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18 September 2012

Tammy Munson  
Division Director  
City of Portland  
City Hall Room 315  
389 Congress Street  
Portland, ME 04101  
Re: Bay House (Village at Ocean Gate)  
Middle Street  
Condominium Project  
Portland, ME  
Project No. Not Assigned Yet  
REQUEST FOR WAIVER

Dear Ms Munson,

This is a formal request for a waiver to the 2009 IBC Code for the Bay House (formally known as Village at Ocean Gate) project on Middle Street, currently in the building permit application process. When this project applied for a building permit in 2008 this proposal was reviewed with Mike Nugent at that time. He agreed with our proposal and asked that we submit a formal waiver request. This waiver request follows a similar waiver request presented for the 84 Marginal Way, Project No. 06196. We are submitting this waiver request to apply IBC section 509.2 only to the Mercantile (M) use on the First Floor with a three hour fire separation from the rest of the building. The entire building, except the M use area, meets the application of IBC section 509.4. Following is a description of the project and the proposal.

**Applicable Code:**

International Building Code – 2009.

**Description of the Project:**

The project consists of the construction of a garage, low hazard storage space, mercantile use on the First Floor with four story residential buildings and outdoor plaza above.

1. Total number of residential units:
  - a. Building 1 = 52 Units.
  - b. Building 2 = 42 Units.

## The Project Construction

1. Construction of:
  - a. First Floor of poured concrete and structural steel with steel and concrete deck, light gauge metal framing, Type I construction.
  - b. Two 4 story residential buildings above to be constructed as wood framed buildings with open web trusses and conventional platform framing, Type VA construction.
2. NFPA 13 Sprinkler, HVAC and electrical systems.
3. Installation of new water lines, sanitary system and utilities.
4. Raised Plaza with pavers and lawn beds over Garage First Floor between Buildings 1 and 2.

Kindly refer to the attached building code analysis tables for additional information. The M use space is 4377 square feet of the First Floor area and separated into two areas.

### **Code Reference:**

Along with this explanation see the attached diagrams of the application of the following building code sections to this project. IBC Section 509.4 indicates that a building with a one story above grade S2 use garage of Type I construction under a Residential (R2) use group shall permit the number of stories for determining the type of construction, for the R2 use, to be measured from the floor above the parking garage. To comply with the Type IB construction the horizontal floor/ceiling assembly between the garage and the first floor of the R2 use shall be a 2 hour fire rated assembly.

IBC Section 509.2 permits the first story above grade plane garage to be considered as a separate and distinct building for the purpose of determining area limitations, continuity of fire walls, limitations of number of stories and type of construction if all the listed conditions are met. An explanation of each condition's application to the project is provided here.

Condition 1: The M use area is separated from the first floor of the R2 use above with a 3 hour fire rated horizontal floor/ceiling assembly.

Condition 2: The M use area is only one story high.

Condition 3: The construction of the M use area is of Type IA construction with 3 hour fire rated enclosures of columns supporting the 3 hour fire rated horizontal floor/ceiling assembly above.

Condition 4: There are no openings or penetrations of the horizontal floor/ceiling assembly between the M use space and the first floor of the R2 use above. The stair enclosures are located outside of the M space. Regardless of the requirement, the stairs have a 2 hour fire rated enclosure from top to bottom.

Condition 5: The use group above the horizontal floor/ceiling assembly over the M use space is R2 use as permitted.

Condition 6: The use group below the horizontal floor/ceiling assembly is an M use as permitted. The M use area will be sprinklered with a NFPA 13 system.

Condition 7: The building height is in compliance with Table 503.

**Basis for Waiver:**

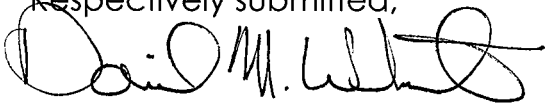
We feel the application of the above code sections is in compliance with the building code. The waiver we are requesting is to apply section 509.2 to the M use area and apply 509.4 to the rest of the First Floor and provide a 3 hour fire rated wall assembly between the two types of areas. The 3 hour fire rated wall assembly provides the same fire rating separation as required for the 3 hour fire rated horizontal floor/ceiling assembly over the M use. Kindly refer again to the paragraph at the beginning of section 509.2 for the understanding that fire walls do not need to extend through the horizontal floor/ceiling assembly. If you refer to the attached diagrams the one in the middle shows the combination of the sections as we are applying them.

**Conclusion:**

It is our opinion that the application of sections 509.2 and 509.4 with a 3 hour fire separation between these areas will provide the necessary fire protection in the building as intended by the IBC 2009. The M use area will be completely separated from the rest of the building with no communicating openings between them.

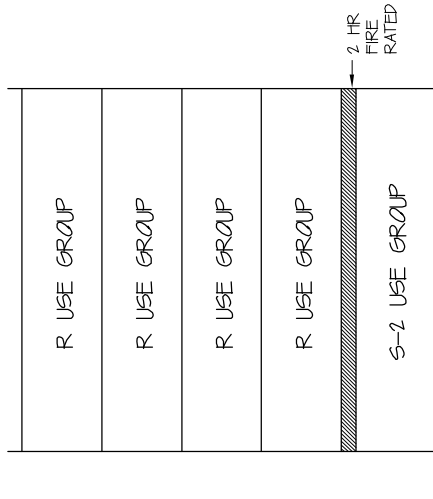
We appreciate your consideration of this proposal. If you have any questions, suggestions or would like to discuss this further please free to contact us.

Respectively submitted,

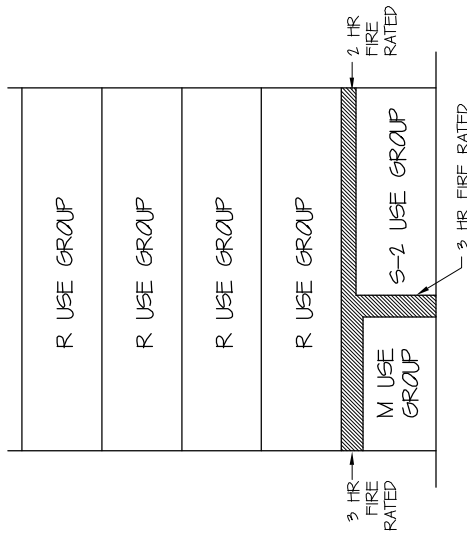


David M. White, AIA

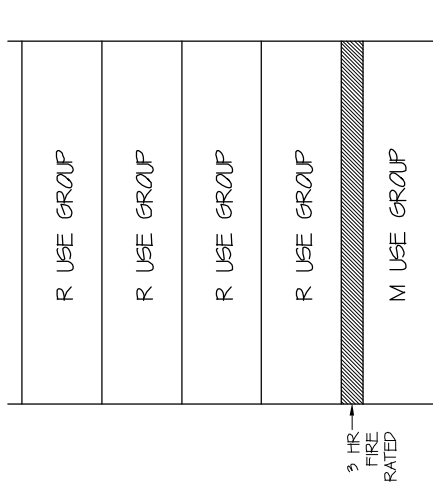
cc: Jeanie Bourke, Code Enforcement Officer, City of Portland  
Demetri Dasco, Owner, The Village at Ocean Gate, LLC  
Marc Gagnon, Owner Consultant, Landmarc Construction Services Corp



IBC 509.4



IBC 509.2 AND IBC 509.4



IBC 509.2