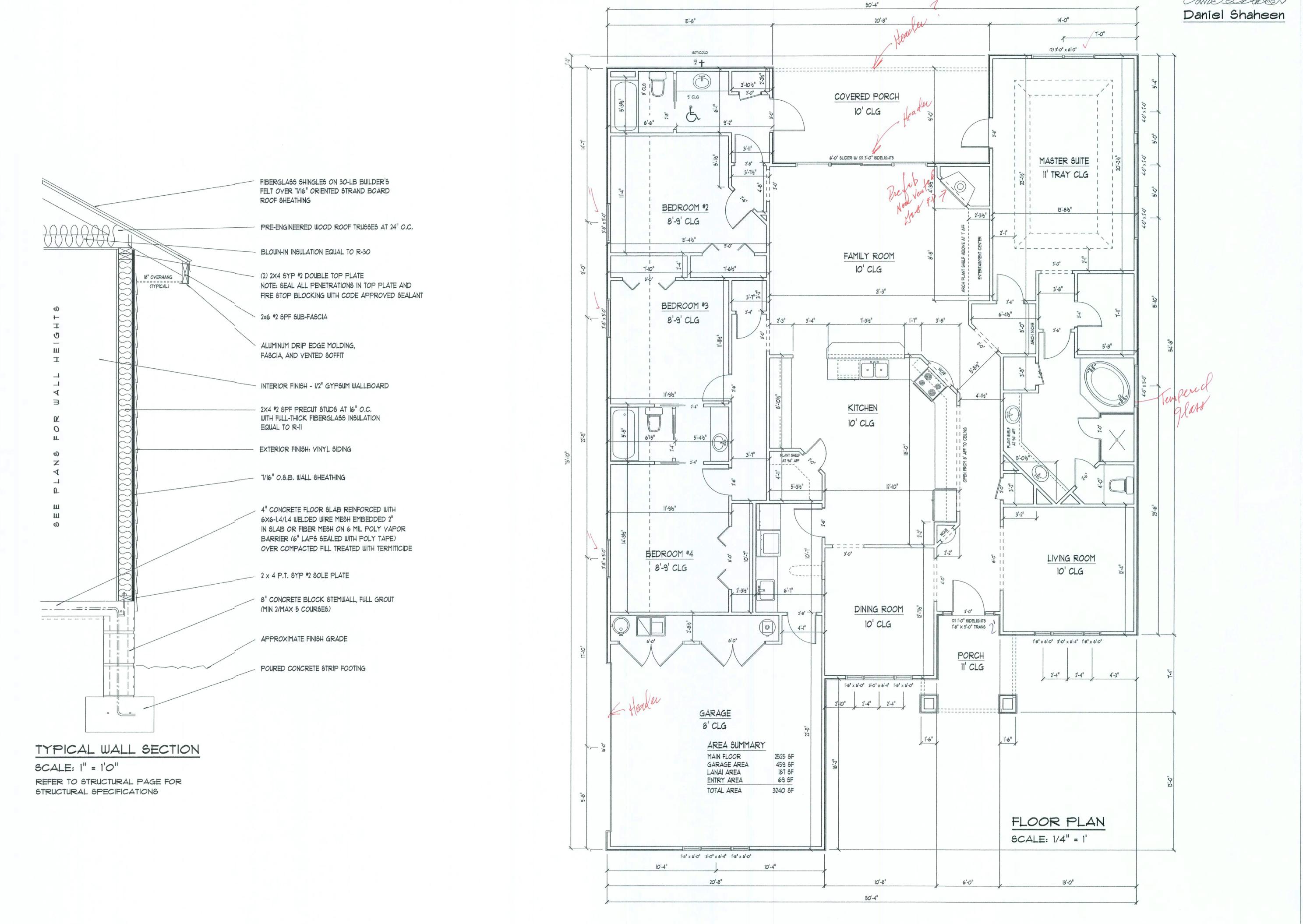


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February 05, 200

Studios ARCHITECTURAL

DESIGN P.O. Box 273 LAKE CITY FL. 32056 (386) 754-0181

COPYRIGHTED BY:

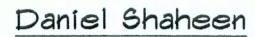
ENGINEERED BY:

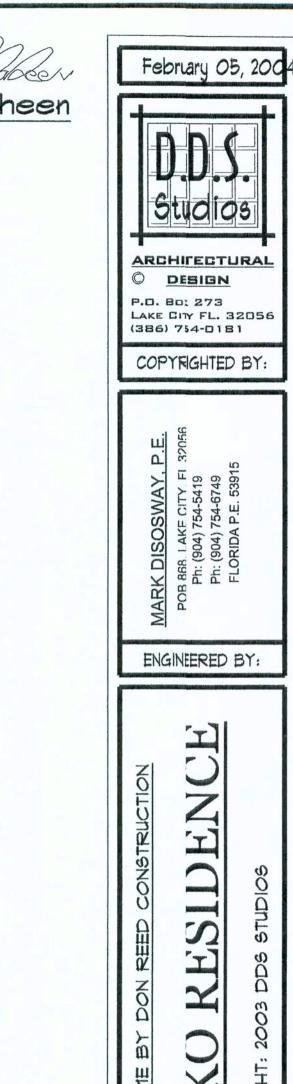
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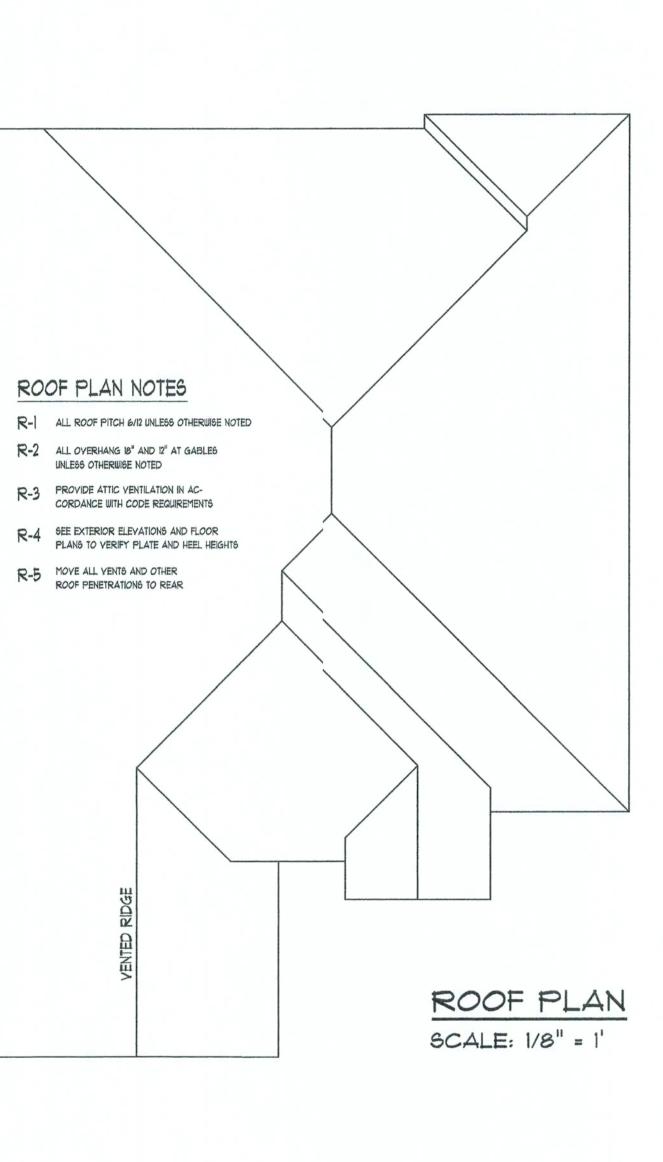
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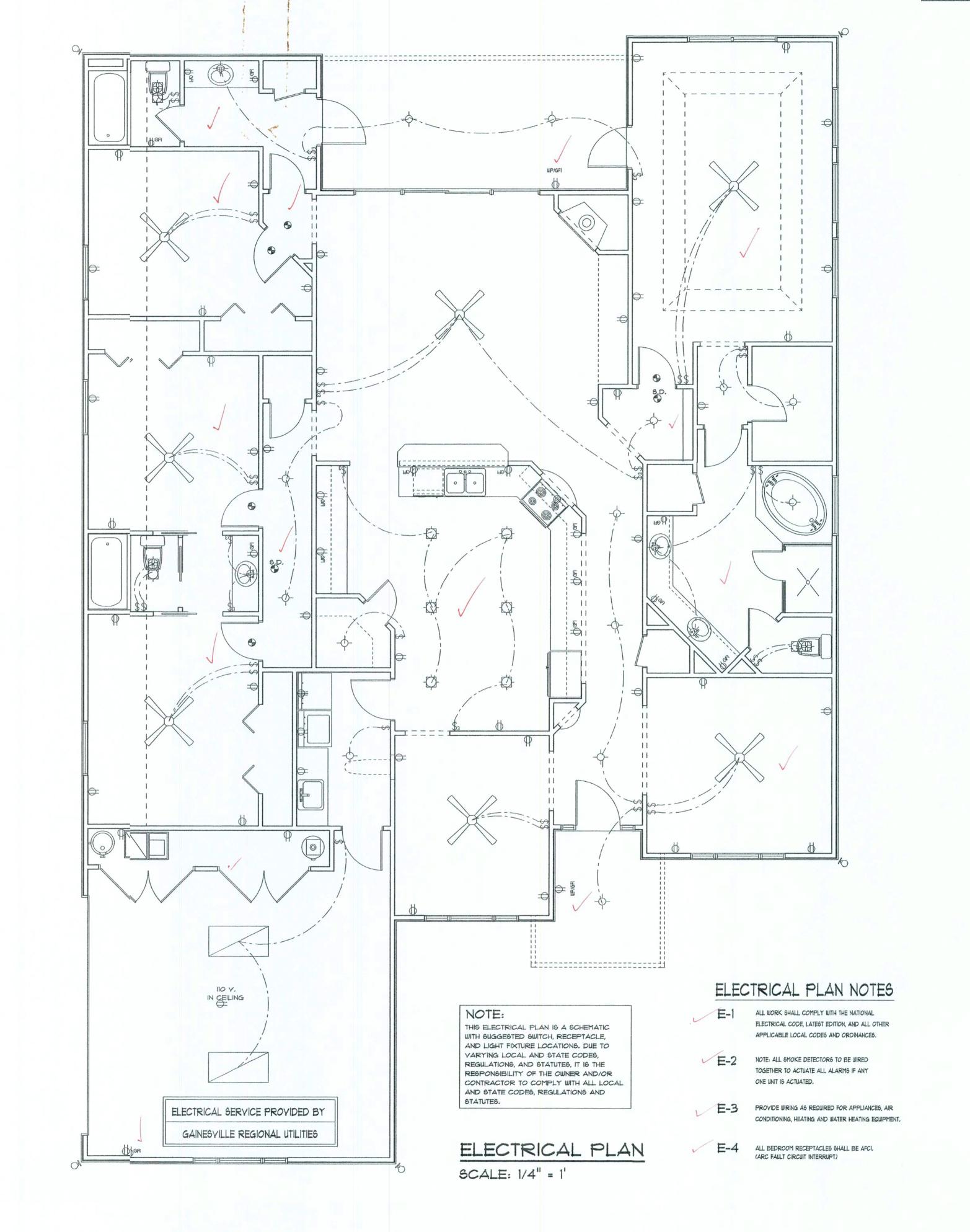
SHEET NUMBER 2 of 3

All work shall comply with the standard building cods, and all applicable local codes and ordinances. Contractor shall verify all dimensions prior to commencing construction.









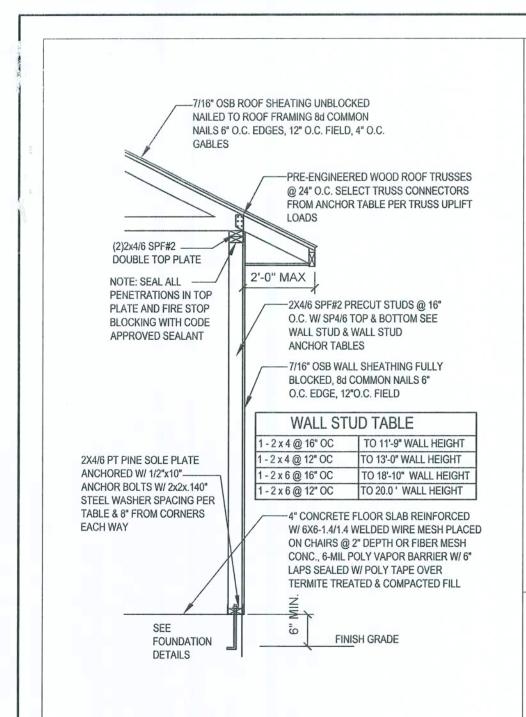
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SHEET NUMBER 3 of 3

All work shill comply with the standard building code, and all applicable local codes and ordinances.

Contractor shall verify all dimensions prior to commencing construction.

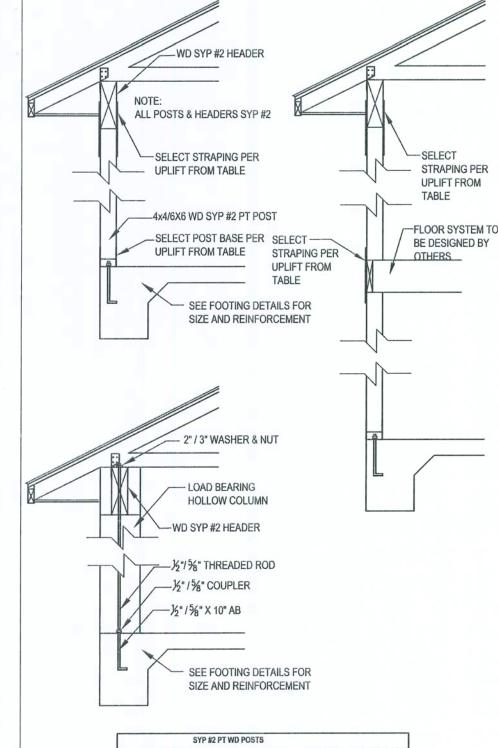


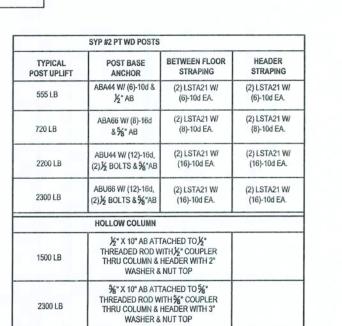
TYPICAL TRUSS UPLIFT & MAX 10'-0" WALL HIGHT	ANCHOR BOLT SPACING	SP4 / SP6 SPACING	ALTERNATE SPH4/SPH6 SPACING
770 LB	48" O.C.	48" O.C.	N/A
950 LB	48" O.C.	32" O.C.	N/A
1270 LB	32" O.C.	16" O.C.	32" O.C.
1500 LB	24" O.C.	16* O.C.	16" O.C.
2200 LB	LTTI31 W/ 5/8" X 7" WEDGE ANCHOR	N/A	(2) HTS20 NAILED TO STUD PACK

## W1 - SINGLE STORY EXT. WALL SECTION

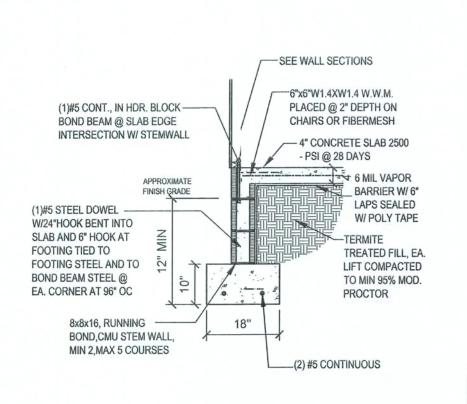
SCALE: 1/2"=1'-0" REV-22-AUG-03

GREATER THAN 10'-0" AND LESS THAN 14'-0" SHALL BE 32" O.C.

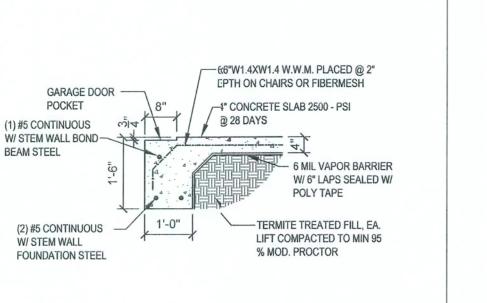




W12 - PORCH HEADER ANCHORS SCALE: 1/2"=1'-0" REV-18-JUL-03



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



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

2 X 4 CONT. LATERAL BACING-

1/2 GYP. BOARD Wid COOLER NAILS

5d COCER NAILS AT 7 IN. O.C.

ALTERNATIVE TO BALOON FRAMING IS GYPSUM CEILING

DIAPHRAGM AS SPEIFIED IN THE "WOOD FRAME CONSTRUCTION

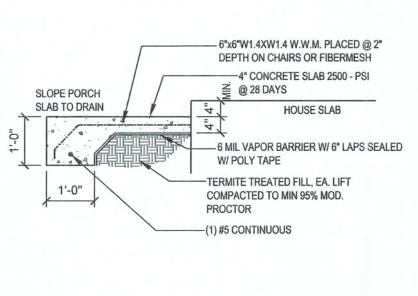
ABOVE, PROTECT CPSUM FROM MOISTURE TO PRESERVE

MANUAL" (WFCM). SE WFCM TABLE 3.13 AND FIGURE 3.6a. SHONE

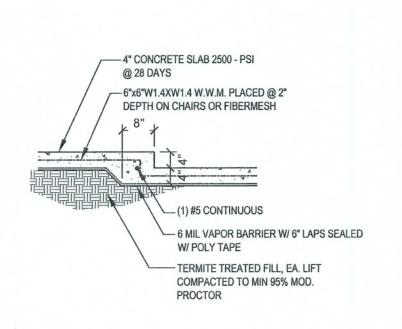
AT 6' O.C. W/ 2-10d NAIL EA.

AT 10 IN. O.C.

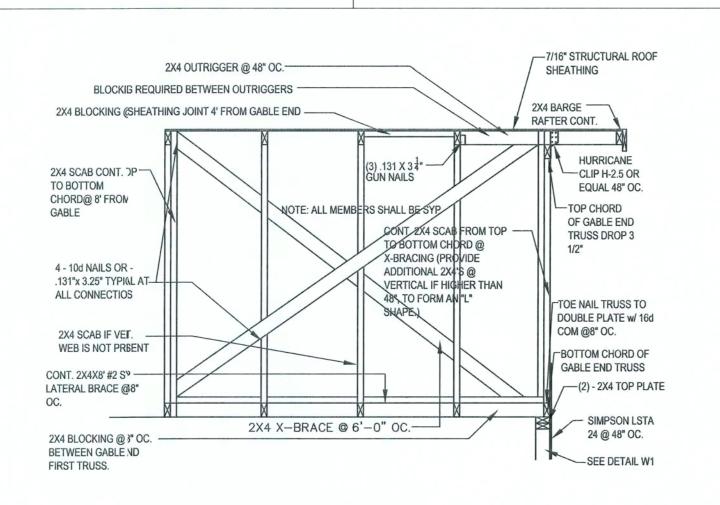
STRENGTH OF DIAPRAGM.



F2 - PORCH SLAB



F12 - NON - BEARING STEP FOOTING



W10 - TYPICAL GABLE END ( X-BRACING

W23 - GYPSUM CEILING DIAPHRAGM OPTION - GABLE END WALL

-2 X 4 BLOCK NAILED TO EA. BRACE

NOTE: EXTEND RAT RUN BRACES GABLE TO GABLE

OR A LENGTH EQUAL TO 1/2 OF GABLE WIDTH FOR

ROOFS UP TO 7:12 AND 5/8 OF GABLE WIDTH OVER

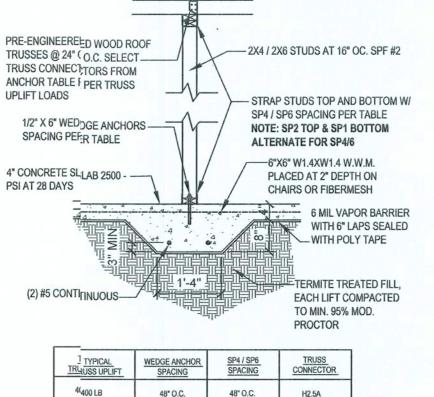
GABLE END TRUSS

SIMPSON LSTA30 STRAP W/

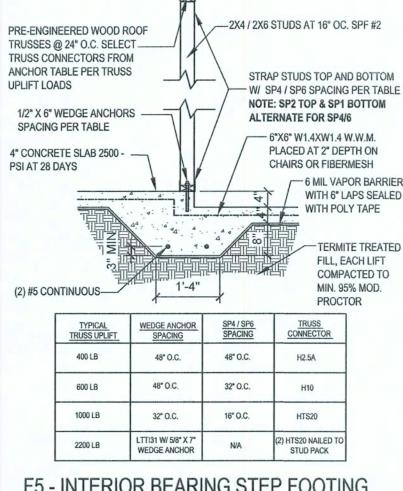
10-8d NAILS IN 2 X 4 BRACE &

10-8 d NAILS IN ENDWALL STUD

W/4-10d NAILS



1 TYPICAL RUSS UPLIFT	WEDGE ANCHOR SPACING	SP4 / SP6 SPACING	TRUSS CONNECTOR
<sup>4(</sup> 400 LB	48° O.C.	48" O.C.	H2.5A
<sup>6(</sup> 600 LB	48* O.C.	32" O.C.	H10
10 <sub>1000 LB</sub>	32" O.C.	16" O.C.	HTS20
22 <sub>2200 LB</sub>	LTTI31 W/ 5/8* X 7" WEDGE ANCHOR	N/A	(2) HTS20 NAILED TO STUD PACK

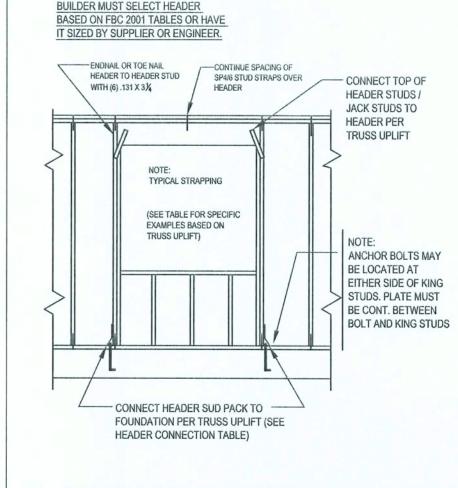


F5 - INTERIOR BEARING STEP FOOTING SCALE: 1/2"=1'-0" REV-22-AUG-03

- 3.5"x15.12"x12' 24F-V3SP GLULAM OR

5.5"x12.37"x12' 24F-V3SP GLULAM

- 3.5"x13.75"x20' 24F-V3SP GLULAM



W13-TYPICAL HEADER SIZING & STRAPING DETAIL SCALE: N.T.S. REV 22-AUG-03

-(3) 2x12x4' SYP #2 OR

3.5"x9.62"x4' 24F-V3SP GLULAM

## 4. Lookup jack studs from FBC 2001, Tables 2308.3 A, B, & C, r 2308.5. 5. Use one jack stud for every 3000 lb vertical load. 6. Total king plus jack studs = studs needed to be there if no opining was there. Header Uplift Connections (BY BUILDER) Calculate the uplift at each end of the header by summing themoments of all truss uplifts and dividing by the length of the header. 8. Select header connections from table below or mfg. catalog t connect header to stud (top connection) and stud to foundation (bottom connection) End nail or toe nail w/6-.131"x3.25" < 3885 3-LSTA18 16-10d 3480 Uplift greater than 3885 lb requires engineering design Header Spans Builling Width / Truss Span (ft) Supporting Roof+Ceiling (20psf+20psf) 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

**N2-GENERAL NOTES:** 

Load Bearing Header Sizing Methods (BY BUILDER)

Jack Studs and King Studs (BY BUILDER)

Use supplier pubished data or Southern pine span tables.

3. For engineered lumber beams have suppliers engineer size barn.

. Determine header size from FBC 2001, Tables 2308.3 A, B, &C, or 2308.5.

CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE F'C = 3000 PSI. WHERE EXCESS WATER IS ADDED TO THE CONCRETE SO THATITS SERVICABILITY IS DEGRADED, THE ATTAINMENT OF REQUIRED STRENGTH SHALL NOT RELEASE TIE 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 ORRUBBING OF CONCRETE SURFACES SHALL BE MADE PRIOR TO INSPECTION BY AND APPROVAL OF 'HE ENGINEER, OWNER OR HIS REPRESENTATIVE.

- SP4, 6-10d-1½'½" AB

TTI31, 18-10d 1/2"x0" AB

HTT16, 18-16d, 5/8"10" AB

WELDED WIRE REINFORCED SLAB: 6" x 6" W1.4 x W1.4, FB = 85iSi, WELDED WIRE REINFORCEMENT FABRIC (W.W.M.) CONFORMING TO ASTM A185; LOCATED IN MIDLE OF THE SLAB; SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACINGS NOT TO ECCEED 3'.

FIBER CONCRETE SLAB: CONCRETE SLABS ON GROUND CONTAINING SYNTHETIC FIBER REINFORCEMENT. FIBER LENGTHS SHALL BE 1/2 INCH TO 2 INCIES 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 JOINTSIN SLAB-ON-GRADE SHALL BE CUT IN ACCORDANCE WITH ACI 302, JOINTS SHALL BE CUT WITHIN 12 YOURS 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 WWM OR REINFORCING STEEL. (RECOMMENDED LOCATION OF CONTROL JOINTS IS SUBJECT TO OWNER AND CONTRACTOR'S APPROVAL. THE CONTROL JONTS ARE NOT INTENDED TO PREVENT CRACKS BUT RATHER TO ENCOURAGE THE SLAB TO CRACK OF A GIVEN LINE.)

REBAR: ASTM A 615, GRADE 40, DEFORMED BARS, FY = 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 ACI 315-96 UNLESS NOTED OTHERWISE. ALL TENSION DE'ELOPMENT LENGTHS SHALL BE 23 INCHES

STRUCTURAL CONNECTORS: MANUFACTURERS AND PRODUCTNUMBER FOR CONNECTORS, ANCHORS AND REINFORCEMENT ARE LISTED FOR EXAMPLE NOT ENDORSEMENT. AN EQUIVALENT DEVICE OF THE SAME OR OTHER MANUFACTURER CAN BE SUBSTITUTED FOR MY 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 LOAD:

ANCHOR BOLTS: A-307 ANCHOR BOLTS WITH MINIMUM EMBEDIENT AS SPECIFIED IN DRAWINGS BUT NO LESS THAN 7" IN CONCRETE OR REINFORCED BOND BEAM OR 5" 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" ( 3" x 5/16"; NO.

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

-(3) 2x12x6'-4" SYP #2 OR 3.5"x9.62"x6'-4" 24F-V3SP GLULAM -(2) 2x12x6'-4" SYP #2 3.5"x13.75"x16' 24F-V3SP GLULAM ALL LOAD BEARING HEADERS SHALL BE A MINIMUM OF (2) 2X10 SYP#2 (U.O.N.) 1-8" x 6'-0" 3'-0" x 6'-4" 1'-8" x 6'-6

(Wind loads are per FBC 2001, Section 1606.2 for enclosed simple diaphragm buildings with mean roof height All connectors § are Simpson Strongtie, uno. Select top and bottom connections from this table or less than 60' or the least horizontal dimension; not sited on the upper half of an unobstructed 60' high hill with SST catalog to a meet truss uplift. Use fasteners as specified. >10% slope.) To Truss / Rafter SPF SYPP Connector 245 350<sub>0</sub> H5A 535 600<sub>0</sub> H2.5A 620 720<sub>0</sub> H10 6-10dx 11/2 8-8dx 11/2 10-10d or 12-10dx1) 10-10d or 12-10dx 1)

850 990<sub>0</sub> LTS12 1265 14700 H16, H16-2 10-10dx11/2" -10dx 11/2" 1785 | 205G0 | LGT2 16-16d Sinker 14-10d Sinker 3655 4200<sub>0</sub> MGT %" Thd. Rod SPF SYPP Strap Connector To One Mem To Other Member 760 885 5 SP4 6-10dx11/2" 9-8d or 7-10d 9-8d or 7-10d 1085 | 1265<sub>5</sub> | LSTA18-24 2-10dx11/2" 14-8d or 11-10d 14-8d or 11-10d SPF SYP Column Anchor To Column / Truss To Foundation 1160 | 13500 %"x 16" AB 8-16d Sinkers 1985 23100 18-10dx 1/2 %"x 16" AB 2-5/8" Bolts 3590 4175<sub>5</sub> HTT16 %"x 16" AB 18-16d 1975 2300<sub>0</sub> ABU66 %"x 16" AB

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

Study Supporting Trurusses: The builder is responsible for gravity loads, but you should put an extra 2x4 stud under truss bearing location for each 3000 lb of rereaction. Check the minimum bearing requirements of the truss and top plate (SPF, Fc=425psi=2230lb/ply). Manufacturer and proposition of the same or other manufacturer and proposition 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 nstallation instruction on smust be followed to achieve rated loads. All connections exposed directly to the weather shall be hot dipped palvanized after fabri<sub>prication</sub>. Loads are increased for wind duration. Strap uplift may be reduced proportionally to number of nails.

Basic Wind Speed 110 MPH capacity unless visual observation or soils test proves otherwise Wind Exposure Wind Importance Factor **Building Category** Building not in the high velocity hurricane zone Building not in the wind-borne debris region 10-45 degrees Zone | Effective Wind Area (ft2) architectural sheets have more stringent requirements. Non-structural requirements on architectural sheets control. 4 21.8 -23.6 18.5 -20.4 5 21.8 -29.1 18.5 -22. **Total Shear Wall Segments** 2'-4"min for 8'-0"H wall 2'-10"min for 10'-0"H wall 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 great han 1: 3.5 (plus special shear wall segments if noted.) REQUIRED SHEAF wind loads, to the best of my knowledge. VALL 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-01

N4-WIND LOAD DESIGN DATA

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.

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 that the foundation design & site conditions meet gravity load requirements (assume 1000 PSF bearing

\* 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

Specific requirements take precedence over general requirements. Revision control is by the latest signature date and is the responsibility of the builder. COPYRIGHTS AND PROPERTY RIGHTS: Mark Disosway, P.E. hereby expressly reserves

its common law copyrights and property right in these instruments of service. This document is not to be reproduced, altered or copied in any form or manner without first the express written permission and conser of Mark Disosway

Stated dimensions supercede scaled dimensions. Refer all questions to Mark Disosway, P.E. for resolution. Do not proceed without clarification.

WINDLOAD ENGINEER: Mark Disosway, PE No.53915 CERTIFICATION: The attached plans and "Windload Engineering", sheet S-1, comply with FBC 2001, Section 1606

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

REV-06-OCT-03

## WINDLOAD ENGINEERING

"EVERYTHING YOU NEED FOR YOUR BUILDING PERMIT" Mark Disosway P.E.

POB 868, Lake City, FL 32056 Phone: (386) 754-5419

Fax: (702) 543-7241 Email: windloadengineer@bellsouth.net ocation: Lot #17 Emerald Lakes S/D Columbia County, Forida

Mehalko Residence

Builder: Don Reed Construction

Designer: DDS

Approved: FLPE#53915

Sheet S-1 of 2 Sheets

Windlcad Engineering Job # 402173

