTORS SHOWN SHALL BE SIMPSON STRONG-TIE CONNECTORS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. (OR APPROVED EQUIVALENT). BEFORE SUBSTITUTING ANOTHER BRAND, CONFORM LOAD CAPACITY BASED ON RELIABLE PUBLISHED TESTING DATA OR CALCULATIONS AND SUBMIT TO DRYE-MCGLAMERY ENGINEERING, PLLC FOR EVALUATION AND WRITTEN APPROVAL FOR SUBSTITUTION PRIOR TO INSTALLATION.
- 8.02. ALL SPECIFIED FASTENERS SHALL BE INSTALLED ACCORDING TO THE DETAILS AND THE MANUFACTURER'S INSTRUCTIONS. ALL HOLES IN CONNECTORS SHALL BE PROPERLY NAILED TO THE WOOD STRUCTURE. CONTACT DRYE-MCGLAMERY ENGINEERING, PLLC FOR FASTENERS NOT SHOWN. INCORRECT FASTENER QUANTITY, SIZE, TYPE, MATERIAL, OR FINISH MAY CAUSE THE CONNECTION TO FAIL. 16D FASTENERS ARE COMMON NAILS (8 GA. X 3 1/2") AND CANNOT BE REPLACED WITH 16D SINKERS (9GA. X 3 1/4") UNLESS OTHERWISE SPECIFIED.
- 8.03. DIAMETER (PER THE NDS, SECTION 8.1.2.1).
- 8.04. INSTALL ALL SPECIFIED FASTENERS BEFORE LOADING THE CONNECTION.
- 8.05. WELDING GALVANIZED STEEL MAY PRODUCE HARMFUL FUMES; FOLLOW PROPER WELDING PROCEDURES AND SAFETY PRECAUTIONS. WELDING SHOULD BE IN ACCORDANCE WITH AWS STANDARDS.
- 8.06. PNEUMATIC OR POWDER-ACTUATED FASTENERS MAY DEFLECT AND INJURE THE OPERATOR OR OTHERS. NAIL GUNS MAY BE USED TO INSTALL CONNECTORS, PROVIDED THE CORRECT QUANTITY AND TYPE OF NAILS ARE PROPERLY INSTALLED IN THE NAIL HOLES. GUNS WITH NAIL HOLE-LOCATING MECHANISMS SHOULD BE USED. FOLLOW THE MANUFACTURER'S INSTRUCTIONS AND USE THE APPROPRIATE SAFETY EQUIPMENT.
- 8.07. MEMBERS JOISTS SHALL BEAR COMPLETELY ON THE CONNECTOR SEAT, AND THE GAP BETWEEN THE JOIST END AND THE HEADER SHALL NOT EXCEED 1/8" PER ASTM TEST STANDARDS.
- 8.08. UNLESS OTHERWISE NOTED, BOLTS AND NAILS SHALL NOT BE COMBINED. 8D, 10D, AND 16D SPECIFY COMMON NAILS.
- 8.09. UNLESS OTHERWISE NOTED, BENDING STEEL IN THE FIELD MAY CAUSE FRACTURES AT THE BEND LINE. FRACTURED STEEL WILL NOT CARRY LOAD AND MUST BE REPLACED.
- 8.10. A FASTENER THAT SPLITS THE WOOD WILL NOT SUPPORT THE DESIGN LOAD. IF THE WOOD HAS A TENDENCY TO SPLIT, PRE-BORE HOLES TO ¾ OF THE NAIL DIAMETER (1997 NATIONAL DESIGN SPECIFICATION, 2.1.3.1).

DRYE-MCGLAMERY ENGINEERING STRUCTURAL ABBREVIATIONS

@	AT	MECH	MECHANICAL
AB	ANCHOR BOLT	MFR	MANUFACTURER
ACI	AMERICAN CONCRETE INSTITUTE	MIN	MINIMUM
ADDL	ADDITIONAL	MISC	MISCELLANEOUS
ALT	ALTERNATE	MK	MARK
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MO	MASONRY OPENING
ARCH	ARCHITECTURAL	MPH	MILES PER HOUR
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	NS	NON SHRINK OR NEAR SIDE
B/	BOTTOM OF	NTS	NOT TO SCALE
BLDG	BUILDING	C/C	CENTER TO CENTER
BRG	BEARING	OF	OUTSIDE FACE
BTWN	BETWEEN	PL	PLATE
BYND	BEYOND	PLF	POUNDS PER LINEAR FOOT
CIP	CAST IN PLACE	PLYWD	PLYWOOD
CJ	CONTRACTION OR CONSTRUCTION JOINT	PSF	POUNDS PER SQUARE FOOT
CL	CENTERLINE	PSI	POUNDS PER SQUARE INCH
CLR	CLEAR	QTY	QUANTITY
COMP	COMPOSITE	R	RADIUS
CONC	CONCRETE	REF	REFERENCE
CONN	CONNECTION	REINF	REINFORCED OR REINFORCING
CONT	CONTINUOUS	REQD	REQUIRED
CTR	CENTER	REV	REVISION
Ø	DIAMETER	RO	ROUGH OPENING
DIM	DIMENSION	SCHED	SCHEDULE
DL	DEAD LOAD	SIM	SIMILAR
DN	DOWN	SOG	SLAB ON GRADE
DWG	DRAWING	T/	TOP OF
EA	EACH	T&B	TOP AND BOTTOM
EW	EACH WAY	T&G	TONGUE AND GROOVE
EXIST	EXISTING	TOC	TOP OF CONCRETE
EXP	EXPANSION	TOF	TOP OF FOOTING
FD	FLOOR DRAIN	TOJ	TOP OF JOIST
FDTN	FOUNDATION	TOS	TOP OF STEEL
FTG	FOOTING	TOW	TOP OF WALL
GALV	GALVANIZED	TYP	TYPICAL
ID	INSIDE DIAMETER	UNO	UNLESS NOTED OTHERWISE
IF	INSIDE FACE	VAR	VARIES
INT	INTERIOR	VEF	VERTICAL EACH FACE
K	KIP=1000 LB	VERT	VERTICAL
L	ANGLE	VIF	VERIFY IN FIELD
LB	POUND	W/	WITH
LG	LONG	W/O	WITHOUT
LL	LIVE LOAD	WWF	WELDED WIRE FABRIC



WALL ZONES DIAGRAM

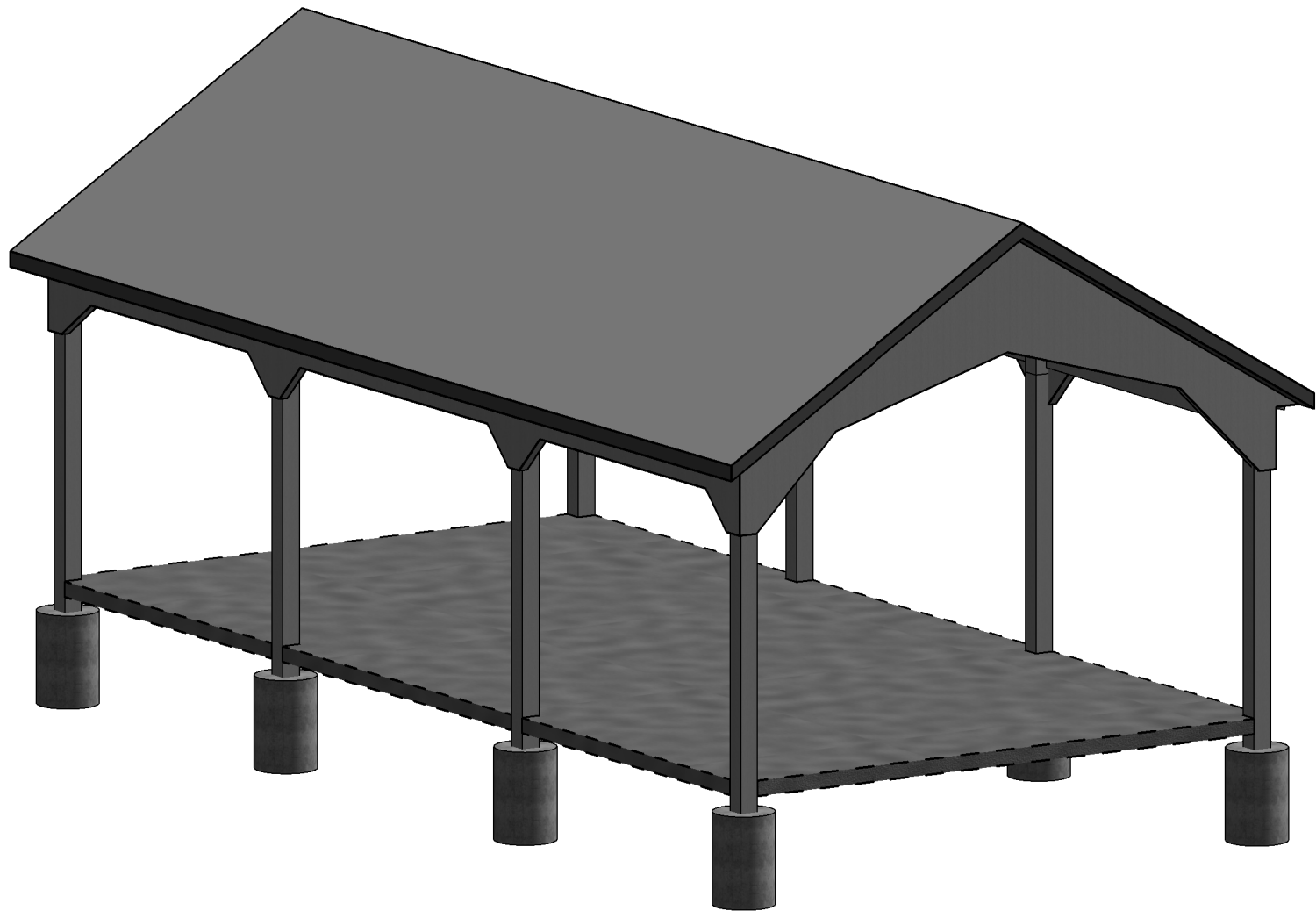


ROOF ZONES DIAGRAM

WALLS	PSF	
	AREA FT 2	
ZONES	10	100
	30	26
4	-33	-28
5	30	26
	-41	-31

ROOF		PSF	
ZONE	EDGE DIST.	AREA FT 2	
		10	100
1	N/A	18.0	16.4
2	8'-2"	-28	-25
3	8'-2"	18.0	16.5
		-48	-35
		18.0	16.5
		-72	-56

COMPONENTS & CLADDING PRESSURE TABLES



No.	Description	Date
1	ISSUED FOR REVIEW	2020-01-30
2	FOR CONSTRUCTION	2020-01-31

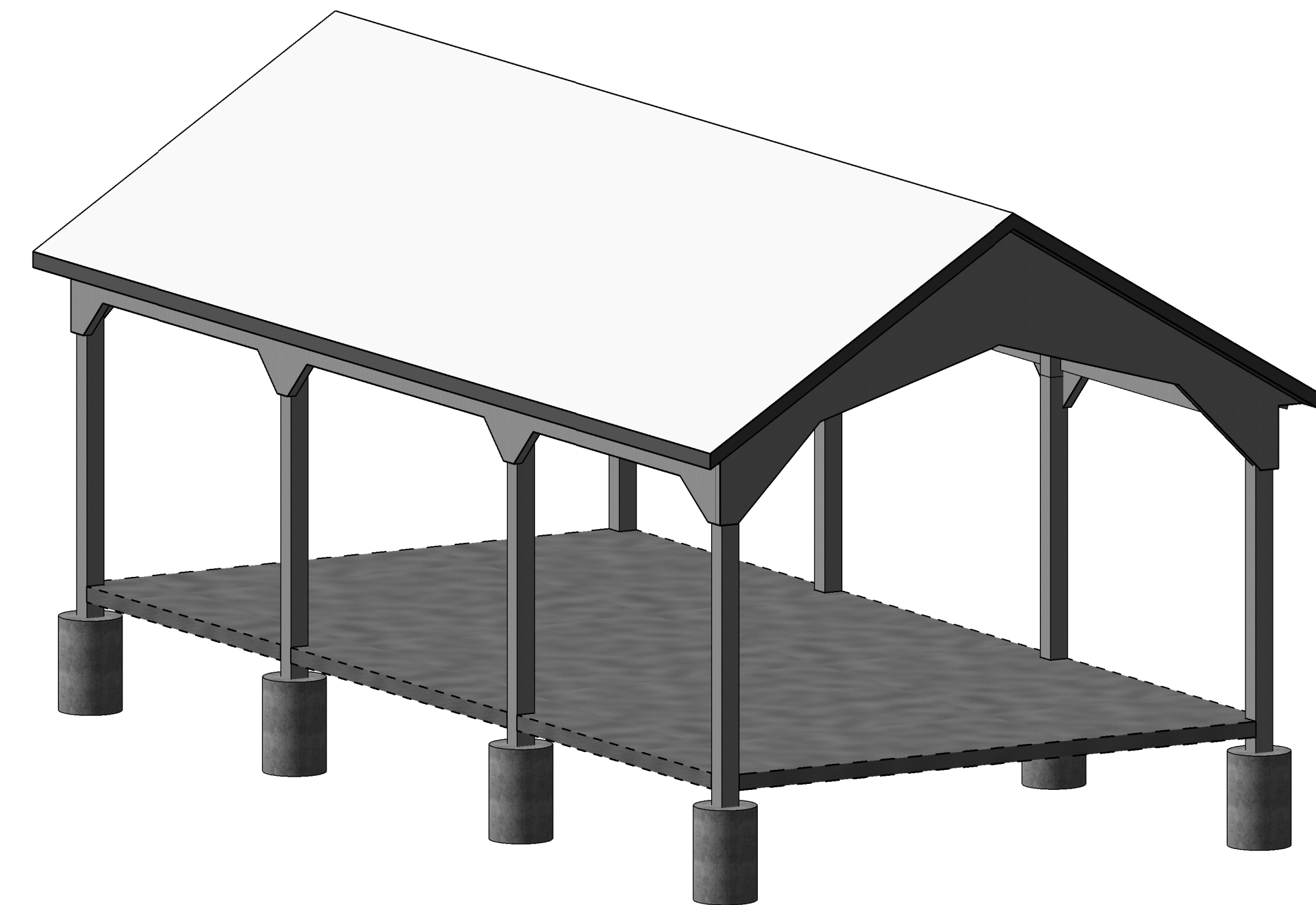
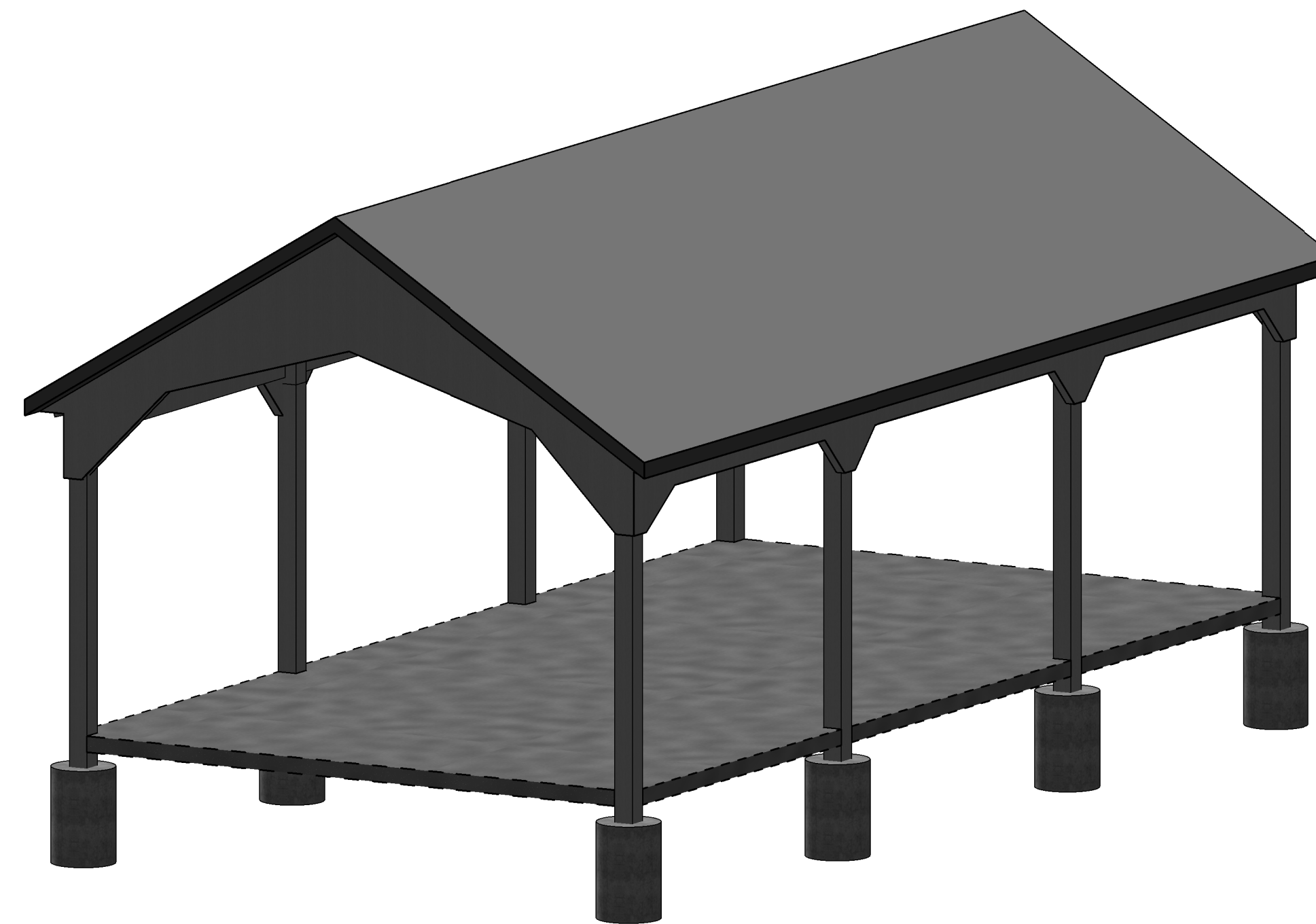
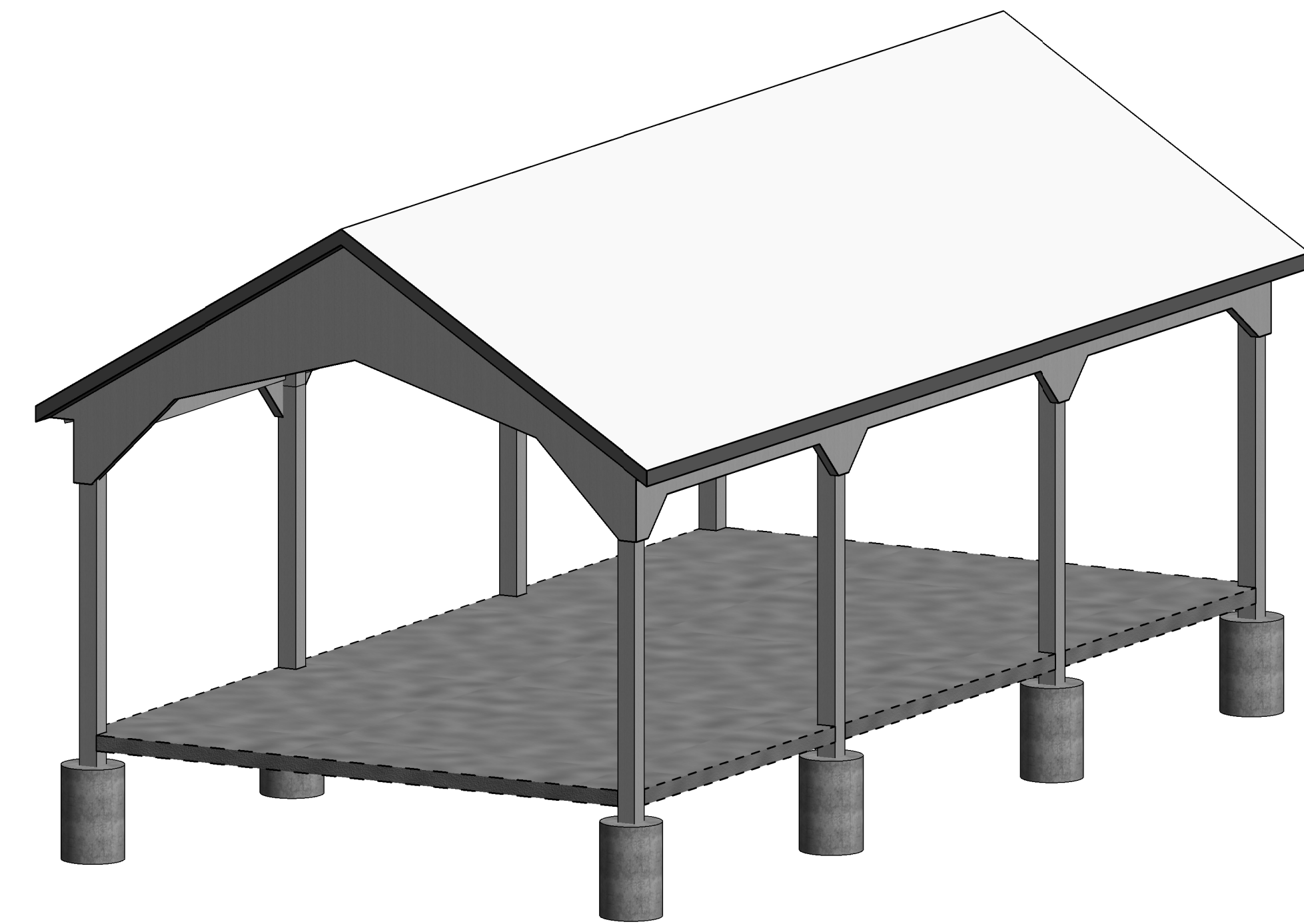
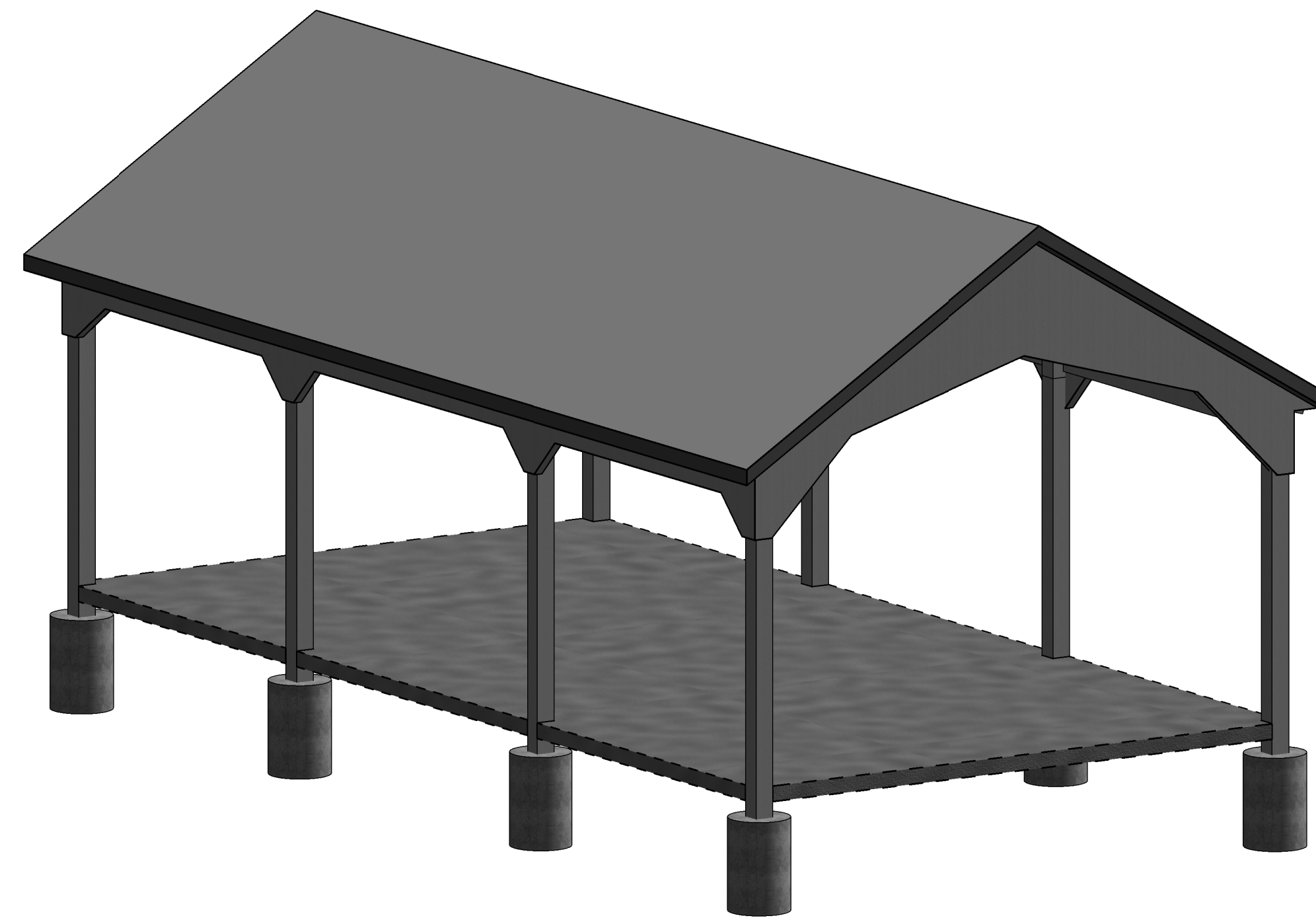
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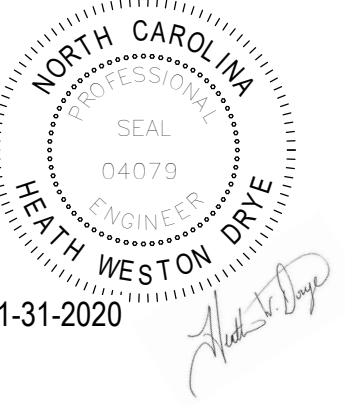
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STRUCTURAL NOTES



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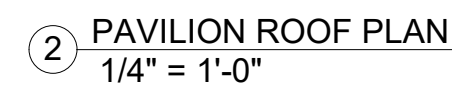
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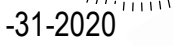
PROJECT OVERVIEW



1. DIMENSIONS ARE TO FACE OF POSTS OR CENTERLINE OF POSTS TYP.
2. REFERENCE ELEVATION +/0'-0" SHALL BE TO TOP OF SLAB ON GRADE TYP.
3. SLAB ON GRADE TO BE 4" THICK 4000 PSI CONCRETE TYP. ON 6 MIL VAPOR BARRIER OVER 6" OF #57 STONE. SLAB TO BE REINFORCED WITH 6x6-W/1.4W/1.4 W/WF OR #4 BARS AT 32" C/MAX TYP.
4. POST FOUNDATIONS SHALL BE 24" Ø x36" DEEP WITH POST EMBEDDED.
5. ALL POSTS SHALL BE 8x8 P.T. RATED FOR GROUND CONTACT TYP.

1. ROOF SHEATHING TO BE 7/16" OSB SHEATHING, FASTENED USING 8D GALV. RING SHANK NAILS @ 4" C/C AT PANEL EDGES AND 6" C/C IN FIELD. MINIMUM.
2. SHEATHING TO BE ORIENTED PERPENDICULAR TO SUPPORTS AND STAGGERED A MINIMUM OF TWO FRAMING MEMBER TP.
3. INSTALL SIMPSON PSLC CLIPS TYP. AT MIDSPAN OF SHEATHING SEAMS BETWEEN SUBFRAMING WITH SPACING GREATER THAN 24" C/C. TYP.
4. SEE PLAN FOR ROOF SLOPE TYP.
5. REFER TO S-5 FOR FRAMING DETAILS TYP.
6. FASTEN 2x4 PURLINS OVER ROOF TRUSSES THRU SHEATHING AT 24" C/C MAX. FASTEN WITH (2) 16D GALV RING SHANK NAILS 3-1/2" LONG AT EACH PURLIN / ROOF TRUSS INTERSECTION TYP. METAL ROOF TO BE FASTENED TO 2x4 PURLINS TYP. PER MANUF. RECOMMENDATIONS
7. ROOFING SHALL BE 3/4" 29 GA. MASTERRIB. COLOR TO BE SELECTED BY THE TOW.

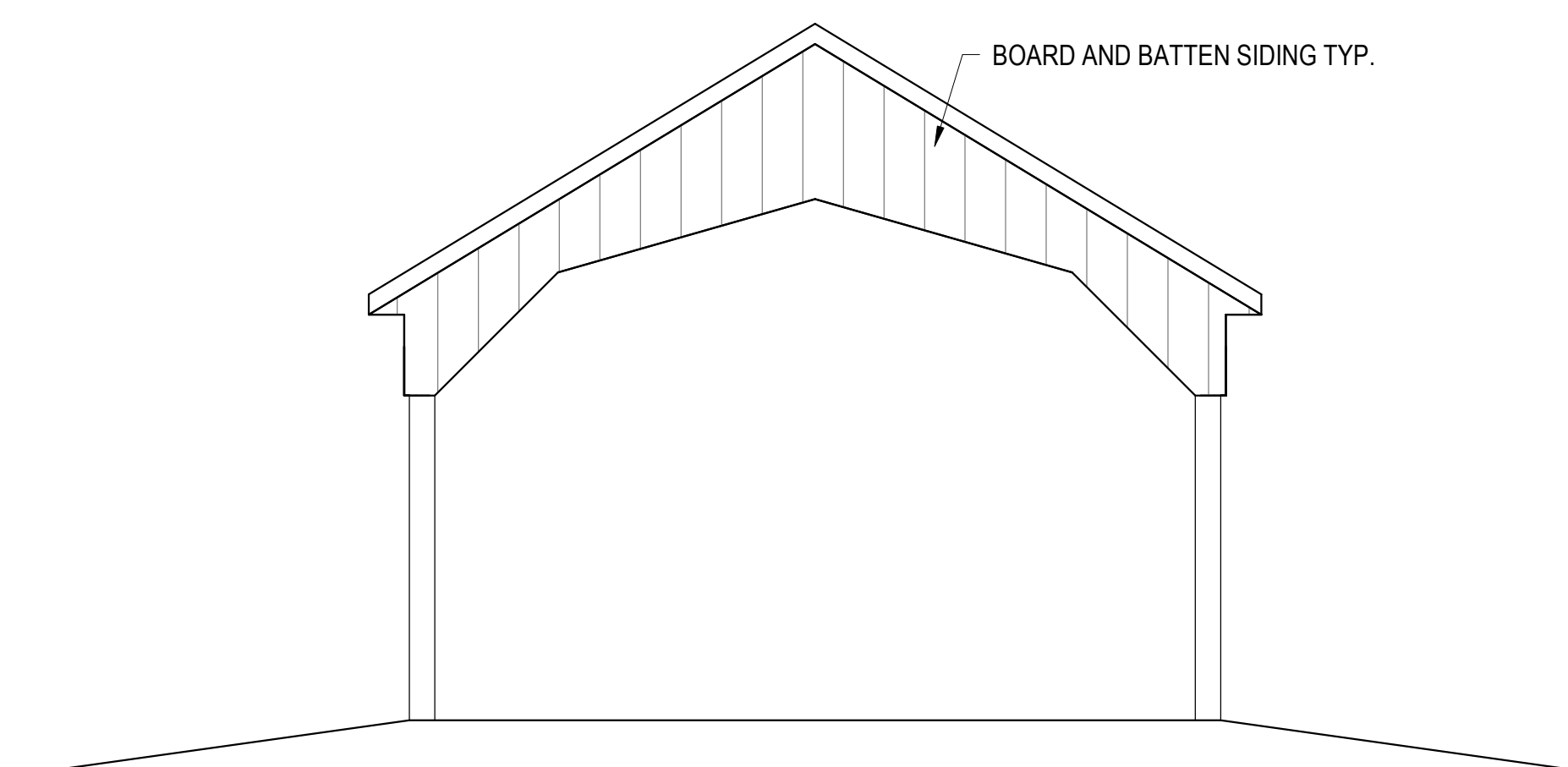
1. SIDING TO BE BOARD AND BATTEN (LP SMARTSIDE SYSTEM OR EQUIVALENT)
2. TRIM / FASCIA MATERIAL SHALL BE LP SMARTSIDE CEDAR TEXTURE OR EQUIVALENT.
3. PAINT SHALL INCLUDE 1 COAT PRIMER AND 2 COATS OF FINISH COLOR. COLOR TO BE DETERMINED BY TOWN OF WAYNESVILLE.
4. CEILING TO BE T-111 PLYWOOD AND STAINED. COLOR SHALL BE DETERMINED BY TOWN OF WAYNESVILLE.

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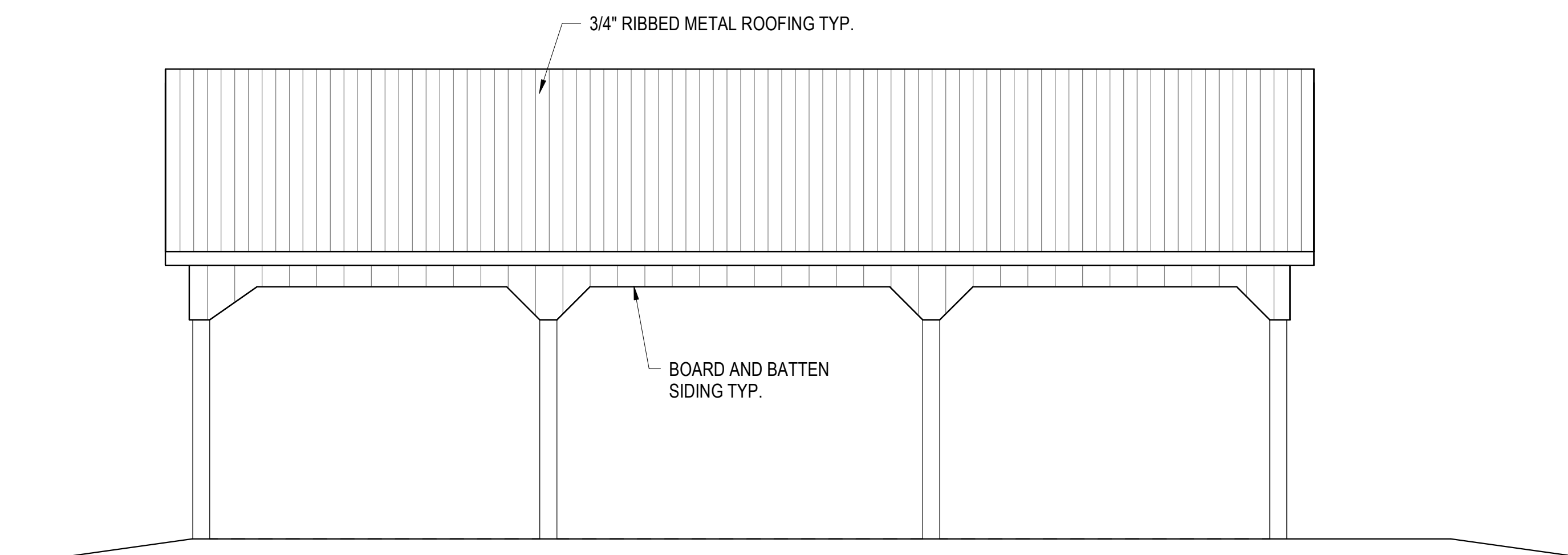
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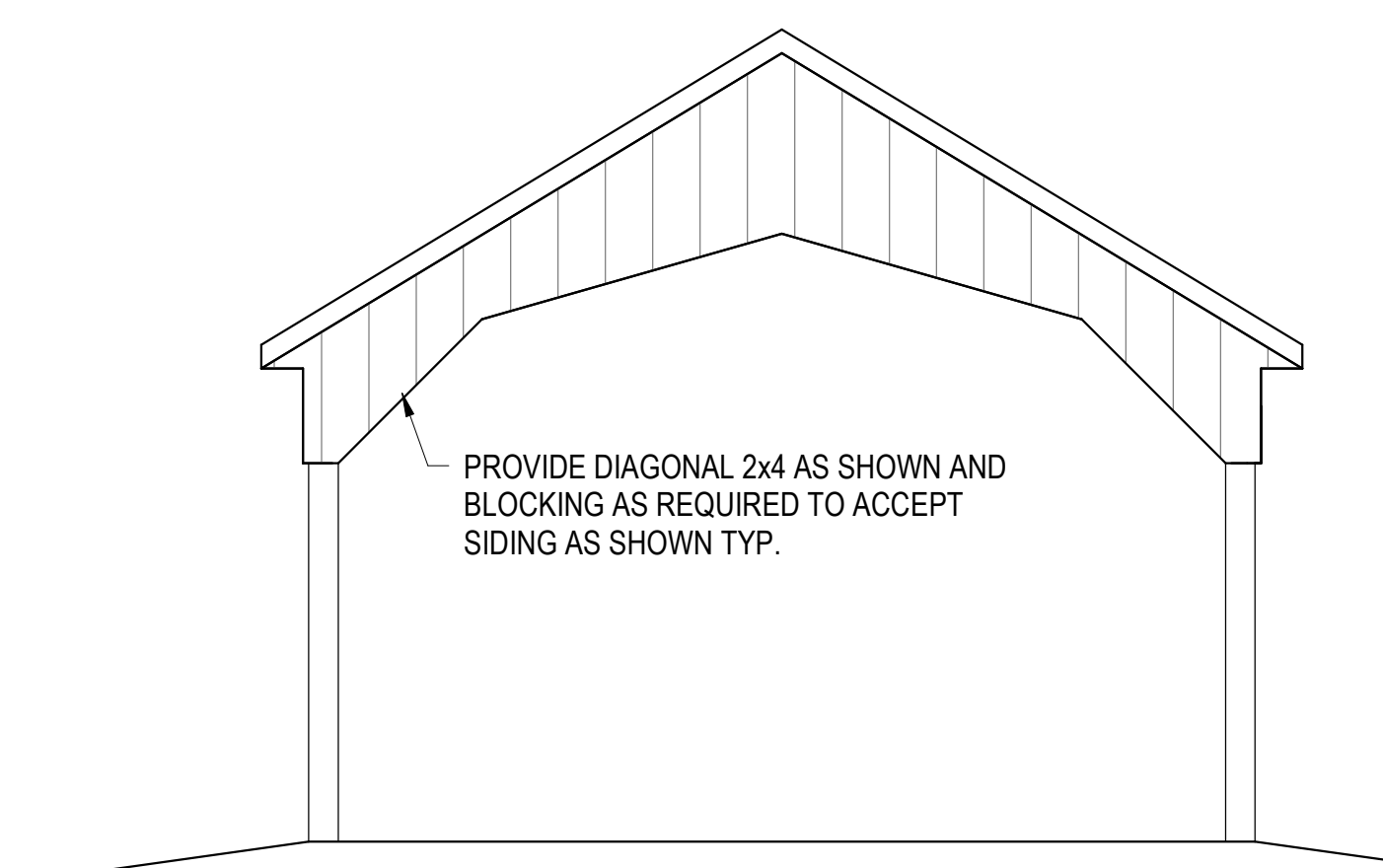
PAVILION PLANS



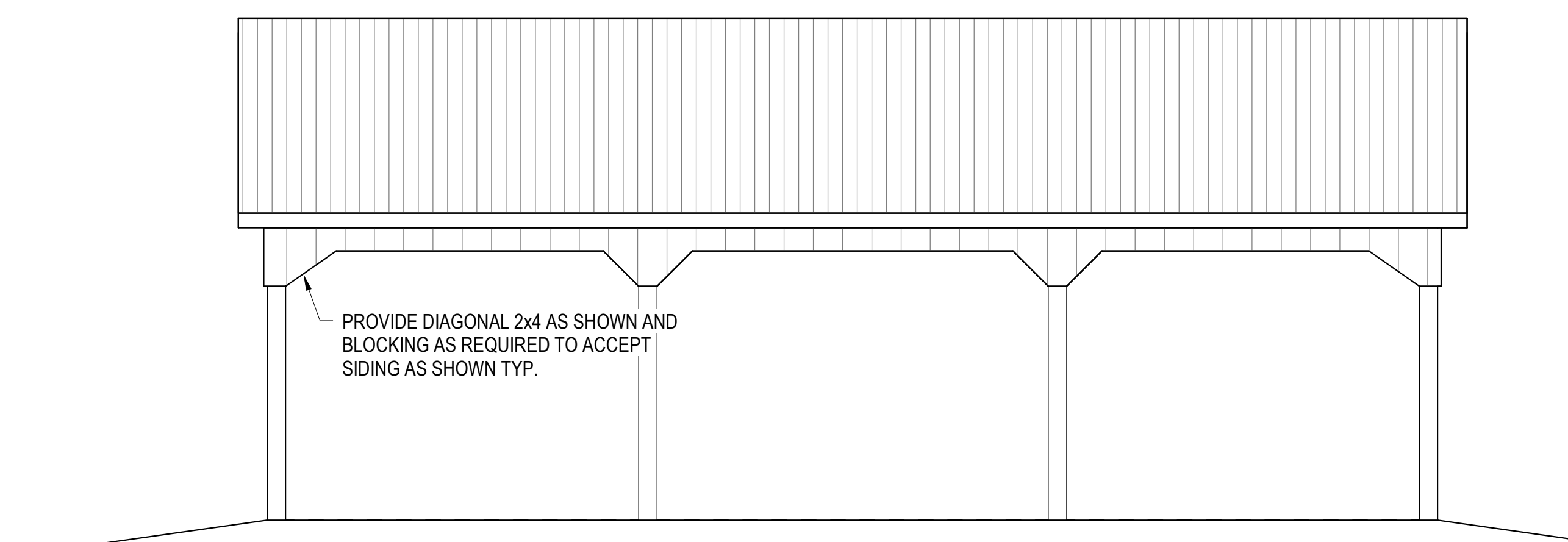
① FRONT ELEVATION
1/4" = 1'-0"



③ LEFT
1/4" = 1'-0"



② REAR ELEVATION
1/4" = 1'-0"



④ RIGHT
1/4" = 1'-0"

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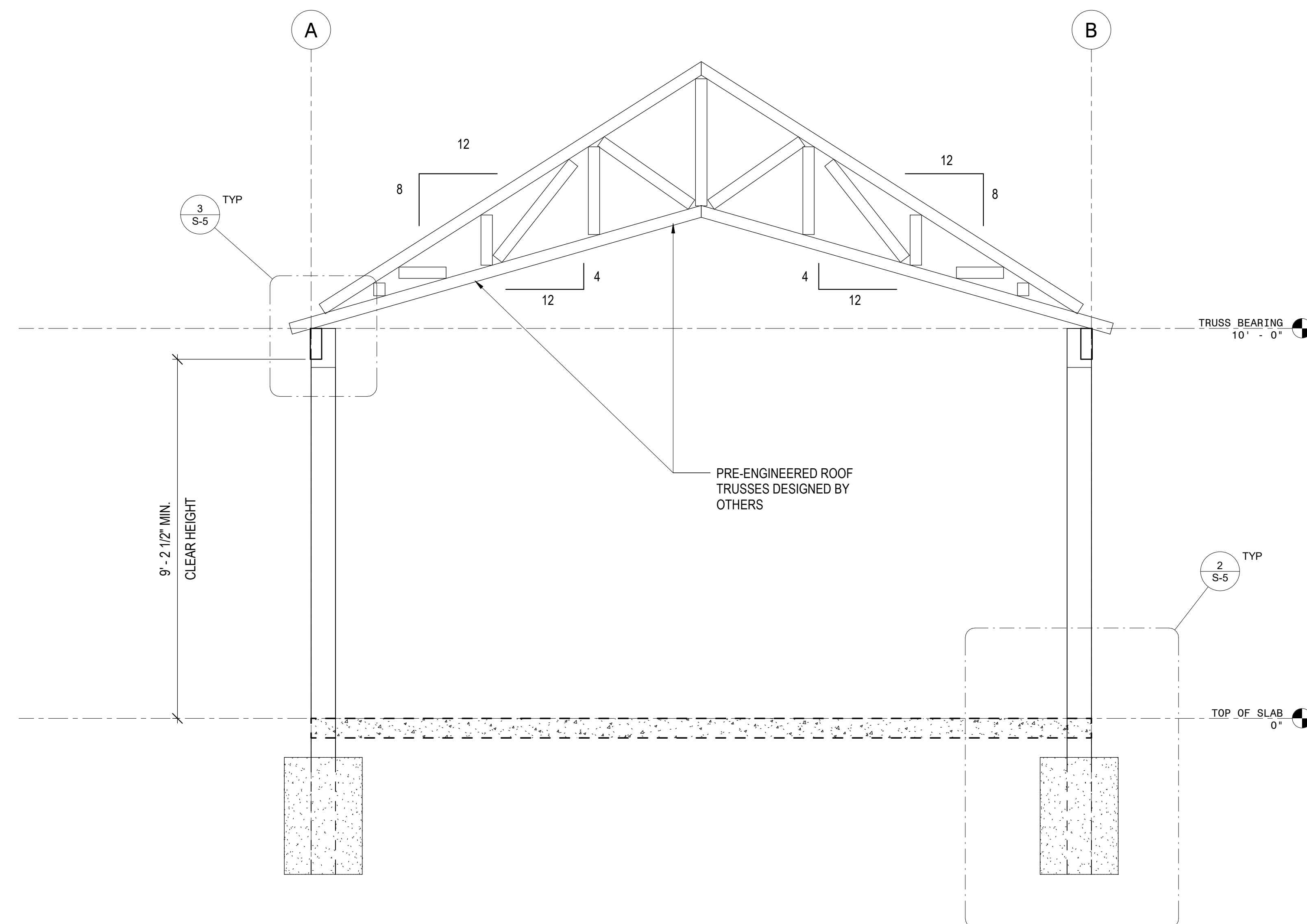
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ELEVATIONS



01-31-2020



① Detail 2
1/2" = 1'-0"

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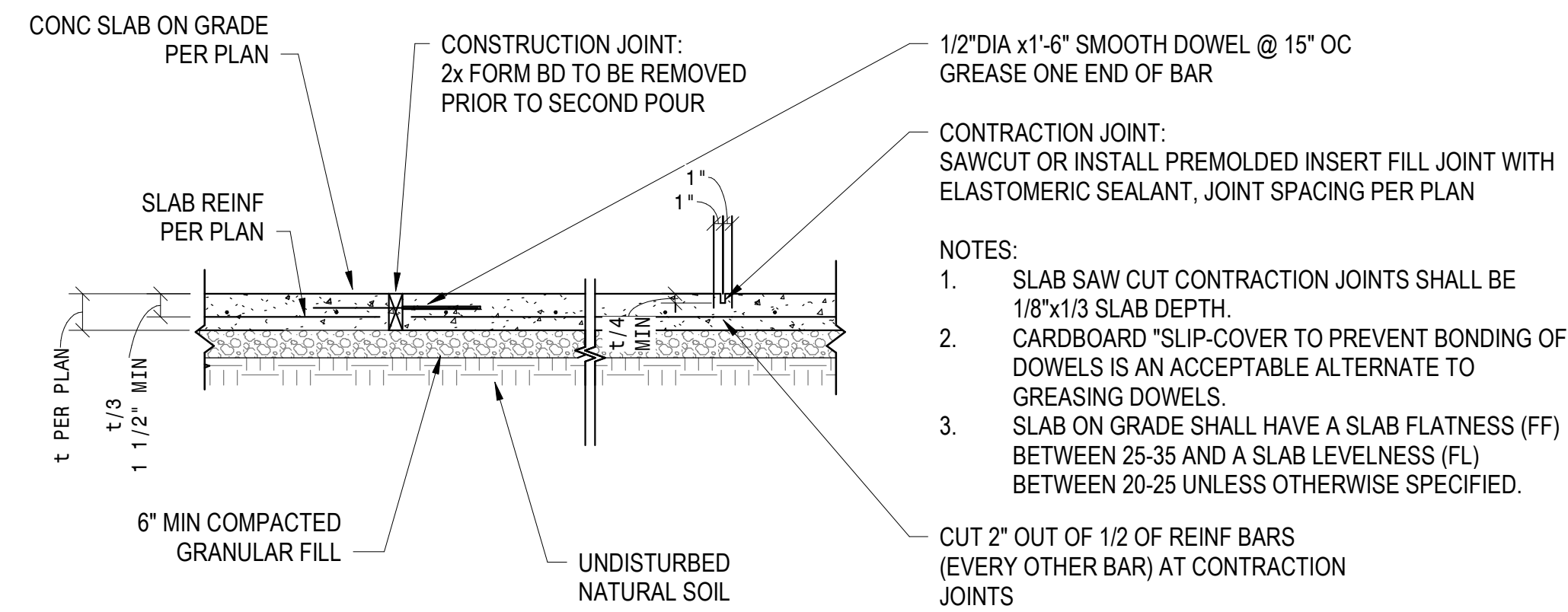
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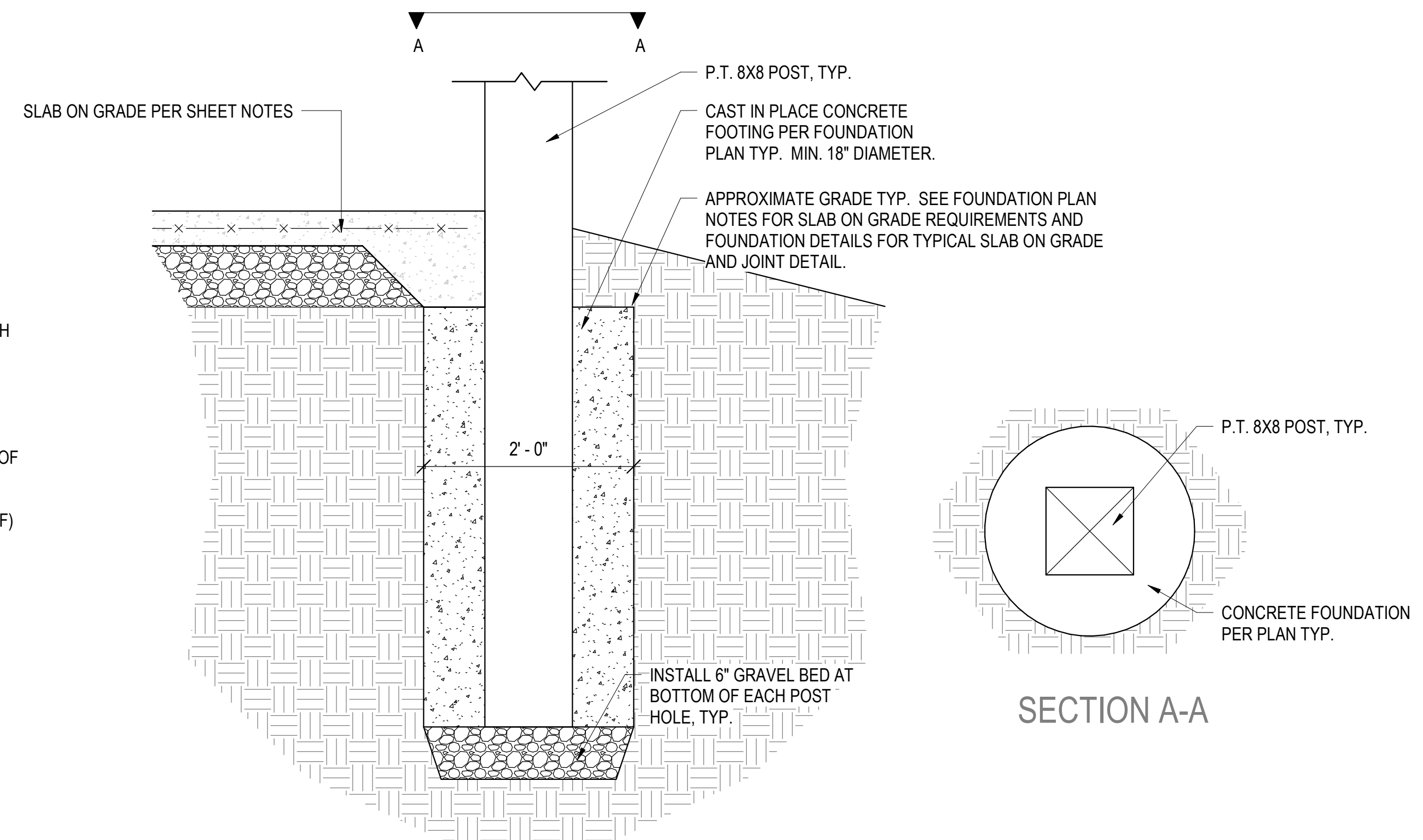
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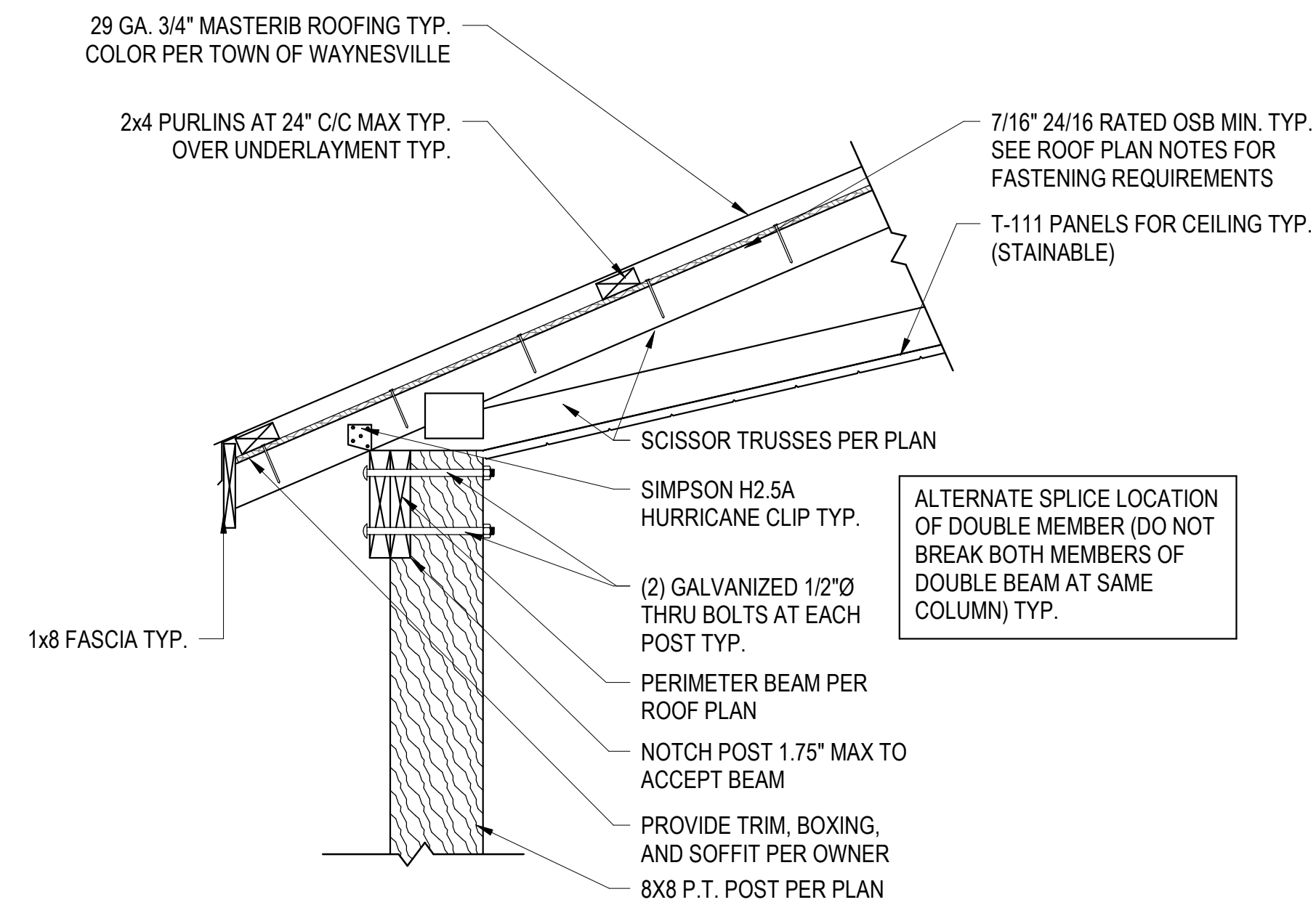
SECTIONS



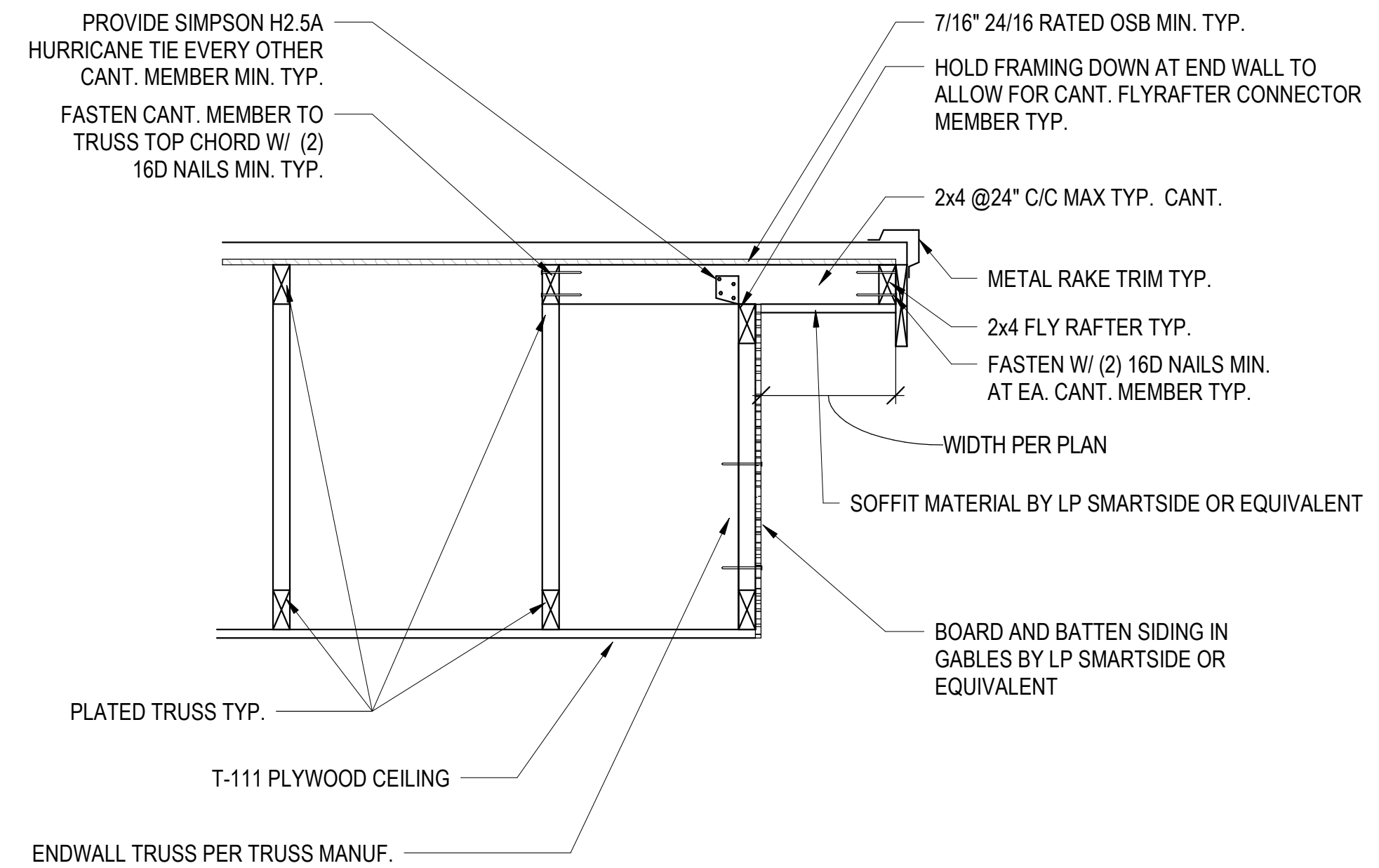
1 TYPICAL SLAB ON GRADE AND JOINT DETAIL
3/4" = 1'-0"



② TYPICAL WOOD POST BASE DETAIL
1" = 1'-0"



3 TYPICAL TRUSS TO BEAM CONNECTION
1" = 1'-0"



4 TYPICAL RAKE DETAIL - TRUSS
1" = 1'-0"

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