

District: Town of Braintree
 School Name: East Middle School
 Recommended Category: Preferred Schematic
 Date: February 8, 2017

Recommendation

That the Executive Director be authorized to approve the Town of Braintree, as part of its Invitation to Feasibility Study, to proceed into Schematic Design for an addition and renovation project at the East Middle School. MSBA staff has reviewed the Feasibility Study and accepts the District’s preferred solution.

District Information	
District Name	Town of Braintree
Elementary Schools	Monatiquot Kindergarten Center (K) Archie T. Morrison School (K-5) Donald Ross School (K-5) Highlands School (K-5) Hollis School (K-5) Liberty School (1-5) Mary E. Flaherty School (K-5)
Middle Schools	East Middle School (6-8) South Middle School (6-8)
High School	Braintree High School (PK, 9-12)
Priority School Name	East Middle School
Type of School	Middle School
Grades Served	6-8
Year Opened	1961
Existing Square Footage	106,761
Additions	N/A
Acreage of Site	46 acres
Building Issues	The District identified deficiencies in the following areas: <ul style="list-style-type: none"> - Mechanical systems - Electrical systems - Plumbing systems - Envelope - Roof In addition to the physical plant issues, the District reported that the existing facility does not support the delivery of its educational program, as well as existing and projected overcrowding.
Original Design Capacity	Unknown
2015-2016 Enrollment	770
Agreed Upon Enrollment	Study Enrollment includes the following configurations: 890 students in grades 6-8 1,180 students in grades 5-8 (Preferred Solution)
Enrollment Specifics	Contingent upon the Board’s approval of the Preferred Solution, the District will sign a Design Enrollment Certification for 1,180 students in grades 5-8.

District Information	
MSBA Board Votes	
Invitation to Eligibility Period	November 20, 2013
Invitation to Feasibility Study	June 4, 2014
Re-Categorization from Feasibility Study to Eligibility Period	January 27, 2016
Re-Categorization from Eligibility Period to Feasibility Study	July 20, 2016
Amendment to Feasibility Study Agreement	November 9, 2016
Preferred Schematic Authorization	On February 15, 2017 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on June 28, 2017
Feasibility Study Reimbursement Rate (Incentive points are not applicable)	50.58%

Consultants	
Owner's Project Manager (the "OPM")	Hill International, Inc.
Designer	Miller Dyer Spears, Inc.

Discussion

The existing East Middle School is a 106,761 square foot building located on a 46 acre site that currently serves students in grades 6-8. The original school building was constructed in 1961, with an elevator addition completed in 1999.

The District identified numerous deficiencies in the Statement of Interest, including severe overcrowding and space constraints inhibiting the District's ability to deliver its educational program, issues with mechanical and electrical systems, lack of a fire protection system, and presence of asbestos containing floor tiles.

Initially, the District proposed a renovation within the footprint of the existing building. However, during the early stages of the Feasibility Study the District suggested expanding the proposed scope of the Study to review options that include additions to the existing facility and a grade reconfiguration to include 5th grade students in the proposed project. The District noted that exploring these options could be beneficial in addressing overcrowding in its elementary and middle schools. Subsequently, the MSBA agreed with the District's request to expand its Feasibility Study scope, and on January 27, 2016, the MSBA Board of Directors voted to re-categorize the proposed project back into the Eligibility Period.

Subsequently, the District: updated its Educational Profile, enrollment projections, project schedule, and Initial Compliance Certification; confirmed that its existing consultant procurements remain valid; and secured additional funding sufficient for the increased scope of work. On July 20, 2016, the MSBA Board of Directors voted to re-categorize the Statement of Interest for the East Middle School in the Town of Braintree from Eligibility Period back to an Invitation to Feasibility Study and provide the District with the opportunity to proceed with the expanded scope of the Feasibility Study and schematic design to include a more extensive investigation of addition/renovation options for a potential solution serving 890 students in grades 6-8 or 1,180 students in grades 5-8.

In conjunction with its consultants, 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 consultants initially studied five preliminary options that included a base repair option, three addition/renovation configurations, and a new construction option. The following is a detailed list of the preliminary alternatives considered.

Option	Description of Preliminary Options
R1	Renovation of the existing facility (Grades 6-8; 890 students)
N1	A new school built on the existing East Middle school site or another site in Braintree (Grades 5-8; 1,180 students)
RA-1	Addition/renovation at the East Middle School - with second gym & major auditorium renovation (Grades 5-8; 1,180 students)
RA-2	Addition/renovation at the East Middle School - with second gym & major auditorium renovation removed from the scope (Grades 5-8; 1,180 students)
RA-3	Addition/renovation at the East Middle School - with second gym & major auditorium renovation removed from the scope (Grades 6-8; 890 students)

Upon further review, MSBA staff and the District agreed to further develop and consider all five options in the final evaluation and development of preliminary design pricing as presented below.

Summary of Preliminary Design Pricing for Final Evaluation of Options

Option (Description)	Total Gross Square Feet	Square Feet of Renovated Space (cost*/sq. ft.)	Square Feet of New Construction (cost*/sq. ft.)	Site, Building Takedown, Haz Mat. Cost*	Estimated Total Construction ** (cost*/sq. ft.)	Estimated Total Project Costs
Option R1: Renovation	111,091	111,091 \$285/sq. ft.	N/A	\$4,563,455	\$36,274,810 \$327/sq. ft.	\$44,462,934
Option N1: New Construction	201,493	N/A	201,493 \$423/sq. ft.	\$13,561,931	\$98,884,971 \$491/sq. ft.	\$119,676,267
Option RA-1***: Addition & Renovation	181,233	71,971 \$269/sq. ft.	109,262 \$376/sq. ft.	\$7,472,319	\$67,869,363 \$375/sq. ft.	\$83,143,498
Option RA-2: Addition & Renovation	181,040	71,579 \$277/sq. ft.	109,471 \$366/sq. ft.	\$7,735,573	\$67,693,591 \$374/sq. ft.	\$82,936,087
Option RA-3: Addition & Renovation	183,529	111,090 \$268/sq. ft.	72,439 \$364/sq. ft.	\$7,735,573	\$67,338,800 \$367/sq. ft.	\$81,801,434

* Marked up construction costs

** Does not include construction contingency

***District's preferred option

The District has selected "Option RA-1," an addition and renovation project to serve 1,180 students in Grades 5-8, as the preferred solution to proceed into Schematic Design. "Option RA-1" represents the District's desire to deliver its educational program within an existing, renovated

facility with distinct 5-6 and 7-8 “Academies” with a Media Commons at the core of the school. The District has stated that the preferred option addresses the deficiencies associated with the existing conditions at a significantly lower estimated project cost when compared to the “New Construction” option. In addition, ‘Option RA-1’ will allow the District to deliver its desired educational program with the least amount of disruption to the site and allows the playing fields to be in use during the proposed construction period.

Although “Option RA-2” and “Option RA-3” would produce similar results, “Option RA-2” did not improve the existing building circulation and fulfill the District’s aspiration to define the Media Commons as the core of the school. “Option RA-3” was eliminated because it also did not improve the existing building circulation. In addition, this option presented a physical barrier between the parking areas and the playing fields and did not maximize the site area for expanded parking.

The base repair “Option R-1” has a lower estimated construction cost, however, it was eliminated because it would not address the overcrowding in the East Middle School or the other Braintree Schools, and the other options explored address both issues. “Option N1” was eliminated because of significantly higher costs compared to the addition and renovation options. In addition, a new construction option would disrupt the use of the site’s playing fields for up to three years.

The Preferred Option will include a district-wide grade reconfiguration. Grade 5 students from the Morrison, Ross, Flaherty and Hollis Elementary Schools will attend the East Middle School, and students from the remaining two schools, Highlands and Liberty Elementary Schools, will attend the South Middle School. All six of the District’s neighborhood elementary schools will serve grades 1-4, with four of those elementary schools housing one full-day session of kindergarten. The majority of the District’s kindergarten students will continue to attend the Monatiquot Kindergarten Center. Preschool students will remain at the Preschool Center based at the Braintree High School, and students in grades 9-12 will continue to attend Braintree High School.

The District presented its proposed project to the MSBA Facilities Assessment Subcommittee (“FAS”) on January 18, 2017. At that meeting, members of the FAS discussed several topics including: size and organization of classrooms; location, layout and means of egress for science classrooms; the possibility of sinks in lower grade project and science classrooms; maintenance of the courtyard; professional development for teachers; and the phasing of the project.

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

- 1) The options investigated are sufficiently comprehensive in scope, the approach undertaken in this study is appropriate, and the District’s preferred solution is reasonable and cost-effective and meets the needs identified by the District.
- 2) The District has submitted an operational budget for educational objectives and a capital budget for MSBA review.
- 3) 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.

- 4) Subject to Board approval, the MSBA will participate in a project that includes spaces that meet MSBA guidelines, with the exception of variations previously agreed to by the MSBA. All proposed spaces will be reviewed during the Schematic Design phase.
- 5) As part of the Schematic Design phase, the MSBA will continue to work with the District to better understand the total area associated with health and physical education and how the space serves the student population and the renovation of the existing facility.
- 6) In the early stages of Schematic Design, the MSBA will continue to work with the District to: better understand the overall organization of classrooms in the facility, better understand the opportunities to disperse the science labs rather than having them clustered in the addition, better understand the flexibility to organize the school in different configurations with grades teamed in building wings and/or by floor, and to verify that the proposed organization aligns with the educational needs as documented by the District.

Based on the review outlined above, staff recommends that the Town of Braintree be approved to proceed into Schematic Design for an addition and renovation project to the East Middle School.