Certificate of Design Application

From Designer: Ryan Senatore, AIA

Date: 12/16/13

Job Name: Munjoy Heights

Address of Construction: 79 Valmt Street, Portland, ME

2009 International Building Code

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

Building Code & Year IRC 2009 / IBC 2009 Use Group Classification (s) _____

Type of Construction 5B combustible Unprotected

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC NFPA 13R

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) Yes

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
PARKING	40
RESIDENTIAL	40
CORRIDORS	60
DECK	100

Wind loads (1603.1.4, 1609)

Analytical Design option utilized (1609.1.1, 1609.6)

100 Basic wind speed (1809.3)

ENCLOSED Building category and wind importance Factor, I_b table 1604.5, 1609.5)

C Wind exposure category (1609.4)

0.18 Internal pressure coefficient (ASCE 7)

50 Component and cladding pressures (1609.1.1, 1609.6.2.2)

13/-10 Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

ELF Design option utilized (1614.1)

B 1 Seismic use group ("Category")

0.35/0.12 Spectral response coefficients, SDs & SD1 (1615.1)

D Site class (1615.1.5)

— Live load reduction

20 Roof *live* loads (1603.1.2, 1607.11)

_____ Roof snow loads (1603.7.3, 1608)

50 Ground snow load, P_g (1608.2)

35 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)

— Sloped roof snowload, P_s (1608.4)

B Seismic design category (1616.3)

A13 Basic seismic force resisting system (1617.6.2)

6 1/2 Response modification coefficient, R_I and

4 1/2 ...nection amplification factor C_d (1617.6.2)

SIMPLIFIED Analysis procedure (1616.6, 1617.5)

1K : Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

— Flood Hazard area (1612.3)

±110ft Elevation of structure

Other loads

_____ Concentrated loads (1607.4)

_____ Partition loads (1607.5)

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