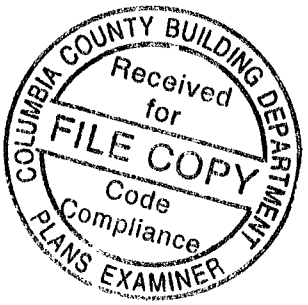
VICTOR RAYMOS ARCHITECT
INC.

WIND LOAD CALCULATIONS

FOR

THOMPSON

ASCE 7-10



2-12-12

4825 SW 19th Street, Gainesville, Florida 32608 – Registration AR-0002909
Phone 352-378-2518 Fax 352-378-2518

ALLOWABLE UNIT SHEAR ON WOOD STUD SHEARWALLS 322 PLF (.322 Kips)
SHEAR PERPENDICULAR TO RIDGE (TRANSVERSE DIRECTION) 4.26 Kips
SHEAR PARALLEL TO RIDGE (LONGITUDINAL DIRECTION)2.39 Kips
TRANSVERS SHEARWALL **REQUIRED 13.75 LF** (perpendicular to ridge) **20.0 LF PROVIDED**
LONGITUDINAL SHEARWALL **REQUIRED 6.96 LF** (parallel to ridge) **29 LF PROVIDED**

RAFTERS: 2 X 10'S at 16" o.c. Southern Pine #2 SR or equal w/ f = 1000 minium.
ROOF SHEATHING: Type OSB Size 7/16" or 5/8" Exterior plywood. Fasten with 8d/ .113 ring shank nails.

Interior zone spacing: Interior 6 inches-- Periphery 3 inches
Edge and end zone spacing: Interior 6 inches—Periphery 3 inches

SHEARWALL SIDING: 7/16" OSB or 5/8" Exterior plywood.
Spacing: Interior 8 inches-- Edge 3 inches
Fasten with 8d/.131 ring shank nails.

STUDS: 2X4 spruce, grade #1 or #2 . Exterior spacing 16" o.c..

LOAD TRANSFER REQUIREMENTS (All connectors to be Simpson or equal)

Roof rafters to bearing plate at exterior stud walls (2 x 4's at 16" o.c.) : Simpson H2.5A hurricane ties at each rafter bearing.

Roof rafters: Provide 2x10 blocking (bracing) at center span and at bearing points (except at ridge line). Blocking can be staggard 1 ½" for end nailing.

Roof rafters to 2x10 ridge board: Simson A35 Type 4 connection. Alternate sides of attachments on opposite sides of 2x 10 ridge board to avoid nailing conflicts.

Roof rafters to dbl 2x12 at porch: Simpson H2.5A hurricane ties or Simpson H7Z.

Roof rafters at ridge point and ridge board: Simpson MSTA30 over top of ridge connecting both rafters.

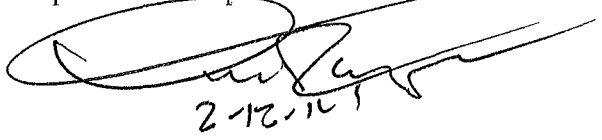
6 X 6 PT wood columns at center span of porch to dbl 2 x 12 beam: Pair of Simpson 1212HT.

6 x 6 PT wood columns to dbl 2 x 12 beam (that returns to main house wall) : Simpson ECCLL and ECCLR (for left and right turns) anchor back into main house stud wall w/ (3) ½" lag screws or bolts into side of dbl vertical studs.

6 x 6 PT wood column to dbl 2 x 12 beam (at center of front porch span): Simpson BC6 or ABA66Z.

6 x 6 PT wood columns at base to concrete slab connection (all columns) : Simpson PB66.

At gable ends provide balloon framing (continuous studs from base plate to rake plates that connect to roof sheathing) . Studs to be 16" o.c. .



1. All headers over 12' span must be pre-engineered.
2. All walls to be nailed with the same patterns as shearwalls.
3. This is a windload only, NOT a structural analysis.
4. This windload is not valid without a raised embossed seal.
5. It is assumed that soil conditions will support a minimum 2000 psf.
6. Fiber mesh or WWM may be used in concrete slab.
7. Wind design and analysis is valid for one use only.