

# DESIGN NOTES

1. THIS BUILDING IS DESIGNED TO COMPLY WITH THE 2003 IBC INTERNATIONAL BUILDING CODE.
2. FLOOR LIVE LOADS ARE AS FOLLOWS:
  - A. STORAGE, MECHANICAL ROOMS = 100 PSF
  - B. WASH BAYS = 40 PSF
3. DEAD LOADS = ACTUAL WEIGHTS OF COMPONENTS PLUS 5 psf ALLOWANCE FOR MISCELLANEOUS DUCTWORK, SPRINKLER PIPING AND OTHER HUNG ITEMS.
4. DESIGN FOR SNOW LOAD IS IN ACCORDANCE WITH ASCE7-2002, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
  - A. GROUND SNOW LOAD  $P_g = 50$  psf
  - B. FLAT ROOF SNOW LOAD  $P_f = 42$  psf
  - C. SNOW EXPOSURE FACTOR  $C_e=1.0$
  - D. SNOW LOAD IMPORTANCE FACTOR:  $I = 1.0$
  - E. THERMAL FACTOR  $C_t = 1.2$
  - F. SNOW DRIFTING AND PARTIAL LOADING IN ACCORDANCE WITH ASCE7-2002.
5. DESIGN FOR WIND LOAD IS IN ACCORDANCE W/ASCE7-2002, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES:
  - A. BASIC WIND SPEED:  $V=95$  mph
  - B. WIND LOAD IMPORTANCE FACTOR  $I=1.0$
  - C. WIND EXPOSURE = EXPOSURE B
  - D. WIND DESIGN PRESSURE:
    1. FOR THE MAIN WIND FORCE RESISTING SYSTEM:  
 $P=+19.2$  psf AT WINDWARD WALL.  
 $P=-13$  psf AT LEEWARD WALL.  
 $P=+13$  psf AT WINDWARD ROOF  
 $P=-11$  psf AT LEEWARD ROOF.
    2. FOR COMPONENTS AND CLADDING IN ROOF CONSTRUCTION:  
 $P=-25.5$  psf;  $+20.9$  PSF ZONES 2 AND 3  
 $P=+/-20.9$  PSF ZONE 1  
 $q = 4.5$
6. SEISMIC LOADS:
  - A. SPECTRAL RESPONSE ACCELERATION, 1 SECOND PERIOD,  $SD1 = 0.16$
  - B. SPECTRAL RESPONSE ACCELERATION, SHORT PERIOD,  $SDS = 0.37$
  - C. SEISMIC USE GROUP: GROUP I
  - D. SEISMIC DESIGN CATEGORY E.
  - E. SITE CLASS "D"
  - F. BASIC STRUCTURAL SYSTEM: BEARING WALL SYSTEM.
  - G. SEISMIC RESISTING SYSTEM: ORDINARY REINFORCED MASONRY SHEAR WALLS
  - H. RESPONSE MODIFICATION FACTOR:  $R = 2.0$
  - I. DEFLECTION AMPLIFICATION FACTOR:  $C_d = 1.75$
  - J. ANALYSIS PROCEDURE UTILIZED: EQUIVALENT LATERAL FORCE PROCEDURE.
  - K. NET SEISMIC LOAD:  $V = 0.185W$