

UTILITY SHED PLANS

STATE OF VIRGINIA (160 MPH) WINDS

GENERAL NOTES:

- THIS STRUCTURE WAS DESIGNED IN ACCORDANCE WITH THE 2021 IRC & 2021 IBC.
- ALL MATERIALS AND LABOR SHALL BE IN ACCORDANCE WITH THE ABOVE CODE AND ALL OTHER APPLICABLE LOCAL CODES AT THE TIME OF MANUFACTURE.
- WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- THE FOUNDATION PLAN IS A SEPARATE SET OF PLANS FOR APPROVAL BY LOCAL MUNICIPALITIES.
- EXTERIOR DIMENSIONS CAN VARY BETWEEN LIMITS SHOWN @ 2'-0" o/c BUT MEMBER SPACING SHALL NOT EXCEED LIMITS AS INDICATED.
- ALL THE FOLLOWING LUMBER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA USE CATEGORY UC4B (GROUND CONTACT, HEAVY DUTY) SKIDS.
- ALL THE FOLLOWING LUMBER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA USE CATEGORY UC3B (EXTERIOR ABOVE GROUND, UNCOATED OR POOR WATER RUNOFF), FLOORS JOISTS, PLYWOOD FLOOR DECKING, AND EXTERIOR RATED WOOD STRUCTURAL PANEL SIDING.
- LP PROSTRUCT SUB-FLOORING 1/2" MAY BE USED IN LIEU OF PRESSURE TREATED PLYWOOD FLOORING.
- P.T. PLYWOOD FLOORING NOT REQUIRED WHERE THE BOTTOM OF THE FLOORING IS OVER 18" ABOVE GROUND SECTION 2304.11.2.1 VABC 2021 ICC IRC.
- ALL FASTENERS AND CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED (G185) OR STAINLESS STEEL.
- ALL WINDOWS WITHIN 24" OF DOORS, AND ALL GLASS IN DOORS SHALL BE SAFETY, TEMPERED, OR ACRYLIC PLASTIC SHEET.
- FOR ROOFS WITH ASPHALT SHINGLES AND A SLOPE BETWEEN 2 TO 12 AND 4 TO 12 SHALL HAVE A DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH SECTION 1507.2.8 OF THE 2021 ICC IRC VABC
- UNDERLAYMENT SHALL CONFORM WITH SECTION 1507.2.3 (ASPHALT SHINGLES) AND 1507.4.5 (METAL ROOF PANEL) OF THE 2021 ICC IRC VABC
- ASPHALT SHINGLES SHALL CONFORM WITH SECTION 1507.2.5 OF THE 2021 ICC IRC VABC ATTACHMENT OF ASPHALT SHINGLES SHALL CONFORM WITH 1507.2.7 OF THE 2021 ICC IRC VABC
- FASTENERS FOR ASPHALT SHINGLES SHALL CONFORM TO SECTION 1507.2.6 OF THE 2021 ICC IRC VABC
- TIE-DOWNS SHALL MEET THE REQUIREMENTS OF ALL APPLICABLE CODES.
- THESE PLANS HAVE NOT BEEN DESIGN FOR HHZ REQUIREMENTS AS SET FORTH IN THE 2021 ICC IRC VABC OR FOR USE AS A COMMERCIAL BUILDING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY AND PLACEMENT OF LAWN STORAGE UNIT TO INSURE THE INTEGRITY OF THE BUILDING AND ITS COMPONENT PARTS.
- NO FIELD REVISIONS TO ANY STRUCTURAL COMPONENT OR DEVIATION FROM THESE DRAWINGS SHALL BE MADE.
- THE OWNER AND THE CONTRACTOR SHALL HOLD HARMLESS THE ENGINEER FROM AND AGAINST ALL LIABILITY CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING LEGAL FEES ARISING OUT OF OR RESULTING FROM ERROR OR OMISSIONS IN THE PERFORMANCE OF THE WORK BY THE CONTRACTOR.
- SECTIONS AND DETAILS ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY AT ALL SIMILAR LOCATIONS, UNLESS OTHER SECTIONS AND DETAILS ARE SPECIALLY REFERENCED.
- REFER TO SUPPLIED FASTENING SCHEDULE FOR FASTENING BASE ON CONNECTION AND LOCATION OF MEMBERS AS PER 2021 ICC IRC CODE TABLE 2304.9.1 UNLESS NOTED OTHERWISE.
- BUILDINGS HAVE BEEN DESIGNED FOR LP SMARTSIDE PREVISION PANEL SIDING, LP SMARTSIDE PRECISION LAP SIDING SHALL NOT BE USED.
- FASTENERS IN LP SMARTSIDE PRECISION PANEL SIDING MUST NOT BE INSTALLED IN PANEL SIDING GROOVES IN THE FIELD OF THE PANEL SIDING OR WHEN THE PANEL SIDING GROOVES OCCUR AT CUT EDGES OF THE PANEL SIDING.
- REFER TO THE ICC-ES EVALUATION REPORT ESR-1301 FOR ADDITIONAL DATA AND SPECIFICATIONS OF LP SMARTSIDE PRECISION PANEL SIDING. VIRGINIA PRODUCT APPROVAL 9190.5 & 9190.6
- MAX OPENING WIDTHS MUST COMPLY WITH DESIGN RATIOS AS PER ANSI/AF&PA SDPWS-2008. BUILDING HAVE DESIGNED TO HAVE ONLY OPENINGS WITH MAX WIDTHS EQUAL TO THOSE IN THE ENDWALL SHEAR WALL CHART.
- AS PER SECTION 553.73(10)(h). VIRGINIA STATUTES, STORAGE SHEDS THAT ARE NOT DESIGNED FOR HUMAN HABITATION AND THAT HAVE A FLOOR AREA OF 720 SQUARE FEET OR LESS ARE NOT REQUIRED TO COMPLY WITH THE MANDATORY WIND-BORNE-DEBRIS-IMPACT STANDARDS OF THE VIRGINIA BUILDING CODE. IN ADDITION, SUCH BUILDINGS THAT ARE 400 SQUARE FEET OR LESS AND THAT ARE INTENDED FOR USE IN CONJUNCTION WITH ONE-AND-TWO FAMILY RESIDENCES ARE NOT SUBJECT TO THE DOOR HEIGHT AND WIDTH REQUIREMENTS OF THE VIRGINIA BUILDING CODE. SEE VABC 1008.1.1 EXCEPTION (8).
- BUILDING HAVE BEEN DESIGNED TO HAVE ANCHORS DIRECTLY ATTACHED TO ALL FOUR CORNERS OR THE BUILDING TO RESIST TENSION FORCES FROM LATERAL WIND LOADS, THIS DESIGN CONSIDERATION MUST BE MADE BY INSTALLER WHEN ATTACHING ANCHORING SYSTEM TO BUILDING.
- UNLESS NOTED OTHERWISE, ATTACH ALL MANUFACTURED PRODUCTS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

NOTE:

THIS BUILDING IS NOT DESIGNED FOR HUMAN HABITATION AND DOES NOT HAVE RUNNING WATER OR SANITATION SERVICES. THIS BUILDING IS DESIGNED AS A UTILITY SHED TO STORE LAWN EQUIPMENT SUCH AS WHEEL BARROWS GARDENING SUPPLIES, FLOWER POTS, AND CARDBOARD BOXES WITH VARIOUS SMALL ITEMS.

SITE INSTALLED ITEMS:

NOTE THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIALS THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTIONAL APPROVAL.

- THE COMPLETE FOUNDATION SUPPORT AND TIE-DOWN SYSTEM.
- RAMPS, STAIRS, AND GENERAL ACCESS TO THE BUILDING IF NECESSARY.
- GUTTERS AND DOWNSPOUTS ON ALL BUILDINGS WITH EAVES OF LESS THAN 6 INCHES HORIZONTAL PROJECTION EXCEPT FOR GABLE END RAKES.

SHED MANUFACTURER SHALL HAVE A LIST OF ALL REQUIRED PRODUCTS THAT NEED VIRGINIA STATE APPROVAL AVAILABLE FOR 3RD PARTY INSPECTOR AND REVIEW BY E.O.R. FOR COMPLIANCE WITH WIND LOADS



DESIGN CRITERIA:

- | | |
|-------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. WIND VELOCITY | 170 MPH. |
| 2. BUILDING CATEGORY | I |
| 3. WIND EXPOSURE | C |
| 4. INT. PRESSURE COEFFICIENT | ±0.18 |
| 5. ENCLOSURE CLASSIFICATION | ENCLOSED |
| 6. BASED ON HEIGHT | 15 FEET |
| 7. OVERHANG | NO |
| 8. FLOOR DESIGN LIVE LOAD
FLOOR DESIGN DEAD LOAD | 50 PSF
4 PSF |
| 9. ROOF DESIGN LIVE LOAD
ROOF DESIGN DEAD LOAD | 20 PSF
7 PSF |
| 10. WALL DESIGN DEAD LOAD | 3 PSF |
| 11. SNOW LOAD
(FOR 61-90 PSF SNOW, TRUSSES @ 16" SPECIAL ORDER) | 60 PSF |
| 12. CONSTRUCTION TYPE | V B |
| 13. BUILDING OCCUPANCY = | U |
| 14. FIRE RATING EXT. WALLS | 0 |
| 15. ALLOWABLE NUMBER OF FLOORS | 1 |
| 16. THE CONTRACTOR / MANUFACTURER MUST COMPLY WITH THE FOLLOWING CODES AND ALL OF THEIR AMENDMENTS / SUPPLEMENTS. | |

VIRGINIA CODE SUMMARY

LATEST BUILDING CODE
2021 VIRGINIA CONSTRUCTION CODE
ADOPTS THE IBC 2021 W/ AMENDMENTS

SHEET LIST

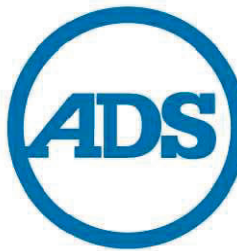
SHEET NUMBER	SHEET TITLE
C-1	COVER SHEET
C-2	FASTENING SCHEDULE / WIND LOADING / SHEARWALL CHART
A-1	FRAMING PLANS & DETAILS
A-2	FRAMING PLANS & DETAILS
A-3	SECTIONS
A-4	PLANS & DETAILS
A-5	TYPICAL DETAILS
A-6	TYPICAL DETAILS
A-7	OPTIONAL PORCH DETAILS
A-8	ANCHORING DETAILS & SCHEDULES
A-9	ANCHORING SPEC SHEETS
A-10	TRUSS DETAILS

AREA FOR APPROVAL STAMPS

PROJECT: UTILITY SHED

COVER SHEET & GENERAL NOTES

DON VAN GERVE, P.E.
SPECIALTY STRUCTURAL ENGINEER



ALTERNATE DESIGN SOLUTIONS
STRUCTURAL ENGINEERING DESIGN & CONSTRUCTION SERVICES
PHONE: 215.355.4684
WWW.ALTERNATEDESIGNSOLUTIONS.COM

ENGINEERING SERVICES PROVIDED FOR:
PREMIER PORTABLE BUILDINGS
317 EAST STATE LINE ROAD
SOUTH FULTON, TN 38257
WWW.PREMIERBUILDINGS.US

REVISION	DESCRIPTION	DATE	BY
1			
2			
3			
4			
5			

DATE:	5.15.25
PROJECT NO.:	19227
DRAWING BY:	JH
CHK BY:	DVG
DWG NO.:	C-1



2304.10.2 Fastener Requirements

Connections for wood members shall be designed in accordance with the appropriate methodology in Section 2302.1. The number and size of fasteners connecting wood members shall be not less than that set forth in Table 2304.10.2.

TABLE 2304.10.2		
FASTENING SCHEDULE		
DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER ⁶	SPACING AND LOCATION
Roof		
1. Blocking between ceiling joists, rafters or trusses to top plate or other framing below	4-8d box (2 ¹ / ₂ " x 0.113"); or 3-8d common (2 ¹ / ₂ " x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, ⁷ / ₁₆ " crown	Each end, toenail
Blocking between rafters or truss not at the wall top plate, to rafter or truss	2-8d common (2 ¹ / ₂ " x 0.131") 2-3" x 0.131" nails 2-3" 14 gage staples	Each end, toenail
	2-16 d common (3 ¹ / ₂ " x 0.162") 3-3" x 0.131" nails 3-3" 14 gage staples	End nail
Flat blocking to truss and web filler	16d common (3 ¹ / ₂ " x 0.162") @ 6" o.c. 3" x 0.131" nails @ 6" o.c. 3" x 14 gage staples @ 6" o.c.	Face nail
2. Ceiling joists to top plate	4-8d box (2 ¹ / ₂ " x 0.113"); or 3-8d common (2 ¹ / ₂ " x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, ⁷ / ₁₆ " crown	Each joist, toenail
3. Ceiling joist not attached to parallel rafter, laps over partitions (no thrust) (see Section 2308.7.3.1, Table 2308.7.3.1)	3-16d common (3 ¹ / ₂ " x 0.162"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, ⁷ / ₁₆ " crown	Face nail
4. Ceiling joist attached to parallel rafter (heel joint) (see Section 2308.7.3.1, Table 2308.7.3.1)	Per Table 2308.7.3.1	Face nail
5. Collar tie to rafter	3-10d common (3" x 0.148"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, ⁷ / ₁₆ " crown	Face nail
6. Rafter or roof truss to top plate (See Section 2308.7.5, Table 2308.7.5)	3-10 common (3" x 0.148"); or 3-16d box (3 ¹ / ₂ " x 0.135"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131 nails; or 4-3" 14 gage staples, ⁷ / ₁₆ " crown	2 toenails on one side and 1 toenail on opposite side of rafter or truss ⁵
7. Roof rafters to ridge valley or hip rafters; or roof rafter to 2-inch ridge beam	2-16d common (3 ¹ / ₂ " x 0.162"); or 3-16d box (3 ¹ / ₂ " x 0.135"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, ⁷ / ₁₆ " crown 3-10d common (3 ¹ / ₂ " x 0.148"); or 4-16d box (3 ¹ / ₂ " x 0.135"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, ⁷ / ₁₆ " crown	End nail Toenail
Wall		
8. Stud to stud (not at braced wall panels)	16d common (3 ¹ / ₂ " x 0.162"); 10d box (3" x 0.128"); or 3" x 0.131" nails; or 3-3" 14 gage staples, ⁷ / ₁₆ " crown	24" o.c. face nail 16" o.c. face nail
9. Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d common (3 ¹ / ₂ " x 0.162") 16d box (3 ¹ / ₂ " x 0.135"); or 3" x 0.131" nails; or 3-3" 14 gage staples, ⁷ / ₁₆ " crown	16" o.c. face nail 12" o.c. face nail
10. Built-up header (2" to 2" header)	16d common (3 ¹ / ₂ " x 0.162") 16d box (3 ¹ / ₂ " x 0.135")	16" o.c. each edge, face nail 12" o.c. each edge, face nail
11. Continuous header to stud	4-8d common (2 ¹ / ₂ " x 0.131"); or 4-10d box (3" x 0.128"); or 5-8d box (2 ¹ / ₂ " x 0.113")	Toenail
12. Top plate to top plate	16d common (3 ¹ / ₂ " x 0.162") 10d box (3" x 0.128"); or 3" x 0.131" nails; or 3" 14 gage staples, ⁷ / ₁₆ " crown	16" o.c. face nail 12" o.c. face nail
13. Top plate to top plate, at end joints	8-16d common (3 ¹ / ₂ " x 0.162"); or 12-16d box (3 ¹ / ₂ " x 0.135"); or 12-10d box (3" x 0.128"); or 12-3" x 0.131" nails; or 12-3" 14 gage staples, ⁷ / ₁₆ " crown	Each side of end joint, face nail (minimum 24" lap splice length each side of end joint)
14. Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3 ¹ / ₂ " x 0.162") 16d box (3 ¹ / ₂ " x 0.135"); or 3" x 0.131" nails; or 3" 14 gage staples, ⁷ / ₁₆ " crown	16" o.c. face nail 12" o.c. face nail
15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels	2-16d common (3 ¹ / ₂ " x 0.162"); or 3-16d box (3 ¹ / ₂ " x 0.135"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, ⁷ / ₁₆ " crown	16" o.c. face nail
16. Stud to top or bottom plate	3-16d box (3 ¹ / ₂ " x 0.135"); or 4-8d common (2 ¹ / ₂ " x 0.131"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-8d box (2 ¹ / ₂ " x 0.113"); or 4-3" 14 gage staples, ⁷ / ₁₆ " crown 2-16d common (3 ¹ / ₂ " x 0.162"); or 3-16d box (3 ¹ / ₂ " x 0.135"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, ⁷ / ₁₆ " crown	Toenail End nail
17. Top plates, laps at corners and intersections	2-16d common (3 ¹ / ₂ " x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, ⁷ / ₁₆ " crown	Face nail
18. 1" brace to each stud and plate	3-8d box (2 ¹ / ₂ " x 0.113"); or 2-8d common (2 ¹ / ₂ " x 0.131"); or 2-10d box (3" x 0.128"); or 2-3" x 0.131" nails; or 2-3" 14 gage staples, ⁷ / ₁₆ " crown	Face nail

19. 1" × 6" sheathing to each bearing	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2-1¾" 16 gage staples, 1" crown	Face nail	
20. 1" × 8" and wider sheathing to each bearing	3-8d common (2½" × 0.131"); or 3-8d box (2½" × 0.113"); or 3-10d box (3" × 0.128"); or 3-1¾" 16 gage staples, 1" crown	Face nail	
	Wider than 1" × 8" 3-8d common (2½" × 0.131"); or 4-8d box (2½" × 0.113"); or 3-10d box (3" × 0.128"); or 4-1¾" 16 gage staples, 1" crown		
Floor			
21. Joist to sill, top plate, or girder	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or floor 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	Toenail	
22. Rim joist, band joist, or blocking to top plate, sill or other framing below	8d box (2½" × 0.113") 8d common (2½" × 0.131"); or 10d box (3" × 0.128"); or 3" × 0.131" nails; or 3" 14 gage staples, 7/16" crown	4" o.c., toenail 6" o.c., toenail	
23. 1" × 6" subfloor or less to each joist	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 2-1¾" 16 gage staples, 1" crown	Face nail	
24. 2 subfloor to joist or girder	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162")	Blind and face nail	
25. 2" planks (plank & beam — floor & roof)	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162")	Each bearing, face nail	
26. Built-up girders and beams, 2" lumber layers	20d common (4" × 0.192") 10d box (3" × 0.128"); or 3" × 0.131" nails; or 3" 14 gage staples, 7/16" crown And: 2-20d common (4" × 0.192"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	32" o.c., face nail at top and bottom staggered on opposite sides 24" o.c. face nail at top and bottom staggered on opposite sides Ends and at each splice, face nail	
27. Ledger strip supporting joists or rafters	3-16d common (3½" × 0.162"); or 4-16d box (3½" × 0.135"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	Each joist or rafter, face nail	
28. Joist to band joist or rim joist	3-16d common (3½" × 0.162"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	End nail	
29. Bridging or blocking to joist, rafter or truss	2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2-3" × 0.131" nails; or 2-3" 14 gage staples, 7/16" crown	Each end, toenail	
Wood structural panels (WSP), subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing ^a			
		Edges (inches)	Intermediate supports (inches)
30. 3/8" — 1½"	6d common or deformed (2" × 0.113"); or 23/8" × 0.113" nail (subfloor and wall)	6	12
	8d common or deformed (2½" × 0.131" × 0.281" head) (roof) or RSRS-01 (23/8" × 0.113") nail (roof) ^d	6 ^e	6 ^e
	1¾" 16 gage staple, 7/16" crown (subfloor and wall)	4	8
	23/8" × 0.113" × 0.266" head nail (roof)	3 ^f	3 ^f
	1¾" 16 gage staple, 7/16" crown (roof)	3 ^f	3 ^f
31. 19/32" — ¾"	8d common (2½" × 0.131"); or deformed (2" × 0.113") (subfloor and wall)	6	12
	8d common or deformed (2½" × 0.131" × 0.281" head) (roof) or RSRS-01 (23/8" × 0.113") nail (roof) ^d	6 ^e	6 ^e
	23/8" × 0.113" × 0.266" head nail; or 2" 16 gage staple, 7/16" crown	4	8
32. 7/8" — 1¼"	10d common (3" × 0.148"); or deformed (2½" × 0.131" × 0.281" head)	6	12
Other exterior wall sheathing			
33. 1½" fiberboard sheathing ^b	1½" × 0.120", galvanized roofing nail (7/16" head diameter); or 1¼" 16 gage staple with 7/16" or 1" crown	3	6
34. 25/32" fiberboard sheathing ^b	1¾" × 0.120" galvanized roofing nail (7/16" diameter head); or 1½" 16 gage staple with 7/16" or 1" crown	3	6
Wood structural panels, combination subfloor underlayment to framing			
35. 7/8" and less	8d common (2½" × 0.131"); or deformed (2" × 0.113"); or deformed (2" × 0.120")	6	12
36. 7/8" — 1"	8d common (2½" × 0.131"); or deformed (2½" × 0.131"); or deformed (2½" × 0.120")	6	12
37. 11/8" — 1¼"	10d common (3" × 0.148"); or deformed (2½" × 0.131"); or deformed (2½" × 0.120")	6	12

SHEARWALL CHART				
BUILDING WIDTH	OPENING WIDTHS IN ENDWALL	MAX. LENGTH OF BUILDING		
		19 ¹ / ₃₂ " T1–11 ¹	³ / ₈ " LP SMARTSIDE PANEL ²	ALUMINUM OVER ⁷ / ₁₆ " OSB ⁴
8'–0"	3'–0" MAX.	40'–0"	20'–0"	40'–0"
10'–0"	3'–0" MAX.	60'–0"	30'–0"	60'–0"
	6'–0"		16'–0"	
11'–2"	3'–0" MAX.	60'–0"	36'–0"	60'–0"
	6'–0"		24'–0"	
14'–0"	10'–0"	60'–0"	12'–0"	60'–0"
	3'–0" MAX.		40'–0"	
	6'–0"		34'–0"	
16'–0"	10'–0"	60'–0"	20'–0"	60'–0"
	6'–0" MAX.		40'–0"	
	12'–0"		30'–0"	

- a. COMMON OR BOX NAIL ARE PERMITTED TO BE USED EXCEPT WHERE OTHERWISE STATED.
- b. NAILED SPACED @ 6" o/c AT EDGES, 12" AT INTERMEDIATE SUPPORTS EXCEPT 6" AT SUPPORTS WHERE SPANS ARE 48" OR MORE, FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLE BOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2305 FBC. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.
- c. COMMON OR DEFORMED SHANK (6d – 2"x0.113"; 8d–2³/₈"x0.131"; 10d 3"x0.148").
- d. COMMON (6d – 2"x0.113"; 8d–2³/₈"x0.131"; 10d 3"x0.148").
- e. DEFORMED SHANK (6d–2"x0.113"; 8d 2³/₈"x0.131" 10d 3"x0.148").
- f. CORROSION–RESISTANT SIDING (6D–1³/₈"x0.106"; 8d 2³/₈"x0.128") OR CASING (6D2"x0.099"; 8d 2 ³/₈"x0.113") NAIL.
- g. FASTENERS SPACED 3" o/c AT EXTERIOR EDGES AND 6" o/c AT INTERMEDIATE SUPPORTS WHEN USED AS STRUCTURAL SHEATHING.
- h. CORROSION–RESISTANT ROOFING NAILS w/ ⁷/₁₆" DIAMETER HEAD AND 1 ¹/₂" LENGTH FOR ¹/₂" SHEATHING AND 1 ³/₄" LENGTH FOR ³/₈" SHEATHING.
- i. CORROSION–RESISTANT STAPLES WITH NOMINAL ⁷/₁₆" CROWN OR 1" CROWN AND 1 ¹/₂" LENGTH FOR ¹/₂" SHEATHING AND 1 ³/₄" LENGTH FOR ³/₈" SHEATHING. PANEL SUPPORTS @ 16" o/c(20" IF STRENGTH AXIS IS THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED.)
- j. FOR ROOF SHEATHING APPLICATIONS, 8d Nails (2³/₈"x0.113") ARE THE MINIMUM REQUIRED FOR WOOD STRUCTURAL PANELS.
- k. STAPLES SHALL HAVE A MINIMUM CROWN WIDTH OF ⁷/₁₆".
- l. FOR ROOF SHEATHING APPLICATIONS, FASTENERS SPACED 4" o/c AT EDGES, 8" o/c AT INTERMEDIATE SUPPORTS.
- m. FASTENERS SPACED 4" o/c AT EDGES, 8" o/c AT INTERMEDIATE SUPPORTS FOR SUBFLOOR AND WALL SHEATHING AND 3" o/c AT EDGES, 6" AT INTERMEDIATE SUPPORTS FOR ROOF SHEATHING.
- n. FASTENERS SPACED 4" o/c AT EDGES, 8" AT INTERMEDIATE SUPPORTS.

Panel siding to framing			
38. 1 ¹ / ₂ " or less	6d corrosion-resistant siding (1 ⁷ / ₈ " x 0.106"); or 6d corrosion-resistant casing (2" x 0.099")	6	12
39. ⁵ / ₈ "	8d corrosion-resistant siding (2 ³ / ₈ " x 0.128"); or 8d corrosion-resistant casing (2 ¹ / ₂ " x 0.113")	6	12
Wood structural panels (WSP), subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing ^a			
		Edges (inches)	Intermediate supports (inches)
Interior paneling			
40. 1 ¹ / ₄ "	4d casing (1 ¹ / ₂ " x 0.080"); or 4d finish (1 ¹ / ₂ " x 0.072")	6	12
41. ³ / ₈ "	6d casing (2" x 0.099"); or 6d finish (2" x 0.092") (Panel supports at 24 inches)	6	12

For S/I: 1 inch = 25.4 mm.

- a. Nails spaced at 6 inches at intermediate supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.
- b. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).
- c. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule and the ceiling joist is fastened to the top plate in accordance with this schedule, the number of toenails in the rafter shall be permitted to be reduced by one nail.
- d. RSRS-01 is a Roof Sheathing Ring Shank nail meeting the specifications in ASTM F1667.

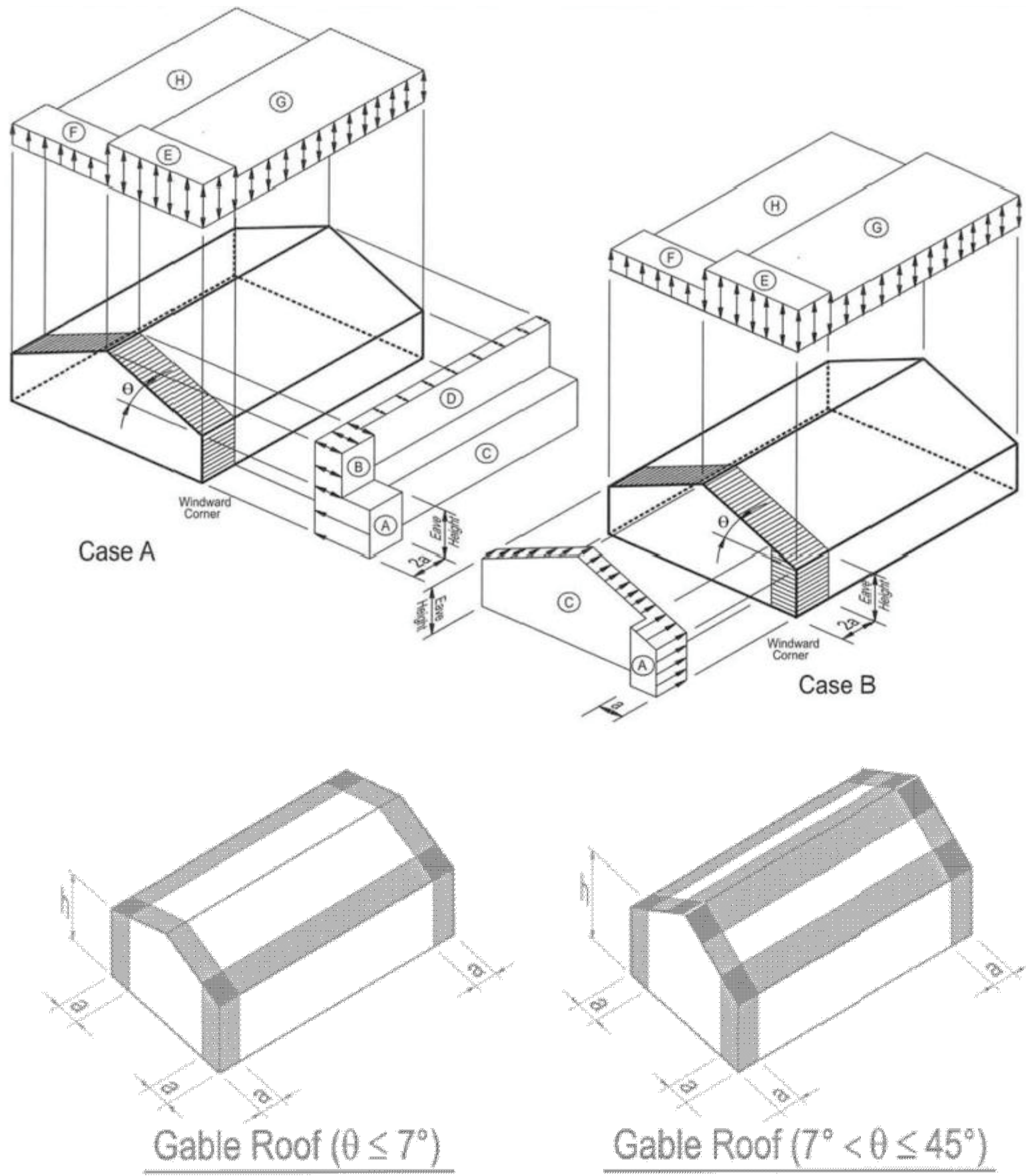
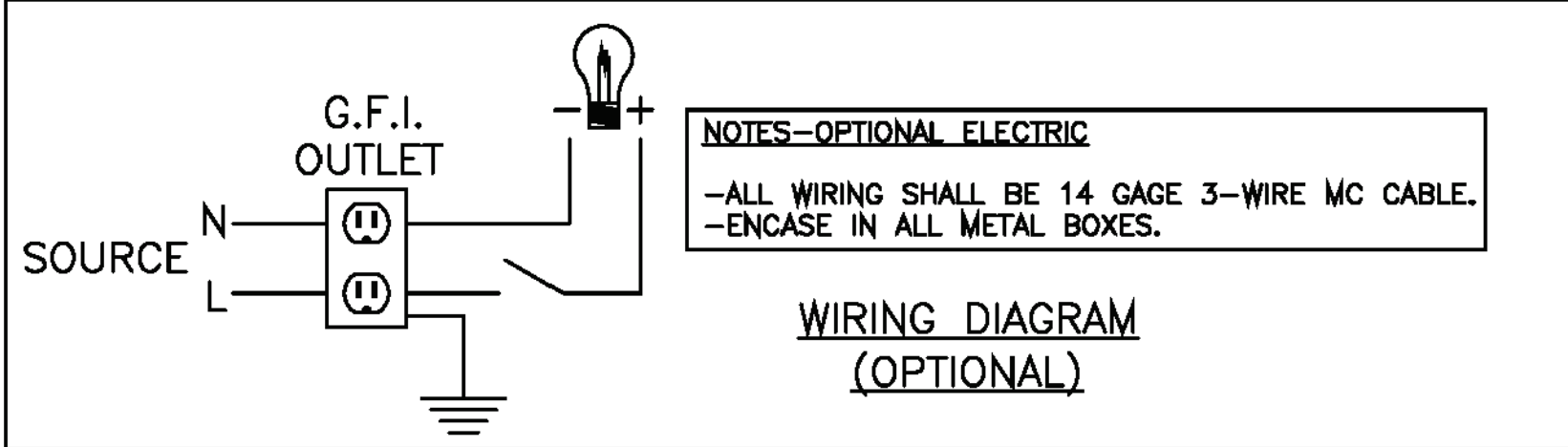
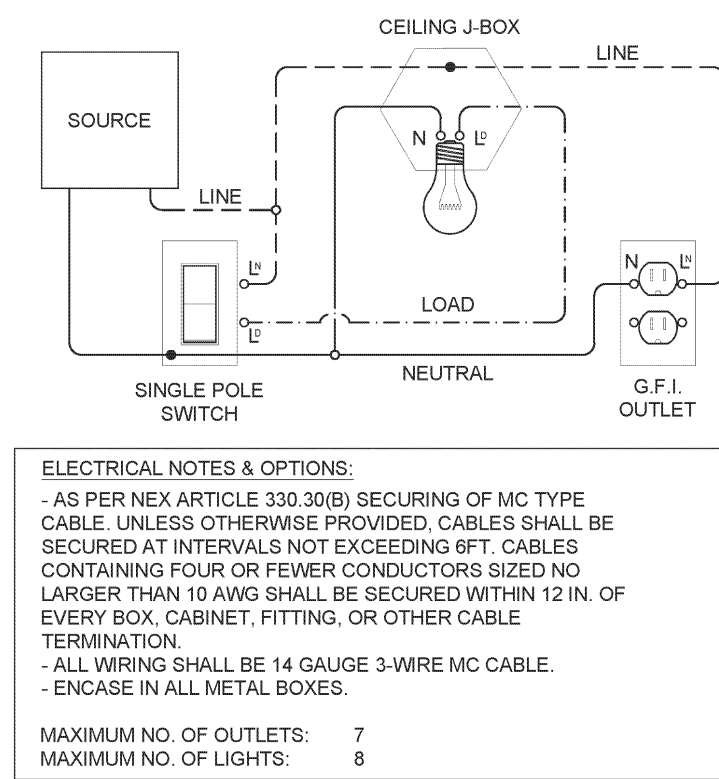
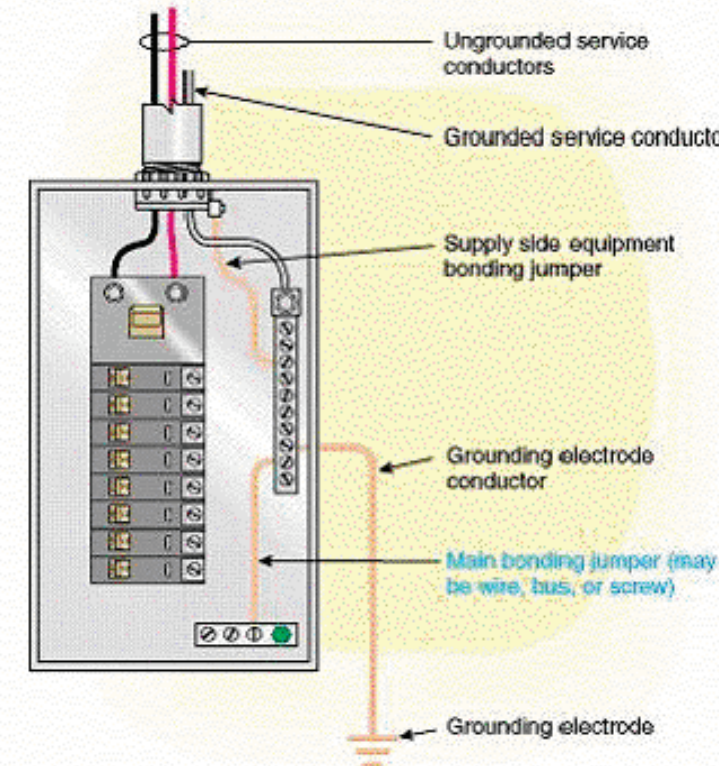


FIGURE 1609.6.2.2 COMPONENT AND CLADDING PRESSURE



ELECTRICAL WIRING DIAGRAM SCALE: NOT TO SCALE



PROJECT: UTILITY SHED


FASTENING SCHEDULE / WIND LOADING

DON VAN GERVE, P.E.
SPECIALTY STRUCTURAL ENGINEER



ENGINEERING SERVICES PROVIDED FOR:
PREMIER PORTABLE BUILDINGS
317 EAST STATE LINE ROAD
SOUTH FULTON, TN 38257
WWW.PREMIERBUILDINGS.US

REVISION	DESCRIPTION	DATE	BY
1			
2			
3			
4			
5			

DATE:	5.15.25	
PROJECT NO.:	19227	
DRAWING BY:	JH	
CHK BY:	DVG	
DWG NO.:	C-2	
2 of 12		

PROJECT:

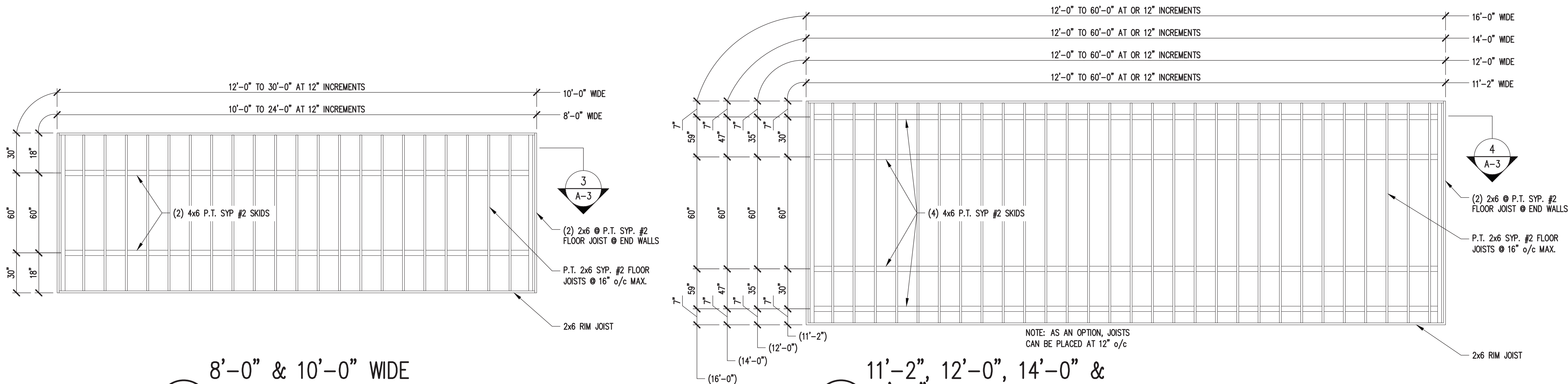
UTILITY SHED

GABLE & GAMBREL SHEDS
FLOOR DECK FRAMING PLANS & DETAILSDON VAN GERVE, P.E.
SPECIALTY STRUCTURAL ENGINEERALTERNATE DESIGN SOLUTIONS
STRUCTURAL ENGINEERING DESIGN & CONSTRUCTION SERVICES
PHONE: 215.355.4684
WWW.ALTERNATEDESIGNSOLUTIONS.COMENGINEERING SERVICES PROVIDED FOR:
PREMIER PORTABLE BUILDINGS
317 EAST STATE LINE ROAD
SOUTH FULTON, TN 38257
WWW.PREMIERBUILDINGS.US

REVISION	DESCRIPTION	DATE	BY
1			
2			
3			
4			
5			

DATE: 5.15.25
PROJECT NO.: 19227
DRAWING BY: JH
CHK BY: DVG
DWG NO.:

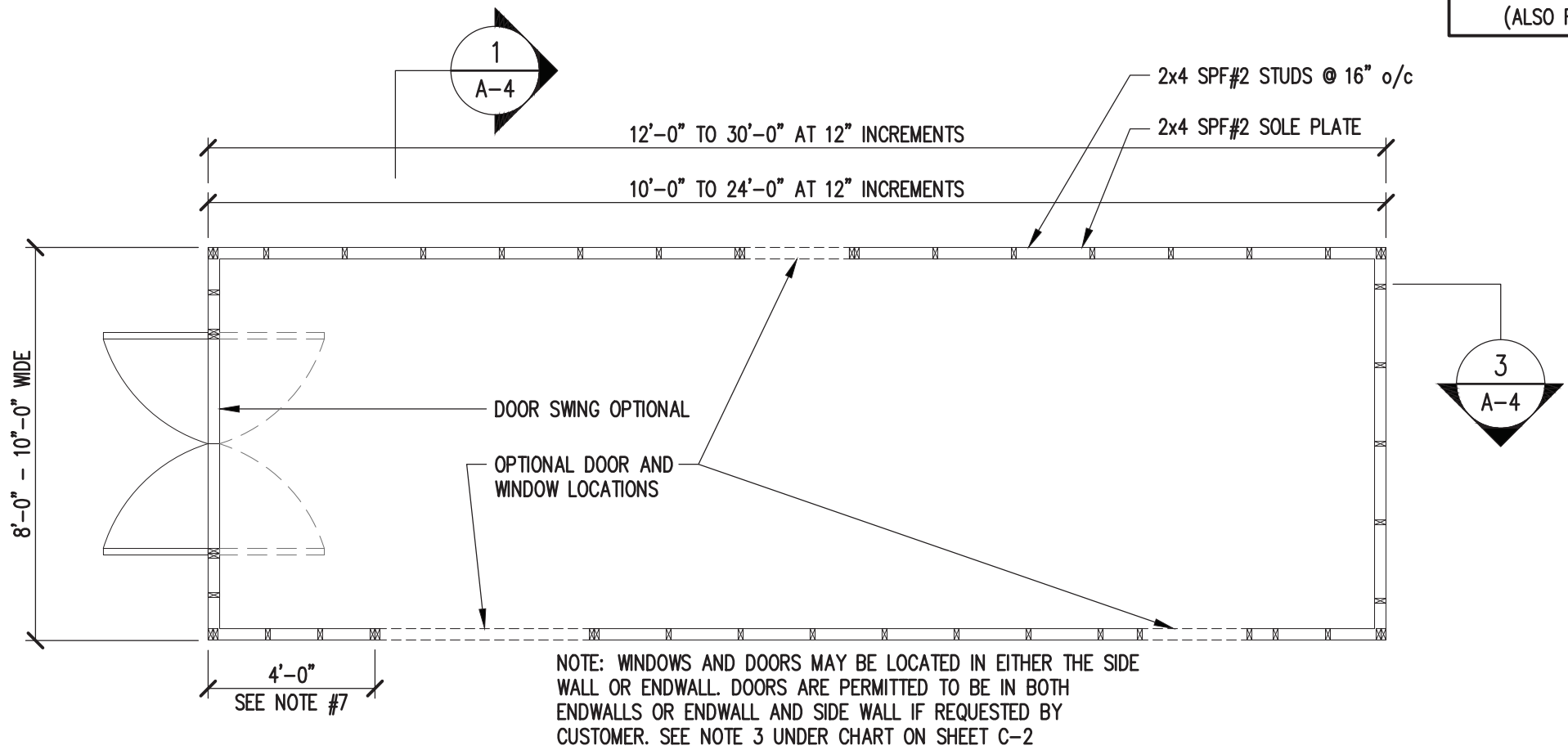
A-1

8'-0" & 10'-0" WIDE
FLOOR FRAMING PLAN

SCALE: 1/4"=1'-0" (DO NOT SCALE DRAWING)

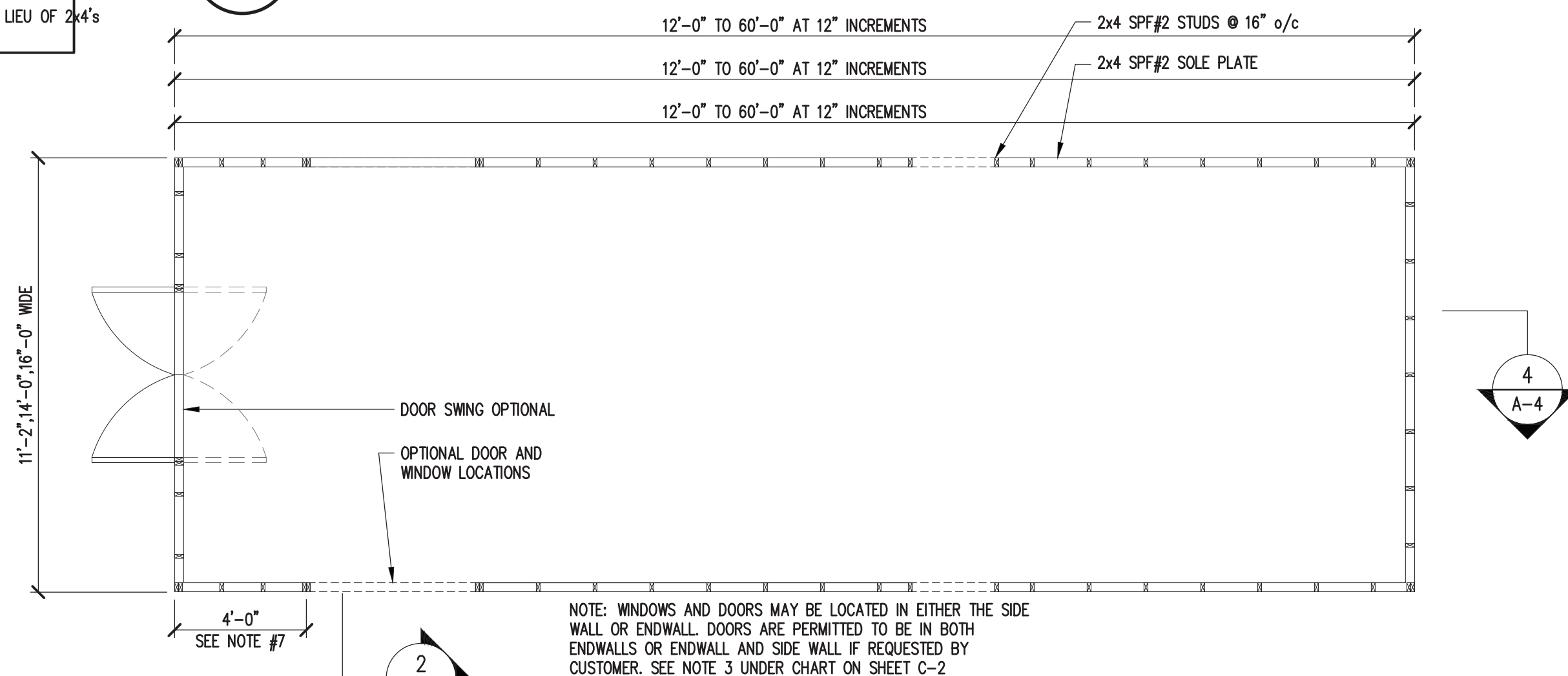
11'-2", 12'-0", 14'-0" & 16'-0" WIDE FLOOR FRAMING PLAN

SCALE: 1/4"=1'-0" (DO NOT SCALE DRAWING)



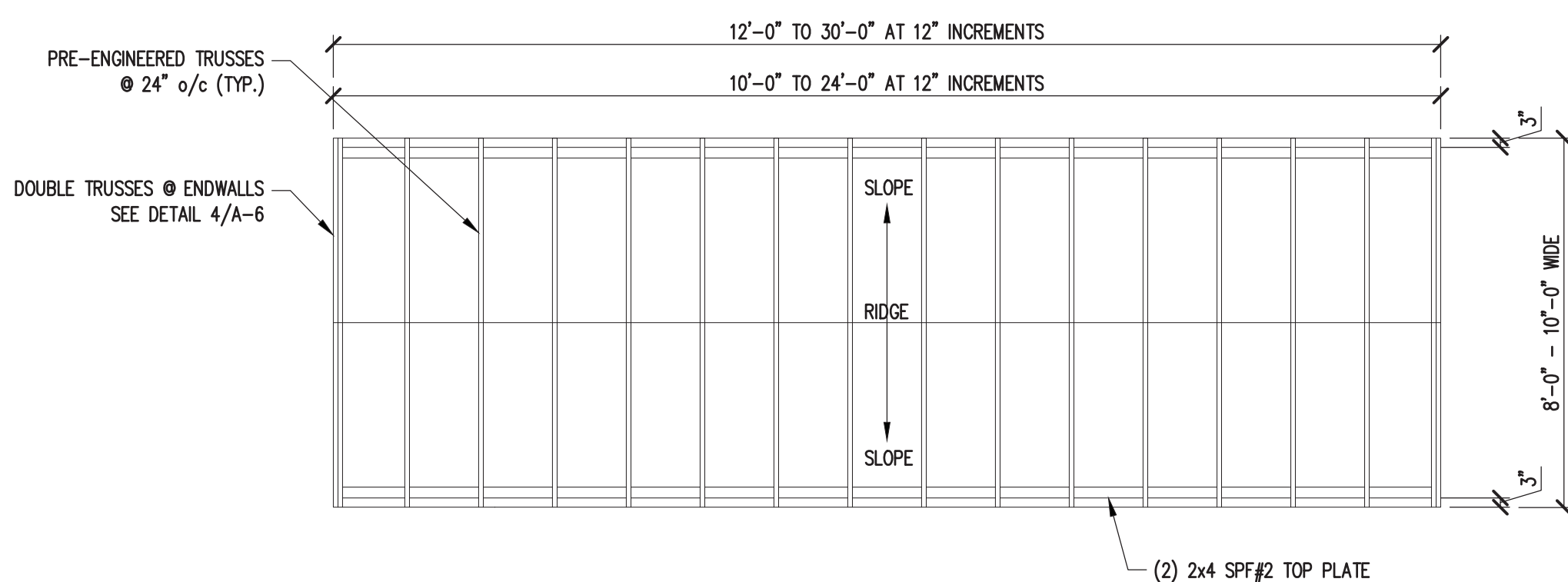
FLOOR DECK PLAN

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



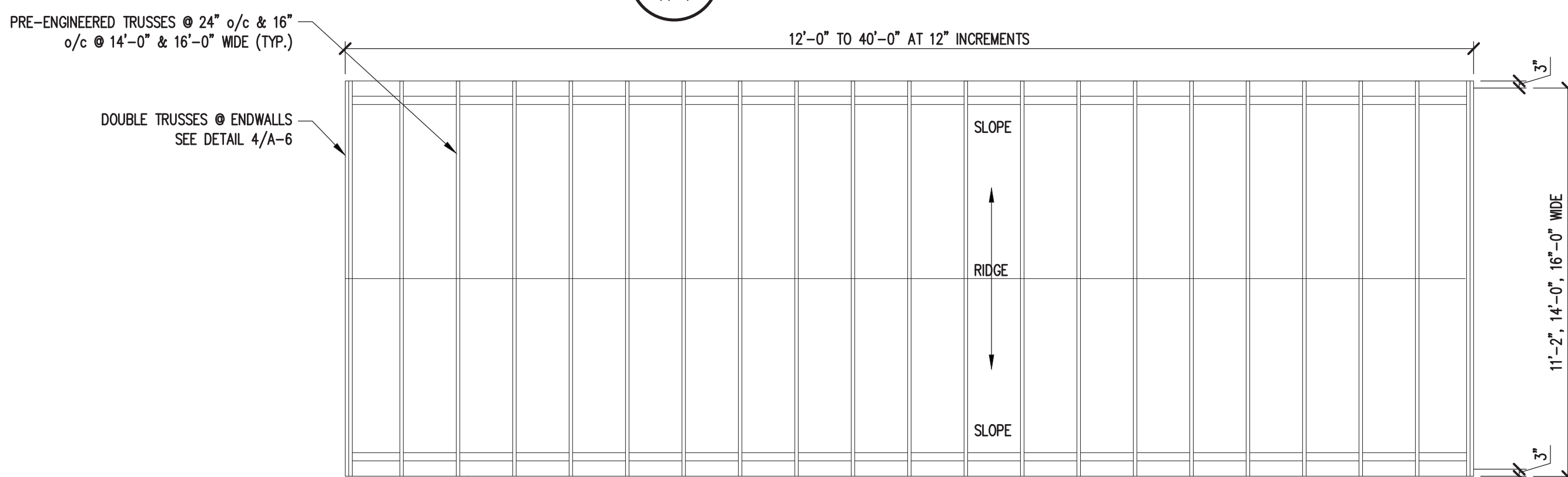
FLOOR DECK PLAN

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



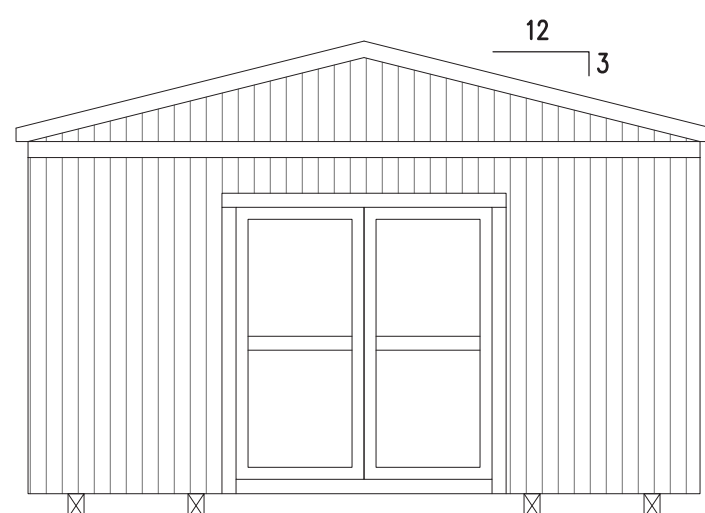
ROOF PLAN

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



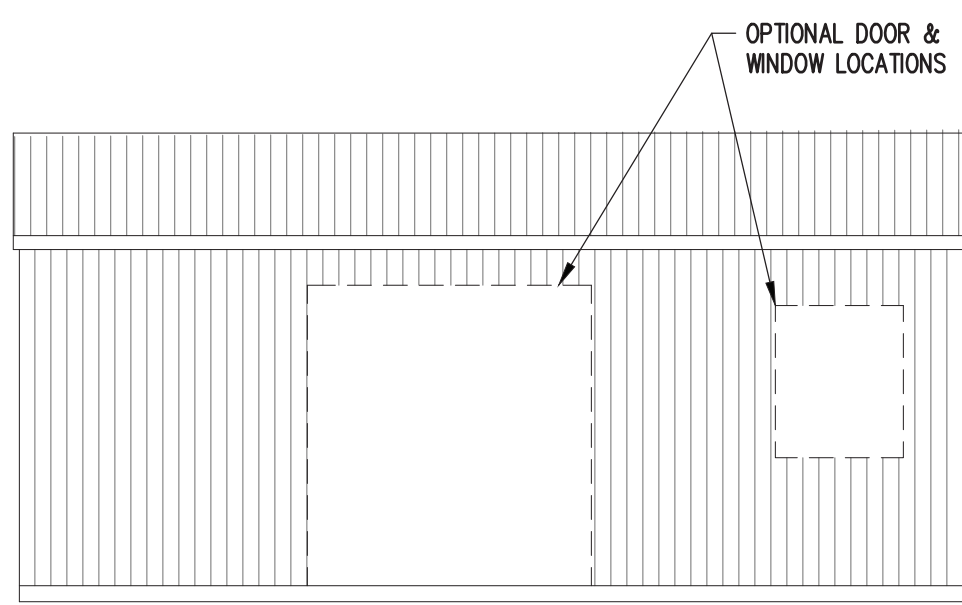
ROOF PLAN

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



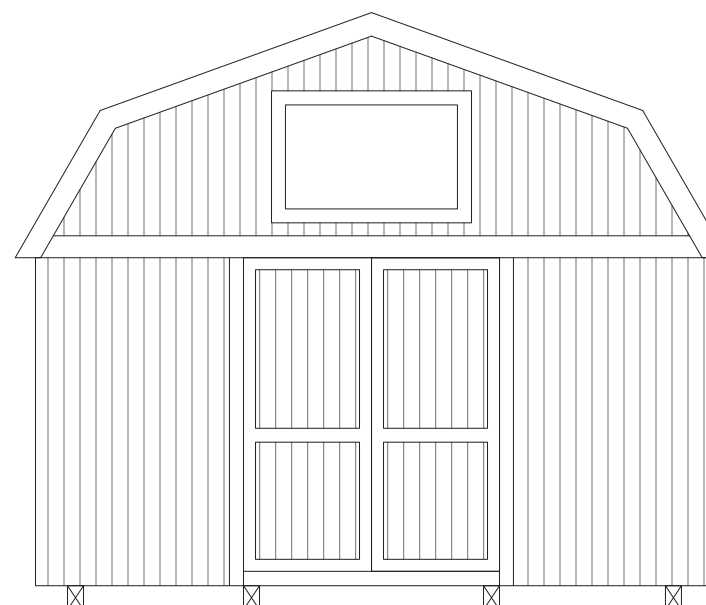
GABLE ENDWALL ELEVATION

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



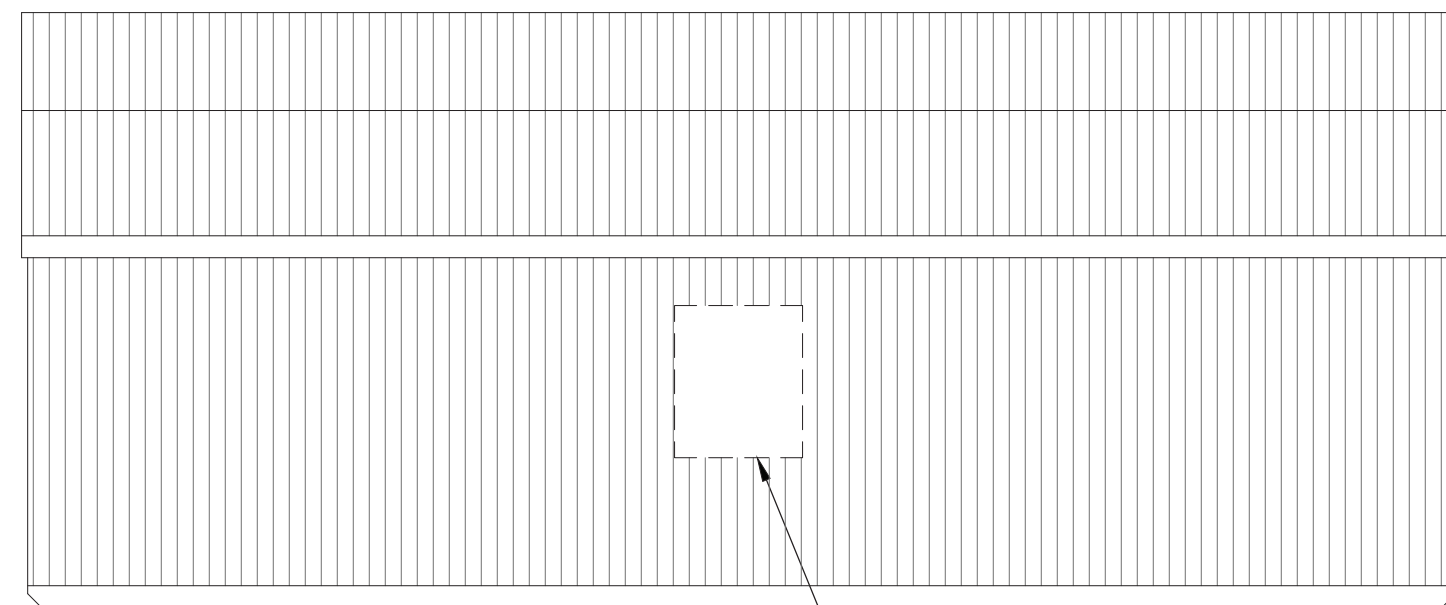
SIDEWALL ELEVATION

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



GAMBREL ENDWALL ELEVATION

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



SIDEWALL ELEVATION

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

PROJECT:

UTILITY SHED

GARDEN & COTTAGE SHEDS
FLOOR DECK FRAMING PLANS & DETAILS

DON VAN GERVE, P.E.
SPECIALTY STRUCTURAL ENGINEER

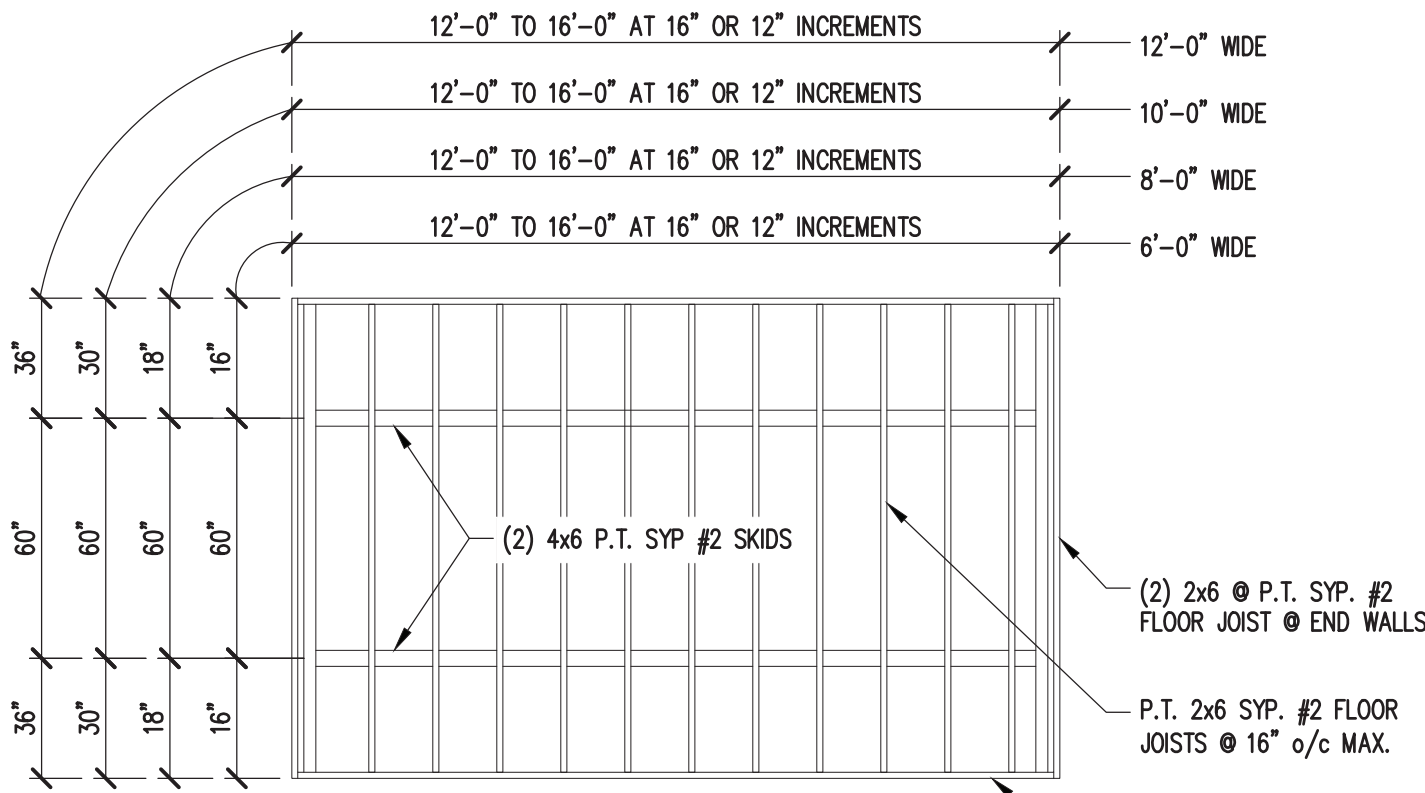


ENGINEERING SERVICES PROVIDED FOR:
PREMIER PORTABLE BUILDINGS
317 EAST STATE LINE ROAD
SOUTH FULTON, TN 38257
WWW.PREMIERBUILDINGS.US

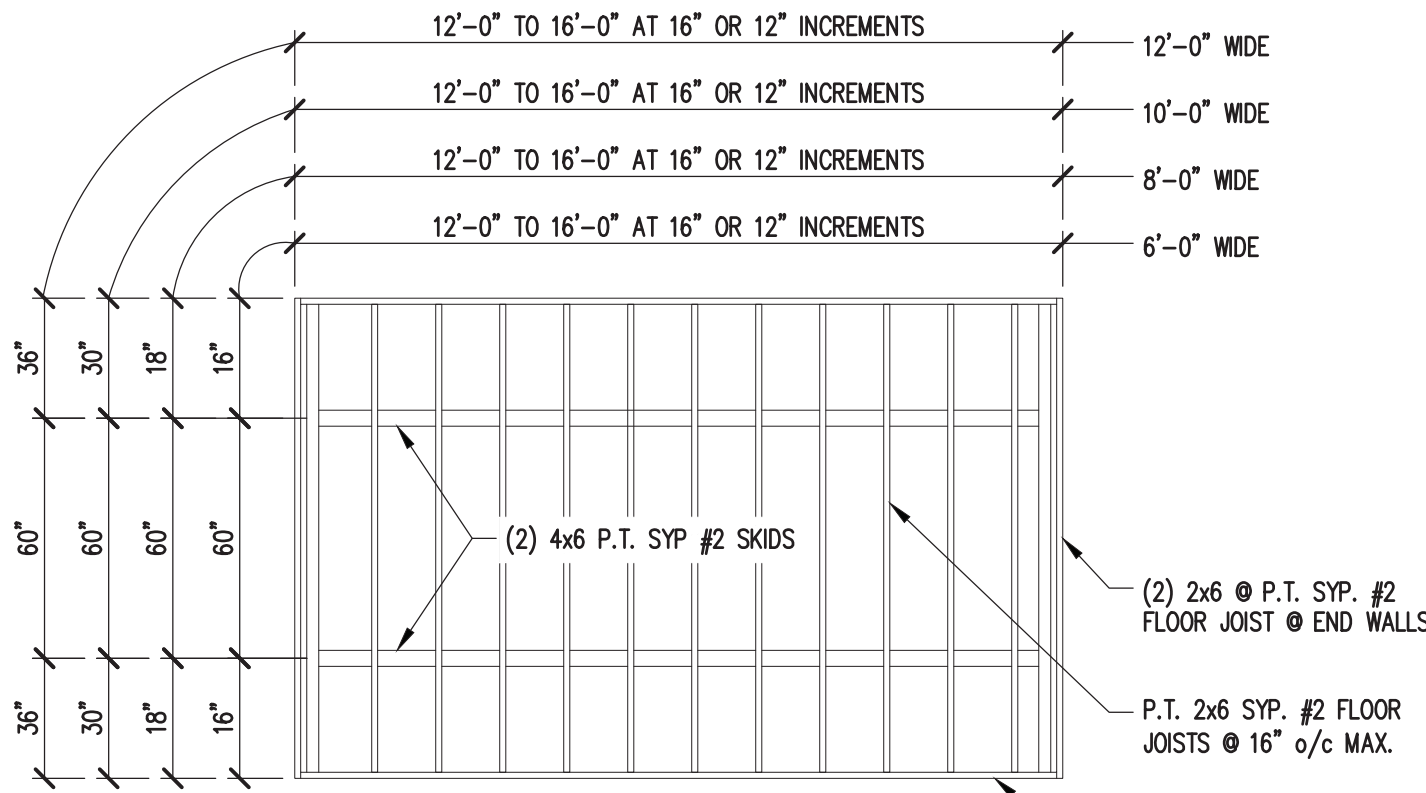
REVISION	DESCRIPTION	DATE	BY
1			
2			
3			
4			
5			

DATE:	5.15.25
PROJECT NO.:	19227
DRAWING BY:	JH
CHK BY:	DVG
DWG NO.:	

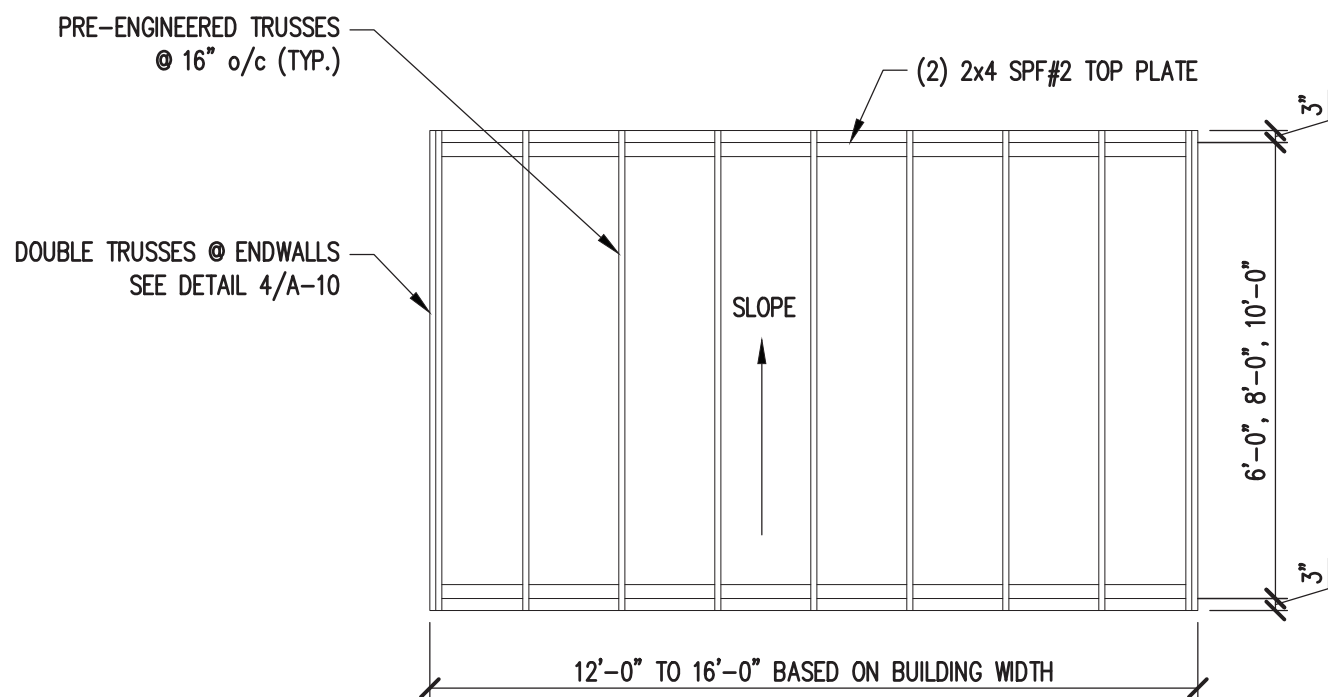
A-2



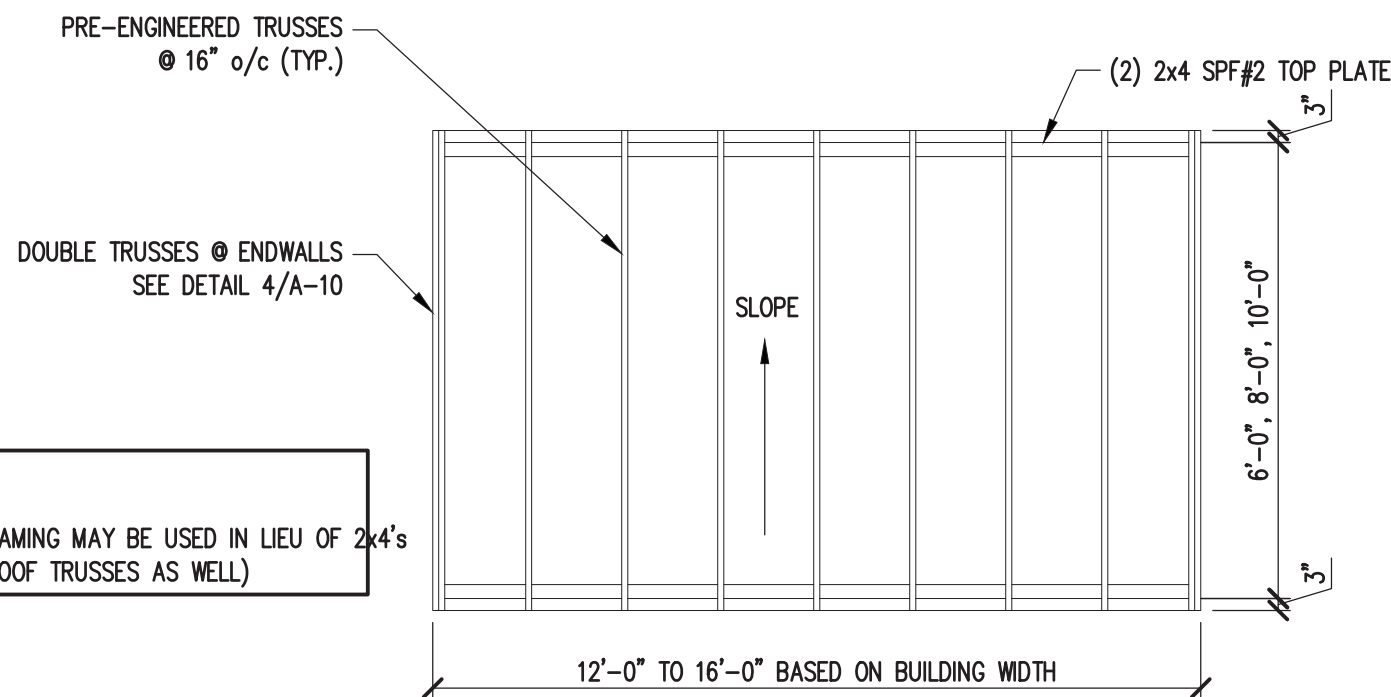
1 GARDEN SHED FLOOR FRAMING PLAN
A-2 SCALE: 1/4"=1'-0" (DO NOT SCALE DRAWING)



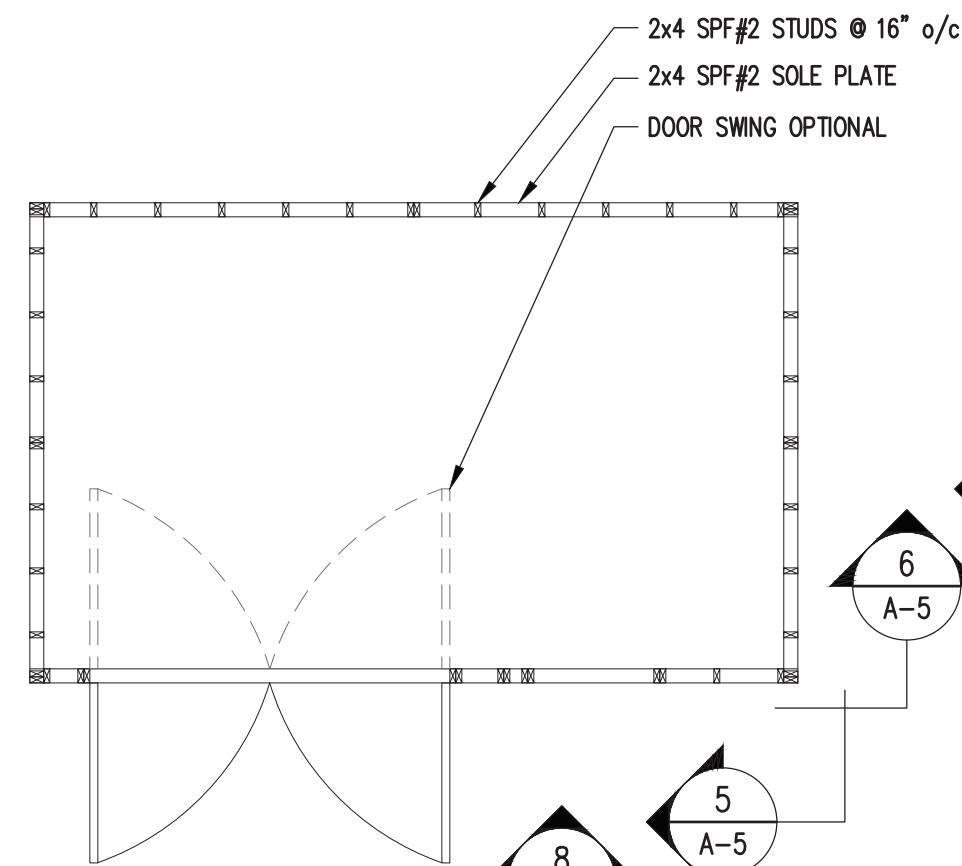
2 COTTAGE SHED FLOOR FRAMING PLAN
A-2 SCALE: 1/4"=1'-0" (DO NOT SCALE DRAWING)



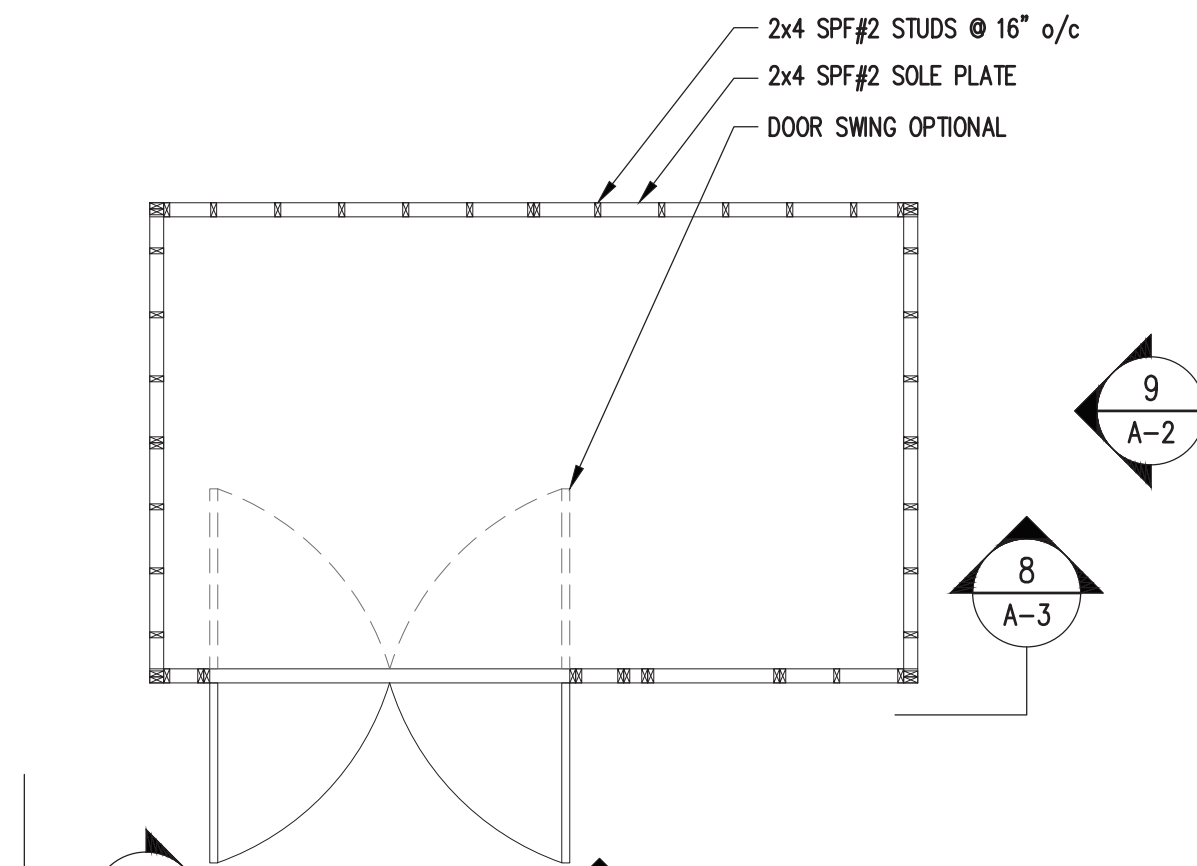
3 ROOF FRAMING PLAN
A-2 SCALE: 1/4"=1'-0"



4 ROOF FRAMING PLAN
A-2 SCALE: 1/4"=1'-0"

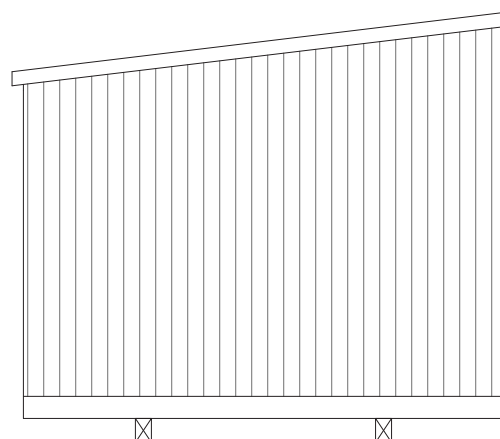


5 FLOOR DECK PLAN
A-2 SCALE: 1/4"=1'-0"

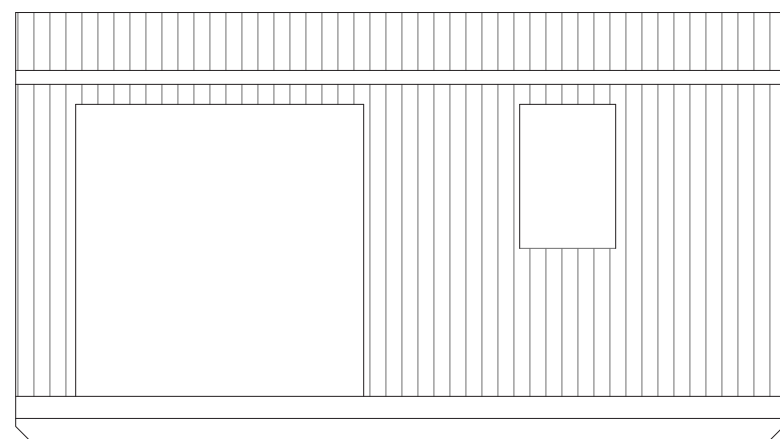


6 FLOOR DECK PLAN
A-2 SCALE: 1/4"=1'-0"

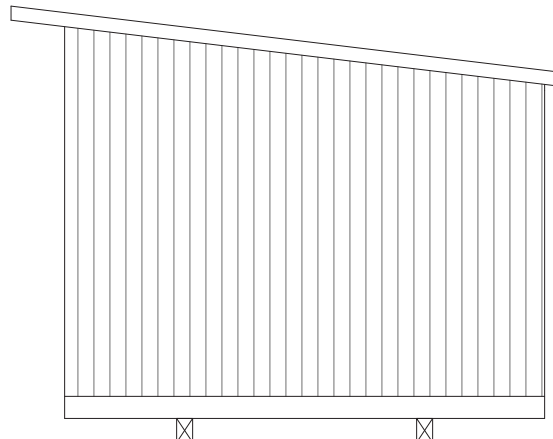
- NOTE:
- DOUBLE WALL STUDS SHALL BE FASTENED AS PER FASTENING SCHEDULE PROVIDED.
 - SEE 12/A-5 FOR CORNER STUD DETAIL.
 - FOR ALL FASTENING NOT SHOWN, SEE FASTENING SCHEDULE ON SHEET C-2.
 - AS AN OPTION, STUDS CAN BE PLACED @ 16" o/c.
 - ALL BUILDING w/ TRUSSES AND STUDS 2'-0" o/c CAN ONLY USE SINGLE TOP PLATE.
 - STUDS SHALL FALL IN LINE w/ TRUSSES.



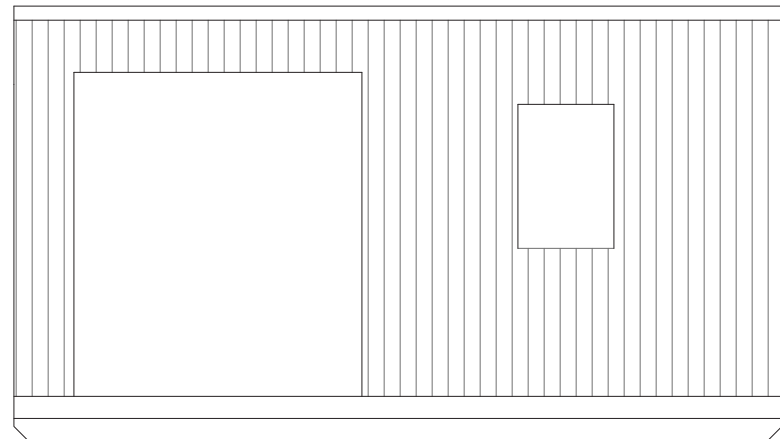
7 ENDWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"



8 SIDEWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"

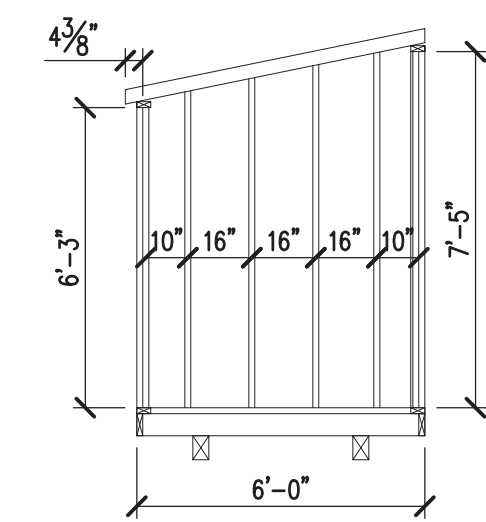


9 ENDWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"

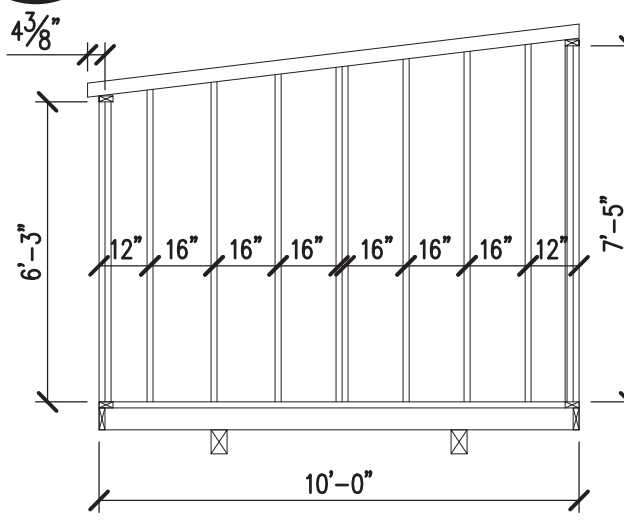


10 SIDEWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"

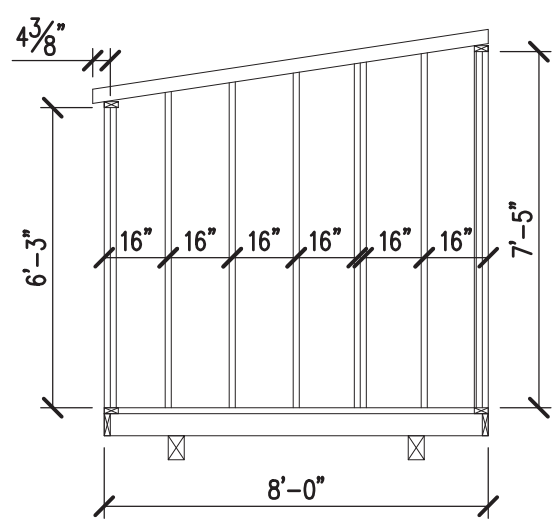
GARDEN SHED



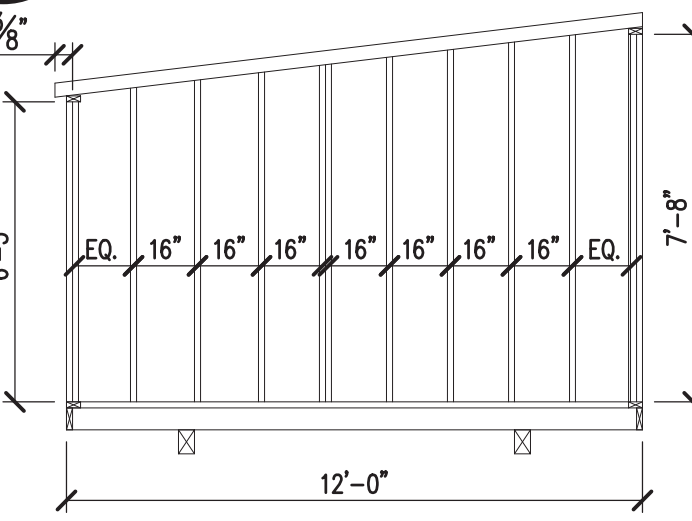
11 6'-0" WIDE ENDWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"



13 10'-0" WIDE ENDWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"

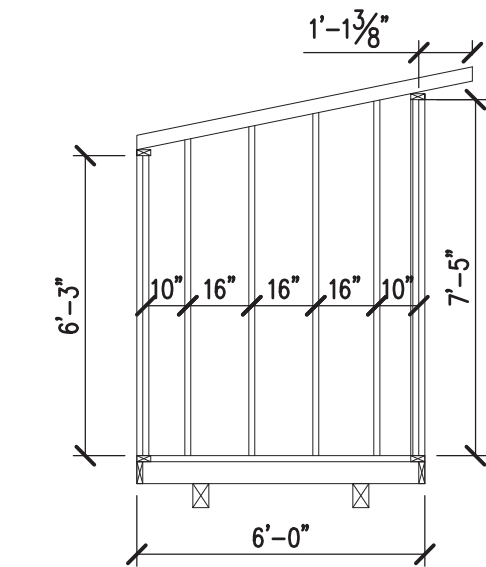


12 8'-0" WIDE ENDWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"

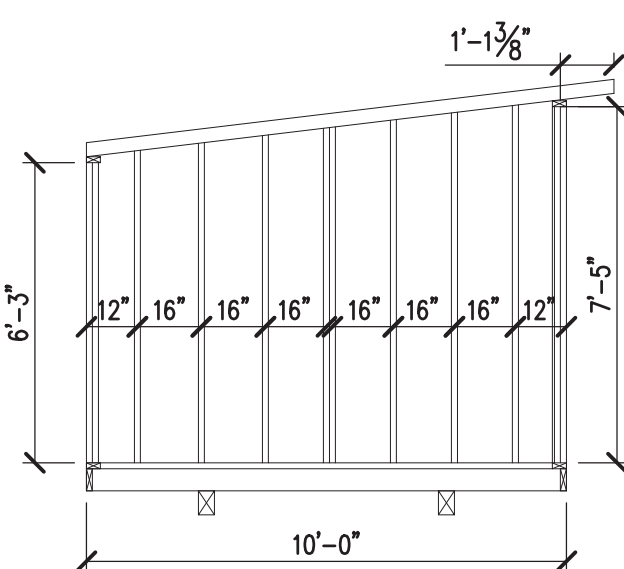


14 12'-0" WIDE ENDWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"

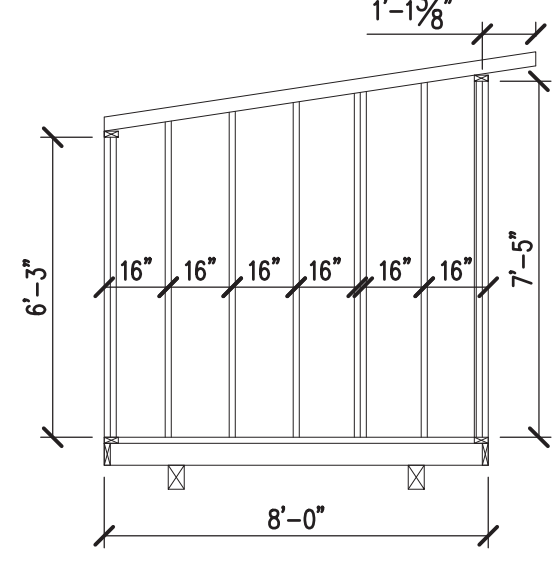
COTTAGE SHED



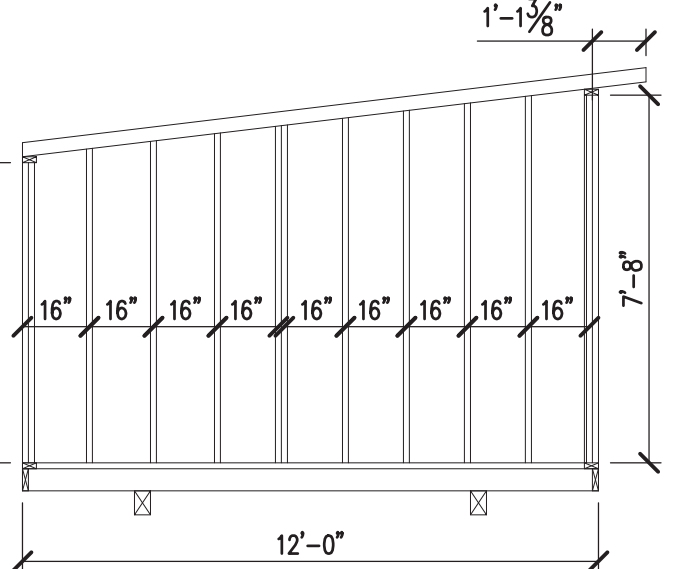
15 6'-0" WIDE ENDWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"



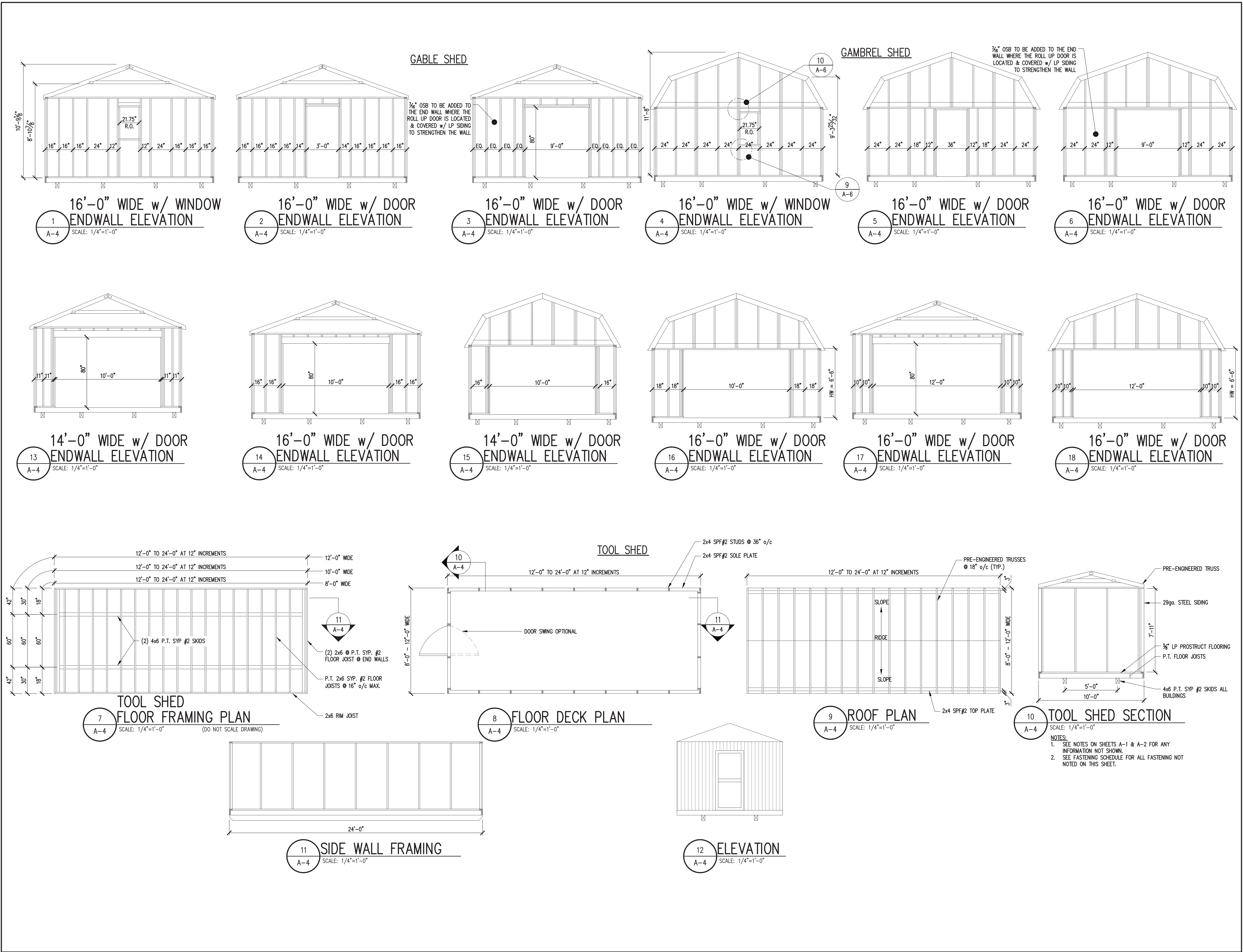
17 10'-0" WIDE ENDWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"



16 8'-0" WIDE ENDWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"



18 12'-0" WIDE ENDWALL ELEVATION
A-2 SCALE: 1/4"=1'-0"

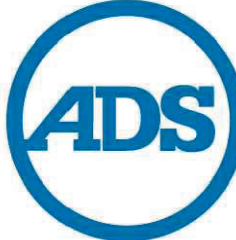


AREA FOR APPROVAL STAMPS

PROJECT: UTILITY SHED

SECTION CUTS
CRAFTSMAN & TOOL SHED

DON VAN GERVE, P.E.
SPECIALTY STRUCTURAL ENGINEER



ALTERNATE DESIGN SOLUTIONS
STRUCTURAL ENGINEERING DESIGN & CONSTRUCTION SERVICES
PHONE: 215.355.4684
WWW.ALTERNATEDESIGNSOLUTIONS.COM

ENGINEERING SERVICES PROVIDED FOR:
PREMIER PORTABLE BUILDINGS
317 EAST STATE LINE ROAD
SOUTH FULTON, TN 38257
WWW.PREMIERBUILDINGS.US

REVISION	DESCRIPTION	DATE	BY
1			
2			
3			
4			
5			

DATE: 5.15.25


PROJECT NO.: 19227

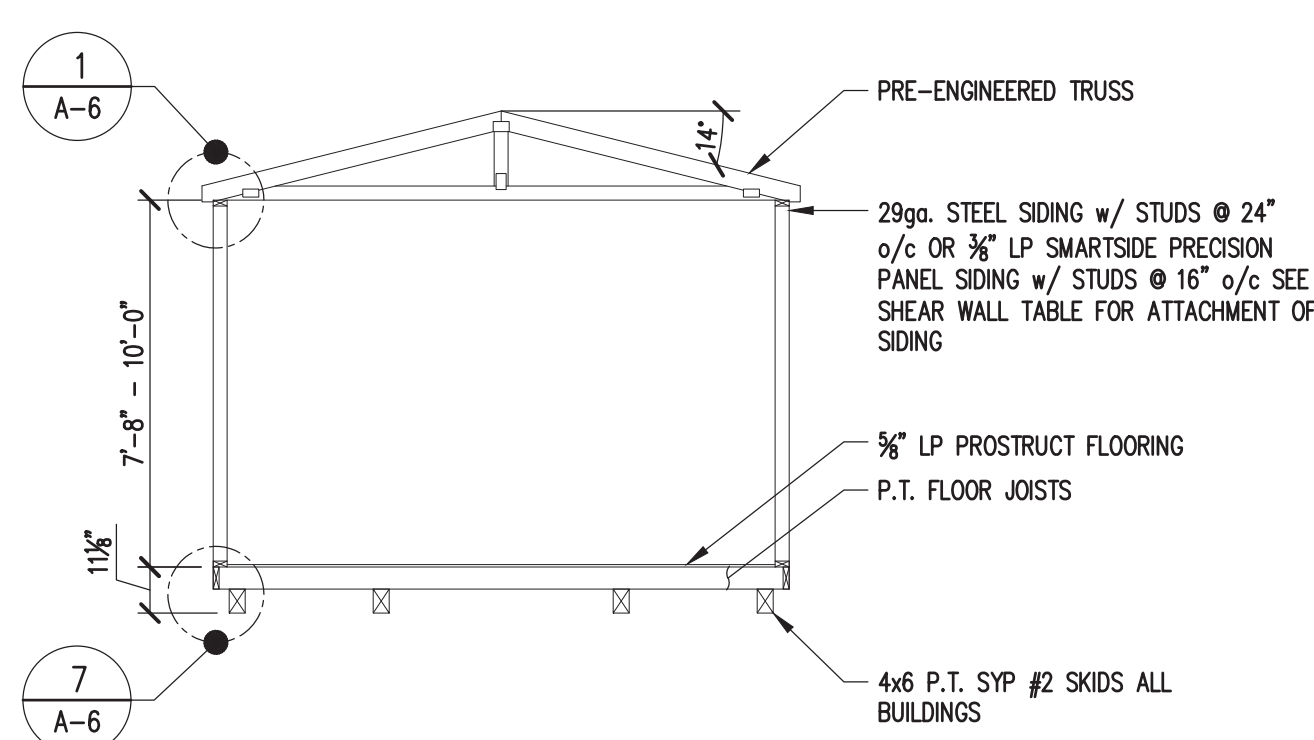
DRAWING BY: JH

CHK BY: DVG

DWG NO.: A-4

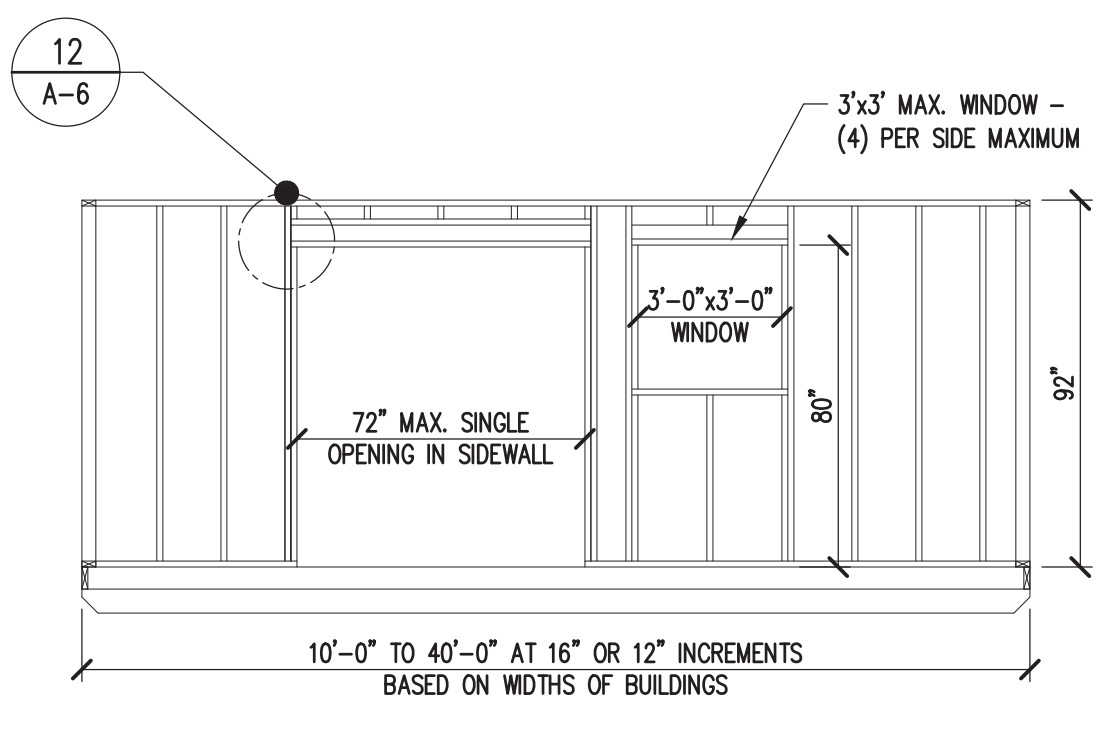
6 of 12





1 GABLE SECTION
A-5

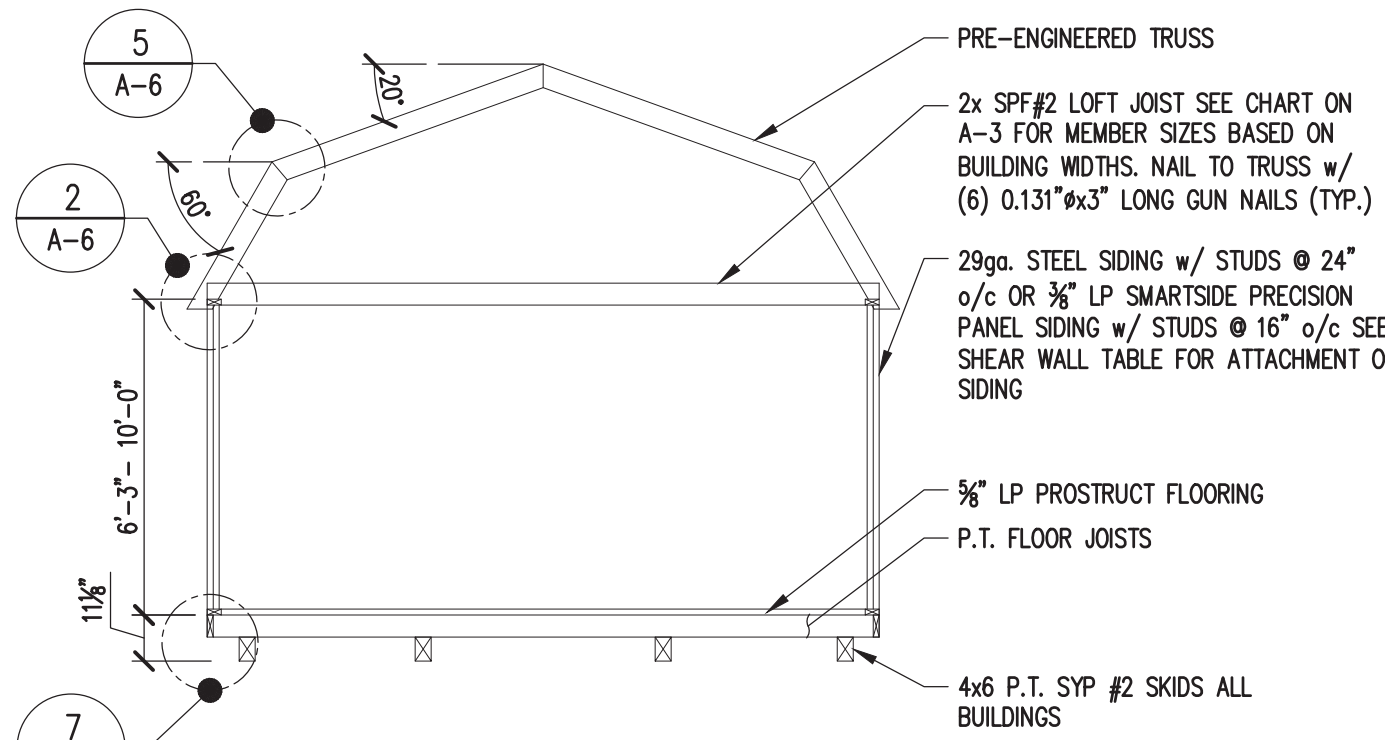
SCALE: 1/4"=1'-0"
NOTES:
1. SEE NOTES ON SHEETS A-1 & C-2 FOR ANY INFORMATION NOT SHOWN.
2. SEE FASTENING SCHEDULE FOR ALL FASTENING NOT NOTED ON THIS SHEET.



2 SIDEWALL FRAMING
A-5

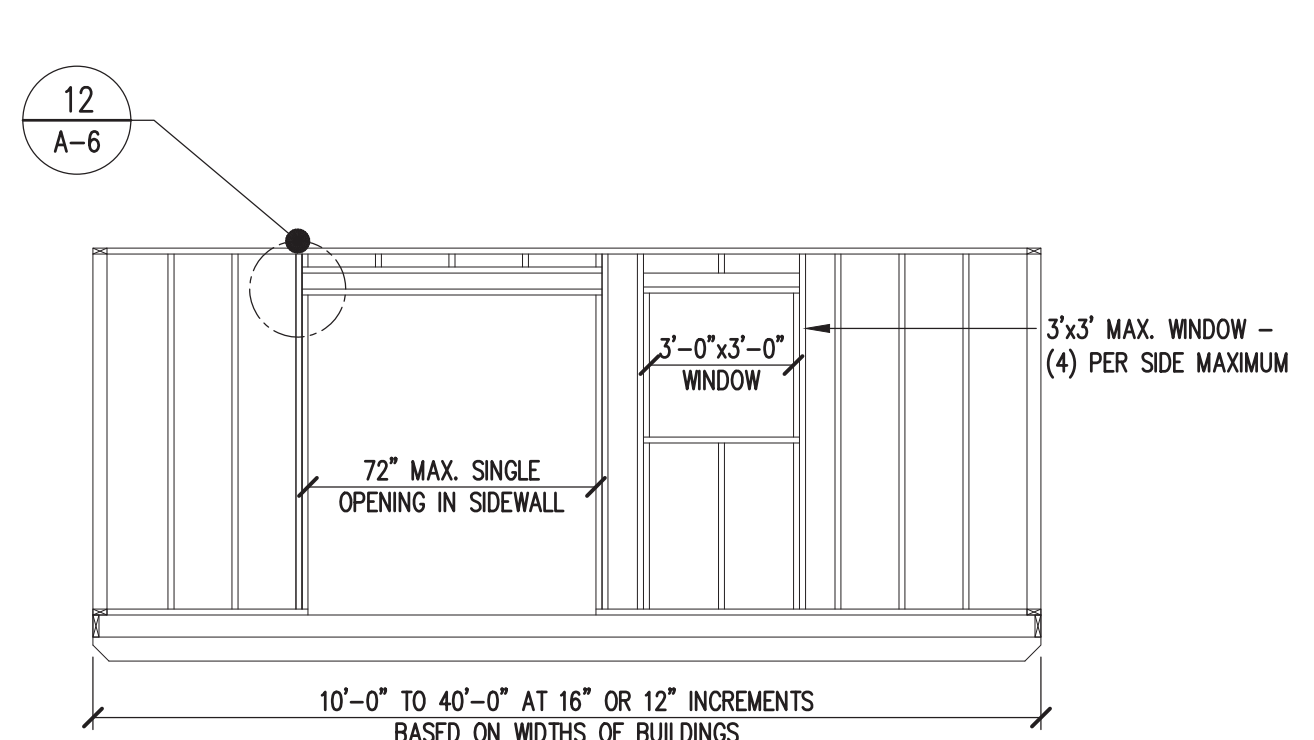
SCALE: 1/4"=1'-0"
NOTES:
MAX. OPENING MAY BE INCREASED TO 9'-0" WITH HEADER PROVIDED THE BUILDING LENGTH IS OVER 16' IN LENGTH AND THE CRITERIA IN NOTE NUMBER 3 OF THE SHEARWALL CHART IS MET.

NOTE:
1. 2x6 STUD FRAMING MAY BE USED IN LIEU OF 2x4's (ALSO FOR ROOF TRUSSES AS WELL)



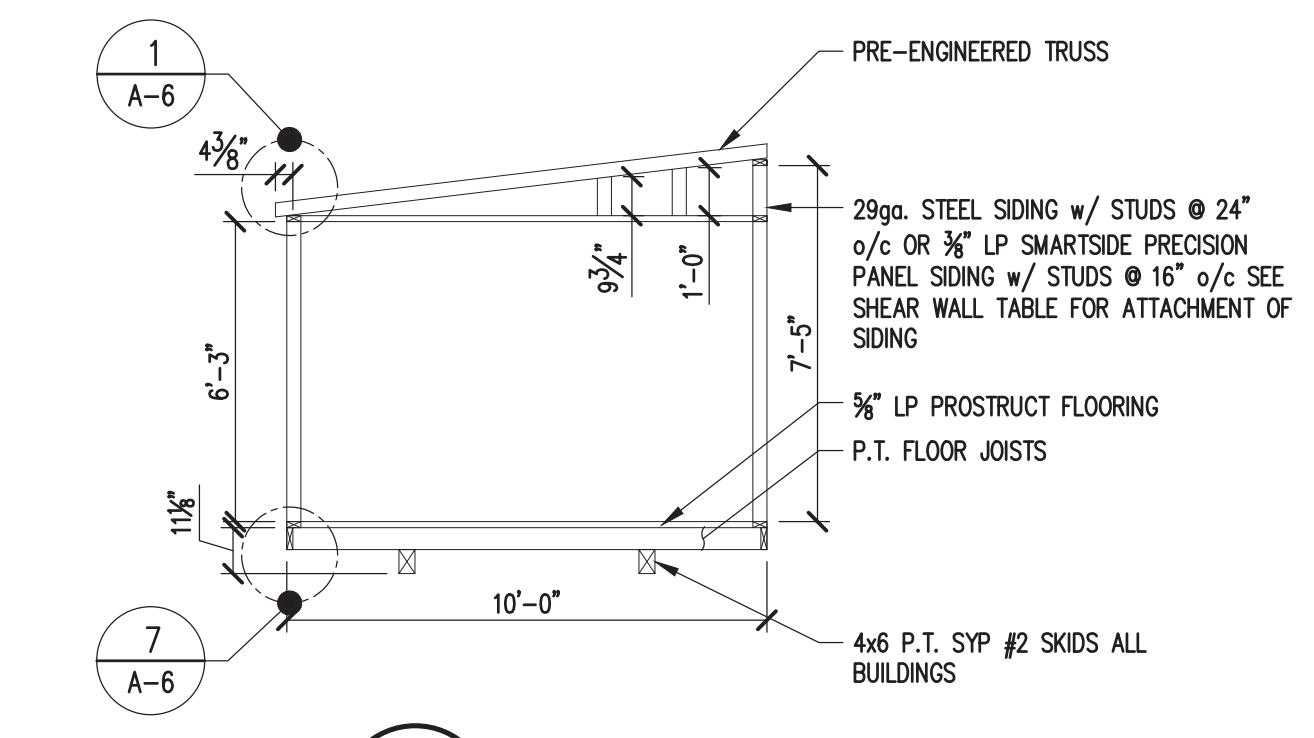
3 GAMBREL SECTION
A-5

SCALE: 1/4"=1'-0"
NOTES:
1. SEE NOTES ON SHEETS A-1 & C-2 FOR ANY INFORMATION NOT SHOWN.
2. SEE FASTENING SCHEDULE FOR ALL FASTENING NOT NOTED ON THIS SHEET.



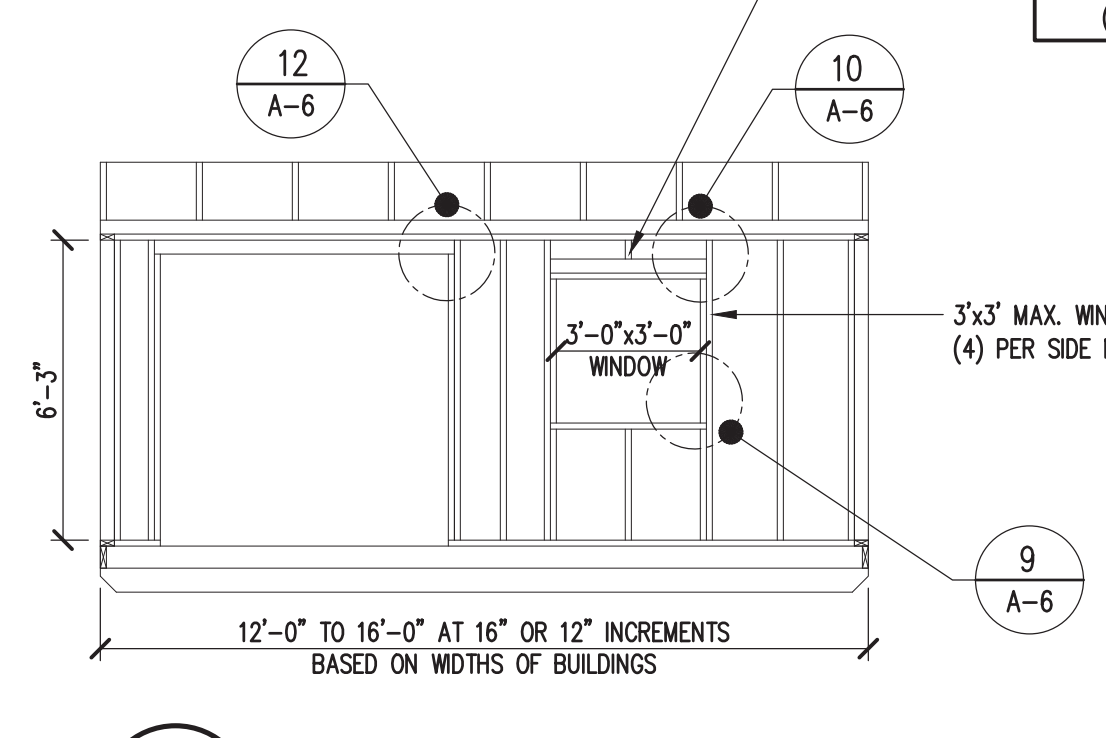
4 SIDEWALL FRAMING
A-5

SCALE: 1/4"=1'-0"
NOTES:
MAX. OPENING MAY BE INCREASED TO 9'-0" WITH HEADER PROVIDED THE BUILDING LENGTH IS OVER 16' IN LENGTH AND THE CRITERIA IN NOTE NUMBER 3 OF THE SHEARWALL CHART IS MET.



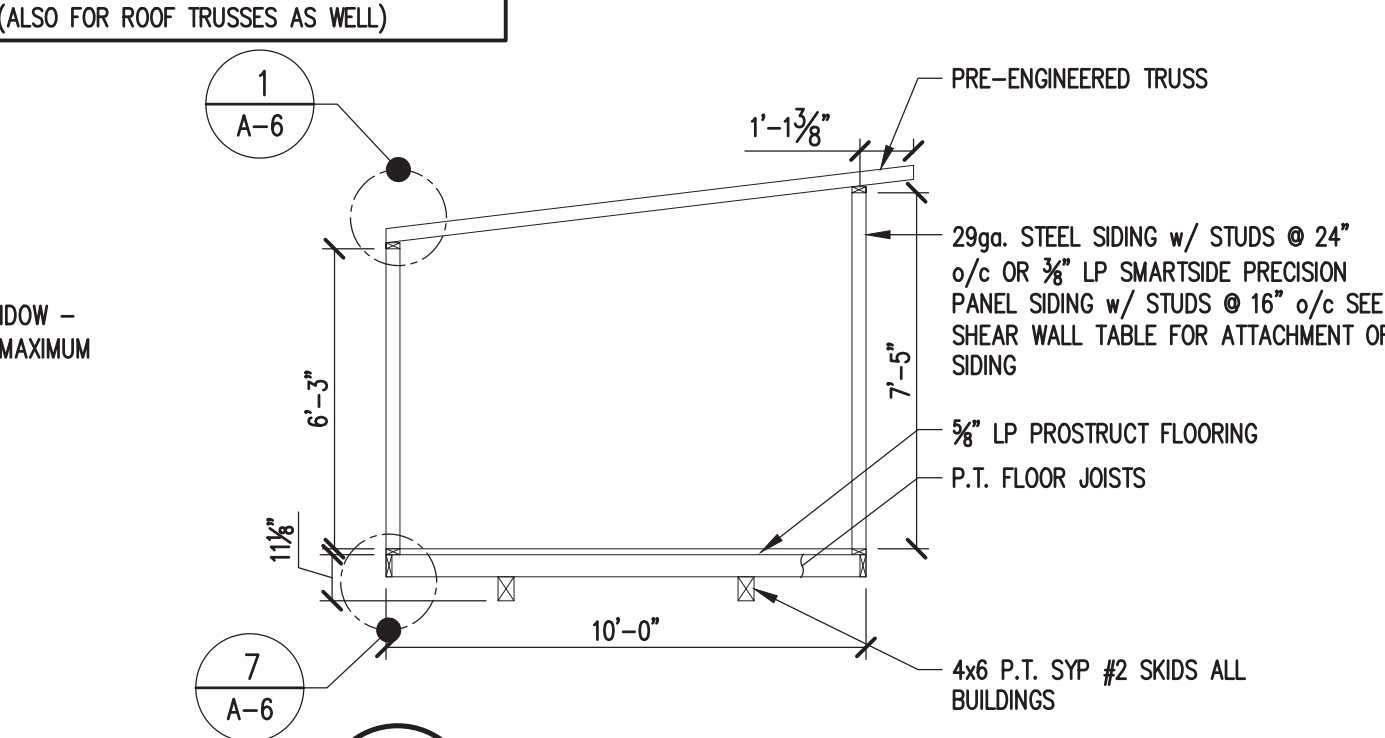
5 GARDEN SHED SECTION
A-5

SCALE: 1/4"=1'-0"
NOTES:
1. SEE NOTES ON SHEETS A-1 & A-2 FOR ANY INFORMATION NOT SHOWN.
2. SEE FASTENING SCHEDULE FOR ALL FASTENING NOT NOTED ON THIS SHEET.



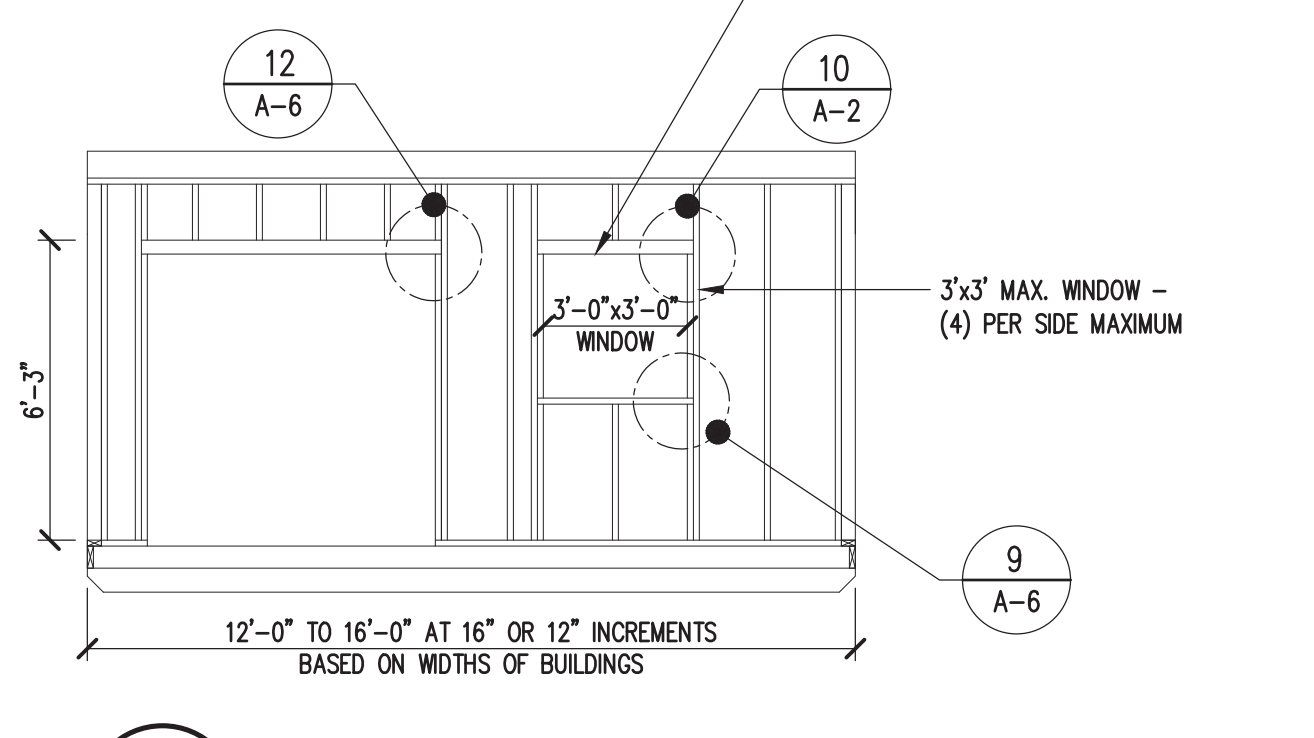
6 SIDEWALL FRAMING
A-5

SCALE: 1/4"=1'-0"
NOTES:
MAX. OPENING MAY BE INCREASED TO 9'-0" WITH HEADER 8/A-11 PROVIDED THE BUILDING LENGTH IS OVER 16' IN LENGTH AND THE CRITERIA IN NOTE NUMBER 3 OF THE SHEARWALL CHART IS MET.



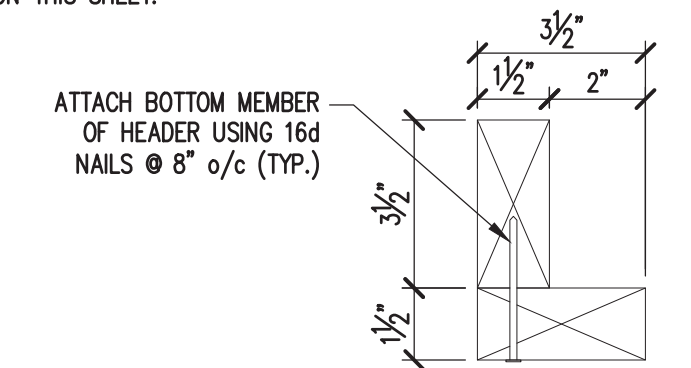
7 COTTAGE SHED SECTION
A-5

SCALE: 1/4"=1'-0"
NOTES:
1. SEE NOTES ON SHEETS A-1 & A-2 FOR ANY INFORMATION NOT SHOWN.
2. SEE FASTENING SCHEDULE FOR ALL FASTENING NOT NOTED ON THIS SHEET.



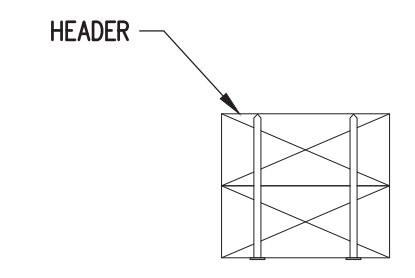
8 SIDEWALL FRAMING
A-5

SCALE: 1/4"=1'-0"
NOTES:
MAX. OPENING MAY BE INCREASED TO 9'-0" WITH HEADER PROVIDED THE BUILDING LENGTH IS OVER 16' IN LENGTH AND THE CRITERIA IN NOTE NUMBER 3 OF THE SHEARWALL CHART IS MET.



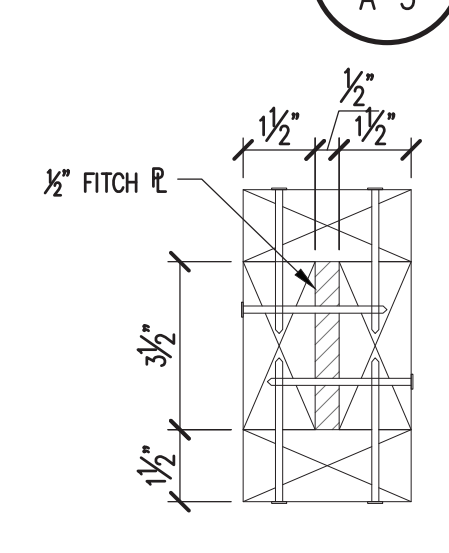
9 WINDOW HEADER DETAIL
A-5

SCALE: 3\"/>



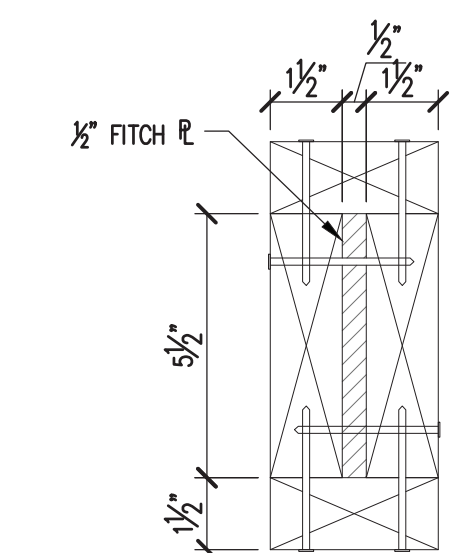
10 DOOR HEADER DETAIL
A-5

SCALE: 3\"/>



11 DOOR HEADER DETAIL
A-5

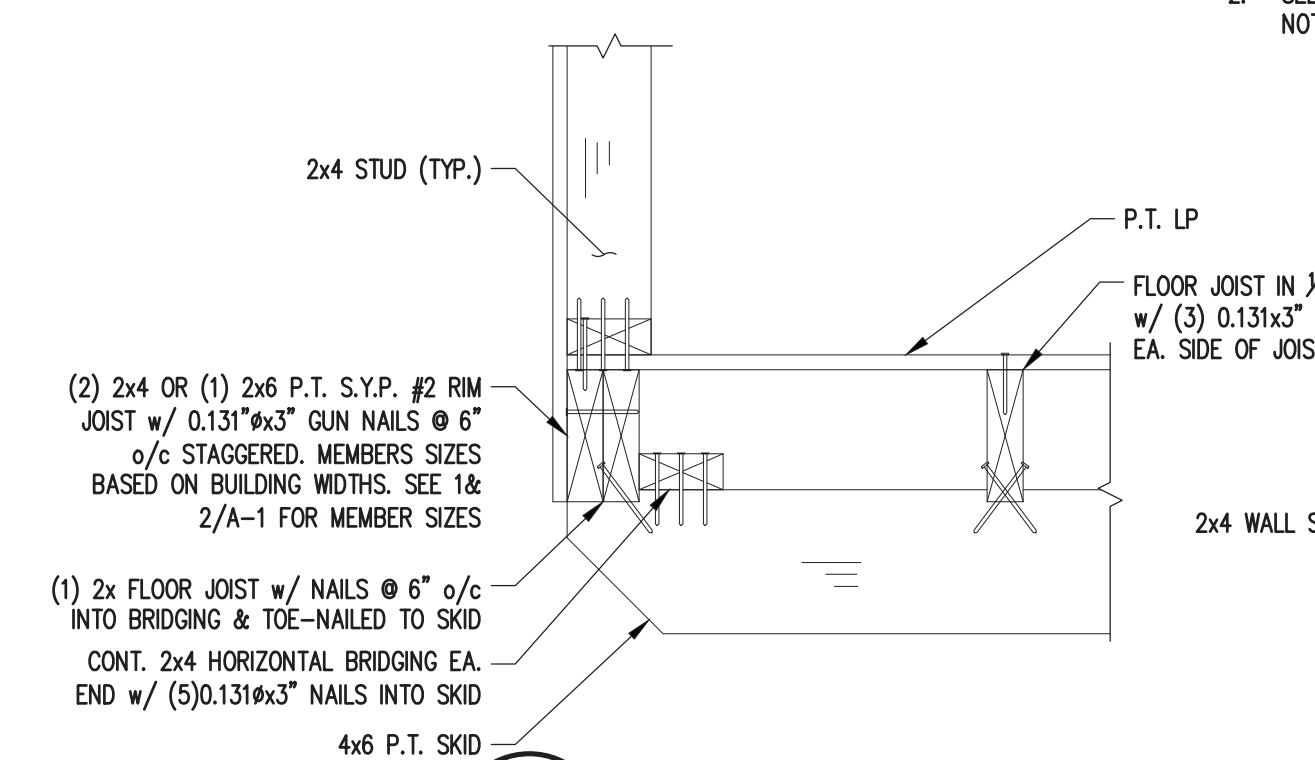
SCALE: 3\"/>



12 DOOR HEADER DETAIL
A-5

SCALE: 3\"/>

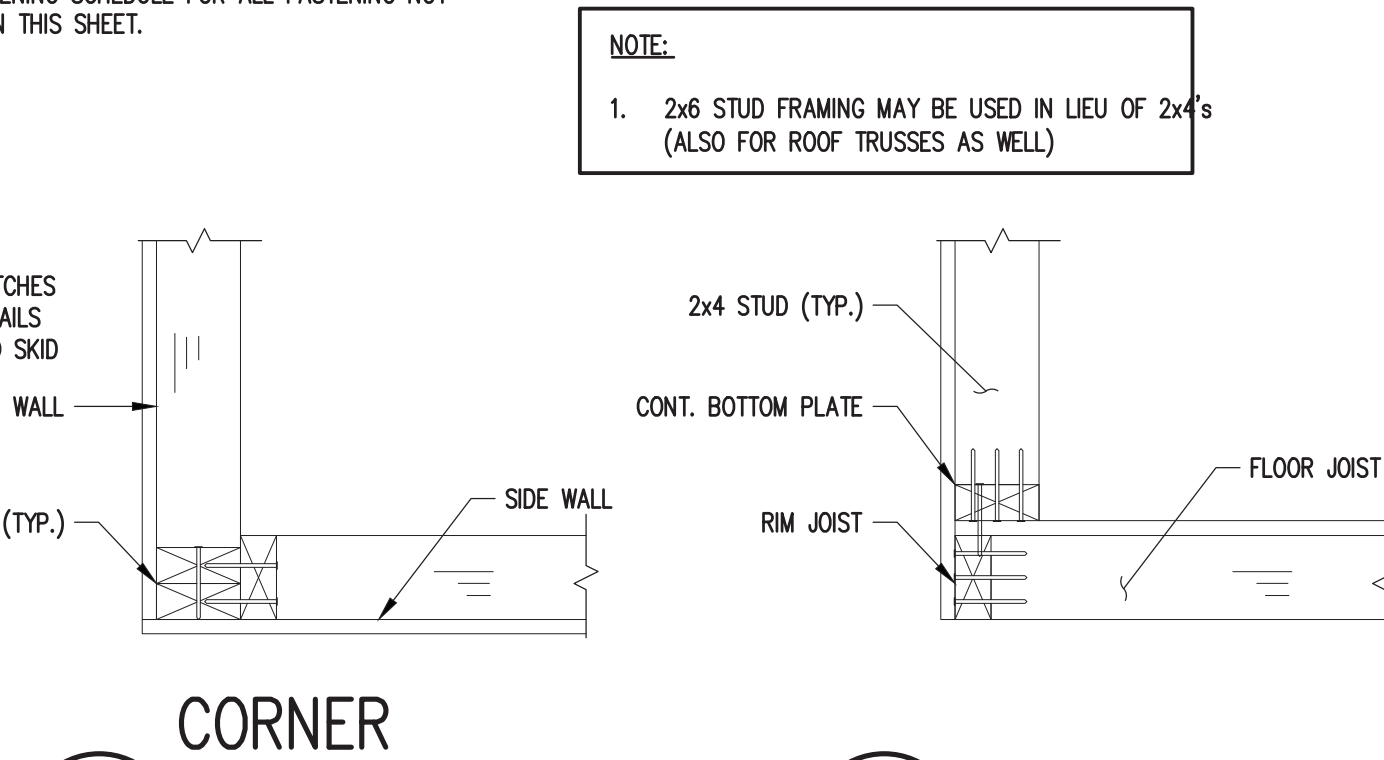
NOTE:
1. SEE NOTES ON SHEETS A-1 & A-2 FOR ANY INFORMATION NOT SHOWN HERE.
2. SEE FASTENING SCHEDULE FOR ALL FASTENING NOT NOTED ON THIS SHEET.



13 SKID TO JOIST DETAIL
A-5

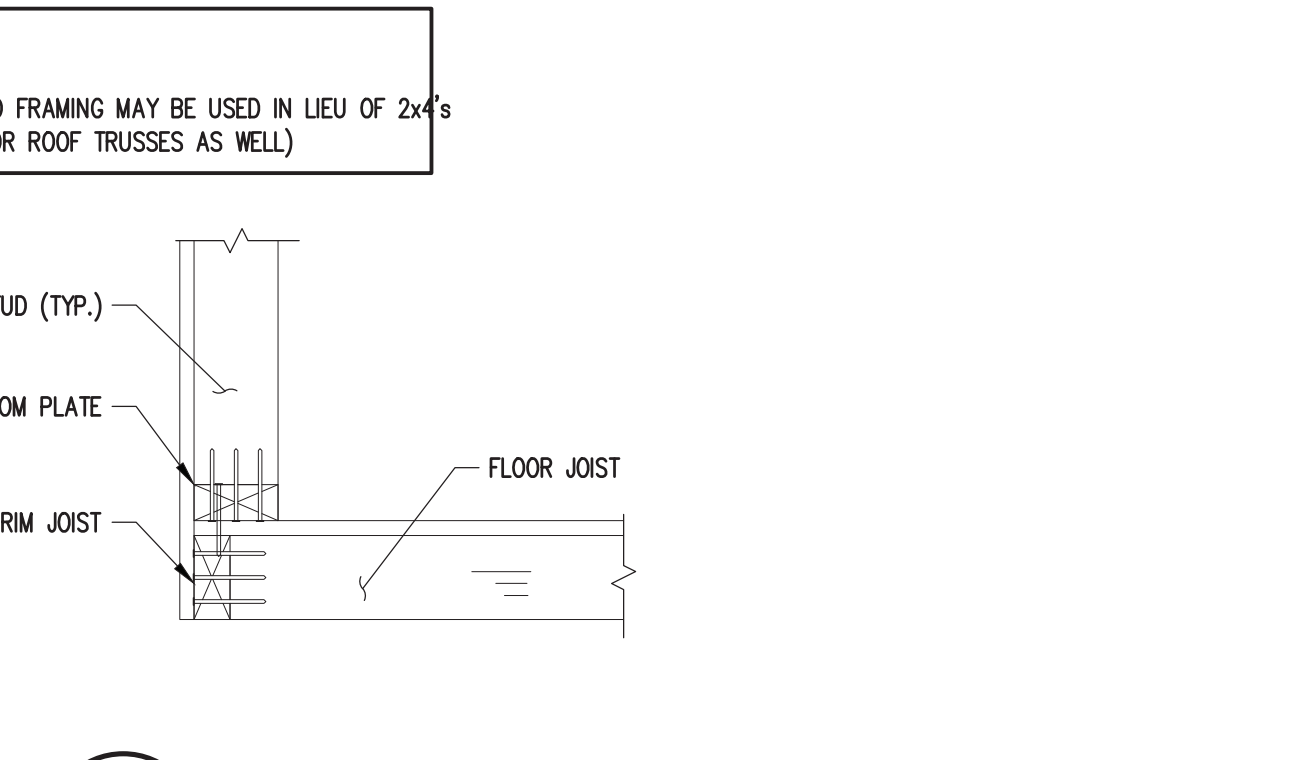
SCALE: 1-1/2\"/>

NOTES:
1. SEE NOTES ON SHEETS A-1 & C-2 FOR ANY INFORMATION NOT SHOWN HERE.
2. SEE FASTENING SCHEDULE FOR ALL FASTENING NOT NOTED ON THIS SHEET.



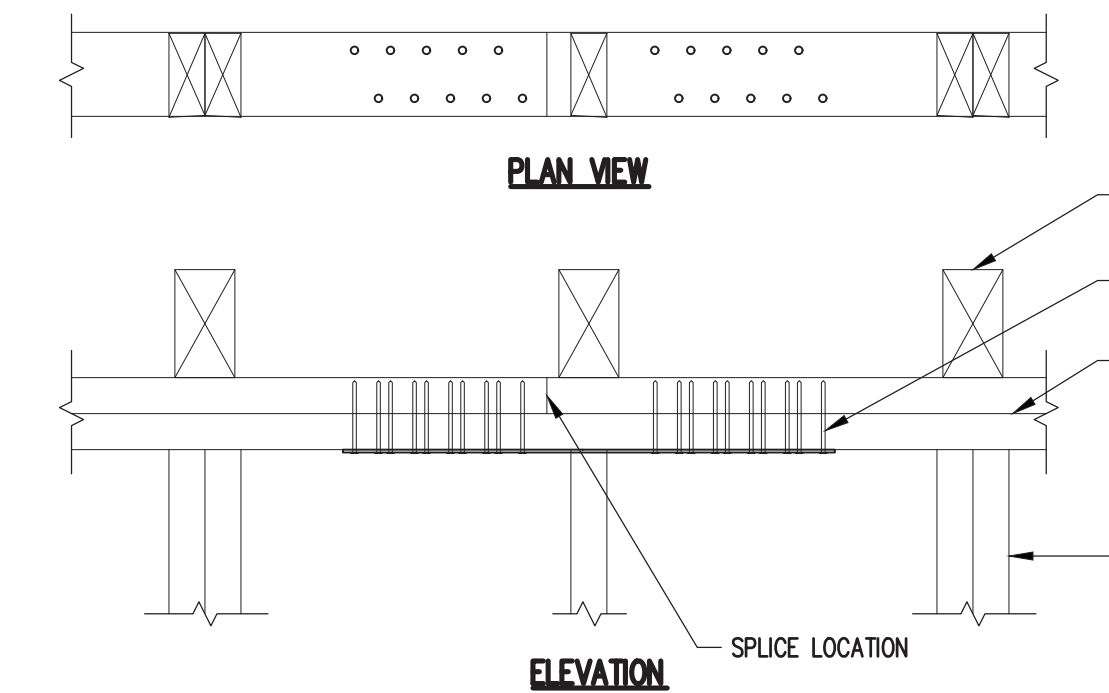
14 CORNER CONNECTION DETAIL
A-5

SCALE: 1-1/2\"/>



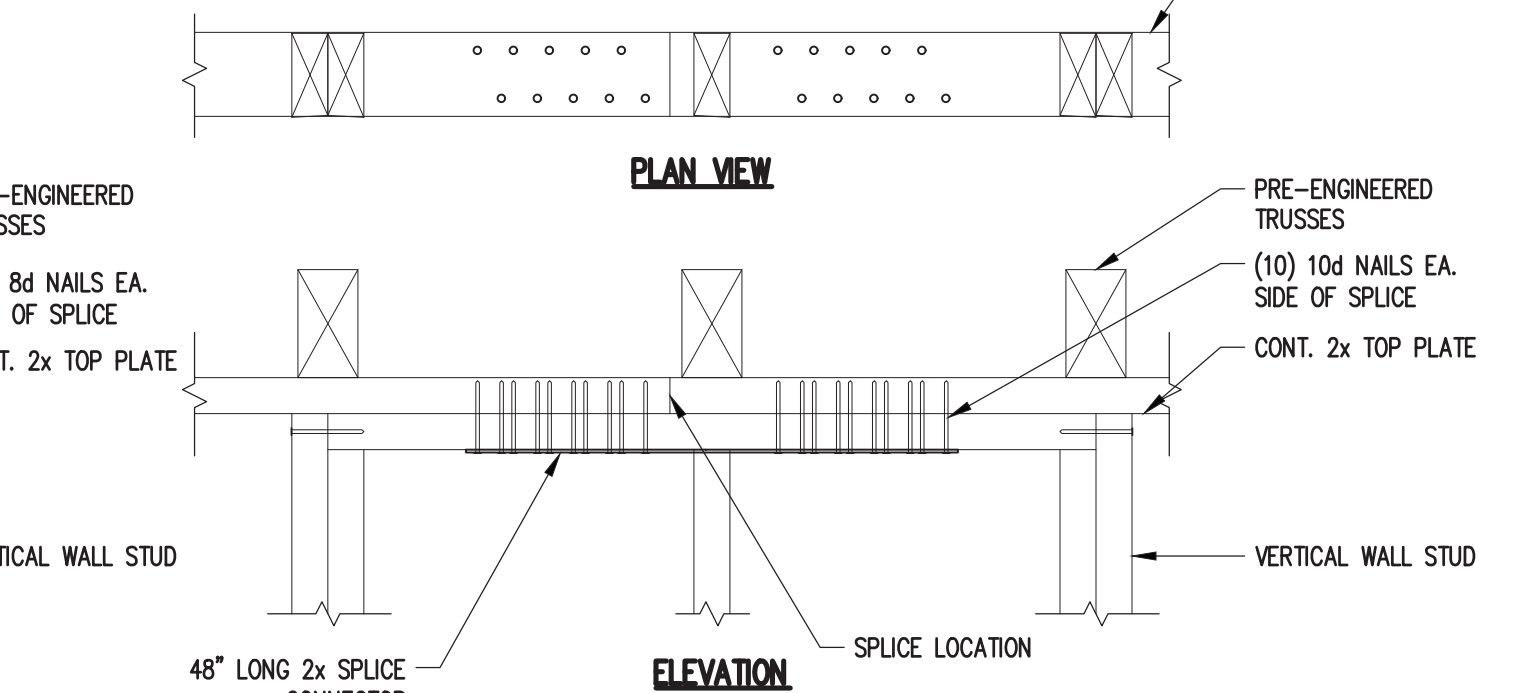
15 WALL TO RIM JOIST
A-5

SCALE: 1-1/2\"/>



16 TOP PLATE SPLICE DETAIL
A-5

SCALE: 1-1/2\"/>



17 SPLICE CONNECTION DETAIL
A-5

SCALE: 1-1/2\"/>

AREA FOR APPROVAL STAMPS

PROJECT: UTILITY SHED

TYPICAL DETAILS

DON VAN GERVE, P.E.
SPECIALTY STRUCTURAL ENGINEER

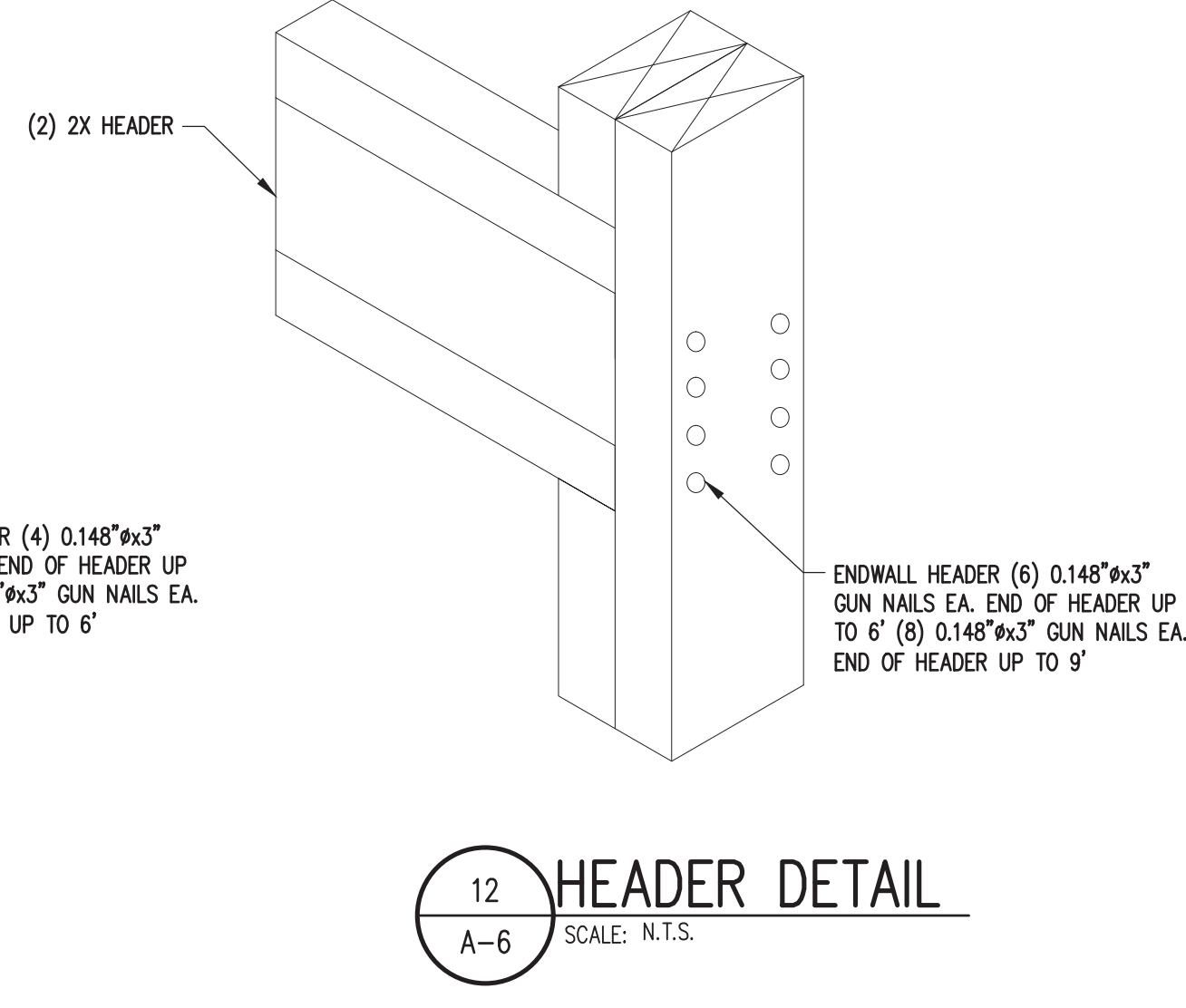
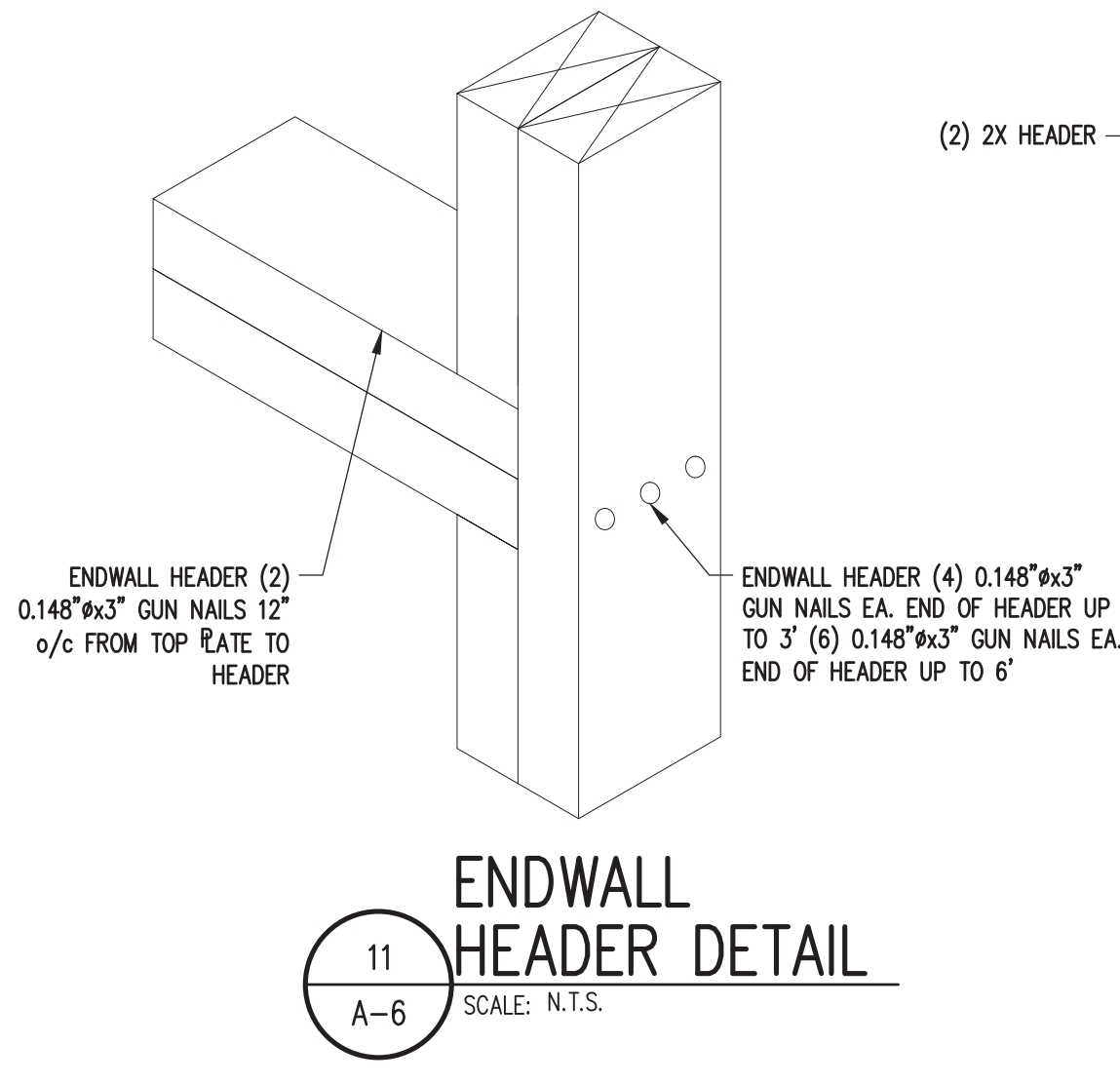
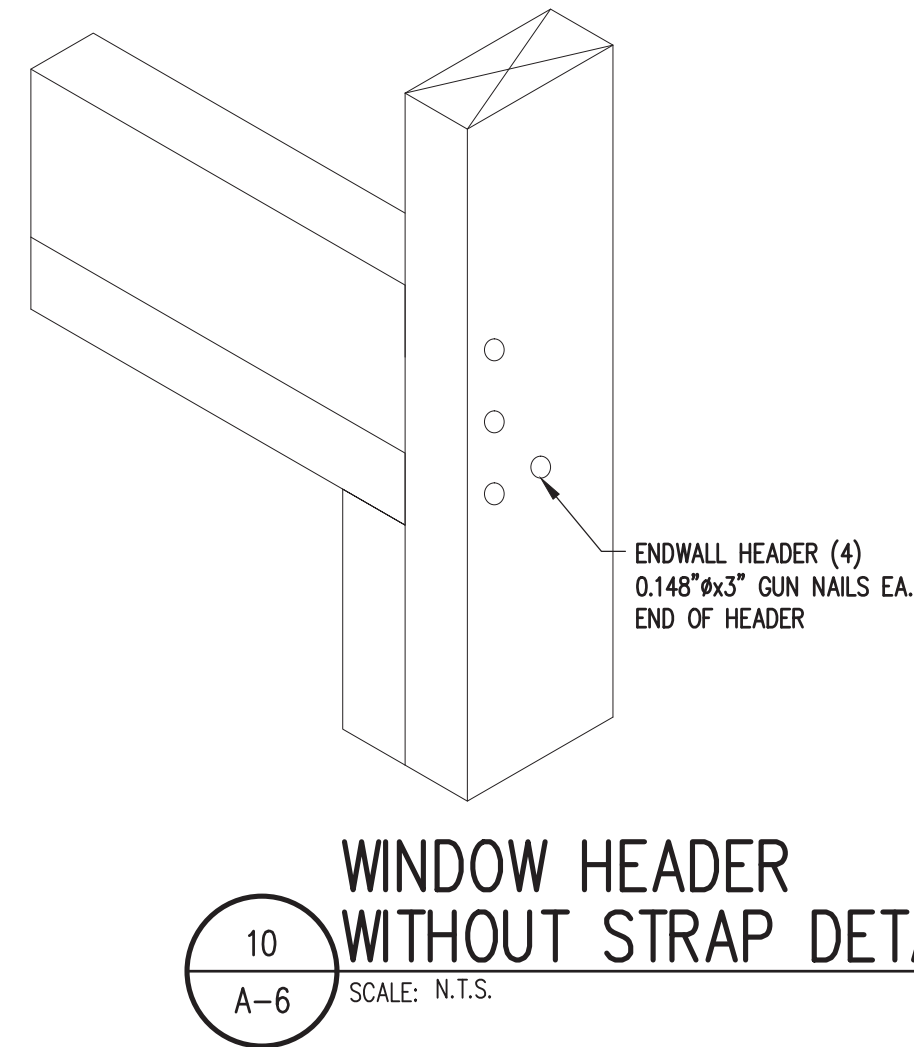
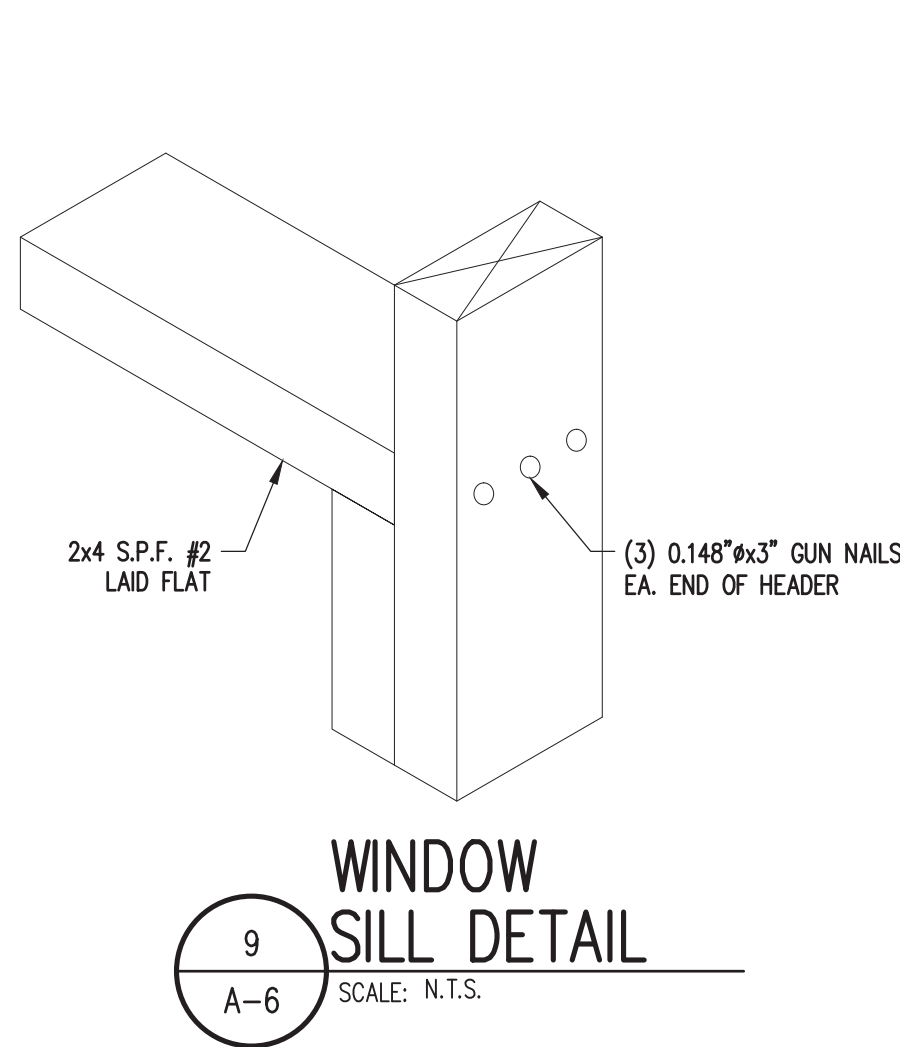
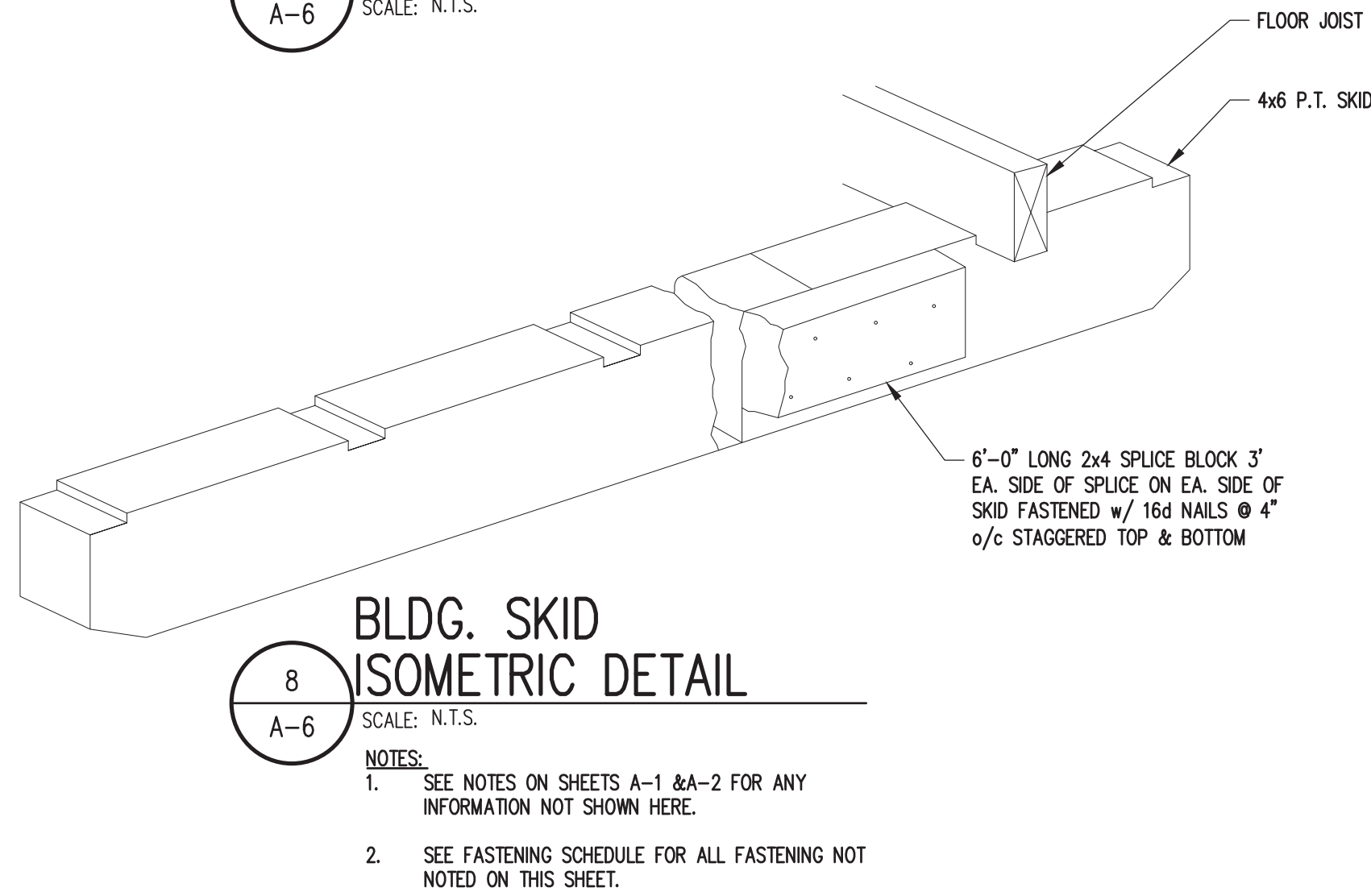
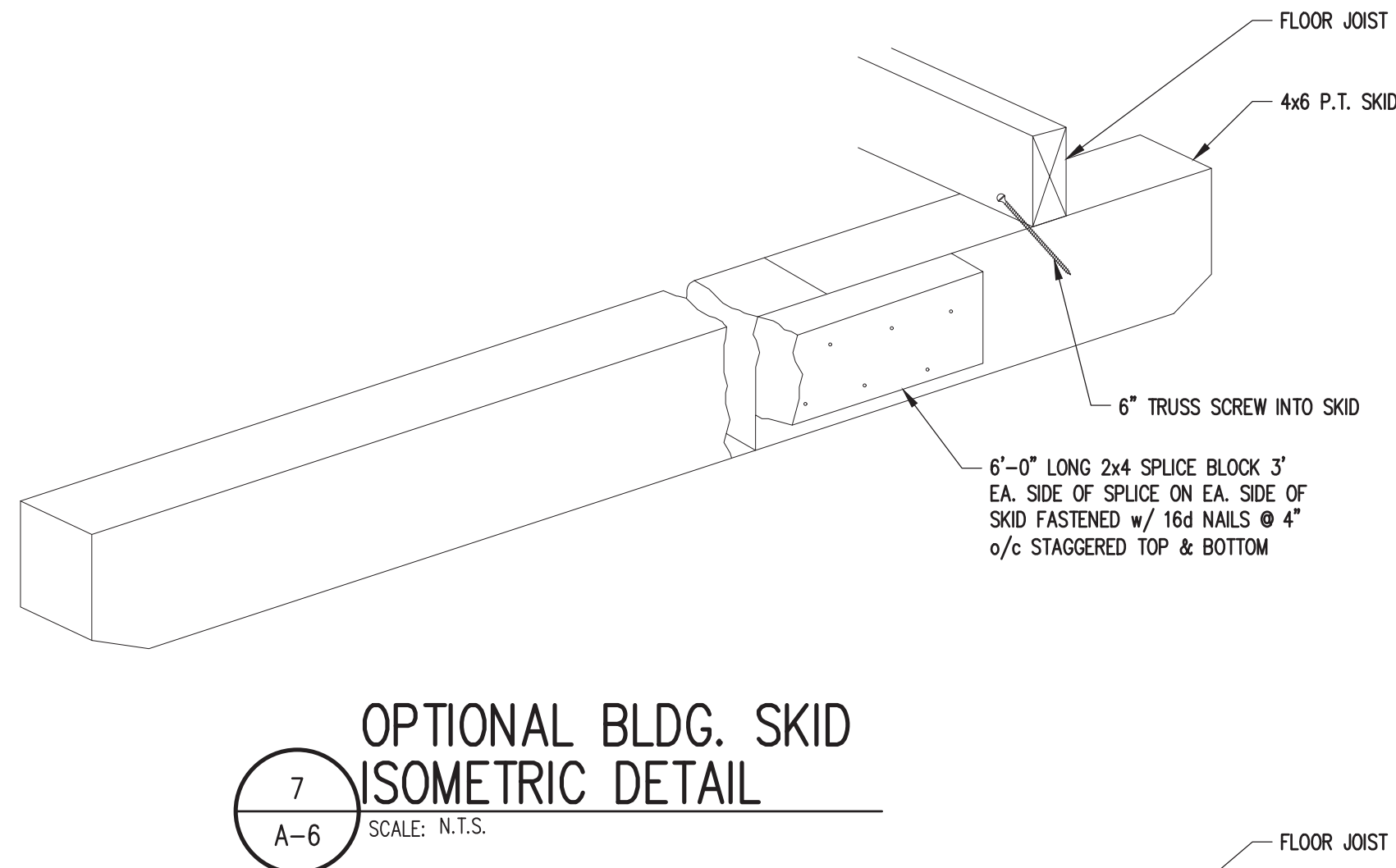
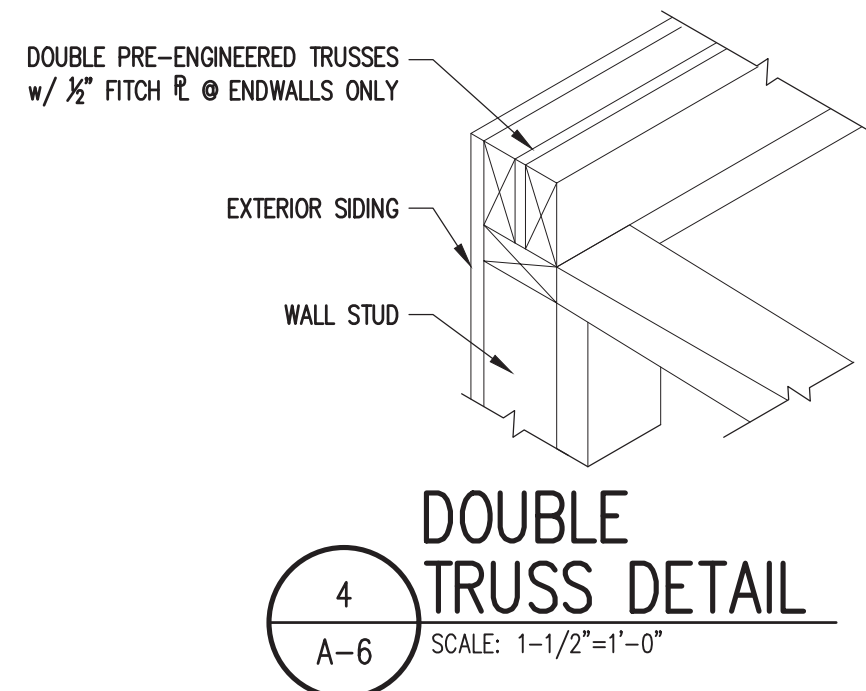
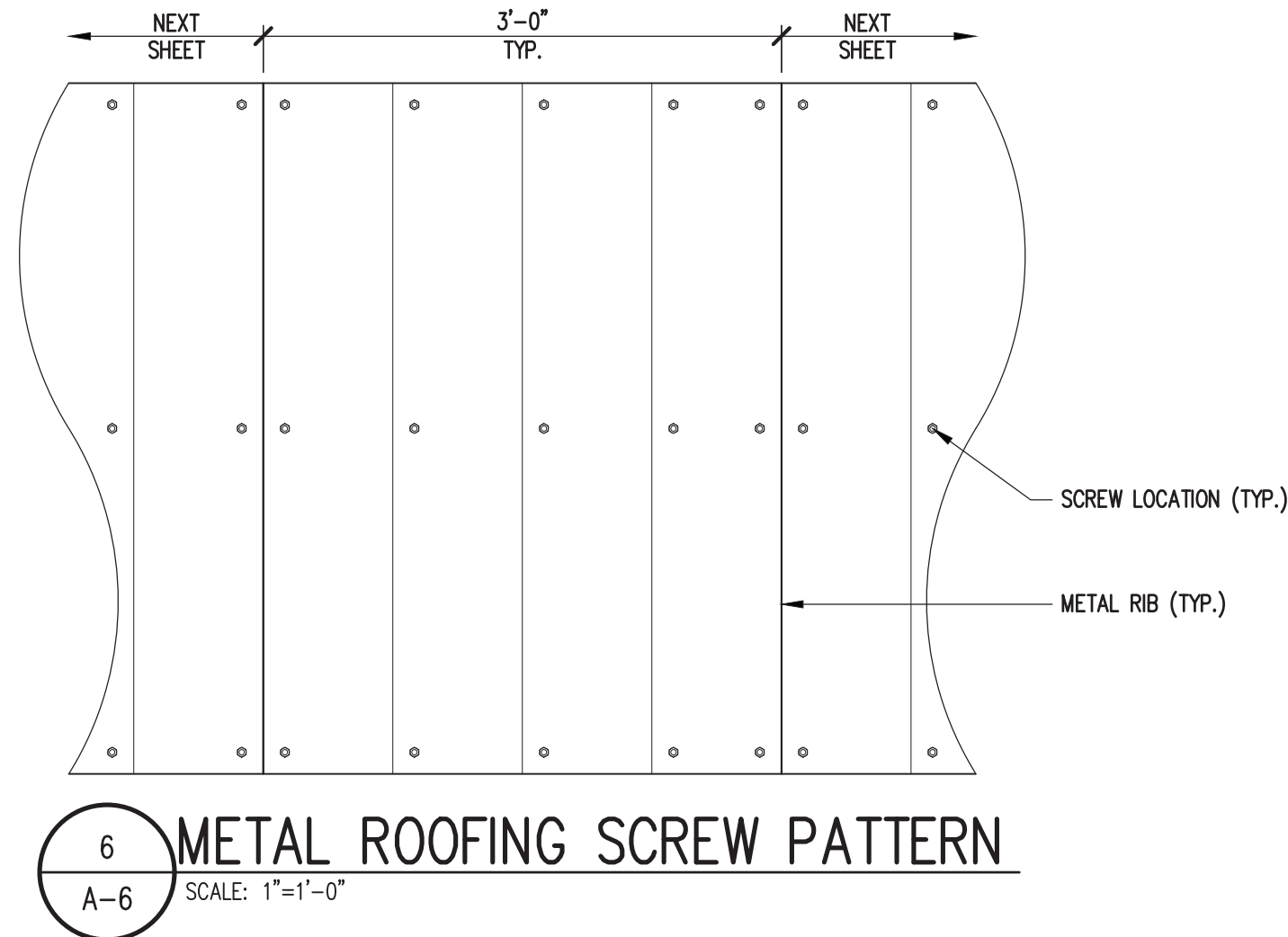
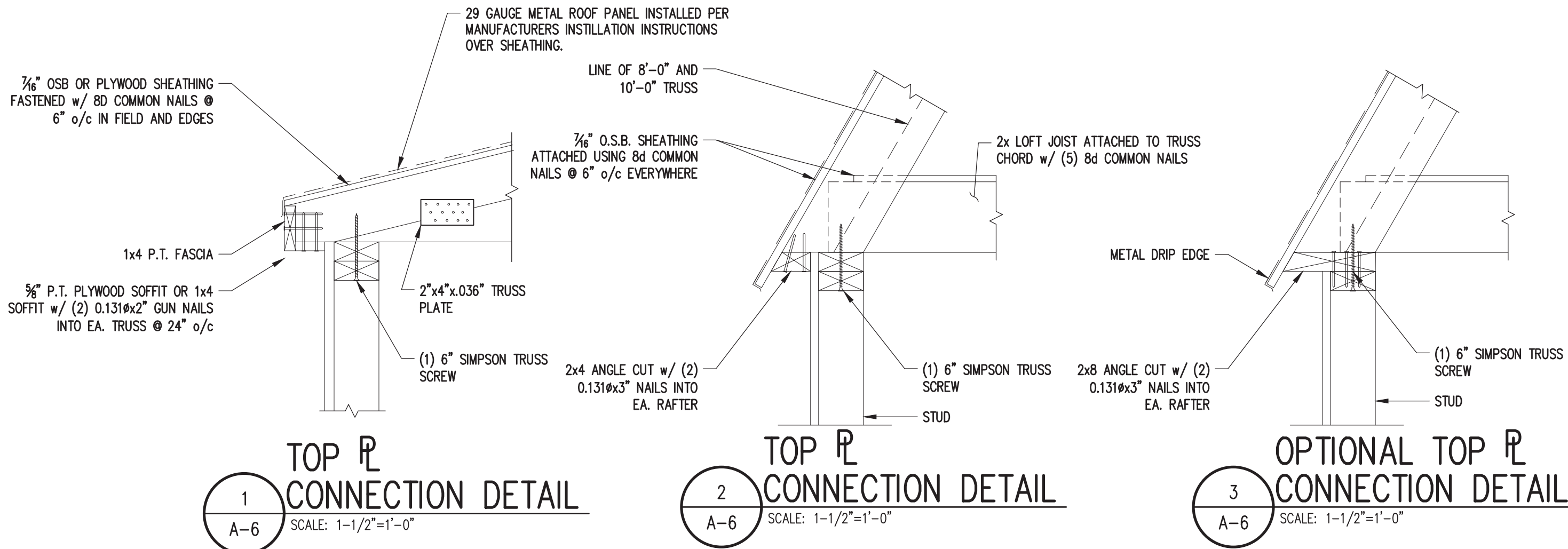


ENGINEERING SERVICES PROVIDED FOR:
PREMIER PORTABLE BUILDINGS
317 EAST STATE LINE ROAD
SOUTH FULTON, TN 38257
WWW.PREMIERBUILDINGS.US

REVISION	DESCRIPTION	DATE	BY
1			
2			
3			
4			
5			

DATE: 5.15.25
PROJECT NO.: 19227
DRAWING BY: JH
CHK BY: DVG
DWG NO.: A-5





PROJECT: UTILITY SHED

TYPICAL DETAILS

DON VAN GERVE, P.E.
SPECIALTY STRUCTURAL ENGINEER



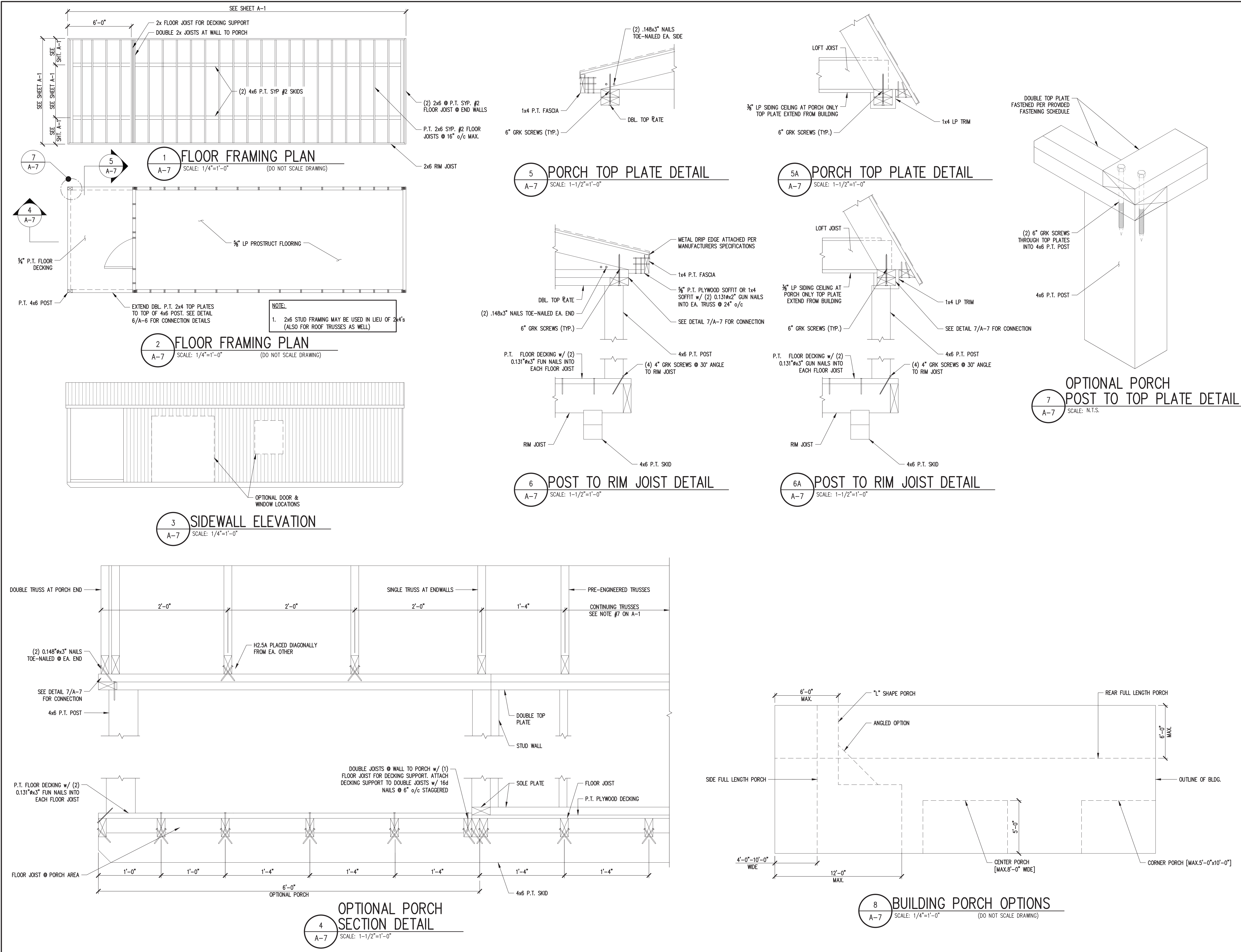
ENGINEERING SERVICES PROVIDED FOR:
PREMIER PORTABLE BUILDINGS
317 EAST STATE LINE ROAD
SOUTH FULTON, TN 38257
WWW.PREMIERBUILDINGS.US

REVISION	DESCRIPTION	DATE	BY
1			
2			
3			
4			
5			

DATE:	5.15.25
PROJECT NO.:	19227
DRAWING BY:	JH
CHK BY:	DVG
DWG NO.:	

A-6



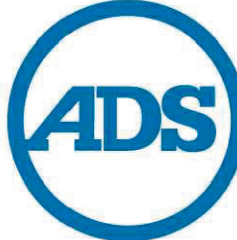


AREA FOR APPROVAL STAMPS

PROJECT: UTILITY SHED

OPTIONAL PORCH PLANS, SECTIONS & DETAILS

DON VAN GERVE, P.E.
SPECIALTY STRUCTURAL ENGINEER


ALTERNATE DESIGN SOLUTIONS
STRUCTURAL ENGINEERING DESIGN & CONSTRUCTION SERVICES
PHONE: 215.355.4684
WWW.ALTERNATEDESIGNSOLUTIONS.COM

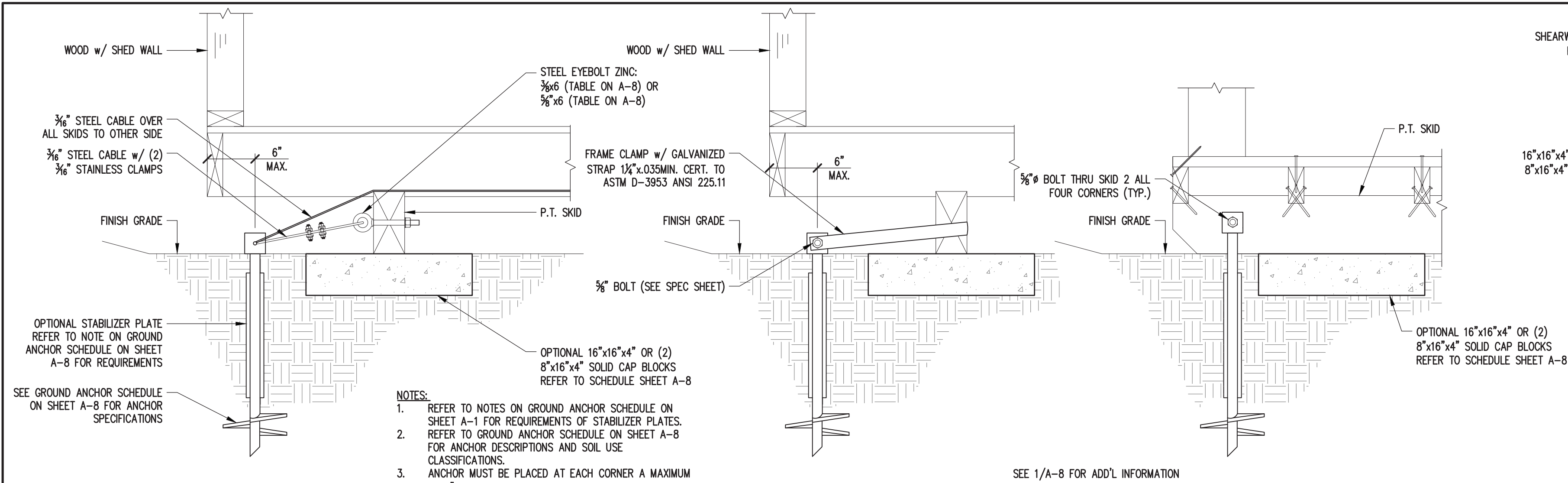
ENGINEERING SERVICES PROVIDED FOR:
PREMIER PORTABLE BUILDINGS
317 EAST STATE LINE ROAD
SOUTH FULTON, TN 38257
WWW.PREMIERBUILDINGS.US

REVISION	DESCRIPTION	DATE	BY
1			
2			
3			
4			

DATE: 5.15.25
PROJECT NO.: 19227
DRAWING BY: JH
CHK BY: DVG
DWG NO.: A-7

9 of 12





1 HELIX ANCHOR DETAIL
SCALE: 1-1/2"=1'-0"

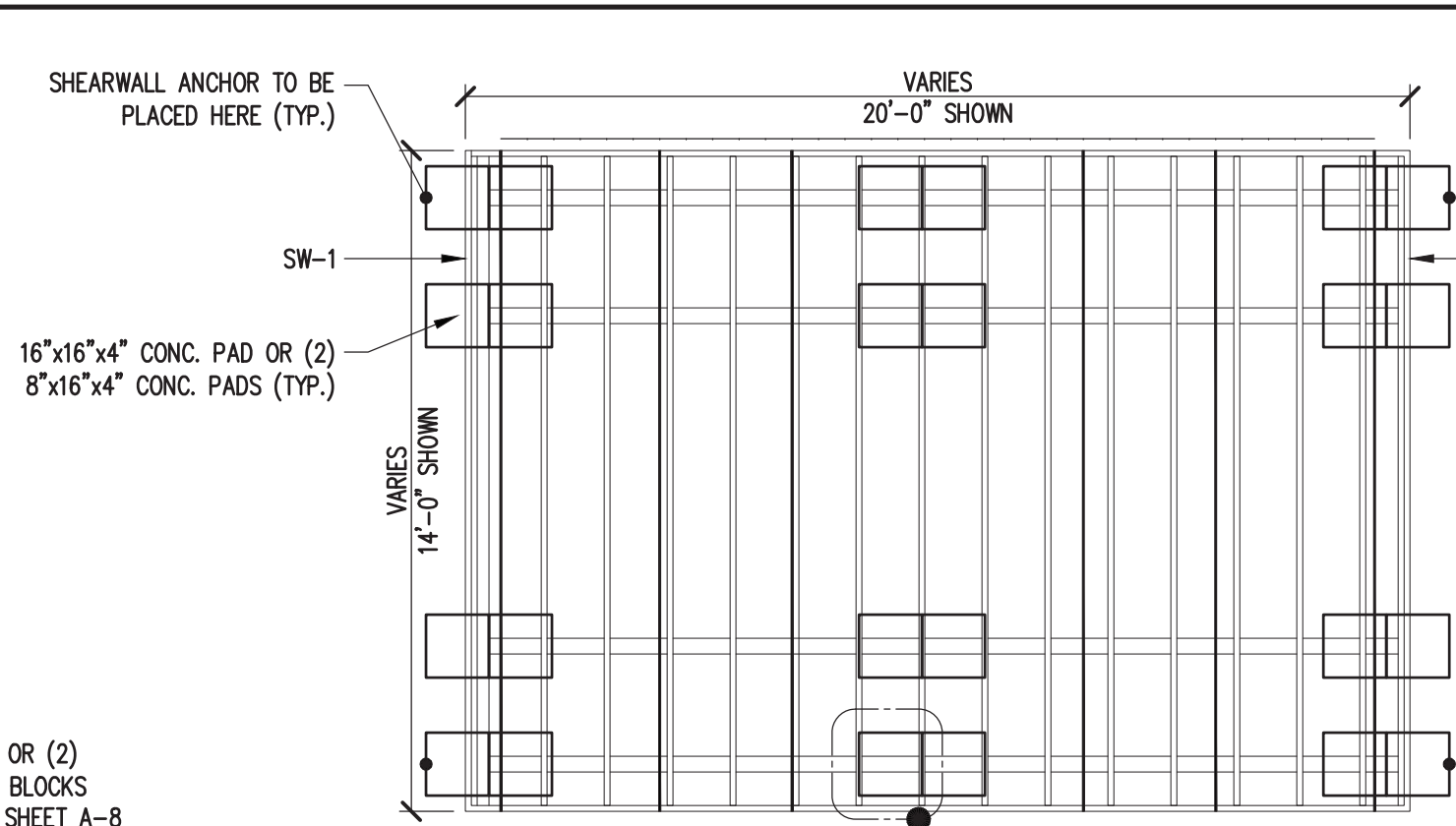
2 OPTIONAL ANCHOR DETAIL
SCALE: 1-1/2"=1'-0"

3 ANCHOR DETAIL
SCALE: 1-1/2"=1'-0"

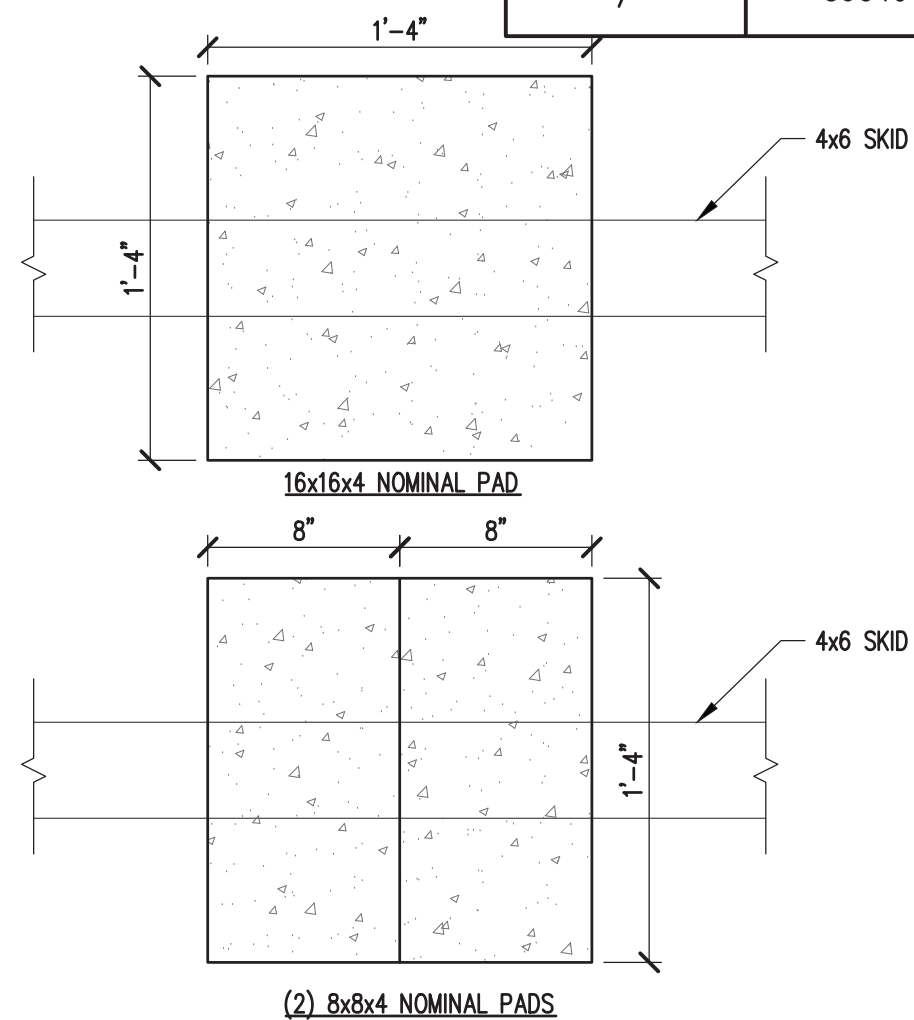
OPTIONAL PAD SCHEDULE FOR ALL WIND SPEEDS AND EXPOSURES																			
BUILDING WIDTH	NUMBER OF PADS BY LENGTH UNDER EACH SKID																		
	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"	26'-0"	28'-0"	30'-0"	32'-0"	34'-0"	36'-0"	38'-0"	40'-0"	50'-0"	60'-0"	
8'-0"	3	3	3	3	3	4	4	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10'-0"	3	3	3	4	4	4	4	5	5	5	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
11'-2"	2	2	3	3	3	3	3	3	3	4	4	4	N/A	N/A	N/A	N/A	N/A	N/A	
12'-0"	2	2	3	3	3	3	3	3	4	4	4	4	4	4	N/A	N/A	N/A	N/A	
14'-0"	2	3	3	3	3	3	3	4	4	4	4	4	4	5	5	5	6	7	
16'-0"	2	3	3	3	3	3	3	4	4	4	4	4	5	5	5	5	6	7	

ANCHORING FOR 170 M.P.H. WIND SPEED, EXPOSURE "C" – 3/8" ANCHOR BOLT																			
BUILDING WIDTH	MAX. SPACING OVERTURN	NUMBER OF ANCHORS EACH SIDE WALL																	
		10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"	26'-0"	28'-0"	30'-0"	32'-0"	34'-0"	36'-0"	38'-0"	40'-0"	50'-0"	60'-0"
8'-0"	3.15	5	5	6	7	7	8	8	9	10	10	11	12	12	13	14	14	17	20
10'-0"	3	5	6	6	7	8	8	9	10	10	11	12	12	13	14	14	15	17	20
11'-2"	3.98	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	16	19
12'-0"	4.01	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	15	18
14'-0"	4.10	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	14	16
16'-0"	4.18	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	14	16

ANCHORING FOR 170 M.P.H. WIND SPEED, EXPOSURE "C" – 5/8" ANCHOR BOLT																			
BUILDING WIDTH	MAX. SPACING OVERTURN	NUMBER OF ANCHORS EACH SIDE WALL																	
		10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"	26'-0"	28'-0"	30'-0"	32'-0"	34'-0"	36'-0"	38'-0"	40'-0"	50'-0"	60'-0"
8'-0"	4.61	4	4	5	5	5	6	6	7	7	8	8	8	9	9	10	10	12	14
10'-0"	4.30	4	4	5	5	6	6	7	7	8	8	8	9	9	10	10	11	12	14
11'-2"	5.84	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8	11	13
12'-0"	5.88	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8	11	13
14'-0"	6.01	3	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	11	13
16'-0"	6.13	3	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	1	13



4 FLOOR FRAMING PLAN
SCALE: 1/4"=1'-0" (DO NOT SCALE DRAWING)



5 PAD DETAILS
SCALE: 1-1/2"=1'-0"

GENERAL NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DETAIL AND DIMENSIONS. ANY DISCREPANCIES BETWEEN SUCH DETAILS AND DIMENSIONS SHALL BE REPORTED TO THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION PROCEDURE AND SEQUENCE TO INSURE THE INTEGRITY OF THE BUILDING AND ITS COMPONENT PARTS DURING CONSTRUCTION.
- THESE PLANS HAVE BEEN PREPARED PER REGULATIONS OF THE 2018 VCC IRC CODE. THE WORK OF ALL CONTRACTORS SHALL COMPLY WITH THE REQUIREMENTS SET FORTH IN THE AFOREMENTIONED CODE. NO DEVIATIONS FROM THE WORK SHOWN OR REASONABLY IMPLIED SHALL BE UNDERTAKEN WITHOUT THE ENGINEERS WRITTEN CONSENT – A COPY OF WHICH WILL BE FILED WITH THE CONSTRUCTION OFFICIAL.
- ANY CHANGES TO OR DEVIATIONS FROM THESE DRAWINGS SHALL NOT BE MADE WITHOUT WRITTEN CONSENT FROM THE ENGINEER.
- THESE DRAWINGS ARE THE PROPERTY OF THE ENGINEER AND SHALL NOT BE USED WITHOUT HIS CONSENT. DRAWINGS SHALL NOT BE USED FOR ISSUE OF BUILDING PERMIT UNLESS SIGNED AND SEALED BY THE ENGINEER.
- THE OWNER AND CONTRACTOR SHALL HOLD HARMLESS THE ENGINEER FROM AND AGAINST ALL LIABILITY CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING LEGAL FEES ARISING OUT OF OR RESULTING FROM ERRORS OR OMISSIONS IN THE PERFORMANCE OF THE WORK BY THE CONTRACTOR. ALL WORK AND MATERIAL SHALL MEET THE REQUIREMENTS OF ALL LOCAL AND STATE BUILDING CODES. THE DRAWING SHOW THE GENERAL ARRANGEMENTS AND EXTENT OF THE WORK. AS THE WORK PROGRESSES, THE OWNER AND THE CONTRACTOR, AT NO EXTRA COSTS, SHALL MAKE MODIFICATIONS TO MAKE THE PARTS ALIGN.
- CONTRACTORS SHALL CHECK AND VERIFY ALL PLAN DIMENSIONS AND CONDITIONS BEFORE PROCEEDING CONSTRUCTION. HE SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER FOR CORRECTION PRIOR TO BEGINNING ANY WORK. THE DISCOVERY OF DISCREPANCIES AFTER THE BEGINNING OF WORK WILL BE EVIDENCE OF FAULTY WORK AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DO NOT SCALE DRAWINGS. ALL WRITTEN DIMENSIONS GOVERN.
- THE CONTRACTOR FOR THIS PROJECT SHALL INCLUDE ALL MATERIALS AND LABOR REQUIRED TO COMPLETE THE TOTAL PROJECT. THE CONTRACTOR SHALL FURNISH AND PAY FOR ALL MATERIALS, TOOLS, EQUIPMENT, LABOR, MACHINERY, TRANSPORTATION, HEAT, WATER, UTILITIES, AND ALL OTHER FACILITIES AND SERVICES REQUIRED FOR THE SAFE AND PROPER EXECUTION AND COMPLETION OF THE WORK. THE ENGINEER SHALL BE THE INTERPRETER OF THE CONTRACT DOCUMENTS.
- THE DOCUMENTS SHOWN AN OVERVIEW OF THE WORK REQUIRED UNDER THIS CONTRACT AND RELATED REQUIREMENTS AND CONDITIONS THAT WILL IMPACT THE PROJECT. ALL DRAWINGS ARE COMPLEMENTARY. THE DRAWINGS GENERALLY SHOW THE INTENT OF THE OVERALL COMPLEXITY AND CONCEPTS OF THE PROJECT, AND DO NOT NECESSARILY SHOW ALL DETAILS AND CONDITIONS.
- ALL NEW INTERIOR CONCRETE SLABS AND FOUNDATION WALLS AND FOOTING SHALL HAVE SOLID POISONING UNDER NEW WORK AND SHALL BE INSTALLED BY A LICENSED CONTRACTOR. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE AND DEPARTMENT OF AGRICULTURE, STRUCTURAL PEST CONTROL DIVISION REGULATIONS, RULES, DEFINITIONS AND REQUIREMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND MAINTAINING ALL EXISTING SETBACKS, EASEMENTS, AND ANY DEED RESTRICTIONS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL CLEANUP AND SHALL INCLUDE THE SITE, AND THE BUILDING. THE ENTIRE PROJECT SHALL BE LEFT IN A NEW, CLEAN CONDITION.

GROUND ANCHOR SCHEDULE			
MODEL #	PART #	DESCRIPTION	SOIL CLASS
M12H5/8	59080 / 59081	48" x 5/8" ROD w/ (1) 6" HELIX	4A
M12H3/4	59085 / 59094	48" x 3/4" ROD w/ (1) 6" HELIX	4A
M1423/4	59128	42" x 3/4" ROD w/ (2) 4" HELIX	4A
M1483/4	59086	48" x 3/4" ROD w/ (2) 4" HELIX	4A
M12H64	59250	36" x 3/4" ROD w/ (1) 4" HELIX & (1) 6" HELIX	4A
N/A	59065	EYE ANCHOR – 48" X 5/8" w/ (1) 6" HELIX	4A
N/A	59045	EYE ANCHOR – 48" X 3/4" w/ (1) 6" HELIX	4A
M607	59099	60" X 3/4" w/ (1) 7" HELIX	4B
N/A	59040	EYE ANCHOR 60" X 3/4" w/ (1) 8" HELIX	4B

PROJECT:

UTILITY SHED

FASTENING SCHEDULE / WIND LOADING


DON VAN GERVE, P.E.
SPECIALTY STRUCTURAL ENGINEER



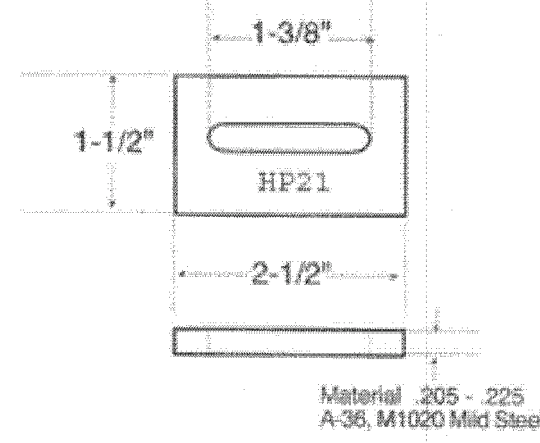
ALTERNATE DESIGN SOLUTIONS
STRUCTURAL ENGINEERING DESIGN & CONSTRUCTION SERVICES
PHONE: 215.355.4684
WWW.ALTERNATEDESIGNSOLUTIONS.COM

ENGINEERING SERVICES PROVIDED FOR:
PREMIER PORTABLE BUILDINGS
317 EAST STATE LINE ROAD
SOUTH FULTON, TN 38257
WWW.PREMIERBUILDINGS.US

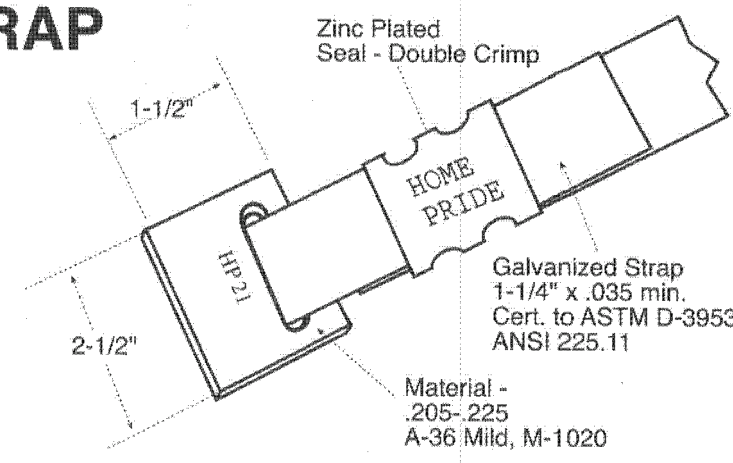
REVISION	DESCRIPTION	DATE	BY
1			
2			
3			
4			

DATE:	5.15.25	
PROJECT NO.:	19227	
DRAWING BY:	JH	
CHK BY:	DVG	
DWG NO.:	A-8	
10 of 12		

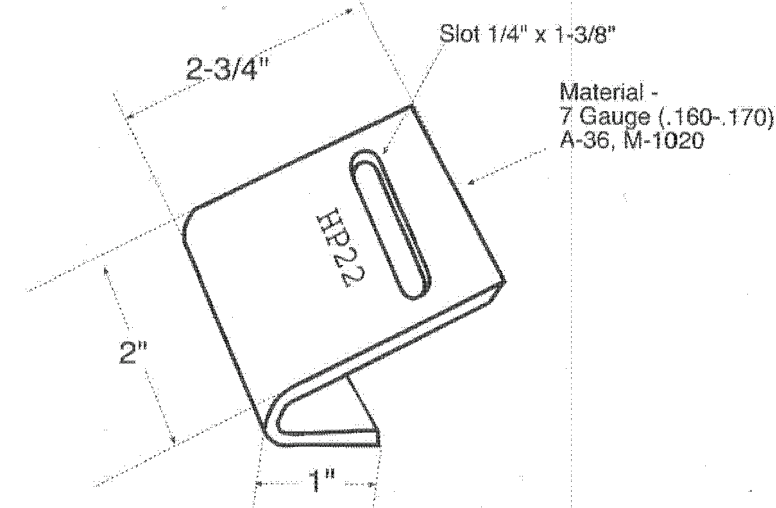
HP21
SINGLE SLOT
BUCKLE



HP21-(6 thru 15)
(HP21-6', HP21-7', HP21-8', HP21-10', HP21-12', HP21-15')
SINGLE BUCKLE
W/STRAP

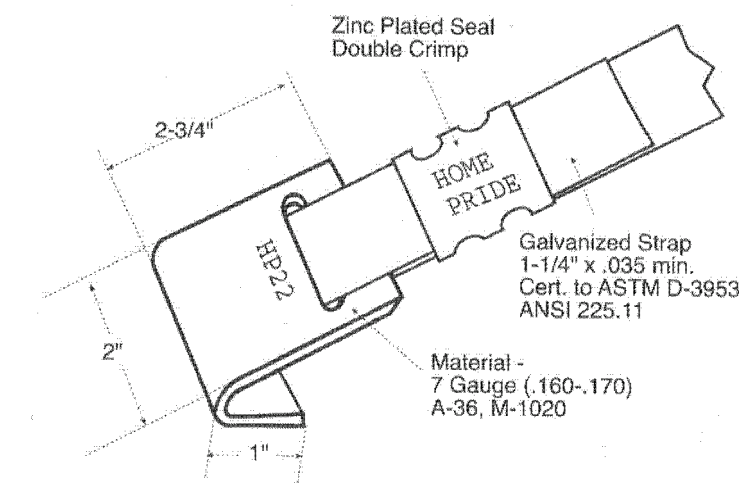


HP22
FRAME
CLAMP

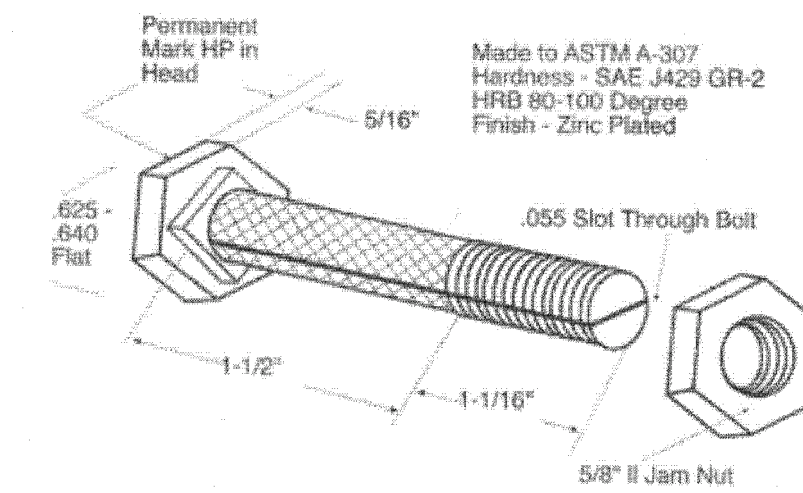


8

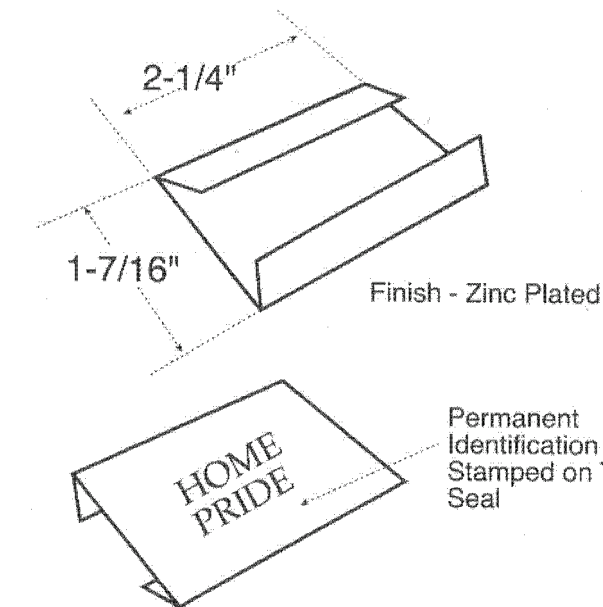
HP22-(6 thru 15)
(HP22-6', HP22-7', HP22-8',
HP22-10', HP22-12', HP22-15')
FRAME CLAMP
W/STRAP



HPAB
ANCHOR
BOLT & NUT



HPSS
STRAP SEAL



INSTALLATION INSTRUCTIONS:
When using seals to extend the strap:
1. Overlap a minimum of 8".
2. Use two seals placed together.
3. Crimp each seal twice.

9

AREA FOR APPROVAL STAMPS

PROJECT:

UTILITY SHED

PRODUCT CUT SHEETS

DON VAN GERVE, P.E.
SPECIALTY STRUCTURAL ENGINEER

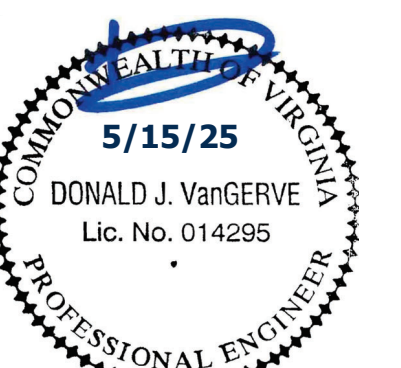


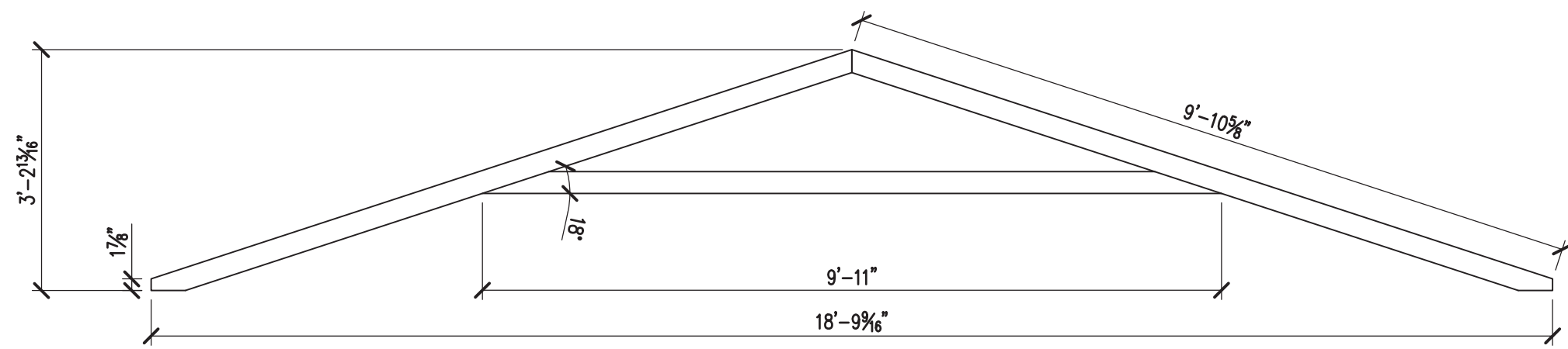
ALTERNATE DESIGN SOLUTIONS
STRUCTURAL ENGINEERING DESIGN & CONSTRUCTION SERVICES
PHONE: 215.355.4684
WWW.ALTERNATEDESIGNSOLUTIONS.COM

ENGINEERING SERVICES PROVIDED FOR:
PREMIER PORTABLE BUILDINGS
317 EAST STATE LINE ROAD
SOUTH FULTON, TN 38257
WWW.PREMIERBUILDINGS.US

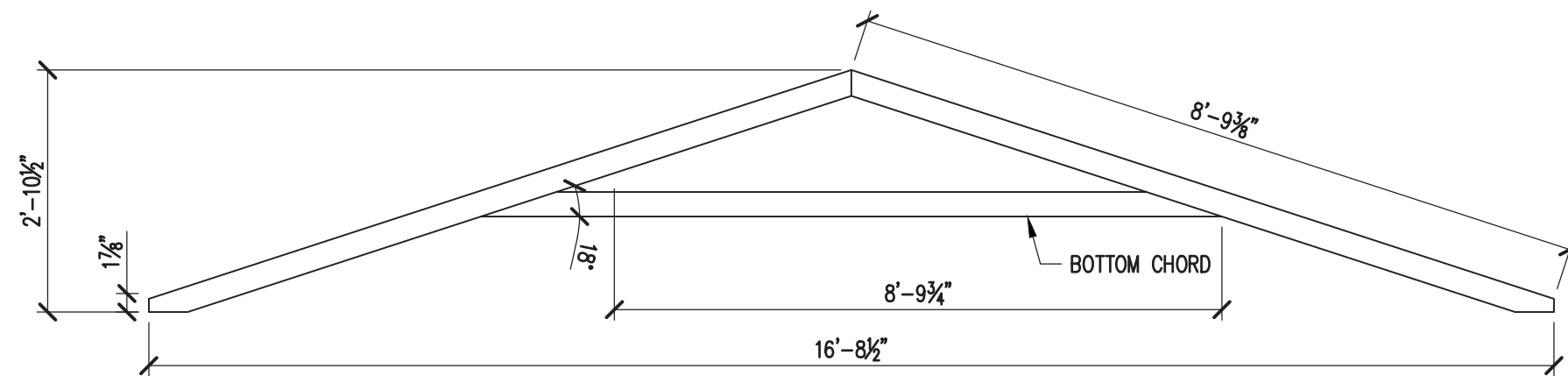
REVISION	DESCRIPTION	DATE	BY
1			
2			
3			
4			
5			

DATE:	5.15.25
PROJECT NO.:	19227
DRAWING BY:	JH
CHK BY:	DVG
DWG NO.:	A-9

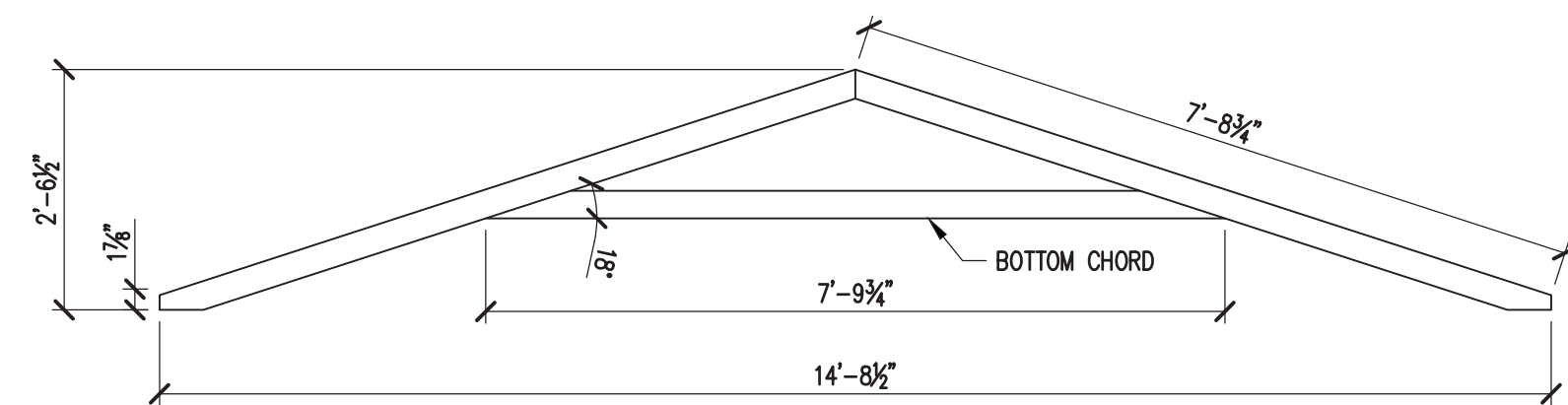




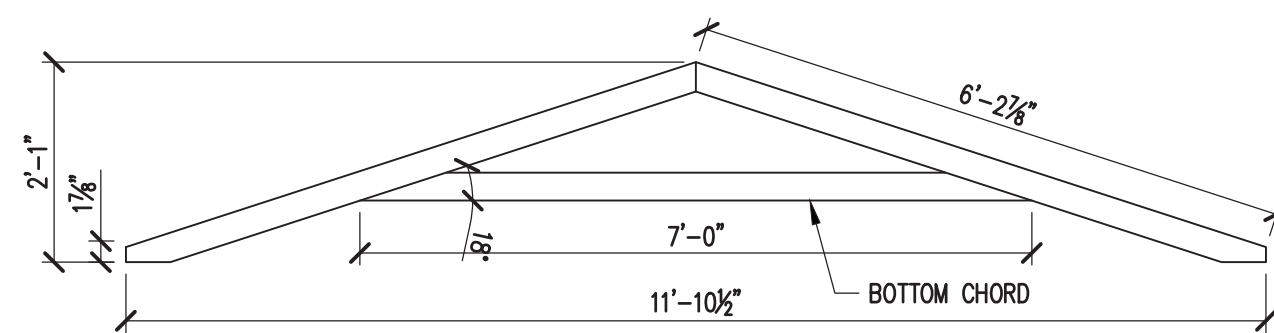
18' UTILITY TRUSS



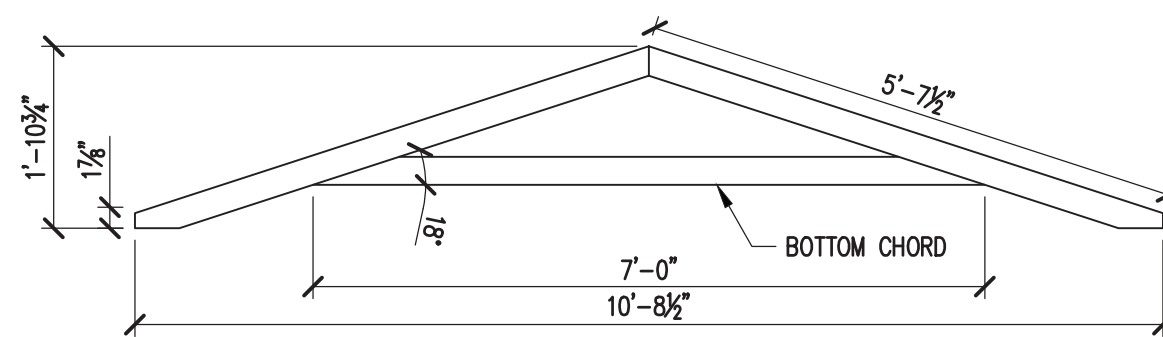
16' UTILITY TRUSS



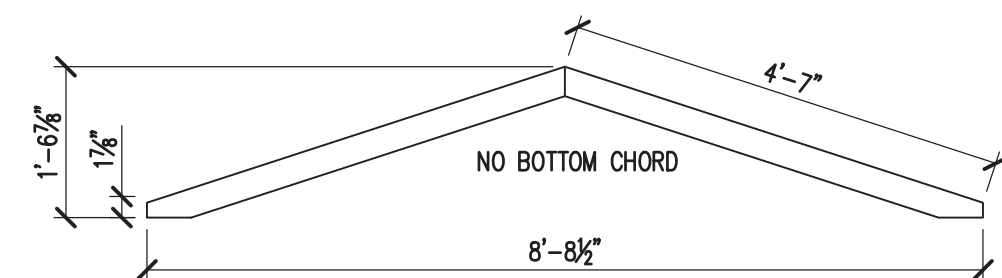
14' UTILITY TRUSS



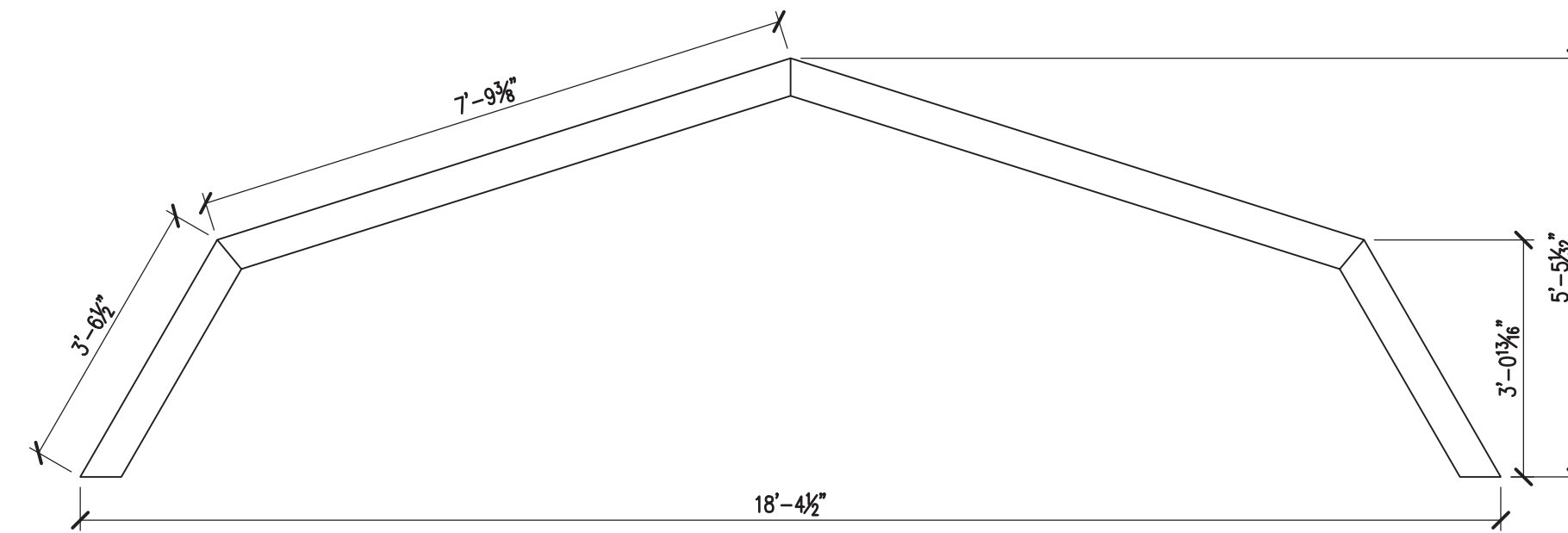
12' UTILITY TRUSS



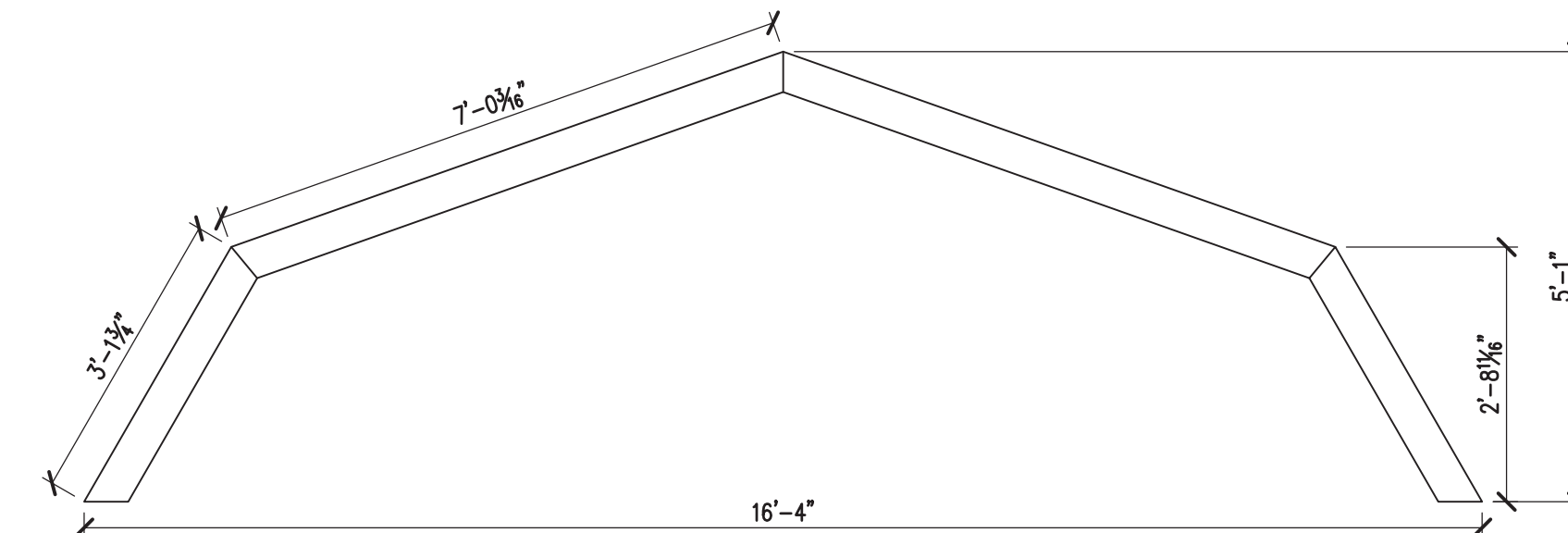
10' UTILITY TRUSS



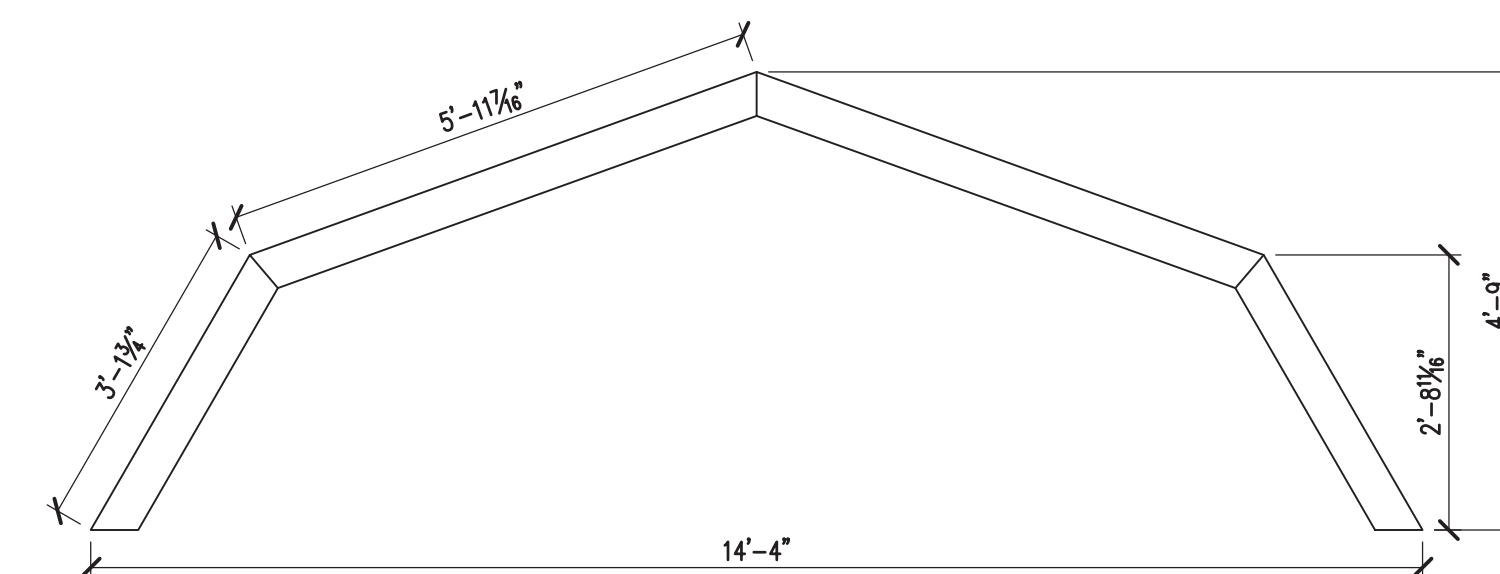
8' UTILITY TRUSS



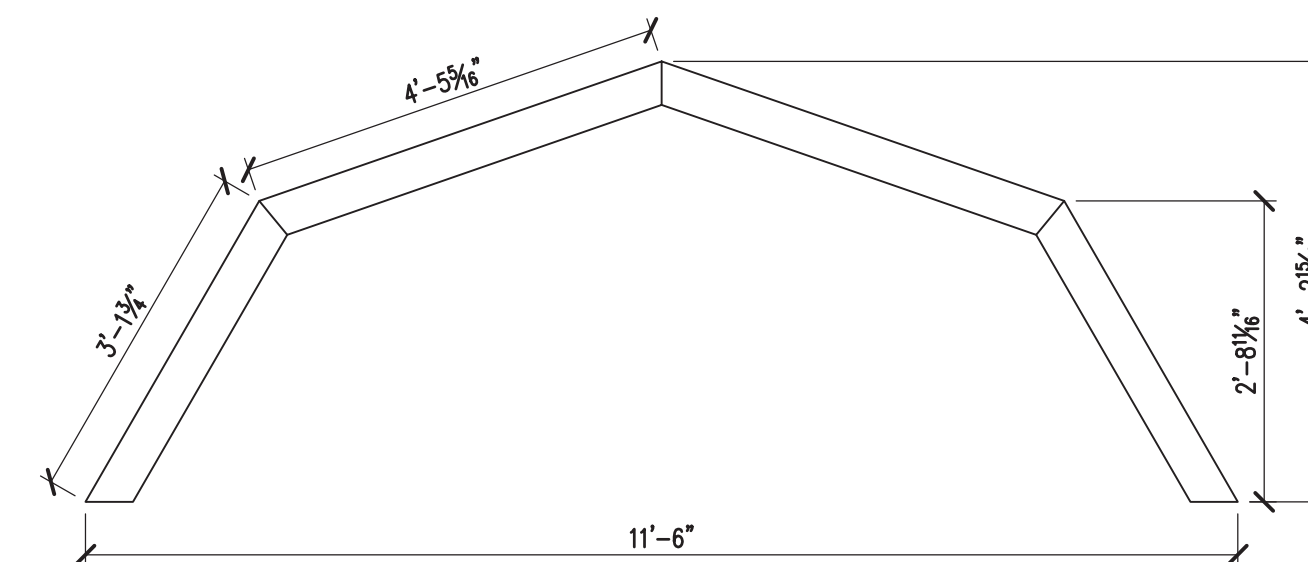
18' LOFTED TRUSS



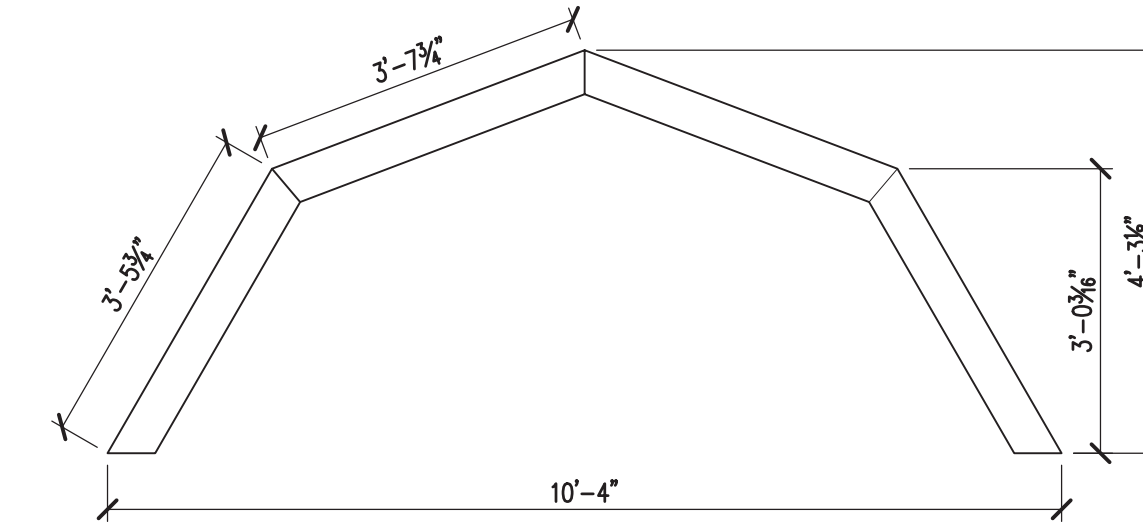
16' LOFTED TRUSS



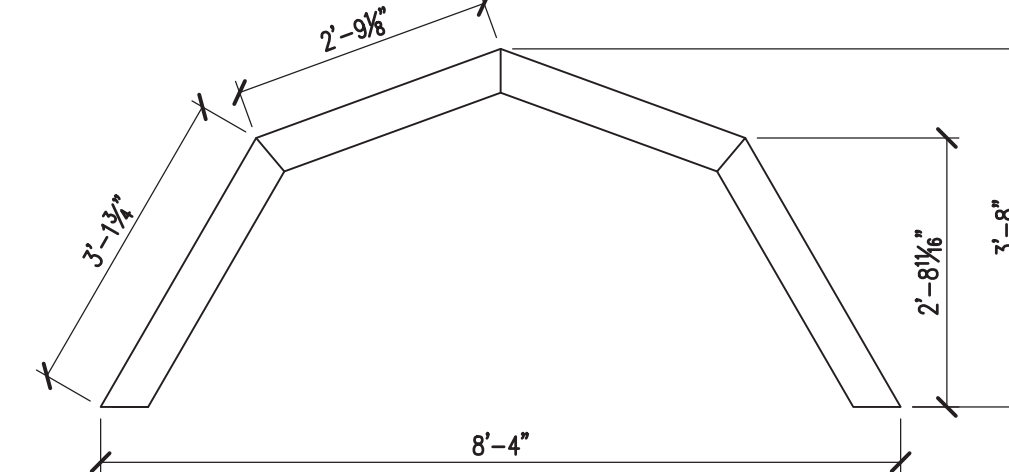
14' LOFTED TRUSS



12' LOFTED TRUSS



10' LOFTED TRUSS



8' LOFTED TRUSS

TRUSS DESIGN: LRFD V=180mph
ASCE 7-22 83 psf uplift x 0.85(Kd) x 0.85(Kh expC) = 60 psf uplift.
add internal pressure 18% = 71 psf design (LRFD)
Utility: Lmax=5.25 ft. 2x4@24"; w=142 plf
M=wL^2/8x12=5871 in-lbs; s=3.06in^3; fb=1919psi
Fb(LRFD)=3000 psi - this value is met by lumber.

Lofted: Lmax=7.01 ft; 16' truss@16" o/c; w= 95 plf;
M=7002 in-lbs; fb= 2288 psi < 3000 psi LRFD

Wall Calculations: 5/8" LP nailed 6" edges, 10" interior, 2x4x7ft@16"o/c;
Pressure= 58.1 psfExternal= 10.5 psfInternal Total p= 68.6 psf
I=18.74 in^4 per 16" o/c; S=6.03 in^3.

M=68.6(1.33)(7^2)/8 x(12) = 6657.1 in-lbs;
fb= 1104 psi < 3000 psi LRFD OK

AREA FOR APPROVAL STAMPS

PROJECT:

UTILITY SHED

PRODUCT CUT SHEETS

DON VAN GERVE, P.E.
SPECIALTY STRUCTURAL ENGINEER



ENGINEERING SERVICES PROVIDED FOR:
PREMIER PORTABLE BUILDINGS
317 EAST STATE LINE ROAD
SOUTH FULTON, TN 38257
WWW.PREMIERBUILDINGS.US

REVISION	DESCRIPTION	DATE	BY
1			
2			
3			
4			
5			

DATE: 5.15.25
PROJECT NO.: 19227
DRAWING BY: JH
CHK BY: DVG

DWG NO.:

A-10

