

FLORIDA DEPARTMENT OF
Business & Professional Regulation



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Manufactured (Modular) Buildings

USER: Todd Gunter, Leonard Aluminum Utility Buildings, LLC, Modular Unit Manufacturer

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OFFICE OF THE
SECRETARY

Thank you Todd Gunter, your application fee has been accepted. Please print this receipt for your records.

You have been successfully registered as

Login Leonard1
Name Todd Gunter
Primary Phone (336) 789-5018
Email bmatthews@leonardusa.com

FBC Organization Number MFT14344
Business/Firm Name Leonard Aluminum Utility Buildings, LLC
Business Location Address 630 W. Independence Blvd
Suite 3
City Mount Airy
State North Carolina
Zip Code 27030
Administrator Name Todd Gunter
Administrator Phone (336) 789-5018

Payment Number	138222
Sub Total	\$600.00
Convenience Fee	\$2.00
Payment Total	\$602.00

[Finish](#)

[Contact Us](#) :: [2601 Blair Stone Road, Tallahassee FL 32399](#) Phone: 850-487-1824

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Manufactured (Modular) Buildings Accepts:



January 27, 2023

Mr. Thomas Campbell
Florida Department of Business and Professional Regulation
2601 Blair Stone Road, Building C
Tallahassee, Florida 32399-6563

RE: Plan Approval
Leonard Aluminum Utility Buildings, LLC (Valdosta, Georgia Plant)
Garden-V-20

Dear Mr. Campbell,

Pursuant to the requirements of the Department of Business & Professional Regulation, the above referenced documents have been reviewed for compliance with:

2020 Florida Building Code, 7th Edition, with 2021 supplements
2017 National Electrical Code (NFPA-70)
Florida Product Approval Rule 61G20-3.006 (FAC)

All mandatory comments have been satisfied and plans are approved for construction by a currently approved modular building manufacturer.

These documents were reviewed for only what is to be constructed in the factory. Any work performed at the site, such as the foundation, is under the authority and jurisdiction of the local Building Official.

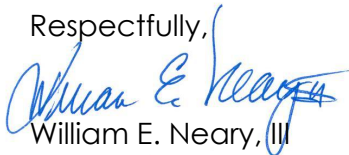
Third Party Agency approval in no way alleviates the builder/manufacturer from complying with all the applicable codes, which may or may not be identified in this review. Approval also does not preclude the local building official from requiring work be performed that was not previously reviewed, approved, and constructed under the State of Florida's Manufactured (Modular) Building Program to make the building, code compliant, for the intended use.

A signed and sealed set of plans are maintained on file with Top Line Engineering, LLC.

If you require my assistance in any way, please do not hesitate to contact me.

Thank you.

Respectfully,



William E. Neary, III
Plans Examiner
SMI-79, SMP-51, ICC 5185040
Business Partner
Top Line Engineering, LLC
BILL.TLE@yahoo.com

***** Please note: Any questions regarding local permitting should be directed to the Manufacturer. The Manufacturer's contact information can be found in the title block of the plans.**

LEONARD BUILDINGS

100 DOUGLAS ST., VALDOSTA, GA 31601

STANDARD GARDEN SHED

STATE OF FLORIDA

NOT APPROVED FOR HVHZ

Design Criteria

BUILDING CODE	ASCE 7-16, FBC 2020 (7th ed.) W/2021 SUPP
ELECTRICAL CODE	2014 NEC, NFPA70
BUILDING TYPE	RESIDENTIAL LAWN STORAGE SHED
MANUFACTURER	LEONARD BUILDINGS
AGENCY	TOP LINE ENGINEERING, LLC
AGENCY PLAN NUMBER	GARDEN
CONSTRUCTION TYPE	V-B
FIRE PROTECTION	B
FIRE SUPPRESSION SYSTEM	NO
OCCUPANCY	U - UTILITY
NUMBER OF OCCUPANTS	0
ALLOWABLE # OF STORIES	1
WIND INFORMATION	160 MPH ULTIMATE, $V_{ASD} = 124$ MPH, EXPOSURE C, CATEGORY I; ENCLOSED; +/- 0.18 INTERNAL PRESSURE COEFFICIENT; 15' HEIGHT
FLOOR LIVE LOAD	40.0 PSF
FLOOR DEAD LOAD	4.0 PSF
ROOF LIVE LOAD	20.0 PSF
ROOF DEAD LOAD	7.0 PSF
WALL DEAD LOAD	3.0 PSF
UNINHABITED LOFT LIVE LOAD	0.0 PSF
GROUND SNOW LOAD	20.0 PSF
FIRE RATING OF EXTERIOR WALLS	0
"R" RATING OF FLOOR, WALL, AND ROOF	R-0, R-0, R-0
MODULES PER BUILDING	1
SQUARE FOOTAGE	LESS THAN 719 SQ. FT.
EXEMPT FROM ENERGY CONSERVATION CODE?	YES
APPROVED FOR HURRICANE PROTECTION USAGE?	NO
DESIGNED FOR HURRICANE PUBLIC SHELTER?	NO

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 JURISDICTION APPROVAL.

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

OCCUPANCY 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.

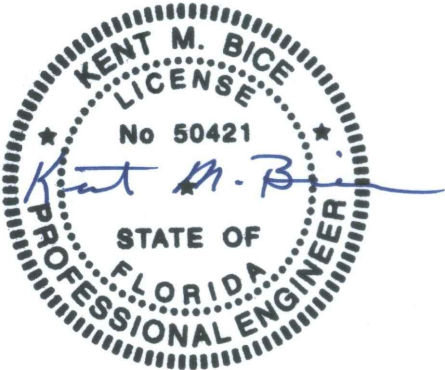
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TLE TOP LINE ENGINEERING, LLC
STRUCTURAL ENGINEERS

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10649 Oakview Pointe Terrace
Gotha, Florida 34734

FL PE Name: Kent M. Bice
FL PE #: 50421
FL COA #: 30468



01/26/23

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1552 6TH ST., WINTER HAVEN, FL 33880
(863)865-6502

COVER SHEET

DATE: 12/08/20 DRAWN BY: RD
SCALE: AS NOTED CHECKED BY: KMB

SHEET:

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2023-01-27 TOP LINE ENGINEERING, LLC APPROVAL

THESE PLANS WERE DESIGNED IN ACCORDANCE WITH THE ASCE 7-16, FBC 2020 (7TH ED.) W/2021 SUPP.

GENERAL NOTES:

- 1. THIS STRUCTURE WAS DESIGNED IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODE (7th Ed.).
- 2. ALL MATERIALS AND LABOR SHALL BE IN ACCORDANCE WITH THE ABOVE CODE AND ALL OTHER APPLICABLE LOCAL CODES AT THE TIME OF MANUFACTURE.
- 3. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- 4. THE FOUNDATION PLAN IS A SEPARATE SET OF PLANS FOR APPROVAL BY LOCAL MUNICIPALITIES.
- 5. EXTERIOR DIMENSIONS CAN VARY BETWEEN LIMITS SHOWN AT 2' O.C. BUT MEMBER SPACING SHALL NOT EXCEED LIMITS AS INDICATED.
- 6. ALL THE FOLLOWING LUMBER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA USE CATEGORY UC4B (GROUND CONTACT, HEAVY DUTY)-SKIDS.
- 7. ALL THE FOLLOWING LUMBER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA USE CATEGORY UC3B (EXTERIOR ABOVE GROUND, UNCOATED OR POOR WATER RUNOFF)-FLOOR JOISTS, PLYWOOD FLOOR DECKING, AND EXTERIOR RATED WOOD STRUCTURAL PANEL SIDING.
- 8. ALL FASTENERS AND CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED (G185) OR STAINLESS STEEL.
- 9. ALL WINDOWS WITHIN 24" OF DOORS, AND ALL GLASS IN DOORS SHALL BE SAFETY, TEMPERED, OR ACRYLIC PLASTIC SHEET.
- 10. 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 1507.2.2 OF THE 2018 IBC OR PER SHINGLE MANUFACTURER INSTRUCTIONS.
- 11. UNDERLAYMENT SHALL CONFORM WITH SECTION 1507.2.3 OF THE 2018 IBC OR PER SHINGLE MANUFACTURER INSTRUCTIONS.
- 12. ASPHALT SHINGLES SHALL CONFORM WITH SECTION 1507.2.5 OF THE 2018 IBC ATTACHMENT OF ASPHALT SHINGLES SHALL CONFORM WITH 1507.2.7 OF THE 2018 IBC.
- 13. FASTENERS FOR ASPHALT SHINGLES SHALL CONFORM TO SECTION 1507.2.6 OF THE 2018 IBC.
- 14. TIE-DOWNS SHALL MEET THE REQUIREMENTS OF ALL APPLICABLE CODES.
- 15. THESE PLANS HAVE NOT BEEN DESIGNED FOR HVHZ REQUIREMENTS AS SET FORTH IN THE 2018 IBC OR FOR USE AS A COMMERCIAL BUILDING.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY AND PLACEMENT OF LAWN STORAGE UNIT TO ENSURE THE INTEGRITY OF THE BUILDING AND ITS COMPONENT PARTS.
- 18. NO FIELD REVISIONS TO ANY STRUCTURAL COMPONENTS OR DEVIATIONS FROM THESE DRAWINGS SHALL BE MADE.
- 19. 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 ERRORS OR OMISSIONS IN THE PERFORMANCE OF THE WORK BY THE CONTRACTOR.
- 20. SECTIONS AND DETAILS ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY AT ALL SIMILAR LOCATIONS, UNLESS OTHER SECTIONS AND DETAILS ARE SPECIFICALLY REFERENCED.
- 21. REFER TO SUPPLIED FASTENING SCHEDULE FOR FASTENING BASED ON CONNECTION AND LOCATION OF MEMBERS AS PER 2018 IBC TABLE 2304.10.1 UNLESS NOTED OTHERWISE.
- 22. BUILDINGS HAVE BEEN DESIGNED FOR LP SMARTSIDE STRAND SUBSTRATE PANEL SIDING, LP SMARTSIDE PRECISION LAP SIDING SHALL BE USED WITH X-STRAPS OR STRUCTURAL SHEATHING AS DETAILED IN THIS PLAN SET
- 23. FASTENERS IN LP SMARTSIDE STRAND SUBSTRATE 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.
- 24. REFER TO THE ICC-ES EVALUATION REPORT ESR-1301 / 3090 FOR ADDITIONAL DATA AND SPECIFICATIONS OF LP SMARTSIDE STRAND SUBSTRATE PANEL / LAP SIDING.
- 25. MAX OPENINGS WIDTHS MUST COMPLY WITH DESIGN RATIOS AS PER ANSI/AF&PA SDPWS-2015. BUILDINGS HAVE BEEN DESIGNED TO HAVE ONLY OPENINGS WITH MAX WIDTHS EQUAL TO THOSE IN THE ENDWALL SHEAR WALL CHART.
- 26. PER SECTION 1609.1.2 OF THE 2018 IBC, 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 2018 IBC.
- 27. BUILDINGS HAVE BEEN DESIGNED TO HAVE ANCHORS DIRECTLY ATTACHED TO ALL FOUR CORNERS OF THE BUILDING TO RESIST TENSION FORCES FROM LATERAL WIND LOADS. THIS DESIGN CONSIDERATION MUST BE MADE BY INSTALLER WHEN ATTACHING ANCHORING SYSTEM TO BUILDING.
- 28. UNLESS NOTED OTHERWISE, ATTACH ALL MANUFACTURED PRODUCTS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
- 29. 2X4 SP #2 PRESSURE TREATED LUMBER SHALL BE SUBSTITUTED FOR 2X4 SPF #2 LUMBER IN WALLS FOR USE IN FLOOD PLAINS.
- 30. PER APA PRODUCT REPORT PR-N124, LP SMARTSIDE STRAND SUBSTRATE SERIES TREATED-ENGINEERED-WOOD PANEL AND LAP SIDING IS PERMITTED ON WALLS FOR USE IN FLOOD PLAINS.
- 31. 19/32" LP PROSTRUCT FLOORING WITH SMARTFINISH IS PERMITTED IN LIEU OF 5/8" APA RATED STRUCTURAL SHEATHING ON FLOOR. INSTALL PER MANUFACTURER INSTRUCTIONS.

TOP LINE ENGINEERING, LLC

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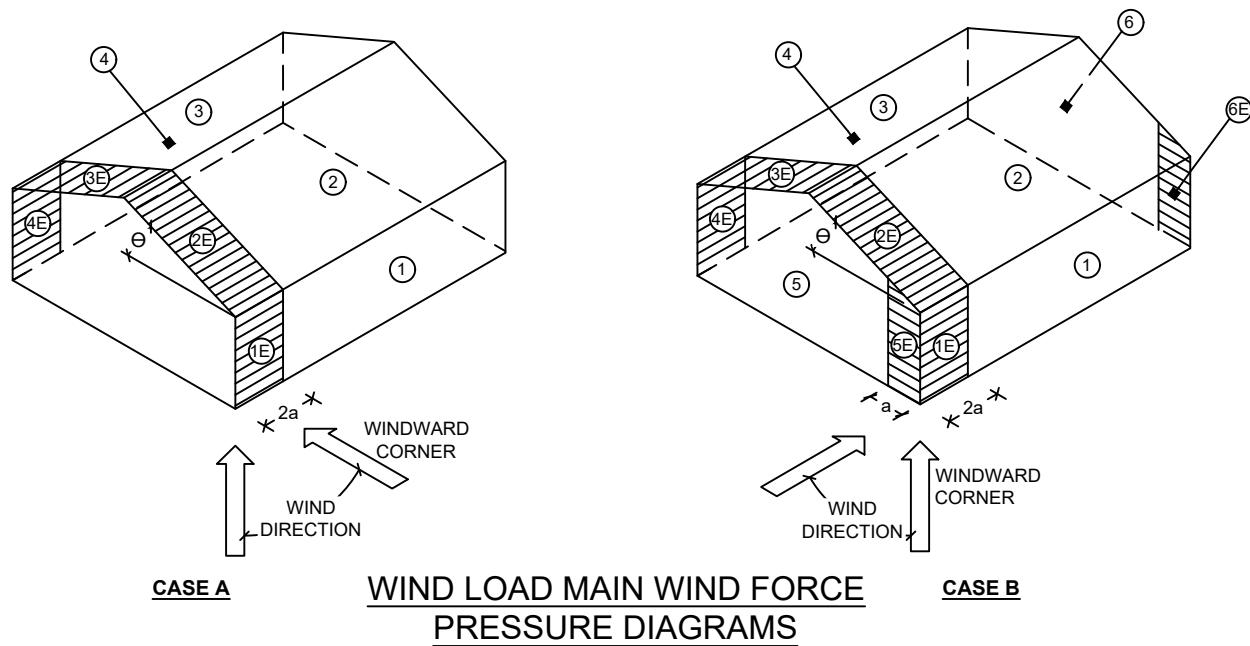
GENERAL NOTES

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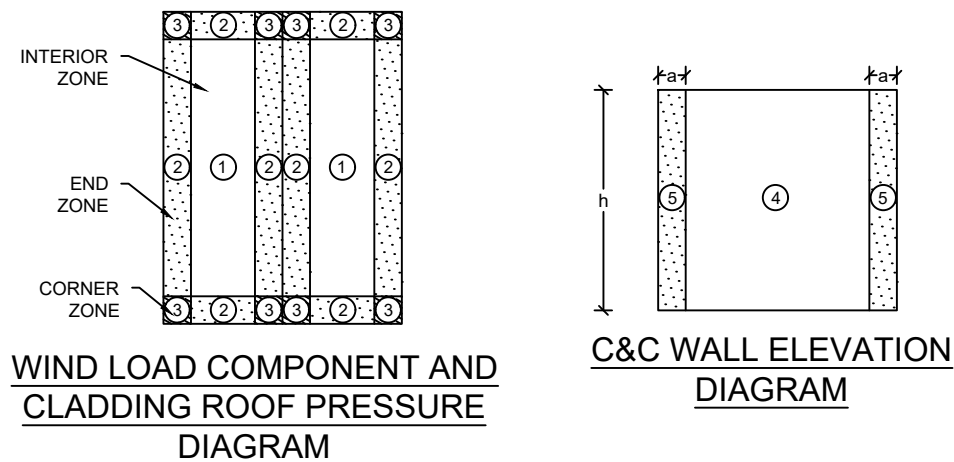
SHEET:

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BUILDING DATA		ASCE 7-16 WIND	
WIND VELOCITY V_{ULT}	160 MPH	INTERNAL PRESSURE COEFFICIENT	± 0.18
WIND VELOCITY V_{ASD}	124	(ENCLOSED BUILDING ASCE 7-16)	
BUILDING CATEGORY	I	HEIGHT & EXPOSURE ADJUSTMENT COEFFICIENT	1.21
		ROOF DEAD LOAD RESISTING UPLIFT (PSF)	7.0
ROOF ANGLE, ° (DEGREES)	15 OR 30 DEGREES	MEAN ROOF HEIGHT	15
WIND EXPOSURE CATEGORY	C		



- NOTES:
1. FOR EFFECTIVE AREAS BETWEEN THOSE GIVEN ABOVE THE LOAD MAY BE INTERPOLATED, OTHERWISE USE THE LOAD ASSOCIATED WITH THE LOWER EFFECTIVE AREA.
 2. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.
 3. PRESSURES SHOWN ARE APPLIED NORMAL TO THE SURFACE.
 4. REFER TO PRESSURE ZONE DIAGRAMS PROVIDED FOR CORRESPONDING ZONES.
 5. ROOF COVERINGS, FINISHES, ETC SHALL BE DESIGNED FOR THE FULL NEGATIVE DESIGN PRESSURE.

DESIGN WIND LOADS - WINDOWS, DOORS, COMPONENTS AND CLADDING

ROOF				WALLS			
ZONE	AREA (FT ²)	DESIGN PRESSURE (PSF)		ZONE	AREA (FT ²)	DESIGN PRESSURE (PSF)	
		POSITIVE	NEGATIVE			POSITIVE	NEGATIVE
1	10	30.8	-56.5	4	10	33.7	-36.5
1	20	27.4	-47.9	4	20	32.2	-35.0
1	50	22.9	-36.5	4	50	29.5	-32.3
1	100	19.4	-28.0	4	100	27.1	-29.9
2	10	30.8	-56.5	5	10	33.7	-45.1
2	20	27.4	-47.9	5	20	32.2	-42.1
2	50	22.9	-36.5	5	50	29.5	-39.2
2	100	19.4	-28	5	100	27.1	-36.3
3	10	30.8	-96.5				
3	20	30.8	-76.3				
3	50	19.4	-47.5				
3	100	19.4	-35.9				

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01/26/23

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WIND LOAD TABLES

DATE: 12/08/20	DRAWN BY: RD
SCALE: AS NOTED	CHECKED BY: KMB

SHEET:
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SHEET 3 OF 15

FASTENING SCHEDULE		
CONNECTION	FASTENING ^{a, k}	LOCATION
1. JOIST TO SILL OR GIRDER	3 - 8d COMMON (2½" X 0.131") 3 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	TOENAIL
2. BRIDGING TO JOIST	2 - 8d COMMON (2½" X 0.131") 2 - 3" X 0.131" NAILS 2 - 3", 14 GAGE STAPLES	TOENAIL EACH END
3. SOLE PLATE TO JOIST OR BLOCKING	16d (3½" X 0.135") AT 12" O.C. 3" X 0.131" NAILS AT 12" O.C. 3", 14 GAGE STAPLES AT 12" O.C.	FACE NAIL
4. SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANEL	3 - 16d (3½" X 0.135") AT 16" O.C. 4 - 3" X 0.131" NAILS AT 16" O.C. 4 - 3", 14 GAGE STAPLES AT 16" O.C.	FACE NAIL
5. TOP PLATE TO STUD	2 - 16d (3½" X 0.162") 3 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	END NAIL
6. STUD TO SOLE PLATE	4 - 8d COMMON (2½" X 0.131") 4 - 3" X 0.131" NAILS 4 - 3", 14 GAGE STAPLES	TOENAIL
	2 - 16d COMMON (3½" X 0.162") 3 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	END NAIL
7. DOUBLE STUDS	16d (3½" X 0.162") AT 24" O.C. 3" X 0.131" NAILS AT 16" O.C. 3", 14 GAGE STAPLES AT 16" O.C.	FACE NAIL
8. TOP PLATE TO TOP PLATE	16d (3½" X 0.162") AT 16" O.C. 3" X 0.131" NAILS AT 12" O.C. 3", 14 GAGE STAPLES AT 12" O.C.	FACE NAIL
	8 - 16d COMMON (3½" X 0.162") 12 - 3" X 0.131" NAILS 12 - 3", 14 GAGE STAPLES	FACE NAIL AT LAP SPLICE
9. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3 - 8d COMMON (2½" X 0.131") 3 - 3 X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	TOENAIL
10. RIM JOIST TO TOP PLATE	8d (2½" X 0.131") AT 6" O.C. 3" X 0.131" NAILS AT 6" O.C. 3", 14 GAGE STAPLES AT 6" O.C.	TOENAIL
11. TOP PLATES, LAPS AND INTERSECTIONS	2 - 16d COMMON (3½" X 0.162") 3 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	FACE NAIL
12. CONTINUOUS HEADER (2) PIECES	16d COMMON (3½" X 0.162")	16" O.C. EACH EDGE, FACE NAIL
13. CEILING JOISTS TO PLATE	3 - 8d COMMON (2½" X 0.131") 3 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	TOENAIL
14. CONTINUOUS HEADER TO STUD	4 - 8d COMMON (2½" X 0.131")	TOENAIL
15. RAFTER TO PLATE	3 - 16d (3½" X 0.162") 4 - 3" X 0.131" NAILS 4 - 3", 14 GAGE STAPLES	TOENAIL
16. 1" DIAGONAL BRACE TO EACH STUD AND PLATE	2 - 8d COMMON (2½" X 0.131") 2 - 3" X 0.131" NAILS 3 - 3", 14 GAGE STAPLES	FACE NAIL
17. BUILT-UP CORNER STUDS	16d (3½" X 0.162") 3" X 0.131" NAILS 3" 14 GAGE STAPLES	12" O.C. FACE NAIL

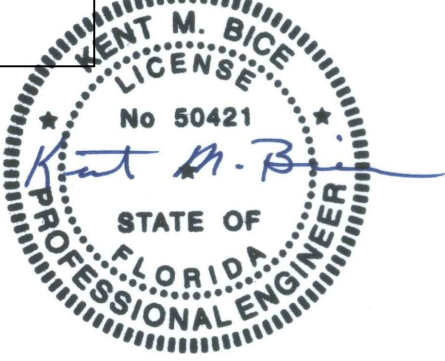
FASTENING SCHEDULE		
CONNECTION	FASTENING ^{a, k}	LOCATION
18. BUILT-UP GIRDER AND BEAMS	20d COMMON (4" X 0.192") at 32" O.C. 3" X 0.131" NAIL AT 24" O.C. 3" 14 GAGE STAPLE AT 24" O.C. AND	FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	2 - 20d COMMON (4" X 0.192") OR 3 - 3" X 0.131" NAIL OR 3 - 3" 14 GAGE STAPLE	FACE NAIL AT ENDS AND AT EACH SPLICE
19. COLLAR TIE TO RAFTER	3 - 10d COMMON (3" X 0.148") 4 - 3" X 0.131" NAILS 4 - 3" 14 GAGE STAPLES	FACE NAIL
20. ROOF RAFTER TO 2-BY RIDGE BEAM	3 - 10d COMMON (3½" X 0.148") 4 - 3" X 0.131" NAILS 4 - 3" 14 GAGE STAPLES	TOENAIL
21. JOIST TO BAND JOIST	3 - 16d COMMON (3½" X 0.162") 4 - 3" X 0.131" NAILS 4 - 3" 14 GAGE STAPLES	END NAIL
22. WOOD STRUCTURAL PANELS AND PARTICLEBOARD ^p , SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING) SINGLE FLOOR, COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING	½" AND LESS 6d ^{c, j} 2⅜" X 0.113" NAIL ^l 1¾" X 16 GAGE ^m STAPLE 19/32" TO ¾" 8d ^d OR 6d ^e 2⅜" X 0.113" NAIL ⁿ 2" 16 GAGE ⁿ STAPLE 7/8" TO 1" 8d ^c 1⅞" TO 1¼" 10d ^d OR 8d ^e	6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE, 4" O.C. AT COMPONENT AND CLADDING EDGE STRIP # ZONE 3 [REFER TO FIGURE ON SHEET S-3]
23. PANEL SIDING TO FRAMING	½" OR LESS 6d ^f 5/8" 8d ^f	6" / 12" O.C. AT EDGES / INTERMEDIATE
24. FIBERBOARD SHEATHING	1/2" NO. II GAGE ROOFING NAIL ^h 6d COMMON NAIL (2" x 0.113") NO. 16 GAGE STAPLE ⁱ 25/32" NO. II GAGE ROOFING NAIL ^h 8D COMMON NAIL (2 ½" x 0.131") NO 16 GAGE STAPLE ⁱ	3" / 6" O.C. AT EDGES / INTERMEDIATE FOR STRUCTURAL APPLICATIONS 6" / 12" O.C. AT EDGES / INTERMEDIATE FOR NON-STRUCTURAL APPLICATIONS



TOP LINE ENGINEERING, LLC
STRUCTURAL ENGINEERS
William E. Neary, III
SMP-51, SMI-79, ICC 5185040
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Gotha, Florida 34734

- NOTES:**
- a. COMMON OR BOX NAILS ARE PERMITTED TO BE USED EXCEPT WHERE OTHERWISE STATED.
 - b. NAILS SPACED AT 6" O.C. AT EDGES, 12" AT INTERMEDIATE SUPPORTS EXCEPT 6" AT SUPPORTS WHERE SPANS ARE 48" OR MORE. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.
 - c. COMMON OR DEFORMED SHANK (6d - 2" x 0.113"; 8d - 2 ½" x 0.131"; 10d 3" x 0.148").
 - d. COMMON (6d - 2" x 0.113"; 8d - 2 1/2" x 0.131"; 10d x 0.148").
 - e. DEFORMED SHANK (6d - 2" x 0.113"; 8d - 2 1/2" x 0.131"; 10d 3" x 0.148").
 - f. CORROSION-RESISTANT SIDING (6d - 1 7/8" x 0.106"; 8d 2 3/8" x 0.128") OR CASING (6d 2" x 0.099"; 8d 2 1/2" x 0.113") NAIL.
 - g. FASTENERS SPACED 3" O.C. AT EXTERIOR EDGES AND 6" O.C. AT INTERMEDIATE SUPPORTS, WHEN USED AS STRUCTURAL SHEATHING. SPACING SHALL BE 6" O.C. ON THE EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS.
 - h. CORROSION-RESISTANT ROOFING NAILS WITH 7/16" DIAMETER HEAD AND 1 ½" LENGTH FOR 1/2" SHEATHING AND 1 3/4" LENGTH FOR 25/32" SHEATHING.
 - i. CORROSION-RESISTANT STAPLES WITH NOMINAL 7/16" CROWN OR 1" CROWN AND 1 1/4" LENGTH FOR 1/2" SHEATHING AND 1 1/2" LENGTH FOR 25/32" SHEATHING. PANEL SUPPORTS AT 16" (20" IF STRENGTH AXIS IS THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED).
 - j. FOR ROOF SHEATHING APPLICATIONS, 8d NAILS (2 1/2" x 0.113") 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.

FL PE Name: Kent M. Bice
FL PE #: 50421
FL COA #: 30468



01/26/23

1552 6TH ST., WINTER HAVEN, FL 33880
(863)865-6502

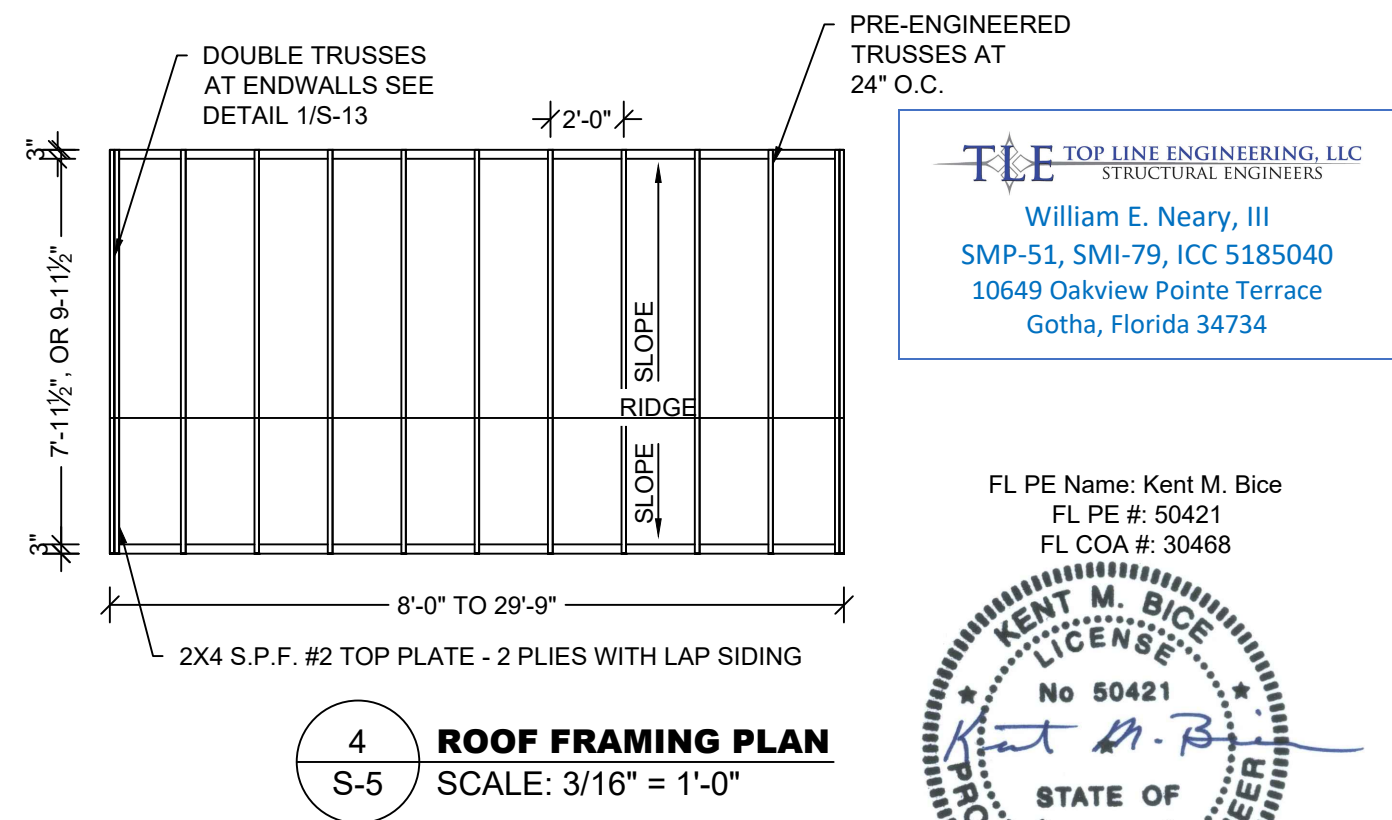
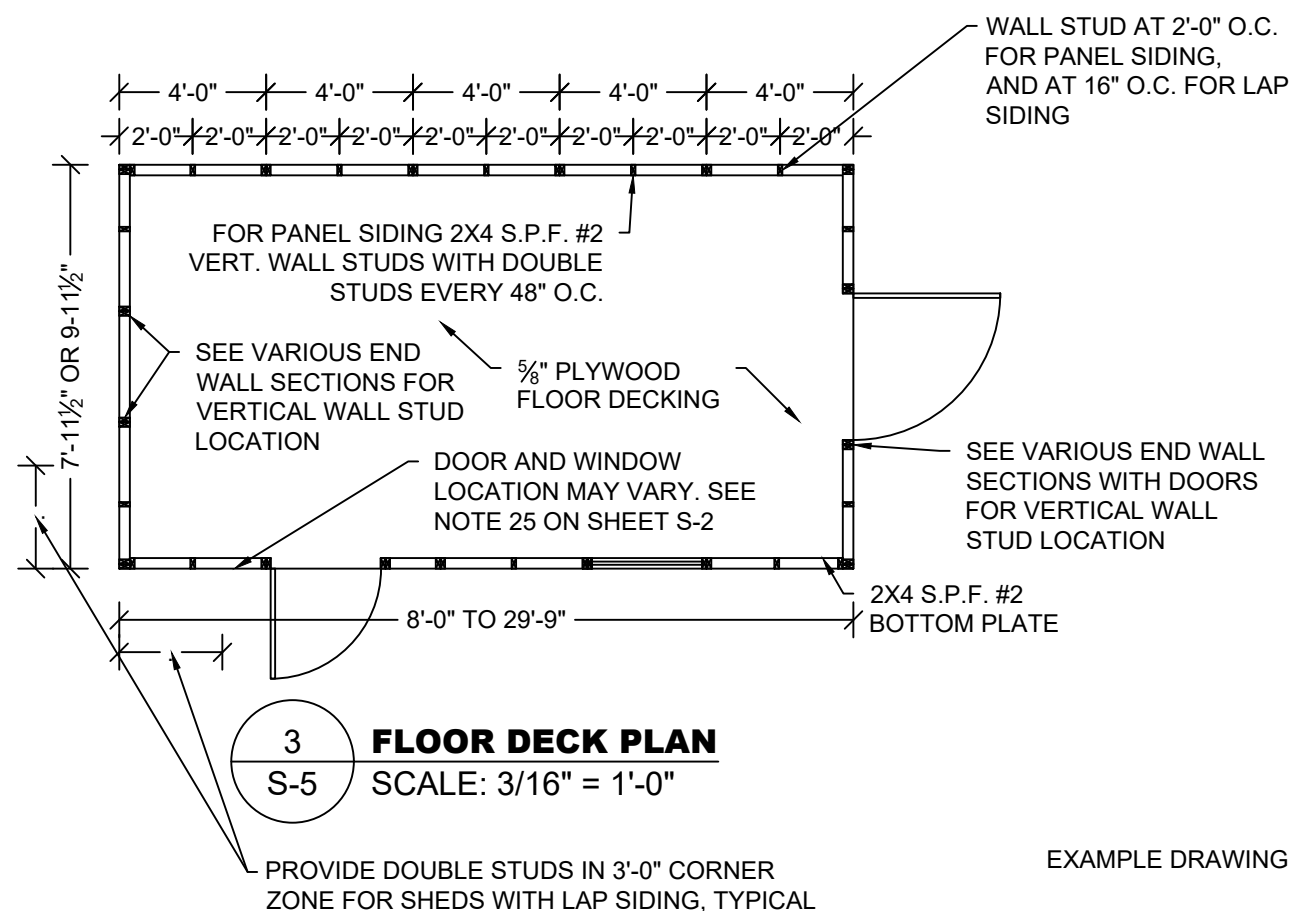
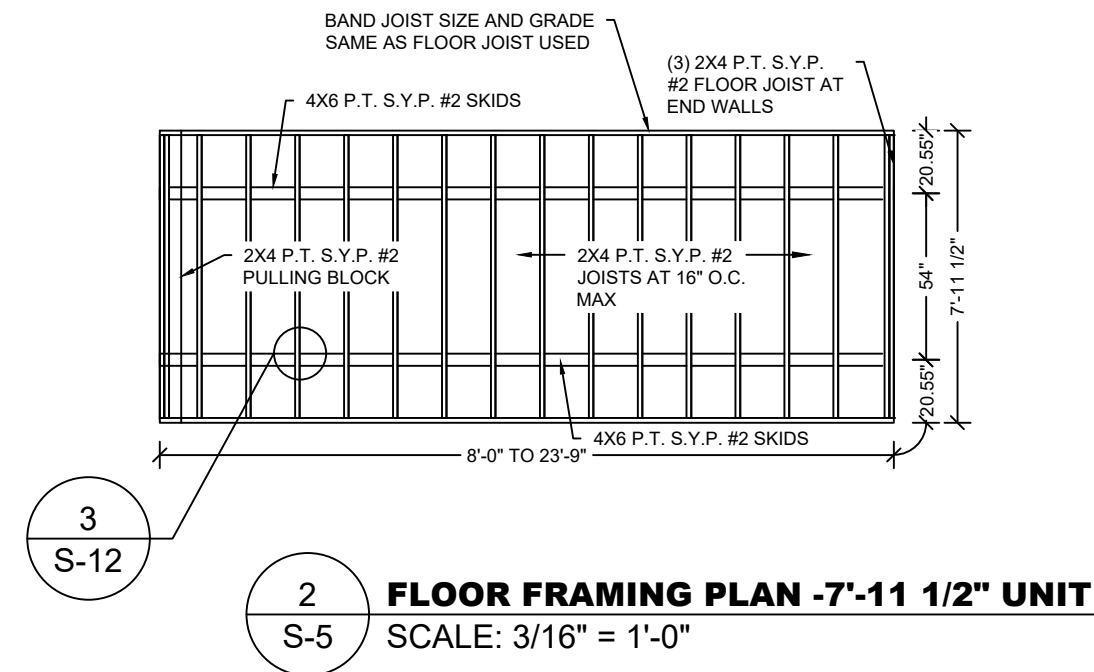
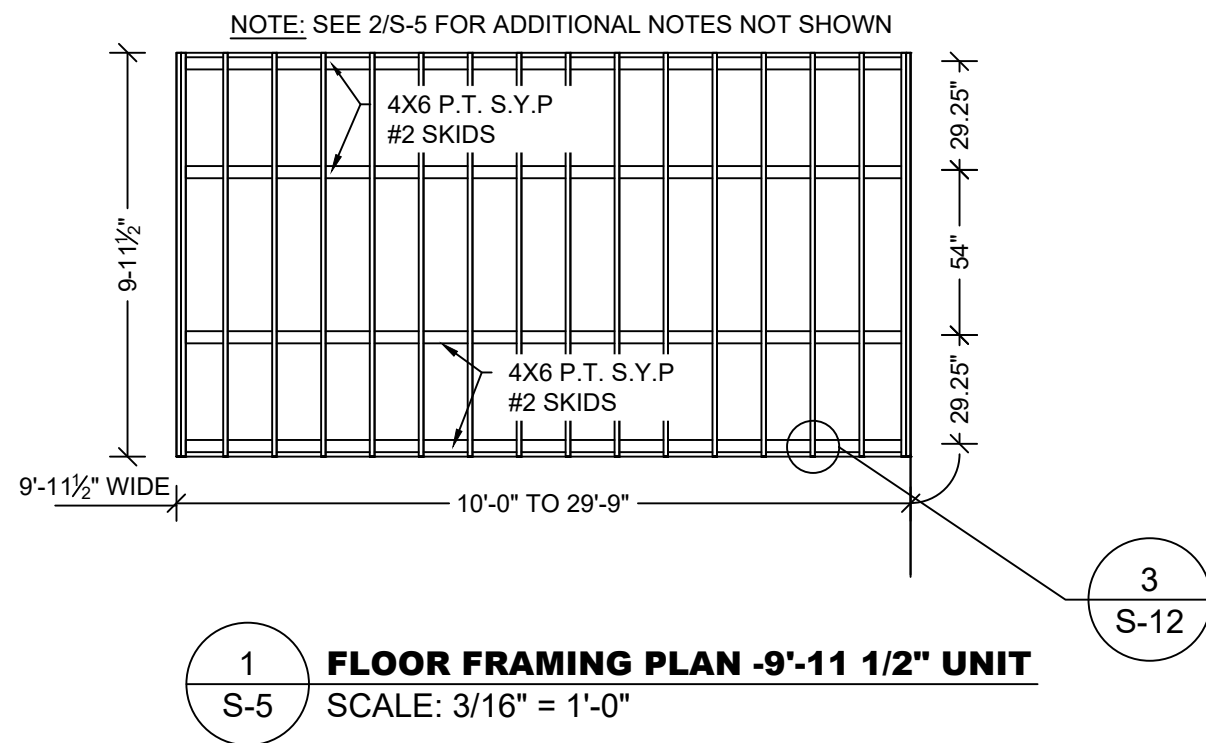
FASTENING SCHEDULE

DATE: 12/08/20	DRAWN BY: RD
SCALE: AS NOTED	CHECKED BY: KMB

SHEET:

S-4

SHEET 4 OF 15



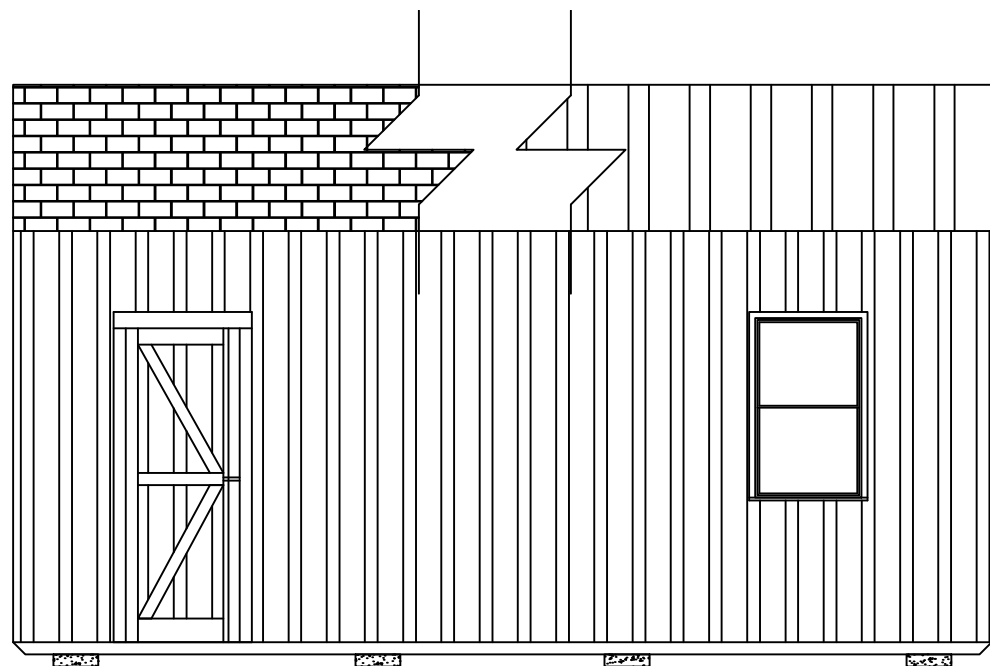
TOP LINE ENGINEERING, LLC
STRUCTURAL ENGINEERS

William E. Neary, III
SMP-51, SMI-79, ICC 5185040
10649 Oakview Pointe Terrace
Gotha, Florida 34734

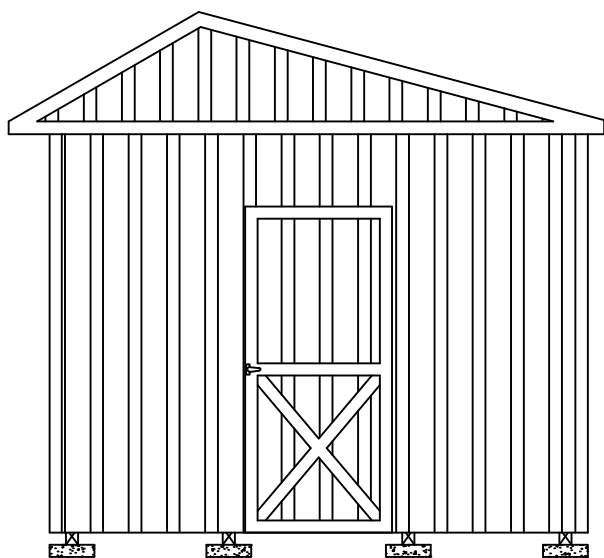
FL PE Name: Kent M. Bice
FL PE #: 50421
FL COA #: 30468

KENT M. BICE
LICENSE
No 50421
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

01/26/23

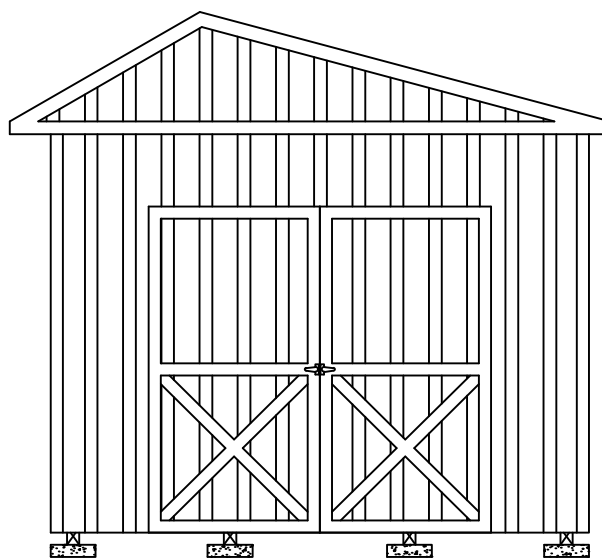


1 **SIDE WALL ELEVATION WITH PANEL SIDING**
S-6 SCALE: 1/4" = 1'-0"



10'-0" WIDE UNIT WITH 3'-0" DOOR

2 **ENDWALL ELEVATION WITH PANEL SIDING**
S-6 SCALE: 1/4" = 1'-0"



10'-0" WIDE UNIT WITH 7'-0" DOOR

SHEARWALL						
FLOOR WIDTH (FT)	OPENING WIDTH		MAX BUILDING LENGTH			
	LONG SIDE WALL	SHORT END WALL	19/32" T1-11 ¹	19/32" LP PANEL ²	19/32" LP PANEL ³	19/32" LP PANEL ² + 7/16" RATED SHEATHING ⁴
7'-11½"	2'-0", 3'-0", 4'-0", 8'-0"	2'-0", 3'-0", 4'-0"	23'-9"	23'-9"	23'-9"	23'-9"
9'-11½"	2'-0", 3'-0", 4'-0", 6'-0", 7'-0", 8'-0"	2'-0", 3'-0", 4'-0", 6'-0"	29'-9"	29'-9"	29'-9"	29'-9"
		7'-0"		24'-0"		

- NOTES:
- 19/32" T1-11 APA RATED SIDING 303-24 O.C. WITH 8D COMMON OR DEFORMED (0.131"x2-1/2") NAILS AT 6" O.C. IN FIELD AND 3" O.C. IN EDGES IN END WALL AND 6" O.C. EVERYWHERE IN SIDE WALL.
 - 19/32" LP SMARTSIDE STRAND SUBSTRATE PANEL SIDING WITH STAGGERED 8D COMMON OR DEFORMED (0.131"x2-1/2") NAILS AT 6" O.C. IN FIELD AND 3" O.C. IN EDGES IN END WALL AND 6" O.C. EVERYWHERE IN SIDE WALL.
 - 19/32" LP SMARTSIDE STRAND SUBSTRATE PANEL SIDING WITH STAGGERED 8D COMMON OR DEFORMED (0.131"x2-1/2") NAILS AT 6" O.C. IN FIELD AND 2" O.C. IN EDGES IN END WALL AND 6" O.C. EVERYWHERE IN SIDE WALL.
 - 7/16" APA STRUCTURAL RATED SHEATHING (OSB) WITH STAGGERED 8D COMMON OR DEFORMED (0.131"x2-1/2") NAILS AT 6" O.C. IN FIELD AND 4" O.C. IN EDGES IN END WALL AND 6" O.C. EVERYWHERE IN SIDE WALL.
 - WINDOWS AND DOORS MAY BE LOCATED IN EITHER THE SIDE WALL OR ENDWALL. DOORS ARE PERMITTED TO BE IN BOTH ENDWALLS OR ENDWALL AND SIDEWALL IF REQUESTED BY CUSTOMER. LIMITATIONS ON THE TOTAL DIMENSIONS SHALL BE BASED ON THE SHEAR WALL HEIGHT TO WIDTH RATIO OF 3.5:1 AND SHALL NOT EXCEED (2/3) OF THE TOTAL LENGTH OF BUILDING.
 - DOOR AND WINDOW SHALL BE LOCATED SUCH THAT THEY ARE AT LEAST 3'-3" APART.
 - EDGE NAILING SHALL BE PROVIDED AT TOP PLATE IN ALL END WALLS.
 - PROVIDE BLOCKING AT ALL UNSUPPORTED EDGES OF WALL SHEATHING.

FL PE Name: Kent M. Bice
FL PE #: 50421
FL COA #: 30468

01/26/23

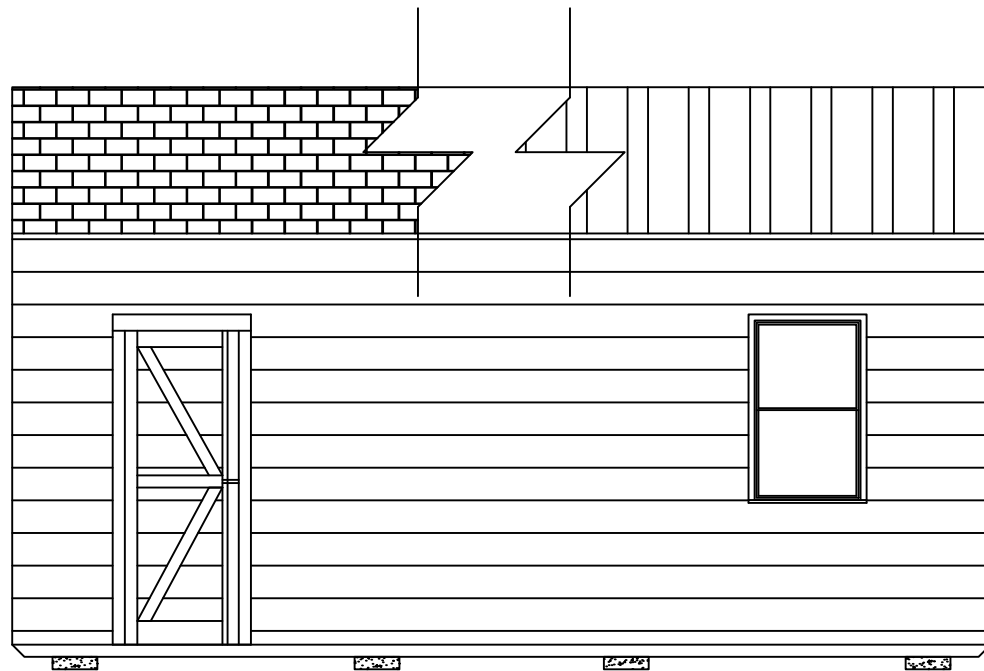
TOP LINE ENGINEERING, LLC
STRUCTURAL ENGINEERS

William E. Neary, III
SMP-51, SMI-79, ICC 5185040
10649 Oakview Pointe Terrace
Gotha, Florida 34734

01/26/23
1552 6TH ST., WINTER HAVEN, FL 33880
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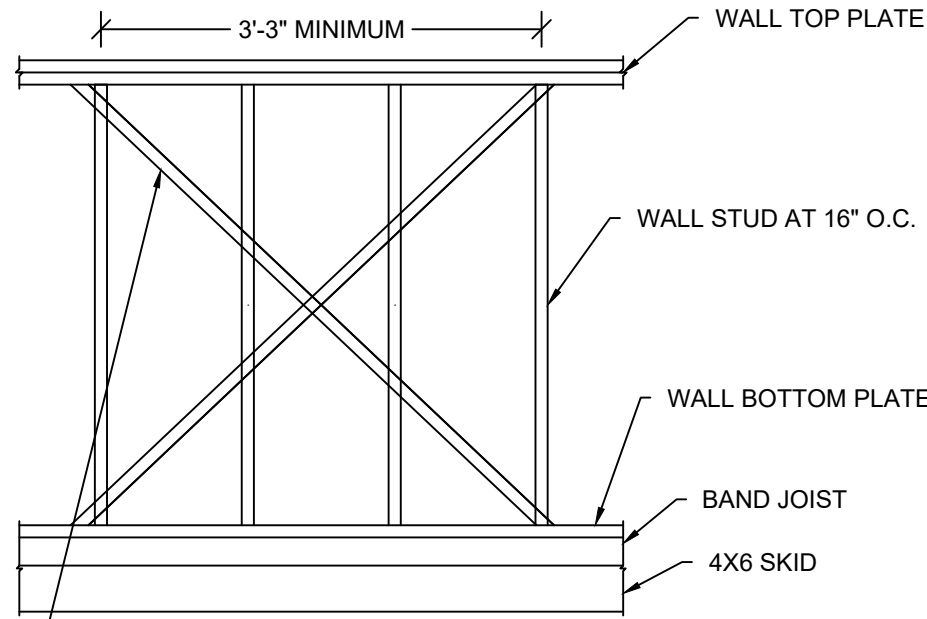
ELEVATIONS AND SHEARWALL			
DATE: 12/08/20	DRAWN BY: RD		
SCALE: AS NOTED	CHECKED BY: KMB		

SHEET:
S-6
SHEET 6 OF 15



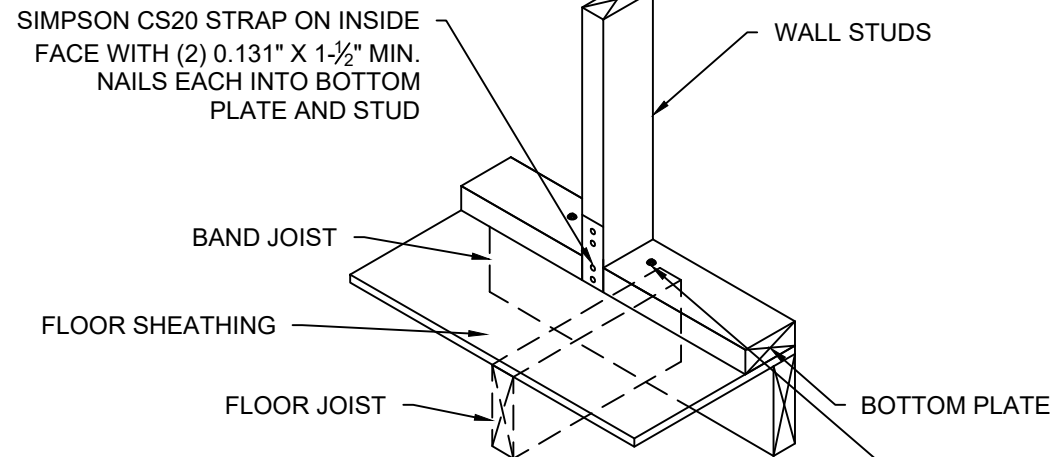
1 **SIDE WALL ELEVATION WITH LAP SIDING**
S-6A SCALE: 1/4" = 1'-0"

TOP LINE ENGINEERING, LLC
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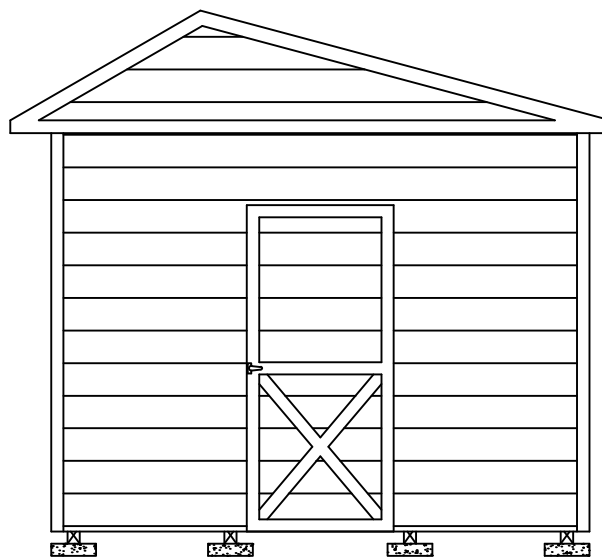
(1) SIMPSON CS20 (33MIL X 1-1/4", GRADE 40 STEEL, G60 COATING) X-STRAP OR EQUIVALENT ON EACH FACE OF WALL STUD. ATTACH STRAPS TO WALL TOP & BOTTOM PLATES WITH (5) 0.131" x 2-1/4" NAILS STAGGERED. STRAP MAY BE WRAPPED AROUND WALL TOP & BOTTOM PLATES.
ALTERNATE: 7/16" APA RATED SHEATHING ON OUTSIDE FACE OF WALL STUD FASTENED WITH 8d COMMON OR DEFORMED (0.131" x 2-1/2") NAILS AT 6" O.C. IN FIELD AND 3" O.C. AT EDGES.

2 **PARTIAL SIDE WALL FRAMING ELEVATION WITH LAP SIDING**
S-6A SCALE: NTS



(2) 1/4" x 4" HEX LAG SCREWS WITHIN 3" ON EITHER SIDE OF STUD AT X-BRACE END LOCATIONS AND CENTERED THRU BAND JOIST. PREDRILL MAX. 1/4" DIA. HOLE THRU BOTTOM PLATE AND 0.15" DIA. HOLE THRU SHEATHING AND BAND JOIST.

3 **WALL STUD TIEDOWN FOR X-BRACE OPTION**
S-6A SCALE: NTS



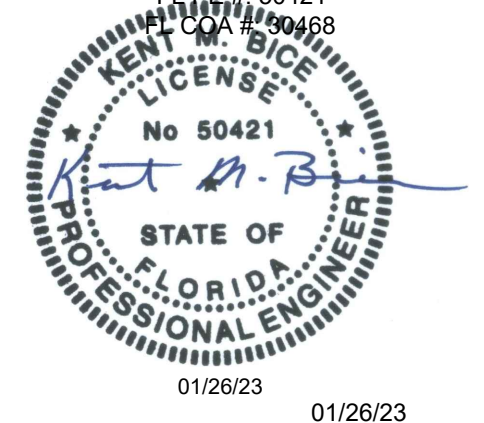
4 **ENDWALL ELEVATION WITH LAP SIDING**
S-6A SCALE: 1/4" = 1'-0"

SHEARWALL WITH LP SMARTSIDE LAP SIDING ¹			
FLOOR WIDTH (FT)	OPENING WIDTH		MAX BUILDING LENGTH
	LONG SIDE WALL ²	SHORT END WALL ^{3,4}	
7'-11 1/2"	2'-0", 3'-0", 4'-0", 6'-0", 8'-0"	2'-0", 3'-0", 4'-0"	23'-9"
9'-11 1/2"	2'-0", 3'-0", 4'-0", 6'-0", 7'-0", 8'-0"	2'-0", 3'-0", 4'-0", 6'-0", 7'-0"	29'-9"

NOTES:

- MIN. 0.45" THICK LP SMARTSIDE 12" BOLD PROFILES DOUBLE 5" FIBER SUBSTRATE LAP SIDING PER ICC-ES ESR 3090, TABLES 2A, 2B AND 2C
- ON LONG SIDE WALL, ATTACH LAP SIDING TO EACH WALL STUD WITH MINIMUM 8d SINKER NAILS (0.113" X 2-3/8") AT 3/8" FROM EACH END, AND 3 NAILS PER STUD -- 3" FROM TOP EDGE, IN THE MIDDLE AND 1-1/2" FROM BOTTOM EDGE. PROVIDE X-STRAP OR SHEATHING ON WALL PER 2/S-6A.
- ON SHORT END WALL, ATTACH LAP SIDING TO SHEATHING WITH MINIMUM 8d SINKER NAILS (0.113" X 2-3/8") AT 3/8" FROM EACH END, AND 3 NAILS PER 16" SPACING -- 3" FROM TOP EDGE, IN THE MIDDLE AND 1-1/2" FROM BOTTOM EDGE.
- ON SHORT END WALL WITHOUT AN OPENING, PROVIDE MIN. 7/16" APA RATED SHEATHING ON EXTERIOR FACE FASTENED TO STUDS WITH 8d COMMON OR DEFORMED (0.131" x 2-1/2") NAILS AT 6" O.C. IN FIELD AND EDGES. ON SHORT END WALL WITH AN OPENING, PROVIDE 19/32" APA RATED SHEATHING ON EXTERIOR FACE FASTENED TO STUDS WITH 8d COMMON OR DEFORMED (0.131" x 2-1/2") NAILS AT 6" O.C. IN FIELD AND 3" O.C. AT EDGES.
- WINDOWS AND DOORS MAY BE LOCATED IN EITHER THE SIDE WALL OR ENDWALL. DOORS ARE PERMITTED TO BE IN BOTH ENDWALLS OR ENDWALL AND SIDEWALL IF REQUESTED BY CUSTOMER. LIMITATIONS ON THE TOTAL DIMENSIONS SHALL BE BASED ON THE SHEAR WALL HEIGHT TO WIDTH RATIO OF 3.5:1 AND SHALL NOT EXCEED (2/3) OF THE TOTAL LENGTH OF BUILDING.
- DOOR AND WINDOW SHALL BE LOCATED SUCH THAT THEY ARE AT LEAST 3'-3" APART.
- EDGE NAILING SHALL BE PROVIDED AT TOP PLATE IN ALL END WALLS.
- PROVIDE BLOCKING AT ALL UNSUPPORTED EDGES OF WALL SHEATHING.

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FL PE #: 50421
FL COA #: 50468



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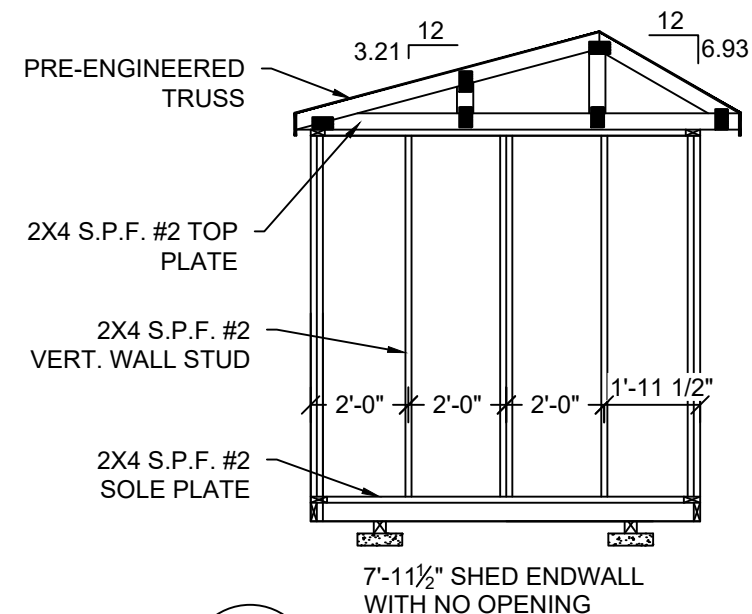
ELEVATIONS AND SHEARWALL

DATE: 12/08/20 DRAWN BY: RD
SCALE: AS NOTED CHECKED BY: KMB

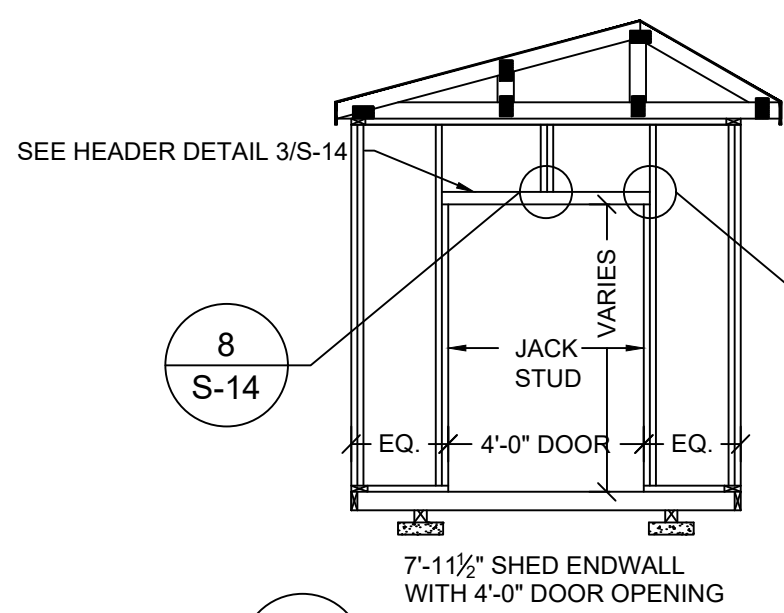
SHEET:

S-6A

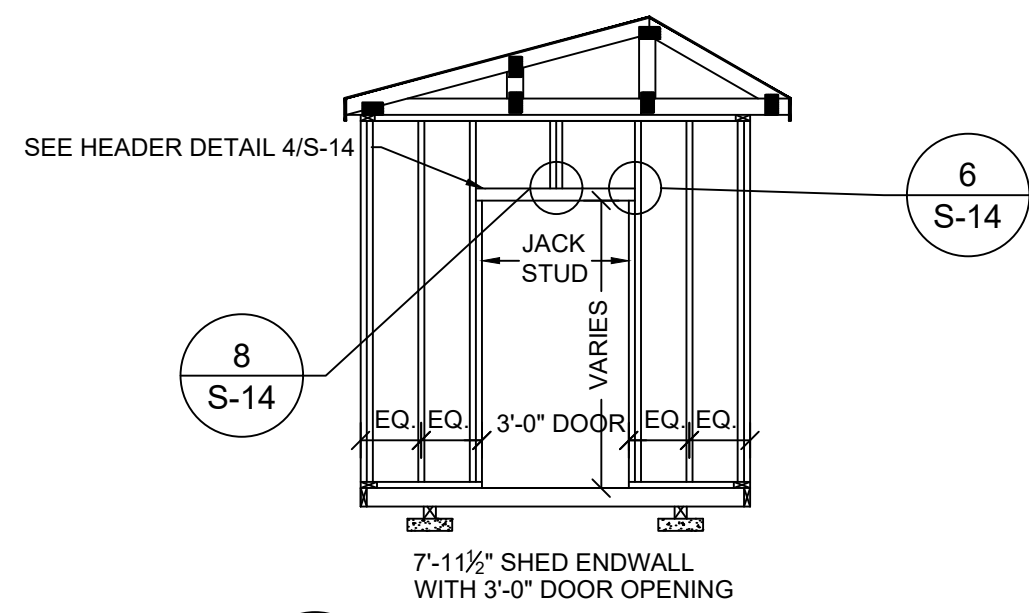
SHEET 7 OF 15



1
S-7
FRAMING ELEVATION
SCALE: 1/4" = 1'-0"



2
S-7
FRAMING ELEVATION
SCALE: 1/4" = 1'-0"

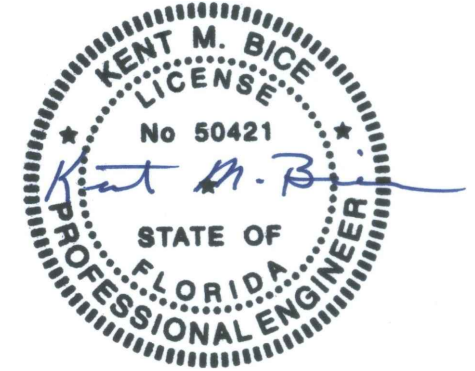


3
S-7
FRAMING ELEVATION
SCALE: 1/4" = 1'-0"

TOP LINE ENGINEERING, LLC
STRUCTURAL ENGINEERS

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Gotha, Florida 34734

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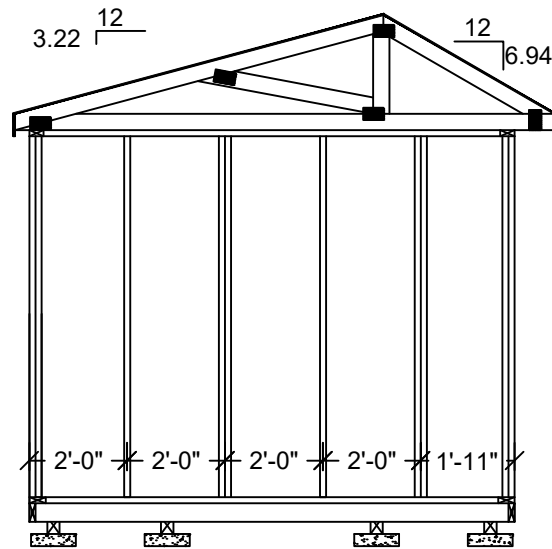
01/26/23

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(863)865-6502

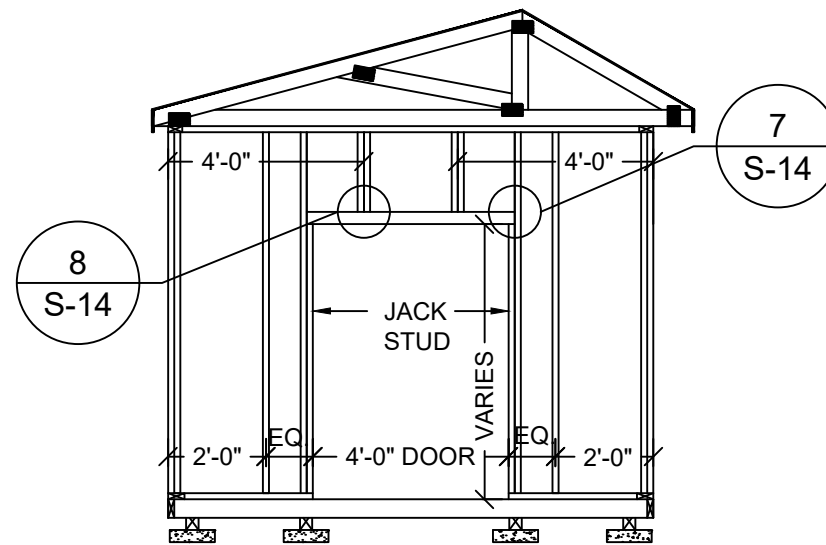
7'-11 1/2" SHED FRAMING ELEVATIONS	
DATE: 12/08/20	DRAWN BY: RD
SCALE: AS NOTED	CHECKED BY: KMB

SHEET:
S-7
SHEET 8 OF 15



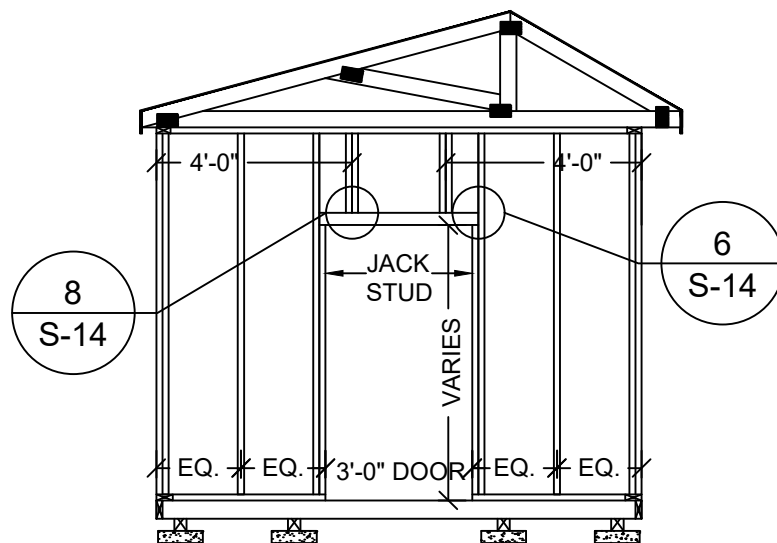
9'-11½" SHED ENDWALL
WITH NO OPENING

1
S-8 **FRAMING ELEVATION**
SCALE: 1/4" = 1'-0"



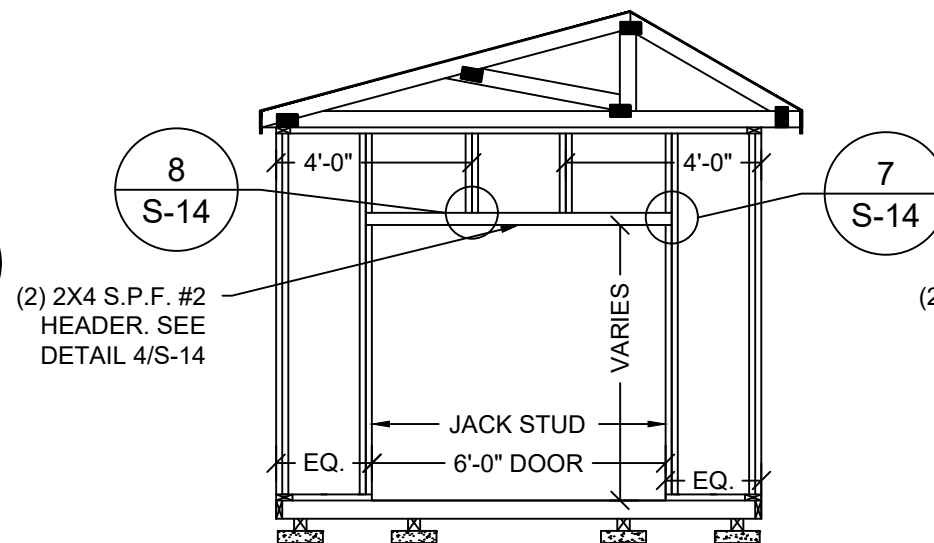
9'-11½" SHED ENDWALL
WITH 4'-0" DOOR OPENING

2
S-8 **FRAMING ELEVATION**
SCALE: 1/4" = 1'-0"



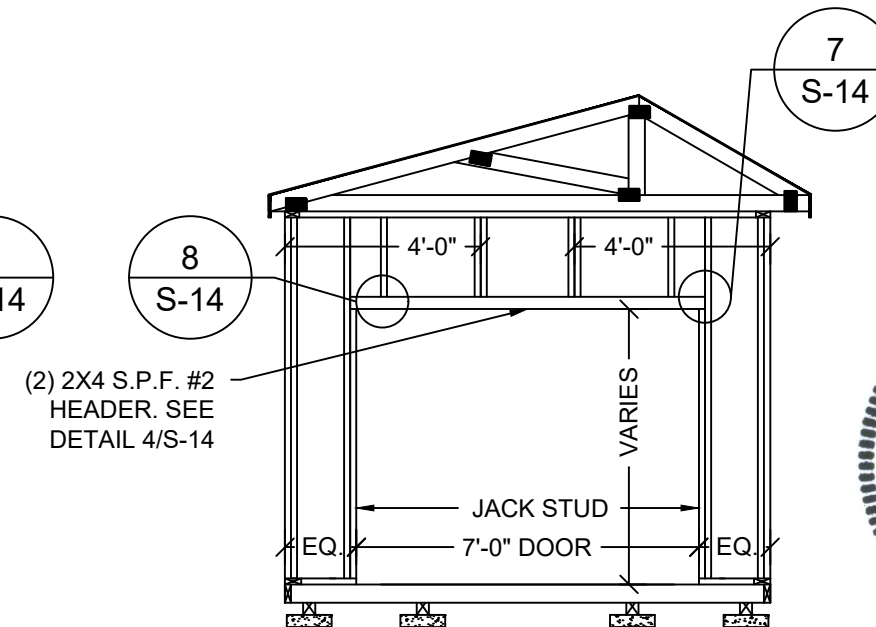
9'-11½" SHED ENDWALL
WITH 3'-0" DOOR OPENING

3
S-8 **FRAMING ELEVATION**
SCALE: 1/4" = 1'-0"



9'-11½" SHED ENDWALL
WITH 6'-0" DOOR OPENING

4
S-8 **FRAMING ELEVATION**
SCALE: 1/4" = 1'-0"



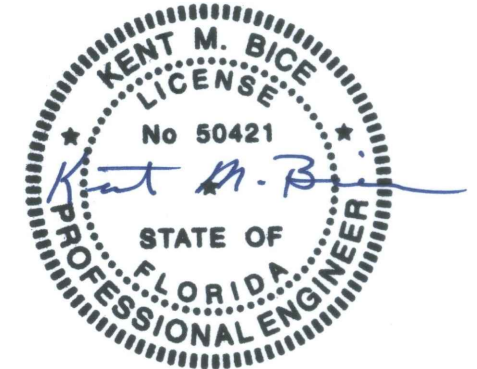
9'-11½" SHED ENDWALL
WITH 7'-0" DOOR OPENING

5
S-8 **FRAMING ELEVATION**
SCALE: 1/4" = 1'-0"

TLE TOP LINE ENGINEERING, LLC
STRUCTURAL ENGINEERS

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10649 Oakview Pointe Terrace
Gotha, Florida 34734

FL PE Name: Kent M. Bice
FL PE #: 50421
FL COA #: 30468



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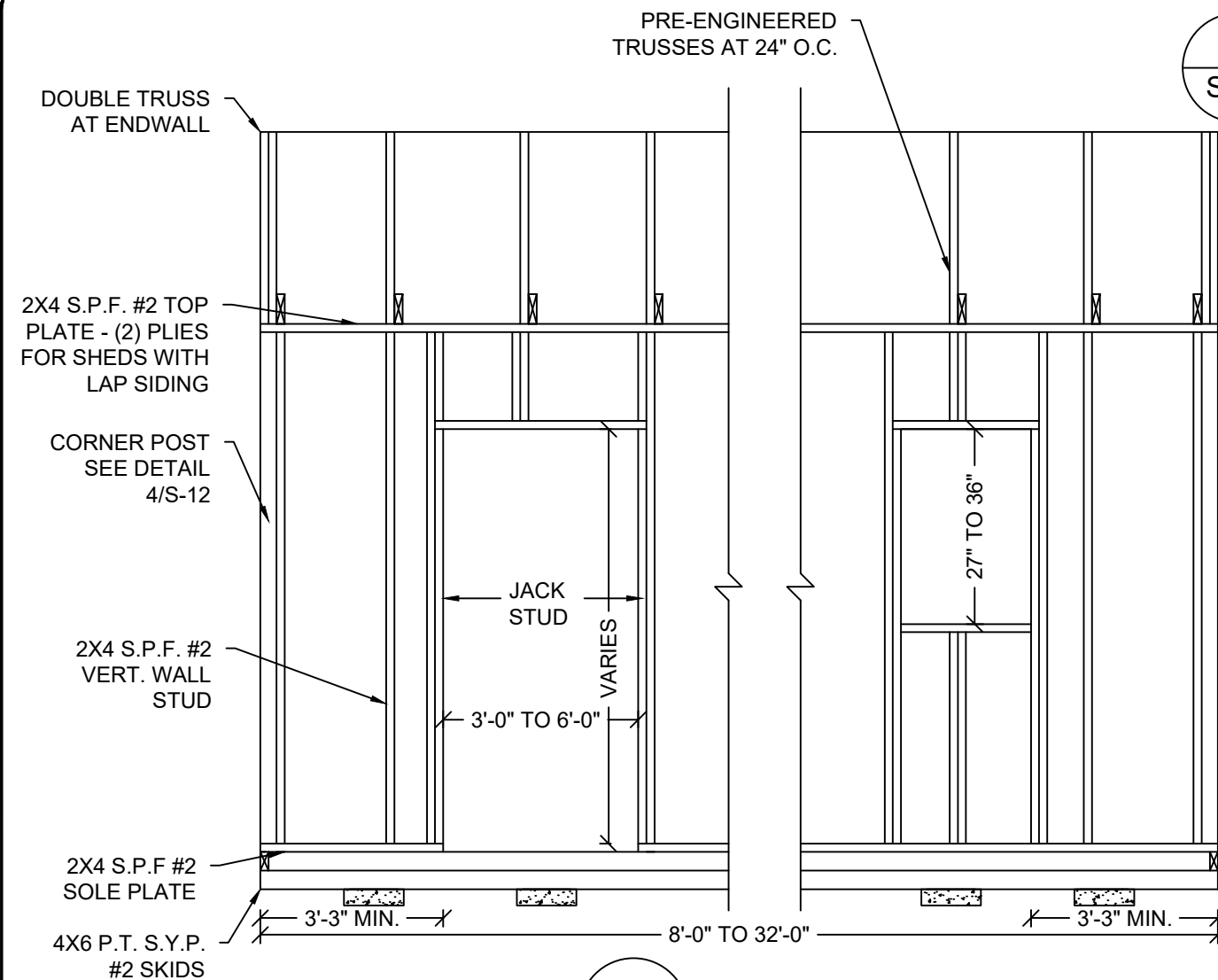
**9'-11 1/2" SHED
FRAMING ELEVATIONS**

DATE: 12/08/20	DRAWN BY: RD
SCALE: AS NOTED	CHECKED BY: KMB

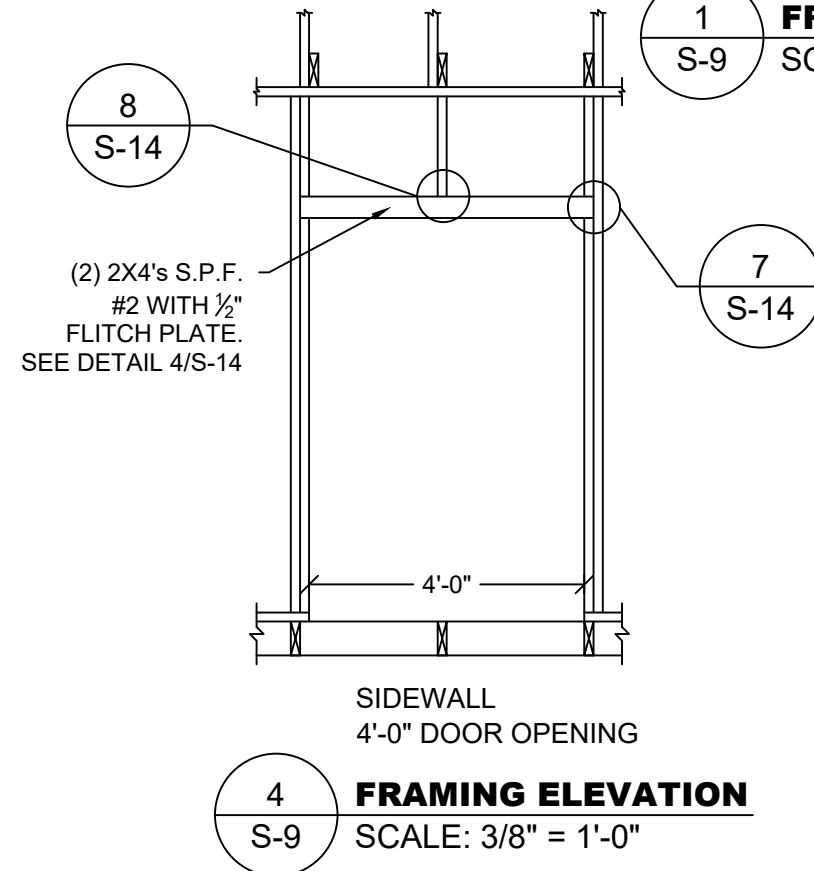
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S-8

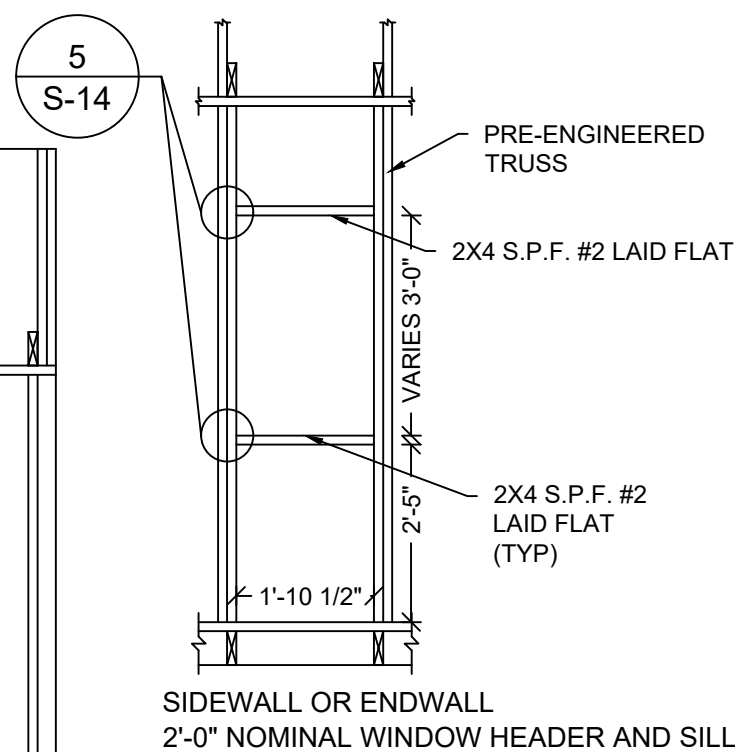
SHEET 9 OF 15



1 FRAMING ELEVATION
S-9 SCALE: 3/8" = 1'-0"

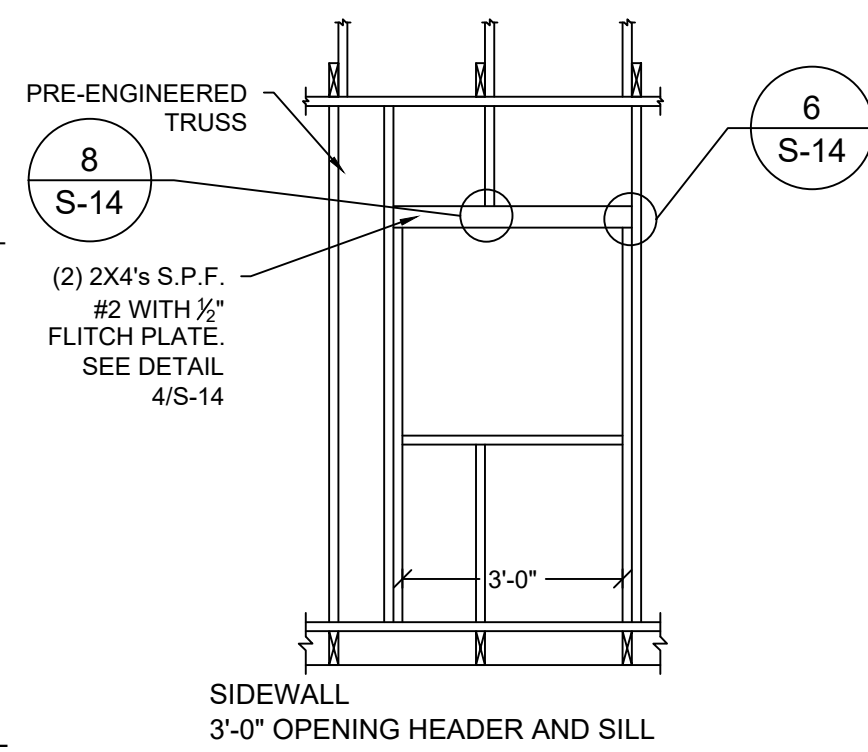


4 FRAMING ELEVATION
S-9 SCALE: 3/8" = 1'-0"



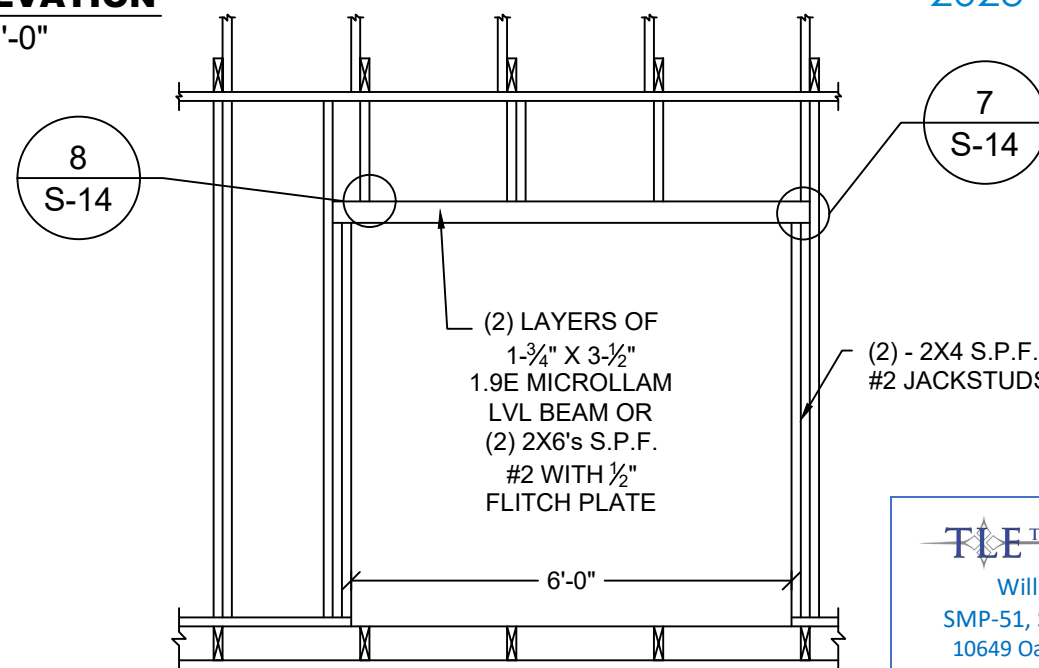
2 FRAMING ELEVATION
S-9 SCALE: 3/8" = 1'-0"

NOTE:
FOR 3'-0" WIDE DOOR IN SIDEWALL, HEADER IS FLATWISE 1-3/4" X 3-1/2" 1.9E MICROLLAM LVL UNDER 2X4 S.P.F. #2 TOP PLATE. SEE DETAIL 3/S-14.



3 FRAMING ELEVATION
S-9 SCALE: 3/8" = 1'-0"

NOTE:
MAX. OPENING ON SIDEWALL MAY BE INCREASED TO 8'-0" IF (A) BUILDING LENGTH IS GREATER THAN 16'-0" AND (B) CRITERIA IN NOTES 3 AND 4 FOR SHEARWALL FROM SHEET S-6 ARE MET. HEADER SHALL BE (2) 2X8 S.P.F. #2 MIN.



5 FRAMING ELEVATION
S-9 SCALE: 3/8" = 1'-0"

2023-01-27 TOP LINE ENGINEERING, LLC APPROVAL

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FL PE #: 50421
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SIDE WALL ELEVATION

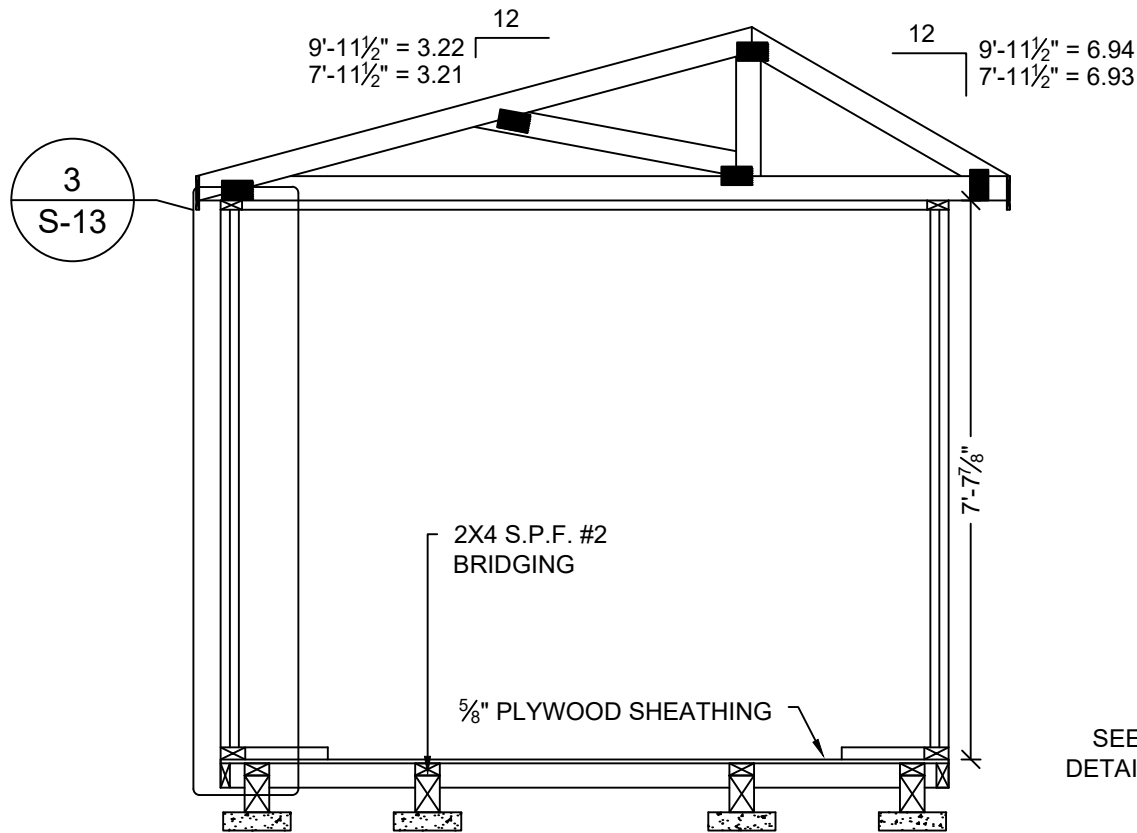
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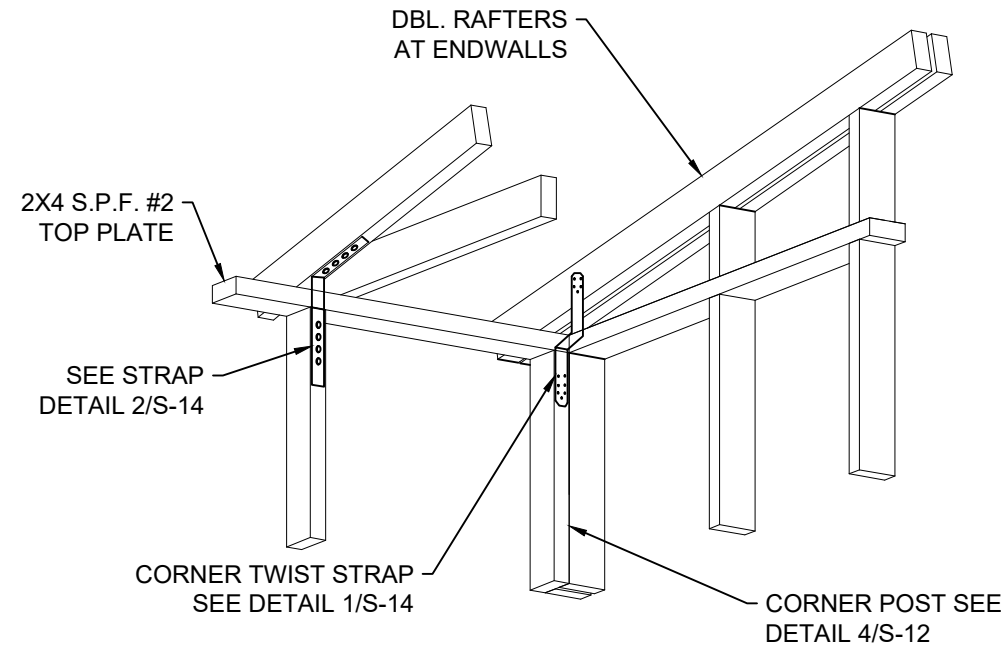
S-9

SHEET 10 OF 15

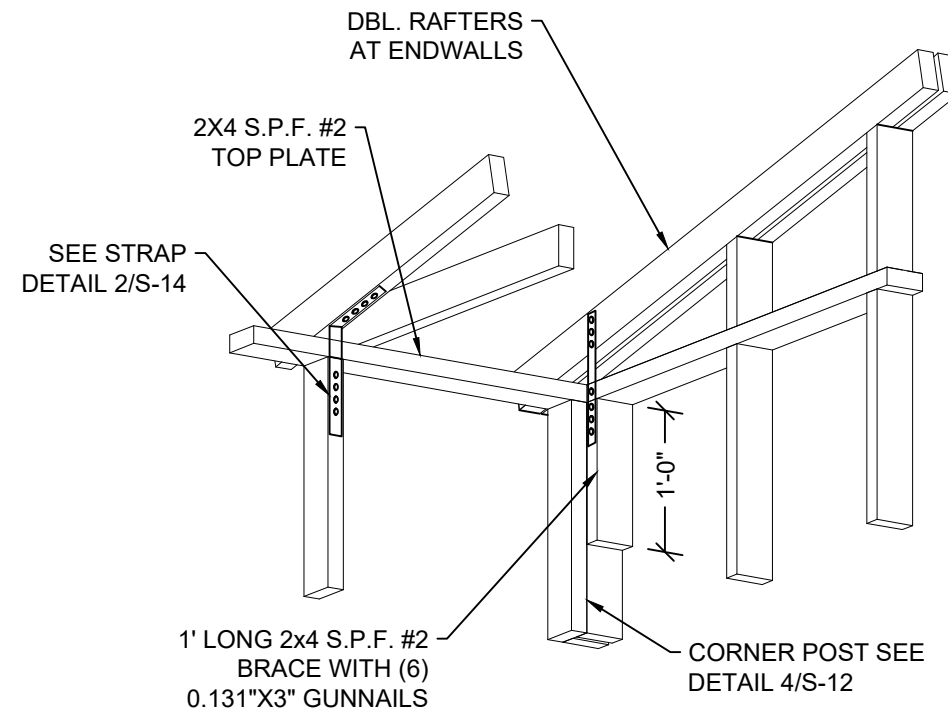
THESE PLANS WERE DESIGNED IN ACCORDANCE WITH THE ASCE 7-16, FBC 2020 (7TH ED.) W/2021 SUPP.



1
S-10
CROSS SECTION
SCALE: 3/8" = 1'-0"
EXAMPLE IS OF A 9'-11 1/2" UNIT



2
S-10
CORNER DETAIL
SCALE: 3/8" = 1'-0"



3
S-10
ALTERNATE CORNER DETAIL
SCALE: 3/8" = 1'-0"

TOP LINE ENGINEERING, LLC
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CROSS SECTIONS

DATE: 12/08/20

DRAWN BY: RD

SCALE: AS NOTED

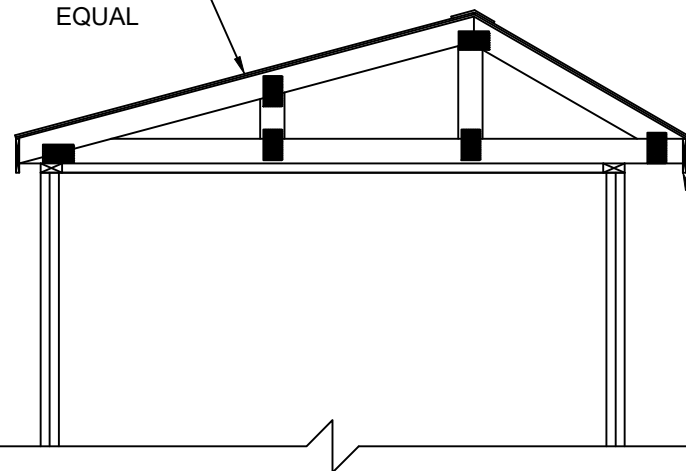
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SHEET:

S-10

SHEET 11 OF 15

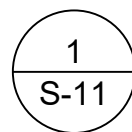
29 GA. PANEL-LOC
PLUS ROOF PANEL
BY CENTRAL STATES
MANUFACTURING OR
EQUAL



RESIDENTIAL
EAVE TRIM BY
CENTRAL
STATES
MANUFACTURING
PART # RET
OR EQUAL

P.T. 1X6
FASCIA
BOARD

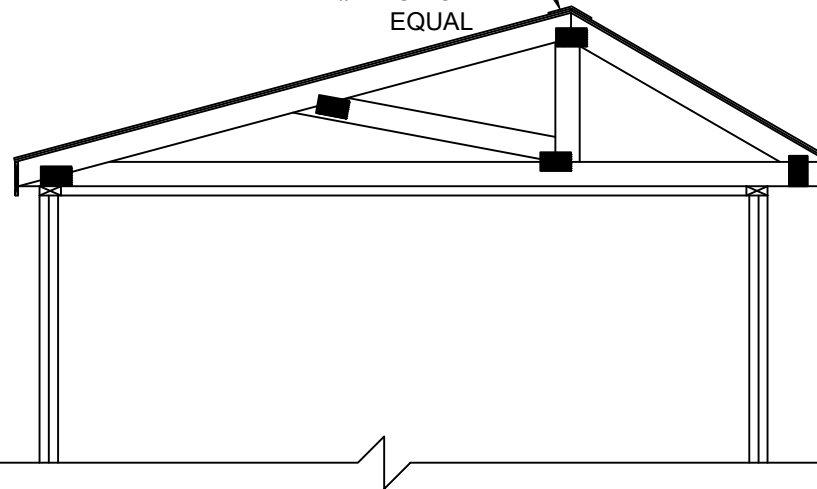
7'-11½" WIDE
OPTIONAL METAL ROOF



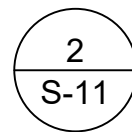
CROSS SECTION

SCALE: 3/8" = 1'-0"

RESIDENTIAL
RIDGE CAP BY
CENTRAL STATES
MANUFACTURING
PART# RRCP OR
EQUAL



9'-11½" WIDE
OPTIONAL METAL ROOF



CROSS SECTION

SCALE: 3/8" = 1'-0"

TLE TOP LINE ENGINEERING, LLC
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CROSS SECTIONS

DATE: 12/08/20

DRAWN BY: RD

SCALE: AS NOTED

CHECKED BY: KMB

SHEET:

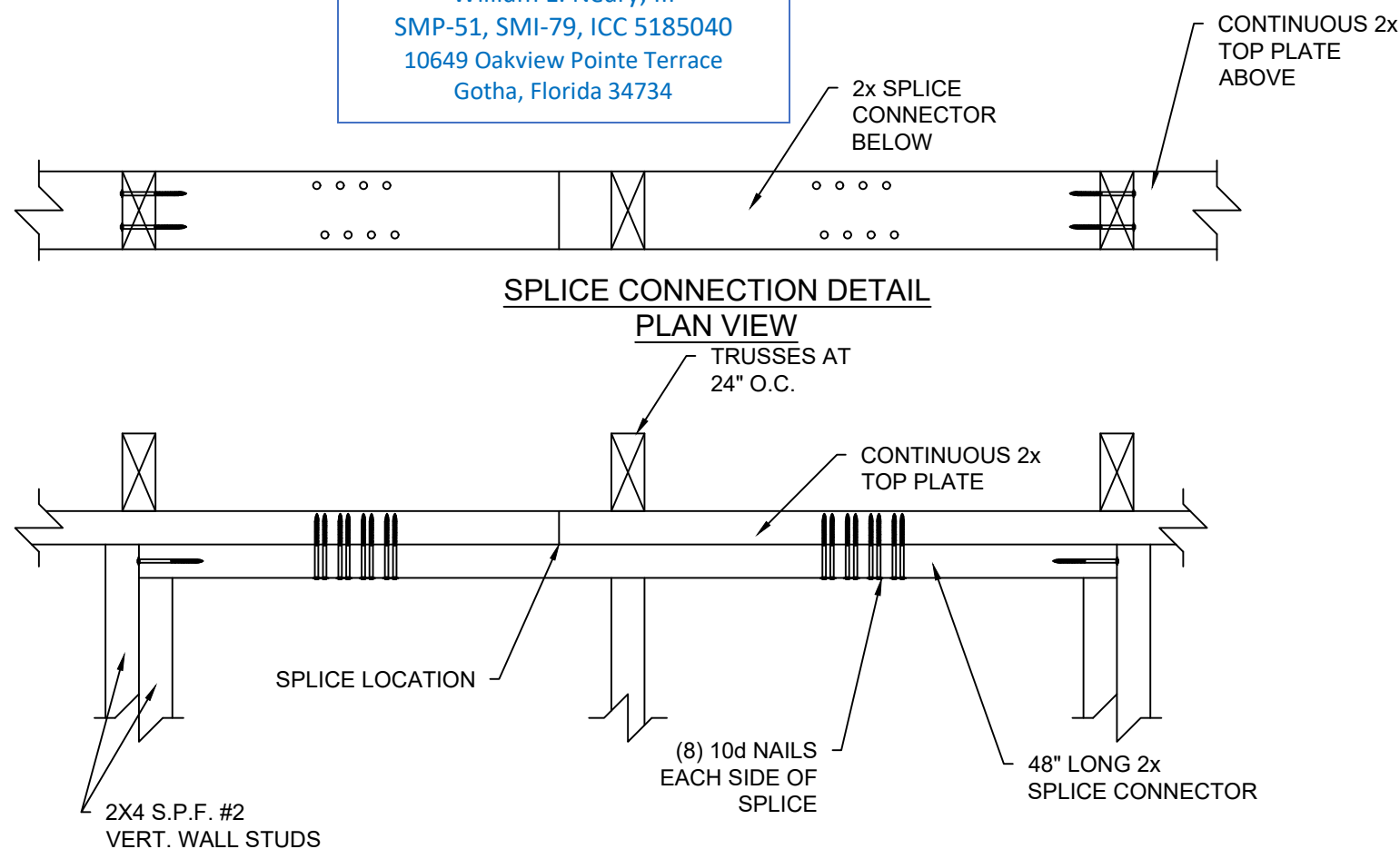
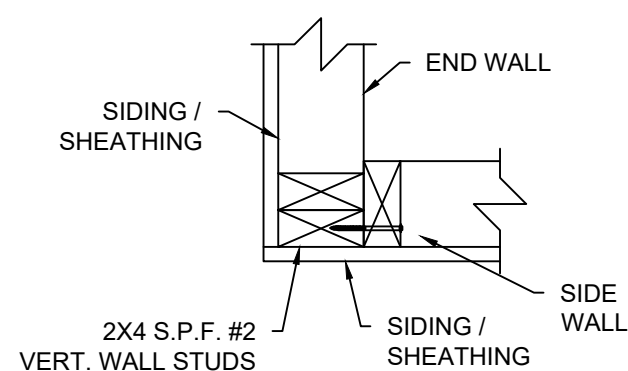
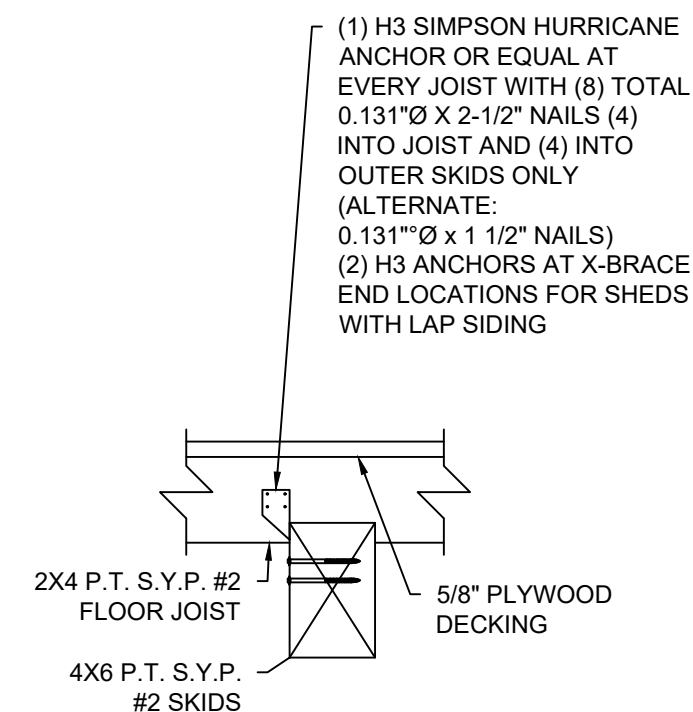
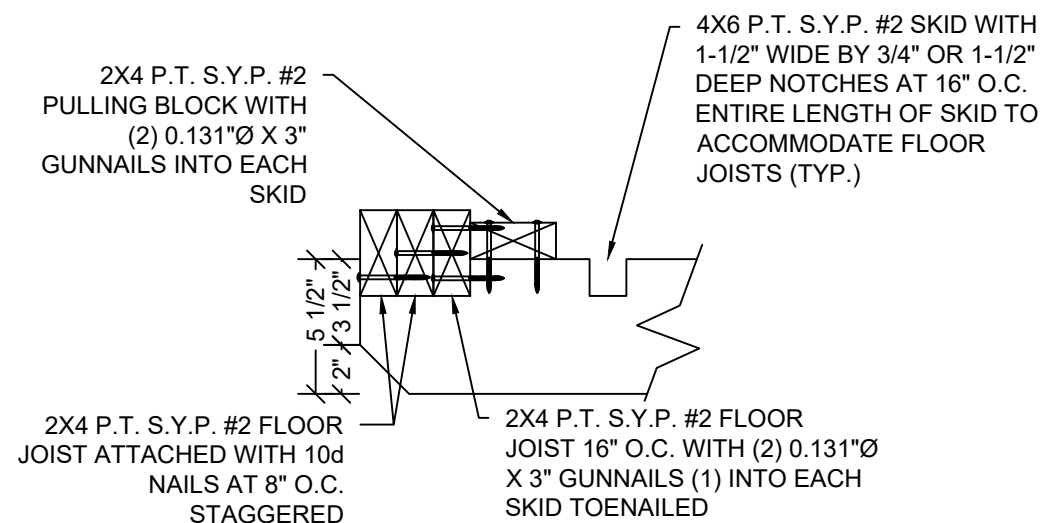
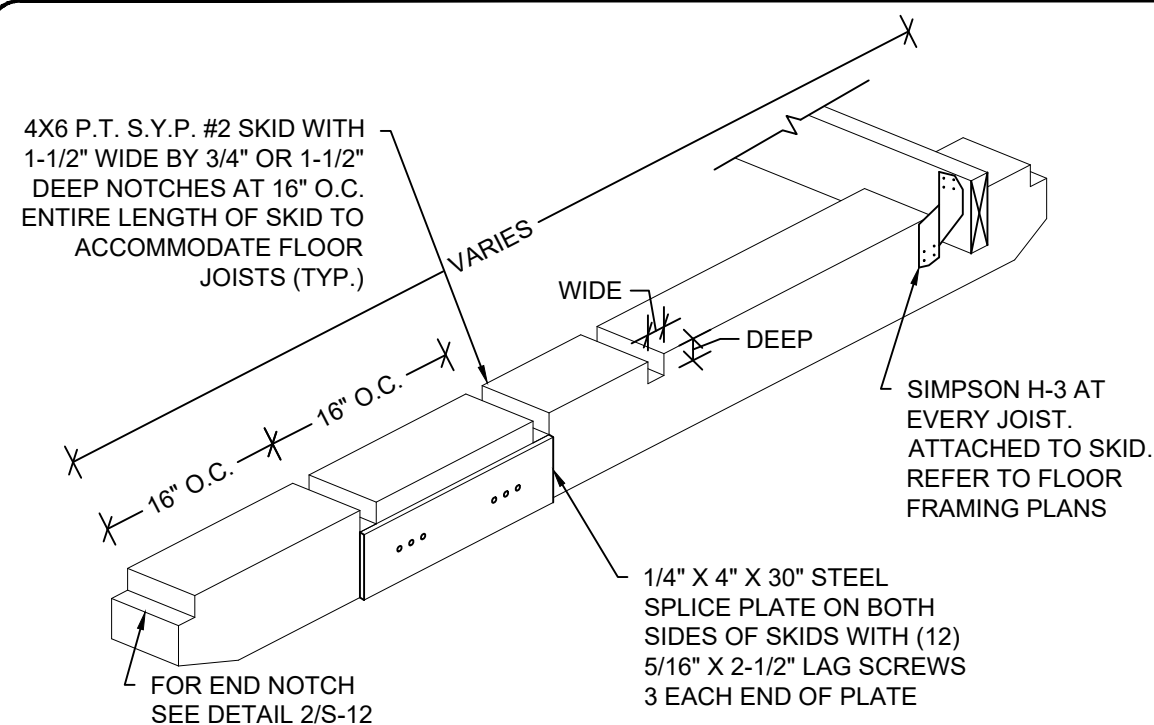
S-11

SHEET 12 OF 15

2023-01-27 TOP LINE ENGINEERING, LLC APPROVAL

01/26/23

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01/26/23

01/26/23

1552 6TH ST., WINTER HAVEN, FL 33880
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DETAILS

DATE: 12/08/20

DRAWN BY: RD

SCALE: AS NOTED

CHECKED BY: KMB

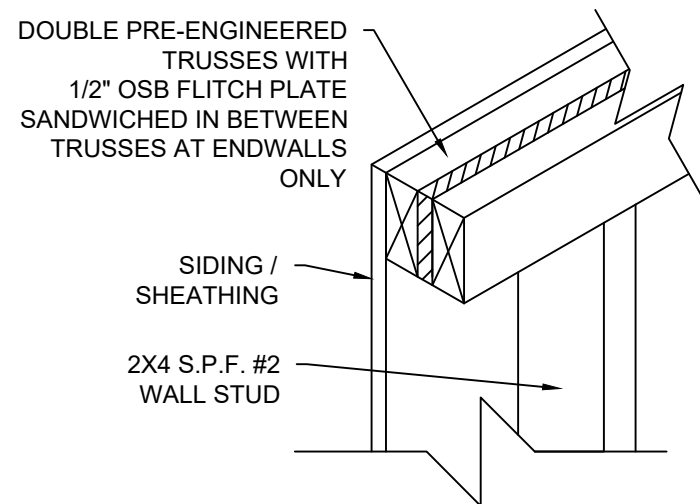
SHEET:

S-12

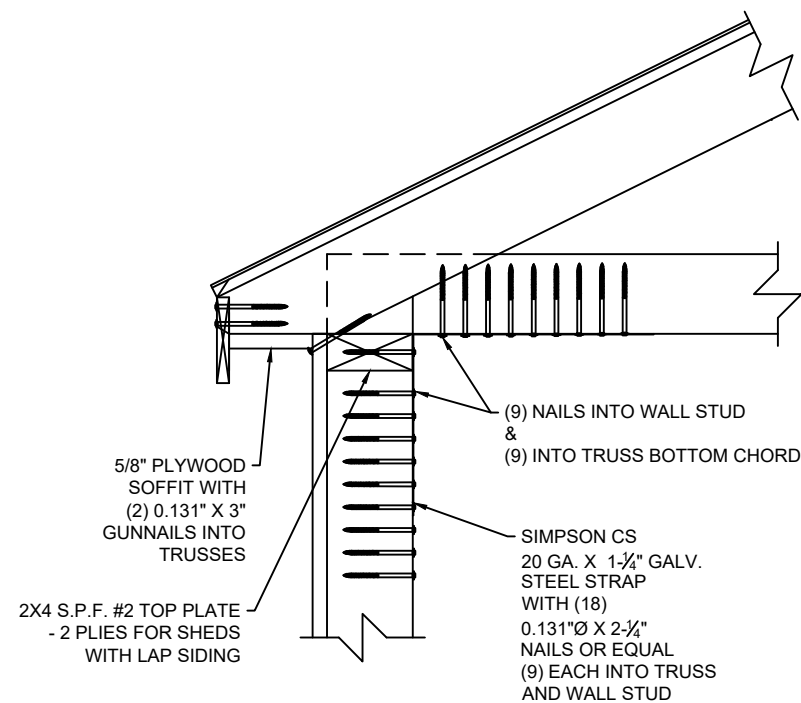
SHEET 13 OF 15

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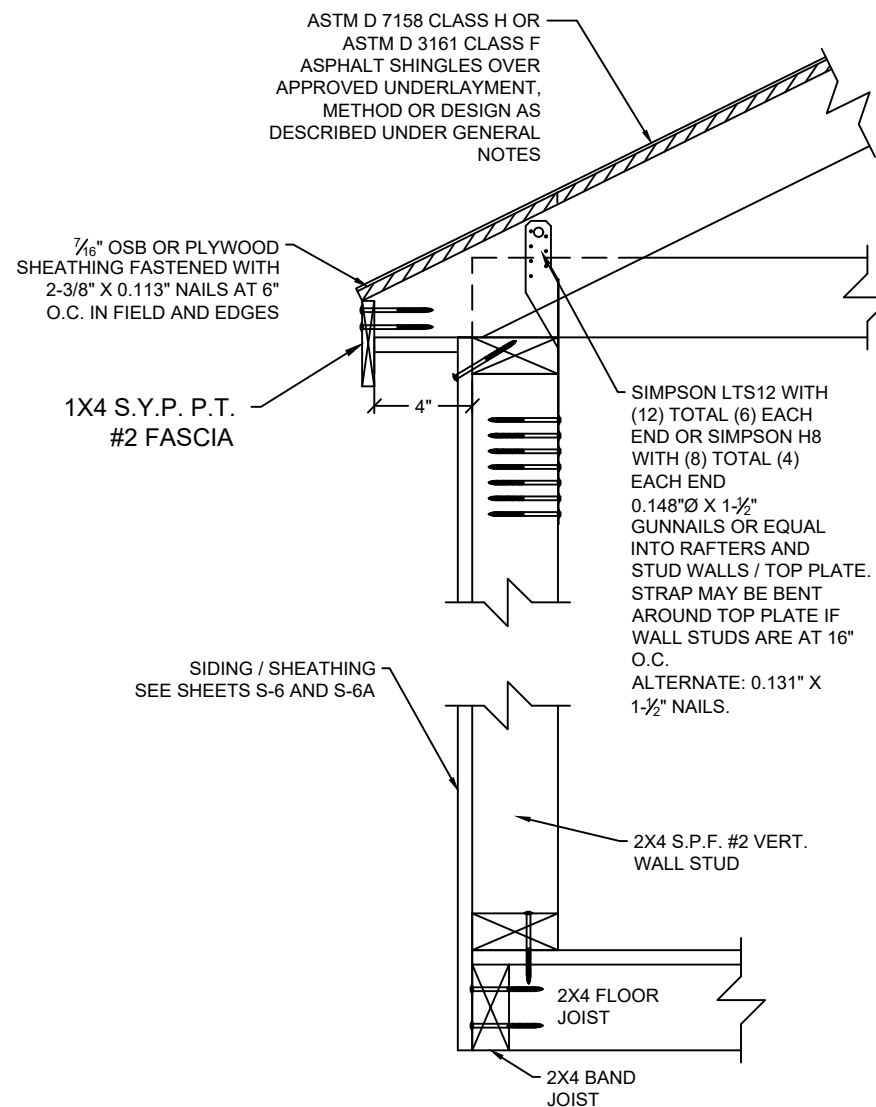


1
S-13 **DOUBLE TRUSS DETAIL**
SCALE: 1-1/2" = 1'-0"



2
S-13 **WALL STUD TO RAFTER FASTENING**
SCALE: 1-1/2" = 1'-0"

NOTE:
FOR ALL FASTENING OF FRAMING MEMBERS NOT NOTED ON THIS SHEET, REFER TO FASTENING SCHEDULE ON SHEET S-4.



3
S-13 **ALTERNATE WALL STUD TO RAFTER AND FLOOR FASTENING DETAIL**
SCALE: 1-1/2" = 1'-0"

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FL PE Name: Kent M. Bice
FL PE #: 50421
FL COA #: 30468



01/26/23

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DETAILS			
DATE: 12/08/20	DRAWN BY: RD		
SCALE: AS NOTED	CHECKED BY: KMB		

SHEET:
S-13
SHEET 14 OF 15

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18 GA. GALVANIZED STEEL WITH
(12) TOTAL (6) EACH END
0.148"Ø X 1-1/2" NAILS OR EQUAL INTO
RAFTERS AND STUD WALLS

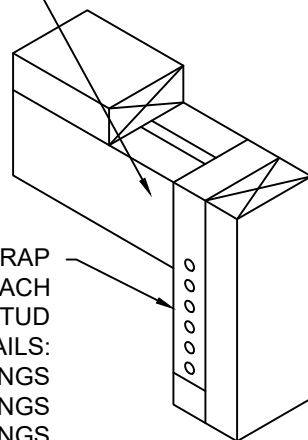
1
S-14 **SIMPSON STRAP DETAIL**
SCALE: 3" = 1'-0"

NOTE: USED ON EVERY
WALL STUD TO
CONNECT WALL TO
ROOF TRUSS

SIMPSON CS20 20 GA X 1-1/4"
GALV. STEEL STRAP WITH
(18) 0.131"Ø X 2-1/4" NAILS
OR EQUAL (9) INTO
RAFTERS AND (9) INTO
STUD WALL

2
S-14 **STRAP DETAIL**
SCALE: 3" = 1'-0"

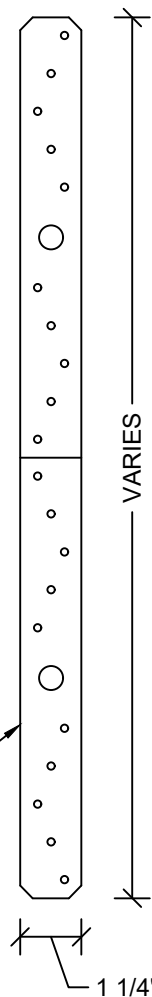
FOR MAX. 4'-0" WIDE X 5'-10" DEEP OPENINGS
IN SIDE WALL - (2) 2X4 S.P.F. #2 WITH 1/2"
PLYWOOD FILLER.
FOR MAX. 6'-0" WIDE X 5'-10" DEEP OPENINGS
IN SIDE WALL - (2) 2X6 S.P.F. #2 WITH 1/2"
PLYWOOD FILLER OR (2) 1-3/4" X 3-1/2" 1.9E
MICROLLAM LVL
FOR OPENINGS IN END WALL:
(2) 2X4 S.P.F. #2 WITH 1/2" PLYWOOD FILLER.



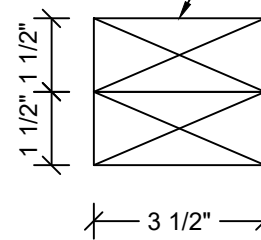
SIMPSON CS20 20GA. X 1-1/4" STRAP
WRAPPED OVER HEADER. ATTACH
STRAP TO EACH SIDE OF JACK STUD
WITH 0.131"Ø GUNNAILS:
(3) NAILS FOR UP TO 3'-0" WIDE OPENINGS
(6) NAILS FOR UP TO 6'-0" WIDE OPENINGS
(9) NAILS FOR UP TO 8'-0" WIDE OPENINGS

7
S-14 **HEADER WITH STRAP**
SCALE: N.T.S.

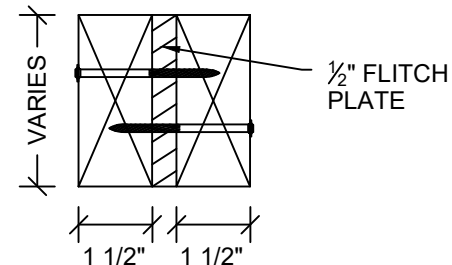
Note:
FOR MAX. 6'-0" WIDE X 5'-10"
DEEP OPENING ON SIDE WALL.
AND MAX. 8'-0" WIDE X 6'-8"
DEEP OPENING ON END WALL.



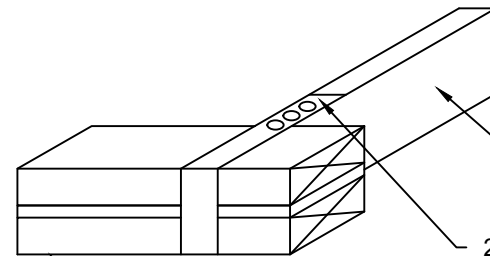
2X4 S.P.F. #2 TOP PLATE
FOR MAX. 3'-0" WIDE OPENING:
2X4 S.P.F. #2 IN END WALL.
1-3/4"X3-1/2" 1.9E MICROLLAM
LVL IN SIDE WALL



3
S-14 **HEADER SECTION**
SCALE: 3" = 1'-0"



4
S-14 **HEADER SECTION**
SCALE: 3" = 1'-0"



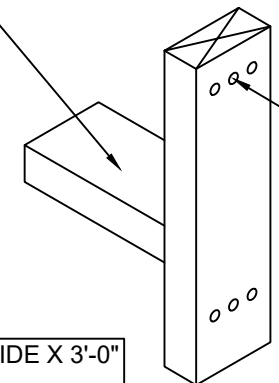
(2) - 2X S.P.F. #2 WITH
1/2" PLYWOOD FILLER
SEE DETAIL ON 3/S-15

8
S-14 **CRIPPLE STUD WITH STRAP DETAIL**
SCALE: N.T.S.

2X4 CRIPPLE STUD

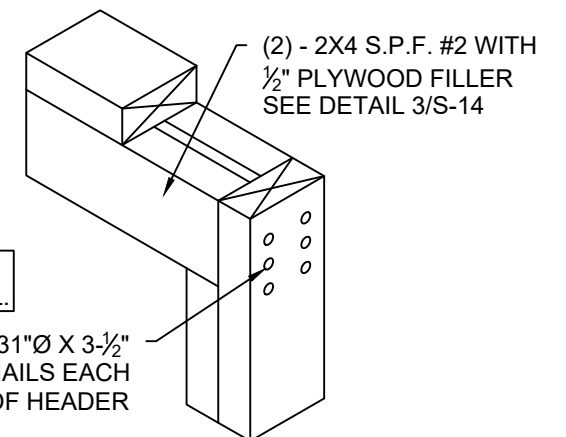
20 GA. STRAP TO WRAP UNDER
DOOR HEADER TO OTHER SIDE
OF CRIPPLE STUD WITH (3)
0.131"Ø X 2-1/4" GUNNAILS OR
EQUAL ON EACH SIDE

2X4 S.P.F. #2
LAID FLAT



NOTE:
FOR MAX. 2'-0" WIDE X 3'-0"
DEEP WINDOW.

5
S-14 **WINDOW HEADER AND SILL DETAIL**
SCALE: N.T.S.



NOTE:
FOR MAX. 6'-0" WIDE X 6'-8"
DEEP OPENING ON END WALL.

(6) 0.131"Ø X 3-1/2"
GUNNAILS EACH
END OF HEADER

6
S-14 **HEADER WITHOUT STRAP**
SCALE: N.T.S.

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S-14

SHEET 15 OF 15

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