

Woodbury Hill Professionals

Civil & Structural Engineering

8 Woodbury Hill Road

Auburn, ME 04210

(207) 783-4459

February 15, 2015

To: Reggie Bouffard
Bouffard & McFarland Builders
195 Center Street
Auburn, ME 04210

For: Structural beam design
Flaherty residence
Portland, Maine

Dear Mr. Bouffard,

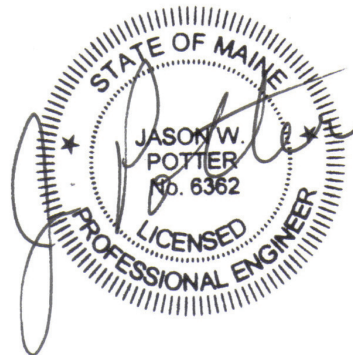
In order to support the second floor of the Flaherty residence in the area of the kitchen and living room a steel center beam must be installed in the second floor from the outside wall to the stair wall. It is approximately thirty two feet long. The beam will be a W12X19, A992 steel beam. The outside wall end of the beam must be supported with a column built up from three 2x6 studs. The end of the beam at the stairs will be supported by a 3-1/2"X3-1/2" PSL column.

The basement will utilize a 3-1/2" Lally column on the stairs end. It will have a 'Springfield' plate on the top and bottom. The footing for this column will be a continuous center footing two feet wide and ten inches thick. It requires two continuous #4, grade 60 reinforcing rebar located near the bottom, with two and one half inches of cover.

All columns must bear upon the concrete foundation or upon solid blocking which bears upon the concrete foundation.

I used 2009 International Residential Code, the 2009 International Building Code, ASCE 7-05, and plans prepared by Maine Residential Design dated 2/13/15 as the basis for the loads and design.

Sincerely,



Jason Potter, P. E.