

**BAYSIDE ENGINEERING  
& CONSULTING, LLC**

15 GRANDVIEW DRIVE, SHALIMAR, FL 32579

PHONE: (850) 982-7515  
EMAIL: [LOEBAGG@BAYSIDE-ENG.COM](mailto:LOEBAGG@BAYSIDE-ENG.COM)

ENGINEERING FIRM REGISTRY NO. 34567

J.D. BASS, P.E. LICENSE NO. 78460

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HAS BEEN MADE IN THE  
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PLAN TO AVOID  
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ACCURACY BEFORE AND  
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## A NEW PLAN FOR:

**S.H.S. CONTRACTING SERVICES, LLC  
LOT 11 BLK Q MICHAELANGELO RD., DFS  
ELEVATIONS**

WALTON COUNTY, FLORIDA

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

DRAWN:  
MDC

CHECKED:  
JDB

**PROJECT NO:**  
25590.06

**CAD FILE:**  
25590.06.PLAN

DATE	REVISION

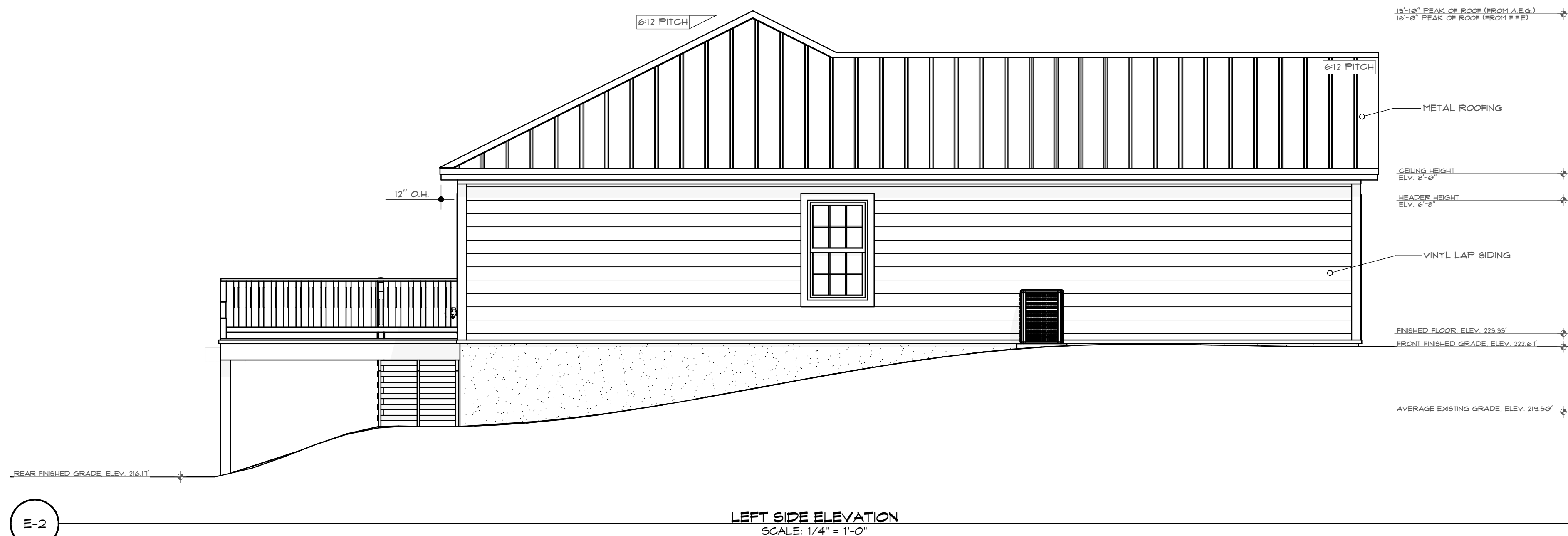
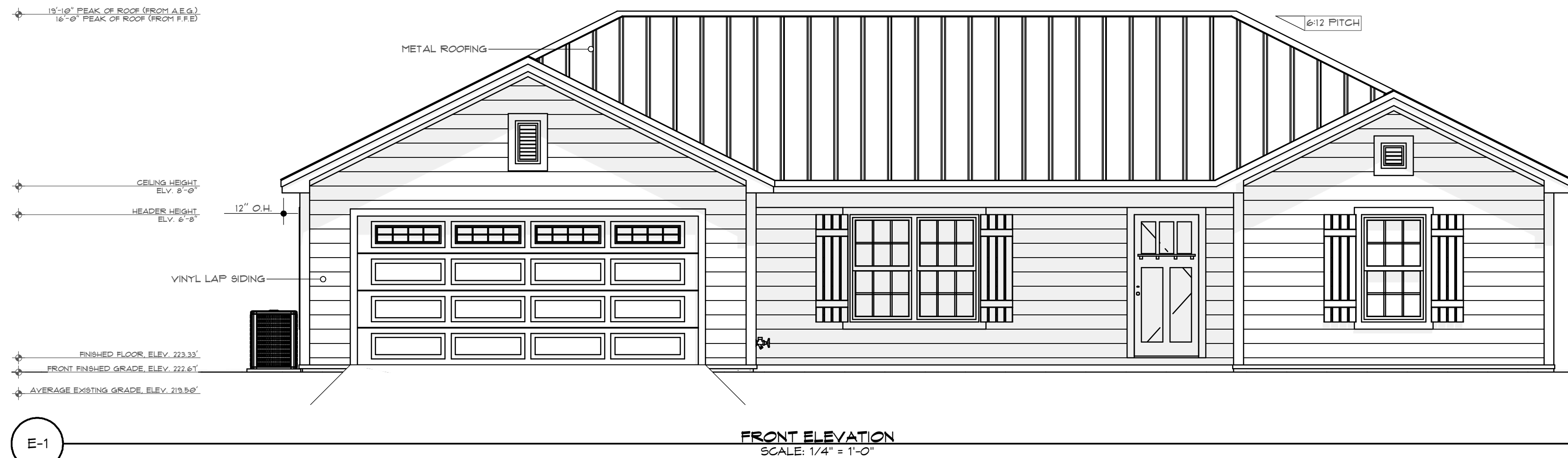
DATE:

**2/24/2025**

# FINAL

**SHEET NUMBER**

## A-1.1



SHEET INDEX	
A-1.1	ELEVATIONS
A-1.2	ELEVATIONS
A-3	FLOOR PLAN
A-4	FOUNDATION PLAN
A-5	ROOF FRAMING PLAN
A-6	ELECTRICAL PLAN
S-1	STRUCTURAL SHEET
S-2	STRUCTURAL SHEET
S-3	STRUCTURAL SHEET
S-4	STRUCTURAL SHEET

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GENERAL NOTES:

THIS PLAN SET, COBINED WITH THE BUILDING CONTRACT, PROVIDES BUILDING DETAILS FOR THE RESIDENTIAL PROJECT. THE CONTRACTOR SHALL VERIFY THAT SITE CONDITIONS ARE CONSISTENT WITH THESE PLANS BEFORE STARTING WORK. WORK NOT SPECIFICALLY DETAILED SHALL BE CONSTRUCTED TO THE SAME QUALITY AS SIMILAR WORK THAT IS DETAILED. ALL WORK SHALL BE DONE IN ACCORDANCE WITH FLORIDA BUILDING CODES AND LOCAL CODES. CONTRACTOR SHALL BE RESPONSIBLE AND BEAR ANY FINES OR PENALTIES FOR CODE, ORDINANCE, REGULATION OR BUILDING PROCESS VIOLATIONS. INSURANCES SHALL BE IN FORCE THROUGHOUT THE DURATION OF THE BUILDING PROJECT.

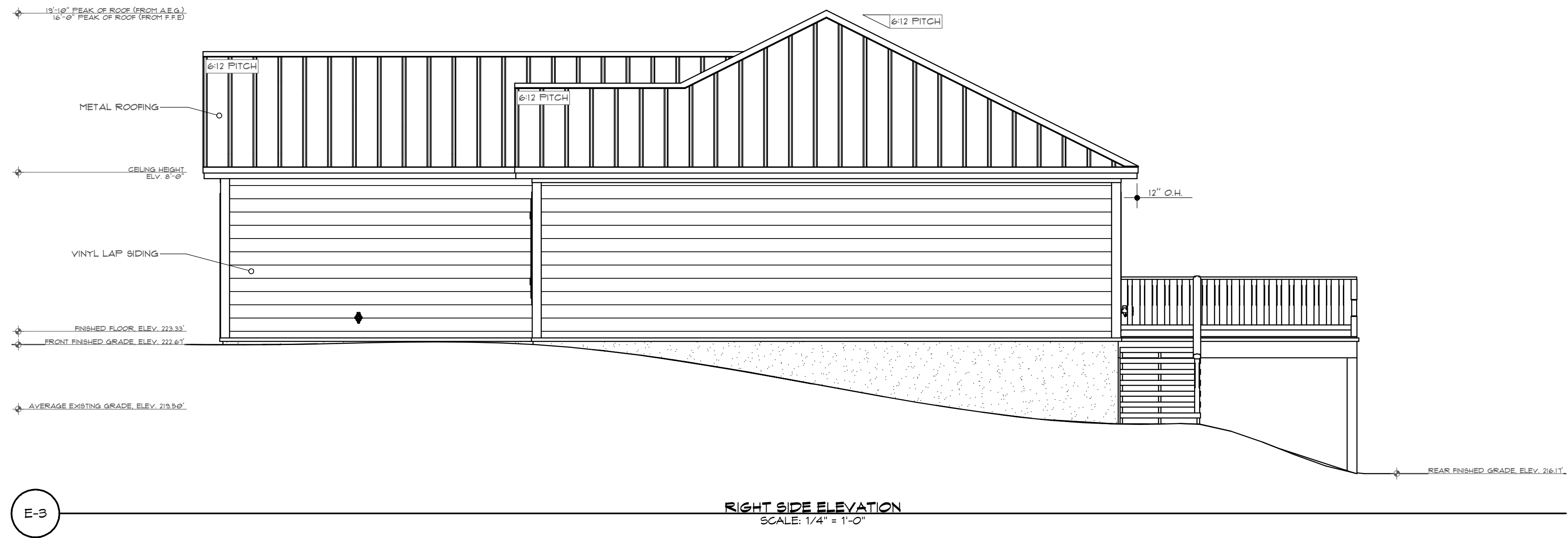
THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND SAVE HARMLESS THE OWNER, ENGINEER, AND THEIR RESPECTIVE MEMBERS, REPRESENTATIVES, AGENTS, & EMPLOYEES, IN BOTH INDIVIDUAL & OFFICIAL CAPACITIES AGAINST SUITS, CLAIMS, DAMAGES, LOSSES & THE EXPENSES, INCLUDING ATTORNEY'S FEES, CAUSED BY, GROWING OUT OF, OR INCIDENTAL TO THE PERFORMANCE OF THE WORK UNDER THE CONTRACT BY THE CONTRACTOR OR ITS SUBCONTRACTORS TO THE EXTENT THAT SUCH SUITS, CLAIMS, DAMAGES, LOSSES & THE EXPENSES, INCLUDING ATTORNEY'S FEES, BEYOND ANY EXTENT WHICH WOULD RENDER THESE PROVISIONS VOID OR UNENFORCEABLE, IN THE EVENT OF ANY SUCH INJURY (INCLUDING DEATH) OR LOSS OR DAMAGE, OR CLAIMS THEREFORE, THE CONTRACTOR SHALL GIVE PROMPT NOTICE TO OWNER.

WRITTEN DIMENSIONS AND SPECIFIC NOTES SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND GENERAL NOTES. THE ENGINEER/DESIGNER SHALL BE CONSULTED FOR CLARIFICATION IF SITE CONDITIONS ARE ENCOUNTERED THAT ARE DIFFERENT THAN SHOWN, IF DISCREPANCIES ARE FOUND IN THE PLANS OR NOTES, OR IF A QUESTION ARISES OVER THE INTENT OF THE PLANS OR NOTES. CONTRACTOR SHALL VERIFY AND IS RESPONSIBLE FOR ALL DIMENSIONS (INCLUDING ROUGH OPENINGS).

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE SET OF DRAWINGS & SPECIFICATIONS TO EACH SUBCONTRACTOR & FOR INSURING THAT THE WORK OF EACH SUBCONTRACTOR IS COORDINATED WITH THE WORK OF ALL OTHER SUBCONTRACTORS.  
ALL TRADES SHALL MAINTAIN A CLEAN WORK SITE AT THE END OF EACH WORK DAY.

PLEASE SEE ADDITIONAL NOTES CALLED OUT ON OTHER SHEETS

**ENGINEER'S SEAL:**



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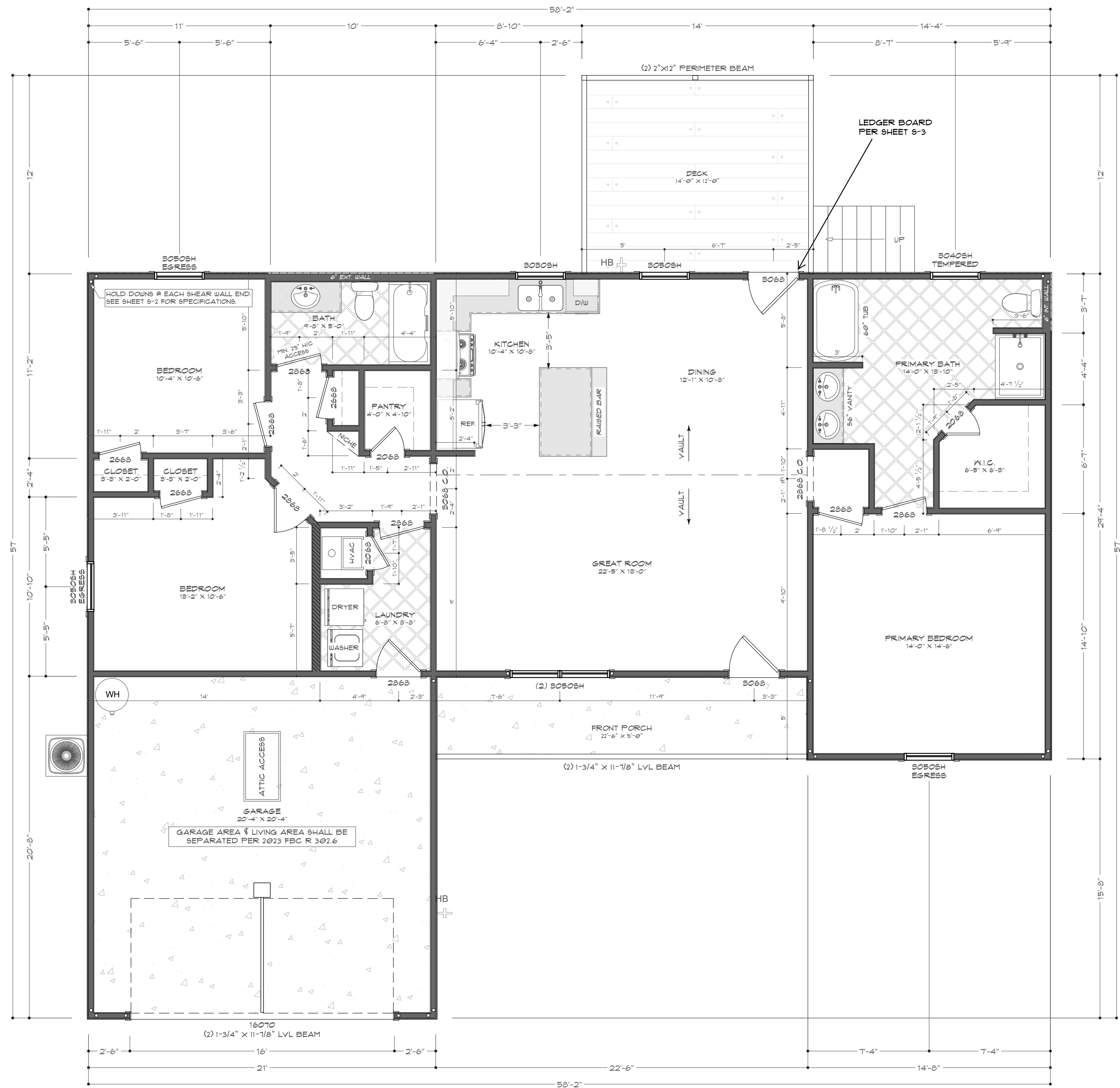
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**A-1.2**



**A-3 FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

**FLOOR PLAN NOTES:**

1. CEILING HEIGHT SHALL BE 8', U.N.O.
2. 2"x4" WOOD FRAMING FOR EXTERIOR WALLS, U.N.O.
3. ALL DIMENSIONS ARE TO FRAMING. DIMENSIONS OF OPENINGS ARE TO CENTER OF ROUGH OPENING.
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND IS RESPONSIBLE FOR ALL DIMENSIONS (INCLUDING ROUGH OPENINGS).
5. ALTERNATIVE CONNECTORS MAY BE SUBSTITUTED FOR SIMPSON STRONGTIE IF THEIR LOAD CAPACITIES MEET OR EXCEED THOSE SPECIFIED. ALL CONNECTORS SHALL BE INSTALLED PURSUANT TO MANUFACTURER REQUIREMENTS FOR MAXIMUM CAPACITY.
6. ALL INTERIOR GLASS PANELS USED IN NET APPLICATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE BUILDING CODES & SAFETY STANDARDS & SHALL CONFORM TO THE ASTM C1048 (STANDARD SPECIFICATION FOR HEAT STRENGTHENED & FULLY TEMPERED FLAT GLASS).

WALL SCHEDULE	
INTERNAL 2"x6" WALL	
EXTERNAL 2"x4" WALL	
INTERNAL 2"x4" WALL	
RAILING	

AREA CALCULATIONS	
LIVING SPACE	1,489 S.F.
FRONT PORCH	113 S.F.
GARAGE	434 S.F.
TOTAL COVERED	2,036 S.F.



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P.E. 5445 P.E. LICENSE NO. 15462

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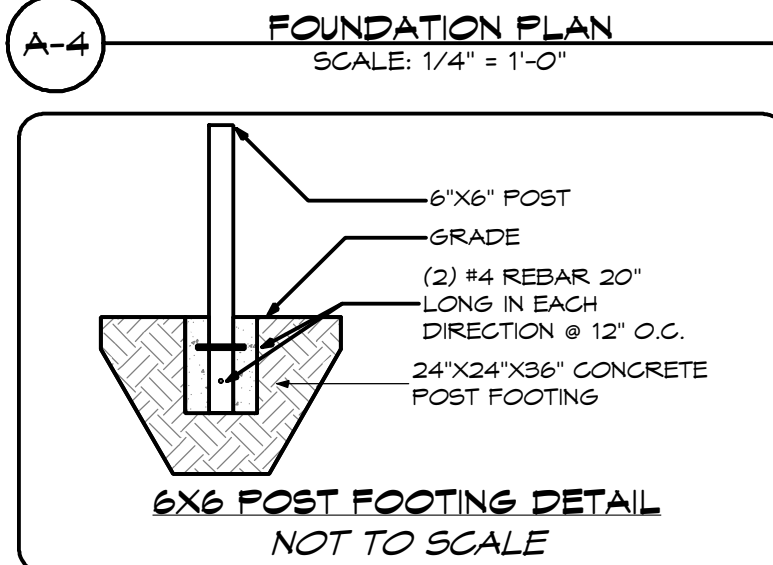
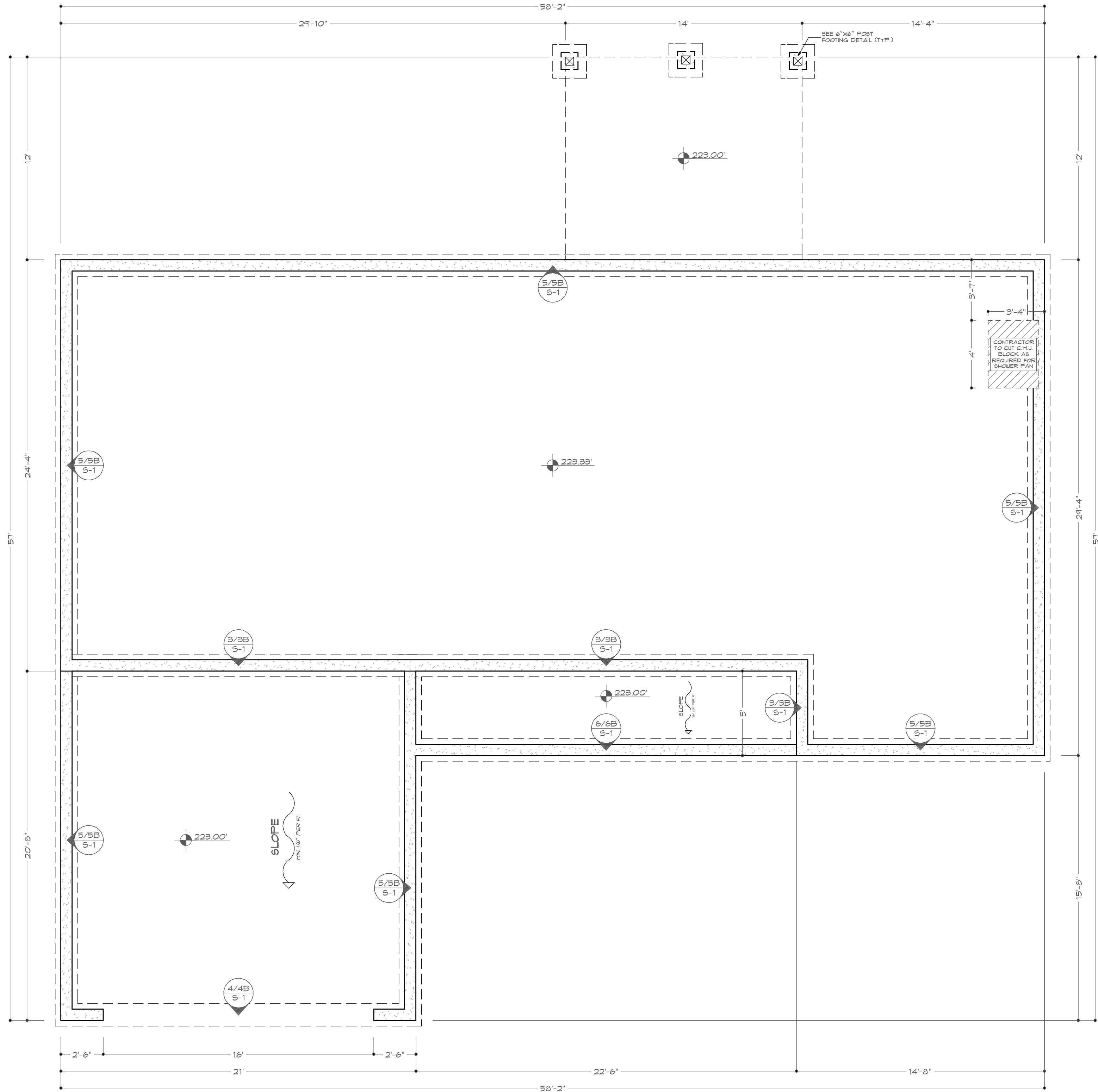
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**A-3**



**FOUNDATION PLAN NOTES:**

1. THE ROOF SYSTEM SHALL BE CONSTRUCTED WITH PRE-ENGINEERED TRUSSES. BUILDER SHALL VERIFY WITH TRUSS DESIGNER LOCATION OF ANY ADDITIONAL INTERIOR LOAD BEARING FOOTINGS. ALL INTERIOR-BORNE TRUSS LOADS SHALL BEAR DIRECTLY ON INTERIOR GRADE BEAMS AS SHOWN ON SHEET S-1 VIA WALLS, COLUMNS, OR OTHER STRUCTURAL MEMBERS.
2. CONCRETE SPECIFICATIONS: 3,000 PSI @ 28 DAYS, 4" CONCRETE SLAB TO BE REINFORCED IN W/ 5/8" X 4' X 4' (4' X 4' SYNTHETIC REINFORCING FIBERS MAY BE USED PER ENG. NOTES) ON A 2006 MIL FLOOR VAPOR BARRIER OVER CLEAN, COMPACTED FILL (PER SHEET S-1).
3. TERRITE TREATMENT SHALL BE PER CODE.

FLOOR JOISTS SHALL CONSIST OF SYP VISUALLY GRADED #2 BY QUALIFIED VISUAL GRADERS SIZED AS FOLLOWS:

	FLOOR JOISTS: LL = 40 PSF, DL = 20 PSF, REPETITIVE MEMBER FACTOR 1.15, LOAD DURATION FACTOR 1.0, L/360 LL DEFLECTION, (WHERE JOISTS BEAR A PARALLEL WALL, NOTAL DOUBLE JOISTS), SPAN LIMITS IN FEET-INCHES			
SPACING	2x6	2x8	2x10	2x12
12"	4'-10"	12'-6"	14'-4"	17'-5"
16"	5'-6"	10'-10"	12'-10"	15'-1"
19.2"	7'-4"	4'-10"	11'-8"	13'-4"
24"	6'-11"	8'-10"	10'-5"	12'-4"

LOADBEARING WALLS PARALLEL TO SUPPORTING FLOOR JOISTS SHALL BE SUPPORTED DIRECTLY BY BEAMS, GIRDERS, OR OTHER LOADBEARING WALLS. LOADBEARING WALLS PERPENDICULAR TO SUPPORTING FLOOR JOISTS SHALL NOT BE OFFSET FROM SUPPORTING GIRDERS, BEAMS, OR OTHER LOADBEARING WALLS BY MORE THAN THE DEPTH OF THE JOISTS (SEE IFPCM SECTION 2.3.1.5.1).

FROM FBC TABLE RS07.5 F.T. SYP DECK BEAM SPAN LENGTHS "(FT.-IN.)"

	DECK JOIST SPAN LESS THAN OR EQUAL TO: (FEET)					
NOMINAL SIZE (INCHES)	6	8	12	14	16	18
(2) 2x6	6'-11"	5'-11"	5'-4"	4'-10"	4'-6"	4'-3"
(2) 2x8	8'-4"	7'-7"	6'-4"	6'-2"	5'-4"	5'-0"
(2) 2x10	10'-4"	9'-0"	8'-0"	7'-4"	6'-8"	6'-0"
(2) 2x12	12'-2"	10'-7"	9'-5"	8'-7"	8'-0"	7'-6"
(3) 2x6	9'-2"	7'-5"	6'-8"	6'-1"	5'-8"	5'-3"
(3) 2x8	12'-10"	9'-6"	8'-6"	7'-4"	7'-2"	6'-4"
(3) 2x10	15'-0"	11'-8"	10'-0"	9'-0"	8'-6"	7'-11"
(3) 2x12	18'-3"	13'-3"	11'-10"	10'-4"	10'-0"	9'-4"

A. BEAMS SUPPORTING DECK JOISTS FROM ONE SIDE ONLY.  
B. MINIMUM BEAM DEPTH SHALL EQUAL JOIST DEPTH.  
C. ASSUMES LL OF 40 PSF AND DL OF 10 PSF. IF LOADS GREATER THAN THESE (SUCH AS WITH WATERPROOFED DECK, TILE, ETC.), CONTACT ENGINEER OF RECORD FOR REVISED TABLE.

FROM FBC TABLE RS07.6 F.T. SYP DECK JOIST SPAN LENGTHS "(FT.-IN.)"

	SPACING OF DECK JOISTS WITH NO CANTILEVER (INCHES)			SPACING OF DECK JOISTS WITH CANTILEVERS (INCHES)		
NOMINAL SIZE (INCHES)	12	16	24	12	16	24
(1) 2x6	4'-11"	4'-0"	3'-7"	6'-8"	6'-8"	6'-8"
(1) 2x8	15'-1"	11'-10"	4'-8"	10'-1"	10'-1"	4'-8"
(1) 2x10	16'-3"	14'-0"	11'-5"	14'-6"	14'-0"	11'-5"
(1) 2x12	18'-0"	16'-6"	15'-6"	18'-0"	16'-6"	15'-6"

A. ASSUMES LL OF PSF AND DL OF 10 PSF. IF LOADS GREATER THAN THESE (SUCH AS WITH WATERPROOFED DECK, TILE, ETC.), CONTACT ENGINEER OF RECORD FOR REVISED TABLE.

FROM FBC TABLE RS07.1 MAXIMUM JOIST SPACING

NOMINAL SIZE AND MATERIAL TYPE	MAXIMUM ON-CENTER JOIST SPACING	
	MAXIMUM ON-CENTER JOIST SPACING	DIAGONAL TO JOIST
1-1/4" WOOD	16"	12"
2" WOOD	24"	16"
PLASTIC COMPOSITE	1.4X FBC SECTION RS07.2	

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FOUNDATION PLAN  
WALTON COUNTY, FLORIDA

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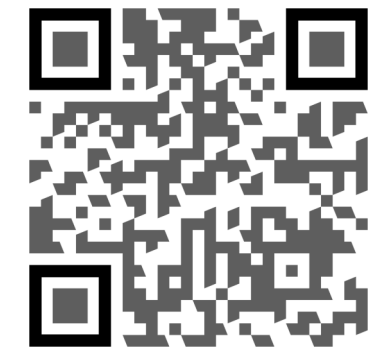
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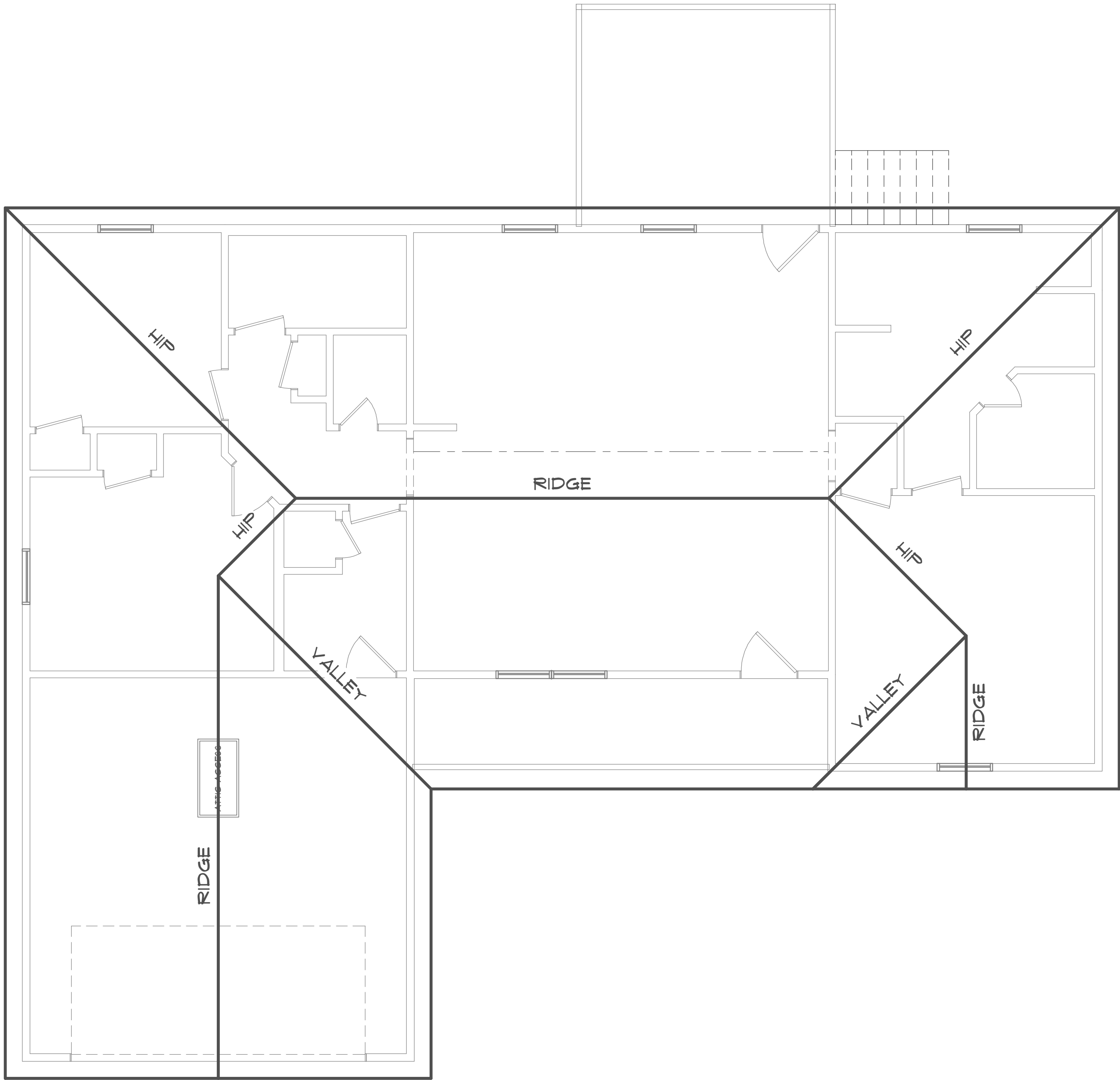
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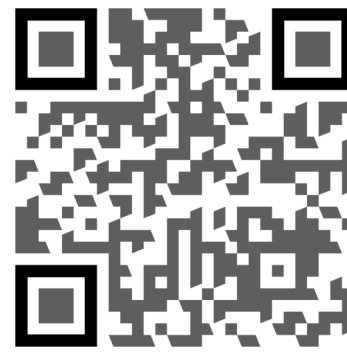
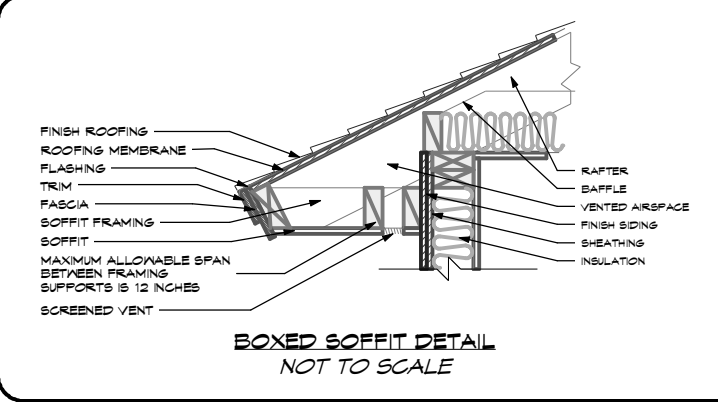
**A-4**





**A-5** ROOF FRAMING PLAN  
SCALE: 1/4" = 1'-0"

**ROOF FRAMING PLAN NOTES:**  
1. THE ROOF SYSTEM WILL BE CONSTRUCTED WITH PRE-ENGINEERED TRUSSES. THE TRUSSES SHALL BE DESIGNED (AND THE TRUSS DRAWINGS SHALL BE SIGNED AND SEALED) BY A PROFESSIONAL ENGINEER WHO IS LICENSED IN THE STATE OF FLORIDA. THE TRUSSES SHALL BE DESIGNED FOR A 150 M.P.H. WIND SPEED (ULTIMATE).  
2. THE ROOF OVERHANGS SHALL BE 12" U.N.O.



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**ROOF FRAMING PLAN**  
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**A-5**



**A-6 ELECTRICAL PLAN**  
SCALE: 1/4" = 1'-0"

- ELECTRICAL PLAN NOTES:**  
HOME OWNER SHALL DO A WALK-THRU WITH RELEVANT INSTALLERS TO VERIFY THE EXACT LOCATION FOR OUTLETS, LIGHTS, SWITCHES, CABLE, DATA, PHONE, AUDIO, VACUUM, ETC.
- ELECTRICAL NOTES:**  
1. PROVIDE MIN. 400 AMP SERVICE TO MAIN PANEL.  
2. ALL APPLIANCES & UTILITIES TO HAVE DEDICATED CIRCUITS. SEE MFG'S SPECS. FOR REQUIREMENTS.  
3. ELECTRICAL RECEPTACLES IN BATHROOMS, KITCHENS AND GARAGES SHALL BE GFCI PER NATIONAL ELECTRICAL CODE REQUIREMENTS.  
4. ALL BEDROOM OUTLETS AND LIGHTS BE ARCH FAULT PROTECTED.  
5. PROVIDE ONE SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR IN EACH ROOM AND ONE IN EACH CORRIDOR ACCESSING BEDROOMS.  
6. CONNECT SMOKE DETECTORS TO HOUSE POWER AND INTER-CONNECT SMOKE DETECTORS TO HOUSE POWER AND INTER-CONNECT SO THAT WHEN ANY ONE IS TRIPPED, THEY ALL FULL SOUND. PROVIDE BATTERY BACKUP FOR ALL UNITS.  
7. CIRCUITS SHALL BE VERIFIED WITH HOME OWNER PRIOR TO WIRE INSTALLATION.  
8. FINAL SWITCHES FOR TIMERS AND DIMMERS SHALL BE VERIFIED WITH HOME OWNER.  
9. FIXTURES TO BE SELECTED BY HOME OWNER.  
10. ALL SWITCHES TO BE 40" O/C ASF. OUTLETS TO BE 15" O/C ASF. OUTLETS OVER COUNTERTOPS TO BE 3" ABOVE COUNTER FROM BOTTOM (ASF = ABOVE SUBFLOOR).  
11. EXTERIOR OUTLETS SHALL BE WATER PROOFED & GFCI.  
12. LOCATE SPEAKERS AND AUDIO CONTROLS AS INDICATED IN THE PLAN. RUN CIRCUIT OF SPEAKER WIRING TO AUDIO HOME PANEL, SPECIFIED BY FLOOR.  
13. AUDIO SPEAKERS TO BE APPROVED BY HOME OWNER.  
14. LOCATE JACKS AS INDICATED IN THE PLAN. INSTALL DATA / CABLE PANEL, SIMILAR TO 'ON G'. SYSTEM TO BE APPROVED BY HOME OWNER.  
15. LOCATE SECURITY PANELS AS INDICATED IN THE PLAN. SYSTEM TO BE APPROVED BY HOME OWNER.

ELECTRICAL LEGEND	
LIGHTING	
	PENDANT / RECESSED / NET RATED / FLUSH MOUNT
	DUAL SPOTLIGHT / SCONCE / WALL LAMP
	UNDER CABINET LED FICK / LED STRIP / CEILING LED
	CHANDELIER / FAN W/ LIGHT
SWITCHES / OUTLETS	
	SWITCH / 3-WAY / 4-WAY
	OUTLETS - 120V WALL & CEILING GFCI / WATER PROOF / 220V
	APPLIANCE SPEC.: REFRIGERATOR / DISH WASHER / GARBAGE DISPOSAL
OTHER MEP	
	SMOKE / CARBON MONOXIDE DETECTOR COMBINATION
	CEILING MOUNTED VENTILATION FAN / VENTILATION FAN W/ LIGHT

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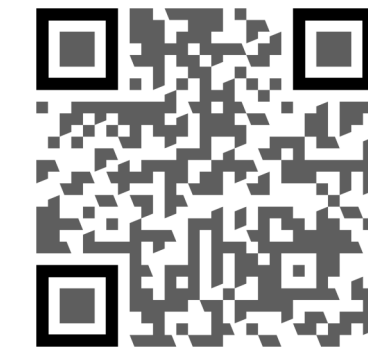
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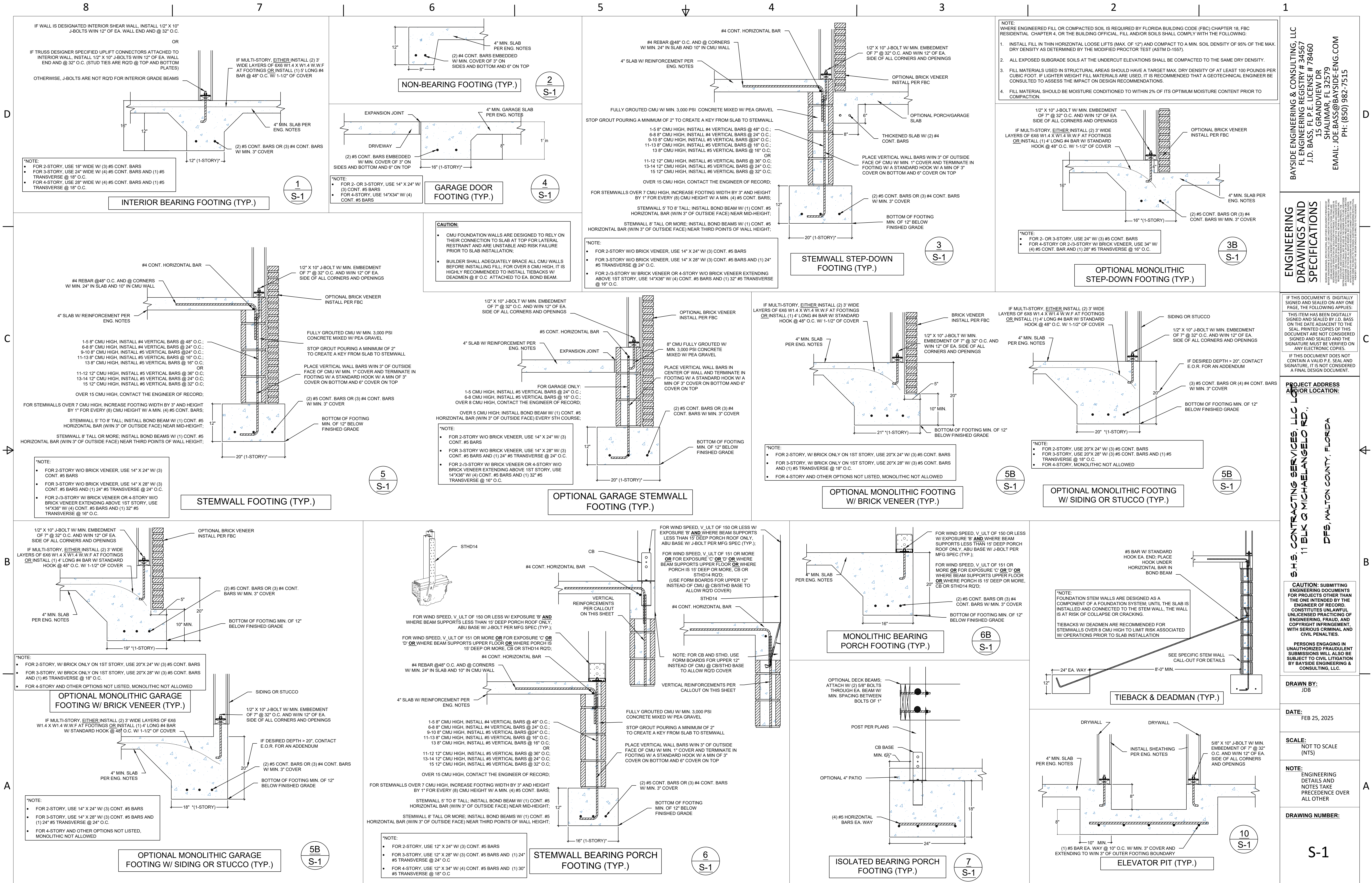
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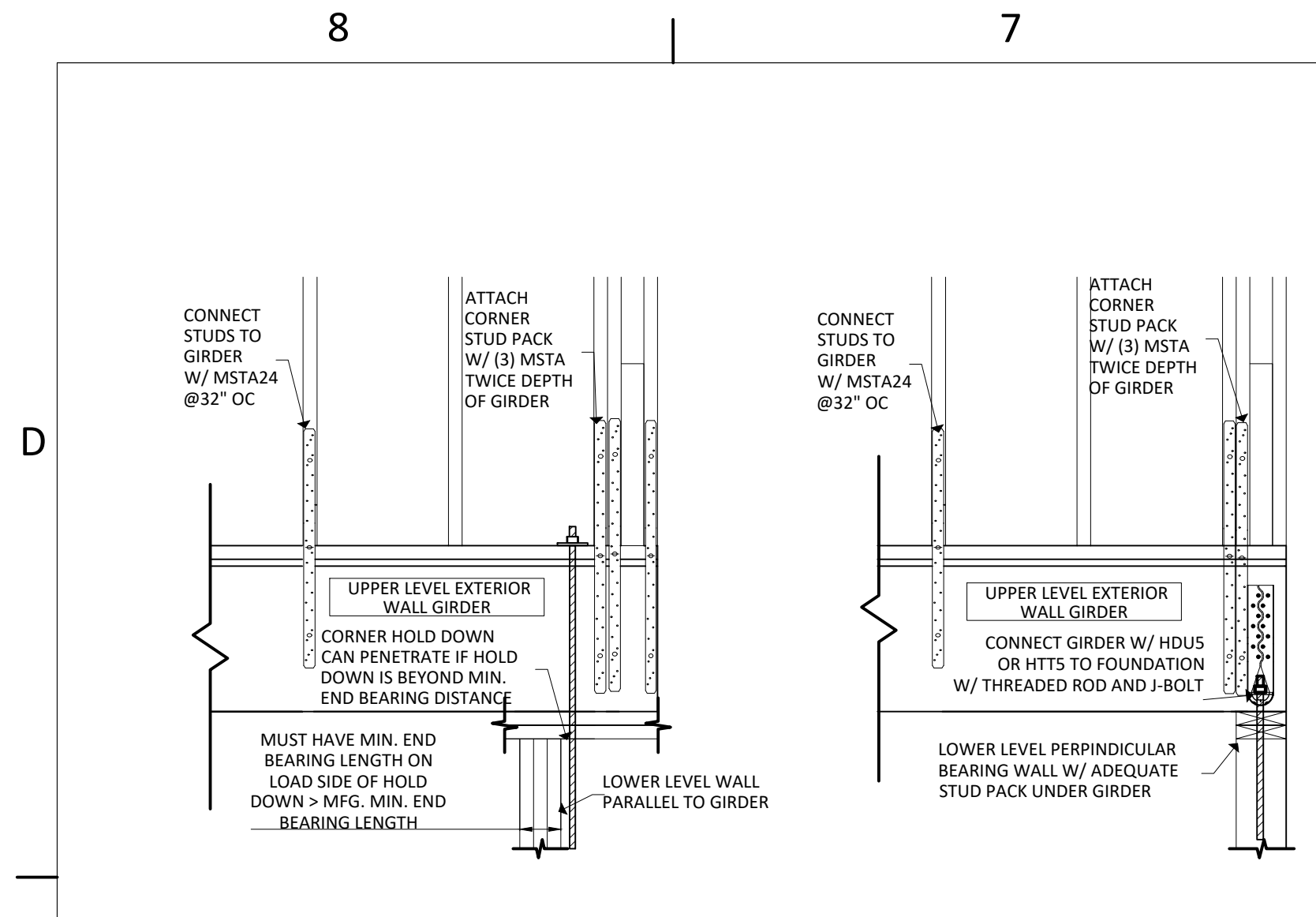
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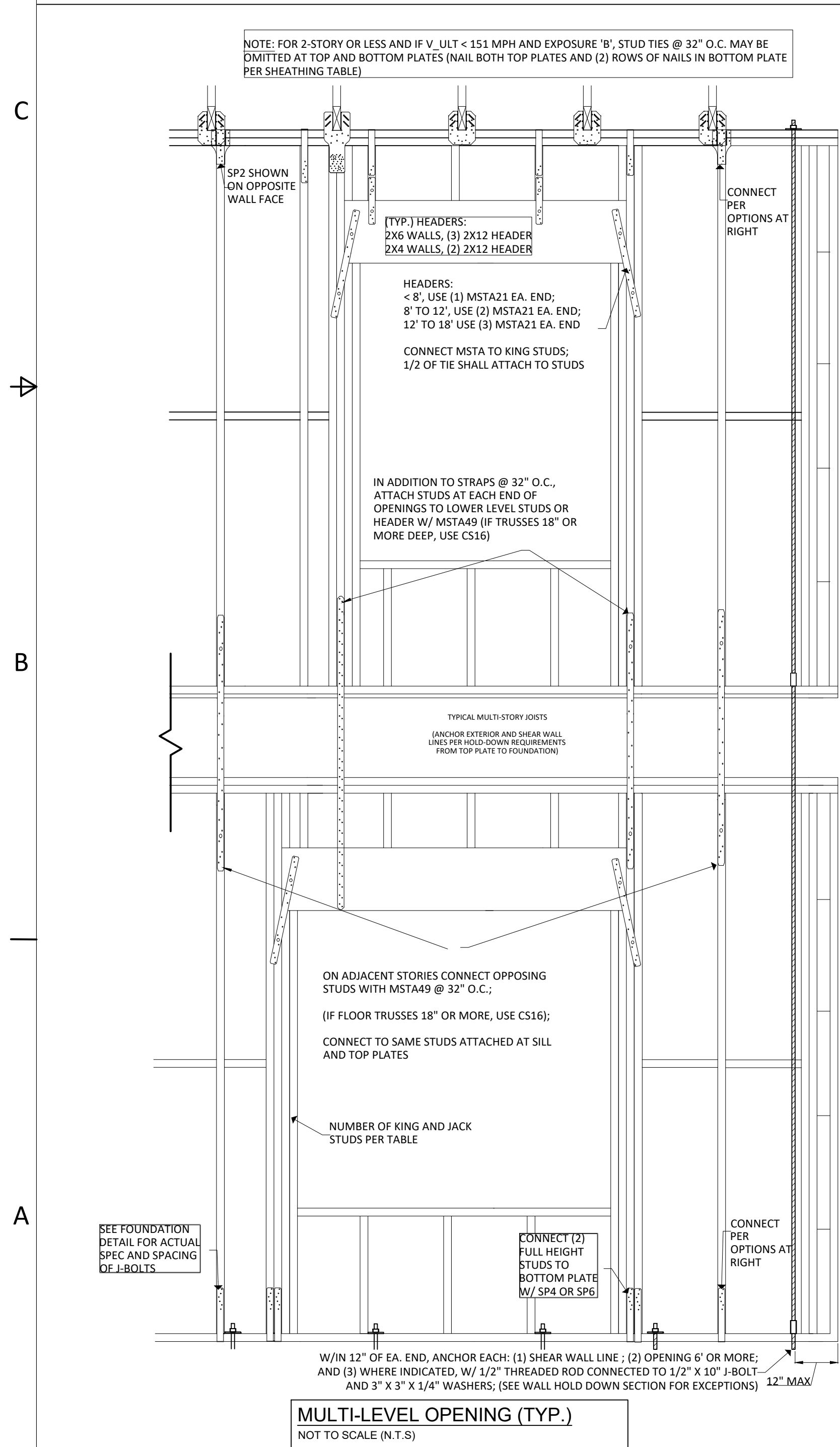




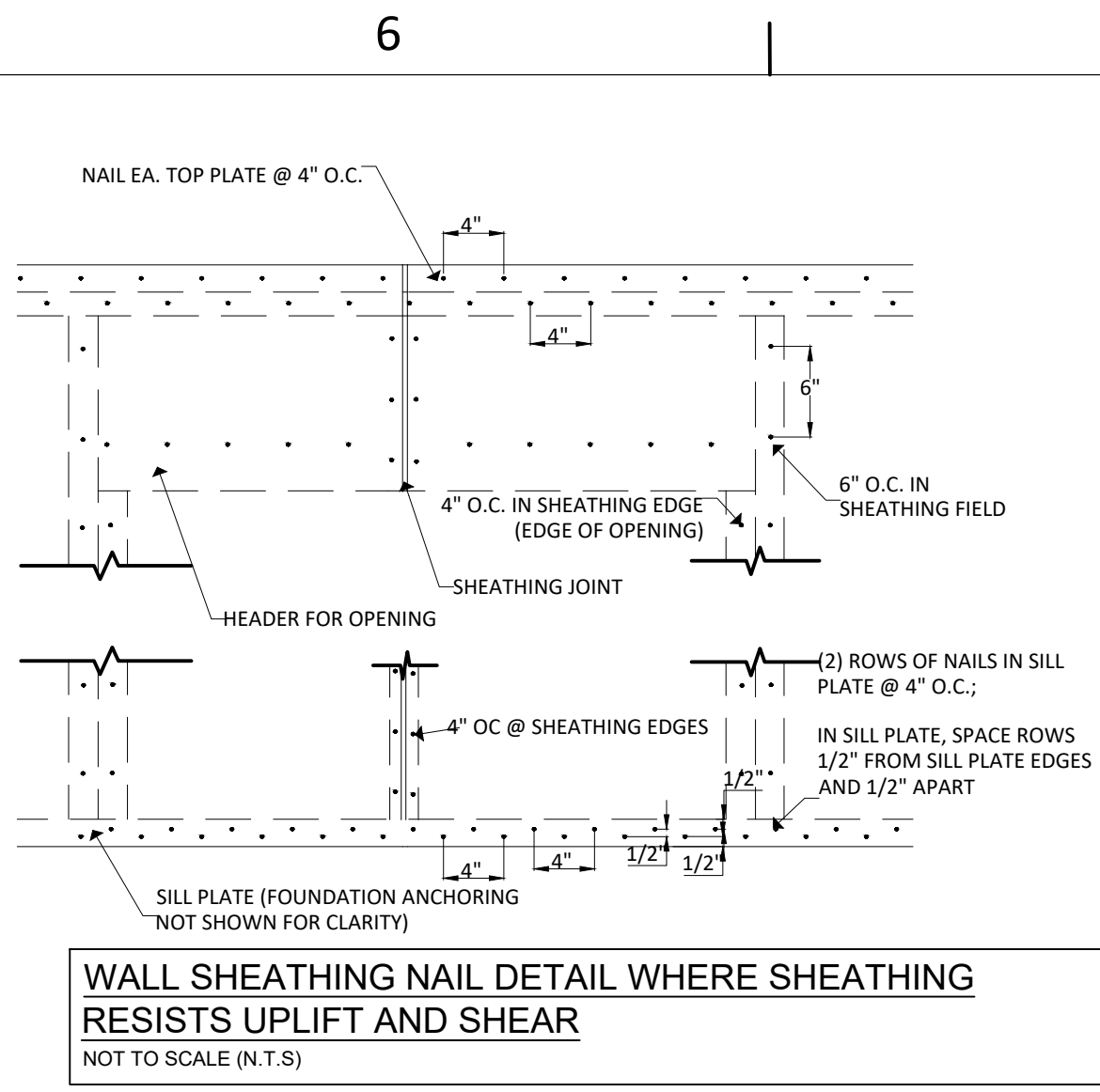




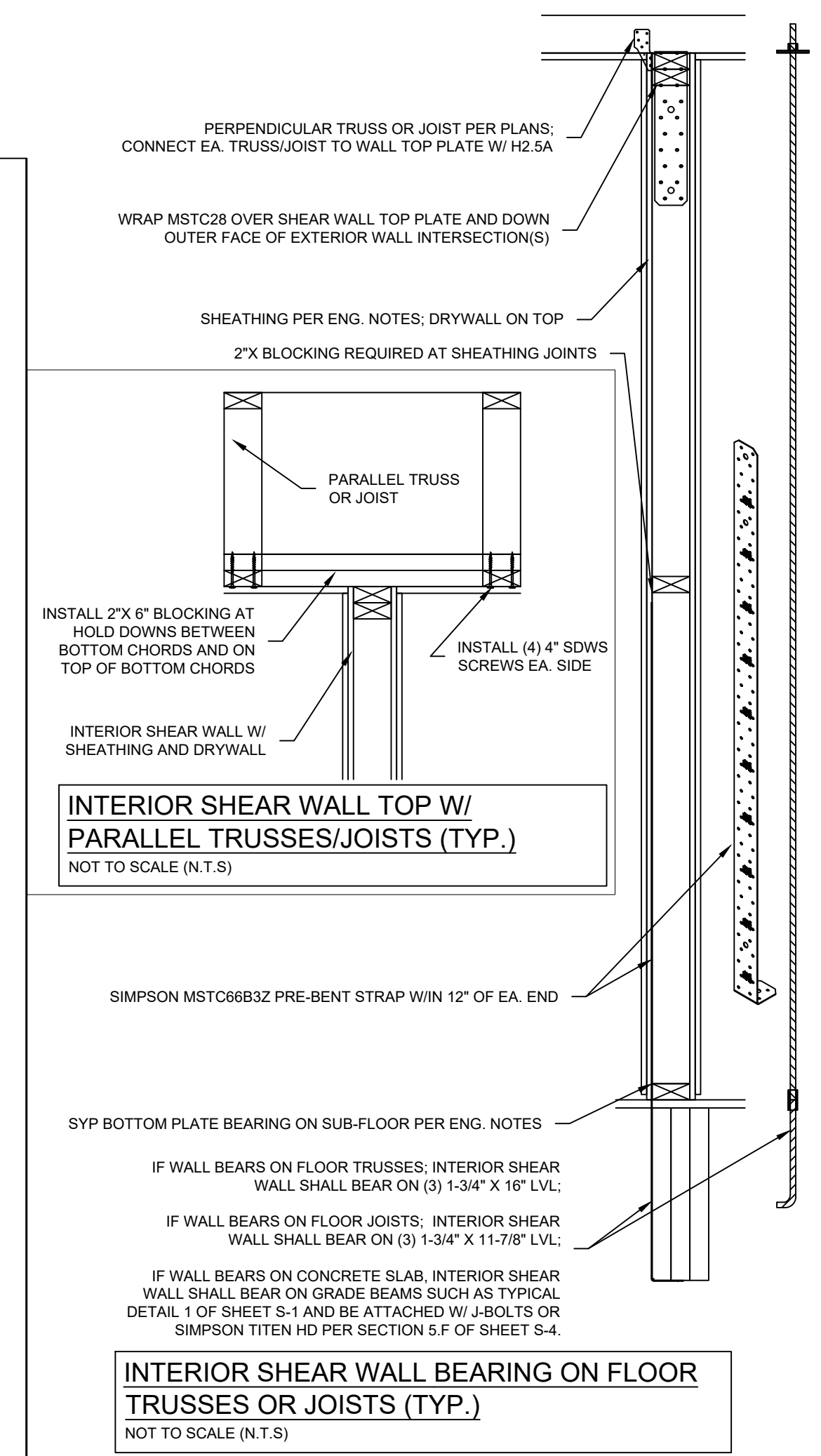
UPPER LEVEL WALLS W/ GIRDER HOLD DOWN  
NOT TO SCALE (N.T.S.)



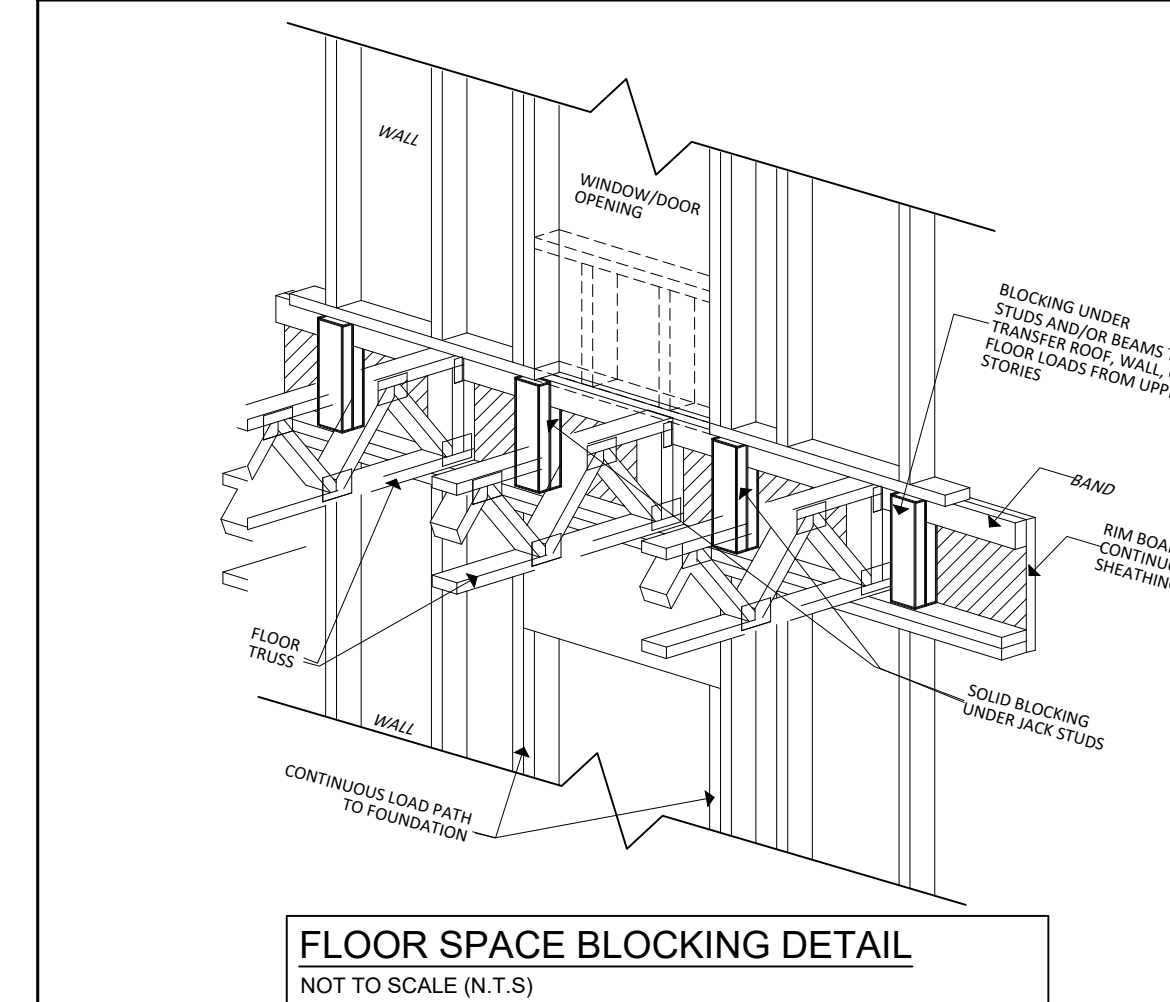
MULTI-LEVEL OPENING (TYP.)  
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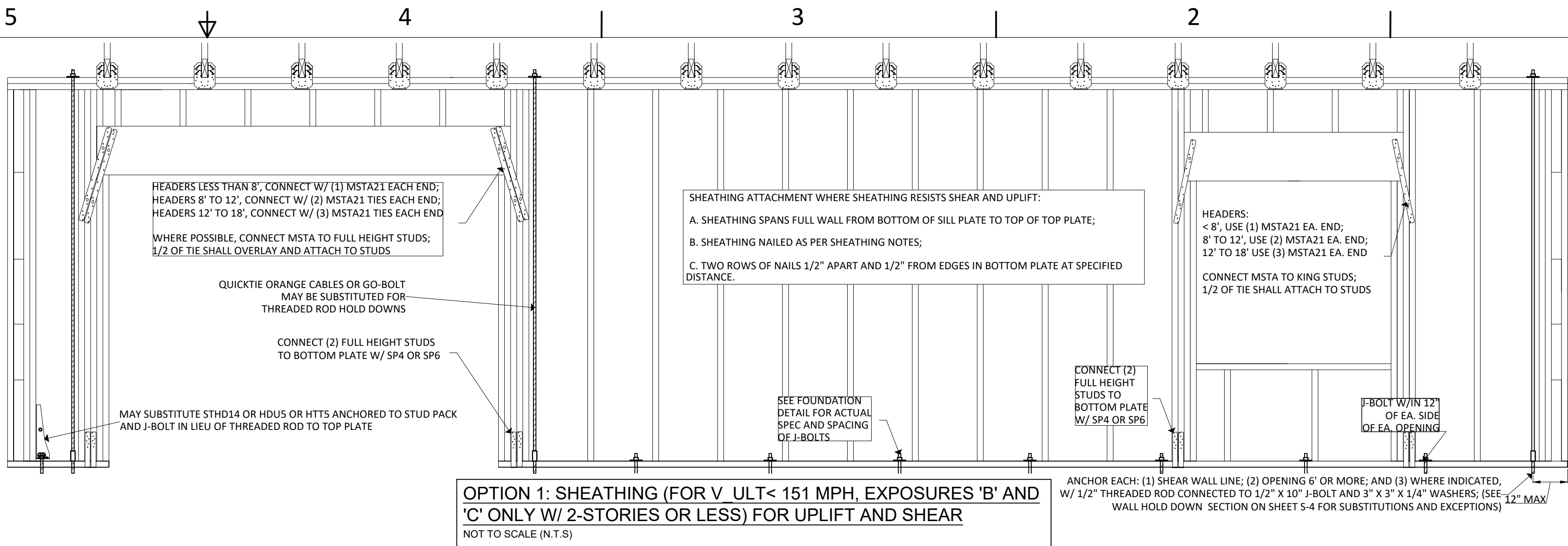
WALL SHEATHING NAIL DETAIL WHERE SHEATHING  
RESISTS UPLIFT AND SHEAR  
NOT TO SCALE (N.T.S.)



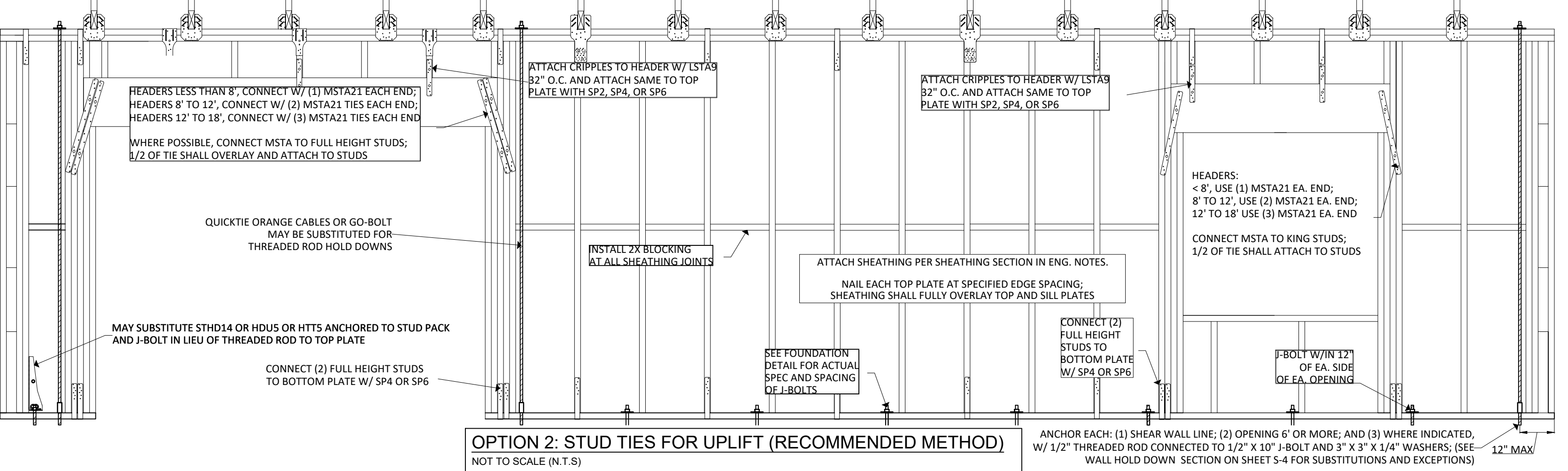
INTERIOR SHEAR WALL BEARING ON FLOOR  
TRUSSES OR JOISTS (TYP.)  
NOT TO SCALE (N.T.S.)



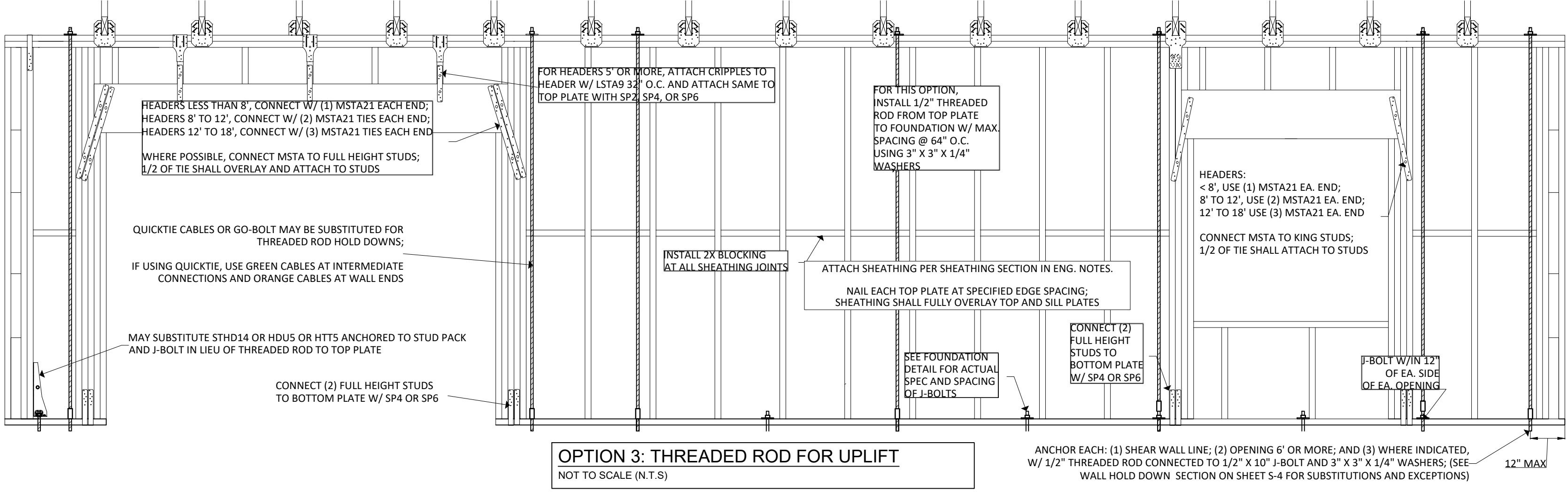
FLOOR SPACE BLOCKING DETAIL  
NOT TO SCALE (N.T.S.)



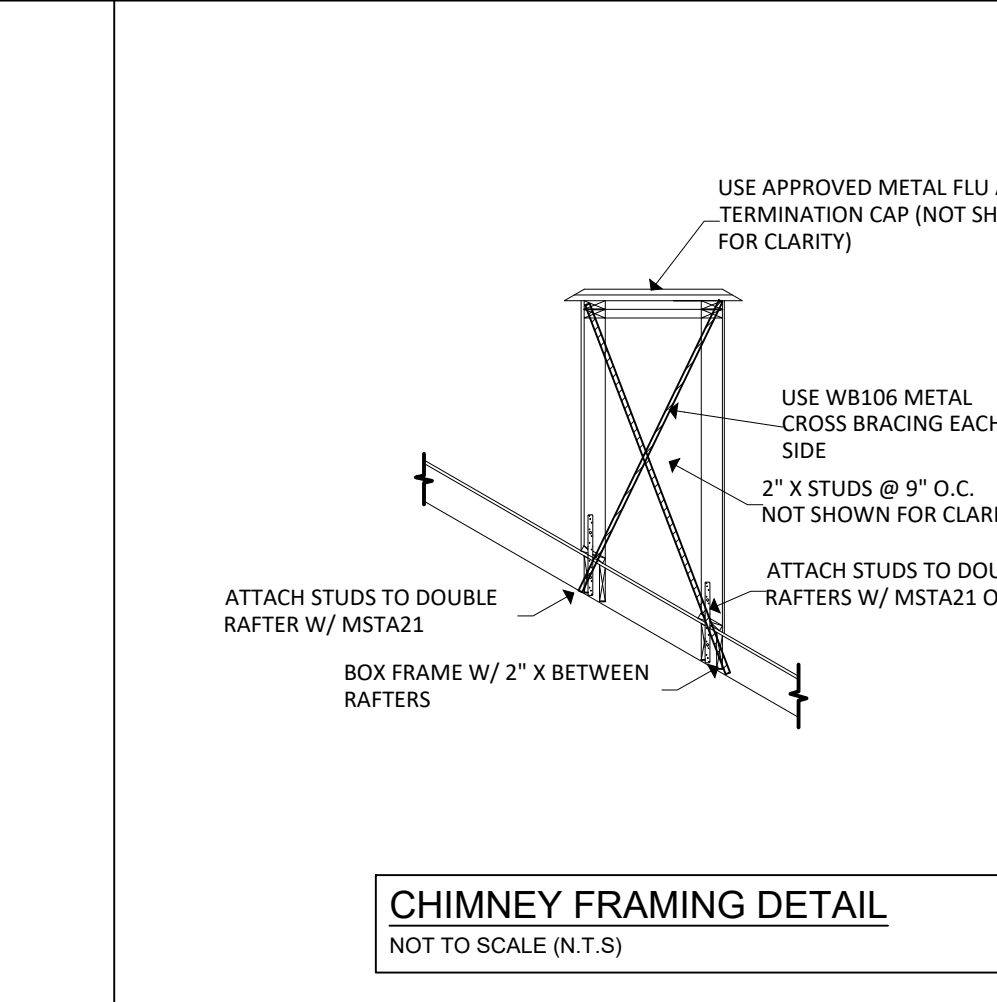
OPTION 1: SHEATHING (FOR V<151 MPH, EXPOSURES 'B' AND  
'C' ONLY W/ 2-STORIES OR LESS) FOR UPLIFT AND SHEAR  
NOT TO SCALE (N.T.S.)



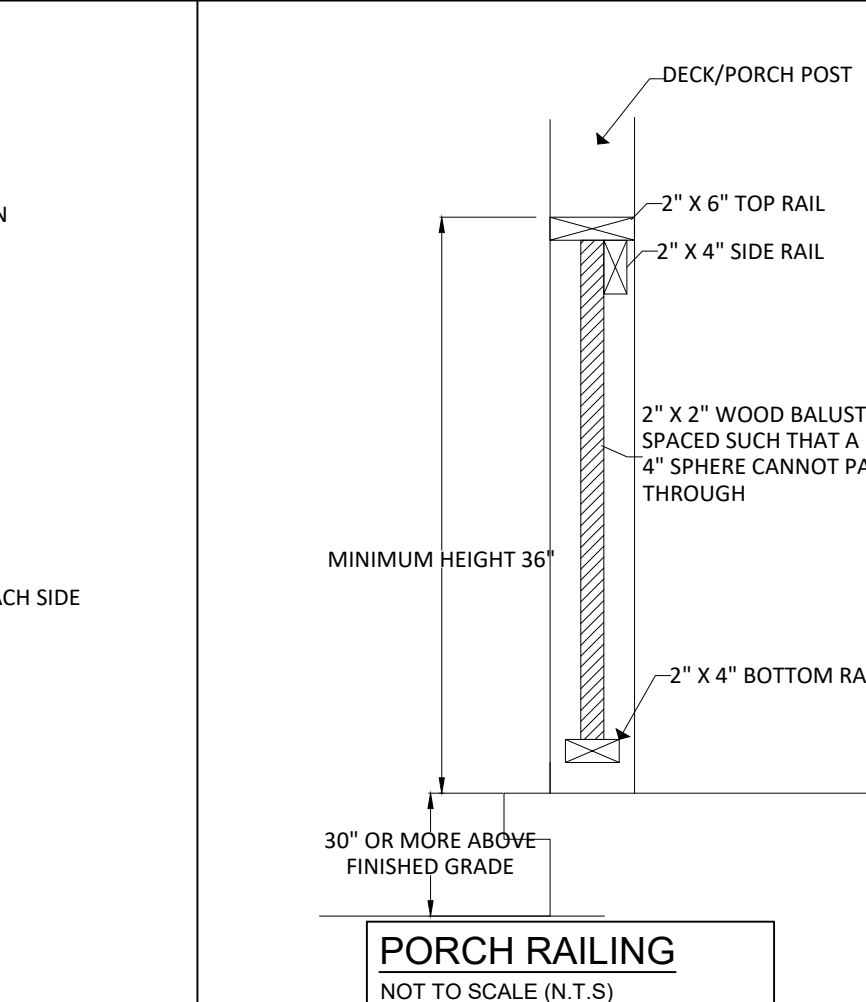
OPTION 2: STUD TIES FOR UPLIFT (RECOMMENDED METHOD)  
NOT TO SCALE (N.T.S.)



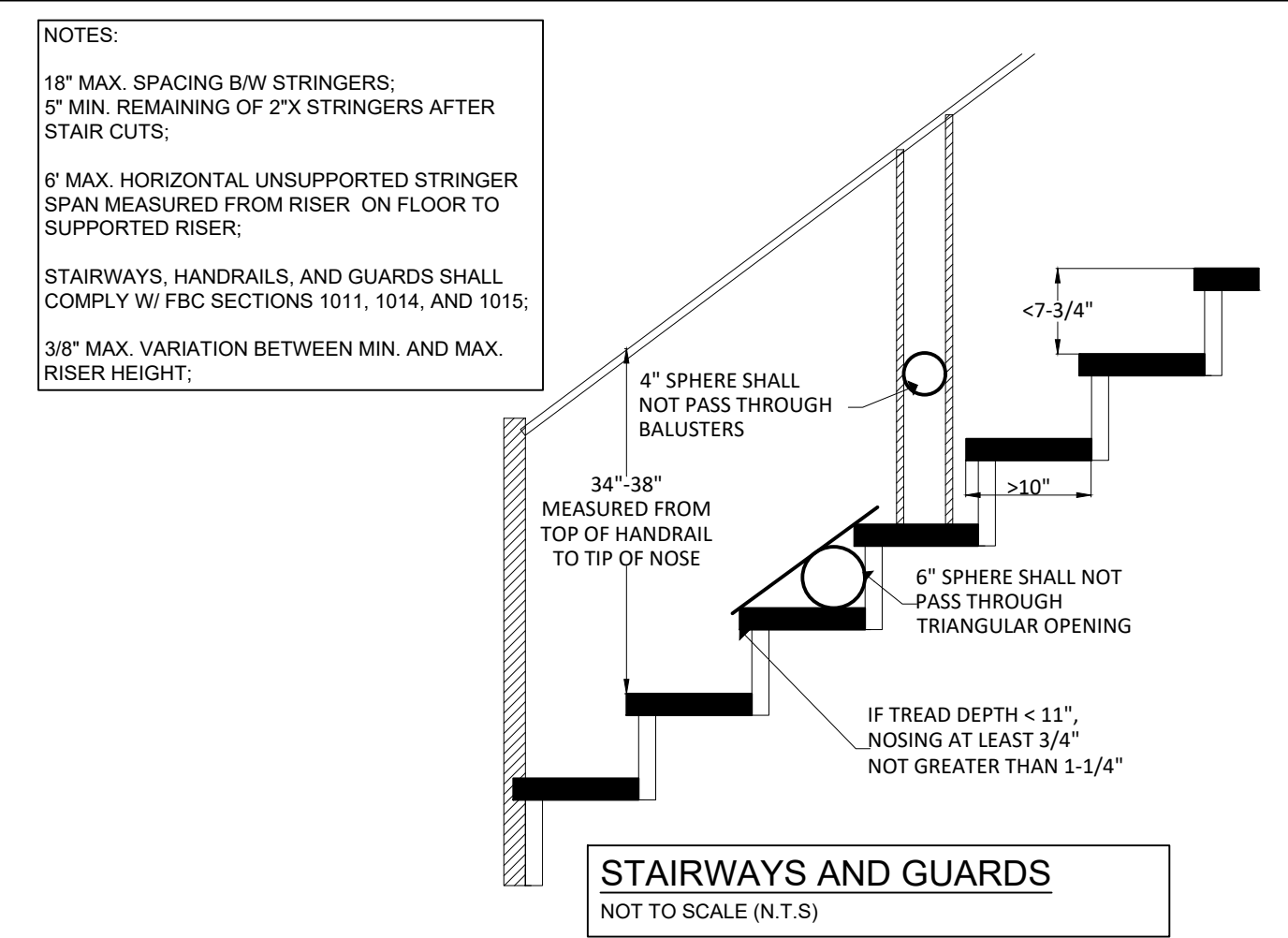
OPTION 3: THREADED ROD FOR UPLIFT  
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CHIMNEY FRAMING DETAIL  
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PORCH RAILING  
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STAIRWAYS AND GUARDS  
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BAYSIDE ENGINEERING & CONSULTING, LLC  
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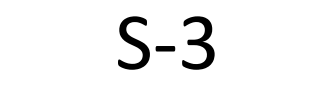
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- SECTION 1. – DESIGN CRITERIA**
- A. CONSTRUCTION SHALL COMPLY WITH ALL THE FOLLOWING CODES AND GUIDANCE DOCUMENTS
- i. 2023 FLORIDA BUILDING CODE, RESIDENTIAL (FBC-R), 8TH EDITION
  - ii. AWC: WOOD FRAME CONSTRUCTION MANUAL FOR ONE- AND TWO-FAMILY DWELLINGS, LATEST EDITION.
  - iii. AWC: SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC (SDPWS), LATEST EDITION
  - iv. AITC: TIMBER CONSTRUCTION MANUAL, LATEST EDITION
  - v. ACI: CODE REQUIREMENTS FOR RESIDENTIAL CONCRETE, LATEST EDITION (ACI 332)
  - vi. ACI: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES, LATEST EDITION (TMS 402/602)
  - vii. ACI: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, LATEST EDITION (ACI 318)
  - viii. CRS: PLACING REINFORCING BARS, LATEST EDITION

GENERAL		FLOOR TRUSS DESIGN LOADS		ROOF TRUSS DESIGN LOADS	
FLOOR	40 PSF	TCLL	40 PSF	TCLL	20 PSF
DECKS	40 PSF	TCOL	15 PSF	TCOL	15 PSF
BALCONIES	40 PSF	BCLL	0 PSF	BCLL	0 PSF (EXCEPTIONS PER FBC TABLE R301.5)
ROOF	20 PSF	BCOL	10 PSF	BCOL	10 PSF

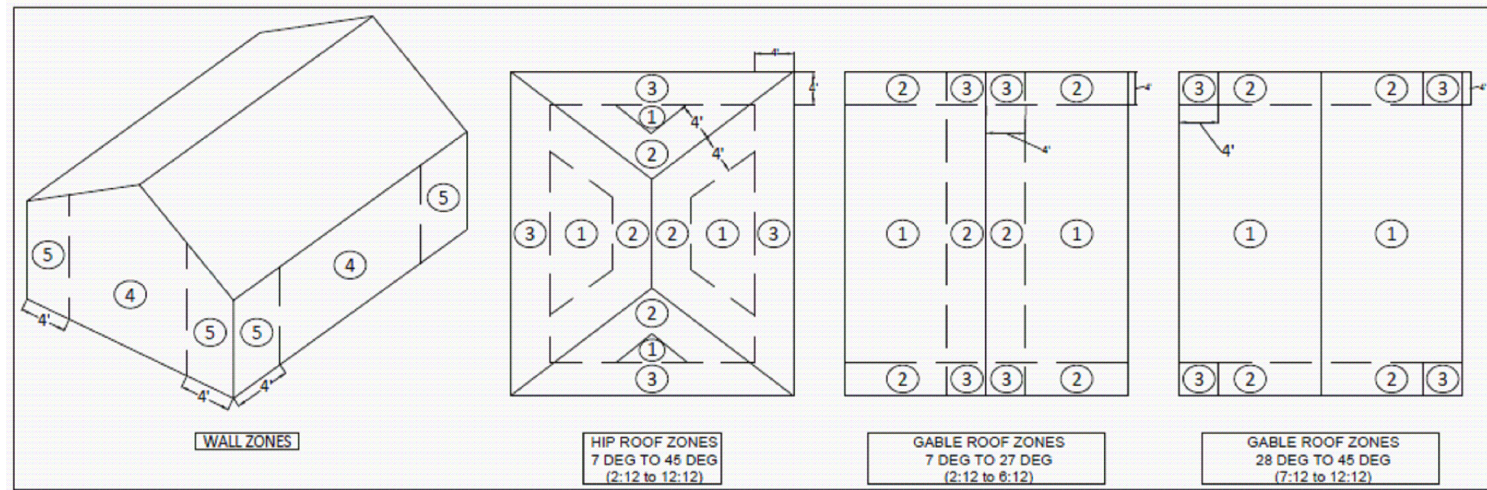
NOTE: AS NOTED ON FLOOR PLANS, INTERIOR SHEAR WALLS BEARING ON FLOOR TRUSS SYSTEMS SHALL BEAR ON FULL LENGTH (3) 1-3/4"X 16" LVL'S

ULTIMATE DESIGN WIND SPEED, $V_{ult}$	149 MPH (IF WALTON COUNTY, BY INTERPOLATION)
IMPORTANCE FACTOR	1
RISK CATEGORY	II
EXPOSURE CATEGORY	B
INTERNAL PRESSURE COEFFICIENT	-0.18 TO +0.18
BUILDING TYPE	ENCLOSED
MEAN ROOF HEIGHT	40'

ZONE	CONDITION	SIDE	PSF
WALL	WORST CASE: (GC <sub>W</sub> ), 4TH STORY (WHERE APPLICABLE)	WINDWARD	
WALL	WORST CASE: (GC <sub>W</sub> ), 3RD STORY (WHERE APPLICABLE)	WINDWARD	30.49
WALL	WORST CASE: (GC <sub>W</sub> ), 2ND STORY (WHERE APPLICABLE)	WINDWARD	28.11
WALL	WORST CASE: (GC <sub>W</sub> ), 1ST STORY	WINDWARD	25.93
ROOF	WORST CASE: NORMAL TO RIDGE	LEEWARD	-27.02
OVERHANG	WORST CASE: NORMAL TO RIDGE	LEEWARD	-46.60

- E. ALL COMPONENTS AND CLADDING SHALL COMPLY WITH THE FOLLOWING DESIGN PRESSURES CONSISTENT WITH FBC, RESIDENTIAL TABLE R301.2(2) AND FIGURE R301.2(7):

	ZONES PER FIGURE R301.2(7)	EFFECTIVE WIND AREA [SQ FT]	LOADS (PSF)	
			(+)	(+)
GABLE ROOF > 7° TO 20° (INCL. 2:12 & 4:12)	1	ALL	17.3	-48.3
	2	ALL	17.3	-63.8
	3	ALL	17.3	-83.7
GABLE ROOF > 20° TO 27° (INCL. 5:12 & 6:12)	1	ALL	17.3	-37.2
	2	ALL	17.3	-59.4
	3	ALL	17.3	-70.4
GABLE ROOF > 27° TO 45° (INCL. 7:12 TO 12:12)	1	ALL	23.9	-43.9
	2	ALL	23.9	-48.3
	3	ALL	23.9	-59.4
HIP ROOF 7° TO 20° (INCL. 3:12 & 4:12)	1	ALL	19.5	-43.9
	2	ALL	19.5	-57.1
	3	ALL	19.5	-61.5
HIP ROOF > 20° TO 27° (INCL. 5:12 & 6:12)	1	ALL	19.5	-35.0
	2	ALL	19.5	-48.3
	3	ALL	19.5	-48.3
HIP ROOF > 27° TO 45° (INCL. 7:12 TO 12:12)	1	ALL	19.5	-37.2
	2	ALL	19.5	-43.9
	3	ALL	19.5	-57.1
WALLS	4	10	26.1	-28.3
	4	20	25.0	-27.1
	4	50	23.3	-25.6
	4	100	22.3	-24.4
	5	10	26.1	-35.0
	5	20	25.0	-32.6
	5	50	23.3	-29.5
	5	100	22.3	-27.1



- F. PRESUMPTIVE LOAD-BEARING CAPACITY OF SOIL (DEVIATIONS REQUIRE ENGINEER APPROVAL).
- i. FBC TABLE R401.4.1 ASSOCIATES 2,000 PSF SOIL BEARING CAPACITY WITH CLASS OF MATERIALS, "SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL AND CLAYEY GRAVEL" WHICH ARE TYPICAL FOR THIS GEOGRAPHIC REGION; THEREFORE, PER FBC R401.4.1, SOIL BEARING CAPACITY IS ASSUMED TO BE 2,000 PSF.
  - ii. THE ENGINEER OF RECORD (EOR) HAS NOT ASSESSED THE SITE OR SOIL. THE EOR HIGHLY RECOMMENDS THE OWNER OBTAIN A GEOTECHNICAL ASSESSMENT BY A LICENSED GEOTECHNICAL ENGINEER TO ASSESS SOIL BEARING CAPACITY AND STABILITY AND TO REVIEW THE PROPOSED FOUNDATION SYSTEM AND PROVIDED RECOMMENDATIONS AS NECESSARY.

**SECTION 2. – GENERAL CONSTRUCTION**

- A. ENGINEERING DRAWINGS SHOWN ARE TYPICAL AND NOT TO SCALE (NTS).
- B. EVERY EFFORT HAS BEEN MADE TO AVOID ERRORS; IF A DISCREPANCY EXISTS, THE MORE RESTRICTIVE AND CONSERVATIVE INTERPRETATION CONTROLS THAT SPECIFICATION OR DETAIL UNTIL THE EOR PROVIDES WRITTEN CLARIFICATION STATING OTHERWISE.
- C. ALTHOUGH, A SURVEY AND/OR SITE PLAN MAY BE INCLUDED IN THE ENGINEERED SET FOR REFERENCE, THE ENGINEER HAS NOT REVIEWED EITHER AND MAKES ABSOLUTELY NO CLAIM WHATSOEVER AS TO THE ACCURACY OR CORRECTNESS OF THE SAME.

- D. GENERALLY, IF A DISCREPANCY EXISTS BETWEEN PLANS AND ENGINEERING DETAILS OR NOTES, ENGINEERING DETAILS AND NOTES TAKE PRECEDENCE; HOWEVER, UNTIL THE ENGINEER PROVIDES CLARIFICATION, THE MORE CONSERVATIVE INTERPRETATION CONTROLS.
- E. UNBALANCED STEMWALLS SHALL BE ADEQUATELY BRACED BEFORE INSTALLING FILL DIRT TO PREVENT DAMAGE DURING INSTALLATION. STEMWALL INTEGRITY RELIES ON LATERAL SUPPORT FROM SLAB AND IS VULNERABLE UNTIL CONNECTED TO SLAB.
- F. ALL CONNECTORS, FASTENERS, AND HARDWARE SHALL BEAR THE APPROPRIATE CORROSION RESISTANT RATING FOR GIVEN ENVIRONMENTAL CONDITIONS INCLUDING BUT NOT LIMITED TO HARDWARE USED IN DIRECT CONTACT WITH PRESSURE TREATED LUMBER CONTAINING COPPER SUCH AS CC, CCA, AND OTHERS.
- G. ALL COMPONENTS AND CLADDING AND ALL HARDWARE (HURRICANE STRAPS, ETC.) SHALL BE CONNECTED PER MANUFACTURER INSTRUCTIONS WITH CORRECT FASTENERS, FASTENER QUANTITIES, AND ATTACHMENT DETAILS SUCH AS CORRECT ANGLES.
- i. WHERE MANUFACTURER INSTRUCTIONS ALLOW BOTH MINIMUM AND MAXIMUM QUANTITIES OF FASTENERS CORRESPONDING TO DIFFERENT UPLIFT VALUES, THE QUANTITY CORRESPONDING TO MAXIMUM UPLIFT VALUE SHALL BE USED.
  - ii. MANUFACTURER INSTRUCTIONS ARE AVAILABLE HERE: [HTTPS://FLORIDABUILDING.ORG/PR/PR\\_APP\\_SRHC.ASPX](https://floridabuilding.org/pr/pr_app_srhc.aspx)
- H. ALTERNATE CONNECTORS MAY BE SUBSTITUTED FOR SIMPSON STRONGTIE IF THEIR LOAD CAPACITIES MEET OR EXCEED THOSE SPECIFIED. ALL CONNECTORS SHALL BE INSTALLED PURSUANT TO MANUFACTURER'S REQUIREMENTS FOR MAXIMUM CAPACITY.
- I. ALL HARDWARE SUCH AS THREADED RODS, NUTS, WASHERS, AND COUPLERS SHALL BE MINIMUM ASTM A36, A307 GRADE C MATERIAL PRODUCED FROM 1006-1010 STEEL AND ZINC OR GALVANIZED COATED IAW #633 OR ASTM A153 CLASS C RESPECTIVELY.
- J. EACH BEAM AND GIRDER SHALL BE INSTALLED WITH FULL END BEARING SURFACE RECOMMENDED BY THE MANUFACTURER OR THE SOUTHERN FOREST PRODUCTS ASSOCIATION (SEE [HTTPS://WWW.SOUTHERNPINE.COM/SPAN-TABLES/](https://www.southernpine.com/span-tables/)) FOR GIVEN SPAN WITH A DIRECT GRAVITY LOAD PATH FULLY BLOCKED ACROSS EACH FLOOR TRUSS/JOIST SPACE, TO THE FOUNDATION.
- K. EXTERIOR GLAZED OPENINGS LOCATED IN WIND-BORNE DEBRIS REGIONS SHALL HAVE PROTECTION PURSUANT TO FBC R301.2.1.2.

**SECTION 3. – TIMBER SPECIFICATIONS**

- A. STRUCTURAL TIMBER INCLUDING ALL ROOF MEMBERS SHALL BE VISUALLY GRADED #2 SOUTHERN YELLOW PINE (SYP) WITH MAX MOISTURE CONTENT 19% OR WHERE ALLOWED FOR WALL STUDS LOG POLE (LP) WITH ALLOWABLE STRESSES AS FOLLOWS:

NOMINAL DIMENSION (INCHES)	SPECIFIC GRAVITY (G)	MODULUS OF ELASTICITY (E)	COMPRESSION PERPENDICULAR TO GRAIN (F <sub>c</sub> )	COMPRESSION PARALLEL TO GRAIN (F <sub>c</sub> )	NON-REPETITIVE MEMBERS DESIGN VALUES (PSI) (C <sub>s</sub> = C = 1.0)	REPETITIVE MEMBERS DESIGN VALUES (PSI) (JOISTS, RAFTERS, STUDS, ETC.) (C <sub>s</sub> = 1.15)	REPETITIVE MEMBERS DESIGN VALUES (PSI) (JOISTS, RAFTERS, STUDS, ETC.) (C <sub>s</sub> = 1.15)
#2 SYP	2 X 4			1,450	1,100	1,265	1,580
	2 X 6			1,400	1,000	1,150	1,440
	2 X 8	0.55	1,400,000	565	1,350	925	1,065
	2 X 10			1,300	800	920	1,150
	2 X 12			1,250	750	865	1,080
LOG POLE (LP)	ALL 2X	0.42	1,100,000	335	1,000	775	NOT ALLOWED

- B. BENDING DESIGN VALUES SHALL BE ADJUSTED BY A FACTOR OF 0.85 WHEN TIMBER MOISTURE CONTENT CAN EXCEED 19%.
- C. STRUCTURAL LAMINATED TIMBER AND BEAMS SHALL COMPLY WITH THE FOLLOWING CRITERIA AND MINIMUM ALLOWABLE STRESSES:

DESIGN PROPERTY	GLUE LAMINATED TIMBER	LAMINATED VENEER LUMBER (LVL)
ADDITIONAL	VISUALLY GRADED SYP	N/A
BENDING STRESS	2,400 PSI	3,100 PSI
MODULUS OF ELASTICITY	1,800,000 PSI	2,100,000 PSI
HORIZONTAL SHEAR STRESS (F <sub>v</sub> )	300 PSI	285 PSI

**SECTION 4. – CONCRETE AND MASONRY REINFORCING STEEL**

- A. FOOTING AND SLAB REINFORCING STEEL SHALL BE GRADE 60; ALL FOOTING STEEL SHALL BE CONTINUOUS WITH CORNER BARS AT ALL CORNERS AND END WALL INTERSECTIONS.
- B. ALL SPLICES SHALL BE CONTACT LAP SPLICES, STAGGERED A MINIMUM OF 0.3 TIMES THE LAP SPlice LENGTH, SHALL NOT BE SPLICED AT POINTS OF INFLECTION, AND MINIMUM LAPS SPlice LENGTHS SHALL BE AS FOLLOWS:

	TENSION LAP SPlice LENGTH	TENSION DEVELOPMENT LENGTH	TENSION DEVELOPMENT LENGTH FOR STANDARD HOOK W/ AT LEAST 2-1/2" OF SIDE COVER PERPENDICULAR TO PLANE OF HOOK
#4 BAR	30"	23"	9"
#5 BAR	38"	28"	11"

- C. DOWEL HOOKS SHALL HAVE A MINIMUM HOOK LENGTH OF 6" AND BE EMBEDDED IN THE FOOTING A MINIMUM OF 3" ON THE BOTTOM AND SIDES AND 6" ON THE TOP.
- D. VERTICAL FOOTING DOWELS SHALL LAP VERTICAL WALL REINFORCEMENTS A MINIMUM OF 25".

**SECTION 5. – CONCRETE – FOOTINGS AND SLAB**

- A. FOOTINGS SHALL BEAR ON UNDISTURBED NATURAL SOILS OR ENGINEERED FILL (SEE FBC 1804.6).
- B. EXTERIOR FOOTINGS SHALL BE NOT LESS THAN 12" BELOW FINISHED GRADE; EXTERIOR WALLS SHALL BEAR ON CONTINUOUS FOOTINGS.
- C. ALL HORIZONTAL FOOTING BARS SHALL BE CONTINUOUS AND BE SUSPENDED WITH A MINIMUM OF COVER OF 3".
- D. CONCRETE FOR FOOTINGS AND SLABS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.
- E. EARTH SUPPORT SLAB SHALL BE A MINIMUM OF 4" THICK AND REINFORCED BY EITHER METHOD BELOW:
- i. WWF 6 X 6 W1.4 X W1.4 SUSPENDED IN THE MIDDLE TO THE UPPER 1/3 OF THE SLAB; WWF SHALL CONFORM TO ASTM A1064/A1064 M AND BE SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT A SPACING OF 3' OR LESS.
  - ii. SYNTHETIC REINFORCING FIBERS COMPLIANT WITH ASTM C1116, 1/2" TO 2.25" IN LENGTH, AND MIXED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS BUT AT LEAST 1.0 POUND PER CUBIC YARD.
- F. UNLESS OTHERWISE REQUIRED BY HARDWARE ATTACHMENT DETAILS SUCH AS ABU BASES, ALL J-BOLTS SHALL BE A MINIMUM OF 1/2" X 10"; EMBEDDED A MINIMUM OF 7"; AND SPACED A MAXIMUM OF 32" O.C. IN EXTERIOR WALLS; ONE ANCHOR BOLT SHALL BE LOCATED WITHIN 12" OF EACH END OF EACH SILL PLATE BOARD.
- i. IF A J-BOLT IS NOT INSTALLED IN THE CONCRETE AT A REQUIRED LOCATION, A 1/2" STRONG-BOLT\* 2 OR TITEN HD\* EMBEDDED A MINIMUM OF 5-1/2" MAY BE SUBSTITUTED.

- G. EXCAVATIONS FOR POOLS SHALL REMAIN ABOVE A 30° ARC BELOW HORIZONTAL FROM THE BOTTOM OF THE NEAREST FOOTING FACE.

**SECTION 6. – MASONRY**

- A. CMU'S SHALL CONFORM TO ASTM C-90; HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI ON THE NET AREA; AND BE LAID IN A RUNNING BOND.
- B. MORTAR FOR CMU STRUCTURES SHALL CONFORM AT A MINIMUM TO ASTM C-270, TYPE M OR TYPE S.
- C. STEMWALL CMU CELLS SHALL BE FULLY GROUTED TO A MAXIMUM HEIGHT OF 2" BELOW THE TOP CELL OPENING TO CREATE A KEY. GROUT SHALL CONFORM TO ASTM C-476 AND HAVE A MINIMUM STRENGTH OF 3,000 PSI AT 28 DAYS. CELLS SHALL BE FILLED AT A MAXIMUM LIFT HEIGHT OF 4' AND MECHANICALLY VIBRATED TO PREVENT VOID.
- D. CMU STEMWALLS SHALL HAVE VERTICAL DOWELS SPACED PER FOUNDATION SECTION DETAIL.
- i. TALLER STEMWALLS ARE AT HIGH RISK OF COLLAPSE; BUILDER IS ADVISED TO TAKE SPECIAL PRECAUTIONS TO BRACE STEMWALLS PRIOR TO FILL INSTALLATION; FOR STEMWALLS HIGHER THAN 8 CMU, IT IS HIGHLY RECOMMENDED TO INSTALL DEADMAN TIEBACKS @ 8' O.C. ATTACHED TO EA. BOND BEAM.
- E. CMU STEMWALLS SHALL HAVE A CONTINUOUS #4 HORIZONTAL BAR IN THE HEADER BLOCK.

**SECTION 7. – FRAMING**

- A. ALL WALL FRAMING SHALL AT A MINIMUM BE (IF REQUIRED HEIGHT NOT LISTED, CONTACT ENGINEER OF RECORD):

WALL HEIGHT	PLATES	EXTERIOR LOADBEARING, AND SHEAR WALL			INTERIOR NON-BEARING		
		STUD (#2 GRADE)	SIZE	MAX. SPACING	STUD (#2 GRADE)	SIZE	MAX. SPACING
8' – 9'	SYP	LP	2X4; 2X6 (SUPPORTS MULTI-LEVEL)	16" O.C.	SYP, LP	2X4	16" O.C.
10'	SYP	SYP, LP	2X4 (SUPPORTS ROOF ONLY); 2X6 (MULTI-LEVEL)	16" O.C.	SYP, LP	2X4	16" O.C.
11'	SYP	SYP	2X6	16" O.C.	SYP, LP	2X4	16" O.C.
12'	SYP	SYP	2X6	16" O.C.	SYP, LP	2X4	16" O.C.

- B. STUDS IN EXTERIOR AND SHEAR WALLS SHALL BE FACE NAILED THROUGH SILL AND TOP PLATES.
- C. DOUBLE TOP PLATE SHALL BE CONTINUOUS AND CONSIST OF (2) 2X SYP NAILED TOGETHER WITH (2) 12D COMMON NAILS AT 12" O.C. AND SHALL OVERLAP AT CORNERS AND WALL INTERSECTIONS.
- D. WOOD-TO-WOOD FRAMED CONNECTIONS SHALL BE MADE WITH ADEQUATE BOLTS OR JOIST HANGERS. HANGER HEIGHT SHALL EQUAL 62% OF JOIST HEIGHT.
- E. THE MINIMUM NUMBER OF OPENING KING AND JACK STUDS SHALL COMPLY WITH THIS TABLE; THE STUD PACK AT EACH END OF EXTERIOR AND LOADBEARING WALLS SHALL BE NOT LESS THAN 1/2 THE TOTAL NUMBER OF STUDS DISPLACED; ADDITIONAL, THE MINIMUM NUMBER OF JACK STUDS SHALL BE EQUAL TO THE BEAM MANUFACTURER'S LISTED MINIMUM END BEARING DISTANCE FOR THE GIVEN SPAN DIVIDED BY 1.5':

HEADER SPAN	SUPPORTS ROOF ONLY		SUPPORTS FLOOR AND ROOF	
	FULL HEIGHT KING STUDS	HEADER SUPPORT JACK STUDS	FULL HEIGHT KING STUDS	HEADER SUPPORT JACK STUDS
< 4'-0"	1	1	1	1
4'-1" TO 6'-0"	2	1	2	2
6'-1" TO 10'-0"	3	2	3	3
10'-1" TO 14'-0"	3	2	4	4
14'-1" TO 18'-0"	3	3	4	4

- F. FLOOR JOISTS SHALL CONSIST OF SYP VISUALLY GRADED #2 BY QUALIFIED VISUAL GRADERS SIZED AS FOLLOWS:

SPACING	FLOOR JOISTS: LL = 40 PSF, DL = 20 PSF, REPETITIVE MEMBER FACTOR 1.15, LOAD DURATION FACTOR 1.0, 1/360 LL DEFLECTION, (WHERE JOISTS BEAR A PARALLEL WALL, INSTALL DOUBLE JOISTS), SPAN LIMITS IN FEET-INCHES			
	2 X 6	2 X 8	2 X 10	2 X 12
12"	9-10	12-6	14-9	17-5
16"	8-6	10-10	12-10	15-1
19.2"	7-9	9-10	11-8	13-9
24"	6-11	8-10	10-5	12-4

- G. SHEATHING
- i. ALL WALL SHEATHING PANELS SHALL BE INSTALLED WITH ALL JOINTS OCCURRING OVER SINGLE 2"X FRAMING MEMBERS.
  - ii. WALL SHEATHING SHALL EXTEND FROM THE BOTTOM OF THE BOTTOM PLATE TO THE TOP OF THE TOP PLATE.
  - iii. ALL WOOD STRUCTURAL PANELS SHALL BE RATED STRUCTURAL, I, BEAR THE APPROPRIATE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION (APA), AND CONFORM TO THE REQUIREMENTS FOR ITS TYPE IN DOC PS 1 OR PS 2, WITH THE FOLLOWING MINIMUMS:

WHERE	THICKNESS, (IN.) (PANEL SPAN RATING)	FASTENERS (IN.)	FASTENER SPACING (IN.)	
FLOORS	23/32 (48/24)	FULL HEAD, 10D RING-SHANK OR SCREWS	6 O.C. EDGES; 6 O.C. FIELD	
WALLS	7/16 (24/16)	FULL HEAD, 8D COMMON	4 O.C. EDGES* (NAIL BOTH TOP PLATES); 6 O.C. FIELD	
PORCH CEILINGS	7/16 (24/16)	FULL HEAD, 8D COMMON	6 O.C. EDGES; 6 O.C. FIELD	
ROOF	V <sub>ULT</sub> ≤ 149 MPH, EXPOSURE B ONLY	7/16 (24/16)	FULL HEAD, 2-3/8 X 0.113 RING-SHANK	6 O.C. EDGES; 6 O.C. FIELD
	150 MPH ≤ V <sub>ULT</sub> ≤ 159 MPH, EXPOSURE B ONLY	15/32 (32/16)	FULL HEAD, 2-1/2 X 0.131 RING-SHANK	4 O.C. EDGES; 4 O.C. FIELD
	V <sub>ULT</sub> ≥ 160 MPH OR EXPOSURES C OR D	19/32 (40/20)	FULL HEAD, 2-1/2 X 0.131 RING-SHANK	4 O.C. EDGES; 4 O.C. FIELD

\*IF FULL HEIGHT SHEATHING ALLOWED AND USED IN LIEU OF STUD TIES (SEE WALL UPLIFT SECTION), NAIL BOTTOM PLATE WITH (2) ROWS STAGGERED AT 4" O.C., 1/2" APART AND 1/2" FROM PLATE EDGES.

- iv. NAILS IN A SINGLE ROW SHALL NOT BE SPACED CLOSER THAN 3" ON CENTER.
- v. ROOF SHEATHING SHALL BE INSTALLED WITH STRENGTH AXIS PERPENDICULAR TO RAFTERS.

**SECTION 8. – PRE-ENGINEERED TRUSSES AND GENERAL WIND LOAD CONNECTIONS**

- A. ALL TRUSS LOADS SHALL BEAR ON FOOTINGS, PILES, OR PIERS VIA WALLS, COLUMNS, OR OTHER STRUCTURAL MEMBERS.
- i. INTERIOR FOOTINGS SHOWN ON DRAWINGS INDICATE EXPECTED LOAD BEARING AREAS.
  - ii. BUILDER SHALL VERIFY WITH THE TRUSS DESIGNER ALL INTERIOR TRUSS LOAD-BEARING POINTS AND ADD INTERIOR BEARING FOOTINGS PER SHEET S-1 TO ACCOMMODATE ALL TRUSS BEARING POINTS.
- B. PRE-ENGINEERED WOOD TRUSSES SHALL BE DESIGNED TO MEET APPLICABLE STRUCTURAL DESIGN CRITERIA, INCLUDING THE WIND AND GRAVITY LOAD CRITERIA SPECIFIED ON THIS SHEET; TRUSS DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER.
- C. UNLESS THIS PLAN INCLUDES A FLOOR FRAMING PLAN (IF APPLICABLE), CEILING JOIST LAYOUT, AND FOUNDATION PLAN W/ GRADE BEAMS FOR CEILING JOIST BEARING POINTS, THIS PLAN IS ONLY VALID FOR CONSTRUCTION W/ PRE-ENGINEERED TRUSSES.

**SECTION 9. – ROOF CONNECTIONS NOT STIPULATED BY PE TRUSS DESIGNER**

- A. IF ANY RAFTER OR TRUSS TOP CHORD CONDITION IS NOT COVERED ELSEWHERE, THAT RAFTER OR TRUSS TOP CHORD SHALL BE ATTACHED AT EACH BEARING POINT WITH H10A, H10A-2, OR MTS12/16 HURRICANE TIES.
- B. RAFTERS BEARING ON STRUCTURAL MEMBERS SUCH AS BEAMS OR DOUBLE TOP PLATES SHALL BE CONNECTED TO SAID MEMBER(S) WITH H10A, H10A-2, OR MTS12/16 (FOR DOUBLE TOP PLATES, WRAP TAILS OVER RAFTER TOP AND UNDER LOWER TOP PLATE).
- C. RAFTERS BEARING ON MEMBERS SUCH AS A LEDGER BOARDS, SHALL BE CONNECTED WITH H2.5A OR MTS12/16.
- D. RAFTERS BEARING ON CORNERS SHALL BE CONNECTED WITH HCP PLATES OR RTS TWIST STRAPS WRAPPED OVER THE RAFTER.
- E. RAFTERS SHALL BEAR DIRECTLY ON BEAMS, GIRDERS, LEDGERS, OR LOADBEARING WALLS OR BE SUPPORTED BY HANGERS.
- F. RIDGE BOARD (NON-STRUCTURAL) AND RIDGE BEAM (STRUCTURAL) CONNECTIONS (REFER TO WFCM SECTION 2.5.1.4):
- i. RIDGE BOARDS SHALL BE AT LEAST 2" X 6" AND NOT LESS IN DEPTH THAN RAFTER CUT ENDS.
  - ii. OPPOSING RAFTERS SHALL BE CONNECTED ACROSS RIDGE BOARDS WITH EITHER:
    - 1. LSTA21 TIES PASSING OVER THE RIDGE BOARD OR BEAM; OR
    - 2. COLLAR TIES LOCATED IN THE UPPER THIRD OF TRUSS AND AT LEAST 1" X 6" SYP ATTACHED WITH (5) 10D NAILS AT EACH END OR 2"X LUMBER ATTACHED WITH (5) 16D NAILS AT EACH END.
  - iii. IF STRUCTURAL RIDGE BEAMS ARE TO BE USED, CONTACT THE ENGINEER OF RECORD FOR RIDGE BEAM SIZING; RAFTERS SHALL BEAR DIRECTLY ON RIDGE BEAMS OR BE ATTACHED WITH CORRECTLY SIZED LRU HANGERS.
- G. RAFTERS AND CEILING JOISTS SHALL CONSIST OF #2 SYP GRADED BY QUALIFIED VISUAL GRADERS; RAFTERS AND ROOF LOADS SHALL BEAR ON AND BE BRACED WITHIN 12" OF LOAD-BEARING WALLS OR OTHER STRUCTURAL MEMBERS; CEILING JOISTS ARE NOT CONSIDERED STRUCTURAL MEMBERS AND NOT INTENDED TO SUPPORT RAFTER OR ROOF LOADS; AND SPANS SHALL BE AS FOLLOWS:

SPACING	RAFTERS: LL = 20 PSF, DL = 15 PSF, REPETITIVE MEMBER FACTOR 1.15, LOAD DURATION FACTOR 1.0, 1/240 LL DEFLECTION				CEILING JOISTS: LL = 20 PSF, DL = 10 PSF, REPETITIVE MEMBER FACTOR 1.15, LOAD DURATION FACTOR 1.0, 1/240 LL DEFLECTION			
	2 X 6	2 X 8	2 X 10	2 X 12	2 X 4	2 X 6	2 X 8	2 X 10
12"	13-10	17-6	20-10	24-5	9-3	13-11	17-7	20-11
16"	11-11	15-2	18-0	21-2	8-0	12-0	15-3	18-1
19.2"	10-11	13-10	16-5	19-4	7-4	11-0	13-11	16-6
24"	9-9	12-4	14-8	17-3	6-7	9-10	12-6	14-9

- H. GABLE END CONNECTIONS:
- i. ROOF LEVEL: THE FIRST (2) TRUSS OR RAFTER SPACES FROM ENDWALL SHALL HAVE 2"X BLOCKING AT ALL SHEATHING JOINTS.
  - ii. CEILING LEVEL: GABLE ENDWALLS SHALL HAVE CONTINUOUS LATERAL 2"X4" BRACING AT 6' O.C. W/ LSTA24 WRAPPED OVER OUTSIDE WALL.
  - iii. ALL GABLE OUTLOOKERS SHALL REST ON DROPPED RAFTERS OR TOP PLATES AND BE BLOCKED WITH FULL-WIDTH 2"X BLOCKING.

- iv. ALL OUTLOOKERS SHALL EXTEND TO INTERIOR RAFTERS AND BE ANCHORED TO THE TOP CHORD OF DROPPED TRUSSES OR TOP PLATES OF THE GABLE ENDWALL WITH H10A OR (2) H2.5A TIES.
- I. HIP CONNECTIONS:
- i. HIP RAFTERS SHALL BE NOT LESS IN DEPTH THAN CUT END OF HIP JACKS AND VALLEY JACKS.
  - ii. OPPOSING JACK RAFTERS SHALL BE CONNECTED TOGETHER WITH LSTA18 STRAP TIES PASSING OVER HIP RAFTER.
- J. VALLEY CONNECTIONS:
- i. RAFTERS LAYING ON A VALLEY SHALL BE ANCHORED AS LOW AS POSSIBLE TO SUPPORTING RAFTER OR JOIST WITH ADEQUATELY SIZED RTS TWIST STRAP TIES.
  - ii. VALLEY RAFTERS SHALL BE NOT LESS IN DEPTH THAN CUT END OF HIP JACKS AND VALLEY JACKS.

**SECTION 10. – SHEAR WALL**

- A. SHEAR WALLS SHALL BE CONSTRUCTED WITH SHEATHING AND HOLD DOWNS (SEE WALL HOLD-DOWN SECTION) WITH ADEQUATE DIRECT LOAD PATHS SUCH AS THREADED ROD, GO-BOLTS, ETC. TRANSMITTING LOADS FROM THE WALL TO THE FOUNDATION.
- B. ALL EXTERIOR WALLS AND OTHER WALLS AS NOTED ON PLANS SHALL BE CONSIDERED SHEAR WALLS.
- C. WHERE USING DOUBLE-SIDED SHEAR WALL, PANEL JOINTS SHALL BE OFFSET ON DIFFERENT FRAMING MEMBERS.
- D. WHERE FLOOR JOISTS BEAR INTERIOR SHEAR WALLS AS NOTED ON FLOOR PLAN, INSTALL (3) 1-3/4"X 11-7/8" LVL'S UNDER ENTIRE SHEAR WALL; WHERE FLOOR TRUSSES BEAR INTERIOR SHEAR WALLS AS NOTED ON FLOOR PLANS, INSTALL (3) 1-3/4"X 16" L