



Certificate of Design Application

From Designer:

Mark Sengelmann dba ALPHA architects

Date:

8-5-2016

Job Name:

PAM MMJ

Address of Construction:

80 Forest Ave Unit B Portland ME 04105

2009 International Building Code

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

Building Code & Year 2009 Use Group Classification (s) F-FACTORY

Type of Construction IIIB

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 separated or non separated or non separated (section 302.3)

Supervisory alarm System? YES Geotechnical/Soils report required? (See Section 1802.2) NA

Structural Design Calculations

Submitted for all structural members (106.1 - 106.11)

NONE Live load reduction
Roof live loads (1603.1.2, 1607.11)

Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use	Loads Shown
<u>RETAIL 1ST FLOOR</u>	<u>100 PSF</u>

42 PSF 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)

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)
0.18 Internal pressure coefficient (ASCE 7)
15.9, 16.1 PSF Component and cladding pressures (1609.1.1, 1609.6.2.2)
15.9 PSF Main force wind pressures (7603.1.1, 1609.6.2.1)

B Seismic design category (1616.3)
MASONRY GIRDERS Basic seismic force resisting system (1617.6.2)
WALLS Response modification coefficient, R , and deflection amplification factor, C_d (1617.6.2)
EQUIV. LAT. FORCE Analysis procedure (1616.6, 1617.5)
68 K Design base shear (1617.4, 16175.5.1)

Earth design data (1603.1.5, 1614-1623)

EQUIV. LAT. FORCE Design option utilized (1614.1)
1 Seismic use group ("Category")
0.337, 0.124 Spectral response coefficients, S_D & S_{D1} (1615.1)
D Site class (1615.1.5)

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)