Certificate of Design Application

From Designer: **ASSOCIATED DESIGN PARTNERS, INC**

Date: **10-27-14**

Job Name: **Alpine Realty**

Address of Construction: **380 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) **Storage**

Type of Construction **III**

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

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

Supervisory alarm System? **N** 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)

+/- 0.55 Internal pressure coefficient (ASCE 7)

PER ASCE BASED ON EWA 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)

ASCE 12.8.1 Design option utilized (1614.1)

I Seismic use group ("Category")

.259/.126 Spectral response coefficients, S_{DS} & S_{D1} (1615.1)

D Site class (1615.1.5)

NO Live load reduction

20 Roof _live_ loads (1603.1.2, 1607.11)

50.4psf + drift Roof snow loads (1603.7.3, 1608)

60 psf Ground snow load, P_g (1608.2)

50.4 psf 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

1.2 Roof thermal factor, C_t (1608.4)

50.4 psf Sloped roof snowload, P_s (1608.4)

C Seismic design category (1616.3)

OSMF Basic seismic force resisting system (1617.6.2)

(3) Response modification coefficient, R, and deflection amplification factor C_d (1617.6.2)

ASCE 12.8.1 Analysis procedure (1616.6, 1617.5)

2.82k 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)