

PROFESSIONAL SERVICES BY
DRISCOLL ENGINEERING, INC.
PO BOX 357577,
GAINESVILLE, FL 32609
PH (352)-331-1513
CA 8690

PLANS AND SPECIFICATIONS

The plans and specifications presented herein are applicable only for the anticipated construction at the locations shown. If construction plans change, the Design Professional should be notified so the plans and specifications can be re-evaluated. The Design Professional should be given the opportunity to review final plans and specifications to see if the intent of the plans and specifications has been followed and/or if supplemental details and recommendations are needed. The Design Professional warrants that the plans and specifications contained herein, have been prepared in accordance with generally accepted professional engineering practice. No other warranties are implied or expressed.

CORPORATE PROTECTION

It is understood and agreed that the Design Professional's Basic Services under this Agreement do not include project observation or review of the Contractor's performance or any other construction phase services, and that such services will be provided by the Client. The Client assumes all responsibility for interpretation of the contractor Documents and for construction observation and supervision and waives any claims against the Design Professional that may be in any way connected thereto.

In addition, the Client agrees, to the fullest extent permitted by law, to indemnify and hold the Design Professional harmless from any loss, claim or cost, including reasonable attorney's fees and costs of defense, arising or resulting from the performance of such services by other person or entities and from any and all claims arising from modifications, clarifications, interpretations, adjustments or changes made to Contract Documents to reflect changed field or other conditions, except for claims arising from the sole negligence or willful misconduct to the Design Professional.

OWNERSHIP OF INSTRUMENTS OF SERVICE

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by the Design Professional as instruments of service shall remain the property of the Design Professional. The Design Professional shall retain all common law, statutory and other reserved rights, including the copyright thereto.

DEFECTS IN SERVICE

The Client shall promptly report to the Design Professional any defects or suspected defects in the Design Professional's work or services of which the Client becomes aware, so that the Design Professional may take measures to minimize the consequences of such a defect. The Client warrants that he or she will impose a similar notification requirement on all contractors in his or her Client/Contractor contract and shall require all subcontractors at any level to contain a like requirement. Failure by the Client, and the Client's contractors or subcontractors to notify the Design Professional, shall relieve the Design Professional of the costs of remedying the defects above the sum such remedy would have cost had prompt notification been given.

VERIFICATION OF EXISTING CONDITIONS

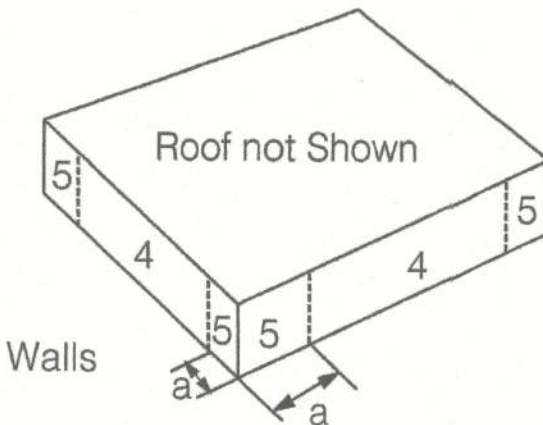
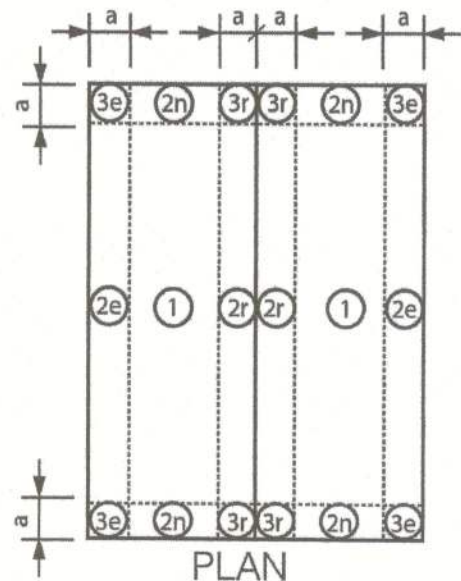
Inasmuch as the remodeling and/or rehabilitation of an existing building requires that certain assumptions be made regarding existing conditions, and because some of these assumptions may not be verifiable without expending additional sums of money or destroying otherwise adequate or serviceable portions of the building, the Client agrees, to the fullest extent permitted by law, to indemnify and hold the Design Professional harmless from any claim, liability or cost (including reasonable attorney's fees and costs of defense) for injury or economic loss arising or allegedly arising out of the professional services provided under this Agreement, excepting only those damages, liabilities, or costs attributable to the sole negligence or willful misconduct of the Design Professional.

Roof Wind Pressures for Positive & Negative Internal Pressure (+/- GCPI) - Parallel to Ridge
All wind pressures include a load factor of 0.6

Roof Var	Start Dist ft	End Dist ft	Cp_min	Cp_max	GCPI	Pressure Pn_min* psf	Pressure Pp_min* psf	Pressure Pn_max psf	Pressure Pp_max psf
Roof (+Y)	0.000	6.500	-0.180	-0.900	0.180	0.34	-4.22	-7.42	-11.98
Roof (-Y)	0.000	6.500	-0.180	-0.900	0.180	0.34	-4.22	-7.42	-11.98
Roof (+Y)	6.500	13.000	-0.180	-0.900	0.180	0.34	-4.22	-7.42	-11.98
Roof (-Y)	6.500	13.000	-0.180	-0.900	0.180	0.34	-4.22	-7.42	-11.98
Roof (+Y)	13.000	26.000	-0.180	-0.500	0.180	0.34	-4.22	-3.11	-7.67
Roof (-Y)	13.000	26.000	-0.180	-0.500	0.180	0.34	-4.22	-3.11	-7.67
Roof (+Y)	26.000	66.000	-0.180	-0.300	0.180	0.34	-4.22	-0.95	-5.52
Roof (-Y)	26.000	66.000	-0.180	-0.300	0.180	0.34	-4.22	-0.95	-5.52

Notes Roof Pressures:
Start Dist = Start Dist from Windward Edge End Dist = End Dist from Windward Edge
Cp_Max = Largest Coefficient Magnitude Cp_Min = Smallest Coefficient Magnitude
Pp_max = qh*G*Cp_max - qip*(+GCPI) Pn_max = qh*G*Cp_max - qin*(-GCPI)
Pp_min* = qh*G*Cp_min - qip*(+GCPI) Pn_min* = qh*G*Cp_min - qin*(-GCPI)
OH = Overhang X = Dir along Ridge Y = Dir Perpendicular to Ridge Z = Vertical
* The smaller uplift pressures due to Cp_Min can become critical when wind is combined with roof live load or snow load; load combinations are given in ASCE 7
+ Pressures Acting TOWARD Surface - Pressures Acting AWAY from Surface

Components and Cladding (C&C) Calculations per Ch 30 Part 1:



THIS ITEM HAS BEEN ELECTRONICALLY
SIGNED AND SEALED BY MICHAEL E.
DRISCOLL, P.E. USING A SHA AUTHENTICATION
CODE. PRINTED COPIES OF THIS DOCUMENT ARE
NOT CONSIDERED SIGNED AND SEALED AND
THE SHA AUTHENTICATION CODE MUST BE
VERIFIED ON ANY ELECTRONIC COPIES ON 6-5-24

Certification

I hereby certify that the accompanying wind load analysis for the Steedley residence demonstrates compliance with the FBC 2023 8th Edition Section 1609, to the best of my knowledge.

Project Wind load Information

1. Ultimate wind speed = 130 MPH
2. Nominal wind speed = 101 MPH
3. Risk Category = II
4. Wind exposure for this design is Exposure B
5. Interior Pressure Coefficient or Gcpi = +/- 0.18
6. For design of MWFRS: see attached MECAWind Version 2.1.0.6 per ASCE 7-22
7. Roof Design live load 20 psf.
8. Floor Design load 40 psf.

Drawings

See drawings for additional details. In case of conflict, the more restrictive requirements of the drawings or these calculations govern.

1. Roof Trusses: Pre-engineered wood roof trusses at 24" o.c. provided by Builders FirstSource Job# 4011201 Dated: 5-3024 Signed & Sealed truss engineering shall be provided to Driscoll Engineerin to review prior to beginning construction.

Roof rafters: 2"x 6" & 2"x 10" roof rafters (see plan sheet 5 for detail)

2. Roof Sheathing: Sheathing to be or 1/2" structural sheathing or equal min. to adequately resist exterior shear and uplift forces due to nailing. Panels to be facenailed w/ #8 ring shank (0.113 Dia.) @ 4" oc along edges and @ 6" oc along interior supports. Galv. metal edging to be nailed @ 4" oc.
3. Roofing : Asphalt shingles shall be installed per mfg. specifications to meet 130 m.p.h. windloading & in accord with the Florida Building Code 2023.

Exterior load bearing & shearwalls

- 1 Studs: Studs: 2 x 6 spf @ 16" o.c.
Governing load combination: dead + wind
Fv D+W = 55 psi
Fb D-W = 1900 psi
Use: SPF No. 2 grade or better

2. Shearwall Sheathing Minimum 7/16 structural sheathing, sheathing grade; attach all edges to framing with 8d common nails @ 6" o.c. attach to intermediate framing with 8d common nails @ 12" o.c. Sheathing shall be applied to outside face of all exterior frame walls. Use same nail pattern referenced above for non-shearwall segments also. Note that 8d common nails have a min 0.131 diameter.

See this sheet for shearwalls & holdown locations for Simpson Holdown type & locations.

1. Wood headers: door, windows 2- 2"x 12" #2 syp up to 36" opening
all others see sheet 1 for size at locations

2. All truss to truss connections shall be designed & engineered by the roof truss mfg.

Foundations (sizes based on wind load requirements only :

(1) Stemwall footing 12" deep x 24" wide w/ 3 #5 bars cont

(2) Interior thickened slab 12" deep x 16" wide w/ 2 #5 bars cont.

8" cmu stem wall w/ #5 bars vertical w/ 6" hook in footing & 24" in concrete slab @ each corner each side each opening & 56" max spacing in grout filled cells, 1 #5 bar horizontal in top coarse.

All bars shall have 25" min lap.



MICHAEL E DRISCOLL PE
FL REG # 43922

STEEDLEY

22854 S HWY 441
HIGH SPRINGS, FL DS22-134

DATE: 6-5-24

sheet

WL 1