

CONNECTOR TABLE

Uplift	Top Connection	Bottom Connection	To Truss/Rafter
615	485	SDWC15600	-
415	290	H3	4-8dX1 1/2"
575	495	H2.5A	5-8dX1 1/2"
1340	1015	H10A	9-10dX1 1/2"
720	620	LTS12-20	6-10dX1 1/2"
1000	860	MTS12-30	7-10dX1 1/2"
1450	1245	HTS20-30	12-10dX1 1/2"
up to 2250 lb	(2) HTS16	HTT4	12-10dX1 1/2"

EXTERIOR WALL STUD TABLE FOR SPF #2 STUDS:

THIS STUD HEIGHT TABLE IS PER 2012 WFCM, TABLE 3.20B5, EXTERIOR LOAD BEARING & NON LOAD BEARING STUD LENGTHS FOR WALLS WITH OSB EXTERIOR AND 1/2" GYP INTERIOR RESISTING INTERIOR ZONE WINDLOADS, 130 MPH, EXPOSURE C, STUD DEFLECTION LIMIT H/240 (NOT OK FOR BRITTLE FINISH). STUD SPACINGS SHALL BE MULTIPLIED BY 0.8 FOR FRAMING LOCATED WITHIN 4 FEET OF CORNERS FOR END ZONE LOADING. (END ZONE EXAMPLE 16" O.C. x 0.8 = 12.8" O.C.)

Uplift	Top Connection	Bottom Connection	To Stud / Post	Anchor
1235	1235	LSTA21	9-10d	9-10d
1640	1455	MSTA24	9-10d	9-10d
1030	1030	CS20	7-10d	7-10d
585	535	SP1	6-10d	4-10d
1065	605	SP2	6-10d	6-10d
771	771	LSTA24	12-10d	wrap under or over plate
1235	1235	LSTA24	14-10d	wrap under or over plate
Uplift SP	Uplift SP	Holdsdowns @ Stewall	To Stud / Post	Anchor
1825	1800	DTT22	8-SDS 1/4"x1 1/2"	1/2"x12" Titen HD
4235	3640	HTT4	18-16dX2 1/2"	1/2"x12" Titen HD
1825	1800	DTT22	8-SDS 1/4"x1 1/2"	1/2"x12" Titen HD
4235	3640	HTT4	18-16dX2 1/2"	1/2"x12" Titen HD
Uplift SP	Uplift SP	Post Bases @ Stewall	To Post	Anchor
1970	1970	ABU4Z	12-16d	5/8"x12" Drill & Epoxy
2475	2475	ABU6Z	12-16d	5/8"x12" Drill & Epoxy
Uplift SP	Uplift SP	Post Bases @ Mono	To Post	Anchor
1970	1970	ABU4Z	12-16d	5/8"x7" Drill & Epoxy
2475	2475	ABU6Z	12-16d	5/8"x7" Drill & Epoxy

GRADE & SPECIES TABLE

Grade	Species	Fb	E
2x8	SP #2	925	1.4
2x10	SP #2	800	1.4
2x12	SP #2	750	1.4
GLB	24F-V3 SP	2600	1.9
LVL	MICROLAM	1700	1.7
LVL	TIMBERSTRAND	2950	2.0
PSL	PARALAM	2900	2.0

GENERAL NOTES:

TRUSSES - TRUSSES SHALL BE DESIGNED BY A FLORIDA LICENSED ENGINEER IN ACCORDANCE WITH THE FBCR. TRUSS ENGINEERING SHALL INCLUDE TRUSS DESIGN, TEMPORARY AND PERMANENT BRACING DETAILS, TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS. TRUSS ENGINEERING IS THE RESPONSIBILITY OF THE TRUSS MANUFACTURER AND SHALL BE SIGNED AND SEALED BY THE MANUFACTURER'S DESIGN ENGINEER. IT IS THE BUILDER'S RESPONSIBILITY TO VERIFY THE TRUSS DESIGNER'S DESIGN AND THE ABOVE REQUIREMENTS AND TO SELECT UPLIFT CONNECTIONS BASED ON TRUSS ENGINEERING UPLIFT AND PROVIDE FOOTINGS FOR INTERIOR BEARING WALLS. BUILDER IS TO FURNISH TRUSS ENGINEERING TO WIND LOAD ENGINEER FOR NEW TRUSS REACTION ON THE BUILDING STRUCTURE. STRAP 2X6 RAFTERS WITH MIN. UPLIFT CONNECTION 415LB EACH END; 2X8 RAFTERS 700 LB EACH END.

SITE PREPARATION: SITE ANALYSIS AND PREPARATION IS NOT PART OF THIS PLAN. FOUNDATION: CONFIRM THAT THE FOUNDATION DESIGN & SITE CONDITIONS MEET GRAVITY LOAD REQUIREMENTS (ASSUME 1000 PSF BEARING CAPACITY UNLESS OTHERWISE NOTED). CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS, F_c = 2500 PSI. WELDED WIRE REINFORCED SLAB: 6" x 6" W/ 4 # W1.4 W/ 4 # BARS. WELDED WIRE REINFORCEMENT FABRIC (W.W.R.) CONFORMING TO ASTM A185 LOCATED IN MIDDLE OF THE SLAB, SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACINGS NOT TO EXCEED 3'. FIBER CONCRETE SLAB: CONCRETE SLABS ON GROUND CONTAINING SYNTHETIC FIBER REINFORCEMENT FIBER LENGTH 1/2" W/ 4 TO 12 INCHES. DOSAGE AMOUNTS FROM 0.75 TO 1.5 POUNDS PER CUBIC YARD PER THE MANUFACTURER'S RECOMMENDATIONS. FIBERS TO COMPLY WITH ASTM C1115. SUPERIOR TO PROVIDE ASTM C 1116 CERTIFICATION OF COMPLIANCE WHEN REQUESTED BY BUILDING OFFICIAL.

CONTROL JOINTS: WHERE SPECIFIED, SAWN CONTROL JOINTS IN SLAB-ON-GRADE SHALL BE CUT IN ACCORDANCE WITH ACI 302. JOINTS SHALL BE CUT WITHIN 12 HOURS OF SLAB PLACEMENT. THE LENGTH / WIDTH RATIOS OF SLAB AREAS SHALL NOT EXCEED 1.5 AND TYPICAL SPACING OF CUTS TO BE 12FT. DO NOT CUT W/ OR REINFORCING STEEL. (RECOMMENDED LOCATION OF CONTROL JOINTS IS SUBJECT TO OWNER AND CONTRACTOR'S APPROVAL. THE CONTROL JOINTS ARE NOT INTENDED TO PREVENT CRACKS BUT RATHER TO ENCOURAGE THE SLAB TO CRACK ON A GIVEN LINE.)

REBAR: ASTM A615, GRADE 40, DEFORMED BARS, F_y = 40 KSI. ALL LAP SPACES 40' DB (25' FOR #5 BARS); UNO ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 318-08, 11.0 & 12.0.

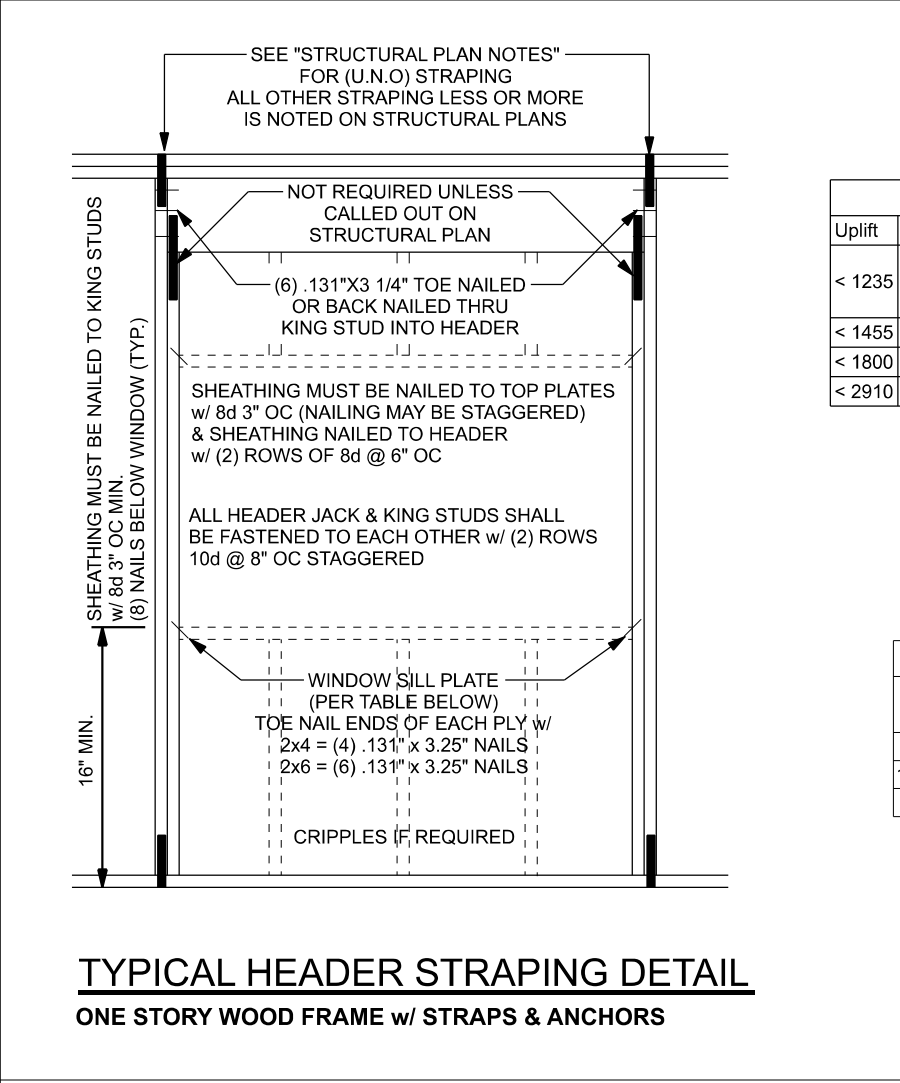
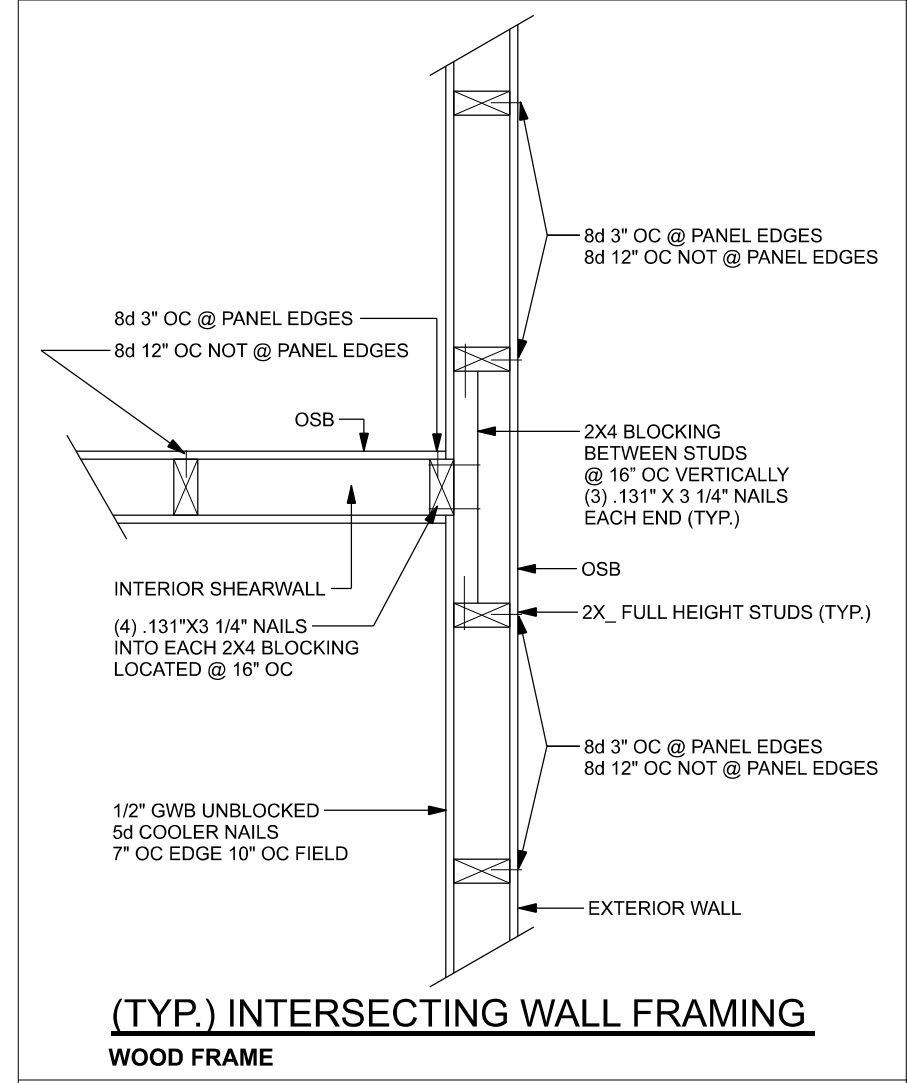
ROOF SHEATHING: ALL ROOFS ARE HORIZONTAL DIAPHRAGMS. SHEATHING UNBLOCKED, APPLIED PERPENDICULAR TO FRAMING, OVER A MINIMUM OF 3 FRAMING MEMBERS, WITH PANEL EDGES STAGGERED.

STRUCTURAL CONNECTORS: MANUFACTURERS AND PRODUCT NUMBER FOR CONNECTORS, ANCHORS, AND REINFORCEMENT ARE LISTED FOR EXAMPLE, NOT ENDORSEMENT. AN EQUIVALENT DEVICE OF THE SAME OR OTHER MANUFACTURER CAN BE SUBSTITUTED FOR ANY DEVICES LISTED IN THE EXAMPLE TABLES AS LONG AS IT MEETS THE REQUIRED LOAD CAPACITIES. MANUFACTURER'S INSTALLATION INSTRUCTIONS MUST BE FOLLOWED TO ACHIEVE RATED LOADS.

ANCHOR BOLTS: 4-30 ANCHOR BOLTS WITH MINIMUM EMBEDMENT AS SPECIFIED IN DRAWINGS BUT NOT LESS THAN 7" IN CONCRETE OR REINFORCED BOND BEAM OR 10" IN GROUTED CMU.

BUILDER'S RESPONSIBILITY:
THE BUILDER AND OWNER ARE RESPONSIBLE FOR THE FOLLOWING, WHICH ARE SPECIFICALLY NOT PART OF THE WIND LOAD ENGINEER'S SCOPE OF WORK. CONFIRM SITE CONDITIONS, FOUNDATION BEARING CAPACITY, GRADE AND BACKFILL HEIGHT, WIND SPEED AND DEBRIS ZONE, AND FLOOD ZONE. PROVIDE MATERIALS AND CONSTRUCTION TECHNIQUES, WHICH COMPLY WITH FBCR REQUIREMENTS FOR THE STATED WIND VELOCITY AND DESIGN PRESSURES. PROVIDE A CONTINUOUS LOAD PATH FROM TRUSSES TO FOUNDATION, IF YOU BELIEVE THE PLAN OWNER'S A CONTINUOUS LOAD PATH CONNECTION, CALL THE WIND ENGINEER IMMEDIATELY. VERIFY THE TRUSS MANUFACTURER'S SEaled ENGINEERING INCLUDES TRUSS DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS, TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS.

ROOF SYSTEM DESIGN:
THE SEAL ON THESE PLANS FOR COMPLIANCE WITH FBCR, IS BASED ON REACTIONS, UPLIFTS, AND BEARING LOCATIONS IN TRUSS ENGINEERING SUBMITTED TO THE WIND LOAD ENGINEER. IT IS THE RESPONSIBILITY OF THE BUILDER TO CHECK ALL DETAILS OF THE COMPLETE ROOF SYSTEM DESIGN SUBMITTED BY THE TRUSS MANUFACTURER AND HAVE IT SIGNED, AND SEALED BY A DESIGN PROFESSIONAL FOR CORRECT APPLICATION OF FBCR REQUIRED LOADS AND ANY SPECIAL LOADS. THE BUILDER IS RESPONSIBLE TO REVIEW EACH INDIVIDUAL TRUSS MEMBER AND THE TRUSS ROOF SYSTEM AS A WHOLE, AND TO PROVIDE RESTRAINT FOR ANY LATERAL BRACING. THE BUILDER SHOULD USE CARE CHECKING THE ROOF DESIGN BECAUSE THE WIND LOAD ENGINEER IS SPECIFICALLY NOT RESPONSIBLE FOR THE TRUSS LAYOUT WHICH WAS CREATED BY THE TRUSS MANUFACTURER AND THE TRUSS DESIGNER ALSO DENIES RESPONSIBILITY FOR THE LAYOUT PER NOTES ON THEIR SEAL SHEETS.



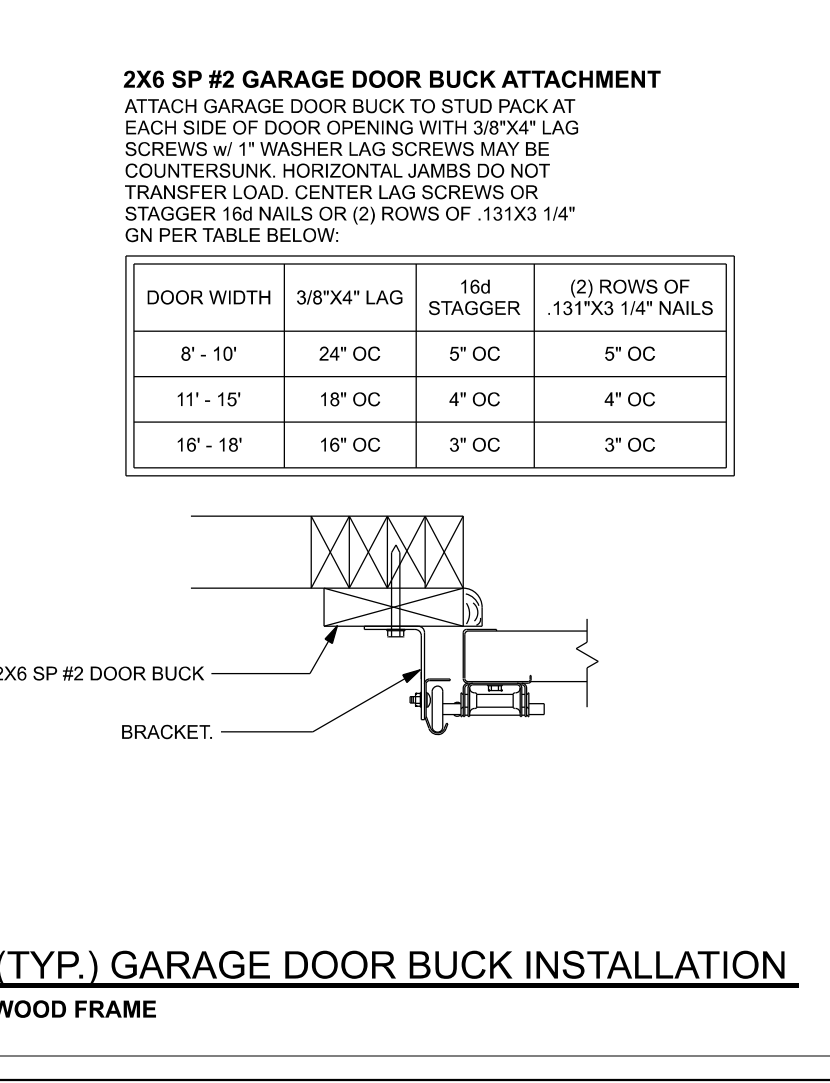
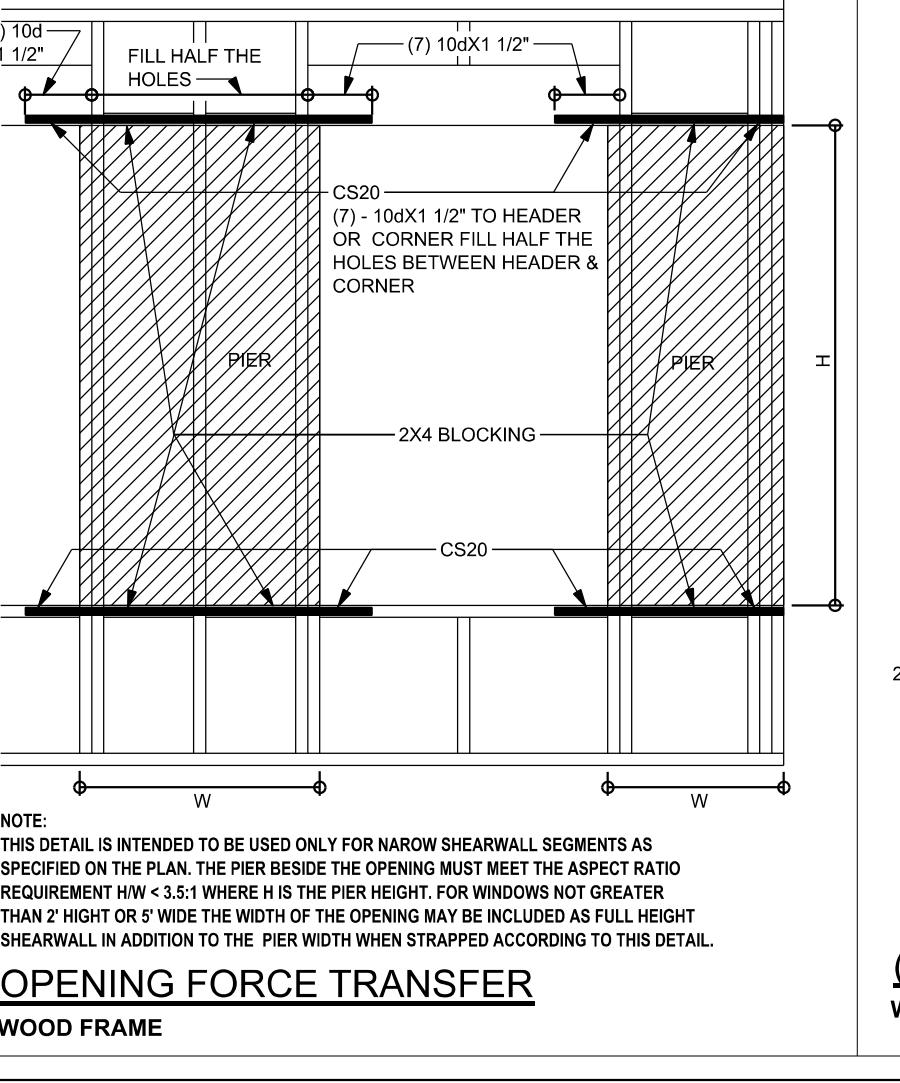
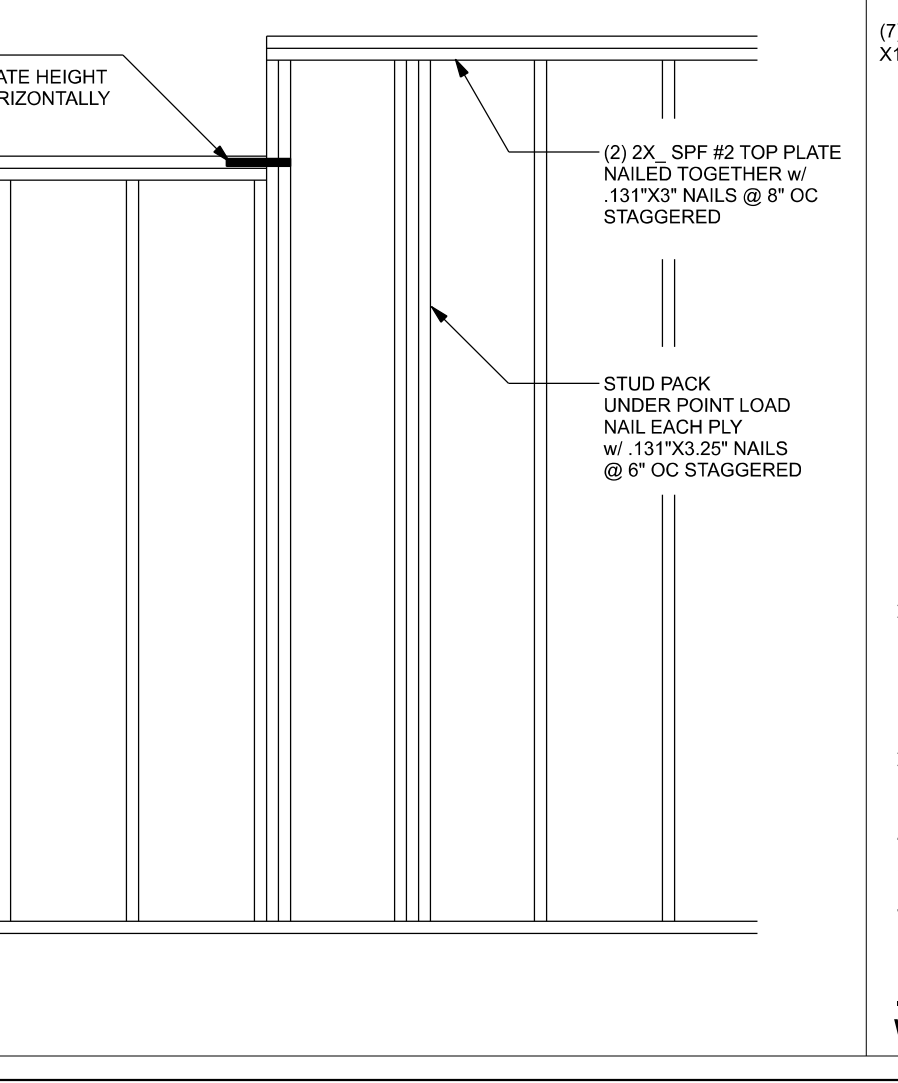
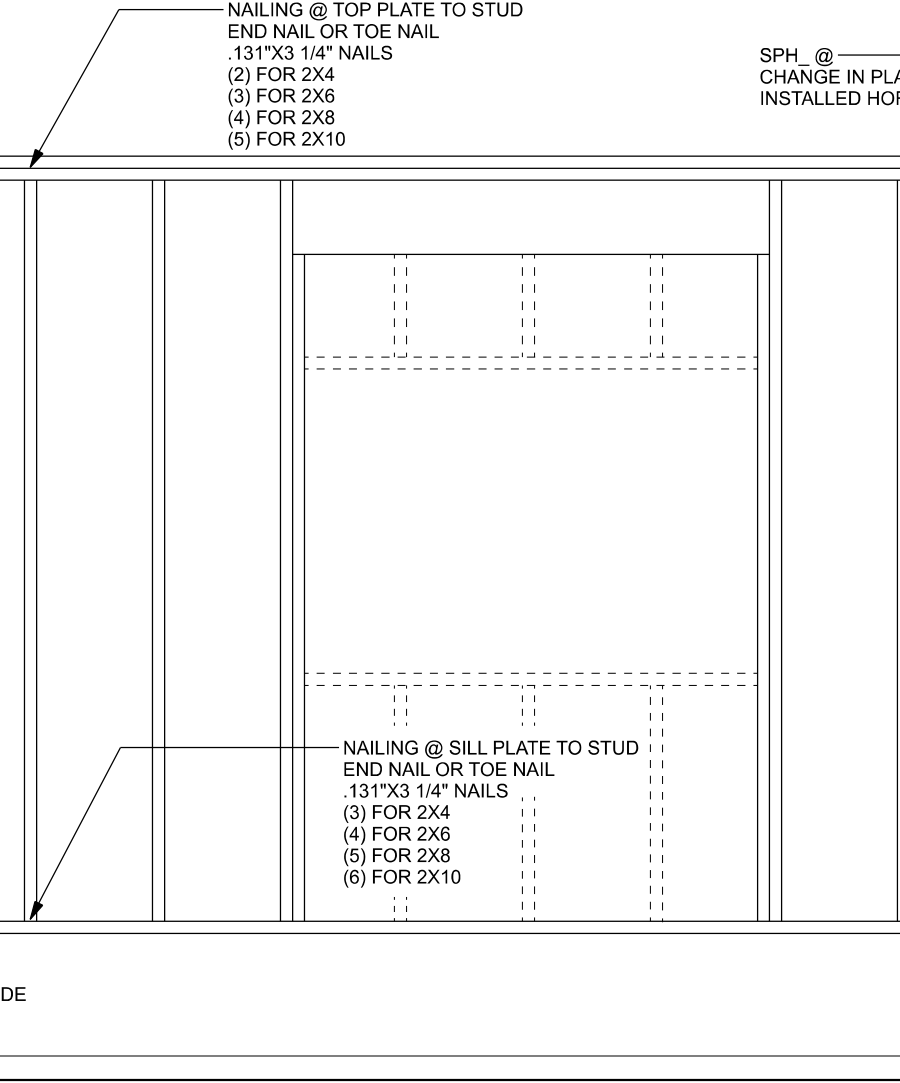
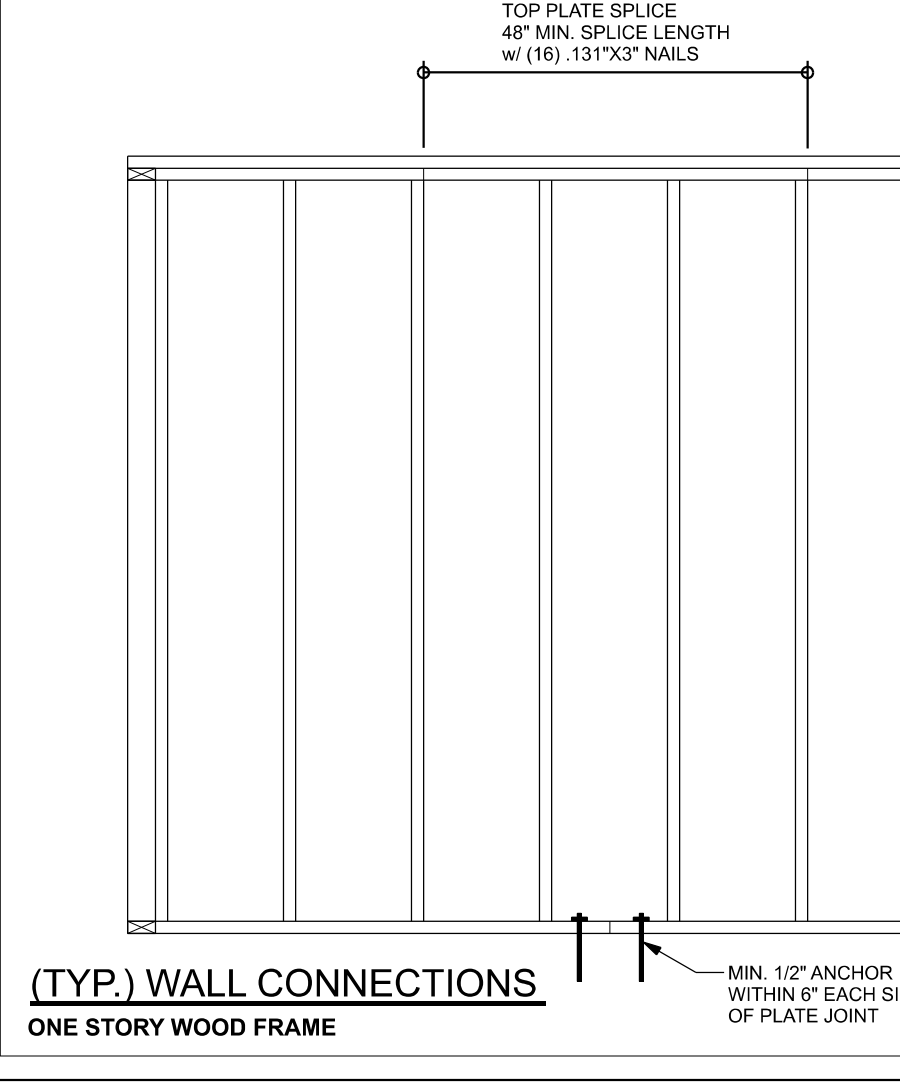
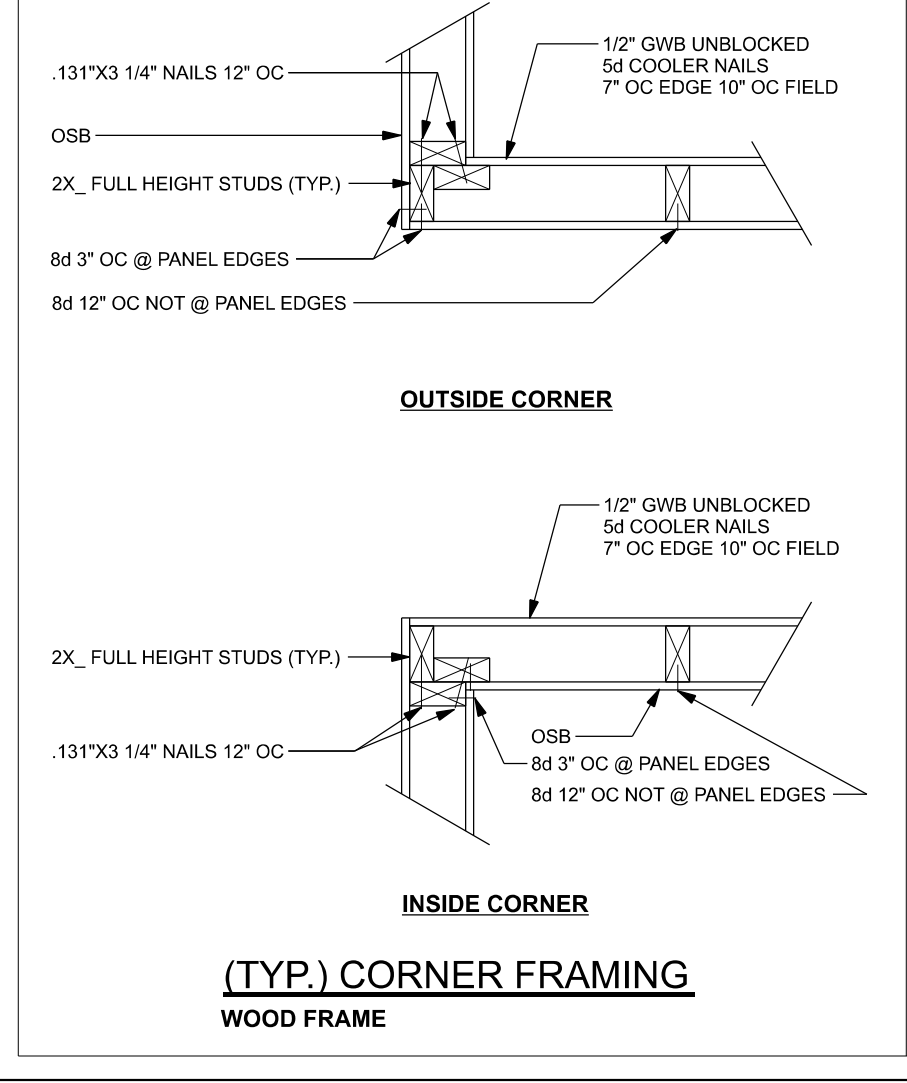
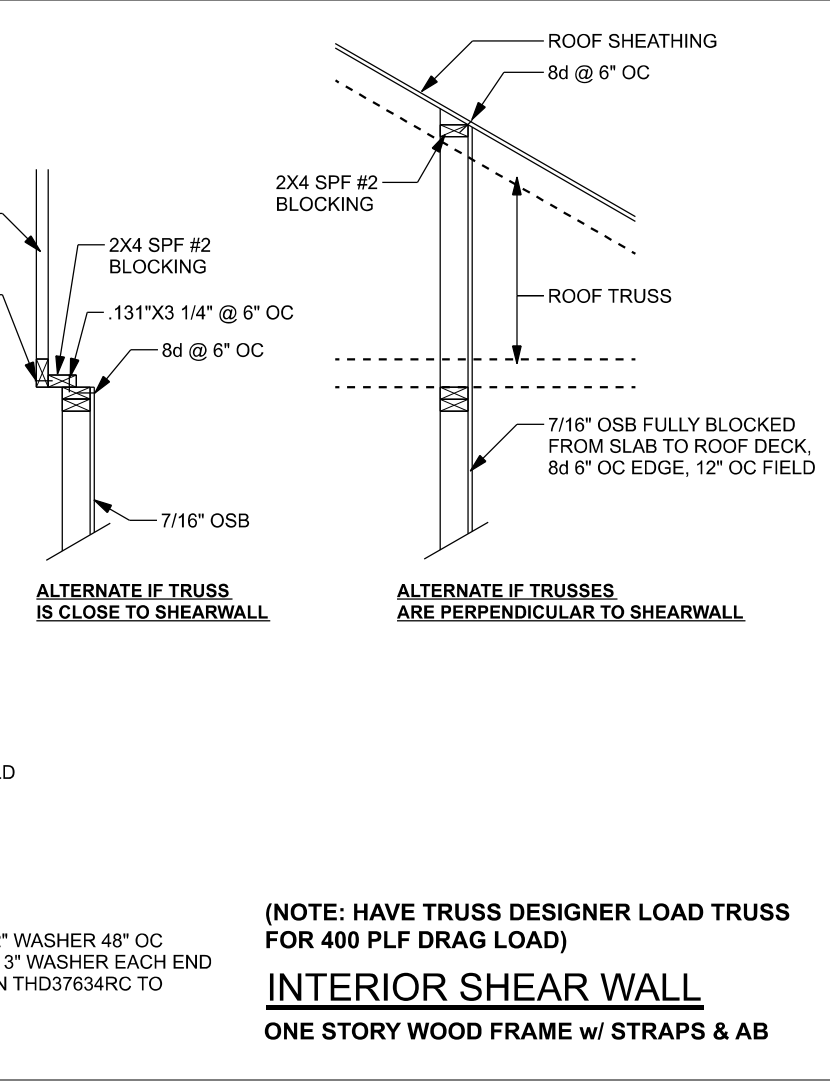
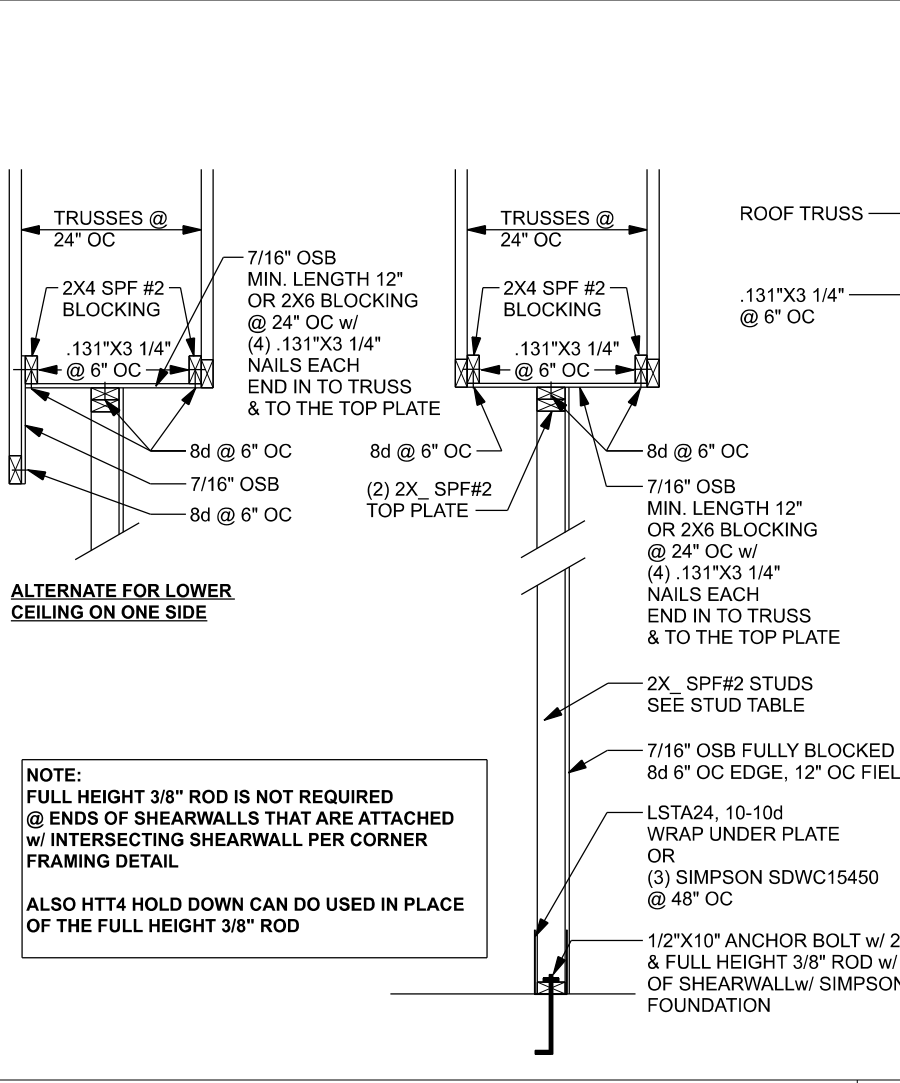
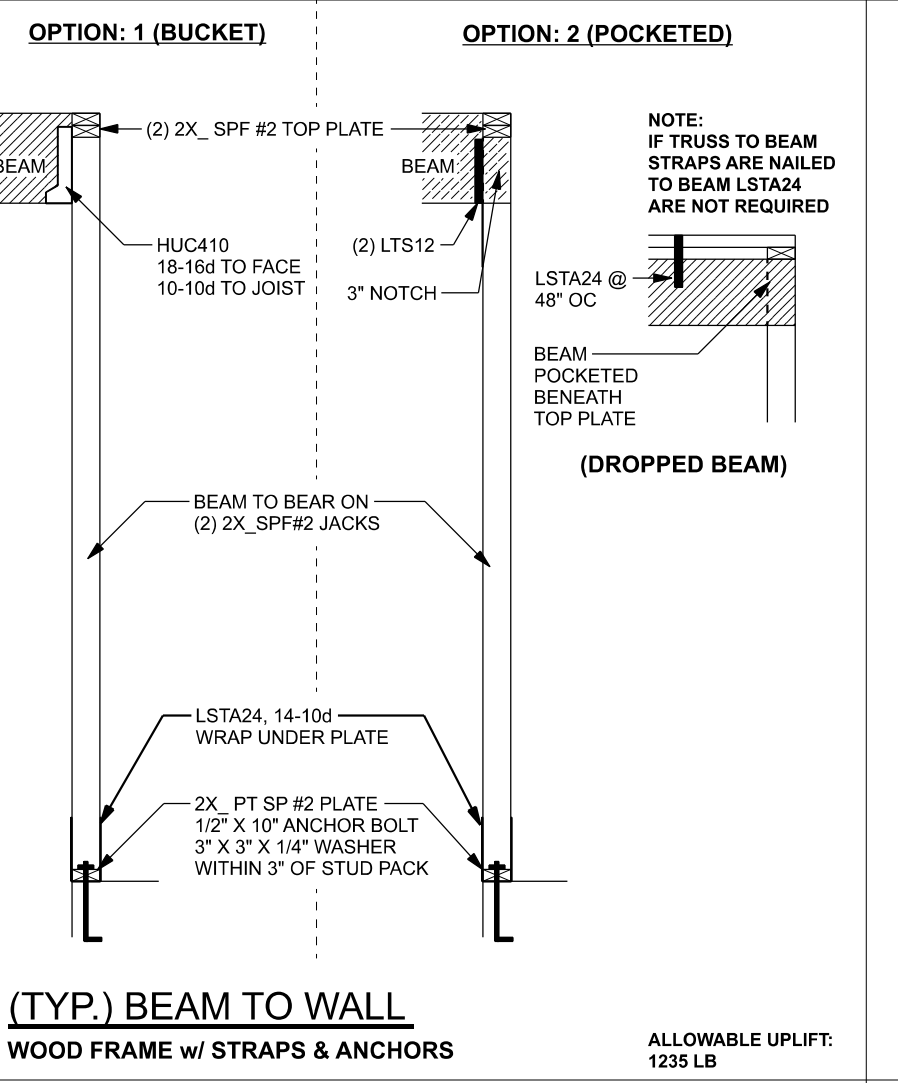
HEADER STRAP TABLE

Uplift	Top Connection	Bottom Connection
< 1235	LSTA24, 14-10d wrap over plate	LSTA24, 14-10d wrap under plate
< 1455	MSTA24, 18-10d header to jacks	DTT22
< 1600	(2) MSTA24, 18-10d header to jacks	DTT22
< 2810	(2) MSTA24, 18-10d header to jacks	HTT4

SILL PLATE SPANS FOR 10'-0" WALL HEIGHT

DESIGN WIND SPEED	MAX. SPANS FOR SPF #2	BASED ON WFCM TABLE A.3.2.9
130 MPH EXP. C	5'-2"	7'-9"
		11'-3"

FOR OTHER WALL HEIGHTS (9' SILL SPAN SHALL BE DIVIDED BY (H/10))



DESIGN CRITERIA & LOADS:

BUILDING CODE: 7TH EDITION FLORIDA BUILDING CODE RESIDENTIAL (2020)

CODE FOR DESIGN LOADS: ASCE 7-16

WINDLOADS

BASIC WIND SPEED (ASCE 7-16, 3S GUST): 130 MPH

TOPOGRAPHIC FACTOR (BUILDER MUST FIELD VERIFY): I

WIND EXPOSURE (BUILDER MUST FIELD VERIFY): I

RISK CATEGORY: II

ENCLOSURE CLASSIFICATION: ENCLOSED

INTERNAL PRESSURE COEFFICIENT: 0.18

ROOF ANGLE: 7-45 DEGREES

MEAN ROOF HEIGHT: 30 FT

C & D DESIGN PRESSURES SEE TABLE

FLOOR LOADING

ROOMS OTHER THAN SLEEPING ROOMS: 40 PSF LIVE LOAD

SLEEPING ROOMS: 30 PSF LIVE LOAD

ROOF LOADING

FLAT OR < 4:12: 20 PSF LIVE LOAD

4:12 TO < 12:12: 16 PSF LIVE LOAD

12:12 & GREATER: 12 PSF LIVE LOAD

SOIL BEARING CAPACITY 1500 PSF

FLOOD ZONE THIS BUILDING IS NOT IN THE FLOOD ZONE

COMPONENT & CLADDING DESIGN PRESSURES 130 MPH (EXP C)

EFFECTIVE WIND AREA (Ft ²)	ZONE 5 INTERIOR	ZONE 5 END 4' FROM ALL OUTSIDE CORNER
0 - 20	+25.6(Vasd) -27.8(Vasd)	+25.6(Vasd) -34.2(Vasd)
0 - 20	+42.6(VuIt) -48.2(VuIt)	+42.6(VuIt) -57.0(VuIt)

GARAGE DOOR DESIGN PRESSURES 130 MPH (EXP C)

9x7 GARAGE DOOR	15x7 GARAGE DOOR
+22.6(Vasd) -25.5(Vasd)	+21.7(Vasd) -24.1(Vasd)

Amiria Builders Short Res.

PROJECT ADDRESS: 269 SE CR 349 Lake City, FL 32025

COLUMBIA COUNTY BUILDING DEPARTMENT
Plans Reviewed for Code Compliance
State of Florida

DIMENSIONS: Stated dimensions supercede scaled dimensions. Refer all questions to Mark Disoway, P.E. for resolution. Do not proceed without clarification.

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CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with the 7th Edition Florida Building Code Residential (2020) to the best of my knowledge.

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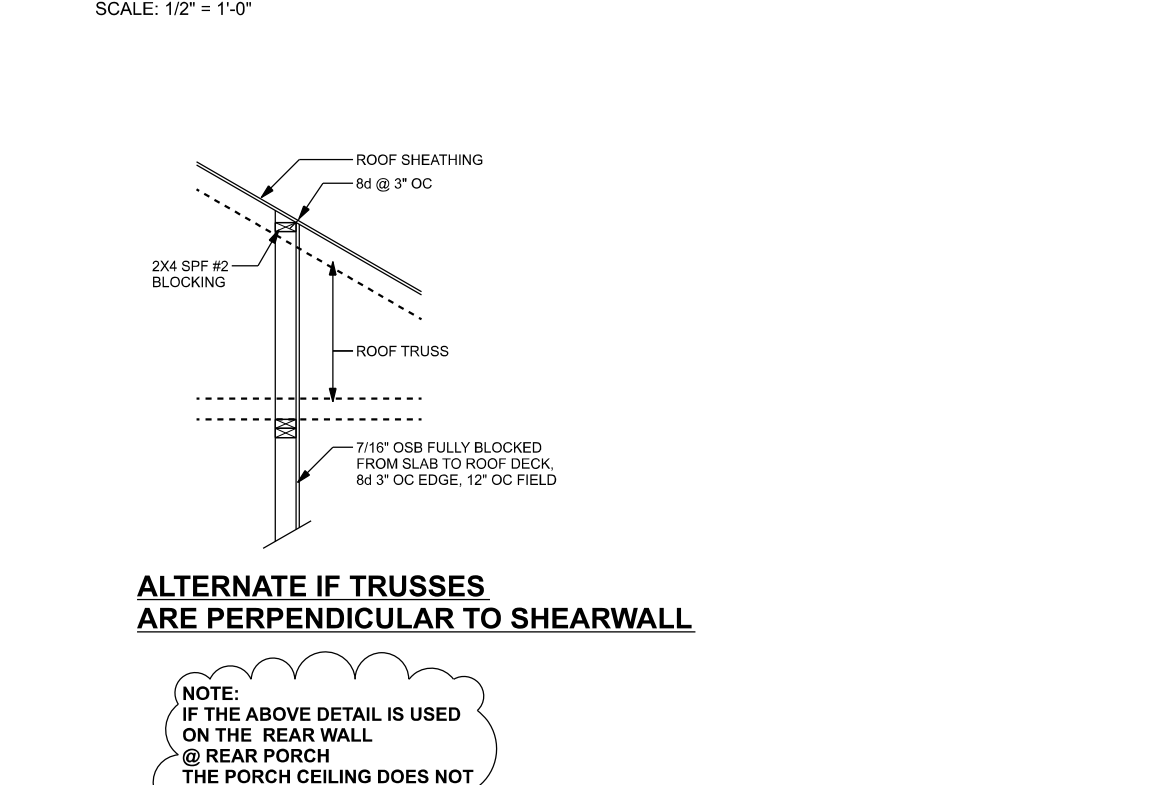
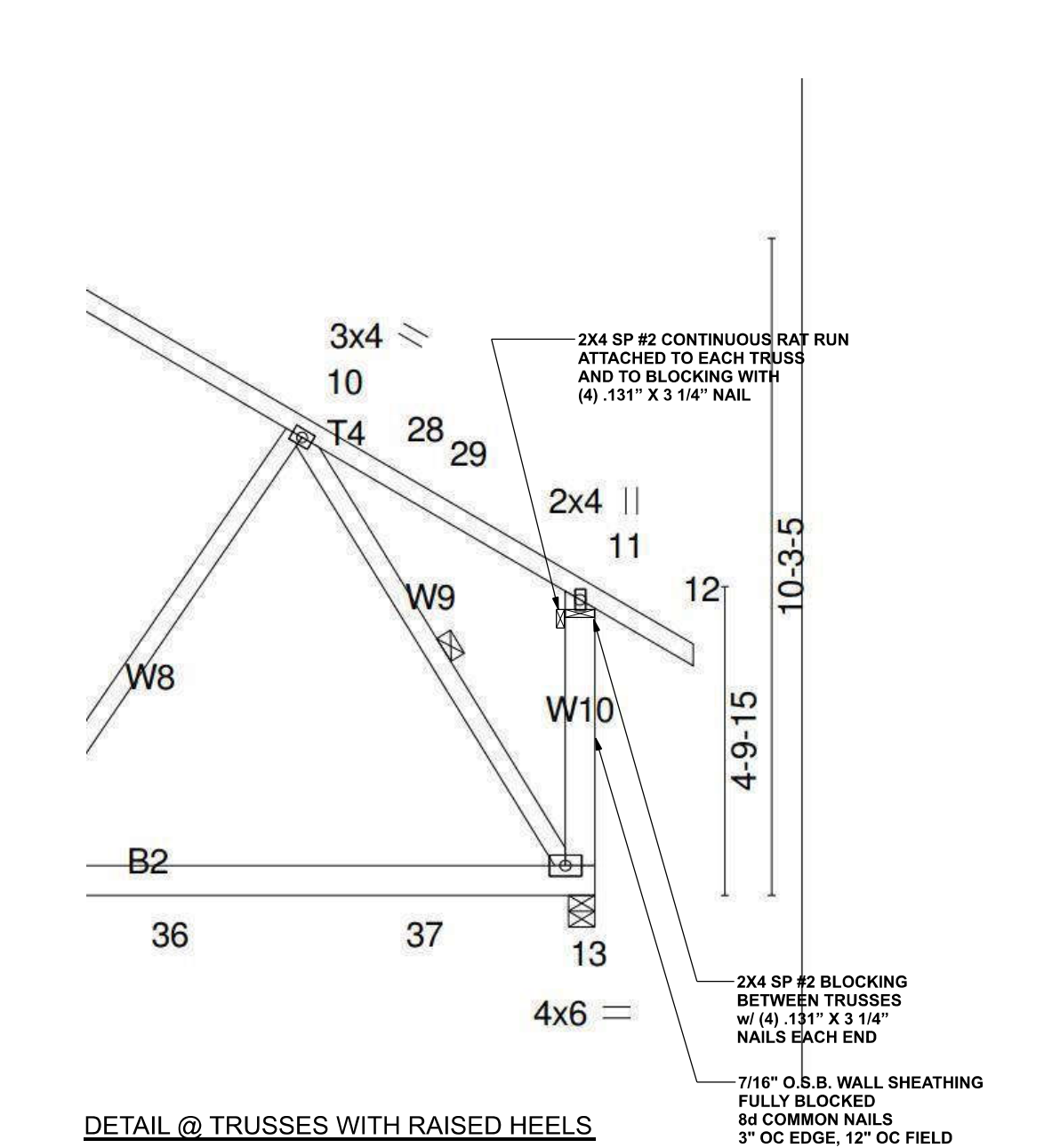
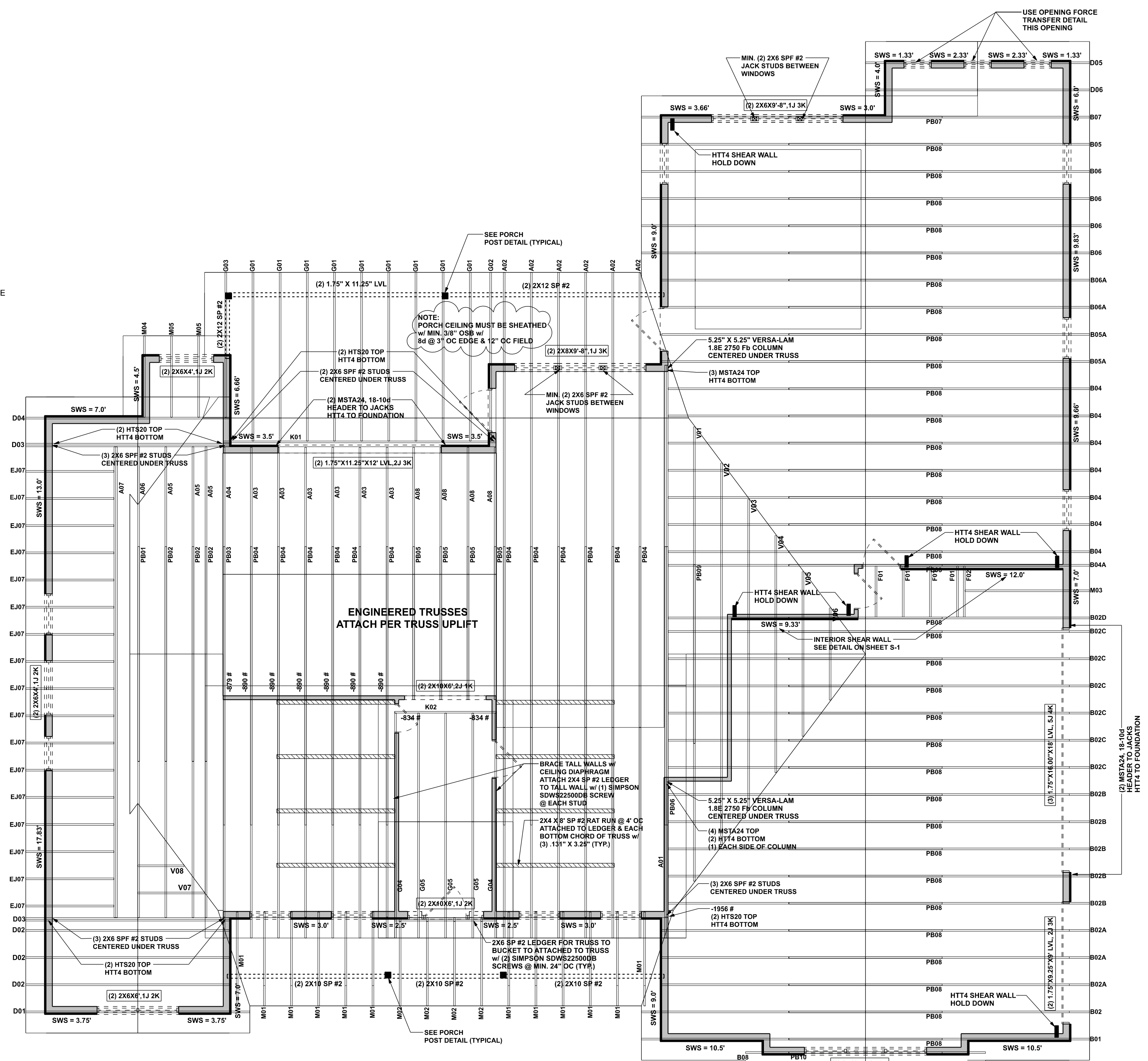
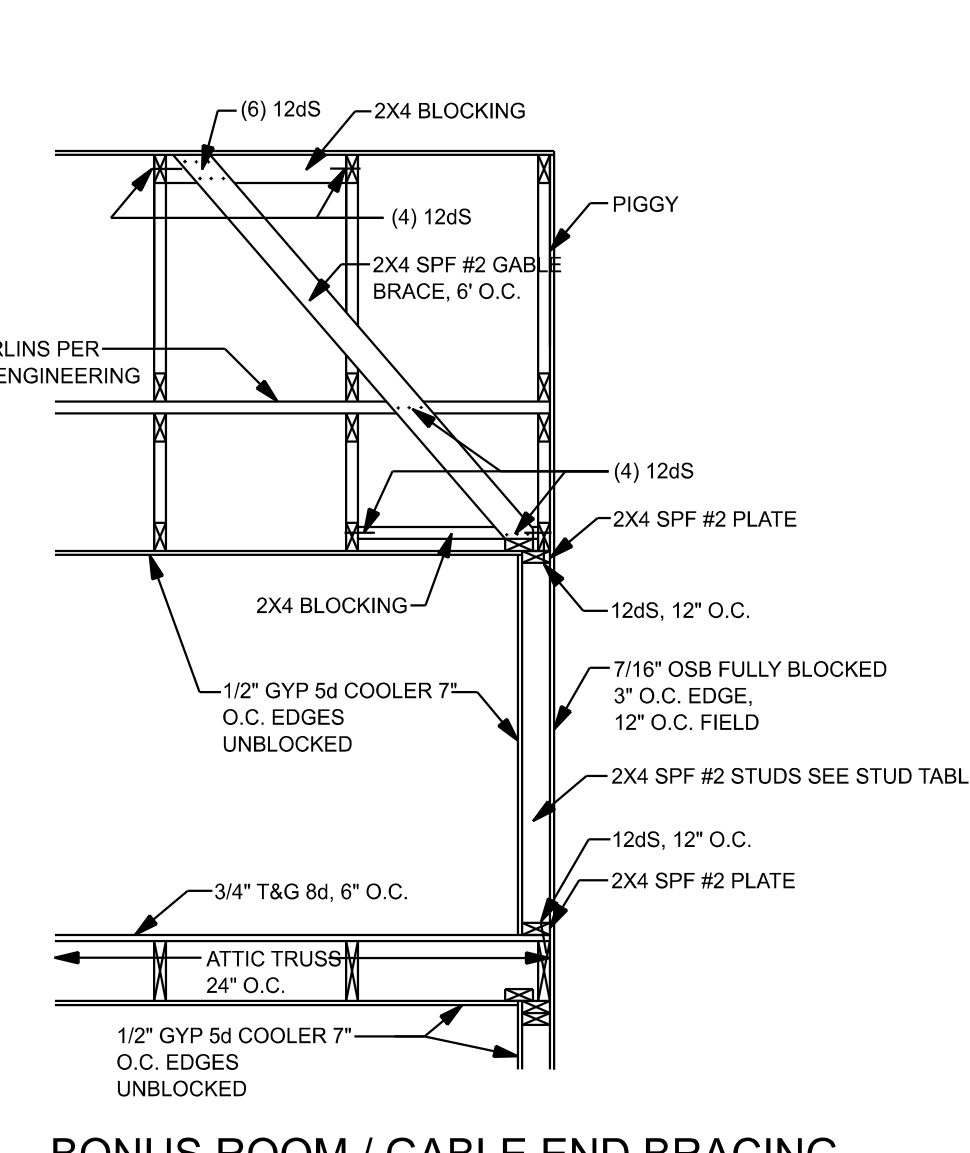
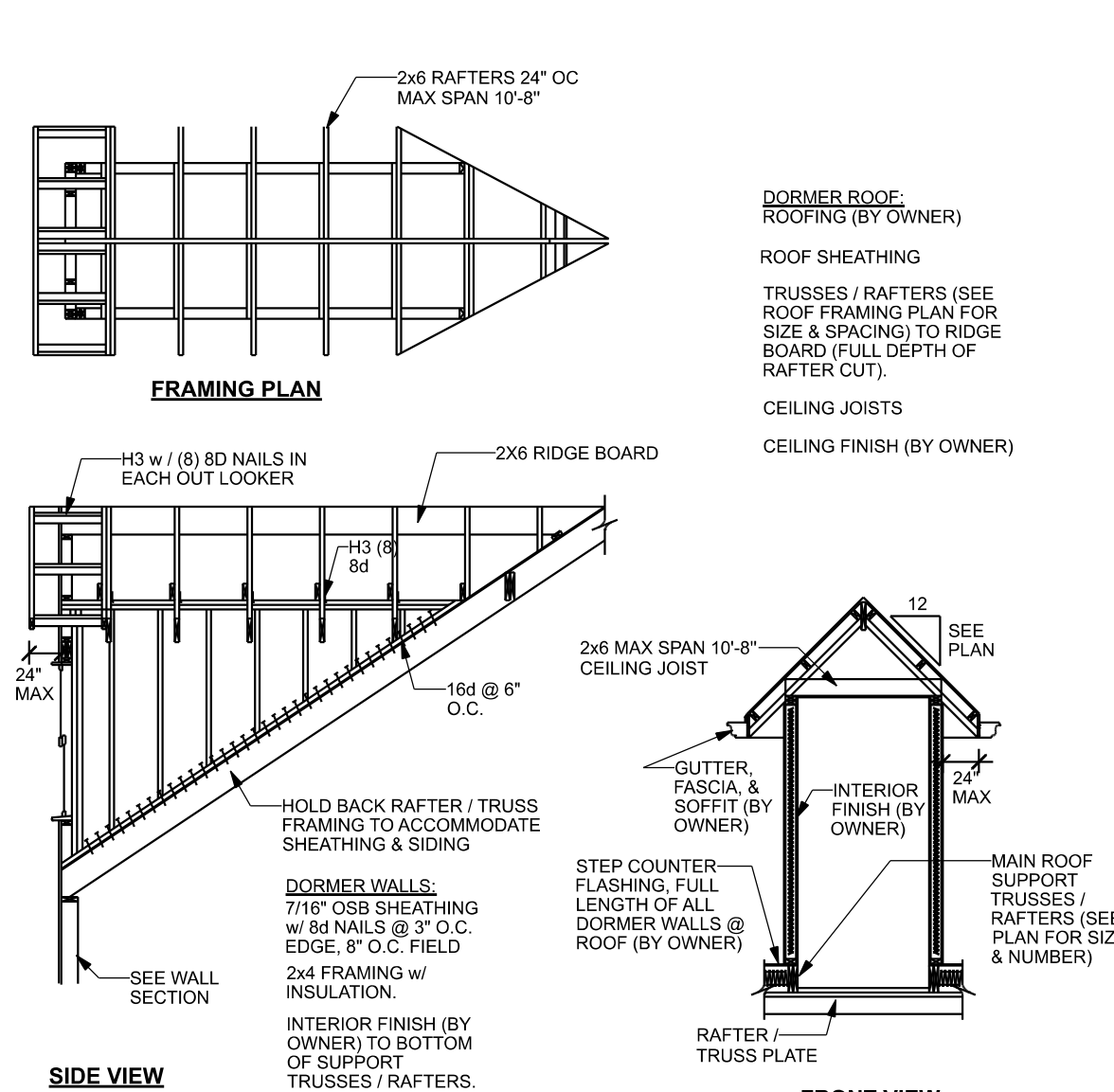
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DATE: APR 12 2022

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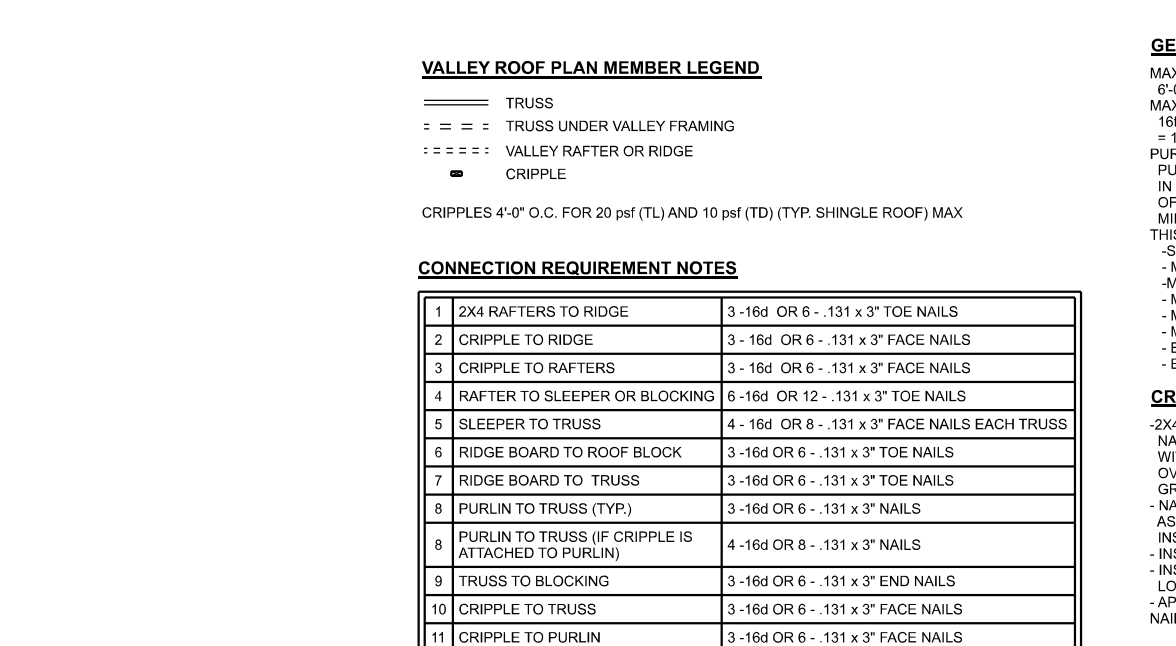
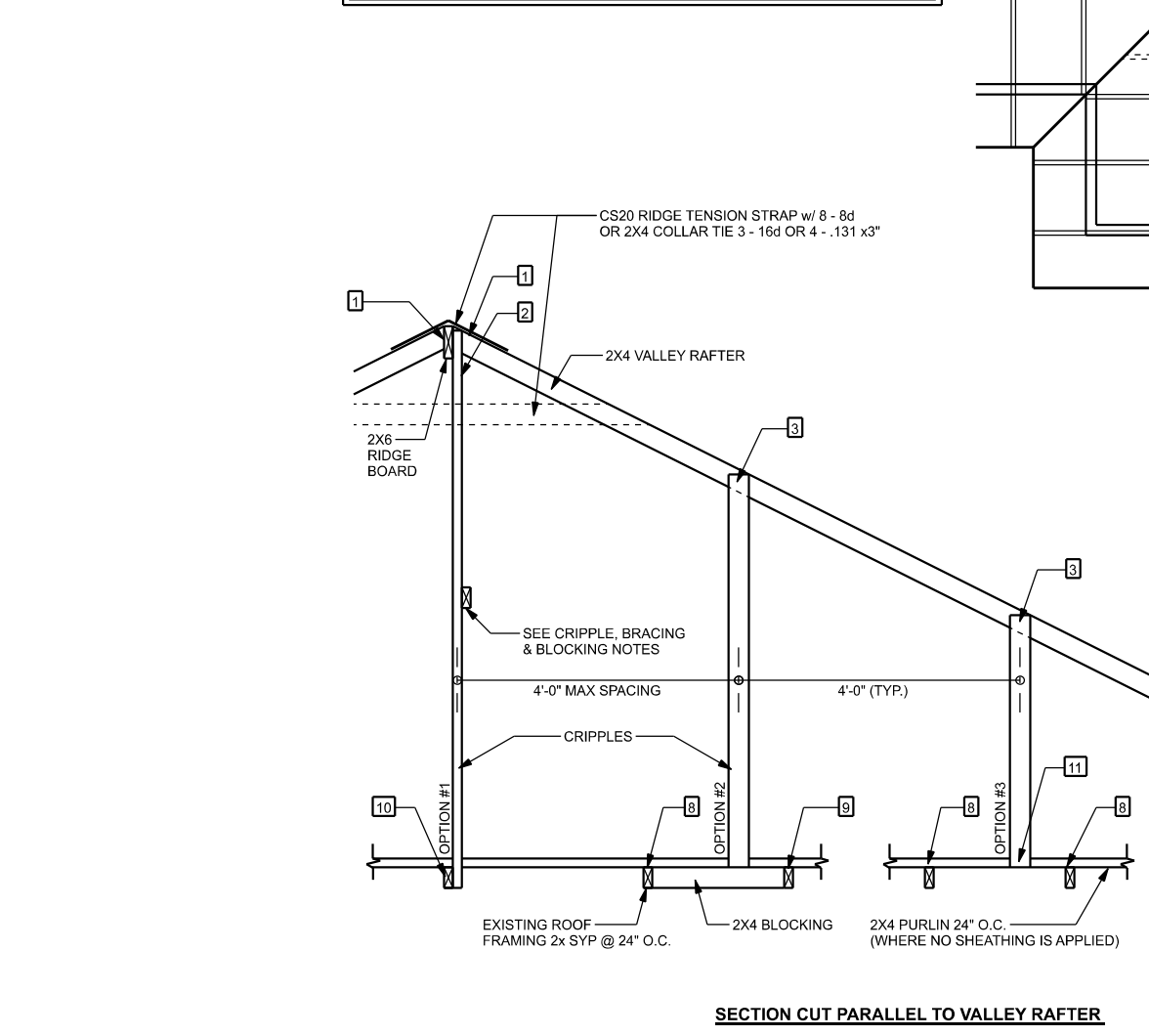
JOB NUMBER: 220428

S-1 OF 3 SHEETS



LUMBER SIZE & GRADE MINIMUM REQUIREMENTS

ROOF BOARD	2X6 SYP #2
RAFTER SPAN 20'0" OR LESS	2X4 SYP #2
PURLINS (LATERAL BRACING)	2X4 SYP #2
SLEEPERS	2X (WIDTH OF RAFTER SEAT CUT) SYP #3 OR 2X PURLINS 2X4 SYP #2
CRIPPLES & BLOCKING	2X4 SYP #2 OR BETTER
TRUSSES BELOW	SEE TRUSS DESIGN - SOUTHERN PINE MATERIAL



VALLEY ROOF PLAN MEMBER LEGEND

CONNECTION REQUIREMENT NOTES

1	2X4 RAFTERS TO RIDGE	3-16d OR 6 - 131 x 3" TOE NAILS
2	CRIPPLE TO RIDGE	3-16d OR 6 - 131 x 3" FACE NAILS
3	CRIPPLE TO RAFTERS	3-16d OR 6 - 131 x 3" FACE NAILS
4	RAFTER TO SLEEPER OR BLOCKING	4-16d OR 12 - 131 x 3" TOE NAILS EACH TRUSS
5	SLEEPER TO TRUSS	4-16d OR 8 - 131 x 3" FACE NAILS EACH TRUSS
6	ROOF BOARD TO ROOF BLOCK	3-16d OR 6 - 131 x 3" TOE NAILS
7	ROOF BOARD TO TRUSS	3-16d OR 6 - 131 x 3" TOE NAILS
8	PURLIN TO TRUSS (TYP)	3-16d OR 6 - 131 x 3" TOE NAILS
9	PURLIN TO TRUSS IF CRIPPLE IS ATTACHED TO PURLIN	4-16d OR 8 - 131 x 3" TOE NAILS
10	TRUSS TO BLOCKING	3-16d OR 6 - 131 x 3" END NAILS
11	CRIPPLE TO TRUSS	3-16d OR 6 - 131 x 3" FACE NAILS
12	CRIPPLE TO PURLIN	3-16d OR 6 - 131 x 3" FACE NAILS

ROOF OVER FRAMING & BRACING DETAIL
SCALE: N.T.S.

GENERAL NOTES

MAXIMUM RAFTER SPANS: 10' FOR 2X4 SYP FOR 2X6 SYP #2 OR 2X4 SYP #2

MAXIMUM ROOF AREA PER SUPPORT: 100 SQ. FT. IN ZONE 1, 200 SQ. FT. IN ZONE 2, 300 SQ. FT. IN ZONE 3. EXAMPLE: 4'-0" O.C. X 4'-0" SPAN = 160 SQ. FT. X 2'-0" SPAN = 160 SQ. FT.

PURLIN REQUIRED OVER LAP: IF EXISTING SHEATHING IS REMOVED, PURLIN SHOULD OVERLAP EXISTING ONE TRUSS SPACING MINIMUM IN CASES THAT THIS IS IMPRACTICAL, OVERLAP SHEATHING A MINIMUM OF 2" AND NAIL SPACING THROUGH SHEATHING INTO PURLIN WITH MINIMUM OF 8 - 8d COMMON WIRE NAILS

THIS DRAWING APPLIES TO VALLEYS WITH THE FOLLOWING CONDITIONS:

- SPANS (DISTANCES BETWEEN HELLS) 4'-0" OR LESS
- MAXIMUM WIND SPEED: 150 MPH
- MAXIMUM BEAM ROOF HEIGHT: 30 FEET
- MAXIMUM TOTAL LOADING: 40 psf
- MEETS RES. CODES & WIND REQUIREMENTS
- ENCLOSED BUILDING

CRIPPLE BRACING & BLOCKING NOTES

2X4 CONTINUOUS LATERAL BRACE (CLB) MIN. IS REQUIRED FOR CRIPPLES 5'-0" TO 10'-0" LONG NAILS: 2 - 16d NAILS OR 2X4 "D" OR SCAB BRACE NAILS: 4 - 16d NAILS

CRIPPLES OVER 10'-0" LONG REQUIRE TWO CLB OR BOTH FACES W/ "D" OR SCAB USE STRESS GRADING & 8 - 8d OR COMMON NAILS

NARROW EDGE OF CRIPPLE CAN FACE RIDGE OR RAFTER, AS LONG AS THE PROPER NUMBER OF NAILS ARE INSTALLED INTO RIDGE BOARD

INSTALL BLOCKING UNDER RAFTER IF SLEEPERS ARE NOT USED, INITIAL BLOCKING UNDER CRIPPLES IF CRIPPLES FALL BETWEEN LOWER TRUSS TOP CHORDS AND LATERAL BRACING IS NOT USED.

APPLY ALL NAILING IN ACCORDANCE TO NDS-1997 SECTION 12. NAILS ARE COMMON WIRE NAILS UNLESS NOTED OTHERWISE.

STRUCTURAL PLAN NOTES

SN-1 DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS

PERMANENT TRUSS BRACING IS TO BE INSTALLED AT LOCATIONS AS SHOWN ON THE SEALED TRUSS DRAWINGS. LATERAL BRACING IS TO BE RESTRAINED PER BC311-03, BC3181, BC3182, & BC3183. BC3181, BC3182, & BC3183 ARE FURNISHED BY THE TRUSS SUPPLIER, WITH THE SEALED TRUSS PACKAGE

UNLESS NOTED OTHERWISE (MINIMUM REQUIREMENTS) **SEE STRUCTURAL PLAN FOR ANY SPECIFIC CALL OUTS**

BEAM / HEADERS (SIZE) ALL LOAD BEARING FRAME WALL & PORCH HEADERS SHALL BE A MINIMUM OF (2) 2X6 SYP #2 (UNO)

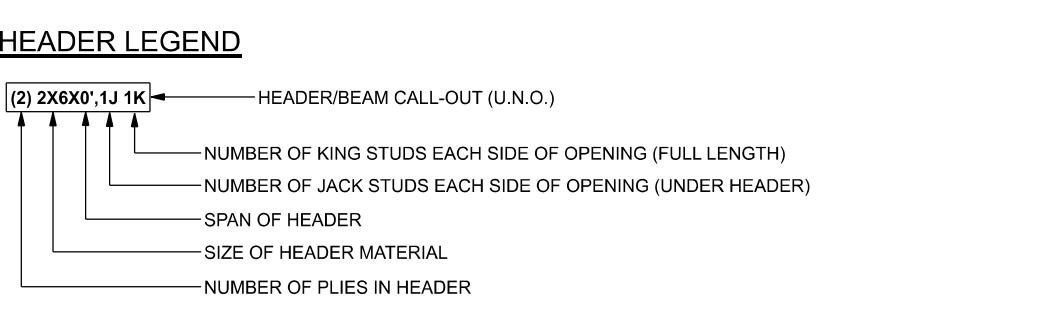
HEADERS (JACK & KING STUDS) ALL LOAD BEARING FRAME WALL HEADERS SHALL HAVE (1) JACK STUD & (1) KING STUD EACH SIDE (UNO)

HEADERS (STRAPPING) ALL HEADERS W/ UPLIFT TO BE STRAPPED DOWN @ EACH SIDE WITH (1) LSTA24, 14-10d @ TOP & BOTTOM OF WALL WRAP UNDER BOTTOM PLATE & OVER TOP PLATE. 1/2" X 10" ANCHOR BOLT W/ 3" X 3" X 1/4" WASHER MUST BE LOCATED WITHIN 6" OF KING STUD @ ALL DOOR LOCATIONS (U.N.O.)

JACK STUDS UNDER GIRDER TRUSS USE ONE JACK STUD GIRDER SUPPORT PER 2000 LB LOAD

ACTUAL vs REQUIRED SHEARWALL

	TRANSVERSE	LONGITUDINAL
ACTUAL	31044 LBF	26643 LBF
REQUIRED	25474 LBF	25681 LBF



Amira Builders
Short Res.
PROJECT ADDRESS:
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Lake City, FL 32025

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CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with the 7th Edition Florida Building Code Residential (2020) to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location.

MARK DISOWAY P.E. 53915

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JOB NUMBER:
220428

S-3
OF 3 SHEETS

CONNECTIONS, WALL & HEADER DESIGN IS BASED ON REACTIONS & UPLIFTS FROM TRUSS ENGINEERING FURNISHED BY BUILDER. BUILDERS FIRST SOURCE JOB #3025076



Tuesday, April 12, 2022