# Certificate of Design Application

From Designer: Brian M. Curley PDT Architects

Date: 2/12/16

Job Name: 2016 UNUM H01 Third Floor Fit Up

Address of Construction: 2211 Congress St.

## 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 2A NON-COMBUSTIBLE PROTECTED

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

Is the Structure mixed use? No If yes, separated or non separated or non separated (section 302.3) _____

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

### Structural Design Calculations

EXIST. 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 |
|---|---|
| EXIST. | EXIST. |
| " | " |
| " | " |
| " | " |
| " | " |

### Wind loads (1603.1.4, 1609)

EXIST. Design option utilized (1609.1.1, 1609.6)

EXIST. Basic wind speed (1809.3)

EXIST. Building category and wind importance Factor, $I_w$ table 1604.5, 1609.5)

EXIST. Wind exposure category (1609.4)

EXIST. Internal pressure coefficient (ASCE 7)

EXIST. 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)

EXIST. Design option utilized (1614.1)

EXIST. Seismic use group ("Category")

EXIST. Spectral response coefficients, SDs & SD1 (1615.1)

EXIST. Site class (1615.1.5)

EXISTING 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, $R_I$ and deflection amplification factor $C_d$ (1617.6.2)

" Analysis procedure (1616.6, 1617.5)

" Design base shear (1617.4, 16175.5.1)

### Flood loads (1803.1.6, 1612)

EXIST. N/A Flood Hazard area (1612.3)

" Elevation of structure

### Other loads

EXIST. Concentrated loads (1607.4)

EXIST. Partition loads (1607.5)

EXIST. Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404