District: Town of Millis
School Name: Millis Middle/High School
Recommended Category: Preferred Schematic
Date: April 23, 2025

Recommendation

That the Executive Director be authorized to approve the Town of Millis (the "District"), as part of its Invitation to Feasibility Study, to proceed into Schematic Design for an addition and renovation project at the Millis Middle/High School facility serving students in grades 6-12. MSBA staff has reviewed the Feasibility Study and accepts the District's Preferred Schematic.

District Information	
District Name	Town of Millis
Elementary School(s)	Clyde F. Brown Elementary (PK-5)
Middle School(s)	Millis Middle (6-8)
High School(s)	Millis High (9-12)
Priority School Name	Millis Middle/High School
Type of School	Middle/High School
Grades Served	6-12
Year Opened	1960
Existing Square Footage	121,200
Additions	1966: addition of 24 classrooms and increase in cafeteria and locker rooms
Acreage of Site	21 acres
Building Issues	The District identified deficiencies in the following areas: – Mechanical systems – Electrical systems – Plumbing systems – 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 as well as existing and projected overcrowding.
Original Design Capacity	Unknown
2024-2025 Enrollment	553 students
Agreed Upon Enrollment	645 students
Enrollment Specifics	The District and MSBA have mutually agreed upon design enrollment of 645 students serving grades 6-12.
Total Project Budget – Debt Exclusion Anticipated	Yes

MSBA Board Votes	
Invitation to Eligibility Period	March 2, 2022
Invitation to Feasibility Study	March 1, 2023

Preferred Schematic Authorization	On April 30, 2025 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on October 29, 2025
Feasibility Study Reimbursement Rate (Incentive points are not applicable)	53.53%

Consultants	
Owner's Project Manager (the "OPM")	The Vertex Companies, LLC
Designer	Tappe Architects

Discussion

The existing Millis Middle/High School is a 121,200 square-foot facility located on a 21-acre site. The existing facility currently serves students in grades 6-12 and was originally constructed in 1960, with an addition completed in 1966.

The District's Statement of Interest ("SOI") identified numerous deficiencies in the existing facility, including outdated mechanical, electrical, and plumbing systems; windows, and roof; overcrowding; undersized classrooms and science classrooms, lack of STEAM classrooms and deficiencies in existing spaces that are deemed incapable of 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 nine (9) preliminary options that included one (1) code upgrade option, five (5) addition/renovation options, and three (3) new construction options. The following is a detailed list of the preliminary options considered.

Option	**Description of Preliminary Options**
Option R1	Code upgrade at the existing Millis Middle/High School facility with an estimated total construction cost of $77 million and an estimated total project cost of $103 million.
Option AR1	Addition/renovation at the existing Millis Middle/High School facility, which proposes a 2-story media addition into the courtyard and a STEAM classroom addition on the south side of the existing school. This option has an estimated total construction cost of $100-$111 million and an estimated total project cost of $132-$147 million.
Option AR2	Addition/renovation at the existing Millis Middle/High School facility, which proposes a limited addition of STEAM classrooms on the first floor and high school science on the second floor. This option has an estimated total construction cost of $104-$115 million and an estimated total project cost of $138-$152 million.
Option AR3	Addition/renovation at the existing Millis Middle/High School facility, which proposes a separate middle school addition on the south side of the existing building. This option has an estimated total construction cost of $103-$114 million and an estimated total project cost of $136-$151 million.
Option AR4	Addition/renovation at the existing Millis Middle/High School facility, which proposes a separate middle school addition and replacement of gym and

	cafeteria. This option has an estimated total construction cost of $105-$116 million and an estimated total project cost of $139-$154 million.
Option AR4a	Addition/renovation at the existing Millis Middle/High School facility, which proposes a separate middle school addition and the replacement of gym. This option has an estimated total construction cost of $100-$111 million and an estimated total project cost of $133-$147 million.
Option N1	New construction of a 2-story facility located on the existing athletic field of the Millis Middle/High School site. This option has an estimated total construction cost of $116-$125 million and an estimated total project cost of $150-$162 million.
Option N2	New construction of a 2-story facility located on the existing building footprint of the Millis Middle/High School. (Please note this option has the same floor plan as Option N1 but requires temporary relocation of students.) This option has an estimated total construction cost of $111-$121 million and an estimated total project cost of $174-$187 million.
Option N3	New construction of a 3-story facility located on the existing Millis Middle/ High School site. This option has an estimated total construction cost of $113-$122 million and an estimated total project cost of $146-$158 million.

As a result of this analysis, the District determined that "Option AR2" would not be considered for further evaluation because this option would require modular classrooms during the occupied phased construction. Additionally, this option would result in all middle school programs being located on the first floor and all high school programs being located on the second floor, which would result in longer academic travel distances for students. Additionally, this option results in an undersized gym and no alternative physical education space.

The District determined that "Option N2" would not be considered for further evaluation because this option is proposed to be built in the same location as the existing school facility, which would require students to be relocated off site during construction, and the District was not able to identify a suitable location for swing space to accommodate the entire student population. Additionally, the District indicated the estimated cost associated with this option was not viewed favorably.

The District determined that "Option N3" would not be considered for further evaluation because this option results in a 3-story building, which was not preferred by the District. Additionally, this option would require partial demolition of the existing school, and the construction logistics for this option were anticipated to be very complex with very limited area to work. Additionally, the District indicated the estimated cost associated with this option was not viewed favorably.

Following the evaluation of preliminary options, the District determined that "Option AR3" would not be considered for further evaluation because this option isolates the middle school wing resulting in long travel distances to shared spaces. Additionally, this option results in an undersized gym and no alternative physical education space.

The District determined that "Option AR4" would not be considered for further evaluation because the proposed configuration results in a gymnasium location that is not adjacent to the locker rooms.

Following the initial evaluation of the options described above, the District further developed "Option AR1" which became known as "Option AR5" in the subsequent evaluation of options.

Furthermore, the District introduced/developed three additional options referred to as "Option R2", "Option R3", and "Option AR6".

MSBA staff and the District agreed to explore the following seven (7) options for further development and consideration in the final evaluation and development of preliminary design pricing as presented below, including: two (2) code upgrade options, one (1) renovation option, three (3) addition/ renovation options, 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 R1 (Code Upgrade)	121,200	121,200 $418/sf. ft.	N/A	$3,266,700	$53,933,148 $445/sf. ft.	$76,000,000
Option R2 (Code Upgrade)	121,200	121,200 $435/sf. ft.	N/A	$3,257,200	$55,925,872 $461/sf. ft.	$79,700,000
Option R3 (Renovation)	121,200	121,200 $475/sf. ft.	N/A	$3,423,515	$61,021,391 $503/sf. ft.	$87,000,000
Option AR4a (Addition/ Renovation with a New Middle School Wing)***	***150,000***	***98,075 $508/sf. ft.***	***51,925 $699/sf. ft.***	***$12,028,730***	***$98,191,856 $655/sf. ft.***	***$127,400,000***
Option AR5 (Addition/ Renovation with a New Multi-Use Science Wing)	136,100	121,200 $502/sf. ft.	14,900 $777/sf. ft.	$10,806,399	$83,240,047 $612/sf. ft.	$109,700,000
Option AR6 (Addition/ renovation with a Multi-Use Science Space and New Gym)	134,200	121,200 $496/sf. ft.	13,000 $880/sf. ft.	$12,164,600	$83,705,646 $624/sf. ft.	$111,400,000
Option N1 (New Construction on the existing site)	150,000	N/A	150,000 $697/sf. ft.	$20,483,141	$125,006,141 $833/sf. ft.	$165,200,000

** Marked up construction costs*
*** Does not include construction contingency*
******District's Preferred Schematic***

The District selected "Option AR4a" as the Preferred Schematic to proceed into Schematic Design as the District determined this option is the most efficient and cost-effective approach to resolve the challenges identified in the educational program while addressing space needs and building system deficiencies. This option retains the majority of the existing facility while constructing a new 2-story classroom wing dedicated to the middle school and includes the construction of a new gymnasium. The

District indicated this option anticipates reducing travel distances and offers opportunity to develop an entirely dedicated middle school learning environment separate from the high school academic wing.

"Options R1, R2, and R3" were not selected by the District because these options do not offer the District additional program space to meet the goals of the educational program. Additionally, the District indicated these options do not meet the goal of providing a distinct and separate middle school environment. In addition, these options would result in the need for modular classrooms during construction which was not favored by the District.

Although "Option AR5" proposes new STEAM spaces, this option was not selected by the District because this option does not create a distinct middle school environment and does not address many of the programmatic deficiencies within the existing building.

Although "Option AR6" proposes a new gym and expanded STEAM classrooms, this option was not selected by the District because this option does not create a distinct middle school environment and does not address many of the programmatic deficiencies within the existing building.

Although "Option N1" meets the goals of the District's educational program, this option was not selected by the District mainly due to the high estimated project cost as well as the unfavorable disruption anticipated with construction of a new school on the existing athletic fields.

The District presented its proposed Preferred Schematic to the MSBA Facilities Assessment Subcommittee ("FAS") on March 12, 2025. At that meeting, members of the FAS discussed the following items: appreciation of the District's Educational Program and how it has informed the design; distribution of Special Education spaces and DESE review process; importance of monitoring costs as the project progresses; clarification of the hierarchy of building entrances and proposed use of the visitor and public entries; exterior character and view of the proposed building upon approach; opportunity to further define an interior gathering space for students at the high school entrance; indoor/outdoor connections and courtyard access for adjacent programs including art and science; constraints associated with renovation of the existing building; designing spaces for maximum flexibility; community outreach and support; proposed areas for potential future building expansion; courtyard landscaping and maintenance considerations; opportunities to enhance the building envelope; and, future selection of a construction delivery method.

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 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 Town of Millis be approved to proceed into Schematic Design for an addition and renovation project at the Millis Middle/High School facility serving students in grades 6-12.