Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 04/21/17

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March 2, 2017

Michella Canning
5 Brookside Road
Portland, ME 04103

Re: Structural Review of Existing Foundation
5 Brookside Road
Portland, ME 04103

Dear Michella,

At your request, I met with you and your contractor, Paul McAllen, on February 28 to perform a brief visual review at a portion of the foundation wall at the west side of your house. Specifically, the purpose of the site visit was to review the structural adequacy of the existing foundation wall at accessible areas and render an opinion as to whether the two existing basement windows could be replaced with larger windows. During the site visit, you reported that the original house was constructed in approximately 1956.

Please note that the scope of this review does not include a comprehensive evaluation for code compliance for all aspects of the existing building since such an evaluation would cost much more than the fee originally discussed. It is the responsibility of Price Structural Engineers Inc. (PSE) to evaluate the conditions which were relevant to the purpose of the site visit. PSE is not, however, responsible for conditions that could not be seen or were not within the scope of our services arranged prior to the site visit. For purposes of this letter, referenced items (north, south, east and west) are based on the assumption that the front of the house (street side) faces north (see Photo #1).

Except for the foundation wall segment previously described (see Photo #4), the structural adequacy at other components was not reviewed. The recommendations contained within this letter pertain to structural components only. The opinions briefly summarized within this letter are based on visible evidence of the accessible structural components observed at the time of the site visit. No disassembly of components or testing was performed during the site visit.

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During the site visit, Paul McAllen reported the following background regarding 1 building renovation:

- The rough openings for the new windows are to be 4'-6" wide x 2'-6" high.
- The concrete opening will 4'-9" wide to accommodate a 1 ½" thick jack stud at each side of the windows.
- The existing concrete foundation wall would be saw-cut to enlarge the openings.
- Oversized window wells would be constructed at the exterior side of the windows.
- To drain the window wells a perforated 4" diameter PVC sloping drain with drainage stone and geotextile filter fabric will be installed below the window wells and would be sloped continuously to a daylight exit with a rodent screen.
- A pressure treated header would be installed above the top of the window openings.
- During a meeting with the City of Portland they said the concept as described above by the contractor was acceptable provided that a structural engineer provided the design for the new header.

During the site visit, PSE made the following observations:

1. The enlarged basement windows will be installed at the side of the house closest to Ocean Avenue (west side)
2. The 1-story house was approximately 24' wide in the north/south direction at the west wall.
3. The foundation was constructed of concrete and the walls were approximately 8" thick.
4. The inside surface of the foundation wall at the west end could not be observed since it was covered with finishes.
5. The top 2'-6" portion of the west foundation wall could be observed from the exterior. No severe fractures or other evidence of foundation degradation was observed at the accessible areas of the west foundation wall.

Therefore, based on the observations made at accessible areas, PSE is of the following opinions:

- **The foundation wall at the west side is sufficiently adequate to support the installation of the enlarged windows.**
- **The header spanning across the top of each window should be a 6 x 6 pressure-treated southern yellow pine, #2 grade or better per the attached stamped notes and details.**

If you have questions regarding this summary letter, please do not hesitate to contact me. Thank you for giving us the opportunity to assist you.

Yours Sincerely,

David A. Price, P.E.

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