George Froehlich - Fwd: 40 Norwood Street, Portland, ME-Upper Exterior Deck

From:dipatbro <dipatbro@aol.com>To:GEF@portlandmaine.govDate:3/17/2015 1:35 PMSubject:Fwd: 40 Norwood Street, Portland, ME-Upper Exterior Deck

------ Original message ------From: Rick Romano Date:01/22/2015 8:00 PM (GMT-05:00) To: Michael Hill ,Erick Elgaaen ,gaberomano@papiandromanobuilders.com Cc: Carolyn Bell ,alex bell Subject: Fwd: 40 Norwood Street, Portland, ME-Upper Exterior Deck

Begin forwarded message:

From: "Joseph Leasure" <<u>ileasure@ll-eng.com</u>> Subject: 40 Norwood Street, Portland, ME-Upper Exterior Deck Date: January 22, 2015 at 7:54:51 PM EST To: "'Rick Romano'" <<u>rick@papiandromanobuilders.com</u>> Reply-To: <<u>ileasure@ll-eng.com</u>>

Hello Rick,

We re-analyzed the required roof joists required beneath the Upper Exterior Deck at 40 Norwood Street in Portland, ME. The additional joists and/or reinforcing joists shall be "sistered" and fastened to the existing 2x8 joists spanning approximately 15'-4" (center to center) between the side walls of the building with 2-rows (2" from the top and bottom) of 16d nails or 12 GA x 4"long GRK wood screws @ 12" on center. The additional joists shall be:

- 2-2x10 (ripped to 9" minimum depth) at each existing joist @ approximately 18" on center, or
- 3-2x10 (ripped to 8" minimum depth) at each existing joist @ approximately 18" on center, or
- 1-1 ³/₄" x 11 7/8" LVL (ripped to 9 ¹/₂" minimum depth) at each existing joist @ approximately 18" on center, or
- 2-1 ¾" x 9 ½" LVL (ripped to 7 ½" minimum depth) at each existing joist @ approximately 18" on center.

The outriggers and the hip members along the 15'-8" long wall shall be 2x10 @ 16" ripped and tapered as discussed in the field and shall be fastened to the first interior roof joist (which is approximately 18" from the interior face of the exterior wall) utilizing Simpson LS50 framing angles and the outriggers and the hip members shall be supported on the exterior wall and fastened with a 12 GA x 4"long GRK wood screws at an angle (in lieu of hurricane clips since the side of the top

plate of the wall is not exposed).

The existing joists shall remain as the overhang on the two sides of the deck at both ends of the continuous roof joists. The existing roof joists shall be supported on the exterior wall and fastened with a 12 GA x 4"long GRK wood screws at an angle (in lieu of hurricane clips since the side of the top plate of the wall is not exposed).

Additional solid 2x blocking shall be installed between the outriggers, existing roof joists and the hip members on top of the existing exterior wall on three sides of the roof.

The 4x6 posts for the guard rail on the upper deck shall be installed as indicated on the drawings except:

- The vertical dimension between the upper and lower double thru bolts shall be 6 ½" minimum (as opposed to 5 ¼" indicated on the drawings) leaving a 1" minimum distance from the center of the bolts to the top and bottom of the joist (or blocking member).
- The posts shall be spaced at 5'-4" on center maximum along the 15'-8" long wall.

Please do not hesitate to call with any questions.

Best,

Joseph H. Leasure, P. E. , Principal L & L Structural Engineering Services, Inc. 6 Q Street South Portland, Maine 04106 (207) 767-4830 Cell: (207) 329-0445 Fax: (207) 799-5432 jleasure@ll-eng.com