



Certificate of Design Application

ASSOCIATED DESIGN PARTNERS, INC

From Designer:

Date:

Job Name:

Address of Construction:

12-28-15

ACADEMY FOR ACTIVE LEARNERS- NEW BUILDING

134 WARREN AVE, PORTLAND MAINE 04103

2009 International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) E

Type of Construction II B

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

Is the Structure mixed use? N If yes, separated or non separated or non separated (section 302.3) _____

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

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
slab on grade	100 psf school corridor
_____	_____
_____	_____
_____	_____

Wind loads (1603.1.4, 1609)

ANALYTICAL Design option utilized (1609.1.1, 1609.6)

100 Basic wind speed (1809.3)

1.15 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)

PER ASCE BASED ON EWA Component and cladding pressures (1609.1.1, 1609.6.2.2)

See Package Calc Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

ASCE 12.8.1 Design option utilized (1614.1)

III / 1.25 Seismic use group ("Category")

0.329 / .124 Spectral response coefficients, S_D s & S_I (1615.1)

D Site class (1615.1.5)

- NO Live load reduction
- 20 Roof *live* loads (1603.1.2, 1607.11)
- 42+UNBAL Roof snow loads (1603.7.3, 1608)
- 60 Ground snow load, P_g (1608.2)
- 42 If $P_g > 10$ psf, flat-roof snow load P_f
- 1 If $P_g > 10$ psf, snow exposure factor, C_e
- 1.10 If $P_g > 10$ psf, snow load importance factor, I_s
- 1.0 Roof thermal factor, C_t (1608.4)
- NA Sloped roof snowload, P_s (1608.4)
- B Seismic design category (1616.3)
- OSCBF, OSMF Basic seismic force resisting system (1617.6.2)
- (3/3) Response modification coefficient, R , and deflection amplification factor, C_d (1617.6.2)

EQUIV LAT FORCE

_____ Analysis procedure (1616.6, 1617.5)

23.99K Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

NA Flood I hazard area (1612.3)

NA Elevation of structure

Other loads

NA Concentrated loads (1607.4)

NA Partition loads (1607.5)

3-400# unit heaters Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404)