

DESIGN CRITERIA

DESIGN PER 2004 FLORIDA BUILDING CODE INCLUDING 2006 AND 2007 FLORIDA BUILDING CODE 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	80PSF
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
EXPOSURE	
ENCLOSURE CLASSIFICATION	B
INTERNAL PRESSURE COEFFICIENT	±0.18
DIRECTIONALITY FACTOR (Kd)	0.85
SHAPE FACTORS	PER CODE

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

DESIGN WIND PRESSURES FOR COMPONENTS & CLADDING:

TRIBUTARY AREA	ROOFS & ROOF OPENINGS		END ZONE
	INTERIOR ZONE (>6.3 ft FROM BLDG. CORNER)	(>6.3 ft FROM BLDG. CORNER)	
10 sf	-21.77 / 19.92	-25.46 / 19.92	
25 sf	-20.39 / 19.19	-23.99 / 19.19	

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.

LUMBER NOTES:  
IDENTIFICATION AND QUALITY CONTROL - EACH PIECE OF LUMBER SHOULD BE GRADE MARKED BY AN AGENCY ACCREDITED BY THE AMERICAN LUMBER STANDARD COMMITTEE (ALSC), AND MANUFACTURED IN ACCORDANCE WITH PRODUCT STANDARD PS 20 PUBLISHED BY THE U.S. DEPARTMENT OF COMMERCE. VIEW TYPICAL SOUTHERN PINE GRADE MARKS BY CLICKING HERE.

PRODUCT CLASSIFICATION - PRODUCTS SHOULD BE IDENTIFIED BY MANUFACTURED CATEGORIES SUCH AS DIMENSION, STRUCTURAL LIGHT FRAMING, DECKING, BOARDS, TIMBERS, ETC. PRODUCTS IN CATEGORIES SUCH AS FINISH, FLOORING, CEILING, AND SIDING, ETC., SHOULD INCLUDE THE PATTERN NAME AND NUMBER ASSIGNED BY THE RULESWRITING AGENCY. THIS WILL CORRECTLY IDENTIFY THE PRODUCT AND ENSURE THAT IT CONFORMS TO STANDARD. SELECT FROM THE GRADE DESCRIPTIONS HERE.

SIZE AND LENGTH OF PIECES - PRODUCTS INCLUDED IN LUMBER STANDARDS, SUCH AS DIMENSION LUMBER, SHOULD BE SPECIFIED BY NOMINAL SIZES FOR THICKNESS AND WIDTH, AND BY COMMON LENGTHS WHICH ARE 8' TO 20' IN TWO-FOOT INCREMENTS. PRODUCTS WITH PATTERNS AND SPECIAL ORDERS SHOULD INCLUDE THE DESIRED NET, DRY SIZE, PLUS THE DIMENSIONED PROFILE PATTERN FOR LESS COMMON ITEMS. VIEW STANDARD SIZES BY CLICKING HERE.

GRADE AND STRENGTH OF MATERIAL - STANDARD GRADES FOR EACH PRODUCT CLASS SHOULD BE SPECIFIED AFTER CONSIDERING ALL GRADES APPROPRIATE FOR THE INTENDED USE AND STRENGTH REQUIREMENTS. FOR STRUCTURAL APPLICATIONS, INCLUDE THE REQUIRED DESIGN VALUES ALONG WITH THE GRADE THAT REPRESENTS THOSE DESIGN VALUES.

MOISTURE CONTENT - SPECIFY DESIRED MOISTURE CONTENT (PERCENT) BASED ON REQUIREMENTS FOR THE PRODUCT, GRADE, & INTENDED USE. MOST PRODUCT CLASSES AND GRADES OF SOUTHERN PINE HAVE SPECIFIC MOISTURE REQUIREMENTS. VIEW MOISTURE CONTENT LIMITS BY CLICKING HERE.

SURFACE TEXTURE - SURFACING REQUIREMENTS SHOULD BE SPECIFIED. LUMBER IS COMMONLY ORDERED S4S (SMOOTH SURFACED ON ALL FOUR SIDES), OR ROUGH SAWN. OTHER EXAMPLES INCLUDE: S1S2E (SURFACED ONE SIDE AND TWO EDGES); OR S2S&CM (SURFACED TWO SIDES AND CENTER MATCHED ON EDGES WITH CENTERED TONGUE AND GROOVE). VARIANCES FROM S4S WILL CAUSE A CHANGE FROM THE STANDARD DRESSED SIZES. SO THE EFFECT ON DESIRED NET DRY SIZE SHOULD BE CONSIDERED. REFER TO THE SPIB STANDARD GRADING RULES FOR SOUTHERN PINE LUMBER FOR MORE INFORMATION ON SURFACING DESIGNATIONS AND NET PRODUCT SIZES.

TRANSPORTATION AND STORAGE - ALL LUMBER IN TRANSIT, STORAGE AND HANDLING AREAS SHOULD BE PROTECTED FROM MOISTURE, WEATHER AND CONTAMINANTS. COATINGS, WRAPPINGS OR COVERINGS SHOULD ALLOW CIRCULATION AND NOT TRAP MOISTURE. VIEW PROPER STORAGE GUIDELINES BY CLICKING HERE.

PRESERVATIVE TREATMENT - WHEN PRESSURE-TREATED LUMBER IS REQUIRED, IT SHOULD BE TREATED ACCORDING TO APPROPRIATE AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA) STANDARDS. QUALITY CONTROL FOR TREATING SHOULD BE DONE BY AN APPROVED INSPECTION AGENCY. EACH PIECE OF LUMBER SHOULD BE IDENTIFIED WITH A QUALITY MARK OR END TAG BEARING THE NAME OF THE INSPECTION AGENCY, APPLICABLE AWPA STANDARD, USE EXPOSURE, PRESERVATIVE USED, RETENTION LEVEL, TREATING COMPANY AND YEAR OF TREATMENT. JOBSITE FABRICATION CUTS AND BORINGS SHOULD BE FIELD TREATED WITH COPPER NAPHTHENATE HAVING A MINIMUM 2% METALLIC SOLUTION IN ACCORDANCE WITH AWPA STANDARD M4. PRODUCTS PRESERVATIVES, USES AND STANDARDS ARE DESCRIBED AT PRESSURE-TREATED SOUTHERN PINE.

SUPPLEMENTARY NOTES

PROVIDE ALL TEMPORARY BRACING, SHORING, GUYING OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO OLD STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION. THE STRUCTURE SHOULD NOT BE CONSIDERED STABLE UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN CONSTRUCTED. VERIFY A DIMENSIONS WITH ARCHITECTURAL DRAWINGS. 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. HE 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 ONCEPT AND THE INFORMATION SHOWN ON THE CONSTRUCTION DOCUMENTS.

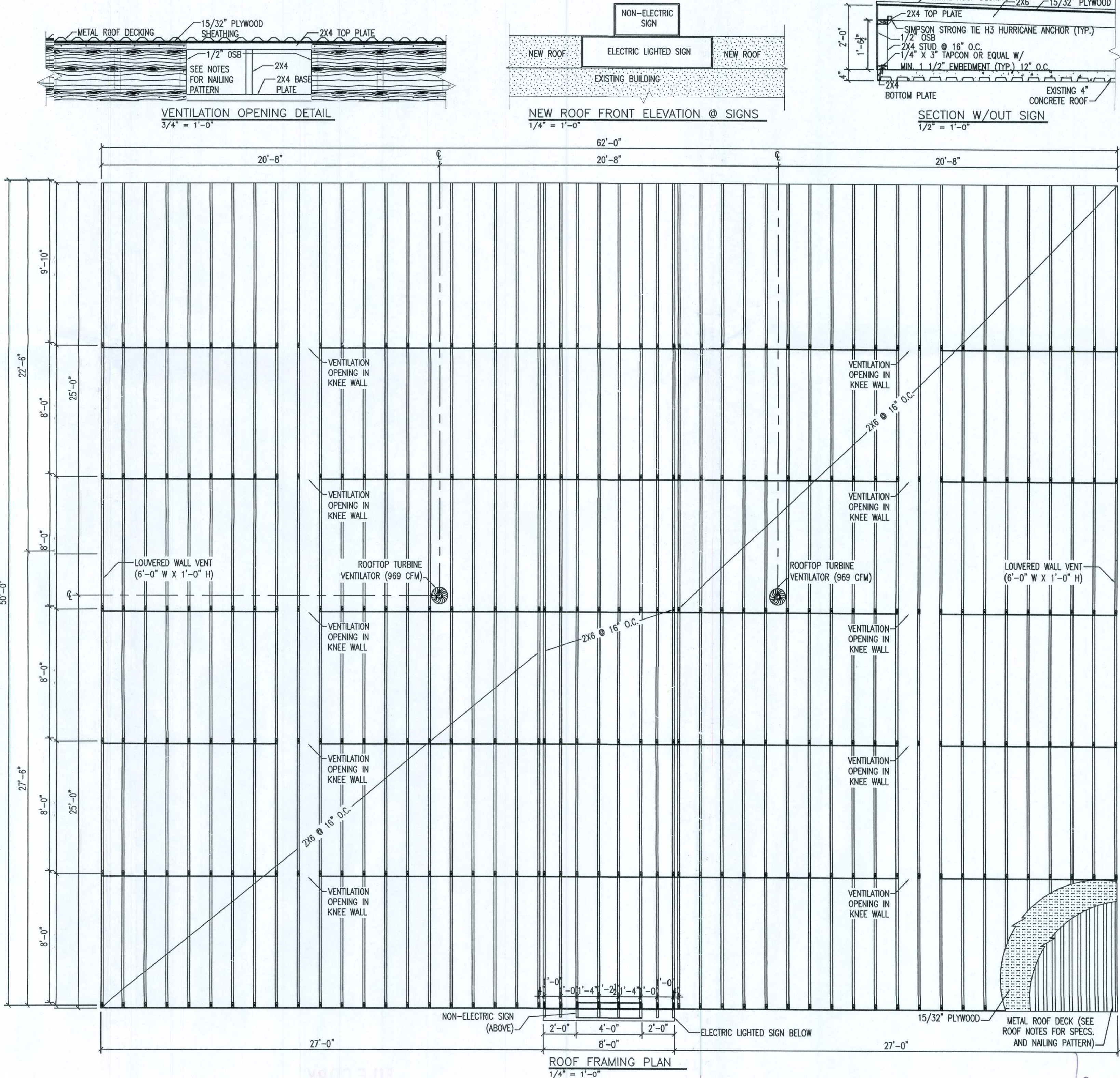
ROOF NGS:  
ROOF SHATHING SHALL BE APA RATED SHEATHING PLYWOOD PER PS 1 (MIN. 15/32" FOR FRAMING SPACED 6" O.C.; 19/32", 5/8", OR 3/4" FOR FRAMING SPACED 24" O.C.) FASTENED WITH 8d DEFORME SHANK NAILS OR NO. 8X2" SCREWS @ 6" O.C. EDGES AND 12" O.C. FIELD. CAULK OR TAPE TO SEAL JOINTS PER MANUFACTURERS RECOMMENDATIONS. NO. 15 ASPHALT FELT VAPOR RETARDER - ONE OR WO LAYERS (MAY BE OPTIONAL). METAL ROOFING PANELS FASTENED TO PLYWOOD OR FRAMING WITH STL CLIPS AND SCREWS.  
VENTILATIN REQUIREMENTS = 1/150 SF  
METAL D:KING SHALL BE STANDING SEAM (MIN. .031 THICK) ONLY FOR ROOF SLOPE OF 1/4"/12" TO 1"/12. (. FIRESTONE UNICLAD UC-1 SNAP ON SEAM METAL ROOF DECKING OR EQUAL)

KNEE WA NOTES:  
NAILING AITERN: OSB FASTENED W/ 8d NAILS @ 6" O.C. EDGES AND 6" O.C. FIELD TO 2X4 TOP AND BOTTOM LATES AND STUDS.

LUMBER SPECIFICATIONS									
PRUCT CLASSIFICATION	SIZE INCHES - NOMINAL	LENGTH	TYPE	GRADE	MOISTURE CONTENT	SURFACE TEXTURE	TREATMENT AND RETENTION	AWPA STANDARDS	
DIMENSN (OR)	2 X 4	X 20	SP	NO.1 DNS 2000Fb -1.8F	KD15	S4S	NONE REQUIRED		
STRUCTUAL LIGHT FRAIN	4 X 4	X 8	SP	NO.2	KD19	S4S	CCA 40pcf1 (GROUND CONTACT)	UC4A (C2)	
DIMENSN (OR)	2 X 6	X 10	SP	NO.2	KD19	S4S	CCA 60pcfKDAT (PWF)	UC4B (C22)	
STRUTURAL JOIST AND PLAKS	2 X 10	X 14	SP	NO.3	KD19	S4S	NONE REQUIRED		
SID (SOLICSAWN)	2 X 6	X92-5/8 PET	SP	STUD	KD19	S4S	NONE REQUIRED		
STUD TINGER JOIED (STUD LE ONLY)	2 X 4	X104-5/8 PET	SP	NO.2	KD19	S4S	NONE REQUIRED		
MR	2 X 6	X 16	SP	1950f -1.7E	KD19	S4S	NONE REQUIRED		
RADIU EDGE DEGING	5/4 X 6	X 10	SP	PREMIUM RED	KD19	S4S	ACQ 25pcf (ABOVE GROUND)	UC3B (C2)	
BOARDS(FASCIA) (COTED)	1 X 6	X 12	SP	NO.1	KD19	S4S	CA-B 10pcfKDAT (ABOVE GROUND)	UC3A (C2)	
FINISH(TRIM)	1 X 4	X 8	SP	D	MAX. 15%	S4S	NONE REQUIRED		
PANLING	1 X 5-1/8 (NET DRY)	X 10	SP	C&BTR	12%		NONE REQUIRED		
FLOORING	1 X 3-1/8 (NET DRY)	X 8, 10, 12 1000 LIN. FT.	SP	D	MAX 15%	S4S&SM (FLAT GRAIN)	NONE REQUIRED		
CEING	5/8 X 4	X 8	SP	C&BTR	MAX 15%	S2S&CM-EV1S	NONE REQUIRED		
DECKIN (ROOF)	2 X 6	X 12	SP	SELECT DECKING	KD15	S2S&CM	NONE REQUIRED		
DROPSIDING (COTED)	1 X 6	X 10	SP	NO.2	KD19		CCA 25pcfKDAT1 (ABOVE GROUND)	UC3A (C2)	
TIMERS	6 X 6	X 12	SP	NO.2	DRY TO 23%	S4S	CCA 50pcf (HIGHWAY POST)	UC4A (C14)	
DECKIN ROUGH ONESIDE	2 X 6 1-9/16 X 5-1/2 (NET DRY)	X 16	SP	PRIME	KD19	S1S2E	CCA 40pcfKDAT1 (WITH WATER REPELLENT)	UC3B (C2)	
MARINEGRADE	2 X 8	X 14	SP	MARINE NO.1	KD19	S4S	CCA 2.5pcf (SALTWATER)	UC5B (C18)	

ABBREVIATIONS:

ACQ	ALKALINE COPPER QUAT	PWF	PERMANENT WOOD FOUNDATION
AWPA	AMERICAN WOOD-PRESERVERS' ASSOCIATION	RED	RADIUS EDGE DECKING
CA-B	COPPER AZOLE TYPE-B	SP	SOUTHERN PINE OR
CCA	CHROMATED COPPER ARSENATE		(SYIP = SOUTHERN YELLOW PINE)
DNS	DENS	S1S2E	SURFACED ONE SIDE & 2 EDGES
KD	KILN DRIED	S2S&CM	EV1S SURFACED 2 SIDES & CENTER MATCHED WITH EDGE V ON ONE SIDE
KDAT	KILN DRIED AFTER TREATMENT	S4	SURFACED 2 SIDES & STANDARD MATCHE
MSR	MACHINE STRESS RATED	UC	SURFACED FOUR SIDES
PET	PRECISION END TRIM		USE CATEGORY



ISSUED FOR CONSTRUCTION

REVISION NOTES

REV #	DATE	ISSUED FOR CONSTRUCTION
0	03-18-08	

P.O. Box 187  
130 West Howard Street  
Live Oak FL 32064  
Phone: (386) 362-3678  
Fax: (386) 362-6133  
GARY J. GILL, PE 51942  
Auth. # 5461

STRUCTURAL CIVIL ENGINEERS

WILLIAM SCOTT CONSTRUCTION  
NEW CONVENIENCE STORE ROOF  
LAKE CITY, FLORIDA

PLAN, SECTION & DETAILS

PROJECT NUMBER  
PF08-033

DRAWN BY  
F. VULETICH

CHECKED BY  
G.G.

AS-1

SHEET 1 OF 1