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October 13, 2013

Building Inspections Office
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509
ATTN: Marge Schmuckal

Subject: Permit # 201302298
Canal Landing New Yard – Phase 1
40 West Commercial Street
Applicant: New Yard, LLC
Height information and Flood Hazard Development Permit Application for New Tension Fabric Structure

Dear Marge:

We have received your email transmission dated 10/10/2013 related to a request for additional building height information as well as the flood hazard development permit application for the proposed tension fabric structure at the New Yard, 40 West Commercial Street. Regarding the additional information related to the building height and compliance with the WPDZ code requirements we offer the following evidence:

1. The proposed building will be installed on a cast in place concrete foundation wall with a top elevation at 15.0' (NGVD29). The building eave dimensional height is 20'-3 1/2" (20.29') and the clear dimensional height is 47'-10 5/16" (47.86'). From top of foundation to roof peak the estimated overall dimensional height is approximately 49'.
2. In accordance with Section 14-47 of the Code of Ordinances the overall building height is defined as the vertical measurement to a midway point between the level of the eaves and the highest point of pitched roofs. For the proposed building this is measured as follows:

Step 1 Find midway point between eave height and top of structure or
 $49.0' - 20.29' = 28.71'$ divided by 2
 $= 14.36'$

Step 2 midway point dimensional height above top of foundation
 $= 20.29' + 14.36' = 34.65'$ (or elevation 49.65')

Step 3 Compute building height over average existing ground grade around building perimeter. In accordance with Section 14-47 of the Code of Ordinances the Average exterior grade around the building perimeter is computed to be approximately elevation 13.3' (see attached plan). The overall building height is measured as follows:

Average ground grade = elevation 13.3'
Elevation at midway point of pitched roof = elevation 49.65'
Building height is computed as 49.65' – 13.3' = 36.35'

Conclusion: The dimensional building height as defined for pitched roofs is computed to be approximately 36.35' which is less than the maximum allowable building height in the WPDZ which is 45.0' therefore the proposed building is compliant. The accompanying figure 1 depicts the dimensional measurements and elevations used for these computations.

3. In accordance with Section 14-320.2 (e) i.e, the overall building height above mean sea level is computed at follows:

Step 1 Foundation wall height will be set at elevation 15.0'
Step 2 Overall building dimensional height is approximately 49'
Step 3 Top of building elevation = 15' + 49' = 64'

Conclusion: The top of the proposed building will be at elevation 64.0' (NGVD29) which is less than the maximum allowable of Elevation 65.0' above mean sea level.

With respect to the Flood Hazard Development Permit application we have completed the forms and include the following information as it appears to be required on Page 3 of the application for the proposed building.

Site Plan

1. **show property boundaries, floodway and floodplain lines** – the previously submitted existing conditions plan for the boat ramp was annotated to identify the limits of the elevation 10.0 ft. (NGVD29) floodplain limit based on an on the ground survey.
2. **Show dimensions of the lot** – See previously submitted Existing conditions Plan
3. **Show dimensions and location of existing and/or proposed development on the site** – The accompanying proposed Grading and Drainage plan depicts the proposed development and it has been annotated to clarify the proposed building floor elevations. Generally speaking the east side overhead door entrance will be at elevation 13.0' (NGVD29). The building floor will consist of a gravel surface which will be sloped from

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west to east. The westerly floor grade will be approximately elevation 15.0'. No portion of the building floor will be less than elevation 13.0' thus meeting the minimum floor grade of elevation 12.0'.

4. **For new construction also include existing grade elevations done by a Professional Land surveyor or Engineer** – the accompanying plans have been prepared by Owen Haskell Inc. and Fay, Spofford & Thorndike, Inc., professional land surveyors and engineers respectively.
5. **For New Construction attach statement describing in detail how each applicable development standard in Article VI will be met** – See as follows:

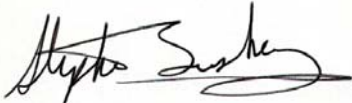
In accordance with Section 14-450.8 of the Code of Ordinances:

- (a) 1. Standard is met as the proposed project has been designed to include an engineered cast in place concrete foundation system.
 2. The standard is met as the proposed building will be constructed on cast in place and precast concrete materials.
 3. The proposed ramp and float systems have been designed by Licensed Professional Engineers and have been designed to prevent flood damage based on alignment and placement.
 4. This standard is not applicable.
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- (f) 1. The proposed building has been set at least two (2) feet above the base flood elevation of 10.0'

Based on this accompanying information we trust that you can complete the processing of the proposed building permit and foundation permit as well as the Flood Hazard Development Permit application. If you have any questions or require any additional information, please contact our office.

Sincerely,

FAY, SPOFFORD & THORNDIKE, LLC



Stephen Bushey, P.E., C.P.E.S.C.
Senior Engineer

SRB/smk

Enclosures: Amended Site Plans

c: Bill Needelman, City Planning

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Phin Sprague, New Yard, LLC

Bob Flight, New Yard, LLC

Peter Plumb, Murray, Plumb and Murray

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