



Russo Barr Associates, Inc.

33 Center Street, 2nd Floor
Burlington, MA 01803

781-273-1537 tel
781-273-1695 fax

September 7, 2010

Mr. Michael E. Melnick
Permanent Building Committee
278 Old Sudbury Road
Sudbury, MA 01776

Re: Window Condition Survey
Peter Noyes Elementary School
280 Old Sudbury Road
Sudbury, Massachusetts
RBA Project No. 201073.00

Mr. Melnick:

Pursuant to our recent visit(s) to Peter Noyes Elementary School, we are happy to provide you with the following information relative to the existing conditions of the window systems. The following information provides a brief summary of our visual review.

Observations

The Peter Noyes Elementary School is a two-story, steel and masonry structure. The exterior walls of the building are finished with brick masonry. The building appears to have two different styles, and ages, of windows. The original portion (front of building) of the school building has aluminum framed, double hung windows believed to be approximately 20 years old. The rear addition of the school has aluminum framed sliding and fixed sash windows that appear to be original to the building and are approximately 35 years old. All windows are displaying signs of their age and are in poor condition.

The older windows contain single pane glass, are not thermally broken, and are energy inefficient. These windows cover approximately 4,300 square feet and also incorporate louvered openings for unit ventilators. Many rubber gaskets on these aluminum framed, windows were observed to be missing or falling out, which leads to air and water infiltration. Most window are very difficult to operate and do not lock properly. Perimeter sealants are failed. Mr. Donaldson, the school custodian, indicated water leakage into the building at various locations.

The newer windows include insulated glazing units and thermally broken aluminum frames. These windows cover approximately 3,500 square feet. Approximately 25% of the insulated glazing units have failed seals resulting in "fogged" units. It is reported that approximately half of the windows do not operate due to failed spring balances. Sealants associated with these newer windows are also failed.

Conclusions and Recommendations

The windows have poor energy efficiency, are a security risk and are currently leak into the interior of the building. Essentially the windows include one or more defects such as failed sealants, failed glazing units and/or failed spring balances. We recommend that all of the existing windows of the building be removed and replaced. We recommend new, energy efficient, commercial grade, thermally broken aluminum framed windows with low-e, insulated glass panels. Insulated architectural or translucent wall panels can be incorporated into the new window system design to increase the energy efficiency of the systems while also meeting other expected design criteria.

Budget Construction Cost Estimate

We have assembled the following budget estimated construction costs for the recommended window replacements.

- Replacement of approximately 7,800 SF of Operable/Fixed Windows = \$585,000
- Construction Contingency = \$85,000
- Total Budget Construction Cost Estimate = **\$670,000**

Hopefully this information helps you with your budgeting process. If you have any questions or comments please call.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Russo".

James M. Russo
President