

District: Town of Norwood
 School Name: Dr. Philip O. Coakley Middle School
 Recommended Category: Preferred Schematic
 Date: August 18, 2021

Recommendation

That the Executive Director be authorized to approve the Town of Norwood (the “District”), as part of its Invitation to Feasibility Study, to proceed into Schematic Design to replace the Dr. Philip O. Coakley Middle School with a new facility serving students in grades 5-8 on the existing site. MSBA staff has reviewed the Feasibility Study and accepts the District’s Preferred Schematic.

District Information	
District Name	Town of Norwood
Elementary School(s)	Thomas Balch Elementary School (1-5) Charles J. Prescott Elementary School (K-5) Cornelius M. Callahan Elementary School (1-5) F. A. Cleveland Elementary School (1-5) George F. Willett Pre-K School (PK-K) John P. Oldman Elementary School (1-5)
Middle School(s)	Dr. Philip O. Coakley Middle School (6-8)
High School(s)	Norwood High School (9-12)
Priority School Name	Dr. Philip O. Coakley Middle School
Type of School	Middle School
Grades Served	6-8
Year Opened	1972
Existing Square Footage	128,000
Additions	Four modular classrooms added in 2005 Two modular classrooms added in 2006
Acreage of Site	69 acres
Building Issues	The District identified deficiencies in the following areas: <ul style="list-style-type: none"> – Electrical systems – Plumbing systems – Envelope – Windows – Roof – Accessibility 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
2020-2021 Enrollment	718
Agreed Upon Enrollment	Study Enrollment includes the following configurations: <ul style="list-style-type: none"> – 800 students, grade configuration 6-8 – 1,070 students, grade configuration 5-8 (Preferred Schematic)

District Information	
Enrollment Specifics	Contingent upon the Board’s approval of the Preferred Schematic, the District will sign a Design Enrollment Certification for 1,070 students in grades 5-8.
Total Project Budget – Debt Exclusion Anticipated	Yes

MSBA Board Votes	
Invitation to Eligibility Period	December 12, 2018
Invitation to Feasibility Study	February 13, 2020
Preferred Schematic Authorization	On August 25, 2021 Board agenda
Project Scope & Budget Authorization	District is targeting Board authorization on February 2022
Feasibility Study Reimbursement Rate (Incentive points are not applicable)	49.94%

Consultants	
Owner’s Project Manager (the “OPM”)	Compass Project Management, Inc.
Designer	Ai3 Architects LLC

Discussion

The existing Dr. Philip O. Coakley Middle School is a 128,000 square foot facility located on a 69-acre site that currently serves students in grades 6-8. The original school building was constructed in 1972, with (4) modular classrooms added in 2005 and (2) modular classrooms added in 2006. The roofing system was replaced in 2005 and the exterior windows were replaced in 2008. Additionally, the District replaced the auditorium heating and ventilation system in 2002. Also, the District replaced the lighting throughout the building, performed site work improvements, and added surveillance cameras and card access systems.

The District’s Statement of Interest (“SOI”) identified numerous deficiencies in the existing facility associated with the following: outdated mechanical, electrical, and plumbing systems; building envelope; accessibility issues; overcrowding; and existing spaces not conducive for delivering the District’s educational program.

As part of the Feasibility Study, the MSBA accepted the District’s request to explore options that included relocating grade 5 students into the middle school resulting in the following study design enrollments: 800 students in grades 6-8 and 1,070 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 (15) options at the Preliminary Design Program phase that included (1) code upgrade option, (2) addition/renovation options, and (12) new construction options, as presented below.

Option	Description of Preliminary Options
1	Code Upgrade for grades 6-8 with an enrollment of 800 students at the existing Coakley Middle School; with an estimated project cost of \$61.3 million.
2A.1	Addition/renovation for grades 6-8 at the existing Coakley Middle School, totaling 175,435 gsf; with an estimated project cost of \$136.6 million.
2A.2	Addition/renovation for grades 5-8 at the existing Coakley Middle School, totaling 208,318 gsf; with an estimated project cost of \$160.2 million.
3A.1	New Construction (3-story) for grades 6-8 at the existing Coakley Middle School site, totaling 150,060 gsf; with an estimated project of \$113.8 million.
3A.2	New Construction (4-story) for grades 5-8 at the existing Coakley Middle School site, totaling 185,890 gsf; with an estimated project cost of \$134.5 million.
3B.1	New Construction (2-story) for grades 6-8 at the existing Coakley Middle School site, totaling 150,060 gsf; with an estimated project cost of \$116.5 million.
3B.2	New Construction (2-story) for grades 5-8 at the existing Coakley Middle School site, totaling 185,890 gsf; with an estimated project cost of \$138.0 million.
3C.1	New Construction (2-story) for grades 6-8 at the existing Coakley Middle School site, totaling 150,060 gsf; with an estimated project cost of \$118.8 million.
3C.2	New Construction (2-story) for grades 5-8 at the existing Coakley Middle School site, totaling 185,890 gsf; with an estimated project cost of \$140.4 million
3D.1	New Construction (2-story) for grades 6-8 at the existing Coakley Middle School site, totaling 150,060 gsf; with an estimated project cost of \$116.5 million.
3D.2	New Construction (2-story) for grades 5-8 at the existing Coakley Middle School site, totaling 185,890 gsf; with an estimated project cost of \$138.0 million.
3E.1	New Construction (3-story) for grades 6-8 at the existing Coakley Middle School site, totaling 150,060 gsf; with an estimated project cost of \$113.8 million.
3E.2	New Construction (4-story) for grades 5-8 at the existing Coakley Middle School site, totaling 185,890 gsf; with an estimated project cost of \$134.5 million.
3F.1	New Construction (3-story) for grades 6-8 at the existing Coakley Middle School site, totaling 150,060 gsf; with an estimated project cost of \$113.8 million.
3F.2	New Construction (4-story) for grades 5-8 at the existing Coakley Middle School site, totaling 185,890 gsf; with an estimated project cost of \$134.5 million.

As a result of further analysis during the Preliminary Design Phase, the District determined that “Option 1” (Code Upgrade) would not be further considered as a viable solution because of the following reasons: it does not meet the needs of the District’s educational program; it would result in significant disruption to ongoing education during construction; and it does not address the existing overcrowding. This option has continued to be included for cost comparison purposes only and the District further evaluated all other preliminary options in the Preferred Schematic phase.

As part of the further evaluation of the aforementioned options in the Preferred Schematic phase, the District and design team performed a thorough review and evaluation of both the 800 and 1,070 student design enrollments, the associated design options, and cost impact to the Town. Also, the District evaluated the grade configuration from a district-wide perspective to evaluate the impact of the decision on a district level beyond just the financial cost.

The School Committee set up a series of School Committee meetings and two Community Forums throughout the Preferred Schematic phase which were dedicated to different aspects of the

proposed project including: impacts to the existing elementary schools, educational and social and emotional needs of 5th grade students; operational impact to the district; and the financial cost of both grade configurations.

In addition, the District determined that there are major benefits to the quality of education for the 5th grade and 6th grade students should the 5th grade move to the middle school level. These benefits include the added opportunities for 5th grade students regarding access to expanded offerings in foreign language, science, performing arts, and sports. Students in 6th grade would also benefit by creating an upper school (7th and 8th) and lower school (5th and 6th) model. The District has determined that this model provides more flexibility in age-appropriate programming, allows the students to spend four years in one school resulting in more continuity, and allows the staff to know the students better.

The District examined the cost of the necessary additional spaces needed in each elementary school to provide the space needed to support the educational plan if the 5th grade was to stay in the current elementary school configuration. The District determined that the necessary modular classrooms needed to support the current educational program for the 5th grade to stay in the current elementary schools would be more than the additional cost to add the 5th grade to the proposed middle school. Also, adding modular classrooms at the elementary schools would result in giving up space to much needed green space, parking, or other programmatic spaces in the current elementary schools.

Considering the educational impacts, operational change, and the financial cost combined, the District arrived at the unanimous decision for moving the 5th grade students into the proposed middle school.

Based on this analysis, options associated with a 1,070-student design enrollment for grades 5-8 were further evaluated. Although options associated with an 800-student design enrollment serving grades 6-8 will not be considered further, costs associated with “Option 2A.1” (grades 6-8 addition/renovation) and “Option 3A.1” (grades 6-8 new construction) are provided for cost comparison purposes. In addition, the District further determined that the following options associated with a 1,070-student design enrollment will not be considered for further evaluation:

- “Option 3C.2”, because it would result in significant disruption to ongoing education during construction.
- “Option 3D.2”, because the building footprint of this option is very large and encroaches on adjacent existing fields and goes beyond the buildable parcel.
- “Option 3E.2”, because the building footprint and layout of this option does not align with the buildable area of the site and encroaches on adjacent, no-build parcels. Additionally, the clustering of the public spaces does not provide adequate separation of the simultaneous use of public and educational spaces impacting delivery of the educational program.

It should be noted that based on evaluation of the options considered in the Preferred Schematic phase, the District subsequently included an additional option for evaluation, referred to as “Option 3H”. This option has been developed to investigate a more isolated academic neighborhood location in the building plan; it is, in essence, a hybrid of “Options 3A and 3D”.

This option created a 2-3 story front public zone, similar to “Option 3D”. The three academic neighborhoods are located to the north, configured in a 4-story arrangement similar to “Option 3A”, and have one grade level per floor.

The District explored the following (8) options for further development and consideration in the final evaluation and development of preliminary design pricing as presented below, including: (1) code upgrade option, (2) addition/renovation options, and (5) new construction options. Please note that “Options 1, 2A.1, and 3A.1” were not considered for further evaluation by the District; however, these options have been included for cost comparison purposes only.

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 1: Base Repair Grades 6-8	128,000	128,000 \$369/sq. ft.	N/A	\$8,837,334	\$56,097,587 \$438/sq. ft.	\$70,402,472
Option 2A.1: Addition/ Renovation Grades 6-8	175,435	78,414 \$375/sq. ft.	97,021 \$541/sq. ft.	\$14,174,590	\$96,013,382 \$547/sq. ft.	\$120,496,794
Option 2A.2: Addition/ Renovation Grades 5-8	208,318	78,414 \$375/sq. ft.	129,904 \$541/sq. ft.	\$14,174,590	\$113,790,885 \$546/sq. ft.	\$145,307,561
Option 3A.1: New Construction Grades 6-8	152,310	N/A	152,310 495/sq. ft.	\$13,709,429	\$89,130,295 \$585/sf. ft.	\$111,858,520
***Option 3A.2: New Construction Grades 5-8	187,840	N/A	187,840 \$484/sq. ft.	\$13,709,429	\$104,657,881 \$557/sq. ft.	\$131,345,641
Option 3B.2: New Construction Grades 5-8	187,840	N/A	187,840 \$483/sq. ft.	\$14,098,109	\$104,791,622 \$558/sq. ft.	\$131,513,486
Option 3F.2: New Construction Grades 5-8	187,840	N/A	187,840 \$480/sq. ft.	\$14,035,795	\$104,132,157 \$554/sq. ft.	\$130,685,857
Option 3H: New Construction Grades 5-8	187,840	N/A	187,840 \$481/sq. ft.	\$13,952,692	\$104,288,316 \$555/sq. ft.	\$130,881,837

* Marked up construction costs

** Does not include construction contingency

*****District’s Preferred Schematic**

The District has selected “Option 3A.2”, as its Preferred Schematic to proceed into Schematic Design. The District selected “Option 3A.2” because it best meets the needs of the District’s educational program, while minimizing the direct disturbances to ongoing education during construction. Additionally, this option takes advantage of being centrally located on the site, and the building orientation allows for added green/outdoor play space while maintaining optimal solar orientation for the classrooms.

“Option 1” was not considered a viable option by the District because it does not support the desired enrollment, does not meet the educational needs, and was only included for cost comparison purposes.

Although “Options 2A.1 and 3A.1” would support delivery of the District’s educational program for students in grades 6-8, these options were not selected by the District because these options do not align with the District’s preferred grade configuration.

“Option 2A.2” was not selected by the District because it is the most costly of the options explored and has the longest construction timeline. Additionally, this option would result in significant disruption to ongoing education during construction and the area required for the addition would take one existing athletic field offline without room for replication.

“Options 3B.2 and 3H” were not selected by the District because the building layout creates a larger ground floor footprint for these options that limits site circulation and the ability to efficiently fit the building within the buildable parcel. Additionally, the classroom organization does not break down each grade level into the desired smaller neighborhoods identified in the educational program. Also, the public spaces within “Option 3B.2” are located in the center of the building which does not support after hours community use of the building.

“Option 3F.2” was not selected by the District because this option does have the benefit of providing additional outdoor greenspace but ultimately the linear nature of this scheme pushes the footprint into the no-build parcel. The classroom neighborhoods in this option are better organized than “Option 3B.2” but still lack clear, identifiable neighborhoods.

The District presented its proposed Preferred Schematic to the MSBA Facilities Assessment Subcommittee (“FAS”) on July 21, 2021. At that meeting, members of the FAS discussed the following items: appreciation of the Educational Program and consideration of proposed changes to the District’s grade configuration; further development of the proposed floor plans; distribution of Special Education spaces and continued development of fully accessible spaces; the relationship between academic neighborhoods and student common areas; the location and adjacency of the art rooms to the auditorium; the location and use of two kitchen and dining areas; consideration of the number of sinks in the fifth grade classrooms to support project based learning; the building’s connection to outdoor spaces; the character and scale of the building from the street and upon approach; the site circulation and access to the building; the relationship to conservation property; and, the proposed sustainability goals.

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, 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) The MSBA requests that the District be available to present the updated Preferred Schematic to the Facilities Assessment Subcommittee should the MSBA determine that an updated presentation is required. This update would ensure a mutual understanding and agreement of the proposed project scope and ensure that this scope will be reflected in the District's Schematic Design submittal.
- 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 Town of Norwood be approved to proceed into Schematic Design to replace the existing Dr. Philip O. Coakley Middle School with a new facility serving students in grades 5-8 on the existing site.