

Date	2/11/2014	Project No	. 491
Company Name	Victor Raymos Architect Inc	Designed By	VR
Address	4825 SW 19th Street	Description	Home
City	Gainesville	Customer Name	Thompson
State	FL	Proj Location	181 Laduke Court, Lake City, F

Input Parameters Envelope Procedure per ASCE 7-10 Chapter 28 Part 1

Basic Wind Speed(V)	=	120 00 mph	Exposure Category	=	B
Structural Category	=	II	Flexible Structure	=	No
Natural Frequency	=	N/A	Kd Directional Factor	=	0 85
Importance Factor	=	1 00	Zg	=	1200 00 ft
Alpha	=	7 00	Bt	=	0 84
At	=	0.14	Bm	=	0.45
Am	=	0 25	l	=	320 00 ft
Cc	=	0 30	Zmin	=	30.00 ft
Epsilon	=	0 33	Slope of Roof(Theta)	=	18 42 Deg
Slope of Roof	=	3 997 12	Type of Roof	=	GABLED
Ht Mean Roof Ht	=	9.83 ft	Eht Eave Height	=	7 66 ft
RHt Ridge Ht	=	11 99 ft	Overhead Type	=	OH w/ Soffit
OH Roof Overhang at Eave	=	1.00 ft	Bldg Width Across Ridge	=	24 00 ft
Bldg Length Along Ridge	=	28.00 ft			

Gust Factor Calculations

Gust Factor Category I Rigid Structures - Simplified Method
 Gust1 For Rigid Structures (Nat Freq >1 Hz) use 0.85 = 0 85

Gust Factor Category II Rigid Structures Complete Analysis
 Zm $0.6 \cdot H_t$ = 30.00 ft
 lzm $C_c \cdot (33/Z_m)^{0.167}$ = 0.30
 Lzm $1 \cdot (Z_m/33)^{\text{Epsilon}}$ = 309.99 ft
 Q. $(1/(1+0.63 \cdot ((B+H_t)/Lzm)^{0.63}))^{0.5}$ = 0 93
 Gust2 $0.925 \cdot ((1+1.7 \cdot lzm \cdot 3.4 \cdot Q)/(1+1.7 \cdot 3.4 \cdot lzm))$ = 0 88

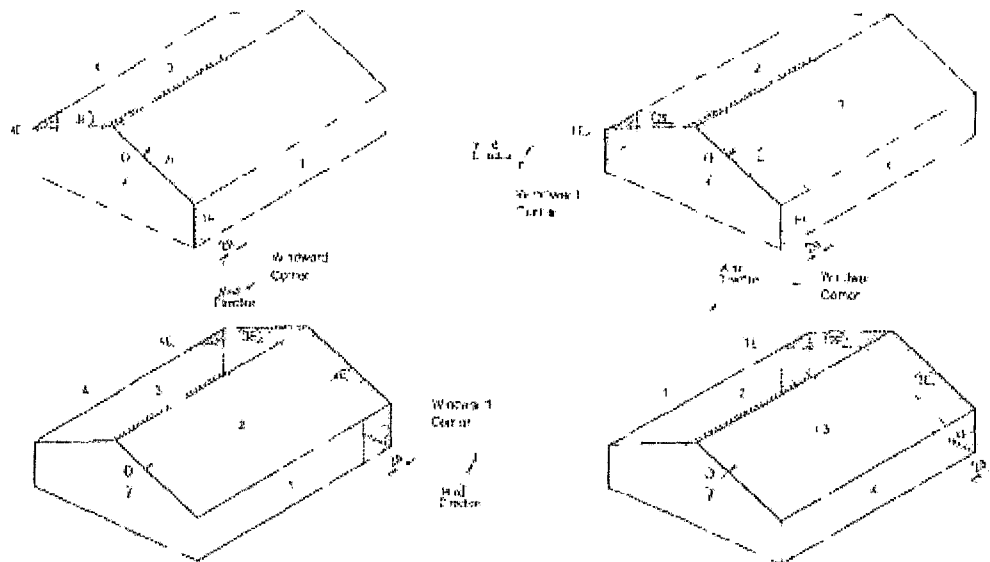
Gust Factor Summary
 Not a Flexible Structure use the Lessor of Gust1 or Gust2 = 0 85

Table 26.11.1 Internal Pressure Coefficients for Buildings GCpi

GCPi Internal Pressure Coefficient = +/-0 55
 Reduction Factor for Large Volume Buildings, Ri
 Aog Total Area of Openings in Bldg Envelope = 00 ft^2
 Vi Unpartitioned Internal Volume = 00 ft^3
 Ri $0.5 \cdot ((1+1/(1+(Vi/(22800 \cdot Aog))^{0.5})))$ (Eqn 6-16) = 1 000
 Notes 1) +GCpi = +0 55 * Ri
 Notes 2) -GCpi = 0 55 * Ri

Low Rise Bldg Provisions per Fig 28.4-1 MWFRS Load Case A

All pressures shown are based upon ASD Design, with a Load Factor of 6



Load Case A

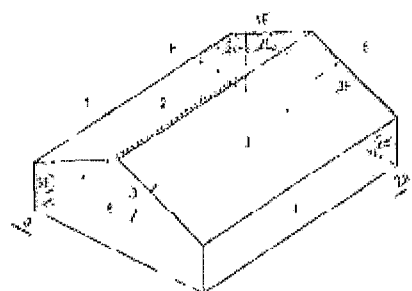
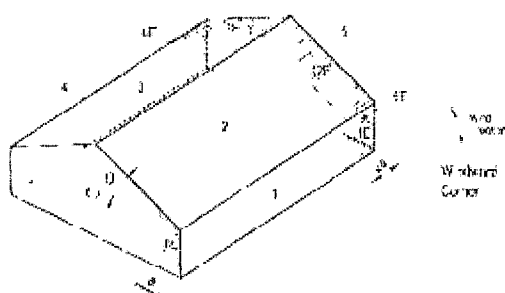
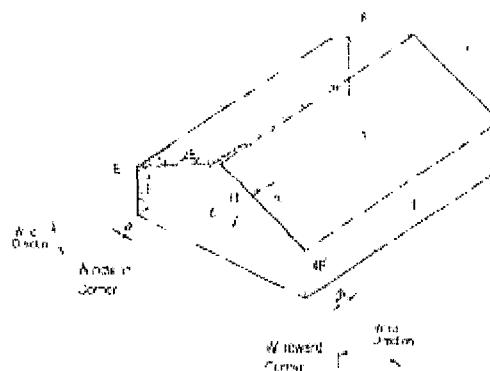
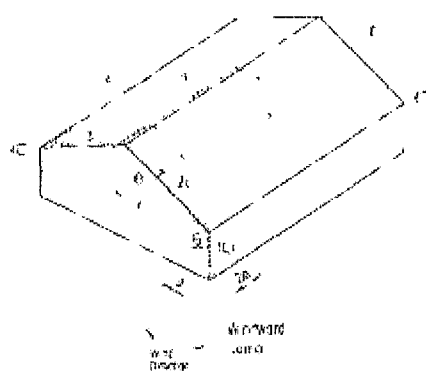


Case A Torsion

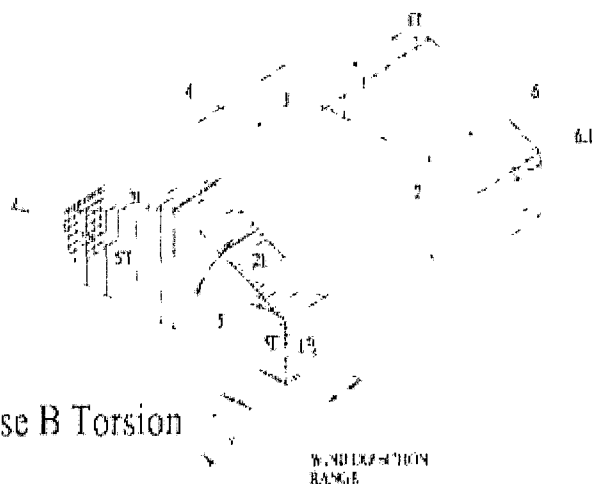
Transverse Direction

BUILDING Surface	GCpf	+GCpi	-GCpi	qh psf	Pressure psf
1	0.52	0.55	-0.55	13.17	16.00
2	-0.69	0.55	-0.55	13.17	-16.33
3	-0.47	0.55	-0.55	13.17	-16.00
4	-0.42	0.55	-0.55	13.17	-16.00
1E	0.78	0.55	-0.55	13.17	17.52
2E	-1.07	0.55	-0.55	13.17	-21.34
3E	-0.67	0.55	-0.55	13.17	-16.07
4E	-0.62	0.55	-0.55	13.17	-16.00
1T	*	*	*	*	00
2T	*	*	*	*	00
3T	*	*	*	*	00
4T	*	*	*	*	00

All pressures shown are based upon ASD Design, with a Load Factor of 6



Load Case B



Case B Torsion

Longitudinal Direction

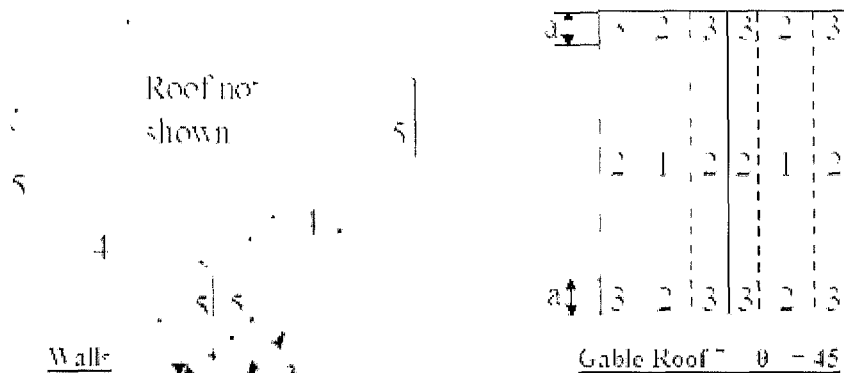
BUILDING Surface	GCpf	+GCpi	-GCpi	qh psf	Pressure psf
1	-0.45	0.55	-0.55	13.17	-13.17
2	-0.69	0.55	-0.55	13.17	-16.33
3	-0.37	0.55	-0.55	13.17	-12.12
4	-0.45	0.55	-0.55	13.17	-13.17
5	0.40	0.55	-0.55	13.17	12.51
6	-0.29	0.55	-0.55	13.17	-11.06
1E	-0.48	0.55	-0.55	13.17	-13.57
2E	-1.07	0.55	-0.55	13.17	-21.34
3E	-0.53	0.55	-0.55	13.17	-14.22
4E	-0.48	0.55	-0.55	13.17	-13.57
5E	0.61	0.55	-0.55	13.17	15.28

6E	-0 43	0 55	-0 55	13 17	-12 91
1T	*	*	*	*	00
2T	*	*	*	*	00
3T	*	*	*	*	.00
4T	*	*	*	*	00
5T	*	*	*	*	00
6T	*	*	*	*	00

Figure 28 4-1 - Low-Rise Wal And Roof Figure Notes

- Notes 1) Pressure = $q_h * (GCPf - (+/- GCpi))$, only max value shown
2) For Torsional Load Cases, the zones are designated with a "T"
The pressures (Min P & Max P) are 25% of the full design wind pressures (Ld Case 1T=25%*1 (ld case 1), 2T=25%*2, 3T=25%*3, 4T=25%*4).
Exceptions to Torsional Load Cases: One story buildings with mean roof height ≤ 30 ft (9.1m), buildings with two stories or less framed with light frame construction, and buildings two stories or less designed with flexible diaphragms need not be designed for the Torsional Load Cases (Note 5 of Figure 6-10)

Wind Pressure on Components and C adding



All pressures shown are based upon ASD Design, with a Load Factor of 6

Width of Pressure Coefficient Zone "a" = 3 00 ft

Description	Width ft	Span ft	Area ft^2	Zone	Max GCp	Min GCp	Max P psf	Min P psf
Zone 1	1 00	1 00	1.0	1	0 50	-0.90	13 83	-19 10
Zone 2	1 00	1 00	1 0	2	0 50	-1 70	13 83	-29.64
Zone 3	1 00	1 00	1 0	3	0 50	-2 60	13 83	-41 49
Zone 4	1 00	1.00	1.0	4	1 00	-1 10	20 42	-21 73
Zone 5	1 00	1 00	1 0	5	1 00	-1 40	20 42	-25 68
Zone 2H	1.00	1 00	1 0	2H	0 50	-2 20	9 60	-28 98
Zone 3H	1.00	1.00	1.0	3H	0 50	-3 70	9 60	-48 73