

REVISIONS

SOFTPLAN
ARCHITECTURAL DESIGN SOFTWARE

ANCHOR TABLE

OBtain UPLIFT REQUIREMENTS FROM TRUSS MANUFACTURER'S ENGINEERING

UPLIFT LBS. SYP	UPLIFT LBS. SPF	TRUSS CONNECTOR*	TO PLATES	TO RAFTER/TRUSS	TO STUDS
< 420	< 245	H5A	3-8d	3-8d	
< 455	< 265	H5	4-8d	4-8d	
< 360	< 235	H4	4-8d	4-8d	
< 455	< 320	H3	4-8d	4-8d	
< 415	< 365	H2.5	5-8d	5-8d	
< 600	< 535	H2.5A	5-8d	5-8d	
< 950	< 820	H6	8-8d	8-8d	
< 745	< 565	H8	5-10d, 1 1/2"	5-10d, 1 1/2"	
< 1465	< 1050	H14-1	13-8d	12-8d, 1 1/2"	
< 1465	< 1050	H14-2	15-8d	12-8d, 1 1/2"	
< 990	< 850	H10-1	8-8d, 1 1/2"	8-8d, 1 1/2"	
< 760	< 655	H10-2	6-10d	6-10d	
< 1470	< 1265	H16-1	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1470	< 1265	H16-2	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1000	< 860	MTS24C	7-10d 1 1/2"	7-10d 1 1/2"	
< 1450	< 1245	HTS24	12-10d 1 1/2"	12-10d 1 1/2"	
< 2900	< 2490	2 - HTS24			
< 2050	< 1785	LG2	14 -16d	14 -16d	
HEAVY GIRDER TIEDOWNS*					TO FOUNDATION
< 3965	< 3330	MG7		22 -10d	1-5/8" THREADED ROD 12" EMBEDMENT
< 10980	< 6485	HGT-2		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 10530	< 9035	HGT-3		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 8250	< 8250	HGT-4		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
STUD STRAP CONNECTOR*					TO STUDS
< 435	< 435	SSP DOUBLE TOP PLATE	3 -10d		4 -10d
< 455	< 420	SSP SINGLE SILL PLATE	1 -10d		4 -10d
< 825	< 825	DSP DOUBLE TOP PLATE	6 -10d		8 -10d
< 825	< 600	DSP SINGLE SILL PLATE	2 -10d		8 -10d
< 885	< 760	SP4			6-10d, 1 1/2"
< 1240	< 1065	SPH4			10-10d, 1 1/2"
< 885	< 760	SP6			6-10d, 1 1/2"
< 1240	< 1065	SPH6			10-10d, 1 1/2"
< 1235	< 1165	LSTA18		14-10d	
< 1235	< 1235	LSTA21		16-10d	
< 1030	< 1030	CS20		18-8d	
< 1705	< 1705	CS16		28-8d	
STUD ANCHORS*				TO STUDS	TO FOUNDATION
< 1350	< 1305	LTT19		8-16d	1/2" AB
< 2310	< 2310	LTT131		18-10d, 1 1/2"	1/2" AB
< 2775	< 2570	HDOA		2-5/8" BOLTS	5/8" AB
< 4175	< 3695	HT16		16 -16d	5/8" AB
< 1400	< 1400	PAH042		16-16d	
< 3335	< 3335	HPAH022		16-16d	
< 2200	< 2200	ABU44		12-16d	1/2" AB
< 2300	< 2300	ABU66		12-16d	1/2" AB
< 2320	< 2320	ABU88		18 -16d	2-5/8" AB

GENERAL NOTES:

TRUSSES: TRUSSES SHALL BE DESIGNED BY A FLORIDA LICENSED ENGINEER IN ACCORDANCE WITH THE FBCR 2007. TRUSS ENGINEERING SHALL INCLUDE TRUSS DESIGN, TRUSS DESIGN PLANS, 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 & SEALED BY THE MANUFACTURER'S DESIGN ENGINEER. IT IS THE BUILDER'S RESPONSIBILITY TO VERIFY THE TRUSS DESIGNER FULLY SATISFIED ALL 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 REVIEW OF TRUSS REACTIONS ON THE BUILDING STRUCTURE. STRAP 2X6 RAFTERS WITH MIN UPLIFT CONNECTION 415LB EACH END. 2X6 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 VISUAL OBSERVATION OR SOILS TEST PROVES OTHERWISE)

CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS, F_c = 3000 PSI.

WELDED WIRE REINFORCED SLAB: 8" x 6" W14 x W14, F_y = 85KSI, 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 LENGTH 1/2 INCH TO 2 INCHES. DOSAGE AMOUNTS FROM 0.75 TO 1.5 POUNDS PER CUBIC YARD PER THE MANUFACTURER'S RECOMMENDATIONS. FIBERS TO COMPLY WITH ASTM C 1116. SUPPLIER 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 WMM OR REINFORCED 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 A 615, GRADE 60, DEFORMED BARS, F_y = 60 KSI, ALL LAP SPLICES 40" DB (25" FOR #5 BARS); UNO. ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-96, U.N.O.

GLULAM BEAMS: GLULAM BEAM, GLB, 24F-V3SP, F_b = 2.4ksi, E = 1800ksi; UNO. SUPPLIER MAY SUPPLY AN ALTERNATE BEAM WITH EQUAL PROPERTIES OR MAY SUBMIT THEIR OWN SIZING CALC. ROOF SHEATHING: ALL ROOFS ARE HORIZONTAL DIAPHRAGMS; 7/16" OSB SHEATHING, UNLOCKED, APPLIED PERPENDICULAR TO FRAMING, OVER A MINIMUM OF 3 FRAMING MEMBERS, WITH PANEL EDGES STAGGERED, FASTENED WITH 8d COMMON NAILS (131), 6"OC PANEL EDGES, 12"OC INTERMEDIATE MEMBERS, GABLE ENDS AND DIAPHRAGM BOUNDARY, 4"OC UNO.

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: 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 2" x 2" x 9/64", WITH 7/8" BOLTS TO BE 3" x 3" x 5/16", UNO.

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

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 2007 REQUIREMENTS FOR THE STATED WIND VELOCITY AND DESIGN PRESSURES.

PROVIDE A CONTINUOUS LOAD PATH FROM TRUSSES TO FOUNDATION. IF YOU BELIEVE THE PLAN OMMITS A CONTINUOUS LOAD PATH CONNECTION, CALL THE WIND LOAD 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 2007, SECTION R301.2.1 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 2007 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 SEALED TRUSS SHEETS.

GRADE & SPECIES TABLE

		Fb (psi)	E (10 ⁶ psi)
2x8	SYP #2	1200	1.6
2x10	SYP #2	1050	1.6
2x12	SYP #2	975	1.6
GLB	24F-V3 SP	2400	1.8
LSL	TIMBERSTRAND	1700	1.7
LVL	MICROLAM	1600	1.9
PSL	PARALAM	2900	2.0

MASONRY NOTES:

MASONRY CONSTRUCTION AND MATERIALS FOR THIS PROJECT SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATION FOR MASONRY STRUCTURES" (ACI 530.1/ASCE 8/TMS 602). THE CONTRACTOR AND MASON MUST IMMEDIATELY, BEFORE PROCEEDING, NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN ACI 530.1-02 AND THESE DESIGN DRAWINGS. ANY EXCEPTIONS TO ACI 530.1-02 MUST BE APPROVED BY THE ENGINEER IN WRITING.

	ACI530.1-02 Section	Specific Requirements
1.4A	Compressive strength	8" block bearing walls F _m = 1500 psi
2.1	Mortar	ASTM C 270, Type N, UNO
2.2	Grout	ASTM C 476, admixtures require approval
2.3	CMU standard	ASTM C 90-02, Normal weight, Hollow, medium surface finish, 8"x8"x16" running bond and 12"x12" or 16"x16" column block
2.3	Clay brick standard	ASTM C 216-02, Grade SW, Type FBS, 5.5"x2.75"x11.5"
2.4	Reinforcing bars, #3 - #11	ASTM 615, Grade 60, F _y = 60 ksi, Lap splices min 48 bar dia. (30" for #5)
2.4F	Coating for corrosion protection	Anchors, sheet metal ties completely embedded in mortar or grout, ASTM A525, Class G60, 0.60 oz/lb or 304SS
2.4F	Coating for corrosion protection	Joint reinforcement in walls exposed to moisture or wire ties, anchors, sheet metal ties not completely embedded in mortar or grout, ASTM A153, Class B2, 1.50 oz/lb or 304SS
3.3.E.2	Pipes, conduits, and accessories	Any not shown on the project drawings require engineering approval.
3.3.E.7	Movement joints	Contractor assumes responsibility for type and location of movement joints if not detailed on project drawings.

DESIGN DATA

WIND LOADS PER FLORIDA BUILDING CODE 2007 RESIDENTIAL, SECTION R301.2.1

(ENCLOSED SIMPLE DIAPHRAGM BUILDINGS WITH FLAT, HIPPED, OR GABLE ROOFS, MEAN ROOF HEIGHT NOT EXCEEDING LEAST HORIZONTAL DIMENSION OR 60 FT; NOT ON UPPER HALF OF HILL OR ESCARPMENT 60 FT IN EXP. B, 30 FT IN EXP. C AND >10% SLOPE AND UNOBSTRUCTED UPWIND FOR 50x HEIGHT OR 1 MILE WHICHEVER IS LESS.)

BUILDING IS NOT IN THE HIGH VELOCITY HURRICANE ZONE

BUILDING IS NOT IN THE WIND-BORNE DEBRIS REGION

1) BASIC WIND SPEED = 110 MPH

2) WIND EXPOSURE = C

3) WIND IMPORTANCE FACTOR = 1.0

4) BUILDING CATEGORY = II

5) ROOF ANGLE = 10-45 DEGREES

6) MEAN ROOF HEIGHT = <30 FT

7) INTERNAL PRESSURE COEFFICIENT = N/A (ENCLOSED BUILDING)

8) COMPONENTS AND CLADDING DESIGN WIND PRESSURES (TABLE R301.2(2))

Zone	Effective Wind Area (ft ²)	
	10	100
1	27.8 -30.5	25.3 -25.3
2	27.8 -35.7	25.3 -30.5
3 Chg	56.8	-56.8
4	27.8 -35.7	25.3 -30.5
5	30.5 -33.0	25.9 -28.5
6	30.5 -40.7	25.9 -31.6

Doors & Windows Worst Case (Zone 5, 10 ft ²)		30.5	-40.7
8x7 Garage Door		27.3	-32.0
16x7 Garage Door		25.9	-29.4