



# Certificate of Design Application

From Designer: Ryan Senatore  
 Date: 3/17/14  
 Job Name: 200 Lancaster Entry and Elevator  
 Address of Construction: 200 Lancaster 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

Type of Construction IBC Noncombustible Unprotected

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? NO If yes, separated or non separated or non separated (section 302.3) NO

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

### Structural Design Calculations

— Submitted for all structural members (106.1 – 106.11)

### Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.1.1, 1807)

| Floor Area Use  | Loads Shown |
|-----------------|-------------|
| <u>OFFICE</u>   | <u>80</u>   |
| <u>CORRIDOR</u> | <u>100</u>  |
|                 |             |
|                 |             |
|                 |             |

### Wind loads (1603.1.4, 1609)

ANALYTICAL Design option utilized (1609.1.1, 1609.6)  
100 Basic wind speed (1809.3)  
ENCLOSED, 60 Building category and wind importance Factor,  $I_w$  (table 1604.5, 1609.5)  
C Wind exposure category (1609.4)  
0.55 Internal pressure coefficient (ASCE 7)  
49 Component and cladding pressures (1609.1.1, 1609.6.2.2)  
23 psf Main force wind pressures (7603.1.1, 1609.6.2.1)

### Earth design data (1603.1.5, 1614-1623)

Design option utilized (1614.1)  
 Seismic use group ("Category")  
 Spectral response coefficients, SDs & SDI (1615.1)  
 Site class (1615.1.5)

— Live load reduction  
— Roof live loads (1603.1.2, 1607.11)  
35 Roof snow loads (1603.7.3, 1608)  
60 Ground snow load,  $P_g$  (1608.2)  
33 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)  
— Sloped roof snowload,  $P_s$  (1608.4)  
— Seismic design category (1616.3) **WIND CONTROLLED**  
— Basic seismic force resisting system (1617.6.2)  
— Response modification coefficient,  $R_f$  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)