Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 12/17/13

Certificate of Design Application

From Designer: Allied Engineering, Inc & Grant Hays Associates

Date: October 30, 2013

Job Name: Bay City Motors - Fire Damage Structure Repairs

Address of Construction: 324 Warren Avenue, Portland, ME

2009 International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) S-1 & M

Type of Construction VB

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC NO

Is the Structure mixed use? Yes If yes, separated or non separated or non separated (section 302.3) 2 hr Separated

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

Structural Design Calculations

No. 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
N/A	

Wind loads (1603.1.4, 1609)

1609.1.1 Design option utilized (1609.1.1, 1609.6)

100 MPH Basic wind speed (1809.3)

Cat II; I-1.0 Building category and wind importance Factor, I_w table 1604.5, 1609.5)

C Wind exposure category (1609.4)

+/- 0.18 Internal pressure coefficient (ASCE 7)

19/27/43 Component and cladding pressures (1609.1.1, 1609.6.2.2)

15/22 psf Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

N/A Design option utilized (1614.1)

N/A Seismic use group ("Category")

N/A Spectral response coefficients, S_{Ds} & S_{D1} (1615.1)

N/A Site class (1615.1.5)

N/A Live load reduction

20 psf Roof *live* loads (1603.1.2, 1607.11)

46.2 psf Roof snow loads (1603.7.3, 1608)

60 psf Ground snow load, P_g (1608.2)

46.2 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

1.1 Roof thermal factor, C_t (1608.4)

1.0 Sloped roof snowload, P_s (1608.4)

N/A Seismic design category (1616.3)

N/A Basic seismic force resisting system (1617.6.2)

N/A Response modification coefficient, R_l and deflection amplification factor C_d (1617.6.2)

N/A Analysis procedure (1616.6, 1617.5)

N/A Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

N/A Flood Hazard area (1612.3)

N/A Elevation of structure

Other loads

N/A Concentrated loads (1607.4)

N/A Partition loads (1607.5)

N/A Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404