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# Windload Calculations Summary

## A New Roof Over Pool, by Lerner Luxury Properties

### Hal Farris 2210 Old Bellamy Road - Fort White, Florida

#### CRITERIA:

Code Reference:	2020 Florida Building Code 7 <sup>th</sup> Edition
Location:	Levy County, Florida
Ultimate Design Wind Speed:	130 MPH
Mean Roof Height:	Less than 30'-0"
Building Risk Category:	II
Building Exposure Factor:	Exposure B
Building Enclosure:	Building is Enclosed
Internal Pressure Coefficient:	$\pm 0.18$
Roof Component & Cladding Design Wind Pressure: As per 2020 FBC 7 <sup>th</sup> Edition, Residential, Table R301.2(1)	Zone 1: +10.0 psf, -15.0 psf Zone 2: +10.0 psf, -21.0 psf Zone 3: +10.0 psf, -33.0 psf Zone 4: +15.5 psf, -17.0 psf Zone 5: +15.5 psf, -19.0 psf
Wall Component & Cladding Design Wind Pressure: As per 2020 FBC 7 <sup>th</sup> Edition, Residential, Table R301.2(1)	

#### BUILDING DATA:

Two Story Profile 2 x 4 Frame Residence:	$\pm 8'-0"$
Roof Pitch:	4 / 12
Gable End Roof Overhang:	$\pm 36"$

#### FOOTINGS:

**Monolithic Footings:** 12" Wide x 20" Deep with 2 - #5 continuous. Provide 4" thick concrete slab with Heavy Duty Fibermesh reinforcement on 6 mil vapor barrier over 95% density clean compacted fill.  
All concrete in footings & slabs shall be 3000 psi. All reinforcement shall be 60 ksi.

#### ANCHOR BOLTS:

Provide 1/2" A307 anchor bolts with 2" round or square plate washers at 36" O.C. maximum. Place Anchor Bolts at the end of all shearwall segments. Net uplift at corner holdown and shearwall ends is 2,912#, 1 anchor bolt is OK, 3268#. Bottom wood plate shall be P.T. 2 x 4 Southern Pine.

#### SHEAR WALLS:

For **Transverse Shear Walls**, provide 25'-0" Lineal Feet with 7/16" OSB wall sheathing (NordBord Windstorm Wall Sheathing Or Equal (EXTERIOR) AND 1/2" CDX Plywood Sheathing (INTERIOR FACE OF WALLS) – extend wall sheathing Vertical Or Horizontal from the bottom of the bottom plate with continuous path up to the top of the double top plate (install 2 x 4 blocking nailers along horizontal joint, minimum 24" from hinge line) with 8d Ring Shank (0.113" Shank diameter) nails at 4" along sheet edges and 8" O.C. in sheet field. Maximum force applied at

Donald A. Yanskey, Architect

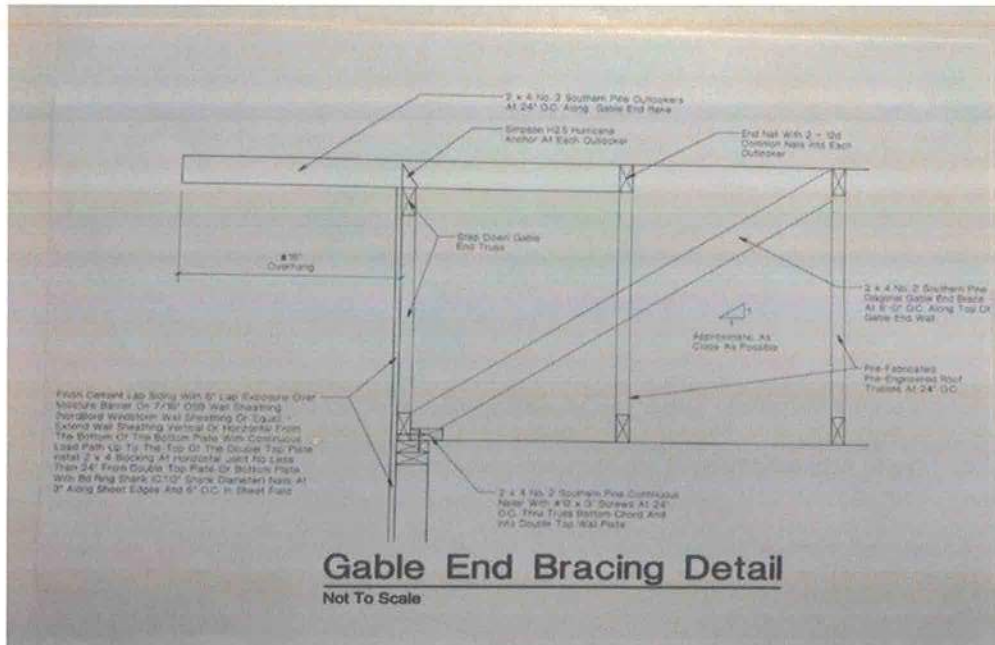
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**ROOF FRAMING:** Provide Pre-Fabricated, Pre-Engineered Roof Trusses at 24" O.C.  
 Install Simpson H2A Hurricane Anchors at each truss bearing location as determined by the truss engineering.  
 Install Simpson H10 Hurricane Anchors at each truss bearing location for Uplift Loads greater than 600# and less than 1,100#.

**6' OPENINGS:**  
 Provide minimum 2 – 2 x 12 No. 2 Southern Pine wood Header with 1/2" layer of solid continuous plywood or OSB spacers glued and nailed with 10d x 0.128" x 3" nails at 12" O.C. in 2 rows top and bottom and center row at 12" O.C. Install 2 – 2 x 4 Header Studs each end of Header and 2 – 2 x 4 Full Height Studs each end. Install 1 – Simpson MST24 Strap Tie each end Header to Stud connections. Install 2 – Simpson SPH4 Stud Plate Tie (Center) each side of opening to Header Studs.

**ROOF SHEATHING:**  
 Install P.T. 2 x 4 Purlins at 24" O.C. with 2 - 3" Deck Screws per board into each Rafter.  
 Install Metal Roofing.

Digitally signed by Donald A Yanskey  
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