



Certificate of Design Application

From Designer: Brewster Buttfeld, Prospect Design and Joe Hemes, Hemesphere Design

Date: Feb. 2, 2016

Job Name: Nine Stones Spa

Address of Construction: 185 Fore Street

2009 International Building Code

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

Building Code & Year 2009 Use Group Classification (s) Business

Type of Construction Type 5A, Please see permit for the building

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) Separated

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

Structural Design Calculations

N/A 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

Wind loads (1603.1.4, 1609)

 Design option utilized (1609.1.1, 1609.6)

 Basic wind speed (1809.3)

 Building category and wind importance Factor, I_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)

 Design option utilized (1614.1)

 Seismic use group (“Category”)

 Spectral response coefficients, S_D & S_{D1} (1615.1)

 Site class (1615.1.5)

 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_B (1608.4)

 Seismic design category (1616.3)

 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)