

August 9, 2010

Ms. Tammy Munson
Code Enforcement Officer / Plan Reviewer
Inspections Services Division
City of Portland
389 Congress Street
Portland, Maine

STRUCTURAL BUILDING CODE AND CODE INTERPRETATIONS FOR PROPOSED RENOVATIONS TO
FORMER CUMBERLAND COLD STORAGE BUILDING
PORTLAND, MAINE

Dear Tammy,

We are formally requesting to utilize the 2006 version of the International Building Code (IBC) for the structural design of above referenced project. We understand that the City of Portland is currently enforcing the 2003 version of the IBC Code. The following is our justification for the use of the newer version of the Code.

Our justification in using the 2006 Edition of the IBC Code pertains to the Seismic provisions included in the Codes. The Seismic Spectral Values used for the seismic design of buildings have been updated in the 2006 Edition of the IBC Code. The updated values are based on the 2004 Edition of the "National Earthquake Hazard Reduction Program (NEHRP) Recommended Provisions for Seismic Regulations for New Buildings and Other Structures – Part 1", Federal Emergency Management Agency (FEMA) Document 450. This document supersedes the 1998 version of the NEHRP/FEMA document, which is the basis of the 2003 Edition of the IBC Code. We understand that the updated FEMA guidelines are based on newer, more recent data provided by the United States Geological Survey (USGS). As design professionals we are of the opinion that use of the current values are appropriate for use in design of a building as they represent the latest science and data in the structural engineering field.

Our Code interpretations for seismic requirements, as they relate to this project are as follows:

1. As the change in occupancy does not place the existing structure in a higher occupancy category, a seismic upgrade of the lateral force resisting system to meet current Code requirements, due to change of occupancy, is not required.
2. As the proposed alterations will not increase the seismic force in any lateral force resisting element by more than 10%, or decrease the strength in any lateral force resisting element by more than 10% (with exception noted in item 3), a seismic upgrade of the lateral force resisting system to meet current Code requirements, due to alterations, is not required.
3. The southeast wall (water-side) is an exception to item 2. Proposed openings in this wall result in exceeding the 10%. Per previous conference call with Portland Code Enforcement, it is acceptable to reinforce the one affected wall to meet current Code requirements, without upgrading other areas of the structure, provided that we supply calculations that show the reinforced wall to meet current Code requirements.
4. New masonry stair and elevator shafts will be detailed as lateral force resisting members and will act to stiffen the existing structure and serve as voluntary improvements to the lateral force resisting system.

Thank you for your consideration and please let us know any questions or comments. We would be happy to meet and discuss further if desired.

Sincerely,
BECKER STRUCTURAL ENGINEERS, Inc.



Daniel S. Burne, P. E.
Associate