Certificate of Design Application

From Designer: Brewster Buttfield, Prospect Design; Joe Hemes, Hemesphere Design LLC

Date: March 13, 2013

Job Name: Diamond Street Warehouse Renovation

Address of Construction: 1-11 Diamond Street

2009 International Building Code

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

Building Code & Year IBC 2009, NFPA 2009 Use Group Classification (s) S-1,F-1,M,B

Type of Construction Type 3

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? Yes If yes, separated or non separated or non separated (section 302.3) Separated

Supervisory alarm System? Yes Geotechnical/Soils report required? (See Section 1802.2) N/A

Structural Design Calculations Existing Structure

_____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

Wind loads (1603.1.4, 1609)

_____Design option utilized (1609.1.1, 1609.6)

_____Basic wind speed (1809.3)

_____Building category and wind importance Factor, I_w table 1604.5, 1609.5)

_____Wind exposure category (1609.4)

_____Internal pressure coefficient (ASCE 7)

_____Component and cladding pressures (1609.1.1, 1609.6.2.2)

_____Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

_____Design option utilized (1614.1)

_____Seismic use group ("Category")

_____Spectral response coefficients, SDs & SD1 (1615.1)

_____Site class (1615.1.5)

_____Live load reduction

_____Roof *live* loads (1603.1.2, 1607.11)

_____Roof snow loads (1603.7.3, 1608)

_____Ground snow load, P_g (1608.2)

_____If P_g > 10 psf, flat-roof snow load P_f

_____If P_g > 10 psf, snow exposure factor, C_e

_____If P_g > 10 psf, snow load importance factor, I_s

_____Roof thermal factor, C_t (1608.4)

_____Sloped roof snowload, P_s (1608.4)

_____Seismic design category (1616.3)

_____Basic seismic force resisting system (1617.6.2)

_____Response modification coefficient, R_I and deflection amplification factor C_d (1617.6.2)

_____Analysis procedure (1616.6, 1617.5)

_____Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

_____Flood Hazard area (1612.3)

_____Elevation of structure

Other loads

_____Concentrated loads (1607.4)

_____Partition loads (1607.5)

_____Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404