

District: City of Quincy
 School Name: Squantum Elementary School
 Recommended Category: Preferred Schematic
 Date: February 21, 2024

Recommendation

That the Executive Director be authorized to approve the City of Quincy (the “District”), as part of its Invitation to Feasibility Study, to proceed into Schematic Design for an addition and renovation project at the Squantum Elementary School serving students in kindergarten through grade 5 on the existing site. MSBA staff has reviewed the Feasibility Study and accepts the District’s Preferred Schematic.

Please note, the District’s Preferred Schematic includes the installation of subsurface geothermal facilities, temporary parking, and temporary use of the site as a construction lay down area on the adjacent park, which is subject to Article 97. If the District is approved by the Board to proceed into Schematic Design for this proposed project, and then is later considered by the Board for approval of a Project Scope and Budget Agreement and a Project Funding Agreement, the vote to approve a Project Scope and Budget Agreement and a Project Funding Agreement may be contingent upon the District satisfying all MSBA land ownership and control requirements, and any environmental approvals for the proposed site, unless these conditions are met prior to such vote.

District Information	
District Name	City of Quincy
Elementary School(s)	Amelio Della Chiesa Early Childhood Center (PK) Atherton Hough Elementary School (K-5) Beechwood Knoll Elementary School (K-5) Charles A. Bernazzani Elementary School (K-5) Clifford Marshall Elementary School (K-4) Francis W. Parker Elementary School (K-5) Lincoln Hancock Community School (K-4) Merrymount Elementary School(K-5) Montclair Elementary School (K-5) Snug Harbor Community School (PK-5) Squantum Elementary School(K-5) Wollaston Elementary School (K-5)
Middle School(s)	Atlantic Middle School (6-8) Broad Meadows Middle School (6-8) Central Middle School (6-8) Point Webster Middle School (PK, 5-8) South West Middle School (5-8)
High School(s)	North Quincy High School (9-12, SP) Quincy High School (9-12)
Priority School Name	Squantum Elementary School
Type of School	Elementary School
Grades Served	K-5
Year Opened	1919

District Information	
Existing Square Footage	45,043
Additions	1949 – gymnasium, additional classrooms 1971 – media center, additional classrooms (most recent renovation)
Acreage of Site	3.06 acres
Building Issues	The District identified deficiencies in the following areas: <ul style="list-style-type: none"> – Structural integrity – Mechanical systems – Electrical systems – Envelope – Windows – Roof In addition to the physical plant issues, the District reported that the existing facility does not support the delivery of its educational program.
Original Design Capacity	Unknown
2023-2024 Enrollment	360
Agreed Upon Enrollment	380
Enrollment Specifics	The District and MSBA have mutually agreed upon a design enrollment of 380 students serving grades K-5.
Total Project Budget – Debt Exclusion Anticipated	No

MSBA Board Votes	
Invitation to Eligibility Period	April 14, 2021
Invitation to Feasibility Study	April 27, 2022
Preferred Schematic Authorization	On February 28, 2024 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on August 28, 2024
Feasibility Study Reimbursement Rate (Incentive points are not applicable)	57.57%

Consultants	
Owner’s Project Manager (the “OPM”)	PCA360, LLC
Designer	Arrowstreet, Inc.

Discussion

The existing Squantum Elementary School is a 45,043 square-foot facility located on a 3.06-acre site, that currently serves students in kindergarten through grade 5. The original school building was constructed in 1919, with an addition in 1949 that included the gym and a classroom wing, as well as an addition in 1971 that added a media center and additional classrooms. In 2012, the District replaced 8,100 square-feet of asphalt shingle roofing.

The District’s Statement of Interest (“SOI”) identifies deficiencies in the existing facility associated with outdated mechanical, electrical, and plumbing systems; building envelope;

accessibility issues; and deficiencies in existing spaces deemed incapable for appropriately delivering the District’s educational program.

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 ten (10) preliminary options including: one (1) code upgrade option, seven (7) addition/renovation options, and two (2) new construction options. The following is a detailed list of the preliminary options considered.

Option	Description of Preliminary Options
Option A.1	Code upgrade/base repair at the existing Quantum Elementary School with an estimated total construction cost of \$32.5 million and an estimated total project cost of \$42.3 million exclusive of \$3.6 million for temporary modular classrooms.
Option B.1	Addition/renovation (2-wings) at the existing Quantum Elementary School that maintains the 1949 gym wing and the original 1919 façade, demolishes the 1949 and 1971 classroom additions, and builds new classrooms arranged along the park edge. This option has an estimated construction cost of \$70.9 million and an estimated total project cost of \$92 million.
Option B.2	Addition/renovation (2-wings) at the existing Quantum Elementary School that maintains a portion of the 1949 gym wing and the original 1919 façade, demolishes the 1949 and 1971 classroom additions, and builds new classrooms running north/south through the middle of the site. This option has an estimated construction cost of \$71.5 million and an estimated total project cost of \$93.9 million.
Option C.1	Addition/renovation (1-wing) at the existing Quantum Elementary School that maintains the whole 1919 building and demolish 1949 gym and 1971 classroom additions. The new classroom wing will run north/south on the left side of the site along Mayflower Road. This option has an estimated construction cost of \$70.5 million and an estimated total project cost of \$92.7 million.
Option C.1A	Addition/renovation (1-wing) design scheme is same as option C.1. The only difference between option C.1 and C.1A is alternative phasing strategies. This option has an estimated construction cost of \$71.4 million and an estimated total project cost of \$89.2 million.
Option C.2	Addition/renovation (1-wing) at the existing Quantum Elementary School that renovates the front half of the 1919 façade with the new enclosed courtyard. This option has an estimated construction cost of \$82.2 million and an estimated total project cost of \$106.9 million exclusive of \$3.9 million for temporary modular classrooms.
Option C.3	Addition/renovation (1-wing) at the existing Quantum Elementary School that renovates front half of the 1919 building with a new two-story gym connected to a single-story loading and custodial and a two-story classroom wing running through east/west at the right side of the site along park avenue. This option has an estimated construction cost of \$73.2 million and an estimated total project cost of \$92.2 million.

Option C.4	Addition/renovation (1-wing) at the existing Squantum Elementary School that renovates and retains the original 1919 building with new addition at the back of the 1919 building for new classrooms running east-west along the park avenue. This option has an estimated construction cost of \$72.5 million and an estimated total project cost of \$94.3 million.
Option D.1	New construction on the existing Squantum Elementary School site with the existing school remaining in operation. This option has an estimated construction cost of \$71.4 million and an estimated total project cost of \$90 million.
Option D.2	New construction on the existing Squantum Elementary School site with relocating the entire school population to a mobile classroom set up on the parkland. This option has an estimated construction cost of \$78.4 million and an estimated total project cost of \$101.9 million exclusive of \$3.9 million for temporary modular classrooms.

As a result of this analysis, the District determined that all ten (10) options would be considered for further evaluation. However, subsequent to the evaluation of preliminary options, the District determined that “Option B.1 and B.2” would not be considered for further evaluation because of the challenges associated with retaining the 1949 gymnasium and the associated floor level, which made navigating the grade to the park side of the site challenging. Additionally, the existing building has limited windows and glazing, and the District indicated that inserting a new opening would require significant structural interventions. The District also indicated that these options do not provide the District’s desired educational adjacencies.

The District determined that “Option C.1 and C.1A” would not be considered for further evaluation because the District indicated the proposed location of the courtyard in each of these options resulted in security concerns associated with having an open unsecured outdoor space.

The District determined that “Option C.3” would not be considered for further evaluation because the linear building form was less desirable to the District and concerns regarding the construction phasing and extended construction schedule. Additionally, the District noted security concerns associated with the proposed location of the courtyard.

The District preferred the public wing location and the enclosed courtyard associated with a modified version of “Option C.2” therefore “Option C.4” was eliminated from further consideration.

The District determined that “Option D.1” would not be considered for further evaluation because of the site constraints resulted in a long and narrow building layout, which does not support the goals of the educational program. Additionally, the District indicated this option would have a significant impact to ongoing education.

MSBA staff and the District agreed to explore the following three (3) options for further development and consideration in the final evaluation and development of preliminary design pricing as presented below, including: one (1) code upgrade option, one (1) addition/renovation option, and one (1) new construction option.

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 A.1: (Base Repair/ Code Upgrade)	45,043	45,043 \$616/sq. ft.	N/A	\$4,794,133	\$32,544,968 \$723/sq. ft.	\$42,308,458
Option C.2: (Addition/ Renovation)***	82,197	4,974 \$892/sq. ft.	77,223 \$792/sq. ft.	\$16,666,798	\$82,262,229 \$1,001/sq. ft.	\$106,940,898
Option D.2: (New Construction)	80,981	N/A	80,981 \$757/sq. ft.	\$17,134,295	\$78,409,641 \$968/sq. ft.	\$101,932,533

* Marked up construction costs

** Does not include construction contingency

*****District's Preferred Schematic**

The District has selected "Option C.2" as its Preferred Schematic to proceed into Schematic Design as the District has determined that this option best meets the needs of the District's educational program. The proposed design preserves and renovates the original 1919 building and façade, creates a new U-shaped construction with a secure internal outdoor courtyard. The arrangement of the spaces around the outdoor courtyard strengthens the organization of programmed spaces and consolidates the proposed public spaces. Additionally, this option reduces the number of construction phases.

"Option A.1" was not selected by the District because the facility will not meet the needs of the District's educational program. The District indicated that this option was not considered a viable solution and was carried forward for cost comparative purposes.

"Option D.2" was not selected by the District because this option does not preserve the historic 1919 façade, raised security concerns associated with the proposed gathering spaces on the park side of the school, and requires the use of modular classroom school on the adjacent park.

The District presented its proposed Preferred Schematic to the MSBA Facilities Assessment Subcommittee ("FAS") on January 31, 2024. At that meeting, members of the FAS discussed the following items: appreciation for the District's educational program; opportunities to include elements of world language instruction as part of day to day curriculum; considerations associated with courtyard maintenance and opportunities for outdoor learning; sheltered access to the building for individuals with limited mobility; providing all students with equal access to musical instruments and technology; variations to MSBA space guidelines; the historic significance of the existing 1919 building; architectural features of the historic 1919 façade and opportunities to further distinguish the main entrance; development of the overall building massing as the design progresses; site circulation and topography; sustainability considerations for achieving net-zero goals; the proposed location of geothermal wells on the adjacent parkland subject to Article 97; incorporation of a resiliency hub for short term community use in the event of severe weather; project cost and associated cost drivers; and, location of the proposed mechanical room below grade.

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

- 1) The options investigated were sufficiently comprehensive in scope, the approach undertaken in this study was appropriate, and the District's Preferred Schematic 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 statement for MSBA review.
- 3) The District's Special Education submission will be subject to final review and approval by the Department of Elementary and Secondary Education as part of the Schematic Design submittal, which is prior to executing 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, except for 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) As part of the Schematic Design phase, the District will work with the MSBA to determine a mutually agreeable methodology to differentiate eligible costs from ineligible costs.

Based on the review outlined above, staff recommends that the City of Quincy be approved to proceed into Schematic Design for an addition and renovation project at the Squantum Elementary School serving students in kindergarten through grade 5 on the existing site. If the District is approved by the Board to proceed into Schematic Design for this proposed project, and then is later considered by the Board for approval of a Project Scope and Budget Agreement and a Project Funding Agreement, the vote to approve a Project Scope and Budget Agreement and a Project Funding Agreement may be contingent upon the District satisfying all MSBA land ownership and control requirements, and any environmental approvals for the proposed site, unless these conditions are met prior to such vote.