



Certificate of Design Application

From Designer: Bruce W. Machead
 Date: 8/12/2015
 Job Name: 400 Riverside St. 40'x48' shell building
 Address of Construction: Portland, Me.

2009 International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) _____
 Type of Construction VB
 Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC NO
 Is the Structure mixed use? NO If yes, separated or non separated or non separated (section 302.3) _____
 Supervisory alarm System? _____ Geotechnical/Soils report required? (See Section 1802.2) NO - exist. fdn.

Structural Design Calculations

NO 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
<u>First Flr</u>	<u>100 psf L.L.</u>

Wind loads (1603.1.4, 1609)

Design option utilized (1609.1.1, 1609.6) _____
95 mph Basic wind speed (1809.3)
 Building category and wind importance Factor, w (table 1604.5, 1609.5) _____
See plans Wind exposure category (1609.4)
 Internal pressure coefficient (ASCE 7) _____
 Component and cladding pressures (1609.1.1, 1609.6.2.2) _____
Y Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

See plans Design option utilized (1614.1)
 Seismic use group ("Category") _____
 Spectral response coefficients, S_D & S_{D1} (1615.1) _____
↓ Site class (1615.1.5)

Live load reduction _____
20 psf Roof live loads (1603.1.2, 1607.11)
49 psf. Roof snow loads (1603.7.3, 1608)
See plans. Ground snow load, P_g (1608.2)
 If $P_g > 10$ psf, flat-roof snow load P_f _____
 If $P_g > 10$ psf, snow exposure factor, C_e _____
 If $P_g > 10$ psf, snow load importance factor, I_s _____
 Roof thermal factor, C_t (1608.4) _____
 Sloped roof snowload, P_s (1608.4) _____
 Seismic design category (1616.3) _____
 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)

N/A Flood Hazard area (1612.3)
↓ Elevation of structure

Other loads

N/A 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)