



# Certificate of Design Application

From Designer:

CASCO BAY ENGINEERING + WHIPPLE CALLENDER ARCHITECTS

Date:

JUNE 4, 2004

Job Name:

290 CONGRESS PLAZA - FACADE RENOVATIONS

Address of Construction:

290 CONGRESS ST

## 2009 International Building Code

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

ORIGINAL STRUCTURE

Building Code & Year BUILT 1969 Use Group Classification (s) EXISTING RETAIL

Type of Construction TYPE V/B

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

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

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

### 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
<u>N/A</u>	

### Wind loads (1603.1.4, 1609)

SCE 7 chpt. 6 Design option utilized (1609.1.1, 1609.6)

100 mph Basic wind speed (1809.3)

II, 1.0 Building category and wind importance Factor,  $I_w$  (table 1604.5, 1609.5)

B Wind exposure category (1609.4)

+/- 0.55 Internal pressure coefficient (ASCE 7)

16 psf Component and cladding pressures (1609.1.1, 1609.6.2.2)

16 psf Main force wind pressures (7603.1.1, 1609.6.2.1)

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

BASE WALL STR. Design option utilized (1614.1)

B Seismic use group ("Category")

0.93, 0.13 Spectral response coefficients,  $S_{D1}$  &  $S_{D2}$  (1615.1.1)

B Site class (1615.1.3)

- N/A Live load reduction
- N/A Roof live loads (1603.1.2, 1607.11)
- 35 psf Roof snow loads (1603.7.3, 1608)
- 50 psf Ground snow load,  $P_g$  (1608.2)
- 35 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)
- N/A Sloped roof snowload,  $P_s$  (1608.4)
- B Seismic design category (1616.3)

ORDINARY MASONRY SYSTEM WALL Basic seismic force resisting system (1617.6.2)

1.5 Response modification coefficient,  $R$ , and

1.25 deflection amplification factor,  $C_{d1}$  (1617.6.2)

EQUIVALENT LATERAL FORCE analysis procedure (1616.6, 1617.5)

2K Design base shear (1617.4, 1617.5.1)

### Flood loads (1803.1.6, 1612)

NO Flood Hazard area (1612.3)

61' Elevation of structure

### Other loads

N/A Concentrated loads (1607.4)

N/A Partition loads (1607.5)

N/A Misc. loads (Table 1607.8, 1607.8.1, 1607.12, 1607.13, 1609.6.1, 1609.6.2)