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Mar 20, 2014

David Lloyd
Archetype, P.A.
48 Union Wharf
Portland, ME 0101

Subject: Nathan Clifford School, 180 Falmouth Street, Portland, ME

Dear David,

I have completed calculations to determine the structural capacity of the existing roof framing at the subject building. Calculations were based on the following:

- Snow loads in accordance with IBC/2009.
 - P_g 60 psf
 - C_e 1.0
 - C_t 1.1
 - I 1.0
 - P_f 46.2 psf
- Existing ballasted roofing to be removed and replaced with $\frac{1}{2}$ " OSB and a fully adhered EPDM membrane.
- R49 cellulose insulation to be blown into existing space between the ceiling and the roof deck. The space above the insulation will be ventilated.
- New curb-mounted mechanical units installed on roof as shown on sheet M-500 prepared by Ranor Mechanical
 - RTU-1 1,200 pounds
 - EF1-EF7, EF11 100 pounds
 - (22) AC Condensers 100 pounds

My calculations have shown that the existing roof framing is capable of supporting the dead loads, snow loads and mechanical equipment as described above.

Please contact me if there is any question or if you need further information.

Sincerely,

STRUCTURAL DESIGN CONSULTING, INC.

David J. Tetreault, P.E.

