



Certificate of Design Application

From Designer: Archetype Architects
 Date: 3/30/15
 Job Name: Century Tire Plaza
 Address of Construction: Marginal Way

2009 International Building Code

Construction project was designed to the building code criteria listed below:

Building Code & Year IBC 2009 Use Group Classification (s) A2 (S2 Warehouse)
 Type of Construction 2B
 Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC Yes
 Is the Structure mixed use? No If yes, separated or non separated or non separated (section 302.3) _____
 Supervisory alarm System? Yes Geotechnical/Soils report required? (See Section 1802.2) Attached

Structural Design Calculations

_____ Submitted for all structural members (106.1 – 106.11)

Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use	Loads Shown
retail	100 psf
_____	_____
_____	_____
_____	_____
_____	_____

Wind loads (1603.1.4, 1609)

ASCE 6,4 Design option utilized (1609.1.1, 1609.6)
100 mph Basic wind speed (1809.3)
1.0 Building category and wind importance Factor, I_w , table 1604.5, 1609.5)
B Wind exposure category (1609.4)
N/A Internal pressure coefficient (ASCE 7)
+18 psf-24psf Component and cladding pressures (1609.1.1, 1609.6.2.2)
22psf Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

ASCE 7 Design option utilized (1614.1)
C Seismic use group ("Category")
Sds=0.325 Sd1=0.123 Spectral response coefficients, SDs & SD1 (1615.1)
D Site class (1615.1.5)

N/A Live load reduction
N/A Roof live loads (1603.1.2, 1607.11)
42 psf Roof snow loads (1603.7.3, 1608)
60psf Ground snow load, P_g (1608.2)
42psf If $P_g > 10$ psf, flat-roof snow load S_f
1.0 If $P_g > 10$ psf, snow exposure factor, C_e
1.0 If $P_g > 10$ psf, snow load importance factor, I_s
1.0 Roof thermal factor, C_t (1608.4)
N/A Sloped roof snowload, P_s (1608.4)
C Seismic design category (1616.3)
ordinary moment frames Basic seismic force resisting system (1617.6.2)
R=3.5 Cd=3.0 Response modification coefficient, R , and deflection amplification factor, C_d (1617.6.2)
E.L.F. Analysis procedure (1616.6, 1617.5)
M&J A 17.7x, table B 26 1K, M&J O 19.1 Design base shear (1617.4, 1617.5.1)

Flood loads (1803.1.6, 1612)

N/A Flood hazard area (1612.3)
N/A Elevation of structure

Other loads

N/A Concentrated loads (1607.4)
N/A Partition loads (1607.5)
N/A Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404)