

District: Town of North Reading
 School Name: North Reading High School
 Recommended Category: Preferred Schematic
 Date: September 21, 2011

Recommendation

That the Executive Director be authorized to approve the Town of North Reading, as part of its Invitation to Feasibility Study, to proceed into schematic design for an addition/renovation project at the existing Middle School to create a new, integrated Middle/High School serving grades 6-12 that would replace the existing High School. MSBA staff have reviewed the Feasibility Study and accept the District's preferred solution for the construction of a new integrated Middle/High School with a renovation and addition to the Middle School.

District Information	
District Name	Town of North Reading
Elementary School(s)	E. Ethel Little Elementary School (Pre-K-5) J. Turner Hood Elementary School (Pre-K-5) L.D. Batchelder Elementary School (K-5)
Middle School(s)	North Reading Middle School (6-8)
High School(s)	North Reading High School (9-12)
Priority School Name	North Reading High School
Type of School	High School
Grades Served	9-12
Year Opened	1955
Total Square Footage	110,000
Additions	Two 850 sf modular classrooms added in 2003 and six 900 sf modular classrooms added in 2004
Acreage of Site	42.5 acres
Building Issues	<p>The District noted the following deficiencies in both the High School and the Middle School:</p> <ul style="list-style-type: none"> - Envelope - Interior and exterior doors - Mechanical systems - Electrical systems - Roof - Accessibility <p>The District reported the following additional deficiencies in the High School:</p> <ul style="list-style-type: none"> - Plumbing systems - Life safety systems <p>In addition to physical plant issues, the District reported overcrowding and that the facilities do not support its educational</p>

District Information	
	program.
Original Design Capacity	Unknown. In 1989, the High School was renovated based on a design enrollment of 540 students.
2010-2011 Enrollment	Middle School: 622 High School: 708
Agreed Upon Enrollment	Agreed upon enrollment for grades 9-12: 740 Agreed upon enrollment for grades 6-12: 1,370
Enrollment Specifics	Contingent upon the Board of Director's approval of the preferred solution, the District will sign a Design Enrollment Certification of 1,370 students for a 6-12 facility.

MSBA Board Votes	
Invitation to Feasibility Study	November 18, 2009
Preferred Schematic Authorization	September 28, 2011
Project Scope & Budget Authorization	District is targeting Board authorization in January, 2012
Reimbursement Rate Before Incentives	45.11%

Consultants	
Owner's Project Manager	PMA Consultants
Designer	Dore & Whittier Architects, Inc.

Discussion

The existing North Reading High School, the District's prioritized Statement of Interest, was originally a 110,000 square-foot, one-story building built in 1955. The District subsequently added a total of eight modular classrooms to the school. The school is built at multiple levels that follow the contours of the site. The changes in elevation throughout the building resulted in numerous ramps, many of which do not meet current accessibility standards. While the building is well-maintained, many of the original classrooms are inadequately sized, and the building systems have outlasted their life expectancy.

The existing North Reading Middle School is located on the same site as the High School. The two buildings are separated by a significant elevation change with the Middle School being located on a hill well above the High School. The site quickly drops off adjacent to the Middle School, and there is no on-site access between the two schools. The Middle School is a well-maintained, 93,000 square-foot, one- and two-story building built in 1964. The facility includes 10 modular classrooms.

A Feasibility Study performed by Dore & Whittier Architects, Inc. in 2006 determined that the existing High School building was not a suitable candidate for renovations and additions and that new construction was the most appropriate solution for the following reasons:

- The existing building is located on an area of the site that is prone to flooding and is known to have a relatively high water table. Retrofitting the existing building to address the flooding and associated issues with water infiltration, indoor air quality, and mold growth would require extensive investigation and repair.
- The building is overcrowded. Many of the existing classroom spaces are as much as 30% below current MSBA guidelines for space. Several modular units are being utilized to provide core academic and cafeteria space.
- The existing building's location on the site does not lend well to expansion. Site shape and terrain as well as a recently constructed turf field create limited space adjacent to the existing facility.
- The structural design of the existing building does not provide capacity for vertical expansion.
- The existing building systems have reached the end of their useful life and need to be replaced.
- The existing building is constructed on a slope. Numerous interior ramps follow the contour of the hill and create slopes well above current accessibility standards.

As part of the newly completed Feasibility Study, and in conjunction with the design team, the District performed a comprehensive assessment of the existing conditions and the existing educational program of North Reading Middle School and North Reading High School, receiving input from educators, administrators, community members, and facilities personnel. Based on the findings of this effort, the District and its design team submitted three viable options to the MSBA. The three options are summarized as follows:

- Option 1 – This option includes a new stand alone High School and new stand alone Middle School on the same site as the existing buildings;
- Option 2 – This option includes a new stand alone High School on the same site in conjunction with a renovation/addition at the existing Middle School, that would bring the building within code compliance, address building deficiencies, and update programming space needs as identified in the submitted space summary; and
- Option 3 – This option includes an integrated Middle/High School that would involve a renovation of the existing Middle School in conjunction with the addition of a new, connected High School that utilizes shared core facilities.

Based upon the estimated costs and evaluation summarized in Table 1, the District and its Designer determined that the most cost-effective solution that meets the District's educational needs and priorities is Option 3.

Table 1 – Summary of Preliminary Design Pricing

Option (Description)	Total Gross Square Feet	Square Feet of Renovated Space (cost*/sf)	Square Feet of New* Construction (cost*/sf)	Site, Building takedown, Haz Mat. Cost*	Estimated Total Construction (cost*/sf)	Estimated Project Costs
Option 1						
Option 1A – New Stand Alone High School	181,035	N/A	181,035 (\$264/sf)	\$8,576,353	\$56,387,696 (\$311/sf)	\$67,358,667
Option 1B – New Stand Alone Middle School	121,807	N/A	121,807 (\$262/sf)	\$5,542,959	\$37,405,233 (\$307/sf)	\$44,885,233
Option 1 Total					\$93,792,929	\$112,243,900
Option 2						
Option 2A – New Stand Alone High School	181,035	N/A	181,035 (\$264/sf)	\$8,576,353	\$56,387,696 (\$311/sf)	\$67,358,667
Option 2B – add/reno at existing Middle School	121,807	81,989	39,818 (\$252/sf)	\$1,730,700	\$30,579,671 (\$251/sf)	\$36,707,671
Option 2 Total					\$86,967,367	\$104,066,338
Option 3** - District's Preferred Option						
Option 3 – Renovated Middle School and New High School w/ Shared Core Facilities	269,592	81,989	187,603 (\$263/sf)	\$12,027,558	\$80,135,081 (\$297/sf)	\$96,179,081

* *Marked up construction costs*

** *Preferred Option*

The District has selected a new integrated Middle/High School, Option 3, as the preferred solution to proceed into schematic design. The District has determined that Option 3 best meets the needs of the District's educational program and proposes to produce an energy-efficient facility that addresses the deficiencies identified in the Statement of Interest. The efficiencies gained by utilizing shared core facilities and limited classroom space between the Middle and High School populations, while maintaining appropriate separation where required, contribute to the savings when compared to separate projects.

MSBA staff reviewed and discussed the options and corresponding space summaries with the District and the Designer to better understand which educational program is most beneficial and efficient for the Town of North Reading in accordance with MSBA guidelines. After review, MSBA staff accept the Designer's Feasibility Study submission that identifies the options that have been explored on behalf of the District and the preferred solution selected by the District.

MSBA staff reviewed the conclusions of the Feasibility Study, all subsequent submittals, and the enrollment data with the District and found:

- 1) All initial paperwork required has been processed, including an executed Initial Compliance Certification, the composition of the School Building Committee, and the enrollment information.
- 2) MSBA has completed an enrollment projection and has reached a mutual agreement with the District for a design enrollment of 1,370 students for the new Middle/High School.
- 3) MSBA reviewed the Feasibility Study and subsequent material and finds that the options investigated were sufficiently comprehensive in scope, the approach undertaken in this study was appropriate, and the District's preferred solution is reasonable and cost effective and meets the needs identified by the District.
- 4) An operational budget for educational objectives and a capital budget have been submitted to the MSBA for review.
- 5) The District's schematic design submittal will be subject to final review and approval by the Department of Elementary and Secondary Education as part of the schematic design submittal prior to a Project Scope and Budget Agreement.

Based on the review outlined above, staff recommend that the Town of North Reading be approved to proceed into schematic design for an addition/renovation project at the existing Middle School to create a new, integrated Middle/High School serving grades 6-12 that would replace the existing North Reading High School.