Project : **File :**
Subject : **Date :** 3/20/2012
Location : **Eng :**

Design Wind Pressure,p, Sections 27.5 & 27.6 (ASCE 7-10)

System Type	Structure Type	Equation
Main Wind Force Resisting System (Directional Procedure)	Rigid Structures Buildings with h<= 160 ft. Simple Diaphragm Enclosed Buildings	λ : Exposure Adjustment Kzt : Topographic Factor p : Tables 27.6-1 & 27.6-2

Building Height	=	158.00	
Roof Angle	=	18.40	
Basic Wind Speed	=	166.00	(Figure 26.5-1 A-C)
Occupancy Category	=	II	(Table 1.5-1)
Exposure Category	=	C	(Section 26.7.3)
Topography	=	None	
Kzt @ 0.33 h	=	Topographic factor	(Figure 26.8-1)
	=	$(1 + K1 \cdot K2 \cdot K3)^2$	
	=	1.00	
Exposure Adjustment	=	1.00	

Design Wall Pressures: Adjusted Pressure = Table Pressure x Kzt x λ

Location	Table Pressure (psf)	Adjusted Pressure (psf)
Net Top	125.31	125.31
Net Bottom	92.14	92.14
Side Wall	-67.67	-67.67
Leeward	-47.62	-47.62
Windward Top	77.69	77.69
Windward Bottom	44.52	44.52
Parapet	281.94	281.94

Design Roof Pressures: Adjusted Pressure = Table Pressure x Kzt x λ

Location	Table Pressure (psf)	Adjusted Pressure (psf)
Zone 1, Case 1	-71.63	-71.63
Zone 1, Case 2	24.79	24.79
Zone 2, Case 1	-57.84	-57.84
Zone 2, Case 2	-25.39	-25.39
Zone 3, Case 1	-88.83	-88.83
Zone 3, Case 2	0.00	0.00
Zone 4, Case 1	-79.23	-79.23
Zone 4, Case 2	0.00	0.00
Zone 5, Case 1	-64.93	-64.93
Zone 5, Case 2	0.00	0.00