

District: Town of West Bridgewater
 School Name: West Bridgewater Middle-Senior High School
 Recommended Category: Preferred Schematic
 Date: January 18, 2012

Recommendation

That the Executive Director be authorized to approve the West Bridgewater School District, as part of its Invitation to Feasibility Study, to proceed into schematic design to replace the existing West Bridgewater Middle-Senior High School with a new building to be located on the existing site. MSBA staff has reviewed the Feasibility Study and accepts the District's preferred solution to replace the existing school with the construction of a new West Bridgewater Middle-Senior High School.

District Information	
District Name	Town of West Bridgewater
Elementary School(s)	Howard Elementary School (4-6) Rose L. Macdonald Elementary School (1-3) Spring Street School (PK-K)
Middle School(s)	none
High School(s)	West Bridgewater Middle-Senior High School (7-12)
Priority School Name	West Bridgewater Middle-Senior High School
Type of School	Middle-Senior High School
Grades Served	7-12
Year Opened	1951
Total Square Footage	105,480
Additions	Two additions: one in 1971 of 20,000 gross square feet and a second in 2002 of 2,000 gross square feet
Acreage of Site	21.2 acres
Building Issues	The District identified deficiencies in the following areas: <ul style="list-style-type: none"> - Building envelope - Structural systems (seismic upgrades needed) - M, E, P, FP systems - Security systems - Roofing assemblies - Accessibility In addition to the physical plant issues, the District has reported that several spaces are too small to deliver its desired educational program.
Original Design Capacity	Unknown
2010-2011 Enrollment	599
Agreed Upon Enrollment	625
Enrollment Specifics	The District and MSBA have mutually agreed upon a design enrollment of 625 students serving grades 7-12.

MSBA Board Votes	
Invitation to Feasibility Study	September 28, 2010
Preferred Schematic Authorization	January 25, 2012
Project Scope & Budget Authorization	District is targeting Board authorization on June 6, 2012
Reimbursement Rate Before Incentives	49.74%

Consultants	
Owner's Project Manager	Strategic Building Solutions, LLC
Designer	Flansburgh Architects

Discussion

The existing West Bridgewater Middle-Senior High School is a 105,480 square-foot facility located on a relatively flat, gently-sloping 21-acre site adjacent to residential properties and undeveloped woodland. The existing facility currently houses the District's grade 7-12 population. The District's Spring Street School is also located on the site.

The original facility was built in 1951 with minor additions in 1971 and 2000. While the existing facility has been well-maintained and is structurally sound, the major building systems and roof have reached the end of their useful life and are in need of replacement and/or major repair and upgrade. In addition to the issues with the major building systems, the exterior walls of the existing building lack proper insulation necessary to provide appropriate energy efficiency. Generally, the majority of the existing spaces, including classrooms and science labs, are undersized compared to MSBA guidelines and affect the ability to deliver the District's current educational programs. Additionally, interior finishes, while well-maintained, are outdated and in the event of replacement of building systems will require replacement or refinishing. Initially, due primarily to budget concerns, the District's goal was to evaluate options with limited scope that would resolve the current conditions while maintaining the existing building.

In September of 2011, the MSBA entered into a Feasibility Study Agreement with the District to further investigate the issues stated above and to evaluate potential options that would address the needs of the West Bridgewater Middle-Senior High School.

In conjunction with the design team, the District performed a comprehensive assessment of the existing conditions and the educational program and received input from educators, administrators, and facilities personnel. Based on the findings of this effort, the District and its design team initially studied seven preliminary options, including three addition/renovation options, three new construction options, and one no-build deferred maintenance, code upgrade option. The following is a detailed list of the preliminary alternatives considered:

Option	Description
1	Addition/ Renovation – Full renovation of existing; new addition of 37,000 sf; no demolition
2	Addition/ Renovation – Demolition of 28,000 sf; renovation of existing 77,000 sf; new addition of 65,000 sf
3	Addition/ Renovation – Demolition of 39,000 sf; renovation of existing 65,000 sf; new addition of 76,000 sf
4	New Construction – 143,000 sf new building located on existing baseball fields; full demolition of existing building
5	New Construction – 143,000 sf new building located on existing football field; full demolition of existing building
6	New Construction (Alt. site) – New 7-12 Middle-Senior HS on alternative site
7	No-build – Renovations and code upgrades of existing Middle-Senior HS. No demolition or additions

Early in the Feasibility Study process it was apparent that the extensive level of work required in a renovation and addition project would cost nearly as much as new construction, and new construction options should be evaluated further. Also, the District determined, and MSBA staff agreed, that Option 6 and Option 7 were not viable options to be considered further. Although the alternative site associated with Option 6 exceeds twenty-acres, the site has limited access, the land is within the Town watershed zone, most of the land is wet and unsuitable for construction, and the buildable area is too small to accommodate a new school and playing fields. Option 7 does not resolve any of the educational space needs associated with the existing facility and renovations would still be required to maintain an operational facility.

Through discussion with MSBA staff and further District evaluation of the preliminary alternatives, the District presented a modified list of alternatives and preliminary design pricing. Below is a summary of the preliminary design pricing of the options considered for further evaluation. The District’s preferred alternative is Option 5, construction of a new facility on the football field.

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 Total Project Costs
Option 1 – Add/reno (no demo, full reno of exist, minimal new additions)	142,469	105,480 \$266.63/sf	36,989 \$329.03/sf	\$5,225,888	\$45,519,758 \$319.51/sf	\$59,000,000
Option 2 – Add/reno (some demo w/ less reno of existing & more addition)	142,469	77,200 \$253.80/sf	65,269 \$313.24/sf	\$5,594,102	\$45,632,204 \$320.30/sf	\$59,300,000

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 Total Project Costs
Option 3 – Add/reno (most demo w/ least reno & most new)	142,469	66,469 \$276.38/sf	76,000 \$284.83/sf	\$5,641,320	\$45,659,355 \$320.49/sf	\$59,400,000
Option 4 (New construction on existing ball fields – demo existing bldg)	142,464	0 \$0/sf	142,464 \$285.26/sf	\$6,755,412	\$47,394,256 \$332.68/sf	\$61,600,000
Option 5 *** (New Building on football field - demo existing bldg)	142,464	0	142,464 \$284.81/sf	\$8,492,804	\$49,068,146 \$344.42/sf	\$63,800,000

* Marked up construction costs

** Does not include construction contingency

*** **District's preferred solution**

Through further evaluation of the alternatives listed in Table 1, the District and its design team determined that replacing the existing West Bridgewater Middle-Senior High School with a new school serving grades 7-12, be located on the site, is a cost-effective option that meets the needs of the District's educational program.

The addition and renovation options that were evaluated would resolve current building issues, meet the educational needs of the District, and potentially result in a lower project cost. However, the estimated cost of Option 4 results in a very narrow margin of cost between the addition renovation options and new construction. Realizing the opportunity to construct a new facility at a potentially slightly higher cost, rather than perform extensive seismic upgrades, insulate the existing exterior walls, and replace all major building systems, the District is submitting new construction as its preferred solution, and MSBA staff accepts the District's preferred solution for a new school.

The District's preference of Option 5 versus Option 4 is due mainly to the proposed location of the new school on the site, with Option 5 offering more flexibility during construction. The proposed orientation of Option 4 is also less desirable given that the main entrance of the building would not face West Center Street, the main entrance to the site.

Option 5 is similar to Option 4 but is rotated 90 degrees so the proposed main entrance faces West Center Street. The proposed new building will be located in the area of the existing football field. New playing fields are proposed to be developed following the demolition of the existing Middle-High School. Addressing concerns of the existing site conditions in the areas of the proposed building, the design team proposes to raise the ground elevation three to four feet to meet the elevation of the existing school and coordinate design of a potential storm water management system. The District understands that more site work is associated with Option 5 versus Option 4 therefore resulting in more site cost that will be considered ineligible for MSBA reimbursement.

MSBA staff have 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 certification.
- 2) MSBA has completed an enrollment projection and has reached a mutual agreement with the District for a design enrollment of 625 students for the proposed new West Bridgewater Middle-Senior High School.
- 3) MSBA reviewed the Feasibility Study and subsequent material and found 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.
- 6) The MSBA will participate in a project that includes space that meets MSBA guidelines.

Based on the review outlined above, staff recommends that the Town of West Bridgewater be approved to proceed into schematic design to replace the existing West Bridgewater Middle-Senior High School with a new Middle- Senior High School that meets MSBA guidelines on the existing site.