



# Certificate of Design Application

WINTON SCOTT ARCHITECTS, PA  
STRUCTURAL INTEGRITY CONSULTING ENGINEERS

From Designer:

Date:

04/01/2016

Job Name:

443 CONGRESS

Address of Construction:

443 CONGRESS, PORTLAND MAINE 04101

## 2009 International Building Code

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

Building Code & Year IBC 2009 Use Group Classification (s) BUSINESS B / RESIDENTIAL R2

Type of Construction IBC IB / NFPA II (222)

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

Is the Structure mixed use? YES If yes, separated or non separated or non separated (section 302.3) 2HR separation between business and residential uses

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

### 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

Floor Area Use	Loads Shown
Multifamily Residential	40 PSF
_____	_____
_____	_____
_____	_____

### Wind loads (1603.1.4, 1609)

Analytical Design option utilized (1609.1.1, 1609.6)

100 MPH Basic wind speed (1809.3)

Cat. II, 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)

45 PSF Component and cladding pressures (1609.1.1, 1609.6.2.2)

22 PSF Main force wind pressures (7603.1.1, 1609.6.2.1)

### Earth design data (1603.1.5, 1614-1623)

Not Required Design option utilized (1614.1)

Existing Bldg. Seismic use group ("Category")

\_\_\_\_\_ Spectral response coefficients,  $S_D$  &  $S_{DI}$  (1615.1)

\_\_\_\_\_ Site class (1615.1.5)

None Live load reduction

\_\_\_\_\_ Roof *live* loads (1603.1.2, 1607.11)

42 PSF + Drift Roof snow loads (1603.7.3, 1608)

60 PSF Ground snow load,  $P_g$  (1608.2)

42 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,  $I_s$

1.0 Roof thermal factor,  $C_t$  (1608.4)

42 PSF Sloped roof snowload,  $P_s$  (1608.4)

Not Required Seismic design category (1616.3)

Existing Bldg. Basic seismic force resisting system (1617.6.2)

\_\_\_\_\_ Response modification coefficient,  $R$ , and deflection amplification factor,  $C_d$  (1617.6.2)

\_\_\_\_\_ Analysis procedure (1616.6, 1617.5)

\_\_\_\_\_ Design base shear (1617.4, 1617.5.1)

### 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)