

District: Dartmouth  
School Name: James Quinn Elementary School  
Category: Project Scope and Budget Agreement  
Date: January 27, 2010

### **Recommendation**

That the Executive Director be authorized to enter into a Project Scope and Budget Agreement and Project Funding Agreement with Dartmouth Public Schools for the proposed window replacement project at the James Quinn Elementary School.

### **Background**

In 2009, the District submitted its only Statement of Interest (SOI), which was for the James Quinn Elementary School, a facility accommodating approximately 920 students. The James Quinn Elementary School, with a total facility size of 121,923 square feet, was constructed in 1967, with a renovation in 2003 to convert the middle school to an elementary school. All of the windows throughout the building are the original and consist of rusting single-pane windows, many of which are either missing the rubber seals or have been replaced with opaque plexiglass. An interior courtyard is surrounded by similarly aging windows.

### **Existing Conditions:**

The District selected its Designer, Russo Barr Associates, to conduct a study of the exterior doors and curtain wall systems at the Quinn Elementary School in December of 2009 and found that most are original to the building and are approximately 45 years old.

There is approximately 21,500 square feet of steel frame curtain wall system, which extend one to two stories in height from the first floor slab up to the roof structure. The curtain wall systems include fixed insulated panels, fixed or operable windows, vision lites and in some instances exterior doors. The condition of the existing curtain wall systems are poor and are composed of non-thermally broken, steel frames with single pane glazings and 1 ½” thick insulated panels. Compounds used to secure the glazings are dried, cracked and split. Many steel curtain wall and sash frames are rusted. Operable sashes are difficult to operate, have no weather-stripping and leak air. Locking hardware is generally intact but poorly functioning, neoprene glazing gaskets are loose and missing in many locations, and single panes of glass have been replaced with polycarbonate (Plexiglas) glazings that have yellowed and are scratched or cracked.

The west wall of the gymnasium contains approximately 700 square feet of translucent fiberglass wall panels. The panels include small operable sashes with translucent panel glazings. The translucent panels are different than the curtain wall systems in that the panels are not transparent and are covered with fiberglass facers which enclose approximately 2 ½” of translucent fiberglass insulation. The panels allow filtered light to flood the gymnasium while providing relatively good thermal performance and improved vandal resistance.

There are a total of 19 sets of double exterior doors and 5 single exterior doors at this school, and 15 sets of double doors and 2 single doors are included in the scope of the project.

### **Proposed Scope**

The scope of work includes: the removal of existing steel frame curtain wall systems throughout the building, including in one-story and two-story classroom areas, one-story office and hallway areas, and miscellaneous single window units at mechanical and locker room areas; the removal of translucent panels at the gymnasium area; and, the removal of exterior doors within the various window wall areas that cannot be separated from the curtain wall system, including the main entrances, bus entrances, and hallway exits.

The scope of work also includes the installation of a new, thermally broken aluminum curtain wall system, with low-e tinted glass and insulated panels. Insulated panels shall be used on the exterior side of the CMU kneewall, and will incorporate new louvers for the existing unit-ventilators. The work will also include the installation of new translucent panels in the gymnasium area, the installation of new doors where existing within the window wall system, and the installation of the new entrance doors which will be coordinated with the School Department to allow them to concurrently install new security components.

### **Conclusion**

Based on an evaluation of the information submitted by the District and its consultant, MSBA staff agrees with the District's recommendation to remove and replace the existing window systems with the installation of a new, thermally broken, aluminum window wall system at the Quinn Elementary School.

The District anticipates starting the project in June, 2010 with an estimated completion in September, 2010. The total cost of the project is estimated to be \$1,358,304 and the recommended MSBA grant would be approximately \$647,096 based on a reimbursement rate of 47.64%. These amounts are subject to adjustments based on the bid results and an audit of the costs incurred.

James Quinn Elementary School Windows = Approx. 22,000 square feet Total facility = 121,923 square feet	District's Proposed Total Project Budget	Basis of Total Facilities Grant
Total Project Budget:	\$1,358,304	\$1,358,304
Project Cost per square foot	\$61.74	\$61.74
Total Construction Budget	\$1,108,220	\$1,108,220
Construction Contingency	\$110,822	\$110,822
Construction Cost per square foot*	\$50.37	\$50.37
Reimbursement Rate		47.64%
Total Facilities Grant		\$647,096

\* Does not include Construction Contingency