



Certificate of Design Application

From Designer:

Ryan Sematore Architecture, LLC.

Date:

10/20/14

Job Name:

MEPS,

Address of Construction:

510 Congress Street

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)

Type of Construction 2B NonCombustible (unprotected)

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC Yes

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

Supervisory alarm System? Yes Geotechnical/Soils report required? (See Section 1802.2) NO

Structural Design Calculations

NA 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>NA</u>	
↓	

Wind loads (1603.1.4, 1609)

NA Design option utilized (1609.1.1, 1609.6)

↓

Basic wind speed (1809.3)

↓

Building category and wind importance Factor, w (table 1604.5, 1609.5)

↓

Wind exposure category (1609.4)

↓

Internal pressure coefficient (ASCE 7)

↓

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)

NA Design option utilized (1614.1)

↓

Seismic use group ("Category")

↓

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

↓

Site class (1615.1.5)

NA Live load reduction

↓

Roof live loads (1603.1.2, 1607.11)

↓

Roof snow loads (1603.7.3, 1608)

↓

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)

NA Flood Hazard area (1612.3)

↓

Elevation of structure

Other loads

NA

↓

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)