

District: Town of Reading  
 School Name: J. Warren Killam Elementary School  
 Recommended Category: Preferred Schematic  
 Date: October 23, 2024

**Recommendation**

That the Executive Director be authorized to approve the Town of Reading (the “District”), as part of its Invitation to Feasibility Study, to proceed into Schematic Design to replace the existing J. Warren Killam Elementary School and construct a new facility serving students in kindergarten through grade 5, plus pre-kindergarten on the site of the existing facility. MSBA staff has reviewed the Feasibility Study and accepts the District’s Preferred Schematic.

<b>District Information</b>	
District Name	Town of Reading
Elementary School(s)	RISE Preschool (PK) Alice M. Barrows Elementary (K-5) Birch Meadow Elementary (K-5) J. Warren Killam Elementary (K-5) Joshua Eaton Elementary (K-5) Wood End Elementary (K-5)
Middle School(s)	Arthur W. Coolidge Middle (6-8) Walter S. Parker Middle (6-8)
High School(s)	Reading Memorial High (9-12)
Priority School Name	J. Warren Killam Elementary School
Type of School	Elementary School
Grades Served	K-5
Year Opened	1969
Existing Square Footage	60,558
Additions	2016: (2) 1,100 sq ft modular units added for Kindergarten
Acreage of Site	7.28-acres
Building Issues	The District identified deficiencies in the following areas: <ul style="list-style-type: none"> <li>– Mechanical systems</li> <li>– Electrical systems</li> <li>– Plumbing systems</li> <li>– Envelope</li> <li>– Windows</li> <li>– Roof</li> <li>– Accessibility</li> </ul> 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	368 students
2023-2024 Enrollment	406 students
Agreed Upon Enrollment	455 students
Enrollment Specifics	The District and MSBA have mutually agreed upon a design enrollment of 455 students serving grades K-5, plus pre-kindergarten

<b>District Information</b>	
Total Project Budget – Debt Exclusion Anticipated	Yes

<b>MSBA Board Votes</b>	
Invitation to Eligibility Period	March 2, 2022
Invitation to Feasibility Study	March 1, 2023
Preferred Schematic Authorization	On October 30, 2024 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on April 30, 2025
Feasibility Study Reimbursement Rate (Incentive points are not applicable)	45.95%

<b>Consultants</b>	
Owner’s Project Manager (the “OPM”)	Colliers Project Leaders NE, LLC
Designer	LaVallee Brensinger Architects

## Discussion

The existing J. Warren Killam Elementary School is a 60,558 square-foot facility located on a 7.28-acre site, currently serving students in kindergarten through grade 5 with partial Pre-Kindergarten program. The original building was constructed in 1969, with two modular classrooms installed in 2016.

The District’s Statement of Interest (“SOP”) identified numerous deficiencies in the existing facility associated with outdated mechanical, electrical, and plumbing systems; building envelope; and deficiencies in existing spaces that are deemed incapable of appropriately delivering the District’s educational program. Furthermore, the size and quantity of the existing educational spaces and support spaces do not support the delivery of the District’s educational program.

In conjunction with its consultants, the District performed a comprehensive assessment of the existing conditions and the educational program, receiving 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/base repair option, two (2) addition/renovation options, and seven (7) new construction options. The following is a detailed list of the preliminary options considered:

<b>Option</b>	<b>Description of Preliminary Options</b>
Code Upgrade	Code Upgrade/Base Repair for grades K-5, with partial Pre-K program, with an enrollment of 455 students at the existing J. Warren Killam Elementary School; with an estimated project cost of \$52 million.
Option A-1	Addition/Renovation (3-story addition with full Pre-K) for grades K-5, with an enrollment of 455 students at the existing J. Warren Killam Elementary School, and with full Pre-K program of 180 students; with an estimated project cost of \$144 million.
Option A-2	Addition/Renovation (2-story addition with partial Pre-K) for grades K-5, with an enrollment of 455 students at the existing J. Warren Killam Elementary School and with partial Pre-K program for 60 students; with an estimated project cost of \$129 million.

Option B-1	New Construction for grades K-5 (3-story, Compact Option, with full Pre-K), with an enrollment of 455 students at the existing J. Warren Killam Elementary School site, and with full Pre-K program for 180 students; with an estimated project cost of \$140 million.
Option B-2	New Construction for grades K-5 (2-story, Compact Option with partial Pre-K), with an enrollment of 455 students at the existing J. Warren Killam Elementary School site, and with partial Pre-K program for 60 students; with an estimated project cost of \$122 million.
Option C-1	New Construction for grades K-5 (2-story with full Pre-K and parking on the north-west of the site), with an enrollment of 455 students at the existing J. Warren Killam Elementary School site, and with full Pre-K program for 180 students; with an estimated project cost of \$138 million.
Option C-2	New Construction for grades K-5 (2-story, with partial Pre-K and parking on the north-west of the site), with partial Pre-K program, with an enrollment of 455 students at the existing J. Warren Killam Elementary School site, and with partial Pre-K program for 60 students; with an estimated project cost of \$122 million.
Option D-1	New Construction for grades K-5 (2-story with full Pre-K and optimal solar orientation option), with an enrollment of 455 students at the existing J. Warren Killam Elementary School site, and with full Pre-K program for 180 students; with an estimated project cost of \$141 million.
Option D-2	New Construction for grades K-5 (2-story with partial Pre-K and optimal solar orientation option), with an enrollment of 455 students at the existing J. Warren Killam Elementary School site and with partial Pre-K program for 60 students; with an estimated project cost of \$125 million.
Option E-1	New Construction for grades K-5 (2-story with full Pre-K and playgrounds wrapped around academic wings), with an enrollment of 455 students at the existing J. Warren Killam Elementary School site, and with full Pre-K program for 180 students; with an estimated project cost of \$139 million.

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 “Options A-2, B-2, C-2, and D-2” would not be considered for further evaluation as the District determined that options that include full pre-K enrollment were preferred, and these options do not provide optimal spaces for education due to the deep floorplate and many spaces resulting insufficient access to daylight.

Additionally, and subsequent to the evaluation of preliminary options, the District determined that “Option C-1, D-1, and E-1”, would not be considered for further evaluation because the District determined that a two-story building results in a less-effective approach given the building constraints of the existing site, and the larger footprint would likely result in challenges associated with constructability and bus and service access during construction.

As part of the process for further evaluation of options, the District also developed a new option referred to as “Option E-2”, which is an improvement of “Option E-1”, 3-story new construction facility that prioritized creating a floor plan that is optimal for solar orientation and educational space adjacencies, with classrooms organized in well-defined grade-level pods.

Upon further review, MSBA staff and the District agreed to explore the following four (4) options for further development and consideration in the final evaluation and development of preliminary design

pricing, as presented below, including: one (1) code upgrade/base repair option, one (1) addition/renovation option, and two (2) new construction options.

### 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 – Base Repair	60,558	60,558 \$518/sq. ft.	N/A	\$7,837,178	\$39,188,055 \$647/sq. ft.	\$61,040,847
Option A-1: Addition/Renovation	122,941	33,000 \$669/sq. ft.	89,941 \$787/sq. ft.	\$17,232,424	\$110,087,038 \$895/sq. ft.	\$139,199,009
<b>Option B-1: *** New Construction (Compact)</b>	<b>122,941</b>	N/A	<b>122,941 \$737/sq. ft.</b>	<b>\$17,073,784</b>	<b>\$107,745,230 \$876/sq. ft.</b>	<b>\$135,519,992</b>
Option E-2:**** New Construction	122,941	N/A	122,941 \$743/sq. ft.	\$17,224,833	\$108,614,255 \$883/sq. ft.	\$136,527,990

\* Marked up construction costs

\*\* Does not include construction contingency

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

\*\*\*\* Does not include cost associated with swing space

The District has selected “Option B-1” as its Preferred Schematic to proceed into Schematic Design as the District has determined that this option is anticipated to result in an energy-efficient and cost-effective facility that will meet the District’s educational program. Additionally, the District indicated this option is designed with a compact footprint that proposes to maximize site area required for construction and site access during demolition of the existing facility and for the development of the proposed sitework. Additionally, the District determined that this option proposes to maximize the desired distance from the proposed building location to Haverhill Street, which is anticipated to better fit the building massing and location into the neighborhood context.

“Option A” was not selected by the District because the square footage of the existing facility does not accommodate the spatial needs of the District’s design enrollment and educational program and is anticipated to result in undesirable and significant disruption to ongoing education during construction.

Although “Option A-1” results in an overall square footage sufficient enough to accommodate the design enrollment, this option was not selected by the District because it is considered spatially inefficient, and more expensive than the new construction options for the same program. It will not be as energy efficient or easy to maintain as an all-new school. Additionally, this option results in a large single story building footprint, and provides insufficient area for site development, including desired playfields and sufficient parking.

Although “Option E-2” is anticipated to result in a desired three-story building sufficient enough to accommodate the design enrollment and support the delivery of the District’s educational program, this

option was not selected by the District because this option proposes to construct the new building on the footprint of the existing school. As such, the required demolition of the existing building and relocation of students into temporary swing space was not preferred by the District as this scenario would result in increased cost and significant disruption to ongoing education during construction.

The District presented its proposed Preferred Schematic to the MSBA Facilities Assessment Subcommittee (“FAS”) on Wednesday, September 11, 2024. At that meeting, members of the FAS discussed the following items: Appreciation of the Educational Program and opportunities to use it as a comprehensive resource for future reference; distribution of special education spaces and DESE review process; suggestion to consider a moveable partition between two classrooms in each grade level neighborhood for additional flexibility; appreciation for the building layout and compact footprint; separation of the Pre-K RISE Program and opportunities to develop landscaping in the associated outdoor play area; accessibility and opportunities for input from a local commission on disabilities, if available; traffic study considerations and site circulation; proposed parking spaces and locations as well as opportunities to reduce parking and increase green space if possible; site constraints, building massing, and orientation; the view of the building upon approach and consideration of materials to further define the main entry; and project schedule considerations including permitting requirements, review of geothermal wells, potential use of early packages, duration of construction and demolition as well as logistics associated with a Fall move-in date.

- 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 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 recommend that the Town of Reading be approved to proceed into Schematic Design to replace the existing J. Warren Killam Elementary School and construct a new facility serving students in kindergarten through grade 5, plus pre-kindergarten on the site of the existing facility.