



East Bridgewater School Committee: Comprehensive School District Feasibility Study

8 Conclusions & Recommendations



5/21/2007

Architecture

Conclusions and Recommendations

EAST BRIDGEWATER HIGH SCHOOL

The existing East Bridgewater High School is a very poor environment for delivering 21st Century education. It is in very poor physical condition and lacks most of the educational amenities associated with modern high school facilities. Repeated peer and accreditation reviews of the East Bridgewater High School have all yielded the same result: the facility is an extremely poor environment for educational delivery. The MSBA review of this facility ranked it in the lowest 2% of all public school facilities in Massachusetts. It was awarded the lowest possible score as part of the MSBA evaluation. The reports herein draw the same conclusion.

The High School is a 1957 facility with a 1975 4-story addition, occupied by approximately 680 students in a 160,542 square foot facility. The High School facility is also used to accommodate a portion of the Kindergarten program and the Central Administration offices. Based on its current use and the available square feet, the existing High School is (physically) capable of accommodating approximately 750 students. However, its age, physical condition, and lack of modern 21st Century educational program space and amenities make it a poor facility for high school education.

With the exception of the membrane roofing, the High School has not received any significant capital improvements in the last five years. Most of the building systems (Electrical, Mechanical, Plumbing, Waste Water Management, Building Envelope, Windows, etc.) have exceeded their life expectancy. These systems cannot continue to perform without major capital improvement projects dedicated to the replacement of the Retrofitting modern code-compliant and energy-efficient systems into the existing aged facility will be an expensive proposition. The exterior masonry exhibits signs of significant failure and therefore costly remediation will be required. (See structural and architectural report).

There are many factors that make the High School a difficult and expensive renovation project:

- 1. Age of facility warrants complete and comprehensive replacement of systems including selective demolition.
- 2. Asbestos and hazardous materials abatement costs.
- 3. Inefficient layout. An "all new" facility would be smaller, more compact, and more efficient.
- 4. Poor educational layout. There have been many advancements (since 1957

- and 1975 respectively) in our understanding of how organizational layout impacts the educational environment. It would be impossible to reorganize the existing building and give it the same advantages that could be provided in an "all new" facility.
- 5. Lack of modern educational program space.
- 6. Lack of energy efficiency. All of the exterior envelope (roof, walls, windows, etc.) will have to be significantly modified to comply with the current energy code.
- 7. Phased construction will be required in order to allow the school department to continue use of the building during renovations. This will extend the construction period and increase costs.
- 8. Extremely poor condition of exterior masonry and poor (1975) construction techniques utilized.

Ultimately, in order to determine the viability of renovating and modernizing the existing High School facility, the cost of such a project was compared to the cost of an "all new" facility. The results show that the construction of a new building would be:

- -Less expensive
- -Less disruptive to students/staff
- -More energy efficient
- -More educationally sound
- -More functional and better organized
- -Less costly to maintain
- -Completed in less time
- -An improvement to the Town Center

The site analysis indicates that a new High School could be constructed on the existing High School site without disrupting the continued operation of the existing High School. This would be an ideal approach because it would allow the existing High School to remain in service as a "Swing Space" (after the new High School is complete) during future renovations and expansions at the Elementary School. Ultimately, the existing High School could be demolished and the area it currently occupies could be converted to "Green Space" including playfields.

We recommend that the existing High School be replaced with an "all new" high school facility located on the existing high school site and that the entire site containing the High School, Central Elementary School, and other Town buildings be master planned to enhance the overall aesthetics and functionality of the "Town Center". This would include the development of additional "Green Space", sidewalks, vehicle

circulation paths, and pedestrian gathering areas.

CENTRAL ELEMENTARY SCHOOL

The existing Central Elementary School is **EXTREMELY overcrowded.** Based on its physical size and core facilities, the existing Central Elementary School is capable of accommodating approximately 450 students. With current enrollments exceeding 800 students, this facility is extremely overcrowded. All available space has been converted to classrooms, regardless of its adequacy or intended purpose. Additionally, modular/temporary classrooms have been added. These temporary solutions compromise the overall educational environment, and permanent solutions should be adopted and implemented as quickly as possible. Enrollment projections indicate that there will be continued growth within the next 10 years. Although the current problems were not driven by rapid increases in enrollment, projections indicate that there will be continued and steady enrollment growth in East Bridgewater. If housing growth continues, enrollments are projected to increase approximately 7% (200 students) over the next 10 years. Even if housing growth stops entirely, enrollment projections show that enrollment will be steady and there will be no relief to the current overcrowding conditions at the Elementary School.

The original 1949 structure is in good overall condition. The structure is located near Central Street and presents a very attractive façade that citizens identify as one of the focal points of East Bridgewater's "Town Center." The structure has an original slate roof that has been very well maintained. The roof structure is in good condition. The classroom windows have been recently replaced along with all the gutters and downspouts. The adaptable organization and good condition of the original 1949 building, combined with the significant amount of additional space required at the Elementary School, make this building a good candidate for renovation and expansion. A review of preliminary options suggests that the 3-story 1949 structure should be preserved and fully renovated. The 1965 structure, which is a lesser quality construction and does not lend itself to renovation and expansion, should be removed and replaced with a larger, state-of-the-art educational space that would be sized to accept the year 2016/17 projected enrollments.

DISTRICT-WIDE SCHOOL PLANNING

The recently completed middle school has sufficient capacity to handle the middle school population for the foreseeable future and therefore is not proposed to receive any modifications as part of this feasibility study. However, as part of the school-wide Master Plan, the High School and Central Elementary School should be completed in sequence. A new High School should be completed on available school property near the existing High School, remaining within the Town Center. The existing High School should then serve as a "Swingspace" during the renovation and expansion of the existing Central Elementary School. After the renovation and expansion of the existing Central Elementary School, the existing High School facility can be demolished and converted to playfields and Town "Green Space". The close proximity of these two schools, combined with their current "Prime" location within the Town Center make these two projects complimentary and allow them to fit nicely within an overall