Certificate of Design Application

From Designer: ASSOCIATED DESIGN PARTNERS, INC

Date: 8-5-14

Job Name: P.H. Warren Ave LLC (Holmes #3)

Address of Construction: 421 WARREN AVE, PORTLAND MAINE

2009 International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) Mixed

Type of Construction V-B

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IBC Y

Is the Structure mixed use? Y If yes, separated or non separated or non separated (section 302.3) Separated

Supervisory alarm System? Y Geotechnical/Soils report required? (See Section 1802.2) Y

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
Light Warehouse	125 PSF

Wind loads (1603.1.4, 1609)

ANALYTICAL Design option utilized (1609.1.1, 1609.6)

94 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)

+/- 0.18 Internal pressure coefficient (ASCE 7)

PER ASCE BASED ON EWA Component and cladding pressures (1609.1.1, 1609.6.2.2)

12PSF Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

ASCE 12.8.1 Design option utilized (1614.1)

I Seismic use group ("Category")

0.41 / .18 Spectral response coefficients, SDs & SD1 (1615.1)

E Site class (1615.1.5)

NO Live load reduction

20 Roof *live* loads (1603.1.2, 1607.11)

42+unbal Roof snow loads (1603.7.3, 1608)

60 Ground snow load, P_g (1608.2)

42 If P_g > 10 psf, flat-roof snow load $_{Pf}$

1 If P_g > 10 psf, snow exposure factor, $_{Ce}$

1 If P_g > 10 psf, snow load importance factor, $_{Is}$

1.0 Roof thermal factor, $_{Ct}$ (1608.4)

NA Sloped roof snowload, $_{Ps}$ (1608.4)

C Seismic design category (1616.3)

OSMF/OCBF Basic seismic force resisting system (1617.6.2)

(3/3) Response modification coefficient, $_{RI}$ and deflection amplification factor $_{Cd}$ (1617.6.2)

ASCE 12.8.1 Analysis procedure (1616.6, 1617.5)

26k Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

NA Flood Hazard area (1612.3)

NA Elevation of structure

Other loads

NA Concentrated loads (1607.4)

NA Partition loads (1607.5)

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