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August 11, 2010

Ms. Tammy Munson
Code Enforcement Officer, Plan Reviewer
City of Portland
389 Congress Street
Portland, ME 04101

RE: IBC Code Interpretation Request – Renovations to the Cumberland Cold Storage Building at Merrill's Wharf, 254 Commercial St.

Dear Tammy,

As you may recall from our earlier discussions, the west wall of the Cumberland Cold Storage Building sits on the property line. The wall contains 149 existing window openings all of which have been in filled with masonry but the original granite sills and brick arches are still in tact. Of these 149 windows, we are proposing to reopen 126 of them and install new windows as well as adding 9 new windows.

The 2003 IBC code has a provision under section 704.8 that addresses allowable area of openings in exterior walls. Table 704.8 indicates the allowable percentage of the exterior wall that can consist of protected or unprotected openings based on the distance to the property line or adjacent buildings. Section 804.8.1 also states that if the building in question is sprinklered, the less strict values shown in the table for protected openings can be used.

Under the protected category, the table indicates that for a separation distance of 0'-3' no openings are allowed. At a distance of 3'-5' 15% of the wall can have openings and at a distance of 5'-10' an opening area of 25% is allowed. As shown in the attached elevation drawing, the proposed number of windows have an area equal to 17.8% of the total wall area for the portion of the building on the property line meaning we should have more than an 5' setback to meet the requirement.

The 2009 IBC code for Existing Buildings provides some relief on the above described requirements for existing building as follows:

912.6.3 Opening protectives. Openings in exterior walls shall be protected as required by the International Building Code. Where openings in the exterior walls are required to be protected because of their distance from the property line, the sum of the area of such openings shall not exceed 50 percent of the total area of the wall in each story.

Exceptions:

1. Where the International Building Code permits openings in excess of 50 percent.
2. Protected openings shall not be required in buildings of Group R occupancy that do not exceed three stories in height and that are located not less than 3 feet (914 mm) from the property line.
3. Where exterior opening protectives are required, an automatic sprinkler system throughout may be

substituted for opening protection.

4. Exterior opening protectives are not required when the change of occupancy group is to an equal or lower hazard classification in accordance with Table 912.6.

This project meets the requirements of 912.6.3 that stipulates a maximum area of protected openings to be 50% of the total wall area. As stated above, the total area of proposed openings is 17.8%. Exception #3 allows the openings to remain unprotected if the building is equipped throughout by an automatic sprinkler system. This requirement is met as the renovated building will be equipped with an approved supervised automatic sprinkler system designed in accordance with NFPA 13. Exception #4 allows openings to remain unprotected if the building's occupancy use group classification is changed to a lower hazard use. The building is currently used for a self storage business that provides lockers of various sizes for rent to individuals. This type of storage includes items such as furniture, books, clothes, household items etc. In Section 311, IBC defines storage that includes paper, furniture, cloth, boxes, etc. as moderate hazard storage (S-1). If one compares the building height and area limits set forth in IBC for Business Use versus S1 Storage, it is clear that IBC treats S1 Storage as a more hazardous use than Business.

This is an existing building that originally had 149 windows equal to 18.8% of the total area at the wall in question which we are proposing to reduce to 17.8% by leaving some openings blocked up and adding new openings as shown on the attached elevation. In addition, the building is being changed to a less hazardous use and will be sprinklered.

We would like to formally request that we may apply the 2009 IBC Existing Building Code for that would allow the windows to be installed as proposed and described above.

Thank you for your consideration and please let me know if you need any additional information to facilitate your review of this request.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Weatherhead". The signature is fluid and cursive, with the first name "Steve" written in a smaller, more compact script than the last name "Weatherhead".

Steve Weatherhead, Associate
Winton Scott Architects