RESPONSE TO MSBA PSR REVIEW

ATTACHMENT A MODULE 3 – PREFERRED SCHEMATIC REPORT REVIEW COMMENTS

District: Northeast Metropolitan Regional Vocational District

School: Northeast Metropolitan Regional Vocational Technical High School

Owner's Project Manager: PMA Consultants, LLC Designer Firm: Drummey Rosane Anderson, Inc.

Submittal Due Date: December 23, 2020

Submittal Received Date: December 23, 2020 Received: January 28, 2021

Review Date: December 23- January 25, 2021

Reviewed by: A. Alves, F. Bradley, C. Alles, J. Jumpe

Design Team Responses in RED BOLD

MSBA REVIEW COMMENTS

The following comments¹ on the Preferred Schematic Report submittal are issued pursuant to a review of the project submittal document for the proposed project presented as a part of the Feasibility Study submission in accordance with the MSBA Module 3 Guidelines.

3.3 PREFERRED SCHEMATIC REPORT

Overview of Preferred Schematic Submittal	Complete	Provided; Refer to comments following each section	Not Provided; Refer to comments following each section	Receipt of District's Response; To be filled out by MSBA Staff
OPM Certification of Completeness and Conformity	\boxtimes			
Table of Contents	\boxtimes			
3.3.1 Introduction		\boxtimes		
3.3.2 Evaluation of Existing Conditions		\boxtimes		
3.3.3 Final Evaluation of Alternatives		\boxtimes		
3.3.4 Preferred Solution		\boxtimes		
3.3.5 Local Actions and Approval Certification	\boxtimes			

The written comments provided by the MSBA are solely for purposes of determining whether the submittal documents, analysis process, proposed planning concept and any other design documents submitted for MSBA review appear consistent with the MSBA's guidelines and requirements, and are not for the purpose of determining whether the proposed design and its process may meet any legal requirements imposed by federal, state or local law, including, but not limited to, zoning ordinances and by-laws, environmental regulations, building codes, sanitary codes, safety codes and public procurement laws or for the purpose of determining whether the proposed design and process meet any applicable professional standard of care or any other standard of care. Project designers are obligated to implement detailed planning and technical review procedures to effect coordination of design criteria, buildability, and technical adequacy of project concepts. Each city, town and regional school district shall be solely responsible for ensuring that its project development concepts comply with all applicable provisions of federal, state, and local law. The MSBA recommends that each city, town and regional school district have its legal counsel review its development process and subsequent bid documents to ensure that it is in compliance with all provisions of federal, state and local law, prior to bidding. The MSBA shall not be responsible for any legal fees or costs of any kind that may be incurred by a city, town or regional school district in relation to MSBA requirements or the preparation and review of the project's planning process or plans and specifications.

3.3.1 INTRODUCTION

	Provide the following Items	Complete; No response required	Provided; District's response required	Not Provided; District's response required	Receipt of District's Response; To be filled out by MSBA Staff
1	Overview of the process undertaken since submittal				
	of the Preliminary Design Program that concludes				
	with submittal of the Preferred Schematic Report,				
	including any new information and changes to previously submitted information				
2	Summary of updated project schedule, including				
	a) Projected MSBA Board of Directors Meeting for approval of Project Scope and Budget Agreement	\boxtimes			
	b) Projected Town/City vote for Project Scope and Budget Agreement	\boxtimes			
	c) Anticipated start of construction	\boxtimes			
	d) Target move in date	\boxtimes			
3	Summary of the final evaluation of existing conditions		\boxtimes		
4	Summary of final evaluation of alternatives		\boxtimes		
5	Summary of District's preferred solution		\boxtimes		
6	A copy of the MSBA Preliminary Design Program project review and corresponding District response	\boxtimes			

MSBA Review Comments:

3) The information provided in this submittal indicates there have been no substantial changes to the evaluation of existing conditions information since the submission of the Preliminary Design Program. In response to these review comments, please confirm if any additional testing will be completed during the schematic design phase. Additional Geo-Technical investigation will be performed in the location of the proposed footprint and site development area. This investigation will include borings, test-pits, and groundwater observation wells.

Please note that all increase in project costs subsequent to a project scope and budget approval from the MSBA Board of Directors will be considered ineligible for reimbursement. Please acknowledge.

Acknowledged

- 4) The MSBA notes that the District's preferred schematic "Option 4C" was previously named "Option C.3" in the Preliminary Design Program submittal. In future submissions, please keep the option naming convention consistent throughout the duration of the feasibility and schematic design phases. Please acknowledge. Acknowledged
- 5) The District's preferred schematic includes an estimated construction cost per square foot of \$636 and an estimated total project cost of \$317.4 million. Although the MSBA recognizes the potential additional costs to construct a facility to support Chapter 74 programs; the MSBA encourages the District and its consultants to further review the site development and building cost for the proposed project, and where possible, adjust the proposed design to reduce costs in the subsequent schematic design phase of the Feasibility Study. Please acknowledge. Acknowledged

No further review comments for this section.

3.3.2 EVALUATION OF EXISTING CONDITIONS

	Provide the following Items	Complete; No response required	Provided; District's response required	Not Provided; District's response required	Receipt of District's Response; To be filled out by MSBA Staff
1	A narrative of any changes resulting from new information that informs the conclusions of the evaluation of the existing conditions and its impact on the final evaluation of alternatives		\boxtimes		
2	If changes are substantive, provide an updated Evaluation of Existing Conditions and identify as final. Identify additional testing that is recommended during future phases of the proposed project and indicate when the investigations and analysis will be completed	×			

MSBA Review Comments:

1) The proposed scope of this project includes blasting into a rock outcrop located in the undeveloped hillside area south of the existing school to create a flat building pad in an early site enabling phase. The site plans identify this area as wooded with a significant amount of ledge outcroppings. The MSBA notes the cost estimates provided indicate blasting and filling costs are in excess of 20% of the total site development cost. Per the MSBA's site allowance policy, site cost in excess of 8% of the direct building cost is considered ineligible for MSBA funding. In response to these review comments, please confirm that the design team has completed or scheduled all of the required site testing for the proposed project. During the Schematic Design phase, the design team will conduct additional Geo-Technical investigation in the location of the proposed footprint and site development area. This investigation will include borings, test-pits, and groundwater observation wells that will, among other things, aid in the fine-tuning of the earthwork and blasting costs.

Additionally, confirm that all potential site development costs have been included in the estimated total project budget. All site development costs have been included in the estimated total project budget.

Please note all increase in project costs subsequent to a Project Scope and Budget approval from MSBA Board of Directors will be considered ineligible for reimbursement. Please acknowledge.

Acknowledged

No further review comments for this section.

3.3.3 FINAL EVALUATION OF ALTERNATIVES

Include at least three potential alternatives, with at least one renovation and/or addition option. Include the following for each alternative where appropriate:

	Provide the following Items	Complete; No response required	Provided; District's response required	Not Provided; District's response required	Receipt of District's Response; To be filled out by MSBA Staff
1	An analysis of each prospective site including:				
	a) Natural site limitations	\boxtimes			
	b) Building footprint(s)	\boxtimes			
	c) Athletic fields	\boxtimes			
	d) Parking areas and drives	\boxtimes			
	e) Bus and parent drop-off areas	\boxtimes			
	f) Site access and surrounding site features.	\boxtimes			
2	Evaluation of the potential impact that construction of each option will have on students and measures recommended to mitigate impact		\boxtimes		
3	Conceptual architectural and site drawings that satisfy the requirements of the education program	\boxtimes			
4	An outline of the major building structural systems	\boxtimes			
5	The source, capacities, and method of obtaining all utilities		\boxtimes		
6	A narrative of the major building systems		\boxtimes		
7	A proposed total project budget and a construction cost estimate using the Uniformat II Elemental Classification format (to as much detail as the drawings and descriptions permit, but no less than Level 2)		×		
8	Permitting requirements and associated approval schedule		\boxtimes		
9	Proposed project design and construction schedule including consideration of phasing		\boxtimes		
10	Completed Table 1 – MSBA Summary of Preliminary Design Pricing spreadsheet		\boxtimes		

MSBA Review Comments:

- 2) As part of the schematic design documents, please provide further detail in narrative and graphic form that clearly describes and illustrates the separation, safety provisions, and possible construction laydown areas that will be applied during construction on the occupied site associated with the preferred schematic. Please acknowledge. Acknowledged
- 5) In response to these review comments, please confirm if the District is proposing Building-Level Energy Metering as part of the LEED requirements for the proposed project; and confirm if these meters will be integrated with the proposed Building Management System ("BMS"). It is intended that Building-Level Energy Metering will be provided as one of the LEED submission credits. These meters will be integrated with the Building Management System.

- 6) In response to these review comments, confirm that building and District maintenance personnel have been included in discussions regarding the selection and long-term operational and maintenance costs of the BMS and mechanical systems and that the training program will be coordinated with the District's facility staff and will include sufficient training hours to learn how to operate the building before the opening of the proposed school as well as hours post turnover. The design team is scheduled to review operations and maintenance of the building systems with facility maintenance personnel early in the schematic design phase. A training program will be included in the construction documents for pre- and post- occupancy training. The District's proposed operating budget includes an increased facility expense to address this staffing need.
- 7) In response to these review comments, confirm and provide additional information that demonstrates the long-term environmental benefits and financial impacts of the proposed building systems to the District's operating budget for the proposed project. Please provide a narrative that describes how the design team will balance complexity of these systems with the staff responsible for maintaining these facilities. The long-term environmental benefits and financial impacts of the proposed building systems will be developed during the schematic design phase, which will include a life-cycle cost estimate of the building systems. A preliminary allowance for utility operating expenses has been included in the District's projected operating budget. It is intended that building operations be simplified as much as possible from the facility operations perspective through an intuitive graphical programming interface with prioritized alarm notifications and easy access to system operating schedules. It is intended that ASHRAE G36 procedures be implemented in the programming of the building management system.

Additionally, provide a narrative that summarizes the District's internal and public outreach discussions regarding the assessment of the staffing and budget requirements that will be needed to maintain a future building approximately 160% larger than the existing facility. The District has prepared an estimated operating budget for the proposed new school that includes additional personnel, utility, and maintenance expenses based upon the larger building. This budget has been shared with members of the District School Committee which has representatives from each of the 12 member communities. This budget information will also be distributed individually to each member community's Finance Committee and Town Manager/ Mayor during this Spring's annual budget presentation in April. Also being communicated is the expectation that, as is usual, approximately 50% of the annual operating budget increase will be funded from the State according to the Chapter 70 formula, with the remaining 50% coming from the District's member communities.

8) The information provided in the project schedule indicates a determination of applicability of an Article 97 Land Disposition will be determined in the preferred schematic phase of the project. However, additional information associated with a "Land Swap" was not found in the submittal. In response to these review comments, please confirm if the proposed project will include an Article 97 Land Disposition, and/or if any existing easements will have to be modified as part of the proposed project. There are no activities related to Article 97 Land Dispositions or "land-swaps" anticipated for this project. Any references to Article 97 Land Dispositions were inserted as a "placeholder" and will be deleted prior to the Schematic Design submittal.

Please note the MSBA will not enter into a Project Funding Agreement with a District that fails to demonstrate full ownership, control, and exclusive use of the proposed site. This policy is enforced regardless if there is no proposed impact to the existing or proposed building footprint. Please acknowledge. Acknowledged

9) The information provided indicates the preferred schematic can be constructed in a single phase and will be located away from the existing building and without the need for temporary facilities. The MSBA notes that an early site preparation package is referenced and may be considered for the proposed project. Please note that if there are ineligible project costs associated with early packages these may be considered ineligible for reimbursement prior to the District reaching the site allowance cap and cost per square foot cap. In response to these review comments, please confirm the District's cash flow chart included with the schematic design will reflect any anticipated ineligible reimbursement costs for the District; and align with all early bid packages that may be scheduled. Confirmed and Acknowledged

10) The MSBA notes the square footage proposed in the preliminary pricing table included in section 3.3.3, does not align with the square footage proposed in the District's space summary template found in section 3.3.4b. (Refer to Attachment B for detail space summary comments). The areas of the proposed buildings (including out-buildings) will be coordinated in the Schematic Design Submission. The preliminary pricing was developed to compare relative costs between the options.

It appears that the District is proposing to provide three outbuildings that are intended to support the facility/site which include a Maintenance Garage, Field Maintenance and Storage, and Concessions and Toilets. Please confirm the gross square footage of these buildings and the associated estimated cost for each. The areas and estimated costs will be confirmed as part of the Schematic Design Submission.

The cost of these buildings, including OPM/Designer fees, utilities, and other associated costs must be itemized in the District's total project budget spreadsheet submitted with the schematic design.

Acknowledged

Additionally, please ensure that the square footage included in the District's estimated total project budget submitted with the anticipated schematic design aligns with the square footage included in the construction estimates and space summary template. Please acknowledge. **Acknowledged**

No further review comments for this section.

3.3.4 PREFERRED SOLUTION

	Provide the following Items	Complete; No response required	Provided; District's response required	Not Provided; District's response required	Receipt of District's Response; To be filled out by MSBA Staff
1	Educational Program				
	a) Summary of key components and how the preferred solution fulfills the educational program	\boxtimes			
	b) Design responses including desired features and/or layout considerations	\boxtimes			
	c) Proposed variances to, and benefits of, any changes to the current grade configuration (if any) and a related transition plan				

	Provide the following Items	Complete; No response required	Provided; District's response required	Not Provided; District's response required	Receipt of District's Response; To be filled out by MSBA Staff
2	Preferred Solution Space Summary				
	a) Updated MSBA Space Summary spreadsheet	\boxtimes			
	b) Itemization and explanation of variations from the initial space summary (and MSBA review) included in the Preliminary Design Program		\boxtimes		
3	Preliminary NE-CHPS or LEED-S scorecard		\boxtimes		
4	Conceptual floor plans of the preferred solution, in color that are clearly labeled to identify educational spaces		\boxtimes		
5	Clearly labeled site plans of the preferred solution including, but not limited to:				
	a) Structures and boundaries		\boxtimes		
	b) Site access and circulation		\boxtimes		
	c) Parking and paving	\boxtimes			
	d) Zoning setbacks and limitations	\boxtimes			
	e) Easements and environmental buffers	\boxtimes			
	f) Emergency vehicle access	\boxtimes			
	g) Safety and security features		\boxtimes		
	h) Utilities		\boxtimes		
	i) Athletic fields and outdoor educational spaces (existing and proposed)		\boxtimes		
	j) Site orientation		\boxtimes		
6	An overview of the Total Project Budget and local funding including the following:				
	a) Estimated total construction cost	\boxtimes			
	b) Estimated total project cost	\boxtimes			
	c) Estimated funding capacity	\boxtimes			
	d) List of other municipal projects currently planned or in progress	\boxtimes			
	e) District's not-to-exceed Total Project Budget	\boxtimes			
	f) Brief description of the local process for authorization and funding of the proposed project		\boxtimes		
	g) Estimated impact to local property tax, if applicable		\boxtimes		
	h) Completed MSBA Budget Statement	\boxtimes			
7	Updated Project Schedule including the following projected dates:				

	Provide the following Items	Complete; No response required	Provided; District's response required	Not Provided; District's response required	Receipt of District's Response; To be filled out by MSBA Staff
a)	Massachusetts Historical Commission Project Notification Form	\boxtimes			
b)	MSBA Board of Directors meeting for approval to proceed into Schematic Design	\boxtimes			
c)	MSBA Board of Directors meeting for approval of project scope and budget agreement and project funding agreement				
d)	Town/City vote for project scope and budget agreement	\boxtimes			
e)	Design Development submittal date	\boxtimes			
f)	MSBA Design Development Submittal Review (include required 21-day duration)				
g)	60% Construction Documents submittal date	\boxtimes			
h)	MSBA 60% Construction Documents Submittal Review (include required 21-day duration)	\boxtimes			
i)	90% Construction Documents submittal date	\boxtimes			
j)	MSBA 90% Construction Documents Submittal Review (include required 21-day duration)	\boxtimes			
k)	Anticipated bid date/GMP execution date	\boxtimes			
1)	Construction start	\boxtimes			
m)	Move-in date	\boxtimes			
n)	Substantial completion	\boxtimes			

MSBA Review Comments:

- 2b) Please refer to "Attachment B" for detailed review comments.
- 3) MSBA policy includes a requirement for all core program projects to register with the current version of LEED-S or NE-CHPS and exceed current Massachusetts base Energy Code by 10%. The MSBA's Green Schools Program provides incentives for a District to increase the energy efficiency for core projects by exceeding current Massachusetts base Energy Code by 20% for 2 additional reimbursement points. Refer to this link for additional information regarding MSBA Sustainable Design Policy http://www.massschoolbuildings.org/programs/green_schools.

Please note that the MA Energy Code is now based on the 2018 version of the IECC, and the 2016 version of ASHRAE 90.1, including any MA amendments. The updated energy code shows a 15% increase in energy efficiency for educational facilities over the previous version. The MSBA Green Schools policy is based on the energy code that is current at the time of the Project Scope and Budget submission. It is stated in the Sustainability Narrative provided by the Designer that the Northeast Metro Regional High School is pursuing certification under LEED V4, and that the District intends to achieve the 2% additional reimbursement with the MSBA Green Schools Program. To be in compliance with the MSBA Green School Program, the project must achieve a minimum of 10% above the 2018 IECC for no additional reimbursement (i.e., 12 points in the LEED V4 EA Credit "Optimize

Energy Performance") or exceed the energy code by 20% with at least 14 points in the LEED V4 EA Credit "Optimize Energy Performance" to achieve the 2% additional reimbursement. As submitted, the scorecard does not meet the minimum 20% above energy code and would not provide the District with 2% additional reimbursement. In response to this review describe the District's intent and provide a revised LEED scorecard. Every effort will be made by the design team towards achieving the level of energy performance necessary to exceed the energy code by 20%. See revised LEED Scorecard attached.

The District and its consultants are targeting 3 points in Credit EAc1 for Enhanced Commissioning. Note that per the updated commissioning process for MSBA-funded projects, the commissioning consultant's contract includes a scope of work achieving 6 points in Credit EAc1. Please reference Project Advisory 63 for more information. Upon assignment of an MSBA commissioning consultant, the targeted points and scope of work should be discussed and coordinated. In response to this review, provide a revised LEED scorecard if applicable. The Design Team is aware of this requirement and will coordinate with the commissioning agent. See revised LEED Scorecard attached.

4) The narrative provided indicates the large public areas of the proposed project are clustered at the north end of the building adjacent to the main entrance and separated from the academic areas to the south. In response to these review comments, please provide a diagram that describes the frequency of use, how the community will enter the building, and how the building will be secured and monitored. The conceptual floor plan layout provides the District with the flexibility to operate the school in number of ways from a safety & security perspective. After-hours events in the assembly spaces, such as athletic events, student presentations, music and drama productions are expected to occur from time to time throughout the year. At these times, the academic areas south of the main lobby can be secured on each level to contain the public to the Cafeteria, Gymnasium, and Auditorium spaces adjacent to the main lobby. The public can park in close proximity to this end of the building and can enter the area via both the main entrance and the exterior cafeteria entrance. This area of the building can be self-contained with its own stairs, elevator, public restrooms, and egress. See attached diagram.

Additionally, please confirm if the proposed project will include any enclosed mechanical areas that are not included in the square footage totals. If there are any in the proposed project, please provide additional information that documents the areas of the floor plan that are included in the gross square footage and confirm the proposed project does not exceed the MSBA's maximum grossing factor of 1.50. The detailed configuration of the mechanical system layout will be determined during the Schematic Design phase. There may be enclosed mechanical areas provided in lieu of rooftop equipment. The Design Team understands the need to document the areas of the floor plans that are included in the Gross Floor Area. The Design Team further intends to not allow the design to exceed the MSBA's maximum grossing factor of 1.50.

5a) In response to these review comments, please confirm that roof access provisions have or are being discussed with the District's facilities personnel and local safety officials to ensure an appropriate level of access and safety will be incorporated into the schematic design documents. Please provide any preliminary details or supplemental information that may be available relevant to proposed roof access. Preliminary discussions have occurred with school personnel regarding roof access and further discussions will occur during the Schematic Design phase with a broader audience to ensure that an appropriate level of access and safety will be incorporated into the schematic design documents. Preliminary strategies to access the main (highest) roof level include

both walk-out stairs and multiple roof hatches accessed from custodial and/or mechanical spaces. Lower roof levels are proposed to have walk-out access from adjacent floor levels.

5b) In response to these review comments, please provide additional information that describes how students will transition into the school from the drop-off areas and exit the school at time of dismissal. **The following scenarios are envisioned:**

Arrival: Students arriving by bus (the majority of students at Northeast) will be dropped off along the sidewalk at the front of the school and enter via the main entrance adjacent to the High School Office. Students being dropped off by parent's/guardian's vehicles will be dropped off at the south driveway and enter the building via the south entrance adjacent to the Superintendent's Office. Students driving to school in their own vehicle will park in designated student parking areas by the lower athletic fields and walk up the hill to enter the school via the main entrance.

<u>Dismissal:</u> Busses will queue up along the front driveway. Students will be dismissed from their last period class/ shop and leave via the most convenient exit to the front of the building. Parents/ guardians in cars who arrive early will wait to pickup students in the south parking lot. Students will exit the building via the south entrance to meet them. Students leaving via their own vehicle will leave via the main entrance or lower-level entrance and walk back down the hill to the student parking lot.

Please note that the site plan is also designed for future flexibility should the School determine a reason to change this anticipated traffic patterns- the service road around the building could also be utilized for bus pick-up at dismissal time, allowing the front driveway to be used by parents cars waiting to pick up students. All driveway widths and radii will be engineered to allow either cars or buses to maneuver throughout the site.

In addition, provide the same information for individuals that are physically challenged; and indicate if the proposed project will include provisions for covered walkways and provide the general locations of the proposed handicapped parking spots. The same traffic pattern would apply for physically challenged students arriving by bus, van or parent's vehicle. Each of these primary entrances is envisioned to have extended canopies to protect the entrances and adjacent walkways. There will be handicapped parking spaces and related curb-cuts distributed to each of the separate parking areas and entrances around the building. The next submittal will identify these specific locations in detail as the Site Plan layout is resolved during the Schematic Design phase.

- 5g) Safety and security features do not appear on the site plan provided. Please include with the site plan submitted with the schematic design. Acknowledged- The next submittal will identify the specific safety and security features as the Site Plan layout is resolved during the Schematic Design phase.
- 5h) The information provided indicates there are project costs cost associated with the extension of proposed gas service to the project site. In response to these review comments, please confirm that a summary of the estimated costs for all work anticipated outside of the site boundary will be included and accounted for in forthcoming Schematic Design Submittal. We confirm that all work anticipated outside of the site boundary will be included and accounted for in forthcoming construction cost estimates included with the Schematic Design Submittal.

Please note that costs for all off-site utility work must be itemized in the District's total project budget and will be considered ineligible for reimbursement. Please acknowledge. **Acknowledged.**

5i) The site development plans included with this submittal indicate the District is proposing to include (2) synthetic turf fields, a new concession building, a satellite building, and a maintenance building. Please note all costs associated with outbuildings will be considered ineligible for reimbursement and must be itemized in the District's total project budget submitted with the schematic design. Please acknowledge. Acknowledged.

Additionally, in response to these review comments, provide a detailed rationale that describes the decision to include this level of site development in the proposed project, The proposed field development program is designed to accommodate the school's increased enrollment and to provide appropriate quality athletic fields. Currently the school generally only fields one varsity team in each of its interscholastic sports programs. With the anticipated increased enrollment (from 1250 to 1600 students), the School anticipates adding Junior Varsity teams to most sports. This will require additional fields for practice and competition. Also, the existing lower athletic fields (softball and football practice) are within a flood zone, adjacent to wetlands, and are often unplayable due to the poor condition. These fields would be supplemented by the new overlapping softball/multi-purpose turf field to be constructed at a higher elevation after the existing school is demolished. The new football field and track is replacing the existing field and track that is inaccessible, in poor condition, and is being reserved for future recreational development (outside of this Project). and provide additional information that demonstrates how potentially ineligible site costs have been communicated to member towns of the regional district. The District has spent considerable time at several meetings explaining the MSBA process to the building committee, school committee, and city and town managers. These explanations included a detailed accounting of ineligible costs and a sample calculation of "effective" reimbursement rate. The ineligibility of site costs was particularly emphasized during these discussions. These discussions will be continuing during the Schematic Design phase as the project team moves closer to finalizing the actual Maximum Potential MSBA Grant.

5j) In response to these review comments, please include a narrative that further describes the proposed strategies associated with enhanced building resiliency and efficiency. The resiliency of the proposed building is its ability to respond to or recover readily from stress or crisis. During the Schematic Design phase, the design team will develop strategies to ensure that the proposed structural system, material selections, and infrastructure design provide enhanced capabilities above and beyond minimum building code requirements. Design of finishes within shop spaces will need to account for the fact that these spaces endure additional "wear and tear" compared to a standard classroom. The siting of the proposed new school at a significantly higher elevation, well-above local wetland areas provides insurance against flooding and extreme weather events. These strategies will also improve the building's flexibility and capability to allow future changes with minimum disruption.

The efficiency of the project is reflected in both the Space Summary ("space efficiency") and the LEED scorecard ("energy efficiency"). The Space Summary meets the educational program in the most efficient manner. All of the Chapter 74 CTE shops are proposed at the minimum program areas, classrooms quantities are calculated to provide 85% utilization for full-time equivalent enrollment, and administrative areas are minimized. The layout of building is also proposed to maintain a grossing factor at or below 1.50.

The energy efficiency of the proposed project is reflected in the LEED scorecard that estimates an energy efficiency at least 20% above the State energy code. This will be achieved through an enhanced building envelope, including building orientation, enhanced insulation, and optimized

percentage of window openings; and in the electrical and mechanical system design and selection. The design team will consider both active and passive measures to reduce energy consumption including harvesting natural light, smart building controls, right-sizing HVAC systems, on-site renewables, and plug-load management.

6f, g) The information provided indicates that meetings are ongoing with Town Managers, Mayors, and key stakeholders to discuss potential local share of the project cost. The narrative provided indicates that "it is believed that the (12) District members are capable of accommodating a \$317.4 million project". Please note that a potential grant from the MSBA is calculated at the conclusion of the schematic design phase. Please acknowledge. Acknowledged

Additionally, provide information associated with the estimated impact to local property taxes per household for each district member. Per MBSA recommendation, estimated local share has been communicated in ranges, and will be quantifiable on a per household basis (with the assistance of bond counsel) once the Maximum Potential MSBA Grant is more closely estimated during the Schematic Design phase using SD construction cost estimates and the MSBA's updated total project budget spreadsheet.

No further review comments for this section.

3.3.5 LOCAL ACTIONS AND APPROVALS

	Provide the following Items	Complete; No response required	Provided; District's response required	Not Provided; District's response required	Receipt of District's Response; To be filled out by MSBA Staff
1	Certified copies of the School Building Committee meeting notes showing specific submittal approval vote language and voting results, and a list of associated School Building Committee meeting dates, agenda, attendees and description of the presentation materials.				
2	Signed Local Actions and Approvals Certification(s):				
	a) Submittal approval certificate	\boxtimes			
	b) Grade reconfiguration and/or redistricting approval certificate (if applicable)				
3	Provide the following to document approval and public notification of school configuration changes associated with the proposed project:				
	a) A description of the local process required to authorize a change to the existing grade configuration or redistricting in the district				
	b) A list of associated public meeting dates, agenda, attendees and description of the presentation materials				
	c) Certified copies of the governing body (e.g.				

School Building Committee) meeting notes showing specific grade reconfiguration and/or redistricting, vote language, and voting results if required locally		
d) A certification from the Superintendent stating the District's intent to implement a grade configuration or consolidate schools, as applicable. The certification must be signed by the Chief Executive Officer, Superintendent of Schools, and Chair of the School Committee.		

MSBA Review Comments:

No review comments for this section.

Additional Comments:

- The MSBA issues project advisories from time to time, as informational updates for Districts, Owner's Project Managers ("OPM"), and Designers in an effort to facilitate the efficient and effective administration of proposed projects currently pending review by the MSBA. The advisories can be found on the MSBA's website. In response to these review comments, please confirm that the District's consultants have reviewed all project advisories and they have been incorporated into the proposed project as applicable. The Design Team has reviewed all project advisories and has incorporated them into the proposed project as applicable.
- The MSBA offers the following information to assist the District and its Owner's Project Manager in completing the total project budget template that is required as part of its Schematic Design Submittal.
 - The District must include negotiated costs for OPM and Designer fees for the remainder of the project as part of their Total Project Budget. The fees must be listed separately by the applicable line items that are included in the MSBA's Total Project Budget Template. In response to these review comments, please confirm that the District and its consultants will negotiate fees for the remainder of the project that are to be included in the District's Schematic Design documents to the MSBA. Acknowledged
 - o The PSR indicates District is targeting MSBA approval of its proposed project scope and budget at the August 2021 board meeting. The District's reimbursement rate for calendar year 2021 is unknown at this time. The MSBA will forward the reimbursement rate to the District when this information is available. Please note that the MSBA updates district reimbursement rates annually and applies the reimbursement in effect at the time the MSBA Board of Directors approves a district's proposed project scope and budget. The reimbursement rate is established based on statutory requirements and information provided by the Departments of Revenue and Elementary and Secondary Education. Acknowledged

- o *Maintenance* (0-2) 1.58%. This value is based on MSBA review of district provided materials regarding routine and capital maintenance programs during Eligibility Period at which time the value is finalized.
- Overlay Zoning 40R & 40S (0 or 1) Refer to Module 4, appendix 4E to review documentation requirements and to determine if this incentive point may be applicable. Please note that the proposed project must be located within the smart growth zoning district to comply with this additional incentive and required authorizations must be documented prior to MSBA approval of the District's proposed project scope and budget to be eligible to receive this incentive point.
- Overlay Zoning 100 units or 50% of units for 1, 2 or 3 family structures (0 or 0.5) Refer to Module 4, appendix 4E to review documentation requirements and to determine if this incentive point may be applicable. Please note that required authorizations must be documented prior to MSBA approval of the District's proposed project scope and budget to be eligible to receive this incentive point.
- Energy Efficiency "Green Schools" (0 or 2) The PSR indicates the District's intent to achieve the 2% additional reimbursement through the MSBA Green School Program. Please note, subject to the District's intention to meet certain energy efficiency sustainability requirements for the Proposed Project, the MSBA will provisionally include two (2) incentive points, however if the District does not ultimately qualify for some or all of these incentive points the MSBA will adjust the District's reimbursement rate, accordingly.

End

ATTACHMENT B MODULE 3 – PREFERRED SCHEMATIC SPACE SUMMARY REVIEW

District: Northeast Metropolitan Regional Vocational District

School: Northeast Metropolitan Regional Vocational Technical High School

Owner's Project Manager: PMA Consultants, LLC Designer Firm: Drummey Rosane Anderson, Inc.

Submittal Due Date: December 23, 2020 Submittal Received Date: December 23, 2020 Review Date: December 23- January 25, 2021

Review Date: December 23- January 25, 2021

Reviewed by: A. Alves, F. Bradley, C. Alles, J. Jumpe

Received: January 29, 2021

Design Team Responses in

RED BOLD Italics

The Massachusetts School Building Authority (the "MSBA") has completed its review of the proposed space summary of the preferred schematic as produced by Drummey Rosane Anderson and its consultants. This review involved evaluating the extent to which the Northeast Metropolitan Regional Vocational High School's proposed space summary conforms to the MSBA guidelines and regulations.

The MSBA considers it critical that the Districts and their Designers aggressively pursue design strategies to achieve compliance with the MSBA guidelines for all proposed projects in the new program and strive to meet the gross square footage allowed per student and the core classroom space standards, as outlined in the guidelines. The MSBA also considers its stance on core classroom space critical to its mission of supporting the construction of successful school projects throughout the Commonwealth that meet current and future educational demands. The MSBA does not want to see this critical component of education suffer at the expense of larger or grander spaces that are not directly involved in the education of students.

The following review is based on the submitted new construction project option with an agreed upon design enrollment of 1,600 students in grades 9-12. The MSBA notes in the submittal that the District currently pairs 9th and 11th grade students and 10th and 12th grade students when scheduling vocational programming. To determine a full-time equivalent ("FTE") enrollment that reflects the week-on/ week-off schedule, the MSBA considered enrollments over the last three years and flexibility for future leadership should a schedule be implemented that pairs the 9th and 10th grade students.

Review of the last three years of enrollment as reported to DESE revealed that 9th and 10th grade students represented 53% of the total population on average. Please note, the MSBA will base its evaluation of proposed spaces using a total enrollment number of 1,600, or FTE number of 848 students by category as presented below.

The MSBA review comments are as follows:

• Core Academic – This category is evaluated based on the FTE enrollment. The District is proposing to provide a total of 50,420 net square feet (nsf) which is 26,040 nsf below the MSBA guidelines for the total enrollment and 9,500 nsf in excess of the MSBA guidelines for the FTE enrollment.

The proposed area in this category has decreased by 100 nsf since the Preliminary Design Program ("PDP") submittal due to reduction in the size of the proposed Language Lab from 1,000 to 900 net square feet. The proposed spaces include:

- o (36) 850 nsf General Classrooms totaling 30,600 nsf;
- o (4) 900 nsf Teacher Planning / Workrooms totaling 3,600 nsf;
- (4) 500 nsf Small group Seminar / Collaborate Spaces totaling 2,000 nsf;
- o (8) 1,440 nsf Science Classroom / Labs totaling 11,520 nsf;
- o (8) 200 nsf Prep Rooms totaling 1,600 nsf;
- o (1) 200 nsf Central Chemical Storage Room totaling 200 nsf; and
- o (1) 900 nsf Language Lab / Distance Learning totaling 900 nsf.

Based on the nature of the District's proposed delivery of their Chapter 74 and Vocations and Technology programs, the MSBA accepts a variation to the full-time equivalent up to 9,500 nsf. No further action required. *Acknowledged*

- **Special Education** This category is evaluated based on the total enrollment. The District is proposing to provide a total of 6,770 net square feet (nsf) which is 9,340 nsf below the MSBA guidelines based on the total enrollment. The proposed area in this category has decreased by 1,280 nsf since the PDP submittal. The District has indicated, this decrease is primarily due to programming refinements during the preferred schematic phase. The information provided in the District's educational program indicates the District's Special Education approach is one of inclusion, to the greatest extent possible. The MSBA notes the District is not proposing any special education classrooms and have no substantially separate programs that would require dedicated, selfcontained classrooms. Please note that the Special Education program is subject to approval by the Department of Elementary and Secondary Education (DESE). The District should provide this information for this submittal with the Schematic Design Submittal. Formal approval of the District's proposed Special Education program by the DESE is a prerequisite for executing a Project Funding Agreement with the MSBA. Acknowledged
- Art & Music The District is proposing no spaces dedicated exclusively to art, music, or drama programs, and intends to continue to use the Auditorium to support an after school offering as is currently practiced. MSBA accepts this variation to the guidelines. No further action required. Acknowledged
- **Voc-Tech** This category is evaluated based on the FTE enrollment. The District is proposing to provide a total of 126,203 net square feet (nsf) which exceeds MSBA guidelines by 110,363 for the total enrollment and 117,563 nsf for the FTE enrollment. The proposed area in this category has increased by 200 nsf

since the PDP submittal. This change is primarily due to increasing the size of the Early Education space from 1,800 to 2,000 nsf to accommodate the proposed program spaces and to meet both the Chapter 74 minimum space guidelines, and the State's Department of Early Education and Care standards 606 CMR. The MSBA notes the District is proposing (19) nineteen Chapter 74 Programs, which includes (16) sixteen existing programs and (3) three new programs. These programs include:

- Automotive Collision Repair
- Automotive Technology
- Business Office Technology
- Carpentry
- Cosmetology
- Culinary Arts
- Dental Assisting
- Design & Visual Communications
- Drafting & Design
- Early Childhood Education
- o Electrical Technology
- Health Assisting
- HVAC Technology
- o Metal Fabrication
- Plumbing & Pipefitting
- o Robotics & Automation
- Biotechnology (new)
- Marketing (new)
- Medical Assisting (new)

The Department of Elementary and Secondary Education (DESE) has reviewed the District's pre-submission application and associated supplemental information and are in general agreement with the proposed Chapter 74 programs listed above going into the next phase of the proposed project. The MSBA will monitor the proposed programs in subsequent submittals to confirm consistency with the District's pre-submission documentation. Based on the nature of the District's delivery of their proposed Chapter 74 and Vocations and Technology programs, the MSBA accepts a variation to the full-time equivalent up to 117,563 nsf. No further action required. *Acknowledged*

• Health and Physical Education – This category is evaluated based on the FTE enrollment. The District is proposing to provide a total of 25,160 net square feet (nsf) which aligns with the MSBA guidelines for the total enrollment and 4,211 nsf in excess of the MSBA guidelines for FTE enrollment. The proposed area in this category has not changed since the PDP submittal. The MSBA requests that the District relocate the Health Classroom to the Core Academic category in future submissions. The relocation of this space will result in square footage in excess of the eligible square footage based on the FTE enrollment. The MSBA does not object to the District including additional square footage in this category, however, all square footage in excess of MSBA guidelines based on the FTE

enrollment will be considered ineligible for reimbursement. Please acknowledge. The Distrct requests that this category of space should be measured against the MSBA guidelines for <u>Total enrollment</u> (not Full-time Equivalent). Such a comparison will result in no ineligible space. The District believes that based upon the usage of the gymnasium and locker rooms by both the physical education students and the athletic activities (as previously described in the District's response to the FAS comments), this category of space should not be diminished by the school's schedule as a CTE high school. The size of these spaces should be based upon a 1600 student high school. The District respectfully requests reconsideration of the calculation that this category exceeds the MSBA guidelines.

- **Media Center** This category is evaluated based on the FTE enrollment. The District is proposing to provide a total of 5,201 nsf which is 4,699 below the MSBA guidelines based on a total enrollment and aligns with the MSBA guidelines for the FTE enrollment. The proposed area in this category has not changed since the PDP submittal. No further action required. **Acknowledged**
- Auditorium/ Drama This category is evaluated based on the total enrollment. The District is proposing to provide a total of 10,400 nsf which meets the MSBA guidelines based on a total enrollment. The proposed area in this category has not changed since the PDP submittal. No further action required. *Acknowledged*
- Dining and Food Service This category is evaluated based on the total enrollment. The District is proposing to provide a total of 13,300 nsf which is 600 nsf in excess of the MSBA guidelines based on a total enrollment. The proposed area in this category has increased by 600 nsf since the PDP submittal. This increase is primarily due to the District's decision to propose two separate dining areas. The MSBA notes the second dining area is supported by a satellite warming kitchen and a separate serving area. The MSBA does not object to the additional space, however, square footage in excess of the MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge. *Acknowledged*
- Medical This category is evaluated based on the total enrollment. The District is proposing to provide a total of 1,413 nsf which meets the MSBA guidelines based on a total enrollment. The proposed area in this category has not changed since the PDP submittal. No further action required. *Acknowledged*
- Administration and Guidance This category is evaluated based on the total enrollment. The District is proposing to provide a total of 8,780 nsf which exceeds the MSBA guidelines by 2,985 nsf based on a total enrollment. The proposed area in this category has decreased by 1,320 nsf since the PDP submittal. This decrease is primarily due to relocating the District Administration spaces, including the Superintendent and Business Manger offices, into the "Other" category per MSBA's request. Based on the specific requirements of the District's Chapter 74 programming, the MSBA does not object to including additional administration space in this category: however, please note all square

- footage in excess of MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge. *Acknowledged*
- enrollment. The District is proposing to provide a total of 3,950 nsf which exceeds the MSBA guidelines by 1,125 nsf based on total enrollment. The proposed area in this category has increased by 275 nsf since the PDP submittal. This increase is primarily due to the District's proposal to provide two separate receiving areas to serve the main Kitchen and the Culinary Arts program. As stated in the PDP comments, the MSBA does not object to the District providing these additional spaces in the project, however, any square footage beyond that included in the guidelines will be considered ineligible for reimbursement. Please acknowledge. *Acknowledged*
- Other The District is proposing to provide a total of 7,235 nsf in this category which exceeds MSBA guidelines. The proposed area in this category has increased by 5,355 nsf since the PDP submittal. This increase was primarily due to the relocation of District Administration spaces into this category per MSBA's request. Additionally, this category also includes three proposed out-buildings for a Maintenance Garage, Field Maintenance and Storage, and Concessions and Toilets. The MSBA does not object to the District providing these additional site support structures in the project; however, these site support structures will be considered ineligible for reimbursement. These proposed structures should be removed from the space summary. Please acknowledge. *Acknowledged*
- Total Building Net Floor Area The District is proposing to provide a total of 258,832 nsf which exceeds the MSBA guidelines by 73,957 nsf based on total enrollment. The proposed area has increased by 3,734 nsf since the PDP submittal. As noted above: Core Academic, Voc-Tech, Health & P.E., and Media Center categories were evaluated based on the FTE enrollment. The MSBA notes limits of participation associated with the Health and Physical Education, Dining and Food Service, Administration and Guidance, Custodial and Maintenance, and Other categories will be applied to the MSBA grant calculation in the schematic design phase. The MSBA will continue to work with the District and its consultants to establish an eligible square footage that will be used to determine MSBA participation. Acknowledged, the District looks forward to further discussion regarding eligible square footage during the Schematic Design phase; see response above regarding Health & PE category.
- Total Building Gross Floor Area The District is proposing to provide a total of 388,250 gsf which exceeds the MSBA guidelines by 129,050 gsf based on total enrollment. The proposed area has increased by 5,595 gsf since the PDP submittal. As noted above: Core Academic, Voc-Tech, Health & P.E., and Media Center categories were evaluated based on the FTE enrollment. The MSBA notes limits of participation associated with the Health and Physical Education, Dining and Food Service, Administration and Guidance', Custodial and Maintenance, and the Other category will be applied to the MSBA grant

calculation in the schematic design phase. The MSBA will continue to work with the District and its consultants to establish an acceptable square footage that will be used to determine MSBA participation. *Acknowledged*

Please note that upon moving forward into subsequent phases of the proposed project, the Designer will be required to provide, with each submission, a signed, updated space summary that reflects the design and demonstrates that the design remains, except as agreed to in writing by the MSBA, in accordance with the guidelines, rules, regulations and policies of the MSBA. Should the updated space summary demonstrate changes to the previous space summary include a narrative description of the change(s) and the reason for the proposed changes to the project. *Acknowledged*



LEED v4 for BD+C: Schools

Project Checklist

Credit Integrative Process

1	0	14	Loca	tion and Transportation	15
			Credit	LEED for Neighborhood Development Location	15
		1	Credit	Sensitive Land Protection	1
		2	Credit	High Priority Site	2
		5	Credit	Surrounding Density and Diverse Uses	5
		4	Credit	Access to Quality Transit	4
		1	Credit	Bicycle Facilities	1
		1	redit	Reduced Parking Footprint	1
1			Credit	Green Vehicles	1

5	5	2	Sust	ainable Sites	12
Υ			Prereq	Construction Activity Pollution Prevention	Required
Υ			Prereq	Environmental Site Assessment	Required
1			Credit	Site Assessment	1
		2	Credit	Site Development - Protect or Restore Habitat	2
	1		Credit	Open Space	1
3			Credit	Rainwater Management	3
0	2		Credit	Heat Island Reduction	2
	1		Credit	Light Pollution Reduction	1
	1		Credit	Site Master Plan	1
1			Credit	Joint Use of Facilities	1

5	1	6	Water	r Efficiency	12
Υ			Prereq	Outdoor Water Use Reduction	Required
Υ			Prereq	Indoor Water Use Reduction	Required
Υ			Prereq	Building-Level Water Metering	Required
1		1	Credit	Outdoor Water Use Reduction	2
3		4	Credit	Indoor Water Use Reduction	7
0	1	1	Credit	Cooling Tower Water Use - (NB:swap CT for WE pc 94 "No Cooling Tower")	2
1			Credit	Water Metering	1

23	1	8	Ener	gy and Atmosphere	31
Υ			Prereq	Fundamental Commissioning and Verification	Required
Υ			Prereq	Minimum Energy Performance	Required
Υ			Prereq	Building-Level Energy Metering	Required
Υ			Prereq	Fundamental Refrigerant Management	Required
6			Credit	Enhanced Commissioning	6
14		3	Credit	Optimize Energy Performance	16
1			Credit	Advanced Energy Metering	1
		2	Credit	Demand Response	2
1		2	Credit	Renewable Energy Production	3
	1		Credit	Enhanced Refrigerant Management	1
1		1	Credit	Green Power and Carbon Offsets	2

Project Name: 20202.00 Northeast Metro Tech

Date: 12/5/2020

3 2 1 Innovation

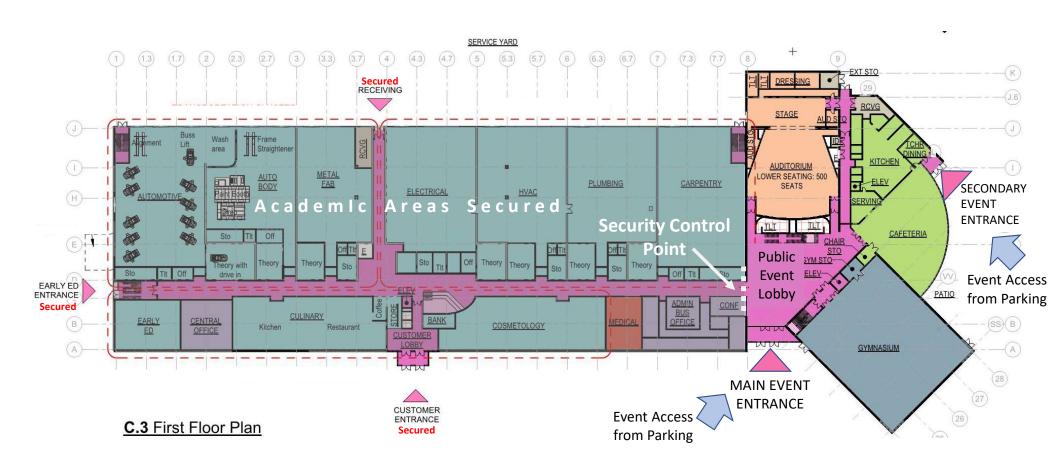
Y ? N

6	0	7	Materials and Resources			
Υ			Prereq	Storage and Collection of Recyclables	Required	
Υ			Prereq	Construction and Demolition Waste Management Planning	Required	
		5	Credit	Building Life-Cycle Impact Reduction	5	
2			Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2	
		2	Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2	
2			Credit	Building Product Disclosure and Optimization - Material Ingredients	2	
2			Credit	Construction and Demolition Waste Management	2	

8	4	4	Indoo	r Environmental Quality	16
Y	r.	·	Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
Υ			Prereq	Minimum Acoustic Performance	Required
2			Credit	Enhanced Indoor Air Quality Strategies	2
2		1	Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
1	1		Credit	Indoor Air Quality Assessment	2
	1		Credit	Thermal Comfort	1
2			Credit	Interior Lighting	2
	1	2	Credit	Daylight	3
	1		Credit	Quality Views	1
	0	1	Credit	Acoustic Performance	1

2	2	1	Credit Innovation	5	
1			Credit LEED Accredited Professional	1	
3	0	1	Regional Priority 4		
1			Credit Rainwater Management	1	
1			Credit Indoor Water Use Reduction	1	
1			· ·	1 1	

54 14 43 TOTALS			Possible Points:	110
Certified: 40 to 49 points,	Silver: 50 to 59 points,	Gold: 60 to 79 points,	Platinum: 80 to 110	



After-Hours Events Access Diagram