

Permit #
2015-02765

Woodbury Hill Professionals
Civil & Structural Engineering
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Auburn, ME 04210
(207) 783-4459

April 11, 2016

To: Carolle Ohmeis
Paul Davis Smith Restoration
390 Presumpscot Street
Portland, ME 04103

For: Roof beam/dormer design
116 Gleckler Road
Portland, ME

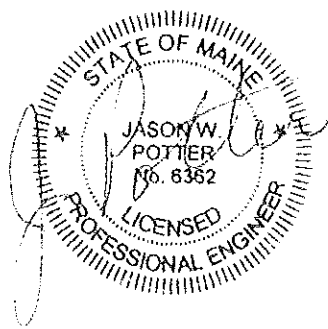
Dear Ms. Ohmeis,

In order to support the roof of the Van Horne residence, and add a dormer, you must use an LVL center beam built up from four 1-3/4"x16" pieces. They must be attached to one another per the manufacturer's recommendations. It will span about twenty four feet. Both ends are at the outside walls can be supported with a window header built up from two 1-3/4"x9-1/4" LVLs supported at each end by three 2x4 studs.

The dormer will extend from the ridge beam back to a supporting wall at the rear of the residence. The dormer will use 2x6 joists every 12". The joists need to be #2SPF or better. The dormer will span about 12' in width at the center of the building. The sides of the dormer will be supported with a minimum of two 2x8 joists. The existing 2x8 roof joists every 16" may be left as found.

I used 2009 International Residential Code, 2009 International Building Code, American Society of Civil Engineers Loads for Buildings and Other Structures 7-05, and recent field measurements as the basis for this design.

Sincerely,



Jason Potter, P. E.



Express Window Films

PHYSICAL PROPERTIES FOR 4 MIL CLEAR SECURITY FILM

Thickness of film (mil)	4 MIL
Visible Light Transmission (%)	90
Total Solar Energy Rejected (%)	8
UV Light Transmittance (%)	Below 2
UV Reduction (%)	98
Visible Light Reflectance (%)	9
Solar Transmittance (%)	79
Solar Absorptance (%)	13
Solar Reflectance (%)	8
Shading Coefficient	0.96
Emmissivity	0.9
U Value (Matrix Day Time Winter)	1.14
Glare Reduction (%)	10
Solar Heat Reduction (%)	8
Tensile Strength at Break (Kg/cm2)	1900
Peel Strength after complete curing (Kg/inch)	3.275
ASTM D2582 Ave. Puncture Strength	Not available
British Standard 6206 Test	CLASS B
BS-EN 12600 Test	CLASS 2 B
ANSI-Z-97.1 TEST	CLASS B
16 CFR 1201 US Govt. Standard Test	Not available
<u>Other Testing Data</u>	
Construction	2 PLY
Metal Laminates (%)	NO
Clear Laminates (Yes/No)	YES
Colored Laminates (%)	NO
ADHESIVE	PS