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 Sdi=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 P_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_I and deflection amplification factor C_d (1617.6.2)

E.L.F. Analysis procedure (1616.6, 1617.5)

bldg A 17.7k, bldg B 26.1K, bldg C 19.1 Design base shear (1617.4, 16175.5.1)

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