Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 11/24/15

Certificate of Design Application

From Designer: MICHAEL F HAYS / GRANT HAYS ASSOC.

Date: 9/25/15

Job Name: 6 UNIT APARTMENT / COMMERCIAL

Address of Construction: 223 CUMBERLAND AVE, PORTLAND 04101

2009 International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) B / M / R-2

Type of Construction VB

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) NO

Structural Design Calculations

YES 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
COMMON AREAS	100.0 PSF
FLOORS: RESIDENTIAL	40.0 PSF
FLOORS: OFFICES	50.0 PSF
FLOORS: MERCANTILE	100.0 PSF

Wind loads (1603.1.4, 1609)

METHOD 1 Design option utilized (1609.1.1, 1609.6)

110 MPH Basic wind speed (1809.3)

CAT II 1.100 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)

18.0 Component and cladding pressures (1609.1.1, 1609.6.2.2)

25.0 Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

SIMPLIFIED Design option utilized (1614.1)

I Seismic use group ("Category")

.257 & .125 Spectral response coefficients, S_{DS} & S_{D1} (1615.1)

D Site class (1615.1.5)

NONE Live load reduction

45.0 PSF Roof *live* loads (1603.1.2, 1607.11)

45.0 PSF Roof snow loads (1603.7.3, 1608)

60.0 PSF Ground snow load, P_g (1608.2)

45.0 PSF If P_g > 10 psf, flat-roof snow load P_f

0.9 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)

B Seismic design category (1616.3)

SHEAR WALLS Basic seismic force resisting system (1617.6.2)

6.5 & 4.0 Response modification coefficient, R_s and

WOOD deflection amplification factor C_d (1617.6.2)

ANALYSIS Analysis procedure (1616.6, 1617.5)

101 KIPS 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

2000 # 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