

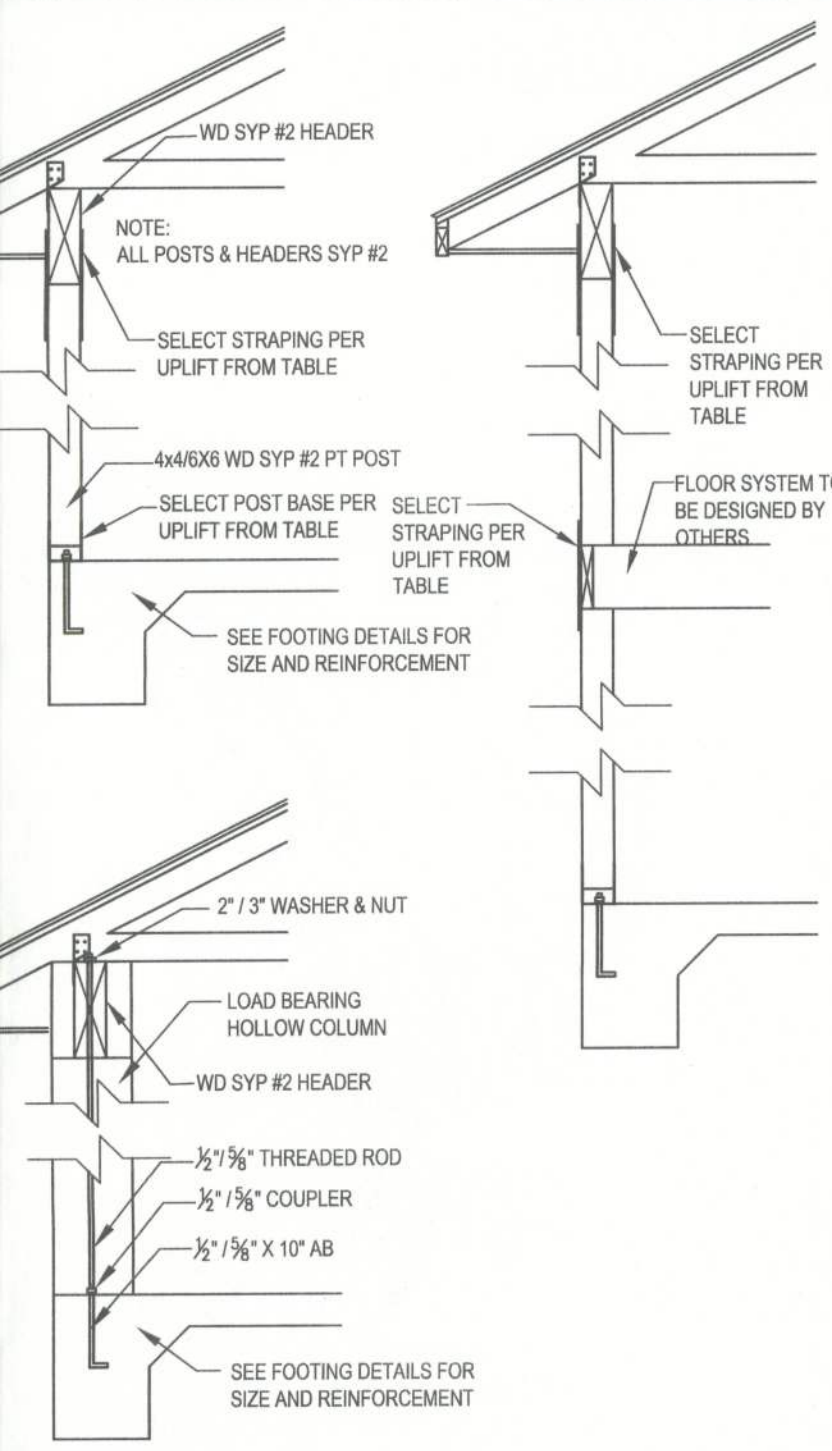
STUD ANCHOR TABLE

TYPICAL TRUSS UPLIFT & MAX 10'-0" WALL HEIGHT	ANCHOR BOLT	SP4 / SPS SPACING	ALTERNATE SPACING
775 LB	4" O.C.	4" O.C.	N/A
950 LB	4" O.C.	3" O.C.	N/A
1270 LB	3" O.C.	1" O.C.	3" O.C.
1500 LB	2" O.C.	1" O.C.	1" O.C.
2200 LB	LTT01 W/ 5" X 7" WEDGE ANCHOR	N/A	HTS20

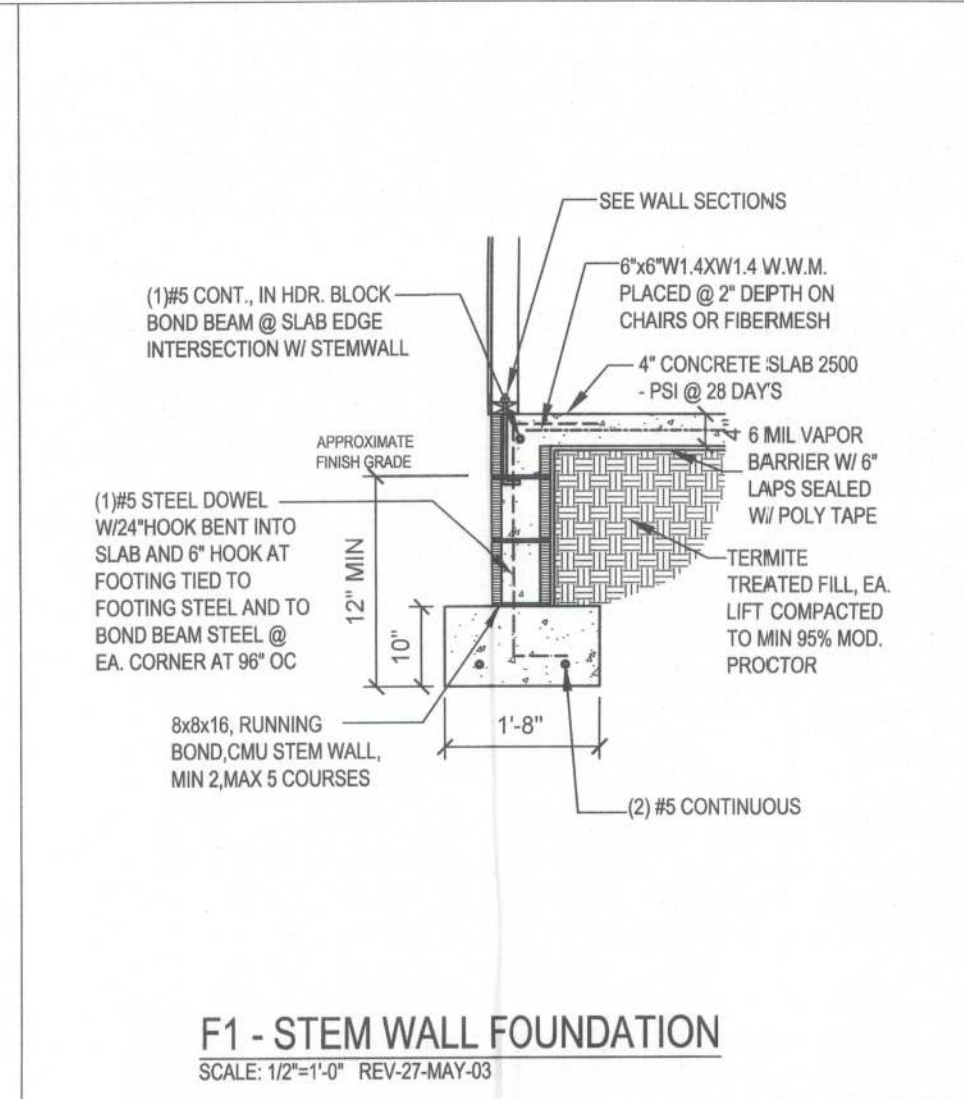
NOTE: SP2 TOP & SP1 BOTTOM ALTERNATE FOR SP4#6

NOTE: MINIMUM ANCHOR BOLT SPACING FOR WALLS WITH A HEIGHT GREATER THAN 10'-0" AND LESS THAN 14'-0" SHALL BE 3" O.C.

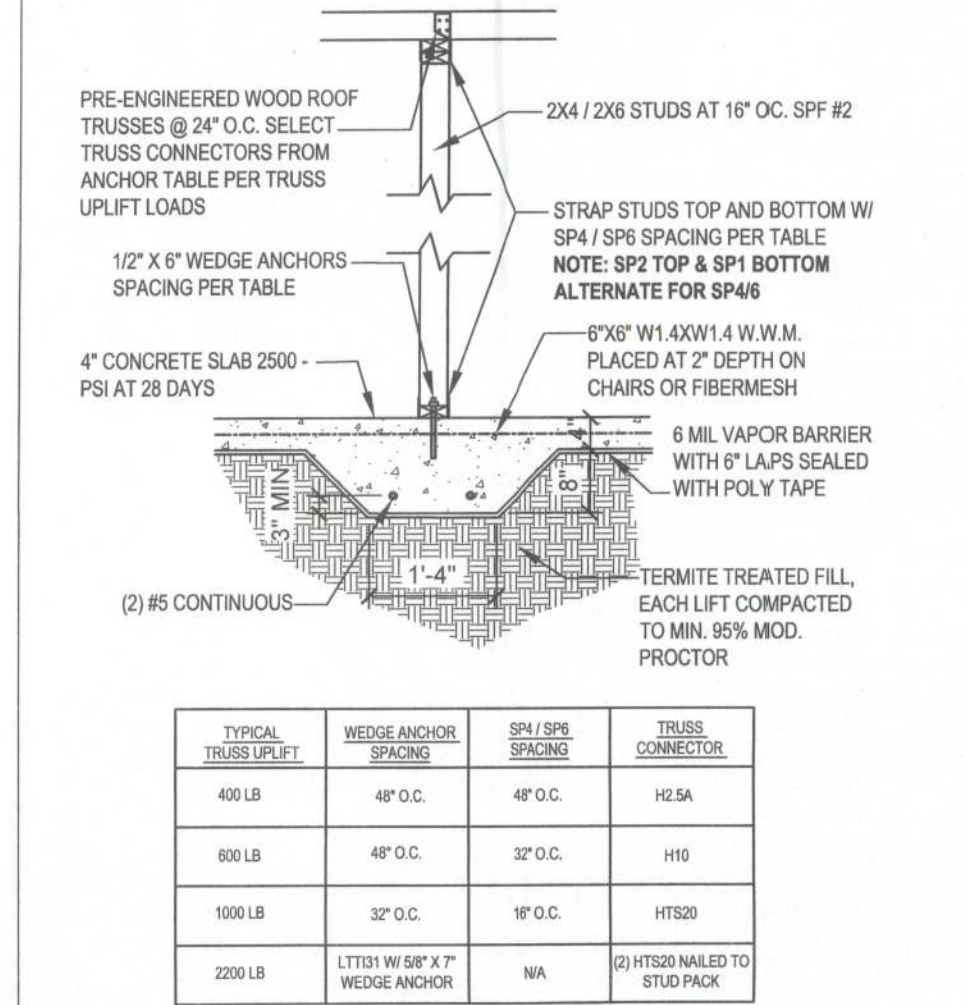
W1 - SINGLE STORY EXT. WALL SECTION
SCALE: 1/2"=1'-0" REV-22-AUG-03



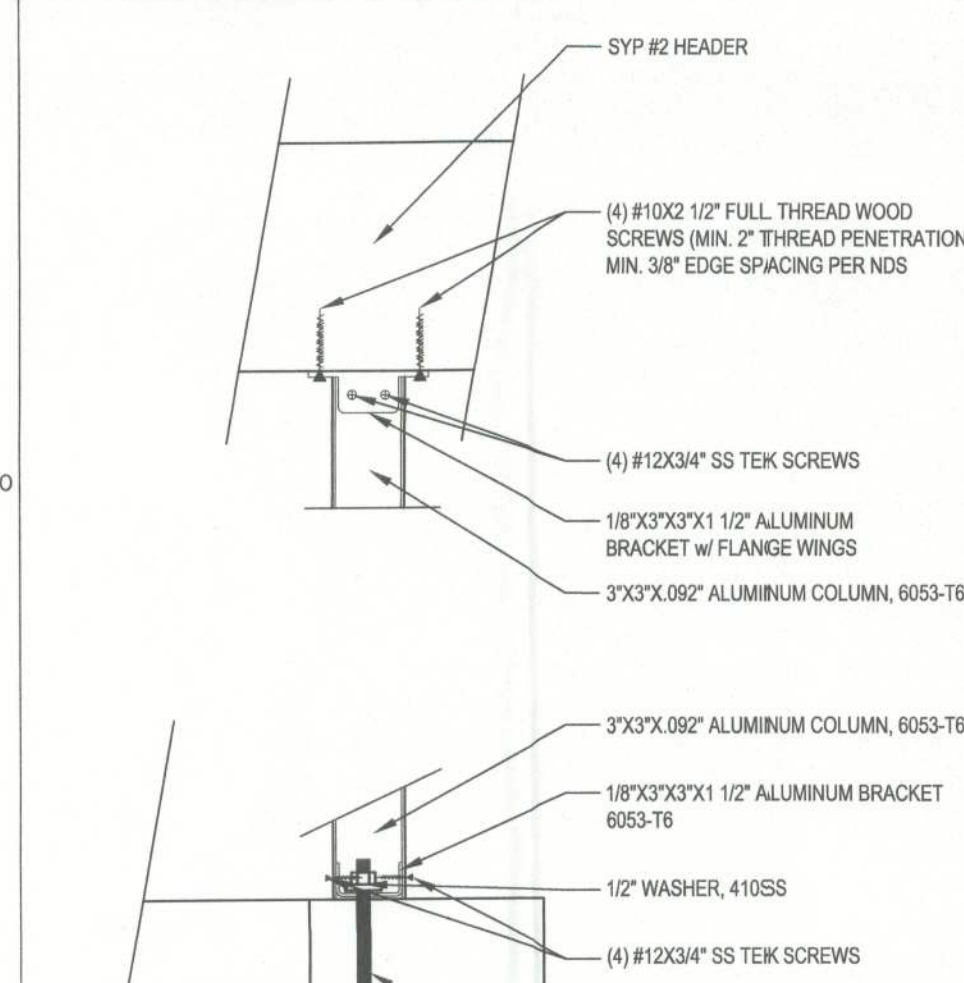
SYP #2 PT WOOD POSTS			
TYPICAL TRUSS UPLIFT	POST BASE ANCHOR	BETWEEN FLOOR STRAPPING	HEADER STRAPPING
555 LB	AB44 W/ (8)-10d & 2"	(2) LST21 W/ (8)-10d EA.	(2) LST21 W/ (8)-10d EA.
720 LB	AB46 W/ (8)-16d & 3"	(2) LST21 W/ (8)-10d EA.	(2) LST21 W/ (8)-10d EA.
2200 LB	AB44 W/ (12)-16d, (2) 3" BOLTS & 4"	(2) LST21 W/ (10)-10d EA.	(2) LST21 W/ (10)-10d EA.
2300 LB	AB46 W/ (12)-16d, (2) 3" BOLTS & 4"	(2) LST21 W/ (10)-10d EA.	(2) LST21 W/ (10)-10d EA.
HOLLOW COLUMN			
1500 LB	3/4" X 12" AP ATTACHED TO 8" THREADED ROD WITH 10" COUPLER THRU COLUMN & HEADER WITH F W/ WASHER & NUT TOP		
2300 LB	3/4" X 12" AP ATTACHED TO 8" THREADED ROD WITH 10" COUPLER THRU COLUMN & HEADER WITH F W/ WASHER & NUT TOP		



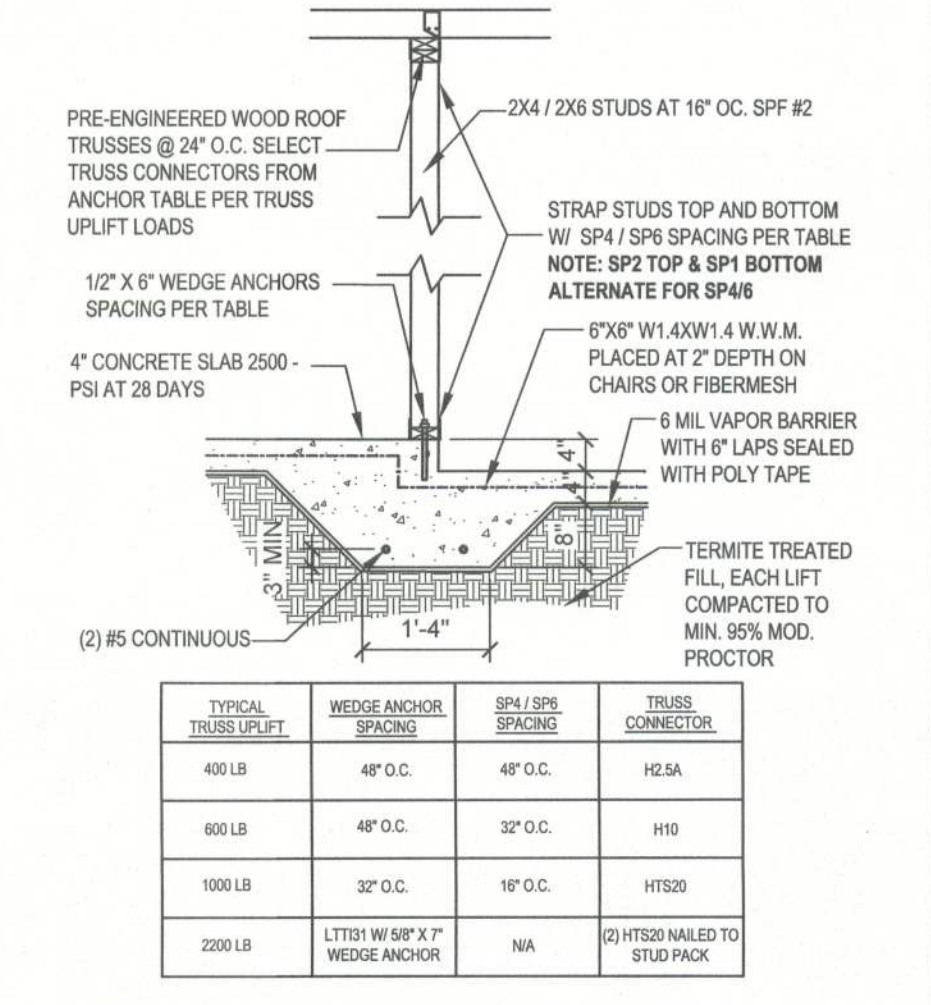
F1 - STEM WALL FOUNDATION
SCALE: 1/2"=1'-0" REV-27-MAY-03



F4 - INTERIOR BEARING FOOTING
SCALE: 1/2"=1'-0" REV-22-AUG-03



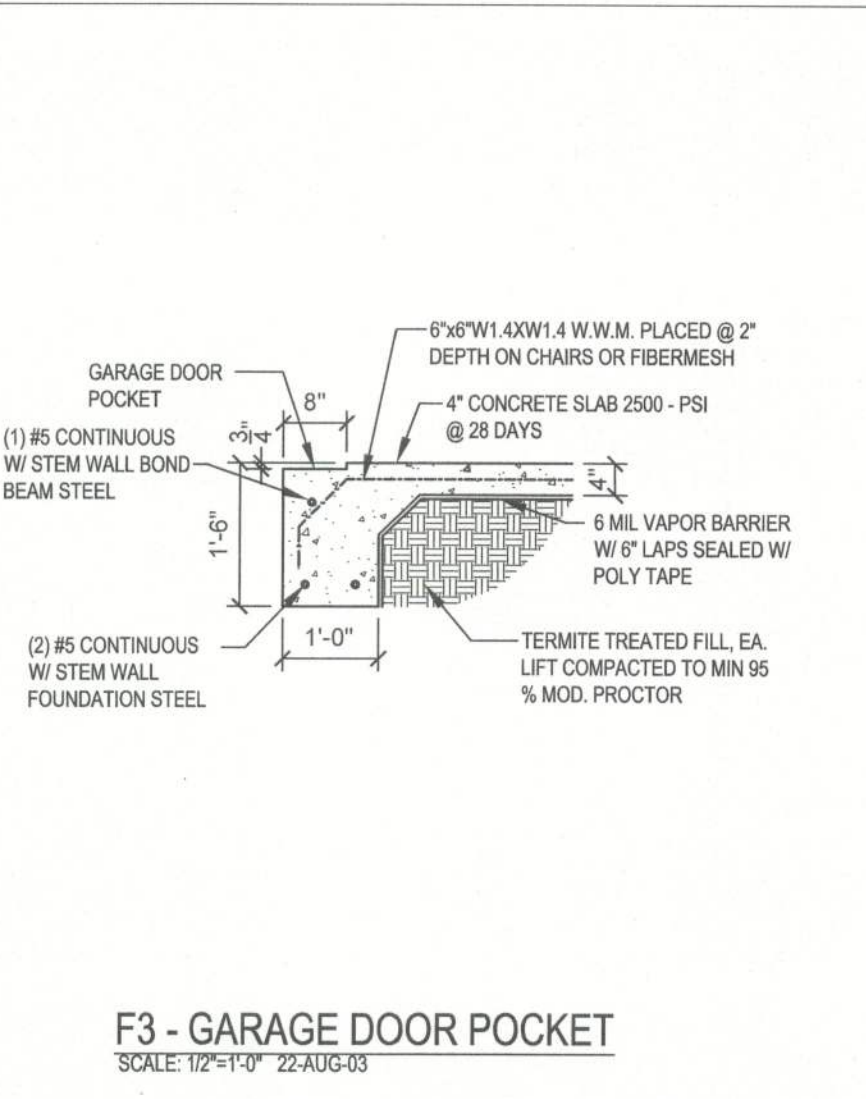
F5 - INTERIOR BEARING STEP FOOTING
SCALE: 1/2"=1'-0" REV-22-AUG-03



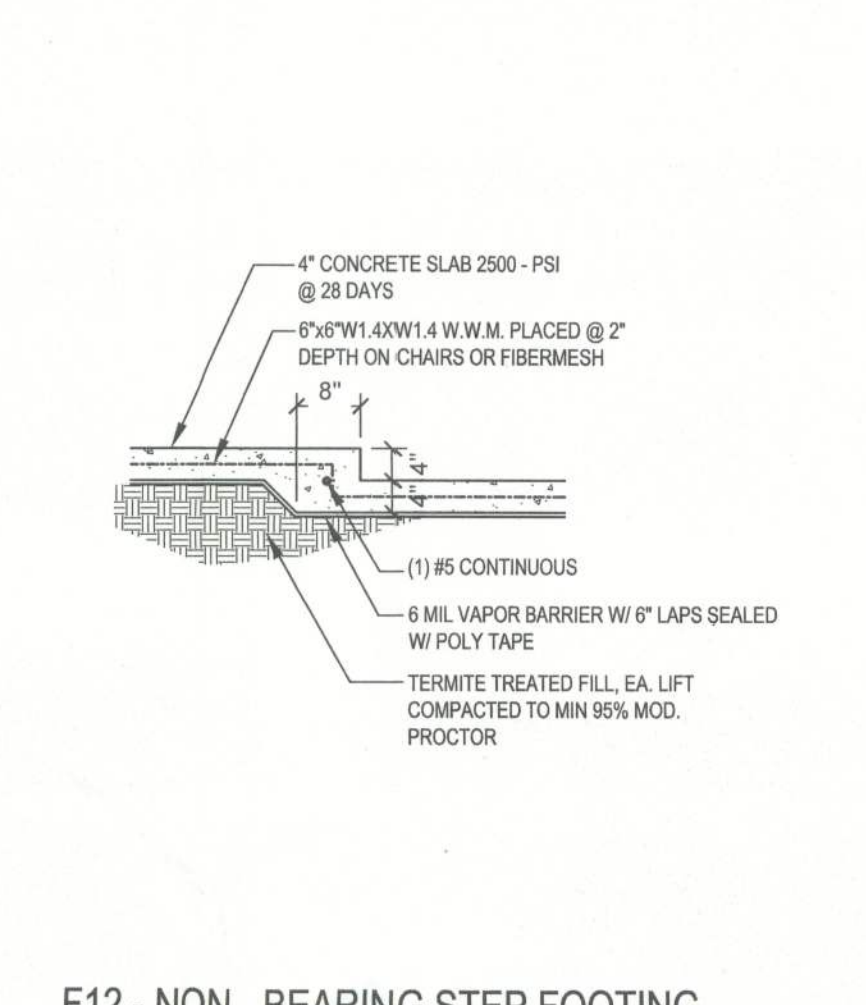
F10 - STEM WALL PORCH FOOTING
SCALE: 1/2"=1'-0" REV-16-MAY-03



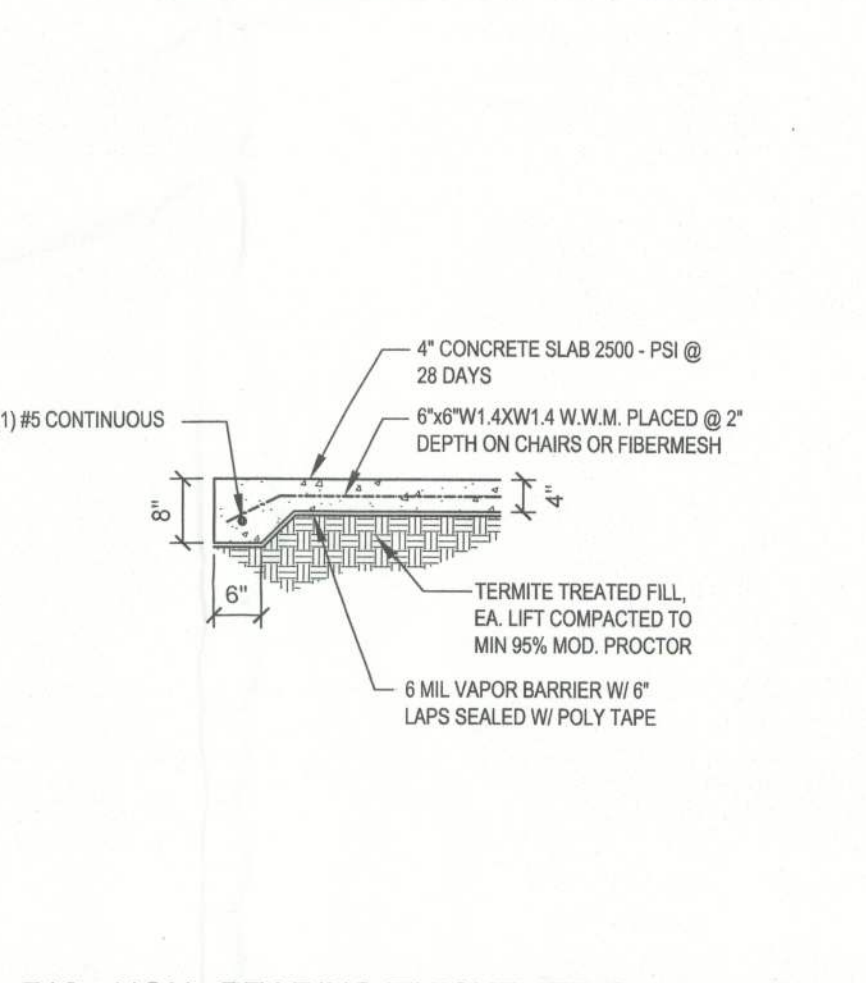
W44 - ALUMINUM PORCH POST & HEADER ANCHORS
SCALE: N.T.S. REV-09-MAY-04



F3 - GARAGE DOOR POCKET
SCALE: 1/2"=1'-0" REV-22-AUG-03



F12 - NON - BEARING STEP FOOTING
SCALE: 1/2"=1'-0" REV-10-FEB-03



F13 - NON - BEARING THICKENED SLAB EDGE
SCALE: 1/2"=1'-0" REV-10-FEB-03

N5 - TRUSS UPLIFT CONNECTOR TABLE REV-25-AUG-03

All connectors are Simpson Strong-Tie, Inc. Select top and bottom connections from this table or SST catalog to meet huss uplift. Use fasteners as specified.

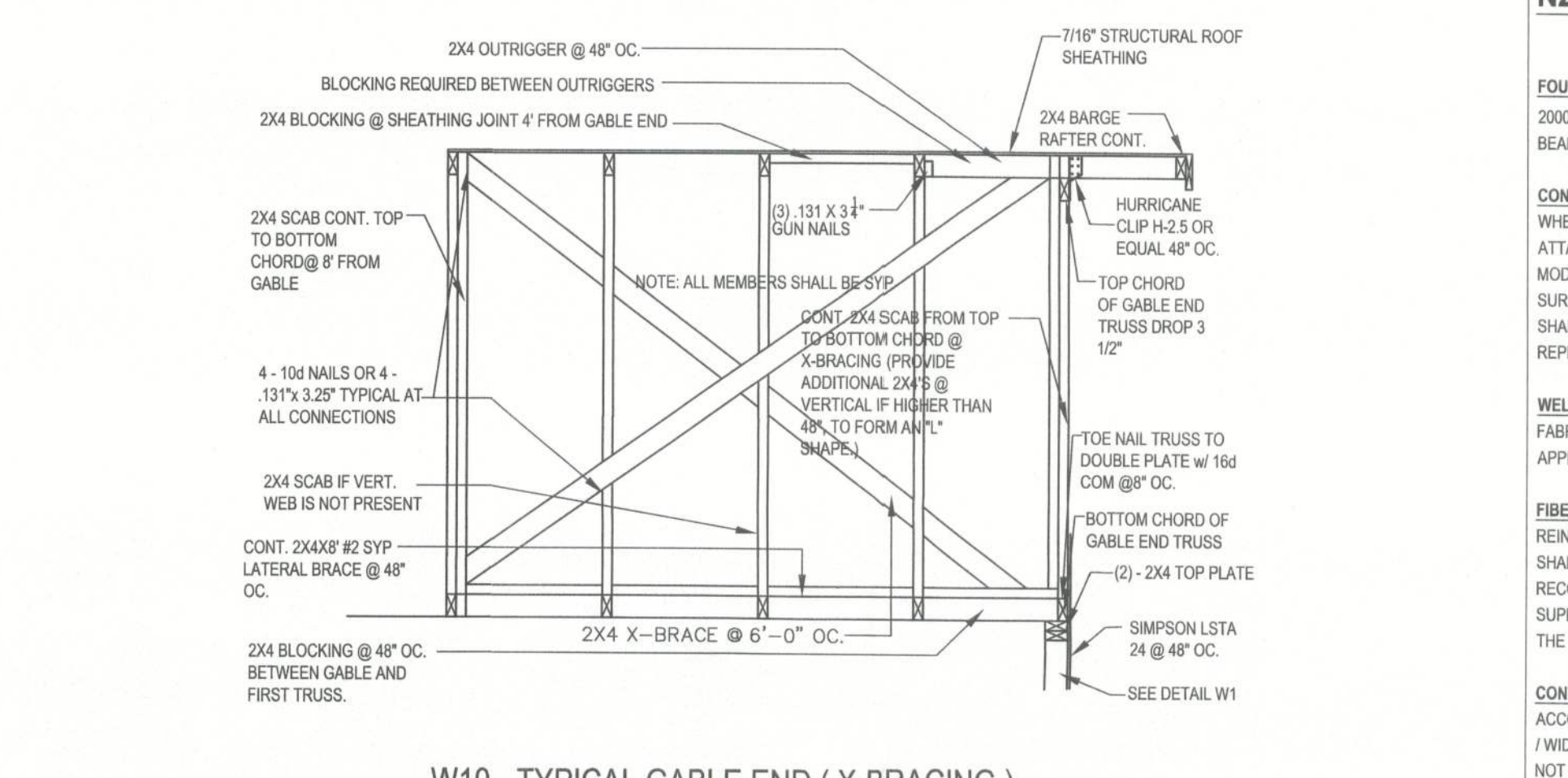
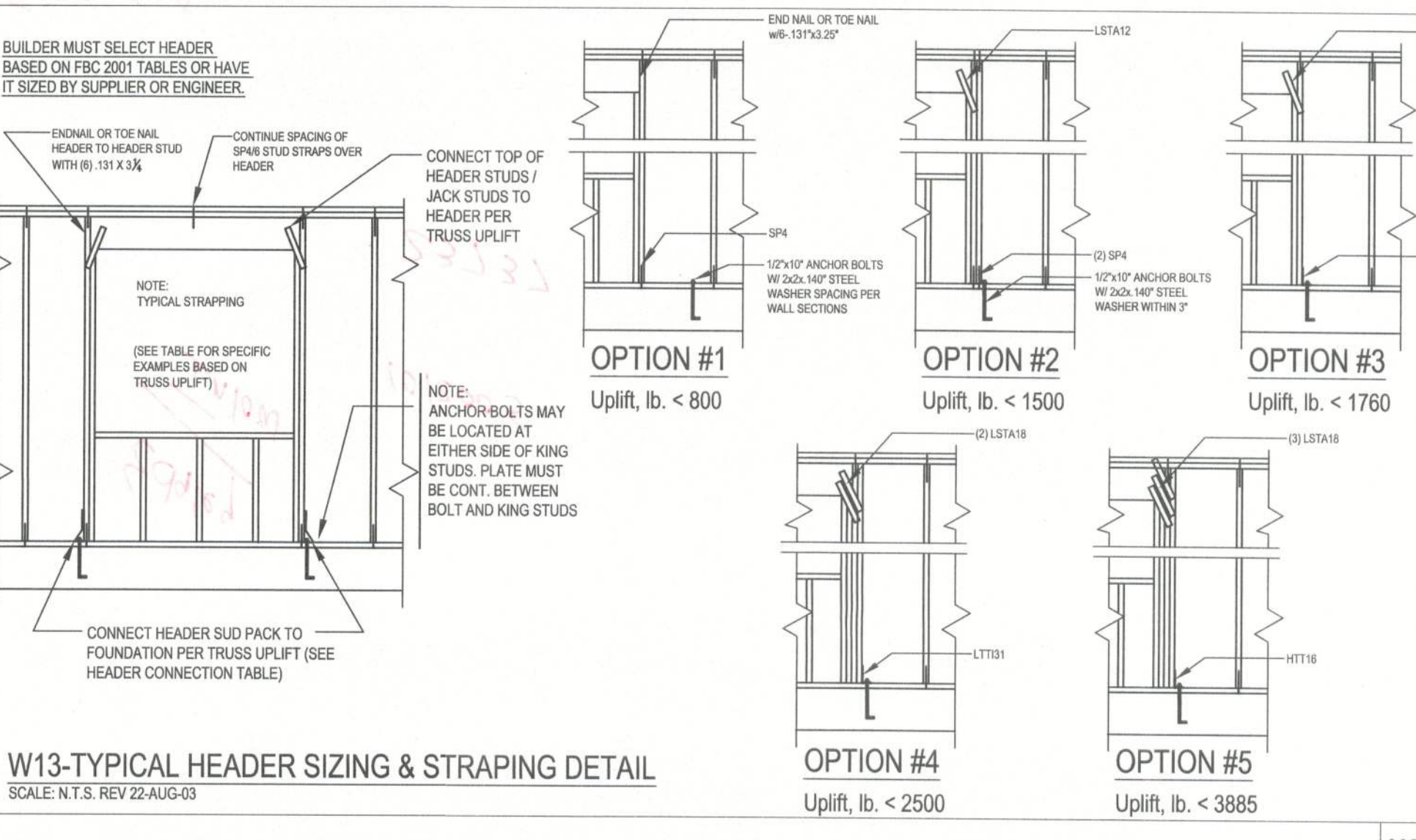
Uplift	SPF	SYP	Truss Connector	To Plate	To Truss / Rafter
320	455	H1	4-8d	4-8d	
245	350	H4	3-8d	3-8d	
535	600	H5A	5-8d	5-8d	
620	720	H10	6-10d or 12-10d 1 1/2"	6-10d 1 1/2"	
850	990	HTS12	8-8d or 1 1/2"	8-8d 1 1/2"	
1245	1450	HTS20	10-10d or 12-10d 1 1/2"	10-10d or 12-10d 1 1/2"	
1265	1470	H16, H16-2	10-10d or 1 1/2"	2-10d 1 1/2"	
1785	2050	LG12	14-10d Sinker	14-10d Sinker	
3555	4200	MG1	3/4" Thrd. Rod	22-10d	

SPF	SYP	Truss Connector	To One Member	To Other Member
760	885	SP4	6-10d or 1 1/2"	N/A
865	1005	CS20	9-8d or 7-10d	9-8d or 7-10d
1085	1265	LSTA18-24	7-10d	7-10d
1170	1380	SPH4	12-10d or 1 1/2"	N/A
1420	1650	CS16	14-8d or 11-10d	14-8d or 11-10d

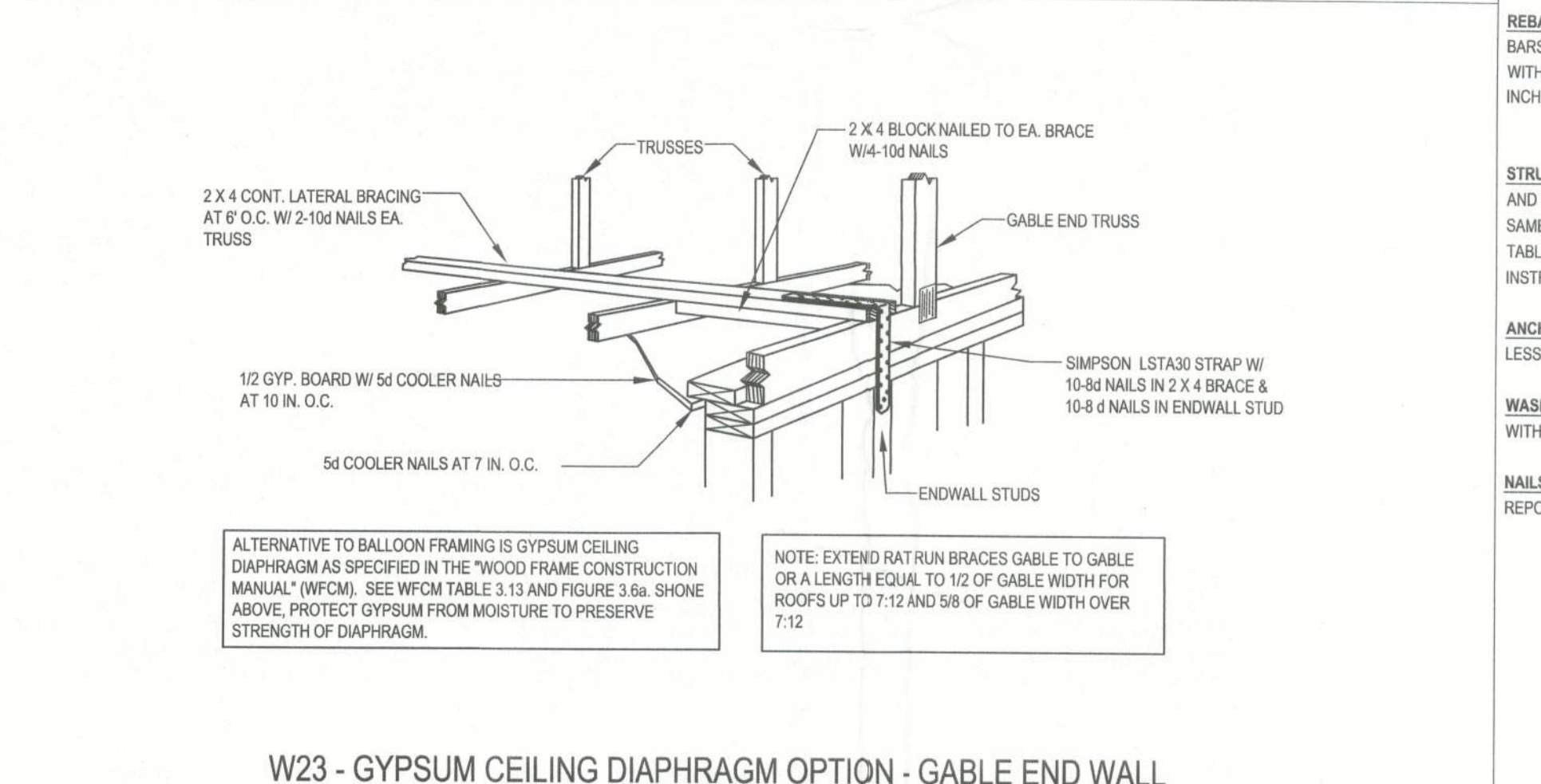
SPF	SYP	Column Anchor	To Foundation	To Column / Truss
1160	1350	LT119	3/4" x 16" AB	8-16d Sinkers
1985	2310	LT131	3/4" x 16" AB	18-10d 1 1/2"
2385	2775	HD2A	3/4" x 16" AB	2-3/4" Bolts
3590	4175	HT16	3/4" x 16" AB	18-16d
1975	2300	ABU66	3/4" x 16" AB	12-16d

Slats Supporting Trusses: The builder is responsible for gravity loads, but you should put an extra 2x4 stud under truss bearing location for each 3000 lb of reaction. Check the minimum gravity load requirements of the truss and top plate (SPF, F=4250psi/2230kpsi).

Manufacture and product number 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. Manufacturers' installation instructions must be followed to achieve rated loads. All connectors exposed directly to the weather shall be hot dipped galvanized after fabrication. Loads are increased for wind location. Strap uplift may be reduced proportionately to number of walls. See spec sheet for alternate nail sizes (10d=14d, 10d=11d, 10d=12d, 10d=14d, 10d=12d=14d, 10d=12d=14d, 10d=12d=14d).



W10 - TYPICAL GABLE END (X-BRACING)
SCALE: 1/2"=1'-0"



W23 - GYPSUM CEILING DIAPHRAGM OPTION - GABLE END WALL
SCALE: N.T.S.

N4-WIND LOAD DESIGN DATA

(Wind loads are per FBC 2001, Section 1606.2 for enclosed simple diaphragm buildings with mean roof height less than 60' or the least horizontal dimension; not sited on the upper half of an unobstructed 50' high hill with >10% slope).

Basic Wind Speed	110 MPH
Wind Exposure	B
Wind Importance Factor	1.0
Building Category	II
Internal pressure Coefficient	N/A (Enclosed)
Building not in the high velocity hurricane zone	
Building not in the wind-borne debris region	
Mean Roof Height	< 30 ft
Roof Angle	10-45 degrees
Components And Cladding Wind Pressures (FBC Table 1606.2 B&C)	

Zone	Effective Wind Area (ft ²)
10	100
4	21.8
5	21.8
6	21.8

Total Shear Wall Segments

Transverse	Longitudinal
31.2	28.5
Actual	84.1
Required	73.3

All exterior walls are type II shear walls. ACTUAL SHEAR WALL length is the total of all wall segments with full height sheathing and width to height ratio greater than 1: 3.5 (plus special shear wall segments if noted.) REQUIRED SHEAR WALL length is from WFCM-2001, table 3.17A & 3.17B with table 3.17E adjustment for type II shear wall (or equivalent calculation) REV-27-Jun-03

N3-WINDLOAD ENGINEER'S SCOPE OF WORK: The wind load engineer is engineer of record for compliance of the structure to wind load requirements of FBC 2001, Section 1606. If trusses are used, the wind load engineer is not engineer of record for the trusses and did not design the trusses or delegate to the truss designer.

BUILDERS 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 that the foundation design & site conditions meet gravity load requirements (assume 1000 PSF bearing capacity unless visual observation or soils test proves otherwise)
- * Provide materials and construction techniques, which comply with FBC 2001 requirements for the stated wind velocity and design pressures.
- * Provide a continuous load path from roof to foundation. If you believe the plan omits a continuous load path connection, call the wind load engineer immediately.
- * Verify the truss engineering includes truss design, placement plans, temporary and permanent bracing details, truss-to-truss connections, and load reactions for all bearing locations.
- * Select uplift connections, walls, columns, and footings based on truss engineering bearing locations and reactions; including interior bearing walls.
- * Size headers for gravity loads; headers sized by the builder for gravity loads will also satisfy wind loads.

DOCUMENT CONTROL AND PRIORITY: Structural requirements on S-1 control unless the building code or architectural sheets have more stringent requirements. Non-structural requirements on architectural sheets control. Specific requirements take precedence over general requirements. Revision control is by the latest signature date and is the responsibility of the builder.

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WINDLOAD ENGINEER: Mark Disoway, PE No.53915

CERTIFICATION: The attached plans and "Windload Engineering", sheet S-1, comply with FBC 2001, Section 1606 wind loads, to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location. This drawing is not valid for construction unless raised seal is affixed.

Load Bearing Header Sizing Methods (BY BUILDER)

- Determine header size from FBC 2001, Tables 2308.3 A, B, & C, or 2308.5.
- Use supplier published data or Southern pine span tables.
- For engineered lumber beams have suppliers engineer size beam.
- Jack Studs and King Studs (BY BUILDER)
- Lookup jack studs from FBC 2001, Tables 2308.3 A, B, & C, or 2308.5.
- Use one jack stud for every 3000 lb vertical load.
- Total king plus jack studs = studs needed to be there if no opening was there.
- Header Uplift Connections (BY BUILDER)
- Calculate the uplift at each end of the header by summing the moments of all truss uplifts and dividing by the length of the header.
- Select header connections from table below or mfg. catalog to connect header to stud (top connection) and stud to foundation (bottom connection).

Option #	Uplift, lb.	Top Connector	Bottom Connector
#1	< 800	End nail or low nail w/ 131x3.25"	SP4, 6-10d 1 1/2"
#2	< 1500	LSTA12, 10-10d	SP4, 6-10d 1 1/2"
#3	< 1750	LSTA18, 14-10d	HTS20, 10-10d 1 1/2"
#4	< 2500	LSTA18, 14-10d	HTT16, 18-16d 3/4" x 10" AB
#5	< 3885	LSTA18, 14-10d	HTT16, 18-16d 3/4" x 10" AB

Uplift greater than 3885 lb requires engineering design

FBC2001, TABLE 2308.3A
Header Spans For Exterior Bearing Walls Supporting Roof/Ceiling (20psi/20psi)

Header Spans (ft)	Building Width / Truss Span (ft)	
	Span	Span
2-2x4	3-4	1-3-2
2-2x6	5-5	1-4-8
2-2x8	6-10	1-5-11
2-2x10	8-5	2-7-3
2-2x12	9-9	2-8-5
3-2x8	8-4	1-7-5
3-2x10	10-6	1-9-1
3-2x12	12-2	2-10-7
4-2x8	8-2	1-8-4
4-2x10	11-8	1-10-6
4-2x12	14-1	1-12-2

NOTES: NJ = Number of jack studs required to support each end. Building width is measured perpendicular to the ridge. For widths between those shown, spans may be interpolated. Spans are based on uniform loads on header.

N2-GENERAL NOTES:

FOUNDATION: FOR POINT LOADS GRATER THAN 5000 LB OR REPETITIVE TRUSS LOADS GRATER THAN 2000 LB PER TRUSS PROVIDE A THICKENED SLAB OR PAD FOOTING 1'-0" X 1 sq ft. FOR EVERY 1000 LB OF BEARING REINFORCE WITH #5 @ 8" O.C. EACH WAY

CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE F_c = 3000 PSI. WHERE EXCESS WATER IS ADDED TO THE CONCRETE SO THAT ITS SERVICABILITY IS DEGRADED, THE ATTAINMENT OF REQUIRED STRENGTH SHALL NOT RELEASE THE CONTRACTOR FROM PROVIDING SUCH MODIFICATIONS AS MAY BE REQUIRED BY THE ENGINEER TO PROVIDE A SERVICEABLE MEMBER OR SURFACE. ALL CONCRETE SHALL BE VIBRATED. NO REPAIR OR RUBBING OF CONCRETE SURFACES SHALL BE MADE PRIOR TO INSPECTION BY AND APPROVAL OF THE ENGINEER, OWNER OR HIS REPRESENTATIVE.

WELDED WIRE REINFORCED SLAB: 3" x 6" W14 x W14, FB = 89KSI, WELDED WIRE REINFORCEMENT FABRIC (W.W.M.) 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 LENGTHS SHALL BE 1/2 INCH TO 2 INCHES IN LENGTH. DOSAGE AMOUNTS SHALL BE FROM 0.75 TO 1.5 POUNDS PER CUBIC YARD IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SYNTHETIC FIBERS SHALL COMPLY WITH ASTM C 1116. THE MANUFACTURER OR SUPPLIER SHALL PROVIDE CERTIFICATION OF COMPLIANCE WITH ASTM C 1116 WHEN REQUESTED BY THE 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 WMM OR REINFORCING STEEL. (RECOMMENDED LOCATION OF CONTROL JOINTS IS SUBJECT TO OWNER AND CONTRACTORS APPROVAL. THE CONTROL JOINTS ARE NOT INTENDED TO PREVENT CRACKS BUT RATHER TO ENCOURAGE THE SLAB TO CRACK ON A GIVEN LINE.)

REBAR: ASTM A 615, GRADE 40, DEFORMED BARS, F_y = 40 KSI. ALL LAPS SPLICES 40" DB (25" FOR #5 BARS). UNO. ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-95 WITH ADO 315-96 UNLESS NOTED OTHERWISE. ALL TENSION DEVELOPMENT LENGTHS SHALL BE 23 INCHES.

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. MANUFACTURERS INSTALLATION INSTRUCTIONS MUST BE FOLLOWED TO ACHIEVE RATED LOADS.

ANCHOR BOLTS: A-307 ANCHOR BOLTS WITH MINIMUM EMBEDMENT AS SPECIFIED IN DRAWINGS BUT NO LESS THAN 7" IN CONCRETE OR REINFORCED BOND BEAM OR 15" IN GROUTED CMU.

WASHERS: WASHERS USED WITH 1/2" BOLTS TO BE 2" x 2" x 9/64", WITH 5/8" BOLTS TO BE 3" x 3" x 9/64", WITH 3/4" BOLTS TO BE 3" x 3" x 9/64", WITH 7/8" BOLTS TO BE 3" x 3" x 9/16", NO.

NAILS: ALL NAILS ARE COMMON NAILS UNLESS OTHERWISE SPECIFIED OR ACCEPTED BY FBC TEST REPORTS AS HAVING EQUAL STRUCTURAL VALUES.

REV-27-JUL-04

WINDLOAD ENGINEERING

"EVERYTHING YOU NEED FOR YOUR BUILDING PERMIT"

Mark Disoway P.E.

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Location: Columbia County, Florida

Inlow Residence

Builder: Edgley Construction, Inc.

Designer:

Approved: FLPE93915 Revisions:

24Nov04

Sheet S-1 of 5 Sheets

Windload Engineering
Job # 408095