

DESIGN CRITERIA

DESIGN PER 2001 FLORIDA BUILDING CODE, (W/ 2002 & 2003 REVISIONS)
UNLESS OTHERWISE NOTED.

LIVE LOADS:

ROOFS AND CANOPIES:	0 TO 200 SF	16PSF
	201 TO 600 SF	14PSF
	OVER 600 SF	12PSF
STAIRS		100PSF
FLOORS		50PSF
CORRIDORS		80PSF
LOBBIES		80PSF
BALCONIES		60PSF
PARTITION LOAD (DEAD LOAD)		20PSF

WIND LOADS:

BASIC WIND SPEED: (ASCE 7)	110 MPH
MEAN ROOF HEIGHT	21 FT
WIND IMPORTANCE FACTOR (CATEGORY II)	1.0
WIND EXPOSURE	B
ENCLOSURE CLASSIFICATION	ENCLOSED
INTERNAL PRESSURE COEFFICIENT	±0.18
DIRECTIONALITY FACTOR (Kq)	0.85
SHAPE FACTORS	PER CODE

THIS BUILDING IS NOT LOCATED IN THE WIND BORNE DEBRIS REGION. IMPACT RESISTANT GLAZING IS NOT REQUIRED.

DESIGN WIND PRESSURES FOR COMPONENTS & CLADDING:			
WALLS & WALL OPENINGS			
TRIBUTARY AREA	INTERIOR ZONE (> 6.3 ft FROM BLDG. CORNER)	END ZONE (< 6.3 ft FROM BLDG. CORNER)	
10 sf	-23.61 / 21.7	-29.2 / 21.77	
25 sf	-22.31 / 20.5	-26.55 / 20.5	
(LINEARLY INTERPOLATE BETWEEN STATED VALUES)			
ROOFS & ROOF OPENINGS			
TRIBUTARY AREA	INTERIOR ZONE (> 6.3 ft FROM BLDG. CORNER)	END ZONE (< 6.3 ft FROM BLDG. CORNER)	
10 sf	-21.77 / 19.92	-25.46 / 19.92	
25 sf	-20.30 / 19.19	-23.99 / 19.19	
(LINEARLY INTERPOLATE BETWEEN STATED VALUES)			

CONCRETE (DESIGN PER CURRENT EDITION ACI 318)

SLAB ON GRADE	F'C= 4000 PSI
FOOTINGS	F'C= 3000 PSI
ALL OTHER CONCRETE	F'C= 3000 PSI

ALL REINFORCING STEEL ASTM A615 GRADE 60
ALL WELDED WIRE FABRIC ASTM A185

CONCRETE MASONRY (DESIGN PER CURRENT EDITION ACI 530)

COMPRESSIVE STRENGTH	F'M= 1500 PSI
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STRUCTURAL STEEL (DESIGN PER CURRENT EDITION AISC), UNLESS OTHERWISE NOTED MATERIALS SHALL BE AS FOLLOWS:

W-SHAPES	ASTM 992, Fy=50 KSI
OTHER SHAPES & PLATES	ASTM A36, Fy=36 KSI
HSS SQUARE & RECTANGULAR SHAPES	ASTM A500 GRADE B, Fy= 46 KSI
HSS ROUND SHAPES	ASTM A500 GRADE B, Fy= 42 KSI
STEEL PIPES	ASTM A53 GRADE B, Fy= 35 KSI
WELDING ELECTRODES	AWS A5.1 OR A5.5 SERIES E70
HIGH-STRENGTH BOLTS	3/4" Ø ASTM A325
ANCHOR RODS	GRADE 36 ASTM F1554
WELDED STUDS	ASTM A108
DEFORMED BARS	ASTM A496
PAIN T & PROTECTION	SSPC PAINT 25
SOIL BEARING (DESIGN MAXIMUM)	1000PSF

GENERAL NOTES

CONCRETE

UNLESS OTHERWISE NOTED ON THE DRAWINGS, MINIMUM COVER FOR REINFORCING SHALL BE AS FOLLOWS:

FOOTINGS	3"
PILE CAPS	SEE TYPICAL DETAIL
GRADE BEAMS	3"
COLUMNS AND PEDESTALS (OVER VERTICAL REINF)	2"
SLABS AND WALLS (EXPOSED TO EARTH, LIQUID OR WEATHER)	2"
SLABS AND WALLS (NOT EXPOSED TO EARTH, LIQUID OR WEATHER)	3/4"
CANOPY SLABS	1 1/2"
BEAMS (OVER MAIN REINFORCING)	1 1/2"
SLABS ON GRADE	2" FROM TOP

ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES IN CONFORMANCE WITH CRSI MANUAL OF STANDARD PRACTICE AND ACI 315 DURING THE PLACEMENT OF CONCRETE.

UNLESS OTHERWISE NOTED, SPLICES IN REINFORCING, WHERE PERMITTED, SHALL BE AS FOLLOWS:
WELDED WIRE FABRIC.....WIRE SPACING PLUS 6"
REINFORCING BARS.....40 BAR DIAMETERS

ALL HOOKS IN REINFORCING BARS SHALL BE AN ACI STANDARD HOOK, UNLESS OTHERWISE NOTED.

FOUNDATIONS

IF FOOTING EVALUATIONS SHOWN OCCUR IN A DISTURBED, UNSTABLE, OR UNSUITABLE SOIL, THE ENGINEER SHALL BE NOTIFIED.

STEPS IN WALL FOOTINGS SHALL NOT EXCEED A SLOPE OF (1) VERTICAL TO TWO (2) HORIZONTAL

PROVIDE A MINIMUM OF TWO #4 BARS IN TOP OF CONTINUOUS WALL FOOTINGS AT DOOR AND OTHER OPENINGS, 4'-0" LONGER THAN THE OPENING.

TRUSS FASTENER SCHEDULE

LOCATION	UPLIFT	FASTENER (1)	TRUSS	PLATE
ROOF TRUSS	<415#	1-H2.5	5-8d	5-8d
	<805#	1-H10	8-8dx 1 1/2	8-8dx 1 1/2
	<1200#	2-H2.5A	10-8d	10-8d
	<1470	1-H16	10-10dx 1 1/2	10-10d x 1 1/2

NOTES:
1) ALL CONNECTORS LISTED ARE SIMPSON STRONG-TIE, UON. OTHER MANUFACTURERS MAY BE SUBSTITUTED. SCREW SIZE AND NUMBER SHALL BE IN ACCORDANCE WITH MANUFACTURER'S CATALOG.
ROOF TRUSS CLIPS SHALL BE SELECTED TO PROVIDE THE UPLIFT RESISTANCE SHOWN ON THE ROOF TRUSS SHOP DRAWINGS.
2) TRUSS ENGINEER MAY PROVIDE ALTERNATE CONNECTIONS.

SUPPLEMENTARY NOTES

PROVIDE ALL TEMPORARY BRACING, SHORING, GUYING OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION. THE STRUCTURE SHOULD NOT BE CONSIDERED STABLE UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN CONSTRUCTED.

VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.

SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR EMBEDS, OPENINGS, SLEEVES, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS.

ALL STRUCTURAL OPENINGS AROUND OR AFFECTED BY MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT SHALL BE VERIFIED WITH EQUIPMENT PURCHASED BEFORE PROCEEDING WITH STRUCTURAL WORK AFFECTED.

EMBEDMENT FOR EXPANSION BOLTS SHALL BE 3 1/2" Ø MINIMUM FOR 3/4" BOLTS IN CONCRETE, 5 1/2" IN GROUTED MASONRY. HILTI KWIK BOLT II OR EQUAL.

EPOXY GROUT SHALL BE POWER FAST CARTRIDGE SYSTEM BY RAWL, HY150 CARTRIDGE SYSTEM BY HILTI: (HILTI RE500, IF HOLE IS CORED INSTEAD OF DRILLED) OR APPROVED EQUAL, UON. EMBEDMENT SHALL BE 12 BAR DIAMETERS MINIMUM, UON. HOLES SHALL BE 1/2" LARGER THAN REBAR SIZE, AND 1/2" LARGER THAN THREADED ROD SIZE. HOLE SHALL BE BRUSHED OUT WITH BOTTLE BRUSH AND THEN BLOWN OUT WITH AIR USING A COMPRESSOR WITH A FUNCTIONAL OIL TRAP. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS PRINTED INSTRUCTIONS.

ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF AN ENGINEER IN THE STATE OF THE PROJECT.

GENERAL CONTRACTOR MUST REVIEW AND APPROVE SHOP DRAWINGS PRIOR TO SUBMITTAL TO ARCHITECT / ENGINEER. SUBMITTALS WHICH DO NOT CONTAIN THE CONTRACTOR'S SHOP DRAWING STAMP OR HAVE BEEN MERELY "RUBBER STAMPED" SHALL BE RETURNED WITHOUT REVIEW.

CHANGES TO THE CONTRACT DOCUMENTS SHALL BE CLOUDED ON SHOP DRAWINGS OR REQUESTED IN WRITING. THE CONTRACTOR IS LIABLE FOR ANY DEVIATIONS UNLESS REVIEWED AND ACKNOWLEDGED BY THE ENGINEER. SHOP DRAWING SUBMITTALS SHALL ONLY BE CHECKED FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN ON THE CONSTRUCTION DOCUMENTS.

SPECIFICATIONS

CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301. "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (LATEST EDITION), EXCEPT AS MODIFIED BY REQUIREMENTS OF THE CONTRACT DOCUMENTS.

MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS", AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", AND AWS D1.1 "STRUCTURAL WELDING CODE", EXCEPT AS MODIFIED BY THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

A GEOTECHNICAL TESTING AND INSPECTION FIRM SHALL BE EMPLOYED TO PERFORM A SOIL SURVEY FOR SATISFACTORY AOIL MATERIALS, SAMPLING AND TESTING FOR QUALITY CONTROL AS PER THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT FOR THIS PROJECT. ALL EARTHWORK OPERATIONS SHALL BE PERFORMED TO THE SATISFACTION OF THE GEOTECHNICAL TESTING FIRM.

PRODUCT APPROVAL SPECIFICATION TABLE

CATEGORY / SUBCATEGORY	MANUFACTURER	PROJECT DESCRIPTION	APPROVAL NUMBERS
EXTERIOR DOORS			
SWINGING	MASONITE INTERNATIONAL	METAL EDGE STEEL DOOR UNITS	19.1
ROLL UP	-		
WINDOWS			
SINGLE HUNG	BETTERBILT	FIN FRAME 52x72 MODEL 740/3740	663.13
ROOFING PRODUCTS			
ASPHALT SHINGLES	TAMKO	GLAS-SEAL AR - 3 TAB	1966.1
UDERLAYMENTS	TAMKO	MASTER SMOOTH -ASPHALT UNDERLAYMENT	1481.1
STRUCTURAL COMPONENTS			
WOOD CONNECTORS	SIMPSON STRONG-TIE		
	-	CS16	1901.4
	-	SPH6	538.35
	-	MSTC40	1901.64
	-	H10	474.109
	-	MSTCM40	1901.70
	-	LSSU410	474.248
	-	H6	474.119
	-	CC46	1218.13
	-	LSTA36	1901.36
	-	IUT14	474.216
	-	AB66	474.10
TRUSS PLATES	ALPINE	METAL CONNECTOR PLATE	1999

CONNECTION LISTING

MANUFACTURER	MODEL #	FASTENER COUNT	ALLOWABLE LOAD
SIMPSON STRONG TIE CO.	CS16	(26) 8d	1705
SIMPSON STRONG TIE CO.	SPH6	(10) 10d x 1 1/2	1240
SIMPSON STRONG TIE CO.	MTSC40	(52) 16d SINKERS	4335
SIMPSON STRONG TIE CO.	H10	(8) 8d x 1 1/2	905
SIMPSON STRONG TIE CO.	MSTCM40	(14) 16d SINKERS	2335
SIMPSON STRONG TIE CO.	LSSU410	FACE=(18) 16d JOIST=(12) 10d x 1 1/2	1150
SIMPSON STRONG TIE CO.	H6	(6) 8d	915
SIMPSON STRONG TIE CO.	CC46	BEAM=(4) 3/8" POST=(2) 3/8"	2330
SIMPSON STRONG TIE CO.	LSTA36	(24) 10d	1640
SIMPSON STRONG TIE CO.	IUT14	(14) 10d x 1 1/2	245
SIMPSON STRONG TIE CO.	AB66	N/A	5335
SIMPSON STRONG TIE CO.	U26	HEADER=(6) 10d & (6) 16d JOIST=(4) 10d x 1 1/2	415
SIMPSON STRONG TIE CO.	ITT14	(6) 10d	1215
SIMPSON STRONG TIE CO.	U210	HEADER=(12) 16d JOIST=(6) 10d x 1 1/2	720

TERMITE PROTECTION NOTES:

SOIL CHEMICAL BARRIER METHOD:

1. A PERMANENT SIGN WHICH IDENTIFIES THE TERMITE TREATMENT PROVIDER AND NEED FOR REINSEPTION AND TREATMENT CONTRACT RENEWAL SHALL BE PROVIDED. THE SIGN SHALL BE POSTED NEAR THE WATER HEATER OR ELECTRIC PANEL. FBC 104.2.6
2. CONDENSATE AND ROOF DOWNSPOUTS SHALL DISCHARGE AT LEAST 1'-0" AWAY FROM BUILDING SIDE WALLS. FBC 1503.4.4
3. IRRIGATION/SPRINKLER SYSTEMS INCLUDING ALL RISERS AND SPRAY HEADS SHALL NOT BE INSTALLED WITHIN 1'-0" FROM BUILDING SIDE WALLS. FBC 1503.4.4
4. TO PROVIDE FOR INSPECTION FOR TERMITE INFESTATION, BETWEEN WALL COVERINGS AND FINAL EARTH GRADE SHALL NOT BE LESS THAN 6". EXCEPTION: PAINT AND DECORATIVE CEMENTIOUS FINISH LESS THAN 5/8" THICK ADHERED DIRECTLY TO THE FOUNDATION WALL. FBC 1403.1.6
5. INITIAL TREATMENT SHALL BE DONE AFTER ALL EXCAVATION AND BACKFILL IS COMPLETE. FBC 1816.1.1
6. SOIL DISTURBED AFTER THE INITIAL TREATMENT SHALL BE RETREATED INCLUDING SPACES BOXED OR FORMED. FBC 1816.1.2
7. BOXED AREAS IN CONCRETE FLOOR FOR SUBSEQUENT INSTALLATION OF TRAPS, ETC., SHALL BE MADE WITH PERMANENT METAL OR PLASTIC FORMS. PERMANENT FORMS MUST BE OF A SIZE AND DEPTH THAT WILL ELIMINATE THE DISTURBANCE OF SOIL AFTER THE INITIAL TREATMENT. FBC 1816.1.3
8. MINIMUM 6 MIL VAPOR RETARDER MUST BE INSTALLED TO PROTECT AGAINST RAINFALL DILUTION. IF RAINFALL OCCURS BEFORE VAPOR RET- ARDER PLACEMENT, RETREATMENT IS REQUIRED. FBC 1816.1.4

9. CONCRETE OVERPOUR AND MORTAR ALONG THE FOUNDATION PERIMETER MUST BE REMOVED BEFORE EXTERIOR SOIL TREATMENT. FBC 1816.1.5

10. SOIL TREATMENT MUST BE APPLIED UNDER ALL EXTERIOR CONCRETE OR GRADE WITHIN 1'-0" OF THE STRUCTURE SIDEWALLS. FBC 1816.1.6

11. AN EXTERIOR VERTICAL CHEMICAL BARRIER MUST BE INSTALLED AFTER CONSTRUCTION IS COMPLETE INCLUDING LANDSCAPING AND IRRIGATION. ANY SOIL DISTURBED AFTER THE VERTICAL BARRIER IS APPLIED, SHALL BE RETREATED. FBC 1816.1.6

12. ALL BUILDINGS ARE REQUIRED TO HAVE PER-CONSTRUCTION TREATMENT. FBC 1816.1.7

13. A CERTIFICATE OF COMPLIANCE MUST BE ISSUED TO THE BUILDING DEPART- MENT BY # LICENSED PEST CONTROL COMPANY BEFORE A CERTIFICATE OF OCCUPANCY WILL BE ISSUED. THE CERTIFICATE OF COMPLIANCE SHALL STATE: "THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES. THE TREATMENT IS IN ACCORDANCE WITH THE RULES AND LAWS OF THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES". FBC 1816.1.7

14. AFTER ALL WORK IS COMPLETED, LOOSE WOOD AND FILL MUST BE REMOVED FROM BELOW AND WITHIN 1'-0" OF THE BUILDING. THIS INCLUDES ALL GRADE STAKES, TUB TRAP BOXES, FORMS, SHORING OR OTHER CELLULOSE CONTAINING MATERIAL. FBC 2303.1.3

15. NO WOOD, VEGETATION, STUMPS, CARDBOARD, TRASH, ETC., SHALL BE BURIED WITHIN 15'-0" OF ANY BUILDING OR PROPOSED BUILDING. FBC 2303.1.4

REVISION NOTES

DATE

REV #

ISSUED FOR CONSTRUCTION
09-28-06
P.O. Box 187
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Live Oak FL 32064
Phone: (386) 362-3678
Fax: (386) 362-6133
Gary Gill, PE
Auth. # 9461
STRUCTURALCIVIL ENGINEERS

EMMA HAVIARAS
NEW RESIDENCE
COLUMBIA COUNTY, FLORIDA

GENERAL NOTES

PROJECT NUMBER
PF05-024
DRAWN BY
D. PRICE
CHECKED BY
GG
SHEET NUMBER

S-3