

CALCULATIONS FOR:

Dylan & Jamie Roy Residence Remodeling
6783 SW 104 ST
Pinecrest, Florida 33156

STRUCTURAL ENGINEER:

VAZIRI & ASSOCIATES, INC.
5000 SW 75th Ave., Suite 132
Miami, Florida 33155
305-663-5617

JOB# 2026-Misc E

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CALCULATIONS FOR:

Dylan & Jamie Roy Residence Remodeling
6783 SW 104 ST
Pinecrest, Florida 33156

Vaziri & associates inc. assumes responsibility for both manual and computer generated calculations contained herein. total number of pages contained in these calculations including this cover sheet IS 12

VAZIRI & ASSOCIATES, INC.
STRUCTURAL ENGINEER

HOSHMAND VAZIRI
P.E. # 39663
THRESHOLD # 810
CA7436

**HOSHMAND
VAZIRI**

Digitally signed by HOSHMAND
VAZIRI
Date: 2026.08.26 12:07:55 -04'00'

SHOP DRAWING / SUBMITTAL REVIEW



APPROVED



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REVISE AND RESUBMIT



REJECTED: _____

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BY JULIO PULIDO DATE 09-01-26

NOVUS ARCHETYPE, LLC
12721 SW 30 ST
MIAMI, FL 33175

WIND LOAD CALCULATIONS

Dylan & Jamie Roy Residence Remodeling
6783 SW 104 ST
Pinecrest, Florida 33156

VAZIRI & ASSOCIATES, INC.

Structural Engineers
5000 SW 75th Ave., Suite 132
Miami, Florida 33155

Project No. 2026-Misc E



Project Name: DYLAN & JAMIE ROY RESIDENCE REMODELING

Project Number: 2026-MISC E

LOADING

Wind loads:

As per ASCE 7-22 & FBC 2023:

Ultimate wind speed = 175 mph

Category II, Exposure C, Existing One Story Building

$K_d=0.85$

Building size: 135 ft x 64 ft x 11 ft, RMH= 13 Ft

Existing Hipped & Gabled roof, 5/12 slope, Overhang = 3'-0"

Component and claddings:

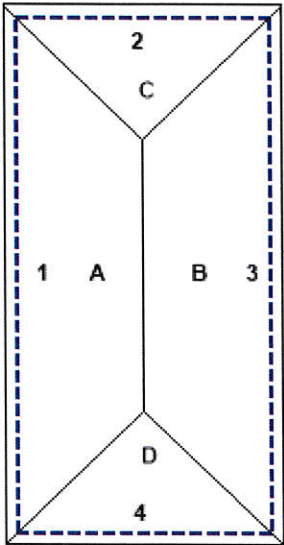
"a" distance = $0.1 \times 64 \text{ ft} = 6'-6"$, $0.4 \times 13 \text{ ft} = 5'-0"$ ft (5'-0" controls)

Doors and windows from A=10 sf to A=50 sf

Internal pressures (Elastic with $K_d=0.85$) = 6.4 psf

Title

Project Number: 2026-Misc E
Customer Name: ROY RESIDENCE WINDOW REMODELING
Address: 6783 SW 104 ST, PINECREST, FL
Prepared By: SR
Project Comments: Existing One story house, Exp C, Cat II, 175 mph, kd=0.85, slope 5/12, hipped/gabled roof (ENCLOSED BUILDING)



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These calculations are derived from various editions of the ASCE 7 Standard (ASCE 7-98, ASCE 7-02, ASCE 7-05, ASCE 7-10, ASCE 7-16, ASCE7-22) to determine the minimum wind loads and performance goals for buildings, other structures and their nonstructural components that are subject to building code requirements. While the information presented by this program is believed to be correct, SDG, Inc. neither intends for this program to replace the sound judgment of a competent professional, having knowledge and experience in the relevant field(s) of practice, nor to substitute for the standard of care required of such a professional in interpreting and applying the results of the report provided by the WLS program.

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Signature / Stamp

Site Information

Wind Dir.	Exposure
1	C
2	C
3	C
4	C

Basic Wind Speed: 175 mph
Topography: Flat

Optional Factors

This project uses load combinations from ASCE 7.

Structure Information

Structure Type:Building

Structure Category:II

Enclosure Classification:Enclosed

Main Section

Wall	Length (ft)	Overhang (ft)
1	135	3.00
2	64.0	3.00
3	135	3.00
4	64.0	3.00

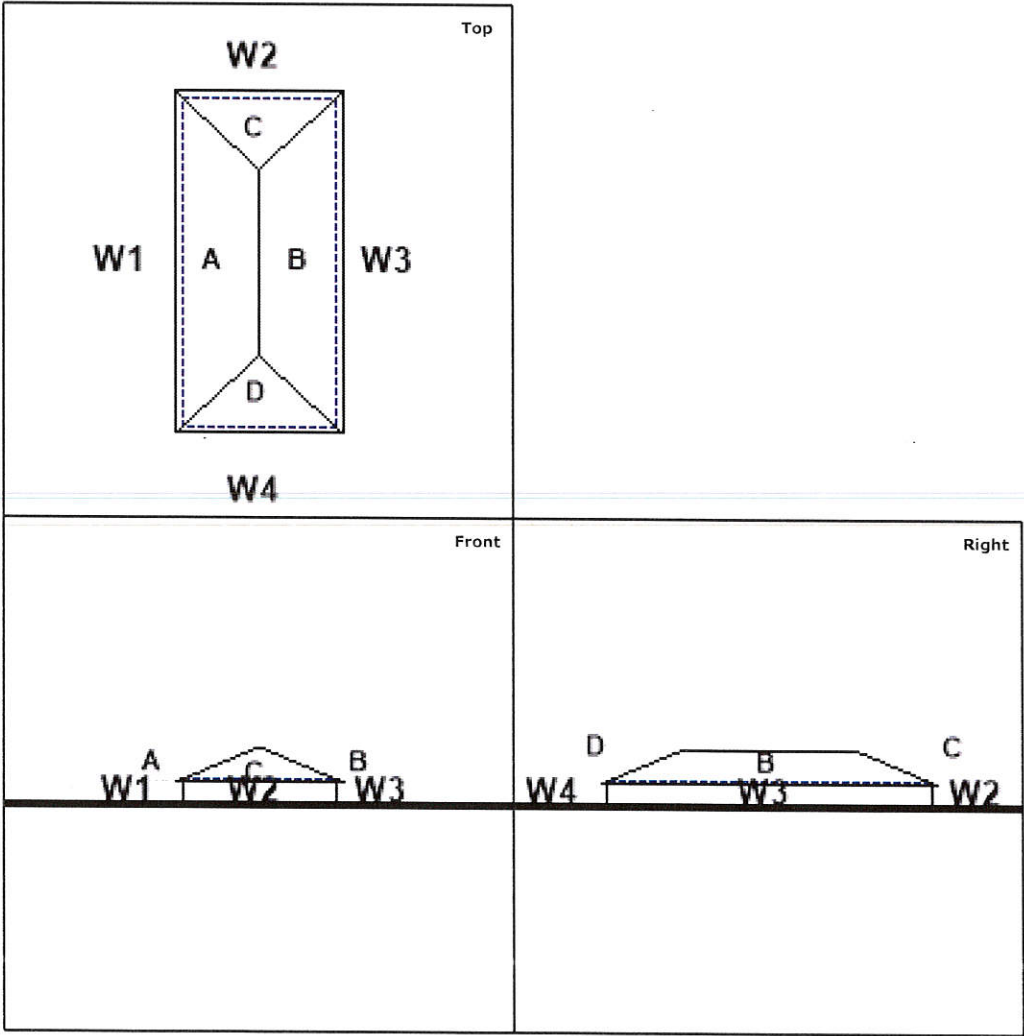
Eave Height:11.0 ft

Parapet Height:0.00 ft

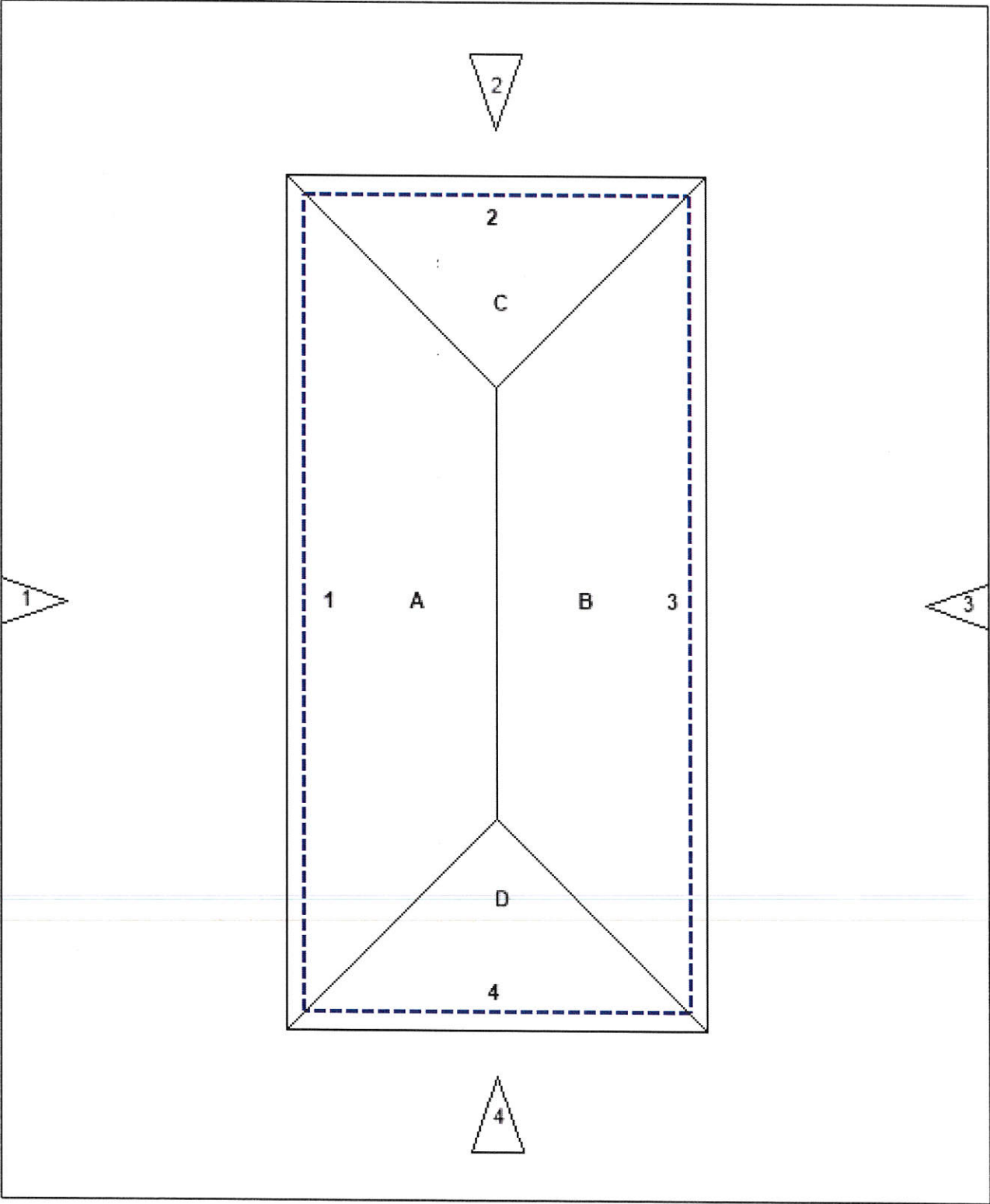
Parapet Enclosure:Solid

Roof Shape:Hipped

Roof	Slope (X:12)
A & B	5.00
C & D	5.00



Composite Drawing



Components & Cladding

<u>Description</u>	<u>Wall/Roof</u>	<u>Surface</u>	<u>Zone</u>	<u>Span</u>	<u>Width</u>	<u>Area</u>
door&windowsA=10sf	Wall	1	(All)	5.00 ft	2.00 ft	10.00 ft ²
door&windowsA=15sf	Wall	1	(All)	5.00 ft	3.00 ft	15.0 ft ²
door&windowsA=20sf	Wall	1	(All)	5.00 ft	4.00 ft	20.0 ft ²
door& windowsA=25sf	Wall	1	(All)	5.00 ft	5.00 ft	25.0 ft ²
door&windowsA=30sf	Wall	1	(All)	5.00 ft	6.00 ft	30.0 ft ²
door&windowsA=35sf	Wall	1	(All)	5.00 ft	7.00 ft	35.0 ft ²
door&windowsA=40sf	Wall	1	(All)	5.00 ft	8.00 ft	40.0 ft ²
door&windowsA=45sf	Wall	1	(All)	0.00 ft	0.00 ft	45.0 ft ²
door&windowsA=50sf	Wall	1	(All)	0.00 ft	0.00 ft	50.0 ft ²

ASCE 7-22 Wind Load Report

Components & Cladding

August 26, 2026

This data was calculated using the components and cladding method.

ultimate wind press.
w/ $K_d = 0.85$

Component Description	Surface	Zone	z (ft)	q (psf)	GCp	GCpi	Ext Pres (psf)	Net w/ +GCpi (psf)	Net w/ -GCpi (psf)
door&windowsA=10s...	1	4	17.7	69.0	1.00	0.180	58.6	48.1	69.2 $\times 0.6$
			17.7	69.0	-1.10		-64.5	-75.0 $\times 0.6$	-53.9 $= +41$
		5	17.7	69.0	1.00		58.6	48.1 $= -45$	69.2
			17.7	69.0	-1.40		-82.1	-92.6 -56	-71.5
door&windowsA=15s...	1	4	17.7	69.0	0.969	0.180	56.8	46.2	67.3 $+40$
			17.7	69.0	-1.07		-62.7	-73.2 -44	-52.1
		5	17.7	69.0	0.969		56.8	46.2 -54	67.3
			17.7	69.0	-1.34		-78.4	-89.0	-67.9
door&windowsA=20s...	1	4	17.7	69.0	0.947	0.180	55.5	44.9	66.0 $+40$
			17.7	69.0	-1.05		-61.4	-71.9 -43	-50.8
		5	17.7	69.0	0.947		55.5	44.9 -52	66.0
			17.7	69.0	-1.29		-75.8	-86.4	-65.3
door& windowsA=25...	1	4	17.7	69.0	0.930	0.180	54.5	43.9	65.0 $+39$
			17.7	69.0	-1.03		-60.4	-70.9 -43	-49.8
		5	17.7	69.0	0.930		54.5	43.9 -51	65.0
			17.7	69.0	-1.26		-73.8	-84.4	-63.3
door&windowsA=30s...	1	4	17.7	69.0	0.916	0.180	53.7	43.1	64.2 $+38$
			17.7	69.0	-1.02		-59.5	-70.1 -42	-49.0
		5	17.7	69.0	0.916		53.7	43.1 -50	64.2
			17.7	69.0	-1.23		-72.2	-82.7	-61.6
door&windowsA=35s...	1	4	17.7	69.0	0.904	0.180	53.0	42.4	63.5
			17.7	69.0	-1.00		-58.8	-69.4	-48.3
		5	17.7	69.0	0.904		53.0	42.4	63.5
			17.7	69.0	-1.21		-70.8	-81.4	-60.3
door&windowsA=40s...	1	4	17.7	69.0	0.894	0.180	52.4	41.8	62.9
			17.7	69.0	-0.994		-58.2	-68.8	-47.7
		5	17.7	69.0	0.894		52.4	41.8	62.9
			17.7	69.0	-1.19		-69.6	-80.1	-59.0
door&windowsA=45s...	1	4	17.7	69.0	0.885	0.180	51.9	41.3	62.4
			17.7	69.0	-0.985		-57.7	-68.3	-47.2
		5	17.7	69.0	0.885		51.9	41.3	62.4
			17.7	69.0	-1.17		-68.5	-79.1	-58.0
door&windowsA=50s...	1	4	17.7	69.0	0.877	0.180	51.4	40.8	61.9
			17.7	69.0	-0.977		-57.2	-67.8	-46.7
		5	17.7	69.0	0.877		51.4	40.8	61.9
			17.7	69.0	-1.15		-67.6	-78.1	-57.0

Internal pressures = $69 \text{ psf} \times 0.18 \times 0.6 \times 0.85$
 $= 6.4 \text{ psf (elastic w/ } K_d = 0.85)$

Using 0.6 Conversion factor from ultimate to elastic

ASCE 7-22 Wind Load Report

Main Wind Force Resisting System - Wind Direction 1

August 26, 2026

This data was calculated using the building of all heights method.

#	Surface	z (ft)	q (psf)	G	Cp	GCpi	Ext Pres (psf)	Net w/ +GCpi (psf)	Net w/ -GCpi (psf)
1	Windward Wall	11.0	66.7	0.855	0.800	0.180	38.8	28.2	49.3
	Overhang Top	17.7	69.0		0.237		11.9		
		17.7	69.0		-0.258		-12.9		
	Overhang Bot	11.0	66.7		0.800		38.8		
2	Side Wall	17.7	69.0	0.855	-0.700	0.180	-35.1	-45.6	-24.5
3	Leeward Wall	17.7	69.0	0.855	-0.500	0.180	-25.1	-35.6	-14.5
4	Side Wall	17.7	69.0	0.855	-0.700	0.180	-35.1	-45.6	-24.5
A	Windward Roof	17.7	69.0	0.855	0.237	0.180	11.9	1.33	22.4
		17.7	69.0		-0.258		-12.9	-23.5	-2.38
B	Leeward Roof	17.7	69.0	0.855	-0.600	0.180	-30.1	-40.6	-19.5
C&D	Roof	0.00 - 8.83*	69.0	0.855	-0.900	0.180	-45.1	-55.7	-34.6
		8.83 - 17.7*	69.0				-45.1	-55.7	-34.6
		17.7 - 35.3*	69.0				-25.1	-35.6	-14.5
		35.3 - 64.0*	69.0				-15.0	-25.6	-4.49
		0.00 - 64.0*	69.0				-9.02	-19.6	1.53

This is load case 1 in ASCE 7-22 Figure 27.3-8. See Figure 27.3-8 for other cases.

* Distance from windward edge.

ASCE 7-22 Wind Load Report

Main Wind Force Resisting System - Wind Direction 2

August 26, 2026

This data was calculated using the building of all heights method.

#	Surface	z (ft)	q (psf)	G	Cp	GCpi	Ext Pres (psf)	Net w/ +GCpi (psf)	Net w/ -GCpi (psf)
1	Side Wall	17.7	69.0	0.875	-0.700	0.180	-35.9	-46.4	-25.3
2	Windward Wall	11.0	66.7	0.875	0.800	0.180	39.7	29.1	50.2
	Overhang Top	17.7	69.0		0.252		12.9		
		17.7	69.0		-0.248		-12.7		
	Overhang Bot	11.0	66.7		0.800		39.7		
3	Side Wall	17.7	69.0	0.875	-0.700	0.180	-35.9	-46.4	-25.3
4	Leeward Wall	17.7	69.0	0.875	-0.295	0.180	-15.1	-25.7	-4.55
C	Windward Roof	17.7	69.0	0.875	0.252	0.180	12.9	2.39	23.5
		17.7	69.0		-0.248		-12.7	-23.2	-2.15
D	Leeward Roof	17.7	69.0	0.875	-0.600	0.180	-30.8	-41.3	-20.2
A&B	Roof	0.00 - 8.83*	69.0	0.875	-0.900	0.180	-46.1	-56.7	-35.6
		8.83 - 17.7*	69.0				-46.1	-56.7	-35.6
		17.7 - 35.3*	69.0		-0.500		-25.6	-36.2	-15.1
		35.3 - 135*	69.0		-0.300		-15.4	-25.9	-4.83
		0.00 - 135*	69.0		-0.180		-9.23	-19.8	1.32

This is load case 1 in ASCE 7-22 Figure 27.3-8. See Figure 27.3-8 for other cases.
 * Distance from windward edge.

ASCE 7-22 Wind Load Report

Main Wind Force Resisting System - Wind Direction 3

August 26, 2026

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This data was calculated using the building of all heights method.

#	Surface	z (ft)	q (psf)	G	Cp	GCpi	Ext Pres (psf)	Net w/ +GCpi (psf)	Net w/ -GCpi (psf)
1	Leeward Wall	17.7	69.0	0.855	-0.500	0.180	-25.1	-35.6	-14.5
2	Side Wall	17.7	69.0	0.855	-0.700	0.180	-35.1	-45.6	-24.5
3	Windward Wall	11.0	66.7	0.855	0.800	0.180	38.8	28.2	49.3
	Overhang Top	17.7	69.0		0.237		11.9		
		17.7	69.0		-0.258		-12.9		
	Overhang Bot	11.0	66.7		0.800		38.8		
4	Side Wall	17.7	69.0	0.855	-0.700	0.180	-35.1	-45.6	-24.5
B	Windward Roof	17.7	69.0	0.855	0.237	0.180	11.9	1.33	22.4
		17.7	69.0		-0.258		-12.9	-23.5	-2.38
A	Leeward Roof	17.7	69.0	0.855	-0.600	0.180	-30.1	-40.6	-19.5
C&D Roof		0.00 - 8.83*	69.0	0.855	-0.900	0.180	-45.1	-55.7	-34.6
		8.83 - 17.7*	69.0				-45.1	-55.7	-34.6
		17.7 - 35.3*	69.0		-0.500		-25.1	-35.6	-14.5
		35.3 - 64.0*	69.0		-0.300		-15.0	-25.6	-4.49
		0.00 - 64.0*	69.0		-0.180		-9.02	-19.6	1.53

This is load case 1 in ASCE 7-22 Figure 27.3-8. See Figure 27.3-8 for other cases.
 * Distance from windward edge.

ASCE 7-22 Wind Load Report

Main Wind Force Resisting System - Wind Direction 4

August 26, 2026

This data was calculated using the building of all heights method.

#	Surface	z (ft)	q (psf)	G	Cp	GCpi	Ext Pres (psf)	Net w/ +GCpi (psf)	Net w/ -GCpi (psf)
1	Side Wall	17.7	69.0	0.875	-0.700	0.180	-35.9	-46.4	-25.3
2	Leeward Wall	17.7	69.0	0.875	-0.295	0.180	-15.1	-25.7	-4.55
3	Side Wall	17.7	69.0	0.875	-0.700	0.180	-35.9	-46.4	-25.3
4	Windward Wall	11.0	66.7	0.875	0.800	0.180	39.7	29.1	50.2
	Overhang Top	17.7	69.0		0.252		12.9		
		17.7	69.0		-0.248		-12.7		
	Overhang Bot	11.0	66.7		0.800		39.7		
D	Windward Roof	17.7	69.0	0.875	0.252	0.180	12.9	2.39	23.5
		17.7	69.0		-0.248		-12.7	-23.2	-2.15
C	Leeward Roof	17.7	69.0	0.875	-0.600	0.180	-30.8	-41.3	-20.2
A&B Roof		0.00 - 8.83*	69.0	0.875	-0.900	0.180	-46.1	-56.7	-35.6
		8.83 - 17.7*	69.0				-46.1	-56.7	-35.6
		17.7 - 35.3*	69.0		-0.500		-25.6	-36.2	-15.1
		35.3 - 135*	69.0		-0.300		-15.4	-25.9	-4.83
		0.00 - 135*	69.0		-0.180		-9.23	-19.8	1.32

This is load case 1 in ASCE 7-22 Figure 27.3-8. See Figure 27.3-8 for other cases.

* Distance from windward edge.