



Certificate of Design Application

From Designer: Becker Structural Engineers
 Date: 4-7-16
 Job Name: Pasteurized Milk Silo Pad - H.P. Hood, Inc.
 Address of Construction: 349 Park Ave.

2009 International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) F1

Type of Construction IIB

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? Yes If yes, separated or non separated or non separated (section 302.3) Non-separated

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

Structural Design Calculations

Completed 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
Tank wt w/content 185k

Wind loads (1603.1.4, 1609)

Per Silo Eng Design option utilized (1609.1.1, 1609.6)
130 mph Basic wind speed (1809.3)
1.0 Building category and wind importance Factor, I_w (table 1604.5, 1609.5)
C Wind exposure category (1609.4)
Included Internal pressure coefficient (ASCE 7)
N/A Component and cladding pressures (1609.1.1, 1609.6.2.2)
8250 base V Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

Per Silo Eng Design option utilized (1614.1)
II Seismic use group ("Category")
0.327, 0.123 Spectral response coefficients, S_D & S_{D1} (1615.1)
D Site class (1615.1.5)

N/A Live load reduction
N/A Roof live loads (1603.1.2, 1607.11)
N/A Roof snow loads (1603.7.3, 1608)
N/A Ground snow load, P_g (1608.2)
N/A If $P_g > 10$ psf, flat-roof snow load P_f
N/A If $P_g > 10$ psf, snow exposure factor, C_e
N/A If $P_g > 10$ psf, snow load importance factor, I_s
N/A Roof thermal factor, C_t (1608.4)
N/A Sloped roof snowload, P_s (1608.4)
B Seismic design category (1616.3)
Silo Anch. Basic seismic force resisting system (1617.6.2)
N/A Response modification coefficient, R , and deflection amplification factor, C_d (1617.6.2)
Per ASCE 710 Analysis procedure (1616.6, 1617.5)
46.1k Design base shear (1617.4, 1617.5.1)
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)