



Certificate of Design Application

From Designer: Scott Simons Architects
 Date: July 25, 2013
 Job Name: Casco Bay Ferry Terminal Renovations and Addition
 Address of Construction: 56 Commercial Street, Portland, ME 04101

2009 International Building Code

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

Building Code & Year 2003 IBC Use Group Classification (s) Assembly/Business
 Type of Construction Under one story height, sprinklered type 11A
 Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC will comply with NFPA 13
 Is the Structure mixed use? Yes 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

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
<u>Fixed Seating</u>	<u>60 psf</u>
<u>lobbies</u>	<u>100 psf</u>
<u>mechanical Room</u>	<u>100 psf</u>
<u>Restroom/Toilets</u>	<u>60 psf</u>

Wind loads (1603.1.4, 1609)

_____ Design option utilized (1609.1.1, 1609.6)
100 mph Basic wind speed (1809.3)
1.0 Building category and wind importance Factor, I_w ,
 table 1604.5, 1609.5)
C Wind exposure category (1609.4)
+/- 0.18 Internal pressure coefficient (ASCE 7)
ASCE 7-05 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)

Equivalent II Design option utilized (1614.1)
II Seismic use group ("Category")
.313 & .077 Spectral response coefficients, S_D s & S_{D1} (1615.1)
E Site class (1615.1.5)

_____ Live load reduction
 _____ Roof *live* loads (1603.1.2, 1607.11)
 _____ Roof snow loads (1603.7.3, 1608)
60 psf Ground snow load, P_g (1608.2)
46 psf +drift 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
1.1 Roof thermal factor, C_t (1608.4)
 _____ Sloped roof snowload, P_B (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)

_____ 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)