

GREEN LINE EXTENTION

LINE OF PROPOSED  
ADDITION FOOTPRINT



SCHOOL ST.

HIGHLAND AVE.

# Preferred Schematic Report

## Somerville High School

81 Highland Avenue, Somerville MA

June 2, 2016

SMMA No. 15070.00

Symmes Maini & McKee  
Associates

SMMA



**PREFERRED SCHEMATIC  
REPORT**

SOMERVILLE HIGH SCHOOL  
81 Highland Avenue, Somerville MA

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## Section One

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# INTRODUCTION

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## 1.1 OVERVIEW OF THE PROCESS SINCE PDP SUBMISSION

The existing Somerville High School is located at 81 Highland Avenue, in Somerville, MA. The existing school was built over the course of many years, with the oldest portion dating back to 1895. The site measures approximately 13 acres around the high school, and is located on a shared parcel that also includes Somerville City Hall and the Somerville Main Public Library branch.

In April, 2013, the City of Somerville submitted a Statement of Interest (SOI) to the Massachusetts School Building Authority (MSBA) for the High School. At the November 19, 2014 Board of Directors meeting, the MSBA board voted to issue an invitation to the City to conduct a feasibility study for this Statement of Interest to identify and study possible solutions and, through a collaborative process with the MSBA, reach a mutually-agreed upon solution. The SOI focused on the replacement, renovation or modernization of aged and inoperable facility systems, and replacement or addition to obsolete buildings to provide for a full range of educational programs. Since the submission of the SOI, an evaluation of all major building systems has shown that the HVAC, plumbing, electrical, technology, fire alarm and emergency power systems are all at the end of their useful life. The existing 360,000 square foot building, with the oldest section dating back to 1895, is supported on conventional spread footings; aside from the most recent additions constructed in 1986, there is no lateral force resisting structural system in the building. The existing exterior wall system is a combination of uninsulated brick mass masonry walls and brick veneer walls over metal stud backup with limited insulation within the stud cavity. The existing building is completely non-compliant with the current energy code. The building is partially accessible but the third and fourth floors of the school are served by a single elevator that does not comply with current car size requirements. In addition, there are a number of general educational concerns in the building including: a geographic separation between the general academic and vocational portions of the comprehensive high school; classrooms not equipped for 21st century instruction; and a lack of differentiated learning environments.

The City of Somerville and the School Building Committee submitted the Preliminary Design Program (PDP) on February 29, 2016 following lengthy public outreach and investigation of the programmatic needs of the comprehensive high school.

Throughout the Preferred Schematic Report process, the Somerville High School Building Committee (SBC) has endeavored to maintain a public, transparent and open process. The Committee has attempted to reach out to as many residents within the community as possible in an effort to gain input and feedback through open public forums, the project's website, cable television, local papers, creation of flyers and boards posted at highly attended city events (including the Greenline Extension - GLX forums and Somervision neighborhood meetings), the formation of key working groups, and monthly updates to the Board of Aldermen and School Committee.

The Committee held their public meetings at a number of the City's K-8 school's reaching out to a broad constituency of parents and civic leaders. Meetings were held at West Somerville Neighborhood School, East Somerville Community School, Argenziano/Lincoln Park Neighborhood School, the Kennedy School and the Capuano Early Childhood Learning Center in addition to multiple meetings at the High School. Meetings were generally well attended and recorded for CCTV.

Over nine alternatives were prepared for the committee's review and consideration including the Repairs and Renovations (no additions), five addition and renovation alternatives and two all new construction plans on two sites. SMMA conducted a Masterplanning charrette at our offices on January 5<sup>th</sup>, 2016 at the conclusion of the PDP process with members of the community, the City Planning office and the SBC. This design process informed much of the considerations for a comprehensive plan to provide not only for the high school's future but also to plan for upcoming City projects on Central Hill including the City Hall and Main Library renovations and meeting the need for centralized city-wide services office space and the restarted GLX project for the Gilman Square Greenline station at the foot of the hill.

The various early conceptual alternatives were developed and discussed through an open public process with community participation and were particularly sensitive to the Somerville Historic Preservation Commission (SHPC) – three meetings with the commission were held to discuss the educational needs and discuss the impacts and goals for the Central Hill site that also includes the nationally registered historic City Hall and Main Branch of the (Carnegie) public library – none of the school building's structures are listed as historic but the community has asked for sensitivity in designing for this civic center to the city. The SHPC has unanimously endorsed the preferred option, recognizing the challenges and complexities of the program and site.

As a result of this process, the alternatives included in the PDP were expanded with variations on the addition and renovation alternatives during this phase of design in order to explore the plan most beneficial to the masterplan's objectives. These were "Alternative 2A", "Alternative 3", and "Alternative 4B" respectively. The committee performed a full evaluation of all of these alternatives prior to narrowing down the alternatives to move forward. Option 0 & 1 were eliminated due to the fact that they would not meet the NEASC accreditation requirements, which is a necessity for the District and both would trigger full code compliance renovations resulting in loss of critical programmatic space. New building Alternatives 5 & 6 were eliminated due to cost, schedule and loss of critical spaces such as the Field House and high bay shop space.

Through this extensive and carefully considered process the SBC, Somerville School Committee, the SHPC, and the Office of the Mayor have all endorsed Option 4b as the Preferred Schematic plan.

## 1.2 SUMMARY OF UPDATED PROJECT SCHEDULE

Alternative 4B would be constructed in three phases. Phases 1 & 2 would each take approximately 33 months, and a third and final phase would take approximately 18 months. Approximately 38 modular classrooms (including Chapter 74 vocational shop spaces) would be provided on site or would be relocated to another location to provide the necessary swing space. A detailed plan for phasing and swing space will be determined during Schematic Design to best coordinate with the educational programs and minimize the impact on students. Phasing is sequenced to allow the additions to be built first thereby providing additional swing space sooner. Construction would take approximately 7 years. An updated project schedule is included at the end of this section.

## 1.3 SUMMARY OF FINAL EVALUATIONS OF EXISTING CONDITIONS

The existing conditions information developed for the PDP was based on building walk-throughs performed during August and September of 2015 and record drawings of previous construction on site. The 360,150 GSF building was built over the course of 120 years, with the oldest remaining construction dating back to 1895. The building and systems have been maintained as well as feasible and the building is clean, but systems and finishes are beyond their useful life expectancies in many cases and are in need of upgrade.

The site measure approximately 13.05 acres and is fully developed including roadways, parking lots, walkways, loading areas, lawn and landscaped areas, and several city monuments and memorials. Vehicular access to the school is from Highland Avenue, School Street and Medford Street. There are several plaza and lawn areas on the south side of the site along Highland Avenue. The High School is located at the top of Central Hill in Somerville and the topography slopes away from the school toward the adjacent streets. Several retaining walls and stairways provide access to the parking areas and adjacent streets. Beyond the building and retaining walls on the north side of the school, there is a steep slope down to the MBTA commuter railroad tracks and Medford Street.

Refer to Section 4 of the PDP for a detailed existing condition analysis.

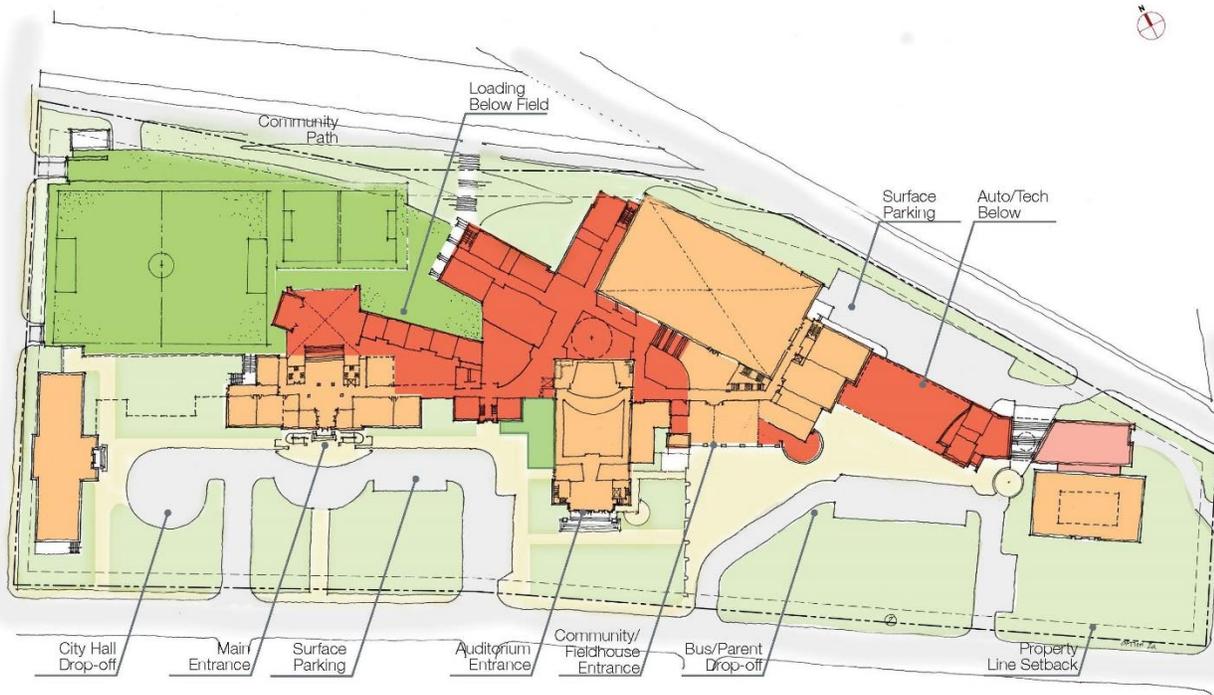
# 1.4 SUMMARY OF FINAL EVALUATION OF ALTERNATIVES

## Alternative 2A

Existing building renovations and additions that meet the educational program requirements, improves adjacencies, upgrades MEP systems, accommodates current technology, and includes a significant level of renovation for the 1895 structure, 1986 buildings and the 1929 War Memorial structure. This alternative includes demolition of 135,350 square feet, renovation of 224,800 square feet, and additions of 165,200 square feet for a total of 395,700 GSF (which is 54,825 square feet greater than the MSBA guidelines of 340,875 square feet).

Note that space variances are described in the PDP and subsequent responses but are primarily due to Chapter 74 programs, SPED and administrative programs unique to urban school districts and existing Brune Field House and 1929 War Memorial building reuse).

This alternative was generally considered the second ranked option but still lacking in meeting the City’s masterplanning objectives for the Central Hill campus.

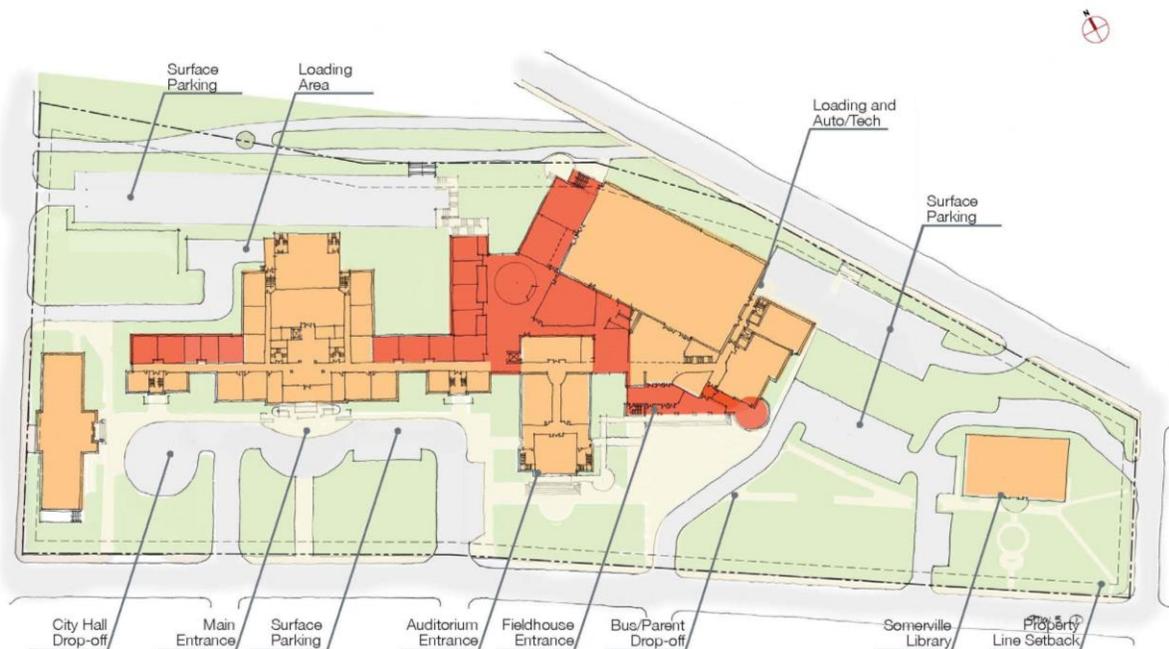


### Alternative 3

Existing building renovations and additions that meet the educational program requirements similar in nature to Alternative 2A but maintains the existing auditorium space and the basement cafeteria rooms below – this option generally lacks the improved adjacencies and benefits of the other alternatives and is one of the larger options with difficult to repurpose basement spaces. This plan includes a significant level of renovation for the 1895 structure as well as the 1929 academic wing primary facades making the phasing an impediment for this option. The 1986 buildings and the 1929 War Memorial structure are also maintained in this scenario.

This alternative includes demolition of 102,780 square feet, renovation of 265,230 square feet, and additions of 141,060 square feet for a total of 411,990 GSF (which is 71,115 square feet greater than the MSBA guidelines of 340,875 square feet – Note that space variances are described in the PDP and subsequent responses but are primarily due to unused basement spaces, Chapter 74 programs, SPED and administrative programs unique to urban school districts and existing Brune Field House and 1929 War Memorial building reuse).

This alternative while salvaging the existing auditorium space would still require major renovation and space improvements to meet the programmatic and technical needs of the school. The additional space burden and need to tear down the stage and rear of the 1979 wing also pose significant technical and phasing challenges adding additional cost burdens for this option. Alternative 3 also gives the city the least amount of flexibility and site use potential of all options explored on the Central Hill Campus.



## Alternative 4B

Primarily new construction on the east side of the existing Brune Field House and 1929 War Memorial buildings, this alternative is described in detail below as the District's and City's preferred alternative and recommendation for approval to the MSBA.

The School Building Committee after careful review, discussion and consideration of the three options, impacts of the scope, impacts on community space, costs, schedules and impact on the students both during construction and once the project is completed, voted addition/renovation Alternative 4B as their Preferred Option.

This option is more cost effective than Alternative 3, and only marginally more expensive than Alternative 2A from a total project cost perspective, but represents a substantial benefit to the City's masterplan and educational goals and objectives.



Proposed Site Layout Plan

## 1.5 SUMMARY OF DISTRICT'S PREFERRED SOLUTION

### Alternative 4B

The preferred solution solves many of the District's needs by constructing a mostly new school to create the educational and student commons spaces to fulfill the educational vision of the District. The large 1986 field house housing the important indoor track as well as substantial high bay space for a number of Chapter 74 shops and the older 1929 gymnasium converted to a library in the 1986 renovation shall be retained and renovated. Substantial portions of the existing building - generally older double loaded corridor classrooms in inefficient long wings as well as the 1979 auditorium wing and isolated cafeteria was deemed in poor repair and unable to hold the modern spaces needed to fulfill the educational program of a true blended comprehensive high school. Somerville is the State's most densely populated city and its lack of available space combined with the premium to purchase such space has lead the design team to develop a long range masterplan for the entire Central Hill campus bookended and encompassing the historic 1800's City Hall and the Carnegie library. The preferred alternative allows the city to remain in the majority of the existing school during the new build and then turn over the 1895 main central wing of the high school for much needed City facility use.

The new construction replaces the existing three story 1986 shop wing high school, with six story efficient new additions for the dining commons, media center, classroom/vocational spaces, PE support and supplementary programs. The additions and new construction will be predominantly located in the area towards the eastern half of the site, between the existing E Wing and the Somerville Public Library Main Branch and the open area to the west of the existing field house. The final phase of construction will remove the unused portions of the old school and take advantage of the steeply sloping grade along School Street to construct much needed vehicle parking space for staff and teachers with a field over the roof structure for PE outdoor use in the community lacking in open space resources and playing fields.

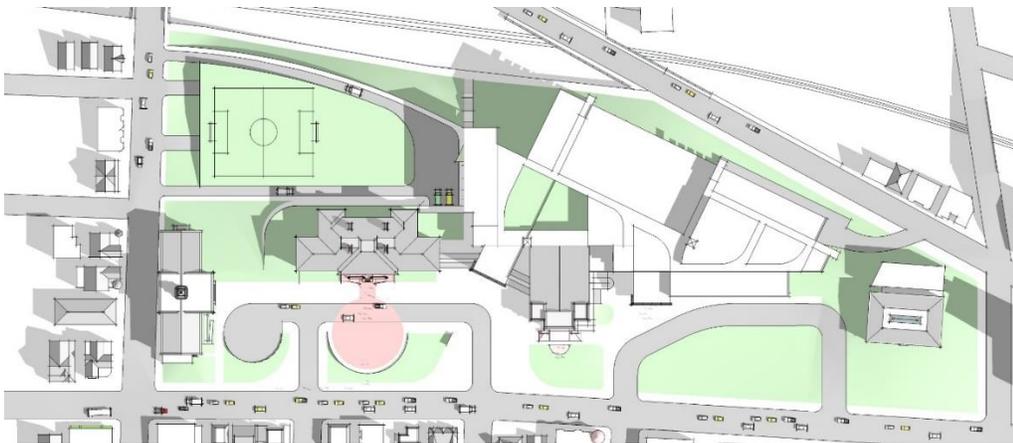
This alternative will involve phased demolition and construction activities due to the lack of sufficient swing space in the City to accommodate the entirety of the high school population. The portion of the existing building to be demolished is approximately 277,450 square feet, the portion to remain and be renovated is approximately 82,700 square feet and the additions total approximately 321,410 square feet, for a grand total of approximately 404,110 gross square feet and an estimated project cost of \$250 million.

Several reasons lead to the preference of Alternative 4B. Most importantly, it provides the quality of academic space needed for the projected student population and the complex project based curriculum available in a mostly new building that would not be as easily achieved in the various addition/renovation alternatives. And meets the needs of the City's long range masterplan goals and needs on Central Hill and the rapidly changing urban environment of Gilman Square.

In this option, building functions are located for educational efficiency, enhanced teacher collaboration, and student engagement in teaching and learning.

The layout is flexible, looks to minimize the impact of construction on students, and provides options should future expansion be necessary. The current non-code compliant organization of space and circulation, which is disruptive to education and unsafe for occupants, is eliminated. New desperately needed outdoor field space is created in the City and parking/traffic patterns are optimized in this design.

Current cost trends in the City and the Commonwealth make the SHS project one of the most costly schools in recent times. The SBC and the Office of the Mayor are committed to confirming and reducing scope during the schematic design phase in order to ensure the most cost effective and educationally sound project and by proactively investigating a somewhat reduced scope, the District will be able to provide a transformative environment in a mostly new building at a budget that is anticipated to be supported by the citizens of Somerville. The potential reductions to the scope are delineated in the cover letter for the submission.



Alternative 4B - Site



Alternative 4B - Site Perspective



Alternative 4B - Perspective from Highland Avenue



Alternative 4B - Perspective from Medford Street



Alternative 4B - Perspective from Medford Street



Alternative 4B - Perspective from Highland Avenue

## **1.6 MSBA PDP REVIEW AND DISTRICT RESPONSE**

The City of Somerville received preliminary design program (PDP) comments from the MSBA on April 15, 2016 and provided responses on May 2<sup>nd</sup>, 2016. The design team believes all issues raised within the PDP review have been addressed.

## **1.7 SECTION ONE ATTACHMENTS**



## 1.2 Project Schedule



Activity Name	Original Duration	Start	Finish	Total Float	
<b>Somerville High School Master Schedule</b>					
<b>OPM / Architect Contract (MSBA Module 2 "Forming the Team")</b>					
<b>OPM</b>					
MSBA Approval of PMA as OPM	0		15-Feb-15 A		Approval of PMA as OPM
OPM Contract Negotiation & Execution	8	09-Mar-15 A	22-Apr-15 A		Contract Negotiation & Execution
<b>Architect</b>					
PMA Develop A/E RFS Draft	4	20-Apr-15 A	23-Apr-15 A		Develop A/E RFS Draft
City Review / Comment on A/E RFS Draft	2	24-Apr-15 A	29-Apr-15 A		Review / Comment on A/E RFS Draft
MSBA Review/Approve A/E RFS Draft	5	29-Apr-15 A	11-May-15 A		Review/Approve A/E RFS Draft
PMA Finalize A/E RFS Draft	1	11-May-15 A	12-May-15 A		Finalize A/E RFS Draft
A/E RFS Solicitation / Proposal Period	15	20-May-15 A	10-Jun-15 A		Solicitation / Proposal Period
City/PMA Review Submissions & Complete Checklist	5	10-Jun-15 A	18-Jun-15 A		Review Submissions & Complete Checklist
DSP Review A/E Choices 2 wks Prior to Meeting	10	18-Jun-15 A	01-Jul-15 A		Review A/E Choices 2 wks Prior to Meeting
MSBA Designer Selection Panel	0		07-Jul-15 A		Designer Selection Panel
MSBA Designer Selection Panel Interviews	0		21-Jul-15 A		Designer Selection Panel Interviews
A/E Contract Negotiation & Execution	10	22-Jul-15 A	04-Aug-15 A		Contract Negotiation & Execution
<b>Feasibility Study / Preferred Option for Schematic (MSBA Module 3)</b>					
<b>Preliminary Design Program (PDP)</b>					
<b>Existing Conditions Evaluation</b>					
Review/Update Existing Conditions Drawings	20	05-Aug-15 A	01-Sep-15 A		Review/Update Existing Conditions Drawings
Topographic Site Surveys	20	12-Aug-15 A	08-Sep-15 A		Topographic Site Surveys
Site Investigations	20	26-Aug-15 A	22-Sep-15 A		Site Investigations
Review Code/Structural Requirements	20	09-Sep-15 A	06-Oct-15 A		Review Code/Structural Requirements
Geotechnical Investigations	20	26-Oct-15 A	30-Oct-15 A		Geotechnical Investigations
Haz Mat Analysis	20	21-Sep-15 A	06-Nov-15 A		Haz Mat Analysis
<b>Preliminary Evaluation of Alternatives</b>					
Identify Preliminary Sites Locations	10	02-Sep-15 A	15-Sep-15 A		Identify Preliminary Sites Locations
Analysis of Sites for Feasibility	10	16-Sep-15 A	29-Sep-15 A		Analysis of Sites for Feasibility
Preliminary Plan and Site Diagrams	10	30-Sep-15 A	13-Oct-15 A		Preliminary Plan and Site Diagrams
SBC Approve Planning Diagrams	5	14-Oct-15 A	04-Nov-15 A		SBC Approve Planning Diagrams
Review/Update Potential Alternatives	10	14-Oct-15 A	05-Nov-15 A		Review/Update Potential Alternatives
SBC Approve Site Selections & Alternatives	5	14-Oct-15 A	10-Feb-16 A		SBC Approve Site Selections & Alternatives
Cost Evaluation of Alternatives	15	17-Dec-15 A	10-Feb-16 A		Cost Evaluation of Alternatives
<b>Site Development Requirements</b>					
Review Zoning	15	30-Sep-15 A	20-Oct-15 A		Review Zoning
Wetlands/Conservation Requirements	15	30-Sep-15 A	20-Oct-15 A		Wetlands/Conservation Requirements
Ambient Noise Analysis	3	04-Nov-15 A	06-Nov-15 A		Ambient Noise Analysis
Geo - Environmental Analysis (Phase 1)	15	26-Oct-15 A	13-Nov-15 A		Geo - Environmental Analysis (Phase 1)
Orientation/Parking/Traffic Analysis	15	28-Oct-15 A	18-Nov-15 A		Orientation/Parking/Traffic Analysis
Site Program Development	20	19-Nov-15 A	16-Dec-15 A		Site Program Development
<b>Educational Program &amp; Space Summary</b>					
School Dept Review/Revise Existing Ed Program w/ Architect Input	40	23-Jul-15 A	16-Sep-15 A		School Dept Review/Revise Existing Ed Program w/ Architect Input
Meetings with Staff and Teachers	20	17-Sep-15 A	14-Oct-15 A		Meetings with Staff and Teachers
Architect Review Space Summary	15	15-Oct-15 A	30-Nov-15 A		Architect Review Space Summary
Ed Program & Space Summary (First Draft - Outline)	15	04-Nov-15 A	08-Jan-16 A		Ed Program & Space Summary (First Draft - Outline)
School Committee Review Ed Plan	8	08-Jan-16 A	13-Jan-16 A		School Committee Review Ed Plan
SBC, SC & BOA Ed Plan Comment Period	3	11-Jan-16 A	13-Jan-16 A		SBC, SC & BOA Ed Plan Comment Period
School Dept Finalize Ed Program	2	14-Jan-16 A	15-Jan-16 A		School Dept Finalize Ed Program
SBC Final Draft Review and Vote to Approve Ed Plan	3	18-Jan-16 A	20-Jan-16 A		SBC Final Draft Review and Vote to Approve Ed Plan



Activity Name	Original Duration	Start	Finish	Total Float	
<b>PDP Report</b>					
Compile PDP Report	10	21-Jan-16 A	10-Feb-16 A		Compile PDP Report
Local Actions and Approval Certification for PDP	0		10-Feb-16 A		Local Actions and Approval Certification for PDP
Submit PDP Report to MSBA (Due 10 Weeks Prior to PSR Submission)	3	11-Feb-16 A	29-Feb-16 A		Submit PDP Report to MSBA (Due 10 Weeks Prior to PSR Submission)
MSBA PDP Review Period	15	01-Mar-16 A	15-Apr-16 A		MSBA PDP Review Period
District Response to MSBA PDP Comments	10	18-Apr-16 A	02-May-16 A		District Response to MSBA PDP Comments
<b>Preferred Schematic Report</b>					
Submit Project Notification Form (PNF)	1	21-Dec-15 A	04-Jan-16 A		Submit Project Notification Form (PNF)
MHC PNF Review Period	38	06-Jan-16 A	26-Feb-16 A		MHC PNF Review Period
Somerville Historic Preservation Presentation	1	15-Mar-16 A	15-Mar-16 A		Somerville Historic Preservation Presentation
Somerville HPC Working Session	1	23-Mar-16 A	23-Mar-16 A		Somerville HPC Working Session
Somerville HPC Special Meeting - Vote on School Project (after SBC narrows c	1	29-Mar-16 A	29-Mar-16 A		Somerville HPC Special Meeting - Vote on School Project (after SBC narrows down to 3 options)
PMA Submit PNF Update to MHC w/ SPHC Feedback Incl.	5	29-Mar-16 A	31-Mar-16 A		PMA Submit PNF Update to MHC w/ SPHC Feedback Incl.
Somerville Historic Letter of Recommendation Submitted to MHC w. PNF #2	2	16-Mar-16 A	31-Mar-16 A		Somerville Historic Letter of Recommendation Submitted to MHC w. PNF #2
MHC Consult with Project Team & SHPC Representative	1	01-Apr-16 A	01-Apr-16 A		MHC Consult with Project Team & SHPC Representative
MHC Review PNF #2 & Somerville Historic Comments & Issue Determination	26	31-Mar-16 A	05-May-16 A		MHC Review PNF #2 & Somerville Historic Comments & Issue Determination
MHC Consult #2 with Project Team & SHPC Representative	1	16-May-16 A	16-May-16 A		MHC Consult #2 with Project Team & SHPC Representative
District Compile & Submit MHC Pkg #3 (Ed Plan, NEASC Reports, PDP)	5	06-May-16 A	16-May-16 A		District Compile & Submit MHC Pkg #3 (Ed Plan, NEASC Reports, PDP)
MHC Review Submission #3 & Issue Determination	20	16-May-16 A	10-Jun-16	2	MHC Review Submission #3 & Issue Determination
MHC Change Project to No Adverse Effect -or- Draft MOA	5	13-Jun-16	17-Jun-16	2	MHC Change Project to No Adverse Effect -or- Draft MOA
Execute MOA (if required)	20	20-Jun-16	15-Jul-16	2	Execute MOA (if required)
<b>PSR Submission</b>					
SBC Narrow Down to 5 Alternatives (3/14 SBC Meeting)	1	14-Mar-16 A	14-Mar-16 A		SBC Narrow Down to 5 Alternatives (3/14 SBC Meeting)
Update Design Program	3	15-Mar-16 A	17-Mar-16 A		Update Design Program
Update Existing Conditions Evaluation	3	15-Mar-16 A	17-Mar-16 A		Update Existing Conditions Evaluation
SBC Narrow Down to 3 Alternatives (3/28 SBC Meeting)	1	28-Mar-16 A	28-Mar-16 A		SBC Narrow Down to 3 Alternatives (3/28 SBC Meeting)
Further Development of 3 Options	9	29-Mar-16 A	08-Apr-16 A		Further Development of 3 Options
SBC Selection of Preferred Option (4/11 SBC Meeting)	1	11-Apr-16 A	11-Apr-16 A		SBC Selection of Preferred Option (4/11 SBC Meeting)
Green Charratte Meeting - Identify High Performance Objectives	3	04-May-16 A	06-May-16 A		Green Charratte Meeting - Identify High Performance Objectives
Development of Preferred Option	10	12-Apr-16 A	06-May-16 A		Development of Preferred Option
Conceptual Building/Site Plans	10	12-Apr-16 A	06-May-16 A		Conceptual Building/Site Plans
Building Massing Studies	10	12-Apr-16 A	06-May-16 A		Building Massing Studies
Tailor Cost Estimate/Budget/Schedule to Preferred Option	9	18-Apr-16 A	09-May-16 A		Tailor Cost Estimate/Budget/Schedule to Preferred Option
SBC Approve Cost & Schedule (5/9 SBC Meeting)	1	09-May-16 A	09-May-16 A		SBC Approve Cost & Schedule (5/9 SBC Meeting)
Development of Preferred Schematic Report (PSR)	19	12-Apr-16 A	20-May-16 A		Development of Preferred Schematic Report (PSR)
Local Actions and Approval Certification for PSR (5/23 SBC Meeting)	1	23-May-16 A	23-May-16 A		Local Actions and Approval Certification for PSR (5/23 SBC Meeting)
Compile & Submit PSR (Due 6/2/16)	8	24-May-16 A	02-Jun-16 A		Compile & Submit PSR (Due 6/2/16)
Facilities Assessment Subcommittee (Target 6/15 FAS Meeting)	1	15-Jun-16	15-Jun-16*	0	Facilities Assessment Subcommittee (Target 6/15 FAS Meeting)
MSBA Review Period	35	02-Jun-16 A	20-Jul-16	0	MSBA Review Period
MSBA Approval to Proceed to Schematic (7/20/16 Board Meeting)	1	20-Jul-16	20-Jul-16*	0	MSBA Approval to Proceed to Schematic (7/20/16 Board Meeting)
<b>Schematic Design (MSBA Module 4)</b>					
City Approval of Funding for SD	5	16-Jun-16	22-Jun-16	26	City Approval of Funding for SD
Schematic Design	90	21-Jul-16	23-Nov-16	6	Schematic Design
Submit SD for MSBA Board Meeting	3	24-Nov-16	28-Nov-16	6	Submit SD for MSBA Board Meeting
MSBA Review Period	35	29-Nov-16	16-Jan-17	6	MSBA Review Period
MSBA Approval of Schematic & Project Scope Budget Agreement (Target 1/25/17)	1	25-Jan-17	25-Jan-17*	0	MSBA Approval of Schematic & Project Scope Budget Agreement (Target 1/25/17 Board Meeting)
City Local Funding Authorization (Likely to Occur on Nov 8 Ballot)	10	26-Jan-17	08-Feb-17	3	City Local Funding Authorization (Likely to Occur on Nov 8 Ballot)
<b>Schematic Phase Permitting</b>					
Planning Approvals (incl. Fence Height, Setback, Sign Variances)	25	21-Jul-16	24-Aug-16	71	Planning Approvals (incl. Fence Height, Setback, Sign Variances)



Somerville High School Master Schedule		PMA MSBA Project Layout				31-May-16 10:33
Activity Name	Original Duration	Start	Finish	Total Float	Gantt Chart	
Conservation Approvals	25	21-Jul-16	24-Aug-16	71	[Gantt Bar]	
DESE Special Education Program Review	30	13-Oct-16	23-Nov-16	6	[Gantt Bar]	
Demolition Permit (incl 9 Month Delay)	180	09-Feb-17	18-Oct-17	108	[Gantt Bar]	
<b>Design Development</b>						
Design Development	105	09-Feb-17	05-Jul-17	3	[Gantt Bar]	
MSBA Design Development Review Period	15	06-Jul-17	26-Jul-17	8	[Gantt Bar]	
District DD Review Response & Drawing Revisions	10	27-Jul-17	09-Aug-17	8	[Gantt Bar]	
<b>DD/CD Phase Permitting</b>						
LEED or Registration (LEED Silver v4.0)	5	09-Feb-17	15-Feb-17	108	[Gantt Bar]	
Planning Board Site Plan Review	5	06-Apr-17	12-Apr-17	68	[Gantt Bar]	
Curb Cut Permitting	5	29-Jun-17	05-Jul-17	8	[Gantt Bar]	
LEED Provisional Review Submittal	40	26-Oct-17	20-Dec-17	68	[Gantt Bar]	
<b>Construction Documents</b>						
60% Construction Documents	80	06-Jul-17	25-Oct-17	3	[Gantt Bar]	
MSBA 60% CD Review Period	15	26-Oct-17	15-Nov-17	3	[Gantt Bar]	
District 60% CD Review Response & Drawing Revisions	5	16-Nov-17	22-Nov-17	3	[Gantt Bar]	
90% CDs and 100% Early Site, Site Utilities, Foundation Bid Package	60	23-Nov-17	14-Feb-18	3	[Gantt Bar]	
MSBA 90% CD Review Period	15	15-Feb-18	07-Mar-18	8	[Gantt Bar]	
District 90% CD Review Response & Drawing Revisions	5	08-Mar-18	14-Mar-18	8	[Gantt Bar]	
100% Construction Documents (Bid Package)	20	15-Mar-18	11-Apr-18	8	[Gantt Bar]	
<b>Procurement</b>						
CMR Selection (Preconstruction Services)	30	09-Feb-17	22-Mar-17	78	[Gantt Bar]	
Prequalification of Filed Sub Bidders	15	15-Feb-18	07-Mar-18	33	[Gantt Bar]	
Early Bid Package (Optional Early Package for Site Prep or Selective Demo / Ab)	40	18-Jan-18	14-Mar-18	3	[Gantt Bar]	
Advertise for Filed Sub Bids	5	12-Apr-18	18-Apr-18	8	[Gantt Bar]	
Bidding - Filed Subs	40	19-Apr-18	13-Jun-18	8	[Gantt Bar]	
Execute GMP Contract	20	14-Jun-18	11-Jul-18	8	[Gantt Bar]	
<b>Construction</b>						
Notice to Proceed (Execution of CMR's First "Mini-GMP" Amendment)	0	15-Mar-18		3	[Gantt Bar]	
<b>Phase 1</b>						
Early Site Prep, Selective Demolition, Building Stabilization (14 wks)	70	15-Mar-18	20-Jun-18	3	[Gantt Bar]	
Phase 1 - Demo/Build East of Gym (110 wks)	550	21-Jun-18	29-Jul-20	3	[Gantt Bar]	
Phase 1A - Renovate Field House Gym Level (10 wks)	50	18-Jun-20	26-Aug-20	3	[Gantt Bar]	
Phase 1 - Commissioning, FF&E, IT, Move, Punchlist	40	02-Jul-20	26-Aug-20	3	[Gantt Bar]	
Phase 1 - Students & Teachers Return (8/31/20)	0		31-Aug-20*	0	[Gantt Bar]	
<b>Phase 2</b>						
Phase 2 - Demo South of Gym & East 1929 Wing, Complete New Bldg (110 wk)	550	22-Jun-20*	29-Jul-22	0	[Gantt Bar]	
Phase 2A - Renovate Shops Below Field House (10 wks)	50	17-Jun-22	26-Aug-22	2	[Gantt Bar]	
Phase 2 - Commissioning, FF&E, IT, Move, Punchlist	40	04-Jul-22	26-Aug-22	1	[Gantt Bar]	
Phase 2 - Students & Teachers Return (8/29/22)	0		29-Aug-22*	0	[Gantt Bar]	
<b>Phase 3</b>						
Phase 3 - Demo West 1929 Wing, Construct Garage/Field (60 wks)	300	20-Jun-22*	11-Aug-23	0	[Gantt Bar]	
Phase 3 - Students & Teachers Return (8/28/23)	5	22-Aug-23	28-Aug-23*	0	[Gantt Bar]	
<b>Closeout</b>						
10 Month Warranty Walkthrough	5	05-Jun-23	09-Jun-23	105	[Gantt Bar]	
Project Financial Closeout (District Level)	0		11-Aug-23	60	[Gantt Bar]	
LEED Final Review Submission	60	14-Aug-23	03-Nov-23	0	[Gantt Bar]	
Project Final Completion - Ready for MSBA Final Audit	0		03-Nov-23	0	[Gantt Bar]	

█ Actual Work    █ Critical Remaining Work  
█ Remaining Work    ◆ Milestone



## 1.6 MSBA PDP Comments



Jess Deleconio  
Project Coordinator  
Massachusetts School Building Authority  
40 Broad Street, Suite 500  
Boston, MA 02109

May 2, 2016

**RE: Preliminary Design Program for Somerville High School  
Project - District Response to MSBA Review Comments**

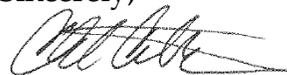
Dear Ms. Deleconio:

First, thank you for your time in reviewing our Module 3 Feasibility Study Preliminary Design Program (PDP) submission and providing thorough review comments for the Somerville High School Project in Somerville, MA on behalf of the Massachusetts School Building Authority. The comments provided are appreciated and will undoubtedly aid the Architect and OPM in developing the most beneficial and appropriate program for Somerville's new High School.

Since the PDP submission on February 29, 2016, the District, along with PMA and SMMA, has completed its in-depth analysis on each of the alternatives presented. The Building Committee and Community have identified Alternatives 2A, 3 and 4B as their three candidates for final evaluation, and most recently have selected Alternative #4B as their preferred solution, largely based upon its adaptability to the district's Educational goals. Further development and refinement of Alternative #4B is in process at this time and the District's PSR submission remains on target for June 2, 2016.

For ease of reviewing, we have structured this response in the same manner as the MSBA's PDP review comments. We look forward to the MSBA's response and are eager to continue with development of the preferred solution. As always, please feel free to contact me with any questions or concerns.

Sincerely,



Chad Crittenden  
Director | Senior Project Manager  
PMA Consultants, LLC



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Office Hill Park  
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Braintree, MA  
02184  
Tel: 781.794.1404  
Fax: 781.794.1405

May 2, 2016

**District:** City of Somerville  
**School:** Somerville High School  
**Submittal:** Preliminary Design Program  
**Submittal Date:** February 29, 2016  
**Review Date:** April 15, 2016  
**Reviewed by:** Karl Brown

**Re: Somerville High School**

*Responses to Preliminary Design Program Review Comments*

*SMMA No. 15070.00*

**MSBA REVIEW COMMENTS:**

The following comments<sup>1</sup> on the Preliminary Design Program (“PDP”) submittal are issued pursuant to a review of the project submittal document for the Somerville High School presented as a part of the Feasibility Study submission in accordance with the MSBA Module 3 Guidelines, as produced by Symmes, Maini & McKee Associates, and its consultants. Certain supplemental components from the Owner’s Project Manager (OPM) – PMA Consultants, are included.

**I. Summary Comments:**

Although the PDP submittal is intended to be limited to a preliminary investigation of the feasibility study issues, there are several concerns summarized below that are not fully addressed in the submitted material that may have a significant effect on the District’s preferred option in the following phases of the study. The District and design team must continue to fully investigate these issues for the information provided in the subsequent Preferred Schematic Report (“PSR”) submittal. Refer to the additional comments to follow for a full review of these concerns:

- a. The provided material doesn’t explain the discrepancy between the District’s budget, the proposed scope and the

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<sup>1</sup> 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.

resulting budget of preliminary options. The Designer RFS gave a construction budget of \$100m - \$120m, the District's stated project budget in the submittal is \$245m - \$275m, and the design options range as high as \$297m, many of which are above the District's stated maximum budget. In addition, there are significant alternative scope items (51,648 gsf of undefined auxiliary spaces and various parking garage with field options) that potentially increase that scope. For the following PSR submittal, the District will have to be more definitive about the limits of its budget and what it intends to include in the scope of work.

- b. Although the Study Certification includes three design enrollments, there is no apparent investigation of alternates that don't include the larger scope including the two alternative Next Wave / Full Circle schools. How these schools relate to the 9-12 population, if at all, and why adding these essentially separate alternative schools is appropriate and desired, is not explained.
- c. As indicated in the comments in 3.1.2, the submittal appears to indicate that the Next Wave and Full Circle programs are combined with the high school but it is not clear based on the submitted information if the District is intending to keep the schools separate or to build a new centralized facility. Please review and respond to all of the comments regarding the Next Wave and Full Circle programs in order to finalize the review and approval that is required by the Department of Elementary and Secondary Education.
- d. Indications in the educational program are that the District will continue to operate the school as independent departments, although this isn't explicitly stated. If that is the intent, it should be clearly stated.
- e. The District states intent to increase the number of existing Career Technical Education ("CTE") programs although some of the current CTE programs appear to be under enrolled. The submittal should describe any investigations performed to confirm the viability of each of the existing and proposed CTE programs, and potentially discontinue programs that are under enrolled.
- f. Although previous renovation / addition projects at this facility weren't funded by the State, the MSBA notes that relatively new construction is being considered for demolition.
- g. The submittal does not go into detail how the District intends to address the historic nature of the existing building and surrounding environment, or how any attempts to conserve historic portions of the facility and its environment might ultimately affect the cost or the District's selection of a preferred solution.

Response:

- a. The District's \$100-\$120M stated Construction budget contained within the Designer RFS was very high level and based upon the MSBA allowable cost per square foot (\$287/SF) multiplied by the total square footage of the existing building (~360,000SF). Since the Designer RFS was published, it has become apparent that the existing building is not a likely candidate for renovation and the District has been provided with current market data information for both heavy add/reno and new construction projects in the region. Additional factors which influence cost have been analyzed by the Building Committee as well, including cost premiums resulting from the Chapter 74 components, the School's constrained site, challenging topography and the project's proximity to Boston. At this time, the District's target project budget remains an approximation, it is anticipated that a Proposition 2 ½ Debt Exclusion may be required in order to fund the project. The District continues to evaluate all available funding options during selection and development of the preferred schematic option. Upon selection of the preferred option, the District will then evaluate which alternative scope options are considered priority items and will be included in the Proposition 2 ½ Debt Exclusion. A ballot question is currently anticipated to appear on the November 2016 ticket to obtain voter support for the proposed project. It should be noted that Somerville's Director of Finance, Ed Bean, is intricately involved as a member of the School Building Committee and has previously offered the following: "The sheer magnitude of cost associated with the renovation/construction of Somerville High School leads to serious consideration of a Proposition 2 ½ Debt Exclusion. For example, if the City's Share were \$140 million, and the City borrowed the entire share, the aggregate indebtedness of the City would double compared to existing levels. A bond issue in the amount of \$140 million at current rates would add an additional \$8,891,725 in annual debt service to the city Operating Budget. This would not be sustainable with or without the consideration of other Capital Projects. The total value of needs identified for all projects over a ten-year horizon is \$238 million, excluding the cost of the renovation/construction of Somerville High School. These amounts are preliminary estimates for planning purposes and will and do change. To that end, a preliminary estimate of \$37 million for the city's share of the Somerville High School Project for debt service was incorporated into the CIP as a carrying amount. That estimate will now be revised upward based on new and better information from the architects."
- b. The primary goal of the Next Wave (grades 6-8) and Full Circle (grades 9-12) alternative schools are to provide students

who, for a variety of reasons have had difficulty experiencing success in a more traditional school setting, with a modified educational experience that will allow them to eventually transition to a more traditional and inclusive setting. While closely linked in this plan, Next Wave, Full Circle and SHS will continue to operate as independent schools/programs. Adding Next Wave and Full Circle as substantially separate “schools within a school” allows us to provide this high-needs population with the appropriate supports to meet their needs, while at the same time providing more equitable access to other resources and services available at Somerville High School, as well as a clear connection and pathway to SHS, the traditional educational setting toward which Next Wave and Full Circle students are working. Embedding Next Wave and Full Circle as schools within a school allows NW/FC students to maintain their own identity – an important consideration for a high-needs group of students with numerous challenges – and creates a sense of support and partnership, as opposed to a sense of exclusion that a separate ‘program’ within a larger school, or offsite setting, might create. It also gives these students access to the programming of Somerville High School, as appropriate for the individual student learning needs as they may then cross-register to SHS on a course by course basis. Including Next Wave students (grades 6-8) in this plan ensures that these students continue to benefit from alternative programs and services designed to meet the needs of NW and FC students, maintains their connection with alternative school staff, who work as a grade 6-12 team, experienced with NW and FC students. The direct High School connection also maximizes the opportunity for NW students to transition to Somerville High School instead of Full Circle by developing a sense of familiarity and connecting them to the programs and services at SHS at an earlier grade level.

- c. Please refer to each individual comment. Responses have been noted under each question/comment as appropriate.
- d. It is the district’s intent to continue to operate the school as independent departments, building in thoughtful department adjacencies as an integral piece of the educational plan in this project to ensure cross-departmental integration of learning experiences that meet 21<sup>st</sup> century learning goals, efficient use of skills and resources, and a cohesive student support structure.
- e. The enrollment data, as officially reported, under-counts the full enrollment in the CTE programs since it does not consider cross-registered students, general education students who enroll in CTE as an elective. This is unique to Somerville High and the handful of other Massachusetts high schools that maintain comprehensive CTE in addition to a full General Education program under one roof. In regard to the process of projecting enrollments in the CTE program themselves, the current 13-CTE programs at Somerville High School go through an annual program review by the General Advisory and Program Advisory Committees every October and April. We utilize a benchmark form to evaluate the need and viability of each existing program. During this review, programs are benchmarked on the following factors: employment trends, placement, viability to the geographical area and enrollment. The current few programs with low enrollment are programs that have larger numbers in electives that are not counted in the SIMS report due to our status as a comprehensive school. This is because, as stated previously, we allow students to take certain programs as electives. The proposed four programs of: HVAC, Plumbing, Barbering and Medical Occupations are clustered with other programs with much larger student enrollments. The need for these programs comes from data research through the Metro-North Regional Employment Board, Tisch College study at Tufts University and our General Advisory Committee. The CTE population has grown 100% over the past five years and is trending up as we align our programs with STEM.
- f. No response required
- g. To-date, the project team has participated in a total of three meetings with Somerville’s Historic Preservation Commission (SHPC), including two public, posted meetings and one working session. SHPC members voted unanimously in support of the three options selected by the SBC (Alt 2A, 3 & 4B) for final evaluation at their public meeting on March 29<sup>th</sup>. SHPC members expressed their desire to salvage the existing central academic building (1895 & 1914 vintage), along with the 1929 “War Memorial” building façade (current HS library). On March 31<sup>st</sup>, the project’s second Project Notification Form (PNF) was submitted to the Massachusetts Historical Commission (MHC), this PNF identified the three options for final evaluation and included SHPC’s comments indicating unanimous support for each of the three remaining options. A conference call consultation with MHC, as requested by them in their response to the project’s first PNF, followed shortly thereafter on April 1<sup>st</sup>. The project team is currently awaiting MHC’s response to the project’s second PNF filing; comments were anticipated on or before April 29, 2016.

### 3.1 Preliminary Design Program

Preliminary Design Program shall include the following:

- a. OPM certification of completeness & conformity – *Complete.*
- b. Table of Contents – *Complete.*
- c. Introduction – *Complete. Refer to comments shown in italics.*
- d. Educational Program – *Complete. Refer to comments shown in italics.*
- e. Initial Space Summary – *Complete. Refer to comments shown in italics.*
- f. Evaluation of Existing Conditions – *Complete. Refer to comments shown in italics.*
- g. Site Development Requirements – *Complete.*
- h. Preliminary Evaluation of Alternatives – *Complete. Refer to comments shown in italics.*
- i. Local Actions and Approvals Certification(s) – *Complete. Refer to comments shown in italics.*
- j. Appendices – *Complete.*

Response: No Additional Comments required

### 3.1.1 Introduction

- a. Brief summary of the Facility Deficiencies (and Current S.O.I., located in the Appendix) – *Provided.*
- b. Date of invitation to conduct a Feasibility Study (and MSBA Board Action Letter, located in the Appendix) – *Provided.*
- c. Executed Design Enrollment Certification (located in the Appendix) – *Provided.* The agreed upon design enrollments include 1,515 students for grades 9-12, 1,565 students for 9-12 including the Full Circle program, and 1,590 students for grades 9-12 including both the Full Circle and Next Wave programs.
- d. Narrative summary of the Capital Budget Statement and Target Budget for the proposed project– *Provided;* the District states “a target budget of \$245m to \$275m would be appropriate for a project of this magnitude that would fully satisfy Somerville’s Comprehensive Educational Program.” In the District’s response to this review, verify that these budget figures represent project costs and not construction costs. For subsequent submittals, and in order for the District to be clear about their evaluation of options, provide a budget limit for evaluation purposes (see additional related comments in 3.1.6 Preliminary Evaluation of Alternatives).
- e. Project Directory with contact information – *Provided.*
- f. Updated Project Schedule – *Provided;* the submitted schedule provides a 15 day duration for the MSBA DD, 60% CD and 90% CD review periods. Revise & resubmit a schedule that provides the required 21 day duration for these 3 tasks.

Response:

- a. Through e - No response required
- f. The durations indicated in the submitted schedule are calculated in working days (this is typical for Primavera scheduling software); the 15 working day duration included is equivalent to the required 21 calendar day MSBA review period for each submission.

### 3.1.2 Educational Program

Summary and description of the existing educational program, and the new or expanded educational vision, specifications, process, teaching philosophy statement, as well as the District’s curriculum goals and objectives of the program:

- a. *The District is proposing that the Next Wave / Full Circle programs are combined with the High School. However, it isn’t clear the District wants to keep the schools separate (separate school codes, principals, etc.), or build a new centralized facility for all three of them. In addition, it isn’t clear if this facility is intended to function as one school, or three schools. If the District is consolidating three schools into one, that should be stated explicitly. Please clarify the District’s intent and address the above and the following comments on these programs in your response.*
  - i. *Students who need a separate day school placement should be provided a day school that is separate. Students who need a "substantially separate" placement should have already been included in Somerville High School, and they should be integrated into the life of the school. Somerville has reported to DESE that the students in the Next Wave and Full Circle programs require separate day school placements: not substantially separate placements. Please discuss and clarify*

*how students requiring a substantially separate program would be served if included at the high school.*

- ii. If students in the Next Wave Program don't require a substantially separate program, please provide the basis for including these students in the high school population versus including them at a local middle school. Describe any benefits and challenges regarding adding younger 6th-8th grade students into a large comprehensive high school and how the challenges would be mitigated*
  - iii. Given the large current population of the Somerville High School, please describe the benefits and challenges of adding the Next Wave / Full Circle programs to this facility, confirm the District's ability to integrate these functions into the program, and administer these added programs.*
- b. Grade and school configuration policies – Provided.*
  - c. District class size policies– Provided. The submittal notes that although the District does not have a class size policy, the target maximum class size is 23.*
  - d. School scheduling method – Provided. The submittal notes that the proposed program does not have the typical week on/off CTE schedule. Describe how the schedule for a student in the CTE program relates to the same student's academic schedule, and confirm that the proposed block schedule allows adequate duration of individual CTE classes.*
    - i. The submittal notes that as a comprehensive program, the proposed curriculum will include a full range of class offerings including CTE, arts, athletics and specials. The MSBA notes that space utilization analyses of academic programs will be based on the number of students in the academic programs during any given period, and will not include students that are counted in capacity generating spaces in the CTE rotation.*
  - e. Teacher planning and professional development – Provided.*
  - f. Administrative and academic organization/structure (e.g., academies, departments, houses, grade based cohorts, teams, room assignment policies etc. teams, etc.) – Provided. The submittal notes that the existing academic portion of the school is organized by department, and CTE programs are grouped into 6 clusters of related courses. The educational program describes intent to introduce new design concepts (collaboration areas, transparency, etc) with a goal to move toward a more flexible and adaptable approach, including interweaving of some CTE programs with academic courses. However, multiple references in the SMMA programming meeting notes suggest the school staff has a preference to consolidate departmental class functions and administration. For example; staff in Math, Science, Languages, Special Education, Art, CTE, English, Counseling, ESL and PE departments all expressed a preference to further consolidate their departments. The educational program doesn't clarify whether the District plans to transition away from the departmental organization, or, if the District does plan to maintain the current departmental organization, why the existing building can't serve that purpose.*
  - g. Student Guidance and Support Services– Provided. There is concern that either the counselors don't have easy access to each other, or the students don't have easy access to the counselors. It isn't clear how the school intends to achieve both. The District describes a preference for the counselors to work near each other, without addressing how this would be easier for the students (given the four houses, it would seem more difficult for students to access counseling services in a central location).*
  - h. Teaching Methodology – Provided, with the following comments:*
    - i. World Languages – describe why the World Language classes (currently shown as conducted in a 1,100 nsf lab space) can't be held in a typical General Classroom in order to increase utilization of classroom spaces.*
    - ii. Visual Arts - Please provide current and projected participation and utilization rates for the proposed photography darkroom, and how this space could be designed to be re-purposed if the program were to be eliminated from the curriculum.*
    - iii. Music/Performing Arts – The education program notes that the District middle school programs and the All-City Chamber Orchestra use the High School ensemble rooms, chorus rooms, orchestra and school band rooms. Describe the extent that these District-wide functions increase the net area of the Art/Music and Auditorium / Drama functions, independent of the area required for the High School students. Please provide current and proposed High School participation rates in the proposed Music*

and Performing Arts offerings and the basis of the number of spaces proposed for these curriculum offerings.

- IV. *Vocations/Technology – Based on the provided data, the current Chapter 74 programs at the High School appear to be under-enrolled. The District must explain why they have proposed to expand their CTE offerings, and describe any potential plans to eliminate the under-enrolled programs.*
- i. *Educational Technology instruction policies and program requirements (labs, in-classroom, media center, required infrastructure, etc.) –Provided. The submittal states a goal of a true 1:1 program for the new building.*
- j. *Special Education programs (in-house, collaborative, facility restrictions) –Provided, with the following comments:*
  - I. *Per the September 9, 2014 MSBA Enrollment Letter to the District, if the inclusion of the Full Circle High School and the Next Wave Junior High School students is determined to be the Preferred Solution, and given that the Preliminary Evaluation of Alternatives is limited to options that include the 1,590 design enrollment / Next Wave / Full Circle programs, the MSBA staff cannot recommend a Preferred Option for Board approval until the District can demonstrate that the proposed inclusion of these alternative educational programs has been approved by the Massachusetts Department of Elementary and Secondary Education, the Somerville School Committee and necessary District officials. Meeting notes in the submittal dated Sept 9, 2015 state that, in a conference call with the District, the DESE approved inclusion of these programs into the educational program. However, please see comments and questions noted below. The MSBA understands that DESE is still evaluating the District’s request. Further, the MSBA will also require a written plan from the District describing the process for determining local support and approvals for potentially including these programs into the proposed project.*
  - II. *The submittal notes that “...the district’s special education day/alternative junior high school and high school (Next Wave grades 6-8; and Full Circle grades 9-12) are planned to occupy a portion of the new Somerville High School design as a separate educational program located in a substantially separate space within the building that includes a separate entrance” and “...some Full Circle students are independent enough to take classes in the CTE program at SHS or to participate in sports and extracurricular activities at SHS.” For the purposes of reviewing the space utilization within the vocational and academic portions of the building, and given that their integration into the student population is described as substantially separate, please describe the extent that (if at all) these Next Wave / Full Circle students add to either the academic FTE enrollment, or the vocational enrollment.*
- k. *Lunch programs (number of servings, district kitchen, full service kitchens, warming kitchens, etc.) –Provided. The submittal notes that, although it does not serve this function now, the Somerville HS kitchen is intended to be the District’s primary production kitchen.*
- l. *Security and visual access requirements – Provided.*
- m. *Transportation policies – Provided.*
- n. *STEM / STEAM programs - The submittal states that the use of technology will be in support of STEAM principles and Project-based learning as integrated throughout the teaching and learning landscape at SHS.*
  - I. *Describe how the STEM/STEAM space will be scheduled.*
  - II. *Describe who will administer the space and where the space will be located; explain this choice and how this will affect the design and use of the space.*
  - III. *Describe the specific equipment and systems infrastructure required for this space.*
  - IV. *Describe any safety concerns for this space, and how the building design will address each concern.*
  - V. *Describe how the STEM and STEAM curricula will differ (both functionally and how the room and equipment differs), and how the principles of Project-based curricula will integrate the arts into a STEAM program.*
  - VI. *Describe any professional development or changes to staffing planned to implement these new programs.*

Response:

- a. *The district intends to keep Next Wave and Full Circle as separate schools, housed in a substantially separate wing of the new Somerville High School. Next Wave and Full Circle will continue to operate under the leadership of their own Principal and administrative team. Adding Next Wave and Full Circle as substantially separate “schools within a school”*

allows us to provide this high-needs population with the appropriate supports to meet their needs, while at the same time providing more equitable access to other resources and services available at Somerville High School, as well as a clear connection and pathway to SHS, the traditional educational setting toward which Next Wave and Full Circle students are working. Specifically, this population would benefit greatly from the opportunity to access a full array of vocational/CTE programming that SHS currently offers. Currently any access to CTE/vocational programming is limited by the co-location and schedule conflicts, making any participation difficult if not impossible. Additionally, NW/FC students have limited access to science labs, music, art, technology and languages--all of which could greatly benefit their engagement and participation during their high school years. Most importantly, while keeping the schools separate physically will maintain the small, therapeutic environment for students who require such, the concept of including NW/FC students in SHS where appropriate and providing opportunities for them to access and engage a rich learning environment with their larger peer group is something that both the NW/FC students and parents have been requesting for years. The principals of SHS and FC/NW will work jointly to ensure that schedule allows for such inclusion. Furthermore, embedding Next Wave and Full Circle as schools within a school allows NW/FC students to maintain their own identity – an important consideration for a high-needs group of students with a history of identity challenges – and creates a sense of support and partnership, as opposed to a sense of exclusion that a separate ‘program’ within a larger school setting might create.

- I. Next Wave/Full Circle functions both as a separate Special Education Day school and alternative middle and high schools. As such, NW/FC serves multiple cohorts of students, each needing something different. For the students who need a completely separate day school, our proposal allows for a school within a school model. In such a model, NW/FC students would be participating mostly in their self-contained space with the exception of utilizing common spaces at their own designated times such as the cafeteria, field house, lunch room, and the CTE programs. For students who may need a specialized program, that includes both separate space/classes and inclusion for some portion of the day. For these students, having access to general classes in the CTE/vocational and academic programming areas, extra curriculars, art, music, technology and languages will be vital to their sustained engagement and success in the high school years. Similarly, for the 40% of students who are non-IEP students in NW/FC but who need an alternative program of studies, being integrated and included in the broader SHS environment where appropriate, will be key to their secondary success and in preventing their potential drop out.
  - II. Somerville offers a K-8 school model. Including Next Wave students (grades 6-8) in this plan ensures that these students continue to benefit from alternative programs and services designed to meet the needs of NW and FC students, maintains their connection with alternative school staff experienced with NW and FC students, and maximizes the opportunity for NW students to transition to Somerville High School instead of Full Circle by developing a sense of familiarity and connecting them to the programs and services at SHS at an earlier grade level.
  - III. There are many benefits to adding Next Wave and Full Circle as a substantially separate school within a school model in this facility. It allows us to provide this high-needs population with the appropriate supports to meet their needs, while at the same time providing more equitable access to other resources and services available at Somerville High School, as well as a clear connection and pathway to SHS, the traditional educational setting toward which Next Wave and Full Circle students are working. It also provides the opportunity for joint professional development that can facilitate student transitions. The benefits would also include integration of Next Wave and Full Circle students into the CTE program and allowing better access to the curriculum. Maintaining substantially separate programmatic functions and administrative support for Next Wave/Full Circle and Somerville High School preserves the integrity of each programs’ goals, designed to serve the different needs of specific populations at each school, while at the same time greatly enhancing access to additional services, resources, and programs for Next Wave/Full Circle students that can further support their progress toward inclusion in a traditional school setting. The challenge of adding Next Wave/Full Circle programs to this facility is in coordinating facility use in a way that ensures a safe and gradual transition to a more inclusive environment for those students who demonstrate readiness for such a transition. The District already has in place coordinated efforts and centralized supports to support and administer programs throughout the district.
- b. No response required
  - c. No response required

- d. Because of the locked blocks in the Somerville High School schedule each CTE program by grade, has a specific number of blocks allocated each day. The times of certain grades vary by program due to internships, co-op and outside construction projects. In order to meet the state regulations for exploratory time, our grade nine students explore almost all of the freshman year. Under the current schedule our CTE students have the ability to meet all of the Massachusetts Core/State University requirements, plus have room for the arts.
- e. No response required
- f. The District plans to maintain the current departmental organization, but strengthen opportunities for collaboration through strategic and thoughtful adjacencies, co-location of departments, joint teacher planning areas, and flexible spaces that allow for multiple uses of areas by varying departments. Departments are organized by discipline in order to facilitate curricula delivery, professional development and educational evaluation and oversight. Maintaining departmental chairs and organization will be necessary as we envision a more robust curriculum to foster 21<sup>st</sup> Century learning. Department chairs will oversee this endeavor and any efforts that may be necessary to embark on delivering collaborative, innovative and integrated educational programming. The existing building is not designed to support co-location of departments or strategic adjacencies without compromising student safety and building oversight because of its elongated ‘wing’ design and inflexibility of classroom and other spaces. The current building also does not support collaborative learning, flexible spaces and interdisciplinary learning. The CTE programs, for example, which require specialized facilities, are currently located in a separate wing from the academic programs, making cross-integration between CTE and academic programming exceedingly difficult.
- g. In the case of guidance and student support, the model proposed is a distributed network model whereby there is a central hub for collaboration but the direct services themselves are conducted and provided both in and through the house structure. What has been missing in the current programming given the isolating nature of the SHS building is the opportunity for student support counselors to collaborate on a daily basis to share practice and thinking, particularly on the most difficult cases and emergencies. What the distributed network model for student support will provide is a central hub for that consultation and collaboration to happen on a daily basis. Because we offer within SHS a mixed delivery model of internal and external providers for counseling, advising and clinical support, it is necessary to ensure through the House structure that such services can happen closest to where students learn and reside. The flexible space of the House model will afford student support counselors to assign internal and external providers locations to provide both scheduled and unscheduled services. Given the crisis nature of the work that many of our support counselors provide, it will be necessary to have both private and public spaces in the Hub and in the Houses.
- h. Somerville School Department
  - I. World Language classes are regularly held in traditional classrooms, the utilization of which is reflected in the overall proposed quantity of academic classrooms. The proposed Language Lab will be utilized by all World Language classes on a rotating basis to supplement the educational opportunities for the rationale described in the Educational Program.
  - II. Please refer to the curriculum-space analysis below for photography class current and projected participation as well as utilization rates. The proposed program area of 1,000 NSF for the photography darkroom is sufficiently sized to be repurposed as a digital art computer lab environment if the curriculum dictates a shift to digital photography moving forward.

Course No.	Subject	Current Students per Subject 1,237	Proj. Students per Subject 1,515	Proj. Class Size	Sect.	Sessions Per Week	Total Sessions	Periods Per Week	Total Stations Required	Comments
VISUAL ARTS										
	Photography									
848-001 848-006	Photography 1	102	124	18	7	2	14.0	28	0.50	Semester Class
849-001	Advanced Photography	9	11	18	1	2	2.0	28	0.07	Semester Class
									0.57	
							0.50	/ .85 =	0.7	Say 1 Photography Space

- III. In order to meet the School Committee/District goal of creating a vibrant middle grades music program in a K-8 model, the SPS Music Department instituted All-City Middle School ensembles that rehearse and perform at Somerville High School due to the centrality of the venue and access to adequate equipment and rehearsal space. The creation of these All-City Middle School ensembles allows us to provide both middle grades and high school students with an authentic performance ensemble experience.

The **All-City Middle School Chorus** has between 90 and 110 student participants from grades 6, 7 and 8. The program includes an important mentorship component to connect the Somerville High School Chorus honors students with the Middle School ensembles for two joint performances, bringing the total number of students rehearsing and performing together to between 140 and 150. This ensemble meets weekly.

The **All-City Middle School Orchestra** has 60 to 70 student participants from grades 5, 6, 7 and 8. There is also a mentorship component embedded into this program that includes SHS Orchestra honors students for a weekly rehearsal, resulting in a total number of students rehearsing each week to between 100 and 110.

The **All-City Middle School Band** has 40 to 50 student participants from grades 6, 7 and 8. There is also a mentorship component embedded into this program that includes SHS Band honors students for a weekly rehearsal, bringing the total number of students rehearsing each week to between 60 and 75.

A significant and growing number of Somerville High School students participate in at least one of 17 music classes offered at the school. Current music offerings at SHS include: band (including honors level band), Jazz Band, Chorus (including honors level chorus), String Orchestra (including honors level string orchestra), Drum Line, Advanced Drum Line, World Percussion Ensemble, Special Music (Life Skills students), Musical Theatre, Show Choir, Piano, Music Technology, Music Theory, Guitar, Intro to Guitar (ensemble based), Advanced Guitar Ensemble, Viol de Gamba Ensemble.

In 2015-2016, 410 SHS students were enrolled in a music class, representing nearly 31% of the student population. Of the incoming freshman class, 119 students (34.3%) have enrolled in at least one music class. With the current trajectory (based on similar enrollment numbers), it is projected that in 2020 there will be approximately 476 students taking at least one music class at SHS.

- IV. All CTE programs are evaluated annually. We currently have two CTE programs that are under-enrolled. One program shows fewer numbers than the actual enrollment as we allow students to take this program as an elective. This data does not show up in the SIMS report, therefore enrollment appears lower than it actually is. The second under-enrolled program is currently undergoing a transformation from the old "shop" type of program to a more 21<sup>st</sup> century technology program. The transformation will incorporate a large influx of equipment, partnerships, career placements, and post-secondary opportunities. This program experienced a major upward trend in employment in the Greater Boston area over the past two years as the manufacturing boom has traveled from the western part of the state to the greater Boston area. The increase in technology and equipment is being funded by a recent grant award of more than \$600,000. Every CTE program will continue to be assessed annually.

i. No response required

j.

- I. The District is prepared to continue to pursue the necessary approvals for including these programs into the proposed project, and provide all required documentation to the MSBA.
- II. Access to programs and services at SHS is currently significantly limited due to the physical distance between the school sites when combined with the specialized needs of Next Wave/Full Circle students. Locating Next Wave/Full Circle in a substantially separate area within the Somerville High School building facilitates a gradual and safe introduction of traditional coursework and options for Full Circle students who demonstrate an appropriate level of readiness to integrate. While there is no way to estimate the projected increase due to the varying specialized needs and readiness of Next Wave/Full Circle students, we do anticipate that co-locating NW/FC within SHS will create an increase in enrollment in academic and/or CTE classes that will likely grow annually.

- I. No response required
- m. No response required
- n.

- I. Somerville was recently awarded grant funding to open a Fabrication Laboratory (“FAB LAB”) in September 2016 in an underutilized section of the CTE wing of the high school. The opening of this Fab Lab provides Somerville High School with a “maker space” and lab to be used across all disciplines. Although currently housed in the CTE wing of the school, in the new school it is envisioned that the FAB LAB will be a hub of activity and will be located in an area where its value can be maximized by all departments. STEM and STEAM are also viewed as educational concepts that will be embedded throughout a students’ educational experience at Somerville High School, facilitated by adjacencies, targeted interdisciplinary work, and community partnerships.
- II. Use of STEAM/STEM space within the school will be coordinated by the School Headmaster, working in partnership with Department heads and the CTE Director.
- III. The selection and design of the equipment and systems infrastructure for the FAB LAB will have flexibility as the primary guiding principle. Some equipment is currently being procured by the District for this program in the retro-fitted space in the CTE wing. Digital fabrication equipment such as 3D printers and laser cutters will be supplemented with traditional hand and power tools to create a robust maker environment. All current equipment procurement will be portable in nature, allowing resources from the retro-fitted space to be relocated to the space in the new high school upon its completion. The physical environment in the new school will be a combination of “dirty” and “clean” fabrication areas, supported by a flexible infrastructure of electrical power & lighting, portable exhaust systems, compressed air and water supply.
- IV. The equipment contained within the FAB LAB environment will require safety and operational protocols to be in place. Training on the proper and safe use of any equipment located in this space will be embedded into the curriculum and professional development plan for any discipline wishing to use the resource. The need for proper training in this space is no different than that which is required for use of a science lab or any of the CTE shop spaces. In fact, the comprehensive nature of the high school means that a culture of safe equipment usage is already integrated in the teaching and learning culture at Somerville High School, making the extension of these considerations into the FAB LAB environment a natural alignment. To support the culture of safety in the space, safeguards will be designed for acoustical and material safety with proper air quality and ventilation. Furthermore, proper floor clearances will be accounted for as part of the equipment layout design, and safety equipment such as automatic shut-off switches/valves and emergency showers/eyewashes will be provided.
- V. The STEAM lab offers a wider distribution of project based learning principles to the broader student population at SHS. The lab combines the best of modern robotics, physics and art classroom spaces in one singular and central location. While the equipment is sophisticated it is less program specific and therefore inherently more flexible than the CTE shop spaces which are curriculum specific and dedicated throughout the day to students enrolled in the certificate programs. The lab is intended as an interdisciplinary environment where the arts, design and the creative process can be implemented in the physical realm through development of problem solving skills for real world application. It is intended that the lab will serve as a resource for projects requiring a longer duration and therefore cannot be contained in standard arts and science spaces being used for ongoing curriculum delivery.
- VI. A coordinated Professional Development schedule will be implemented to ensure that all teachers are familiar with STEM/STEAM principles and are able to incorporate STEM/STEAM-related project-based work into their daily educational practices. Overall, along with training on the safe and proper use of equipment, PD on integration of multi-disciplinary learning will be provided to ensure that all staff are prepared to most effectively utilize program adjacencies within the new school. An existing partnership with MIT for use of the Fab Lab will further support professional development of STEM/STEAM practices.

**3.1.3 Initial Space Summary**

- a. Completed MSBA space summary spreadsheet - *Provided; refer to detailed comments in Attachment B.*
- b. Floor plans of the existing facility – *Provided.*
- c. Narrative description of reasons for all variances (if any) between proposed net and gross areas as compared to MSBA

guidelines – <i>Provided.</i>
Response: No response required
<p><b>3.1.4 Evaluation of Existing Conditions</b></p> <p>a. <i>There are multiple references in the submittal noting proposed project compliance with the 8th edition of the MA building code / 780 CMR. The OPM and Design Team must review the project schedule and verify that the code analysis and all design parameters used for this project are based on the edition of the building code that will be in effect when the project is submitted for building permit. Be advised that the MA Department of Public Safety and Board of Buildings, Regulations &amp; Standards have approved a draft 9th edition of the MA Building Code (including an updated “Stretch Energy Code”). The design team should confirm in response to these review comments.</i></p> <p>b. <i>Previous projects – as reported in the submittal, the existing building includes several recent addition / renovations including a 1986 vocational &amp; field house addition, a 2006 medical suite addition, and a 2014 auditorium, kitchen/cafeteria renovation. According to MSBA records, the most recent 2006 and 2014 projects did not include MSBA funding. The 1986 addition is 30 years old as of this review. In its evaluation of the feasibility study options, the District understands that MSBA regulations 963 CMR, Section 2.03(b) states that “Any project for the construction of a new school facility, or for the addition to or renovation of an existing school facility for which an Eligible Applicant is seeking partial funding from the Authority shall have an anticipated useful life of at least 50 years as a public school in the Eligible Applicant’s school district.” Provide a description of the District’s analysis that demonstrates discontinued use and replacement of the most recent facilities improvements (since 2000) represent the most appropriate and cost effective solution in addressing the educational needs of the facility. Demonstrate why they can’t be cost effectively incorporated into the District’s preferred solution, and the benefits of demolishing the areas in the preferred solution as applicable.</i></p> <p>c. <i>Confirmation of legal title to the property – Provided.</i></p> <p>d. <i>Determination that the property is available for development – Provided.</i></p> <p>e. <i>Existing historically significant features and any related effect on the project design and/or schedule – The submittal notes that the existing property includes multiple structures recorded by the Massachusetts Historical Commission (“MHC”) including the original 1895 high school and several various war memorials. In addition, the Central Hill area that includes the existing high school, 1914 library and 1852 city hall is included in the MHC inventory. However, the submittal states that the high school is not listed on any local or state historic register (although the adjacent city hall and library buildings are registered). In the project schedule provided in the subsequent submittal please include the timeline associated with filing with the MHC and obtaining MHC approval prior to construction bids. The District should keep the MSBA informed of any decisions and/or proposed actions and should confirm that the proposed project is in conformance with Massachusetts General Law 950, CRM 71.00.</i></p> <p>f. <i>Determination of any development restrictions that may apply – Provided.</i></p> <p>g. <i>Initial Evaluation of building code compliance for the existing facility – Provided. As noted, the existing building was constructed in various phases from 1895 to 2014, and is not compliant with current building codes.</i></p> <p>h. <i>Initial Evaluation of Architectural Access Board rules and regulations and their application to a potential project – Provided.</i></p> <p>i. <i>Preliminary evaluation of significant structural, environmental, geotechnical, or other physical conditions that may impact the cost and evaluations of alternatives. – Provided.</i></p> <p>j. <i>Determination for need and schedule for soils exploration and geotechnical evaluation – Provided.</i></p> <p>k. <i>Environmental site assessments minimally consisting of a Phase I: Initial Site Investigation performed by a licensed site professional – Provided. The submittal notes the existence of two 15,000 gallon underground fuel oil storage tanks and a 1,000 gallon underground diesel oil storage tank, and various residual soil contamination from multiple fuel oil spills in the boiler room and other areas. Potential sources are listed including coal ash and clinkers, and fuel oil burner discharge at the existing chimney. MSBA notes that all costs associated with abatement of contaminated soil from any source, and abatement of underground storage tanks must be itemized in the cost estimates for the following Schematic Design submittal as ineligible for MSBA reimbursement.</i></p> <p>l. <i>Assessment of the school for the presence of hazardous materials – Provided.</i></p>
<p>Response:</p> <p>a. <i>SMMA is aware of the upcoming code change. The existing building has been evaluated against the 8<sup>th</sup> edition of the code since that is the current governing document. SMMA is aware that any renovation, addition or new building</i></p>

option will need to comply with the governing code under which the building permit will be issued, which we anticipate as the 9<sup>th</sup> Edition.

- b. The disconnected nature and physical location of the 1986 and 2006 wings present unique challenges to the City's Educational Program and pose a near insurmountable obstacle in the implementation of critical adjacencies. The building as it currently sits includes a 900+ foot walk in addition to up to 5 flights of stairs from the entrances of the two rooms on opposite ends of the building, resulting in unavoidable operational efficiencies. Although the auditorium underwent approximately \$3M worth of partial renovations in 2014 due to Hurricane Sandy, the renovation consisted primarily of roof, ceiling, seating & minor electrical upgrades as required. The renovated auditorium remains insufficient and incapable of fully satisfying the school's needs as a performance environment, the stage lacks adequate space and a full fly loft, and the spaces located on the level beneath the auditorium lack natural daylight and are not suitable learning environments nor an efficient use of space. In the event that the existing auditorium is demolished, the project team will evaluate salvaging newer components of the existing auditorium (i.e. seating, theatrical lighting, audio systems, etc.) as part of development of the preferred option.
- c. No response required
- d. No response required
- e. No response required
- f. No response required
- g. No response required
- h. No response required
- i. No response required

**3.1.5 Site Development Requirements – Provided.**

Response:

No response required

**3.1.6 Preliminary Evaluation of Alternatives**

- a. The Preliminary Evaluation of Alternatives should include a detailed analysis of compliance with district objectives for each of the following:
  - I. Analysis of school district student school assignment practices and available space in other schools in the district – *Provided.*
  - II. Tuition agreement with adjacent school districts – *Provided.*
  - III. Rental or acquisition of existing buildings that could be made available for school use – *Provided.*
  - IV. Code Upgrade option that includes repair of systems and/or scope required for purposes of code compliance; with no modification of existing spaces or their function – *Provided.*
  - V. Renovation(s) and/or addition(s) of varying degrees to the existing building(s) – *Provided.*
  - VI. Construction of new building and the evaluation of potential locations – *Provided.*
- b. List of 3 distinct alternatives (including at least 1 renovation and/or addition option) are recommended for further development and evaluation – *Provided. Although the educational program does not state conclusively that the District proposes to limit study of options to those that include the Next Wave / Full Circle programs, and a preferred option has not been selected, none of the following options studied in this submittal include area associated with the smaller 1,515 or 1,565 design enrollments. The submittal includes the following options, all of which are based on the full 1,590 9-12 and Next Wave / Full Circle design enrollment:*
  - I. Existing building base repair option Alternative "0" with an estimated project cost of \$74m; this option is described as not meeting the District's educational needs, and does not address the student population growth.
  - II. Existing building renovation option Alternative "1" with a \$232m project cost; this option is described as not addressing the student population growth. The MSBA notes that at roughly 360,000 gsf, the existing building is only about 4,000 gsf or 1% smaller than the proposed new building options that include the full 1,590 student population. Please describe whether this renovation option would meet the needs of the 1,515 and/or the 1,565 student populations without the addition of the Next Wave / Full Circle programs.
  - III. Five addition/renovation options Alternatives "2, 3, 4, 4A & 4B" of varying scope, with project costs ranging from \$247m - \$277m. The MSBA notes that, although these options appear to meet the District's educational

goals, all five exceed the District's lower range of budget stated above (\$245m), and the last of these options Alternative "4B" exceeds the higher range of the budget (\$275m). The "Overall Conclusions" section in the submittal notes that these five addition/renovation options best meet the project goals and educational program, and will be studied further in the following phase of the study.

- IV. Two new building options (one on the existing site with a project cost of \$279m, and another on a 9.9 acre City-owned site currently used by the City DPW with a project cost of \$297m). The MSBA notes that both of these new building options exceed the District's \$275m budget. As noted in the previous comment, the District does not intend to continue investigation of the new building options (please confirm).

*In addition, please note the following:*

- V. An "Early Budget Scenario" spreadsheet in Section 6.6 includes the option to add various scope alternatives such as 51,648 gsf of unspecified auxiliary program spaces (\$26m project cost) and various parking garages with field options (\$9m-\$43m project costs). Confirm that the options listed above do not include this added scope and the District does not intend to include them in the options to be brought forward in the subsequent submittals. Explain the City's intent to consider this potential additional scope of work given that the majority of the options listed above exceed the District's budget without these added costs.
- VI. The submittal states that after evaluation of alternate sites, the existing high school site was determined to best suit to project.
- VII. School Building Committee meeting notes dated January 6, 2016 state a desire by the District to save the existing auditorium due to recent (2014) investments.

Response:

- a. No response required  
b.

- I. No response required
- II. As described in the educational planning component of this study the school lacks many 21<sup>st</sup> Century and modern equivalent spaces, a repair or renovation project will result in the loss of existing academic spaces simply to make up for the lack of accessibility and code requirements as described in the due diligence narrative. In many instances there are numerous inefficient spaces that feed into the high multiplier and grossing factor creating the description of available space – including the large existing field house, single loaded and long corridors and excessive stairs. There is approximately 12,000 nsf of un-utilizable space underneath the auditorium.
- III. No response required
- IV. The District has not selected a new building option on either the existing site or the DPW site as one of their three preferred alternatives.
- V. Options 2, 3, 4A & 4B as described in the PDP submission did not necessarily include any of the various scope alternatives shown in the "Early Budget Scenario" document. Subsequent to the submission of the PDP to MSBA, deliberations by the School Building Committee (SBC) have identified that the three preferred alternatives that would include a parking garage with artificial turf field above it, as well as a small subset of existing on-site auxiliary spaces to be maintained at the site.
- The intent behind including a parking structure with turf field in the project is rooted in the compressed parcel available for the high school project in a dense urban environment. The garage/field approach is an efficient method of addressing both parking demand and providing an outdoor physical education environment that is non-existent at the site today.
  - The steep hillside to the north of the current high school does not easily allow for surface parking that would be efficient and accessible or visually appealing in the context of this neighborhood, by parking in a structure the site is more efficiently utilized.
  - The intent behind locating auxiliary space at the high school was originally consolidation of disparate City services that would allow for operational efficiencies. No off-site auxiliary space is currently being considered for relocation as part of the high school project, but there are four existing on-site auxiliary programs for which new space will be planned for as part of the PSR submission. These include Somerville City Cable, Somerville Child Care Center, the Cambridge Health Alliance Teen

Health Center and a DPW operations office. Each of these programs is currently being studied to find utilization overlaps with the high school program that would allow for an optimal additional net area.

VI. No response required  
 VII. No response required

**3.1.7 Local Actions and Approval** – *Provided. Although the District has not proposed a grade reconfiguration or redistricting / consolidation for this project, see the comments above regarding DESE, Somerville School Committee and District official approval to relocate the Next Wave / Full Circle functions to this facility.*

Response:  
 No response required

**Attachment B Comments**

*The following review is based on the submitted preliminary space summary for new construction. The final MSBA determination of compliance with MSBA space guidelines in subsequent submittals will vary (in part) depending on the District’s preferred option and the extent that the proposed spaces are located either in existing construction, substantially renovated existing construction, or new construction. MSBA will expect spaces located in new or substantially renovated areas to be compliant with MSBA space standards.*

*As a comprehensive high school where students rotate their schedule between core academic and career technical education (“CTE”) spaces, the design enrollment used in each category of the evaluation below is determined by the agreed upon design enrollment, modified for each category to reflect the anticipated number of students in that area. Portions of the building will be used either by students in the CTE rotation, in the academic rotation, or, in some areas, by the entire school population. The proposed space summary also includes 75 students in a Next Wave/Full Circle program that are substantially separate from the general school population. This population is indicated in the SPED category.*

*As detailed below, the FTE student enrollment in the academic rotation is 1,387, the total population of the High School without the Next Wave/Full Circle is 1,515, the CTE population is based on the remaining 128 students, and the total population of the High School including the Next Wave/Full Circle students is 1,590.*

*Finally, note that the Next Wave/Full Circle area and general SPED population spaces (exclusive of Next Wave/Full Circle) are evaluated separately, and non- Chapter 74 spaces for the general population are evaluated separately from the Chapter 74 approved CTE spaces.*

Spaces	Used by	Enrollment Used	Guidelines	Proposed	Difference
Core Academic Spaces	FTE / Academic Equivalent	1,387	65,080	69,580	+4,500
Special Education	Total Population without NWFC	1,515	16,110	11,445	-4,665
Special Education	NWFC only	75	8,514*	8,514	-
Art and Music	FTE / Academic	1,387	8,200	11,120	+2,920

	Equivalent				
Chapter 74 CTE spaces	NA	NA	54,940*	54,940	-
Non-Chapter 74 Voc Tech Program	FTE / Academic Equivalent	1,387	16,000	8,250	-7,750
Health and Physical Education	Total Population without NWFC	1,515	24,684	32,050	+7,366
Media Center	FTE / Academic Equivalent	1,387	8,569	7,500	-1,069
Auditorium and Drama	Total Population without NWFC	1,515	10,400	10,800	+400
Dining and Food Service	Total Population without NWFC	1,515	12,148	12,138	-10
Medical	Total Population without NWFC	1,515	1,310	1,310	-
Administration and Guidance	Total Population without NWFC	1,515	5,678	11,652	+5,974
Custodial and Maintenance	Total Population w/ NWFC	1,590	2,818	3,062	+244
Other	NA	NA	-	500	+500
<b>Total Building Net</b>	Total NSF of the Building		<b>234,451</b>	<b>242,861</b>	<b>+8,410</b>
<b>Total Gross</b>	Total NSF + 50%		<b>351,677</b>	<b>364,290</b>	<b>+12,615</b>
<b>Grossing Factor</b>	NA		<b>1.50</b>	<b>1.50</b>	<b>1.50</b>

*\*MSBA does not have guidelines for these categories, proposed areas are shown instead in order to calculate allowable building net and gross guidelines area totals.*

**Core Academic** – The City is proposing to provide a total of 69,580 net square feet (nsf) which is 4,500 nsf above the MSBA guidelines using a FTE academic equivalent enrollment of 1,387.

*This overage is due to the addition of a large group instruction room (1,800 nsf), a lecture hall (2,600 nsf), and a language lab (1,100 nsf), and is partially offset by a reduction of one classroom. Note that the lecture hall and language lab are not included in the capacity generating calculation described above, and the large group instruction room is calculated as a capacity generating area for only 23 students. For further consideration of MSBA participation for funding of this additional 4,500 nsf area, please provide clarification regarding anticipated utilization rates of these spaces. Note that, based on the calculation above, area in this category in excess of MSBA space guidelines may be considered ineligible for MSBA funding*

**Response:**

For the purposes of the curriculum space analysis, both the large group instruction room and the lecture hall are being counted as two classroom spaces towards the overall required classroom count for the projected 1,515 student population and an 85% utilization rate. Taking this stance towards the utilization of these two larger spaces will require two classes to co-locate at the same time, reinforcing the direction of inter-disciplinary teaching and learning that are outlined in the educational program. The provision of two different organizations of large scale learning environment is intended for educational diversity, with one space providing the flexibility of a flat floor and the other emulating a formal lecture environment that students may encounter during post-secondary education. The curriculum space analysis indicates a total station requirement of 7.29 for the World Language program for the projected 1,515 student population with a class size of 23 students. With an 85% utilization rate, this equates to a requirement of 8.60 classrooms. The proposed classroom count currently includes a total of 8 World Language classrooms, with the Language Lab accounting for the difference. Currently SHS suffers greatly from the lack of any large flexible open floor teaching environments hindering the multidisciplinary and interactive programming as required in the Educational Program.

**Special Education** –The City is proposing to provide a total of 11,445 nsf which is 4,665 nsf under the MSBA guidelines using a total population without Next Wave/Full Circle enrollment of 1,515  
*(for the purposes of this review, the Next Wave/Full Circle spaces are not included in this evaluation). Please note that the Special Education program is subject to approval by the Department of Elementary and Secondary Education (DESE). Formal approval of the City’s proposed Special Education program by the DESE is a prerequisite for executing a Project Funding Agreement with the MSBA.*

**Response:**

Documentation of Special Education spaces will be submitted to DESE in time for their approval prior to PFA execution.

**Art and Music** – The City is proposing to provide a total of 11,120 nsf which is 2,920 over the MSBA guidelines using a FTE academic equivalent enrollment of 1,387.  
*This overage is partially due to 3 art rooms that are 240 nsf larger than standard, the proposed addition of a 1,000 nsf photography / dark room, and a 2,250 nsf orchestra space. Note that the orchestra space is not included in the capacity generating calculation described above. For further consideration of MSBA participation for funding of this additional 2,920 nsf area, please provide clarification regarding anticipated utilization rates of these spaces. Note that, based on the calculation above, area in this category in excess of MSBA space guidelines may be considered ineligible for MSBA funding.*

**Response:**

The overage of 240 nsf for the three art rooms is intended to match the area of the science rooms and yield a modular size for the spaces. Given the vertical organization of the school that is necessitated by the compressed urban site, modular sizes of the educational spaces wherever possible is highly desirable to simplify construction. As final design ensues all efforts will be made to properly size (whether slightly smaller or larger for the sake of a simplified organizational plan). See the response to comment 3.1.2.h above for the proposed utilization of the Photography / Dark Room space. The proposed utilization of the Orchestra room is listed below:

Course No.	Subject	Current Students per Subject	Proj. Students, per Subject	Proj. Class Size	Sept.	Sessions Per Week	Total Sessions	Periods Per Week	Total Stations Required	Comments
	<b>PERFORMING ARTS</b>	1,237	1,515							
	<b>Instrumental Music</b>									

852-001	Orchestra	23	28	50	1	4	4	28	0.14	
852S-001										
852S-002	Orchestra - Semester	10	12	50	1	2	2	28	0.07	Semester
853-001	Orchestra Honors	10	12	50	1	4	4	28	0.14	
868-001										
868-002	Advanced Drum Line	13	16	15	1	2	2	28	0.07	Semester
869-001										
869-002	Drum Line	30	37	15	3	2	6	28	0.21	Semester
									0.64	
							0.64	/ .85 =	0.8	Say 1 Orchestra Rooms

**Ch. 74 CTE** – The City is proposing to provide a total of 54,940 nsf.  
*Please note that the Chapter 74 CTE programs are subject to approval by the Department of Elementary and Secondary Education (DESE). DESE’s agreement with the City’s proposed CTE program is a prerequisite for executing a Project Funding Agreement with the MSBA.*

Response:  
 Documentation of Chapter 74 CTE programs will be submitted to DESE in time for their approval prior to PFA execution.

**Non-Ch. 74 Voc-Tech** – The City is proposing to provide a total of 8,250 nsf which is 7,750 below the MSBA guidelines using a FTE academic equivalent enrollment of 1,387.  
*The 400 nsf storage room should not be included in this category as programmed net area, and should be included instead as part of the overall building grossing factor. Otherwise the MSBA takes no issue with the remaining proposed area in this category.*

Response:  
 The purpose of the 400 nsf storage room in question is to accommodate the storage needs of the robotics program. For educational space, the robotics program will utilize the Fabrication Lab – however the storage needs for this program are discreet from the Fabrication Lab itself, and sizable in nature due to the project materials needed. The provision of the dedicated 400 nsf storage room for this purpose was seen as a method of avoiding the creation of a second 1,800 nsf space for robotics, and can be labeled as a Project Support Room if this clarifies its use. Because of its primary role in support of the curriculum, and the benefit of increasing the utilization of the Fabrication Lab it was proposed as net square footage, as opposed to a space pulled from the overall grossing factor. The project team respectfully requests that the storage room in question be classified as programmed net area.

**Health and Physical Education** – The City is proposing to provide a total of 32,050 nsf which exceeds that included in the MSBA guidelines by 7,366 nsf using a total population without New Wave / Full Circle enrollment of 1,515.  
 This overage is due to proposed additional 6,000 nsf of gymnasium area (two additional teaching stations), an additional 2,500 nsf PE alternative space, 500 nsf additional gym storage, 800 nsf athletic storage room, 300 nsf trainer’s office, and an additional 250 nsf health instructor’s office. These overages are partially offset with 2,484 nsf of reduced locker room area. The MSBA notes that there is a 5,000 nsf elevated walking track that is not included in the space summary as net area which must be itemized for project costs in the Project Scope and Budget submittal. Based on the need for the additional teaching stations and the reduced locker room area, the MSBA accepts these variations to the guidelines exclusive of the elevated walking track that will be considered ineligible for MSBA funding.

Response:  
 No response required

**Media Center** – The City is proposing to provide a total of 7,500 nsf which is 1,069 nsf below the MSBA guidelines using a FTE

academic equivalent enrollment of 1,387. <i>The MSBA takes no issue with the proposed area in this category.</i>
Response: No response required
<b>Auditorium/ Drama</b> – The City is proposing to provide a total of 10,800 nsf which is 400 nsf over the MSBA guidelines using a total population without Next Wave/Full Circle enrollment of 1,515. <i>This overage is due to a stage that is 400 nsf larger than MSBA guidelines. Reduce the overall area of this category to conform to guidelines.</i>
Response: The additional 400 nsf is proposed for the stage as a method to increase the utilization of that space. By increasing the size of the stage to a total of 2,000 nsf, SMMA believes that the stage can function as both a stage and a black box theater. The black box theater was a program component that was identified by the District in the educational visioning process as an improvement to their performance space capacity and diversity. The larger stage can provide the black box theater functionality without creating a second dedicated space. The project team respectfully requests that the additional 400 nsf be considered for inclusion in the size of the stage given this clarification of its purpose.
<b>Dining and Food Service</b> - The City is proposing to provide a total of 12,138 nsf which is below the MSBA guidelines by 10 nsf using a total population without Next Wave/Full Circle enrollment of 1,515. <i>The MSBA takes no issue with the proposed area in this category.</i>
Response: No response required
<b>Medical</b> – The City is proposing to provide a total of 1,310 nsf which meets the MSBA guidelines using a total population without Next Wave/Full Circle enrollment of 1,515. <i>The MSBA takes no issue with the proposed area in this category.</i>
Response: No response required
<b>Administration and Guidance</b> – The City is proposing to provide a total of 11,652 nsf which exceeds the MSBA guidelines by 5,974 nsf using a total population without Next Wave/Full Circle enrollment of 1,515. <i>The proposed spaces in excess of MSBA standards includes 4 House Master's Suites totaling 3,200 nsf, an 800 nsf CTE Director Office Suite, various supervisory / spare offices totaling 1,300 nsf, a Meditation Waiting Room, Meditation Room, Meditation Office suite totaling 782 nsf, and a 1,200 nsf ELL Welcome Center. Note that the 5,974 nsf area in this category in excess of MSBA space guidelines may be considered ineligible for MSBA funding, pending evaluation of the District's preferred solution.</i>
Response: No response required
<b>Custodial and Maintenance</b> – The City is proposing to provide a total of 3,062 nsf which exceeds the MSBA guidelines by 244 nsf using a total population including Next Wave/Full Circle enrollment of 1,590. <i>The proposed difference in this category is due to a slightly larger Network/Telecom Room. Reduce the overall area of this category to conform to guidelines.</i>
Response: The size of the Network/Telecom Room identified in the Custodial & Maintenance space category will be reduced to the 200 nsf value noted in the guidelines. The remaining 300 nsf will be shifted into the “Other” space category, as the additional area represents Information Services offices and work area, which are currently located on site at the high school and need to be reconstituted to maintain IT operations.
<b>Other</b> –The City is proposing to provide a total of 500 nsf which exceeds the MSBA guidelines by 500 nsf. <i>This overage is due to a 400 nsf School Store and a 100 nsf PTO Storage Room. Please note that storage areas in excess of those included in the guidelines should be carried in the grossing factor outside of the net area calculation. Otherwise, areas in this category in excess of MSBA space guidelines may be allowed in the project but will be considered ineligible for MSBA funding</i>
Response: The PTO Storage Room will be removed from the “Other” space category and accommodated for in the overall grossing factor as noted. The School Store will remain in the “Other” space category. The School Store, which presently exists at the high school, is run by the CTE students and is a vital part of the business curriculum – providing opportunities for authentic retail skill acquisition.
<b>Total Building Net Floor Area</b> – The City is proposing to provide a total of 242,861 nsf which exceeds the MSBA guidelines by

8,410 nsf using the design enrollment figures in each category as described.

*In the response to these review comments, the District should address the items in each category above. Based on the response and in subsequent phases of the study, the MSBA will review the proposed project for conformance with the MSBA guidelines and programmatic needs that may vary from the guidelines.*

Response:

No response required

**Total Building Gross Floor Area** – The City is proposing to provide a total of 364,290 gsf which exceeds the MSBA guidelines by 12,615 gsf using the total net square feet of the guidelines plus 50%.

*The allowable Total Building Gross Floor Area will be based on the allowable Total Building Net Floor Area and a grossing factor of 1.5, to be determined upon MSBA review of the Schematic Design submittal.*

Response:

No response required

Please note that upon moving forward into subsequent phases of the proposed project, the Designer will be required to confirm in writing, with each submission, that the design remains in accordance with the MSBA guidelines and that they have not deviated from the allowable gross square footage and educational program approved in the previous submittals.

Response:

Acknowledged

Very truly yours,

**SMMA | Symmes Maini & McKee Associates**

Lorraine B. Finnegan, AIA  
Principal

cc: ACP, MDR, PMA, City of Somerville, Somerville School Department (MF)

enclosures:

## Section Two

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# EVALUATION OF EXISTING CONDITIONS

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## 2.1 EVALUATION OF EXISTING CONDITIONS

No additional existing condition evaluations have occurred since the submission of the Preliminary Design Program (PDP).

**Topographical survey:** The team has been unable to complete the topographical survey at the rear of the site due to ongoing construction along the MBTA green line. This survey will need to be completed during schematic design in coordination with the City and the MBTA to ensure all relevant data is incorporated into the final schematic design scope.

**Geotechnical investigation:** Additional geotechnical investigations will need to occur during schematic design once the preferred alternative is approved to provide greater coverage of information within the proposed footprint of the additions.

**Traffic Analysis:** The traffic analysis developed in the PDP provided background data on existing conditions and existing traffic data. A full traffic impact and access study will be performed on the preferred alternative and included with the schematic design.

**Geo-environmental:** A Phase II subsurface investigation is recommended including the installation of monitoring wells. This investigation will be completed during schematic design.



## Section Three

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# FINAL EVALUATION OF ALTERNATIVES

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## 3.1 ALTERNATIVE 2A

Alternative 2A is an addition and renovation option. It consists of partial demolition and renovation of the existing three to four story high school, with new additions for cafeteria, kitchen, media center and classroom/vocational space. One major new addition is located towards the northern portion of the site, with a small addition on the eastern edge of the existing building for a reconfigured culinary arts restaurant and automotive technology shop. This alternative will involve phased demolition and construction activities due to the lack of sufficient swing space in the City of Somerville to accommodate the entirety of the high school population. The portion of the existing building to be demolished is approximately 135,350 gross square feet, the portion to remain and be renovated is approximately 224,800 gross square feet and the additions total approximately 165,200 gross square feet.

The remaining portions of the existing structure will be totally renovated, involving interior wall and door relocations to adapt to new programs that are moved to the additions noted above, providing appropriate sized academic and vocational spaces, as well as code compliant circulation paths. The existing media center will be repurposed and renovated to accommodate a new auditorium. The existing gymnasium will remain in its current location, and will undergo renovations to address existing deficiencies.

This alternative includes the construction of a two level parking garage structure on the northern slope of the site. The top of the parking structure will incorporate a combination of artificial turf playing fields, outdoor learning environments and plazas.

### 3.1.1 SITE ANALYSIS

The existing Somerville High School site is 13.05 acres located on Highland Avenue in between School Street and Walnut Street. The entire site is City owned land with the existing City Hall and Somerville Public Library within the same parcel boundary. No resource areas limit the developable land, but the existing buildings aforementioned and various memorials will remain on the site. The north side of the site has excessive topography. Current location along a city bus route makes the site accessible via public transportation and a future MBTA Green Line stop to the north of the site in Gilman Square will allow for increased access to the site.

### 3.1.2 EVALUATION OF POTENTIAL STUDENT IMPACTS

From Susana Morgan, Somerville Public Schools Director of Communications & Grants

Somerville High School (SHS) offers a fully comprehensive educational program to a richly diverse student population who make up a vibrant school community. As perhaps the most well respected comprehensive high school in the Commonwealth of Massachusetts, SHS offers a robust and rigorous academic program and an equally robust program of enrichment programs and support services designed to meet the widely varying needs of its student population.

Despite the challenges of a tired, outdated school building – sections of which date back to the late 1800's and early 1900's - Somerville has embraced the high educational standards necessary for today's students to compete on a global scale. One of the few Level 1 Urban high schools in Massachusetts, Somerville High School has maintained its commitment to providing its diverse student body with the richest and most relevant educational experience possible to ensure that students are college and career ready when they graduate.

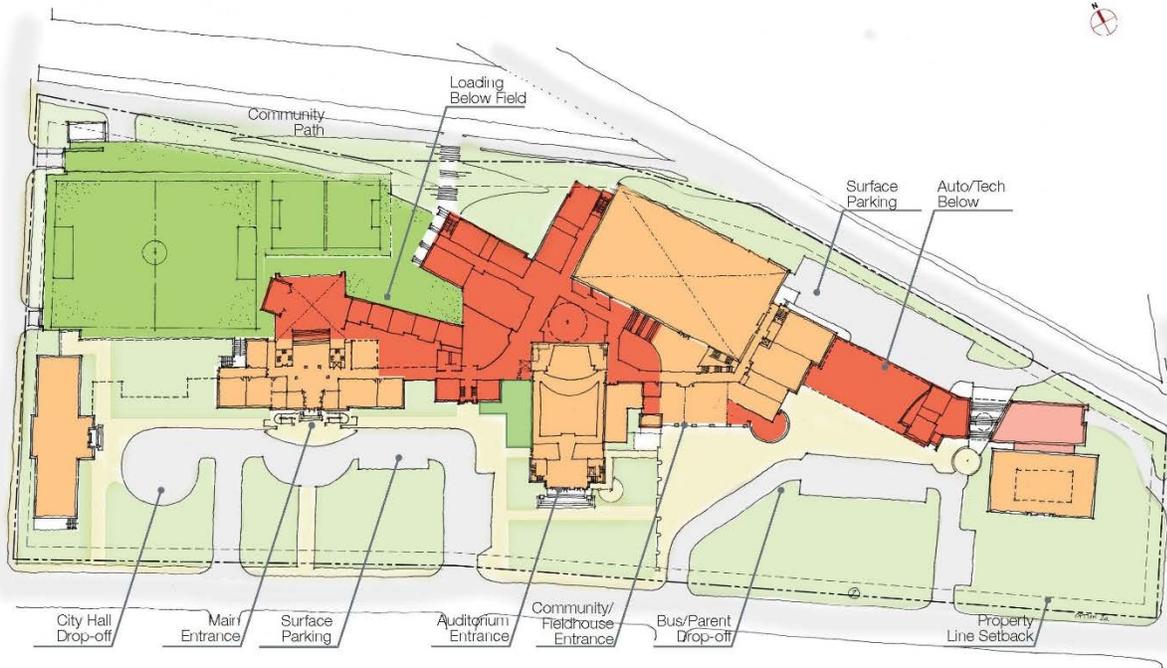
The following represents the projected impact that Alternative 2A would have on Somerville High School student:

Alternative 2A, an Addition/Renovation option, combines the historic and the modern nicely and would provide a building infrastructure that supports 21st Century learning experiences through flexible spaces and an open design that promotes collaborative work. This alternative, however, does not address the challenge of travel time from one end of the building to the next as the building's footprint would remain virtually the same. This plan also includes renovation of the 1986 CTE wing, which is currently located at one end of the building away from the academic programs, and therefore does not provide the same level of opportunity for interdisciplinary work as the preferred alternative (4B). A complicated construction phasing process would result in greater disruption during the course of the project construction, resulting in greater "lost learning time" for students.

### 3.1.3 CONCEPTUAL ARCHITECTURAL AND SITE DRAWINGS

#### Conceptual Site Drawings

The proposed site design will establish new circulation routes through the site. Separate drop-off areas will be established for the high school and City Hall. The new driveways are proposed to be aligned with the existing curb cuts along the south side of Highland Avenue. The majority of new parking is proposed within a two-level parking garage with a synthetic turf field deck proposed over the garage. Site accessibility will be accomplished by new walkways at grade or compliant ramps. Utility services will be upgraded and replaced as required, and a new stormwater system will capture and treat runoff before discharge.

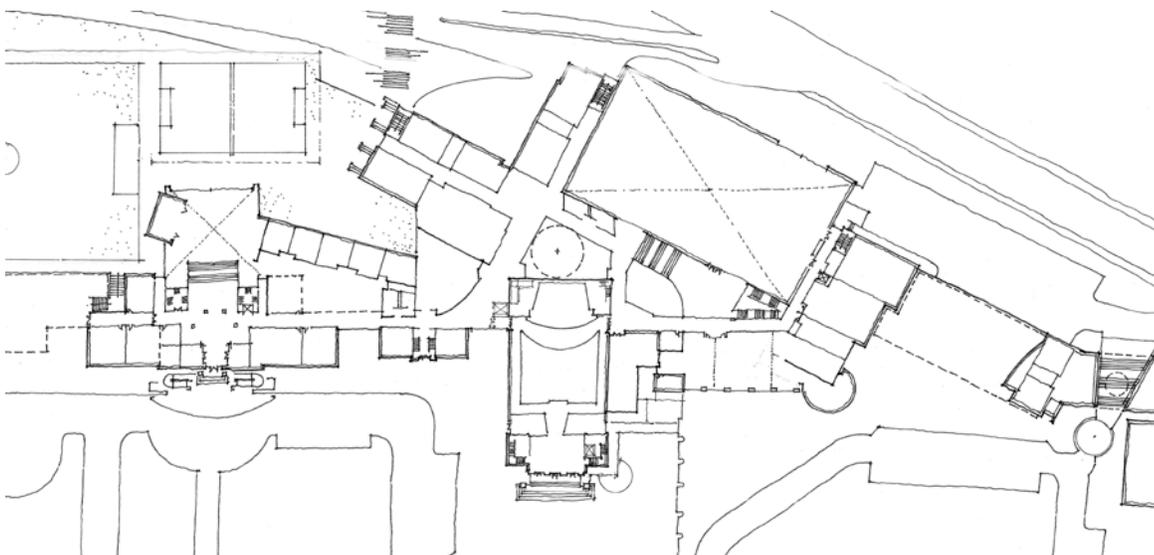


Alternative 2A – Proposed Site Layout Plan

### Conceptual Architectural Drawings

The floor plans represent the realignment of the academic program to meet the goals of the Somerville Public Schools Educational Program.

Larger versions of the floor and site plans are included in Attachments Section 3.1.10



Alternative 2A – Floor Plan – Second Floor

### 3.1.4 OUTLINE OF MAJOR STRUCTURAL SYSTEMS

#### Structural Systems at Renovated Portions of the Existing Building

A structural upgrade of the remaining portions of the existing building would include adding structural steel braces to the existing steel structure, and strengthening the existing roof structure. The exterior unreinforced masonry walls will also need to be braced.

The lateral bracing will include approximately 2 psf of new structural steel for the structure. The roof reinforcing will include approximately 1 psf of new structural steel.

The exterior masonry walls of the building will require approximately \$4.00/sf of retrofit masonry work, over the entire area of the exterior walls.

All new boilers, pumps, etc. will require new 4 to 6" high housekeeping pads.

All new roof top units located on portions of the existing building will require a new supporting roof structure. This will require rooftop grillage frames to be constructed 3 to 4 feet above the existing finished roof. Each new rooftop mechanical unit will require frame of approximately 3 to 5 tons of new galvanized structural steel.

All new roof penetrations for ductwork and piping will require reframing of the existing wood roofs over the 1895 structure and the bar joists roof with poured in place gypsum concrete on metal lath, over the 1929 additions. The roof over the 1986 CTE Wing addition is metal deck and will require standard angle frames, between steel beams. Standard angle frames will also be required between the bar joists of the 1929 additions. The cost for reinforcing the new roof duct penetration will be approximately \$1500 for the wood roofs and \$5000 each for those over the gypsum roof decks on bar joist, and approximately \$2000 each for those penetration through the metal roof deck of the 1986 CTE Wing and Gymnasium.

All new floor penetrations for ductwork will require reframing of the existing wood floor joist and deck within the 1895 structure and the steel bar joists floors and concrete slabs within the 1929 additions. The floors in the 1986 CTE Wing addition are composed of a concrete topping slab placed over composite metal decking metal deck and will require standard angle frames, or new steel beams between the existing steel beams and girders. Standard angle frames will also be required between the bar joists of the 1929 additions. The cost for reinforcing the new floor duct penetration will be approximately \$2500 for the wood floors and \$5000 each for those openings in the 1929 additions, and approximately \$6000 each for those penetration through the composite floor decks of the 1986 CTE Wing and Gymnasium.

The level of work required for the Option 2 and 3 upgrade is classified as Level 3 Work per the IEBC building code. This level of renovation will require a full upgrade of the remaining structures of Wings, A, B, C, and D for lateral seismic and wind forces. The CTE 1986 addition has a lateral system built into the structural system so minimal retrofit will be required there. Given the multitude of structural systems in the 1895 and

1929 structures, the lateral upgrades will be labor intensive and difficult. The cost for the lateral upgrade will be approximately \$3.00 to \$5.00 per square foot.

### **Structural Systems at New Construction**

Foundations for new construction for the school will consist of 15" to 16" thick reinforced concrete walls extending at least 4' below finished grade. Typical interior column footings will consist of isolated reinforced concrete spread footings. The existing bearing material is glacial till with an allowable bearing pressure of approximately 3 tons per square foot. Therefore, a typical 30'x 36' column grid, will have an exterior column footing 5'x5'x16" deep. A typical interior column footing supporting 3 framed levels and a roof will be 8'x8'x26" deep.

Foundations for construction of the new parking garage with playing fields above will consist of 14 to 16" thick reinforced concrete walls extending at least 4' below finished grade. Typical interior column footings will consist of isolated reinforced concrete spread footings. The existing bearing material is glacial till with an allowable bearing pressure of 3 tons per square foot. Therefore, a typical 60x30' column grid, will have an exterior column footing 7'x7'x24" deep, and an interior column footing 10'x10'x36" deep. These numbers are based on one framed level of parking and one framed level above the parking spaces for the athletic fields.

The ground floor of new construction areas will include a conventional 4" slab-on-grade reinforced with welded wire fabric in the classroom spaces, 5" slab-on-grade in the dining commons, and 6" slab-on-grade in the mechanical and electrical rooms.

The ground floor of the parking garage will include a conventional 4" slab-on-grade reinforced with epoxy coated welded wire mesh.

Elevator pits will consist of 10" thick reinforced concrete foundation walls supported on a continuous 12" thick reinforced concrete mat foundation.

The structural floor framing system for new construction will consist of composite steel beams and girders framed into wide flange steel and tubular steel columns. These members will support a 2" x 20 gage galvanized composite steel deck with 5 1/4" of lightweight concrete topping reinforced with welded wire fabric. All steel beams and girders will be spray fireproofed. The metal floor deck will not need to be fireproofed. The floor framing will require approximately 10 to 12 psf of structural steel.

A portion of the existing second floor framing in Wing D, will need to be demolished in order to construct a new lower sloping floor. This new floor framing system will consist of sloping composite steel beams and girders on wide flange steel columns. Floor construction will be 2" composite metal deck with 5 1/4" lightweight concrete topping reinforced with welded wire fabric. The floor framing will require approximately 13 psf of new structural steel. The typical roof framing will be wide flange steel beams and girders supporting a 1.5" deep x 20 gage galvanized wide rib metal roof deck. All roof framing members and the roof deck will be spray fireproofed. The roof framing will require approximately 10 psf of structural steel.

The second floor and roof/fields of the parking garage will be framed with a 10' wide x 28" deep precast concrete double T's clear spanning approximately 60'. Double T's

will be topped with a bonded 3 to 3.5" topping slab reinforced with epoxy coated welded wire mesh. The top level of the garage will be the same double T construction as the parking deck except the T's will be 36" deep to account for the higher required design live load. These double T's will be topped with a bonded 2.5" thick topping slab reinforced with welded wire mesh. Refer to the architectural section of this report for waterproofing, and the athletic field surfacing materials over this deck. The precast double T's will be framed into precast/pre-stressed girders framed onto precast columns and bearing walls. The parking structure will be a complete stand-alone building, structurally isolated from the other wings of new and existing construction.

New roof construction will consist of wide flange steel beams and girders with a standard 1.5" deep metal roof deck. Roof areas under rooftop mechanical units will be framed with a 6" concrete slab over a 1.5" composite deck extending 5' beyond and all around the footprint of the unit.

The new hipped style roof over the original 1895 building will be constructed of either prefabricated wood trusses or light gage metal framing trusses. Supported on the existing bearing walls and new structural steel framing where required.

Diagonal braced frames, composed of tubular steel sections, will be incorporated into the steel framing at the demising walls of the new construction. The brace frames will require approximately 1psf of additional structural steel.

The roof framing under the new rooftop mechanical units will consist of composite steel beam and girders supporting a 2" galvanized composite deck with 6" of normal weight concrete topping reinforced with welded wire fabric. The concrete pads under the units will extend at least 5' beyond the footprint of unit on all sides. The required framing under the rooftop units will require approximately 12psf of structural steel.

### **3.1.5 SOURCE, CAPACITIES AND METHOD OF OBTAINING UTILITIES**

The existing high school site is currently served by the municipal water and sewer systems, and storm drainage discharges to the cities storm drainage system in the surrounding streets.

Many of the services for the renovated building will be replaced or upgraded as described below:

#### **Water Distribution System**

The proposed water distribution system will consist of Class 52 cement-lined ductile iron (CLDI) water mains. The existing services feeding the site and building from Highland Avenue and Medford Street will be connected with a new 12" main providing a looped system.

Existing onsite service pipes will be replaced and new hydrants will be provided. A separate fire protection service for the building will be added, and the domestic service will be replaced. The fire protection service will include a post indicator valve, as required by NFPA.

### **Sanitary Sewer System**

The school will continue to connect to the municipal sewer mains within the surrounding streets.

A new 9,000 gallon precast concrete grease trap will be provided to treat wastes generated from the kitchen in accordance with the Plumbing Code. A new pH adjustment system will be added. An oil/grit separator will be required for discharge from the structured parking levels, see section 3.1.6.

### **Storm Drain System**

The proposed storm drain system will consist of a series of deep-sump catch basins, areas drains, water quality units and manholes located around the perimeter of the building, new parking areas and driveways. The new drainage system will receive and treat stormwater runoff prior to discharge. The new drainage system will connect to and utilize the existing drainage discharge points into the existing municipal system within the surrounding streets.

Subsurface groundwater recharge structures will be designed to capture portions of runoff from the roof and pavement and infiltrate it back into the ground. The design will be based on detailed subsurface geotechnical investigations including the existing groundwater elevation and soil permeability. Runoff from pavement will also be treated in accordance with the Massachusetts Stormwater Management.

Low impact design (LID) elements will be included in the stormwater design where practical.

### **Electrical**

Two new primary electric services will be provided from Highland Avenue and will be coordinated with NSTAR. The service from Highland Avenue will enter the site underground to a pad-mounted transformer and will serve a portion of the new and renovated school building. The service will continue underground to a second pad-mounted transformer serving the vocational wing.

### **Natural Gas**

The project will require a new gas service to the building. National Grid is the gas supplier for the site.

## 3.1.6 NARRATIVE OF MAJOR MEPFP SYSTEMS

### Mechanical Systems

A new Heating, Ventilating and Air Conditioning system will be provided to serve the various program spaces of the high school building to meet current codes and energy standards.

The new heating plant will be based on the use of high-efficiency gas-fired condensing hot water boilers with variable volume distribution pumps serving loads with two-way modulating control valves. The system will use a 30% propylene glycol solution for freeze protection and will include all ancillary equipment and devices required for a complete operating system. New hot water distribution piping will be provided to serve all terminal heating equipment.

Air conditioned spaces will be served through air cooled DX cooling systems. Use of a central chilled water system would be considered beneficial in the event that air handling units are located in penthouses and to improve the overall energy efficiency of the mechanical cooling systems.

Dedicated Outdoor Air Systems (DOAS) will provide ventilation for the classrooms, providing conditioned fresh air as supply and exhaust for energy recovery. The DOAS units will be configured as energy recovery units (either roof top or penthouse type) with hot water heat, DX cooling and Variable Air Volume (VAV) distribution will be providing ventilation to classrooms. The DOAS units will provide conditioned 100% outdoor air.

The ventilation air from DOAS units will be distributed to VAV Fan Powered Boxes (FPBs) configured with hot water reheat coils for space heating. The return air from the classrooms will be mixed at FPB's with the air conditioned ventilation air from the DOAS units and then distributed back to the classrooms. Thus, partial air conditioning will be provided to the classrooms.

Other zones, such as the Media Center, Administration, the Gym, Auditorium and Cafeteria, will be served by DX, VAV rooftop units with hot water heat. The use of energy recovery wheels will be considered where the savings prove justified. Distribution will be through VAV boxes or, as in the case of the Gym, direct to the occupied space without the use of VAV boxes.

Spaces requiring only heating and ventilation will be served by heating and ventilating units configured with hot water coils and, where appropriate, heat recovery wheels.

Terminal hot water heating units (cabinet unit heaters, unit heaters, radiant ceiling panels or finned tube radiation) will serve vestibules, stairs and other back-of-house spaces.

Gas fired make-up air unit with a single zone VAV distribution and associated demand control ventilation exhaust air system will be provided for Kitchen. New VAV kitchen hood exhaust fans will be provided for the kitchen systems. The makeup air and exhaust will be controlled by a Demand Control Ventilation system to vary the amount of kitchen exhaust airflow as required for the cooking demand.

Exhaust fans will be provided for the Bathrooms, Janitor closets and spaces with special exhaust requirements, including the various vocational spaces. Laboratory fume hood exhaust will be provided through a central, manifolded system with VAV operation to serve the variable use of the fume hoods for Science Labs.

Garage ventilation will be provided to comply with Code through the use of mechanical exhaust fan(s) and associated ductwork for collection and venting. Makeup air will be provided through outdoor air intake louvers or architectural openings.

Independent, split-type air conditioning systems will be provided for Data Closets and Electrical rooms, as required.

Acoustic attenuation and vibration control will be provided to minimize noise and vibration transmission to occupied spaces in the form of in-duct attenuators, duct lagging, vibration isolators and roof-level slabs beneath HVAC equipment.

The facility will be provided with a web-accessible, microprocessor-based, direct digital control (DDC) building automation system (BAS) for control of HVAC systems and equipment and for monitoring of selected other systems.

Consideration will be provided for powering selected systems from an emergency power source, as required for life safety and for standby operation of certain systems. This typically includes motorized fire/smoke dampers or the heating system and associated terminal equipment and controls.

### **Electrical Systems**

New construction service ratings are designed for a demand load of 10 watts/s.f. The service capacity will be sized for (2) 3000 amperes services with 100 percent rating at 277/480 volt, 3 phase, 4 wire. The buss sizes at each switchboard will be rated at 4000 amperes to accommodate with PV system per NEC 690.64.

The existing 13KW PV self-ballasted PV system and associated Solectria PVI13KW inverter and data acquisition system will be relocated and connected to the new buildings distribution system.

A system of new panelboards separated by use; lighting, mechanical and general power will be provided in dedicated electrical rooms throughout the building to serve mechanical equipment, lighting and branch circuit loads.

Each classroom will have a minimum of two duplex receptacles per teaching wall and two double duplex receptacles on dedicated circuits at classroom computer workstations. The teacher's workstation will have a double duplex receptacle also on a dedicated circuit.

Office areas will generally have one duplex outlet per wall. At each workstation a double duplex receptacle will be provided.

Corridors will have a cleaning receptacle at approximately 25 ft. intervals.

Exterior weatherproof receptacles with lockable enclosures will be installed at exterior doors.

A system of computer-grade panelboards with double neutrals and transient voltage surge suppressors will be provided for receptacle circuits. Dedicated neutrals will be provided for each circuit.

Automatic plug load control via occupancy sensor or schedule for 50% of receptacles installed in private offices, open offices and computer classrooms will be provided.

A new automated addressable lighting control system with local vacancy sensors, occupancy sensors and daylight harvesting sensors will be installed in accordance with IECC 2012 throughout the school.

Classroom and corridor lighting will be controlled via “addressable relays”, which is achieved through programming the lighting control system. The system will be interfaced with the DDC control system for scheduled functions. The controllability shall be in conformance with LEED V4. The occupancy/vacancy sensors shall have BacNet interface for DDC input functions.

Exterior lighting will be controlled by photocell “on” and “smart panel” for “off” operation. The vehicle circulation area lighting will be controlled by “zones” and will have dimmed control. The enclosed parking garage will consist of damp location vandal resistant LED fixtures. Light levels will be approximately 5 foot candles.

Emergency and exit lighting will be run through life safety panels to be on during normal power conditions as well as power outage conditions. The emergency lighting system will have time control so that lights are “on” only when building is occupied. Night lighting will be provided in main lobby space and connected to emergency power

The fire alarm system will be replaced with a new addressable voice evacuation system. Detection devices will be installed in egress paths for early warning and new speaker/strobe notification appliances installed throughout per NFPA 72 2010 edition.

A public safety bi-directional antenna system will be installed to provide adequate radio communications signal strength throughout the building for public safety personnel.

A new natural gas fired 500KW 277/480V, 3 phase, 4 wire emergency generator mounted exterior with a sound attenuated weather proof enclosure will be provided to serve life safety, optional standby and legally required loads. Separate 2-hour rated emergency closets will be built to house life safety and legally required systems.

Two (2) 30kw, three (3) phase centralized UPS systems will be provided with battery back-up. The system will provide conditioned power to sensitive electronic loads, telecommunication systems, bridge over power interruptions of short duration and allow an orderly shutdown of servers, communication systems, etc. during a prolonged power outage. The UPS systems will also be connected to the stand by generator.

There is an existing Honeywell building management system that also performs access control functions. Proximity readers will be located in key entry points and in the interior of the building to allow for partitioning. The new readers will be tied into the

existing Honeywell system software upgrades and additional door controllers will be provided for a complete and operational system. IP CCTV cameras will be provided on the exterior of the building and interior in all corridors, large assembly spaces, and stairwells as well as other high risk areas. A new VMS system will be provided to manage and store video for up to 30 days at 30 images per second. A new intrusion detection system will be installed with door contacts on all exterior doors and motion sensors along the entire perimeter where access from the exterior is possible and in all corridors.

An Aiphone intercom system with built-in security camera shall be provided in main lobby to control main entrance. The door release switch shall be in corridor and not in administration.

A Two way communication area of rescue assistance system will be provided. Call boxes will be provided adjacent to each elevator that is above grade level. The base station will be located at a control point at the main level. The system will dial a UL listed central station if there is no one at the base station.

The technology systems infrastructure will be upgraded to Cat 6A for tel/data locations throughout. A new MDF will be constructed and will distribute OM3 laser optimized 10gig fiber optic backbone to New IDF rooms throughout the building.

A new master clock system with wireless secondary clocks will be installed.

A new Public address system will be installed with speakers located throughout the building designed with the ability to page an individual room or make an announcement in the entire building.

### **Plumbing Systems**

Existing domestic cold and hot water systems will be removed in their entirety and replaced with new. Reduced Pressure Backflow Preventers, new water meter, pipe insulation, pipe labels, flow arrows and valve tags will be provided. A new domestic water booster system will be provided for the facility, including variable frequency drives. The system will pressurize the systems such that all areas will be provided between 40 and 80 psi water pressure.

High efficiency gas-fired storage type domestic water heaters will be provided.

Existing non-potable cold and hot water systems will be removed and replaced with new. Reduced Pressure Backflow Preventers, pipe insulation, pipe labels, flow arrows and valve tags will be provided.

Existing sanitary, waste and vent systems will be removed and replaced with new and will connect by gravity to existing below slab sanitary piping where possible/convenient, pending video piping analysis of sanitary mains.

The existing kitchen waste system will be removed and replaced with new and will connect by gravity to existing below slab kitchen waste piping, pending video piping analysis of kitchen waste mains. Point-of-use grease traps will be installed to receive the waste discharge at the triple pot sink, dishwasher, tilting kettle and other grease

producing kitchen equipment and floor drains. Vent piping will be installed from the exterior grease trap back into the building and to the roof independently.

A Gasoline/oil interceptor will be installed for vehicle maintenance, together with all associated piping, including vent piping from the interceptor back into the building and to the roof independently, in the auto shop shall be installed to receive waste discharge from floor drains.

Existing roof drains and storm drainage systems will be removed and replaced with new and will connect by gravity to existing below slab storm piping only where possible/convenient, pending video piping analysis of storm piping mains. Overflow (secondary) drains or scuppers will be installed for all roof areas where parapets are present and where any roof ponding would stress the roof structure.

Existing natural gas system will be removed and replaced with new and extended throughout the facility and serve all gas-fired equipment such as gas-fired HVAC equipment, gas water heaters, any gas-fired kitchen cooking appliances and gas turrets in Science classrooms. Prior to connection to existing gas service, the capacity and size should be verified if the existing gas service can accommodate the new gas loads. Emergency gas shut-off valves shall be located to an accessible location.

New ADA compliant emergency shower/eyewash stations shall be installed in all science labs, auto shop and in boiler room. All emergency shower and eyewash units will include a thermostatic mixing valve set for 80 deg F, fed from the domestic potable hot and cold water distribution systems. Hot water will be recirculated to within 10 ft. of each mixing valve.

Existing laboratory (acid) waste and vent systems will be removed and replaced with new and where convenient/possible, will connect to existing below slab laboratory (acid) waste piping, pending video piping analysis of laboratory (acid) waste mains. The existing Acid Waste system dilution tank will be replaced with a new pH adjustment system and located in a serviceable and accessible space.

All existing plumbing fixtures shall be removed and replaced with new and ADA compliant fixtures throughout the entire facility.

The new garage will be equipped with gas/oil interceptors for parking levels in accordance with DEP and Massachusetts State Plumbing Code. Vents will be routed to the perimeter of the field above and terminated at least 8 ft. above the roof deck. A separate storm drainage system will be provided for the garage field rooftop under the elevated field. This system will be collected below grade and discharge to the site storm drainage system.

### **Fire Protection System**

The new system will involve the installation of a fire pump, jockey pump, fire pump controller, jockey pump controller, double check valve assembly, wet alarm check valves, flow switches, tamper and pressure switches and all associated piping.

The fire pump is required to be on emergency power backup and will include an automatic transfer switch. The fire pump controller will be a wye delta type reduced

voltage starter and the automatic transfer switch and controller will be factory assembled/tested as one assembly. The fire pump will pressurize the system such that 65 psi will be provided at the topmost standpipe fire department valve.

Scope includes a fire protection system in the renovated portions of the B, D and E wings as well as the new addition construction with a combination standpipe / sprinkler system. The system will be hydraulically calculated in accordance with NFPA requirements. Sprinkler mains will be equipped with control valves, inspector test stations, and flow switches. Sprinkler spacing shall comply with NFPA-13 requirements. Separate sprinkler zones will be provided for each floor and each wing.

Sprinklers for areas with ceilings will be concealed type with gloss white cover plates. Mechanical rooms and other unfinished areas will be provided with brass finish, exposed sprinklers, protected by sprinkler guards. Sprinklers for areas subject to freezing shall be dry type, including loading dock areas.

Areas of the building that will not be provided with wet-pipe type sprinkler protection are: the main electrical room, elevator machine room, and emergency electrical closets, which enclosed by 2-hour fire-rated construction.

The building will be protected throughout with a combination standpipe/sprinkler system. The fire main will enter the fire pump room on the perimeter of the building. An approved type double check valve assembly will be provided on the fire service.

Standpipes will be located in stairwells whenever possible, and will be equipped with Class 1 (2 1/2") fire department valves with 1-1/2" reducing couplings, caps and chains. All standpipes will be interconnected by the fire main on the First Floor level. Fire department connections and Electric Bells will be provided. Fire department connections will match Fire Department requirements. Intermediate standpipe cabinets will be required in specific locations throughout the facility in addition to the stairwells.

Fire Protection work also includes the addition of fire protection system in partially sprinklered B wing as well as relocation and addition of sprinkler heads to accommodate new architectural layout in B and E wings.

A roof manifold will be provided at each roof level with a two story or greater height.

### **3.1.7 PROPOSED TOTAL PROJECT BUDGET AND COST ESTIMATE**

The construction and project costs for Alternative 2A are estimated to be:

- Construction Cost:       \$ 238.8 million
- Project Cost:               \$ 305.5 million

The cost estimate and project budget are attached at the end of this Section.

## 3.1.8 PERMITTING REQUIREMENTS

The Project's permitting consultant Design Consultants, Inc has defined the following permitting requirements.

### **CITY OF SOMERVILLE**

#### **Zoning Board of Appeals**

##### *Request for Variances and Special Permit with Site Plan Review (SPSR)*

A Request for Variances and Special Permit with Site Plan Review are required. Both applications will be filed at the same time. The Request for Variances will be for height and setback. The Special Permit with Site Plan Review is required per Section 7.11 Table of Permitted Uses, 5. Institutional Uses, B. Permitted Institutional Uses, 7. Buildings and Uses Owned by the City of Somerville for b. 10,000 s.f. of more of gross floor area. The Request for Variances and Special Permit with Site Plan Review will be filed at the beginning of Design Development. The Board of Appeals hears all Requests for Variances and is the Special Permit Granting Authority (SPGA). Within 65 days of their receipt of a completed application, the Board of Appeals will hold a public hearing on the application. Following the hearing, a decision will be issued within 90 days. An aggrieved person may file an appeal to a court of the Commonwealth by bringing an action with 20 days of the date of the decision. A Building permit can be applied for at the conclusion of the appeal period.

#### **Inspection Services Building Division**

##### *Building Permit*

A building permit application will be submitted to the Inspectional Services Building Division prior to the start of construction. If the proposed work conforms to the requirements of the state building code and all pertinent laws under the building inspector's jurisdiction, it is expected that the building inspector will issue a permit within approximately 30 days of the filing date. The building permit application will be filed at the beginning of January in 2018.

#### **Department of Public Works, Engineering**

##### *Application for Curb Cut and Driveway and/or Driveway Modification*

An Application for Curb Cut and Driveway and/or Driveway Modification will need to be filed with the Department of Public Works, Engineering Department for any new curb cut or driveway or any modifications to a curb cut or driveway. The application will be submitted at the start of Construction Documents. The review period is approximately two weeks for the permit

##### *Application for Street or Sidewalk Opening/Occupancy Permit*

An Application for Street or Sidewalk Opening/Occupancy Permit will need to be filed with the Department of Public Works, Engineering Department for any utility work that occupies or excavated within a public sidewalk or street. The application will be submitted at the start of Construction Documents. The review period is approximately one week for the permit.

## STATE OF MASSACHUSETTS

### Massachusetts Environmental Policy Act (MEPA)

A MEPA review is applicable to projects that receive state funding, require a state permit (Agency Action), or include a land transfer, and exceed certain defined thresholds summarized in eleven defined categories. If one or more of the thresholds are exceeded, MEPA requires the filing of an Environmental Notification Form (ENF) or an ENF with Mandatory Environmental Impact Report (EIR) depending on the threshold. The MEPA threshold categories include:

- Land
- Wetlands, Waterways, and Tidelands
- Water
- Wastewater
- Transportation
- Energy
- Air
- Solid and Hazardous Waste
- Historical and Archaeological Resources
- Areas of Critical Environmental Concern
- Regulations

One threshold is exceeded by the project.

Review threshold 10(b) under Historical and Archaeological Resources states that an ENF and other MEPA Review (if the Secretary so requires) is needed unless the Project is subject to a Determination of No Adverse Effect by the Massachusetts Historical Commission (MHC) or is consistent with a Memorandum of Agreement with the MHC that has been subject to public notice and comment for the demolition of all or any exterior part of any Historic Structure listed in or located in any Historic District listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth.

The property at 81 Highland Avenue (Somerville High School) is included in MHC's inventory of Historic and Archaeological Assets of the Commonwealth (Inventory). MHC's opinion is that the property at 81 Highland Avenue meets the criteria of eligibility for listing in the National Register of Historic Places as part of a potential historic district, the Somerville Municipal Buildings Historic District.

A series of Project Notification Forms (PNF) have been filed with the MHC for the high school project. The initial PNF was submitted to MHC during the PDP phase, and described the scope of the project and preliminary options for MHC's consideration. MHC responded to the initial PNF submission on 2/24/16 with general guidance regarding the development of the alternatives. Following the recommendation from MHC, the local Somerville Historic Preservation Commission (SHPC) was consulted regarding the development of the three preferred alternatives represented in the PSR.

After a series of meetings with SHPC, the Commission wrote a letter of support for the project's three preferred alternatives.

With the letter of support from SHPC attached, an updated PNF describing the three final options was submitted to MHC, including the preferred solution as selected by the School Committee. In response to the updated PNF, in a letter dated 5/2/16, the MHC determined that all three options presented would have an "adverse effect" on the historic Somerville High School through the destruction of an historic property. A second update to the PNF was submitted to MHC on 5/16/16 in response to their 5/2/16 letter, providing the additional documentation that had been requested for their review.

Since the MHC has determined the project will cause an "adverse effect" on the building, either an ENF needs to be filed or a Memorandum of Agreement (MOA) entered into with MHC. The ENF process would take approximately 3 months to complete and may be started in the Design Development phase. Consultation with MHC resulting in a Memorandum of Agreement could be started immediately and would take approximately 6 months to complete.

All of the correspondence noted above that has been received from both MHC and SHPC are included as attachments at the end of this Section.

## **FEDERAL**

### **Environmental Protection Agency (EPA)**

#### *NPDES Construction General Permit*

Construction activities which disturb an acre or more of land are regulated under the National Pollutant Discharge Elimination System (NPDES) administered by the Environmental Protection Agency (EPA). Most of these activities are regulated under the Construction General Permit, which outlines provisions that construction operators must follow to comply with the NPDES storm water regulations. A Notice of Intent (NOI) must be filed with the EPA for projects seeking coverage under the Construction General Permit. The NPDES permit is filed approximately one month prior to construction and will take one week to complete.

## **3.1.9 PROPOSED SCHEDULE INCLUDING PHASING**

Alternative 2A would be constructed in two phases. Phases 1 & 2 would each take approximately 24 months, with an intermediate summer phase to renovate the gymnasium and existing Chapter 74 vocational spaces. Approximately 68 modular classrooms (including Chapter 74 vocational shop spaces) would be provided on site or would be moved to another location to provide the necessary swing space. A detailed plan for phasing and swing space will be determined during Schematic Design to best coordinate with the educational programs and minimize the impact on students. Phasing is sequenced to allow the additions to be built first thereby providing additional swing space sooner. Construction would take approximately 5.5 years.

See attached phasing plan at the end of this Section.

## 3.2 ALTERNATIVE 3

Alternative 3 is an addition and renovation option. It consists of partial demolition and renovation of the existing three to four story high school, with new additions for kitchen, media center and classroom/vocational space. One major new addition is located towards the northern portion of the site. This alternative will involve phased demolition and construction activities due to the lack of sufficient swing space in the City of Somerville to accommodate the entirety of the high school population. The portion of the existing building to be demolished is approximately 102,780 gross square feet, the portion to remain and be renovated is approximately 265,230 gross square feet and the additions total approximately 141,060 gross square feet.

The remaining portions of the existing structure will be totally renovated, involving interior wall and door relocations to adapt to new programs that are moved to the addition noted above, providing appropriate sized academic and vocational spaces, as well as code compliant circulation paths. The existing auditorium will remain in its current location, receiving modifications to improve the educational opportunities associated with this space. The existing gymnasium will remain in its current location, and will undergo renovations to address existing deficiencies.

This alternative includes the construction of a two level parking garage structure on the northern slope of the site. The top of the parking structure will incorporate a combination of artificial turf playing fields, outdoor learning environments and plazas.

### 3.2.1 SITE ANALYSIS

Refer to the Site Analysis narrative for Alternative 2A in Section 3.1.1.

### 3.2.2 EVALUATION OF POTENTIAL STUDENT IMPACTS

From Susana Morgan, Somerville Public Schools Director of Communications & Grants:

See Alternate 2A Evaluation of Potential Student Impacts (3.1.2) for a general description of Somerville High School's achievements.

The following represents the projected impact that Alternative 3 would have on Somerville High School students:

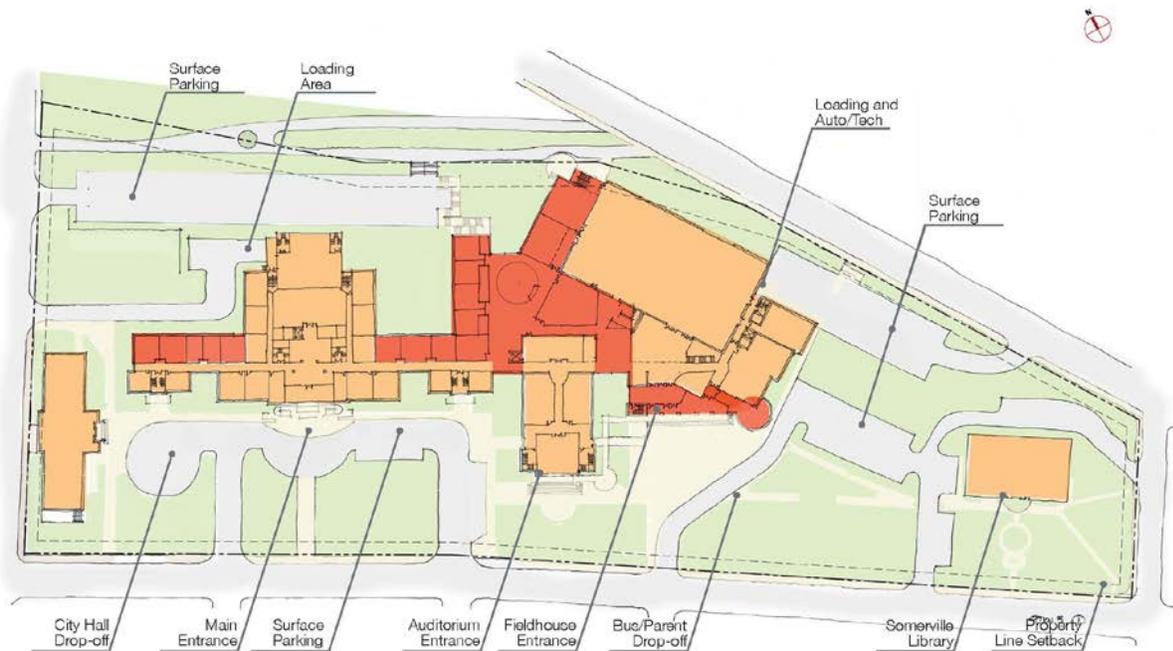
Alternative 3, also an Addition/Renovation option, includes the greatest amount of renovation. As with Alternative 2A, this option combines the historic elements with modern elements and would support 21st Century learning experiences identified in the educational program plan. While it would leverage the most recent construction on site including the Auditorium, this alternative does not address the challenge of travel time from one end of the building to the other as the building's footprint would remain virtually the same. This alternative also does not address the disconnect between the lower level and the remainder of the building or the inefficient corridors on the upper level, which present not only design challenges but student safety challenges as well because of limited sight lines. This plan also includes renovation of the 1986 CTE wing,

which is currently located at one end of the building away from the academic programs, and therefore does not provide the same level of opportunity for interdisciplinary work as the preferred alternative (4b). As with alternative 2A, a complicated construction phasing process would result in greater disruption during project construction, resulting in greater “lost learning time” for students.

### 3.2.3 CONCEPTUAL ARCHITECTURAL AND SITE DRAWINGS

#### Conceptual Site Drawings

The proposed site design will establish new circulation routes through the site. Separate drop-off areas will be established for the high school and City Hall. The new driveways are proposed to be aligned with the existing curb cuts along the south side of Highland Avenue. The majority of new parking is proposed within an at-grade parking lot. Site accessibility will be accomplished by new walkways at grade or compliant ramps. Utility services will be upgraded and replaced as required, and a new stormwater system will capture and treat runoff before discharge.

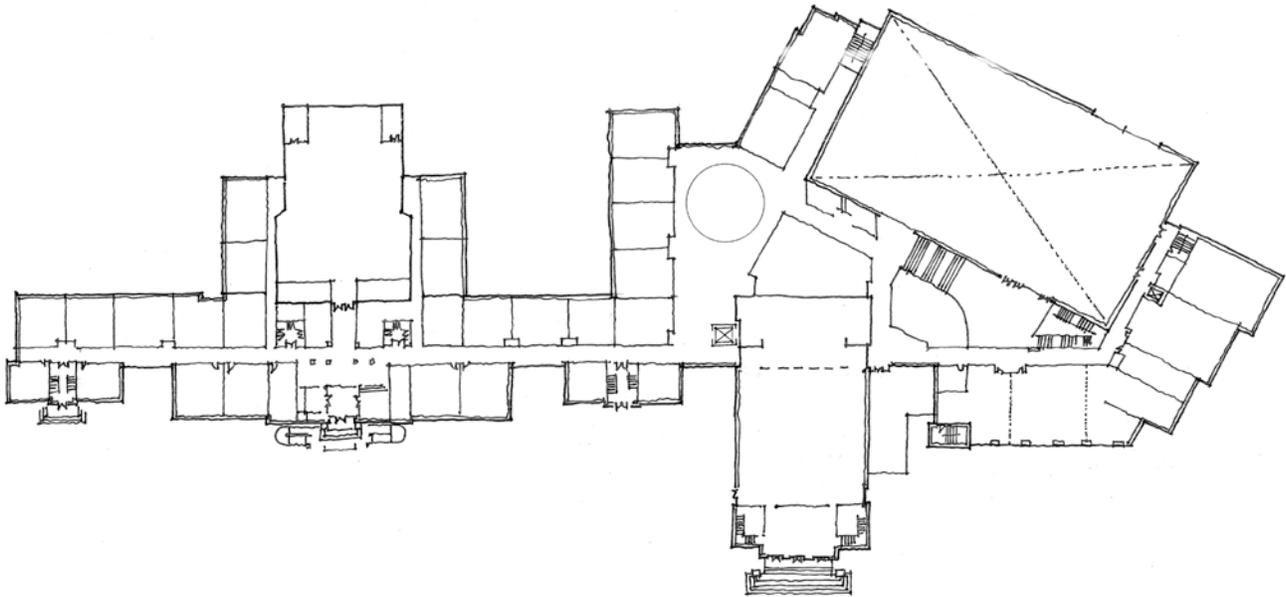


Alternative 3 – Proposed Site Layout Plan

### Conceptual Architectural Drawings

The floor plans represent the realignment of the academic program to meet the goals of the Somerville Public Schools educational program.

Larger versions of the floor and site plans are included in Appendix Section 3.2.10



Alternative 3 – Floor Plan – Second Floor

### 3.2.4 OUTLINE OF MAJOR STRUCTURAL SYSTEMS

Refer to the Structural Systems narrative provided for Alternative 2A in Section 3.1.4.

### 3.2.5 SOURCE, CAPACITIES AND METHOD OF OBTAINING UTILITIES

The existing high school site is currently served by the municipal water and sewer systems, and storm drainage discharges to the cities storm drainage system in the surrounding streets.

Many of the services for the renovated building will be replaced or upgraded as described below:

#### Water Distribution System

The proposed water distribution system will consist of Class 52 cement-lined ductile iron (CLDI) water mains. The existing services feeding the site and building from

Highland Avenue and Medford Street will be connected with a new 12” main providing a looped system.

Existing onsite service pipes will be replaced and new hydrants will be provided. A separate fire protection service for the building will be added, and the domestic service will be replaced. The fire protection service will include a post indicator valve, as required by NFPA.

### **Sanitary Sewer System**

The school will continue to connect to the municipal sewer mains within the surrounding streets.

A new 9,000 gallon precast concrete grease trap will be provided to treat wastes generated from the kitchen in accordance with the Plumbing Code. A new pH adjustment system will be added. An oil/grit separator will be required for discharge from the structured parking levels, see section 3.1.6.

### **Storm Drain System**

The proposed storm drain system will consist of a series of deep-sump catch basins, areas drains, water quality units and manholes located around the perimeter of the building, new parking areas and driveways. The new drainage system will receive and treat stormwater runoff prior to discharge. The new drainage system will connect to and utilize the existing drainage discharge points into the existing municipal system within the surrounding streets.

Subsurface groundwater recharge structures will be designed to capture portions of runoff from the roof and pavement and infiltrate it back into the ground. The design will be based on detailed subsurface geotechnical investigations including the existing groundwater elevation and soil permeability. Runoff from pavement will also be treated in accordance with the Massachusetts Stormwater Management.

Low impact design (LID) elements will be included in the stormwater design where practical.

### **Electrical**

Two new primary electric services will be provided from Highland Avenue and will be coordinated with NSTAR. The service from Highland Avenue will enter the site underground to a pad-mounted transformer and will serve a portion of the new and renovated school building. The service will continue underground to a second pad-mounted transformer serving the vocational wing.

### **Natural Gas**

The project will require a new gas service to the building. National Grid is the gas supplier for the site.

## **3.2.6 NARRATIVE OF MAJOR MEPFP SYSTEMS**

### **Mechanical Systems**

Refer to the Mechanical Systems narrative provided for Alternative 2A in Section 3.1.6.

### **Electrical Systems**

Refer to the Electrical Systems narrative provided for Alternative 2A in Section 3.1.6.

### **Plumbing Systems**

Refer to the Plumbing Systems narrative provided for Alternative 2A in Section 3.1.6.

### **Fire Protection System**

Refer to the Fire Protection Systems narrative provided for Alternative 2A in Section 3.1.6.

## **3.2.7 PROPOSED TOTAL PROJECT BUDGET AND COST ESTIMATE**

The construction and project costs for Alternative 3 are estimated to be:

- Construction Cost: \$ 245.9 million
- Project Cost: \$ 314.6 million

The cost estimate and project budget are attached at the end of this Section.

## **3.2.8 PERMITTING REQUIREMENTS**

Refer to the Permitting Requirements narrative for Alternative 2A in Section 3.1.8.

## **3.2.9 PROPOSED SCHEDULE INCLUDING PHASING**

Alternative 3 would be constructed in two phases. Phases 1 & 2 would each take approximately 24 months, with an intermediate summer phase to renovate the gymnasium and existing Chapter 74 vocational spaces. Approximately 68 modular classrooms (including Chapter 74 vocational shop spaces) would be provided on site or would be moved to another location to provide the necessary swing space. A detailed plan for phasing and swing space will be determined during Schematic Design to best coordinate with the educational programs and minimize the impact on students. Phasing is sequenced to allow the additions to be built first thereby providing additional swing space sooner. Construction would take approximately 5.5 years.

See attached phasing plan at the end of this Section.

### 3.3 ALTERNATIVE 4B

Alternative 4B is an addition and renovation option. It consists of partial demolition and renovation of the existing three to four story high school, with a new six story addition for the cafeteria, kitchen, media center and classroom/vocational space. The new addition is located towards the eastern portion of the site, between the existing gymnasium and the Main Branch of the Somerville Public Library. This alternative will involve phased demolition and construction activities due to the lack of sufficient swing space in the City of Somerville to accommodate the entirety of the high school population. The portion of the existing building to be demolished is approximately 277,450 gross square feet, the portion to remain and be renovated is approximately 82,700 gross square feet and the additions total approximately 321,410 gross square feet.

The remaining portions of the existing structure will be totally renovated, involving interior wall and door relocations to adapt to new programs that are moved to the additions noted above, providing appropriate sized academic and vocational spaces, as well as code compliant circulation paths. The existing media center will be repurposed and renovated to accommodate a new auditorium. The existing gymnasium will remain in its current location, and will undergo renovations to address existing deficiencies.

The oldest remaining portions of original construction still on site (built in 1895 with additions in 1914) will remain standing, but will not be used as part of the high school program subsequent to the completion of the project. The 1895/1914 structure will only be stabilized as part of this project, and will be the subject of a future major renovation project by the City. Stabilization activities will include:

- The infill of any remaining exterior openings following the demolition of adjacent structures with plywood sheathing. All window openings at the first and second levels would be covered with plywood sheathing for security.
- The installation of a temporary fire alarm system on the four existing floors.
- Refer to the structural systems description found in Section 3.1.4 for a narrative of the lateral reinforcement measures that would need to be taken so secure the remaining 1895/1914 structure.

This Alternative includes the construction of a two level parking garage structure on the northern slope of the site. The top of the parking structure will incorporate a combination of artificial turf playing fields, outdoor learning environments and plazas.

The six stories associated with this Alternative will require the designation of the school as high-rise construction as defined by the Building Code. The high-rise designation has implications for both the architectural and MEPFP systems included in the building. Details associated with the specific MEPFP systems can be found below in Section 3.3.6. Implications for the architectural systems are as follows:

- Stairway and elevator hoistway shaft construction must incorporate impact resistant materials. Wall assemblies for both of these elements will be constructed with full depth 8" CMU for compliance. At the stairways, ground face CMU will be utilized where the CMU is exposed to view within the stair.

- A 200 nsf Fire Command Center will be constructed on the first floor adjacent to the main entrance of the school.
- Every required exit stairway will include a smokeproof enclosure. The smokeproof enclosure will be achieved through the construction of 2 hour fire-rated vestibule at each level for each stairway. The vestibules will each have a pair of doors on hold-opens that are connected to the fire alarm system.
- Luminous egress path markings will be provided within the school.

### 3.3.1 SITE ANALYSIS

Refer to the Site Analysis narrative for Alternative 2A in Section 3.1.1.

### 3.3.2 EVALUATION OF POTENTIAL STUDENT IMPACTS

From Susana Morgan, Somerville Public Schools Director of Communications & Grants:

See Alternate 2A Evaluation of Potential Student Impacts (3.1.2) for a general description of Somerville High School's achievements.

The following represents the projected impact that Alternative 4B would have on Somerville High School students:

While each of the final three building options ensures that Somerville High School students will have the opportunity for a deeper educational experience through an educational facility that supports the type of 21st Century learning experiences that today's students need in order to succeed in a globally competitive environment, one option (Alternative 4B) offers the greatest overall impact with a design that connects the school community in a way that facilitates project-based learning, delivery of support services, interdisciplinary work, professional learning communities, opportunities for experiential work with community partners, and opportunities for future growth and connections.

Of the three final options Alternative 4B, a mostly new construction option, offers the greatest potential for addressing all of the priorities identified by the School Building Committee (SBC) and the community, priorities that relate directly to the educational experience that the proposed building design would provide to students.

More compact overall design - The more compact overall design of Alternative 4b eliminates the extensive travel time in the current building. The current high school building extends approximately 900 feet from one end of the building to the other, creating a disconnect between academic programs located at one end of the building and Career and Technical Education (CTE) programs located at the other end. Alternative 4B reduces that distance by nearly half and also creates a safer environment through a more compact and open environment that can be more easily monitored.

Thoughtful, strategic adjacencies - The adjacencies that come with the co-location of the CTE programs with the academic programs represent a distinct advantage and fully

support the school's educational program plan. The design offers a strong platform to make multidisciplinary project-based learning a core experience through the use of flexible spaces and thoughtful adjacencies.

**Inclusive and secure design** – Its compact nature and the strategic clustering of semi-private spaces create an inclusive setting without compromising safety and security. The design also allows for flexibility in clustering of targeted groups to support transitioning into a more inclusive setting, such as the 5th Floor Plan for the Freshman Academy.

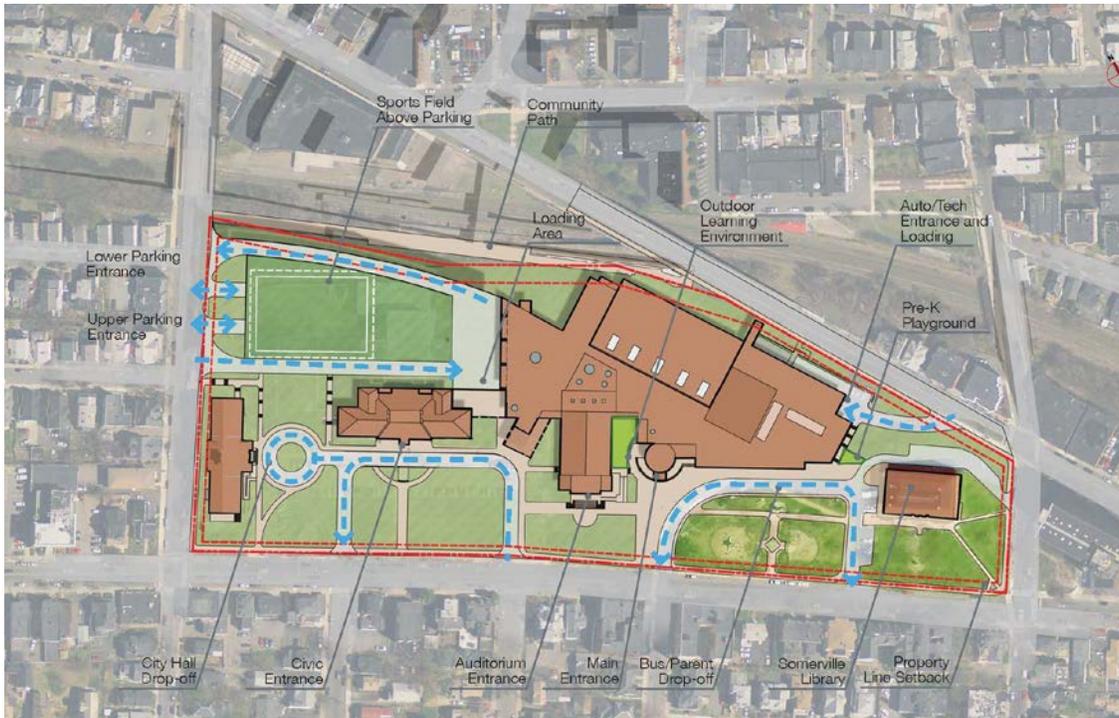
**Tradition and innovation** – Alternative 4B provides the opportunity to blend history, tradition and innovation seamlessly, maintaining the two most important historical parts of the current building and the highly utilized Field House.

**Phasing advantages** - The phasing of the project that comes with Alternative 4b means less disruption during the construction process, resulting in less “lost learning time” than either of the other two alternatives. This is a particularly important consideration when you take into account the high percentage of Somerville High School students (55%) who are considered “At Risk” due to a variety of factors.

### **3.3.3 CONCEPTUAL ARCHITECTURAL AND SITE DRAWINGS**

#### **Conceptual Site Drawings**

The proposed site design will establish new circulation routes through the site. Separate drop-off areas will be established for the high school and City Hall. The new driveways are proposed to be aligned with the existing curb cuts along the south side of Highland Avenue. The majority of new parking is proposed within a two-level parking garage with a synthetic turf field deck proposed over the garage. Site accessibility will be accomplished by new walkways at grade or compliant ramps. Utility services will be upgraded and replaced as required, and a new stormwater system will capture and treat runoff before discharge.

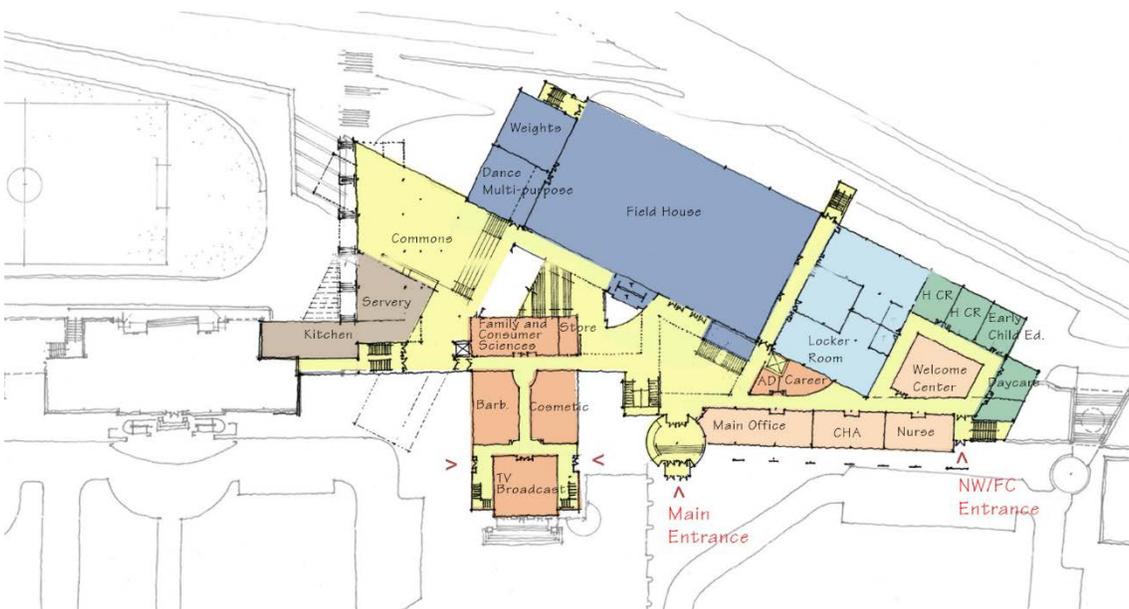


Alternative 4B – Proposed Site Layout Plan

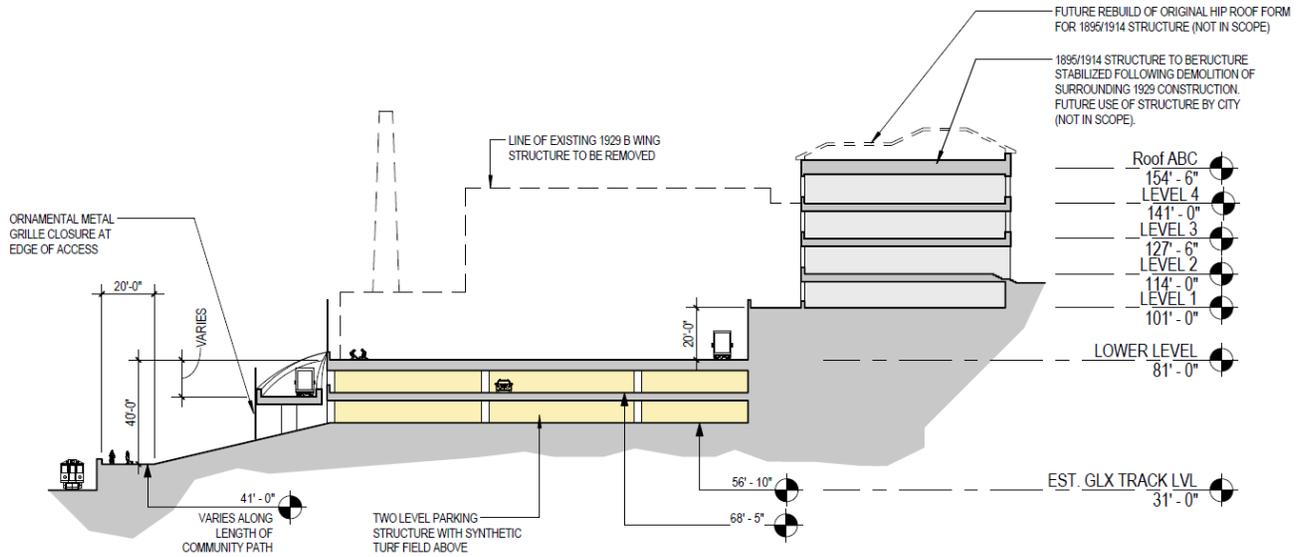
### Conceptual Architectural Drawings

The floor plans represent the realignment of the academic program to meet the goals of the Somerville Public Schools educational program.

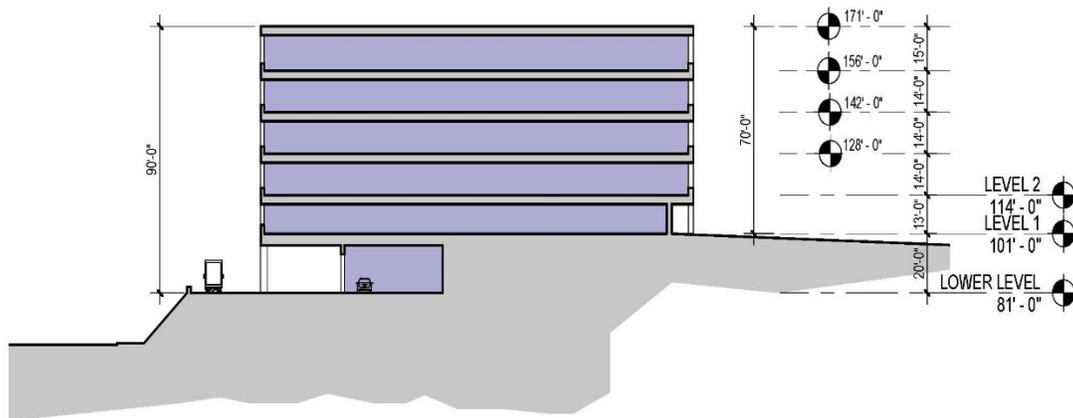
Larger versions of the floor and site plans are included in Attachment Section 3.3.10



Alternative 4B – Floor Plan – First Floor



Alternative 4B – Site Section at 1895/1914 Building and Parking Garage



Alternative 4B – Site Section at New Construction

### 3.3.4 OUTLINE OF MAJOR STRUCTURAL SYSTEMS

Refer to the Structural Systems narrative provided for Alternative 2A in Section 3.1.4, except as noted below:

#### Structural Systems at New Construction

Foundations for new construction for the school will consist of 15” to 16” thick reinforced concrete walls extending at least 4’ below finished grade. Typical interior column footings will consist of isolated reinforced concrete spread footings. The existing bearing material is glacial till with an allowable bearing pressure of approximately 3 tons per square foot. Therefore, a typical 30’x 36’ column grid, will

have an exterior column footing 8.5'x 8.5'x 26" deep. A typical interior column footing supporting 5 framed levels and a roof at a typical classroom wing will be 10'x10'x 32" deep.

### **3.3.5 SOURCE, CAPACITIES AND METHOD OF OBTAINING UTILITIES**

The existing high school site is currently served by the municipal water and sewer systems, and storm drainage discharges to the cities storm drainage system in the surrounding streets.

Many of the services for the renovated building will be replaced or upgraded as described below:

#### **Water Distribution System**

The proposed water distribution system will consist of Class 52 cement-lined ductile iron (CLDI) water mains. The existing services feeding the site and building from Highland Avenue and Medford Street will be connected with a new 12" main providing a looped system.

Existing onsite service pipes will be replaced and new hydrants will be provided. A separate fire protection service for the building will be added, and the domestic service will be replaced. The fire protection service will include a post indicator valve, as required by NFPA.

#### **Sanitary Sewer System**

The school will continue to connect to the municipal sewer mains within the surrounding streets.

A new 9,000 gallon precast concrete grease trap will be provided to treat wastes generated from the kitchen in accordance with the Plumbing Code. A new pH adjustment system will be added. An oil/grit separator will be required for discharge from the structured parking levels, see section 3.1.6.

#### **Storm Drain System**

The proposed storm drain system will consist of a series of deep-sump catch basins, areas drains, water quality units and manholes located around the perimeter of the building, new parking areas and driveways. The new drainage system will receive and treat stormwater runoff prior to discharge. The new drainage system will connect to and utilize the existing drainage discharge points into the existing municipal system within the surrounding streets.

Subsurface groundwater recharge structures will be designed to capture portions of runoff from the roof and pavement and infiltrate it back into the ground. The design will be based on detailed subsurface geotechnical investigations including the existing groundwater elevation and soil permeability. Runoff from pavement will also be treated in accordance with the Massachusetts Stormwater Management.

Low impact design (LID) elements will be included in the stormwater design where practical.

### **Electrical**

Two new primary electric services will be provided from Highland Avenue and will be coordinated with NSTAR. The service from Highland Avenue will enter the site underground to a pad-mounted transformer and will serve a portion of the new and renovated school building. The service will continue underground to a second pad-mounted transformer serving the vocational wing.

### **Natural Gas**

The project will require a new gas service to the building. National Grid is the gas supplier for the site.

## **3.3.6 NARRATIVE OF MAJOR MEPFP SYSTEMS**

### **Mechanical Systems**

A new Heating, Ventilating and Air Conditioning system will be provided to serve the various program spaces of the high school building to meet current codes and energy standards.

The new heating plant will be based on the use of high-efficiency gas-fired condensing hot water boilers with variable volume distribution pumps serving loads with two-way modulating control valves. The system will use a 30% propylene glycol solution for freeze protection and will include all ancillary equipment and devices required for a complete operating system. New hot water distribution piping will be provided to serve all terminal heating equipment.

Air conditioned spaces will be served through the use of a central chilled water system to meet the demands of the mechanical cooling systems in an energy efficient manner.

Dedicated Outdoor Air Systems (DOAS) will provide ventilation for the classrooms, providing conditioned fresh air as supply and exhaust for energy recovery. The DOAS units will be configured as energy recovery units (either roof top or penthouse type) with hot water heat, chilled water cooling and Variable Air Volume (VAV) distribution will be providing ventilation to classrooms. The DOAS units will provide conditioned 100% outdoor air.

The ventilation air from DOAS units will be distributed to VAV Fan Powered Boxes (FPBs) configured with hot water reheat coils for space heating. The return air from the classrooms will be mixed at FPB's with the air conditioned ventilation air from the DOAS units and then distributed back to the classrooms. Thus, partial air conditioning will be provided to the classrooms.

Other zones, such as the Media Center, Administration, the Gym, Auditorium and Cafeteria, will be served by VAV air handling units with hot water heat and chilled water cooling. The use of energy recovery wheels will be considered where the savings prove

justified. Distribution will be through VAV boxes or, as in the case of the Gym, direct to the occupied space without the use of VAV boxes.

Spaces requiring only heating and ventilation will be served by heating and ventilating units configured with hot water coils and, where appropriate, heat recovery wheels.

Terminal hot water heating units (cabinet unit heaters, unit heaters, radiant ceiling panels or finned tube radiation) will serve vestibules, stairs and other back-of-house spaces.

Gas fired make-up air unit with a single zone VAV distribution and associated demand control ventilation exhaust air system will be provided for Kitchen. New VAV kitchen hood exhaust fans will be provided for the kitchen systems. The makeup air and exhaust will be controlled by a Demand Control Ventilation system to vary the amount of kitchen exhaust airflow as required for the cooking demand.

Exhaust fans will be provided for the Bathrooms, Janitor closets and spaces with special exhaust requirements, including the various vocational spaces. Laboratory fume hood exhaust will be provided through a central, manifolded system with VAV operation to serve the variable use of the fume hoods for Science Labs.

Garage ventilation will be provided to comply with Code through the use of mechanical exhaust fan(s) and associated ductwork for collection and venting. Makeup air will be provided through outdoor air intake louvers or architectural openings.

Life safety stair and elevator pressurization systems will be provided to comply with local and State Code. The systems will consist of centrifugal supply fans and associated distribution ductwork and controls to supply outdoor air to selected egress stairs, stair vestibules and elevator shafts. These systems will be powered from the life safety emergency generator.

Independent, split-type air conditioning systems will be provided for Data Closets and Electrical rooms, as required.

Acoustic attenuation and vibration control will be provided to minimize noise and vibration transmission to occupied spaces in the form of in-duct attenuators, duct lagging, vibration isolators and roof-level slabs beneath HVAC equipment.

The facility will be provided with a web-accessible, microprocessor-based, direct digital control (DDC) building automation system (BAS) for control of HVAC systems and equipment and for monitoring of selected other systems.

Consideration will be provided for powering selected systems from an emergency power source, as required for life safety and for standby operation of certain systems. This typically includes motorized fire/smoke dampers or the heating system and associated terminal equipment and controls.

## Electrical Systems

New construction service ratings are designed for a demand load of 10 watts/s.f. The service capacity will be sized for (2) 3000 amperes services with 100 percent rating at 277/480 volt, 3 phase, 4 wire. The buss sizes at each switchboard will be rated at 4000 amperes to accommodate with PV system per NEC 690.64. Distribution from the ground level service entrance switchboards to the upper levels will be a series of distribution panels served by bus duct risers.

The existing 13KW PV self-ballasted PV system and associated Solectria PVI13KW inverter and data acquisition system will be relocated and connected to the new buildings distribution system.

A system of new panelboards separated by use; lighting, mechanical and general power will be provided in dedicated electrical rooms throughout the building to serve mechanical equipment, lighting and branch circuit loads.

Each classroom will have a minimum of two duplex receptacles per teaching wall and two double duplex receptacles on dedicated circuits at classroom computer workstations. The teacher's workstation will have a double duplex receptacle also on a dedicated circuit.

Office areas will generally have one duplex outlet per wall. At each workstation a double duplex receptacle will be provided.

Corridors will have a cleaning receptacle at approximately 25 ft. intervals.

Exterior weatherproof receptacles with lockable enclosures will be installed at exterior doors.

A system of computer-grade panelboards with double neutrals and transient voltage surge suppressors will be provided for receptacle circuits. Dedicated neutrals will be provided for each circuit.

Automatic plug load control via occupancy sensor or schedule for 50% of receptacles installed in private offices, open offices and computer classrooms will be provided.

A new automated addressable lighting control system with local vacancy sensors, occupancy sensors and daylight harvesting sensors will be installed in accordance with IECC 2012 throughout the school.

Classroom and corridor lighting will be controlled via "addressable relays", which is achieved through programming the lighting control system. The system will be interfaced with the DDC control system for scheduled functions. The controllability shall be in conformance with LEED V4. The occupancy/vacancy sensors shall have BacNet interface for DDC input functions.

Exterior lighting will be controlled by photocell "on" and "smart panel" for "off" operation. The vehicle circulation area lighting will be controlled by "zones" and will have dimmed control.

The enclosed parking garage will consist of damp location vandal resistant LED fixtures. Light levels will be approximately 5 foot candles.

Emergency and exit lighting will be run through life safety panels to be on during normal power conditions as well as power outage conditions. The emergency lighting system will have time control so that lights are “on” only when building is occupied. Night lighting will be provided in main lobby space and connected to emergency power

The fire alarm system will be replaced with a new addressable voice evacuation system. The system shall be in compliance with IBC Section 403.4. Detection devices will be installed in egress paths for early warning and new speaker/strobe notification appliances installed throughout per NFPA 72 2010 edition. Smoke detectors shall be designed for activation of smoke control system. Smoke control system HOA switches shall be located at the fire command center. The audio will be designated for emergency communications system for selective evacuation. The fire pump shall be monitored at the fire command center. Elevator status panel and generator status panel shall be located at the fire command center.

A public safety bi-directional antenna system will be installed to provide adequate radio communications signal strength throughout the building for public safety personnel.

A new natural gas fired 750KW 277/480V, 3 phase, 4 wire emergency generator mounted exterior with a sound attenuated weather proof enclosure will be provided to serve life safety, optional standby and legally required loads. Separate 2-hour rated emergency closets will be built to house life safety and legally required systems.

Two (2) 30kw, three (3) phase centralized UPS systems will be provided with battery back-up. The system will provide conditioned power to sensitive electronic loads, telecommunication systems, bridge over power interruptions of short duration and allow an orderly shutdown of servers, communication systems, etc. during a prolonged power outage. The UPS systems will also be connected to the stand by generator.

There is an existing Honeywell building management system that also performs access control functions. Proximity readers will be located in key entry points and in the interior of the building to allow for partitioning. The new readers will be tied into the existing Honeywell system software upgrades and additional door controllers will be provided for a complete and operational system. IP CCTV cameras will be provided on the exterior of the building and interior in all corridors, large assembly spaces, and stairwells as well as other high risk areas. A new VMS system will be provided to manage and store video for up to 30 days at 30 images per second. A new intrusion detection system will be installed with door contacts on all exterior doors and motion sensors along the entire perimeter where access from the exterior is possible and in all corridors.

An Aiphone intercom system with built-in security camera shall be provided in main lobby to control main entrance. The door release switch shall be in corridor and not in administration.

A Two way communication area of rescue assistance system will be provided. Call boxes will be provided adjacent to each elevator that is above grade level. The base

station will be located at a control point at the main level. The system will dial a UL listed central station if there is no one at the base station.

The technology systems infrastructure will be upgraded to Cat 6A for tel/data locations throughout. A new MDF will be constructed and will distribute OM3 laser optimized 10gig fiber optic backbone to New IDF rooms throughout the building.

A new master clock system with wireless secondary clocks will be installed.

A new Public address system will be installed with speakers located throughout the building designed with the ability to page an individual room or make an announcement in the entire building.

### **Plumbing Systems**

Refer to the Plumbing Systems narrative provided for Alternative 2A in Section 3.1.6, except as noted below:

Due to the building heights, the domestic water booster system will be required to produce more pressure and therefore may be larger.

### **Fire Protection System**

Refer to the Fire Protection Systems narrative provided for Alternative 2A in Section 3.1.6, except as noted below:

Due to the building being considered a high rise, the fire pump will be larger, to accommodate 100 psi at the topmost standpipe connection. Pressure reducing valves will be provided as necessary for fire department valves and sprinkler piping from standpipes, such that pressures in excess of piping/fitting/device pressure ratings will not be present.

## **3.3.7 PROPOSED TOTAL PROJECT BUDGET AND COST ESTIMATE**

The construction and project costs for Alternative 4B are estimated to be:

- Construction Cost: \$ 263.8 million
- Project Cost: \$ 337.3 million

The cost estimate and project budget are attached at the end of this Section.

## **3.3.8 PERMITTING REQUIREMENTS**

Refer to the Permitting Requirements narrative for Alternative 2A in Section 3.1.8.

### **3.3.9 PROPOSED SCHEDULE INCLUDING PHASING**

Alternative 4B would be constructed in three phases. Phases 1 & 2 would each take approximately 33 months, and a third and final phase would take approximately 18 months. Approximately 38 modular classrooms (including Chapter 74 vocational shop spaces) would be provided on site or would be relocated to another location to provide the necessary swing space. A detailed plan for phasing and swing space will be determined during Schematic Design to best coordinate with the educational programs and minimize the impact on students. Phasing is sequenced to allow the additions to be built first thereby providing additional swing space sooner. Construction would take approximately 7 years.

See attached phasing plan at the end of this Section.

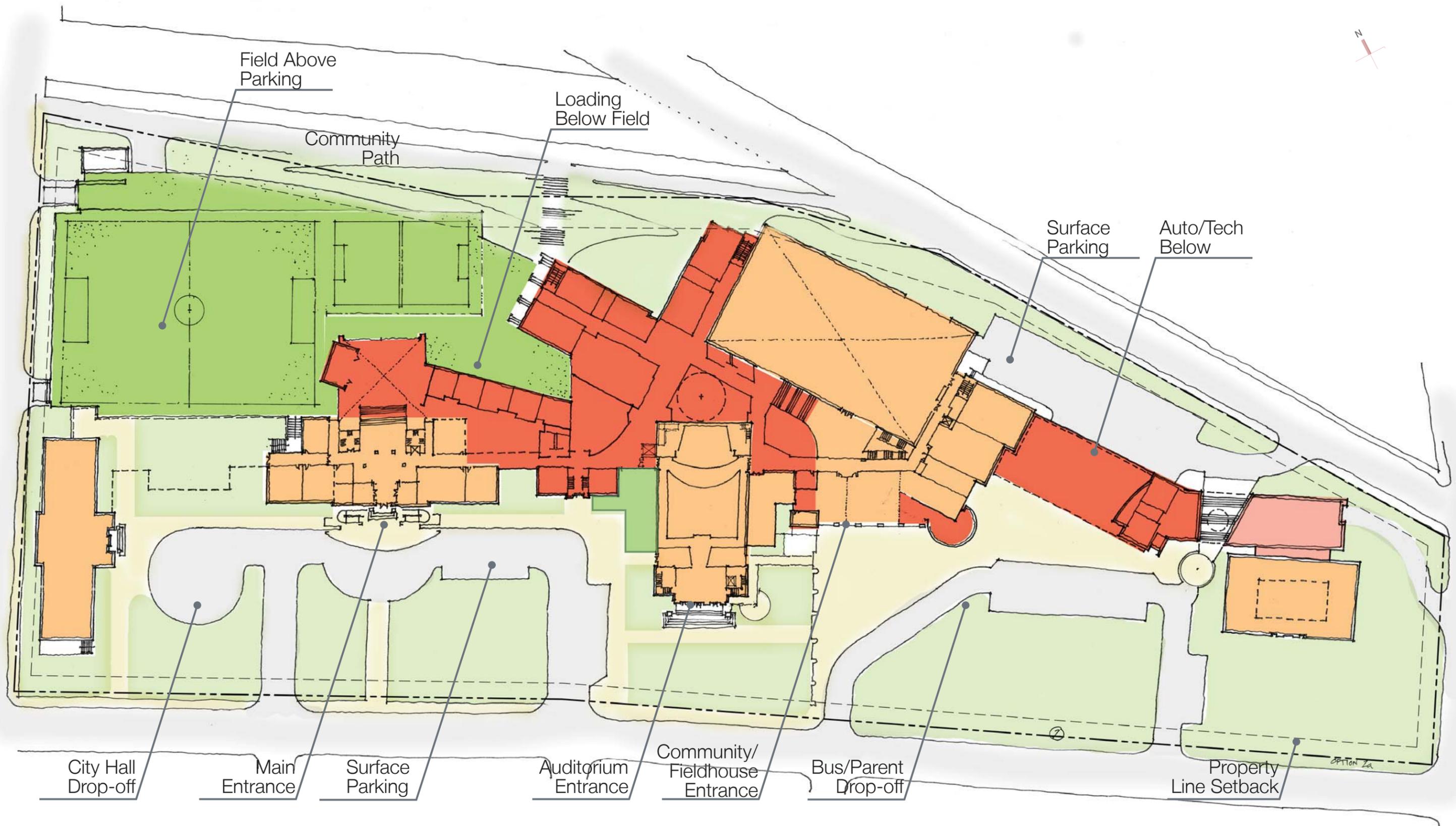
## **3.4 Comparison of Options**

Table 1 – Summary of Preliminary Design Pricing is attached to the end of this section.



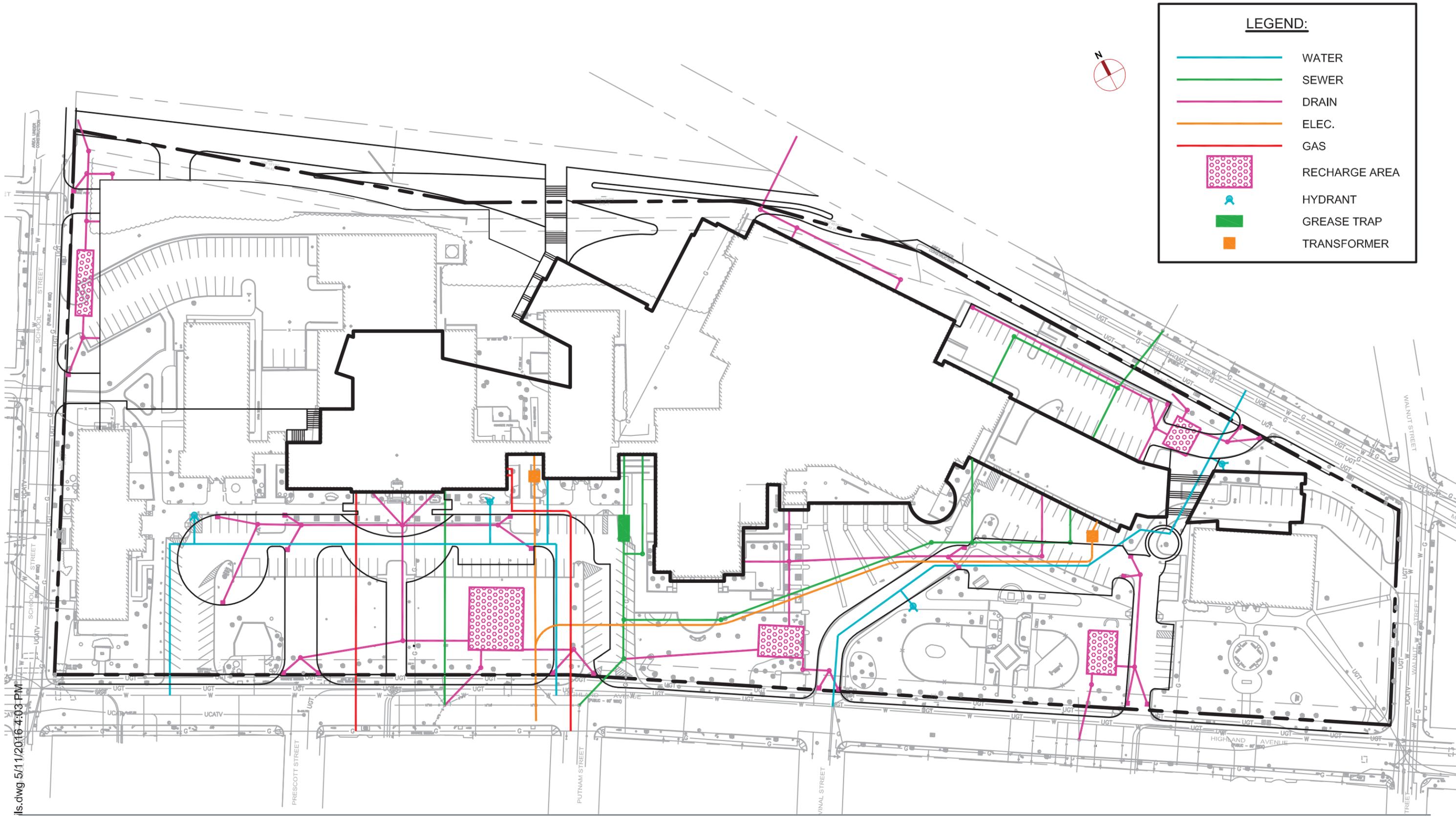
### 3.1.3 Conceptual Architectural and Site Drawings





Alternative 2A - Site Plan  
 Somerville High School - Somerville, MA

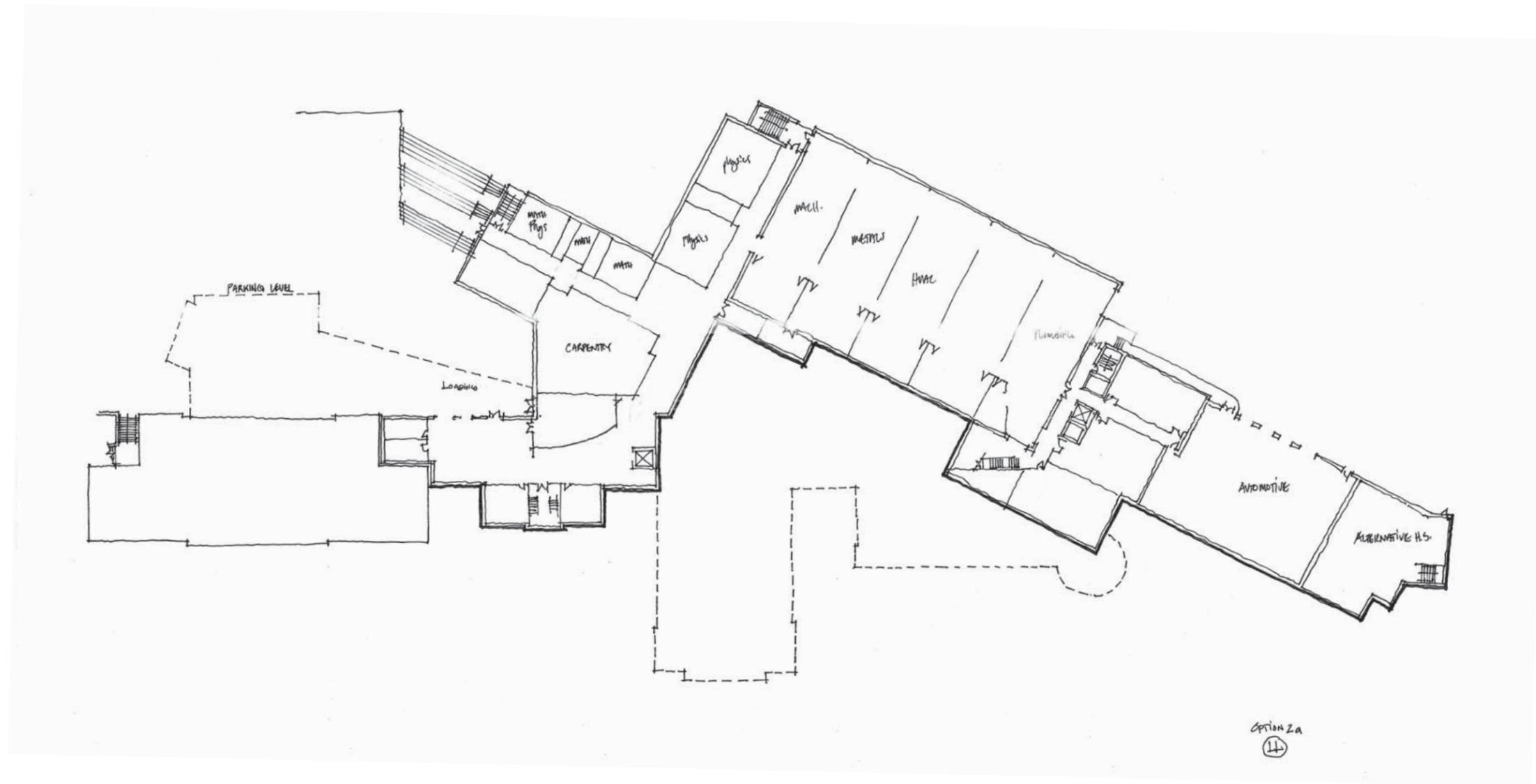
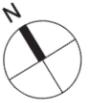




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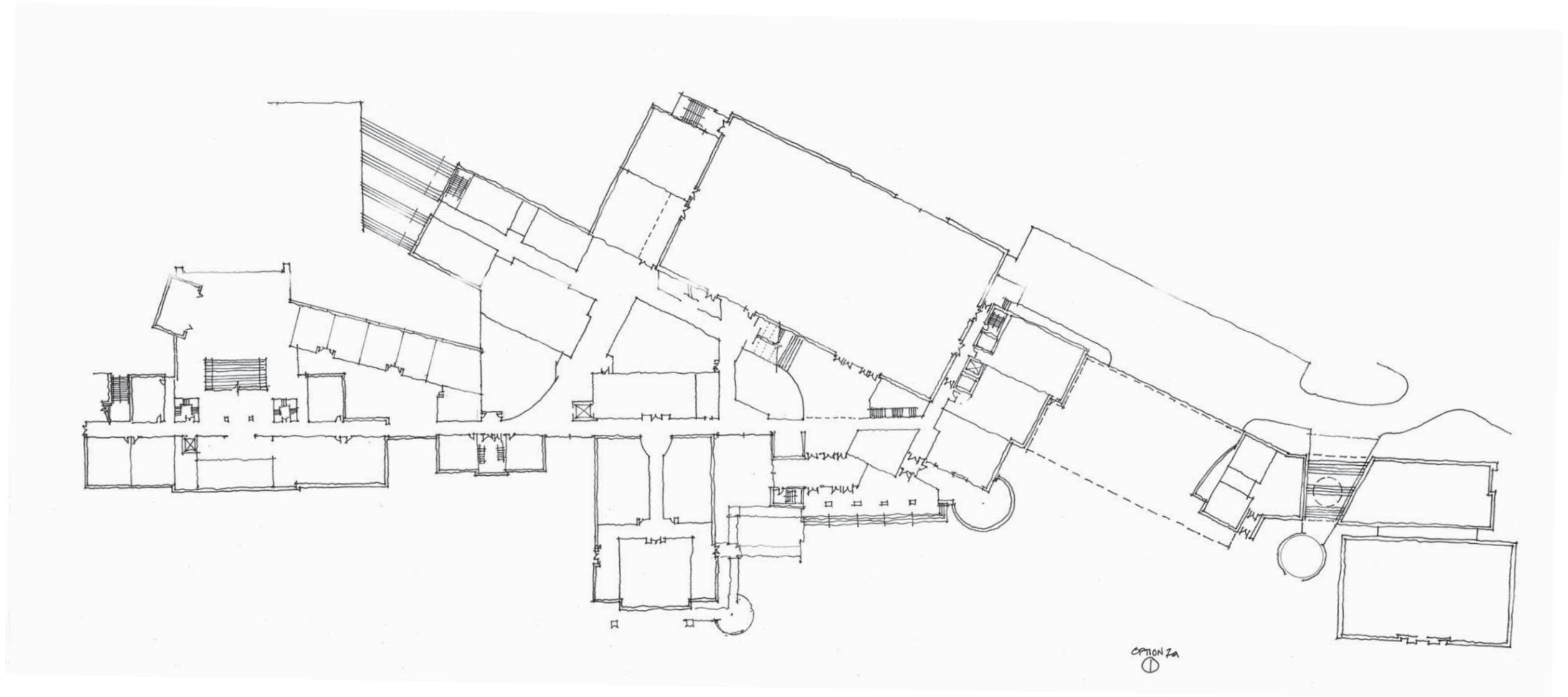
Alternative 2A - Utilities  
 Somerville High School - Somerville, MA





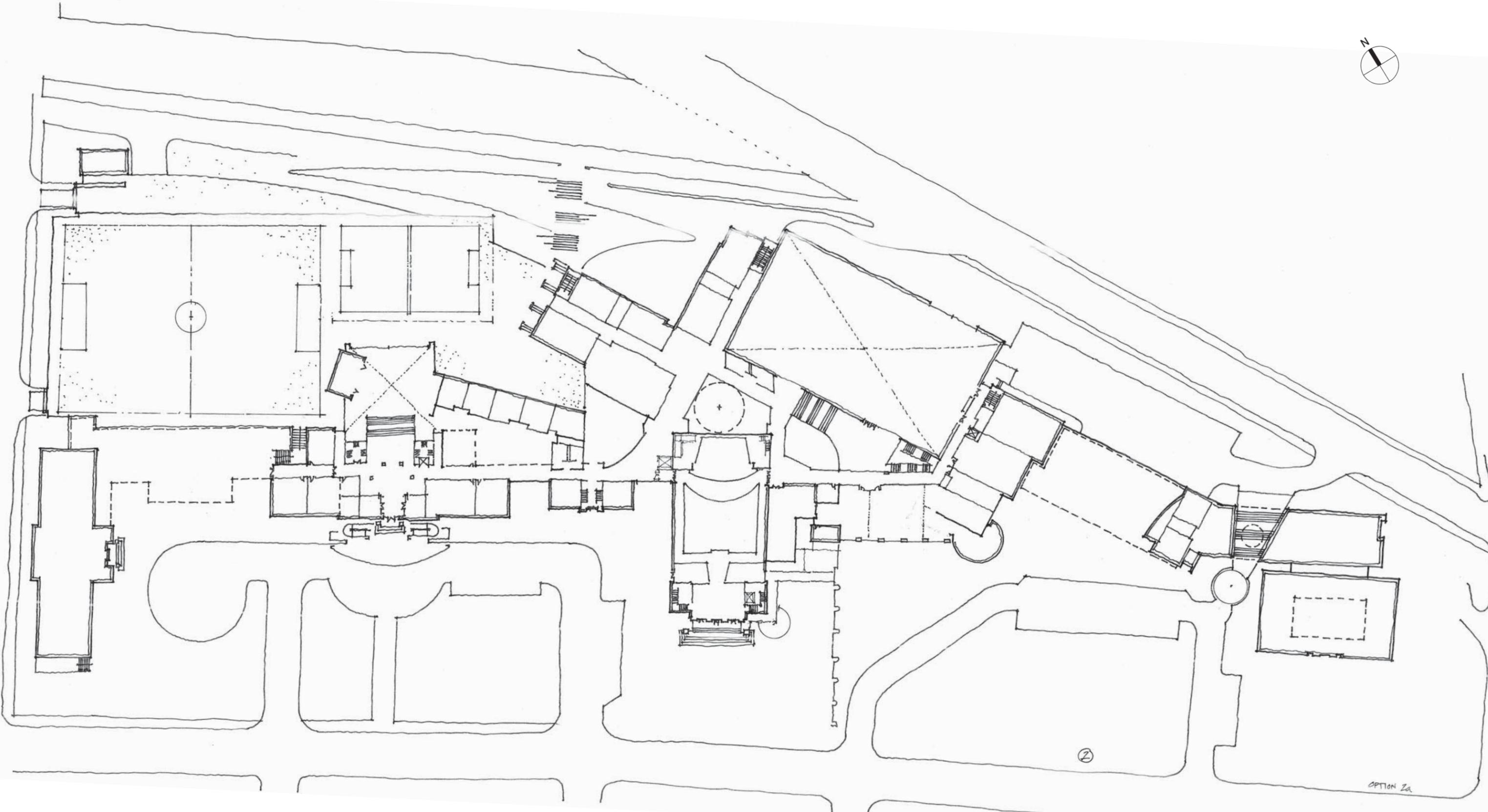
Alternative 2A - Lower Level Plan  
Somerville High School - Somerville, MA





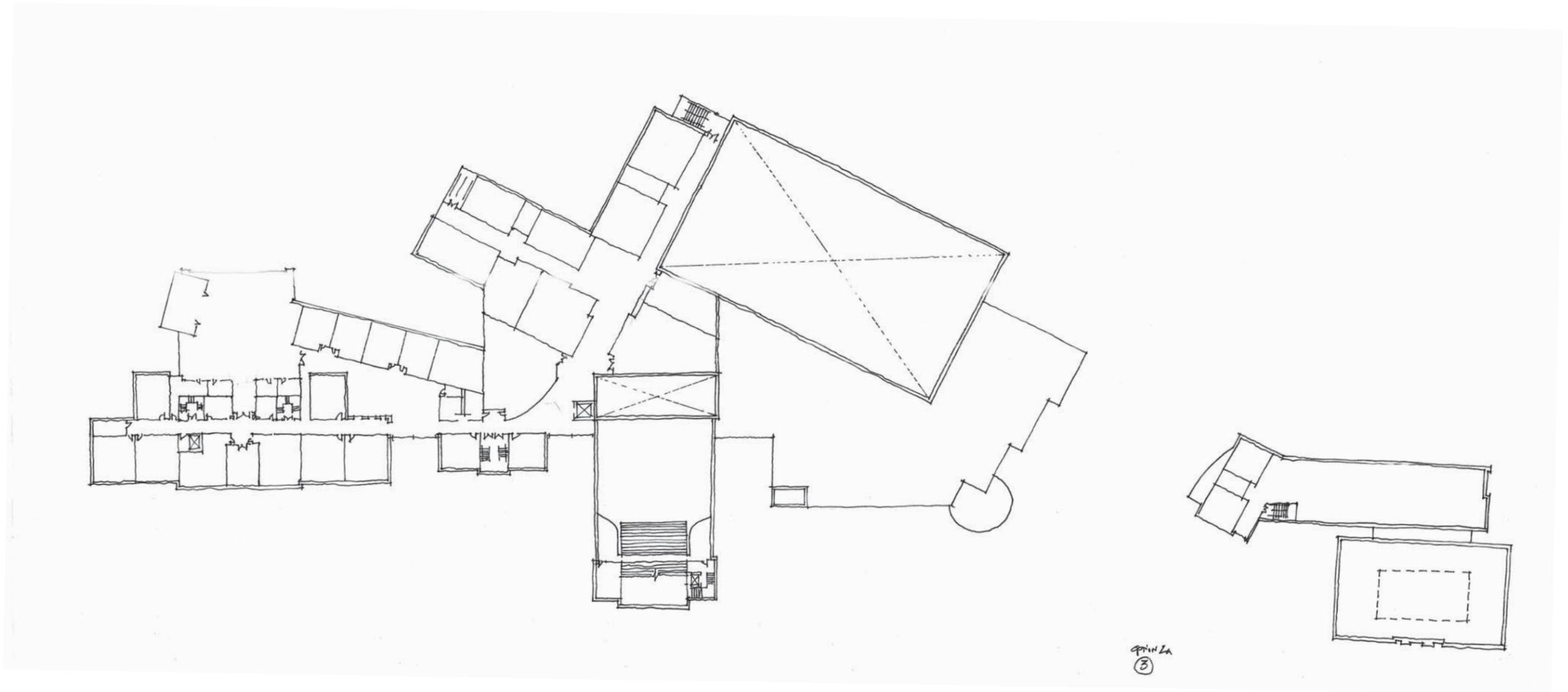
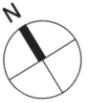
Alternative2A - Level 1 Plan  
*Somerville High School - Somerville, MA*





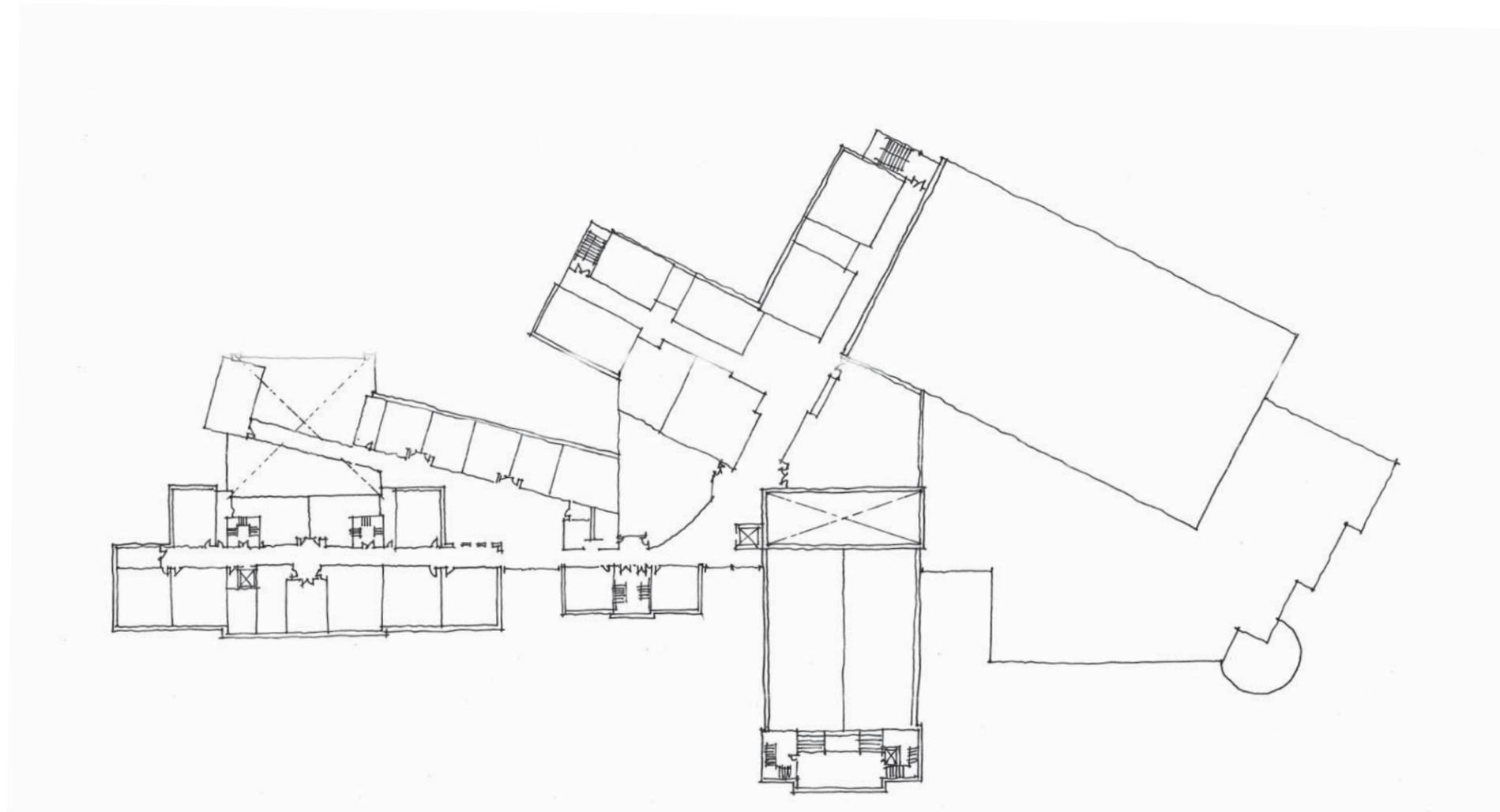
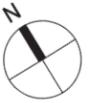
Alternative 2A - Level 2 Plan  
*Somerville High School - Somerville, MA*





Alternative 2A - Level 3 Plan  
*Somerville High School - Somerville, MA*





Alternative 2A - Level 4 Plan  
*Somerville High School - Somerville, MA*



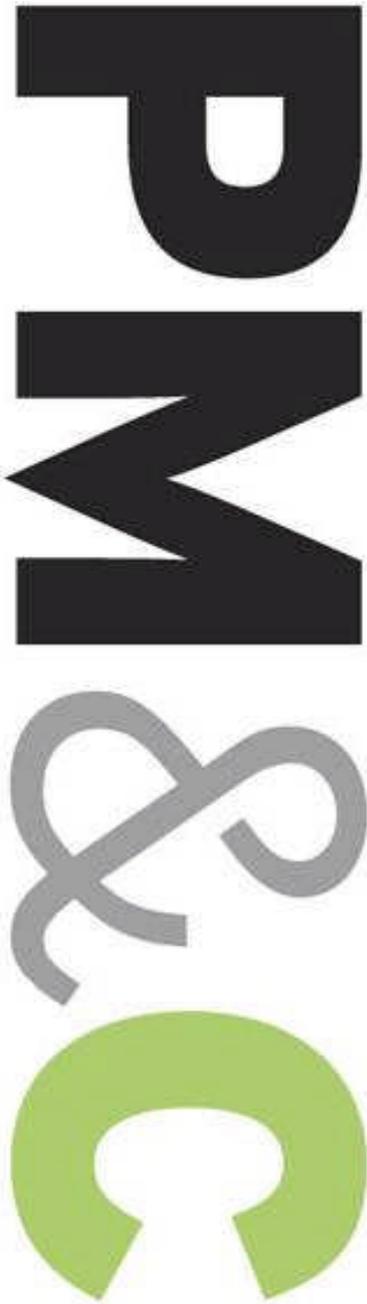
### 3.1.7 Proposed Total Budget and Cost Estimates



**PRELIMINARY - Conceptual Estimates - 5/26/16**  
**SOMERVILLE HIGH SCHOOL PROJECT - HIGH LEVEL COST SCENARIOS**

	Alternative 2A	Alternative 3	Alternative 4B	Alternative 4B
DATA IS ROUGH ORDER MAGNITUDE ESTIMATE OF CONCEPTS	VJ Associates "Estimate of Record"	VJ Associates "Estimate of Record"	VJ Associates "Estimate of Record"	Including SBC Scope Modifications
<b>Direct Trade Costs</b>	<b>\$ 141,556,645</b>	<b>\$ 145,873,175</b>	<b>\$ 156,577,888</b>	<b>\$ 122,136,975</b>
<b>GMP w/ Markups (Escalation, Contingency, Fee, GCs, GRs, etc)</b>	<b>\$ 238,762,916</b>	<b>\$ 245,957,445</b>	<b>\$ 263,799,407</b>	<b>\$ 197,820,084</b>
<b>PROJECT SOFT COST DATA IS BASED UPON PERCENTAGE OF CONSTRUCTION COSTS FOR ALL OPTIONS</b>				
<b>PROJECT SOFT COSTS (ROUGH ORDER MAGNITUDE PROJECT BY PMA)</b>	<b>\$ 50,407,783</b>	<b>\$ 51,846,689</b>	<b>\$ 55,415,081</b>	<b>\$ 42,219,217</b>
Reimbursable Soft Cost Allowance per MSBA (20% of Construction Costs)	\$ 46,472,583	\$ 47,911,489	\$ 51,479,881	\$ 38,284,017
FF&E and IT Allowance @ \$1200/student each (Incl Above)	-	-	-	-
OPM Costs (Incl Above)	-	-	-	-
Architect / Engineering Fees (Incl Above)	-	-	-	-
Legal Fees, Owner / Architect Subconsultants & Testing Costs (Incl Above)	-	-	-	-
Utilities Allowance (Incl Above)	-	-	-	-
Movers Allowance (Est)	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Swing Space Allowance (Est)	\$ 765,000	\$ 765,000	\$ 765,000	\$ 765,000
Leasing of Shop Space for Heavy Chapter 74 Programs (2 years)	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200
FF&E over and above standard \$1200/student due to 640 CTE Students (increase to \$1,500)	\$ 640,000	\$ 640,000	\$ 640,000	\$ 640,000
IT over and above standard \$1200/student due to 640 CTE Students (increase to \$1,500)	\$ 640,000	\$ 640,000	\$ 640,000	\$ 640,000
<b>Total Project Cost</b>	<b>\$ 289,170,699</b>	<b>\$ 297,804,134</b>	<b>\$ 319,214,488</b>	<b>\$ 240,039,301</b>
Owner Construction Contingency (Est. 6%)	\$ 14,325,775	\$ 14,757,447	\$ 15,827,964	\$ 11,869,205
Owner Soft Cost Contingency (Est. 4%)	\$ 2,016,311	\$ 2,073,868	\$ 2,216,603	\$ 1,688,769
<b>Total Project Budget</b>	<b>\$ 305,512,785</b>	<b>\$ 314,635,448</b>	<b>\$ 337,259,056</b>	<b>\$ 253,597,275</b>
<b>"WHAT-IF SCENARIO" - TYPICAL INELIGIBLE COSTS PER MSBA REGS</b>				
Construction Contingency Reimbursement - 2% Max on Reno	\$ 9,550,517	\$ 9,838,298	\$ 10,551,976	\$ 7,912,803
Owner Contingency Reimbursement - assume 33% of budget eligible	\$ 1,330,765	\$ 1,368,753	\$ 1,462,958	\$ 1,114,587
GMP Contingency Reimbursement - assume 33% of budget eligible	\$ 4,519,693	\$ 4,519,693	\$ 4,519,693	\$ 4,519,693
Sitework Costs exceeding 8% of Direct Building Cost	\$ -	\$ -	\$ -	\$ -
Legal Fees - Approximate	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Moving Costs	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Swing Space Costs	\$ 765,000	\$ 765,000	\$ 765,000	\$ 765,000
Leasing of Shop Space for Heavy Chapter 74 Programs (2 years)	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200
Ineligible Abatement Costs (VAT)	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000
Ineligible SF Costs over MSBA Allowable Space Summary	Carried below	Carried below	Carried below	Carried below
Ineligible Construction Costs over Eligible SF or MSBA \$312/SF Allowance (as of May 2015)	\$ 124,213,839	\$ 131,408,368	\$ 149,250,330	\$ 83,271,007
<b>TOTAL POTENTIAL INELIGIBLE COSTS</b>	<b>\$ 143,240,014</b>	<b>\$ 150,760,312</b>	<b>\$ 169,410,158</b>	<b>\$ 100,443,291</b>
<b>POTENTIAL ELIGIBLE COSTS (PRORATED FOR INELIGIBLE COSTS)</b>	<b>\$ 162,272,771</b>	<b>\$ 163,875,137</b>	<b>\$ 167,848,898</b>	<b>\$ 153,153,984</b>
<b>POTENTIAL REIMBURSEMENT FROM MSBA @ Estimated Rates Below</b>	<b>\$ 125,052,649</b>	<b>\$ 126,287,484</b>	<b>\$ 129,349,793</b>	<b>\$ 118,025,416</b>
<b>Estimated reimbursement rate (detail below):</b>	<b>77.06%</b>	<b>77.06%</b>	<b>77.06%</b>	<b>77.06%</b>
Base Reimbursement Rate	71.79%	71.79%	71.79%	71.79%
Sustainable Design Incentive Points (0-2)	2.00%	2.00%	2.00%	2.00%
Maintenance & Capital Planning Incentive Points (0-2)	1.25%	1.25%	1.25%	1.25%
CM @ Risk Incentive Point (0-1)	1.00%	1.00%	1.00%	1.00%
Renovation Incentive Points (0-5)	1.02%	1.02%	1.02%	1.02%
<b>POTENTIAL CITY SHARE OF TOTAL PROJECT BUDGET</b>	<b>\$ 180,460,136</b>	<b>\$ 188,347,965</b>	<b>\$ 207,909,263</b>	<b>\$ 135,571,859</b>





**Preferred Schematic Report Submission**

**Somerville High School  
Design Options 2A, 3 + 4B**

Somerville, MA

**PM&C LLC**  
20 Downer Ave, Suite 1C  
Hingham, MA 02043  
(T) 781-740-8007  
(F) 781-740-1012

Prepared for:

**PMA Consultants, LLC**

May 24, 2016



**Somerville High School**  
 Design Options 2A, 3 + 4B  
 Somerville, MA

24-May-16

**Preferred Schematic Report Submission**

**MAIN CONSTRUCTION COST SUMMARY**

	<b>Construction Start</b>	<b>Gross Floor Area</b>	<b>\$/sf</b>	<b>Estimated Construction Cost</b>
<b>ALTERNATIVE 2A - RENOVATION/ADDITION</b>				
RENOVATE EXISTING SCHOOL		224,800	\$235.04	\$52,836,159
ADDITIONS TO EXISTING BUILDING		165,200	\$304.04	\$50,228,017
AT GRADE SHELTERED PARKING		136,000	\$159.84	\$21,738,306
CHILD CARE PROGRAM SPACE		2,400	\$260.00	\$624,000
SCTV PROGRAM SPACE		1,650	\$270.00	\$445,500
HEALTH SPACE PROGRAM SPACE		1,650	\$260.00	\$429,000
PREMIUM FOR LEED PLATINUM		395,700	\$50.00	\$19,785,000
SHORING EXISTING BUILDINGS DURING PHASING/DEMOLITION				\$1,000,000
DEMOLISH PORTIONS OF EXISTING BUILDING - PHASED		135,350	\$10.00	\$1,353,500
REMOVE HAZARDOUS MATERIALS				\$2,748,240
SITework				\$9,543,742
<b>SUB-TOTAL</b>	<b>Jun-18</b>	<b>531,700</b>	<b>\$302.30</b>	<b>\$160,731,464</b>
ESCALATION TO MID-POINT PH 1 and 2 (One Year Included in Rates) - (assumed 4.5% PA)	18%			\$18,551,552
ESCALATION TO MID-POINT PH 3 (Two Years Included in Rates) - (assumed 4.5% PA)	21%			\$3,075,551
DESIGN AND PRICING CONTINGENCY	10%			\$18,235,857
<b>SUB-TOTAL</b>	<b>Jun-18</b>	<b>531,700</b>	<b>\$377.27</b>	<b>\$200,594,424</b>
GENERAL CONDITIONS	8.00%			\$16,047,554
GENERAL REQUIREMENTS	3.00%			\$6,017,833
BONDS	1.25%			\$2,507,430
INSURANCE	1.25%			\$2,507,430
PERMIT				Waived
CRANE/HOISTING				\$1,200,000
CM FEE	2%			\$4,011,888
CM/GMP CONTINGENCY	3%			\$6,017,833
PHASING PREMIUM	4.00%			\$8,023,777
<b>TOTAL OF ALL CONSTRUCTION OPTION 2A</b>	<b>Jun-18</b>	<b>531,700</b>	<b>\$464.41</b>	<b>\$246,928,169</b>



**Somerville High School**  
Design Options 2A, 3 + 4B  
Somerville, MA

24-May-16

### **Preferred Schematic Report Submission**

This Preferred Schematic Report cost estimate was produced from drawings, outline specifications and other documentation prepared by SMMA Architects Inc. and their design team dated May 17, 2016. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, construction manager's overhead, fee and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be public bidding under Chapter 149a of the Massachusetts General Laws to pre-qualified construction managers, and pre-qualified sub-contractors, open specifications for materials and manufactures.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

### **ITEMS NOT CONSIDERED IN THIS ESTIMATE**

Items not included in this estimate are:

- Land acquisition, feasibility, and financing costs
- All professional fees and insurance
- Site or existing conditions surveys investigations costs, including to determine subsoil conditions
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items as indicated in the estimate
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks, (except as noted in this estimate)
- Construction contingency (GMP Contingency is included)
- Rock removal
- Contaminated soils removal



**CONSTRUCTION COST SUMMARY**

BUILDING SYSTEM		SUB-TOTAL	TOTAL	\$/SF	%
<b>ALTERNATIVE 2A - RENOVATION</b>					
<b>A10 FOUNDATIONS</b>					
A1010	Standard Foundations	\$899,200			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$60,000	<b>\$959,200</b>	\$4.27	1.8%
<b>B10 SUPERSTRUCTURE</b>					
B1010	Upper Floor Construction	\$2,327,771			
B1020	Roof Construction	\$654,716	<b>\$2,982,487</b>	\$13.27	5.6%
<b>B20 EXTERIOR CLOSURE</b>					
B2010	Exterior Walls	\$2,353,394			
B2020	Windows/Curtainwall	\$2,464,102			
B2030	Exterior Doors	\$85,400	<b>\$4,902,896</b>	\$21.81	9.3%
<b>B30 ROOFING</b>					
B3010	Roof Coverings	\$2,217,983			
B3020	Roof Openings	\$30,000	<b>\$2,247,983</b>	\$10.00	4.3%
<b>C10 INTERIOR CONSTRUCTION</b>					
C1010	Partitions	\$4,939,025			
C1020	Interior Doors	\$1,124,000			
C1030	Specialties/Millwork	\$1,832,270	<b>\$7,895,295</b>	\$35.12	14.9%
<b>C20 STAIRCASES</b>					
C2010	Stair Construction	\$504,000			
C2020	Stair Finishes	\$123,120	<b>\$627,120</b>	\$2.79	1.2%
<b>C30 INTERIOR FINISHES</b>					
C3010	Wall Finishes	\$1,943,680			
C3020	Floor Finishes	\$2,982,008			
C3030	Ceiling Finishes	\$1,522,469	<b>\$6,448,157</b>	\$28.68	12.2%
<b>D10 CONVEYING SYSTEMS</b>					
D1010	Elevator	\$180,000	<b>\$180,000</b>	\$0.80	0.3%
<b>D20 PLUMBING</b>					
D20	Plumbing	\$3,147,200	<b>\$3,147,200</b>	\$14.00	6.0%
<b>D30 HVAC</b>					
D30	HVAC	\$8,992,000	<b>\$8,992,000</b>	\$40.00	17.0%
<b>D40 FIRE PROTECTION</b>					
D40	Fire Protection	\$1,124,000	<b>\$1,124,000</b>	\$5.00	2.1%
<b>D50 ELECTRICAL</b>					
D5010	Electrical Systems	\$8,092,800	<b>\$8,092,800</b>	\$36.00	15.3%
<b>E10 EQUIPMENT</b>					
E10	Equipment	\$1,259,000	<b>\$1,259,000</b>	\$5.60	2.4%



Somerville High School  
 Design Options 2A, 3 + 4B  
 Somerville, MA

24-May-16

Preferred Schematic Report Submission

GFA 224,800

**CONSTRUCTION COST SUMMARY**

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 2A - RENOVATION</b>				
<b>E20 FURNISHINGS</b>				
E2010 Fixed Furnishings	\$2,053,719			
E2020 Movable Furnishings	NIC	<b>\$2,053,719</b>	\$9.14	3.9%
<b>F10 SPECIAL CONSTRUCTION</b>				
F10 Special Construction	\$0	<b>\$0</b>	\$0.00	0.0%
<b>F20 SELECTIVE BUILDING DEMOLITION</b>				
F2010 Building Elements Demolition	\$1,924,302			
F2020 Hazardous Components Abatement	\$0	<b>\$1,924,302</b>	\$8.56	3.6%
<b>TOTAL DIRECT COST (Trade Costs)</b>		<b>\$52,836,159</b>	<b>\$235.04</b>	<b>100.0%</b>



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GFA 224,800

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2A - RENOVATION

**GROSS FLOOR AREA CALCULATION**

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1895/1914 wing	60,252
1929 Wing	34,208
1986 Wing	111,283
2006 Wing	2,506
Other renovated areas	16,551

<b>TOTAL GROSS FLOOR AREA (GFA)</b>					<b>224,800</b>	<b>sf</b>
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**A10 FOUNDATIONS**

**A1010 STANDARD FOUNDATIONS**

Allowance for new foundations for structural bracing and new interior walls etc.	<b>224,800</b>	sf	4.00	899,200	
<b>SUBTOTAL</b>					<b>899,200</b>

**A1020 SPECIAL FOUNDATIONS**

No work in this section  
 SUBTOTAL

**A1030 LOWEST FLOOR CONSTRUCTION**

Cutting and patching	<b>1</b>	ls	50,000.00	50,000	
Equipment pads	<b>1</b>	ls	10,000.00	10,000	
<b>SUBTOTAL</b>					<b>60,000</b>

<b>TOTAL - FOUNDATIONS</b>					<b>\$959,200</b>
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**B10 SUPERSTRUCTURE**

**B1010 FLOOR CONSTRUCTION**

New lateral Bracing to floors; 2 lbs per SF	<b>225</b>	tns	5,500.00	1,237,500	
Remove existing floor framing for new slope floor at auditorium; including shoring/bracing	<b>16,551</b>	sf	10.00	165,510	
Openings in wood floor structure for MEP systems; assumed two chases per floor	<b>8</b>	loc	2,500.00	20,000	
Openings in 1929 structure for MEP systems; assumed two chases per floor	<b>8</b>	loc	5,500.00	44,000	
Fire stopping floors	<b>1</b>	ls	25,000.00	25,000	

**New sloped auditorium floor**

<b>033000 CONCRETE</b>					
WWF reinforcement	<b>18,507</b>	sf	0.80	14,806	
Concrete Fill to metal deck; 5-1/4" Light Weight	<b>329</b>	cy	160.00	52,640	
Place and finish concrete	<b>16,093</b>	sf	2.00	32,186	

**051200 STRUCTURAL STEEL FRAMING**

Steel beams and columns	<b>105</b>	tns	5,500.00	577,500	
Shear studs	<b>3,219</b>	ea	2.50	8,048	
Premium for slope/steps	<b>1</b>	ls	50,000.00	50,000	
2" 18 Ga. Metal galvanized floor Deck	<b>16,093</b>	sf	4.00	64,372	

**078100 FIREPROOFING/FIRESTOPPING**

Fire proofing to columns and beams	<b>16,093</b>	sf	2.25	36,209	
<b>SUBTOTAL</b>					<b>2,327,771</b>

**B1020 ROOF CONSTRUCTION**

Roof Structure - Steel:



Preferred Schematic Report Submission

GFA 224,800

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**ALTERNATIVE 2A - RENOVATION**

58	New lateral Bracing to roofs; 1 lbs per SF	29	tns	5,500.00	159,500		
59	New openings in concrete roof deck	2	loc	5,000.00	10,000		
60	New openings in metal roof deck	2	loc	2,000.00	4,000		
61	New steel for RTU's; assume 8 units	32	tns	6,000.00	192,000		
62	New light gauge trusses/framing for new sloped hipped roof including sheathing	18,076	sf	16.00	289,216		
63	SUBTOTAL					654,716	

<b>TOTAL - SUPERSTRUCTURE</b>						<b>\$2,982,487</b>
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**B20 EXTERIOR CLOSURE**

**B2010 EXTERIOR WALLS**

Exterior skin - 1895 Wing

72	Allowance to reinforce existing exterior masonry walls	23,336	sf	4.00	93,344		
73	Allowance to repaint/repair existing exterior masonry; 100%	23,336	sf	32.00	746,752		
74	Infill existing window openings after demolition of adjacent structure; assumed 10% of existing envelope	1,494	sf	79.00	118,026		
75	<u>Exterior skin</u>						
76	Allowance to reinforce existing exterior masonry walls at field house/1986 Wing	18,428	sf	4.00	73,712		
77	Allowance to reinforce existing exterior masonry walls; 1929 building	10,931	sf	4.00	43,724		
78	Allowance to repaint/repair existing exterior masonry; 100%	29,359	sf	32.00	939,488		
79	Patch/Repair portico/ steps etc. at 1929 front façade	1	ls	150,000.00	150,000		
80	<u>Miscellaneous</u>						
81	Staging to exterior wall	47,087	sf	4.00	188,348		
82	SUBTOTAL					2,353,394	

**B2020 WINDOWS/CURTAINWALL**

85	Replace existing windows with new, custom profiles at 1895 wing	10,001	sf	150.00	1,500,150		
86	Replace existing windows with new	7,727	sf	100.00	772,700		
87	Replace existing kalwall at fieldhouse with new	1,792	sf	56.00	100,352		
88	Backer rod & double sealant	4,545	lf	9.00	40,905		
89	Wood blocking at openings	4,545	lf	11.00	49,995		
90	SUBTOTAL					2,464,102	

**B2030 EXTERIOR DOORS**

93	Glazed entrance doors including frame and hardware; double door	4	pr	10,000.00	40,000		
94	Glazed entrance doors including frame and hardware; double door at 1895 Wing	2	pr	10,000.00	20,000		
95	HM Entrance doors	6	pr	4,000.00	24,000		
96	Backer rod & double sealant	200	lf	4.00	800		
97	Wood blocking at openings	200	lf	3.00	600		
98	SUBTOTAL					85,400	

<b>TOTAL - EXTERIOR CLOSURE</b>						<b>\$4,902,896</b>
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**B30 ROOFING**

**B3010 ROOF COVERINGS**

Sloped roofing

107	Remove existing roof coverings	50,759	sf	2.00	101,518		
108	New PVC roof membrane; complete system	47,267	sf	18.00	850,806		



Preferred Schematic Report Submission

GFA 224,800

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 2A - RENOVATION</b>								
109	New sloped roofing with architectural asphalt shingles; complete system with nailable insulation etc.	16,788	sf	25.00	419,700			
110	<u>Miscellaneous Roofing</u>							
111	Roof edge detail - fascia; repairs	571	lf	25.00	14,275			
112	New snow fence	1	ls	15,000.00	15,000			
113	Roof edge blocking	571	lf	18.00	10,278			
114	<u>Sloped roofing at 1895 Wing</u>							
115	Remove existing roof membrane	15,063	sf	2.00	30,126			
116	New sloped roofing with architectural asphalt shingles; complete system with nailable insulation etc.	29,359	sf	25.00	733,975			
117	<u>Miscellaneous Roofing</u>							
118	Roof edge detail - fascia; repairs	635	lf	25.00	15,875			
119	New snow fence	1	ls	15,000.00	15,000			
120	Roof edge blocking	635	lf	18.00	11,430			
121	SUBTOTAL					2,217,983		
122								
123	<b>B3020 ROOF OPENINGS</b>							
124	Stage smoke vents	2	loc	15,000.00	30,000			
125	SUBTOTAL					30,000		
126								
127	<b>TOTAL - ROOFING</b>							<b>\$2,247,983</b>
128								
129								
130	<b>C10 INTERIOR CONSTRUCTION</b>							
131								
132	<b>C1010 PARTITIONS</b>							
133	IEBC Lateral Upgrades to existing walls/structure	224,800	sf	5.00	1,124,000			
134	New stair partitions; six new stairs serving all floors	30,600	sf	16.00	489,600			
135	Other partitions	10,950	sf	16.00	175,200			
136	New CMU walls field house lower level	10,935	sf	22.00	240,570			
137	Seismic clips to CMU	182	ea	120.00	21,840			
138	New partitions/alter existing at light renovation	25,800	sf	5.00	129,000			
139	New partitions/alter existing at moderate renovation	68,160	sf	10.00	681,600			
140	New partitions/alter existing at heavy renovation	130,840	sf	15.00	1,962,600			
141	Miscellaneous metals to CMU	10,935	sf	1.00	10,935			
142	Allowance for MEP shafts; four per floor	5,760	sf	18.00	103,680			
143	SUBTOTAL					4,939,025		
144								
145	<b>C1020 INTERIOR DOORS</b>							
146	New doors	224,800	sf	5.00	1,124,000			
147	SUBTOTAL					1,124,000		
148								
149	<b>C1030 SPECIALTIES / MILLWORK</b>							
150								
151								
152	Toilet Partitions and accessories	224,800	gsf	0.80	179,840			
153	Backer panels in electrical closets	1	ls	1,000.00	1,000			
154	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	224,800	sf	1.00	224,800			
155	Lockers	224,800	gsf	1.60	359,680			
156								
157	055000 MISCELLANEOUS METALS							
158	Guardrails at open to below areas at auditorium	140	lf	320.00	44,800			
159	Catwalk	1	ls	90,000.00	90,000			
160	Miscellaneous metals throughout building	224,800	sf	1.25	281,000			
161								
162	061000 ROUGH CARPENTRY							
163	Backer panels in electrical closets	1	ls	1,500.00	1,500			



Preferred Schematic Report Submission

GFA 224,800

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 2A - RENOVATION</b>								
164	Ramp	1	ls	30,000.00	30,000			
165	Rough blocking	224,800	sf	0.50	112,400			
166								
167	064020 INTERIOR ARCHITECTURAL WOODWORK							
168	Auditorium wood paneling	1	ls	150,000.00	150,000			
169	Display cases	1	ls	50,000.00	50,000			
170								
171	070001 WATERPROOFING, DAMPPROOFING AND CAULKING							
172	Miscellaneous sealants throughout building	224,800	sf	1.00	224,800			
173								
174								
175	101400 SIGNAGE							
176	Interior signage	224,800	sf	0.25	56,200			
177								
178	104400 FIRE PROTECTION SPECIALTIES							
179	Fire extinguisher cabinets	75	ea	350.00	26,250			
180								
181	SUBTOTAL					1,832,270		
182								
183	<b>TOTAL - INTERIOR CONSTRUCTION</b>							<b>\$7,895,295</b>
184								
185								
186	<b>C20 STAIRCASES</b>							
187								
188	<b>C2010 STAIR CONSTRUCTION</b>							
189	New egress stairs;	18	flt	25,000.00	450,000			
190	Concrete fill to pans	18	flt	3,000.00	54,000			
191	SUBTOTAL					504,000		
192								
193	<b>C2020 STAIR FINISHES</b>							
194								
195	090005 RESILIENT FLOORS							
196	Rubber tile at stairs - landings	1,800	sf	12.00	21,600			
197	Rubber tile at stairs - treads & risers	2,160	lft	22.00	47,520			
198								
199	090007 PAINTING							
200	High performance coating to stairs including all railings etc.	18	flt	3,000.00	54,000			
201	SUBTOTAL					123,120		
202								
203	<b>TOTAL - STAIRCASES</b>							<b>\$627,120</b>
204								
205								
206	<b>C30 INTERIOR FINISHES</b>							
207								
208	<b>C3010 WALL FINISHES</b>							
209	Painting	224,800	sf	3.00	674,400			
210	Acoustic wall panels in Auditorium	1	ls	100,000.00	100,000			
211	Tectum wall panels in gym	1	ls	60,000.00	60,000			
211	Wall finishes to light renovated areas	25,800	sf	2.00	51,600			
211	Wall finishes to medium renovated areas	68,160	sf	4.00	272,640			
212	Wall finishes to heavy renovated areas	130,840	sf	6.00	785,040			
212	SUBTOTAL					1,943,680		
213								
214	<b>C3020 FLOOR FINISHES</b>							
215	Wall finishes to light renovated areas	25,800	sf	3.00	77,400			
215	Wall finishes to medium renovated areas	68,160	sf	6.00	408,960			
216	Wall finishes to heavy renovated areas	130,840	sf	9.00	1,177,560			



Preferred Schematic Report Submission

GFA 224,800

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 2A - RENOVATION</b>								
216	090007 PAINTING							
217	Sealed concrete	60,252	sf	1.50	90,378			
218								
219	096400 WOOD FLOORING							
220	Wood platform	3,500	sf	16.00	56,000			
221								
222	096460 ATHLETIC FLOORING							
223	Wood athletic flooring	27,430	sf	18.00	493,740			
224	Ventilating cove base	692	lf	8.00	5,536			
225								
226	096810 CARPETING							
227	Carpet	30,696	sf	4.33	132,914			
228	Moisture mitigation	179,840	sf	3.00	539,520			
228	SUBTOTAL					2,982,008		
229								
230	<b>C3030 CEILING FINISHES</b>							
231	2 x 2 ACT	151,561	sf	5.00	757,805			
232	Paint exposed ceiling in gym	34,208	sf	3.00	102,624			
233	Auditorium acoustic ceiling/clouds	16,551	sf	40.00	662,040			
234	SUBTOTAL					1,522,469		
235								
236	<b>TOTAL - INTERIOR FINISHES</b>						<b>\$6,448,157</b>	
237								
238								
239	<b>D10 CONVEYING SYSTEMS</b>							
240								
240	New elevator	4	stp	45,000.00	180,000			
241	SUBTOTAL					180,000		
242								
243	<b>TOTAL - CONVEYING SYSTEMS</b>						<b>\$180,000</b>	
244								
245								
246	<b>D20 PLUMBING</b>							
247								
248	<b>D20 PLUMBING, GENERALLY</b>							
249	Plumbing allowance	224,800	sf	14.00	3,147,200			
250	SUBTOTAL					3,147,200		
251								
252	<b>TOTAL - PLUMBING</b>						<b>\$3,147,200</b>	
253								
254								
255	<b>D30 HVAC</b>							
256								
257	<b>D30 HVAC, GENERALLY</b>							
258	Allowance for HVAC	224,800	gsf	40.00	8,992,000			
259	SUBTOTAL					8,992,000		
260								
261	<b>TOTAL - HVAC</b>						<b>\$8,992,000</b>	
262								
263								
264	<b>D40 FIRE PROTECTION</b>							
265								
266	<b>D40 FIRE PROTECTION, GENERALLY</b>							
267	Fire protection system	224,800	gsf	5.00	1,124,000			
268	SUBTOTAL					1,124,000		
269								
270	<b>TOTAL - FIRE PROTECTION</b>						<b>\$1,124,000</b>	
271								
272								
273	<b>D50 ELECTRICAL</b>							
274								
275	<b>D5010 SERVICE &amp; DISTRIBUTION</b>							



Preferred Schematic Report Submission

GFA 224,800

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 2A - RENOVATION</b>								
276	Electrical systems complete	<b>224,800</b>	gsf	36.00	8,092,800			
277	SUBTOTAL					8,092,800		
278								
279								
280	<b>TOTAL - ELECTRICAL</b>							<b>\$8,092,800</b>
281								
282								
283	<b>E10 EQUIPMENT</b>							
284								
285	<b>E10 EQUIPMENT, GENERALLY</b>							
286								
287	110620 THEATRICAL EQUIPMENT							
288	Auditorium rigging, lighting, dimmers and A/V systems	1	ls	700,000.00	700,000			
289	TV studio/acoustics	1	ls	150,000.00	150,000			
290								
291	115210 PROJECTION SCREENS							
292	Electrically operated projection screens	1	loc	5,000.00	5,000			
293								
294	116600 ATHLETIC EQUIPMENT							
295	Basketball backstops; swing up; electric operated	10	ea	9,800.00	98,000			
296	Gym wall pads	3,000	sf	12.00	36,000			
297	Gymnasium dividing net; electrically operated	2	loc	45,000.00	90,000			
298	Telescoping bleachers	1	ls	180,000.00	180,000			
299	SUBTOTAL						1,259,000	
300								
301	<b>TOTAL - EQUIPMENT</b>							<b>\$1,259,000</b>
302								
303								
304	<b>E20 FURNISHINGS</b>							
305								
306	<b>E2010 FIXED FURNISHINGS</b>							
307								
308	Reinstall salvaged auditorium seating	750	seats	100.00	75,000			
309								
310	123553 CASEWORK							
311	Casework to Family + consumer science/barb/cosmetics/TV broadcasting	14,598	sf	15.00	218,970			
312	Counters, base cabinets, tall storage in classrooms and other rooms	210,202	gsf	8.00	1,681,616			
312								
313	122100 WINDOW TREATMENT							
314	Window blinds; manual shades, typical at all exterior windows	9,519	sf	7.00	66,633			
315								
316	124810 ENTRANCE FLOOR MAT AND FRAMES							
317	Walk-off mats - recessed	200	sf	50.00	10,000			
318	Walk-off mats	100	sf	15.00	1,500			
319	No work in this section							
320	SUBTOTAL						2,053,719	
321								
322	<b>E2020 MOVABLE FURNISHINGS</b>							
323	All movable furnishings to be provided and installed by owner							
324	SUBTOTAL						NIC	
325								
326	<b>TOTAL - FURNISHINGS</b>							<b>\$2,053,719</b>
327								
328								
329	<b>F10 SPECIAL CONSTRUCTION</b>							
330								
331	<b>F10 SPECIAL CONSTRUCTION</b>							



Preferred Schematic Report Submission

GFA 224,800

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**ALTERNATIVE 2A - RENOVATION**

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SUBTOTAL -

**TOTAL - SPECIAL CONSTRUCTION**

**F20 SELECTIVE BUILDING DEMOLITION**

**F2010 BUILDING ELEMENTS DEMOLITION**

Remove existing Windows	9,519	sf	6.00	57,114		
Interior gut demolition	172,796	sf	8.00	1,382,368		
Interior demolition; Fieldhouse	52,004	sf	5.00	260,020		
Temporary enclosures/protection	224,800	sf	1.00	224,800		
SUBTOTAL						1,924,302

**F2020 HAZARDOUS COMPONENTS ABATEMENT**

See summary  
 SUBTOTAL

**TOTAL - SELECTIVE BUILDING DEMOLITION \$1,924,302**



<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 2A - ADDITION</b>					
<b>A10 FOUNDATIONS</b>					
A1010	Standard Foundations	\$912,209			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$1,689,494	<b>\$2,601,703</b>	\$15.75	5.2%
<b>A20 BASEMENT CONSTRUCTION</b>					
A2010	Basement Excavation	\$1,000,385			
A2020	Basement Walls	\$256,864	<b>\$1,257,249</b>	\$7.61	2.5%
<b>B10 SUPERSTRUCTURE</b>					
B1010	Upper Floor Construction	\$4,095,277			
B1020	Roof Construction	\$2,435,097	<b>\$6,530,374</b>	\$39.53	13.0%
<b>B20 EXTERIOR CLOSURE</b>					
B2010	Exterior Walls	\$4,470,867			
B2020	Windows	\$2,322,496			
B2030	Exterior Doors	\$65,540	<b>\$6,858,903</b>	\$41.52	13.7%
<b>B30 ROOFING</b>					
B3010	Roof Coverings	\$1,544,084			
B3020	Roof Openings	\$32,500	<b>\$1,576,584</b>	\$9.54	3.1%
<b>C10 INTERIOR CONSTRUCTION</b>					
C1010	Partitions	\$4,295,200			
C1020	Interior Doors	\$826,000			
C1030	Specialties/Millwork	\$1,342,050	<b>\$6,463,250</b>	\$39.12	12.9%
<b>C20 STAIRCASES</b>					
C2010	Stair Construction	\$349,000			
C2020	Stair Finishes	\$44,010	<b>\$393,010</b>	\$2.38	0.8%
<b>C30 INTERIOR FINISHES</b>					
C3010	Wall Finishes	\$1,486,800			
C3020	Floor Finishes	\$2,213,680			
C3030	Ceiling Finishes	\$1,156,400	<b>\$4,856,880</b>	\$29.40	9.7%
<b>D10 CONVEYING SYSTEMS</b>					
D1010	Elevator	\$480,000	<b>\$480,000</b>	\$2.91	1.0%
<b>D20 PLUMBING</b>					
D20	Plumbing	\$2,312,800	<b>\$2,312,800</b>	\$14.00	4.6%
<b>D30 HVAC</b>					
D30	HVAC	\$6,608,000	<b>\$6,608,000</b>	\$40.00	13.2%
<b>D40 FIRE PROTECTION</b>					
D40	Fire Protection	\$901,000	<b>\$901,000</b>	\$5.45	1.8%
<b>D50 ELECTRICAL</b>					



<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 2A - ADDITION</b>					
D5010	Complete System	\$5,947,200	<b>\$5,947,200</b>	\$36.00	11.8%
<b>E10</b>	<b>EQUIPMENT</b>				
E10	Equipment	\$1,169,000	<b>\$1,169,000</b>	\$7.08	2.3%
<b>E20</b>	<b>FURNISHINGS</b>				
E2010	Fixed Furnishings	\$2,272,064			
E2020	Movable Furnishings	NIC	<b>\$2,272,064</b>	\$13.75	4.5%
<b>F10</b>	<b>SPECIAL CONSTRUCTION</b>				
F10	Special Construction	\$0	<b>\$0</b>	\$0.00	0.0%
<b>F20</b>	<b>HAZMAT REMOVALS</b>				
F2010	Building Elements Demolition	\$0			
F2020	Hazardous Components Abatement	\$0	<b>\$0</b>	\$0.00	0.0%
<b>TOTAL DIRECT COST (Trade Costs)</b>			<b>\$50,228,017</b>	\$304.04	100.0%



Preferred Schematic Report Submission

GFA 165,200

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2A - ADDITION

**GROSS FLOOR AREA CALCULATION**

Lower Level	65,216
First Floor	49,992
Second Floor	49,992
PH (Not Included in GSF)	8,761

<b>TOTAL GROSS FLOOR AREA (GFA)</b>	<b>165,200 sf</b>
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**A10 FOUNDATIONS**

**A1010 STANDARD FOUNDATIONS**

Strip footings - 2'-6" x 1'-0"

Excavation	3,012	cy	12.00	36,144
Store on site for reuse	3,012	cy	14.00	42,168
Backfill with new fill	2,769	cy	16.00	44,304
Formwork	5,004	sf	10.00	50,040
Re-bar, 10#/lf	25,020	lbs	1.20	30,024
Concrete material; 3,000 psi	243	cy	118.00	28,674
Placing concrete	243	cy	45.00	10,935

Foundation walls at exterior - 14" thick

Formwork	20,016	sf	12.00	240,192
Re-bar, 4#/sf	40,032	lbs	1.20	48,038
Concrete material; 4,000 psi	454	cy	125.00	56,750
Placing concrete	454	cy	45.00	20,430
Dampproofing foundation wall and footing	15,012	sf	1.90	28,523
Insulation to foundation walls; 2" thick	10,008	sf	2.50	25,020
Form shelf	2,502	lf	8.00	20,016

Column footings 5' x 5' x 1'-4"

Excavation	894	cy	15.00	13,410
Store on site for reuse	894	cy	14.00	12,516
Backfill with new fill	772	cy	16.00	12,352
Formwork	2,500	sf	11.00	27,500
Re-bar	14,640	lbs	1.20	17,568
Concrete material; 3,000 psi	122	cy	118.00	14,396
Placing concrete	122	cy	45.00	5,490
Set anchor bolts grout plates	94	ea	150.00	14,100

Column footings 8'-0" x 8'-0" x 2'-2"

Excavation	592	cy	15.00	8,880
Store on site for reuse	592	cy	14.00	8,288
Backfill with new fill	403	cy	16.00	6,448
Formwork	2,430	sf	11.00	26,730
Re-bar	22,680	lbs	1.20	27,216
Concrete material; 3,000 psi	189	cy	118.00	22,302
Placing concrete	189	cy	45.00	8,505
Set anchor bolts grout plates	35	ea	150.00	5,250

SUBTOTAL 912,209

**A1020 SPECIAL FOUNDATIONS**

No Work in this section

SUBTOTAL

**A1030 LOWEST FLOOR CONSTRUCTION**

New Slab on grade, 5" thick

Structural fill for level 1	15,000	cy	32.00	480,000
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Preferred Schematic Report Submission

GFA 165,200

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 2A - ADDITION</b>								
57	Gravel fill, 12"	2,415	cy	36.00	86,940			
58	Rigid insulation	65,216	sf	2.25	146,736			
59	Vapor barrier	65,216	sf	0.75	48,912			
60	Waterproofing system	65,216	sf	6.50	423,904			
61	Compact existing sub-grade	65,216	sf	0.50	32,608			
62	Mesh reinforcing 15% lap	74,998	sf	0.80	59,998			
63	Concrete - 5" thick; 4,000 psi	1,065	cy	125.00	133,125			
64	Placing concrete	1,065	cy	45.00	47,925			
65	Finishing and curing concrete	65,216	sf	1.50	97,824			
66	Control joints - saw cut	65,216	sf	0.10	6,522			
67	<u>Miscellaneous</u>							
68	New Elevator pit	2	ea	35,000.00	70,000			
69	New loading dock	1	ls	40,000.00	40,000			
70	Equipment pads	1	ls	15,000.00	15,000			
71	SUBTOTAL					1,689,494		
72								
73	<b>TOTAL - FOUNDATIONS</b>							<b>\$2,601,703</b>
74								
75								
76	<b>A20 BASEMENT CONSTRUCTION</b>							
77								
78	<b>A2010 BASEMENT EXCAVATION</b>							
79	Excavation for basement	21,000	cy	12.00	252,000			
80	Export off site	21,000	cy	22.00	462,000			
81	Allowance for sheeting and shoring	5,207	sf	55.00	286,385			
82	SUBTOTAL					1,000,385		
83								
84	<b>A2020 BASEMENT WALLS</b>							
85	<u>Strip footings to retaining walls - 5'-0" x 1'-6"</u>							
86	Excavation	261	cy	12.00	3,132			
87	Store on site for reuse	261	cy	6.00	1,566			
88	Backfill with existing fill	185	cy	8.00	1,480			
89	Formwork	783	sf	10.00	7,830			
90	Re-bar	6,840	lbs	1.20	8,208			
91	Concrete material; 3,000 psi	76	cy	118.00	8,968			
92	Placing concrete	76	cy	45.00	3,420			
93	<u>Retaining walls - 16" thick</u>							
94	Formwork	7,830	sf	16.00	125,280			
95	Re-bar, 8#/sf	31,320	lbs	1.20	37,584			
96	Concrete material; 4,000 psi	202	cy	125.00	25,250			
97	Placing concrete	202	cy	45.00	9,090			
98	Waterproofing basement wall and footing	3,132	sf	6.00	18,792			
99	Insulation to foundation walls; 2" thick	3,132	sf	2.00	6,264			
100	SUBTOTAL					256,864		
101								
102	<b>TOTAL - BASEMENT CONSTRUCTION</b>							<b>\$1,257,249</b>
103								
104								
105	<b>B10 SUPERSTRUCTURE</b>							
106		15.16	lbs/sf		-			
107	<b>B1010 FLOOR CONSTRUCTION</b>	1,252	tns		-			
108	<u>Floor Structure - Steel:</u>							
109	Steel beams and columns; 15#/SF	750	tns	3,500.00	2,625,000			
110	Premium for HSS	188	tns	300.00	56,400			



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GFA 165,200

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 2A - ADDITION</b>								
111	Shear studs	19,997	ea	2.50	49,993			
112	<u>Floor Structure</u>							
113	2" 18 Ga. Metal galvanized floor Deck	99,984	sf	3.75	374,940			
114	WWF reinforcement	114,982	sf	0.80	91,986			
115	Concrete Fill to metal deck; 5-1/4" Light Weight	1,944	cy	160.00	311,040			
116	Place and finish concrete	99,984	sf	2.00	199,968			
117	Rebar to decks	29,995	lbs	1.20	35,994			
118	Misc. angles	99,984	sf	0.50	49,992			
119	<u>Miscellaneous</u>							
120	Fire proofing to columns and beams	99,984	sf	2.25	224,964			
121	Intumescent paint	1	ls	50,000.00	50,000			
122	Fire stopping floors	1	ls	25,000.00	25,000			
123	SUBTOTAL					4,095,277		
124								
125	<b>B1020 ROOF CONSTRUCTION</b>							
126	<u>Roof Structure - Steel:</u>							
127	Steel beams/Joists; 14#/SF	502	tns	3,500.00	1,757,000			
128	Premium for HSS	126	tns	300.00	37,800			
129	Exposed steel	1	ls	50,000.00	50,000			
130	<u>Roof Structure</u>							
131	Acoustic deck allowance	8,000	sf	7.00	56,000			
132	1-1/2" 20 Ga. galvanized Metal Roof Deck	63,738	sf	3.50	223,083			
133	<u>Miscellaneous</u>							
134	Concrete under RTU's	15,000	sf	8.00	120,000			
135	Roof screen framing				Not Required			
136	Fire proofing to columns, beams and deck	63,738	sf	3.00	191,214			
137	SUBTOTAL					2,435,097		
138								
139	<b>TOTAL - SUPERSTRUCTURE</b>						<b>\$6,530,374</b>	
140								
141								
142	<b>B20 EXTERIOR CLOSURE</b>							
143								
144	<b>B2010 EXTERIOR WALLS - 70%</b>							
145	<u>Interior skin</u>	45,486	sf		-			
146	8" metal stud backup	45,486	sf	10.00	454,860			
147	Insulation - 3" thick	45,486	sf	2.25	102,344			
148	Air barrier	45,486	sf	6.00	272,916			
149	Air barrier/flashing at windows	6,433	lf	6.00	38,598			
150	Gypsum Sheathing	45,486	sf	2.50	113,715			
151	Drywall lining to interior face of stud backup	45,486	sf	3.00	136,458			
152	<u>Exterior skin</u>							
153	Brick veneer; 40%	25,992	sf	38.00	987,696			
154	Metal panels; 10%	6,498	sf	70.00	454,860			
155	Porcelain panels; 20%	12,996	sf	75.00	974,700			
156	<u>Miscellaneous</u>							
157	PH Siding and backup	7,560	sf	80.00	604,800			
158	Mockups	1	ls	50,000.00	50,000			
159	Aluminum sign at main entrance	1	ls	20,000.00	20,000			
160	Staging to exterior wall	64,980	sf	4.00	259,920			
161	SUBTOTAL					4,470,867		
162								
163	<b>B2020 WINDOWS - 30%</b>							
164	Windows	19,494	sf		-			
164	Windows	9,747	sf	85.00	828,495			
165	Curtainwall	9,747	sf	120.00	1,169,640			



Preferred Schematic Report Submission

GFA 165,200

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 2A - ADDITION</b>								
166	Allowance for sunshades	1	ls	200,000.00	200,000			
167	Louvers (allowance)	250	sf	60.00	15,000			
168	Backer rod & double sealant	6,433	lf	9.00	57,897			
169	Wood blocking at openings	6,433	lf	8.00	51,464			
170	SUBTOTAL					2,322,496		
171								
172	<b>B2030 EXTERIOR DOORS</b>							
173	Glazed entrance doors including frame and hardware; double door	7	pr	8,000.00	56,000			
174	HM doors, frames and hardware- Double	4	pr	2,000.00	8,000			
175	Backer rod & double sealant	220	lf	4.00	880			
176	Wood blocking at openings	220	lf	3.00	660			
177	SUBTOTAL					65,540		
178								
179	<b>TOTAL - EXTERIOR CLOSURE</b>							<b>\$6,858,903</b>
180								
181								
182	<b>B30 ROOFING</b>							
183								
184	<b>B3010 ROOF COVERINGS</b>							
185	Flat roofing							
186	PVC roof membrane fully adhered	71,738	sf	9.50	681,511			
187	Insulation; R-30	71,738	sf	6.00	430,428			
188	1/2" dens-deck protection board	71,738	sf	2.00	143,476			
189	Reinforced vapor barrier	71,738	sf	0.50	35,869			
190	Rough blocking	10,800	lf	6.00	64,800			
191	Miscellaneous Roofing							
192	Roof screens				Not Required			
193	Roof fascia/cornice	1,800	lf	100.00	180,000			
194	Roof ladder	1	ls	3,000.00	3,000			
195	Walk pads	1	ls	5,000.00	5,000			
196	SUBTOTAL					1,544,084		
197								
198	<b>B3020 ROOF OPENINGS</b>							
199	Skylights, allow	1	ls	30,000.00	30,000			
200	Roof hatch	1	loc	2,500.00	2,500			
201	SUBTOTAL					32,500		
202								
203	<b>TOTAL - ROOFING</b>							<b>\$1,576,584</b>
204								
205								
206	<b>C10 INTERIOR CONSTRUCTION</b>							
207								
208	<b>C1010 PARTITIONS</b>							
209	Miscellaneous partitions/glazed partitions/borrowed lights/blocking etc.	165,200	gsf	26.00	4,295,200			
210	SUBTOTAL					4,295,200		
211								
212	<b>C1020 INTERIOR DOORS</b>							
213	Interior doors, frames and hardware	165,200	gsf	5.00	826,000			
214	SUBTOTAL					826,000		
215								
216	<b>C1030 SPECIALTIES / MILLWORK</b>							
217	Toilet Partitions and accessories	165,200	gsf	0.80	132,160			
218	Backer panels in electrical closets	1	ls	1,000.00	1,000			
219	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	165,200	sf	1.00	165,200			
220	Room Signs	165,200	gsf	0.40	66,080			
221	Fire extinguisher cabinets	55	ea	350.00	19,250			
222	Lockers	165,200	gsf	1.60	264,320			



Preferred Schematic Report Submission

GFA 165,200

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 2A - ADDITION</b>								
223	Janitors Work Shop Accessories	1	ls	1,500.00	1,500			
224	Janitors Closet Accessories	3	rms	300.00	900			
225	Media							
226	Reception desks	4	loc	25,000	100,000			
227	Railings to open to below areas	343	lf	280	96,040			
228	Library shelving at perimeters 7' Tall				F,F & E			
229	Library shelving at perimeters 3' Tall				F,F & E			
230	Display cases	165,200	gsf	0.25	41,300			
231	Miscellaneous metals throughout building	165,200	sf	1.50	247,800			
232	Miscellaneous sealants throughout building	165,200	sf	1.25	206,500			
233	SUBTOTAL					1,342,050		
234								
235	<b>TOTAL - INTERIOR CONSTRUCTION</b>						<b>\$6,463,250</b>	
236								
237								
238	<b>C20 STAIRCASES</b>							
239								
240	<b>C2010 STAIR CONSTRUCTION</b>							
241	Metal pan stair; egress stair	7	flt	25,000.00	175,000			
242	Main staircase	1	flt	100,000.00	100,000			
243	Commons tiered seating	200	lf	250.00	50,000			
244	Commons steps	2	loc	5,000.00	10,000			
245	Concrete fill to stairs	7	flt	2,000.00	14,000			
246	SUBTOTAL					349,000		
247								
248	<b>C2020 STAIR FINISHES</b>							
249	High performance coating to stairs including all railings etc.	7	flt	3,000.00	21,000			
250	Rubber tile at stairs - landings	700	sf	10.00	7,000			
251	Rubber tile at stairs - treads & risers	840	lft	19.06	16,010			
252	SUBTOTAL					44,010		
253								
254	<b>TOTAL - STAIRCASES</b>						<b>\$393,010</b>	
255								
256								
257	<b>C30 INTERIOR FINISHES</b>							
258								
259	<b>C3010 WALL FINISHES</b>							
260	Wall finishes	165,200	sf	9.00	1,486,800			
261	SUBTOTAL					1,486,800		
262								
263	<b>C3020 FLOOR FINISHES</b>							
264	Floor finishes	165,200	sf	11.00	1,817,200			
265	Moisture mitigation	132,160	sf	3.00	396,480			
266	SUBTOTAL					2,213,680		
267								
268	<b>C3030 CEILING FINISHES</b>							
269	Ceiling finishes	165,200	sf	7.00	1,156,400			
270	SUBTOTAL					1,156,400		
271								
272	<b>TOTAL - INTERIOR FINISHES</b>						<b>\$4,856,880</b>	
273								
274								
275	<b>D10 CONVEYING SYSTEMS</b>							
276								
277	<b>D1010 ELEVATOR</b>							
278	New elevator; 6 stop; oversize; 5,000 lbs	2	ea	240,000.00	480,000			
279	SUBTOTAL					480,000		
280								
281	<b>TOTAL - CONVEYING SYSTEMS</b>						<b>\$480,000</b>	
282								
283								
284	<b>D20 PLUMBING</b>							



Preferred Schematic Report Submission

GFA 165,200

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2A - ADDITION

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<b>D20</b>	<b>PLUMBING, GENERALLY</b>						
	Plumbing	165,200	gsf	14.00	2,312,800		
	SUBTOTAL					2,312,800	
<b>TOTAL - PLUMBING</b>							<b>\$2,312,800</b>

**D30 HVAC**

<b>D30</b>	<b>HVAC, GENERALLY</b>						
	New HVAC system	165,200	gsf	40.00	6,608,000		
	SUBTOTAL					6,608,000	
<b>TOTAL - HVAC</b>							<b>\$6,608,000</b>

**D40 FIRE PROTECTION**

<b>D40</b>	<b>FIRE PROTECTION, GENERALLY</b>						
	Allowance for fire pump	1	ls	75,000.00	75,000		
	Fire protection system	165,200	gsf	5.00	826,000		
	SUBTOTAL					901,000	
<b>TOTAL - FIRE PROTECTION</b>							<b>\$901,000</b>

**D50 ELECTRICAL**

<b>D5010</b>	<b>SERVICE &amp; DISTRIBUTION</b>						
	Electrical system complete	165,200	gsf	36.00	5,947,200		
	SUBTOTAL					5,947,200	
<b>TOTAL - ELECTRICAL</b>							<b>\$5,947,200</b>

**E10 EQUIPMENT**

<b>E10</b>	<b>EQUIPMENT, GENERALLY</b>						
	Gym wall pads					In Renovation	
	Basketball backstops; swing up; electric operated					In Renovation	
	Gymnasium dividing net; electrically operated					In Renovation	
	Volleyball net and standards					In Renovation	
	Telescoping bleachers					In Renovation	
	Theatrical Equipment Stage curtains, rigging and controls					In Renovation	
	Kiln	2	ea	5,000.00	10,000		
	VoTech equipment	1	ls	150,000.00	150,000		
	Food Service equipment at culinary program	1	ls	300,000.00	300,000		
	Fume hoods	12	ea	8,000.00	96,000		
	Food Service equipment	2,890	sf	200.00	578,000		
	Loading dock equipment	1	ls	20,000.00	20,000		
	Electrically operated projection screens	1	loc	15,000.00	15,000		
	SUBTOTAL					1,169,000	
<b>TOTAL - EQUIPMENT</b>							<b>\$1,169,000</b>

**E20 FURNISHINGS**

<b>E2010</b>	<b>FIXED FURNISHINGS</b>						
	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500		
	Window blinds	19,494	sf	6.00	116,964		
	Lecture/Large classroom seating	130	seat	200.00	26,000		



Preferred Schematic Report Submission

GFA 165,200

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 2A - ADDITION</b>								
349	Science classroom casework	12	rm	65,000.00	780,000			
350	Counters, base cabinets, tall storage in classrooms and other rooms	165,200	gsf	8.00	1,321,600			
351	SUBTOTAL					2,272,064		
352								
353	<b>E2020 MOVABLE FURNISHINGS</b>							
354	All movable furnishings to be provided and installed by owner							
355	SUBTOTAL						NIC	
356								
357	<b>TOTAL - FURNISHINGS</b>							<b>\$2,272,064</b>
358								
359								
360	<b>F10 SPECIAL CONSTRUCTION</b>							
361								
362	<b>F10 SPECIAL CONSTRUCTION</b>							
363	No items in this section							
364	SUBTOTAL							
365								
366	<b>TOTAL - SPECIAL CONSTRUCTION</b>							
367								
368								
369	<b>F20 SELECTIVE BUILDING DEMOLITION</b>							
370								
371	<b>F2010 BUILDING ELEMENTS DEMOLITION</b>							
372	See main summary for demolition of existing buildings							
373	SUBTOTAL							
374								
375	<b>F2020 HAZARDOUS COMPONENTS ABATEMENT</b>							
376	See main summary for HazMat allowance					See Summary		
377	SUBTOTAL							
378								
379	<b>TOTAL - SELECTIVE BUILDING DEMOLITION</b>							



Preferred Schematic Design Submission

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
<b>SITework OPTION 2A</b>							
<b>G SITEWORK</b>							
<b>G10</b>	<b>SITE PREPARATION &amp; DEMOLITION</b>						
	Site construction fence/barricades	4,000	lf	12.00	48,000		
	Remove existing trees	50	ea	750	37,500		
	Remove existing shrub plantings throughout the site including large trees at front	1	ls	30,000	30,000		
	Pavement removal	120,000	sf	1.00	120,000		
	Pedestrian pavement removal	1	ls	50,000.00	50,000		
	Miscellaneous demolition	1	ls	100,000	100,000		
	<u>Site Earthwork</u>						
	Strip topsoil, remove off site	3,704	cy	20.00	74,080		
	Cut / Fill outside building footprints	14,815	cy	12.00	177,780		
	Fine grading	66,667	sy	1.00	66,667		
	Phased construction site premiums	1	ls	50,000.00	50,000		
	Silt fence/erosion control, wash bays, stock piles	4,000	lf	12.00	48,000		
	Construction entrance	1	ls	20,000.00	20,000		
	Temporary parking/logistics	1	ls	100,000.00	100,000		
	Silt fence maintenance, dust control and monitoring	1	ls	30,000.00	30,000		
	Rock removal allowance						NIC
	<u>Hazardous Waste Remediation</u>						
	Dispose/treat contaminated soils/water						NIC
	Contaminated soils allowance	1	ls	314,050.00			NIC
	SUBTOTAL						952,027
<b>G20</b>	<b>SITE IMPROVEMENTS</b>						
	Bituminous concrete paving @ parking/roads	101,047			-		
	gravel base; 12" thick	4,226	cy	38.00	160,588		
	bituminous concrete; 4" thick	11,227	sy	26.00	291,902		
	Granite curbs; 6" x 18"	6,888	lf	38.00	261,744		
	HC curb cuts	5	loc	1,500.00	7,500		
	Bituminous concrete paving @ community path	23,143			-		
	gravel base; 12" thick	1,340	cy	38.00	50,920		
	bituminous concrete; 4" thick	2,571	sy	26.00	66,846		
	<u>Concrete Paving</u>						
	gravel base; 8" thick	1,264	cy	38.00	48,032		
	concrete; 6" thick	45,500	sf	8.50	386,750		
	<u>Precast Pavers @ entrances</u>						
	gravel base; 6" thick	583	cy	32.00	18,656		
	concrete; 6" thick	21,000	sf	8.00	168,000		
	3" thick precast unit pavers	21,000	sf	18.00	378,000		
	<u>Stairs and Ramps</u>						
	Concrete to stair treads	420	lfr	140.00	58,800		
	Granite to stair treads	420	lfr	180.00	75,600		
	Ornamental metal hand railings - galv at stairs	168	lf	135.00	22,680		
	Entrance ramp	1	ls	80,000.00	80,000		
	Allowance for decorate site staircase to new addition	2,400	sf	260.00	624,000		
	Parking and Retaining wall at on grade parking in lieu of structured parking						
	Bituminous concrete paving @ parking/roads	27,900			-		
	gravel base; 12" thick	1,516	cy	38.00	57,608		
	bituminous concrete; 4" thick	3,100	sy	26.00	80,600		
	Granite curbs; 6" x 18"	1,138	lf	38.00	43,244		
	Retaining wall allowance; segmental; assumed 12 ft high	212	lf	480.00	101,760		



Preferred Schematic Design Submission

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>SITework OPTION 2A</b>							
55	Allowance for elevated roadway to loading dock; precast sections including supports and foundations	14,600	sf	180.00	2,628,000		
56							
57	Retaining wall allowance at auto-shop entrance/loading; segmental; assumed 8 ft high	272	lf	320.00	87,040		
58							
59	Allowance for benches, fencing, bike racks, flag pole etc.	1	ls	400,000.00	400,000		
60	<u>Landscaping</u>						
61	New playing field	12,000	sf	5.00	60,000		
62	Soil mix; 6" thick, imported topsoil	4,259	cy	30.00	127,770		
63	Seeding	230,000	sf	0.25	57,500		
64	Planting allowance	1	ls	600,000.00	600,000		
65	Irrigation				NIC		
66	SUBTOTAL					6,943,540	
67							
68	<b>G30 CIVIL MECHANICAL UTILITIES</b>						
69							
70	<b>331000 WATER UTILITIES</b>						
71	New fire DI piping; 8"	1,558	lf	80.00	124,640		
72	FD connection	2	loc	2,000.00	4,000		
73	New fire hydrant	4	loc	2,600.00	10,400		
74	Gate valves	12	loc	750.00	9,000		
75	Connect to existing line (Wet Taps)	4	loc	15,000.00	60,000		
76							
77	<b>333000 SANITARY SEWERAGE UTILITIES</b>						
78	<u>Sanitary sewer</u>						
79	6" PVC Sanitary sewer	1,121	lf	45.00	50,445		
80	SMH	8	ea	3,500.00	28,000		
81	Connect to existing	3	loc	10,000.00	30,000		
82	Grease trap; 9,000 Gal	1	loc	20,000.00	20,000		
83							
84	<b>334000 STORM DRAINAGE UTILITIES</b>						
85	<u>Storm water</u>						
86	WQS	4	ea	16,000.00	64,000		
87	OCS	2	ea	10,000.00	20,000		
88	Manhole	22	loc	4,800.00	105,600		
89	Connect to existing line	4	loc	2,500.00	10,000		
90	Catch basins	29	loc	4,400.00	127,600		
91	Area drains	19	loc	1,600.00	30,400		
92	Cleanouts	8	loc	1,200.00	9,600		
93	24" CPP	3,473	lf	90.00	312,570		
94	<u>Underground Infiltration</u>						
95	Allowance for infiltration systems	6,600	sf	25.00	165,000		
96	<u>Gas service</u>						
97	E&B trench for new gas main, pipe and install by	420	lf	25.00	10,500		
98	Gas Meter				NIC		
99	<u>Telecom service</u>						
100	E&B trench for new gas main, pipe and install by	300	lf	25.00	7,500		
101	SUBTOTAL					1,199,255	
102							
103	<b>G40 ELECTRICAL UTILITIES</b>						
104	Electric handhole	2	ea	1,500.00	3,000		
105	Primary ductbank	991	lf	120.00	118,920		
106	Transformer by Utility Company	1	ea		NIC		
107	Transformer pad	2	ea	2,000.00	4,000		
108	Secondary service						
109	Ductbank	100	lf	500.00	50,000		
110	Emergency service						
111	Ductbank	100	lf	150.00	15,000		
112	Generator pad	1	ea	1,500.00	1,500		
113	<u>Site lighting</u>						



Preferred Schematic Design Submission

<i>CSI CODE</i>	<i>DESCRIPTION</i>	<i>QTY</i>	<i>UNIT</i>	<i>UNIT COST</i>	<i>EST'D COST</i>	<i>SUB TOTAL</i>	<i>TOTAL COST</i>	
<b>SITWORK OPTION 2A</b>								
114	Allowance for site lighting	1	ls	150,000.00	150,000			
115	<u>Site communications and security</u>							
116	Site security	1	ls	75,000.00	75,000			
117	Communication riser pole	1	ea	2,500.00	2,500			
118	Telecom handhole	2	ea	1,500.00	3,000			
119	Ductbank	200	lf	130.00	26,000			
120	SUBTOTAL					448,920		
121	<b>TOTAL - SITE DEVELOPMENT OPTION 2A</b>							<b>\$9,543,742</b>
122								



**ASSOCIATES**

35 Highland Circle, Needham, Massachusetts 02494

**FINAL EVALUATION OF ALTERNATIVES**

**SOMERVILLE SCHOOL DEPARTMENT**

**SOMERVILLE HIGH SCHOOL**

**Somerville, MA**

Architect: SMMA

May 25, 2016



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

**May 25, 2016**

**BASIS OF ESTIMATE**

The estimate is based on the drawings and documents prepared by SMMA package dated 5/6/2016.

**Qualifications / Clarifications:**

	<b>Phase 1 &amp; 2</b>	<b>Phase 3</b>
1 Labor costs included at local union rates		
2 The following mark ups are used:		
General Conditions	7.00%	
General Requirements	4.00%	
Bond	1.00%	
Insurance	1.50%	
Contractor's Overhead & Fee	2.00%	
Design Contingency	10.00%	
GMP Contingency	3.00%	
Phasing	4.00%	
Escalation Contingency (4.5% per annum)	21.56%	37.13%
 Construction mid point calculation:		
Construction start:	June-2018	November-2023
Construction duration:	66 months	18 months
Construction mid-point:	March-2021	August-2024

- 3 The estimate assumes all long-lead items can be pre-purchased to meet schedule requirements.
- 4 The estimate is based on the premise that the design will meet all codes, laws, ordinances, rules, & regulations in effect at the time that the estimate was prepared.
- 5 Construction duration is based on Phase 1 - 3 years, Phase 2 - 3 years, Phase 3 - 1.5 years.

**The estimate excludes the following:**

- 1 A-E Fees
- 2 Overtime
- 3 Builder's Risk Insurance
- 4 Third party commissioning costs
- 5 Testing or inspection services, as required by State Building Code or other: concrete, soils, pavement, fireproofing.
- 6 Sales Tax
- 7 Hazardous materials testing, removal and disposal
- 8 Working in contaminated soils
- 9 Relocation of existing PV system



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

**BUILDING TRADE BREAKDOWN**

DESCRIPTION	SF	Alternative 2A 390,000	Alternative 3 406,290	Alternative 4B 404,110
Building		88,519,557	93,771,472	103,267,831
Site		9,759,583	8,000,788	8,661,233
Demo/Site		6,740,820	6,749,730	7,406,640
Parking Garage & Field	136,000	14,732,622	14,732,622	14,732,622
Program Space for Child Care	2,400	1,172,544	1,172,544	1,172,544
Add Program Space for SCTV	1,500	425,018	425,018	425,018
Health Space Program Space	1,650	429,000	429,000	429,000
Cost Premium for Energy Efficiency Exceeding LEED Silver Requirements		19,777,500	20,592,000	20,483,000
<b>TOTAL</b>		<b>141,556,645</b>	<b>145,873,175</b>	<b>156,577,888</b>
General Conditions	7.00%	9,908,965	10,211,122	10,960,452
Phasing & Temporary work	4.00%	6,058,624	6,243,372	6,701,534
Escalation Contingency (4.5% per annum) (Phase 1 & 2)	21.56%	30,789,441	31,825,182	34,393,751
Escalation Contingency (4.5% per annum) (Phase 3) - Parking Garage & Field Only	37.13%	5,469,486	5,469,486	5,469,486
<b>SUB TOTAL</b>		<b>193,783,162</b>	<b>199,622,337</b>	<b>214,103,111</b>
General Requirements	4.00%	7,751,326	7,984,893	8,564,124
<b>SUB TOTAL</b>		<b>201,534,488</b>	<b>207,607,231</b>	<b>222,667,236</b>
Bond	1.00%	2,015,345	2,076,072	2,226,672
Insurance	1.50%	3,053,247	3,145,250	3,373,409
<b>SUB TOTAL</b>		<b>206,603,080</b>	<b>212,828,552</b>	<b>228,267,317</b>
GMP Contingency	3.00%	6,198,092	6,384,857	6,848,020
Contractor's Overhead & Fee	2.00%	4,256,023	4,384,268	4,702,307
Design Contingency	10.00%	21,705,720	22,359,768	23,981,764
<b>TOTAL CONSTRUCTION COSTS</b>		<b>\$238,762,916</b>	<b>\$245,957,445</b>	<b>\$263,799,407</b>
<b>TOTAL GROSS AREA (SF) - INCLUDES GARAGE</b>		531,550	547,840	545,660
<b>COST PER GSF</b>		<b>\$612.21</b>	<b>\$605.37</b>	<b>\$652.79</b>



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

BUILDING TRADE BREAKDOWN

DESCRIPTION	Alternative 2A	Sub-total	Alternative 2A Demo/Site	Alternative 3	Sub-total	Alternative 3 Demo/Site	Alternative 4B	Sub-total	Alternative 4B Demo/Site	Sub-total	Add #2 Add Parking Garage & Field
<b>A. SUBSTRUCTURE</b>											
<b>A10 FOUNDATION</b>		<b>3,222,683</b>			<b>4,739,610</b>			<b>3,357,800</b>		<b>0</b>	
A1010 Standard Foundations	1,080,355		0	1,696,196		0	1,559,091		0		10,500,000
A1020 Special Foundations	100,000		0	100,000		0	100,000		0		
A1030 Slab on Grade	2,042,329		0	2,943,414		0	1,698,709		0		25,000
<b>A20 BASEMENT CONSTRUCTION</b>		<b>1,423,382</b>			<b>2,246,837</b>			<b>3,075,242</b>		<b>0</b>	
A2010 Basement Excavation	1,024,765		0	1,312,396		0	2,281,532		0		
A2020 Basement Walls	398,617		0	934,441		0	793,710		0		
<b>B. SHELL</b>											
<b>B10 SUPERSTRUCTURE</b>		<b>8,373,080</b>			<b>7,376,529</b>			<b>10,612,198</b>		<b>0</b>	
B1010 Floor Construction	7,582,560		0	6,358,059		0	10,529,498		0		
B1020 Roof Construction	790,520		0	1,018,470		0	82,700		0		
<b>B20 EXTERIOR ENCLOSURE</b>		<b>8,691,894</b>			<b>10,078,618</b>			<b>9,220,714</b>		<b>0</b>	
B2010 Exterior Walls	4,922,124		0	5,210,840		0	5,397,969		0		
B2020 Exterior Windows	2,369,320		0	3,469,530		0	3,498,988		0		
B2030 Exterior Doors	1,400,450		0	1,398,248		0	323,758		0		
<b>B30 ROOFING</b>		<b>2,131,696</b>			<b>2,104,772</b>			<b>2,119,282</b>		<b>0</b>	
B3010 Roof Coverings	2,054,250		0	2,029,710		0	2,026,524		0		
B3020 Roof Openings	77,446		0	75,062		0	92,758		0		
<b>C. INTERIOR</b>											
<b>C10 INTERIOR CONSTRUCTION</b>		<b>7,680,940</b>			<b>7,572,390</b>			<b>10,561,390</b>		<b>0</b>	
C1010 Partitions	4,255,360		0	4,148,730		0	7,255,200		0		85,500
C1020 Interior Doors	1,689,300		0	1,777,200		0	1,533,740		0		19,500
C1030 Fittings	1,736,280		0	1,646,460		0	1,772,450		0		
<b>C20 STAIRS</b>		<b>1,739,490</b>			<b>1,854,135</b>			<b>1,030,950</b>		<b>0</b>	
C2010 Stair Construction	1,110,750		0	1,161,315		0	847,223		0		
C2020 Stair Finishes	628,740		0	692,820		0	183,728		0		
<b>C30 INTERIOR FINISHES</b>		<b>8,001,622</b>			<b>8,595,484</b>			<b>8,680,385</b>		<b>0</b>	
C3010 Wall Finishes	2,907,540		0	3,238,320		0	2,268,650		0		
C3020 Floor Finishes	2,019,420		0	2,130,060		0	3,402,975		0		
C3030 Ceiling Finishes	3,074,662		0	3,227,104		0	3,008,760		0		
<b>D. SERVICES</b>											
<b>D10 CONVEYING</b>		<b>922,200</b>			<b>936,990</b>			<b>690,400</b>		<b>0</b>	
D1010 Elevators & Lifts	922,200		0	936,990		0	690,400		0		120,000
<b>D20 PLUMBING</b>		<b>5,822,700</b>			<b>5,952,149</b>			<b>6,970,898</b>		<b>0</b>	
D2010 Plumbing Fixtures	5,822,700		0	5,952,149		0	6,970,898		0		210,000
<b>D30 HVAC</b>		<b>17,460,300</b>			<b>17,795,502</b>			<b>21,013,720</b>		<b>0</b>	
D3020 Heat Generating Systems	15,490,800		0	15,788,429		0	18,993,170		0		
D3060 Controls & Instrumentation	1,712,100		0	1,738,921		0	1,717,468		0		157,500
D3070 Systems Testing & Balancing	257,400		0	268,151		0	303,083		0		
<b>D40 FIRE PROTECTION</b>		<b>2,429,700</b>			<b>2,506,809</b>			<b>3,130,025</b>		<b>0</b>	
D4010 Sprinklers	2,429,700		0	2,506,809		0	3,130,025		0		787,500
<b>D50 ELECTRICAL</b>		<b>13,403,680</b>			<b>14,006,410</b>			<b>16,641,043</b>		<b>0</b>	
D5010 Electrical Service & Distribution	13,403,680		0	14,006,410		0	16,641,043		0		880,000
<b>E. EQUIPMENT &amp; FURNISHINGS</b>											
<b>E10 EQUIPMENTS</b>		<b>4,411,170</b>			<b>5,079,620</b>			<b>2,585,546</b>		<b>0</b>	
E1010 Commercial Equipment	1,707,740		0	1,561,650		0	688,865		0		
E1020 Institutional Equipment	2,629,420		0	3,471,120		0	1,864,540		0		



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

BUILDING TRADE BREAKDOWN

DESCRIPTION	Alternative 2A	Sub-total	Alternative 2A Demo/Site	Alternative 3	Sub-total	Alternative 3 Demo/Site	Alternative 4B	Sub-total	Alternative 4B Demo/Site	Sub-total	Add #2 Add Parking Garage & Field
E1030 Vehicular Equipment	74,010		0	46,850		0	32,141		0		
<b>E20 FURNISHINGS</b>		<b>2,805,020</b>			<b>2,925,620</b>			<b>3,156,483</b>		<b>0</b>	
E2010 Fixed Furnishings	2,472,320		0	2,804,720		0	3,034,780		0		
E2020 Movable Furnishings	332,700		0	120,900		0	121,703		0		
<b>F. SPECIAL CONSTRUCTION &amp; DEMOLITION</b>											
<b>F10 SPECIAL CONSTRUCTION</b>											
F1040 Special Facilities											
<b>F20 SELECTIVE BUILDING DEMOLITION</b>		<b>0</b>	<b>6,635,820</b>		<b>0</b>	<b>6,644,730</b>		<b>421,757</b>	<b>7,301,640</b>		
F2010 Building Elements Demolition	0		3,887,580	0		3,896,490	301,255		4,553,400		
F2020 Hazardous Components Abatement	0		2,748,240	0		2,748,240	120,502		2,748,240		
<b>SUB-TOTAL BUILDING</b>	<b>88,519,557</b>		<b>6,635,820</b>	<b>93,771,472</b>		<b>6,644,730</b>	<b>103,267,831</b>		<b>7,301,640</b>		<b>12,785,000</b>
<b>G. BUILDING SITEWORK</b>											
<b>G10 SITE PREPARATION</b>											
G1010 Site Clearing	0		5,000	0		5,000	0		5,000		
G1020 Site Demolition & Relocations	0		100,000	0		100,000	0		100,000		
G1030 Site Earthwork	2,660,000		0	860,000		0	1,350,000		0		
G1040 Hazardous Waste Remediation	314,050		0	314,050		0	314,050		0		
<b>G20 SITE IMPROVEMENTS</b>		<b>5,850,000</b>			<b>5,891,205</b>			<b>6,061,650</b>		<b>0</b>	
G2010 Roadways	1,170,000		0	1,218,870		0	1,212,330		0		
G2020 Parking Lots	1,267,500		0	1,320,443		0	1,313,358		0		(1,313,358)
G2030 Pedestrian Paving	1,462,500		0	1,523,588		0	1,515,413		0		
G2040 Site Development	1,365,000		0	1,218,870		0	1,414,385		0		3,260,980
G2050 Landscaping	585,000		0	609,435		0	606,165		0		
<b>G30 SITE MECHANICAL UTILITIES</b>		<b>701,142</b>			<b>701,142</b>			<b>701,142</b>		<b>0</b>	
G3010 Water Supply	135,420		0	135,420		0	135,420		0		
G3020 Sanitary Sewer	149,111		0	149,111		0	149,111		0		
G3030 Storm Sewer	401,990		0	401,990		0	401,990		0		
G3060 Fuel Distribution	14,621		0	14,621		0	14,621		0		
<b>G40 SITE ELECTRICAL UTILITIES</b>		<b>234,391</b>			<b>234,391</b>			<b>234,391</b>		<b>0</b>	
G4010 Electrical Distribution	84,391		0	84,391		0	84,391		0		
G4020 Site Lighting	100,000		0	100,000		0	100,000		0		
G4030 Site Communications & Security	50,000		0	50,000		0	50,000		0		
<b>SUB-TOTAL SITE</b>	<b>9,759,583</b>		<b>105,000</b>	<b>8,000,788</b>		<b>105,000</b>	<b>8,661,233</b>		<b>105,000</b>		<b>1,947,622</b>



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

BUILDING TRADE BREAKDOWN

DESCRIPTION	Alternative 2A	Sub-total	Alternative 2A Demo/Site	Alternative 3	Sub-total	Alternative 3 Demo/Site	Alternative 4B	Sub-total	Alternative 4B Demo/Site	Sub-total	Add #2 Add Parking Garage & Field
<b>TOTAL BUILDING &amp; SITE</b>	<b>98,279,140</b>		<b>6,740,820</b>	<b>101,772,260</b>		<b>6,749,730</b>	<b>111,929,064</b>		<b>7,406,640</b>		<b>14,732,622</b>
General Conditions 7.00%	6,879,540		471,857	7,124,058		472,481	7,835,034		518,465		1,031,284
Phasing & Temporary work 4.00%	4,206,347		288,507	4,355,853		288,888	4,790,564		317,004		630,556
Escalation Contingency (4.5% per annum) (Phase 1 & 2) 21.56%	23,581,834			24,419,999			26,857,099				
Escalation Contingency (4.5% per annum) (Phase 3) 37.13%			2,784,815			2,788,496			3,059,883		6,086,444
<b>SUB TOTAL</b>	<b>132,946,861</b>		<b>10,285,999</b>	<b>137,672,171</b>		<b>10,299,595</b>	<b>151,411,761</b>		<b>11,301,992</b>		<b>22,480,906</b>
General Requirements 4.00%	5,317,874		411,440	5,506,887		411,984	6,056,470		452,080		899,236
<b>SUB TOTAL</b>	<b>138,264,736</b>		<b>10,697,439</b>	<b>143,179,058</b>		<b>10,711,579</b>	<b>157,468,232</b>		<b>11,754,072</b>		<b>23,380,142</b>
Bond 1.00%	1,382,647		106,974	1,431,791		107,116	1,574,682		117,541		233,801
Insurance 1.50%	2,094,711		162,066	2,169,163		162,280	2,385,644		178,074		354,209
<b>SUB TOTAL</b>	<b>141,742,094</b>		<b>10,966,480</b>	<b>146,780,011</b>		<b>10,980,975</b>	<b>161,428,558</b>		<b>12,049,687</b>		<b>23,968,152</b>
GMP Contingency 3.00%	4,252,263		328,994	4,403,400		329,429	4,842,857		361,491		719,045
Contractor's Overhead & Fee 2.00%	2,919,887		225,909	3,023,668		226,208	3,325,428		248,224		493,744
Design Contingency 10.00%	14,891,424		1,152,138	15,420,708		1,153,661	16,959,684		1,265,940		2,518,094
<b>SUBTOTAL CONSTRUCTION COSTS</b>	<b>\$163,805,668</b>		<b>\$12,673,522</b>	<b>\$169,627,787</b>		<b>\$12,690,274</b>	<b>\$186,556,527</b>		<b>\$13,925,341</b>		<b>\$27,699,035</b>
<b>TOTAL CONSTRUCTION COSTS (BLDG. &amp; DEMO/SITE)</b>	<b>\$176,479,190</b>			<b>\$182,318,061</b>			<b>\$200,481,868</b>				
<b>TOTAL GROSS AREA (SF)</b>	390,000			406,290			404,110				105,000
<b>COST PER GSF</b>	<b>\$452.51</b>			<b>\$448.74</b>			<b>\$496.11</b>				<b>\$263.80</b>



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

May 25, 2016

Detail 2A

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
<b>A. SUBSTRUCTURE</b>				
<b>A10 FOUNDATION</b>				
A1010 Standard Foundations				
Light	25,800	SF	1.00	25,800
Moderate	68,160	SF	2.00	136,320
Heavy	130,840	SF	4.00	523,360
New Construction/Addition				
EXTERIOR COLUMN FOOTINGS				
Strip footings to interior				
Excavation	89	CY	15.00	1,333
Remove off site	89	CY	25.00	2,222
Backfill with gravel	58	CY	35.00	2,022
Formwork	400	SF	10.00	4,000
Re-bar	2,178	LBS	1.10	2,396
Concrete material	31	CY	150.00	4,667
Placing concrete	28	HR	85.00	2,380
Strip footings to walls at step elevation change				
Excavation	28	CY	15.00	417
Remove off site	28	CY	25.00	694
Backfill with gravel	19	CY	35.00	666
Formwork	150	SF	10.00	1,500
Re-bar	613	LBS	1.10	674
Concrete material	9	CY	150.00	1,313
Placing concrete	8	HR	85.00	669
Strip footings to basement walls				
Excavation	259	CY	15.00	3,889
Remove off site	259	CY	25.00	6,481
Backfill with gravel	113	CY	35.00	3,970
Formwork	1,500	SF	10.00	15,000
Re-bar	10,208	LBS	1.10	11,229
Concrete material	146	CY	150.00	21,875
Placing concrete	131	HR	85.00	11,156
Foundation walls at exterior				
Formwork	4,000	SF	12.00	48,000
Re-bar	8,000	LBS	1.10	8,800
Concrete material	103	CY	150.00	15,517
Placing concrete	83	HR	85.00	7,034
Waterproofing foundation wall & footing	3,000	SF	2.50	7,500
Insulation to foundation walls	2,000	SF	2.50	5,000
Walls at stage elevation change				
Formwork	750	SF	10.00	7,500
Re-bar	1,500	LBS	1.10	1,650
Concrete material	15	CY	150.00	2,188
Placing concrete	12	HR	85.00	992
Waterproofing foundation wall & footing	375	SF	2.50	938
Insulation to foundation walls	225	SF	2.50	563
Exterior column footings, type F1				
Excavation	240	CY	15.00	3,600
Remove off site	240	CY	25.00	6,000
Backfill with gravel	211	CY	35.00	7,379
Formwork	600	SF	10.00	6,000
Re-bar	2,042	LBS	1.10	2,246
Concrete material	29	CY	150.00	4,375
Placing concrete	26	HR	85.00	2,231
Interior column footings, type F1				
Excavation	399	CY	15.00	5,980



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

May 25, 2016

Detail 2A

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
Remove off site	399	CY	25.00	9,966
Backfill with gravel	252	CY	35.00	8,824
Formwork	1,884	SF	10.00	18,841
Re-bar	10,258	LBS	1.10	11,284
Concrete material	147	CY	150.00	21,981
Placing concrete	132	HR	85.00	11,210
Miscellaneous				
Allow for piers/pilasters	46	EA	800.00	36,934
Set anchor bolts grout plates	20	EA	65.00	1,300
Local de-watering during excavation	1	LS	15,000.00	15,000
Miscellaneous concrete costs (pumping, admixtures etc.)				
Premium for pump grade concrete mix	479.4	CY	5.00	2,397
Pump and operator	6.0	DAYS	1,100.00	6,592
Foundation drainage	500	LF	17.00	8,500
			<b>Sub-Total</b>	<b>\$1,080,355</b>
A1020 Special Foundations				
Underpinning existing foundations, complete	1	LS	100,000.00	100,000
			<b>Sub-Total</b>	<b>\$100,000</b>
A1030 Slab on Grade				
Light	25,800	SF	1.00	25,800
Moderate	68,160	SF	3.00	204,480
Heavy	130,840	SF	5.00	654,200
New Construction/Addition				
Slab on grade				
Gravel fill	1,211	CY	35.00	42,402
Rigid insulation under slab on grade	32,710	SF	2.50	81,775
Vapor barrier	32,710	SF	0.75	24,533
Waterproofing system	32,710	SF	6.00	196,260
Mesh reinforcing 15% lap	37,617	SF	1.25	47,021
Concrete	534	CY	150.00	80,140
Placing concrete	481	HR	85.00	40,871
Finishing and curing concrete	262	HR	85.00	22,243
Control joints - saw cut	32,710	SF	1.00	32,710
Isolation joints at columns	185	LF	5.00	923
Perimeter joints	500	LF	4.00	2,000
Elevator Pits				
Excavation for elevator pit	175	CY	35.00	6,125
Remove off site	175	CY	25.00	4,375
Backfill with gravel	12	CY	35.00	436
Elevator pit walls				
Formwork	1,296	SF	10.00	12,960
Reinforcement	1,944	LBS	1.10	2,138
Concrete material	17	CY	150.00	2,533
Placing concrete	14	HR	85.00	1,148
Slab				
Formwork	162	SF	10.00	1,620
Reinforcement	709	LBS	1.10	780
Concrete material in slab	14	CY	150.00	2,126
Placing concrete	13	HR	85.00	1,084
Cementitious waterproofing to elevator pit	891	SF	12.00	10,692



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

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Detail 2A

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
Miscellaneous				
Miscellaneous concrete costs (pumping, admixtures etc.)				
Premium for pump grade concrete mix	31	CY	17.00	528
Pump and operator	0.4	DAYS	1,100.00	427
Allowance for structure slab	1	LS	500,000.00	500,000
New loading dock	1	LS	40,000.00	40,000
	<b>Sub-Total</b>			<b>\$2,042,329</b>
<b>A20 BASEMENT CONSTRUCTION</b>				
A2010 Basement Excavation				
New Construction/Addition				
Excavate for basement	16,961	CY	15.00	254,411
Excavate working space to basement wall	114	CY	15.00	1,711
Remove excavated material from site	17,075	CY	25.00	426,870
Backfill around basement walls with gravel	114	CY	35.00	3,993
Allowance for waterproofing	1	LS	250,000.00	250,000
Wood and steel lagging	3,080	SF	28.50	87,780
	<b>Sub-Total</b>			<b>\$1,024,765</b>
A2020 Basement Walls				
New Construction/Addition				
Formwork to basement wall	14,000	SF	14.00	196,000
Reinforcement in basement walls	35,000	LBS	1.50	52,500
Concrete material in basement walls	362	CY	150.00	54,308
Placing concrete	290	HR	85.00	24,620
Rubbing concrete after stripping formwork	140	HR	85.00	11,900
Waterproofing and protection mat to basement walls	7,000	SF	5.00	35,000
Rigid insulation to basement walls	7,000	SF	2.50	17,500
Miscellaneous concrete costs (pumping, admixtures etc.)				
Premium for pump grade concrete mix	362	CY	5.00	1,810
Pump and operator	4.5	DAYS	1,100.00	4,978
	<b>Sub-Total</b>			<b>\$398,617</b>
<b>B. SHELL</b>				
<b>B10 SUPERSTRUCTURE</b>				
B1010 Floor Construction				
Light	25,800	SF	1.00	25,800
Moderate	68,160	SF	5.00	340,800
Heavy	130,840	SF	15.00	1,962,600
New Construction/Addition, 15 LB/SF	1,239	TN	3,800.00	4,708,200
New Construction/Addition - connections 10%	124	TN	3,800.00	470,820
New Construction/Addition - Premium for tube steel 10%	124	T N	600.00	74,340
	<b>Sub-Total</b>			<b>\$7,582,560</b>
B1020 Roof Construction				
Moderate	68,160	SF	2.00	136,320
Heavy	130,840	SF	5.00	654,200
New Construction/Addition	165,200	SF		In above
	<b>Sub-Total</b>			<b>\$790,520</b>



**FINAL EVALUATION OF ALTERNATIVES**  
**SOMERVILLE SCHOOL DEPARTMENT**  
**SOMERVILLE HIGH SCHOOL**  
 Somerville, MA

May 25, 2016

Detail 2A

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
<b>B20 EXTERIOR ENCLOSURE</b>				
B2010 Exterior Walls				
Light	25,800	SF	0.50	12,900
Moderate	68,160	SF	1.50	102,240
Heavy	130,840	SF	15.00	1,962,600
New Construction/Addition				
Interior skin - 70%				
Metal stud backup to exterior wall, 6" thick	31,360	SF	10.50	329,280
Insulation	31,360	SF	3.85	120,736
Air barrier	31,360	SF	2.85	89,376
Den shield or similar to exterior face of stud backup	31,360	SF	3.60	112,896
Drywall lining to interior face of stud backup	31,360	SF	3.10	97,216
Exterior skin - 40% brick veneer	17,920	SF	39.00	698,880
Exterior skin - 10% metal panel	4,480	SF	60.00	268,800
Exterior skin - 20% porcelain	8,960	SF	70.00	627,200
Allowance to connect to existing building	1	LS	500,000.00	500,000
<b>Sub-Total</b>				<b>\$4,922,124</b>
B2020 Exterior Windows				
Light	25,800	SF	1.00	25,800
Moderate	68,160	SF	2.00	136,320
Heavy	130,840	SF	10.00	1,308,400
New Construction/Addition				
Windows and Glazing - 15%	8,400	SF	86.00	722,400
Curtainwall - 15%	8,400	SF	21.00	176,400
<b>Sub-Total</b>				<b>\$2,369,320</b>
B2030 Exterior Doors				
Light	25,800	SF	0.50	12,900
Moderate	68,160	SF	2.00	136,320
Heavy	130,840	SF	3.25	425,230
New Construction/Addition				
<b>Sub-Total</b>				<b>\$1,400,450</b>
<b>B30 ROOFING</b>				
B3010 Roof Coverings				
Light	25,800	SF	0.25	6,450
Moderate	68,160	SF	1.25	85,200
Heavy	130,840	SF	8.00	1,046,720
New Construction/Addition				
Flat roofing				
Roof membrane fully adhered	32,710	SF	28.00	915,880
<b>Sub-Total</b>				<b>\$2,054,250</b>
B3020 Roof Openings				
Heavy	130,840	SF	0.15	19,626
New Construction/Addition				
<b>Sub-Total</b>				<b>\$77,446</b>



**FINAL EVALUATION OF ALTERNATIVES  
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SOMERVILLE HIGH SCHOOL  
Somerville, MA**

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Detail 2A

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
<b>C. INTERIOR</b>				
<b>C10 INTERIOR CONSTRUCTION</b>				
C1010 Partitions				
Light	25,800	SF	5.00	129,000
Moderate	68,160	SF	6.50	443,040
Heavy	130,840	SF	13.00	1,700,920
New Construction/Addition	165,200	SF	12.00	1,982,400
<b>Sub-Total</b>				<b>\$4,255,360</b>
C1020 Interior Doors				
Light	25,800	SF	1.50	38,700
Moderate	68,160	SF	2.50	170,400
Heavy	130,840	SF	5.00	654,200
New Construction/Addition	165,200	SF	5.00	826,000
<b>Sub-Total</b>				<b>\$1,689,300</b>
C1030 Fittings				
Light	25,800	SF	2.00	51,600
Moderate	68,160	SF	3.00	204,480
Heavy	130,840	SF	5.00	654,200
New Construction/Addition	165,200	SF	5.00	826,000
<b>Sub-Total</b>				<b>\$1,736,280</b>
<b>C20 STAIRS</b>				
C2010 Stair Construction				
Light	25,800	SF	0.25	6,450
Moderate	68,160	SF	1.00	68,160
Heavy	130,840	SF	3.50	457,940
New Construction/Addition	165,200	SF	3.50	578,200
<b>Sub-Total</b>				<b>\$1,110,750</b>
C2020 Stair Finishes				
Light	25,800	SF	0.10	2,580
Moderate	68,160	SF	0.50	34,080
Heavy	130,840	SF	2.00	261,680
New Construction/Addition	165,200	SF	2.00	330,400
<b>Sub-Total</b>				<b>\$628,740</b>
<b>C30 INTERIOR FINISHES</b>				
C3010 Wall Finishes				
Light	25,800	SF	1.50	38,700
Moderate	68,160	SF	3.00	204,480
Heavy	130,840	SF	9.00	1,177,560
New Construction/Addition	165,200	SF	9.00	1,486,800
<b>Sub-Total</b>				<b>\$2,907,540</b>
C3020 Floor Finishes				
Light	25,800	SF	1.50	38,700
Moderate	68,160	SF	3.00	204,480
Heavy	130,840	SF	6.00	785,040



FINAL EVALUATION OF ALTERNATIVES  
 SOMERVILLE SCHOOL DEPARTMENT  
 SOMERVILLE HIGH SCHOOL  
 Somerville, MA

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Detail 2A

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
New Construction/Addition	165,200	SF	6.00	991,200
<b>Sub-Total</b>				<b>\$2,019,420</b>
C3030 Ceiling Finishes				
Light	25,800	SF	1.75	45,150
Moderate	68,160	SF	4.00	272,640
Heavy	130,840	SF	9.00	1,177,560
New Construction/Addition	165,200	SF	9.00	1,486,800
Premium for double layer ceiling	13,216	SF	7.00	92,512
<b>Sub-Total</b>				<b>\$3,074,662</b>
<b>D. SERVICE</b>				
<b>D10 CONVEYING</b>				
D1010 Elevators & Lifts				
Moderate	68,160	SF	0.50	34,080
Heavy	130,840	SF	3.00	392,520
New Construction/Addition	165,200	SF	3.00	495,600
<b>Sub-Total</b>				<b>\$922,200</b>
<b>D20 PLUMBING</b>				
D2010 Plumbing Fixtures				
Light	25,800	SF	14.93	385,194
Moderate	68,160	SF	14.93	1,017,629
Heavy	130,840	SF	14.93	1,953,441
New Construction/Addition	165,200	SF	14.93	2,466,436
<b>Sub-Total</b>				<b>\$5,822,700</b>
<b>D30 HVAC</b>				
D3020 Heat Generating Systems				
Light	25,800	SF	39.72	1,024,776
Moderate	68,160	SF	39.72	2,707,315
Heavy	130,840	SF	39.72	5,196,965
New Construction/Addition	165,200	SF	39.72	6,561,744
<b>Sub-Total</b>				<b>\$15,490,800</b>
D3060 Controls & Instrumentation				
Light	25,800	SF	4.39	113,262
Moderate	68,160	SF	4.39	299,222
Heavy	130,840	SF	4.39	574,388
New Construction/Addition	165,200	SF	4.39	725,228
<b>Sub-Total</b>				<b>\$1,712,100</b>



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

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**Detail 2A**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
<b>D3070 Systems Testing &amp; Balancing</b>				
Light	25,800	SF	0.66	17,028
Moderate	68,160	SF	0.66	44,986
Heavy	130,840	SF	0.66	86,354
New Construction/Addition	165,200	SF	0.66	109,032
<b>Sub-Total</b>				<b>\$257,400</b>
<b>D40 FIRE PROTECTION</b>				
D4010 Sprinklers				
Light	25,800	SF	6.23	160,734
Moderate	68,160	SF	6.23	424,637
Heavy	130,840	SF	6.23	815,133
New Construction/Addition	165,200	SF	6.23	1,029,196
<b>Sub-Total</b>				<b>\$2,429,700</b>
<b>D50 ELECTRICAL</b>				
D5010 Electrical Service & Distribution				
Light	25,800	SF	15.00	387,000
Moderate	68,160	SF	20.00	1,363,200
Heavy	130,840	SF	37.00	4,841,080
New Construction/Addition	165,200	SF	37.00	6,112,400
Generator with enclosure	1	LS	700,000.00	700,000
<b>Sub-Total</b>				<b>\$13,403,680</b>
<b>E. EQUIPMENT &amp; FURNISHINGS</b>				
<b>E10 EQUIPMENTS</b>				
E1010 Commercial Equipment				
Light	25,800	SF	1.00	25,800
Moderate	68,160	SF	2.00	136,320
Heavy	130,840	SF	5.50	719,620
New Construction/Addition	165,200	SF	5.00	826,000
<b>Sub-Total</b>				<b>\$1,707,740</b>
E1020 Institutional Equipment				
Light	25,800	SF	0.50	12,900
Moderate	68,160	SF	2.00	136,320
Heavy	130,840	SF	5.00	654,200
New Construction/Addition	165,200	SF	5.00	826,000
Allowance for Lab equipment/millwork	1	LS	1,000,000.00	1,000,000
<b>Sub-Total</b>				<b>\$2,629,420</b>
E1030 Vehicular Equipment				
Heavy	130,840	SF	0.25	32,710
New Construction/Addition	165,200	SF	0.25	41,300
<b>Sub-Total</b>				<b>\$74,010</b>
<b>E20 FURNISHINGS</b>				
E2010 Fixed Furnishings				
Light	25,800	SF	3.00	77,400



**FINAL EVALUATION OF ALTERNATIVES**  
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 Somerville, MA

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Detail 2A

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
Moderate	68,160	SF	4.00	272,640
Heavy	130,840	SF	7.00	915,880
New Construction/Addition	165,200	SF	7.00	1,156,400
Library millwork	1	LS	50,000.00	50,000
<b>Sub-Total</b>				<b>\$2,472,320</b>
E2020 Movable Furnishings				
Light	25,800	SF	0.10	2,580
Moderate	68,160	SF	0.50	34,080
Heavy	130,840	SF	1.00	130,840
New Construction/Addition	165,200	SF	1.00	165,200
<b>Sub-Total</b>				<b>\$332,700</b>

**F. SPECIAL CONSTRUCTION & DEMOLITION**  
**F20 SELECTIVE BUILDING DEMOLITION**

**G. BUILDING SITEWORK**

**G10 SITE IMPROVEMENTS**

G1030 Site Earthwork

Earthwork for "Lower Level" construction (81'-0")

Cut	18,000	CY	20.00	360,000
Fill	1,000	CY	20.00	20,000

Earthwork for "Level 1" construction (101'-0")

Cut	3,000	CY	20.00	60,000
Fill	15,000	CY	20.00	300,000

Earthwork for "Parking Structure with Sports field" construction  
 (Lower level 57'-10", Upper Level 68'-5", Field 81'-0")

Cut	94,000	CY	20.00	1,880,000
Fill	2,000	CY	20.00	40,000

**Sub-Total** **\$2,660,000**

G1040 Hazardous Waste Remediation

Allowance	1	LS	314,050.00	314,050
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**Sub-Total** **\$314,050**

**G20 SITE IMPROVEMENTS**

G2010 Roadways

Allowance	390,000	GFS	3.00	1,170,000
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**Sub-Total** **\$1,170,000**

G2020 Parking Lots

Allowance	390,000	GFS	3.25	1,267,500
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**Sub-Total** **\$1,267,500**



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

Detail 2A

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
G2030 Pedestrian Paving Allowance	390,000	GFS	3.75	1,462,500
<b>Sub-Total</b>				<b>\$1,462,500</b>
G2040 Site Development Allowance	390,000	GFS	3.50	1,365,000
<b>Sub-Total</b>				<b>\$1,365,000</b>
G2050 Landscaping Allowance	390,000	GFS	1.50	585,000
<b>Sub-Total</b>				<b>\$585,000</b>
<b>G30 SITE MECHANICAL UTILITIES</b>				
G3010 Water Supply Water supply	1,464	LF	92.50	135,420
<b>Sub-Total</b>				<b>\$135,420</b>
G3020 Sanitary Sewer Sanitary sewer	1,291	LF	115.50	149,111
<b>Sub-Total</b>				<b>\$149,111</b>
G3030 Storm Sewer Storm Sewer	3,295	LF	122.00	401,990
<b>Sub-Total</b>				<b>\$401,990</b>
G3060 Fuel Distribution Fuel Distribution	299	LF	48.90	14,621
<b>Sub-Total</b>				<b>\$14,621</b>
<b>G40 SITE ELECTRICAL UTILITIES</b>				
G4010 Electrical Distribution Allowance	989	LF	85.33	84,391
<b>Sub-Total</b>				<b>\$84,391</b>
G4020 Site Lighting Allowance	1	LS	100,000.00	100,000
<b>Sub-Total</b>				<b>\$100,000</b>
G4030 Site Communications & Security Allowance	1	LS	50,000.00	50,000
<b>Sub-Total</b>				<b>\$50,000</b>
<b>Total</b>				<b>98,279,140</b>



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

May 25, 2016

**Detail 2A DEMO/SITE**

	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>\$/UNIT</b>	<b>AMOUNT</b>
<b>F20</b>	<b>SELECTIVE BUILDING DEMOLITION</b>				
	F2010 Building Elements Demolition				
	Light	25,800	SF	3.00	77,400
	Moderate	68,160	SF	5.00	340,800
	Heavy	130,840	SF	7.00	915,880
	Shorting (interior, exterior to interior wall)	1	LS	1,200,000.00	1,200,000
	Demo to existing building	135,350	SF	10.00	1,353,500
					<b>Sub-Total</b>
					<b>\$3,887,580</b>
	F2020 Hazardous Components Abatement Allowance	1	LS	2,748,240.00	2,748,240
					<b>Sub-Total</b>
					<b>\$2,748,240</b>
<b>G.</b>	<b>BUILDING SITEWORK</b>				
<b>G10</b>	<b>SITE IMPROVEMENTS</b>				
	G1010 Site Clearing Allowance Site clearing	1	LS	5,000.00	5,000
					<b>Sub-Total</b>
					<b>\$5,000</b>
	G1020 Site Demolition & Relocations Allowance Site demo & relocation	1	LS	100,000.00	100,000
					<b>Sub-Total</b>
					<b>\$100,000</b>
					<b>Total</b>
					<b>\$6,740,820</b>

### 3.1.8 Permitting Requirements





**CITY OF SOMERVILLE, MASSACHUSETTS**  
**MAYOR'S OFFICE OF STRATEGIC PLANNING & COMMUNITY DEVELOPMENT**  
**JOSEPH A. CURTATONE**  
**MAYOR**

**MICHAEL F. GLAVIN**  
*EXECUTIVE DIRECTOR*

**GEORGE PROAKIS**  
*PLANNING DIRECTOR*

***HISTORIC PRESERVATION COMMISSION***

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Ryan T. Maciej  
Preservation Planner  
Massachusetts Historical Commission  
220 Morrissey Boulevard  
Boston, MA 02125

March 30, 2016

RE: Somerville High School Addition and Renovation, 91 Highland Avenue, Somerville, MA;  
MHC# RC.59496

Mr. Maciej –

Per the request of the Massachusetts Historical Commission (MHC) as indicated in your letter dated February 24, 2016, to Robert King, Director of Capital Projects and Planning for the City of Somerville, the Somerville Historic Preservation Commission (HPC) offers the following comments regarding the proposed Somerville High School Addition and Renovation project as it stands to-date.

Two publicly-advertised meetings were held with the following entities in attendance:

- members of the Somerville HPC;
- staff of the Somerville Capital Projects Department;
- representatives from PMA Consultants (construction consultants);
- representatives from Symmes, Maini & McKee Associates (SMMA) (architects);
- Tony Pierantozzi (chair of the School Building Committee and former Somerville Superintendent of Schools);
- Somerville preservation planning staff.

These meetings were held on Tuesday, March 22, 2016 and Tuesday, March 29, 2016. At both meetings all of the alternatives current on that date were reviewed with the HPC and preservation possibilities were discussed in conjunction with educational needs.

At the Tuesday, March 29, 2016, meeting the HPC voted on each of the three remaining alternatives specifically and on overall preservation recommendations in general. In each case, the HPC voted to support the project alternative and the preservation elements contained therein. A quorum was present and all votes were unanimous (6-0). The details of these votes appear below.

**Alternative 2a**

- Retain the 1895/1914 building.



- Reveal rear façade of the 1895/1914 structure such that it can be viewed from within any new additions on that elevation.
- Retain the front façade along with the left and right wings of the 1929 gymnasium and retain any detail still extant on the left and right wings.
- Restore reliefs from the 1929 additions to the 1895/1914 building and re-use in new high school structure.
- Restore the original rooflines of the 1895/1914 structure.

### **Alternative 3**

- Retain the 1895/1914 building.
- Reveal rear façade of the 1895/1914 structure such that it can be viewed from within any new additions or changes to the building on that elevation.
- Retain the front façade along with the left and right wings of the 1929 gymnasium and retain any detail still extant on the left and right wings.
- Restore reliefs from the 1929 additions to the 1895/1914 building and re-use in new high school structure.

*Additional HPC recommendation:*

- Restore the original rooflines of the 1895/1914 structure if financially and architecturally feasible.

### **Alternative 4b**

- Retain the 1895/1914 building.
- Reveal rear façade of the 1895/1914 structure.
- Retain the front façade along with the left and right wings of the 1929 gymnasium and retain any detail still extant on the left and right wings.
- Restore reliefs from the 1929 additions to the 1895/1914 building and re-use in new high school structure.

*Additional HPC recommendation:*

- Restore the original rooflines of the 1895/1914 structure if financially and architecturally feasible.
- Remove the 1929 auditorium.

### **General recommendations**

- Where possible, the front site lines along the City Hall – Somerville High School – Library complex on the Highland Avenue elevation should be maintained.

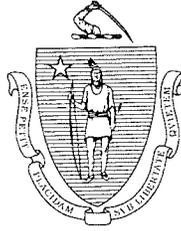
The Somerville HPC is pleased to have the opportunity to offer its comments to the Massachusetts Historical Commission for its review. The HPC enthusiastically supports the Somerville High School project and is pleased with the project team's commitment to preservation. We look forward to continuing to engage with all parties involved in this project as it moves forward.

Please forward all additional correspondence for the HPC regarding this project to Sarah White, Preservation and Zoning Planner, at the City Hall address or via the following: email: [swhite@somervillema.gov](mailto:swhite@somervillema.gov) / phone: 617.625.6600 x2534.

Best regards,



Dick Bauer, Chair  
Somerville Historic Preservation Commission



## The Commonwealth of Massachusetts

February 24, 2016 William Francis Galvin, Secretary of the Commonwealth  
Massachusetts Historical Commission

Robert King  
Director of Capital Projects and Planning  
1 Franey Road  
Somerville, MA 02145

RE: Somerville High School Addition and Renovation, 81 Highland Avenue, Somerville, MA;  
MHC# RC.59496

Dear Mr. King:

The Massachusetts Historical Commission (MHC) has reviewed the information submitted by PMA Consultants concerning the property referenced above. The subject property at 81 Highland Avenue (MHC# SMV.69), historically known as the Somerville High School, is included in MHC's Inventory of Historic and Archaeological Assets of the Commonwealth (Inventory). After a review of the information submitted, MHC staff have the following comments.

The MHC understands from the information submitted that the City of Somerville is considering multiple options to meet the projected requirements of the City of Somerville School District in the upcoming years. The proposed project may involve demolition of one or more multiple sections of the existing Somerville High School and involve the construction of one or more new additions. One or more sections of the existing high school may receive renovations. As alternatives are more fully considered and developed by the City, the MHC offers the following guidance, which should be utilized as early as possible in the planning process.

The MHC understands that the proposed project will likely receive funding from the Massachusetts School Building Authority (MSBA). If MSBA funding is involved, review by the MHC is required under M.G.L. Chapter 9, Section 26-27C, as amended by Chapter 254 of the Acts of 1988 (950 CMR 71.00).

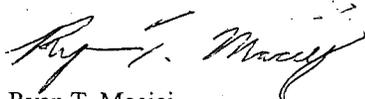
As mentioned above, the Somerville High School is included in MHC's Inventory. The demolition of an inventoried property triggers the filing of an Environmental Notification Form (ENF). If demolition of an inventoried property is the only anticipated ENF threshold, a proponent may consult with the MHC and change the project to result in a "no adverse effect" determination, or, as a result of consultation, seek to enter into a Memorandum of Agreement with the MHC in lieu of filing an ENF. If an ENF is not filed, the project review process must involve and take into account public comment prior to the development of any Memorandum of Agreement (301 CMR 11.03(10)). The MHC strongly encourages the retention and, if needed, rehabilitation of as much of the Somerville High School as possible. Through thoughtful reuse, numerous schools in Massachusetts and across the country have effectively helped educate new generations of students while providing community touchstones of memories and shared experiences for citizens of all ages.

The MHC encourages that any proposed additions or rehabilitation would meet the Secretary of the Interior's Standards for the Treatment of Historic Properties. New construction should be sympathetic in design, scale, massing, materials, rhythm, and fenestration with surrounding historic properties. Rehabilitation should not damage or remove the historic fabric of the building and should help preserve and protect the structural integrity of the building in the long-term.

The MHC looks forward to receiving and reviewing current original photographs of the subject property and adjacent properties, keyed to a sketch map. Photographic coverage of the high school building and

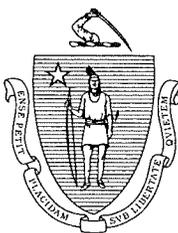
grounds must be extensive, including both the exteriors and interiors of the buildings. As the alternatives selection process continues, please indicate how alternative options are explored that would meet the educational objectives and goals while preserving the Somerville High School. The MHC requests that a copy of the above requested information be submitted to the Somerville Historic Preservation Commission and looks forward to receiving and reviewing comments from the Somerville Historic Preservation Commission. The MHC also looks forward to further consultation on this important project.

These comments are offered to assist in compliance with M.G.L. Chapter 9, Section 26-27C, as amended by Chapter 254 of the Acts of 1988 (950 CMR 71.00), and MEPA (301 CMR 11). Please do not hesitate to contact me if you have any questions.



Ryan T. Maciej  
Preservation Planner  
Massachusetts Historical Commission

xc: Maureen Valente and Jack McCarthy—MSBA  
Secretary Matthew Beaton, EEA; ATTN: MEPA Unit  
Somerville Historic Preservation Commission  
Chad Crittenden, PMA Consultants



May 2, 2016

## The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth

Robert King

Director of Capital Projects and Planning

1 Franey Road

Somerville, MA 02145

Massachusetts Historical Commission

RE: Somerville High School Addition and Renovation, 81 Highland Avenue, Somerville, MA;  
MHC# RC.59496

Dear Mr. King:

The Massachusetts Historical Commission (MHC) has reviewed the additional information submitted by PMA Consultants, received March 31, 2016, concerning the property referenced above. The subject property at 81 Highland Avenue (MHC# SMV.69), historically known as the Somerville High School, is included in MHC's Inventory of Historic and Archaeological Assets of the Commonwealth (Inventory). The Somerville High School is located immediately adjacent to the property at 93 Highland Avenue, historically known as the Somerville City Hall, and the property at 79 Highland Avenue, historically known as the Central Library. Somerville City Hall is individually listed in the State and National Registers of Historic Places, and the Central Library is also individually listed in the State and National Registers of Historic Places. After a review of the information submitted, MHC staff have the following comments.

Based upon the photographic and historical information submitted and the review of records on file at the MHC, it is the opinion of the MHC that the subject property at 81 Highland Avenue, historically known as the Somerville High School, meets the criteria of eligibility for listing in the National Register of Historic Places as part of a potential historic district, the Somerville Municipal Buildings Historic District (36 CFR 60). The Somerville High School—which was constructed in 1895, 1914, 1929, 1986, and 2006—retains sufficient material exterior and interior integrity and is located on the same municipal parcel as the Somerville City Hall and the Central Library. The building meets Criterion A for its association with the educational and institutional history and development of Somerville and Criterion C as a preserved example of an educational complex constructed mostly in the Colonial Revival style. As you know, the three buildings and the grounds have long had a strong cooperative association of providing public services for the City of Somerville.

The MHC understands that through consultation with other entities, the City of Somerville (City) has now defined three alternatives that the City believes will meet the project requirements of the City of Somerville School District in the upcoming years. All three options involve some demolition of multiple sections of the existing Somerville High School and involve the construction of new additions. The MHC understands that the proposed project will likely receive funding from the Massachusetts School Building Authority (MSBA), which would require review by the MHC under M.G.L. Chapter 9, Section 26-27C, as amended by Chapter 254 of the Acts of the 1988 (950 CMR 71.). The MHC offers the following comments in compliance with M.G.L., Chapter 9, Sec. 26-27C, as amended by Chapter 254 of the Acts of 1988 (950 CMR 71.00), and MEPA (301) CMR 11.3(10)).

### Alternative 2a (Option 1)

The proposed Alternative 2a would involve the demolition of portions of the existing historic Somerville High School and the construction of a large addition to the rear of the remaining historic sections. The A Wing (1929 and 1986), portions of the B Wing (1929), portions of the C Wing (1929), and portions of the D Wing (1929) would be demolished.

After review of the materials submitted, I have determined that the proposed Alternative 2a would have an “adverse effect” on the historic Somerville High School through the destruction of an historic property (950 CMR 71.05(a)). The MHC hereby initiates its consultation process.

The demolition of an inventoried property triggers the filing of an Environmental Notification Form (ENF). If demolition of an inventoried property is the only anticipated ENF threshold, a proponent may consult with the MHC and change the project to result in a “no adverse effect” determination, or, as a result of consultation, seek to enter into a Memorandum of Agreement with the MHC in lieu of filing an ENF. If an ENF is not filed, the project review process must involve and take into account public comment prior to the development of any Memorandum of Agreement (301 CMR 11.03(10)).

#### Alternative 3 (Option 2)

The proposed Alternative 3 would involve the demolition of portions of the existing historic Somerville High School and the construction of a large addition to the rear of the remaining historic sections. Portions of the A Wing (1929 and 1986), portions of the B Wing (1929), portions of the C Wing (1929), and portions of the D Wing (1929) would be demolished.

After review of the materials submitted, I have determined that the proposed Alternative 3 would have an “adverse effect” on the historic Somerville High School through the destruction of an historic property (950 CMR 71.05(a)). The MHC hereby initiates its consultation process.

The demolition of an inventoried property triggers the filing of an Environmental Notification Form (ENF). If demolition of an inventoried property is the only anticipated ENF threshold, a proponent may consult with the MHC and change the project to result in a “no adverse effect” determination, or, as a result of consultation, seek to enter into a Memorandum of Agreement with the MHC in lieu of filing an ENF. If an ENF is not filed, the project review process must involve and take into account public comment prior to the development of any Memorandum of Agreement (301 CMR 11.03(10)).

#### Alternative 4b (Option 3)

The proposed Alternative 4b would involve the demolition of portions of the existing historic Somerville High School and the construction of a large addition to the rear of the remaining historic sections. All of Wing A (1929 and 1986), part of Wing B (1929), all of Wing C (1929), and part of Wing D (1929) would be demolished.

After review of the materials submitted, I have determined that the proposed Alternative 4b would have an “adverse effect” on the historic Somerville High School through the destruction of an historic property (950 CMR 71.05(a)). The MHC hereby initiates its consultation process.

The demolition of an inventoried property triggers the filing of an Environmental Notification Form (ENF). If demolition of an inventoried property is the only anticipated ENF threshold, a proponent may consult with the MHC and change the project to result in a “no adverse effect” determination, or, as a result of consultation, seek to enter into a Memorandum of Agreement with the MHC in lieu of filing an ENF. If an ENF is not filed, the project review process must involve and take into account public comment prior to the development of any Memorandum of Agreement (301 CMR 11.03(10)).

The MHC notes that of the three options presented, Alternative 3 (Option 2) retains the high percentage of the historic Somerville High School Building, especially the areas that are most visible from 81 Highland Avenue. However all of the proposed options result in serious demolition of the Somerville High School and are an “adverse effect.” Please provide the MHC with an alternatives analysis and any feasibility studies that address retention of more or all of the historic building than the three presented options. The analysis and any studies should indicate how site constraints, programmatic needs, and Massachusetts educational regulations and requirements have impacted the development of the proposed project options and any studied alternatives that would have retained more or all of the historic building. Please provide a copy of the report from the New England Association of Schools & Colleges concerning how the existing condition of the building relates to the future accreditation of the high school. The MHC understands from

written information submitted by the Somerville Historic Preservation Commission (LHC) that it has been involved with the project at public meetings for the last few years. Please submit a copy of this requested information to the LHC. The MHC looks forward to further consultation on this important project.

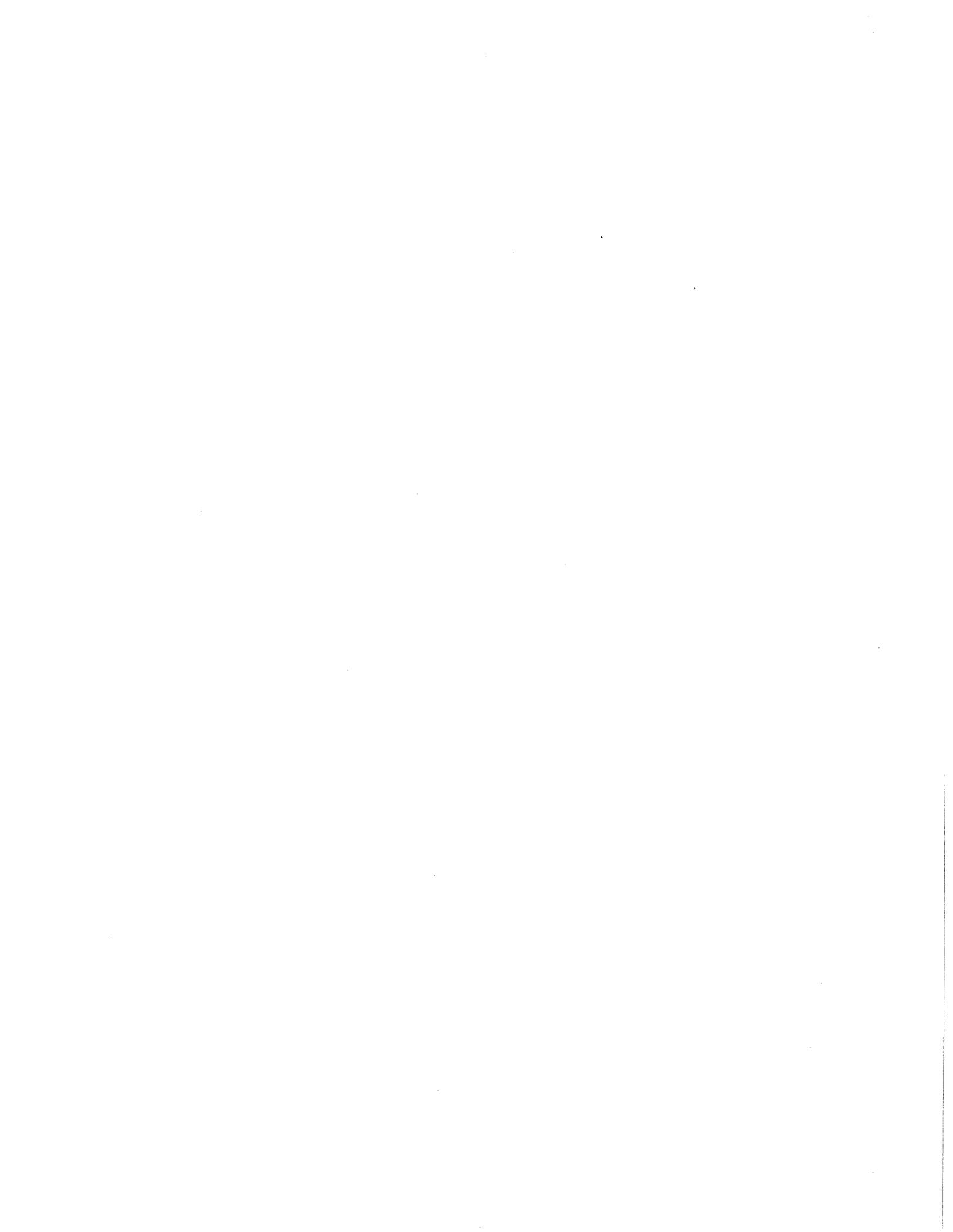
These comments are offered to assist in compliance with M.G.L. Chapter 9, Section 26-27C, as amended by Chapter 254 of the Acts of 1988 (950 CMR 71.00), and MEPA (301 CMR 11). Please do not hesitate to contact Ryan Maciej of my staff if you have any questions.

Sincerely,



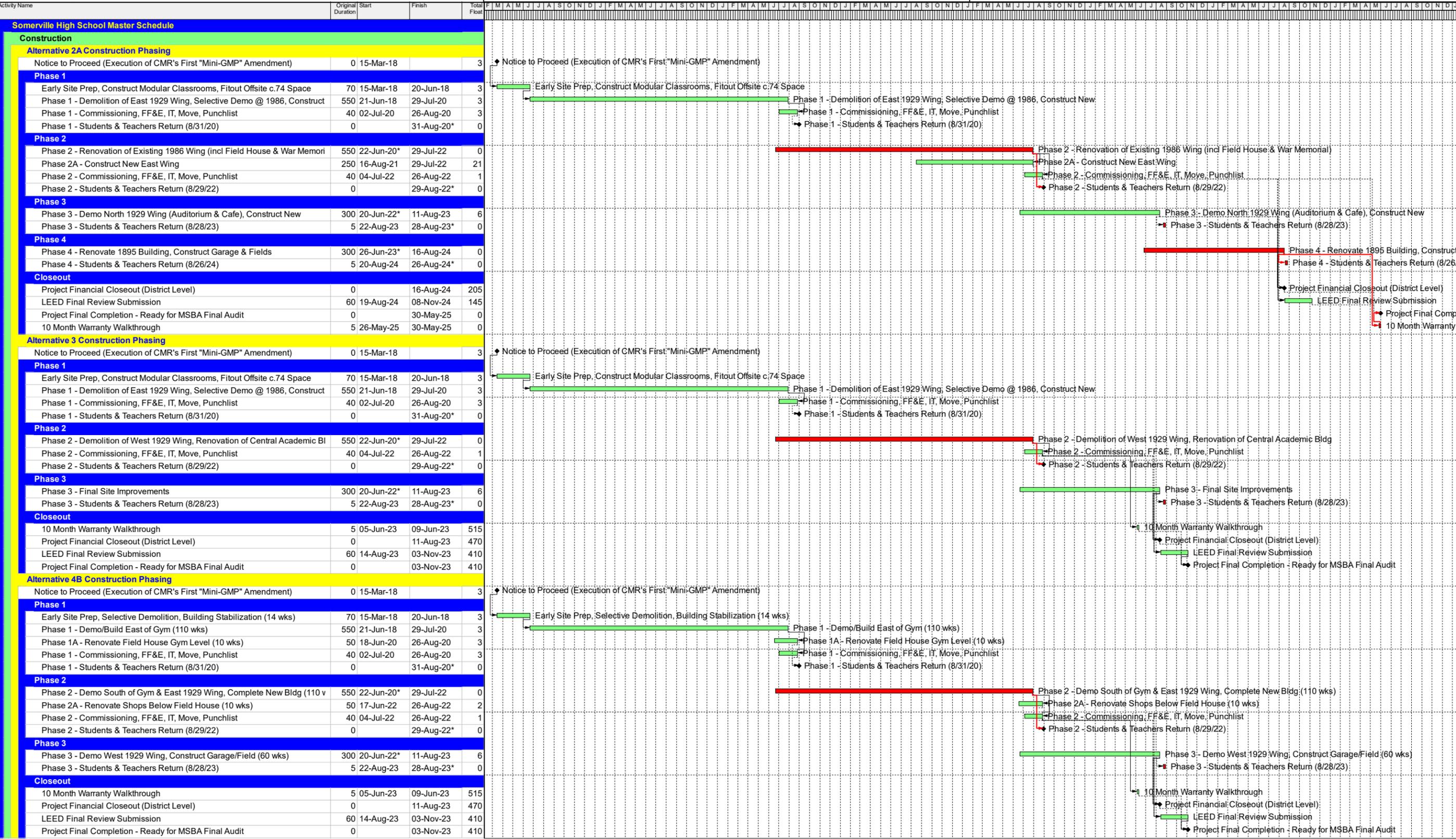
Brona Simon  
State Historic Preservation Officer  
Executive Director  
Massachusetts Historical Commission

xc: Maureen Valente and Jack McCarthy—MSBA  
Secretary Matthew Beaton, EEA; ATTN: MEPA Unit  
Somerville Historic Preservation Commission  
Chad Crittenden, PMA Consultants



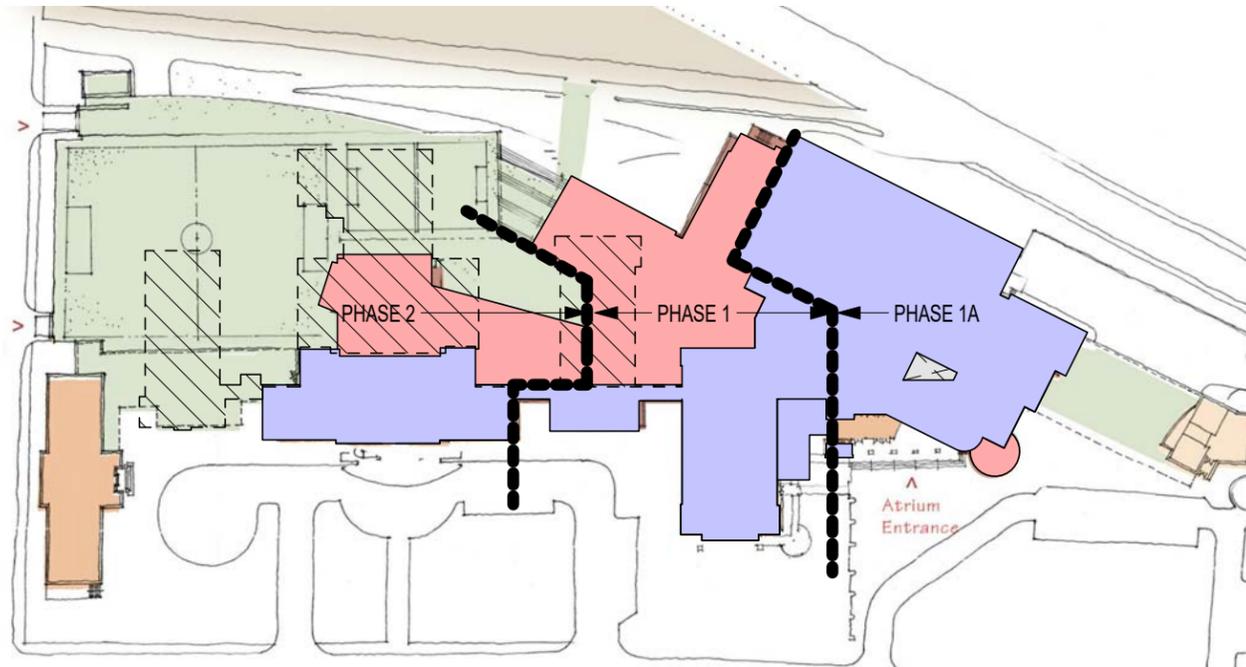
### 3.1.9 Proposed schedule including phasing





█ Actual Work    █ Critical Remaining Work  
█ Remaining Work    ◆ Milestone

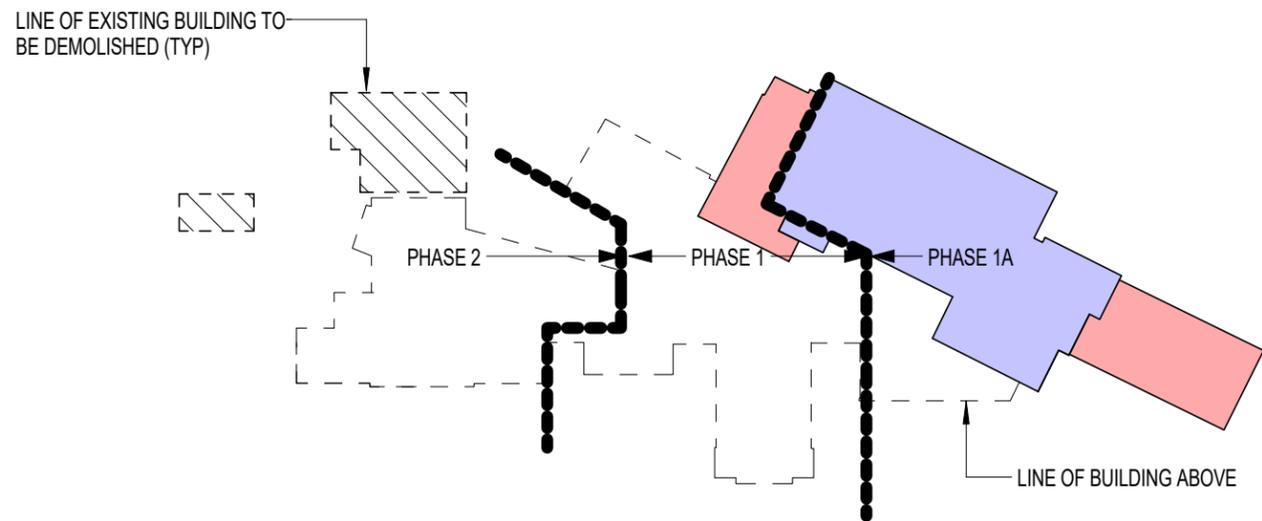




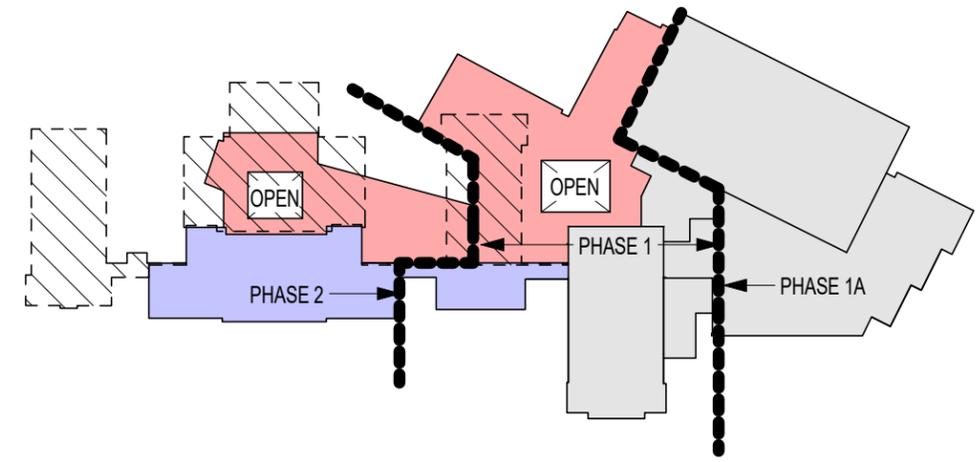
**CONSTRUCTION LEGEND**

ADD RENO ROOF

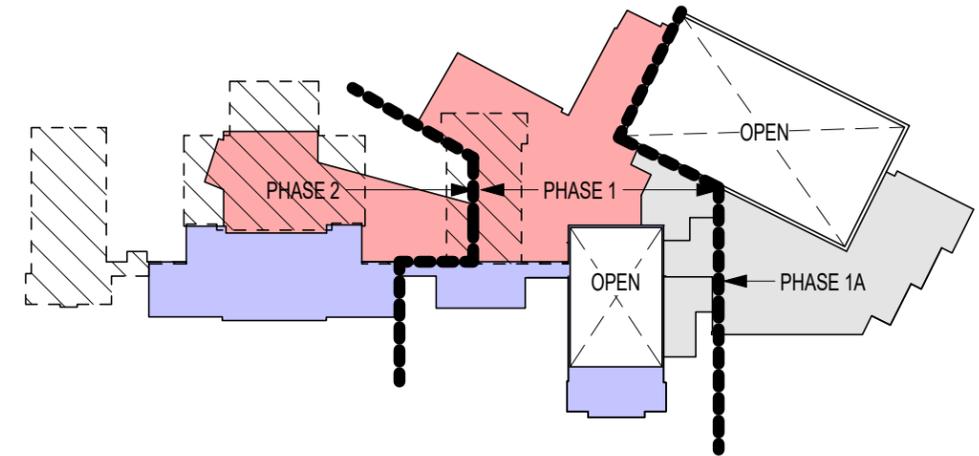
**1 LEVEL 1**  
SCALE: 1" = 160'-0"



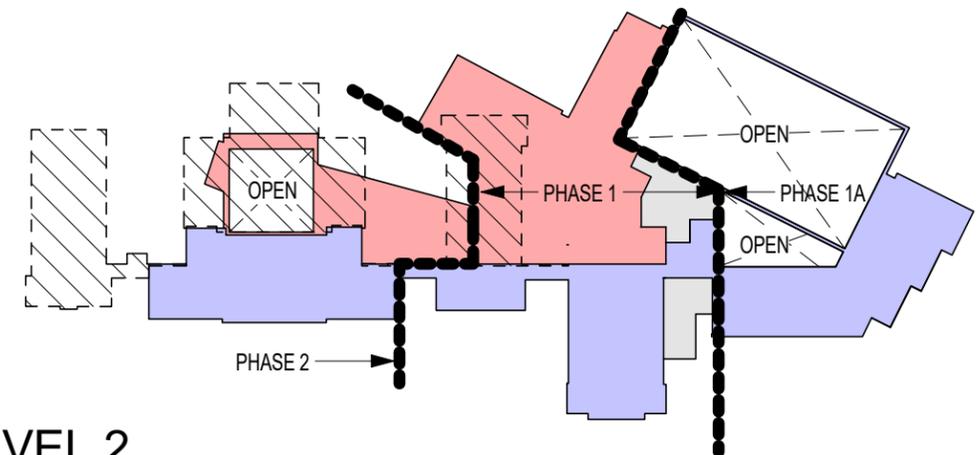
**L LOWER LEVEL**  
SCALE: 1" = 160'-0"



**4 LEVEL 4**  
SCALE: 1" = 160'-0"



**3 LEVEL 3**  
SCALE: 1" = 160'-0"

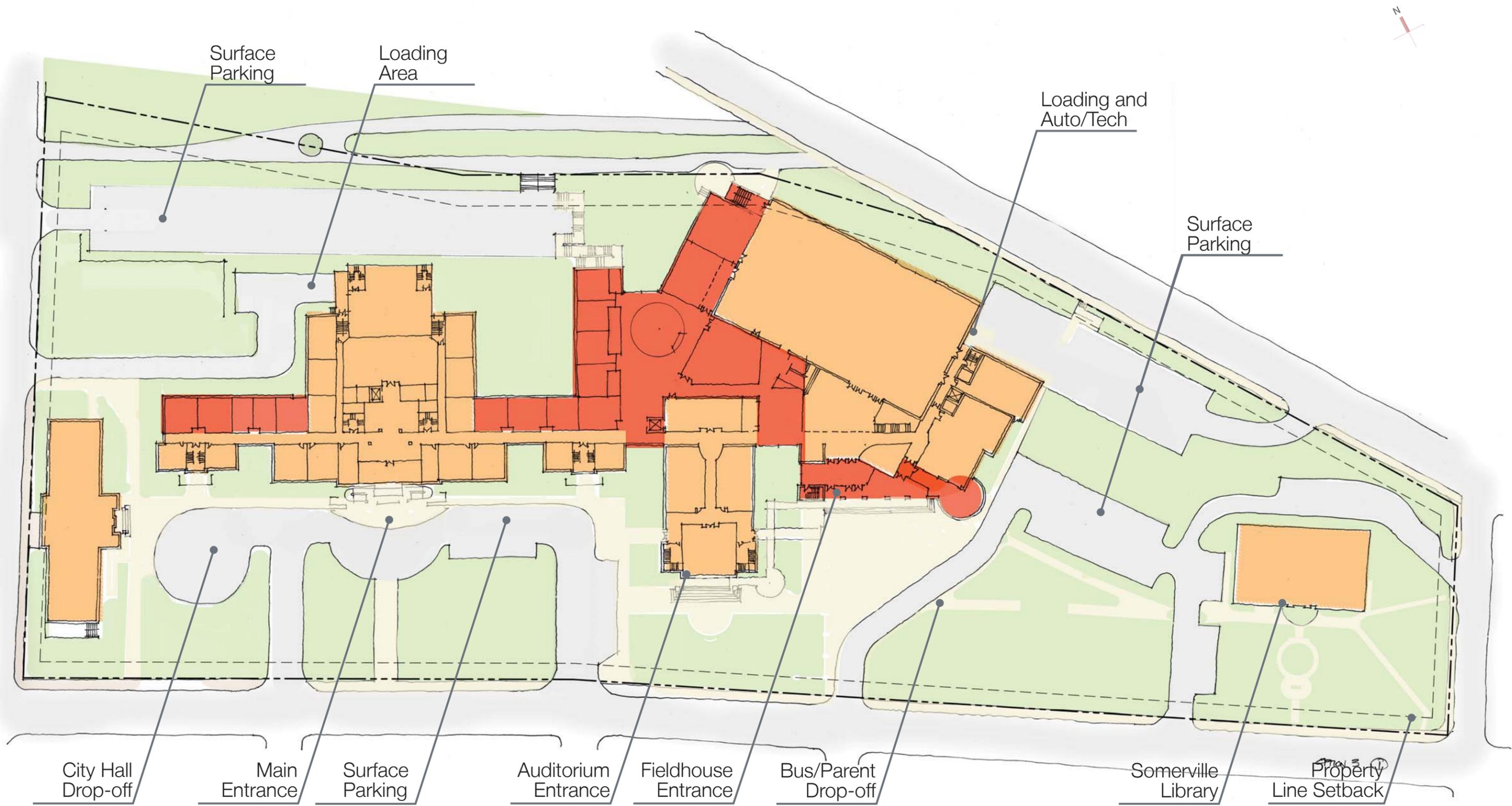


**2 LEVEL 2**  
SCALE: 1" = 160'-0"



### 3.2.3 Conceptual Architectural and Site Drawings



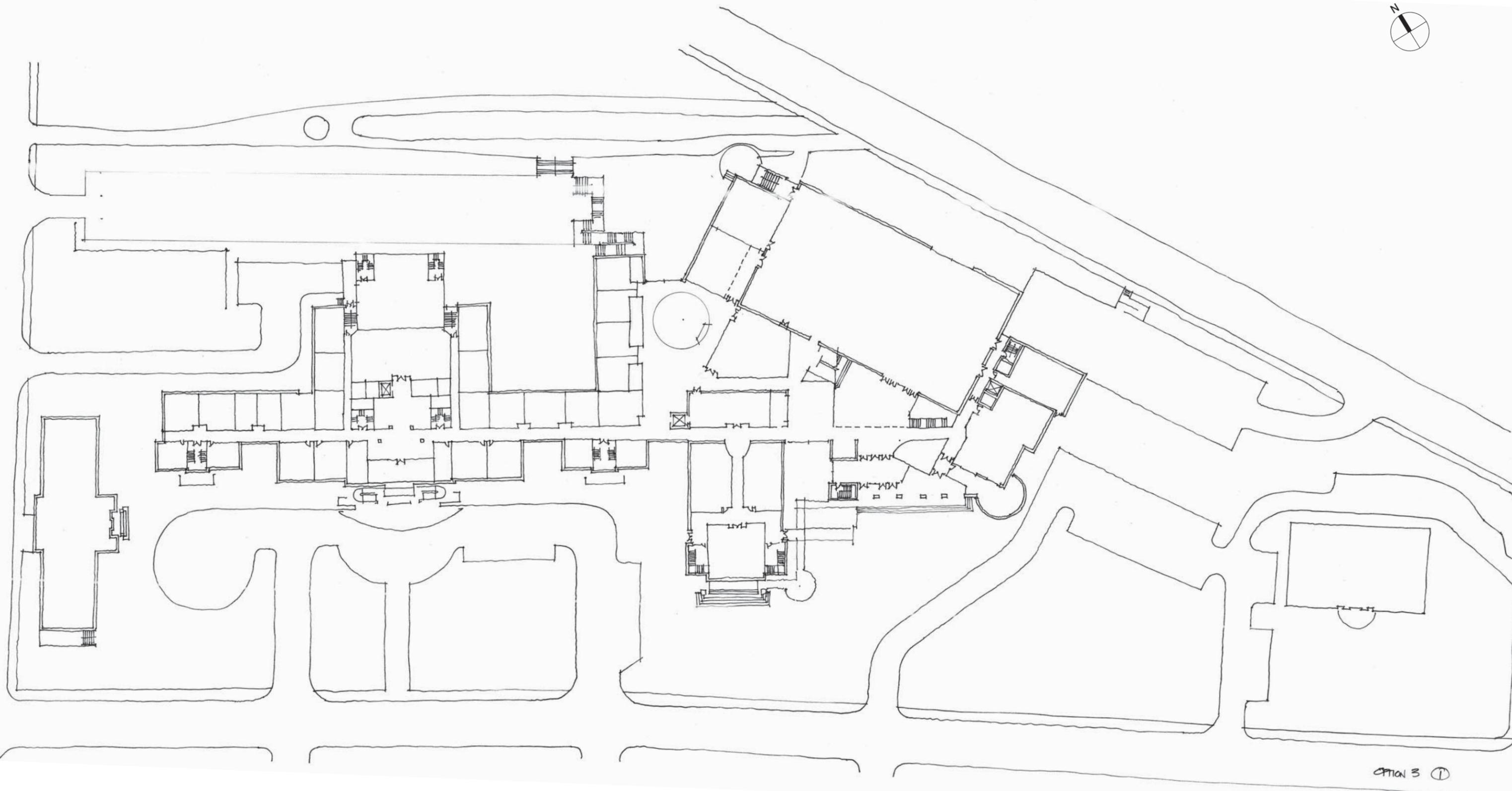


Alternative 3 - Site Plan  
 Somerville High School - Somerville, MA





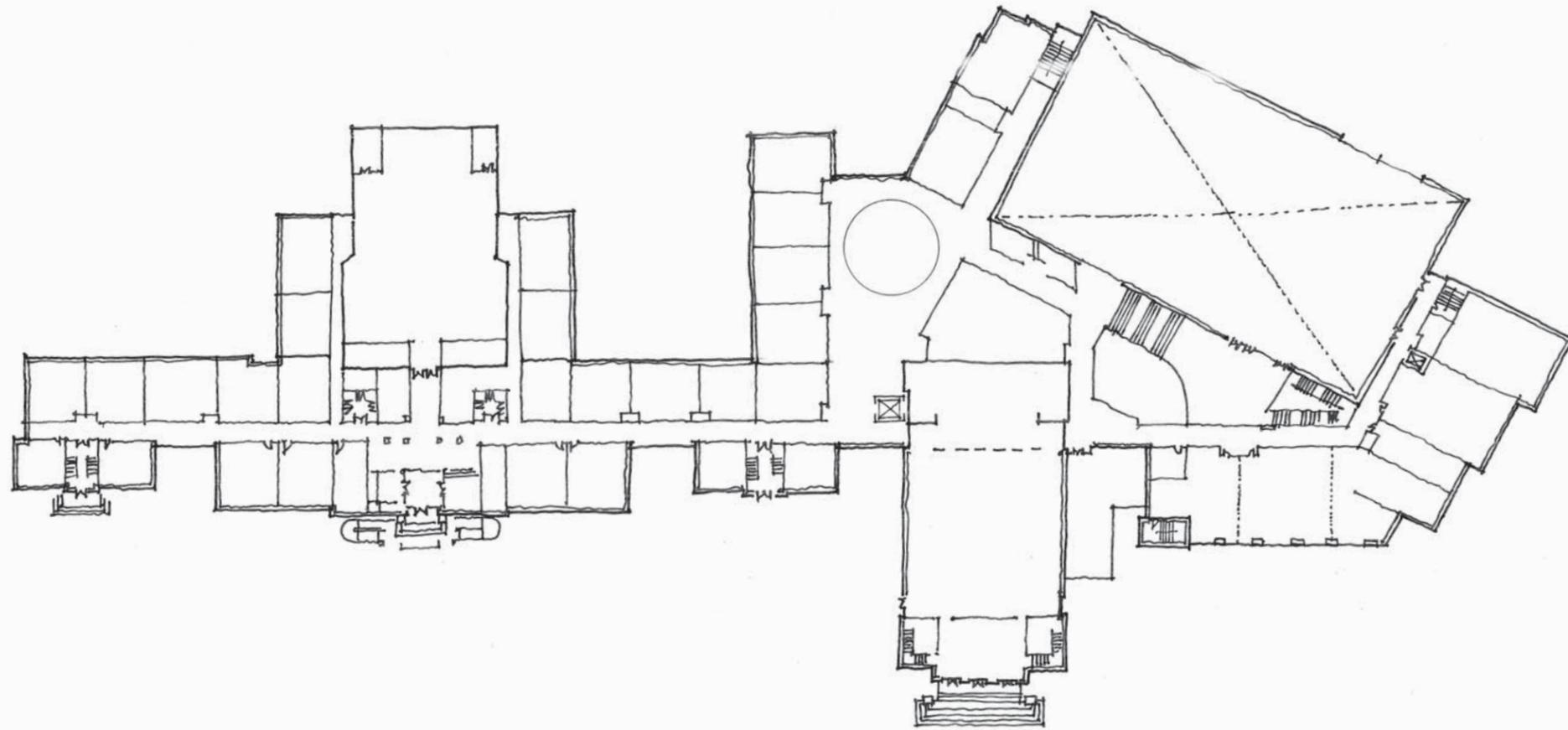
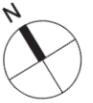




OPTION 3 ①

Alternative 3 - Level 1 Plan  
*Somerville High School - Somerville, MA*





OPTION 3  
②

Alternative 3 - Level 2 Plan  
*Somerville High School - Somerville, MA*



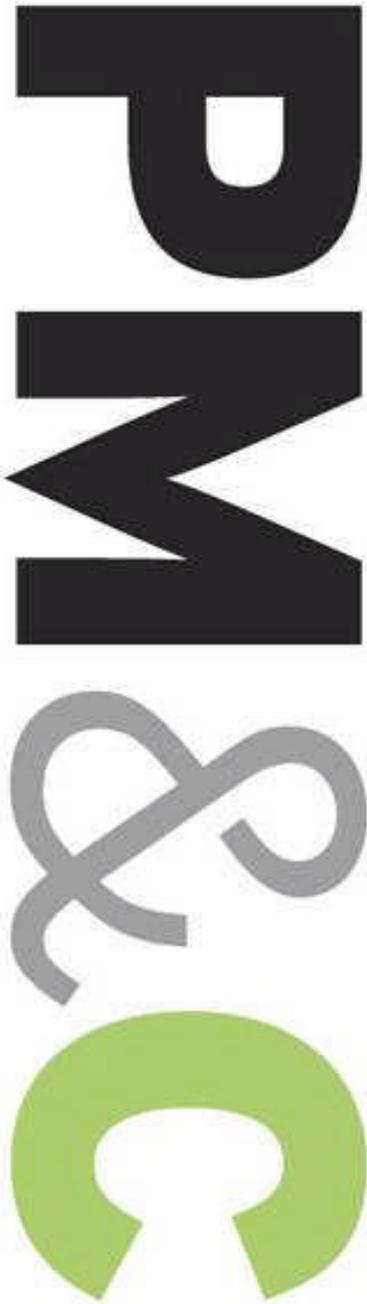
### 3.2.7 Proposed Total Budget and Cost Estimates



**PRELIMINARY - Conceptual Estimates - 5/26/16**  
**SOMERVILLE HIGH SCHOOL PROJECT - HIGH LEVEL COST SCENARIOS**

	Alternative 2A	Alternative 3	Alternative 4B	Alternative 4B
DATA IS ROUGH ORDER MAGNITUDE ESTIMATE OF CONCEPTS	VJ Associates "Estimate of Record"	VJ Associates "Estimate of Record"	VJ Associates "Estimate of Record"	Including SBC Scope Modifications
<b>Direct Trade Costs</b>	<b>\$ 141,556,645</b>	<b>\$ 145,873,175</b>	<b>\$ 156,577,888</b>	<b>\$ 122,136,975</b>
<b>GMP w/ Markups (Escalation, Contingency, Fee, GCs, GRs, etc)</b>	<b>\$ 238,762,916</b>	<b>\$ 245,957,445</b>	<b>\$ 263,799,407</b>	<b>\$ 197,820,084</b>
<b>PROJECT SOFT COST DATA IS BASED UPON PERCENTAGE OF CONSTRUCTION COSTS FOR ALL OPTIONS</b>				
<b>PROJECT SOFT COSTS (ROUGH ORDER MAGNITUDE PROJECT BY PMA)</b>	<b>\$ 50,407,783</b>	<b>\$ 51,846,689</b>	<b>\$ 55,415,081</b>	<b>\$ 42,219,217</b>
Reimbursable Soft Cost Allowance per MSBA (20% of Construction Costs)	\$ 46,472,583	\$ 47,911,489	\$ 51,479,881	\$ 38,284,017
FF&E and IT Allowance @ \$1200/student each (Incl Above)	-	-	-	-
OPM Costs (Incl Above)	-	-	-	-
Architect / Engineering Fees (Incl Above)	-	-	-	-
Legal Fees, Owner / Architect Subconsultants & Testing Costs (Incl Above)	-	-	-	-
Utilities Allowance (Incl Above)	-	-	-	-
Movers Allowance (Est)	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Swing Space Allowance (Est)	\$ 765,000	\$ 765,000	\$ 765,000	\$ 765,000
Leasing of Shop Space for Heavy Chapter 74 Programs (2 years)	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200
FF&E over and above standard \$1200/student due to 640 CTE Students (increase to \$1,200)	\$ 640,000	\$ 640,000	\$ 640,000	\$ 640,000
IT over and above standard \$1200/student due to 640 CTE Students (increase to \$1,200)	\$ 640,000	\$ 640,000	\$ 640,000	\$ 640,000
<b>Total Project Cost</b>	<b>\$ 289,170,699</b>	<b>\$ 297,804,134</b>	<b>\$ 319,214,488</b>	<b>\$ 240,039,301</b>
Owner Construction Contingency (Est. 6%)	\$ 14,325,775	\$ 14,757,447	\$ 15,827,964	\$ 11,869,205
Owner Soft Cost Contingency (Est. 4%)	\$ 2,016,311	\$ 2,073,868	\$ 2,216,603	\$ 1,688,769
<b>Total Project Budget</b>	<b>\$ 305,512,785</b>	<b>\$ 314,635,448</b>	<b>\$ 337,259,056</b>	<b>\$ 253,597,275</b>
<b>"WHAT-IF SCENARIO" - TYPICAL INELIGIBLE COSTS PER MSBA REGS</b>				
Construction Contingency Reimbursement - 2% Max on Reno	\$ 9,550,517	\$ 9,838,298	\$ 10,551,976	\$ 7,912,803
Owner Contingency Reimbursement - assume 33% of budget eligible	\$ 1,330,765	\$ 1,368,753	\$ 1,462,958	\$ 1,114,587
GMP Contingency Reimbursement - assume 33% of budget eligible	\$ 4,519,693	\$ 4,519,693	\$ 4,519,693	\$ 4,519,693
Sitework Costs exceeding 8% of Direct Building Cost	\$ -	\$ -	\$ -	\$ -
Legal Fees - Approximate	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Moving Costs	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Swing Space Costs	\$ 765,000	\$ 765,000	\$ 765,000	\$ 765,000
Leasing of Shop Space for Heavy Chapter 74 Programs (2 years)	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200
Ineligible Abatement Costs (VAT)	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000
Ineligible SF Costs over MSBA Allowable Space Summary	Carried below	Carried below	Carried below	Carried below
Ineligible Construction Costs over Eligible SF or MSBA \$312/SF Allowance (as of May 2015)	\$ 124,213,839	\$ 131,408,368	\$ 149,250,330	\$ 83,271,007
<b>TOTAL POTENTIAL INELIGIBLE COSTS</b>	<b>\$ 143,240,014</b>	<b>\$ 150,760,312</b>	<b>\$ 169,410,158</b>	<b>\$ 100,443,291</b>
<b>POTENTIAL ELIGIBLE COSTS (PRORATED FOR INELIGIBLE COSTS)</b>	<b>\$ 162,272,771</b>	<b>\$ 163,875,137</b>	<b>\$ 167,848,898</b>	<b>\$ 153,153,984</b>
<b>POTENTIAL REIMBURSEMENT FROM MSBA @ Estimated Rates Below</b>	<b>\$ 125,052,649</b>	<b>\$ 126,287,484</b>	<b>\$ 129,349,793</b>	<b>\$ 118,025,416</b>
<b>Estimated reimbursement rate (detail below):</b>	<b>77.06%</b>	<b>77.06%</b>	<b>77.06%</b>	<b>77.06%</b>
Base Reimbursement Rate	71.79%	71.79%	71.79%	71.79%
Sustainable Design Incentive Points (0-2)	2.00%	2.00%	2.00%	2.00%
Maintenance & Capital Planning Incentive Points (0-2)	1.25%	1.25%	1.25%	1.25%
CM @ Risk Incentive Point (0-1)	1.00%	1.00%	1.00%	1.00%
Renovation Incentive Points (0-5)	1.02%	1.02%	1.02%	1.02%
<b>POTENTIAL CITY SHARE OF TOTAL PROJECT BUDGET</b>	<b>\$ 180,460,136</b>	<b>\$ 188,347,965</b>	<b>\$ 207,909,263</b>	<b>\$ 135,571,859</b>





**Preferred Schematic Report Submission**

**Somerville High School  
Design Options 2A, 3 + 4B**

Somerville, MA

**PM&C LLC**  
20 Downer Ave, Suite 1C  
Hingham, MA 02043  
(T) 781-740-8007  
(F) 781-740-1012

Prepared for:

**PMA Consultants, LLC**

May 24, 2016



**Somerville High School**  
 Design Options 2A, 3 + 4B  
 Somerville, MA

24-May-16

**Preferred Schematic Report Submission**

**ALTERNATIVE 3 - RENOVATION/ADDITION**

RENOVATE EXISTING SCHOOL		265,230	\$237.12	\$62,890,882
ADDITIONS TO EXISTING BUILDING		141,060	\$299.00	\$42,177,478
AT GRADE SHELTERED PARKING		136,000	\$159.84	\$21,738,306
CHILD CARE PROGRAM SPACE		2,400	\$260.00	\$624,000
SCTV PROGRAM SPACE		1,650	\$270.00	\$445,500
HEALTH SPACE PROGRAM SPACE		1,650	\$260.00	\$429,000
PREMIUM FOR LEED PLATINUM		411,990	\$50.00	\$20,599,500
SHORING EXISTING BUILDINGS DURING PHASING/DEMOLITION				\$1,000,000
DEMOLISH PORTIONS OF EXISTING BUILDING - PHASED		102,780	\$10.00	\$1,027,800
REMOVE HAZARDOUS MATERIALS				\$2,748,240
SITework				\$7,199,496
<hr/>				
SUB-TOTAL	Jun-18	547,990	\$293.58	\$160,880,202
ESCALATION TO MID-POINT PH 1 and 2 (One Year Included in Rates) - (assumed 4.5% PA)	18%			\$18,912,305
ESCALATION TO MID-POINT PH 3 (Two Years Included in Rates) - (assumed 4.5% PA)	21%			\$2,514,863
DESIGN AND PRICING CONTINGENCY	10%			\$18,230,737
<hr/>				
SUB-TOTAL	Jun-18	547,990	\$365.95	\$200,538,107
GENERAL CONDITIONS	8.00%			\$16,043,049
GENERAL REQUIREMENTS	3.00%			\$6,016,143
BONDS	1.25%			\$2,506,726
INSURANCE	1.25%			\$2,506,726
PERMIT				Waived
CRANE/HOISTING				\$1,200,000
CM FEE	2%			\$4,010,762
CM/GMP CONTINGENCY	3%			\$6,016,143
PHASING PREMIUM	4.00%			\$8,021,524
<b>TOTAL OF ALL CONSTRUCTION OPTION 3</b>	Jun-18	547,990	\$450.48	<b>\$246,859,180</b>
<hr/> <hr/>				



**Somerville High School**  
Design Options 2A, 3 + 4B  
Somerville, MA

24-May-16

### **Preferred Schematic Report Submission**

This Preferred Schematic Report cost estimate was produced from drawings, outline specifications and other documentation prepared by SMMA Architects Inc. and their design team dated May 17, 2016. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, construction manager's overhead, fee and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be public bidding under Chapter 149a of the Massachusetts General Laws to pre-qualified construction managers, and pre-qualified sub-contractors, open specifications for materials and manufactures.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

### **ITEMS NOT CONSIDERED IN THIS ESTIMATE**

Items not included in this estimate are:

- Land acquisition, feasibility, and financing costs
- All professional fees and insurance
- Site or existing conditions surveys investigations costs, including to determine subsoil conditions
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items as indicated in the estimate
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks, (except as noted in this estimate)
- Construction contingency (GMP Contingency is included)
- Rock removal
- Contaminated soils removal



**CONSTRUCTION COST SUMMARY**

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 3 - RENOVATION</b>				
<b>A10 FOUNDATIONS</b>				
A1010 Standard Foundations	\$1,060,920			
A1020 Special Foundations	\$0			
A1030 Lowest Floor Construction	\$60,000	<b>\$1,120,920</b>	\$4.23	1.8%
<b>B10 SUPERSTRUCTURE</b>				
B1010 Upper Floor Construction	\$2,597,191			
B1020 Roof Construction	\$709,716	<b>\$3,306,907</b>	\$12.47	5.3%
<b>B20 EXTERIOR CLOSURE</b>				
B2010 Exterior Walls	\$3,537,907			
B2020 Windows/Curtainwall	\$3,188,342			
B2030 Exterior Doors	\$113,960	<b>\$6,840,209</b>	\$25.79	10.9%
<b>B30 ROOFING</b>				
B3010 Roof Coverings	\$2,930,695			
B3020 Roof Openings	\$30,000	<b>\$2,960,695</b>	\$11.16	4.7%
<b>C10 INTERIOR CONSTRUCTION</b>				
C1010 Partitions	\$5,747,625			
C1020 Interior Doors	\$1,326,150			
C1030 Specialties/Millwork	\$2,095,573	<b>\$9,169,348</b>	\$34.57	14.6%
<b>C20 STAIRCASES</b>				
C2010 Stair Construction	\$616,000			
C2020 Stair Finishes	\$150,480	<b>\$766,480</b>	\$2.89	1.2%
<b>C30 INTERIOR FINISHES</b>				
C3010 Wall Finishes	\$2,307,550			
C3020 Floor Finishes	\$3,442,910			
C3030 Ceiling Finishes	\$1,590,442	<b>\$7,340,902</b>	\$27.68	11.7%
<b>D10 CONVEYING SYSTEMS</b>				
D1010 Elevator	\$180,000	<b>\$180,000</b>	\$0.68	0.3%
<b>D20 PLUMBING</b>				
D20 Plumbing	\$3,713,220	<b>\$3,713,220</b>	\$14.00	5.9%
<b>D30 HVAC</b>				
D30 HVAC	\$10,609,200	<b>\$10,609,200</b>	\$40.00	16.9%
<b>D40 FIRE PROTECTION</b>				
D40 Fire Protection	\$1,326,150	<b>\$1,326,150</b>	\$5.00	2.1%
<b>D50 ELECTRICAL</b>				
D5010 Electrical Systems	\$9,548,280	<b>\$9,548,280</b>	\$36.00	15.2%
<b>E10 EQUIPMENT</b>				
E10 Equipment	\$1,259,000	<b>\$1,259,000</b>	\$4.75	2.0%



Somerville High School  
 Design Options 2A, 3 + 4B  
 Somerville, MA

24-May-16

Preferred Schematic Report Submission

GFA 265,230

**CONSTRUCTION COST SUMMARY**

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 3 - RENOVATION</b>				
<b>E20 FURNISHINGS</b>				
E2010 Fixed Furnishings	\$2,422,519			
E2020 Movable Furnishings	NIC	<b>\$2,422,519</b>	\$9.13	3.9%
<b>F10 SPECIAL CONSTRUCTION</b>				
F10 Special Construction	\$0	<b>\$0</b>	\$0.00	0.0%
<b>F20 SELECTIVE BUILDING DEMOLITION</b>				
F2010 Building Elements Demolition	\$2,327,052			
F2020 Hazardous Components Abatement	\$0	<b>\$2,327,052</b>	\$8.77	3.7%
<b>TOTAL DIRECT COST (Trade Costs)</b>		<b>\$62,890,882</b>	<b>\$237.12</b>	<b>100.0%</b>



Preferred Schematic Report Submission

GFA 265,230

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3 - RENOVATION

**GROSS FLOOR AREA CALCULATION**

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1895/1914 wing	60,252
1929 Wing	91,189
1986 Wing	111,283
2006 Wing	2,506

<b>TOTAL GROSS FLOOR AREA (GFA)</b>	<b>265,230 sf</b>
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**A10 FOUNDATIONS**

**A1010 STANDARD FOUNDATIONS**

Allowance for new foundations for structural bracing and new interior walls etc.	265,230	sf	4.00	1,060,920	
SUBTOTAL					1,060,920

**A1020 SPECIAL FOUNDATIONS**

No work in this section  
 SUBTOTAL

**A1030 LOWEST FLOOR CONSTRUCTION**

Cutting and patching	1	ls	50,000.00	50,000	
Equipment pads	1	ls	10,000.00	10,000	
SUBTOTAL					60,000

<b>TOTAL - FOUNDATIONS</b>					<b>\$1,120,920</b>
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**B10 SUPERSTRUCTURE**

**B1010 FLOOR CONSTRUCTION**

New lateral Bracing to floors; 2 lbs per SF	265	tns	5,500.00	1,457,500	
Remove existing floor framing for new slope floor at auditorium; including shoring/bracing	16,093	sf	10.00	160,930	
Openings in wood floor structure for MEP systems; assumed four chases per floor	8	loc	2,500.00	20,000	
Openings in 1929 structure for MEP systems; assumed four chases per floor	16	loc	5,500.00	88,000	
Fire stopping floors	1	ls	35,000.00	35,000	

**New sloped auditorium floor**

033000 CONCRETE

WWF reinforcement	18,507	sf	0.80	14,806	
Concrete Fill to metal deck; 5-1/4" Light Weight	329	cy	160.00	52,640	
Place and finish concrete	16,093	sf	2.00	32,186	

051200 STRUCTURAL STEEL FRAMING

Steel beams and columns	105	tns	5,500.00	577,500	
Shear studs	3,219	ea	2.50	8,048	
Premium for slope/steps	1	ls	50,000.00	50,000	
2" 18 Ga. Metal galvanized floor Deck	16,093	sf	4.00	64,372	

078100 FIREPROOFING/FIRESTOPPING

Fire proofing to columns and beams	16,093	sf	2.25	36,209	
SUBTOTAL					2,597,191

**B1020 ROOF CONSTRUCTION**

<u>Roof Structure - Steel:</u>					
New lateral Bracing to roofs; 1 lbs per SF	39	tns	5,500.00	214,500	



Preferred Schematic Report Submission

GFA 265,230

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**ALTERNATIVE 3 - RENOVATION**

58	New openings in concrete roof deck	2	loc	5,000.00	10,000		
59	New openings in metal roof deck	2	loc	2,000.00	4,000		
60	New steel for RTU's; assume 8 units	32	tns	6,000.00	192,000		
61	New light gauge trusses/framing for new sloped hipped roof including sheathing	18,076	sf	16.00	289,216		
62	SUBTOTAL					709,716	

<b>TOTAL - SUPERSTRUCTURE</b>						<b>\$3,306,907</b>
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**B20 EXTERIOR CLOSURE**

**B2010 EXTERIOR WALLS**

<u>Exterior skin - 1895 Wing</u>							
71	Allowance to reinforce existing exterior masonry walls	23,336	sf	4.00	93,344		
72	Allowance to repaint/repair existing exterior masonry; 100%	23,336	sf	32.00	746,752		
73	Infill existing window openings after demolition of adjacent structure; assumed 10% of existing envelope	1,494	sf	79.00	118,026		
<u>Exterior skin</u>							
74	Allowance to reinforce existing exterior masonry walls at field house/1986 Wing	18,428	sf	4.00	73,712		
76	Allowance to reinforce existing exterior masonry walls; 1929 building	26,051	sf	4.00	104,204		
77	Allowance to repaint/repair existing exterior masonry; 100%	44,479	sf	32.00	1,423,328		
78	Patch/Repair portico/ steps etc. at 1929 front façade	1	ls	150,000.00	150,000		
<u>Miscellaneous</u>							
79	New exterior closure after demolition	7,335	sf	75.50	553,793		
81	Staging to exterior wall	68,687	sf	4.00	274,748		
82	SUBTOTAL					3,537,907	

**B2020 WINDOWS/CURTAINWALL**

85	Replace existing windows with new, custom profiles at 1895 wing	10,001	sf	150.00	1,500,150		
86	Replace existing windows with new	14,207	sf	100.00	1,420,700		
87	Replace existing kalwall at fieldhouse with new	1,792	sf	56.00	100,352		
88	Backer rod & double sealant	8,357	lf	9.00	75,213		
89	Wood blocking at openings	8,357	lf	11.00	91,927		
90	SUBTOTAL					3,188,342	

**B2030 EXTERIOR DOORS**

93	Glazed entrance doors including frame and hardware; double door	6	pr	10,000.00	60,000		
94	Glazed entrance doors including frame and hardware; double door at 1895 Wing	2	pr	10,000.00	20,000		
95	HM Entrance doors	8	pr	4,000.00	32,000		
96	Backer rod & double sealant	280	lf	4.00	1,120		
97	Wood blocking at openings	280	lf	3.00	840		
98	SUBTOTAL					113,960	

<b>TOTAL - EXTERIOR CLOSURE</b>						<b>\$6,840,209</b>
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**B30 ROOFING**

**B3010 ROOF COVERINGS**

<u>Sloped roofing</u>							
107	Remove existing roof coverings	78,429	sf	2.00	156,858		
108	New PVC roof membrane; complete system	61,641	sf	18.00	1,109,538		



Preferred Schematic Report Submission

GFA 265,230

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 3 - RENOVATION</b>								
109	New sloped roofing with architectural asphalt shingles; complete system with nailable insulation etc.	16,788	sf	25.00	419,700			
110	<u>Miscellaneous Roofing</u>							
111	Roof edge detail - fascia; repairs	1,051	lf	25.00	26,275			
112	New snow fence	1	ls	15,000.00	15,000			
113	Roof edge blocking	1,051	lf	18.00	18,918			
114	<u>Sloped roofing at 1895 Wing</u>							
115	Remove existing roof membrane	15,063	sf	2.00	30,126			
116	New sloped roofing with architectural asphalt shingles; complete system with nailable insulation etc.	44,479	sf	25.00	1,111,975			
117	<u>Miscellaneous Roofing</u>							
118	Roof edge detail - fascia; repairs	635	lf	25.00	15,875			
119	New snow fence	1	ls	15,000.00	15,000			
120	Roof edge blocking	635	lf	18.00	11,430			
121	SUBTOTAL					2,930,695		
122								
123	<b>B3020 ROOF OPENINGS</b>							
124	Stage smoke vents	2	loc	15,000.00	30,000			
125	SUBTOTAL					30,000		
126								
127	<b>TOTAL - ROOFING</b>							<b>\$2,960,695</b>
128								
129								
130	<b>C10 INTERIOR CONSTRUCTION</b>							
131								
132	<b>C1010 PARTITIONS</b>							
133	IEBC Lateral Upgrades to existing walls/structure	265,230	sf	5.00	1,326,150			
134	New stair partitions; six new stairs serving all floors	30,600	sf	16.00	489,600			
135	Other partitions	10,950	sf	16.00	175,200			
136	New CMU walls field house lower level	10,935	sf	22.00	240,570			
137	Seismic clips to CMU	182	ea	120.00	21,840			
138	New partitions/alter existing at light renovation	25,800	sf	5.00	129,000			
139	New partitions/alter existing at moderate renovation	68,160	sf	10.00	681,600			
140	New partitions/alter existing at heavy renovation	171,270	sf	15.00	2,569,050			
141	Miscellaneous metals to CMU	10,935	sf	1.00	10,935			
142	Allowance for MEP shafts; four per floor	5,760	sf	18.00	103,680			
143	SUBTOTAL					5,747,625		
144								
145	<b>C1020 INTERIOR DOORS</b>							
146	New doors	265,230	sf	5.00	1,326,150			
147	SUBTOTAL					1,326,150		
148								
149	<b>C1030 SPECIALTIES / MILLWORK</b>							
150								
151								
152	Toilet Partitions and accessories	265,230	gsf	0.80	212,184			
153	Backer panels in electrical closets	1	ls	1,000.00	1,000			
154	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	265,230	sf	1.00	265,230			
155	Lockers	265,230	gsf	1.60	424,368			
156								
157	055000 MISCELLANEOUS METALS							
158	Guardrails at open to below areas at auditorium	140	lf	320.00	44,800			
159	Catwalk	1	ls	90,000.00	90,000			
160	Miscellaneous metals throughout building	265,230	sf	1.25	331,538			
161								
162	061000 ROUGH CARPENTRY							
163	Backer panels in electrical closets	1	ls	1,500.00	1,500			



Preferred Schematic Report Submission

GFA 265,230

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 3 - RENOVATION</b>								
164	Ramp	1	ls	30,000.00	30,000			
165	Rough blocking	265,230	sf	0.50	132,615			
166								
167	064020 INTERIOR ARCHITECTURAL WOODWORK							
168	Auditorium wood paneling	1	ls	150,000.00	150,000			
169	Display cases	1	ls	50,000.00	50,000			
170								
171	070001 WATERPROOFING, DAMPPROOFING AND CAULKING							
172	Miscellaneous sealants throughout building	265,230	sf	1.00	265,230			
173								
174								
175	101400 SIGNAGE							
176	Interior signage	265,230	sf	0.25	66,308			
177								
178	104400 FIRE PROTECTION SPECIALTIES							
179	Fire extinguisher cabinets	88	ea	350.00	30,800			
180								
181	SUBTOTAL					2,095,573		
182								
183	<b>TOTAL - INTERIOR CONSTRUCTION</b>							<b>\$9,169,348</b>
184								
185								
186	<b>C20 STAIRCASES</b>							
187								
188	<b>C2010 STAIR CONSTRUCTION</b>							
189	New egress stairs;	22	flt	25,000.00	550,000			
190	Concrete fill to pans	22	flt	3,000.00	66,000			
191	SUBTOTAL					616,000		
192								
193	<b>C2020 STAIR FINISHES</b>							
194								
195	090005 RESILIENT FLOORS							
196	Rubber tile at stairs - landings	2,200	sf	12.00	26,400			
197	Rubber tile at stairs - treads & risers	2,640	lft	22.00	58,080			
198								
199	090007 PAINTING							
200	High performance coating to stairs including all railings etc.	22	flt	3,000.00	66,000			
201	SUBTOTAL					150,480		
202								
203	<b>TOTAL - STAIRCASES</b>							<b>\$766,480</b>
204								
205								
206	<b>C30 INTERIOR FINISHES</b>							
207								
208	<b>C3010 WALL FINISHES</b>							
209	Painting	265,230	sf	3.00	795,690			
210	Acoustic wall panels in Auditorium	1	ls	100,000.00	100,000			
211	Tectum wall panels in gym	1	ls	60,000.00	60,000			
211	Wall finishes to light renovated areas	25,800	sf	2.00	51,600			
211	Wall finishes to medium renovated areas	68,160	sf	4.00	272,640			
212	Wall finishes to heavy renovated areas	171,270	sf	6.00	1,027,620			
212	SUBTOTAL					2,307,550		
213								
214	<b>C3020 FLOOR FINISHES</b>							
215	Wall finishes to light renovated areas	25,800	sf	3.00	77,400			
215	Wall finishes to medium renovated areas	68,160	sf	6.00	408,960			
216	Wall finishes to heavy renovated areas	171,270	sf	9.00	1,541,430			



Preferred Schematic Report Submission

GFA 265,230

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 3 - RENOVATION</b>								
216	090007 PAINTING							
217	Sealed concrete	60,252	sf	1.50	90,378			
218								
219	096400 WOOD FLOORING							
220	Wood platform	3,500	sf	16.00	56,000			
221								
222	096460 ATHLETIC FLOORING							
223	Wood athletic flooring	27,430	sf	18.00	493,740			
224	Ventilating cove base	692	lf	8.00	5,536			
225								
226	096810 CARPETING							
227	Carpet	30,696	sf	4.33	132,914			
228	Moisture mitigation	212,184	sf	3.00	636,552			
228	SUBTOTAL					3,442,910		
229								
230	<b>C3030 CEILING FINISHES</b>							
231	2 x 2 ACT	130,967	sf	5.00	654,835			
232	Paint exposed ceiling in gym	91,189	sf	3.00	273,567			
233	Auditorium acoustic ceiling/clouds	16,551	sf	40.00	662,040			
234	SUBTOTAL					1,590,442		
235								
236	<b>TOTAL - INTERIOR FINISHES</b>						<b>\$7,340,902</b>	
237								
238								
239	<b>D10 CONVEYING SYSTEMS</b>							
240								
240	New elevator	4	stp	45,000.00	180,000			
241	SUBTOTAL					180,000		
242								
243	<b>TOTAL - CONVEYING SYSTEMS</b>						<b>\$180,000</b>	
244								
245								
246	<b>D20 PLUMBING</b>							
247								
248	<b>D20 PLUMBING, GENERALLY</b>							
249	Plumbing allowance	265,230	sf	14.00	3,713,220			
250	SUBTOTAL					3,713,220		
251								
252	<b>TOTAL - PLUMBING</b>						<b>\$3,713,220</b>	
253								
254								
255	<b>D30 HVAC</b>							
256								
257	<b>D30 HVAC, GENERALLY</b>							
258	Allowance for HVAC	265,230	gsf	40.00	10,609,200			
259	SUBTOTAL					10,609,200		
260								
261	<b>TOTAL - HVAC</b>						<b>\$10,609,200</b>	
262								
263								
264	<b>D40 FIRE PROTECTION</b>							
265								
266	<b>D40 FIRE PROTECTION, GENERALLY</b>							
267	Fire protection system	265,230	gsf	5.00	1,326,150			
268	SUBTOTAL					1,326,150		
269								
270	<b>TOTAL - FIRE PROTECTION</b>						<b>\$1,326,150</b>	
271								
272								
273	<b>D50 ELECTRICAL</b>							
274								
275	<b>D5010 SERVICE &amp; DISTRIBUTION</b>							



Preferred Schematic Report Submission

GFA 265,230

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3 - RENOVATION

276	Electrical systems complete	265,230	gsf	36.00	9,548,280		
277	SUBTOTAL					9,548,280	

**TOTAL - ELECTRICAL**

**\$9,548,280**

**E10 EQUIPMENT**

**E10 EQUIPMENT, GENERALLY**

110620 THEATRICAL EQUIPMENT

Auditorium rigging, lighting, dimmers and A/V systems 1 ls 700,000.00 700,000

TV studio/acoustics 1 ls 150,000.00 150,000

115210 PROJECTION SCREENS

Electrically operated projection screens 1 loc 5,000.00 5,000

116600 ATHLETIC EQUIPMENT

Basketball backstops; swing up; electric operated 10 ea 9,800.00 98,000

Gym wall pads 3,000 sf 12.00 36,000

Gymnasium dividing net; electrically operated 2 loc 45,000.00 90,000

Telescoping bleachers 1 ls 180,000.00 180,000

SUBTOTAL \$1,259,000

**TOTAL - EQUIPMENT**

**\$1,259,000**

**E20 FURNISHINGS**

**E2010 FIXED FURNISHINGS**

Reinstall salvaged auditorium seating 750 seats 100.00 75,000

123553 CASEWORK

Casework to Family + consumer science/barb/cosmetics/TV broadcasting 14,598 sf 15.00 218,970

Counters, base cabinets, tall storage in classrooms and other rooms 250,632 gsf 8.00 2,005,056

122100 WINDOW TREATMENT

Window blinds; manual shades, typical at all exterior windows 15,999 sf 7.00 111,993

124810 ENTRANCE FLOOR MAT AND FRAMES

Walk-off mats - recessed 200 sf 50.00 10,000

Walk-off mats 100 sf 15.00 1,500

No work in this section

SUBTOTAL 2,422,519

**E2020 MOVABLE FURNISHINGS**

All movable furnishings to be provided and installed by owner

SUBTOTAL NIC

**TOTAL - FURNISHINGS**

**\$2,422,519**

**F10 SPECIAL CONSTRUCTION**

**F10 SPECIAL CONSTRUCTION**



Preferred Schematic Report Submission

GFA 265,230

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>ALTERNATIVE 3 - RENOVATION</b>							
332	SUBTOTAL					-	
333							
334	<b>TOTAL - SPECIAL CONSTRUCTION</b>						
335							
336							
337	<b>F20 SELECTIVE BUILDING DEMOLITION</b>						
338							
339	<b>F2010 BUILDING ELEMENTS DEMOLITION</b>						
340	Remove existing Windows	15,999	sf	6.00	95,994		
341	Interior gut demolition	213,226	sf	8.00	1,705,808		
342	Interior demolition; Fieldhouse	52,004	sf	5.00	260,020		
343	Temporary enclosures/protection	265,230	sf	1.00	265,230		
344	SUBTOTAL					2,327,052	
345							
346	<b>F2020 HAZARDOUS COMPONENTS ABATEMENT</b>						
347	See summary						
348	SUBTOTAL						
349							
350	<b>TOTAL - SELECTIVE BUILDING DEMOLITION</b>						
351							<b>\$2,327,052</b>



<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 3 - ADDITION</b>					
<b>A10 FOUNDATIONS</b>					
A1010	Standard Foundations	\$686,680			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$1,334,457	<b>\$2,021,137</b>	\$14.33	4.8%
<b>A20 BASEMENT CONSTRUCTION</b>					
A2010	Basement Excavation	\$813,385			
A2020	Basement Walls	\$267,204	<b>\$1,080,589</b>	\$7.66	2.6%
<b>B10 SUPERSTRUCTURE</b>					
B1010	Upper Floor Construction	\$3,789,489			
B1020	Roof Construction	\$1,862,717	<b>\$5,652,206</b>	\$40.07	13.4%
<b>B20 EXTERIOR CLOSURE</b>					
B2010	Exterior Walls	\$3,224,788			
B2020	Windows	\$1,630,797			
B2030	Exterior Doors	\$65,540	<b>\$4,921,125</b>	\$34.89	11.7%
<b>B30 ROOFING</b>					
B3010	Roof Coverings	\$1,216,539			
B3020	Roof Openings	\$32,500	<b>\$1,249,039</b>	\$8.85	3.0%
<b>C10 INTERIOR CONSTRUCTION</b>					
C1010	Partitions	\$3,667,560			
C1020	Interior Doors	\$705,300			
C1030	Specialties/Millwork	\$1,175,098	<b>\$5,547,958</b>	\$39.33	13.2%
<b>C20 STAIRCASES</b>					
C2010	Stair Construction	\$349,000			
C2020	Stair Finishes	\$44,010	<b>\$393,010</b>	\$2.79	0.9%
<b>C30 INTERIOR FINISHES</b>					
C3010	Wall Finishes	\$1,269,540			
C3020	Floor Finishes	\$1,890,204			
C3030	Ceiling Finishes	\$987,420	<b>\$4,147,164</b>	\$29.40	9.8%
<b>D10 CONVEYING SYSTEMS</b>					
D1010	Elevator	\$480,000	<b>\$480,000</b>	\$3.40	1.1%
<b>D20 PLUMBING</b>					
D20	Plumbing	\$1,974,840	<b>\$1,974,840</b>	\$14.00	4.7%
<b>D30 HVAC</b>					
D30	HVAC	\$5,642,400	<b>\$5,642,400</b>	\$40.00	13.4%
<b>D40 FIRE PROTECTION</b>					
D40	Fire Protection	\$780,300	<b>\$780,300</b>	\$5.53	1.9%
<b>D50 ELECTRICAL</b>					



<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 3 - ADDITION</b>					
D5010	Complete System	\$5,078,160	<b>\$5,078,160</b>	\$36.00	12.0%
<b>E10</b>	<b>EQUIPMENT</b>				
E10	Equipment	\$1,169,000	<b>\$1,169,000</b>	\$8.29	2.8%
<b>E20</b>	<b>FURNISHINGS</b>				
E2010	Fixed Furnishings	\$2,040,550			
E2020	Movable Furnishings	NIC	<b>\$2,040,550</b>	\$14.47	4.8%
<b>F10</b>	<b>SPECIAL CONSTRUCTION</b>				
F10	Special Construction	\$0	<b>\$0</b>	\$0.00	0.0%
<b>F20</b>	<b>HAZMAT REMOVALS</b>				
F2010	Building Elements Demolition	\$0			
F2020	Hazardous Components Abatement	\$0	<b>\$0</b>	\$0.00	0.0%
<b>TOTAL DIRECT COST (Trade Costs)</b>			<b>\$42,177,478</b>	\$299.00	100.0%



Preferred Schematic Report Submission

GFA 141,060

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3 - ADDITION

**GROSS FLOOR AREA CALCULATION**

Lower Level	43,712
First Floor	48,674
Second Floor	48,674
PH (Not Included in GSF)	8,761

<b>TOTAL GROSS FLOOR AREA (GFA)</b>	<b>141,060 sf</b>
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**A10 FOUNDATIONS**

**A1010 STANDARD FOUNDATIONS**

Strip footings - 2'-6" x 1'-0"

Excavation	2,328	cy	12.00	27,936
Store on site for reuse	2,328	cy	14.00	32,592
Backfill with new fill	2,140	cy	16.00	34,240
Formwork	3,868	sf	10.00	38,680
Re-bar, 10#/lf	19,340	lbs	1.20	23,208
Concrete material; 3,000 psi	188	cy	118.00	22,184
Placing concrete	188	cy	45.00	8,460

Foundation walls at exterior - 14" thick

Formwork	15,472	sf	12.00	185,664
Re-bar, 4#/sf	30,944	lbs	1.20	37,133
Concrete material; 4,000 psi	351	cy	125.00	43,875
Placing concrete	351	cy	45.00	15,795
Dampproofing foundation wall and footing	11,604	sf	1.90	22,048
Insulation to foundation walls; 2" thick	7,736	sf	2.50	19,340
Form shelf	1,934	lf	8.00	15,472

Column footings 5' x 5' x 1'-4"

Excavation	675	cy	15.00	10,125
Store on site for reuse	675	cy	14.00	9,450
Backfill with new fill	583	cy	16.00	9,328
Formwork	1,889	sf	11.00	20,779
Re-bar	11,040	lbs	1.20	13,248
Concrete material; 3,000 psi	92	cy	118.00	10,856
Placing concrete	92	cy	45.00	4,140
Set anchor bolts grout plates	71	ea	150.00	10,650

Column footings 8'-0" x 8'-0" x 2'-2"

Excavation	372	cy	15.00	5,580
Store on site for reuse	372	cy	14.00	5,208
Backfill with new fill	253	cy	16.00	4,048
Formwork	1,528	sf	11.00	16,808
Re-bar	14,280	lbs	1.20	17,136
Concrete material; 3,000 psi	119	cy	118.00	14,042
Placing concrete	119	cy	45.00	5,355
Set anchor bolts grout plates	22	ea	150.00	3,300

SUBTOTAL 686,680

**A1020 SPECIAL FOUNDATIONS**

No Work in this section

SUBTOTAL

**A1030 LOWEST FLOOR CONSTRUCTION**

New Slab on grade, 5" thick

Structural fill for level 1	12,500	cy	32.00	400,000
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Preferred Schematic Report Submission

GFA 141,060

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>ALTERNATIVE 3 - ADDITION</b>							
57	Gravel fill, 12"	1,803	cy	36.00	64,908		
58	Rigid insulation	48,674	sf	2.25	109,517		
59	Vapor barrier	48,674	sf	0.75	36,506		
60	Waterproofing system	48,674	sf	6.50	316,381		
61	Compact existing sub-grade	48,674	sf	0.50	24,337		
62	Mesh reinforcing 15% lap	55,975	sf	0.80	44,780		
63	Concrete - 5" thick; 4,000 psi	795	cy	125.00	99,375		
64	Placing concrete	795	cy	45.00	35,775		
65	Finishing and curing concrete	48,674	sf	1.50	73,011		
66	Control joints - saw cut	48,674	sf	0.10	4,867		
67	<u>Miscellaneous</u>						
68	New Elevator pit	2	ea	35,000.00	70,000		
69	New loading dock	1	ls	40,000.00	40,000		
70	Equipment pads	1	ls	15,000.00	15,000		
71	SUBTOTAL					1,334,457	
<b>TOTAL - FOUNDATIONS</b>							<b>\$2,021,137</b>
<b>A20 BASEMENT CONSTRUCTION</b>							
<b>A2010 BASEMENT EXCAVATION</b>							
79	Excavation for basement	15,500	cy	12.00	186,000		
80	Export off site	15,500	cy	22.00	341,000		
81	Allowance for sheeting and shoring	5,207	sf	55.00	286,385		
82	SUBTOTAL					813,385	
<b>A2020 BASEMENT WALLS</b>							
<u>Strip footings to retaining walls - 5'-0" x 1'-6"</u>							
86	Excavation	261	cy	12.00	3,132		
87	Store on site for reuse	261	cy	6.00	1,566		
88	Backfill with existing fill	185	cy	8.00	1,480		
89	Formwork	783	sf	10.00	7,830		
90	Re-bar	6,840	lbs	1.20	8,208		
91	Concrete material; 3,000 psi	76	cy	118.00	8,968		
92	Placing concrete	76	cy	45.00	3,420		
<u>Retaining walls - 16" thick</u>							
94	Formwork	8,190	sf	16.00	131,040		
95	Re-bar, 8#/sf	32,760	lbs	1.20	39,312		
96	Concrete material; 4,000 psi	212	cy	125.00	26,500		
97	Placing concrete	212	cy	45.00	9,540		
98	Waterproofing basement wall and footing	3,276	sf	6.00	19,656		
99	Insulation to foundation walls; 2" thick	3,276	sf	2.00	6,552		
100	SUBTOTAL					267,204	
<b>TOTAL - BASEMENT CONSTRUCTION</b>							<b>\$1,080,589</b>
<b>B10 SUPERSTRUCTURE</b>							
106		15.14	lbs/sf		-		
107	<b>B1010 FLOOR CONSTRUCTION</b>	1,068	tns		-		
<u>Floor Structure - Steel:</u>							
109	Steel beams and columns; 15#/SF	693	tns	3,500.00	2,425,500		
110	Premium for HSS	173	tns	300.00	51,900		



Preferred Schematic Report Submission

GFA 141,060

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 3 - ADDITION</b>								
111	Shear studs	18,477	ea	2.50	46,193			
112	<u>Floor Structure</u>							
113	2" 18 Ga. Metal galvanized floor Deck	92,386	sf	3.75	346,448			
114	WWF reinforcement	106,244	sf	0.80	84,995			
115	Concrete Fill to metal deck; 5-1/4" Light Weight	1,796	cy	160.00	287,360			
116	Place and finish concrete	92,386	sf	2.00	184,772			
117	Rebar to decks	27,716	lbs	1.20	33,259			
118	Misc. angles	92,386	sf	0.50	46,193			
119	<u>Miscellaneous</u>							
120	Fire proofing to columns and beams	92,386	sf	2.25	207,869			
121	Intumescent paint	1	ls	50,000.00	50,000			
122	Fire stopping floors	1	ls	25,000.00	25,000			
123	SUBTOTAL					3,789,489		
124								
125	<b>B1020 ROOF CONSTRUCTION</b>							
126	<u>Roof Structure - Steel:</u>							
127	Steel beams/Joists; 14#/SF	375	tns	3,500.00	1,312,500			
128	Premium for HSS	94	tns	300.00	28,200			
129	Exposed steel	1	ls	50,000.00	50,000			
130	<u>Roof Structure</u>							
131	Acoustic deck allowance	8,000	sf	7.00	56,000			
132	1-1/2" 20 Ga. galvanized Metal Roof Deck	45,541	sf	3.50	159,394			
133	<u>Miscellaneous</u>							
134	Concrete under RTU's	15,000	sf	8.00	120,000			
135	Roof screen framing				Not Required			
136	Fire proofing to columns, beams and deck	45,541	sf	3.00	136,623			
137	SUBTOTAL					1,862,717		
138								
139	<b>TOTAL - SUPERSTRUCTURE</b>						<b>\$5,652,206</b>	
140								
141								
142	<b>B20 EXTERIOR CLOSURE</b>							
143								
144	<b>B2010 EXTERIOR WALLS - 70%</b>							
145	<u>Interior skin</u>	30,555	sf		-			
146	8" metal stud backup	30,555	sf	10.00	305,550			
147	Insulation - 3" thick	30,555	sf	2.25	68,749			
148	Air barrier	30,555	sf	6.00	183,330			
149	Air barrier/flashing at windows	4,321	lf	6.00	25,926			
150	Gypsum Sheathing	30,555	sf	2.50	76,388			
151	Drywall lining to interior face of stud backup	30,555	sf	3.00	91,665			
152	<u>Exterior skin</u>							
153	Brick veneer; 40%	17,460	sf	38.00	663,480			
154	Metal panels; 10%	4,365	sf	70.00	305,550			
155	Porcelain panels; 20%	8,730	sf	75.00	654,750			
156	<u>Miscellaneous</u>							
157	PH Siding and backup	7,560	sf	80.00	604,800			
158	Mockups	1	ls	50,000.00	50,000			
159	Aluminum sign at main entrance	1	ls	20,000.00	20,000			
160	Staging to exterior wall	43,650	sf	4.00	174,600			
161	SUBTOTAL					3,224,788		
162								
163	<b>B2020 WINDOWS - 30%</b>							
164	Windows	13,095	sf		-			
165	Curtainwall	6,548	sf	85.00	556,580			
166		6,548	sf	120.00	785,760			



Preferred Schematic Report Submission

GFA 141,060

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>ALTERNATIVE 3 - ADDITION</b>							
166	Allowance for sunshades	1	ls	200,000.00	200,000		
167	Louvers (allowance)	250	sf	60.00	15,000		
168	Backer rod & double sealant	4,321	lf	9.00	38,889		
169	Wood blocking at openings	4,321	lf	8.00	34,568		
170	SUBTOTAL					1,630,797	
171							
172	<b>B2030 EXTERIOR DOORS</b>						
173	Glazed entrance doors including frame and hardware; double door	7	pr	8,000.00	56,000		
174	HM doors, frames and hardware- Double	4	pr	2,000.00	8,000		
175	Backer rod & double sealant	220	lf	4.00	880		
176	Wood blocking at openings	220	lf	3.00	660		
177	SUBTOTAL					65,540	
178							
179	<b>TOTAL - EXTERIOR CLOSURE</b>						<b>\$4,921,125</b>
180							
181							
182	<b>B30 ROOFING</b>						
183							
184	<b>B3010 ROOF COVERINGS</b>						
185	Flat roofing						
186	PVC roof membrane fully adhered	53,541	sf	9.50	508,640		
187	Insulation; R-30	53,541	sf	6.00	321,246		
188	1/2" dens-deck protection board	53,541	sf	2.00	107,082		
189	Reinforced vapor barrier	53,541	sf	0.50	26,771		
190	Rough blocking	10,800	lf	6.00	64,800		
191	Miscellaneous Roofing						
192	Roof screens				Not Required		
193	Roof fascia/cornice	1,800	lf	100.00	180,000		
194	Roof ladder	1	ls	3,000.00	3,000		
195	Walk pads	1	ls	5,000.00	5,000		
196	SUBTOTAL					1,216,539	
197							
198	<b>B3020 ROOF OPENINGS</b>						
199	Skylights, allow	1	ls	30,000.00	30,000		
200	Roof hatch	1	loc	2,500.00	2,500		
201	SUBTOTAL					32,500	
202							
203	<b>TOTAL - ROOFING</b>						<b>\$1,249,039</b>
204							
205							
206	<b>C10 INTERIOR CONSTRUCTION</b>						
207							
208	<b>C1010 PARTITIONS</b>						
209	Miscellaneous partitions/glazed partitions/borrowed lights/blocking etc.	141,060	gsf	26.00	3,667,560		
210	SUBTOTAL					3,667,560	
211							
212	<b>C1020 INTERIOR DOORS</b>						
213	Interior doors, frames and hardware	141,060	gsf	5.00	705,300		
214	SUBTOTAL					705,300	
215							
216	<b>C1030 SPECIALTIES / MILLWORK</b>						
217	Toilet Partitions and accessories	141,060	gsf	0.80	112,848		
218	Backer panels in electrical closets	1	ls	1,000.00	1,000		
219	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	141,060	sf	1.00	141,060		
220	Room Signs	141,060	gsf	0.40	56,424		
221	Fire extinguisher cabinets	47	ea	350.00	16,450		
222	Lockers	141,060	gsf	1.60	225,696		



Preferred Schematic Report Submission

GFA 141,060

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>ALTERNATIVE 3 - ADDITION</b>							
223	Janitors Work Shop Accessories	1	ls	1,500.00	1,500		
224	Janitors Closet Accessories	3	rms	300.00	900		
225	Media						
226	Reception desks	4	loc	25,000	100,000		
227	Railings to open to below areas	343	lf	280	96,040		
228	Library shelving at perimeters 7' Tall				F,F & E		
229	Library shelving at perimeters 3' Tall				F,F & E		
230	Display cases	141,060	gsf	0.25	35,265		
231	Miscellaneous metals throughout building	141,060	sf	1.50	211,590		
232	Miscellaneous sealants throughout building	141,060	sf	1.25	176,325		
233	SUBTOTAL					1,175,098	
<b>TOTAL - INTERIOR CONSTRUCTION</b>							<b>\$5,547,958</b>
<b>C20 STAIRCASES</b>							
<b>C2010 STAIR CONSTRUCTION</b>							
241	Metal pan stair; egress stair	7	flt	25,000.00	175,000		
242	Main staircase	1	flt	100,000.00	100,000		
243	Commons tiered seating	200	lf	250.00	50,000		
244	Commons steps	2	loc	5,000.00	10,000		
245	Concrete fill to stairs	7	flt	2,000.00	14,000		
246	SUBTOTAL					349,000	
<b>C2020 STAIR FINISHES</b>							
249	High performance coating to stairs including all railings etc.	7	flt	3,000.00	21,000		
250	Rubber tile at stairs - landings	700	sf	10.00	7,000		
251	Rubber tile at stairs - treads & risers	840	lft	19.06	16,010		
252	SUBTOTAL					44,010	
<b>TOTAL - STAIRCASES</b>							<b>\$393,010</b>
<b>C30 INTERIOR FINISHES</b>							
<b>C3010 WALL FINISHES</b>							
260	Wall finishes	141,060	sf	9.00	1,269,540		
261	SUBTOTAL					1,269,540	
<b>C3020 FLOOR FINISHES</b>							
264	Floor finishes	141,060	sf	11.00	1,551,660		
265	Moisture mitigation	112,848	sf	3.00	338,544		
266	SUBTOTAL					1,890,204	
<b>C3030 CEILING FINISHES</b>							
269	Ceiling finishes	141,060	sf	7.00	987,420		
270	SUBTOTAL					987,420	
<b>TOTAL - INTERIOR FINISHES</b>							<b>\$4,147,164</b>
<b>D10 CONVEYING SYSTEMS</b>							
<b>D1010 ELEVATOR</b>							
278	New elevator; 6 stop; oversize; 5,000 lbs	2	ea	240,000.00	480,000		
279	SUBTOTAL					480,000	
<b>TOTAL - CONVEYING SYSTEMS</b>							<b>\$480,000</b>



Preferred Schematic Report Submission

GFA 141,060

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>ALTERNATIVE 3 - ADDITION</b>							
<b>D20 PLUMBING</b>							
D20	PLUMBING, GENERALLY						
	Plumbing	141,060	gsf	14.00	1,974,840		
	SUBTOTAL					1,974,840	
<b>TOTAL - PLUMBING</b>							<b>\$1,974,840</b>
<b>D30 HVAC</b>							
D30	HVAC, GENERALLY						
	New HVAC system	141,060	gsf	40.00	5,642,400		
	SUBTOTAL					5,642,400	
<b>TOTAL - HVAC</b>							<b>\$5,642,400</b>
<b>D40 FIRE PROTECTION</b>							
D40	FIRE PROTECTION, GENERALLY						
	Allowance for fire pump	1	ls	75,000.00	75,000		
	Fire protection system	141,060	gsf	5.00	705,300		
	SUBTOTAL					780,300	
<b>TOTAL - FIRE PROTECTION</b>							<b>\$780,300</b>
<b>D50 ELECTRICAL</b>							
D5010	SERVICE & DISTRIBUTION						
	Electrical system complete	141,060	gsf	36.00	5,078,160		
	SUBTOTAL					5,078,160	
<b>TOTAL - ELECTRICAL</b>							<b>\$5,078,160</b>
<b>E10 EQUIPMENT</b>							
E10	EQUIPMENT, GENERALLY						
	Gym wall pads					In Renovation	
	Basketball backstops; swing up; electric operated					In Renovation	
	Gymnasium dividing net; electrically operated					In Renovation	
	Volleyball net and standards					In Renovation	
	Telescoping bleachers					In Renovation	
	Theatrical Equipment Stage curtains, rigging and controls					In Renovation	
	Kiln	2	ea	5,000.00	10,000		
	VoTech equipment	1	ls	150,000.00	150,000		
	Food Service equipment at culinary program	1	ls	300,000.00	300,000		
	Fume hoods	12	ea	8,000.00	96,000		
	Food Service equipment	2,890	sf	200.00	578,000		
	Loading dock equipment	1	ls	20,000.00	20,000		
	Electrically operated projection screens	1	loc	15,000.00	15,000		
	SUBTOTAL					1,169,000	
<b>TOTAL - EQUIPMENT</b>							<b>\$1,169,000</b>
<b>E20 FURNISHINGS</b>							
E2010	FIXED FURNISHINGS						
	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500		
	Window blinds	13,095	sf	6.00	78,570		



Preferred Schematic Report Submission

GFA 141,060

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 3 - ADDITION</b>								
348	Lecture/Large classroom seating	130	seat	200.00	26,000			
349	Science classroom casework	12	rm	65,000.00	780,000			
350	Counters, base cabinets, tall storage in classrooms and other rooms	141,060	gsf	8.00	1,128,480			
351	SUBTOTAL					2,040,550		
352								
353	<b>E2020 MOVABLE FURNISHINGS</b>							
354	All movable furnishings to be provided and installed by owner							
355	SUBTOTAL						NIC	
356								
357	<b>TOTAL - FURNISHINGS</b>						<b>\$2,040,550</b>	
358								
359								
360	<b>F10 SPECIAL CONSTRUCTION</b>							
361								
362	<b>F10 SPECIAL CONSTRUCTION</b>							
363	No items in this section							
364	SUBTOTAL							
365								
366	<b>TOTAL - SPECIAL CONSTRUCTION</b>							
367								
368								
369	<b>F20 SELECTIVE BUILDING DEMOLITION</b>							
370								
371	<b>F2010 BUILDING ELEMENTS DEMOLITION</b>							
372	See main summary for demolition of existing buildings							
373	SUBTOTAL							
374								
375	<b>F2020 HAZARDOUS COMPONENTS ABATEMENT</b>							
376	See main summary for HazMat allowance					See Summary		
377	SUBTOTAL							
378								
379	<b>TOTAL - SELECTIVE BUILDING DEMOLITION</b>							



Preferred Schematic Design Submission

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>SITWORK OPTION 3</b>							
<b>G SITEWORK</b>							
<b>G10</b>	<b>SITE PREPARATION &amp; DEMOLITION</b>						
	Site construction fence/barricades	4,000	lf	12.00	48,000		
	Remove existing trees	50	ea	750	37,500		
	Remove existing shrub plantings throughout the site including large trees at front	1	ls	30,000	30,000		
	Pavement removal	120,000	sf	1.00	120,000		
	Pedestrian pavement removal	1	ls	50,000.00	50,000		
	Miscellaneous demolition	1	ls	100,000	100,000		
	<u>Site Earthwork</u>						
	Strip topsoil, remove off site	3,704	cy	20.00	74,080		
	Cut / Fill for parking on grade	14,000	cy	12.00	168,000		
	Export for parking on grade	10,000	cy	22.00	220,000		
	Cut / Fill outside building footprints	14,815	cy	12.00	177,780		
	Fine grading	66,667	sy	1.00	66,667		
	Phased construction site premiums	1	ls	50,000.00	50,000		
	Silt fence/erosion control, wash bays, stock piles	4,000	lf	12.00	48,000		
	Construction entrance	1	ls	20,000.00	20,000		
	Temporary parking/logistics	1	ls	100,000.00	100,000		
	Silt fence maintenance, dust control and monitoring	1	ls	30,000.00	30,000		
	Rock removal allowance						NIC
	<u>Hazardous Waste Remediation</u>						
	Dispose/treat contaminated soils/water						NIC
	Contaminated soils allowance	1	ls	314,050.00			NIC
	SUBTOTAL						1,340,027
<b>G20</b>	<b>SITE IMPROVEMENTS</b>						
	Bituminous concrete paving @ parking/roads	129,223			-		
	gravel base; 12" thick	5,269	cy	38.00	200,222		
	bituminous concrete; 4" thick	14,358	sy	26.00	373,308		
	Granite curbs; 6" x 18"	8,025	lf	38.00	304,950		
	HC curb cuts	5	loc	1,500.00	7,500		
	Bituminous concrete paving @ community path	23,143			-		
	gravel base; 12" thick	1,340	cy	38.00	50,920		
	bituminous concrete; 4" thick	2,571	sy	26.00	66,846		
	<u>Concrete Paving</u>						
	gravel base; 8" thick	1,264	cy	38.00	48,032		
	concrete; 6" thick	45,500	sf	8.50	386,750		
	<u>Precast Pavers @ entrances</u>						
	gravel base; 6" thick	583	cy	32.00	18,656		
	concrete; 6" thick	21,000	sf	8.00	168,000		
	3" thick precast unit pavers	21,000	sf	18.00	378,000		
	<u>Stairs and Ramps</u>						
	Concrete to stair treads	420	lfr	140.00	58,800		
	Granite to stair treads	420	lfr	180.00	75,600		
	Ornamental metal hand railings - galv at stairs	168	lf	135.00	22,680		
	Entrance ramp	1	ls	80,000.00	80,000		
	Allowance for decorate site staircase to new addition	2,400	sf	260.00	624,000		
	Retaining wall allowance; segmental; assumed 12 ft high	212	lf	480.00	101,760		
	Allowance for benches, fencing, bike racks, flag pole etc.	1	ls	400,000.00	400,000		
	<u>Landscaping</u>						
	New playing field	12,000	sf	5.00	60,000		



Preferred Schematic Design Submission

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>SITWORK OPTION 3</b>							
54	Soil mix; 6" thick, imported topsoil	4,259	cy	30.00	127,770		
55	Seeding	230,000	sf	0.25	57,500		
56	Planting allowance	1	ls	600,000.00	600,000		
57	Irrigation				NIC		
58	SUBTOTAL					4,211,294	
59	<b>G30 CIVIL MECHANICAL UTILITIES</b>						
60	<b>331000 WATER UTILITIES</b>						
61	<i>WATER UTILITIES</i>						
62	<i>331000 WATER UTILITIES</i>						
63	New fire DI piping; 8"	1,558	lf	80.00	124,640		
64	FD connection	2	loc	2,000.00	4,000		
65	New fire hydrant	4	loc	2,600.00	10,400		
66	Gate valves	12	loc	750.00	9,000		
67	Connect to existing line (Wet Taps)	4	loc	15,000.00	60,000		
68	<i>333000 SANITARY SEWERAGE UTILITIES</i>						
69	<i>333000 SANITARY SEWERAGE UTILITIES</i>						
70	<u>Sanitary sewer</u>						
71	6" PVC Sanitary sewer	1,121	lf	45.00	50,445		
72	SMH	8	ea	3,500.00	28,000		
73	Connect to existing	3	loc	10,000.00	30,000		
74	Grease trap; 9,000 Gal	1	loc	20,000.00	20,000		
75	<i>334000 STORM DRAINAGE UTILITIES</i>						
76	<i>334000 STORM DRAINAGE UTILITIES</i>						
77	<u>Storm water</u>						
78	WQS	4	ea	16,000.00	64,000		
79	OCS	2	ea	10,000.00	20,000		
80	Manhole	22	loc	4,800.00	105,600		
81	Connect to existing line	4	loc	2,500.00	10,000		
82	Catch basins	29	loc	4,400.00	127,600		
83	Area drains	19	loc	1,600.00	30,400		
84	Cleanouts	8	loc	1,200.00	9,600		
85	24" CPP	3,473	lf	90.00	312,570		
86	<u>Underground Infiltration</u>						
87	Allowance for infiltration systems	6,600	sf	25.00	165,000		
88	<u>Gas service</u>						
89	E&B trench for new gas main, pipe and install by	420	lf	25.00	10,500		
90	Gas Meter				NIC		
91	<u>Telecom service</u>						
92	E&B trench for new gas main, pipe and install by	300	lf	25.00	7,500		
93	SUBTOTAL					1,199,255	
94	<b>G40 ELECTRICAL UTILITIES</b>						
95	<b>G40 ELECTRICAL UTILITIES</b>						
96	Electric handhole	2	ea	1,500.00	3,000		
97	Primary ductbank	991	lf	120.00	118,920		
98	Transformer by Utility Company	1	ea		NIC		
99	Transformer pad	2	ea	2,000.00	4,000		
100	Secondary service						
101	Ductbank	100	lf	500.00	50,000		
102	Emergency service						
103	Ductbank	100	lf	150.00	15,000		
104	Generator pad	1	ea	1,500.00	1,500		
105	<u>Site lighting</u>						
106	Allowance for site lighting	1	ls	150,000.00	150,000		
107	<u>Site communications and security</u>						
108	Site security	1	ls	75,000.00	75,000		
109	Communication riser pole	1	ea	2,500.00	2,500		
110	Telecom handhole	2	ea	1,500.00	3,000		
111	Ductbank	200	lf	130.00	26,000		
112	SUBTOTAL					448,920	
113	<b>TOTAL - SITE DEVELOPMENT OPTION 3</b>						
114							<b>\$7,199,496</b>



<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
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**ALTERNATIVE 4B - RENOVATION**

**A10 FOUNDATIONS**

A1010	Standard Foundations	\$330,800		
A1020	Special Foundations	\$0		
A1030	Lowest Floor Construction	\$20,000	<b>\$350,800</b>	\$4.24 1.8%

**B10 SUPERSTRUCTURE**

B1010	Upper Floor Construction	\$1,470,289		
B1020	Roof Construction	\$220,000	<b>\$1,690,289</b>	\$20.44 8.8%

**B20 EXTERIOR CLOSURE**

B2010	Exterior Walls	\$904,348		
B2020	Windows/Curtainwall	\$623,972		
B2030	Exterior Doors	\$65,400	<b>\$1,593,720</b>	\$19.27 8.3%

**B30 ROOFING**

B3010	Roof Coverings	\$1,008,489		
B3020	Roof Openings	\$30,000	<b>\$1,038,489</b>	\$12.56 5.4%

**C10 INTERIOR CONSTRUCTION**

C1010	Partitions	\$987,325		
C1020	Interior Doors	\$117,500		
C1030	Specialties/Millwork	\$906,380	<b>\$2,011,205</b>	\$24.32 10.4%

**C20 STAIRCASES**

C2010	Stair Construction	\$168,000		
C2020	Stair Finishes	\$41,040	<b>\$209,040</b>	\$2.53 1.1%

**C30 INTERIOR FINISHES**

C3010	Wall Finishes	\$408,100		
C3020	Floor Finishes	\$925,673		
C3030	Ceiling Finishes	\$807,906	<b>\$2,141,679</b>	\$25.90 11.1%

**D10 CONVEYING SYSTEMS**

D1010	Elevator	\$120,000	<b>\$120,000</b>	\$1.45 0.6%
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**D20 PLUMBING**

D20	Plumbing	\$1,157,800	<b>\$1,157,800</b>	\$14.00 6.0%
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**D30 HVAC**

D30	HVAC	\$3,308,000	<b>\$3,308,000</b>	\$40.00 17.2%
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**D40 FIRE PROTECTION**

D40	Fire Protection	\$413,500	<b>\$413,500</b>	\$5.00 2.1%
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**D50 ELECTRICAL**

D5010	Electrical Systems	\$2,977,200	<b>\$2,977,200</b>	\$36.00 15.5%
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**E10 EQUIPMENT**

E10	Equipment	\$1,259,000	<b>\$1,259,000</b>	\$15.22 6.5%
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Somerville High School  
 Design Options 2A, 3 + 4B  
 Somerville, MA

24-May-16

Preferred Schematic Report Submission

GFA 82,700

<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 4B - RENOVATION</b>					
<b>E20 FURNISHINGS</b>					
E2010	Fixed Furnishings	\$350,809			
E2020	Movable Furnishings	NIC	<b>\$350,809</b>	\$4.24	1.8%
<b>F10 SPECIAL CONSTRUCTION</b>					
F10	Special Construction	\$0	<b>\$0</b>	\$0.00	0.0%
<b>F20 SELECTIVE BUILDING DEMOLITION</b>					
F2010	Building Elements Demolition	\$627,150			
F2020	Hazardous Components Abatement	\$0	<b>\$627,150</b>	\$7.58	3.3%
<b>TOTAL DIRECT COST (Trade Costs)</b>			<b>\$19,248,681</b>	\$232.75	100.0%



Preferred Schematic Report Submission

GFA 82,700

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 4B - RENOVATION

**GROSS FLOOR AREA CALCULATION**

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Lower Level	26,002
First Floor Gym	26,002
First Floor	14,598
Second Floor	14,598
Third Floor	1,500

<b>TOTAL GROSS FLOOR AREA (GFA)</b>	<b>82,700 sf</b>
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**A10 FOUNDATIONS**

**A1010 STANDARD FOUNDATIONS**

Allowance for new foundations for structural bracing and new interior walls etc.	82,700	sf	4.00	330,800	
<b>SUBTOTAL</b>					330,800

**A1020 SPECIAL FOUNDATIONS**

No work in this section  
 SUBTOTAL

**A1030 LOWEST FLOOR CONSTRUCTION**

Cutting and patching	1	ls	10,000.00	10,000	
Equipment pads	1	ls	10,000.00	10,000	
<b>SUBTOTAL</b>					20,000

<b>TOTAL - FOUNDATIONS</b>	<b>\$350,800</b>
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**B10 SUPERSTRUCTURE**

**B1010 FLOOR CONSTRUCTION**

New lateral Bracing to floors; 2 lbs per SF	83	tns	5,500.00	456,500	
Remove existing floor framing for new slope floor at auditorium; including shoring/bracing	14,598	sf	10.00	145,980	
Openings in 1929 structure for MEP systems; assumed two chases per floor	4	loc	5,500.00	22,000	
Fire stopping floors	1	ls	10,000.00	10,000	

**New sloped auditorium floor**

<b>033000 CONCRETE</b>					
WWF reinforcement	18,513	sf	0.80	14,810	
Concrete Fill to metal deck; 5-1/4" Light Weight	329	cy	160.00	52,640	
Place and finish concrete	16,098	sf	2.00	32,196	

**051200 STRUCTURAL STEEL FRAMING**

Steel beams and columns	105	tns	5,500.00	577,500	
Shear studs	3,220	ea	2.50	8,050	
Premium for slope/steps	1	ls	50,000.00	50,000	
2" 18 Ga. Metal galvanized floor Deck	16,098	sf	4.00	64,392	

**078100 FIREPROOFING/FIRESTOPPING**

Fire proofing to columns and beams	16,098	sf	2.25	36,221	
<b>SUBTOTAL</b>					1,470,289

**B1020 ROOF CONSTRUCTION**

<b>Roof Structure - Steel:</b>					
New lateral Bracing to roofs; 1 lbs per SF	20	tns	5,500.00	110,000	



**ASSOCIATES**

35 Highland Circle, Needham, Massachusetts 02494

**FINAL EVALUATION OF ALTERNATIVES**

**SOMERVILLE SCHOOL DEPARTMENT**

**SOMERVILLE HIGH SCHOOL**

**Somerville, MA**

Architect: SMMA

May 25, 2016



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

**May 25, 2016**

**BASIS OF ESTIMATE**

The estimate is based on the drawings and documents prepared by SMMA package dated 5/6/2016.

**Qualifications / Clarifications:**

	<b>Phase 1 &amp; 2</b>	<b>Phase 3</b>
1 Labor costs included at local union rates		
2 The following mark ups are used:		
General Conditions	7.00%	
General Requirements	4.00%	
Bond	1.00%	
Insurance	1.50%	
Contractor's Overhead & Fee	2.00%	
Design Contingency	10.00%	
GMP Contingency	3.00%	
Phasing	4.00%	
Escalation Contingency (4.5% per annum)	21.56%	37.13%
Construction mid point calculation:		
Construction start:	June-2018	November-2023
Construction duration:	66 months	18 months
Construction mid-point:	March-2021	August-2024

- 3 The estimate assumes all long-lead items can be pre-purchased to meet schedule requirements.
- 4 The estimate is based on the premise that the design will meet all codes, laws, ordinances, rules, & regulations in effect at the time that the estimate was prepared.
- 5 Construction duration is based on Phase 1 - 3 years, Phase 2 - 3 years, Phase 3 - 1.5 years.

**The estimate excludes the following:**

- 1 A-E Fees
- 2 Overtime
- 3 Builder's Risk Insurance
- 4 Third party commissioning costs
- 5 Testing or inspection services, as required by State Building Code or other: concrete, soils, pavement, fireproofing.
- 6 Sales Tax
- 7 Hazardous materials testing, removal and disposal
- 8 Working in contaminated soils
- 9 Relocation of existing PV system



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

**BUILDING TRADE BREAKDOWN**

DESCRIPTION	SF	Alternative 2A 390,000	Alternative 3 406,290	Alternative 4B 404,110
Building		88,519,557	93,771,472	103,267,831
Site		9,759,583	8,000,788	8,661,233
Demo/Site		6,740,820	6,749,730	7,406,640
Parking Garage & Field	136,000	14,732,622	14,732,622	14,732,622
Program Space for Child Care	2,400	1,172,544	1,172,544	1,172,544
Add Program Space for SCTV	1,500	425,018	425,018	425,018
Health Space Program Space	1,650	429,000	429,000	429,000
Cost Premium for Energy Efficiency Exceeding LEED Silver Requirements		19,777,500	20,592,000	20,483,000
<b>TOTAL</b>		<b>141,556,645</b>	<b>145,873,175</b>	<b>156,577,888</b>
General Conditions 7.00%		9,908,965	10,211,122	10,960,452
Phasing & Temporary work 4.00%		6,058,624	6,243,372	6,701,534
Escalation Contingency (4.5% per annum) (Phase 1 & 2) 21.56%		30,789,441	31,825,182	34,393,751
Escalation Contingency (4.5% per annum) (Phase 3) - Parking Garage & Field Only 37.13%		5,469,486	5,469,486	5,469,486
<b>SUB TOTAL</b>		<b>193,783,162</b>	<b>199,622,337</b>	<b>214,103,111</b>
General Requirements 4.00%		7,751,326	7,984,893	8,564,124
<b>SUB TOTAL</b>		<b>201,534,488</b>	<b>207,607,231</b>	<b>222,667,236</b>
Bond 1.00%		2,015,345	2,076,072	2,226,672
Insurance 1.50%		3,053,247	3,145,250	3,373,409
<b>SUB TOTAL</b>		<b>206,603,080</b>	<b>212,828,552</b>	<b>228,267,317</b>
GMP Contingency 3.00%		6,198,092	6,384,857	6,848,020
Contractor's Overhead & Fee 2.00%		4,256,023	4,384,268	4,702,307
Design Contingency 10.00%		21,705,720	22,359,768	23,981,764
<b>TOTAL CONSTRUCTION COSTS</b>		<b>\$238,762,916</b>	<b>\$245,957,445</b>	<b>\$263,799,407</b>
<b>TOTAL GROSS AREA (SF) - INCLUDES GARAGE COST PER GSF</b>		<b>531,550 \$612.21</b>	<b>547,840 \$605.37</b>	<b>545,660 \$652.79</b>



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

BUILDING TRADE BREAKDOWN

DESCRIPTION	Alternative 2A	Sub-total	Alternative 2A Demo/Site	Alternative 3	Sub-total	Alternative 3 Demo/Site	Alternative 4B	Sub-total	Alternative 4B Demo/Site	Sub-total	Add #2 Add Parking Garage & Field
<b>A. SUBSTRUCTURE</b>											
<b>A10 FOUNDATION</b>		<b>3,222,683</b>			<b>4,739,610</b>			<b>3,357,800</b>		<b>0</b>	
A1010 Standard Foundations	1,080,355		0	1,696,196		0	1,559,091		0		10,500,000
A1020 Special Foundations	100,000		0	100,000		0	100,000		0		
A1030 Slab on Grade	2,042,329		0	2,943,414		0	1,698,709		0		25,000
<b>A20 BASEMENT CONSTRUCTION</b>		<b>1,423,382</b>			<b>2,246,837</b>			<b>3,075,242</b>		<b>0</b>	
A2010 Basement Excavation	1,024,765		0	1,312,396		0	2,281,532		0		
A2020 Basement Walls	398,617		0	934,441		0	793,710		0		
<b>B. SHELL</b>											
<b>B10 SUPERSTRUCTURE</b>		<b>8,373,080</b>			<b>7,376,529</b>			<b>10,612,198</b>		<b>0</b>	
B1010 Floor Construction	7,582,560		0	6,358,059		0	10,529,498		0		
B1020 Roof Construction	790,520		0	1,018,470		0	82,700		0		
<b>B20 EXTERIOR ENCLOSURE</b>		<b>8,691,894</b>			<b>10,078,618</b>			<b>9,220,714</b>		<b>0</b>	
B2010 Exterior Walls	4,922,124		0	5,210,840		0	5,397,969		0		
B2020 Exterior Windows	2,369,320		0	3,469,530		0	3,498,988		0		
B2030 Exterior Doors	1,400,450		0	1,398,248		0	323,758		0		
<b>B30 ROOFING</b>		<b>2,131,696</b>			<b>2,104,772</b>			<b>2,119,282</b>		<b>0</b>	
B3010 Roof Coverings	2,054,250		0	2,029,710		0	2,026,524		0		
B3020 Roof Openings	77,446		0	75,062		0	92,758		0		
<b>C. INTERIOR</b>											
<b>C10 INTERIOR CONSTRUCTION</b>		<b>7,680,940</b>			<b>7,572,390</b>			<b>10,561,390</b>		<b>0</b>	
C1010 Partitions	4,255,360		0	4,148,730		0	7,255,200		0		85,500
C1020 Interior Doors	1,689,300		0	1,777,200		0	1,533,740		0		19,500
C1030 Fittings	1,736,280		0	1,646,460		0	1,772,450		0		
<b>C20 STAIRS</b>		<b>1,739,490</b>			<b>1,854,135</b>			<b>1,030,950</b>		<b>0</b>	
C2010 Stair Construction	1,110,750		0	1,161,315		0	847,223		0		
C2020 Stair Finishes	628,740		0	692,820		0	183,728		0		
<b>C30 INTERIOR FINISHES</b>		<b>8,001,622</b>			<b>8,595,484</b>			<b>8,680,385</b>		<b>0</b>	
C3010 Wall Finishes	2,907,540		0	3,238,320		0	2,268,650		0		
C3020 Floor Finishes	2,019,420		0	2,130,060		0	3,402,975		0		
C3030 Ceiling Finishes	3,074,662		0	3,227,104		0	3,008,760		0		
<b>D. SERVICES</b>											
<b>D10 CONVEYING</b>		<b>922,200</b>			<b>936,990</b>			<b>690,400</b>		<b>0</b>	
D1010 Elevators & Lifts	922,200		0	936,990		0	690,400		0		120,000
<b>D20 PLUMBING</b>		<b>5,822,700</b>			<b>5,952,149</b>			<b>6,970,898</b>		<b>0</b>	
D2010 Plumbing Fixtures	5,822,700		0	5,952,149		0	6,970,898		0		210,000
<b>D30 HVAC</b>		<b>17,460,300</b>			<b>17,795,502</b>			<b>21,013,720</b>		<b>0</b>	
D3020 Heat Generating Systems	15,490,800		0	15,788,429		0	18,993,170		0		
D3060 Controls & Instrumentation	1,712,100		0	1,738,921		0	1,717,468		0		157,500
D3070 Systems Testing & Balancing	257,400		0	268,151		0	303,083		0		
<b>D40 FIRE PROTECTION</b>		<b>2,429,700</b>			<b>2,506,809</b>			<b>3,130,025</b>		<b>0</b>	
D4010 Sprinklers	2,429,700		0	2,506,809		0	3,130,025		0		787,500
<b>D50 ELECTRICAL</b>		<b>13,403,680</b>			<b>14,006,410</b>			<b>16,641,043</b>		<b>0</b>	
D5010 Electrical Service & Distribution	13,403,680		0	14,006,410		0	16,641,043		0		880,000
<b>E. EQUIPMENT &amp; FURNISHINGS</b>											
<b>E10 EQUIPMENTS</b>		<b>4,411,170</b>			<b>5,079,620</b>			<b>2,585,546</b>		<b>0</b>	
E1010 Commercial Equipment	1,707,740		0	1,561,650		0	688,865		0		
E1020 Institutional Equipment	2,629,420		0	3,471,120		0	1,864,540		0		



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

BUILDING TRADE BREAKDOWN

DESCRIPTION	Alternative 2A	Sub-total	Alternative 2A Demo/Site	Alternative 3	Sub-total	Alternative 3 Demo/Site	Alternative 4B	Sub-total	Alternative 4B Demo/Site	Sub-total	Add #2 Add Parking Garage & Field
E1030 Vehicular Equipment	74,010		0	46,850		0	32,141		0		
<b>E20 FURNISHINGS</b>		<b>2,805,020</b>			<b>2,925,620</b>			<b>3,156,483</b>		<b>0</b>	
E2010 Fixed Furnishings	2,472,320		0	2,804,720		0	3,034,780		0		
E2020 Movable Furnishings	332,700		0	120,900		0	121,703		0		
<b>F. SPECIAL CONSTRUCTION &amp; DEMOLITION</b>											
<b>F10 SPECIAL CONSTRUCTION</b>											
F1040 Special Facilities											
<b>F20 SELECTIVE BUILDING DEMOLITION</b>		<b>0</b>	<b>6,635,820</b>		<b>0</b>	<b>6,644,730</b>		<b>421,757</b>	<b>7,301,640</b>		
F2010 Building Elements Demolition	0		3,887,580	0		3,896,490	301,255		4,553,400		
F2020 Hazardous Components Abatement	0		2,748,240	0		2,748,240	120,502		2,748,240		
<b>SUB-TOTAL BUILDING</b>	<b>88,519,557</b>		<b>6,635,820</b>	<b>93,771,472</b>		<b>6,644,730</b>	<b>103,267,831</b>		<b>7,301,640</b>		<b>12,785,000</b>
<b>G. BUILDING SITework</b>											
<b>G10 SITE PREPARATION</b>											
G1010 Site Clearing	0		5,000	0		5,000	0		5,000		
G1020 Site Demolition & Relocations	0		100,000	0		100,000	0		100,000		
G1030 Site Earthwork	2,660,000		0	860,000		0	1,350,000		0		
G1040 Hazardous Waste Remediation	314,050		0	314,050		0	314,050		0		
<b>G20 SITE IMPROVEMENTS</b>		<b>5,850,000</b>			<b>5,891,205</b>			<b>6,061,650</b>		<b>0</b>	
G2010 Roadways	1,170,000		0	1,218,870		0	1,212,330		0		
G2020 Parking Lots	1,267,500		0	1,320,443		0	1,313,358		0		(1,313,358)
G2030 Pedestrian Paving	1,462,500		0	1,523,588		0	1,515,413		0		
G2040 Site Development	1,365,000		0	1,218,870		0	1,414,385		0		3,260,980
G2050 Landscaping	585,000		0	609,435		0	606,165		0		
<b>G30 SITE MECHANICAL UTILITIES</b>		<b>701,142</b>			<b>701,142</b>			<b>701,142</b>		<b>0</b>	
G3010 Water Supply	135,420		0	135,420		0	135,420		0		
G3020 Sanitary Sewer	149,111		0	149,111		0	149,111		0		
G3030 Storm Sewer	401,990		0	401,990		0	401,990		0		
G3060 Fuel Distribution	14,621		0	14,621		0	14,621		0		
<b>G40 SITE ELECTRICAL UTILITIES</b>		<b>234,391</b>			<b>234,391</b>			<b>234,391</b>		<b>0</b>	
G4010 Electrical Distribution	84,391		0	84,391		0	84,391		0		
G4020 Site Lighting	100,000		0	100,000		0	100,000		0		
G4030 Site Communications & Security	50,000		0	50,000		0	50,000		0		
<b>SUB-TOTAL SITE</b>	<b>9,759,583</b>		<b>105,000</b>	<b>8,000,788</b>		<b>105,000</b>	<b>8,661,233</b>		<b>105,000</b>		<b>1,947,622</b>



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

BUILDING TRADE BREAKDOWN

DESCRIPTION	Alternative 2A	Sub-total	Alternative 2A Demo/Site	Alternative 3	Sub-total	Alternative 3 Demo/Site	Alternative 4B	Sub-total	Alternative 4B Demo/Site	Sub-total	Add #2 Add Parking Garage & Field
<b>TOTAL BUILDING &amp; SITE</b>	<b>98,279,140</b>		<b>6,740,820</b>	<b>101,772,260</b>		<b>6,749,730</b>	<b>111,929,064</b>		<b>7,406,640</b>		<b>14,732,622</b>
General Conditions 7.00%	6,879,540		471,857	7,124,058		472,481	7,835,034		518,465		1,031,284
Phasing & Temporary work 4.00%	4,206,347		288,507	4,355,853		288,888	4,790,564		317,004		630,556
Escalation Contingency (4.5% per annum) (Phase 1 & 2) 21.56%	23,581,834			24,419,999			26,857,099				
Escalation Contingency (4.5% per annum) (Phase 3) 37.13%			2,784,815			2,788,496			3,059,883		6,086,444
<b>SUB TOTAL</b>	<b>132,946,861</b>		<b>10,285,999</b>	<b>137,672,171</b>		<b>10,299,595</b>	<b>151,411,761</b>		<b>11,301,992</b>		<b>22,480,906</b>
General Requirements 4.00%	5,317,874		411,440	5,506,887		411,984	6,056,470		452,080		899,236
<b>SUB TOTAL</b>	<b>138,264,736</b>		<b>10,697,439</b>	<b>143,179,058</b>		<b>10,711,579</b>	<b>157,468,232</b>		<b>11,754,072</b>		<b>23,380,142</b>
Bond 1.00%	1,382,647		106,974	1,431,791		107,116	1,574,682		117,541		233,801
Insurance 1.50%	2,094,711		162,066	2,169,163		162,280	2,385,644		178,074		354,209
<b>SUB TOTAL</b>	<b>141,742,094</b>		<b>10,966,480</b>	<b>146,780,011</b>		<b>10,980,975</b>	<b>161,428,558</b>		<b>12,049,687</b>		<b>23,968,152</b>
GMP Contingency 3.00%	4,252,263		328,994	4,403,400		329,429	4,842,857		361,491		719,045
Contractor's Overhead & Fee 2.00%	2,919,887		225,909	3,023,668		226,208	3,325,428		248,224		493,744
Design Contingency 10.00%	14,891,424		1,152,138	15,420,708		1,153,661	16,959,684		1,265,940		2,518,094
<b>SUBTOTAL CONSTRUCTION COSTS</b>	<b>\$163,805,668</b>		<b>\$12,673,522</b>	<b>\$169,627,787</b>		<b>\$12,690,274</b>	<b>\$186,556,527</b>		<b>\$13,925,341</b>		<b>\$27,699,035</b>
<b>TOTAL CONSTRUCTION COSTS (BLDG. &amp; DEMO/SITE)</b>	<b>\$176,479,190</b>			<b>\$182,318,061</b>			<b>\$200,481,868</b>				
<b>TOTAL GROSS AREA (SF)</b>	390,000			406,290			404,110				105,000
<b>COST PER GSF</b>	<b>\$452.51</b>			<b>\$448.74</b>			<b>\$496.11</b>				<b>\$263.80</b>



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

May 25, 2016

**Detail 3**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
<b>A. SUBSTRUCTURE</b>				
<b>A10 FOUNDATION</b>				
A1010 Standard Foundations				
Light	25,800	SF	1.00	25,800
Moderate	68,160	SF	2.00	136,320
Heavy	171,270	SF	4.00	685,080
New Construction/Addition				
EXTERIOR COLUMN FOOTINGS				
Strip footings to interior				
Excavation	178	CY	15.00	2,667
Remove off site	178	CY	25.00	4,444
Backfill with gravel	116	CY	35.00	4,044
Formwork	800	SF	10.00	8,000
Re-bar	4,356	LBS	1.10	4,791
Concrete material	62	CY	140.00	8,711
Placing concrete	56	HR	85.00	4,760
Strip footings to walls at step elevation change				
Excavation	56	CY	15.00	833
Remove off site	56	CY	25.00	1,389
Backfill with gravel	38	CY	35.00	1,332
Formwork	300	SF	10.00	3,000
Re-bar	1,225	LBS	1.10	1,348
Concrete material	18	CY	140.00	2,450
Placing concrete	16	HR	85.00	1,339
Strip footings to basement walls				
Excavation	570	CY	15.00	8,556
Remove off site	570	CY	25.00	14,259
Backfill with gravel	250	CY	35.00	8,734
Formwork	3,300	SF	10.00	33,000
Re-bar	22,458	LBS	1.10	24,704
Concrete material	321	CY	140.00	44,917
Placing concrete	289	HR	85.00	24,544
Foundation walls at exterior				
Formwork	14,400	SF	12.00	172,800
Re-bar	28,800	LBS	1.10	31,680
Concrete material	372	CY	140.00	52,136
Placing concrete	298	HR	85.00	25,323
Waterproofing foundation wall & footing	10,800	SF	2.50	27,000
Insulation to foundation walls	7,200	SF	2.50	18,000
Walls at stage elevation change				
Formwork	1,500	SF	10.00	15,000
Re-bar	3,000	LBS	1.10	3,300
Concrete material	29	CY	140.00	4,083
Placing concrete	23	HR	85.00	1,983
Waterproofing foundation wall & footing	750	SF	2.50	1,875
Insulation to foundation walls	450	SF	2.50	1,125
Exterior column footings, type F1				
Excavation	528	CY	35.00	18,480
Remove off site	528	CY	25.00	13,200
Backfill with gravel	464	CY	35.00	16,234
Formwork	1,320	SF	10.00	13,200
Re-bar	4,492	LBS	1.10	4,941
Concrete material	64	CY	140.00	8,983
Placing concrete	58	HR	85.00	4,909



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

May 25, 2016

**Detail 3**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
Interior column footings, type F1				
Excavation	430	CY	15.00	6,447
Remove off site	430	CY	25.00	10,745
Backfill with gravel	272	CY	35.00	9,513
Formwork	2,031	SF	10.00	20,313
Re-bar	11,059	LBS	1.10	12,165
Concrete material	158	CY	140.00	22,118
Placing concrete	142	HR	85.00	12,086
Miscellaneous				
Allow for piers/pilasters	72	EA	800.00	57,770
Set anchor bolts grout plates	44	EA	65.00	2,860
Local de-watering during excavation	1	LS	15,000.00	15,000
Miscellaneous concrete costs (pumping, admixtures etc.)				
Premium for pump grade concrete mix	1,024.3	CY	5.00	5,121
Pump and operator	12.8	DAYS	1,100.00	14,084
Foundation drainage	1,100	LF	17.00	18,700
<b>Sub-Total</b>				<b>\$1,696,196</b>
A1020 Special Foundations				
Underpinning existing foundations, complete	1	LS	100,000.00	100,000
<b>Sub-Total</b>				<b>\$100,000</b>
A1030 Slab on Grade				
Light	25,800	SF	1.00	25,800
Moderate	68,160	SF	3.00	204,480
Heavy	171,270	SF	5.00	856,350
New Construction/Addition	141,060	SF	3.98	561,221
Slab on grade				
Gravel fill	1,306	CY	35.00	45,714
Rigid insulation under slab on grade	35,265	SF	2.50	88,163
Vapor barrier	35,265	SF	0.75	26,449
Waterproofing system	35,265	SF	6.00	211,590
Mesh reinforcing 15% lap	40,555	SF	1.25	50,693
Concrete	576	CY	140.00	80,639
Placing concrete	518	HR	85.00	44,064
Finishing and curing concrete	282	HR	85.00	23,980
Control joints - saw cut	35,265	SF	1.00	35,265
Isolation joints at columns	289	LF	5.00	1,444
Perimeter joints	1,100	LF	4.00	4,400
Elevator Pits				
Excavation for elevator pit	175	CY	15.00	2,625
Remove off site	175	CY	25.00	4,375
Backfill with gravel	12	CY	35.00	436
Elevator pit walls				
Formwork	1,296	SF	10.00	12,960
Reinforcement	1,944	LBS	1.10	2,138
Concrete material	17	CY	140.00	2,364
Placing concrete	14	HR	85.00	1,148
Slab				
Formwork	162	SF	10.00	1,620
Reinforcement	709	LBS	1.10	780



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

May 25, 2016

**Detail 3**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
Concrete material in slab	14	CY	140.00	1,985
Placing concrete	13	HR	85.00	1,084
Cementitious waterproofing to elevator pit	891	SF	12.00	10,692
Miscellaneous				
Miscellaneous concrete costs (pumping, admixtures etc.)				
Premium for pump grade concrete mix	31	CY	17.00	528
Pump and operator	0.4	DAYS	1,100.00	427
Allowance for structure slab	1	LS	600,000.00	600,000
New loading dock	1	LS	40,000.00	40,000
<b>Sub-Total</b>				<b>\$2,943,414</b>

**A20 BASEMENT CONSTRUCTION**

A2010 Basement Excavation

New Construction/Addition

Excavate for basement	18,286	CY	15.00	274,283
Excavate working space to basement wall	218	CY	15.00	3,267
Remove excavated material from site	18,503	CY	25.00	462,583
Backfill around basement walls with gravel	218	CY	35.00	7,622
Allowance for waterproofing	1	LS	400,000.00	400,000
Wood and steel lagging	5,880	SF	28.00	164,640
<b>Sub-Total</b>				<b>\$1,312,396</b>

A2020 Basement Walls

New Construction/Addition

Formwork to basement wall	35,265	SF		
Reinforcement in basement walls	30,800	SF	16.00	492,800
Concrete material in basement walls	77,000	LBS	1.50	115,500
Placing concrete	797	CY	140.00	111,513
Rubbing concrete after stripping formwork	637	HR	85.00	54,164
Waterproofing and protection mat to basement walls	308	HR	85.00	26,180
Rigid insulation to basement walls	15,400	SF	5.00	77,000
Miscellaneous concrete costs (pumping, admixtures etc.)	15,400	SF	2.75	42,350
Premium for pump grade concrete mix	797	CY	5.00	3,983
Pump and operator	10.0	DAYS	1,100.00	10,952
<b>Sub-Total</b>				<b>\$934,441</b>

**B. SHELL**

**B10 SUPERSTRUCTURE**

B1010 Floor Construction

Light	25,800	SF	2.00	51,600
Moderate	68,160	SF	5.00	340,800
Heavy	171,270	SF	10.00	1,712,700
New Construction/Addition, 15 LB/SF	1,058	TN	3,600.00	3,808,620
New Construction/Addition - connections 10%	106	TN	3,600.00	380,862
New Construction/Addition - Premium for tube steel 10%	106	TN	600.00	63,477
<b>Sub-Total</b>				<b>\$6,358,059</b>



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

May 25, 2016

**Detail 3**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
<b>B1020 Roof Construction</b>				
Light	25,800	SF	1.00	25,800
Moderate	68,160	SF	2.00	136,320
Heavy	171,270	SF	5.00	856,350
New Construction/Addition	141,060	SF		In Above
<b>Sub-Total</b>				<b>\$1,018,470</b>
<b>B20 EXTERIOR ENCLOSURE</b>				
<b>B2010 Exterior Walls</b>				
Light	25,800	SF	1.00	25,800
Moderate	68,160	SF	1.50	102,240
Heavy	171,270	SF	12.00	2,055,240
<b>New Construction/Addition</b>				
Interior skin - 70%				
Metal stud backup to exterior wall, 6" thick				
	35,280	SF	10.50	370,440
Insulation				
	35,280	SF	3.75	132,300
Air barrier				
	35,280	SF	2.75	97,020
Den shield or similar to exterior face of stud backup				
	35,280	SF	3.50	123,480
Drywall lining to interior face of stud backup				
	35,280	SF	3.00	105,840
Exterior skin - 40% brick veneer				
	20,160	SF	38.00	766,080
Exterior skin - 10% metal panel				
	5,040	SF	55.00	277,200
Exterior skin - 20% porcelain				
	10,080	SF	65.00	655,200
Allowance to connect to existing building				
	1	LS	500,000.00	500,000
<b>Sub-Total</b>				<b>\$5,210,840</b>
<b>B2020 Exterior Windows</b>				
Light	25,800	SF	1.00	25,800
Moderate	68,160	SF	2.00	136,320
Heavy	171,270	SF	8.00	1,370,160
<b>New Construction/Addition</b>				
Windows and Glazing - 15%				
	9,450	SF	85.00	803,250
Curtainwall - 15%				
	9,450	SF	120.00	1,134,000
<b>Sub-Total</b>				<b>\$3,469,530</b>
<b>B2030 Exterior Doors</b>				
Light	25,800	SF		0
Moderate	68,160	SF	2.00	136,320
Heavy	171,270	SF	3.25	556,628
New Construction/Addition	141,060	SF	5.00	705,300
<b>Sub-Total</b>				<b>\$1,398,248</b>
<b>B30 ROOFING</b>				
<b>B3010 Roof Coverings</b>				
Moderate	68,160	SF	1.25	85,200
Heavy	171,270	SF	6.00	1,027,620
<b>New Construction/Addition</b>				
Flat roofing				
Roof membrane fully adhered				
	35,265	SF	26.00	916,890
<b>Sub-Total</b>				<b>\$2,029,710</b>



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

**Detail 3**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
B3020 Roof Openings				
Moderate	68,160	SF		0
Heavy	171,270	SF	0.15	25,691
New Construction/Addition	141,060	SF	0.35	49,371
	<b>Sub-Total</b>			<b>\$75,062</b>
<b>C. INTERIOR</b>				
<b>C10 INTERIOR CONSTRUCTION</b>				
C1010 Partitions				
Light	25,800	SF	5.00	129,000
Moderate	68,160	SF	6.50	443,040
Heavy	171,270	SF	11.00	1,883,970
New Construction/Addition	141,060	SF	12.00	1,692,720
	<b>Sub-Total</b>			<b>\$4,148,730</b>
C1020 Interior Doors				
Light	25,800	SF	1.75	45,150
Moderate	68,160	SF	2.50	170,400
Heavy	171,270	SF	5.00	856,350
New Construction/Addition	141,060	SF	5.00	705,300
	<b>Sub-Total</b>			<b>\$1,777,200</b>
C1030 Fittings				
Light	25,800	SF	2.00	51,600
Moderate	68,160	SF	3.00	204,480
Heavy	171,270	SF	4.00	685,080
New Construction/Addition	141,060	SF	5.00	705,300
	<b>Sub-Total</b>			<b>\$1,646,460</b>
<b>C20 STAIRS</b>				
C2010 Stair Construction				
Moderate	68,160	SF	1.00	68,160
Heavy	171,270	SF	3.50	599,445
New Construction/Addition	141,060	SF	3.50	493,710
	<b>Sub-Total</b>			<b>\$1,161,315</b>
C2020 Stair Finishes				
Moderate	68,160	SF	1.00	68,160
Heavy	171,270	SF	2.00	342,540
New Construction/Addition	141,060	SF	2.00	282,120
	<b>Sub-Total</b>			<b>\$692,820</b>
<b>C30 INTERIOR FINISHES</b>				
C3010 Wall Finishes				
Light	25,800	SF	2.00	51,600



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
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**Detail 3**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
Moderate	68,160	SF	3.00	204,480
Heavy	171,270	SF	10.00	1,712,700
New Construction/Addition	141,060	SF	9.00	1,269,540
<b>Sub-Total</b>				<b>\$3,238,320</b>
<b>C3020 Floor Finishes</b>				
Light	25,800	SF	2.00	51,600
Moderate	68,160	SF	3.00	204,480
Heavy	171,270	SF	6.00	1,027,620
New Construction/Addition	141,060	SF	6.00	846,360
<b>Sub-Total</b>				<b>\$2,130,060</b>
<b>C3030 Ceiling Finishes</b>				
Light	25,800	SF	2.50	64,500
Moderate	68,160	SF	4.00	272,640
Heavy	171,270	SF	9.00	1,541,430
New Construction/Addition	141,060	SF	9.00	1,269,540
Premium for double layer ceiling	11,285	SF	7.00	78,994
<b>Sub-Total</b>				<b>\$3,227,104</b>
<b>D. SERVICE</b>				
<b>D10 CONVEYING</b>				
D1010 Elevators & Lifts				
Heavy	171,270	SF	3.00	513,810
New Construction/Addition	141,060	SF	3.00	423,180
<b>Sub-Total</b>				<b>\$936,990</b>
<b>D20 PLUMBING</b>				
D2010 Plumbing Fixtures				
Light	25,800	SF	14.65	377,970
Moderate	68,160	SF	14.65	998,544
Heavy	171,270	SF	14.65	2,509,106
New Construction/Addition	141,060	SF	14.65	2,066,529
<b>Sub-Total</b>				<b>\$5,952,149</b>
<b>D30 HVAC</b>				
D3020 Heat Generating Systems				
Light	25,800	SF	38.86	1,002,588
Moderate	68,160	SF	38.86	2,648,698
Heavy	171,270	SF	38.86	6,655,552
New Construction/Addition	141,060	SF	38.86	5,481,592
<b>Sub-Total</b>				<b>\$15,788,429</b>



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

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**Detail 3**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
<b>D3060 Controls &amp; Instrumentation</b>				
Light	25,800	SF	4.28	110,424
Moderate	68,160	SF	4.28	291,725
Heavy	171,270	SF	4.28	733,036
New Construction/Addition	141,060	SF	4.28	603,737
<b>Sub-Total</b>				<b>\$1,738,921</b>
<b>D3070 Systems Testing &amp; Balancing</b>				
Light	25,800	SF	0.66	17,028
Moderate	68,160	SF	0.66	44,986
Heavy	171,270	SF	0.66	113,038
New Construction/Addition	141,060	SF	0.66	93,100
<b>Sub-Total</b>				<b>\$268,151</b>
<b>D40 FIRE PROTECTION</b>				
<b>D4010 Sprinklers</b>				
Light	25,800	SF	6.17	159,186
Moderate	68,160	SF	6.17	420,547
Heavy	171,270	SF	6.17	1,056,736
New Construction/Addition	141,060	SF	6.17	870,340
<b>Sub-Total</b>				<b>\$2,506,809</b>
<b>D50 ELECTRICAL</b>				
<b>D5010 Electrical Service &amp; Distribution</b>				
Light	25,800	SF	15.00	387,000
Moderate	68,160	SF	20.00	1,363,200
Heavy	171,270	SF	37.00	6,336,990
New Construction/Addition	141,060	SF	37.00	5,219,220
Generator with enclosure	1	LS	700,000.00	700,000
<b>Sub-Total</b>				<b>\$14,006,410</b>
<b>E. EQUIPMENT &amp; FURNISHINGS</b>				
<b>E10 EQUIPMENTS</b>				
<b>E1010 Commercial Equipment</b>				
Heavy	171,270	SF	5.00	856,350
New Construction/Addition	141,060	SF	5.00	705,300
<b>Sub-Total</b>				<b>\$1,561,650</b>
<b>E1020 Institutional Equipment</b>				
Light	25,800	SF	2.00	51,600
Moderate	68,160	SF	3.00	204,480
Heavy	171,270	SF	6.00	1,027,620
New Construction/Addition	141,060	SF	7.00	987,420
Allowance for Lab equipment/millwork	1	LS	1,200,000.00	1,200,000
<b>Sub-Total</b>				<b>\$3,471,120</b>



**FINAL EVALUATION OF ALTERNATIVES**  
**SOMERVILLE SCHOOL DEPARTMENT**  
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 Somerville, MA

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**Detail 3**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
E1030 Vehicular Equipment				
Heavy	171,270	SF	0.15	25,691
New Construction/Addition	141,060	SF	0.15	21,159
				<b>Sub-Total</b>
				<b>\$46,850</b>
<b>E20 FURNISHINGS</b>				
E2010 Fixed Furnishings				
Light	25,800	SF	2.00	51,600
Moderate	68,160	SF	3.00	204,480
Heavy	171,270	SF	8.00	1,370,160
New Construction/Addition	141,060	SF	8.00	1,128,480
Library millwork	1	LS	50,000.00	50,000
				<b>Sub-Total</b>
				<b>\$2,804,720</b>
E2020 Movable Furnishings				
Heavy	171,270	SF	0.50	85,635
New Construction/Addition	141,060	SF	0.25	35,265
				<b>Sub-Total</b>
				<b>\$120,900</b>
<b>F. SPECIAL CONSTRUCTION &amp; DEMOLITION</b>				
<b>F20 SELECTIVE BUILDING DEMOLITION</b>				
<b>G. BUILDING SITEWORK</b>				
<b>G10 SITE IMPROVEMENTS</b>				
G1030 Site Earthwork				
Earthwork for "Lower Level" construction (81'-0")				
Cut	14,000	CY	20.00	280,000
Fill	1,000	CY	20.00	20,000
Earthwork for "Level 1" construction (101'-0")				
Cut	1,500	CY	20.00	30,000
Fill	12,500	CY	20.00	250,000
Earthwork for "Parking Structure with Sports field" construction				
Cut	12,000	CY	20.00	240,000
Fill	2,000	CY	20.00	40,000
				<b>Sub-Total</b>
				<b>\$860,000</b>
G1040 Hazardous Waste Remediation				
Allowance	1	LS	314,050.00	314,050
				<b>Sub-Total</b>
				<b>\$314,050</b>
<b>G20 SITE IMPROVEMENTS</b>				
G2010 Roadways				
Allowance	406,290	GFS	3.00	1,218,870
				<b>Sub-Total</b>
				<b>\$1,218,870</b>



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
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Detail 3

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
G2020 Parking Lots Allowance	406,290	GFS	3.25	1,320,443
<b>Sub-Total</b>				<b>\$1,320,443</b>
G2030 Pedestrian Paving Allowance	406,290	GFS	3.75	1,523,588
<b>Sub-Total</b>				<b>\$1,523,588</b>
G2040 Site Development Allowance	406,290	GFS	3.00	1,218,870
<b>Sub-Total</b>				<b>\$1,218,870</b>
G2050 Landscaping Allowance	406,290	GFS	1.50	609,435
<b>Sub-Total</b>				<b>\$609,435</b>
<b>G30 SITE MECHANICAL UTILITIES</b>				
G3010 Water Supply Water supply	1,464	LF	92.50	135,420
<b>Sub-Total</b>				<b>\$135,420</b>
G3020 Sanitary Sewer Sanitary sewer	1,291	LF	115.50	149,111
<b>Sub-Total</b>				<b>\$149,111</b>
G3030 Storm Sewer Storm Sewer	3,295	LF	122.00	401,990
<b>Sub-Total</b>				<b>\$401,990</b>
G3060 Fuel Distribution Fuel Distribution	299	LF	48.90	14,621
<b>Sub-Total</b>				<b>\$14,621</b>
<b>G40 SITE ELECTRICAL UTILITIES</b>				
G4010 Electrical Distribution Allowance	989	LF	85.33	84,391
<b>Sub-Total</b>				<b>\$84,391</b>
G4020 Site Lighting Allowance	1	LS	100,000.00	100,000
<b>Sub-Total</b>				<b>\$100,000</b>



FINAL EVALUATION OF ALTERNATIVES  
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SOMERVILLE HIGH SCHOOL  
Somerville, MA

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**Detail 3**

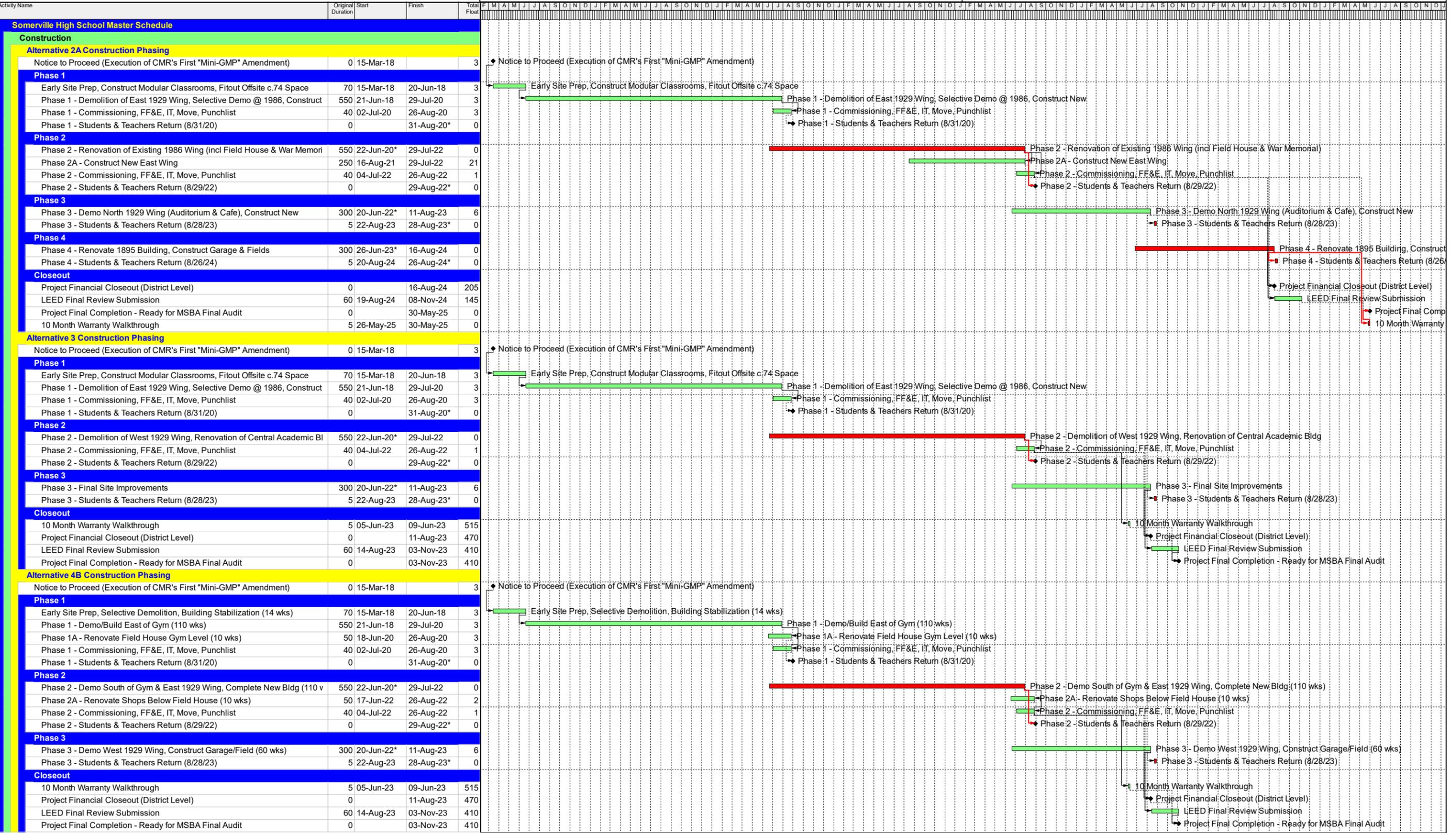
DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
G4030 Site Communications & Security Allowance	1	LS	50,000.00	50,000
	<b>Sub-Total</b>			<b>\$50,000</b>
	<b>Total</b>			<b>101,772,260</b>





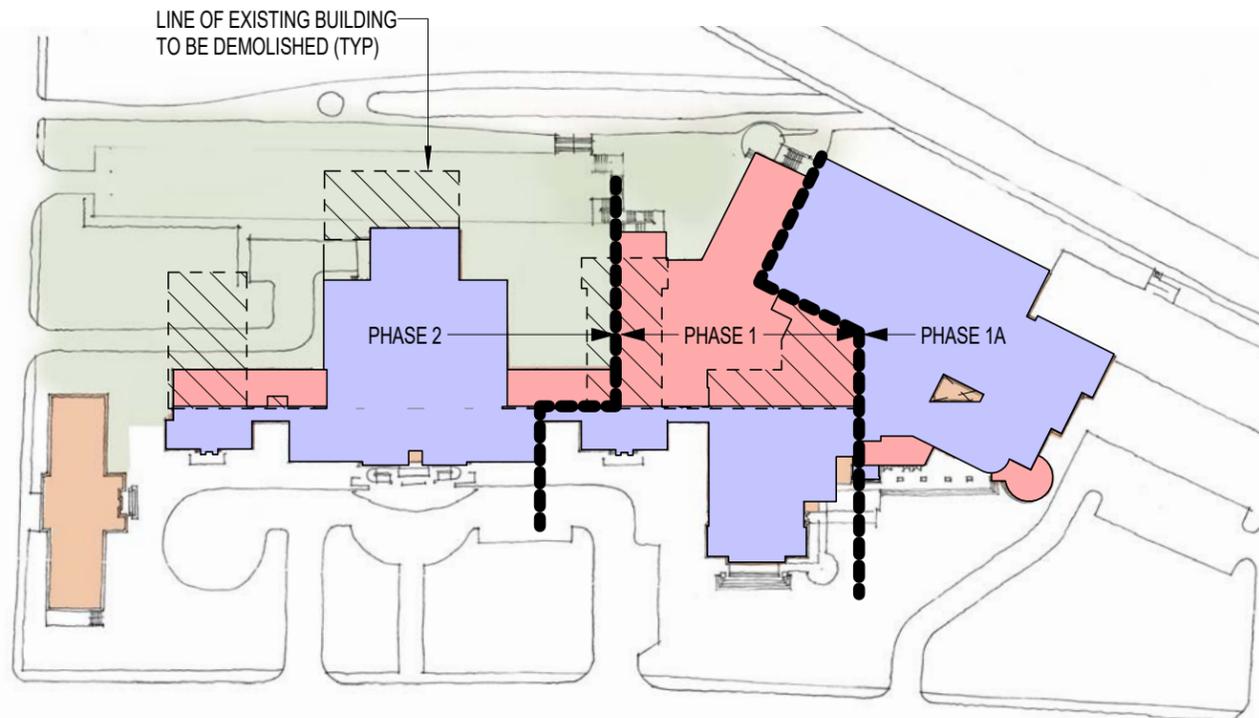
### 3.2.9 Proposed schedule including phasing





█ Actual Work    █ Critical Remaining Work  
█ Remaining Work    ◆ Milestone

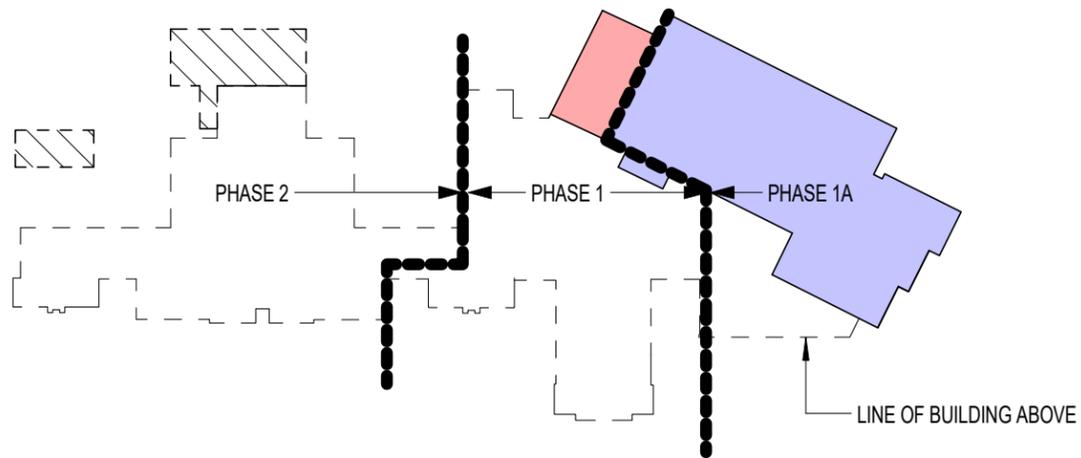




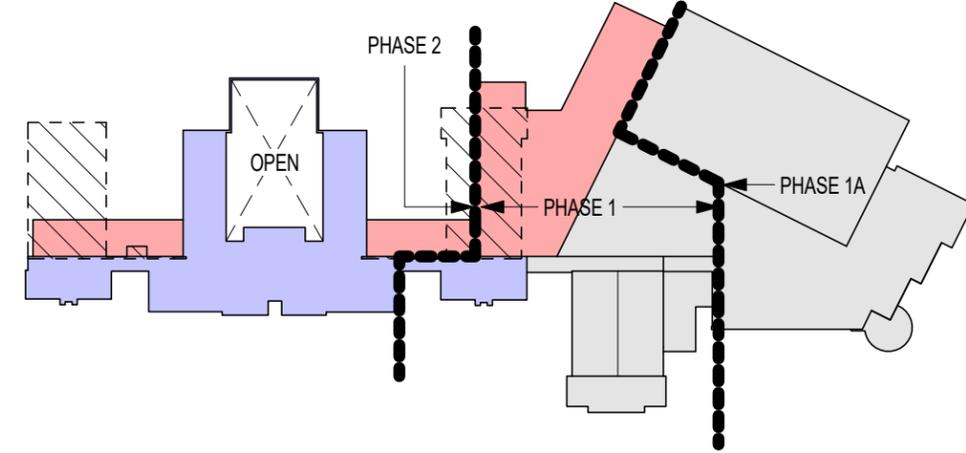
**CONSTRUCTION LEGEND**

ADD RENO

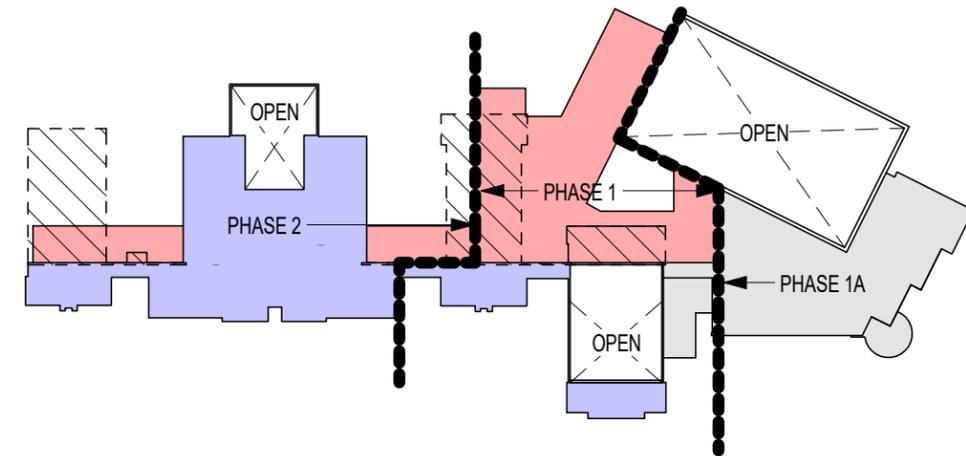
**1 LEVEL 1**  
SCALE: 1" = 160'-0"



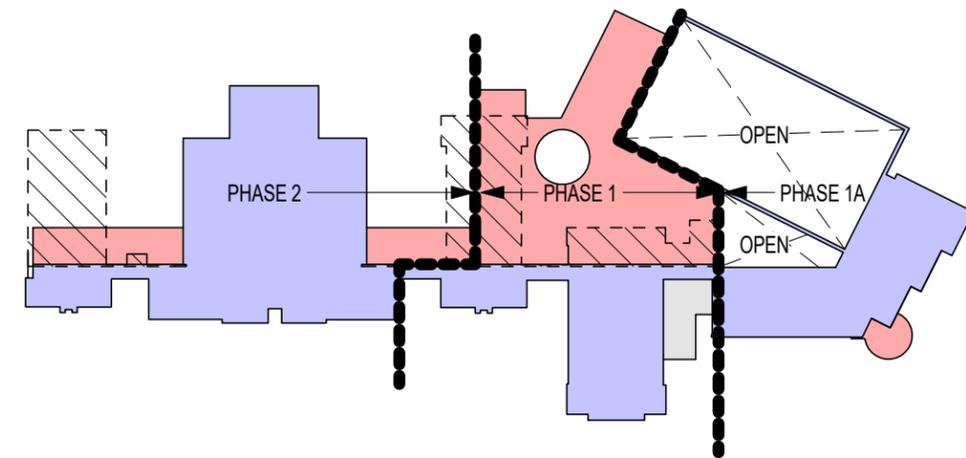
**L LOWER LEVEL**  
SCALE: 1" = 160'-0"



**4 LEVEL 4**  
SCALE: 1" = 160'-0"



**3 LEVEL 3**  
SCALE: 1" = 160'-0"

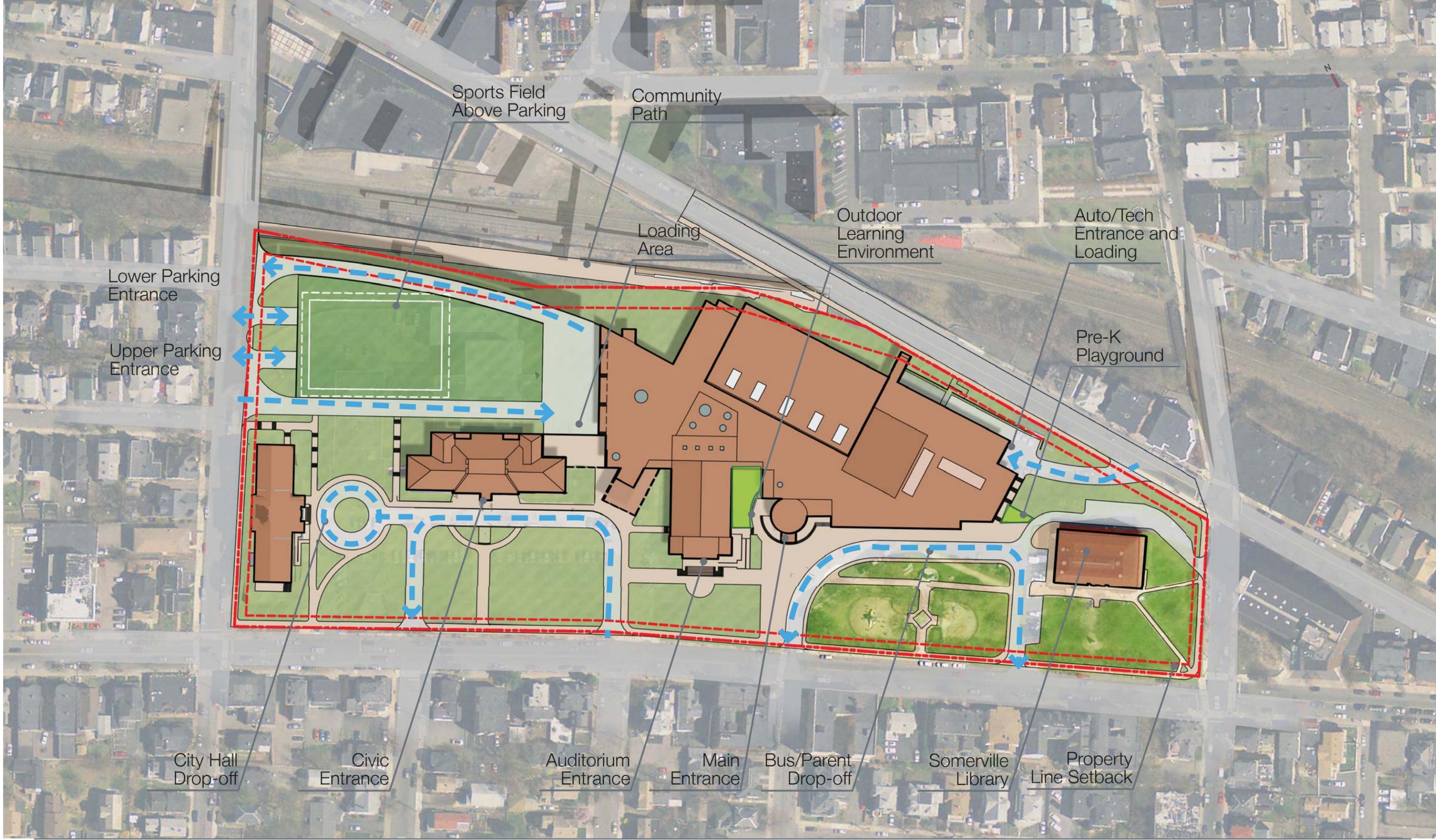


**2 LEVEL 2**  
SCALE: 1" = 160'-0"



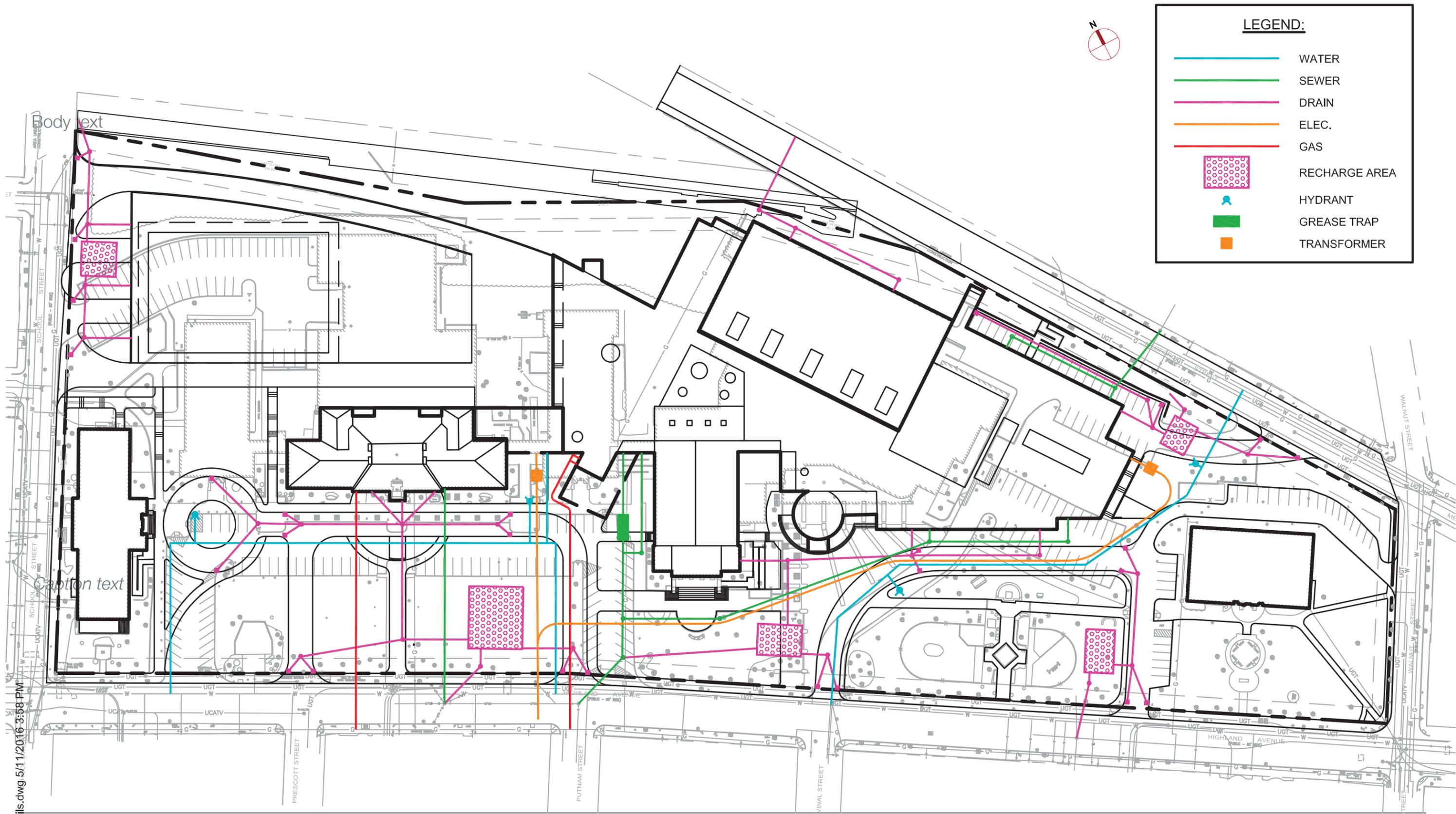
### 3.3.3 Conceptual Architectural and Site Drawings





Alternative 4B - Site Plan (Preferred)  
 Somerville High School - Somerville, MA





**LEGEND:**

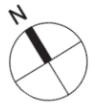
- WATER
- SEWER
- DRAIN
- ELEC.
- GAS
- RECHARGE AREA
- HYDRANT
- GREASE TRAP
- TRANSFORMER

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Alternative 4B - Utilities  
Somerville High School - Somerville, MA



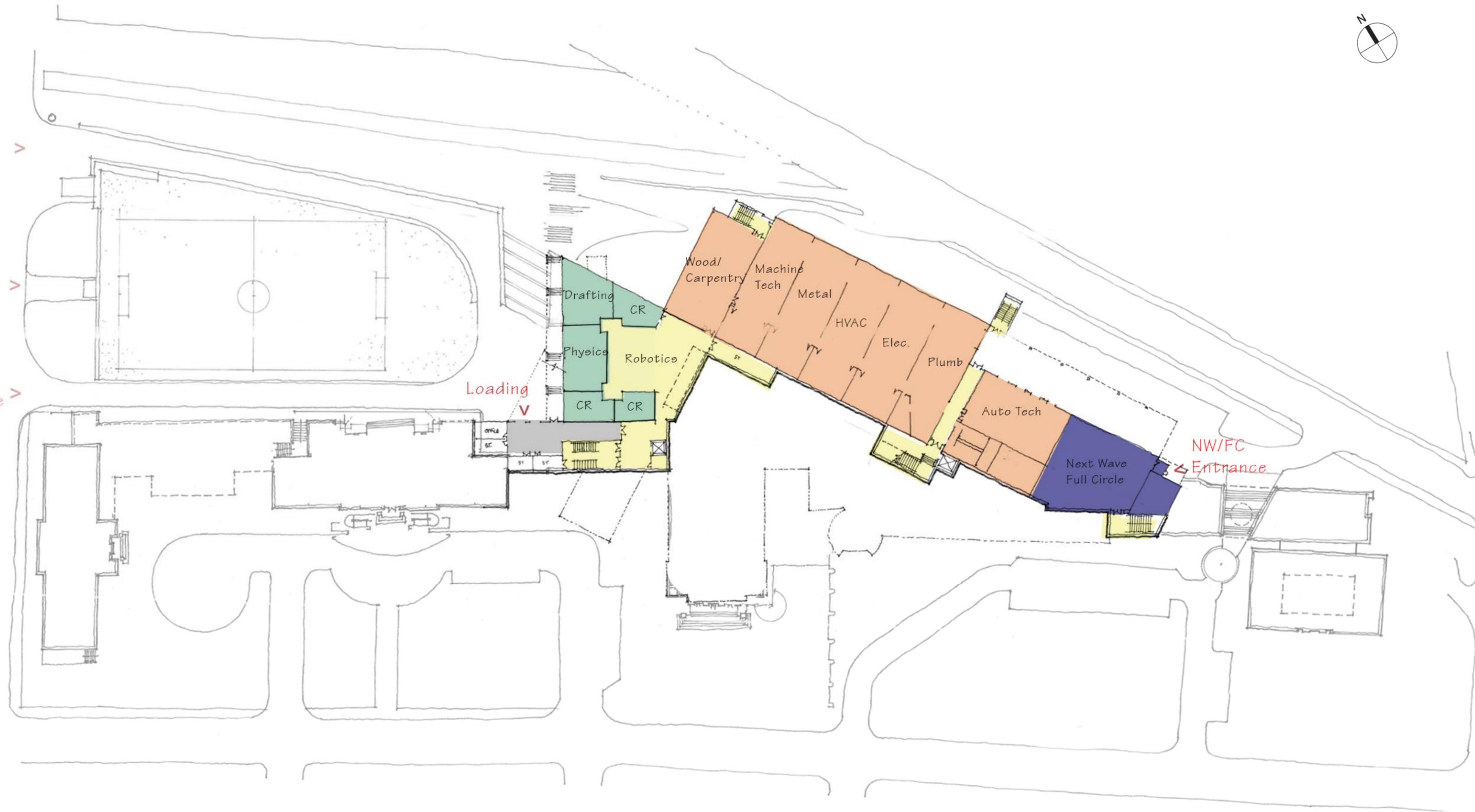




Lower Level Parking >

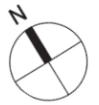
Upper Level Parking >

Service Entrance >



Alternative 4B - Lower Level Plan  
Somerville High School - Somerville, MA

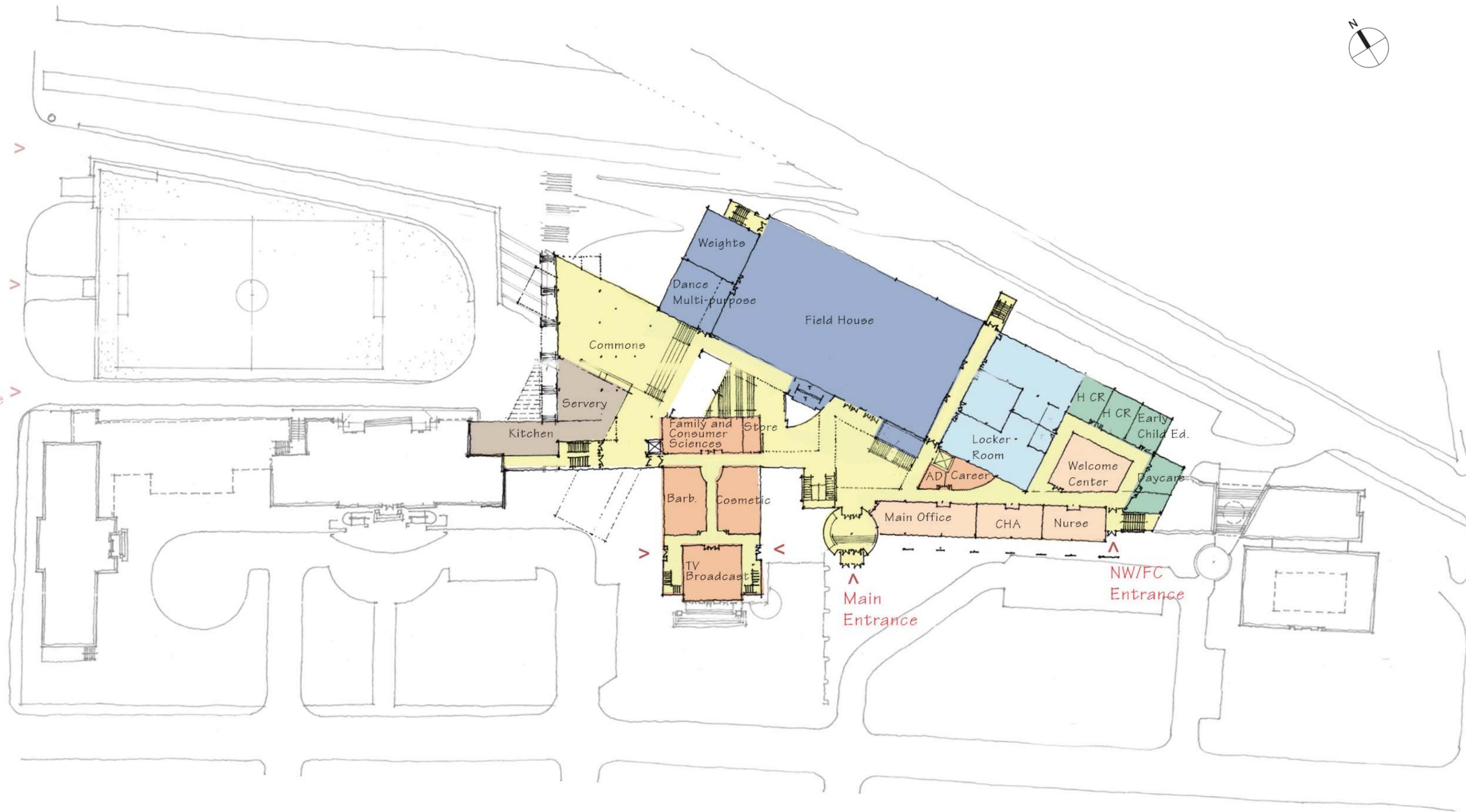




Lower Level Parking

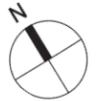
Upper Level Parking

Service Entrance



Alternative 4B - Level 1 Plan  
Somerville High School - Somerville, MA

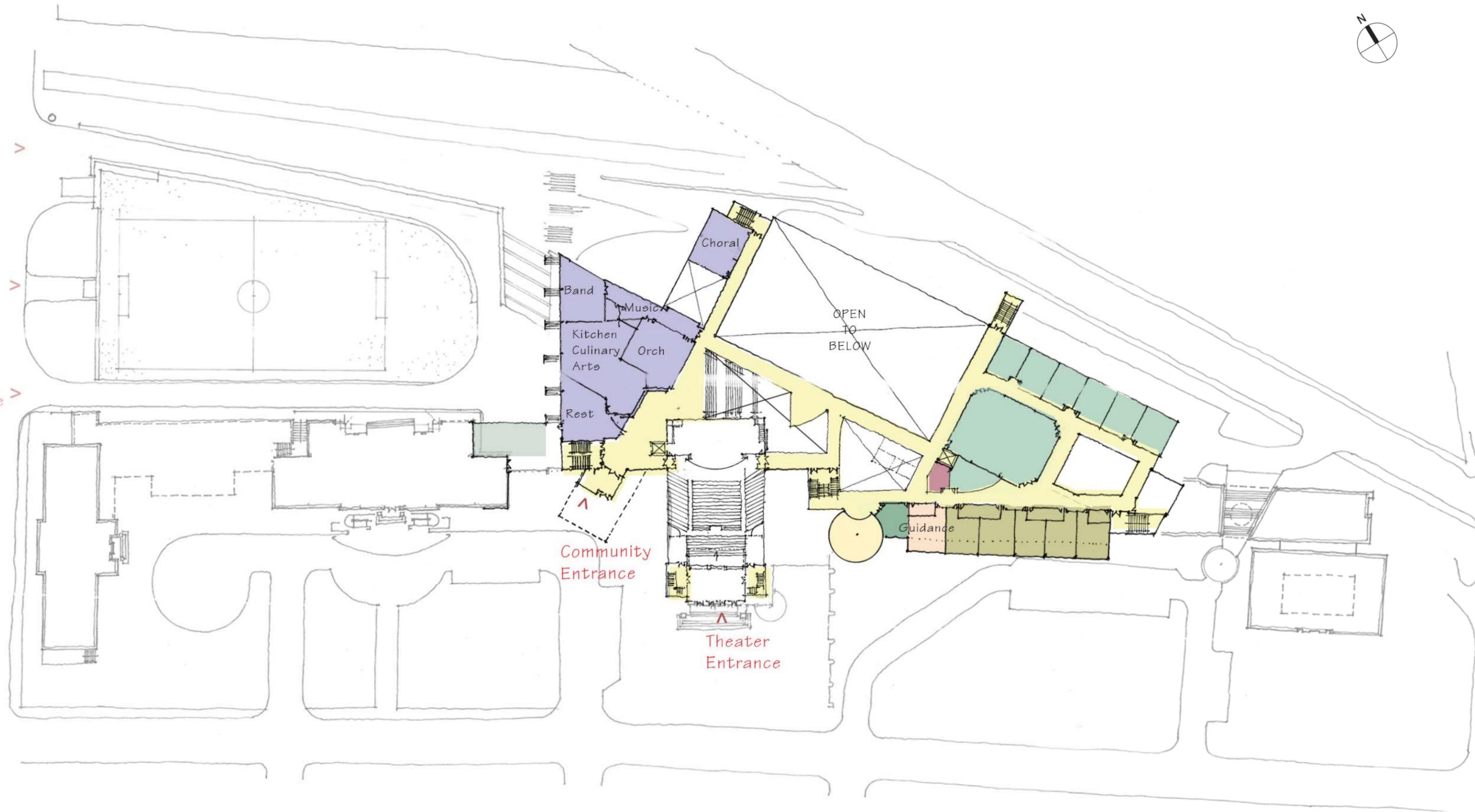




Lower Level Parking >

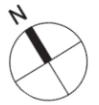
Upper Level Parking >

Service Entrance >



Alternative 4B - Level 2 Plan  
Somerville High School - Somerville, MA

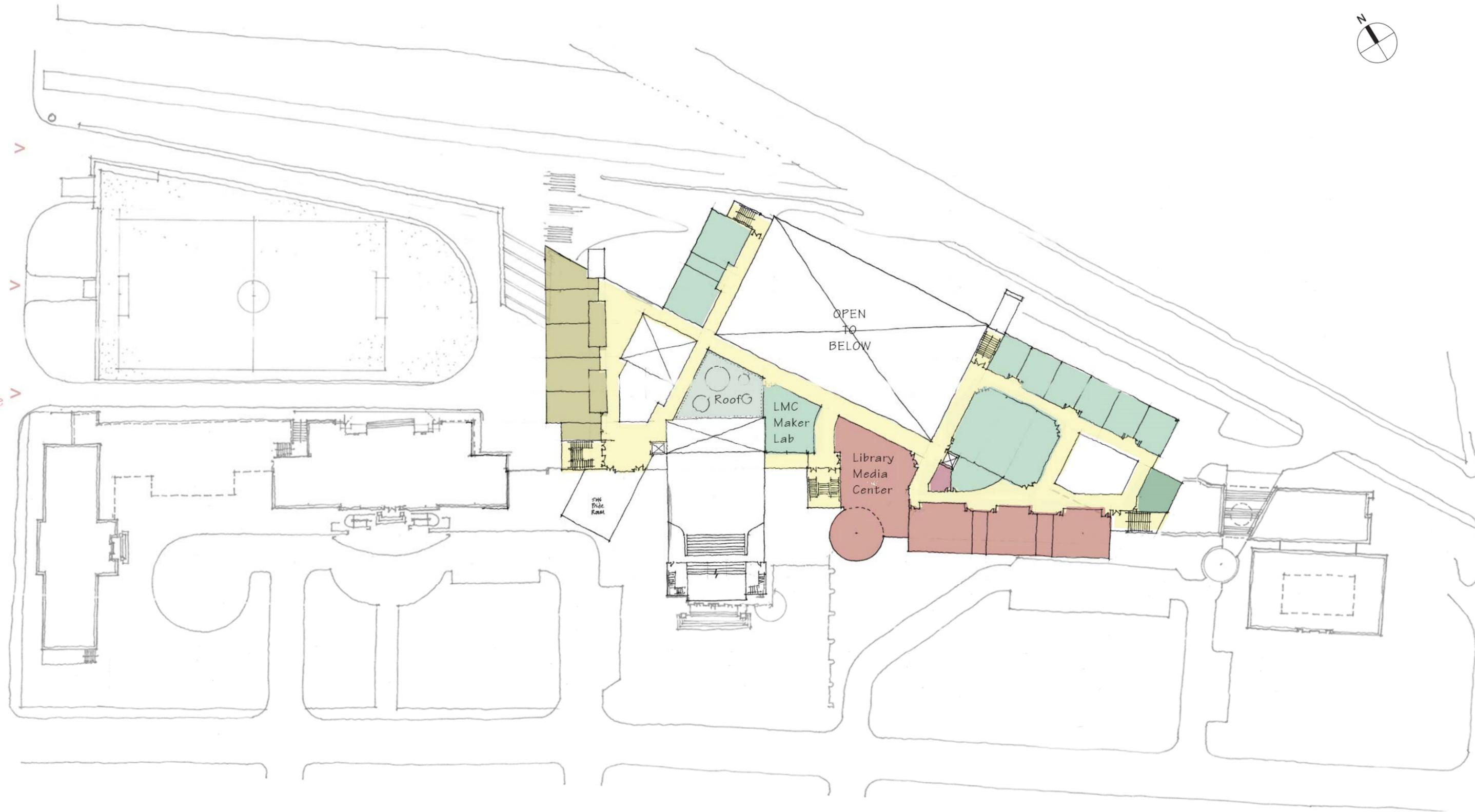




Lower Level Parking >

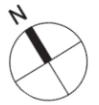
Upper Level Parking >

Service Entrance >



Alternative 4B - Level 3 Plan  
Somerville High School - Somerville, MA

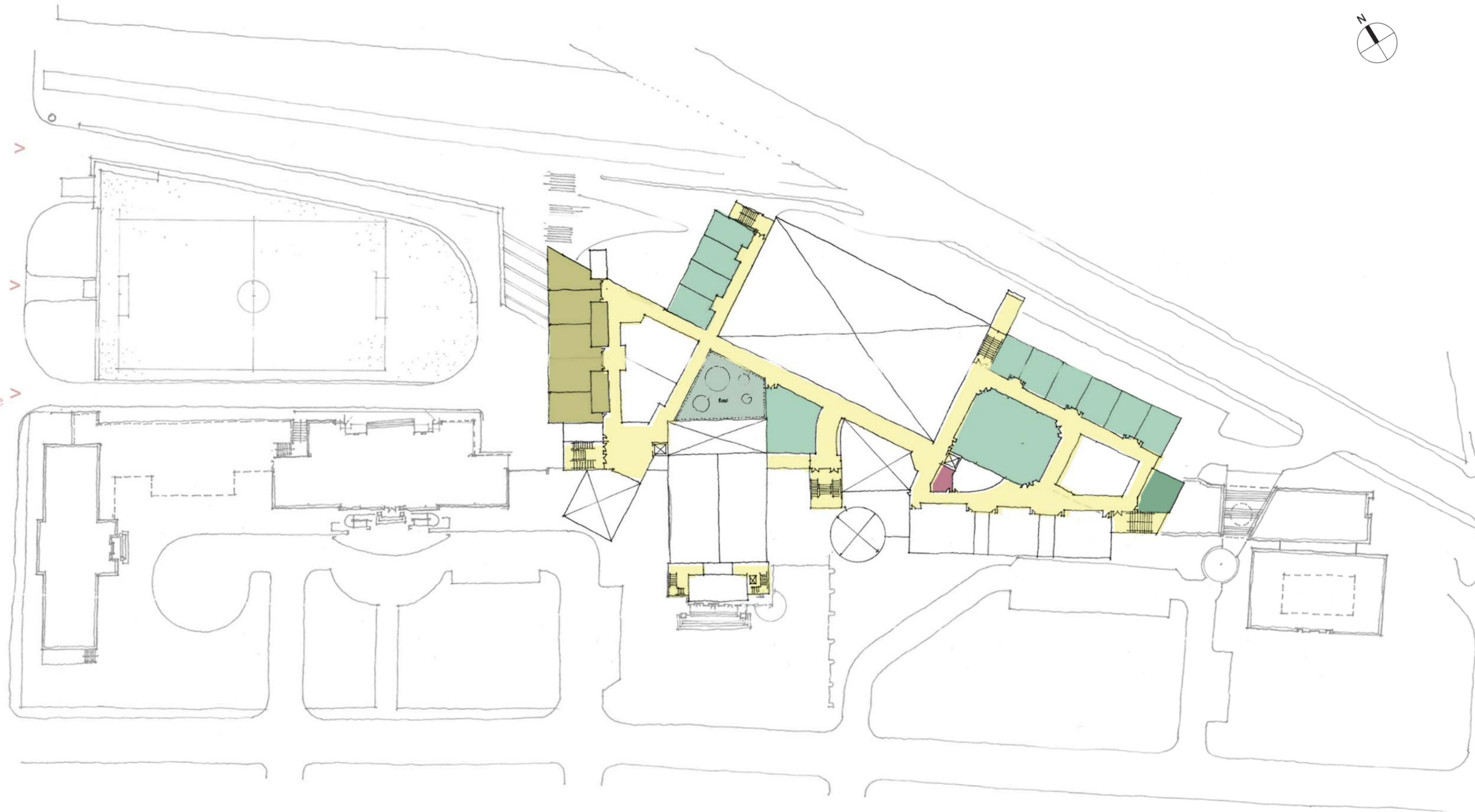




Lower Level Parking >

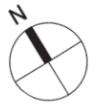
Upper Level Parking >

Service Entrance >



Alternative 4B - Level 4 Plan  
*Somerville High School - Somerville, MA*

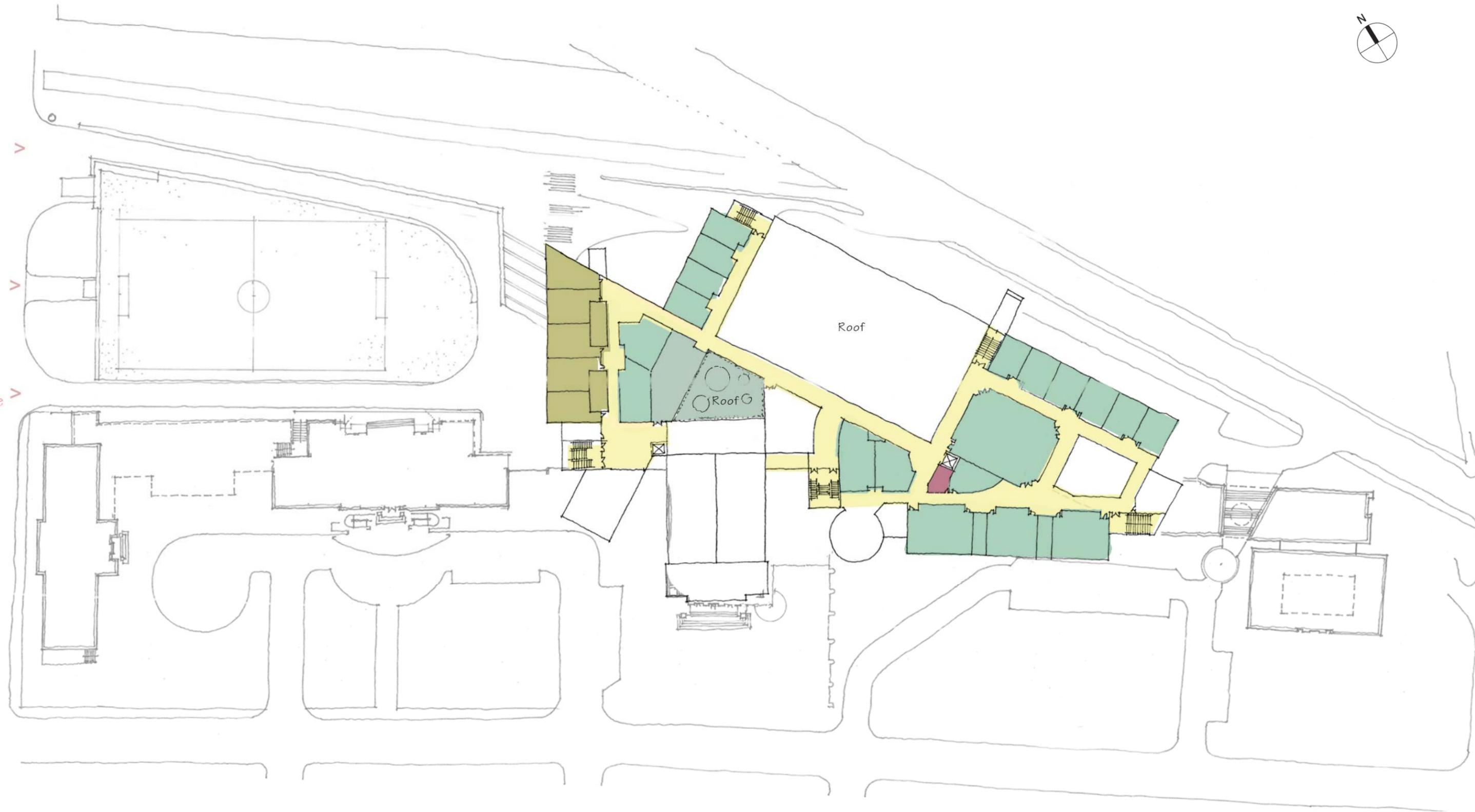




Lower Level Parking >

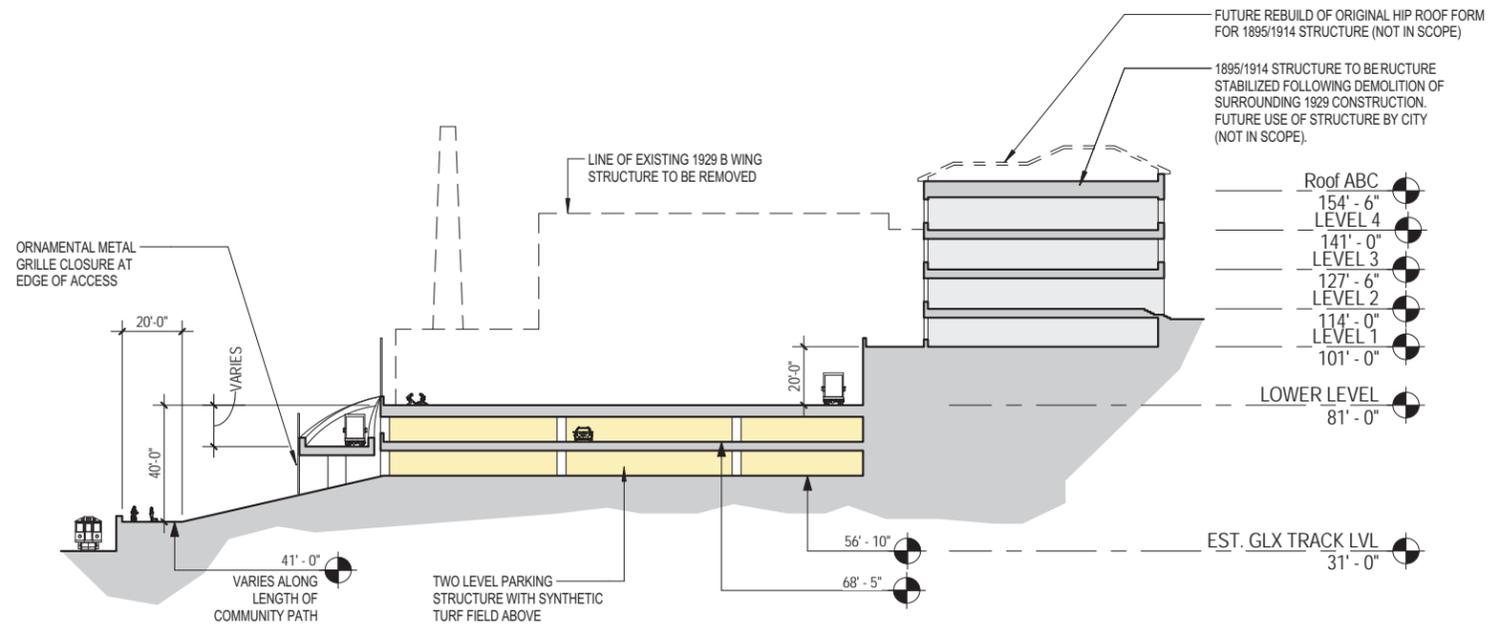
Upper Level Parking >

Service Entrance >



Alternative 4B - Level 5 Plan  
*Somerville High School - Somerville, MA*





**B** ALT 4B - SITE SECTION B - AT 1895/1914 STRUCTURE AND PARKING GARAGE  
SCALE: 1" = 40'-0"



**E** ALT 4B - SITE SECTION E - AT NEW SIX STORY ADDITION  
SCALE: 1" = 40'-0"



### 3.3.7 Proposed Total Budget and Cost Estimates



**PRELIMINARY - Conceptual Estimates - 5/26/16**  
**SOMERVILLE HIGH SCHOOL PROJECT - HIGH LEVEL COST SCENARIOS**

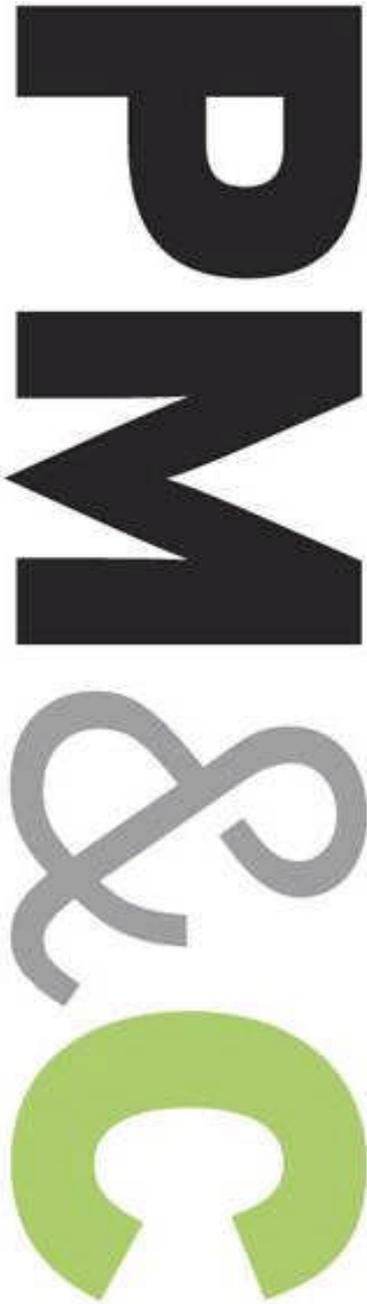
	Alternative 2A	Alternative 3	Alternative 4B	Alternative 4B
DATA IS ROUGH ORDER MAGNITUDE ESTIMATE OF CONCEPTS	VJ Associates "Estimate of Record"	VJ Associates "Estimate of Record"	VJ Associates "Estimate of Record"	Including SBC Scope Modifications
<b>Direct Trade Costs</b>	<b>\$ 141,556,645</b>	<b>\$ 145,873,175</b>	<b>\$ 156,577,888</b>	<b>\$ 122,136,975</b>
<b>GMP w/ Markups (Escalation, Contingency, Fee, GCs, GRs, etc)</b>	<b>\$ 238,762,916</b>	<b>\$ 245,957,445</b>	<b>\$ 263,799,407</b>	<b>\$ 197,820,084</b>
<b>PROJECT SOFT COST DATA IS BASED UPON PERCENTAGE OF CONSTRUCTION COSTS FOR ALL OPTIONS</b>				
<b>PROJECT SOFT COSTS (ROUGH ORDER MAGNITUDE PROJECT BY PMA)</b>	<b>\$ 50,407,783</b>	<b>\$ 51,846,689</b>	<b>\$ 55,415,081</b>	<b>\$ 42,219,217</b>
Reimbursable Soft Cost Allowance per MSBA (20% of Construction Costs)	\$ 46,472,583	\$ 47,911,489	\$ 51,479,881	\$ 38,284,017
FF&E and IT Allowance @ \$1200/student each (Incl Above)	-	-	-	-
OPM Costs (Incl Above)	-	-	-	-
Architect / Engineering Fees (Incl Above)	-	-	-	-
Legal Fees, Owner / Architect Subconsultants & Testing Costs (Incl Above)	-	-	-	-
Utilities Allowance (Incl Above)	-	-	-	-
Movers Allowance (Est)	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Swing Space Allowance (Est)	\$ 765,000	\$ 765,000	\$ 765,000	\$ 765,000
Leasing of Shop Space for Heavy Chapter 74 Programs (2 years)	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200
FF&E over and above standard \$1200/student due to 640 CTE Students (increase to \$1,200)	\$ 640,000	\$ 640,000	\$ 640,000	\$ 640,000
IT over and above standard \$1200/student due to 640 CTE Students (increase to \$1,200)	\$ 640,000	\$ 640,000	\$ 640,000	\$ 640,000
<b>Total Project Cost</b>	<b>\$ 289,170,699</b>	<b>\$ 297,804,134</b>	<b>\$ 319,214,488</b>	<b>\$ 240,039,301</b>
Owner Construction Contingency (Est. 6%)	\$ 14,325,775	\$ 14,757,447	\$ 15,827,964	\$ 11,869,205
Owner Soft Cost Contingency (Est. 4%)	\$ 2,016,311	\$ 2,073,868	\$ 2,216,603	\$ 1,688,769
<b>Total Project Budget</b>	<b>\$ 305,512,785</b>	<b>\$ 314,635,448</b>	<b>\$ 337,259,056</b>	<b>\$ 253,597,275</b>
<b>"WHAT-IF SCENARIO" - TYPICAL INELIGIBLE COSTS PER MSBA REGS</b>				
Construction Contingency Reimbursement - 2% Max on Reno	\$ 9,550,517	\$ 9,838,298	\$ 10,551,976	\$ 7,912,803
Owner Contingency Reimbursement - assume 33% of budget eligible	\$ 1,330,765	\$ 1,368,753	\$ 1,462,958	\$ 1,114,587
GMP Contingency Reimbursement - assume 33% of budget eligible	\$ 4,519,693	\$ 4,519,693	\$ 4,519,693	\$ 4,519,693
Sitework Costs exceeding 8% of Direct Building Cost	\$ -	\$ -	\$ -	\$ -
Legal Fees - Approximate	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Moving Costs	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Swing Space Costs	\$ 765,000	\$ 765,000	\$ 765,000	\$ 765,000
Leasing of Shop Space for Heavy Chapter 74 Programs (2 years)	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200	\$ 1,590,200
Ineligible Abatement Costs (VAT)	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000
Ineligible SF Costs over MSBA Allowable Space Summary	Carried below	Carried below	Carried below	Carried below
Ineligible Construction Costs over Eligible SF or MSBA \$312/SF Allowance (as of May 2015)	\$ 124,213,839	\$ 131,408,368	\$ 149,250,330	\$ 83,271,007
<b>TOTAL POTENTIAL INELIGIBLE COSTS</b>	<b>\$ 143,240,014</b>	<b>\$ 150,760,312</b>	<b>\$ 169,410,158</b>	<b>\$ 100,443,291</b>
<b>POTENTIAL ELIGIBLE COSTS (PRORATED FOR INELIGIBLE COSTS)</b>	<b>\$ 162,272,771</b>	<b>\$ 163,875,137</b>	<b>\$ 167,848,898</b>	<b>\$ 153,153,984</b>
<b>POTENTIAL REIMBURSEMENT FROM MSBA @ Estimated Rates Below</b>	<b>\$ 125,052,649</b>	<b>\$ 126,287,484</b>	<b>\$ 129,349,793</b>	<b>\$ 118,025,416</b>
<b>Estimated reimbursement rate (detail below):</b>	<b>77.06%</b>	<b>77.06%</b>	<b>77.06%</b>	<b>77.06%</b>
Base Reimbursement Rate	71.79%	71.79%	71.79%	71.79%
Sustainable Design Incentive Points (0-2)	2.00%	2.00%	2.00%	2.00%
Maintenance & Capital Planning Incentive Points (0-2)	1.25%	1.25%	1.25%	1.25%
CM @ Risk Incentive Point (0-1)	1.00%	1.00%	1.00%	1.00%
Renovation Incentive Points (0-5)	1.02%	1.02%	1.02%	1.02%
<b>POTENTIAL CITY SHARE OF TOTAL PROJECT BUDGET</b>	<b>\$ 180,460,136</b>	<b>\$ 188,347,965</b>	<b>\$ 207,909,263</b>	<b>\$ 135,571,859</b>



## SHS Project - PSR Authorized Scope Adjustments (Alt 4B)

		Alt 4B VJA Estimate	Alt 4B Scope Adjustments
	Gross SF	404,110	370,034
Building		\$ 103,267,831	\$ 103,267,831
	Reduce Overall GSF by 1,446 to Align w/ PSR		\$ (369,516)
	Reduce Overall GSF by 10,130 to Hit 1.55 Multiplier		\$ (2,588,659)
	Eliminate 22,500 of Ineligible GSF Exceeding MSBA Guidelines		\$ (5,749,737)
Site		\$ 8,661,233	\$ 8,661,233
Demo		\$ 7,406,640	\$ 7,406,640
Garage & Field		\$ 14,732,622	\$ 14,732,622
	Eliminate 150 Parking Spots @ 35,000 Space		\$ (5,250,000)
Child Care		\$ 1,172,544	\$ 1,172,544
SCTV		\$ 425,018	\$ 425,018
Health Suite		\$ 429,000	\$ 429,000
Sustainability Premium		\$ 20,483,000	\$ 20,483,000
	Eliminate Sustainability Premium		\$ (20,483,000)
<b>Total</b>		<b>\$ 156,577,888</b>	<b>\$ 122,136,975</b>
GCs	7.00%	\$ 10,960,452	<b>\$ 8,549,588</b>
Phasing	4.00%	\$ 6,701,534	<b>\$ 5,227,463</b>
Escalation (Ph 1&2)	21.56%	\$ 34,393,751	\$ 27,261,771
	Reduce Duration from 66 months to 54	-4.34%	\$ (5,488,506)
Escalation (Ph 3)	37.13%	\$ 5,469,486	\$ 3,520,423.47
	Reduce Duration from 18 months to 12	-6.90%	\$ (654,301)
<b>Sub Total</b>		<b>\$ 214,103,111</b>	<b>\$ 160,553,414</b>
GRs	4.00%	\$ 8,564,124	<b>\$ 6,422,137</b>
<b>Sub Total</b>		<b>\$ 222,667,235</b>	<b>\$ 166,975,551</b>
Bond	1.00%	\$ 2,226,672	<b>\$ 1,669,756</b>
Insurance	1.50%	\$ 3,373,409	<b>\$ 2,529,680</b>
<b>Sub Total</b>		<b>\$ 228,267,316</b>	<b>\$ 171,174,986</b>
GMP Contingency	3.00%	\$ 6,848,019	\$ 5,135,250
OH & Fee	2.00%	\$ 4,702,307	<b>\$ 3,526,205</b>
Design Contingency	10.00%	\$ 23,981,764	<b>\$ 17,983,644</b>
<b>Total Construction Costs</b>		<b>\$ 263,799,407</b>	<b>\$ 197,820,084</b>
	Direct Building Trade Costs per SF	\$ 255.54	\$ 255.54





**Preferred Schematic Report Submission**

**Somerville High School  
Design Options 2A, 3 + 4B**

Somerville, MA

**PM&C LLC**  
20 Downer Ave, Suite 1C  
Hingham, MA 02043  
(T) 781-740-8007  
(F) 781-740-1012

Prepared for:

**PMA Consultants, LLC**

May 24, 2016



**Somerville High School**  
 Design Options 2A, 3 + 4B  
 Somerville, MA

24-May-16

**Preferred Schematic Report Submission**

**ALTERNATIVE 4B - RENOVATION/ADDITION**

RENOVATE EXISTING SCHOOL		82,700	\$232.75	\$19,248,681
ADDITIONS TO EXISTING BUILDING		321,410	\$294.43	\$94,633,192
1895/1914 BUILDING STABILIZATION Pricing Scenario 1		60,252	\$23.39	\$1,409,216
AT GRADE SHELTERED PARKING		136,000	\$159.84	\$21,738,306
CHILD CARE PROGRAM SPACE		2,400	\$260.00	\$624,000
SCTV PROGRAM SPACE		1,650	\$270.00	\$445,500
HEALTH SPACE PROGRAM SPACE		1,650	\$260.00	\$429,000
PREMIUM FOR LEED PLATINUM		404,110	\$50.00	\$20,205,500
SHORING AT EXISTING BUILDINGS DURING PHASING/DEMOLITION				\$1,000,000
DEMOLISH PORTIONS OF EXISTING BUILDING - PHASED		277,450	\$10.00	\$2,774,500
REMOVE HAZARDOUS MATERIALS				\$2,748,240
SITework				\$9,483,742
<hr/>				
SUB-TOTAL	Jun-18	540,110	\$323.53	\$174,739,877
ESCALATION TO MID-POINT PH 1 and 2 (One Year Included in Rates) - (assumed 4.5% PA)	18%			\$20,498,737
ESCALATION TO MID-POINT PH 3 (Two Years Included in Rates) - (assumed 4.5% PA)	21%			\$3,361,361
DESIGN AND PRICING CONTINGENCY	10%			\$17,473,988
<hr/>				
SUB-TOTAL	Jun-18	540,110	\$400.06	\$216,073,963
GENERAL CONDITIONS	8.00%			\$17,285,917
GENERAL REQUIREMENTS	3.00%			\$6,482,219
BONDS	1.25%			\$2,700,925
INSURANCE	1.25%			\$2,700,925
PERMIT				Waived
CRANE/HOISTING				\$1,200,000
CM FEE	2%			\$4,321,479
CM/GMP CONTINGENCY	3%			\$6,482,219
PHASING PREMIUM	4.00%			\$8,642,959
<hr/>				
<b>TOTAL OF ALL CONSTRUCTION OPTION 4B</b>	Jun-18	540,110	\$492.29	<b>\$265,890,606</b>
<hr/> <hr/>				



**Somerville High School**  
Design Options 2A, 3 + 4B  
Somerville, MA

24-May-16

### **Preferred Schematic Report Submission**

This Preferred Schematic Report cost estimate was produced from drawings, outline specifications and other documentation prepared by SMMA Architects Inc. and their design team dated May 17, 2016. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, construction manager's overhead, fee and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be public bidding under Chapter 149a of the Massachusetts General Laws to pre-qualified construction managers, and pre-qualified sub-contractors, open specifications for materials and manufactures.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

### **ITEMS NOT CONSIDERED IN THIS ESTIMATE**

Items not included in this estimate are:

- Land acquisition, feasibility, and financing costs
- All professional fees and insurance
- Site or existing conditions surveys investigations costs, including to determine subsoil conditions
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items as indicated in the estimate
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks, (except as noted in this estimate)
- Construction contingency (GMP Contingency is included)
- Rock removal
- Contaminated soils removal



**CONSTRUCTION COST SUMMARY**

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 4B - RENOVATION</b>				
<b>A10 FOUNDATIONS</b>				
A1010 Standard Foundations	\$330,800			
A1020 Special Foundations	\$0			
A1030 Lowest Floor Construction	\$20,000	<b>\$350,800</b>	\$4.24	1.8%
<b>B10 SUPERSTRUCTURE</b>				
B1010 Upper Floor Construction	\$1,470,289			
B1020 Roof Construction	\$220,000	<b>\$1,690,289</b>	\$20.44	8.8%
<b>B20 EXTERIOR CLOSURE</b>				
B2010 Exterior Walls	\$904,348			
B2020 Windows/Curtainwall	\$623,972			
B2030 Exterior Doors	\$65,400	<b>\$1,593,720</b>	\$19.27	8.3%
<b>B30 ROOFING</b>				
B3010 Roof Coverings	\$1,008,489			
B3020 Roof Openings	\$30,000	<b>\$1,038,489</b>	\$12.56	5.4%
<b>C10 INTERIOR CONSTRUCTION</b>				
C1010 Partitions	\$987,325			
C1020 Interior Doors	\$117,500			
C1030 Specialties/Millwork	\$906,380	<b>\$2,011,205</b>	\$24.32	10.4%
<b>C20 STAIRCASES</b>				
C2010 Stair Construction	\$168,000			
C2020 Stair Finishes	\$41,040	<b>\$209,040</b>	\$2.53	1.1%
<b>C30 INTERIOR FINISHES</b>				
C3010 Wall Finishes	\$408,100			
C3020 Floor Finishes	\$925,673			
C3030 Ceiling Finishes	\$807,906	<b>\$2,141,679</b>	\$25.90	11.1%
<b>D10 CONVEYING SYSTEMS</b>				
D1010 Elevator	\$120,000	<b>\$120,000</b>	\$1.45	0.6%
<b>D20 PLUMBING</b>				
D20 Plumbing	\$1,157,800	<b>\$1,157,800</b>	\$14.00	6.0%
<b>D30 HVAC</b>				
D30 HVAC	\$3,308,000	<b>\$3,308,000</b>	\$40.00	17.2%
<b>D40 FIRE PROTECTION</b>				
D40 Fire Protection	\$413,500	<b>\$413,500</b>	\$5.00	2.1%
<b>D50 ELECTRICAL</b>				
D5010 Electrical Systems	\$2,977,200	<b>\$2,977,200</b>	\$36.00	15.5%
<b>E10 EQUIPMENT</b>				
E10 Equipment	\$1,259,000	<b>\$1,259,000</b>	\$15.22	6.5%



Somerville High School  
 Design Options 2A, 3 + 4B  
 Somerville, MA

24-May-16

Preferred Schematic Report Submission

GFA 82,700

<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 4B - RENOVATION</b>					
<b>E20 FURNISHINGS</b>					
E2010	Fixed Furnishings	\$350,809			
E2020	Movable Furnishings	NIC	<b>\$350,809</b>	\$4.24	1.8%
<b>F10 SPECIAL CONSTRUCTION</b>					
F10	Special Construction	\$0	<b>\$0</b>	\$0.00	0.0%
<b>F20 SELECTIVE BUILDING DEMOLITION</b>					
F2010	Building Elements Demolition	\$627,150			
F2020	Hazardous Components Abatement	\$0	<b>\$627,150</b>	\$7.58	3.3%
<b>TOTAL DIRECT COST (Trade Costs)</b>			<b>\$19,248,681</b>	\$232.75	100.0%



Preferred Schematic Report Submission

GFA 82,700

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 4B - RENOVATION

**GROSS FLOOR AREA CALCULATION**

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Lower Level	26,002
First Floor Gym	26,002
First Floor	14,598
Second Floor	14,598
Third Floor	1,500

<b>TOTAL GROSS FLOOR AREA (GFA)</b>	<b>82,700 sf</b>
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**A10 FOUNDATIONS**

**A1010 STANDARD FOUNDATIONS**

Allowance for new foundations for structural bracing and new interior walls etc.	82,700	sf	4.00	330,800	
<b>SUBTOTAL</b>					330,800

**A1020 SPECIAL FOUNDATIONS**

No work in this section  
 SUBTOTAL

**A1030 LOWEST FLOOR CONSTRUCTION**

Cutting and patching	1	ls	10,000.00	10,000	
Equipment pads	1	ls	10,000.00	10,000	
<b>SUBTOTAL</b>					20,000

<b>TOTAL - FOUNDATIONS</b>	<b>\$350,800</b>
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**B10 SUPERSTRUCTURE**

**B1010 FLOOR CONSTRUCTION**

New lateral Bracing to floors; 2 lbs per SF	83	tns	5,500.00	456,500	
Remove existing floor framing for new slope floor at auditorium; including shoring/bracing	14,598	sf	10.00	145,980	
Openings in 1929 structure for MEP systems; assumed two chases per floor	4	loc	5,500.00	22,000	
Fire stopping floors	1	ls	10,000.00	10,000	

**New sloped auditorium floor**

<b>033000 CONCRETE</b>					
WWF reinforcement	18,513	sf	0.80	14,810	
Concrete Fill to metal deck; 5-1/4" Light Weight	329	cy	160.00	52,640	
Place and finish concrete	16,098	sf	2.00	32,196	

**051200 STRUCTURAL STEEL FRAMING**

Steel beams and columns	105	tns	5,500.00	577,500	
Shear studs	3,220	ea	2.50	8,050	
Premium for slope/steps	1	ls	50,000.00	50,000	
2" 18 Ga. Metal galvanized floor Deck	16,098	sf	4.00	64,392	

**078100 FIREPROOFING/FIRESTOPPING**

Fire proofing to columns and beams	16,098	sf	2.25	36,221	
<b>SUBTOTAL</b>					1,470,289

**B1020 ROOF CONSTRUCTION**

<b>Roof Structure - Steel:</b>					
New lateral Bracing to roofs; 1 lbs per SF	20	tns	5,500.00	110,000	



Preferred Schematic Report Submission

GFA 82,700

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 4B - RENOVATION</b>								
58	New openings in concrete roof deck	2	loc	5,000.00	10,000			
59	New openings in metal roof deck	2	loc	2,000.00	4,000			
60	New steel for RTU's; assume 4 units	16	tns	6,000.00	96,000			
61	SUBTOTAL					220,000		
62								
63	<b>TOTAL - SUPERSTRUCTURE</b>							<b>\$1,690,289</b>
64								
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66	<b>B20 EXTERIOR CLOSURE</b>							
67								
68	<b>B2010 EXTERIOR WALLS</b>							
69	<u>Exterior skin</u>							
70	Allowance to reinforce existing exterior masonry walls at field house	8,288	sf	4.00	33,152			
71	Allowance to reinforce existing exterior masonry walls; 1929 building	10,931	sf	4.00	43,724			
72	Allowance to repoint/repair existing exterior masonry; 100%	19,219	sf	32.00	615,008			
73	Patch/Repair portico/ steps etc. at 1929 front façade	1	ls	150,000.00	150,000			
74	<u>Miscellaneous</u>							
75	Staging to exterior wall	15,616	sf	4.00	62,464			
76	SUBTOTAL					904,348		
77								
78	<b>B2020 WINDOWS/CURTAINWALL</b>							
79	Replace existing windows with new	4,685	sf	100.00	468,500			
80	Replace existing kalwall at fieldhouse with new	1,792	sf	56.00	100,352			
81	Backer rod & double sealant	2,756	lf	9.00	24,804			
82	Wood blocking at openings	2,756	lf	11.00	30,316			
83	SUBTOTAL					623,972		
84								
85	<b>B2030 EXTERIOR DOORS</b>							
86	Glazed entrance doors including frame and hardware; double door	4	pr	10,000.00	40,000			
87	HM Entrance doors	6	pr	4,000.00	24,000			
88	Backer rod & double sealant	200	lf	4.00	800			
89	Wood blocking at openings	200	lf	3.00	600			
90	SUBTOTAL					65,400		
91								
92	<b>TOTAL - EXTERIOR CLOSURE</b>							<b>\$1,593,720</b>
93								
94								
95	<b>B30 ROOFING</b>							
96								
97	<b>B3010 ROOF COVERINGS</b>							
98	<u>Sloped roofing</u>							
99	Remove existing roof coverings	40,600	sf	2.00	81,200			
100	New PVC roof membrane; complete system	26,002	sf	18.00	468,036			
101	New sloped roofing with architectural asphalt shingles; complete system with nailable insulation etc.	16,788	sf	25.00	419,700			
102	<u>Miscellaneous Roofing</u>							
103	Roof edge detail - fascia; repairs	571	lf	25.00	14,275			
104	New snow fence	1	ls	15,000.00	15,000			
105	Roof edge blocking	571	lf	18.00	10,278			
106	SUBTOTAL					1,008,489		
107								
108	<b>B3020 ROOF OPENINGS</b>							
109	Stage smoke vents	2	loc	15,000.00	30,000			
110	SUBTOTAL					30,000		
111								
112	<b>TOTAL - ROOFING</b>							<b>\$1,038,489</b>
113								



Preferred Schematic Report Submission

GFA 82,700

DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 4B - RENOVATION

**C10 INTERIOR CONSTRUCTION**

**C1010 PARTITIONS**

IEBC Lateral Upgrades to existing walls/structure	82,700	sf	5.00	413,500		
New stair partitions; two new stairs serving all floors	4,590	sf	16.00	73,440		
Other partitions	10,950	sf	16.00	175,200		
New CMU walls field house lower level	10,935	sf	22.00	240,570		
Seismic clips to CMU	182	ea	120.00	21,840		
Miscellaneous metals to CMU	10,935	sf	1.00	10,935		
Allowance for MEP shafts; two per floor	2,880	sf	18.00	51,840		
SUBTOTAL					987,325	

**C1020 INTERIOR DOORS**

New doors	47	lvs	2,500.00	117,500		
SUBTOTAL					117,500	

**C1030 SPECIALTIES / MILLWORK**

Toilet Partitions and accessories	82,700	gsf	0.80	66,160		
Backer panels in electrical closets	1	ls	1,000.00	1,000		
Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	82,700	sf	1.00	82,700		
Lockers	82,700	gsf	1.60	132,320		

**055000 MISCELLANEOUS METALS**

Guardrails at open to below areas at auditorium	140	lf	320.00	44,800		
Catwalk	1	ls	90,000.00	90,000		
Miscellaneous metals throughout building	82,700	sf	1.25	103,375		

**061000 ROUGH CARPENTRY**

Backer panels in electrical closets	1	ls	1,500.00	1,500		
Ramp	1	ls	30,000.00	30,000		
Rough blocking	82,700	sf	0.50	41,350		

**064020 INTERIOR ARCHITECTURAL WOODWORK**

Auditorium wood paneling	1	ls	150,000.00	150,000		
Display cases	1	ls	50,000.00	50,000		

**070001 WATERPROOFING, DAMPPROOFING AND CAULKING**

Miscellaneous sealants throughout building	82,700	sf	1.00	82,700		
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**101400 SIGNAGE**

Interior signage	82,700	sf	0.25	20,675		
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**104400 FIRE PROTECTION SPECIALTIES**

Fire extinguisher cabinets	28	ea	350.00	9,800		
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SUBTOTAL					906,380	
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<b>TOTAL - INTERIOR CONSTRUCTION</b>					<b>\$2,011,205</b>
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**C20 STAIRCASES**

**C2010 STAIR CONSTRUCTION**

New egress stairs;	6	flt	25,000.00	150,000		
Concrete fill to pans	6	flt	3,000.00	18,000		



Preferred Schematic Report Submission

GFA

82,700

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**ALTERNATIVE 4B - RENOVATION**

172 SUBTOTAL 168,000

173

174 **C2020 STAIR FINISHES**

175

176 090005 **RESILIENT FLOORS**

177 Rubber tile at stairs - landings 600 sf 12.00 7,200

178 Rubber tile at stairs - treads & risers 720 lft 22.00 15,840

179

180 090007 **PAINTING**

181 High performance coating to stairs including all railings etc. 6 flt 3,000.00 18,000

182 SUBTOTAL 41,040

183

<b>TOTAL - STAIRCASES</b>						<b>\$209,040</b>
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187 **C30 INTERIOR FINISHES**

188

189 **C3010 WALL FINISHES**

190 Painting 82,700 sf 3.00 248,100

191 Acoustic wall panels in Auditorium 1 ls 100,000.00 100,000

192 Tectum wall panels in gym 1 ls 60,000.00 60,000

193 SUBTOTAL 408,100

194

195 **C3020 FLOOR FINISHES**

196

197 090007 **PAINTING**

198 Sealed concrete 26,002 sf 1.50 39,003

199

200 096400 **WOOD FLOORING**

201 Wood platform 3,500 sf 16.00 56,000

202

203 096460 **ATHLETIC FLOORING**

204 Wood athletic flooring 27,430 sf 18.00 493,740

205 Ventilating cove base 692 lf 8.00 5,536

206

207 096810 **CARPETING**

208 Carpet 30,696 sf 4.33 132,914

209 Moisture mitigation 66,160 sf 3.00 198,480

209 SUBTOTAL 925,673

210

211 **C3030 CEILING FINISHES**

212 2 x 2 ACT 29,196 sf 5.00 145,980

213 Paint exposed ceiling in gym 26,002 sf 3.00 78,006

214 Auditorium acoustic ceiling/clouds 14,598 sf 40.00 583,920

215 SUBTOTAL 807,906

216

<b>TOTAL - INTERIOR FINISHES</b>						<b>\$2,141,679</b>
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218

220 **D10 CONVEYING SYSTEMS**

221

222 New elevator; 3 stop; 3,000 lbs stretcher compliant 1 ea 120,000.00 120,000

223

224 SUBTOTAL 120,000

225

<b>TOTAL - CONVEYING SYSTEMS</b>						<b>\$120,000</b>
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Preferred Schematic Report Submission

GFA 82,700

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>ALTERNATIVE 4B - RENOVATION</b>							
229	<b>D20 PLUMBING</b>						
230							
231	<b>D20 PLUMBING, GENERALLY</b>						
232	Plumbing allowance	<b>82,700</b>	sf	14.00	1,157,800		
233	SUBTOTAL					1,157,800	
234							
235	<b>TOTAL - PLUMBING</b>						<b>\$1,157,800</b>
236							
237							
238	<b>D30 HVAC</b>						
239							
240	<b>D30 HVAC, GENERALLY</b>						
241	Allowance for HVAC	<b>82,700</b>	gsf	40.00	3,308,000		
242	SUBTOTAL					3,308,000	
243							
244	<b>TOTAL - HVAC</b>						<b>\$3,308,000</b>
245							
246							
247	<b>D40 FIRE PROTECTION</b>						
248							
249	<b>D40 FIRE PROTECTION, GENERALLY</b>						
250	Fire protection system	<b>82,700</b>	gsf	5.00	413,500		
251	SUBTOTAL					413,500	
252							
253	<b>TOTAL - FIRE PROTECTION</b>						<b>\$413,500</b>
254							
255							
256	<b>D50 ELECTRICAL</b>						
257							
258	<b>D5010 SERVICE &amp; DISTRIBUTION</b>						
259	Electrical systems complete	<b>82,700</b>	gsf	36.00	2,977,200		
260	SUBTOTAL					2,977,200	
261							
262							
263	<b>TOTAL - ELECTRICAL</b>						<b>\$2,977,200</b>
264							
265							
266	<b>E10 EQUIPMENT</b>						
267							
268	<b>E10 EQUIPMENT, GENERALLY</b>						
269							
270	110620 THEATRICAL EQUIPMENT						
271	Auditorium rigging, lighting, dimmers and A/V systems	<b>1</b>	ls	700,000.00	700,000		
272	TV studio/acoustics	<b>1</b>	ls	150,000.00	150,000		
273							
274	115210 PROJECTION SCREENS						
275	Electrically operated projection screens	<b>1</b>	loc	5,000.00	5,000		
276							
277	116600 ATHLETIC EQUIPMENT						
278	Basketball backstops; swing up; electric operated	<b>10</b>	ea	9,800.00	98,000		
279	Gym wall pads	<b>3,000</b>	sf	12.00	36,000		
280	Gymnasium dividing net; electrically operated	<b>2</b>	loc	45,000.00	90,000		
281	Telescoping bleachers	<b>1</b>	ls	180,000.00	180,000		
282	SUBTOTAL					\$1,259,000	
283							
284	<b>TOTAL - EQUIPMENT</b>						<b>\$1,259,000</b>
285							
286							
287	<b>E20 FURNISHINGS</b>						
288							
289	<b>E2010 FIXED FURNISHINGS</b>						
290							



Preferred Schematic Report Submission

GFA 82,700

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 4B - RENOVATION</b>								
291	Reinstall salvaged auditorium seating	750	seats	100.00	75,000			
292								
293	123553 CASEWORK							
294	Casework to Family + consumer science/barb/cosmetics/TV broadcasting	14,598	sf	15.00	218,970			
295								
296	122100 WINDOW TREATMENT							
297	Window blinds; manual shades, typical at all exterior windows	6,477	sf	7.00	45,339			
298								
299	124810 ENTRANCE FLOOR MAT AND FRAMES							
300	Walk-off mats - recessed	200	sf	50.00	10,000			
301	Walk-off mats	100	sf	15.00	1,500			
302	No work in this section							
303	SUBTOTAL					350,809		
304								
305	<b>E2020 MOVABLE FURNISHINGS</b>							
306	All movable furnishings to be provided and installed by owner							
307	SUBTOTAL						NIC	
308								
309	<b>TOTAL - FURNISHINGS</b>						<b>\$350,809</b>	
310								
311								
312	<b>F10 SPECIAL CONSTRUCTION</b>							
313								
314	<b>F10 SPECIAL CONSTRUCTION</b>							
315	SUBTOTAL						-	
316								
317	<b>TOTAL - SPECIAL CONSTRUCTION</b>							
318								
319								
320	<b>F20 SELECTIVE BUILDING DEMOLITION</b>							
321								
322	<b>F2010 BUILDING ELEMENTS DEMOLITION</b>							
323	Remove existing Windows	6,477	sf	6.00	38,862			
324	Interior gut demolition; 1929 Wing	30,696	sf	8.00	245,568			
325	Interior demolition; Fieldhouse	52,004	sf	5.00	260,020			
326	Temporary enclosures/protection	82,700	sf	1.00	82,700			
327	SUBTOTAL					627,150		
328								
329	<b>F2020 HAZARDOUS COMPONENTS ABATEMENT</b>							
330	See summary							
331	SUBTOTAL							
332								
333	<b>TOTAL - SELECTIVE BUILDING DEMOLITION</b>						<b>\$627,150</b>	
334								



<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 4B - ADDITION</b>					
<b>A10 FOUNDATIONS</b>					
A1010	Standard Foundations	\$594,195			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$1,588,704	<b>\$2,182,899</b>	\$6.79	2.3%
<b>A20 BASEMENT CONSTRUCTION</b>					
A2010	Basement Excavation	\$1,436,325			
A2020	Basement Walls	\$617,700	<b>\$2,054,025</b>	\$6.39	2.2%
<b>B10 SUPERSTRUCTURE</b>					
B1010	Upper Floor Construction	\$10,655,483			
B1020	Roof Construction	\$2,326,599	<b>\$12,982,082</b>	\$40.39	13.7%
<b>B20 EXTERIOR CLOSURE</b>					
B2010	Exterior Walls	\$8,450,958			
B2020	Windows	\$4,500,255			
B2030	Exterior Doors	\$167,180	<b>\$13,118,393</b>	\$40.82	13.9%
<b>B30 ROOFING</b>					
B3010	Roof Coverings	\$1,721,228			
B3020	Roof Openings	\$50,000	<b>\$1,771,228</b>	\$5.51	1.9%
<b>C10 INTERIOR CONSTRUCTION</b>					
C1010	Partitions	\$8,606,660			
C1020	Interior Doors	\$1,660,550			
C1030	Specialties/Millwork	\$2,472,479	<b>\$12,739,689</b>	\$39.64	13.5%
<b>C20 STAIRCASES</b>					
C2010	Stair Construction	\$885,000			
C2020	Stair Finishes	\$177,180	<b>\$1,062,180</b>	\$3.30	1.1%
<b>C30 INTERIOR FINISHES</b>					
C3010	Wall Finishes	\$2,892,690			
C3020	Floor Finishes	\$4,306,894			
C3030	Ceiling Finishes	\$2,529,870	<b>\$9,729,454</b>	\$30.27	10.3%
<b>D10 CONVEYING SYSTEMS</b>					
D1010	Elevator	\$680,000	<b>\$680,000</b>	\$2.12	0.7%
<b>D20 PLUMBING</b>					
D20	Plumbing	\$4,499,740	<b>\$4,499,740</b>	\$14.00	4.8%
<b>D30 HVAC</b>					
D30	HVAC	\$14,463,450	<b>\$14,463,450</b>	\$45.00	15.3%
<b>D40 FIRE PROTECTION</b>					
D40	Fire Protection	\$1,682,050	<b>\$1,682,050</b>	\$5.23	1.8%
<b>D50 ELECTRICAL</b>					



Somerville High School  
 Design Options 2A, 3 + 4B  
 Somerville, MA

24-May-16

Preferred Schematic Report Submission

GFA 321,410

<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>ALTERNATIVE 4B - ADDITION</b>					
D5010	Complete System	\$12,856,400	<b>\$12,856,400</b>	\$40.00	13.6%
<b>E10</b>	<b>EQUIPMENT</b>				
E10	Equipment	\$1,169,000	<b>\$1,169,000</b>	\$3.64	1.2%
<b>E20</b>	<b>FURNISHINGS</b>				
E2010	Fixed Furnishings	\$3,642,602			
E2020	Movable Furnishings	NIC	<b>\$3,642,602</b>	\$11.33	3.8%
<b>F10</b>	<b>SPECIAL CONSTRUCTION</b>				
F10	Special Construction	\$0	<b>\$0</b>	\$0.00	0.0%
<b>F20</b>	<b>HAZMAT REMOVALS</b>				
F2010	Building Elements Demolition	\$0			
F2020	Hazardous Components Abatement	\$0	<b>\$0</b>	\$0.00	0.0%
<b>TOTAL DIRECT COST (Trade Costs)</b>			<b>\$94,633,192</b>	\$294.43	100.0%



Preferred Schematic Report Submission

GFA 321,410

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 4B - ADDITION

**GROSS FLOOR AREA CALCULATION**

1							
2							
3		Lower Level			36,352		
4		First Floor			62,042		
5		Second Floor			51,501		
6		Third Floor			61,653		
7		Fourth Floor			51,556		
8		Fifth Floor			58,306		
9		PH (Not Included in GSF)			8,761		

10							
11		<b>TOTAL GROSS FLOOR AREA (GFA)</b>				<b>321,410 sf</b>	

**A10 FOUNDATIONS**

**A1010 STANDARD FOUNDATIONS**

Strip footings - 2'-6" x 1'-0"

18	Excavation	1,267	cy	12.00	15,204		
19	Store on site for reuse	1,267	cy	14.00	17,738		
20	Backfill with new fill	1,165	cy	16.00	18,640		
21	Formwork	2,105	sf	10.00	21,050		
22	Re-bar, 10#/lf	10,523	lbs	1.20	12,628		
23	Concrete material; 3,000 psi	102	cy	118.00	12,036		
24	Placing concrete	102	cy	45.00	4,590		

Foundation walls at exterior - 14" thick

26	Formwork	8,416	sf	12.00	100,992		
27	Re-bar, 4#/sf	16,832	lbs	1.20	20,198		
28	Concrete material; 4,000 psi	191	cy	125.00	23,875		
29	Placing concrete	191	cy	45.00	8,595		
30	Dampproofing foundation wall and footing	6,312	sf	1.90	11,993		
31	Insulation to foundation walls; 2" thick	4,208	sf	2.50	10,520		
32	Form shelf	1,052	lf	8.00	8,416		

Column footings 5' x 5' x 1'-4"

34	Excavation	514	cy	15.00	7,710		
35	Store on site for reuse	514	cy	14.00	7,196		
36	Backfill with new fill	444	cy	16.00	7,104		
37	Formwork	1,436	sf	11.00	15,796		
38	Re-bar	8,400	lbs	1.20	10,080		
39	Concrete material; 3,000 psi	70	cy	118.00	8,260		
40	Placing concrete	70	cy	45.00	3,150		
41	Set anchor bolts grout plates	54	ea	150.00	8,100		

Column footings 8'-0" x 8'-0" x 2'-2"

43	Excavation	1,251	cy	15.00	18,765		
44	Store on site for reuse	1,251	cy	14.00	17,514		
45	Backfill with new fill	851	cy	16.00	13,616		
46	Formwork	5,139	sf	11.00	56,529		
47	Re-bar	48,000	lbs	1.20	57,600		
48	Concrete material; 3,000 psi	400	cy	118.00	47,200		
49	Placing concrete	400	cy	45.00	18,000		
50	Set anchor bolts grout plates	74	ea	150.00	11,100		

SUBTOTAL

594,195

**A1020 SPECIAL FOUNDATIONS**

No Work in this section

SUBTOTAL



Preferred Schematic Report Submission

GFA 321,410

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**ALTERNATIVE 4B - ADDITION**

**A1030 LOWEST FLOOR CONSTRUCTION**

New Slab on grade, 5" thick

57	Structural fill for level 1	13,500	cy	32.00	432,000		
58	Gravel fill, 12"	2,298	cy	36.00	82,728		
59	Rigid insulation	62,042	sf	2.25	139,595		
60	Vapor barrier	62,042	sf	0.75	46,532		
61	Waterproofing system	62,042	sf	6.50	403,273		
62	Compact existing sub-grade	62,042	sf	0.50	31,021		
63	Mesh reinforcing 15% lap	71,348	sf	0.80	57,078		
64	Concrete - 5" thick; 4,000 psi	1,013	cy	125.00	126,625		
65	Placing concrete	1,013	cy	45.00	45,585		
66	Finishing and curing concrete	62,042	sf	1.50	93,063		
67	Control joints - saw cut	62,042	sf	0.10	6,204		
68	<u>Miscellaneous</u>						
69	New Elevator pit	2	ea	35,000.00	70,000		
70	New loading dock	1	ls	40,000.00	40,000		
71	Equipment pads	1	ls	15,000.00	15,000		
72	Cost should be \$15 SF? But we are at \$13.18 now. Maria thinks this might be enough but we						
73	SUBTOTAL					1,588,704	

**TOTAL - FOUNDATIONS**

**\$2,182,899**

**A20 BASEMENT CONSTRUCTION**

**A2010 BASEMENT EXCAVATION**

82	Excavation for basement	22,000	cy	12.00	264,000		
83	Export off site	22,000	cy	22.00	484,000		
84	Allowance for sheeting and shoring	12,515	sf	55.00	688,325		
85	SUBTOTAL					1,436,325	

**A2020 BASEMENT WALLS**

Strip footings to retaining walls - 5'-0" x 1'-6"

86	Excavation	627	cy	12.00	7,524		
87	Store on site for reuse	627	cy	6.00	3,762		
88	Backfill with existing fill	444	cy	8.00	3,552		
89	Formwork	1,882	sf	10.00	18,820		
90	Re-bar	16,470	lbs	1.20	19,764		
91	Concrete material; 3,000 psi	183	cy	118.00	21,594		
92	Placing concrete	183	cy	45.00	8,235		
93	<u>Retaining walls - 16" thick</u>						
94	Formwork	18,819	sf	16.00	301,104		
95	Re-bar, 8#/sf	75,276	lbs	1.20	90,331		
96	Concrete material; 4,000 psi	487	cy	125.00	60,875		
97	Placing concrete	487	cy	45.00	21,915		
98	Waterproofing basement wall and footing	7,528	sf	6.00	45,168		
99	Insulation to foundation walls; 2" thick	7,528	sf	2.00	15,056		
100	SUBTOTAL					617,700	

**TOTAL - BASEMENT CONSTRUCTION**

**\$2,054,025**

**B10 SUPERSTRUCTURE**

15.56 lbs/sf

-



Preferred Schematic Report Submission

GFA

321,410

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 4B - ADDITION</b>								
111	<b>B1010 FLOOR CONSTRUCTION</b>	2,500	tns		-			
112	<u>Floor Structure - Steel:</u>							
113	Steel beams and columns; 16#/SF	<b>2,022</b>	tns	3,500.00	7,077,000			
114	Premium for HSS	<b>101</b>	tns	300.00	30,300			
115	Shear studs	<b>51,874</b>	ea	2.50	129,685			
116	<u>Floor Structure</u>							
117	2" 18 Ga. Metal galvanized floor Deck	<b>259,368</b>	sf	3.75	972,630			
118	WWF reinforcement	<b>298,273</b>	sf	0.80	238,618			
119	Concrete Fill to metal deck; 5-1/4" Light Weight	<b>5,043</b>	cy	160.00	806,880			
120	Place and finish concrete	<b>259,368</b>	sf	2.00	518,736			
121	Rebar to decks	<b>77,810</b>	lbs	1.20	93,372			
122	Misc. angles	<b>259,368</b>	sf	0.50	129,684			
123	<u>Miscellaneous</u>							
124	Fire proofing to columns and beams	<b>259,368</b>	sf	2.25	583,578			
125	Intumescent paint	<b>1</b>	ls	50,000.00	50,000			
126	Fire stopping floors	<b>1</b>	ls	25,000.00	25,000			
127	SUBTOTAL					10,655,483		
128								
129	<b>B1020 ROOF CONSTRUCTION</b>							
130	<u>Roof Structure - Steel:</u>							
131	Steel beams/Joists; 14#/SF	<b>478</b>	tns	3,500.00	1,673,000			
132	Premium for HSS	<b>120</b>	tns	300.00	36,000			
133	Exposed steel	<b>1</b>	ls	50,000.00	50,000			
134	<u>Roof Structure</u>							
135	Acoustic deck allowance	<b>8,000</b>	sf	7.00	56,000			
136	1-1/2" 20 Ga. galvanized Metal Roof Deck	<b>60,246</b>	sf	3.50	210,861			
137	<u>Miscellaneous</u>							
138	Concrete under RTU's	<b>15,000</b>	sf	8.00	120,000			
139	Roof screen framing				Not Required			
140	Fire proofing to columns, beams and deck	<b>60,246</b>	sf	3.00	180,738			
141	SUBTOTAL					2,326,599		
142								
143	<b>TOTAL - SUPERSTRUCTURE</b>						<b>\$12,982,082</b>	
144								
145								
146	<b>B20 EXTERIOR CLOSURE</b>							
147								
148	<b>B2010 EXTERIOR WALLS - 70%</b>	92,487	sf		-			
149	<u>Interior skin</u>							
150	8" metal stud backup	<b>92,487</b>	sf	10.00	924,870			
151	Insulation - 3" thick	<b>92,487</b>	sf	2.25	208,096			
152	Air barrier	<b>92,487</b>	sf	6.00	554,922			
153	Air barrier/flashing at windows	<b>13,080</b>	lf	6.00	78,480			
154	Gypsum Sheathing	<b>92,487</b>	sf	2.50	231,218			
155	Drywall lining to interior face of stud backup	<b>92,487</b>	sf	3.00	277,461			
156	<u>Exterior skin</u>							
157	Brick veneer; 40%	<b>52,850</b>	sf	38.00	2,008,300			
158	Metal panels; 10%	<b>13,212</b>	sf	70.00	924,840			
159	Porcelain panels; 20%	<b>26,425</b>	sf	75.00	1,981,875			
160	<u>Miscellaneous</u>							
161	Brick columns at Auto Tech overhang	<b>6</b>	loc	9,600.00	57,600			
162	PH Siding and backup	<b>7,560</b>	sf	80.00	604,800			
163	Mockups	<b>1</b>	ls	50,000.00	50,000			
164	Aluminum sign at main entrance	<b>1</b>	ls	20,000.00	20,000			



Preferred Schematic Report Submission

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321,410

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>ALTERNATIVE 4B - ADDITION</b>								
165	Staging to exterior wall	132,124	sf	4.00	528,496			
166	SUBTOTAL					8,450,958		
167								
168	<b>B2020 WINDOWS - 30%</b>	39,637	sf		-			
169	Windows	19,819	sf	85.00	1,684,615			
170	Curtainwall	19,819	sf	120.00	2,378,280			
171	Allowance for sunshades	1	ls	200,000.00	200,000			
172	Louvers (allowance)	250	sf	60.00	15,000			
173	Backer rod & double sealant	13,080	lf	9.00	117,720			
174	Wood blocking at openings	13,080	lf	8.00	104,640			
175	SUBTOTAL					4,500,255		
176								
177	<b>B2030 EXTERIOR DOORS</b>							
178	Glazed entrance doors including frame and hardware; double door	7	pr	8,000.00	56,000			
179	Operable doors 10x10	5	ea	7,500.00	37,500			
180	Door openers	4	ea	4,000.00	16,000			
181	Glazed entrance doors including frame and hardware; double door	7	pr	8,000.00	56,000			
182	Backer rod & double sealant	240	lf	4.00	960			
183	Wood blocking at openings	240	lf	3.00	720			
184	SUBTOTAL					167,180		
185								
186	<b>TOTAL - EXTERIOR CLOSURE</b>						<b>\$13,118,393</b>	
187								
188								
189	<b>B30 ROOFING</b>							
190								
191	<b>B3010 ROOF COVERINGS</b>							
192	Flat roofing							
193	PVC roof membrane fully adhered	68,246	sf	9.50	648,337			
194	Insulation; R-30	68,246	sf	6.00	409,476			
195	1/2" dens-deck protection board	68,246	sf	2.00	136,492			
196	Reinforced vapor barrier	68,246	sf	0.50	34,123			
197	Rough blocking	10,800	lf	6.00	64,800			
198	<u>Miscellaneous Roofing</u>							
199	Roof screens				Not Required			
200	Soffit at Auto Tech overhang; EIFS	8,000	sf	30.00	240,000			
201	Roof fascia/cornice	1,800	lf	100.00	180,000			
202	Roof ladder	1	ls	3,000.00	3,000			
203	Walk pads	1	ls	5,000.00	5,000			
204	SUBTOTAL					1,721,228		
205								
206	<b>B3020 ROOF OPENINGS</b>							
207	Skylights, allow	1	ls	30,000.00	30,000			
208	Roof smoke hatch	5	loc	4,000.00	20,000			
209	SUBTOTAL					50,000		
210								
211	<b>TOTAL - ROOFING</b>						<b>\$1,771,228</b>	
212								
213								
214	<b>C10 INTERIOR CONSTRUCTION</b>							
215								
216	<b>C1010 PARTITIONS</b>							
217	Smokeproof enclosure/vestibule at stairways	25	loc	10,000.00	250,000			
218	Miscellaneous partitions/glazed partitions/borrowed lights/blocking etc.	321,410	gsf	26.00	8,356,660			
219	SUBTOTAL					8,606,660		
220								
221	<b>C1020 INTERIOR DOORS</b>							
222	Operable doors 10x10	5	ea	7,500.00	37,500			



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>ALTERNATIVE 4B - ADDITION</b>							
223	Door openers	4	ea	4,000.00	16,000		
224	Interior doors, frames and hardware	321,410	gsf	5.00	1,607,050		
225	SUBTOTAL					1,660,550	
227	<b>C1030 SPECIALTIES / MILLWORK</b>						
228	Toilet Partitions and accessories	321,410	gsf	0.80	257,128		
229	Backer panels in electrical closets	1	ls	1,000.00	1,000		
230	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	321,410	sf	1.00	321,410		
231	Room Signs	321,410	gsf	0.40	128,564		
232	Fire extinguisher cabinets	107	ea	350.00	37,450		
233	Lockers	321,410	gsf	1.60	514,256		
234	Janitors Work Shop Accessories	1	ls	1,500.00	1,500		
235	Janitors Closet Accessories	3	rms	300.00	900		
236	<i>Media</i>						
237	Reception desks	4	loc	25,000	100,000		
238	Railings to open to below areas	343	lf	280	96,040		
239	Library shelving at perimeters	1	ls	50,000.00	50,000		
240	Display cases	321,410	gsf	0.25	80,353		
241	Miscellaneous metals throughout building	321,410	sf	1.50	482,115		
242	Miscellaneous sealants throughout building	321,410	sf	1.25	401,763		
243	SUBTOTAL					2,472,479	
<b>TOTAL - INTERIOR CONSTRUCTION</b>							<b>\$12,739,689</b>
<b>C20 STAIRCASES</b>							
<b>C2010 STAIR CONSTRUCTION</b>							
251	Metal pan stair; egress stair	25	flt	25,000.00	625,000		
252	Luminescent painting/markings	25	flt	2,000.00	50,000		
253	Main staircase	1	flt	100,000.00	100,000		
254	Commons tiered seating	200	lf	250.00	50,000		
255	Commons steps	2	loc	5,000.00	10,000		
256	Concrete fill to stairs	25	flt	2,000.00	50,000		
257	SUBTOTAL					885,000	
<b>C2020 STAIR FINISHES</b>							
260	High performance coating to stairs including all railings etc.	25	flt	3,000.00	75,000		
261	Terrazzo tread at main stair	1	ls	20,000.00	20,000		
262	Rubber tile at stairs - landings	2,500	sf	10.00	25,000		
263	Rubber tile at stairs - treads & risers	3,000	lft	19.06	57,180		
264	SUBTOTAL					177,180	
<b>TOTAL - STAIRCASES</b>							<b>\$1,062,180</b>
<b>C30 INTERIOR FINISHES</b>							
<b>C3010 WALL FINISHES</b>							
272	Wall finishes	321,410	sf	9.00	2,892,690		
273	SUBTOTAL					2,892,690	
<b>C3020 FLOOR FINISHES</b>							
276	Floor finishes	321,410	sf	11.00	3,535,510		
277	Moisture mitigation	257,128	sf	3.00	771,384		
278	SUBTOTAL					4,306,894	
<b>C3030 CEILING FINISHES</b>							



Preferred Schematic Report Submission

GFA 321,410

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>ALTERNATIVE 4B - ADDITION</b>							
281	Acoustic ceiling	20,000	sf	14.00	280,000		
282	Ceiling finishes	321,410	sf	7.00	2,249,870		
283	SUBTOTAL					2,529,870	
<b>TOTAL - INTERIOR FINISHES</b>							<b>\$9,729,454</b>
<b>D10 CONVEYING SYSTEMS</b>							
<b>D1010 ELEVATOR</b>							
291	New elevator; 7 stop; passenger/freight oversize; 5,000 lbs	1	ea	280,000.00	280,000		
293	New elevator; 6 stop; oversize; 5,000 lbs	1	ea	240,000.00	240,000		
294	New elevator; freight 4 stop; 5,000 lbs	1	ea	160,000.00	160,000		
295	SUBTOTAL					680,000	
<b>TOTAL - CONVEYING SYSTEMS</b>							<b>\$680,000</b>
<b>D20 PLUMBING</b>							
<b>D20 PLUMBING, GENERALLY</b>							
303	Plumbing	321,410	gsf	14.00	4,499,740		
304	SUBTOTAL					4,499,740	
<b>TOTAL - PLUMBING</b>							<b>\$4,499,740</b>
<b>D30 HVAC</b>							
<b>D30 HVAC, GENERALLY</b>							
312	New HVAC system	321,410	gsf	45.00	14,463,450		
313	SUBTOTAL					14,463,450	
<b>TOTAL - HVAC</b>							<b>\$14,463,450</b>
<b>D40 FIRE PROTECTION</b>							
<b>D40 FIRE PROTECTION, GENERALLY</b>							
321	Allowance for fire pump	1	ls	75,000.00	75,000		
322	Fire protection system	321,410	gsf	5.00	1,607,050		
323	SUBTOTAL					1,682,050	
<b>TOTAL - FIRE PROTECTION</b>							<b>\$1,682,050</b>
<b>D50 ELECTRICAL</b>							
<b>D5010 SERVICE &amp; DISTRIBUTION</b>							
331	Electrical system complete	321,410	gsf	40.00	12,856,400		
332	SUBTOTAL					12,856,400	
<b>TOTAL - ELECTRICAL</b>							<b>\$12,856,400</b>
<b>E10 EQUIPMENT</b>							
<b>E10 EQUIPMENT, GENERALLY</b>							
341	Gym wall pads					In Renovation	
342	Basketball backstops; swing up; electric operated					In Renovation	
343	Gymnasium dividing net; electrically operated					In Renovation	
344	Volleyball net and standards					In Renovation	
345	Telescoping bleachers					In Renovation	
346	Theatrical Equipment Stage curtains, rigging and controls					In Renovation	



Preferred Schematic Report Submission

GFA 321,410

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>ALTERNATIVE 4B - ADDITION</b>							
347	Kiln	2	ea	5,000.00	10,000		
348	VoTech equipment	1	ls	150,000.00	150,000		
349	Food Service equipment at culinary program	1	ls	300,000.00	300,000		
350	Fume hoods	12	ea	8,000.00	96,000		
351	Food Service equipment	2,890	sf	200.00	578,000		
352	Loading dock equipment	1	ls	20,000.00	20,000		
353	Electrically operated projection screens	1	loc	15,000.00	15,000		
354	SUBTOTAL					1,169,000	
<b>TOTAL - EQUIPMENT</b>							<b>\$1,169,000</b>
<b>E20 FURNISHINGS</b>							
<b>E2010 FIXED FURNISHINGS</b>							
362	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500		
363	Window blinds	39,637	sf	6.00	237,822		
364	Lecture/Large classroom seating	130	seat	200.00	26,000		
365	Science classroom casework	12	rm	65,000.00	780,000		
366	Counters, base cabinets, tall storage in classrooms and other rooms	321,410	gsf	8.00	2,571,280		
367	SUBTOTAL					3,642,602	
<b>E2020 MOVABLE FURNISHINGS</b>							
370	All movable furnishings to be provided and installed by owner						
371	SUBTOTAL						NIC
<b>TOTAL - FURNISHINGS</b>							<b>\$3,642,602</b>
<b>F10 SPECIAL CONSTRUCTION</b>							
<b>F10 SPECIAL CONSTRUCTION</b>							
379	No items in this section						
380	SUBTOTAL						
<b>TOTAL - SPECIAL CONSTRUCTION</b>							
<b>F20 SELECTIVE BUILDING DEMOLITION</b>							
<b>F2010 BUILDING ELEMENTS DEMOLITION</b>							
388	See main summary for demolition of existing buildings						
389	SUBTOTAL						
<b>F2020 HAZARDOUS COMPONENTS ABATEMENT</b>							
392	See main summary for HazMat allowance						See Summary
393	SUBTOTAL						
<b>TOTAL - SELECTIVE BUILDING DEMOLITION</b>							



Preferred Schematic Design Submission

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
<b>SITework OPTION 4B</b>							
<b>G SITEWORK</b>							
<b>G10</b>	<b>SITE PREPARATION &amp; DEMOLITION</b>						
	Site construction fence/barricades	4,000	lf	12.00	48,000		
	Remove existing trees	50	ea	750	37,500		
	Remove existing shrub plantings throughout the site including large trees at front	1	ls	30,000	30,000		
	Pavement removal	120,000	sf	1.00	120,000		
	Pedestrian pavement removal	1	ls	50,000.00	50,000		
	Miscellaneous demolition	1	ls	100,000	100,000		
	<u>Site Earthwork</u>						
	Strip topsoil, remove off site	3,704	cy	20.00	74,080		
	Cut / Fill outside building footprints	14,815	cy	12.00	177,780		
	Fine grading	66,667	sy	1.00	66,667		
	Phased construction site premiums	1	ls	50,000.00	50,000		
	Silt fence/erosion control, wash bays, stock piles	4,000	lf	12.00	48,000		
	Construction entrance	1	ls	20,000.00	20,000		
	Temporary parking/logistics	1	ls	100,000.00	100,000		
	Silt fence maintenance, dust control and monitoring	1	ls	30,000.00	30,000		
	Rock removal allowance						NIC
	<u>Hazardous Waste Remediation</u>						
	Dispose/treat contaminated soils/water						NIC
	Contaminated soils allowance	1	ls	314,050.00			NIC
	SUBTOTAL						952,027
<b>G20</b>	<b>SITE IMPROVEMENTS</b>						
	Bituminous concrete paving @ parking/roads	101,047			-		
	gravel base; 12" thick	4,226	cy	38.00	160,588		
	bituminous concrete; 4" thick	11,227	sy	26.00	291,902		
	Granite curbs; 6" x 18"	6,888	lf	38.00	261,744		
	HC curb cuts	5	loc	1,500.00	7,500		
	Bituminous concrete paving @ community path	23,143			-		
	gravel base; 12" thick	1,340	cy	38.00	50,920		
	bituminous concrete; 4" thick	2,571	sy	26.00	66,846		
	<u>Concrete Paving</u>						
	gravel base; 8" thick	1,264	cy	38.00	48,032		
	concrete; 6" thick	45,500	sf	8.50	386,750		
	<u>Precast Pavers @ entrances</u>						
	gravel base; 6" thick	583	cy	32.00	18,656		
	concrete; 6" thick	21,000	sf	8.00	168,000		
	3" thick precast unit pavers	21,000	sf	18.00	378,000		
	<u>Stairs and Ramps</u>						
	Concrete to stair treads	420	lfr	140.00	58,800		
	Granite to stair treads	420	lfr	180.00	75,600		
	Ornamental metal hand railings - galv at stairs	168	lf	135.00	22,680		
	Entrance ramp	1	ls	80,000.00	80,000		
	Allowance for decorate site staircase to new addition	2,400	sf	260.00	624,000		
	Allowance for elevated roadway to loading dock; precast sections including supports and foundations	14,600	sf	180.00	2,628,000		
	Parking and Retaining wall at on grade parking in lieu of structured parking						
	Bituminous concrete paving @ parking/roads	27,900			-		
	gravel base; 12" thick	1,516	cy	38.00	57,608		
	bituminous concrete; 4" thick	3,100	sy	26.00	80,600		



Preferred Schematic Design Submission

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>SITework OPTION 4B</b>							
56	Granite curbs; 6" x 18"	1,138	lf	38.00	43,244		
57	Retaining wall allowance; segmental; assumed 12 ft high	212	lf	480.00	101,760		
58							
59	Retaining wall allowance at auto-shop entrance/loading; segmental; assumed 8 ft high	272	lf	320.00	87,040		
60							
61	Allowance for benches, fencing, bike racks, flag pole etc.	1	ls	400,000.00	400,000		
62	<u>Landscaping</u>						
63	Soil mix; 6" thick, imported topsoil	4,259	cy	30.00	127,770		
64	Seeding	230,000	sf	0.25	57,500		
65	Planting allowance	1	ls	600,000.00	600,000		
66	Irrigation				NIC		
67	SUBTOTAL					6,883,540	
68							
69	<b>G30 CIVIL MECHANICAL UTILITIES</b>						
70							
71	331000 <u>WATER UTILITIES</u>						
72	New fire DI piping; 8"	1,558	lf	80.00	124,640		
73	FD connection	2	loc	2,000.00	4,000		
74	New fire hydrant	4	loc	2,600.00	10,400		
75	Gate valves	12	loc	750.00	9,000		
76	Connect to existing line (Wet Taps)	4	loc	15,000.00	60,000		
77							
78	333000 <u>SANITARY SEWERAGE UTILITIES</u>						
79	<u>Sanitary sewer</u>						
80	6" PVC Sanitary sewer	1,121	lf	45.00	50,445		
81	SMH	8	ea	3,500.00	28,000		
82	Connect to existing	3	loc	10,000.00	30,000		
83	Grease trap; 9,000 Gal	1	loc	20,000.00	20,000		
84							
85	334000 <u>STORM DRAINAGE UTILITIES</u>						
86	<u>Storm water</u>						
87	WQS	4	ea	16,000.00	64,000		
88	OCS	2	ea	10,000.00	20,000		
89	Manhole	22	loc	4,800.00	105,600		
90	Connect to existing line	4	loc	2,500.00	10,000		
91	Catch basins	29	loc	4,400.00	127,600		
92	Area drains	19	loc	1,600.00	30,400		
93	Cleanouts	8	loc	1,200.00	9,600		
94	24" CPP	3,473	lf	90.00	312,570		
95	<u>Underground Infiltration</u>						
96	Allowance for infiltration systems	6,600	sf	25.00	165,000		
97	<u>Gas service</u>						
98	E&B trench for new gas main, pipe and install by	420	lf	25.00	10,500		
99	Gas Meter				NIC		
100	<u>Telecom service</u>						
101	E&B trench for new gas main, pipe and install by	300	lf	25.00	7,500		
102	SUBTOTAL					1,199,255	
103							
104	<b>G40 ELECTRICAL UTILITIES</b>						
105	Electric handhole	2	ea	1,500.00	3,000		
106	Primary ductbank	991	lf	120.00	118,920		
107	Transformer by Utility Company	1	ea		NIC		
108	Transformer pad	2	ea	2,000.00	4,000		
109	Secondary service						
110	Ductbank	100	lf	500.00	50,000		
111	Emergency service						
112	Ductbank	100	lf	150.00	15,000		
113	Generator pad	1	ea	1,500.00	1,500		
114	<u>Site lighting</u>						



Preferred Schematic Design Submission

<i>CSI CODE</i>	<i>DESCRIPTION</i>	<i>QTY</i>	<i>UNIT</i>	<i>UNIT COST</i>	<i>EST'D COST</i>	<i>SUB TOTAL</i>	<i>TOTAL COST</i>	
<b>SITWORK OPTION 4B</b>								
115	Allowance for site lighting	1	ls	150,000.00	150,000			
116	<u>Site communications and security</u>							
117	Site security	1	ls	75,000.00	75,000			
118	Communication riser pole	1	ea	2,500.00	2,500			
119	Telecom handhole	2	ea	1,500.00	3,000			
120	Ductbank	200	lf	130.00	26,000			
121	SUBTOTAL					448,920		
122	<b>TOTAL - SITE DEVELOPMENT OPTION 4B</b>							<b>\$9,483,742</b>
123								



<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>AT GRADE SHELTERED PARKING</b>					
<b>A10 FOUNDATIONS</b>					
A1010	Standard Foundations	\$682,264			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$1,147,914	<b>\$1,830,178</b>	\$13.46	8.4%
<b>A20 BASEMENT CONSTRUCTION</b>					
A2010	Basement Excavation	\$4,005,205			
A2020	Basement Walls	\$538,787	<b>\$4,543,992</b>	\$33.41	20.9%
<b>B10 SUPERSTRUCTURE</b>					
B1010	Upper Floor Construction	\$3,064,320			
B1020	Roof Construction	\$3,064,320	<b>\$6,128,640</b>	\$45.06	28.2%
<b>B20 EXTERIOR CLOSURE</b>					
B2010	Exterior Walls	\$4,040,000			
B2020	Windows	\$0			
B2030	Exterior Doors	\$20,000	<b>\$4,060,000</b>	\$29.85	18.7%
<b>B30 ROOFING</b>					
B3010	Roof Coverings	\$1,428,000			
B3020	Roof Openings	\$0	<b>\$1,428,000</b>	\$10.50	6.6%
<b>C10 INTERIOR CONSTRUCTION</b>					
C1010	Partitions	\$160,000			
C1020	Interior Doors	\$12,000			
C1030	Specialties/Millwork	\$15,000	<b>\$187,000</b>	\$1.38	0.9%
<b>C20 STAIRCASES</b>					
C2010	Stair Construction	\$72,000			
C2020	Stair Finishes	\$0	<b>\$72,000</b>	\$0.53	0.3%
<b>C30 INTERIOR FINISHES</b>					
C3010	Wall Finishes	\$14,000			
C3020	Floor Finishes	\$102,000			
C3030	Ceiling Finishes	\$0	<b>\$116,000</b>	\$0.85	0.5%
<b>D10 CONVEYING SYSTEMS</b>					
D1010	Elevator	\$105,000	<b>\$105,000</b>	\$0.77	0.5%
<b>D20 PLUMBING</b>					
D20	Plumbing	\$272,000	<b>\$272,000</b>	\$2.00	1.3%
<b>D30 HVAC</b>					
D30	HVAC	\$1,088,000	<b>\$1,088,000</b>	\$8.00	5.0%



<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>AT GRADE SHELTERED PARKING</b>					
<b>D40 FIRE PROTECTION</b>					
D40	Fire Protection	\$680,000	<b>\$680,000</b>	\$5.00	3.1%
<b>D50 ELECTRICAL</b>					
D5010	Complete System	\$1,474,000	<b>\$1,474,000</b>	\$10.84	6.8%
<b>E10 EQUIPMENT</b>					
E10	Equipment	\$0	<b>\$0</b>	\$0.00	0.0%
<b>E20 FURNISHINGS</b>					
E2010	Fixed Furnishings	\$0			
E2020	Movable Furnishings	NIC	<b>\$0</b>	\$0.00	0.0%
<b>F10 SPECIAL CONSTRUCTION</b>					
F10	Special Construction	(\$246,504)	<b>(\$246,504)</b>	-\$1.81	-1.1%
<b>F20 HAZMAT REMOVALS</b>					
F2010	Building Elements Demolition	\$0			
F2020	Hazardous Components Abatement	\$0	<b>\$0</b>	\$0.00	0.0%
<b>TOTAL DIRECT COST (Trade Costs)</b>			<b>\$21,738,306</b>	\$159.84	100.0%



Preferred Schematic Report Submission

GFA 136,000

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**AT GRADE SHELTERED PARKING**

**GROSS FLOOR AREA CALCULATION**

Level 1	68,000
Level 2	68,000

<b>TOTAL GROSS FLOOR AREA (GFA)</b>	<b>136,000 sf</b>
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**A10 FOUNDATIONS**

**A1010 STANDARD FOUNDATIONS**

Strip footings - 2'-6" x 1'-0"

Excavation	1,408	cy	12.00	16,896
Store on site for reuse	1,408	cy	14.00	19,712
Backfill with new fill	1,294	cy	16.00	20,704
Formwork	2,340	sf	10.00	23,400
Re-bar, 10#/lf	11,700	lbs	1.20	14,040
Concrete material; 3,000 psi	114	cy	118.00	13,452
Placing concrete	114	cy	45.00	5,130

Foundation walls at exterior - 14" thick

Formwork	9,360	sf	12.00	112,320
Re-bar, 4#/sf	18,720	lbs	1.20	22,464
Concrete material; 4,000 psi	212	cy	125.00	26,500
Placing concrete	212	cy	45.00	9,540
Dampproofing foundation wall and footing	7,020	sf	1.90	13,338
Insulation to foundation walls; 2" thick	4,680	sf	2.50	11,700
Form shelf	1,170	lf	8.00	9,360

Column footings 7' x 7' x 2'-0"

Excavation	554	cy	15.00	8,310
Store on site for reuse	554	cy	14.00	7,756
Backfill with new fill	405	cy	16.00	6,480
Formwork	2,184	sf	11.00	24,024
Re-bar	17,880	lbs	1.20	21,456
Concrete material; 3,000 psi	149	cy	118.00	17,582
Placing concrete	149	cy	45.00	6,705
Set anchor bolts grout plates	39	ea	150.00	5,850

Column footings 10'-0" x 10'-0" x 3'-0"

Excavation	1,036	cy	15.00	15,540
Store on site for reuse	1,036	cy	14.00	14,504
Backfill with new fill	511	cy	16.00	8,176
Formwork	5,400	sf	11.00	59,400
Re-bar	63,000	lbs	1.20	75,600
Concrete material; 3,000 psi	525	cy	118.00	61,950
Placing concrete	525	cy	45.00	23,625
Set anchor bolts grout plates	45	ea	150.00	6,750

SUBTOTAL					682,264
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**A1020 SPECIAL FOUNDATIONS**

No Work in this section

SUBTOTAL

**A1030 LOWEST FLOOR CONSTRUCTION**

New Slab on grade, 5" thick

Gravel fill, 12"	2,519	cy	36.00	90,684
Rigid insulation	68,000	sf	2.25	153,000
Vapor barrier	68,000	sf	0.75	51,000



Preferred Schematic Report Submission

GFA 136,000

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>AT GRADE SHELTERED PARKING</b>							
57	Waterproofing system	68,000	sf	6.50	442,000		
58	Compact existing sub-grade	68,000	sf	0.50	34,000		
59	Mesh reinforcing 15% lap	78,200	sf	0.80	62,560		
60	Concrete - 5" thick; 4,000 psi	1,111	cy	125.00	138,875		
61	Placing concrete	1,111	cy	45.00	49,995		
62	Finishing and curing concrete	68,000	sf	1.50	102,000		
63	Control joints - saw cut	68,000	sf	0.10	6,800		
64	Striping	340	spc	50.00	17,000		
65	SUBTOTAL					1,147,914	
<b>TOTAL - FOUNDATIONS</b>							<b>\$1,830,178</b>

**A20 BASEMENT CONSTRUCTION**

<b>A2010 BASEMENT EXCAVATION</b>							
73	Excavation for parking garage	94,000	cy	12.00	1,128,000		
74	Export off site	94,000	cy	22.00	2,068,000		
75	Imported fill	1,000	cy	32.00	32,000		
76	Allowance for sheeting and shoring	14,131	sf	55.00	777,205		
77	SUBTOTAL					4,005,205	
<b>A2020 BASEMENT WALLS</b>							
<u>Strip footings to retaining walls - 2'-6" x 1'-0"</u>							
81	Excavation	307	cy	12.00	3,684		
82	Store on site for reuse	307	cy	6.00	1,842		
83	Backfill with existing fill	266	cy	8.00	2,128		
84	Formwork	850	sf	10.00	8,500		
85	Re-bar, 15#/lf	6,375	lbs	1.20	7,650		
86	Concrete material; 3,000 psi	41	cy	118.00	4,838		
87	Placing concrete	41	cy	45.00	1,845		
<u>Retaining walls - 16" thick</u>							
89	Formwork	21,250	sf	14.00	297,500		
90	Re-bar, 6#/sf	63,750	lbs	1.20	76,500		
91	Concrete material; 4,000 psi	550	cy	125.00	68,750		
92	Placing concrete	550	cy	45.00	24,750		
93	Waterproofing basement wall and footing	5,100	sf	6.00	30,600		
94	Insulation to foundation walls; 2" thick	5,100	sf	2.00	10,200		
95	SUBTOTAL					538,787	
<b>TOTAL - BASEMENT CONSTRUCTION</b>							<b>\$4,543,992</b>

**B10 SUPERSTRUCTURE**

<b>B1010 FLOOR CONSTRUCTION</b>							
lbs/sf							
tns							
<u>033000 CONCRETE</u>							
105	WWF reinforcement	78,200	sf	0.80	62,560		
106	Concrete topping slab; 2-1/2" Normal Weight	576	cy	135.00	77,760		
107	Place and finish concrete	68,000	sf	3.00	204,000		
<u>Floor Structure - Precast Concrete</u>							
109	10ft wide x 28" deep precast concrete double T's clear spanning 60 feet; including columns and spandrels	68,000	sf	40.00	2,720,000		



Preferred Schematic Report Submission

GFA 136,000

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>AT GRADE SHELTERED PARKING</b>							
	SUBTOTAL					3,064,320	
<b>B1020 ROOF CONSTRUCTION</b>							
033000	CONCRETE						
	WWF reinforcement	78,200	sf	0.80	62,560		
	Concrete topping slab; 2-1/2" Normal Weight	576	cy	135.00	77,760		
	Place and finish concrete	68,000	sf	3.00	204,000		
	<u>Floor Structure - Precast Concrete</u>						
	10ft wide x 28" deep precast concrete double T's clear spanning 60 feet; including columns and spandrels	68,000	sf	40.00	2,720,000		
	SUBTOTAL					3,064,320	
<b>TOTAL - SUPERSTRUCTURE</b>							<b>\$6,128,640</b>
<b>B20 EXTERIOR CLOSURE</b>							
<b>B2010 EXTERIOR WALLS</b>							
	Allowance for ornamental screen enclosure to three sides; attached to precast structure	25,250	sf	80.00	2,020,000		
	Allowance for ornamental screen enclosure to roof level three sides; free standing	20,200	sf	100.00	2,020,000		
	SUBTOTAL					4,040,000	
<b>B2020 WINDOWS</b>							
	No Work in this section						
	SUBTOTAL					-	
<b>B2030 EXTERIOR DOORS</b>							
	Allowance for garage overhead entrance/exit doors	2	loc	10,000.00	20,000		
	SUBTOTAL					20,000	
<b>TOTAL - EXTERIOR CLOSURE</b>							<b>\$4,060,000</b>
<b>B30 ROOFING</b>							
<b>B3010 ROOF COVERINGS</b>							
	Waterproofing to roof under playing surface; protection board, 45 mil duraskim, drainage board, drainage fabric etc.	68,000	sf	12.00	816,000		
	Turf athletic field, stone base layer and synthetic turf system	68,000	sf	9.00	612,000		
	SUBTOTAL					1,428,000	
<b>B3020 ROOF OPENINGS</b>							
	No Work in this section						
	SUBTOTAL					-	
<b>TOTAL - ROOFING</b>							<b>\$1,428,000</b>
<b>C10 INTERIOR CONSTRUCTION</b>							
<b>C1010 PARTITIONS</b>							
	CMU walls at stairs; allowance for two stair locations	4,800	sf	24.00	115,200		
	Elevator shaft; CMU	1,600	sf	28.00	44,800		
	SUBTOTAL					160,000	



Preferred Schematic Report Submission

GFA 136,000

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>AT GRADE SHELTERED PARKING</b>							
<b>C1020</b>	<b>INTERIOR DOORS</b>						
	New doors at stairs	6	lvs	2,000.00	12,000		
	SUBTOTAL					12,000	
<b>C1030</b>	<b>SPECIALTIES / MILLWORK</b>						
	Signage	1	ls	15,000.00	15,000		
	SUBTOTAL					15,000	
<b>TOTAL - INTERIOR CONSTRUCTION</b>							<b>\$187,000</b>
<b>C20 STAIRCASES</b>							
<b>C2010</b>	<b>STAIR CONSTRUCTION</b>						
	New precast stairs with galvanized steel guardrails and handrails	4	flt	18,000.00	72,000		
	SUBTOTAL					72,000	
<b>C2020</b>	<b>STAIR FINISHES</b>						
	No Work in this section						
	SUBTOTAL					-	
<b>TOTAL - STAIRCASES</b>							<b>\$72,000</b>
<b>C30 INTERIOR FINISHES</b>							
<b>C3010</b>	<b>WALL FINISHES</b>						
	Paint to CMU walls	11,200	sf	1.25	14,000		
	SUBTOTAL					14,000	
<b>C3020</b>	<b>FLOOR FINISHES</b>						
	Sealer to concrete slab	68,000	sf	1.50	102,000		
	SUBTOTAL					102,000	
<b>C3030</b>	<b>CEILING FINISHES</b>						
	No Work in this section						
	SUBTOTAL					-	
<b>TOTAL - INTERIOR FINISHES</b>							<b>\$116,000</b>
<b>D10 CONVEYING SYSTEMS</b>							
<b>D1010</b>	<b>ELEVATOR</b>						
	New elevator; 3 stop	1	ea	105,000.00	105,000		
	SUBTOTAL					105,000	
<b>TOTAL - CONVEYING SYSTEMS</b>							<b>\$105,000</b>
<b>D20 PLUMBING</b>							
<b>D20</b>	<b>PLUMBING, GENERALLY</b>						
	Plumbing	136,000	gsf	2.00	272,000		
	SUBTOTAL					272,000	
<b>TOTAL - PLUMBING</b>							<b>\$272,000</b>
<b>D30 HVAC</b>							
<b>D30</b>	<b>HVAC, GENERALLY</b>						
	Garage ventilation system; exhaust fan	136,000	gsf	8.00	1,088,000		
	SUBTOTAL					1,088,000	
<b>TOTAL - HVAC</b>							<b>\$1,088,000</b>



Preferred Schematic Report Submission

GFA 136,000

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**AT GRADE SHELTERED PARKING**

**D40 FIRE PROTECTION**

<b>D40</b>	<b>FIRE PROTECTION, GENERALLY</b>						
	Fire protection system; assumed not required	<b>136,000</b>	gsf	5.00	680,000		
	SUBTOTAL					680,000	
<b>TOTAL - FIRE PROTECTION</b>							<b>\$680,000</b>

**D50 ELECTRICAL**

<b>D5010</b>	<b>SERVICE &amp; DISTRIBUTION</b>						
	Electrical system complete	<b>136,000</b>	gsf	9.00	1,224,000		
	Site lighting allowance at fields	<b>1</b>	sf	250,000.00	250,000		
	SUBTOTAL					1,474,000	
<b>TOTAL - ELECTRICAL</b>							<b>\$1,474,000</b>

**E10 EQUIPMENT**

<b>E10</b>	<b>EQUIPMENT, GENERALLY</b>						
	No Work in this section						
	SUBTOTAL					-	
<b>TOTAL - EQUIPMENT</b>							

**E20 FURNISHINGS**

<b>E2010</b>	<b>FIXED FURNISHINGS</b>						
	No Work in this section						
	SUBTOTAL					-	
<b>E2020</b>	<b>MOVABLE FURNISHINGS</b>						
	All movable furnishings to be provided and installed by owner						
	SUBTOTAL					NIC	
<b>TOTAL - FURNISHINGS</b>							

**F10 SPECIAL CONSTRUCTION**

<b>F10</b>	<b>SPECIAL CONSTRUCTION</b>						
	Parking and Retaining wall at on grade parking in lieu of structured parking - credit from base						
	Bituminous concrete paving @ parking/roads	(27,900)				-	
	gravel base; 12" thick	<b>(550)</b>	cy	38.00		(20,900)	
	bituminous concrete; 4" thick	<b>(3,100)</b>	sy	26.00		(80,600)	
	Granite curbs; 6" x 18"	<b>(1,138)</b>	lf	38.00		(43,244)	
	Retaining wall allowance; segmental; assumed 12 ft high	<b>(212)</b>	lf	480.00		(101,760)	
	No items in this section						
	SUBTOTAL					(\$246,504)	
<b>TOTAL - SPECIAL CONSTRUCTION</b>							<b>(\$246,504)</b>

**F20 SELECTIVE BUILDING DEMOLITION**

<b>F2010</b>	<b>BUILDING ELEMENTS DEMOLITION</b>						
	No items in this section						
	SUBTOTAL						
<b>F2020</b>	<b>HAZARDOUS COMPONENTS ABATEMENT</b>						



Somerville High School  
Design Options 2A, 3 + 4B  
Somerville, MA

24-May-16

Preferred Schematic Report Submission

GFA 136,000

<i>CSI CODE</i>	<i>DESCRIPTION</i>	<i>QTY</i>	<i>UNIT</i>	<i>UNIT COST</i>	<i>EST'D COST</i>	<i>SUB TOTAL</i>	<i>TOTAL COST</i>
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**AT GRADE SHELTERED PARKING**

288 See main summary for HazMat allowance

See Summary

288 SUBTOTAL

289

290

<b>TOTAL - SELECTIVE BUILDING DEMOLITION</b>							
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<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
<b>1895/1914 BUILDING STABILIZATION Pricing Scenario 1</b>					
<b>A10 FOUNDATIONS</b>					
A1010	Standard Foundations	\$120,504			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$10,000	<b>\$130,504</b>	\$2.17	9.3%
<b>B10 SUPERSTRUCTURE</b>					
B1010	Upper Floor Construction	\$300,000			
B1020	Roof Construction	\$40,000	<b>\$340,000</b>	\$5.64	24.1%
<b>B20 EXTERIOR CLOSURE</b>					
B2010	Exterior Walls	\$344,718			
B2020	Windows/Curtainwall	\$21,600			
B2030	Exterior Doors	\$0	<b>\$366,318</b>	\$6.08	26.0%
<b>B30 ROOFING</b>					
B3010	Roof Coverings	\$0			
B3020	Roof Openings	\$0	<b>\$0</b>	\$0.00	0.0%
<b>C10 INTERIOR CONSTRUCTION</b>					
C1010	Partitions	\$301,260			
C1020	Interior Doors	\$0			
C1030	Specialties/Millwork	\$0	<b>\$301,260</b>	\$5.00	21.4%
<b>C20 STAIRCASES</b>					
C2010	Stair Construction	\$0			
C2020	Stair Finishes	\$0	<b>\$0</b>	\$0.00	0.0%
<b>C30 INTERIOR FINISHES</b>					
C3010	Wall Finishes	\$0			
C3020	Floor Finishes	\$0			
C3030	Ceiling Finishes	\$0	<b>\$0</b>	\$0.00	0.0%
<b>D10 CONVEYING SYSTEMS</b>					
D1010	Elevator	\$0	<b>\$0</b>	\$0.00	0.0%
<b>D20 PLUMBING</b>					
D20	Plumbing	\$0	<b>\$0</b>	\$0.00	0.0%
<b>D30 HVAC</b>					
D30	HVAC	\$0	<b>\$0</b>	\$0.00	0.0%
<b>D40 FIRE PROTECTION</b>					
D40	Fire Protection	\$0	<b>\$0</b>	\$0.00	0.0%
<b>D50 ELECTRICAL</b>					
D5010	Electrical Systems	\$150,630	<b>\$150,630</b>	\$2.50	10.7%
<b>E10 EQUIPMENT</b>					
E10	Equipment	\$0	<b>\$0</b>	\$0.00	0.0%
<b>E20 FURNISHINGS</b>					
E2010	Fixed Furnishings	\$0			
E2020	Movable Furnishings	NIC	<b>\$0</b>	\$0.00	0.0%
<b>F20 SELECTIVE BUILDING DEMOLITION</b>					
F2010	Building Elements Demolition	\$120,504			
F2020	Hazardous Components Abatement	\$0	<b>\$120,504</b>	\$2.00	8.6%
<b>TOTAL DIRECT COST (Trade Costs)</b>			<b>\$1,409,216</b>	<b>\$23.39</b>	<b>100.0%</b>



Preferred Schematic Report Submission

GFA 60,252

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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1895/1914 BUILDING STABILIZATION Pricing Scenario 1

**GROSS FLOOR AREA CALCULATION**

Lower Level	15,063
Level 2	15,063
Level 3	15,063
Level 4	15,063

<b>TOTAL GROSS FLOOR AREA (GFA)</b>	<b>60,252 sf</b>
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**A10 FOUNDATIONS**

**A1010 STANDARD FOUNDATIONS**

Allowance for new foundations for structural bracing and new interior walls etc.	60,252	sf	2.00	120,504	
<b>SUBTOTAL</b>					120,504

**A1020 SPECIAL FOUNDATIONS**

No work in this section  
 SUBTOTAL

**A1030 LOWEST FLOOR CONSTRUCTION**

Equipment pads	1	ls	10,000.00	10,000	
<b>SUBTOTAL</b>					10,000

<b>TOTAL - FOUNDATIONS</b>					<b>\$130,504</b>
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**B10 SUPERSTRUCTURE**

**B1010 FLOOR CONSTRUCTION**

New lateral Bracing to floors; 2 lbs per SF	60	tns	5,000.00	300,000	
<b>SUBTOTAL</b>					300,000

**B1020 ROOF CONSTRUCTION**

<u>Roof Structure - Steel:</u> New lateral Bracing to roofs; 1 lbs per SF	8	tns	5,000.00	40,000	
<b>SUBTOTAL</b>					40,000

<b>TOTAL - SUPERSTRUCTURE</b>					<b>\$340,000</b>
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**B20 EXTERIOR CLOSURE**

**B2010 EXTERIOR WALLS**

<u>Exterior skin</u> Allowance to reinforce existing exterior masonry walls	23,336	sf	4.00	93,344	
Infill existing window openings after demolition of adjacent structure; assumed 10% of existing envelope	1,494	sf	79.00	118,026	
<u>Miscellaneous</u> Staging to exterior wall	33,337	sf	4.00	133,348	
<b>SUBTOTAL</b>					344,718

**B2020 WINDOWS/CURTAINWALL**

Cover existing windows at first and second levels with plywood	2,700	sf	8.00	21,600	
<b>SUBTOTAL</b>					21,600

**B2030 EXTERIOR DOORS**

<b>SUBTOTAL</b>					-
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Preferred Schematic Report Submission

GFA 60,252

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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1895/1914 BUILDING STABILIZATION Pricing Scenario 1

<b>TOTAL - EXTERIOR CLOSURE</b>							<b>\$366,318</b>
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**B30 ROOFING**

**B3010 ROOF COVERINGS**

No work in this section  
 SUBTOTAL

-

**B3020 ROOF OPENINGS**

No work in this section  
 SUBTOTAL

-

<b>TOTAL - ROOFING</b>							
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**C10 INTERIOR CONSTRUCTION**

**C1010 PARTITIONS**

IEBC Lateral Upgrades to existing walls/structure  
 SUBTOTAL

60,252

sf

5.00

301,260

301,260

**C1020 INTERIOR DOORS**

No work in this section  
 SUBTOTAL

-

**C1030 SPECIALTIES / MILLWORK**

No work in this section  
 SUBTOTAL

-

<b>TOTAL - INTERIOR CONSTRUCTION</b>							<b>\$301,260</b>
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**C20 STAIRCASES**

**C2010 STAIR CONSTRUCTION**

No work in this section  
 SUBTOTAL

-

**C2020 STAIR FINISHES**

No work in this section  
 SUBTOTAL

-

<b>TOTAL - STAIRCASES</b>							
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**C30 INTERIOR FINISHES**

**C3010 WALL FINISHES**

No work in this section  
 SUBTOTAL

-

**C3020 FLOOR FINISHES**

No work in this section  
 SUBTOTAL

-

**C3030 CEILING FINISHES**

No work in this section  
 SUBTOTAL

-

<b>TOTAL - INTERIOR FINISHES</b>							
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Preferred Schematic Report Submission

GFA 60,252

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>1895/1914 BUILDING STABILIZATION Pricing Scenario 1</b>								
122	<b>D10 CONVEYING SYSTEMS</b>							
123	No work in this section							
124	SUBTOTAL							-
125	<b>TOTAL - CONVEYING SYSTEMS</b>							
126								
127	<b>D20 PLUMBING</b>							
128	<b>D20 PLUMBING, GENERALLY</b>							
129	No work in this section							
130	SUBTOTAL							-
131	<b>TOTAL - PLUMBING</b>							
132								
133	<b>D30 HVAC</b>							
134	<b>D30 HVAC, GENERALLY</b>							
135	No work in this section							
136	SUBTOTAL							-
137	<b>TOTAL - HVAC</b>							
138								
139	<b>D40 FIRE PROTECTION</b>							
140	<b>D40 FIRE PROTECTION, GENERALLY</b>							
141	No work in this section							
142	SUBTOTAL							-
143	<b>TOTAL - FIRE PROTECTION</b>							
144								
145	<b>D50 ELECTRICAL</b>							
146	<b>D5010 SERVICE &amp; DISTRIBUTION</b>							
147	Allowance for temporary Fire Alarm; wireless devices	60,252	gsf	2.50	150,630			
148	SUBTOTAL							150,630
149	<b>TOTAL - ELECTRICAL</b>							<b>\$150,630</b>
150								
151	<b>E10 EQUIPMENT</b>							
152	<b>E10 EQUIPMENT, GENERALLY</b>							
153	No work in this section							
154	SUBTOTAL							-
155	<b>TOTAL - EQUIPMENT</b>							
156								
157	<b>E20 FURNISHINGS</b>							
158	<b>E2010 FIXED FURNISHINGS</b>							
159	No work in this section							
160	SUBTOTAL							-
161	<b>E2020 MOVABLE FURNISHINGS</b>							
162	No work in this section							



Preferred Schematic Report Submission

GFA 60,252

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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1895/1914 BUILDING STABILIZATION Pricing Scenario 1

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SUBTOTAL NIC

<b>TOTAL - FURNISHINGS</b>
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<b>F10 SPECIAL CONSTRUCTION</b>
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**F10 SPECIAL CONSTRUCTION**

No items in this section  
 SUBTOTAL

<b>TOTAL - SPECIAL CONSTRUCTION</b>
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<b>F20 SELECTIVE BUILDING DEMOLITION</b>
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**F2010 BUILDING ELEMENTS DEMOLITION**

Minor Interior demolition for structural upgrades and dust protection **60,252** sf 2.00 120,504

SUBTOTAL 120,504

**F2020 HAZARDOUS COMPONENTS ABATEMENT**

See summary  
 SUBTOTAL

<b>TOTAL - SELECTIVE BUILDING DEMOLITION</b>	<b>\$120,504</b>
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**ASSOCIATES**

35 Highland Circle, Needham, Massachusetts 02494

**FINAL EVALUATION OF ALTERNATIVES**

**SOMERVILLE SCHOOL DEPARTMENT**

**SOMERVILLE HIGH SCHOOL**

**Somerville, MA**

Architect: SMMA

May 25, 2016



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

**May 25, 2016**

**BASIS OF ESTIMATE**

The estimate is based on the drawings and documents prepared by SMMA package dated 5/6/2016.

**Qualifications / Clarifications:**

	<b>Phase 1 &amp; 2</b>	<b>Phase 3</b>
1 Labor costs included at local union rates		
2 The following mark ups are used:		
General Conditions	7.00%	
General Requirements	4.00%	
Bond	1.00%	
Insurance	1.50%	
Contractor's Overhead & Fee	2.00%	
Design Contingency	10.00%	
GMP Contingency	3.00%	
Phasing	4.00%	
Escalation Contingency (4.5% per annum)	21.56%	37.13%
 Construction mid point calculation:		
Construction start:	June-2018	November-2023
Construction duration:	66 months	18 months
Construction mid-point:	March-2021	August-2024

- 3 The estimate assumes all long-lead items can be pre-purchased to meet schedule requirements.
- 4 The estimate is based on the premise that the design will meet all codes, laws, ordinances, rules, & regulations in effect at the time that the estimate was prepared.
- 5 Construction duration is based on Phase 1 - 3 years, Phase 2 - 3 years, Phase 3 - 1.5 years.

**The estimate excludes the following:**

- 1 A-E Fees
- 2 Overtime
- 3 Builder's Risk Insurance
- 4 Third party commissioning costs
- 5 Testing or inspection services, as required by State Building Code or other: concrete, soils, pavement, fireproofing.
- 6 Sales Tax
- 7 Hazardous materials testing, removal and disposal
- 8 Working in contaminated soils
- 9 Relocation of existing PV system



**FINAL EVALUATION OF ALTERNATIVES**  
**SOMERVILLE SCHOOL DEPARTMENT**  
**SOMERVILLE HIGH SCHOOL**  
 Somerville, MA

May 25, 2016

**BUILDING TRADE BREAKDOWN**

DESCRIPTION	SF	Alternative 2A 390,000	Alternative 3 406,290	Alternative 4B 404,110
Building		88,519,557	93,771,472	103,267,831
Site		9,759,583	8,000,788	8,661,233
Demo/Site		6,740,820	6,749,730	7,406,640
Parking Garage & Field	136,000	14,732,622	14,732,622	14,732,622
Program Space for Child Care	2,400	1,172,544	1,172,544	1,172,544
Add Program Space for SCTV	1,500	425,018	425,018	425,018
Health Space Program Space	1,650	429,000	429,000	429,000
Cost Premium for Energy Efficiency Exceeding LEED Silver Requirements		19,777,500	20,592,000	20,483,000
<b>TOTAL</b>		<b>141,556,645</b>	<b>145,873,175</b>	<b>156,577,888</b>
General Conditions	7.00%	9,908,965	10,211,122	10,960,452
Phasing & Temporary work	4.00%	6,058,624	6,243,372	6,701,534
Escalation Contingency (4.5% per annum) (Phase 1 & 2)	21.56%	30,789,441	31,825,182	34,393,751
Escalation Contingency (4.5% per annum) (Phase 3) - Parking Garage & Field Only	37.13%	5,469,486	5,469,486	5,469,486
<b>SUB TOTAL</b>		<b>193,783,162</b>	<b>199,622,337</b>	<b>214,103,111</b>
General Requirements	4.00%	7,751,326	7,984,893	8,564,124
<b>SUB TOTAL</b>		<b>201,534,488</b>	<b>207,607,231</b>	<b>222,667,236</b>
Bond	1.00%	2,015,345	2,076,072	2,226,672
Insurance	1.50%	3,053,247	3,145,250	3,373,409
<b>SUB TOTAL</b>		<b>206,603,080</b>	<b>212,828,552</b>	<b>228,267,317</b>
GMP Contingency	3.00%	6,198,092	6,384,857	6,848,020
Contractor's Overhead & Fee	2.00%	4,256,023	4,384,268	4,702,307
Design Contingency	10.00%	21,705,720	22,359,768	23,981,764
<b>TOTAL CONSTRUCTION COSTS</b>		<b>\$238,762,916</b>	<b>\$245,957,445</b>	<b>\$263,799,407</b>
<b>TOTAL GROSS AREA (SF) - INCLUDES GARAGE COST PER GSF</b>		531,550 <b>\$612.21</b>	547,840 <b>\$605.37</b>	545,660 <b>\$652.79</b>



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

BUILDING TRADE BREAKDOWN

DESCRIPTION	Alternative 2A	Sub-total	Alternative 2A Demo/Site	Alternative 3	Sub-total	Alternative 3 Demo/Site	Alternative 4B	Sub-total	Alternative 4B Demo/Site	Sub-total	Add #2 Add Parking Garage & Field
<b>A. SUBSTRUCTURE</b>											
<b>A10 FOUNDATION</b>		<b>3,222,683</b>			<b>4,739,610</b>			<b>3,357,800</b>		<b>0</b>	
A1010 Standard Foundations	1,080,355		0	1,696,196		0	1,559,091		0		10,500,000
A1020 Special Foundations	100,000		0	100,000		0	100,000		0		
A1030 Slab on Grade	2,042,329		0	2,943,414		0	1,698,709		0		25,000
<b>A20 BASEMENT CONSTRUCTION</b>		<b>1,423,382</b>			<b>2,246,837</b>			<b>3,075,242</b>		<b>0</b>	
A2010 Basement Excavation	1,024,765		0	1,312,396		0	2,281,532		0		
A2020 Basement Walls	398,617		0	934,441		0	793,710		0		
<b>B. SHELL</b>											
<b>B10 SUPERSTRUCTURE</b>		<b>8,373,080</b>			<b>7,376,529</b>			<b>10,612,198</b>		<b>0</b>	
B1010 Floor Construction	7,582,560		0	6,358,059		0	10,529,498		0		
B1020 Roof Construction	790,520		0	1,018,470		0	82,700		0		
<b>B20 EXTERIOR ENCLOSURE</b>		<b>8,691,894</b>			<b>10,078,618</b>			<b>9,220,714</b>		<b>0</b>	
B2010 Exterior Walls	4,922,124		0	5,210,840		0	5,397,969		0		
B2020 Exterior Windows	2,369,320		0	3,469,530		0	3,498,988		0		
B2030 Exterior Doors	1,400,450		0	1,398,248		0	323,758		0		
<b>B30 ROOFING</b>		<b>2,131,696</b>			<b>2,104,772</b>			<b>2,119,282</b>		<b>0</b>	
B3010 Roof Coverings	2,054,250		0	2,029,710		0	2,026,524		0		
B3020 Roof Openings	77,446		0	75,062		0	92,758		0		
<b>C. INTERIOR</b>											
<b>C10 INTERIOR CONSTRUCTION</b>		<b>7,680,940</b>			<b>7,572,390</b>			<b>10,561,390</b>		<b>0</b>	
C1010 Partitions	4,255,360		0	4,148,730		0	7,255,200		0		85,500
C1020 Interior Doors	1,689,300		0	1,777,200		0	1,533,740		0		19,500
C1030 Fittings	1,736,280		0	1,646,460		0	1,772,450		0		
<b>C20 STAIRS</b>		<b>1,739,490</b>			<b>1,854,135</b>			<b>1,030,950</b>		<b>0</b>	
C2010 Stair Construction	1,110,750		0	1,161,315		0	847,223		0		
C2020 Stair Finishes	628,740		0	692,820		0	183,728		0		
<b>C30 INTERIOR FINISHES</b>		<b>8,001,622</b>			<b>8,595,484</b>			<b>8,680,385</b>		<b>0</b>	
C3010 Wall Finishes	2,907,540		0	3,238,320		0	2,268,650		0		
C3020 Floor Finishes	2,019,420		0	2,130,060		0	3,402,975		0		
C3030 Ceiling Finishes	3,074,662		0	3,227,104		0	3,008,760		0		
<b>D. SERVICES</b>											
<b>D10 CONVEYING</b>		<b>922,200</b>			<b>936,990</b>			<b>690,400</b>		<b>0</b>	
D1010 Elevators & Lifts	922,200		0	936,990		0	690,400		0		120,000
<b>D20 PLUMBING</b>		<b>5,822,700</b>			<b>5,952,149</b>			<b>6,970,898</b>		<b>0</b>	
D2010 Plumbing Fixtures	5,822,700		0	5,952,149		0	6,970,898		0		210,000
<b>D30 HVAC</b>		<b>17,460,300</b>			<b>17,795,502</b>			<b>21,013,720</b>		<b>0</b>	
D3020 Heat Generating Systems	15,490,800		0	15,788,429		0	18,993,170		0		
D3060 Controls & Instrumentation	1,712,100		0	1,738,921		0	1,717,468		0		157,500
D3070 Systems Testing & Balancing	257,400		0	268,151		0	303,083		0		
<b>D40 FIRE PROTECTION</b>		<b>2,429,700</b>			<b>2,506,809</b>			<b>3,130,025</b>		<b>0</b>	
D4010 Sprinklers	2,429,700		0	2,506,809		0	3,130,025		0		787,500
<b>D50 ELECTRICAL</b>		<b>13,403,680</b>			<b>14,006,410</b>			<b>16,641,043</b>		<b>0</b>	
D5010 Electrical Service & Distribution	13,403,680		0	14,006,410		0	16,641,043		0		880,000
<b>E. EQUIPMENT &amp; FURNISHINGS</b>											
<b>E10 EQUIPMENTS</b>		<b>4,411,170</b>			<b>5,079,620</b>			<b>2,585,546</b>		<b>0</b>	
E1010 Commercial Equipment	1,707,740		0	1,561,650		0	688,865		0		
E1020 Institutional Equipment	2,629,420		0	3,471,120		0	1,864,540		0		



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

BUILDING TRADE BREAKDOWN

DESCRIPTION	Alternative 2A	Sub-total	Alternative 2A Demo/Site	Alternative 3	Sub-total	Alternative 3 Demo/Site	Alternative 4B	Sub-total	Alternative 4B Demo/Site	Sub-total	Add #2 Add Parking Garage & Field
E1030 Vehicular Equipment	74,010		0	46,850		0	32,141		0		
<b>E20 FURNISHINGS</b>		<b>2,805,020</b>			<b>2,925,620</b>			<b>3,156,483</b>		<b>0</b>	
E2010 Fixed Furnishings	2,472,320		0	2,804,720		0	3,034,780		0		
E2020 Movable Furnishings	332,700		0	120,900		0	121,703		0		
<b>F. SPECIAL CONSTRUCTION &amp; DEMOLITION</b>											
<b>F10 SPECIAL CONSTRUCTION</b>											
F1040 Special Facilities											
<b>F20 SELECTIVE BUILDING DEMOLITION</b>		<b>0</b>	<b>6,635,820</b>		<b>0</b>	<b>6,644,730</b>		<b>421,757</b>	<b>7,301,640</b>		
F2010 Building Elements Demolition	0		3,887,580	0		3,896,490	301,255		4,553,400		
F2020 Hazardous Components Abatement	0		2,748,240	0		2,748,240	120,502		2,748,240		
<b>SUB-TOTAL BUILDING</b>	<b>88,519,557</b>		<b>6,635,820</b>	<b>93,771,472</b>		<b>6,644,730</b>	<b>103,267,831</b>		<b>7,301,640</b>		<b>12,785,000</b>
<b>G. BUILDING SITEWORK</b>											
<b>G10 SITE PREPARATION</b>											
G1010 Site Clearing	0		5,000	0		5,000	0		5,000		
G1020 Site Demolition & Relocations	0		100,000	0		100,000	0		100,000		
G1030 Site Earthwork	2,660,000		0	860,000		0	1,350,000		0		
G1040 Hazardous Waste Remediation	314,050		0	314,050		0	314,050		0		
<b>G20 SITE IMPROVEMENTS</b>		<b>5,850,000</b>			<b>5,891,205</b>			<b>6,061,650</b>		<b>0</b>	
G2010 Roadways	1,170,000		0	1,218,870		0	1,212,330		0		
G2020 Parking Lots	1,267,500		0	1,320,443		0	1,313,358		0		(1,313,358)
G2030 Pedestrian Paving	1,462,500		0	1,523,588		0	1,515,413		0		
G2040 Site Development	1,365,000		0	1,218,870		0	1,414,385		0		3,260,980
G2050 Landscaping	585,000		0	609,435		0	606,165		0		
<b>G30 SITE MECHANICAL UTILITIES</b>		<b>701,142</b>			<b>701,142</b>			<b>701,142</b>		<b>0</b>	
G3010 Water Supply	135,420		0	135,420		0	135,420		0		
G3020 Sanitary Sewer	149,111		0	149,111		0	149,111		0		
G3030 Storm Sewer	401,990		0	401,990		0	401,990		0		
G3060 Fuel Distribution	14,621		0	14,621		0	14,621		0		
<b>G40 SITE ELECTRICAL UTILITIES</b>		<b>234,391</b>			<b>234,391</b>			<b>234,391</b>		<b>0</b>	
G4010 Electrical Distribution	84,391		0	84,391		0	84,391		0		
G4020 Site Lighting	100,000		0	100,000		0	100,000		0		
G4030 Site Communications & Security	50,000		0	50,000		0	50,000		0		
<b>SUB-TOTAL SITE</b>	<b>9,759,583</b>		<b>105,000</b>	<b>8,000,788</b>		<b>105,000</b>	<b>8,661,233</b>		<b>105,000</b>		<b>1,947,622</b>



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA

May 25, 2016

BUILDING TRADE BREAKDOWN

DESCRIPTION	Alternative 2A	Sub-total	Alternative 2A Demo/Site	Alternative 3	Sub-total	Alternative 3 Demo/Site	Alternative 4B	Sub-total	Alternative 4B Demo/Site	Sub-total	Add #2 Add Parking Garage & Field
<b>TOTAL BUILDING &amp; SITE</b>	<b>98,279,140</b>		<b>6,740,820</b>	<b>101,772,260</b>		<b>6,749,730</b>	<b>111,929,064</b>		<b>7,406,640</b>		<b>14,732,622</b>
General Conditions 7.00%	6,879,540		471,857	7,124,058		472,481	7,835,034		518,465		1,031,284
Phasing & Temporary work 4.00%	4,206,347		288,507	4,355,853		288,888	4,790,564		317,004		630,556
Escalation Contingency (4.5% per annum) (Phase 1 & 2) 21.56%	23,581,834			24,419,999			26,857,099				
Escalation Contingency (4.5% per annum) (Phase 3) 37.13%			2,784,815			2,788,496			3,059,883		6,086,444
<b>SUB TOTAL</b>	<b>132,946,861</b>		<b>10,285,999</b>	<b>137,672,171</b>		<b>10,299,595</b>	<b>151,411,761</b>		<b>11,301,992</b>		<b>22,480,906</b>
General Requirements 4.00%	5,317,874		411,440	5,506,887		411,984	6,056,470		452,080		899,236
<b>SUB TOTAL</b>	<b>138,264,736</b>		<b>10,697,439</b>	<b>143,179,058</b>		<b>10,711,579</b>	<b>157,468,232</b>		<b>11,754,072</b>		<b>23,380,142</b>
Bond 1.00%	1,382,647		106,974	1,431,791		107,116	1,574,682		117,541		233,801
Insurance 1.50%	2,094,711		162,066	2,169,163		162,280	2,385,644		178,074		354,209
<b>SUB TOTAL</b>	<b>141,742,094</b>		<b>10,966,480</b>	<b>146,780,011</b>		<b>10,980,975</b>	<b>161,428,558</b>		<b>12,049,687</b>		<b>23,968,152</b>
GMP Contingency 3.00%	4,252,263		328,994	4,403,400		329,429	4,842,857		361,491		719,045
Contractor's Overhead & Fee 2.00%	2,919,887		225,909	3,023,668		226,208	3,325,428		248,224		493,744
Design Contingency 10.00%	14,891,424		1,152,138	15,420,708		1,153,661	16,959,684		1,265,940		2,518,094
<b>SUBTOTAL CONSTRUCTION COSTS</b>	<b>\$163,805,668</b>		<b>\$12,673,522</b>	<b>\$169,627,787</b>		<b>\$12,690,274</b>	<b>\$186,556,527</b>		<b>\$13,925,341</b>		<b>\$27,699,035</b>
<b>TOTAL CONSTRUCTION COSTS (BLDG. &amp; DEMO/SITE)</b>	<b>\$176,479,190</b>			<b>\$182,318,061</b>			<b>\$200,481,868</b>				
<b>TOTAL GROSS AREA (SF)</b>	390,000			406,290			404,110				105,000
<b>COST PER GSF</b>	<b>\$452.51</b>			<b>\$448.74</b>			<b>\$496.11</b>				<b>\$263.80</b>



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

May 25, 2016

Detail 4B

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
<b>A. SUBSTRUCTURE</b>				
<b>A10 FOUNDATION</b>				
A1010 Standard Foundations				
Heavy	82,700	SF	4.00	330,800
New Construction/Addition	64,282	SF		
<b>EXTERIOR COLUMN FOOTINGS</b>				
Strip footings to interior				
Excavation	222	CY	15.00	3,333
Remove off site	222	CY	25.00	5,556
Backfill with gravel	144	CY	35.00	5,056
Formwork	1,000	SF	10.00	10,000
Re-bar	5,444	LBS	1.10	5,989
Concrete material	78	CY	130.00	10,111
Placing concrete	70	HR	85.00	5,950
Strip footings to walls at step elevation change				
Excavation	37	CY	15.00	556
Remove off site	37	CY	25.00	926
Backfill with gravel	25	CY	35.00	888
Formwork	200	SF	10.00	2,000
Re-bar	817	LBS	1.10	898
Concrete material	12	CY	130.00	1,517
Placing concrete	11	HR	85.00	893
Strip footings to basement walls				
Excavation	1,037	CY	15.00	15,556
Remove off site	1,037	CY	25.00	25,926
Backfill with gravel	454	CY	35.00	15,880
Formwork	6,000	SF	10.00	60,000
Re-bar	40,833	LBS	1.10	44,917
Concrete material	583	CY	130.00	75,833
Placing concrete	525	HR	85.00	44,625
Foundation walls at exterior				
Formwork	16,000	SF	12.00	192,000
Re-bar	32,000	LBS	1.10	35,200
Concrete material	414	CY	130.00	53,791
Placing concrete	331	HR	85.00	28,137
Waterproofing foundation wall & footing	12,000	SF	2.50	30,000
Insulation to foundation walls	8,000	SF	2.50	20,000
Walls at stage elevation change				
Formwork	2,000	SF	10.00	20,000
Re-bar	4,000	LBS	1.10	4,400
Concrete material	39	CY	130.00	5,056
Placing concrete	31	HR	85.00	2,644
Waterproofing foundation wall & footing	1,000	SF	2.50	2,500
Insulation to foundation walls	600	SF	2.50	1,500
Exterior column footings, type F1				
Excavation	960	CY	15.00	14,400
Remove off site	960	CY	25.00	24,000
Backfill with gravel	843	CY	35.00	29,517
Formwork	2,400	SF	10.00	24,000
Re-bar	8,167	LBS	1.10	8,983
Concrete material	117	CY	130.00	15,167
Placing concrete	105	HR	85.00	8,925
Interior column footings, type F1				
Excavation	832	CY	15.00	12,476



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

May 25, 2016

**Detail 4B**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
Remove off site	832	CY	25.00	20,794
Backfill with gravel	526	CY	35.00	18,410
Formwork	3,931	SF	10.00	39,310
Re-bar	21,402	LBS	1.10	23,542
Concrete material	306	CY	130.00	39,747
Placing concrete	275	HR	85.00	23,389
Miscellaneous				
Allow for piers/pilasters	135	EA	800.00	107,678
Set anchor bolts grout plates	80	EA	65.00	5,200
Local de-watering during excavation	1	LS	15,000.00	15,000
Miscellaneous concrete costs (pumping, admixtures etc.)				
Premium for pump grade concrete mix	1,547.9	CY	7.00	10,835
Pump and operator	19.3	DAYS	1,100.00	21,283
Foundation drainage	2,000	LF	17.00	34,000
			<b>Sub-Total</b>	<b>\$1,559,091</b>
A1020 Special Foundations				
Underpinning existing foundations, complete	1	LS	100,000.00	100,000
			<b>Sub-Total</b>	<b>\$100,000</b>
A1030 Slab on Grade				
Heavy	82,700	SF	5.00	413,500
New Construction/Addition	68,246	SF		
Slab on grade				
Gravel fill	2,528	CY	35.00	88,467
Rigid insulation under slab on grade	68,246	SF	2.50	170,616
Vapor barrier	68,246	SF	0.75	51,185
Waterproofing system	68,246	SF	6.00	409,477
Mesh reinforcing 15% lap	78,483	SF	1.25	98,104
Concrete	1,115	CY	130.00	144,909
Placing concrete	1,003	HR	85.00	85,274
Finishing and curing concrete	546	HR	85.00	46,407
Control joints - saw cut	68,246	SF	1.00	68,246
Isolation joints at columns	538	LF	5.00	2,692
Perimeter joints	2,000	LF	4.00	8,000
Elevator Pits				
Excavation for elevator pit	292	CY	15.00	4,375
Remove off site	292	CY	25.00	7,292
Backfill with gravel	21	CY	35.00	726
Elevator pit walls				
Formwork	2,160	SF	10.00	21,600
Reinforcement	3,240	LBS	1.10	3,564
Concrete material	28	CY	130.00	3,658
Placing concrete	23	HR	85.00	1,914
Slab				
Formwork	270	SF	10.00	2,700
Reinforcement	1,181	LBS	1.10	1,299
Concrete material in slab	24	CY	130.00	3,071
Placing concrete	21	HR	85.00	1,807
Cementitious waterproofing to elevator pit	1,485	SF	12.00	17,820



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

May 25, 2016

**Detail 4B**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
Miscellaneous				
Miscellaneous concrete costs (pumping, admixtures etc.)				
Premium for pump grade concrete mix	52	CY	25.00	1,294
Pump and operator	0.6	DAYS	1,100.00	712
New loading dock	1	LS	40,000.00	40,000
	<b>Sub-Total</b>			<b>\$1,698,709</b>
<b>A20 BASEMENT CONSTRUCTION</b>				
A2010 Basement Excavation				
New Construction/Addition				
Excavate for basement	35,387	CY	15.00	530,804
Excavate working space to basement wall	1,047	CY	15.00	15,711
Remove excavated material from site	36,434	CY	25.00	910,858
Backfill around basement walls with gravel	1,047	CY	35.00	36,659
Wood and steel lagging	31,500	SF	25.00	787,500
	<b>Sub-Total</b>			<b>\$2,281,532</b>
A2020 Basement Walls				
New Construction/Addition				
Formwork to basement wall	28,392	SF	14.00	397,488
Reinforcement in basement walls	70,980	LBS	1.50	106,470
Concrete material in basement walls	734	CY	130.00	95,452
Placing concrete	587	HR	85.00	49,929
Rubbing concrete after stripping formwork	284	HR	85.00	24,133
Waterproofing and protection mat to basement walls	14,196	SF	5.00	70,980
Rigid insulation to basement walls	14,196	SF	2.50	35,490
Miscellaneous concrete costs (pumping, admixtures etc.)				
Premium for pump grade concrete mix	734	CY	5.00	3,671
Pump and operator	9.2	DAYS	1,100.00	10,096
	<b>Sub-Total</b>			<b>\$793,710</b>
<b>B. SHELL</b>				
<b>B10 SUPERSTRUCTURE</b>				
B1010 Floor Construction				
Heavy	82,700	SF	10.00	827,000
Lateral reinforcement measures (PS#1)	60,251	SF	5.00	301,255
New Construction/Addition, 15 LB/SF	2,411	TN	3,500.00	8,437,013
New Construction/Addition - connections 10%	241	TN	3,500.00	843,701
New Construction/Addition - Premium for tube steel 10%	241	TN	500.00	120,529
	<b>Sub-Total</b>			<b>\$10,529,498</b>
B1020 Roof Construction				
Heavy	82,700	SF	1.00	82,700
New Construction/Addition	321,410	GFA		In Above
	<b>Sub-Total</b>			<b>\$82,700</b>



**FINAL EVALUATION OF ALTERNATIVES**  
**SOMERVILLE SCHOOL DEPARTMENT**  
**SOMERVILLE HIGH SCHOOL**  
 Somerville, MA

May 25, 2016

Detail 4B

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
<b>B20 EXTERIOR ENCLOSURE</b>				
B2010 Exterior Walls				
Heavy	82,700	SF	15.00	1,240,500
New Construction/Addition				
Interior skin - 70%				
Metal stud backup to exterior wall, 6" thick	99,254	SF	9.00	893,290
Insulation	99,254	SF	3.75	372,204
Air barrier	99,254	SF	2.75	272,950
Den shield or similar to exterior face of stud backup	99,254	SF	3.50	347,390
Drywall lining to interior face of stud backup	99,254	SF	3.00	297,763
Exterior skin - 40% brick veneer	22,714	SF	38.00	863,117
Exterior skin - 10% metal panel	5,678	SF	55.00	312,312
Exterior skin - 20% porcelain	11,357	SF	65.00	738,192
The infill of any remaining exterior openings following the demolition of adjacent structures with plywood sheathing. All window openings at the 1st & 2nd levels would be covered with plywood sheathing for security. (PS#1)	60,251	SF	1.00	60,251
	<b>Sub-Total</b>			<b>\$5,397,969</b>
B2020 Exterior Windows				
Heavy	82,700	SF	5.00	413,500
New Construction/Addition				
Windows and Glazing - 15%	21,269	SF	85.00	1,807,848
Curtainwall - 15%	10,647	SF	120.00	1,277,640
	<b>Sub-Total</b>			<b>\$3,498,988</b>
B2030 Exterior Doors				
Heavy	82,700	SF	1.00	82,700
New Construction/Addition	321,410	GFA	0.75	241,058
	<b>Sub-Total</b>			<b>\$323,758</b>
<b>B30 ROOFING</b>				
B3010 Roof Coverings				
Heavy	82,700	SF	8.00	661,600
New Construction/Addition				
Flat roofing				
Roof membrane fully adhered	68,246	SF	20.00	1,364,924
	<b>Sub-Total</b>			<b>\$2,026,524</b>
B3020 Roof Openings				
Heavy	82,700	SF	0.15	12,405
New Construction/Addition	321,410	GFA	0.25	80,353
	<b>Sub-Total</b>			<b>\$92,758</b>



**FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
Somerville, MA**

May 25, 2016

**Detail 4B**

**C. INTERIOR**

**C10 INTERIOR CONSTRUCTION**

C1010 Partitions

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
Heavy	82,700	SF	10.00	827,000
New Construction/Addition	321,410	GFA	20.00	6,428,200
<b>Sub-Total</b>				<b>\$7,255,200</b>

C1020 Interior Doors

Heavy	82,700	SF	3.00	248,100
New Construction/Addition	321,410	GFA	4.00	1,285,640
<b>Sub-Total</b>				<b>\$1,533,740</b>

C1030 Fittings

Heavy	82,700	SF	2.00	165,400
New Construction/Addition	321,410	GFA	5.00	1,607,050
<b>Sub-Total</b>				<b>\$1,772,450</b>

**C20 STAIRS**

C2010 Stair Construction

Heavy	82,700	SF	1.50	124,050
New Construction/Addition	321,410	GFA	2.25	723,173
<b>Sub-Total</b>				<b>\$847,223</b>

C2020 Stair Finishes

Heavy	82,700	SF	1.25	103,375
New Construction/Addition	321,410	GFA	0.25	80,353
<b>Sub-Total</b>				<b>\$183,728</b>

**C30 INTERIOR FINISHES**

C3010 Wall Finishes

Heavy	82,700	SF	8.00	661,600
New Construction/Addition	321,410	GFA	5.00	1,607,050
<b>Sub-Total</b>				<b>\$2,268,650</b>

C3020 Floor Finishes

Heavy	82,700	SF	12.00	992,400
New Construction/Addition	241,058	SF	10.00	2,410,575
<b>Sub-Total</b>				<b>\$3,402,975</b>

C3030 Ceiling Finishes

Heavy	82,700	SF	7.00	578,900
New Construction/Addition	321,410	GFA	7.00	2,249,870
Premium for double layer ceiling	25,713	SF	7.00	179,990
<b>Sub-Total</b>				<b>\$3,008,760</b>



**FINAL EVALUATION OF ALTERNATIVES**  
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**SOMERVILLE HIGH SCHOOL**  
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Detail 4B

**D. SERVICE**

**D10 CONVEYING**

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
D1010 Elevators & Lifts				
Heavy	82,700	SF	2.00	165,400
New Construction/Addition				
Passenger elevator, 6 stop	1	EA	125,000.00	125,000
Freight elevator, 7 stop	1	EA	175,000.00	175,000
Freight elevator, 4 stop (double sided)	1	EA	125,000.00	125,000
Auditorium elevator, 3 stop	1	EA	100,000.00	100,000
<b>Sub-Total</b>				<b>\$690,400</b>

**D20 PLUMBING**

D2010 Plumbing Fixtures				
Heavy	82,700	SF	17.25	1,426,575
New Construction/Addition	321,410	GFA	17.25	5,544,323
<b>Sub-Total</b>				<b>\$6,970,898</b>

**D30 HVAC**

D3020 Heat Generating Systems				
Heavy	82,700	SF	47.00	3,886,900
New Construction/Addition	321,410	GFA	47.00	15,106,270
<b>Sub-Total</b>				<b>\$18,993,170</b>

D3060 Controls & Instrumentation				
Heavy	82,700	SF	4.25	351,475
New Construction/Addition	321,410	GFA	4.25	1,365,993
<b>Sub-Total</b>				<b>\$1,717,468</b>

D3070 Systems Testing & Balancing				
Heavy	82,700	SF	0.75	62,025
New Construction/Addition	321,410	GFA	0.75	241,058
<b>Sub-Total</b>				<b>\$303,083</b>

**D40 FIRE PROTECTION**

D4010 Sprinklers				
Heavy	82,700	SF	7.00	578,900
New Construction/Addition	321,410	GFA	7.00	2,249,870
The installation of a temporary fire alarm system on the four existing floors. (PS#1)	60,251	SF	5.00	301,255
<b>Sub-Total</b>				<b>\$3,130,025</b>



**FINAL EVALUATION OF ALTERNATIVES**  
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Detail 4B

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
<b>D50 ELECTRICAL</b>				
D5010 Electrical Service & Distribution				
Heavy	82,700	SF	39.00	3,225,300
New Construction/Addition	321,410	GFA	39.00	12,534,990
Generator with enclosure	1	LS	700,000.00	700,000
Allowance (PS#1)	60,251	SF	3.00	180,753
<b>Sub-Total</b>				<b>\$16,641,043</b>
<b>E. EQUIPMENT &amp; FURNISHINGS</b>				
<b>E10 EQUIPMENTS</b>				
E1010 Commercial Equipment				
Heavy	82,700	SF	2.50	206,750
New Construction/Addition	321,410	GFA	1.50	482,115
<b>Sub-Total</b>				<b>\$688,865</b>
E1020 Institutional Equipment				
Heavy	82,700	SF	7.00	578,900
New Construction/Addition	321,410	GFA	4.00	1,285,640
<b>Sub-Total</b>				<b>\$1,864,540</b>
E1030 Vehicular Equipment				
New Construction/Addition	321,410	GFA	0.10	32,141
<b>Sub-Total</b>				<b>\$32,141</b>
<b>E20 FURNISHINGS</b>				
E2010 Fixed Furnishings				
Heavy	82,700	SF	5.00	413,500
New Construction/Addition	321,410	GFA	8.00	2,571,280
Library millwork	1	LS	50,000.00	50,000
<b>Sub-Total</b>				<b>\$3,034,780</b>
E2020 Movable Furnishings				
Heavy	82,700	SF	0.50	41,350
New Construction/Addition	321,410	GFA	0.25	80,353
<b>Sub-Total</b>				<b>\$121,703</b>
<b>F. SPECIAL CONSTRUCTION &amp; DEMOLITION</b>				
<b>F20 SELECTIVE BUILDING DEMOLITION</b>				
F2010 Building Elements Demolition				
The installation of a temporary fire alarm system on the four existing floors (PS #1)	60,251	SF	5.00	301,255
<b>Sub-Total</b>				<b>\$301,255</b>



FINAL EVALUATION OF ALTERNATIVES  
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Detail 4B

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
F2020 Hazardous Components Abatement Demo for structure upgrade (PS #1)	60,251	SF	2.00	120,502
<b>Sub-Total</b>				<b>\$120,502</b>
<b>G. BUILDING SITEWORK</b>				
<b>G10 SITE IMPROVEMENTS</b>				
G1030 Site Earthwork				
Earthwork for "Lower Level" construction (81'-0")				
Cut	22,000	CY	20.00	440,000
Fill	1,000	CY	20.00	20,000
Earthwork for "Level 1" construction (101'-0")				
Cut	1,000	CY	20.00	20,000
Fill	13,500	CY	20.00	270,000
Earthwork support	1	LS	600,000.00	600,000
<b>Sub-Total</b>				<b>\$1,350,000</b>
G1040 Hazardous Waste Remediation Allowance				
	1	LS	314,050.00	314,050
<b>Sub-Total</b>				<b>\$314,050</b>
<b>G20 SITE IMPROVEMENTS</b>				
G2010 Roadways Allowance				
	404,110	GFS	3.00	1,212,330
<b>Sub-Total</b>				<b>\$1,212,330</b>
G2020 Parking Lots Allowance				
	404,110	GFS	3.25	1,313,358
<b>Sub-Total</b>				<b>\$1,313,358</b>
G2030 Pedestrian Paving Allowance				
	404,110	GFS	3.75	1,515,413
<b>Sub-Total</b>				<b>\$1,515,413</b>
G2040 Site Development Allowance				
	404,110	GFS	3.50	1,414,385
<b>Sub-Total</b>				<b>\$1,414,385</b>
G2050 Landscaping Allowance				
	404,110	GFS	1.50	606,165
<b>Sub-Total</b>				<b>\$606,165</b>



FINAL EVALUATION OF ALTERNATIVES  
SOMERVILLE SCHOOL DEPARTMENT  
SOMERVILLE HIGH SCHOOL  
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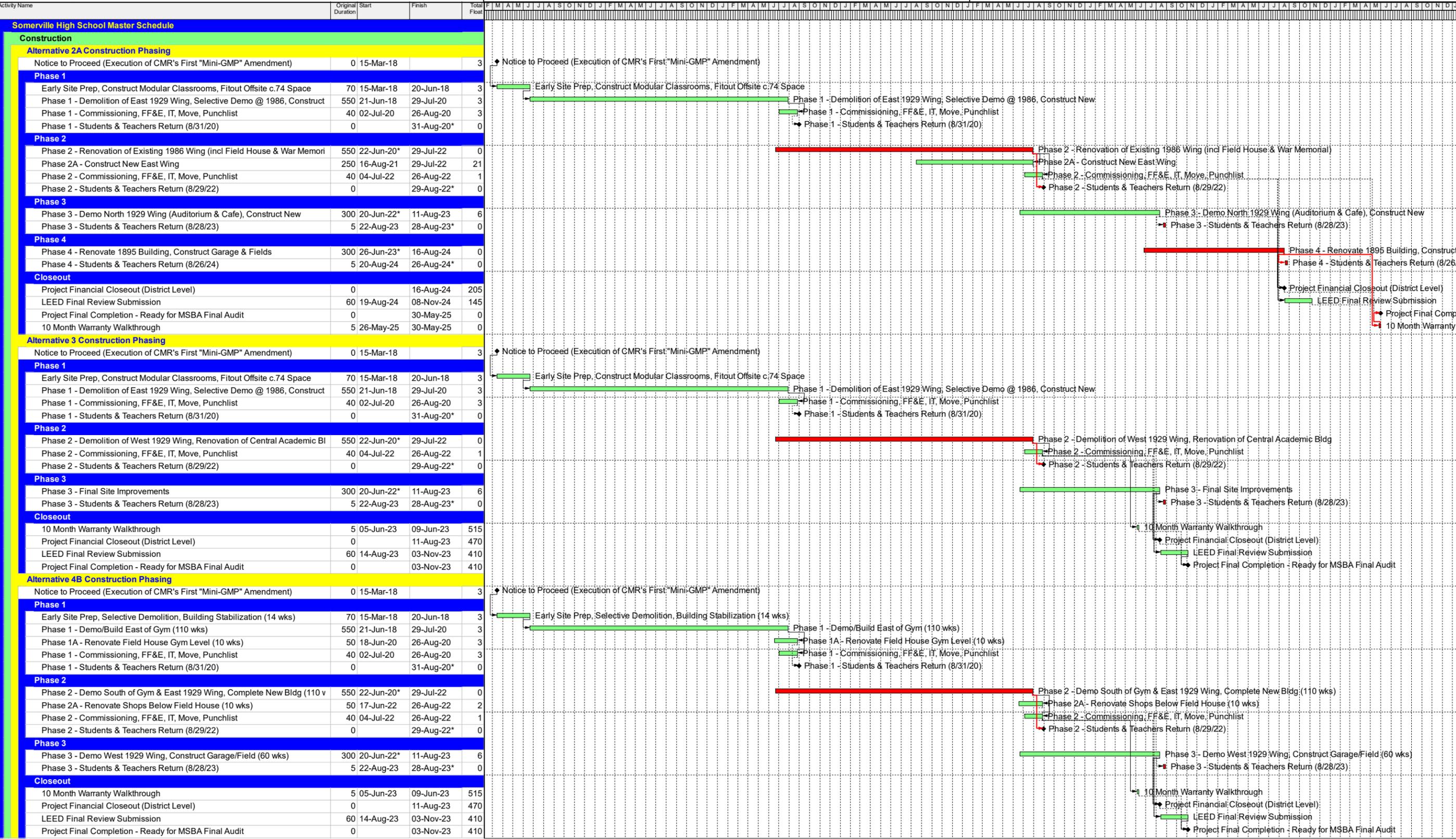
Detail 4B

DESCRIPTION	QUANTITY	UNIT	\$/UNIT	AMOUNT
<b>G30 SITE MECHANICAL UTILITIES</b>				
G3010 Water Supply Water supply	1,464	LF	92.50	135,420
<b>Sub-Total</b>				<b>\$135,420</b>
G3020 Sanitary Sewer Sanitary sewer	1,291	LF	115.50	149,111
<b>Sub-Total</b>				<b>\$149,111</b>
G3030 Storm Sewer Storm Sewer	3,295	LF	122.00	401,990
<b>Sub-Total</b>				<b>\$401,990</b>
G3060 Fuel Distribution Fuel Distribution	299	LF	48.90	14,621
<b>Sub-Total</b>				<b>\$14,621</b>
<b>G40 SITE ELECTRICAL UTILITIES</b>				
G4010 Electrical Distribution Allowance	989	LF	85.33	84,391
<b>Sub-Total</b>				<b>\$84,391</b>
G4020 Site Lighting Allowance	1	LS	100,000.00	100,000
<b>Sub-Total</b>				<b>\$100,000</b>
G4030 Site Communications & Security Allowance	1	LS	50,000.00	50,000
<b>Sub-Total</b>				<b>\$50,000</b>
<b>Total</b>				<b>\$111,929,064</b>



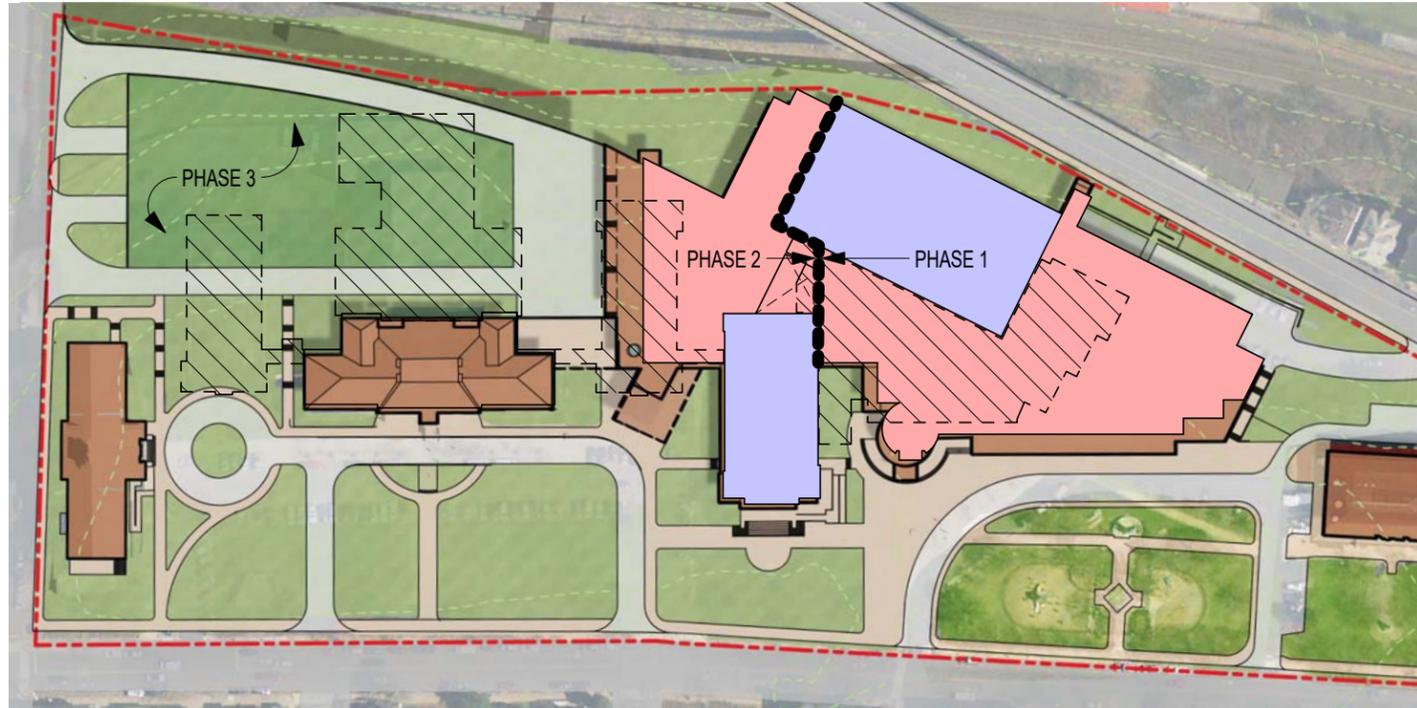
### 3.3.9 Proposed schedule including phasing





█ Actual Work    █ Critical Remaining Work  
█ Remaining Work    ◆ Milestone

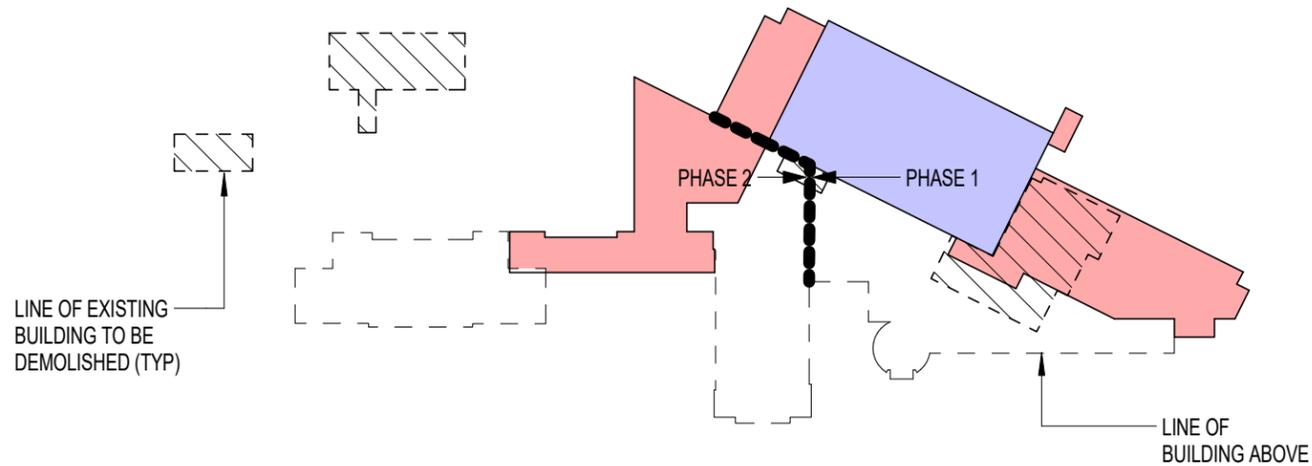




**ADD RENO CONSTRUCTION LEGEND**

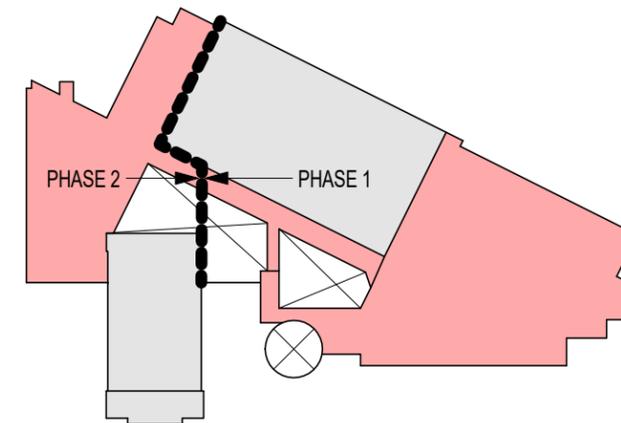
ADD RENO

**1 LEVEL 1**  
SCALE: 1" = 160'-0"

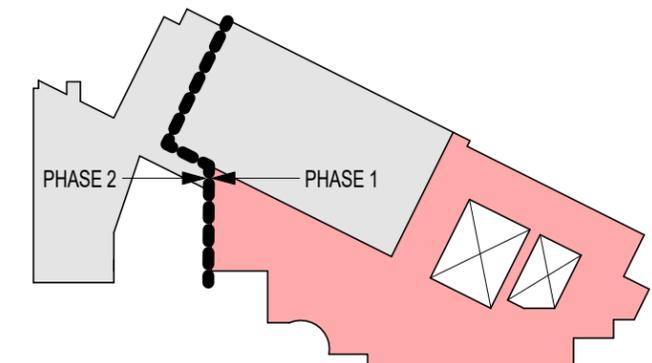


**L LOWER LEVEL**  
SCALE: 1" = 160'-0"

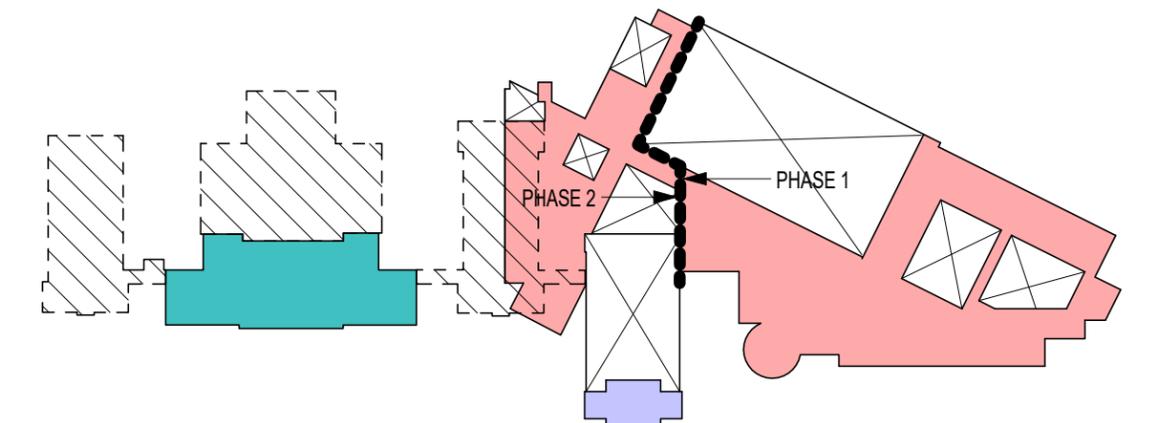
**4 LEVEL 4**  
SCALE: 1" = 160'-0"



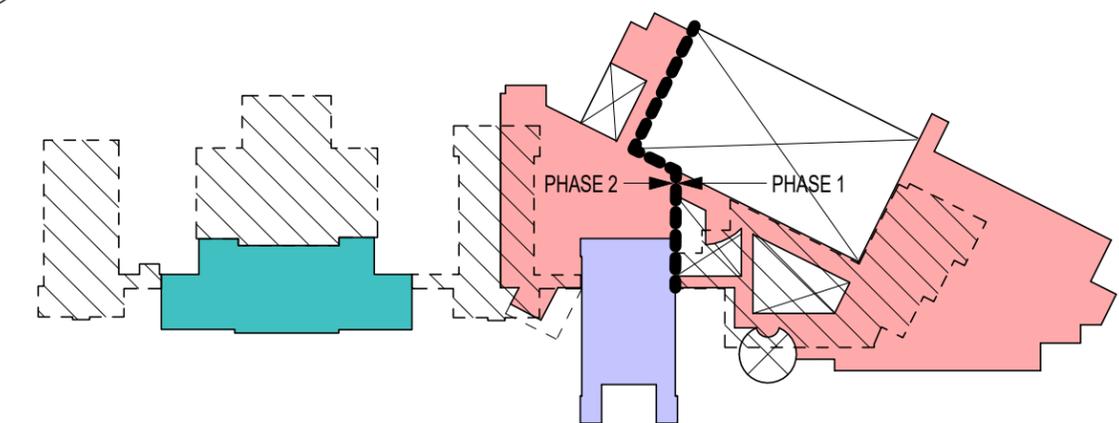
**5 LEVEL 5**  
SCALE: 1" = 160'-0"



**3 LEVEL 3**  
SCALE: 1" = 160'-0"



**2 LEVEL 2**  
SCALE: 1" = 160'-0"





## 3.4 Comparison of Options



Table 1 – Summary of Preliminary Design Pricing

Option (Description)	Total Gross Square Feet	Square Feet of Renovated Space (cost*/sf)	Square Feet of New Construction (cost*/sf)	Site, Building Takedown, Haz Mat. Cost*	Estimated Total Construction** (cost*/sf)	Estimated Total Project Costs
OPTION 0 (Repair)	360,150SF	360,150SF \$150.01/SF	N/A	\$ 4,810,221	\$54,026,310 \$150.01/SF	\$73,648,422
OPTION 1 (Renovation)	360,150SF	360,150SF \$470.63/SF	N/A	\$ 14,927,352	\$169,497,950 \$470.63/SF	\$232,439,511
OPTION 2A (Add/Reno)	390,000SF	224,800SF \$539.89/SF	165,200SF \$710.63/SF	\$ 40,260,734	\$238,762,916 \$612.21/SF	\$319,022,549
OPTION 3 (Add/Reno)	406,290SF	265,230SF \$549.82/SF	141,060SF \$709.83/SF	\$ 38,133,574	\$245,957,445 \$605.37/SF	\$328,519,327
OPTION 4B As Estimated (Add/Reno)	370,034SF	82,700SF \$631.22/SF	287,334SF \$736.42/SF	\$ 39,734,951	\$263,799,407 \$712.91/SF	\$352,070,717
<b>OPTION 4B'*** as Modified by SBC (Add/Reno)</b>	<b>370,034SF</b>	<b>82,700SF \$473.34/SF</b>	<b>287,334SF \$552.23/SF</b>	<b>\$ 31,183,979</b>	<b>\$197,820,084 \$534.60/SF</b>	<b>\$254,351,796</b>

\* Marked Up Construction Costs

\*\* Does not include Construction Contingency

\*\*\* District's Preferred Solution



## Section Four

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# PREFERRED SOLUTION

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## 4.1 Summary of Preferred Solution

### Alternative 4B

The preferred option solves many of the District's needs by constructing a mostly new school to create the educational and student commons spaces to fulfill the educational vision of the District. The large 1986 field house housing the important indoor track as well as substantial high bay space for a number of Chapter 74 shops and the older 1929 gymnasium converted to a library in the 1986 renovation shall be retained and renovated. Substantial portions of the existing building - generally older double loaded corridor classrooms in inefficient long wings as well as the 1979 auditorium wing and isolated cafeteria was deemed in poor repair and unable to hold the modern spaces needed to fulfill the educational program of a true blended comprehensive high school. Somerville is the State's most densely populated city and its lack of available space combined with the premium to purchase such space has lead the design team to develop a long range masterplan for the entire Central Hill campus bookended and encompassing the historic 1800's City Hall and the Carnegie library. The preferred option allows the city to remain in the majority of the existing school during the new build and then turn over the 1895 main central wing of the high school for much needed City facility use.

The new construction replaces the existing three story 1986 shop wing high school, with six story efficient new additions for the dining commons, media center, classroom/vocational spaces, PE support and supplementary programs. The additions and new construction will be predominantly located in the area towards the eastern half of the site, between the existing E Wing and the Somerville Public Library Main Branch and the open area to the west of the existing field house. The final phase of construction will remove the unused portions of the old school and take advantage of the steeply sloping grade along School Street to construct much needed vehicle parking space for staff and teachers with a field over the roof structure for PE outdoor use in the community lacking in open space resources and playing fields.

This alternative will involve phased demolition and construction activities due to the lack of sufficient swing space in the City to accommodate the entirety of the high school population. The portion of the existing building to be demolished is approximately 277,450 square feet, the portion to remain and be renovated is approximately 82,700 square feet and the additions total approximately 321,410 square feet, for a grand total of approximately 404,110 gross square feet and an estimated project cost of \$250 million.

## 4.2 Educational Program

***Design responses including desired features and/or layout considerations have been noted below in bold italics to indicate how the preferred solution, Alternative 4B, addresses the goals outlined in the Educational Program of the District.***

### Grade and School Configuration Policies

#### A. Current grade configuration

Somerville High School currently serves students in grades 9-12. The ages of students at SHS range from 13 to 22 years old. The current SHS Grade 9-12 configuration includes a small group of special education students whose IEPs call for education until they are 22 years old. They belong to either the Life Skills program or to the SHIP program which services students with complex medical/health issues.

#### B. Proposed grade configurations to be considered

While no changes are planned to the existing 9-12 grade configuration for the comprehensive curriculum at SHS, the district's special education day/alternative junior high school and high school (Next Wave – grades 6-8; and Full Circle – grades 9-12) are planned to occupy a portion of the new Somerville High School design as a separate educational program located in a substantially separate space within the building that includes a separate entrance. Students who currently attend Next Wave and Full Circle are housed in a separate building, the Edgerly, which is a 15-minute walk from Somerville High School. The design of the school is to serve 60% students on IEPs and 40% students who are at risk and need an alternative education model. Although some Full Circle students are independent enough to take classes in the CTE program at SHS or to participate in sports and extracurricular activities at SHS, the sheer distance between the buildings and commute time serves as a barrier for this to happen on any regular basis. Our current proposal aims to locate Next Wave/Full Circle within the new SHS building so that this group of students, if their education plans allow for it, can benefit from a more comprehensive school experience by having easy access to CTE programs, sports programs, clubs and extracurricular activities, a full-time nurse, and ELL services.

***The preferred option maintains the Grade 9-12 program as described and best facilitates the full programmatic needs of SHS's varied student population. For more detailed descriptions of the Next Wave Junior High School and Full Circle High School and SPED programs see specific program responses later in this section.***

#### C. Advantages of proposed grade configuration

##### I. Describe District's Approach to Facilitating Student Transitions

A transition plan is in place for rising 8th grade students throughout the district to visit Somerville High School and to attend a formal transition orientation during the summer months. These transitional experiences have been successful in helping SHS staff identify the academic, social and emotional needs of rising 8th graders so that they are able to make a more seamless transition to the 9th grade. Somerville

High School also offers a Ninth Grade Experience (NGE) designed to provide a strong support structure to ninth graders as they ease into high school.

Ninth grade teachers function as a team and meet two times per week to determine strategies aimed at maximizing the potential of the students they teach, focusing on maintaining parental and support service contact. These teachers meet regularly with Housemasters, guidance counselors, adjustment counselors, and special education liaisons to ensure students are receiving the full spectrum of support they need to get a good start in high school. Biweekly meetings are also used to discuss student progress, develop curriculum materials, and to meet or talk by telephone with parents and guardians.

Additionally, for students attending Next Wave/Full Circle, there will be a transition plan in place as part of each student's educational plan for how and how often the student is able to access and participate in SHS resources and activities. This transition plan will include appropriate supports and mechanisms for monitoring each student.

## **II. If a Different Grade Configuration is Proposed Describe the Plans to Facilitate Transitions in the Proposed Configuration**

The new design plan for Somerville High School proposes including the District's alternative programs, Next Wave and Full Circle, into a substantially separate section of the new building. Next Wave and Full Circle currently serve as the District's special education day and alternative education programs, serving students whose IEPs call for substantially separate placement. Next Wave serves grades 6-8 and Full Circle serves grades 9-12. Particularly for students in grades 6-8, there will be a transition component built into each student's education plan that will allow for a student's gradual participation in SHS's 9-12 educational program. This transition component may include participation in advanced courses, i.e. Algebra I, sports and other curricular activities.

Transitions within the building between the distinct Next Wave/Full Circle and SHS education programs will be mitigated by housing Next Wave/Full Circle in a substantially separate section or wing of the building that includes a separate entrance, flexible classrooms that will accommodate an 8:1 student-teacher ratio but can also accommodate combined classes as well, therapeutic facilities to meet the specialized needs of students, a separate meeting space/conference room, an independent science lab/maker space to be utilized exclusively by NW/FC students, and other core educational facilities. The use of adjacent common areas such as the gymnasium, auditorium, or cafeteria will be coordinated through careful scheduling and supervision.

The highly specialized therapeutic program offered to Next Wave/Full Circle students requires a substantially separate environment in which students can work on gaining the skills to be able to function in a more inclusive environment. Placement of special education students into Next Wave/Full Circle is driven by IEPs that call for a substantially separate, smaller therapeutic educational setting. In contrast, special education students in the inclusion model at Somerville High School often need accommodations to help them access the curriculum, but are able to effectively function in a larger school environment and do not need the intense psychological/social interventions provided at Next Wave/Full Circle.

The SHS Career and Technical program also entered into a new manufacturing job training partnership with Somerville Community Corporation in January of 2016 targeted at supporting young adults with their re-entry into the workforce. The Advanced Manufacturing Training Program (AMTP) targets Somerville residents ages 18-24 and focuses on preparing program participants for high-paying careers in the manufacturing industry. AMTP includes a full-time (500 hours) program which will be offered during the day with AMTP students learning alongside SHS students in the advanced manufacturing program, and a part-time (150 hours) evening program.

***The preferred option best utilizes existing high bay space constructed in the 1980's for the "heavy" Chapter 74 shops while adding new standard academic spaces around these spaces that are associated with the STEAM and STEM goals of interdisciplinary education described throughout the District's March 1<sup>st</sup>, 2016 educational planning document.***

## Class Size Policies

### A. District policies, targets and guidelines by grade

Somerville School Committee policy does not address class size. The Unit A contract between the School Committee and the Somerville Teachers Association stipulates maximum sizes listed below, "to the extent possible, within the existing facilities." Due to the broad range of educational needs of students, the target maximum class size at SHS is 23, but will be lower for specialized programs as noted below. The wide range of educational needs and programs/ courses offered to most effectively meet the needs of Somerville High's student population requires smaller class sizes to facilitate more personalized instruction. Class sizes are also dictated by safety considerations based on the course, and space constraints in the current building classroom configurations.

Kindergarten (One Teacher)	30	Special Class	18
Grades 1-6	30	Bilingual	20
Grades 7-9	30	Physical Education	30
Grade 10	32	Vocational	20
Grades 11 and 12	30	Secondary Corrective Reading	15

### B. Current average class sizes by grade

Because of the wide range of educational needs at every grade level, average class sizes by program more accurately reflect the complexity of Somerville High School's curriculum structure than average class sizes by grade. As noted above, actual class sizes are dictated by the wide range of educational needs of Somerville's student population, safety considerations based on the course (i.e., working with a kiln in an art course), and space constraints in the current building classroom configuration.

Fall Semester 2015 Class Size Averages by Department/Program:

- Art Department: 15
- Business: 14
- English as a Second Language (ESL): 14

- English: 18
- Re-Direct Program: 9
- Health: 19
- Mathematics: 18  
Media: Film Studies – 13; TV/Media Production (Semester 2) 17
- Music: Chorus – 29; Band – 45; Orchestra – 42; World Percussion: 2;  
General Music – 13
- Physical Education/Fitness: 18
- Science: 18
- Social Studies: 19
- World Language: 17
- Career Technical Education – class sizes and staffing ratios in State – approved programs are regulated by Chapter 74 guidelines: Child Development – 8; Cosmetology – 16; CAD – 8; Graphic Design & Visual Communication – 10; Dental Assistant – 6; Health Careers – 9; Machine Tech – 4; Computer Tech/Cisco – 12; Carpentry – 10; Culinary – 12; Metal Fabrication – 11; Automotive – 8; Electrical - 11
- Special Education: Study Skills – 10; Resource courses – 15; Life Skills – 15; Transition – 3; SHIP - 3

Note: co-taught courses that include a subject area teacher and Special Education teacher are scheduled in the four major subject areas (ELA, Math, Science, Social Studies). Class sizes are not reported separately for these courses as they are representative of the department averages as a whole.

### C. Proposed changes and why or statement that no changes are proposed

No changes to class size policies are currently being proposed.

## School Scheduling Method

### A. Current scheduling methodology including advantages and disadvantages

The current scheduling structure for a school day at Somerville High School is broken down into six “blocks” for a total of thirty blocks per week. Each block is fifty-five (55) minutes in duration with the exception of the first block, which is sixty-seven (67) minutes long to allow for daily morning video announcements. Students have four minutes to transition from one block to the next. Students enroll in seven courses per semester with each course meeting for four blocks each week. This accounts for 28 of the 30 blocks. The advantage of the current scheduling structure is the built-in flexibility of the remaining two blocks per week, which are devoted to student support and enrichment, advisory, school-wide assemblies and student early release days for teacher professional development.

Block	Start	End	Monday	Tuesday	Wednesday	Thursday	Friday
1	7:55	9:02	A1	A2	A3	A4	B4
2	9:06	10:01	B1	D2	B2	B3	C4
3	10:05	11:00	C1	Rotating Extension Block	C2	C3	D4
4	11:04 11:34 12:04	11:34 12:04 12:34	D1	E2	D3	E3	E4
5	12:38	1:33	E1	F1	F2	F3	F4
6	1:37	2:32	G1	G2	Advisory/Common Plan. Time/Assemblies	G3	G4

## B. Proposed changes and why or statement that no changes are proposed

While the current scheduling structure offers some distinct advantages, such as the flexibility of two built-in blocks to allow for the delivery of student support and advisory programming and initiatives, we anticipate the need to make changes to scheduling as educational practices and the needs of students evolve in the years, and even decades ahead, in the new building. The current schedule could be further enhanced by building in additional flexibility, such as a before-school or after-school block that would expand students' scheduling options, thereby providing them with greater exposure to a wider range of courses. A building/layout that can support a more flexible schedule structure through thoughtful adjacencies, design of adaptable and agile classrooms and other learning environments, and improved transition flow will facilitate a flexible scheduling structure that better meets the needs of all students regardless of their primary academic pathway (CTE, standard, honors, AP, ELL). Unlike most Vocational/CTE programs, Somerville High School does not do a week on/week off schedule or a block schedule, in order to ensure that ALL students, including those in the CTE program can take full advantage of academic courses such as Advanced Placement and world language course offerings. The use of smaller, discrete blocks of time in space that will allow for a variety of instructional approaches such as 1:1, small group, independent studies, flipped classrooms, etc. will enable and maximize a more personalized and differentiated approach to teaching and learning that the current SHS structure does not allow to happen.

Changes in scheduling are dictated in large part by evolving educational practices. In order to ensure that SHS students are receiving the most current and relevant education that prepares them for the demands of globally competitive markets, a building layout should allow for a variety of different scheduling methodologies, and be flexible enough to accommodate changing educational practices.

***The preferred option supports a variety of scheduling methodologies with its geographic mixing of academic and project based spaces.***

## Teaching Methodology and Structure

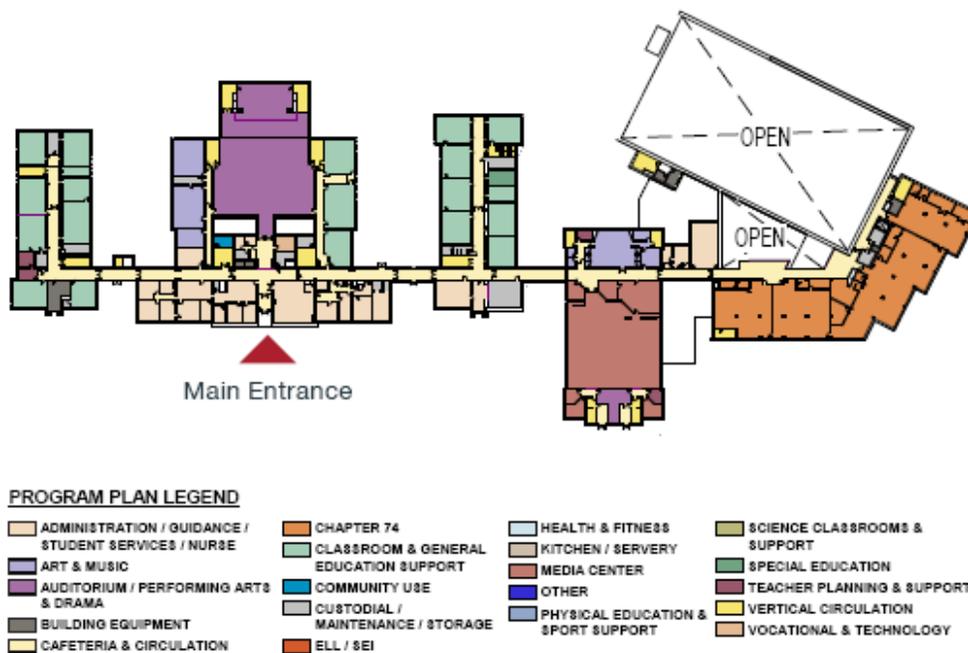
(e.g., academies, departments, houses, teams, etc.)

### A. Administrative and academic organization/structure

(e.g., academies, departments, houses, grade based cohorts, teams, room assignment policies etc.)

#### I. Current Organization

Somerville High School is a public, 4-year comprehensive high school with a House administrative organizational structure and a traditional academic departmental structure that includes the following departments: Visual Arts, Business Education, English, English Language Learner, Health Education/Family & Consumer Sciences, Library Media Services, Mathematics, Music, Physical Education, Science, Social Studies, Special Education, World Languages, Center for Career and Technical Education (CTE), and Athletics. Each department is located in a separate section of the building and is overseen by a supervisor/department head responsible for department curricula and for the supervision, support and evaluation of all department staff members.



Existing Level 1

SHS currently offers an integrated structure of student support in the form of a House system. There are four houses, each consisting of a Housemaster/Assistant Principal, a Guidance Counselor, and a House Secretary. House staff members are located within the building in four house clusters that are distributed throughout the current building. Each includes separate offices for the Housemaster/AP and the Guidance Counselor, a reception area, and a conference room. Additionally, there is a Guidance Counselor for ELL students who, is based near the ELL Welcome Center, and a guidance counselor for freshman CTE students who is based in the CTE wing of the existing building. Students are assigned to houses alphabetically

based on last name and are assigned to the same Housemaster throughout the duration of their SHS career.

Academic programming is offered based on grade level with students generally selecting a college prep, Advanced Placement, and/or CTE pathway. A Ninth Grade Experience (NGE) is offered to all freshmen to assist in their transition to high school; that experience includes a CTE exploratory experience.

The current Administrative/Academic structure also includes a number of team-taught inclusion classes for special education students offered jointly by the special education department and academic departments, a Redirect program to support high needs students who are not in Special Education, and an Advisory program for all students. In Advisory, groups of students meet with their advisor to strengthen skills that will help them improve their academic performance and social responsibility. Advisory incorporates academic guidance, planning, organizational skills, and community building.

The Career and Technical Education program consists of six clusters, each containing one or more individual programs as follows:

- Construction Cluster: Carpentry, Electrical
- Transportation Cluster: Auto Technology
- Information Technology: Information Support Services and Networking
- Manufacturing Cluster: Architectural Design/Pre-Engineering, Machine Technologies, Metal Fabrication and Welding;
- Health Care and Human Services Cluster: Child Development, Dental Assisting Program, Health Careers/Introduction to Nursing Assistant Program;
- Commercial Services Cluster: Cosmetology, Culinary Arts, Graphic Arts & Visual Communications.

***The preferred option may change some of the Chapter 74 cluster organizations due to final locations and space optimization during the next phase of design.***

## **II. Proposed Changes and Why or Statement that No Changes are Proposed.**

While the current administrative 'House' system offers an integrated structure of support within each House, the current building configuration does not allow for seamless integration of academic and support services, sharing of resources, ready access to additional support services available at the high school, or the opportunity to easily share professional expertise. Guidance and College & Career Readiness staff members are spread throughout the building, not all student support services are jointly located or adjacent to one another, and support programs are isolated from one another.

Proposed changes to the Administrative structure include the following:

- Thoughtful placement of administrative and student support services in adaptable, flexible spaces that could allow for the centralization of some administrative and student support services;

- Thoughtful placement of administrative and student support services which promotes a sense of connection and identity throughout the building, and provides for the informal supervision of students by non-teaching staff, which in turn allows students to use flexible student work areas more independently;
- Spaces and placement of spaces that will facilitate interdisciplinary work, professional collaboration, and communication between administrative and student support staff and teachers;
- Flexible classroom and conference meeting space to accommodate one-to-one or small confidential and non-confidential meetings, as well as larger meetings or professional development workshops of up to 15 people;
- Be in proximity to the Health Center and any other support services provided by the community

The current departmental structure does not facilitate interdisciplinary work or daily interdepartmental professional collaboration. Flexible classroom and spaces and thoughtful program adjacencies between specific core academic and career and technical education programs, coupled with centralized professional meeting and planning spaces, will allow for a wider range of educational program methodologies, increased and interdisciplinary teacher collaboration, larger group project work, and sharing of expertise and resources.

***The preferred option supports a variety of options for supporting adult/student interactions. The current building is ad hoc in its configuration of administration and student support spaces. The preferred plan will allow for unified House support spaces and can also be co-located with teacher planning centers as well.***

## B. Curriculum delivery methods and practices

### I. Current Practices – General Academics Covering Many Disciplines:

Many teachers are moving to more student-centered and personalized learning but are significantly influenced by current conditions that limit opportunities for more contemporary educational delivery methodologies. Teachers work to implement more contemporary educational methodologies in the best way possible, but are limited by inflexible classrooms designed for more traditional delivery methods, and limited technology due to building limitations. The English, Math, Science, Social Studies, and World Language departments design and implement curricula designed to help students master core academic content as well as develop important 21st century skills. Opportunities for authentic, relevant, real-world learning experiences are also woven into core instructional programs. Some of the existing limitations include:

- Small classrooms that limit flexibility
- Single teaching wall in many classrooms, making differentiation difficult
- Lack of ubiquitous technology that would allow students to participate in interactive and engaging methodologies
- Departmental organization that limits interdisciplinary activity
- Traditional classroom to classroom adjacencies that limit communication

- A feeling of two schools sharing a campus (academic and CTE) with little academic cross fertilization

## II. Proposed Changes and Why, or Statement that No Changes are Proposed

The goal is to move towards more student centric and personalized models that incorporate various educational delivery methodologies and which promote the development of 21st Century skills including: communication, collaboration, creativity, critical thinking, problem solving, global citizenship and others. Flexibility and adaptability within the classroom and through adjacencies are key elements to supporting a student-centered learning experience that is inviting, engaging, relevant, robust, and dynamic. In all classrooms, technology must be integral to teaching and learning. A future 1:1 ratio of laptops/devices to students should be assumed, as should the ubiquitous use of interactive technology throughout the facility.

The ability to store and charge devices within classrooms and other learning environments plays an essential role in the seamless integration of technology, providing opportunities for anywhere, anytime learning. The proper appointment of flexible, adaptable furniture including longer tables and standing-height tables that facilitate project work, as well as quiet nooks for independent work, are also critical in supporting scaffolding and differentiation.

Students should be able to showcase their learning, growth, and mastery in a variety of ways including through written papers and reports, performing scenes and skits in class, participating in debates and simulations, creating projects, presenting orally or by using multimedia in front of peers. Throughout their studies, students also need to be able to make ‘real world’ connections through project-based assignments that are relevant to current issues, and through interdisciplinary opportunities to talk with and learn from professionals and experts from the community. Ample wall space, exhibition space, storage space, lecture space, and flexible classroom spaces that can support small- to large-group instruction (100 or more students) are all elements that can further enhance instructional practices.



Example of shared program cluster

Organization and building elements that can contribute to these goals include:

- Interweaving of some CTE programs with academic teaching spaces
- Adjacencies of spaces that encourage communication between students and teachers
- Adjacencies of space that encourage interdisciplinary and project-based learning
- Classrooms of the proper size and appointments that promote flexible and changing use of the rooms
- Multiple teaching walls in learning environments that allow for student to student and small group teaching, and differentiation within a classroom
- Lightweight, ergonomic, and flexible furniture that contribute to the points above
- Spaces that can support burgeoning collaborative high-tech programs and extra-curricular activities available to all interested students at the school such as the FIRST Robotics Team, which is advised and supported by a collaboration of math, science and CTE teachers
- Transparency to and from classrooms to flexible student work areas, to allow for informal supervision of students as they work in more independent and small group contexts
- Multiple venues for the ongoing exhibition, showcasing and presentation of high quality student work



## C. English Language Arts/Literacy

### I. How Curriculum is Delivered

See paragraph 2.4.B.I for a general description of current curriculum delivery.

### II. Proposed Changes and Why, or Statement that No Changes are Proposed

See paragraph 2.4.B.II for a general description of proposed changes and why.

## D. Mathematics

### I. How Curriculum is Delivered

See paragraph 2.4.B.I for a general description of current curriculum delivery. Additionally, in math and science students work collaboratively to conduct experiments and use manipulatives and a variety of technology to explore, understand and explain abstract concepts, create projects, solve problems, and complete activities.

### II. Proposed Changes and Why, or Statement that No Changes are Proposed

See paragraph 2.4.B.II for a general description of proposed changes and why. The daily integration of current technology and resources, including the move toward a one-to-one laptop model, that would allow students to build hardware as well as

program software in Makerspace-type flexible learning environments, would greatly enhance how curriculum is delivered in math classes.

## E. Science

### I. How Curriculum is Delivered

See paragraph 2.4.B.I for a general description of current curriculum delivery.

Science labs currently include traditional fixed benches that take up much of the room. Most lectures are conducted within these same (undersized) rooms. Though there is a desire to move from lecture and discussion mode to experiments, the room sizes make the transition difficult. Inflexible and traditional placement of fixed furnishings, such as laboratory tables, limit group sizes because of safety concerns. The sizes of the rooms are also not conducive to collaborative interdisciplinary project work.

### II. Proposed Changes and Why, or Statement that No Changes are Proposed

See paragraph 2.4.B.II for a general description of proposed changes and why.

Additionally, Computer Science classes require a space with interactive whiteboards, tables that can be arranged in flexible groupings, adequate storage for portable technology and devices, and laptops for every student. Flexible, Makerspace-type spaces would provide students with the opportunity to build hardware as well as program software, and work with community partners regularly to gain real-world exposure and experience.

Science and engineering classrooms need to be flexible spaces to accommodate lecture and lab work and that would enable more academic cross pollination with other programs, particularly Math and CTE. Appropriate program adjacencies are critical to supporting this interdisciplinary work. Lab work and student research will be integrated into all lessons rather than the traditional separate lecture and lab portions of class. As already stated, the flexibility between a lecture and lab space is vital to provide for seamless integration of the two. Rooms need to be equipped with proper safety equipment, several sinks, peripheral and/or ceiling utilities, ample storage including cabinets, gas lines, fume hoods, and cutting-edge life and physical science lab equipment.





Flexible classroom arrangements and furniture

***The preferred option supports the academic science programs most completely, providing critical new spaces that are programmatically organized and sized adequately to meet 21<sup>st</sup> Century needs. The preferred option will allow for specific labs to be co-located with counterpart Chapter 74 project based labs such as Bio/Chemistry with Allied Health and Medical Technology programs.***

## F. Social Studies

### I. How Curriculum is Delivered

See paragraph 2.4.B.I for a general description of current curriculum delivery.

### II. Proposed Changes and Why, or Statement that No Changes are Proposed

See paragraph 2.4.B.II for a general description of proposed changes and why.

Social Studies students would benefit from proximity to the Graphic Design & Visual Communications program and the Culinary Arts program. Interdisciplinary projects could include developing posters, maps, graphs, and other types of media, or creating meals from different cultures and historical periods. Social Studies students would also benefit from sharing space with the Art and Music departments, allowing for interdisciplinary art and music projects that support what students are learning about history.

***The preferred option supports the academic humanities programs providing programmatically organized and appropriately sized classrooms and support spaces. The preferred option will allow for the humanities classrooms to be co-located together and in close proximity to the Learning Commons (Media Center) as a central nucleus for Social Studies, English, Languages and English Language Learners. The Learning Commons is conceived of as a place for STEAM and media technologies to also converge. One of the Ed plans key goals is to integrate the arts thoroughly into the curriculum and not simply strive for technically focused STEM environments throughout the school.***

## G. World Languages

### I. How Curriculum is Delivered

To some degree, current practices follow those described above in paragraph 2.4.B.I. This is strongly supplemented by our language lab as described below. The language lab is a vital instructional space that allows students to master all modalities of the language acquisition process.

### II. Proposed Changes and Why, or Statement that No Changes are Proposed

We build a strong community within each classroom. Students and teachers consistently collaborate, take risks, and make connections to the real world. Thus, it is important that classrooms are warm, bright, flexible, and inviting, instead of impersonal and institutional.

In all classrooms, technology must be integral to teaching and learning. Access to technology throughout class is crucial and there should not be access barriers for either students or teachers. The ability to store and charge devices within each classroom plays an essential role in the seamless integration of technology. Personal technology provides opportunities for anywhere, anytime learning.

### III. If Considering Language Labs Describe the Types of Activities Anticipated for the Space, How It will be Staffed, Equipped

Somerville High School currently has a language lab that it considers as an integral part of its current and future programs. World Language instruction at SHS is strongly enhanced through the language lab, a virtual space that allows students to individually or in pairs rapidly access the internet and speak and record oral activities, and interact one on one with the teacher. The teacher is able to archive the student's recordings, create a zip file, and email the student's recordings to their email or mobile device.

The lab is an instrumental part of the SHS World Language curriculum and is staffed and used on a daily basis by all 9 World Language teachers. The language lab allows students the opportunity to master all domains of language acquisition. In addition, students in the Advanced Placement Language and Culture course take their AP exams in the lab. The lab should be equipped with a minimum of 30 student computers, 2 computers for teachers, mobile partitions for testing, and the ability to project teacher and student work on an interactive board.



Large Group Instruction at Humanities Pod

## H. Academic support programming spaces

(e.g. ELL academic coaches etc.)

### I. How Program is Delivered

#### English Language Learner Program

The primary goal of Somerville High School's English Language Learner (ELL) Program is to provide an educational environment that ensures that students whose first language is other than English participate fully in the school community and the community at large in order to reach his/her full potential and be prepared for the successful transition to college or career. The academic program for English Learners at Somerville High School includes a leveled sequence of English as a Second Language (ESL) courses offering explicit instruction in all of the language domains (listening, speaking, reading, writing, grammar) and placing a strong emphasis on the development of academic language proficiency. All English Language Development curricula are aligned to the World-Class Instructional Design and Assessment (WIDA) Standards as well as the 2011 Massachusetts Curriculum Frameworks and the Common Core State Standards.

ELL students are enrolled in "sheltered" content area courses in core subject areas such as math, history, science, social studies, and health to provide meaningful access to grade level curriculum as students become proficient in English. In addition, the ELL Program provides native language (Spanish and Portuguese) content support classes in math. Teaching methods and instructional strategies in these courses are highly interactive and include comprehensible input provided through visual and graphic displays and multimedia sources.

The ELL Program also provides specialized support classes for low-literacy students and students who have experienced gaps in formal schooling. These courses focus on academic language and skills that can be applied across the content areas. For ELL students who are identified with learning difficulties, there is a Resource ESL class with individual students' needs being addressed one-to-one by a dually certified (ESL and Special Education) teacher.

Teachers assume shared responsibility for the achievement of ELL students, and cross-disciplinary school-wide teams that include the ESL teachers, content-area teachers who teach English language learners, counselors who specialize in the needs of ELL students, and key staff members from the Welcome Center who speak the students' language, work closely to ensure success of all ELL students. These teams meet to create individualized supports for students who need to succeed academically. They meet regularly to align curriculum; plan integrated, cross-content projects; address student concerns; and monitor student progress and to ensure that ELL students have access to an array of learning resources and services.

The English Learner Welcome Center and the SAFE (Students Accessing Formal Education) Program at Somerville High School provide critical academic and social support to this population of students. A description of these support services follows:

### **English Learner Welcome Center**

The Welcome Center is a support center for English Learners and their families providing tutoring, enrichment, and resource and referral. Multilingual staff members enroll new ELL students, conduct initial language and academic assessment, discuss school information with students and family members, and assist in orientation to SHS. Support to students is available at the Welcome Center on an ongoing basis including before and after school. The ELL Welcome Center is currently co-located in the SHS Guidance office in order to access counseling resources. Additional services that are available to students through the ELL Welcome Center include the ELL Wrap-Around Coordinator (mental health), Safe Harbors (housing), COPE (pregnancy and parenting), and services made available through city and community partnerships.

***The preferred option supports the ELL and Newcomers to the city's school system through its close proximity to the main office and welcoming central entrance. ELL classrooms and office spaces are located adjacent to academic humanities and science programs as critical necessity to support each specific level of student proficiency and mainstreaming throughout their high school career.***

### **SAFE (Students Accessing Formal Education) Program**

Students with Interrupted Formal Education (SIFE) are offered a cluster of courses to prepare them academically for full engagement in Somerville High School curriculum. A SIFE student's course of study is determined by the ELL guidance counselor after a thorough review of educational history. In addition SIFE students are offered academic tutoring before and after school at the ELL Welcome Center, and may enroll in the Summer ELL newcomer program to receive intensive English Language development and Math instruction. SAFE Program teachers and the ELL Welcome Center staff meet on a regular basis to review student's academic progress and need for additional social supports and community resources.

***See ELL comments above.***

### **Ninth Grade Experience (NGE)**

The goal of the ninth grade experience is to assist incoming ninth graders in adjusting to high school standards, expectations, and routines through a variety of educational and social opportunities. The ninth grade team consists of twelve teachers, three from each core academic department (English, Mathematics, Science, and Social Studies), who work closely together to build community and maximize student potential.

The ninth grade team meets together twice per week to address the needs particular to ninth grade students. The team works closely with the guidance counselors and Housemasters to identify specific student needs, plan interventions, and celebrate student successes. They also utilize weekly meeting time to communicate with families and create engaging and relevant interdisciplinary projects and units.

Students' needs are served through this program by providing the ninth grade teacher team with the time, resources, and flexibility to implement the program. The

ninth grade experience allows ninth graders to form a strong foundation for successful high school careers and beyond.

### **Newcomer Experience Support Team (NEST)**

NEST is the ELL component of the Ninth Grade Experience and is designed to assist ELL ninth grade students in adjusting to high school standards, expectations and routines through a variety of educational and social opportunities. The implementation of the NEST program is targeted to foster academic success, improve attendance, reduce drop-out rates, and provide services needed for an acute population. The NEST Team consists of five teachers, and ELL and content SEI teachers who work closely together to build community and maximize student potential.

The NEST team meets together weekly to address the needs of ELL 9th graders, utilizing triggers and analyzing data. The team works closely with the ELL counselor, wraparound service coordinator, and therapist, as well as the Housemasters to identify specific student needs, plan interventions, and celebrate student successes. They also utilize weekly meeting time to community with families and create engaging and relevant interdisciplinary projects and units.

### **Redirect Program**

Redirect is a General Education tutorial program for students who would benefit from additional academic and social/emotional support. Students use the class to work on academic assignments, develop organizational skills, and set performance goals. Organizational skill building is integral to the class and use of a planner is required. The teacher/counselor provides tutoring and reaches out to faculty and family to assist students in tracking their assignments and progress. Students are referred to the program by the Student Intervention Team (SIT).

### **In-School Suspension Program**

The in-school suspension program is a short-term program that allows students to recalibrate and reintegrate in a safe and supportive setting. The program is staffed by a full-time teacher and is structured so that students have the opportunity to catch up on work. Current capacity is 14 students, with an average of 8-10 students in the program at any given time. The program also provides opportunity for peer tutoring support, and teachers often stop by to offer students extra help.

## **II. Proposed Changes and Why, or Statement that No Changes are Proposed**

### **English Language Learner Program**

To meet the diverse needs of all ELL students requires taking a holistic look at the entire ELL department to create a student-centered learning community and a shift in three key dimensions:

- Teaching and learning
- System structure
- Culture

Within this community, it is important to have an environment where students and teachers work collaboratively to create multimedia presentations, and then present

and deliver information to groups and initiate substantive dialogue. This can happen when there is space and time for common planning, teacher’s conference and work area, flexible students’ work area, project preparation space, and a computer room. Furthermore all support groups like the Welcome Center, and wrap-around services should be close at hand and readily available. Proposed changes and program enhancements include:

- Expansion of SAFE programming at flexible hours during the day
- Programming for over-age ELL students (possibly co-located with adult education programs)
- ELL Wrap-around Coordinator office and meeting space with a “trauma-sensitive” safe space for refugee, unaccompanied minor, and SIFE students
- Space for common planning and cross-departmental collaboration
- Quiet and private space in Welcome Center/ELL Suite for Language and Academic assessments.

### **Ninth Grade Experience (NGE)**

No changes to this program are currently proposed.

***The preferred option supports the freshman grade level and 8<sup>th</sup> grade transition by establishing a single top floor location for all general studies related to the 9<sup>th</sup> grade curriculum, this serves to mitigate the taller building structure to reduce student travel over the course of the day as well as collecting the youngest members of the school community in close proximity to student support and counselling specific to their needs.***

### **Newcomer Experience Support Team (NEST)**

No changes to this program are currently proposed.

***See comments above and ELL response above.***

### **Redirect Program**

The SHS Redirect Program will evolve into a more formalized, non-special education academic support center in which students can enroll as a school day course and which would include a formal program of support to meet the individual needs of students. Better use of data and trends that will allow us to best allocate resources to students. The Redirect program would be located within close proximity to academic and student support services to facilitate easy access to additional support services.

### **In-School Suspension Program**

We envision this program evolving into a more comprehensive flexible support program that can also be used as a longer-term re-integration program for students who have been out for medical or other issues.

### **Afterschool Academic Support**

A variety of flexible, technologically equipped, comfortable medium to large spaces where groups of students can receive additional afterschool academic support would alleviate inequities in technology resources available to students at home, and provide an extended learning opportunity for students. Spaces should be able to accommodate students with different learning needs, including special education students.

***The Preferred Option provides multiple spaces and technologies that are currently not available to support students struggling with social and academic integration, these spaces will be carefully considered in the schematic design phase.***

## **I. Student Guidance and Support Services**

(Social support, METCO, after school programs, anti-bullying programs etc.)

### **I. Current Services and Programs**

#### **School Counseling Department**

SHS currently supports a comprehensive school counseling and college and career readiness curriculum for all students. The mission of the School Counseling Department is to facilitate the academic, personal/social and career development of all students through a School Counseling Program that is comprehensive, preventative and developmentally appropriate. Students receive counseling programming via advisory and through individual, small and large group meetings with all counselors.

Currently, school counselors provide overall coordination of academic, post-secondary and social/emotional support for all students. These services include: new student enrollment, 8th to 9th grade transition activities, individual academic advising, monitoring of graduation and post-secondary requirements, overall post-secondary and college application support, letters of recommendation for colleges, scholarships and other enrichment programming, college tours, Post-secondary/PSAT Day, scheduling, crisis intervention and student safety assessments, re-entry meetings and development of transition plans, short-term counseling, referrals to enrichment programs, referrals to community, mental health and school resources, a Career and Technical Education Exploratory class, redirect classes, adjustment counseling, PSAT/SAT/AP, MCAS and ACCESS testing oversight.

Counselors are integral members of IEP Teams and the SHS Student Intervention Team. Counselors oversee the referral, development and management of 504 accommodation plans. They actively work to facilitate communication between the home, community resources and school faculty in order to support student's high school overall success and graduation plan. In addition, Advisory curriculum lessons are created by the College and Career Readiness Director and delivered by teachers and counselors.

The School Counseling Department also supports a variety of other programming outside of the school day including a Post-Secondary Planning night, College and

Career Day, the College Fair, FAFSA Day, SHS Scholarship Awards Night, and After the Acceptance Night.

### **Current Structure**

Currently, Somerville High School counselors are spread throughout the building. Four (4) counselors are located within each of the 4 Houses and are not housed near the two administrators that oversee the school counseling programming, making it difficult for counselors to collaborate and provide consistent services for all students. Ongoing communication, professional development and supervisory support are imperative in the school counseling field, and counselors do not currently have easy access to other counseling professionals in the high school.

School counseling offices are located throughout the school on various floors. There are four house counselor offices on the third and fourth floor, a CTE counselor located in the CTE wing of the building, an ELL counselor in the Guidance Suite, and a regular education Adjustment counselor on the fourth floor. A Guidance Suite on the first floor houses the School Counseling Director, the College and Career Readiness Director, a secretary, a College and Career Readiness room and two conference rooms. These conference rooms offer space for special education meetings and school-based counseling. One of these conference rooms also serves as a storage room for student files.

### **SHS Mediation Program**

The SHS Mediation program is staffed by SPS and several community health agencies. It is currently located in a small office suite adjacent to the Main School Administrative Office, houses a full time Director and one full time staff member, and includes several small meeting rooms to hold mediation sessions.

### **Anti-Bullying and Other Positive School Culture Initiatives**

The School's Culture Committee is made up of a diverse set of SHS community members. The committee plans Somerville High's culture initiatives. Other school-wide initiatives include annual administration of a culture survey among both students and staff.

## **II. Proposed Changes to Services and Programs and Why or Statement that No Changes are Proposed**

All counselors would be located in a Counseling Suite within close proximity to the ELL Welcome Center, SHS Mediation Office, School Resource Officer (SRO), Health Center and other support services provided by the community. The School Counseling Suite should include a secretary workspace and waiting room and a College and Career Readiness (CCR) Media Center/room equipped with computers and with enough space to have the ability to meet with small groups of students to deliver lessons. This CCR room should have a window into the counseling suite/waiting room so that students can use the space independently. There should also be a registrar's office with a sliding window into the waiting room for assisting students/families and a large locked room for storage of confidential student information including all records/cumulative files, transcripts and state/college testing materials. The envisioned School Counseling Suite would also include:

- Conference room to accommodate meetings of 12-15 people.

- Four small conference rooms for school-based counseling meetings.
- Space to accommodate other community resources, counseling interns, small group testing, and the Mediation Program.
- One bathroom.
- Common area/work space for photocopier/printer/other equipment.
- Offices for the School Counseling Director, College and Career Readiness Director.
- Multiple flexible office spaces for school counselors and a regular education adjustment counselor. Offices should be large enough to hold meetings of up to 5-6 people, and should each be equipped with multiple computers/work stations that can be used by students.

The vision behind this School Counseling Suite is that student support resources would be available in a centralized location, within close proximity to other school resources. Students would be able to come to one office to work on college and career activities and receive social/emotional support at any given time. Counselors would be able to provide a comprehensive program for all students as ongoing collaboration and communication would be fostered by being together within one space.

***The preferred option allows for the ultimate design to support the goals and needs of the SHS House model system but in modern and functional spaces that meets staff and student needs.***

## Teacher Planning

### A. Existing teacher planning spaces and scheduled planning times and how they support delivery of curriculum

(Differentiate between professional development time as discussed below and teacher planning time that teachers have every day, opportunities for lesson sharing, “lessons learned” from new teaching methodologies, interdisciplinary opportunities, etc.)

In our current schedule, teachers have six of hours of planning time per week, one hour four days per week and two hours one day per week. During those planning times, teachers most often use their classroom space, if it is available. If their regular classroom space is not available, they find an alternative space to work. There are no existing spaces specifically designated as “teacher planning spaces.” Alternative spaces that teachers find to work include department offices, computer labs (if not being used by a class), the library, or other empty classrooms.

In addition to the six hours of planning time per week, teachers also meet in Professional Learning Communities (PLCs) approximately once every other week, or about two hours per month. PLCs have been organized around grade level/subject teams to work on curriculum, instruction, and assessment. Again, there is no dedicated space for this work; teachers meet in classrooms during PLC time.

For small, interdisciplinary teacher or administrative team meetings, we have a small meeting room called Gallery 81 and the sign-up for that space is in the main office. That space is used for a variety of functions including meetings, interviews, conferences, and small staff celebrations. It is usually in high demand, but is not a particularly comfortable or professional space.

### B. Proposed changes to planning time and number of spaces and why or statement that no changes are proposed

The PLC structure has proven particularly fruitful at SHS. This time for teachers to work in teams must be protected, if not increased. In addition to working in grade/subject level teams, it would be ideal to create space/time for teachers to work in additional teams, such as cross departmental/grade level teams, SEI/ELL teams, and Special Education/Support teams. It would be ideal to have numerous flexible, comfortable spaces in which teachers could work and collaborate on a regular basis; spaces that incorporate elements that encourage collaboration and productivity, such as easy access to mobile devices, wall space, data boards, phone, computers and/or an interactive board where teachers could create instructional materials, analyze data, and review student work together. These spaces would ideally be located throughout the school and in close proximity to the classrooms in which teachers are teaching.



Teacher Planning

### C. Current professional development practices

Currently, teachers and counselors at SHS have, by contract, two hours per month of department and/or school-wide professional development time. For the past two years, most of the professional development time, about 75%, has been organized at the department level. Much of the time has been given to teachers to develop curriculum and common assessments, and to employ a data-cycle to analyze student work and design targeted instruction/intervention based on demonstrated student need. In departments, staff members also work as a full group on best practices and vertical alignment of curriculum. There is no dedicated space for this work; teachers meet in classrooms.

The school-wide professional development time for the past two years has been organized and run by the school's standing Culture Committee. This committee is comprised of twelve teachers and two administrators who use a data-cycle approach to assessing and improving school culture. When the entire SHS staff

meets, we generally re-arrange furniture in the library or sit uncomfortably in the cafeteria, as these are the only appropriate spaces that can accommodate approximately 150 staff members for an active meeting. The only other space in which the full staff gathers is the auditorium, which is appropriate only for passive meetings.

#### D. Proposed changes to professional development and why or statement that no changes are proposed

(Include retraining and/or additional certifications of staff who will be changing grade levels or disciplines as a result of proposed changes and associated timeline)

The addition of numerous comfortable spaces in which teachers can work collaboratively during PD times would maximize the impact of professional development work. Ideally these spaces would have elements that encourage collaboration and productivity, such as easy access to mobile devices, wall space, phone, data boards, or an interactive board so that teachers could create instructional materials and review student work together. Such spaces would be flexible enough to accommodate small group PD or large group PD organized by various content, grade-level, or project-based work assignments. Additionally, the school also needs spaces equipped with flexible furniture and various educational technology that can accommodate all 150 staff members in a working environment, as well as a space large enough to accommodate all teachers for large group presentations. Since PD may take the form of video conferences, web-based seminars, or live presentations, it is important the PD spaces allow for personal and virtual interaction, a variety of breakout spaces, and visual and tactile displays.

***The Preferred Design reinforces the Educational Program by distributing common teacher planning rooms on each of the academic floors and generally adjacent to the Housemaster's suites. Within the fine arts and music suites general planning time occurs within the small office or classroom spaces for each program. Generally non-“ownership” of classrooms by teachers is intended throughout - although some teachers may find assignments to specific rooms – particularly in the areas of humanities and the Freshman Commons. The plan aggregates teachers into these rooms providing the best opportunities for interdepartmental interaction, program development and financial grant applications. The Planning Center’s central locations also provide for easy student access and general floor observation (passive security).***

#### Pre-Kindergarten

(SPED only, tuition programs, locations, full day, half day, if applicable); Not Applicable

#### Kindergarten

(full day, half day, locations, if applicable); Not Applicable

#### Lunch Programs

(number of servings, district kitchen, full service kitchens, warming kitchens, etc.)

## A. How program is delivered

The Somerville High School kitchen and cafeteria is located in the basement of the school. Due to design constraints, the SHS kitchen currently serves as the backup central production kitchen for the district but should serve as the district's primary production kitchen. The SHS food service program currently delivers approximately 100-150 breakfasts per day and an estimated 650-700 lunch meals per day. Food is received from vendors via a service delivery dock area located at the back of the building and is either stored or prepared right away. Students scan their ID's as they retrieve their breakfast or lunch.

SHS's lunch program is delivered in three half-hour blocks (11:04-11:34, 11:34-12:04, 12:04-12:34). Students go to one of three service lines for their lunch -- one for 'grab and go' meals, one for main entree meals, and one for the salad bar option -- and proceed to one of seven check-out stations. Students can eat in either the main café across from the kitchen that can accommodate approximately 300 students, or in one of two smaller café's on either side, each of which can accommodate up to approximately 100 students. None of the current lunch spaces offer any type of natural lighting, and are furnished with traditional long school cafeteria tables, providing very limited flexibility in seating arrangements.

The school lunch service also provides bag/boxed lunches for students going on field trips. A separate snack area stocked with healthy food options is also available adjacent to the cafeteria spaces.

## B. Proposed changes and why, or statement that no changes are proposed

The Somerville High School kitchen and cafeteria should be a place where students can not only enjoy a nutritious meal and re-energize for the day, but also a place where students can comfortably connect and interact in a space that inspires community-building.

The kitchen should be designed as the district's central main production kitchen and include ample storage (refrigerators, freezers, dry stock room) to accommodate up to 1,500 students. Updated cooking equipment that meets current food service requirements would help ensure that we are meeting food safety standards, and providing students with the best possible food service.

Ideally, the design/layout of the space would offer more college-style dining with multiple meal options and lines, which would relieve wait time. The space should be bright, comfortable, welcoming, and offer multiple and varying types of seating areas where students can congregate, work, or relax.

The space should also be equipped with state-of-the-art technology to (1) relieve congestion during checkout through more advanced, wireless registers, (2) allow for prominent electronic display of menu options, and (3) provide opportunities for students to stay connected with the outside world and learn about school projects via electronic programming displays. Additional proposed changes are the addition of a dumpster and proper disposal system, as well as a recycling and composting area to support efforts to improve school sustainability.

***The preferred design gives importance to student socialization and communal gathering by placing the commons in a geographically important center of the school and configuring the dining room into a large single room with multiple zones. The lunch program areas include the kitchen, a scramble style servery and open commons cafeteria spaces. The central location of this important gathering space is to support student, staff, and community use. By providing multiple zones within the commons a more flexible and useable space is available throughout the day.***

## Technology Instruction Policies and Program Requirements

(Labs, in-classroom, media center, required infrastructure, etc.)

### A. Description of existing educational technology, how it is managed by the district, how it is used in the classroom, and overview of professional support and training offered to staff

The SPS Technology department manages the technology hardware and use throughout the district, and currently leverages wired and wireless infrastructure with a blend of stationary computers and mobile devices, such as Windows laptops, Chromebooks, iPads, as well as BYOD. Currently, most departments have their own computer lab that they share building-wide. The school also has a limited number of shared Chromebook and iPad carts available for use. Most classrooms are equipped with fixed projectors and interactive whiteboards.

The Technology Department also works in partnership with district and school departments in managing software, and offers various levels of support and training, from individual support to group workshops. The Department also utilizes a “train the trainer” method working with teachers who become experts and then help provide technology support and development to teachers within their department or across the school.

### B. Proposed educational objectives being pursued as part of potential project, description of how updated equipment and systems would be managed and maintained by the district, how the equipment and systems would be used in the school, and plans for professional development, or a statement that proposed equipment and systems align with current equipment, systems and practices which are to be continued

Somerville High students and teachers have benefited greatly from the use of technology throughout the day. We are looking to build upon our successes and blend more mobile devices into the school, working toward a true 1:1 program for the new building. The Technology Department would continue to manage the devices, along with a robust wireless infrastructure to support the demand, and work with all school departments to align a curriculum that supports a 1:1 program. Ideally, the new Technology office areas at Somerville High would be constructed to provide Student Internship opportunities where students can operate portions of the Technology Help Center as well as provide support to mobile devices in the classrooms. The space should be more conducive to walk-in support and have

adjacencies to areas for group Professional Development opportunities. Classrooms will benefit from having projection capabilities and interactive boards.

Technology will be used prominently and ubiquitously in the new SHS. The expectation is that students will use a wireless device accessible to them throughout the day to access the curricula, to receive instruction (blogs, video, media creation, applications, etc.), to create digital content, and to perform on a variety of assessments. Simulated labs, flipped classrooms, virtual classrooms, video conference, and digital content creation will be a frequent experience for all students. Much like a college campus, such activities will take place in classroom spaces, media spaces, common spaces, open spaces, cafeteria spaces etc.



Technology both as content and tool will enable, support, and prepare our students with a personalized learning experience and global learning experience.

In order to realize this technology vision, staff will need to stay current with how to integrate evolving technologies. The District will be adopting an aggressive schedule of offerings presenting technologies both as content (e.g. specific applications, coding) and as a tool to be integrated into lesson planning, instructional delivery, and assessment. PD will happen local to the school, within the district, and at partner organizations i.e. Tufts, MIT, Harvard. Since the fundamental principle in the District is that technology should be used to strengthen teaching and learning and to solve educational problems, the use of technology will always be tied directly to teaching and learning with a vision toward future use and global education. The use of technology by teachers and students will be in support of STEAM principles and project-based learning as integrated throughout the teaching and learning landscape at SHS.

## C. Media Center/Library

### I. Current Programming and How it is Delivered (Central Location or Distributed)

The SHS Library Media Department offers classes in TV Media Production and Film Studies through an Apple Mac Lab running Final Cut video editing software. Each class is a semester long with multiple sections depending on enrollment. The Library Media Department at SHS is also responsible for running morning announcements out of the SHS TV studio, a small space located on the first floor just outside the main entrance to the school auditorium. The current space is significantly undersized, limiting the amount of educational programming that can safely and effectively occur in this space. The studio houses three cameras, a teleprompter and a Tricaster TV switching board that allows for the merging of live video switching, broadcast graphics, virtual sets, special effects, audio mixing, recording, social media publishing and web streaming. Morning announcements and other school messages are broadcast daily from this studio. Both students and SHS staff utilize this studio as much as possible on a daily basis, given the space limitations.

The Library Media Center is composed of a centrally located large space which was formerly the high school gymnasium and an additional space known as the Media Lab or Innovation Center, where students and staff can work on technology rich projects using Apple Macintosh Computers and audio and video equipment. This space meets an essential need for students who do not have access to technology at home. The Library Media Center also serves as a meeting space for the school administrative team and is often used for professional development. It is also utilized for out-of-school-time city meetings. The space is equipped with a Smart Board and 30 desktop PC's for student and staff use. Classes utilize the space and its technology on a sign-up basis. There are also 22 Chromebooks in the Library for student and class use, with an additional 35 Chromebooks currently on order for use in the library this year.

## **II. Current Staffing, Professional, Paraprofessionals, IT Specialists, Volunteers etc.)**

The Library is currently staffed by one full time library media specialist and one full time library utility aide who manage the circulation of books and technology, and the collection and space. The library is staffed before and after school hours by teachers and staff members who receive an additional stipend for this out-of-school-time work.

Current staffing also includes one full-time TV Media Production Teacher who teaches Film Studies/TV Media Production classes, and is also responsible working with students to produce and deliver the school morning announcements.

## **III. Current Hours, Scheduling of Use During School and Non-School Hours for Group and Individual Use.**

The library is currently open for school-related use Mondays through Fridays from 7:00 AM until 4:00 PM except on school holidays. Scheduling of the library during non-school hours is handled through a central facility registration system managed by the district's central office. The library is periodically used during the school day for a variety of other school-related activities, including for MCAS and Access testing for ELL students, concussion testing by the Athletics department, and for various school events such as Club Fair, College and Career Fair and musical instrument rentals. Other City departments often use the library for meetings during non-school hours.

## **IV. Proposed Changes and Why, or Statement that No Changes are Proposed**

The use of the school library during the school day for activities such as MCAS testing that require closing the Library and/or Media Center reduces the availability of a critical educational learning space to the broader student body. A design that incorporates a separate space that can be closed off for such purposes in an appropriate location within the new school design would ensure the most efficient use of the Library and Media Center as a continuous educational space and resource for all students.

The new Library Media space should offer a comfortable and inviting environment with varied and flexible work areas, and be equipped with the

proper technology to support thorough research and creative work. The space should be a place where students and teachers can work independently and in groups (small and large) and access the resources they need to produce their best work, therefore would need to have the flexibility to accommodate quiet work needs and interactive group projects. The inclusion of a Makerspace in the Media Center would allow for the practical application and lab environment students will need to test their creativity, collaboratively problem solve, build and design their ideas, and produce their projects.

The environment should include good lighting, ample natural light, windows that open but which also have shades to darken rooms for presentations, and ample charging stations for portable connectivity. The space should also include varied types of seating areas including open carpeted graduated seating, comfortable chairs for independent reading and studying, a terraced seating area for students to stretch out and use their laptops, and cafe style high-top tables and stools for small group work.

The Library could be further enhanced as an active learning space for students and staff members by incorporating other currently existing programs/elements of the school as part of the new Library Media Center, including the following:

- Incorporate the TV studio as part of the Library Media Center, transforming it into an innovation lab that has its own entrance and classroom space equipped with computers for video editing;
- Build in small group instruction and large group instruction areas that are separated from reading and quiet study areas and research areas;
- Include a Professional Development space equipped with computers to train teachers and other staff members, that could also be utilized for small group instruction/meetings;
- Add a Makerspace for STEAM-related activities, including working with equipment such as 3-D printers.

#### **V. Narrative Description of the Types of Educational Activities Anticipated for a Media Center(s) Over the Course of a Typical School Day;**

During the school day, students will utilize the Library Media Center to check out print and digital media, laptops and other devices, work on independent and collaborative research projects, and work on media-rich projects (including blogging, podcasts, green screens, video editing, and music production). Teachers and staff members will also utilize the space for professional development and staff meetings. Students and other community agencies can use the space in the evenings to showcase individual or group dance, theater or musical performances, or for community meetings.

Activities will vary on any given day in the Library Media Center, from large classes coming in to individual students looking for a quiet area to read, complete homework and projects, and conduct research using multiple devices. The space will be particularly busy before school, after school and during the three lunch periods, making the need for flexible, adaptable spaces within the Center important to ensure that the space can be used for a wide range of activities, all of which support a strong, engaging, 21st-century

focused learning experience. The Library Media Center should function not only as a critical educational space during the school day, but also as a safe and inviting place where students can meet for an after-school activity or merely to socialize and re-energize.

***The preferred option capitalizes on the opportunity to redevelop the antiquated library experience of the current SHS – currently occupying the old gymnasium. The schematic design shows the learning commons located in the exact geographic center of the school both vertically and horizontally and is less a repository of books and more an active center for media use and distribution including a flexible “maker space” and multiple group project rooms.***

## Visual Art Programs

(In-classroom, specialized area)

### A. How curriculum is delivered, number of periods per academic cycle, and number of students participating in art programs

The current art department offers a large compliment of classes covering a diverse range of skills and techniques for students at Somerville High. The art curriculum integrates twenty-first century skills and all academic subjects to provide a ‘well-rounded education’ for the diverse student population in Somerville. The current enrollment is 600 students and has been subject to increase changes each semester for the past few years. Each of the four Art Teachers sees students 4 times per week during each semester, for 55-minute blocks (except block 1 which is 67 minutes).

The art department offers a wide range of courses aimed at students of varying abilities and interests. Currently, there is a wet photography darkroom and art computer labs which serve current and future curriculum. All students have the opportunity to explore the visual arts and enrich their academic and life experiences. In addition, students who wish to pursue careers in art are offered specialized courses and portfolio preparation. Students who wish to pursue an independent study in art should contact the art department supervisor. We currently offer 16 electives for students to take during their four years at SHS. We also have a Chapter with the National Art Honor Society which provides student members avenues for recognition of artistic talents and opportunities for leadership roles as visual arts students. Students provide community service through spotlighting the visual arts’ program and through community work, such as painting murals for the City Hall break room and the SHS cafeteria, and creating scenery for school plays.



### B. Proposed changes and why, or statement that no changes are proposed

In order to offer students a high-quality program and meet the growing demand for this program of study for students in grades 9-12, visual arts space needs to be designed and equipped to accommodate a wide range of projects. All Art rooms should have windows that can be opened in order to allow for ventilation and the use of natural lighting for creative development. Studio art rooms should be equipped with appropriate filtration for clean air and ventilation, and classrooms should be adaptive to meet the needs of all students and accommodate courses for Skill level students that need adaptive facilities.

The following spaces have been identified as key to ensuring a robust, state-of-the-art visual arts program. These spaces currently exist, but each is currently undersized and deficient in functionality that would allow student experimentation and expression to flourish:

- Photography Lab: Should include both a studio space and a dark room facility with large sinks. Studio space should accommodate student computers with digital projection capabilities.
- Ceramics Room: Classroom studio needs to incorporate a kiln room, large sinks, and active storage area. Typical equipment would include potters wheels, pug mill, raw clay, glazes, slab roller, and drying racks.
- Computer Art Lab: Should include graphics-capable student computers, a teacher computer with digital projection capabilities, as well as a large-format professional printer and 3D printer.
- Studio Art Room(s): Multimedia art rooms for 2D and 3D artwork, with student computers and digital projection capabilities in each room to enhance student usage.

The development of visual arts skills is greatly enhanced by the opportunity for students to showcase their work. A neutral color scheme and school design that incorporates multiple display options for 2-D and 3-D student work throughout the facility would not only support student visual arts development, but would promote a strong community culture that builds student pride and represented by student creativity.

***The Schematic Design reinforces the school's vibrant arts program by maintaining two studio art rooms (one two dimensional and one three dimensional), providing one technology based digital arts lab and providing a shared use project lab for Computer Graphics/TV Studio editing which will serve the fine arts curriculum. The arts shall be closely associated with performing arts and chapter 74 graphics programs where possible in the new building. Display cabinets will be provided at each room and throughout the building to display student work.***

## Performing Arts Programs

(Music, dance, drama and theater, in-classroom, specialized area)

### A. How curriculum is delivered, number of periods per academic cycle, and number of students participating in music programs

Somerville High School's Music Department's mission is "to inspire and guide every student in active music making through the use of a sequential and creative curriculum that nurtures the human spirit and promotes cultural understanding." A diverse menu of course offerings and an approach to "tiered learning" is designed to inspire students and faculty to practice a growth mindset in relation to students developing sequential skills that foster continuous improvement and musical skills that promote applied music literacy in a creative and joyful environment with an outcome that will lead to continued participation in music for life. The SHS music program differs greatly from more "traditional" high school programs in that SHS ensembles and classes are open to every student. There are no audition requirements and students are accepted at every level of musicianship.

Curriculum in the SHS Music Department is delivered by highly qualified teaching artists through the use of a sequential and tiered skills based model. The curriculum focus is rooted in the concept of "Authentic Learning", meaning that skills learned are directly related to the creation of organized sound. Constant synthesis of learned skills inspires students to take risks by improvising, as well as creatively moving to the next tier of proficiency. For the majority of SHS ensembles, learning is measured through the development of musical skills expressed in elements of effective communication, teamwork, and respect and understanding of diversity of cultural expression in the school community and in the world.

Currently, the music department has 378 students enrolled for the 2015-16 academic year with approximately 35% of students taking multiple music classes. All full year performance ensembles are operating at maximum capacity (75 choral students, 55 band students, 51 orchestral students). Our three ensemble rooms are used for 26 periods weekly. Music students share a technology lab with TV Media/Production which the Music Department occupies for music technology programming for 8 periods weekly. Another small classroom functions as the Intro to Guitar, Advanced Guitar and Jazz Band learning space. The Music Department also has access to an audio/visual room with sound equipment for traveling performances and recording, and a music technology learning space equipped with 14 iMacs for writing and recording music.

The music department space also has two distinct elements that operate outside of the school day. The first is that district middle school ensembles use our SHS ensemble rooms for their weekly rehearsal. There are 95 students in the All-City Middle School Chorus, 65 students in the All-City Middle School Orchestra and 45 students in the All-City Middle School Band. There is also an All-City Chamber Orchestra that has 25 students. Secondly, the SHS annual musical and drama production group uses the SHS ensemble rooms and the school's sole auditorium from September until April. More than 60 students are involved in the musical production and over 50 students are involved in the drama production. Currently, there is no adjacent space to the auditorium for use as a prop/dressing room. Both

productions have used the high school library to assemble their sets and to practice blocking for their productions.

## B. Proposed changes and why, or statement that no changes are proposed

In addition to the need for a music and performing arts learning environment that can provide large group and small group opportunities, the SHS Music Department has tremendous need for instrument and music storage. Each space utilized for music instruction and performances currently has very limited storage space for an estimated 2,500 instruments and other performance equipment.

The SHS Music/Drama Faculty, in order to appropriately allow for creative expression and provide students with a robust music program, proposes the following changes in the new SHS building design:

- Multiple music ensemble rooms with an average capacity of 75-100 students adjacent to each other and situated around the perimeter of a main auditorium, with adjacent offices for ensemble teachers. Adequate storage for instruments, equipment and uniforms adjacent to each ensemble space would be ideal, including a string instrument storage space where temperature can be controlled locally. Small break-out/practice ensemble rooms attached to the larger ensemble rooms that can be monitored from the main ensemble room would allow for proper preparation prior to performances.
- Large, modern auditorium with sloped seating, professional level sound reinforcement, and a functional stage that allows ensembles to be setting up behind the curtain while another ensemble is performing. Proximity to a space for set, prop and costume construction, with adequate storage, allowing for a rich, full production learning experience. The auditorium space should also include adjacent dressing rooms, additional storage for audio/video equipment (microphones, monitors, cables, etc.), and be within close proximity to the City Cable editing/storage room.
- An informal space that offers “Black Box” functionality which can be used for drama classes, musical/drama rehearsals, full faculty meetings, professional development, smaller performances, presentations, and cultural events. Adjacency to an area/room for costume changes and space for prop storage would be ideal.
- Guitar/Jazz Ensemble room with a 25-30 student capacity for alternative performance ensembles. The room should be sound-proofed and include adequate storage for acoustic/electric guitars, basses and drums
- A flexible space to accommodate a Music Technology/Piano Lab for up to 20 students for electronic keyboarding and music technology classes, with appropriate storage for mid-sized electronic keyboards



- Music Practice Rooms – multiple small music practice sound-proofed rooms that would each accommodate 1-2 students for more individual instruction/study
- Music Department Main Office equipped with technology stations that can be utilized by students and teachers for performance planning, music project research, interdisciplinary projects, and professional development.

***The preferred design reinforces the performing arts program by correcting adjacencies and space deficiencies for the above programs, along with providing a state of the art auditorium with a full-fly loft stage with improved lighting, sound, and acoustics. Community use of this space is also critical and its central location on the Central Hill campus and within the floor plan of the school supports this organizing principle.***

## Physical Education Programs

### A. How curriculum is delivered

The focus of the Somerville High School Physical Education program is on whole student wellness. The suggested Health and Physical Education path for students to fulfill their graduation requirements currently includes the following grade-level requirements:

- Freshman: Health I
- Sophomores: Physical Education
- Juniors: Health II
- Seniors: Physical Education

Currently, SHS Health and Family/Consumer Science classes are taught in four general classrooms with limited lab space and equipment, and inconsistent technology. Fashion courses are taught in a separate room equipped with sewing machines. We currently offer three sections of Physical Education (PE) each block. Each section has 15-28 students.

### B. Proposed changes and why, or statement that no changes are proposed

The following proposed changes detail the existing program structure and delivery, and the reasons for the proposed program changes.

#### **Wellness Center**

Health classrooms in close proximity/attached to fitness room and gymnasium. Currently, SHS Health and Family/Consumer Science classes are taught in four general classrooms with limited lab space and equipment, and inconsistent technology. Fashion courses are taught in a separate room equipped with sewing machines. Health Education classes are transitioning to Wellness courses, incorporating fitness concepts. As such, students will be using fitness equipment, large open spaces (gymnasium), and other physical education equipment during health/wellness classes. Ideally, these classrooms would be connected to the Multi-functional lab space described below for easy access.

Flexible grouping and fitness based furniture for health classrooms and transitional. Upon moving to Wellness courses, the health classrooms will include fitness-based furniture to allow for exercising in the classroom. Research shows that more movement and less sitting better prepares students for learning. Equipment may include stand-up desks with elliptical climbers underneath, stationary bike-desks, and yoga balls.

### **Multi-Functional Lab Space**

As we transition into Wellness courses, classes will incorporate more inquiry-based and scientific activities. This includes dissecting muscle samples, using manipulatives, analyzing cells and other samples under microscopes, spaces to investigate bones structures, joints, and the human body. This space will also be used for CPR/First Aid trainings. It would be ideal for the classrooms to be connected to the lab to facilitate easy access, and adjacency to the Science classrooms might facilitate interdisciplinary work.

### **Multi-Purpose Room**

Due to lack of space, current physical education course offerings must be held in the fitness room, weight room or field house, which limits our ability to offer a wide variety of courses in which students have expressed an interest. A flexible multi-purpose room would allow us to offer dance, yoga, Pilates, plyometrics, and meditation. An Introduction to Dance course will begin in the 2016-2017 school year and will run on the stage in the auditorium. The stage is not an ideal size for this program, and scheduling the only large meeting space in the building is problematic. Additionally, having students practice dance on the stage can create safety concerns that would be alleviated with a multi-purpose space where students could perfect their form on a safe, floor level space before performing on the stage. This multi-purpose space could also be utilized to serve students with Adaptive Physical Education accommodations in smaller, more intimate spaces. The space should be in close proximity to the gym, fitness center, health classrooms and lab.



Multi-Purpose Space

### **Large Multi-Use Fitness Center**

Space constraints not only significantly limit enrollment in weight training and fitness education courses, but also create safety concerns for students and staff. The current weight room and the fitness room only allow for 20 students per class. One large flexible fitness center that can accommodate 50+ students at a time would allow us to increase the enrollment for these classes and be able to incorporate both free weights and cardio machines for both classes. Currently, if a student is enrolled in Weight Training and wants to use a cardio machine, the student needs to leave one space and walk through a hallway to get to the other space, creating both safety and supervision concerns. The Fitness Center should also include space and equipment for other workouts, including kettlebells, box jumps, training ropes, and medicine balls. The fitness room should be in close proximity to the health classrooms, lab, and gymnasium and could be designed to allow for use by members of the Somerville community during non-school hours.

### **Gymnasium**

We currently offer three sections of Physical Education (PE) each block. Each section has 15-28 students. The space currently used is equivalent to three basketball courts, with two courts being 42'x75' and one auxiliary court being 60'x75'. The space is sufficient for some activities, but not all. A large gymnasium is needed for maximum capacity and to mitigate safety concerns when implementing specific activities. Within the cross courts should be one main floor for athletic competitions. Currently, the gym also houses equipment for physical education and athletics in two storage rooms.

Additional gymnasium storage space is an important consideration as the current two storage rooms in the gymnasium are inadequate to store all of the physical education and athletic equipment needed for effective program delivery. Additionally, the large volume of traffic in this space during school and non-school hours requires a high-impact multi-purpose floor. PE has integrated technological devices to measure students' resting and target heart rates. Students use the monitors not only in the fitness room but also as a warm up; as they train for their presidential fitness exams or the cooper walk/run test. This activity is done on the existing 6-lane track that surrounds the gymnasium floor. The track is also used for other activities within the lifetime activities, athletic and community events.

### **Locker Rooms**

There are currently two locker room spaces located off of the gymnasium area. Each space also houses the physical education staff offices, showers, and a bathroom. A locker room that has secure lockers, privacy areas, showers, and is attached to the gymnasium will address many safety issues. There is also a need for two team rooms to be used for meeting spaces as well as locker room spaces for competitions. Locker room accommodations should also include unisex or transgender changing spaces. Currently, we only have two changing spaces -- separate boys' and girls' locker rooms. There is a need for an additional office space/bath shower space for sporting event officials. This space should be separated from the team rooms for privacy and safety reasons.

### **Physical Therapy & Athletic Training Treatment Space**

SHS does not currently have a space that is conducive to physical therapy or athletic training. Both programs operate in tight quarters in a physical education space, with treatment space in an area that was designed for storage located close to the Field House. There is no designated space for Physical Therapy. A large enough space that can accommodate physical therapy to serve student-athletes in all athletic programs, a growing Sports Medicine course, and the athletic training program can also allow us to provide an effective, proactive approach to injury prevention and assessment. The appropriate location is in or adjacent to the fitness room, and the space should include adequate storage for physical therapy and training equipment and supplies.

### **Outdoor Space**

There is currently no outdoor space designed for physical education programming for SHS students. A flexible outdoor space for wellness and physical education programming and for use by athletic teams for practice when weather conditions allow would help alleviate current field scheduling challenges and would allow us to offer additional activities and courses. The space could also serve as an additional community space when not in use for school programming.

### **Project Adventure/Rock Climbing Activities**

Existing ropes course and climbing wall at the school are out of date and not up to code, therefore we are no longer able to incorporate this vital aspect into our Lifetime Activities class. An updated ropes course and rock climbing wall would allow us to offer an Adventure to Fitness class that will provide students with cooperation skills, team-building experiences, and which would serve as another avenue to inspire students to lead a healthy lifestyle. This type of course directly influences students who might not be interested in other fitness programs currently offered, and allows us to provide a variety of options to meet the varying interests of students.

### **Technology**

We are currently piloting heart-rate monitors in two of our Fitness classes. The monitors allow us to quantify effort levels. They are a motivating factor that allows students to exercise efficiently and effectively. With Wi-Fi access in the gymnasium, we would be able to use the monitors for all activities in the gym. This would allow a student to practice a skill in a particular sport or activity and receive real time feedback in regards to how much more effort they need to exert to achieve maximum levels of fitness.

### **Adjacencies and Proximities**

Having physical education and health classrooms be adjacent to the multi-functional health lab will promote and facilitate increased use of all spaces. Additionally, having classrooms adjacent to the fitness room and gym will allow staff to provide hands on practical instruction.

***The preferred Option design reinforces the physical education program by co-locating the spaces in one contiguous level around the existing Bruno Field House that serves a wide variety of student needs in a city with limited***

***outdoor field spaces. The current arrangement of spaces has security and access issues and control challenges that are insurmountable without aggressive modifications. New locker rooms will now be directly attached to the field house and the appropriate multipurpose spaces that support a coherent lifelong learning strategy around physical health will be appropriately located and sized and visible to the school and greater community utilizing the building after hours.***

***Outdoor space in Somerville is at an extreme premium – the small space the preferred design has been able to capture on the hillside as part of a structured parking deck is critically important to support the PE program during the school day – this is an issue of equity to compete with schools across the eastern Commonwealth that do not face this undue hardship.***



Existing fields distributed across Somerville

## Special Education Programs

(In-house, collaborative, facility restrictions)

### A. Review the special education rubric included in appendix 1 and describe where existing program and spaces align with the rubric, where they do not, and potential changes to remedy in the proposed project

The Somerville High School Special Education program is multifaceted and consists of a wide range of programming and services to meet the needs of students as determined through the IEP team process. The program is implemented in inclusionary, pull out, self-contained, and community based models. Although the majority of students are supported in an inclusionary model, some students require a more intensive and specialized level of support that is best met in a substantially separate setting. All students are included as appropriate through a thoughtful process of planning and support(s).

### B. List current special education programs serving students in the proposed project including the number of special education students currently served in each program

SHS currently offers the following special education programs:

- Self-contained Life Skills program for students with severe physical and significant intellectual disabilities, serving 8-10 students up to age 22 in grades 9-12, which offers a modified curriculum with a focus on pre-vocational experience and adaptive living skills.
- A self-contained SHIP (Somerville High School Intensive Program) classroom for students in grades 9-12 with severe, often multiple disabilities and/or medical frailties. The program includes a full-time nurse and necessary medical equipment. The program has a focus on life skills, pre-vocational, and adaptive living skills.
- A self-contained Transition Life Skills program for students from 18-22 years old. The program focuses on life skills, post-secondary employment, independent living, travel training, vocational, and adaptive living skills.
- Resource Room ELA and Math program serving 10-12 students with moderate special needs in grades 9-12, who require substantially separate programs with modifications to the facility and to core content.
- Study Skills programs. Resource Rooms for students with moderate special needs in grades 9-12, serving 10-12 students. Focus on executive functioning, remediation, educational planning, and becoming independent learners.
- Team Core Academic Classes (ELA, Math, Science, History and Social Sciences). Students are team- taught by general educators and special educators within the general education setting.
- School Adjustment Counseling programs for students in grades 9-12 offers students with individual/ small group counseling, social skills/social thinking development, and crisis management support.

- Related Special Education Services include:
  - Occupational Therapy - sensory and fine motor, individual and group
  - Physical Therapy - gross motor, motor planning individual
  - Speech Therapy - speech and language therapy individual & group
  - Vision services - visual planning, tracking, orientation and mobility
  - Assistive Technology - augmentative and assistive technology

### C. List Deficiencies in the Existing Program that have been Identified Locally or Through State Review

- Lack of Special Education Department Head at SHS
- Appropriate classroom based toileting facilities for Life Skills and SHIP classrooms
- Functional daily living facilities model apartment that includes (but is not limited to) a kitchen with sink and refrigerator, washing machine and dryer, and shower
- Vocational/Job Readiness work space

### D. List Specialized Programs and Collaborative Spaces/Program Located in the Current School.

Specialized special education programs currently located at Somerville High School include the following. Program descriptions are included in section 13b above.

- Self-contained Life Skills program
- Self-contained SHIP (Somerville High School Intensive Program) program
- Self-contained Transition Life Skills program
- Study Skills programs
- School Adjustment Counseling programs

Collaborative special education spaces/programs currently located at Somerville High School include:

- Team-taught Core Academic Classes
- Life Skills Vocational Class taught by a special education teacher in collaboration with staff from the SHS CTE program
- Occupational Therapy - sensory and fine motor, individual and group
- Physical Therapy - gross motor, motor planning individual
- Speech Therapy - speech and language therapy individual & group
- Vision services - visual planning, tracking, orientation and mobility
- Assistive Technology - augmentative and assistive technology
- Cambridge Health Alliance/Teen Connection program
- Student Mediation program
- ELL Welcome Center

## E. List Proposed Programs Any Program/Service Needs that the District Hopes to Address in the Proposed Project

The following proposed programs and services will address identified deficiencies and enhance special education services to SHS students:

- SHIP Transition Program for students up to age 22 to address a 48-month age gap in current program services. The SHIP Transition Program will require a full-time nurse in a program separate office with necessary medical equipment including a large wheelchair access toilet room with a changing table that allows for adult assistance; a ceiling built lift for moving, changing, and lifting multiple physically handicapped non-ambulatory students. The program focus would be on life skills, post-secondary employment, independent living, travel training, vocational training, and adaptive living skills.
- There needs to be a dedicated space for a Transition Specialist who works to prepare SHS Special Education students for college, career (vocational), and life success. The Transition Specialist requires an office space along with a flexible space to instruct students 1:1 or in a small group format.
- Special Education Department Head office and conference room to meet with staff, parents, and other departments to work collaboratively to meet the specialized needs of students.
- A Life Skills/SHIP Apartment Model. Various special education programs require a separate space designed to provide a simulated daily living environment. The apartment should include a kitchen, living area, a large toilet room that allows for adult assistance, and a shower. This room would also be used by related service personnel when working with students in the transitional programs to help students develop and apply functional skills and increase independence within a natural environment.
- A High Functioning Autism Spectrum Disorder Resource Room/Classroom, moderate needs. The district has identified a high level of programming need for students with high-functioning autism/ spectrum disorder with an emphasis on social skill development. This program requires a classroom space with a break-out room that allows for students to engage in small group activities as appropriate with access to smaller setting spaces to access a safe zone, sensory activities and individual/small group therapies. Additionally, this program requires a small private space that can be used for individual counseling or family meetings. This program should be located in close proximity to the Sensory Room.
- An Autism classroom (nonverbal), severe needs. SPS currently has an autism program for students in grades K-8 that will be expanding programming as our middle school students move up to the high school. This program will require a classroom space with a break-out room that allows for students to engage in small group activities as appropriate with access to smaller setting spaces to access a safe zone, sensory activities and individual/small group therapies. This program should be located in close proximity to the Sensory Room.
- A Therapeutic Classroom for students with emotional anxiety, with an attached therapeutic office/workspace. SPS has identified a high level of programming need for students with significant school phobia and anxiety at the high school level. This program requires a classroom space with its own separate entrance

and a break-out room that allows for students to engage in small group activities as appropriate. Additionally, this program requires a small private space that can be used for individual counseling or family meetings.

- A Sensory Room for Occupational Therapy. This room is needed for students diagnosed with autism and/or sensory processing disorder or sensory integration disorder. Sensory processing disorder is a neurological condition in which a person responds inappropriately to sensory signals. These students require a therapeutic space for sensory which can be overwhelming and that often prevents the brain from getting and interpreting sensory information. Inappropriate reaction to bright lights, loud noises, motion, and other sensory experiences can trigger anxiety, motor problems, behavioral disturbances, and cause difficulty learning. The Sensory Room would have stations with active areas, calming areas, and various types of sensory activities. Rooms often have dim lighting, soothing colors, vestibular swings which hang from the ceiling and other sensory devices.

#### F. List programs/services that will continue

The following special education programs and services will continue. Program descriptions are included in paragraph 2.13.B above.

- Self-contained Life Skills program
- Self-contained SHIP (Somerville High School Intensive Program) program
- Self-contained Transition Life Skills program
- Study Skills programs
- School Adjustment Counseling programs
- Team-taught Core Academic Classes
- Related Special Education Services including:
  - Occupational Therapy - sensory and fine motor, individual and group
  - Physical Therapy - gross motor, motor planning individual
  - Speech Therapy - speech and language therapy individual & group
  - Vision services - visual planning, tracking, orientation and mobility
  - Assistive Technology - augmentative and assistive technology

#### G. List programs that will be eliminated

None.

#### H. List programs that will be added or enhanced as a result of the proposed project

The Next Wave and Full Circle special education day and alternative education programs will be enhanced as a result of moving over to the new Somerville High School. NW/FC students will benefit from access to additional resources and educational programs available at SHS, including CTE classes, modern language, athletic programs and additional after-hours support programs and activities.

SHIP Grades 9-12 & SHIP Transition Programs will be enhanced by the use and access to a sensory room, model apartment, and transitional specialist for transitional post-secondary planning.

All SHS Special Education programming will be enhanced by the addition of a Transition Specialist and vocational planning work area to help students with a wide

range of disabilities focus on post-secondary planning (college and career readiness, independent living and group work settings, vocational planning, transition to adult agencies), working with all collateral agencies for improved post-secondary outcomes.

The addition of the SHS Special Education Department Head will significantly improve the level of support and alignment with SPS goals for all students and increase inclusive and integrated opportunities for special education students.

The addition of the Life Skills/SHIP Apartment Model will make a significant difference in students' ability to apply skills learned in a natural setting that simulates a daily living environment. The apartment would also be used by related service personnel when working with students in the Transitional programs to help students apply functional skills and increase independence within a natural environment.

The Addition of the High Functioning Autism Spectrum Disorder Resource/Classroom will support SPS' identified need of programming for students with high functioning autism/spectrum disorder with an emphasis on social skills development.



Students are team taught by general educators and special educators within the general education setting. The addition of a special education work space near/attached to team core academic classes (ELA, Math, Science, History and Social Sciences) will offer the flexibility of grouping and allow students access to multiple modalities of instruction. This will help to minimize distraction and create a variety of teaching opportunities and environments that support student learning.

SPS currently has an autism program for students in grades K-8 diagnosed with autism that will be expanding programming as middle grades students move up to the high school. The addition of an Autism classroom for nonverbal students on the severe spectrum will help students be more successful within their community and with their typical peers.

The addition of a Therapeutic Classroom for students with emotional anxiety with a separate entrance and an attached therapeutic office/workspace will help to meet the SPS identified high level of programming need for students with significant school phobia and anxiety at the high school level.

The addition of a Sensory Room (Occupational Therapy) is needed for students diagnosed with autism and/or sensory processing disorder or sensory integration disorder and will allow students to access a therapeutic space for sensory that can be overwhelming to these students, and which prevents the brain from getting and interpreting sensory information.

Four special educators at SHS currently do not have a work space/office to share or work collaboratively. Special educators at SHS have a core area of academic focus (ELA, Math, Science, and History) and would greatly benefit from work space for collaboration with their co-teachers, for testing students, and to conduct meetings. The addition of work spaces for special educators would greatly enhance their ability to meet the needs of students with a wide range of special needs. These office spaces would serve 2 special educators in the core academic area.

Conference spaces for meetings with special education teams, teachers, parents, and outside agencies are essential for education planning and collaboration.

**I. List programs or services that will be moved from within the district (from which school they are being moved) as a result of the proposed project**

Next Wave Junior High School (grades 6-8) and Full Circle High School (grades 9-12) currently serve as Somerville's special education day and alternative education programs. Both are designed to meet the special academic, social, emotional, and behavioral needs of adolescents who, for many reasons, are unable to experience success in the traditional education settings. By combining the clinical concept of a therapeutic community with the educational concepts of individualized and specialized integrated learning experiences, Next Wave/Full Circle affects academic, social, and personal successes for very high-risk students between the ages of 12 and 21. The proposed project will move Next Wave/Full Circle to a wing or separate part of the newly designed Somerville High School.

**J. Previous coordinated review**

**I. Provide the Date of the Last Coordinated Review Program and List Any Issues and/or Problems Identified in that Review**

The most recent Coordinated Program Review was completed December-March of the 2014-2015 School Year. The following issues/problems were identified in that review:

- The need to provide Professional Development for general education around the IEP process and improve inclusion practices and meeting the needs of diverse students.
- Age Span Requirements - some programs and classrooms with more than 48-month age span.
- Determination of Placement - increase in participation of general educators in team meetings and education planning
- Team Meeting Attendance - increase in participation of general educators in team meetings and education planning
- Age of Majority - emphasis on transition planning and improved post-secondary outcomes aligned with IEP development.

## II. Provide the Current Status and/or Remedy of Those Issues Identified as Part of the Review

Work is already under way to address all areas of concern identified in the latest CPR, including professional development to strengthen understanding of IEP process and inclusion practices.

The creation of work spaces both near/attached to team classes will provide greater ability for special educators and general educators to plan for the needs of all students in inclusive settings. Concerns regarding professional development and determination of placement will be addressed through the combination of special educators and general educators working together throughout the IEP process, and will be enhanced by locating special educators' office/work spaces in proximity to related core academic teachers. The addition of a SHS Special Education Department Head will support collaborative work with general education department heads around professional development and inclusive practices, which will in turn help increase Team Meeting attendance, resulting in an improved placement process.

The development of the SHIP transition program along with new programming for students with Autism and High Functioning Autism Spectrum Disorder, and the addition of a therapeutic classroom for students with emotional anxiety will support planning for students with relation to Age Span Requirements and Determination of Placement.

The addition of the Life Skills/SHIP Apartment Model, SHIP Transition classroom, and Transition Specialist will work to meet the requirements with regards to Age of Majority with an emphasis on transition planning and improved post-secondary outcomes aligned with IEP development.

## K. List specialized programs and collaborative spaces/program that will continue, be eliminated or added as part of the proposed project

Somerville High School is committed to inclusive education and offering co-teaching opportunities in four major content areas. The existing building does not support the needs of special education co-teaching teams to be able to be flexible enough to provide individual, small group and whole class instruction in a room next to or near their general education classroom to access extra support and accommodations as needed. The addition of a special education work space in the areas of the four main core subjects (ELA, Math, Science, and History) will offer the flexibility of grouping and allow students access to multiple modalities of instruction. This will help to minimize distraction and create a variety of teaching opportunities/environments that support student learning and will help move SHS toward an inclusion model for special education students.

Currently special educators at SHS do not have a work space/office to share or work collaboratively. Special educators at SHS have a core area of academic focus (ELA, Math, Science, and History) and would benefit from workspace for collaboration with co-teachers, testing students, and for meeting with students. The addition of this space would greatly enhance their ability to meet the needs of students.

- L. List special education day school programs that the district currently provides or participates in, and whether the programs will continue in the proposed project

Next Wave Junior High School (grades 6-8) and Full Circle High School (grades 9-12) currently serve as the district's special education day and alternative education programs. Both are designed to meet the special academic, social, emotional, and behavioral needs of adolescents between the ages of 12 and 21 who, for many reasons, are unable to experience success in the traditional education settings and who require a substantially separate educational setting. Next Wave/Full Circle programs are currently housed in a separate building with very limited access to current Somerville High School resources. Next Wave/Full Circle will continue to operate as an independent educational program but will be housed in a wing or separate part of the newly designed Somerville High School so its students have an opportunity and access to the resources, programs, and supports SHS has to offer.

***The multi-faceted Special Needs programs at SHS are intended to be distributed across the entire building footprint – the preferred option is most responsive to these requirements and goals. Self-contained classroom sized spaces are grouped according to their particular needs and relationship to partner programs within the school. Students then work in small cooperative learning groups or individually and independently. Students may need to access multiple modalities of instruction during any given time period. Having the larger classroom area with smaller, direct, break-out spaces allows for the required flexibility in grouping to occur while minimizing distraction and creating a variety of teaching opportunities/environments that support the focused learning required for this population of students.***

***Classes will be taught in general classrooms. The standard size of the general classrooms combined with the smaller population size allows the required flexibility to provide individual, small group and whole class instruction with room for students to work independently. These classes may be scheduled in the self-contained classrooms or in other classroom space that allows for flexible use by multiple groups as well.***

***The Life Skills program has been provided an oversized classroom designed to provide a simulated daily living environment including a kitchen, living and learning area, a large toilet room that allows for adult assistance with a shower and changing table as well as nearby access to the outdoors. Students will also have proximity to the vocational preparation/exploration skills rooms.***

***The SHIP (Medically fragile student classroom) Program has been provided a large dedicated space designed to be flexible enough to provide small group and whole class instruction with room for students to work independently when appropriate. The room is located on the first floor of the administrative academic wing to support this population of students with the health suite and direct access to community and emergency medical assistance. A small individual toilet room is provided to support this program as well.***

***The Preferred Design reinforces the special education program by providing an even distribution of the SPED programs listed above, supporting the inclusionary***

***model that benefits the population of students with the greatest social and academic support needs while providing the required adjacencies described.***

***The Preferred Design reinforces the guidance and career counseling program by locating the suite near the Administration area at the very front of the school but accessible to students from the academic wings of the school. The interconnection between Guidance, Administration, Nurses the Health Alliance program and the SPED and Parent Information Center offices is critical to the student support mission of the district. The guidance and career center has been provided and designed to be open and welcoming to students without requiring students to pass through the Administrative suite. Satellite House Suites are designed for housemaster and Guidance Counselor collaboration and support in close proximity to students***

## Vocations and Technology Programs

### A. Current offerings

(Separately list Chapter 74 programming and non-Chapter 74 programming)

Current Career and Technical Education program offerings at Somerville High School include the following, with current enrollment noted in parenthesis.

Chapter 74 Programs:

- Advanced Manufacturing (10)
- Automotive (41)
- Architectural Design/Drafting (14)
- Carpentry – (31)
- Cosmetology – (39)
- Culinary Arts – (41)
- Dental Assisting – (13)
- Early Education and Care – (22)
- Electrical – (35)
- Graphic Design and Visual Communications – (24)
- Health Careers – (34)
- Information Support Services and Networking – (25)
- Metal Fabrication/Welding – (30)
- Non-Chapter 74 Programs:
- Business – (140)
- Exploratory, Grade 9 (186)

### B. Non-Chapter 74 Programming Vocational / Technical / Enrichment / STEM Programming

#### I. Describe Program (Design, Robotics, Maker Spaces, etc.), Activities, and how it is Coordinated with Other Curriculum as Applicable.

The following non-Chapter 74 programs are offered at the SHS Center for Career and Technical Education and are available to all Somerville High School students. Students can access these programs through the Guidance Department, or through the Program of Studies under the CTE Exploratory program.

- Career Center -- used six blocks per day, five days per week by all CTE students assigned
- OSHA-10 -- Every SHS CTE student becomes either OSHA 30 or OSHA 10 certified. This is an industry credential.
- Career-talent interest assessment -- Completed throughout the CTE students' lessons, with most of the assessment conducted during the exploratory process.
- Academic integration with Math and English Departments
- Resume writing support that assists students in gaining the necessary communication skills in every program
- College applications/preparation support
- Business: Entrepreneurship, personal finance, softs-skills, framework (140 students per week)

These non-chapter 74 programs and services address the following program strands:

- 4: Employability and Career Readiness Knowledge and Skills
- 5: Management and Entrepreneurship Knowledge and Skills
- 6: Technological Knowledge and Skills

## II. How Curriculum is Delivered, Number of Periods per Academic Cycle, and Number of Students Participating in Program

Curriculum delivery:

- Grade 9: 4-blocks per week
- Related theory: (classroom instruction)
- Grade 10: 1-block per week
- Grade 11: 2-blocks per week
- Grade 12: 3-blocks per week

Lab/Practical shop time:

- Grade 10: 3-blocks per week
- Grade 11: 6-blocks per week
- Grade 12: 9-blocks per week

Center for Career and Technical Education (CTE) afterschool use:

- CTE-Safety committee – 30 students
- CTE-SKILLS USA – 30 students
- Culinary: Future chef's – 15 students

The number of students currently participating in each program is noted above under the "Current Offerings" (paragraph 2.14.A)

## III. Proposed Changes and Why, or Statement that No Changes are Proposed

### Chapter 74 Programs

Through research in employment trends and local data from the Regional Employment Board, the following four programs would be proposed to be added to

the currently existing menu of CTE programs once the new building is online to continue providing students with skills and expertise in growing industries.

- Barbering
- Plumbing
- HVAC
- Medical Occupations

#### IV. Describe General Program Requirements Including Equipment, Practices, Safety Measures, Training, Partnerships and Support.

All 13 Chapter 74 approved programs have a complete list of equipment. Each of the 13 programs follows the Massachusetts State Frameworks in strands 1-6. Students must pass safety strand 1 and follow a program specific safety plan before proceeding to strands 2-6.

<b>CTE – Program Area</b>	<b>Certifications</b>	<b>Articulation Agreements</b>	<b>Partnerships</b>
<i>Automotive Technology Chapter 74 approved</i>	<i>ASE-Student, OSHA-10, Chapter 74</i>	<i>Universal Technical Institute, Ben Franklin Institute, Massachusetts Bay Community Colleges, New England Tech</i>	<i>Somerville DPW, Herb Chambers Motors, Valvoline</i>
<i>Carpentry Chapter 74 approved</i>	<i>OSHA-30, Chapter 74</i>	<i>Local 55 Apprenticeship Union, Local 22 Laborers Union, Massachusetts Bay Community Colleges, Bennett Street School, New England Tech</i>	<i>Assembly Row, Block 6, Somerville Housing Authority, Boston Closet</i>
<i>Culinary Arts Chapter 74 approved</i>	<i>Osha-10, serve- safe, Chapter 74</i>	<i>Massachusetts Bay Community Colleges, Johnson &amp;Wales, New England Tech</i>	<i>Future Chef’s, Tufts University, Many local restaurants</i>
<i>Dental Assisting Chapter 74 approved</i>	<i>Dental Assisting Association, OSHA- 10, Infection Control, Chapter 74</i>	<i>Middlesex Community College</i>	<i>Tufts University, several local dentist offices</i>
<i>Early Education and Care Chapter 74 approved</i>	<i>OSHA -10, Mass EEC, Chapter 74</i>	<i>Massachusetts Bay Community Colleges, New England Tech</i>	<i>City of Somerville Public schools, k-8, Somerville YMCA</i>
<i>Electrical Chapter 74 approved</i>	<i>Osha-30, Chapter 74</i>	<i>Wentworth Tech, New England Tech, Ben Franklin Tech</i>	<i>Local 103, Gibbons Electric, Costas Hatzis Electric</i>

<b>CTE – Program Area</b>	<b>Certifications</b>	<b>Articulation Agreements</b>	<b>Partnerships</b>
<i>Graphic Design and Visual Communications</i>  <i>Chapter 74 approved</i>	<i>OSHA-10, Adobe, Chapter 74</i>	<i>Massachusetts Bay Community Colleges, Suffolk University, New England Tech, Ben Franklin Tech</i>	<i>City of Somerville,</i>
<i>Health Careers</i>  <i>Chapter 74 approved</i>	<i>CPR, First Aid,</i>	<i>Bunker Hill Community College, New England Tech,</i>	<i>Courtyard Nursing, Strongwater Farm, STAND-Students Taking Action On Nursing Diversity</i>
<i>Information Support Services and Networking ISSN</i>  <i>Chapter 74 approved</i>	<i>CISCO – Academy, OSHA-10, Chapter 74</i>	<i>Massachusetts Bay Community Colleges, New England Tech,</i>	<i>City of Somerville,</i>
<i>Machine Technology</i>  <i>Chapter 74 approved</i>	<i>MAC-WIC, OSHA10, Chapter 74,</i>	<i>Massachusetts Bay Community Colleges, New England Tech, Ben Franklin Tech</i>	<i>Gillette, Greentown Labs, Dale Engineering, Lytron Inc,</i>
<i>Metal Fabrication and Welding</i>	<i>OSHA-10, Chapter 74</i>	<i>Local 7, Local 17, Local 22, New England Tech, Ben Franklin Tech</i>	<i>Local 7, Assembly Row</i>
<i>Architectural Design/Drafting</i>  <i>Chapter 74 approved</i>	<i>OSHA-10, CAD, Solidworks</i>	<i>New England Tech, Ben Franklin Tech, Massachusetts Bay Community Colleges, Wentworth Tech</i>	<i>Gale Associates</i>
<i>Cosmetology</i>  <i>Chapter 74 approved</i>	<i>OSHA-10, Massachusetts State Cosmetology License, Chapter 74</i>	<i>Massachusetts Bay Community Colleges</i>	<i>Christina’s, Michael’s on Newbury, Supercuts, Sportclips</i>

Additional program-specific requirements include the following:

- Health Careers - Grade 12 - Required for the Certified Nursing Assistant CNA license
  - Internships with Courtyard Nursing in Medford on Monday and Thursdays for 3-blocks
  - City of Somerville, working with school nurses on Fridays, 3-blocks

- Early Education and Care - Grade 12 - Required for EEC credential license
  - Internship with City of Somerville elementary schools, 9-blocks per week
- Dental Assisting - Grade 12 - Required for Dental chair and XRAY licenses
  - Internship at Tufts University School of Dentistry in Boston on Fridays, 3-blocks
  - Internship with local dentist one day per week, 3-blocks
- Co-operative education: Several programs, averaging around 10 students



## C. Chapter 74 Programming

### I. Existing Programming, Current Enrollment, and Capacity per Program

An aggressive five-year recruiting plan is in effect and has produced positive results in increased enrollment in various CTE programs. An annual Career and Technology Fair with authentic interaction has resulted in, and continues to produce increasing enrollment in CTE programs.

During Exploratory, Somerville High School students explore all 13 CTE areas and spend one block of each cycle being assessed for talent and interest. Students follow a specific exploratory outline that includes safety, talent and interest assessment, hands-on competencies, career opportunities, and reflective writing and shadowing. Each student explores for four blocks per week, from September to June, for a total of 144 hours.

A scope and sequence plan is designed for all 13 CTE programs. Each program varies, but the basic requirements for a chapter 74 certificate include passing all 3 years of 75% or better in 80% of the priority 1, 2 and 3 competencies in strands 1-6, OSHA-10 certification, completion of the business course, and secondary certification where applicable.

- Advanced Manufacturing (current enrollment 10; capacity 40)
- Automotive (current enrollment 41; capacity 60)
- Architectural Design/Drafting (current enrollment 14; capacity 40)
- Carpentry – (current enrollment 39; capacity 60)
- Cosmetology – (current enrollment 31; capacity 50)
- Culinary Arts – (current enrollment 41; capacity 60)
- Dental Assisting – (current enrollment 13; capacity 60)
- Early Education and Care – (current enrollment 22; capacity 40)
- Electrical – (current enrollment 35; capacity 50)
- Graphic Design and Visual Communications – (current enrollment 24; capacity 50)
- Health Careers – (current enrollment 34; capacity 50)
- Information Support Services and Networking – (current enrollment 25; capacity 40)
- Metal Fabrication/Welding – (current enrollment 30; capacity 50) – need additional teacher for capacity
- Exploratory, grade 9: (current enrollment 186; capacity 250)

### II. If the District is maintaining the Same Curriculum and Offerings a Statement Confirming the District’s Intentions.

Somerville High School will maintain its existing 13 programs with curriculum aligned with the Massachusetts State Frameworks. The SHS Center for Career and Technical Education has also proposed the addition of four new CTE programs when the new building comes online.

For further documentation associated with the existing and proposed Chapter 74 programs, refer to the attached Chapter 74 Programming Submission located at the end of this Section.

### III. Schedule of Implementation for the Proposed Programming Regarding Staffing, Curriculum Development and Project Program Enrollment from Start to Full Implementation.

The schedule of implementation for the proposed programming is currently in development and will be submitted as a supplement to the PDP submission.

***The Chapter 74 vocational curriculum is a driving and sustaining force in the SHS culture- the opportunity to strengthen its cross curricular benefits and enhance the educational opportunities for all students in the school is a prime benefit of the preferred option as submitted. Many programs will now be connected to academic based and college track course of studies where inter-disciplinary operations can be more seamlessly enabled. The final distribution and layout of the spaces will be detailed in the schematic design phase.***

## D. Narrative Description of the Types of Educational Activities Intended For Core Academic Spaces over the Course of a Typical School Day

(Narrative description of core academic educational activities intended inside the general classrooms include how the activities support delivery of the educational program)

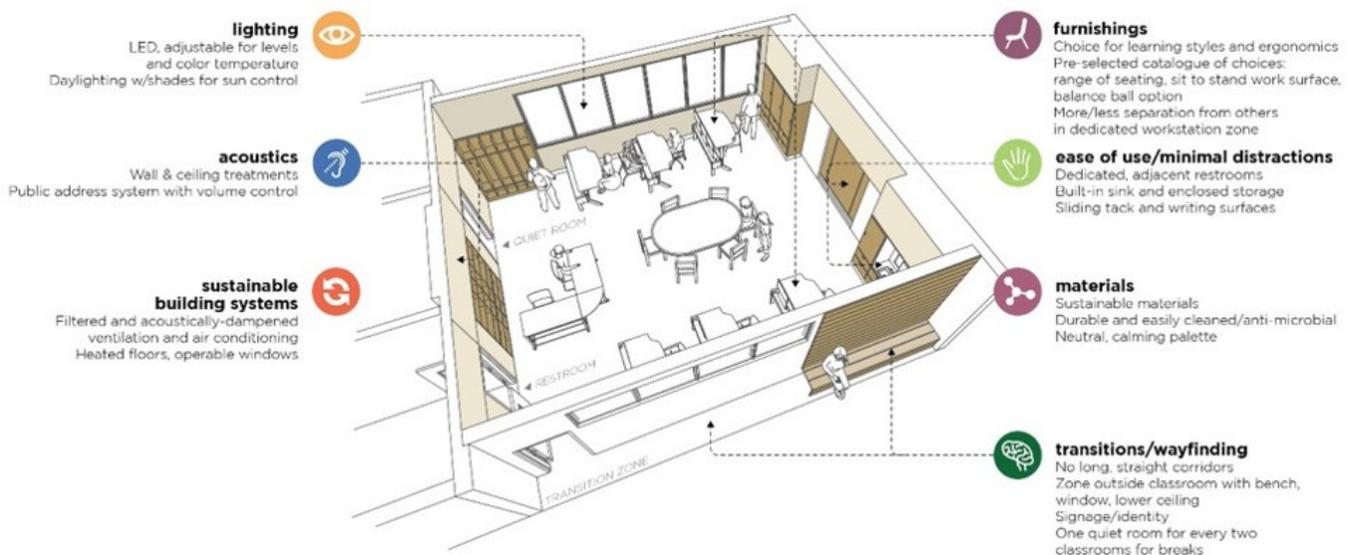
The SHS academic curriculum will help students master core academic content as well as develop important 21st century skills including creative and critical thinking, communication, technology and media literacy, collaboration, and leadership. In order to help students develop engagement with their community, opportunities for authentic, relevant, real-world learning experiences should be woven into all core classes. Building a strong community within each classroom will allow students and teachers to consistently collaborate, take risks, and make connections to the real world. Thus, it is important that classrooms are warm, bright, and inviting, instead of impersonal and institutional.

Lessons delivered in classrooms will be student-centered and engage students in tasks that involve collaboration, problem solving, and application of knowledge. As a result, instructional practices will change frequently throughout class. At the start of class, a teacher may demonstrate a concept or skill by using direct instruction or flip the experience by using an online, blended model. During this time, the teacher or projection is the focus of the lesson and the configuration of the class reflects that. Then, the teacher differentiates and personalizes learning by splitting the class into pairs and/or small groups. The furniture shifts quickly. Students collaborate and they explore the task by sitting in small groups with their peers. Other students stand and move around to write on paper or boards located on the walls, some students utilize technology, and other students move into centers or zones and explore personalized learning stations. Once again, the furniture shifts. The students continue to collaborate, take initiative, and dig deep into their learning. At the end of class, the teacher brings the class back together for a whole class

debrief and the space shifts once again. Flexibility and adaptability within the classroom are key, and ample space is needed in the room to allow for multiple configurations throughout a lesson and the course of the day.

The SHS curriculum contains a variety of assessments that require students to showcase their learning, growth, and mastery. The end of the unit assessments are relevant, robust and complex and vary by student readiness, interests, and learning style. Students write papers and reports, perform scenes and skits in class, participate in debates and simulations, create projects, and present orally or by using multimedia in front of their peers. Additionally, in math and science, students work collaboratively to conduct experiments, use manipulatives to explain abstract concepts, create projects, solve problems, and complete activities using technology including graphing calculators, computers, iPads, and lab probeware. In order for students to participate in authentic learning experiences and project based assessments, classrooms need longer tables and standing-height tables so that students can work on inventive, real world projects and products. Once again, flexibility, mobility, and adaptability of a space for all disciplines is essential to practice and hone 21st century skills and learning.

In all classrooms, technology must be integral to teaching and learning. Access to technology throughout class is crucial and there should not be access barriers for either students or teachers. The ability to store and charge devices in every classroom plays an essential role in the seamless integration of technology.



Classroom furniture needs to be adaptable, flexible, and mobile. The furniture should include student desks that can move easily and configure into multiple groupings that will allow for scaffolding and differentiated instruction. When differentiating, the teacher will work one-on-one with a student or with a small group while the other groups are engaged and applying their knowledge. Ample space to work independently without disruption from other groups is essential for students. In order to accommodate group work, centers/zones, projects, individualized instruction and small group re-teaching, the room should be large

enough so that students and teachers are not in close proximity. Classrooms need to be large enough to accommodate flexible grouping for large classes.

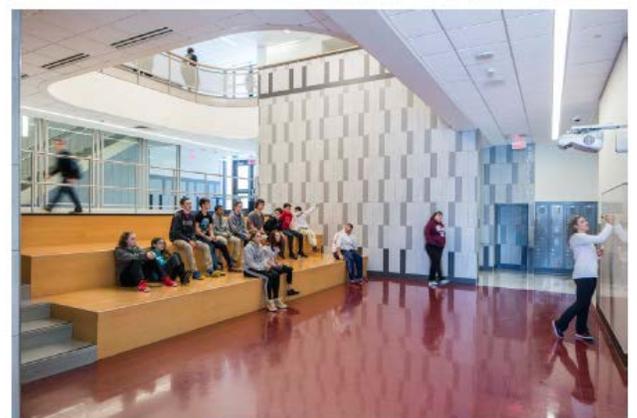
Currently, many teachers have limited space in the classroom and do not have multiple areas to collect and anchor ideas in their rooms on whiteboards, large post-its, etc. When teachers and students are collaborating or presenting their work, multiple large writing spaces on the wall are needed. Especially if classrooms are going to be shared by multiple teachers, there needs to be ample wall space so that student thinking such as anchor charts can be displayed throughout units and ample storage space including multiple teacher desks to accommodate the needs of at least two teachers. This is in addition to a central location where work is projected from a computer or device.

### E. Narrative description of core academic educational activities intended outside of the general classrooms including outdoor learning area

(Include Spaces Needed to Support that Activity, how the Activities Support Delivery of the Educational Program, how the Spaces would be Used by Students and Scheduled and Monitored by Staff, and Desired Spatial Relationships and Adjacencies.)

In an ideal educational environment, learning should be happening in all areas of the school building, not just inside the four walls of a classroom. All building spaces should be utilized as learning environments, including presentation/lecture halls, the auditorium, hallways, common spaces, the cafeteria, and outdoor spaces.

Teachers consistently collaborate and want to combine classes to teach and support their students. In order to do so, a space that accommodates at least two classes (40 or more students) is necessary. A larger space (100 or more students) is also needed to accommodate student presentations, exhibitions, performances, and guest speakers. Because of our desire for students to connect the curriculum to the real world, we frequently bring in guest speakers; we have brought in multiple speakers to one event and have had students choose which speaker they would like to hear. These types of events are powerful, but require multiple medium to large spaces that can comfortably accommodate 150-200 students. In addition, a formal presentation space will be used for authentic assessment experiences in which students could make presentations and defend their work to larger groups and members of the community. Multiple spaces that can accommodate medium to large groups would allow us to expand our connection to the community.



Hallways and common spaces throughout the school can become places to inspire learning and creativity. Exhibition spaces in the hallways are necessary to showcase student work and 2-D and 3-D projects and common spaces can be utilized for collaborative work both during and outside of class time. Students who would like a small nook or “quiet” space to reflect on their own learning or complete a self-directed learning task should be able to find multiple spaces to do so throughout the building. Sufficient transparency should be provided to allow for views in and out of classrooms so that teachers can monitor students as they work independently and in small groups when outside of, but in close proximity of classrooms. Blinds can be provided to block these views when desired.

The Somerville High School cafeteria should be a place where students can not only enjoy a nutritious meal and re-energize for the day, but also a place where students can comfortably connect and interact in a space that inspires community-building and continuous learning. Students may choose to continue working on their studies in an Internet café-style environment, or sit with a peer group to work collaboratively on a project during a “working lunch.” Ideally, the design/layout of the space would be more like college-style dining with multiple seating and environment options.

Currently, we have very little outdoor spaces for students. Outdoor spaces could be used for multiple functions including biological and environmental studies and data collection, physical education and athletic teams, and as a common space for classes or student groups to meet throughout the school day.

Desired site adjacencies to consider include locating spaces utilized for external out-of-school-time programming -- such as the gymnasium, auditorium, and cafeteria -- together to limit access only to those areas during non-school hours and to facilitate non-school related usage, security, and scheduling.

## Transportation Policies

### A. Current services and practices

Students generally walk, take public transportation, or are driven to and from school. Transportation to and from the high school is provided by the district only to students in homeless situations who are living outside the district and to special education students who have transportation services required in their Individual Educational Plan.

Transportation services for homeless students is provided by small van or cab, and arranged by the District Homeless Liaison. The number of homeless students attending Somerville High School varies throughout the year. Large yellow school buses are chartered for athletic events and field trips throughout the year. In addition, the school department owns two activity buses and several vans that are parked at the high school and are used for day or evening events.

### B. Proposed changes and why, or statement that no changes are proposed

While no changes to the current transportation policies are proposed, it's important to note that the proposed Green Line extension will have some impact particularly

on foot traffic in the area. The Green Line extension does include plans for a station at Gilman Square that would likely result in increased foot traffic coming up the hill from Medford Street, an important consideration in foot and auto traffic flow design around the building.

## Functional and Spatial Relationships

### A. List and describe desired educational adjacencies and why

The new building should be designed in such a way that the designation of most academic classrooms, offices, and other spaces can be changed over time to accommodate important programmatic changes that may be needed, and to ensure the most efficient utilization of learning spaces. That being said, there are some programs with specific needs and requirements that may be more locked into a specific location once the building layout is created. This includes science and engineering labs/workshops, art rooms, and Career and Technical Education (CTE) spaces.

In terms of proximity and adjacencies, we would like to see greater integration of the science, math, and CTE departments, perhaps forming a STEM suite or wing within the building. Additional consideration should be given to the possibility of incorporating Arts into this complement of educational adjacencies to support STEAM programming. The biology and life-science based classes could benefit from being able to work more closely with Health Careers and Health and Physical Education programming, the chemistry classes could benefit from being able to work more closely with Culinary Arts, and the physics and engineering classes would benefit from being able to work more closely with Pre-Engineering/CAD, Machine Shop, and Metal Fabrication. Additionally, there could be great collaboration between math and science teachers if the classroom spaces were situated closer to one another. For example, natural partnerships include AP Physics with AP Calculus and AP Biology with AP Statistics. Being able to form meaningful interdisciplinary relationships is not only impacted by the physical space and proximity but also by the schedule and administrative support for teacher collaboration.

To further the integration, another potential use of taking advantage of the proximity and adjacencies could be the creation of a Humanities or Creativity Wing where English Language Arts, World Languages, Social Studies could collaborate with Culinary Arts, Graphic Communications and Visual Design, Music and Arts. Interdisciplinary projects and opportunities for hands on learning would flourish in these non-traditionally linked areas.

Our current building is organized by a single excessively long corridor which results in a remarkable amount of time to get from one end of the building to the other. We hope that the layout of the new building will allow for more proximities by utilizing a configuration other than a straight line. This new organization will foster closer academic relationships via commonalities, themes and connectedness.



## B. List and describe desired site adjacencies and why

Desired site adjacencies to consider include locating spaces utilized for external out-of-school-time programming -- such as the gymnasium, auditorium, and cafeteria -- together to limit access only to those areas during non-school hours and to facilitate non-school related usage, security, and scheduling. Common areas should allow for independent and separate access by the two distinct educational programs that will be housed at the high school – the Next Wave/Full Circle special education/alternative education programs serving students in grades 6-12, and the existing SHS comprehensive program for students in grades 9-12 – to facilitate transitions by both programs during the school day and to provide equitable access opportunities.

Locating the Student Support Suite close to the Nurses' station will further assist in providing students with all the wraparound services they need. These facilities should be located on the main floor for easy access by all students as well as emergency medical personnel.

As noted under desired educational adjacencies, interdisciplinary and project learning opportunities can be greatly enhanced through site adjacencies of academic and CTE programs that support STEM or STEAM programming, or potential Humanities programming.

Additional desired site adjacencies include locating physical education and health classrooms adjacent to the multi-functional health lab, which will promote and facilitate increased use of all physical education/health spaces. In addition, having classrooms adjacent to the fitness room and gym will allow staff to provide hands on practical instruction. The design would also need to allow for the ability to section off the fitness room and gymnasium for weekend use during after-school hours and weekend hours.

***The Preferred Design allows for all Physical Education spaces to be connected together on one contiguous floor for safety and security and ease of program support both during the school day and for Athletic programs and community use/access afterhours.***

## Security and Visual Access Requirements

***The Preferred Design reinforces the security and visual access established by the Educational Program by creating a clear front door to the building off Highland Avenue distinct from the adjacent City Hall and Library. This secure single point of entry is immediately adjacent to administration and will have greater visibility than the existing building. Emergency exit doors will include door contacts to monitor security. The layout provides greater opportunity for securing sections of the building after hours while the greater community is accessing the public spaces such as the auditorium and commons. A priority for the administration, the internal flow through the school is organized to remove dead-end and long corridors through a vertically stacked program with adult supervision on all levels and to minimize life safety and security concerns.***

**A. Describe the local process for the collaboration, coordination, and review required to update emergency response plans for the proposed school and to establish physical and operational requirements regarding security and access for the proposed project**

The process for coordinating, reviewing and updating SHS emergency response plans and to establish physical and operational requirements regarding security and access involves working collaboratively throughout the year with the following City and community partner agencies:

- Somerville Police Department (SPD): Superior Officers, Emergency Preparedness Consultant & Cyber Forensics
- Somerville Fire Department (SFD)
- Be Safe Consultants
- Somerville Health & Human Services
- Riverside Health
- Cambridge Health Alliance

Our District Emergency Response Plan (Manual) is reviewed annually by SPD and SFD assigned Superior Officers. The process also includes multiple district reviews by SPD, SFD, and Somerville Public Schools (SPS), coordinated by the district's Student Services Department.

SPS will work with the building project Safety Consultant throughout the project, and will consult with both SPD and SFD via a security analysis in regards to camera surveillance, and security entrances and exits to establish physical and operational requirements for the proposed project. SPD, SFD and the City's Department of Public Works responsible for building maintenance meet as needed to assess building safety concerns.

**B. Indicate the date of the most recent medical emergency response plan that was submitted to these**

The Somerville High School Medical Emergency Response Plan was submitted 1/2016.

**C. Describe the physical and operational requirements**

(e.g. main entrance design and how it is to function/be managed, classroom and hardware features, visibility, alternative entries, surveillance and lines of sight etc.)

With respect to physical and operational requirements, the new Somerville High School design must address both the educational mission of the school as well as the safety and security needs for an intensively –used, public building situated in a very dense urban environment.

Regarding interior security, best practice in design to make visible and easily monitored spaces, including the strategic use of glass walls, is desired. Student

meeting spaces, sited adjacent to staffed office space, is one example of this approach.

Exterior considerations and the perimeter of the building must consider the urban environment of Somerville. Entry doorways should be kept to a minimum. The main entry space should allow for good sight lines and supervision from the Main Office or some similar space that is staffed throughout the day. Video monitoring is also needed, to be accessed by appropriate staff inside. Physical obstructions should be avoided in areas adjacent to the school perimeter in order to provide best monitoring.

Additional physical and operation requirements include:

- Bus and car drop-off areas with safe pedestrian walkways and minimal crossings on-site. Emergency vehicle access must be considered. Consideration should be given to access to public transportation access (bus and/or light rail).
- State of the art access control utilizing a security access fob device by authorized staff.
- Safe pathways for pedestrians and bicyclists coming from multiple directions. Bicycle parking adjacent to school's main entrance.
- Safe staff and visitor parking (visible, lighted and monitored)
- Safe access for kitchen, facility and shipping / receiving separate from school traffic to the main entrance.
- Safe and appropriate access to the perimeter of the building and to adjacent buildings and other public spaces near the High School.
- Separate external building entrance for Next Wave/Full Circle that contains the same security/access features as the school's primary main entrance.
- Separate external building entrance proposed for therapeutic classroom

## Next Wave & Full Circle Programs

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*The preferred design provides a viable and equitable environment for the 42 year old Next Wave Junior High School & Full Circle High School, two "Substantially Separate/Alternative" School programs in a therapeutic setting for students whose academic experience is not capable of being fulfilled in a large "standard" school environment. First conceived as an isolated program wherever space was available in the city and serving students from 6th grade through graduation this program benefits from its separation and individualized approach to learning for each student's IEP. The successful program also best serves students when they can utilize appropriate physical and service aspects of the larger high school environment such as PE, athletic teams, and vocational training. Currently students are transported to the high school over a mile away to achieve this equitable access to 21st Century academic and career training. The new space will provide a separate environment with its own controlled access points, classrooms, student support services and dining and toilet facilities. Some students are on flexible schedules to support their individual academic and social needs.*

*The Next Wave 6th through 8th grade students generally are "aging" out of traditional middle school environments and need to associate with their older peers in the high school grade levels – peer mentoring and long term relationships with adults is also a critical component of maintaining a 6 to 12 grade structure as currently defined.*

## Chapter 74 Programming

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*The Chapter 74 programming submission that was included at the conclusion of the PDP Educational Program remains in effect. Updates to the submission include:*

- *On Monday April 11, 2016 the School Committee met to approve the continuation of the existing Chapter 74 programs and the addition of four new Chapter 74 program offerings. The certified School Committee meeting minutes indicating the unanimous vote of support is attached at the end of this Section for reference.*
- *On Wednesday June 1, 2016, members of the educational leadership team from Somerville Public Schools met with DESE to review the proposed Chapter 74 programming for Somerville High School. The outcome of this discussion will be immediately forthcoming for review.*
- *The deficiencies noted in the PDP submission for the existing Chapter 74 spaces will be addressed as part of the design of Alternative 4B. In the preferred solution, almost 75% of the school will be built as new*

***addition construction, providing the opportunity to build new shop and support spaces that are tailored to each program's needs and associated DESE requirements. For those Chapter 74 spaces that are proposed in renovated space below the gymnasium and the auditorium, interior space will be completely reconfigured on par with new construction. Existing systems will be replaced to support modern programming, and compromised access issues will be addressed.***

### 4.3 Preferred Solution Space Summary

The Space Summary for the Preferred Alternative 4B is an updated version of the addition/ renovation summary previously submitted in the PDP. This revised Space Summary was developed as a result of ongoing discussions between the District, DESE, the SBC and the Office of the Mayor. The goal was to capture all of the program space required to meet the educational vision and planning conducted over the course of the last year. The district is committed to delivering high quality educational spaces for all of the programs listed in the Space Summary – however the costs associated with constructing such a large school in today's economic climate and with input from the budgeting office of the City the SBC and the district have committed to reduce the building footprint and gross building area during SD phase of design, the goal will be to maintain all programs but seek out shared or slightly smaller resources where possible. The attached Space Summary for the Alternative 4B represents slightly higher than 1.5 Net to Gross multiplier due to four factors: Existing building inefficiencies, high rise construction required due to severely restricted space constraints, hillside construction and sloped site stepped foundations and buildings, and building around existing structures in multiple phases of construction.

Responses to the MSBA PDP review are attached in Section 1.6

The Preferred Alternative 4B as attached was approved by the Building Committee on May 23<sup>rd</sup>, 2016 and reaffirmed on May 26<sup>th</sup>, 2016 with the exception of a vote to reduce the overall NSF by 15,000 square feet during schematic design. And to strive to meet a minimum 1.55 Net to Gross multiplier given all of the site constraints. A summary of the changes between the 4B options from PDP to PSR are outlined below.

### 4.4 Variations from PDP initial space summary MSBA review comments

#### Core Academic Spaces:

**General Classrooms:** Although the MSBA guidelines suggest 45 General Classrooms, a re-review of the curriculum needs suggests that 42 of those will be under the category of General Classrooms while an additional 3 will be under the category of ESL Classrooms, in turn totaling the 45 that the MSBA suggests.

#### Vocations and Technology

**Culinary Arts:** Reduce number of rooms from 2 to 1 whilst maintaining the 6,250 SF – the culinary curriculum is currently taught in one 6,076 SF space and can continue to be achieved in a 6,250 SF room.

**Early Education and Care:** Increase area from 1,500 SF to 3,300 SF (+1800 SF) – This important Chapter 74 career education program requires the adjacency of an active daycare classroom for 2.5 to 4 year-olds to meet its mission and objectives of its curriculum.

**Electricity:** Reduce area from 4,540 SF to 4,500 SF (-40 SF) – Where possible the district is committed to simplification of the net areas to allow for cost control and program fulfillment across all disciplines – this is a minor adjustment and additional adjustments are planned in SD.

## Health & Physical Education

**Athletic Director's Office:** Reduce area from 300 SF to 150 SF (-150 SF) – Now meeting the MSBA suggested total.

## Dining & Food Service

**Staff Lunch Room:** Reduce area from 648 SF to 600 SF (-48 SF) – Where possible the district is committed to simplification of the net areas to allow for cost control.

## Administration & Guidance

**General Office / Waiting Room / Guidance:** Reduce area from 1,000 SF to 700 SF (-300 SF) – Where possible the district is committed to simplification of the net areas to allow for cost control.

**Records Room:** Increase area from 168 SF to 200 SF (+32 SF) – Now meeting the MSBA suggested total.

**Principal's Office with Conference Area:** Increase area from 262 SF to 375 SF (+113 SF) – Now meeting the MSBA suggested total.

**Supervisory / Spare Office:** Reduce area from 1,300 SF to 800 SF (-500 SF) – Where possible the district is committed to simplification of the net areas to allow for cost control.

**Guidance Office with HM Suite – (TBD)** Increase area from 0 SF to 300 SF (+300 SF) – Where possible the district is committed to simplification of the net areas to allow for cost control.

**Guidance Waiting Room:** Reduce area from 527 SF to 100 SF (-427 SF) – Now meeting the MSBA suggested total.

**Guidance Storeroom:** Increase area from 35 SF to 100 SF (+65 SF) – Now meeting the MSBA suggested total.

**Mediation office:** Reduce area from 222 SF to 200 SF (-22 SF) – An important and successful peer to peer program at SHS – this is space that is currently existing at the high school and is required to maintain the program.

**Welcome Center (ELL):** Increase area from 1,146 SF to 1,200 SF (+54 SF) – Somerville is a City of many first time immigrant families with over a dozen languages spoken within the school community. The Welcome Center is critical to the mission of meeting all of the citizens of Somerville’s access and equity needs for their children.

## Custodial and Maintenance

**Receiving and General Supply:** Reduce area from 529 SF to 500 SF (-29 SF) – Now meeting the MSBA suggested total.

**Storeroom:** Reduce area from 858 SF to 800 SF (-58 SF) – Now meeting the MSBA suggested total.

**Network/ Telecom Room:** Reduce area from 500 SF to 200 SF (-300 SF) – Now meeting the MSBA suggested total.

## Other

**School Store:** Reduce area from 400 SF to 300 SF (-100 SF) – An important and successful student business and career tech program at SHS. This is half the size of the current space in the existing high school.

**PTO Storage:** Reduce area from 100 SF to 0 SF (-100 SF) – This room will no longer be incorporated in the “Other” section but will be accounted for in the overall grossing factor, as noted in the MSBA comments.

## Total Building Gross Floor Area

Alternative 4B total gross floor area is 402,664 square feet and has been revised in the Space Summary (4.11 Attachments) for MSBA review.

## 4.5 Sustainability Documents

The Somerville High School will be designed and constructed in accordance with the principles and criteria of the LEED V4.0 for BD+C: New Construction and Major Renovations – Schools, published by the U.S. Green Building Council. The project will strive to meet the threshold of 50-59 points, equivalent to a Silver rating.

A preliminary LEED scorecard is attached at the end of this section. This scorecard identifies the project design criteria and associated credits which are under consideration for this project.

Specifications will include instructions to Contractor regarding waste management and waste diversion goals (95%), material procurement goals, and construction indoor air quality goals.

This is an acknowledgement that the Somerville School District has identified a goal of 2% additional reimbursement from the MSBA High Efficiency Green School Program. As their Designer, we have submitted a completed LEED Scorecard showing all prerequisites and 58 attempted points, which will meet that goal.

The scope of work for this project will include the construction elements and performance tasks to achieve that goal, and all subsequent documents, including but not limited to,

specifications, drawings, cost estimates will match the scope of work indicated in the submitted scorecard.

## Greater Energy Efficiency

The School Building Committee has identified a goal of attempting to provide a higher level of energy efficiency for the project than what would already be achieved as part of the LEED Silver goal. This additional energy efficiency would both reduce long-term operating costs for the City and reduce the carbon footprint of the project by targeting renewable technologies and systems that are electrically operated. Electrically operated systems provide the City the option of procuring energy for the high school from off-site clean sources, a further strategy to reduce the carbon emissions of the project.

The specific strategies to be used to achieve higher levels of energy efficiency have not been decided during this phase of the feasibility study. Rather, a budgetary allowance has been established that will allow for the implementation of several of the strategies noted in the table below. Specific strategies will be reviewed as part of the Green Design Charrette that is scheduled to take place during the Schematic Design phase of the project.

Item	Cost	Benefit	Pro	Con	Other Notes
Solar Photovoltaics  Could be Roof Mounted, ground mounted, or building integrated	\$\$\$	★★★★★	Reliable, long warranty life, measurable impact	Need to allocate some are in the electric room for equipment.	Would depend on installation method, available incentives, and S-Recs market for what payback timetable would look like
Solar Thermal / a.k.a. Solar Hot Water	\$\$\$	★★★★	When properly utilized, can be the fastest payback solar technology	Installation technique is extremely important, and if done improperly will lead to system failure	Roof install points would take away from roof-mounted Solar PV. Heat is harvested mostly during the summer months, when the school is least used. When combined with low hot water use at a typical school facility, money invested may be best spent for PV.
Ground Source Heat Exchange	\$\$\$\$	★★★★	Electric-based, eco-friendly option for bldg. heating and cooling	Expensive system with long payback lifetime. Soil conditions often introduce constraints and limitations.	Needs to be vetted if even viable given site conditions
High Performance Building Enclosure	\$\$	★★★★★	Cost of upgrade relative to code requirements and appropriate level for our climate can make attractive option. May also benefit the HVAC systems selection and planning, resulting in a potential cost reduction	Must be mindful of the threshold beyond which payback dramatically decreases.	May require additional analysis to ensure no potential condensation issues. This measure will be considered as part of utility incentives programs.

Item	Cost	Benefit	Pro	Con	Other Notes
Operable Windows and Passive Natural Ventilation Capabilities	\$	★★★★	Inexpensive strategy to provide fresh air and reduce load demand	Limited time of year where applicable, and requires user interaction, difficult to predict functional performance and energy savings in practice for advanced passive ventilation strategies	Increased fresh air in buildings shown to significantly increase cognitive function
Plug Load Control	\$\$	★★★	Offers support for targeting more marginal levels of energy use. An essential element when targeting Net Zero	May require more expensive control systems than what is already required under ASHRAE 90.1 – 2010 with LEEDv4.	50% receptacle load shutoff during unoccupied hours required by ASHRAE 90.1-2010
Building Occupant Interaction	\$	★★★★	Distributes ownership of carbon neutral goal to building users. An essential element when targeting Net Zero	Can be difficult to creatively maintain a sustained interest from building occupants in Net Zero Ownership	Can come in many forms – from dashboards to smart phone apps
Kitchen Waste Heat Recapture	\$\$	★★★	Captures otherwise lost energy	Benefit is a function of the amount of waste heat	
Efficient and Networked Lighting	\$\$	★★★★	Having a quality and high performance lighting system can dramatically benefit users and reduce energy	High performance networked lighting systems may introduce additional costs relative to baseline systems.	Networked lighting helps meet code requirements and prepares the bldg. for demand response.  This measure may be considered under the utility incentives program.
High Performance Glazing	\$\$\$	★★★★	Bolsters lowest thermal performance item on envelope	High relative cost premiums. On large projects, volume purchasing power may reduce premiums somewhat.	May require additional life cycle cost analysis. This measure will be considered under the utility incentives program.

Item	Cost	Benefit	Pro	Con	Other Notes
Design for Daylighting	\$	★★★★★	Can significantly increase cognitive function in learning environment, reduces electrical lighting need	Needs to be partnered with glare control and lighting controls. May be impacted by programming layout and vice versa	The lighting controls will be considered under the utility incentives program.

## 4.6 Building Plans

Reference the Drawings for Alternative 4B included in Section 3.3.10

## 4.7 Site Plans

Reference the Drawings for Alternative 4B included in Section 3.3.10

## 4.8 Budget

See attached

## 4.9 Budget Statement

See attached

## 4.10 Project Schedule

See attached in Section 1.2

## 4.11 Attachments

**4.2 Educational Program – Schools  
Committee minutes for Chapter 74  
expansion**





# Somerville School Committee

Education • Inspiration • Excellence

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## CITY OF SOMERVILLE, MASSACHUSETTS SCHOOL COMMITTEE

Monday April 11, 2016 – Regular Meeting

7:00 p.m. - Board of Aldermen's Chambers – Somerville City Hall

**Members present:** Ms. Palmer, Alderman White, Ms. Pitone, Mayor Curtatone (8:01 p.m.), Mr. Futrell, Mr. Green, and Ms. Normand.

**Members absent:** Mr. Roix, Mr. Bockelman and Superintendent Skipper

### ORDER OF BUSINESS

#### I. CALL TO ORDER

Chairman Carrie Normand called a Regular Meeting of the School Committee to order in the Board of Aldermen's Chambers at City Hall at 7:08 p.m., with a moment of silence and a salute to the flag of the United States of America. Ms. Normand asked for a roll call, the results of which are as follows: - Present – 6 – Palmer, Futrell, Green, Pitone, White and Normand and ABSENT – 3 – Curtatone, Roix and Bockelman.

Ms. Normand reported that Superintendent Skipper and Mr. Roix were unable to be at tonight's meeting as they are currently in attendance at the Somerville High School Building Committee meeting. Also, Mr. Bockelman is traveling for work and is unable to attend this evening.

Dr. McKay filled in during Mrs. Skipper's absence.

Ms. Normand announced that, unless there was any objection, we would now take **Item. 6C. SHS Building Committee Update – Proposed New Chapter 74 Programs** – out of order and invited CTE Director Leo DeSimone to the podium to provide information relative to these new programs.

Mr. DeSimone gave an historical report on CTE programs over the past several years and the careful review of these programs and also research into what new programs would be beneficial to our students.

Mr. DeSimone reported that Somerville High School currently offers 13 CTE Programs – Automotive Technology, Construction Technology, Child Development, Information Support Services and Networking, Culinary Arts, Architectural Design/Pre-engineering, Cosmetology, Electrical, Health Careers, Graphic Design and Visual Communication, Machine Technology, Metal Fabrication, and Dental Assisting.

The proposal is to add four (4) new offerings with the completion of the new high school – Plumbing, Barbering, Medical Occupations and HVAC.

Discussion ensued relative to:

Enrollment trends, how new programs may impact current course enrollments, some classes being available as electives to non-CTE students, the increase in enrollment across the CTE program, equipment needs and funding (many grants available).

**MOTION:** Mr. Futrell made a motion, seconded by Mr. Green, to maintain the existing 13 CTE programs and to add four new CTE programs – HVAC, Plumbing, Barbering and Medical Occupations.

The motion was approved unanimously via voice vote.

***I certify that these are the true and accurate minutes from the  
Somerville School Committee meeting of April 11, 2016.***

*Mary E. Skipper*

Mary E. Skipper, Superintendent of Schools and  
Secretary to the Somerville School Committee

*April 13, 2016*

Date

*Patricia A. Marques*

Patricia A. Marques, Recording Secretary to the School Committee

*April 13, 2016*

Date





## 4.3 Space Summary Preferred Alternative 4b











Proposed Space Summary - Somerville High School - Alternative 4B

6/2/2016: PSR

Somerville High School		Existing Conditions	
ROOM TYPE	ROOM NFA <sup>1</sup>	# OF RMS	area totals
<b>HEALTH &amp; PHYSICAL EDUCATION</b>			<b>37,772</b>
Gymnasium	25,779	1	25,779
Elevated Walking Track			
PE Alternatives	varies	2	2,439
Fitness Room			
Multi-Purpose Studio (dance, wrestling, aerobics, etc)			
Gym Storeroom	varies	6	1,698
Locker Rooms - Boys / Girls w/ Toilets	varies	3	4,199
Phys. Ed. Storage	varies	4	1,676
Athletic Director's Office	300	1	300
Athletic Storage	899	1	899
Health Instructor's Office w/ Shower & Toilet	varies	4	472
Trainer's Office	310	1	310
<b>MEDIA CENTER</b>			<b>9,792</b>
Media Center / Reading Room	varies	8	8,865
Computer Lab	927	1	927
<b>AUDITORIUM / DRAMA</b>			<b>13,805</b>
Auditorium	11,304	1	11,304
Stage	984	1	984
Auditorium Storage	1,046	1	1,046
Make-up / Dressing Rooms	369	1	369
Controls / Lighting / Projection	102	1	102
Mini Theater(seats 200)			
Black Box Theater (seats 200)			
<b>DINING &amp; FOOD SERVICE</b>			<b>12,821</b>
Cafeteria / Student Lounge / Break-out	8,491	1	8,491
Chair / Table Storage			
Scramble Serving Area			
Kitchen	3,639	1	3,639
Staff Lunch Room	691	1	691
<b>MEDICAL</b>			<b>597</b>
Medical Suite Toilet	46	1	46
Nurses' Office / Waiting Room	427	1	427
Interview Room	39	1	39
Examination Room / Resting	43	2	85

PROPOSED								
Existing to Remain/Renovated			New			Total		
ROOM NFA <sup>1</sup>	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals
		<b>25,779</b>			<b>14,050</b>			<b>39,829</b>
25,779	1	25,779				25,779	1	25,779
			2,500	1	2,500	2,500	1	2,500
			2,500	1	2,500	2,500	1	2,500
			800	1	800	800	1	800
			3,000	2	6,000	3,000	2	6,000
			500	1	500	500	1	500
			150	1	150	150	1	150
			800	1	800	800	1	800
			250	2	500	250	2	500
			300	1	300	300	1	300
		<b>0</b>			<b>7,500</b>			<b>7,500</b>
			7,500	1	7,500	7,500	1	7,500
		<b>10,800</b>			<b>-</b>			<b>10,800</b>
7,500	1	7,500				7,500	1	7,500
2,000	1	2,000	0	0	-	2,000	1	2,000
500	1	500				500	1	500
300	2	600				300	2	600
200	1	200				200	1	200
			2,400	0	-	2,400	0	-
			2,400	0	-	2,400	0	-
		<b>0</b>			<b>12,035</b>			<b>12,035</b>
			7,500	1	7,500	7,500	1	7,500
			500	1	500	500	1	500
			600	1	600	600	1	600
			2,815	1	2,815	2,815	1	2,815
			620	1	620	620	1	620
		<b>0</b>			<b>1,310</b>			<b>1,310</b>
			60	1	60	60	1	60
			350	1	350	350	1	350
			150	2	300	150	2	300
			100	6	600	100	6	600

Ch. 74 Requirements	MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
	ROOM NFA <sup>1</sup>	# OF RMS	area totals	Comments
			<b>24,684</b>	Locker Rooms based on Total Student Population w/o NWFC
	12,000	1	12,000	
	3,000	1	3,000	
	300	1	300	
	8,484	1	8,484	5.6 sf/student total
	500	1	500	
	150	1	150	
	250	1	250	
			<b>8,569</b>	Media Center size based on FTE Students w/o NWFC
	8,569	1	8,569	
			<b>10,400</b>	Auditorium size based on Total Student Population w/o NWFC
	7,500	1	7,500	2/3 Enrollment @ 10 SF/Seat - 750 seats MAX
	1,600	1	1,600	
	500	1	500	
	300	2	600	
	200	1	200	
			<b>12,148</b>	Cafeteria/Kitchen size based on Total Student Pop. w/o NWFC
	7,575	1	7,575	3 seatings - 15SF per seat
	529	1	529	
	600	1	600	
	2,815	1	2,815	1600 SF for first 300 + 1 SF/student Add'l
	629	1	629	20 SF/Occupant
			<b>1,310</b>	Sizes based on Total Student Population w/o NWFC
	60	1	60	
	250	1	250	
	100	3	300	
	100	7	700	











## 4.5 Sustainability Document





**LEED v4 for BD+C: New Construction and Major Renovation - Schools**  
**Somerville Add/Reno Preliminary Scorecard**

Project Name: Somerville High School PNUM: 15070  
 Date: 5/02/2016

Y ? ? N

1					Credit 1	Integrative Process	1
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10	3	0	2		<b>Location and Transportation</b>	<b>Possible Points:</b>	<b>15</b>
					Credit 1	LEED for Neighborhood Development Location	15
1					Credit 2	Sensitive Land Protection	1
			2		Credit 3	High Priority Site	2
5					Credit 4	Surrounding Density and Diverse Uses	5
2	2				Credit 5	Access to Quality Transit	4
1					Credit 6	Bicycle Facilities	1
	1				Credit 7	Reduced Parking Footprint	1
1					Credit 8	Green Vehicles	1

No wetlands or floodplains  
 Brownfield, Historic, or other priority designation  
 Will take some time to document but clearly qualifies  
 144 trips needed / 145 trips serviced by local buses  
 Need to have bike lanes to building entrance - clarification needed  
 20 - 40% reduction from baseline plus preferred parking  
 2% Need Charging Stations AND 5% preferred parking, Options for Buses

3	3	5	1		<b>Sustainable Sites</b>	<b>Possible Points:</b>	<b>12</b>
Y					Prereq 1	Construction Activity Pollution Prevention	Required
Y					Prereq 2	Environmental Site Assessment	Required
1					Credit 1	Site Assessment	1
		2			Credit 2	Site Development--Protect or Restore Habitat	2
		1			Credit 3	Open Space	1
	2	1			Credit 4	Rainwater Management	3
	1	1			Credit 5	Heat Island Reduction	2
1					Credit 6	Light Pollution Reduction	1
			1		Credit 7	Site Master Plan	1
1					Credit 8	Joint Use of Facilities	1

Fill out Site Assessment Worksheet  
 Protect 40% and 30% restored for 2 points  
 30% of site is outdoor space 25% of which is vegetated (turf doesn't count)  
 Manage for 95th %tile- 2 pts. 98th %tile - 3 pts.  
 Includes 75% Roof AND 50% of site paving area SRI  
 Need BUG rated fixtures for compliance  
 Not eligible if no future development planned, must hit 4 of 6 other credits  
 3 options for compliance, no longer need separate entries

8	1	2	1		<b>Water Efficiency</b>	<b>Possible Points:</b>	<b>12</b>
Y					Prereq 1	Outdoor Water Use Reduction	Required
Y					Prereq 2	Indoor Water Use Reduction	Required
Y					Prereq 2	Building-Level Water Metering	Required
2					Credit 1	Outdoor Water Use Reduction	2
5	1		1		Credit 2	Indoor Water Use Reduction	7
		2			Credit 3	Cooling Tower Water Use	2
1					Credit 4	Water Metering	1

Required: 30% Outdoor Water Use Reduction

2 points no potable water use, no irrigation, 1 point for 50% use reduction  
 4 points - 40% reduction, addl. 2 pts. Up to 50% reduction, 1 pt. appliance and process H2O  
 Requires Cooling tower or Evaporative Condenser with H2O loop  
 Meter 2 water end uses

18	4	6	3		<b>Energy and Atmosphere</b>	<b>Possible Points:</b>	<b>31</b>
Y					Prereq 1	Fundamental Commissioning and Verification	Required
Y					Prereq 2	Minimum Energy Performance	Required
Y					Prereq 3	Building-Level Energy Metering	Required
Y					Prereq 4	Fundamental Refrigerant Management	Required
5	1				Credit 1	Enhanced Commissioning	6
10	2	2	2		Credit 2	Optimize Energy Performance	16
1					Credit 3	Advanced Energy Metering	1
2					Credit 4	Demand Response	2
	1	2			Credit 5	Renewable Energy Production	3
			1		Credit 6	Enhanced Refrigerant Management	1
		2			Credit 7	Green Power and Carbon Offsets	2

Cx on board by SD  
 ASHRAE 90.1 - 2010  
 Standard Meters  
 Similar requirements  
 3 - 4 Points Enhanced Cx and 2 pts Enclosure Cx  
 Increased ASHRAE Standards, Renewable Energy excluded from Calc.  
 Meter Usages over 10% of total energy use  
 Demand Response Program Participation  
 1 pt. for 1% of overall energy cost and 3 points for 10%  
 Increased contract length to 5 years and % offset to 50 and 100 from 35

5	4	3	1		<b>Materials and Resources</b>	<b>Possible Points:</b>	<b>13</b>
Y					Prereq 1	Storage and Collection of Recyclables	Required
Y					Prereq 2	Construction and Demolition Waste Management Planning	Required
3	1		1		Credit 1	Building Life-Cycle Impact Reduction	5
	1	1			Credit 2	Building Product Disclosure and Optimization - Environmental Product Declarations	2
	1	1			Credit 3	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
	1	1			Credit 4	Building Product Disclosure and Optimization - Material Ingredients	2
2					Credit 5	Construction and Demolition Waste Management	2

50% Building Reuse or LCA Software Modeling -- 3 points  
 Dependent upon materials selection  
 1 pt. for combined attributes, 1 pt. for disclosure of supply chains  
 Dependent upon materials selection  
 75 % Diversion - Min. 4 Material Streams

6	6	1	3		<b>Indoor Environmental Quality</b>	<b>Possible Points:</b>	<b>16</b>
Y					Prereq 1	Minimum Indoor Air Quality Performance	Required
Y					Prereq 2	Environmental Tobacco Smoke Control	Required
2					Credit 1	Enhanced Indoor Air Quality Strategies	2
	3				Credit 2	Low-Emitting Materials	3
1					Credit 3	Construction Indoor Air Quality Management Plan	1
	1	1			Credit 4	Indoor Air Quality Assessment	2
1					Credit 5	Thermal Comfort	1
2					Credit 6	Interior Lighting	2
			3		Credit 7	Daylight	3
	1				Credit 8	Quality Views	1
1					Credit 9	Acoustic Performance	1

Completely Smoke-Free Campus  
 Requires 10' Entryway System, MERV 13, CO2 Monitors,  
 New standards require individual product research  
 IAQ plan similar to past  
 Flush-out (1 pt w 80 dg F Max) or Air Testings (2 pts)  
 Design or Controls can earn the point  
 1 pt. - lighting controls, 1 pt. Light Quality  
 Increased FC requirements to 25 FC - Fenestration Design To be Reviewed  
 Site dependent

5	1	0			<b>Innovation</b>	<b>Possible Points:</b>	<b>6</b>
4	1				Credit 1	Innovation	5
1					Credit 2	LEED Accredited Professional	1

Suggested: Green Cleaning, School as teaching tool, Low Mercury lamps

2	1	1			<b>Regional Priority</b>	<b>Possible Points:</b>	<b>4</b>
1					Credit 1	Regional Priority: Indoor Water Use Reduction - 40%	1
1					Credit 2	Regional Priority: Optimize Energy Performance - 8 pts. Min.	1
		1			Credit 3	Regional Priority: Rainwater Management - Both Points	1
1					Credit 4	Regional Priority: Renewable Energy (2 pt. min), Building Life Cycle 50% reuse, High Priority Site	1

Y ? ? N

58	23	18	11		<b>Total</b>	<b>Possible Points:</b>	<b>110</b>
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Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110



## 4.8 Project Budget



Total Project Budget

Somerville High School  
PSR DRAFT Form 3011 TEST FIT

School Building Committee Reviewed on: N/A - DRAFT!!!!

Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(5)	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant <sup>1</sup>	Estimated Maximum Total Facilities Grant <sup>1</sup>	
1 Feasibility Study Agreement					
2 OPM Feasibility Study	\$468,347	\$0	\$468,347		
3 A&E Feasibility Study	\$1,200,000	\$0	\$1,200,000		
4 Environmental & Site	\$0	\$0	\$0		
5 Other	\$306,653	\$0	\$306,653		
6 Feasibility Study Agreement Subtotal	\$1,975,000	\$0	\$1,975,000	\$1,529,516	
7 Administration					Soft Cost Reimbursement
8 Legal Fees	\$10,000	\$10,000	\$0	\$0	Estimated Budget Excluded
9 Owner's Project Manager					\$11,190,356 \$10,000
10 Design Development		\$0	\$6,455,356		\$22,682,008 \$0
11 Construction Contract Documents		\$0	\$0		Ineligible therefore not included in calculation
12 Bidding	\$6,455,356	\$0	\$0		\$3,255,200 \$2,655,200
13 Construction Contract Administration		\$0	\$0		\$5,096,000 \$0
14 Closeout		\$0	\$0		Not included in this calculation
15 Extra Services	\$1,000,000	\$0	\$1,000,000		\$39,558,364 Total Eligible Soft Costs
16 Reimbursable & Other Services	\$2,400,000	\$0	\$2,400,000		
17 Cost Estimates	\$250,000	\$0	\$250,000		Construction Costs associated with Soft Cost Cap Calculation
18 Advertising	\$200,000	\$0	\$200,000		Estimated Budget
19 Permitting		\$0	\$0		\$750,000
20 Owner's Insurance		\$0	\$0		\$197,820,084
21 Other Administrative Costs	\$100,000	\$0	\$100,000		
22 Administration Subtotal	\$10,415,356	\$10,000	\$10,405,356	\$8,058,308	
23 Architecture and Engineering					
24 Basic Services					
25 Design Development		\$0	\$18,582,008		
26 Construction Contract Documents		\$0	\$0		
27 Bidding	\$18,582,008	\$0	\$0		
28 Construction Contract Administration		\$0	\$0		
29 Closeout		\$0	\$0		
30 Other Basic Services		\$0	\$0		
31 Basic Services Subtotal	\$18,582,008	\$0	\$18,582,008		
32 Reimbursable Services					
33 Construction Testing	\$0	\$0	\$0		
34 Printing (over minimum)	\$250,000	\$0	\$250,000		
35 Other Reimbursable Costs	\$1,000,000	\$0	\$1,000,000		
36 Hazardous Materials	\$750,000	\$0	\$750,000		
37 Geotech & Geo-Env.	\$500,000	\$0	\$500,000		
38 Site Survey	\$200,000	\$0	\$200,000		
39 Wetlands	\$0	\$0	\$0		
40 Traffic Studies	\$200,000	\$0	\$200,000		
41 Architectural/Engineering Subtotal	\$21,482,008	\$0	\$21,482,008	\$16,636,493	
42 CM & Risk Preconstruction Services					
43 Pre-Construction Services	\$750,000	\$0	\$750,000	\$580,829	
44 Site Acquisition					
45 Land / Building Purchase	\$0	\$0	\$0		
46 Appraisal Fees	\$0	\$0	\$0		
47 Recording fees	\$0	\$0	\$0		
48 Site Acquisition Subtotal	\$0	\$0	\$0	\$0	
49 Construction Costs					
50 Building Value from SBC Approved 4B	\$94,559,918				
51 Parking Garage	\$9,482,622	\$9,482,622			
Child Care (integrated w/ c.74)	\$1,172,544	\$0			
SCTV	\$425,018	\$425,018			
Health Suite	\$429,000	\$429,000			
52 Basement Construction	\$0	\$0			
53 SHELL					
54 SuperStructure	\$0	\$0			
55 Exterior Closure	\$0	\$0			
56 Exterior Walls	\$0	\$0			
57 Exterior Windows	\$0	\$0			
58 Exterior Doors	\$0	\$0			
59 Roofing	\$0	\$0			

ProRated 20% Exclusion  
 \$0 -Administration  
 \$0 -A/E Services  
 \$0 -Miscellaneous Proj Costs  
 \$34,462,364 Sum of Three Soft Costs  
 Eligible Soft Costs Excluded Category  
 \$11,180,356 -Administration  
 \$22,682,008 -A/E Services  
 \$600,000 -Miscellaneous Proj Costs  
 \$5,096,000 FFE  
 Not included in this calculation Owners Contingency  
 \$39,558,364 Total Eligible Soft Costs

Construction Costs associated with Soft Cost Cap Calculation  
 Estimated Budget Construction Costs Category  
 \$750,000 \$750,000 -CM Preconstruction services  
 \$197,820,084 \$197,820,084 -Construction Cost  
 Not included in this calculation -Construction Contingency  
 \$198,570,084 Total Construction Cost  
 20% Soft Cost Allowance  
 \$39,714,017 Reimbursable Soft Cost

-If Eligible minus Reimbursable is negative OK.  
 -If Eligible minus Reimbursable is positive enter value into Soft Costs that exceed 20% of Construction Cost below in the Ineligible column.

Construction Budget \$197,820,084

<b>OPM Services</b>	Eligible Fees	% of Total Construction	OPM Value @ 3.50% Value > 3.5%
Basic Services	\$6,923,703	\$6,923,703	3.50% \$6,923,703 \$0
Extra Services	\$3,956,653		2.00%
<b>Designer Services</b>			Designer Value @ 10.00% Value > 10%
Basic Services	\$19,782,008	\$19,782,008	10.00% \$19,782,008 \$0
Extra Services	\$2,900,000		1.47%

Total Project Budget

Somerville High School  
PSR DRAFT Form 3011 TEST FIT

School Building Committee Reviewed on: N/A - DRAFT!!!!

Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(5)		Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant <sup>1</sup>	Estimated Maximum Total Facilities Grant <sup>1</sup>	
60	INTERIORS					
61	Interior Construction	\$0	\$0	\$0		
62	Staircases	\$0	\$0	\$0		
63	Interior Finishes	\$0	\$0	\$0		
64	SERVICES					
65	Conveying Systems	\$0	\$0	\$0		
66	Plumbing	\$0	\$0	\$0		
67	HVAC	\$0	\$0	\$0		
68	Fire Protection	\$0	\$0	\$0		
69	Electrical	\$0	\$0	\$0		
70	EQUIPMENT & FURNISHINGS					
71	Equipment	\$0	\$0	\$0		
72	Furnishings	\$0	\$0	\$0		
73	SPECIAL CONSTRUCTION & DEMOLITION					
74	Special Construction	\$0	\$0	\$0		
75	Existing Building Demolition & Abatement	\$7,406,640	\$960,000	\$0		Site Cost Reimbursement = 8.0%
76	In-Bldg. Hazardous Material Abatement	\$0	\$0	\$0		Direct Site Cost Excluded Eligible Site Costs
77	Asbestos Cont'g Floor Mat'l Abatement	\$0	\$0	\$0		\$8,661,233 \$0 \$8,661,233 Eligible Site Costs
78	Other Hazardous Material Abatement	\$0	\$0	\$0		Direct Building Cost
79	BUILDING SITEWORK					\$106,069,102 \$8,485,528 Reimbursable Site Cost
80	Site Preparation	\$8,661,233	\$0	\$0		Scope Excluded Site Cost \$175,705 Eligible minus Reimbursable
81	Site Improvements	\$0	\$0	\$0		If Eligible minus Reimbursable is negative OK. No ineligible needed
82	Site Civil / Mechanical Utilities	\$0	\$0	\$0		If Eligible minus Reimbursable is positive enter value into Scope Excluded Site Cost
83	Site Electrical Utilities	\$0	\$0	\$0		
84	Other Site Construction	\$0	\$0	\$0		Construction Cost Reimbursement
85	Scope Excluded Site Cost		\$175,705	\$0		\$6,446,640 Eligible Demo
86	Construction Trades Subtotal	\$122,136,975	\$11,472,345	\$0		\$0 Eligible Abatement
87	Contingencies (Design and Pricing)	\$23,211,107	\$2,180,223	\$0		\$6,446,640 Total Eligible Demo & Abatement
88	D/B/B Sub-Contractor Bonds	\$1,669,756	\$156,840	\$0		\$1,225,130 D&P 19.00% % of Trades #DIV/0! Total \$/sf
89	D/B/B Insurance	\$2,529,680	\$237,613	\$0		\$88,133 Bonds 1.37% % of Trades \$ 342.50 Eligible \$/sf
90	D/B/B General Conditions	\$14,971,725	\$1,406,296	\$0		\$133,522 Insurance 2.07% % of Trades
91	D/B/B Overhead & Profit	\$0	\$0	\$0		\$790,238 Gen Cond 12.26% % of Trades
92	GMP Insurance	\$0	\$0	\$0		\$0 O&P 0.00% % of Trades
93	GMP Fee	\$3,526,205	\$331,217	\$0		\$0 GMP Ins 0.00% % of Trades
94	GMP Contingency	\$5,135,250	\$482,355	\$0		\$186,120 GMP Fee 2.89% % of Trades
95	Escalation to Mid-Point of Construction	\$24,639,388	\$2,314,382	\$0		\$271,049 GMP cont 4.20% % of Trades
96	Overall Excluded Construction Cost		\$61,971,783	\$0		\$1,300,517 Escalation 14.98% % of Cumulative sum of Trades and Markups
97	Construction Budget	\$197,820,084	\$80,553,054	\$117,267,030	\$90,816,098	\$10,441,350 Marked Up Demo & Abatement
98	Alternates					\$117,267,030 Eligible Construction Cost
99	Ineligible Work Included in the Base Project	\$0	\$0	\$0		342,390 Proposed GSF; Manually enter eligible area if less than total area
100	Alternates Included in the Total Project Budget	\$0	\$0	\$0		\$ 312 Reimbursable Construction Cost for New Construction \$/sf (subject to change)
101	Alternates Excluded from the Total Project Budget	\$0	\$0	\$0		\$ 106,825,680 Reimbursable Construction Cost
102	Subtotal to be included in Total Project Budget	\$0	\$0	\$0	\$0	\$10,441,350 Marked Demo & Abatement
103	Miscellaneous Project Costs					\$ 117,267,030 Reimbursable Construction Cost
104	Utility Company Fees	\$250,000	\$0	\$250,000		\$0 Eligible Minus Reimbursable
105	Testing Services	\$350,000	\$0	\$350,000		If Eligible minus Reimbursable is negative OK. No ineligible entry needed
106	Swing Space / Modulers	\$2,355,200	\$2,355,200	\$0		If Eligible minus Reimbursable is positive enter value into Overall Excluded Construction Cost
107	Other Project Costs (Mailing & Moving)	\$300,000	\$300,000	\$0		FFE Reimbursement
108	Misc. Project Costs Subtotal	\$3,255,200	\$2,655,200	\$600,000	\$464,663	\$5,096,000 Eligible FFE
109	Furnishings and Equipment					1,590 Design Enrollment
110	Furnishings	\$2,548,000	\$0	\$2,548,000		\$2,400 Reimbursable / Student (Subject to change)
111	Equipment	\$2,548,000	\$0	\$2,548,000		\$3,816,000 Reimbursable Cost
112	Computer Equipment	\$0	\$0	\$0		\$1,280,000 Eligible Minus Reimbursable
113	FF&E Subtotal	\$5,096,000	\$0	\$5,096,000	\$3,946,538	If Eligible minus Reimbursable is negative OK.
114						If Eligible minus Reimbursable is positive enter value into Scope Excluded FFE Cost
115	Soft Costs that exceed 20% of Construction Cost		\$0	\$0		1.56 (0-2) Maintenance
116	Project Budget	\$240,793,649	\$83,218,254	\$157,575,394	122032444.9	1.00 (0-1) CM @ Risk
						0.00 (0-6) Newly Formed Regional School District

**Total Project Budget**

Somerville High School  
PSR **DRAFT** Form 3011 **TEST FIT**

**School Building Committee Reviewed on: N/A - DRAFT!!!!**

Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(5)	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant <sup>1</sup>	Estimated Maximum Total Facilities Grant <sup>1</sup>
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<b>Board Authorization</b>	
Design Enrollment	1,590
<b>Total Building Gross Floor Area (GSF)</b>	
Total Project Budget (excluding Contingencies)	<b>\$240,793,649</b>
Scope Items Excluded or Otherwise Ineligible	<b>\$83,218,254</b>
Third Party Funding (Ineligible)	\$0
Estimated Basis of Maximum Total Facilities Grant <sup>1</sup>	<b>\$157,575,394</b>
Reimbursement Rate	77.44%
Est. Max. Total Facilities Grant (before recovery) <sup>1</sup>	<b>\$122,032,445</b>
Cost Recovery <sup>2</sup>	\$0
Estimated Maximum Total Facilities Grant <sup>1</sup>	<b>\$122,032,445</b>

71.79	Reimbursement Rate Before Incentive Points
5.65	Total Incentive Points
77.44%	MSBA Reimbursement Rate
<b>NOTES</b>	
This template was prepared by the MSBA as a tool to assist Districts and consultants in understanding MSBA policies and practices regarding potential impact on the MSBA's calculation of a potential Basis of Total Facilities Grant and potential Total Maximum Facilities Grant. This template does not contain a final, exhaustive list of all evaluations which the MSBA may use in determining whether items are eligible for reimbursement by the MSBA. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed school project that may or may not agree with the estimates generated by the District using this template.	
1. Does not include any potentially eligible contingency funds and is subject to review and audit by the MSBA.	

Construction Contingency <sup>3</sup>	\$11,869,205
Ineligible Construction Contingency <sup>3</sup>	<b>\$7,912,803</b>
"Potentially Eligible" Construction Contingency <sup>3</sup>	<b>\$3,956,402</b>
Owner's Contingency <sup>3</sup>	\$1,688,943
Ineligible Owner's Contingency <sup>3</sup>	\$0
"Potentially Eligible" Owner's Contingency <sup>3</sup>	<b>\$1,688,943</b>
Total Potentially Eligible Contingency <sup>3</sup>	<b>\$5,645,344</b>
Reimbursement Rate	77.44%
Potential Additional Contingency Grant Funds <sup>3</sup>	<b>\$4,371,972</b>
Maximum Total Facilities Grant	<b>\$126,404,417</b>
Total Project Budget	<b>\$254,351,796</b>

2. The proposed demolition of the ____ School is expected to result in the MSBA recovering a portion of state funds previously paid to the District for the ____ project at the existing facilities completed in _____. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed school project that may or may not agree with the estimated cost recovery generated by the District and its consultants using this template.	
3. Pursuant to Section 3.20 of the Project Funding Agreement and the applicable policies and guidelines of the Authority, any project costs associated with the reallocation or transfer of funds from either the Owner's contingency or the Construction contingency to other budget line items shall be subject to review by the Authority to determine whether any such costs are eligible for reimbursement by the Authority. All costs are subject to review and audit by the MSBA.	

1.09 (0-5) Major Reconstruction or Reno/Reuse type in rounded to 2 decimal places

80,952 gsf Renovated or Existing to Remain

370,034 gsf Total at Conclusion of Project

0.00 (0-1) Overly Zoning 40R and 40S

0.00 (0-0.5) Overlay Zoning 100 units or 50% of units 1,2, or 3 family structures

2.00 (0-2) Energy Efficiency - "Green Schools"

0.00 (5) Model Schools

**5.65 Total Incentive Points**



## 4.9 Budget Statement



## Budget Statement for Preferred Schematic - Expenditures

As reported on the school district's most recent three end of year information, please updated to the 3 latest fiscal year periods and complete the fields below.													
Category	2012-2013		2013-2014		2014-2015		Change from Previous Year		Post-Constuction Budget		New Facility vs. Current		
	FY2013		FY2014		FY2015		Staff (FTE)	Budget	Staff	Budget	Staff (FTE)	Budget	
	Staff (FTE)	Budget	Staff (FTE)	Budget	Staff	Budget							
<b>Salaries</b>													
<b>Administration</b>													
Admin. Secretary	8.00	378,263	8.00	379,192	9.00	393,849	1.00	14,657	9.00	413,541	0.00	19,692	
Assistant Principal	5.00	501,735	5.00	491,519	5.00	524,351	0.00	32,832	5.00	550,569	0.00	26,218	
Business Office	6.00	403,039	6.00	423,131	6.00	431,845	0.00	8,714	6.00	453,437	0.00	21,592	
Curriculum Director/Coord.	2.00	187,426	2.00	187,426	2.00	200,968	0.00	13,542	2.00	211,016	0.00	10,048	
Custodians/Maintenance Staff	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
Executive Secretary	1.00	70,975	1.00	72,378	1.00	74,523	0.00	2,145	1.00	78,249	0.00	3,726	
Facilities Manager	NA	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
Guidance	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
Adjustment Counselor (SEE BELOW)	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
Guidance Counselors	7.00	533,468	7.00	492,126	7.00	519,706	0.00	27,580	8.00	620,691	1.00	100,985	
Guidance Director	1.00	101,836	2.00	190,000	2.00	174,867	0.00	(15,133)	2.00	183,610	0.00	8,743	
Legal (Contracted)	0.00	165,521	0.00	154,448	0.00	113,800	0.00	(40,648)	0.00	125,000	0.00	11,200	
Nurse	4.00	181,400	5.00	247,616	6.00	301,026	1.00	53,410	7.00	369,425	1.00	68,399	
Other - In-house Suspension	1.00	76,019	1.00	80,642	1.00	83,220	0.00	2,578	1.00	87,381	0.00	4,161	
Principal	2.00	234,100	2.00	238,742	2.00	254,844	0.00	16,102	2.00	267,586	0.00	12,742	
Special Education Admin	1.00	121,965	1.00	124,344	1.00	125,000	0.00	656	1.00	131,250	0.00	6,250	
Superintendent/Asst. Superintendent	2.00	330,396	2.00	335,037	2.00	351,127	0.00	16,090	2.00	368,683	0.00	17,556	
Transportation	NA	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
Treasurer	NA	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
<b>Total Administration</b>	<b>40.00</b>	<b>3,286,143</b>	<b>42.00</b>	<b>3,416,601</b>	<b>44.00</b>	<b>3,549,126</b>	<b>2.00</b>	<b>132,525</b>	<b>46.00</b>	<b>3,860,440</b>	<b>2.00</b>	<b>311,314</b>	
<b>Instruction - Teaching Services</b>													
Arts	5.00	271,448	5.00	306,247	4.00	264,977	-1.00	(41,270)	5.00	278,226	1.00	13,249	
Business (SEE VOCATIONAL)	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
Communications	NA	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
Coping Instructor	NA	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
Culinary Arts (SEE VOCATIONAL)	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
ELL	7.00	476,942	7.00	495,728	7.00	481,417	0.00	(14,311)	8.00	580,488	1.00	99,071	
English Language	14.60	955,680	14.60	901,142	14.60	966,220	0.00	65,078	14.60	1,014,531	0.00	48,311	
Family Consumer Services (SEE VOCATIONAL)	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
Foreign Language	7.60	611,438	7.60	600,460	7.60	604,728	0.00	4,268	7.60	634,964	0.00	30,236	
Health Services	NA	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
History & Social Science	15.60	1,001,608	15.00	978,962	14.60	972,983	-0.40	(5,979)	15.60	1,096,632	1.00	123,649	
Instructional Assistant/Paraprofessionals	13.00	260,599	14.60	292,711	14.40	322,866	-0.20	30,155	14.40	339,009	0.00	32,112	
Library/Media	3.00	152,326	3.00	169,047	3.00	170,984	0.00	1,937	3.00	179,533	0.00	16,721	
Mathematics	15.00	925,189	14.60	969,137	15.60	1,052,422	1.00	83,285	16.60	1,180,043	1.00	43,948	
MCAS	NA	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
Music	3.40	195,202	3.60	222,964	4.40	337,984	0.80	115,020	4.40	354,883	0.00	27,762	
Other - Athletics	1.00	72,017	1.00	73,457	2.00	170,491	1.00	97,034	2.00	179,016	0.00	1,440	
Physical Education	9.00	646,950	9.00	703,616	9.00	737,476	0.00	33,860	9.00	774,350	0.00	56,666	
Reading	NA	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	
School Adjustment Counselor	5.00	378,575	5.00	397,776	7.00	563,002	2.00	165,226	7.00	591,152	0.00	19,201	
Science													
Biology	5.00	301,047	5.00	330,910	6.00	382,539	1.00	51,629	6.00	401,666	0.00	29,863	
Special needs; Science	2.00	143,194	2.00	146,058	2.00	156,305	0.00	10,247	2.00	164,120	0.00	2,864	
Chemistry	5.00	296,479	5.00	232,966	3.60	267,020	-1.40	34,054	3.60	280,371	0.00	(63,513)	
Earth	2.00	123,483	2.00	125,760	2.00	110,235	0.00	(15,525)	2.00	115,747	0.00	2,277	
Physics	2.00	138,721	2.00	132,758	2.00	139,527	0.00	6,769	2.00	146,503	0.00	(5,963)	
Special Education	16.00	1,139,150	16.00	1,173,324	18.00	1,290,000	2.00	116,676	19.00	1,429,500	1.00	34,174	
Substitute Teachers	0.00	71,021	0.00	91,311	0.00	92,411	0.00	1,100	0.00	97,032	0.00	20,290	

## Budget Statement for Preferred Schematic - Expenditures

Category	2012-2013 FY2013		2013-2014 FY2014		2014-2015 FY2015		Change from Previous Year		Post-Construction Budget		New Facility vs. Current	
	Staff (FTE)	Budget	Staff (FTE)	Budget	Staff	Budget	Staff (FTE)	Budget	Staff	Budget	Staff (FTE)	Budget
Technology	1.00	53,900	1.00	54,978	1.00	56,627	0.00	1,649	1.00	59,458	0.00	1,078
Vocational Tech.	21.00	1,338,914	21.00	1,440,174	21.00	1,481,398	0.00	41,224	21.00	1,555,468	0.00	74,070
<b>Total Instruction - Teaching Services</b>	<b>153.20</b>	<b>9,553,883</b>	<b>154.00</b>	<b>9,839,486</b>	<b>158.80</b>	<b>10,621,612</b>	<b>4.80</b>	<b>782,126</b>	<b>163.80</b>	<b>11,452,693</b>	<b>5.00</b>	<b>831,081</b>
<b>Total Salaries Administration &amp; Instruction</b>	<b>193.20</b>	<b>12,840,026</b>	<b>196.00</b>	<b>13,256,087</b>	<b>202.80</b>	<b>14,170,738</b>	<b>6.80</b>	<b>914,651</b>	<b>209.80</b>	<b>15,313,133</b>	<b>7.00</b>	<b>1,142,395</b>
<b>Employee Benefits</b>												
All employee-related fringe (health insurance, retirement etc)		-		-		-		-		-		-
<b>Materials &amp; Services</b>												
<b>Materials</b>												
Audio-Visual Materials	NA	-		-		-		-		-		-
Culinary Arts Materials (included in Vocational)		-		-		-		-		-		-
General Office Supplies		65,879		71,350		43,105		(28,245)		45,260		5,471
Information technology		56,197		5,812		31,556		25,744		33,134		(50,385)
Hardware		8,421		908		7,375		6,467		7,744		(7,513)
Software		35,270		22,639		22,000		(639)		23,100		(12,631)
Library Materials		-		-		831		831		873		-
Instructional equipment		45,375		26,664		23,383		(3,281)		24,552		(18,711)
Testing Materials & Supplies		5,803		3,681		6,977		3,296		7,326		(2,122)
Textbooks & Instructional materials		220,615		332,736		422,429		89,693		443,550		112,121
Vocational Program Materials		45,142		62,330		59,938		(2,392)		62,935		17,188
<b>Total Materials</b>		<b>482,702</b>		<b>526,120</b>		<b>617,594</b>		<b>91,474</b>		<b>648,474</b>		<b>30,880</b>
<b>Services</b>												
Athletics		621,487		635,909		687,183		51,274		721,542		34,359
Attendance		176,382		83,607		164,552		92,775		172,779		(3,603)
Food Service		97,390		121,567		111,782		(24,177)		117,371		19,981
Health Services		-		2,244		-		(2,244)		-		2,244
Other Student Activities		39,777		52,674		39,039		(13,635)		40,991		12,897
Psychological Services		77,867		89,878		90,651		773		95,184		12,011
School Security		75,098		84,098		107,698		23,600		113,082		9,000
Student Transportation		697,746		767,647		770,139		2,492		808,646		69,901
<b>Total Services</b>		<b>1,785,746</b>		<b>1,837,624</b>		<b>1,971,043</b>		<b>77,092</b>		<b>2,069,595</b>		<b>98,552</b>
<b>Total Material &amp; Services</b>		<b>2,268,448</b>		<b>2,363,744</b>		<b>2,588,637</b>		<b>168,566</b>		<b>2,718,068</b>		<b>129,432</b>
<b>Facility Costs &amp; Capital Improvements</b>												
<b>Facility Costs</b>												
Custodial Supplies		-		-		-		-		-		-
Electricity		-		-		-		-		-		-
Heating Oil		-		-		-		-		-		-
Maintenance												
Building Security Maintenance		-		-		-		-		-		-
Elevator		-		-		-		-		-		-
Equipment Maintenance		-		-		-		-		-		-
Exterminating		-		-		-		-		-		-
Facility Maintenance		-		-		-		-		-		-
Fire Alarm		-		-		-		-		-		-
Fire Extinguisher Inspection		-		-		-		-		-		-

### Budget Statement for Preferred Schematic - Expenditures

Category	2012-2013 FY2013		2013-2014 FY2014		2014-2015 FY2015		Change from Previous Year		Post-Constuction Budget		New Facility vs. Current	
	Staff (FTE)	Budget	Staff (FTE)	Budget	Staff	Budget	Staff (FTE)	Budget	Staff	Budget	Staff (FTE)	Budget
Generator		-		-		-		-		-		-
HVAC Maintenance		-		-		-		-		-		-
Other		-		-		-		-		-		-
Site Maintenance (Grouds)		-		-		-		-		-		-
Technology		-		-		-		-		-		-
Trash Removal		-		-		-		-		-		-
Natural Gas		-		-		-		-		-		-
Snow Removal		-		-		-		-		-		-
Telephone		-		-		-		-		-		-
Water/Sewer		-		-		-		-		-		-
<b>Total Facility Costs</b>		-		-		-		-		-		-
<b>Capitai Improvements</b>		-		-		-		-		-		-
<b>Total Facility Costs &amp; Capital Improvements</b>		-		-		-		-		-		-
<b>Debt Service</b>		-		456		2,706		2,250		-		(2,706)
Short-term		-		2,519		10,725		8,206		-		(10,725)
Long-term		-		2,975		13,431		10,456		-		(13,431)
<b>Total Debt Service</b>		-		2,975		13,431		10,456		-		(13,431)
<b>Total Budget &amp; Staff</b>	<b>193.20</b>	<b>15,108,474</b>	<b>196.00</b>	<b>15,622,805</b>	<b>202.80</b>	<b>16,772,806</b>	<b>7</b>	<b>1,093,673</b>	<b>210</b>	<b>18,031,201</b>	<b>7</b>	<b>1,258,395</b>



## Section Five

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# LOCAL ACTIONS AND APPROVALS

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## 5.1 Local Action and Approval Certification

The Local Actions and Approvals certification is attached.

## 5.2 Certified School Building Committee Meeting Minutes

The certified meeting minutes from Monday May 23<sup>rd</sup>, 2016 which approved the submission of this PSR are attached.

## 5.3 Public meeting dates, Agendas and Content

A log of the Committee's meetings and minutes issued since the project commenced to present is attached, including a listing of dates, agendas, and a brief description of materials presented and attendees. The minutes can be found at <http://www.somervillema.gov/highschool/meetings.html>

## 5.4 Attachments



**5.1 LOCAL ACTION CERTIFICATION  
(Signed)**



January 2015



**CITY OF SOMERVILLE, MASSACHUSETTS**

**JOSEPH A. CURTATONE**  
**MAYOR**

**MARY SKIPPER**  
**SUPERINTENDENT OF SCHOOLS**

May 27, 2016

Ms. Diane Sullivan  
Senior Capital Program Manager  
40 Broad Street  
Boston, Massachusetts 02109

Dear Ms. Sullivan:

The Somerville High School Building Committee ("SBC") has completed its review of the Feasibility Study *Preferred Schematic Report* for the Somerville High School project (the "Project"), and on May 23, 2016 the SBC voted to approve and authorize the Owner's Project Manager to submit the Feasibility Study related materials to the MSBA for its consideration. A certified copy of the SBC meeting minutes, which includes the specific language of the vote and the number of votes in favor, opposed, and abstained, are attached.

Since the MSBA's Board of Directors invited the District to conduct a Feasibility Study on November 19, 2014, the SBC has held twelve committee meetings and six public forums regarding the proposed project, in compliance with the state Open Meeting Law. Public posting of the notice for every meeting and the corresponding meeting agendas were posted on The City of Somerville's website (<http://www.somervillema.gov/calendar>) through the city's communication department. These meetings include:

**Somerville High School Building Committee Meetings**

**September 09, 2015 – 05:35PM – Gallery 81, Somerville High School**

T. Pierantozzi provided an overview of the project to date and a history of the building. T. Pierantozzi updated the committee on a conference call had with DESE, confirming that Next Wave and Full Circle alternative school programs could be included into the education plan for the new high school.

S. Burke of PMA presented a Project Communication Plan/Flow Diagram. The importance of team communication and project transparency was stressed.

**January 2015**

T. Pierantozzi provided an overview of the City's Decision Making Process. MSBA, City Representatives, School Department, School Committee, Board of Aldermen, Capital Projects, Project Consultants and City Hall will all be determining factors. Tony's role will be communicating this information to and from all parties and the School Building Committee.

M. Rossetti suggested setting up a website where key information can be posted, all agreed that this would be beneficial for outreach and transparency. R. King to follow up with the City's communication department to have a project website set up.

A. Pitkin of SMMA suggested assembling working groups to make recommendations on specific topics to the SBC. L. Finnegan (SMMA) will make recommendations for some group topics (ie site, interior, exterior, cost, phasing, education, safety/security, MEPFP, etc) and solicit interest at next SBC meeting.

A. Pitkin of SMMA presented background information on SMMA and provided sample project adjacencies, meeting structures and visioning. An overview of design options to be studied was provided, including new construction, addition/renovation, renovation only, and a base code required upgrades only option. SMMA noted that the add-reno layouts proposed include "Space Mining" to optimize the use of the space at the rear of the building. Currently the only two sites being evaluated are the Franey Rd DPW Site and the existing school site, SMMA will continue to explore other site options to determine viability. Some of the challenges of the existing school site were reviewed, including parking, pedestrian flow and possible restrictions related to the existing façade.

**September 23, 2015 – 05:30PM – Gallery 81, Somerville High School**

T. Pierantozzi provided an update on recent progress, HS staff interviews are underway, SMMA has created a recommended working group list, and the project website has been established.

R. King reported that a project website will be up and running the day after the meeting. PMA was tasked with providing copies of documents to be uploaded to webpage, including meeting minutes, agendas, and handouts provided at public meetings. Additional communication methods to provide increased project visibility and public transparency were discussed, including Social Media, Ward meetings, press releases, engaging alumni groups, neighbors and abutters, holding public forums, developing a process to make FAQs available to the public.

A. Pitkin, updated the committee on the development of the educational program. SMMA continues to work with School staff and conduct interviews. A list of working groups will be circulated for interested individuals to review and join groups that interest them. Ideal group size is 5-6 members, PMA and SMMA will also be part of these groups.

MSBA space allowance was discussed, the allowable square footage is based upon anticipated enrollment using the MSBA's pre-defined formula. A concern about the new building attracting higher enrollment was discussed, the Team noted that the MSBA formula allows for ~15% growth. Chapter 74 space allowances are calculated using DESE guidelines and are in addition to the MSBA standard space summary allocation. M. Rossetti stated that in conversations with Jack McCarthy of the MSBA, he stressed constant communication in the event that the projected enrollment changes. Updated enrollment data will be available on October 1, 2015. PMA cautioned that MSBA has recently stated that a re-review of approved enrollment figures would require that the project be placed on hold while the enrollment is re-reviewed.

**January 2015**

**October 14, 2015 – 05:30PM – Gallery 81, Somerville High School**

T. Pierantozzi reported that the school staff meetings are complete and educational visioning sessions are scheduled for 10/20 and 11/9. Student and Alumni sessions are scheduled for 11/4. The visioning sessions are intended to start producing decisions which will help further define the Educational Plan for the new high school. Additional conversations in the visioning will be held to determine which programs should be consolidated into the new high school building.

Committee members were asked to add their names to the working groups which they would like to take part in. Members could also sign up through Google Docs sign-up sheet or by contacting PMA. The groups' membership and participation level will be reviewed at the 11/4 meeting.

SMMA shared a PowerPoint presentation, reviewing the project schedule and updating their progress. The educational program meetings are progressing with a goal of a PDP submission in Feb 2016. SMMA was collecting data to move the process forward. SMMA reported that all staff meetings have been complete. J. Oteri was to confirm that no school staff or departments were missed. Upcoming visioning sessions, to be held at SMMA, were scheduled for Oct 20 & Nov 9. Continuous communication with staff and teachers was noted as continuing throughout the process. Ed Program drafts were being updated with M. Skipper, every two weeks. When the Ed Program draft is completed, it was noted that the Ed Program subcommittee will report to the Building Committee, who will report to the School Committee and other attendees requested by the School committee, the Board of Aldermen, and Mayor. SMMA has presented to school committees in the past and offered to provide assistance. The School Committee asked what the opportunity for public comment was. A. Pitkin discussed hosting a community forum, the purpose of which is to share the overall goal and purpose of the high school project with the community. A community forum was scheduled for November 19<sup>th</sup>. A. Pitkin reiterated that the PDP will include all options and that no final decisions are made at the time the PDP. A. Pitkin suggested that it would make more sense to show the community the options included in the PDP as it would yield more fruitful discussions in coming to determination on a final design. Each option will have an order of magnitude cost included in the PDP. The chairman noted that it is important to get project information out to the public. Additional Public outreach will be done after PDP is finalized and before the Schematic Design. There was suggestion to have a project update on SCATV after the PDP is submitted.

SMMA reported on their review of all potential sites in the City around and over 10 acres, both state owned and city owned. Trum Field/DPW yard appeared to be the only other site which would warrant further investigation due to size, location and current ownership.

The Committee asked for a report on how many spaces in the building are currently undersized by MSBA standards. SMMA indicated that this would be provided at the next meeting.

PMA and SMMA agreed to work, with the Committee's availability, to schedule tours of some recently constructed high schools. Essex Tech, Quincy High School and Winchester High School were decided upon to be the first set of tours scheduled. The CTE director and students would be invited to join the tours.

**January 2015**

**November 04, 2015 – 05:30PM – Gallery 81, Somerville High School**

T. Pierantozzi provided a brief overview of visioning meetings, upcoming outreach, working groups, and project information and fact sheet for distribution to the public.

D. Taylor from the Somerville Communications Department was present and offered to assist the SBC with outreach efforts starting with an announcement for the upcoming Community Forum on 11/19; PMA and SMMA to provide support information and images. SMMA intended to compile a presentation for Forum on 11/19 using SBC presentation slides. N. Braga to work with students & SMMA to create an informational brochure for the 11/28 Craft Fair, ~500 copies to be printed and distributed. A project announcement and direction where more info can be obtained will be provided at the upcoming ResiStat meetings. T. Pierantozzi was to arrange filming for events with cable department where appropriate.

A. Pitkin was scheduling DESE follow up meeting to discuss SPED & c.74 program, tentatively targeting 12/1/15. SMMA reported that Geotech reports are forthcoming. Geo-environmental testing, noise monitoring and traffic studies have been scheduled (existing site only). Visioning meeting #2 was scheduled for 11/9/15. Educational Program development was ongoing, with draft Educational Program targeted for 11/25/15. SMMA presented floor plans identifying which spaces are compliant with MSBA's space summary guidelines. Space summary and floorplans were to be further refined and reviewed for compliance with MSBA guidelines through the feasibility phase.

**December 02, 2015 – 05:30PM – Gallery 81, Somerville High School**

T. Pierantozzi provided an update from the site tours at Quincy and Essex; a tour of the Winchester High School tour is scheduled for 12/9. SBC expressed interest in touring the Everett HS as well, PMA & M. Skipper to coordinate the tour.

The first was a great success and well attended. A recap of the Community Forum was provided by PMA and a memo outlining the discussion was distributed. A second community Forum will be scheduled in late February or early March at one of the elementary schools. The updated fact sheet has been posted to the project website. 500 informational brochures are available for distribution, M. Rosetti will take some for local distribution, PMA to post on project website. A property tax newsletter is also being mailed out soon, E. Bean to contact Communications Director to see if a high school project update can be included as part of that newsletter. Student participation in Design Workgroups and possibly site visits was requested, J. Oteri to coordinate. The option of providing a project update via Our Schools / Our City was also identified for consideration.

PMA provided an updated working group list. The education plan working group meeting will be scheduled shortly after receipt of new draft educational plan template from the MSBA.

SMMA distributed visioning meeting notes to the SBC. SMMA provided an overview of the meetings. SMMA has contacted DESE to set up a meeting to discuss new c.74 programs, no response received yet, a meeting will hopefully occur in the coming weeks. SMMA also provided a report on recent site studies (geotech, geoenv, hazmat, survey, etc). Preliminary investigations did not reveal anything unexpected, PMA/SMMA to distribute copies of the reports to SBC members.

SMMA reported that Analysis of other sites within the City suggests that the existing site appears to be the preferred location. SMMA will include this analysis and results in the PDP submission.

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A draft copy of the new construction option space summary was distributed by SMMA and discussed at length. M. Rosetti inquired about the possibility of accessible green roof space. While this is possible it is highly unlikely that the MSBA would participate in any of the costs due to the 8% sitework cost cap or \$299/SF building allowance. The possibility of adding a c.74 Media program to work with City Cable was discussed. The various programs which may be part of the project were discussed, it was agreed that all proposed programs should remain part of the project during the early portion of the feasibility study. SMMA to update Space Summary based upon feedback received and re-issue.

**January 06, 2016 – 05:40PM – Library - Somerville High School**

The meeting began with a discussion about building committee member attendance concerns. T. Pierantozzi informed the committee that the intent was to replace R. Melillo with V. McKay as a voting member as recommended by the School Committee. With the Mayor's approval the SBC member form would be updated and submitted to the MSBA for approval. T. Pierantozzi added that the School Committee had also recommended adding one student member to the SBC. A motion was made by S. Roix, and seconded by S. Koty to recommend that the Mayor add a student as a voting member, J. Oteri was to work with student council to identify a student to represent the student body. A vote, 11-0 in favor, indicated unanimous approval to recommend that the Mayor add a voting student member to the building committee.

T. Pierantozzi reported that public outreach efforts are ongoing. Project documents had been updated on the project website. R. King was to confer with city communications department about next outreach effort.

The educational plan working group met on 1/5/16 to review the Ed Plan draft outline. M. Skipper provided an update about approach to development, input from site visits, exemplars reviewed w/ SMMA's guidance. The educational program development was an inclusive process which included two visioning seminars and a community meeting to obtain feedback. The outline had been drafted with input from the School Committee, department heads, teachers, students, support staff (guidance, nurse, etc). S. Morgan had taken the lead on development and assembling the plan. J. Oteri spoke about the process, how SMMA helped them to "think outside of the box." SHS staff had been pleased with the outcome of the sessions & information gathered at site tours. S. Morgan added that the visioning process also included community partners. A timeline of the process was provided: 12/23/15 first rough draft sent to SMMA | 1/5/16 first draft discussed with working group | 1/8/16 updated draft will be provided from SBC, SC and BOA review | 1/11/16 SC will review at their meeting | 1/13/16 all comments due | 1/15/16 final draft to be issued. T. Ciccariello asked if 100% of department feedback was received – to which the answer was yes. S. Morgan added that comments to be provided via MS Word tracking feature if possible. M. Rosetti expressed concern about whether or not input from site visits would be included in the Ed Program. M. Skipper would review site visit input and incorporate where/if appropriate. SMMA added that this is the first step in the process and will not, in itself, fully define the building; details would be refined as design develops. Final draft of Ed Plan would be discussed at 1/20/16 SBC meeting.

SMMA provided a design update presentation with the latest PDP concepts. There were a total of 6 concepts (base repair, renovation, add/reno using existing auditorium, add/reno with new auditorium, new build on existing site, new build on Trum/DPW site). M. Rossetti expressed desire to save the existing auditorium if possible due to recent investments, a sentiment which was echoed by others. SMMA responded that unfortunately the auditorium comes with a good

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deal of compromised "bad" space around and underneath it. A cost analysis was being performed as part of the PDP development to determine if it is logical to save the existing auditorium. T. Pierantozzi spoke about including a campus concept with multiple buildings on the existing site as one of the alternatives, SMMA was to develop this additional option to include with the PDP.

SMMA provided an overview of existing and potential zoning non-conformities (ie setback, building height, fence height). A meeting with OSPCD on 12/3/15 confirmed that a special permit should be sufficient provided existing non-conformities are not made worse in the preferred option. On 12/14/15 another meeting occurred to review the latest GLX project design and potential implications. It is understood that there is an easement in place for utilities supporting GLX on HS property that may affect design. It is also understood that the Homan's site has been offered to DOT as laydown space for the GLX project with the understanding that they would abate and demolish the building. The City indicated a need to better understand timing of the GLX project to determine if there is an opportunity for the HS project to use the Homan's site for laydown as it would be incredibly advantageous to the high school project.

PMA provided a presentation about current construction market data, both nationally and MSBA project specific. Items like inflation and escalation were reviewed. Current cost/SF was reviewed. MSBA categorically ineligible costs were reviewed. MSBA data indicates upper range of construction costs for SD estimates in 2015 is \$441/SF. With annual escalation anywhere from 4.5%-8% through 2018, this could translate to an avg cost/SF in excess of \$500 for SHS. Unfortunately SHS project may be on the upper end of MSBA data, due to challenging site, urban market conditions, constraints w/ existing building, etc. MSBA cost/SF cap is currently at \$299/SF, this creates a challenge for many urban projects as it results in a high percentage of ineligible costs (recently approved Brookline school was profiled, where only 56% of total budget was "eligible" for reimbursement). PDP order of magnitude cost would be reviewed in detail at the 1/20/16 SBC meeting.

## **January 20, 2016 – 05:40PM – Library - Somerville High School**

Proposed changes to the SBC membership were discussed; Max Nadeau was introduced as the proposed student voting member. Max is a SHS freshman who has previously expressed interest in the project and who had attended school tours at Winchester HS and Everett HS. Rick Melillo would also be replaced by Vince McKay on the SBC. Lastly, Omar Boukili (on the "SHS Building Task Force") was to be replaced by Tim Snyder on the proposed staffing update submission to the MSBA. The proposed changes would become official upon receipt of MSBA approval of the change. Site visits were also discussed, comments about which included: 1) MJR concern that QHS had a freshmen academy that was underutilized; SMMA advised that this was a result of the economic downturn and funding cuts. 2) MJR liked the lecture hall idea, SMMA noted that this type of space was in the current draft of the SHS Ed Program. 3) MJR liked the IT grant in Essex where equipment was bought at cost, MS to look into developing business relationships, JO spoke about some of the partnerships already existing. 4) TP spoke about the lecture hall at Biogen, design is optimal and he would like to see something like it considered. 5) SR and others were not a fan of the café/kitchen at Everett, no windows, felt confined. 6) AS liked the size of the classrooms at Everett, Essex Tech classrooms were too small as a result of the breakout space in the corridor. T. Pierantozzi thanked all for their attendance and feedback at the tours.

Next SBC meetings to be at elementary schools, 2/3 will be at Argenziano, 2/10 will be at ESCS. S. Roix inquired if an outreach working group will be created; all agreed that this would be beneficial. The SBC meeting on 2/3 was to focus on outreach and forming a working group and

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developing the outreach plan, representation from communications and City should be included on the working group.

The education plan was distributed to all, J. Oteri made a motion to approve, seconded by T. Ciccariello. Discussion followed. M. Skipper provided an overview, stated that lots of feedback was received, SM worked to incorporate feedback wherever possible while maintaining the overall vision. TP asked if anybody wanted to review the Ed Plan development process. MJR inquired if feedback was mostly from educators? MS replied that it was mostly from educators, many comments were focused on areas that required additional detail or related to linkage between sections or takeaways from site visits. MRJ asked if the School Committee reviewed the Next Wave and Full Circle program inclusion. MS replied that these were folded into a larger programmatic review, and to pull these programs out now would be premature. MJR commented about a lack of building sustainability/energy efficiency in the educational program. SMMA explained that sustainability is addressed in other sections of the Feasibility/Schematic process. MJR inquired about the centralization of guidance, JO responded that the idea is to maintain maximum flexibility through collaboration, the house structure will still be accommodated. MJR presented a question about adding HVAC to CTE, this program was cut due to low enrollment years ago. JO responded that the Regional Education Board has identified HVAC as an in demand vocation. NB had a question about collaboration between academic & CTE programs, would like the Ed Plan to better reflect integration. TC expressed concern about the short timeline for reviewing, asked that future changes are tracked. TC believed it was a good foundational document, some redundancy in CTE but generally seemed to capture all input and the evolution in the document is evident from rough to final draft. J Oteri and T Ciccariello agreed to table the motion/vote pending final revisions to be completed by 2/10/16.

SMMA presented the Concourse and Campus alternatives. One of the major challenges with both alternatives was the distance between the existing auditorium and gymnasium. These alternatives would be included in the PDP submission.

SMMA provided a breakdown of SPED spaces contained within the space summary.

Cost analysis for new campus/concourse alternatives was being developed. T. Pierantozzi and E. Bean explained the debt exclusion and proposition 2½ override processes and challenges that the SBC will likely face. E. Bean explained the difference between the two, a debt exclusion is a temporary property tax increase for the life of the loan, an override is permanent. If project funding question is to be included on the November 2016 ballot then the ballot question would need to be approved by the secretary of state by 8/3/16, and a Board of Alderman 2/3 majority vote would be required prior to 8/3/16. It was noted that this is out of sequence in the MSBA process (ballot vote usually comes *after* MSBA board vote), but other districts have done it this way before so it would not be unprecedented. If this course of action will be taken, PMA recommended informing and consulting with the MSBA as soon as possible. PMA also cautioned that appropriate contingencies need to be in place if the target budget is to be set so soon in Schematic Design, so the estimated cost will need to be on the higher/safe side since the detailed design and detailed estimates will not yet be available. T. Ciccariello and others expressed concern about the timeline getting to a vote in November, indicating a need to increase outreach efforts ASAP.

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**February 03, 2016 – 05:43PM –Conference Room - Argenziano School**

Tony P. outlined the PDP process; approval was being sought by SBC on 2/10, then it would need to go to SC and City Hall for approvals and sign-off. Once submitted to MSBA, they will review for approximately 2 weeks and provide comments. Mary Jo R. requested that copies of MSBA comments are forwarded to the SBC members. PMA added that responsibility will be assigned for response to each of the MSBA comments (indicating City, School, PMA, SMMA responsibility). Mary Jo R. requested an updated status of SBC membership changes, Mary S responded that it is with the Mayor for signature and will be submitted to the MSBA immediately after. Mary Jo R. inquired what the "task force" is on the SBC approval form, Tony P responded that the task force was the group responsible for development of the Statement of Interest (SOI) submission to the MSBA. A copy of the MSBA's approved changes to the SBC will be forwarded to all members once received.

A public outreach committee was formed consisting of Mary Jo R. (chair), Tony P, Steve R, Susanna M, Rob K, Nelia B, City Hall Communications and Mary S (when necessary). Mary Jo to coordinate first meeting for the following week. The approach needed to be multipronged, key critical information needs to be identified and distributed, working group should work with City Communications to find good information to distribute. Tony P suggested distributing an updated version of the brochure that already exists. Working met and reported back at a future SBC meeting.

The Education Program working group had a conference call with the MSBA on Friday 1/29/16 to discuss c.74/DESE protocol. A new format for reporting c.74 information in the Ed Program was provided by the MSBA, and this new form will require translation of the current information in narrative format to a simplified table format. Leo DeSimone to work on new format and work with DESE to obtain pre-approvals for new programs. It was noted by John O. that the MSBA's new requirement for pre-approval is being discussed internally at DESE, since pre-approvals are only good for two years, this is actually more of a pre-pre-approval.

A new "Central Hill East" alternative was briefly discussed; this option was in the early stages of development and would be developed further in a design charrette meeting on Friday 2/5/16. The purpose of this new option was to provide additional flexibility on the Central Hill site with options going forward under the MSBA program. T. Bent and others stressed that the high school needs to remain the primary goal of the committee.

SMMA updated the space summary to confirm accurate interpretation of the Educational Program in order to eliminate inefficiencies and design a "right-sized" building. An updated copy would be provided to the SBC with the PDP draft documents the day after this meeting.

Order of magnitude cost data was forthcoming. Costs presented would utilize general market data and are for comparison of each of the alternatives to one another to identify the preferred schematic option. T. Pierantozzi cautioned that detailed design and estimates for a specific option will not be fully developed until completion of Schematic Design and MSBA project scope & budget approval in January 2017. SMMA advised that if any new furniture is being purchased for the building that the school consult with them to ensure that it can be used in the new program.

John O. distributed correspondence to and from the New England Association of Schools & Colleges (NEASC). In their communication, NEASC stressed the importance of implementation of a plan for replacing the aging High School building. John O. also distributed the district's response to NEASC's 5-year report & NEASC's most recent letter commending Somerville for their

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efforts related to the School Building Project. Tony P. stressed the importance of maintaining accreditation for Somerville HS.

**February 10, 2016 – 05:36PM – Media Center – East Somerville Community School**

Committee Member and Project team introductions were made. T. Pierantozzi outlined the MSBA and PDP processes, stressed that it is not the intent of tonight's meeting to select an option, merely to approve the submission of the 9 building alternatives, education plan, and supporting documents to the MSBA. MJ Rossetti inquired about the process of narrowing down the 9 options and if it would make sense to review 3 options at each of the 3 next SBC meetings? T. Pierantozzi replied that it may not be necessary to review all 9 in depth, the MSBA requires that we investigate certain scenarios to demonstrate due diligence and in Somerville's case a few of those scenarios would not satisfy the education plan or contain other major impediments.

MJ. Rossetti provided an update on the outreach working group meeting held on 2/9/16. There were 13 people in attendance, including 4 from the City's communications department and 3 from PMA. The project's website is in the process of being revamped for interactivity with constituents, the main page will contain FAQs & and a project overview. MJ. Rossetti will notify SBC members when new website is 'live'. The website will contain a means for public comment but it was noted that responses may need to be selective in order to maintain overall schedule and process. Facebook and Twitter accounts will also be set up and monitored by the City where quick responses to questions can be provided. Informational brochures were circulated, the brochures were created by N. Braga's graphics class and will be updated for the next Community Forum in about 6 weeks. MJ. Rossetti is also working to document all community groups to be engaged as part of the outreach effort. It was noted that any and all media questions should be forwarded to T. Pierantozzi for review and response.

SMMA presented a new, 9<sup>th</sup> alternative building option "4B". This is an add-reno option at the east side of the site that centers around the 80s wing field-house. The other 8 alternatives were also reviewed. Challenges related to implementation of the Ed Plan in the base repair and base renovation options were discussed. Challenges related to the Article 97 open space protection policy were discussed as they relate to the Trum Field/DPW alternative. MJ. Rossetti inquired about the reference to a parking garage in the traffic study, SMMA responded that there is an option for a garage in some of the alternatives. MJR expressed concern about some of the problem traffic intersections referenced in the study, requested that more detailed information be provided prior to selection of a preferred option. T. Pierantozzi added that the project's impact to traffic patterns will be minimal if the existing site is utilized, traffic studies in scenarios where new traffic is being introduced at new sites are often more complex. SMMA added that school impact to traffic is less than other office type buildings since most students utilize alternative forms of transportation. Lastly, MJ. Rossetti requested that SMMA outline any OSPCD variances required for each alternative prior to selection of a preferred option.

Upcoming activities and dates were reviewed: School Committee Finance & Facilities subcommittee presentation on 2/11/16, SC approval of PDP on 2/22/16, Mayor approval of PDP by 2/29/16, PMA to submit PDP on 3/1/16. Still awaiting MassHistoric response to Project Notification Form. Project remains on target for 7/20/16 MSBA board approval to proceed into Schematic Design.

T. Bent asked for clarification on what stage costs are firmed up, T. Pierantozzi & PMA responded that until Schematic Design has been completed late this year, there is no tangible set of design

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documents (detailed drawings & specifications) to perform a detailed, project specific estimate on. At the moment we are using order of magnitude costs for the purpose of comparing each of the 9 alternatives to each other only, with the goal of identifying the preferred option and developing those costs further. The order of magnitude costs in the PDP are on a square foot basis using general market data, the true cost of the project and the district's share will not be set until the January 25, 2017 MSBA Board meeting. MJ Rossetti added that it will be important for SBC members to understand ineligible costs for each scenario in order to make an educated decision on the preferred option.

Prior to a vote on the PDP, MJ. Rossitti motioned that the rules of the meeting be foregone and that public be allowed prior to the committee vote. The motion was unanimously approved (12-0).

### Public comments:

- Laura H (resident) – Is the Education Program the only component being submitted at this time? T. Pierantozzi – No, the full PDP is being submitted, including the Ed Plan, Alternatives, Existing Conditions Study and Subconsultant Reports.
- Richard W (resident) – If the plan [PDP] is submitted to the MSBA on 3/1/16, when will it be accessible to residents? T. Pierantozzi – the PDP will be posted to the project website once it has been submitted to the MSBA.

A motion was made by S. Koty to approve the Preliminary Design Program package in its entirety as submitted, the motion was seconded by T. Bent. T. Pierantozzi asked those present if there were any other discussion items relating to the PDP submission package, there were none.

**Vote: 12 in favor, 0 opposed, 0 abstained. Unanimously in favor to approve the PDP in its entirety.**

## **March 14, 2016 – 05:35PM – Library – Kennedy School**

Project team introductions were made. T. Pierantozzi provided an overview of the agenda, and suggested a change in meeting sequence moving the presentation first as it is being video recorded for the project website. T. Pierantozzi also outlined the MSBA process and stressed the importance of aligning the proposed project with the education plan. MJ Rossetti asked if zoning variances and reimbursement rates had been figured for each alternative, SMMA provided a recap of possible zoning variances needed (namely setback & building height which are already non-conforming). PMA gave a quick explanation of reimbursement incentives (2 pts for LEED, 0-5 for renovation depending on % of building renovated, 1 pt for CM @ Risk, 0-2 points for preventative maintenance). The anticipated reimbursement rate for each scenario was included in the budget scenario sheet previously reviewed, PMA will re-issue with a detailed breakout.

T. Pierantozzi provided an overview of outreach efforts forthcoming. Building tours have been scheduled for 3/16, tours will be led by members of the committee. Public forums have been scheduled for 3/22, 4/5 & 4/26, the 4/5 forum will have translators available. The SBC also hopes to have a presence at the 4/13 GLX meeting due to anticipated high turnout, the intent will be to provide information to those interested. A Somerville youth/student forum was scheduled 3/30, J. Oteri to confirm. PMA to update lookahead schedule to include these dates & distribute to SBC members. SMMA to provide floorplans & narrative for tours on 3/16. Media outreach was discussed next, MJ Rossetti wants to push for feedback through the project's website. T. Bent suggested the possibility of direct correspondence to K-12 parents, T. Pierantozzi responded that

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the information has already been dispersed electronically via school connections. T. Pierantozzi stated that a conference call is scheduled for tomorrow morning with City Communications; he will stress the need for more public feedback.

SMMA provided a presentation which outlined the 9 alternatives, the video copy of this presentation will be uploaded to the project website ([somerillema.gov/highschool](http://somerillema.gov/highschool)). The presentation was followed by SBC discussion:

Alternatives 0 & 1 were discussed, the major drawbacks were that alternative 0 will trigger substantial renovations in order to become code compliant. With these renovations, also part of alternative 1, there would be a reduction in usable SF due to items like seismic bracing, additional bathrooms, etc to satisfy modern building requirements. A motion was made by S. Roix to remove alternatives 0 & 1 from consideration since they could not satisfy the City's educational program. V. McKay seconded the motion. No further discussion occurred. **Vote: 13-0 unanimous approval to remove alternatives 0 & 1 from consideration.**

Alternatives 2 & 3 were reviewed next. SMMA stated that these options can be studied concurrently since they are very similar. M. Nadeau expressed a concern he had about the long hallway. T. Bent had concerns about the costs associated with stabilizing the facades & structure to support the extensive and extremely invasive renovations that would be required. T. Ciccariello inquired if historic components of the existing building could be incorporated into a new building instead (ie decorative lintels), answer is yes. MJ Rossetti added that alternatives 2/3 are very similar, the differentiating factor is really the reuse of the auditorium in alternative 3. SMMA cautioned that re-use of the auditorium sounds ideal, but it creates some inefficiencies with the spaces below (ie current cafeteria). PMA added that early indicators are that alternative 3 will actually cost the City more than alternative 2 due to reimbursement calculations. T. Pierantozzi reminded that there may still be an opportunity to reuse some components of the auditorium, such as the newer seats, in the final solution. M Skipper asked if there was a matrix available to compare options, SMMA responded that a matrix is included in the handout. General consensus is that alternatives 2 & 3 warrant further investigation, no further discussion on these alternatives at this time.

T. Ciccariello made a motion to remove alternate #6 from consideration. The motion was seconded by T. Bent. Discussion: T. Pierantozzi outlined Article 97 challenges and potential schedule impact, along with the need to relocate DPW prior to commencing any real work in this scenario. MJ Rossetti expressed a concern about removing this option too early without full public input, this is the only option on another site. S. Koty wants to start focusing on the 'real' options, does not think that the DPW site is viable. MJ Rossetti would feel more comfortable if there was a press release explaining why this option was eliminated. T. Ciccariello added that it is important that the community understands that there were several other site options vetted as part of the PDP process (Dillboy, Foss, etc). These other options were presented at the November 2015 public forum and all feedback received indicated a strong preference for the existing site. **Vote: 13-0 unanimous approval to remove alternative 6 from consideration.**

TP asked if all were OK moving on to the next item on the agenda. PMA requested if alternative 4A could be discussed and considered to be removed, SBC general consensus was that they would like to keep 4A on the table for the time being. SMMA requested a discussion about alternative 5, SBC declined and wants to leave alternative 5 on the table. PMA reminded all of the need to get down to 3 options for "final evaluation" at the 3/28 meeting and the need to select the 1 "preferred option" by the 4/11 meeting in order to stay on track for the June 2<sup>nd</sup>

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MSBA submission deadline. MJ Rossetti requested more visuals at the next meeting so the public can follow along better with the SBC's discussion.

Chapter 74 program approval process was briefly discussed. SMMA is working to obtain the School Committee vote of support for the new programs. V. McKay to check on progress and report back.

PMA to update & issue budget scenarios for 6 remaining options, this data will be reviewed at the 3/28 SBC meeting.

A copy of the Massachusetts Historical Commission's (MHC) 2/24/16 response to the Project Notification Form (PNF) mailed on 1/4/16 was provided. The 1895, 1914 and 1929 buildings are in MHC's inventory, although they have not been technically registered as historic buildings. The MHC letter requests photos of existing conditions and requests input from Somerville's Historic Preservation Commission (SHPC). T. Ciccariello requested clarification as to whether or not this MHC letter precludes any of the 4 options, answer is no, not at this time, for now they are just requesting SHPC input. SMMA, RK, TP and PMA have been invited to attend and present at tomorrow's (3/15) SHPC meeting and will report back with findings.

The meeting was opened to public comments. Public Comments are recorded in official meeting minutes.

### **March 28, 2016 – 05:42PM – West Somerville Neighborhood School**

General Update: The MSBA will provide comments in the next few weeks. The MSBA has indicated that they will focus on the PDP submission and provide comments after the March 30, 2016 board meeting. PMA will update the MSBA on the progress of tonight's meeting. The committee should continue to move forward with the process while awaiting MSBA PDP comments from the MSBA.

Public Outreach Update: The project webpage is continually updated with meeting agendas, minutes, and presentations. Each of the building alternatives has been uploaded to the webpage with a space for the public to provide feedback on and to rate each alternate. As feedback is received from the public, it will be distributed to the committee. PMA has distributed the initial public comments to the committee by email. There is a student/youth forum scheduled for Thursday March 30<sup>th</sup> at 2:30PM in the High School Auditorium. T. Pierantozzi asked members of the committee to take and distribute the project information flyers.

General Design Update: SHPC Update – T. Pierantozzi, R. King, PMA and SMMA met twice with the SHPC, once in a SHPC meeting on 3/15 and again at a working session on 3/23 with 4 members of the SHPC. No votes were taken. There is a follow up meeting tomorrow 3/29. R. King updated the committee on the meetings: SMMA provided a general overview of the design process and the alternatives being considered, highlighting each alternative's impact to the current building. The takeaway from the meetings is that the 1895/1914 section is the highest priority and the War Memorial façade is the next highest priority. MJ Rossetti asked if the historic process should have been started sooner. C. Crittenden explained that this process is typically started later but was moved up to assure the MSBA of the SHPC and MHC support of the project as early as possible. J. Oteri believes that options leaving the 1895/1914 may have the least impact to operations. T. Pierantozzi noted that all options will have challenges in phasing but is confident that each option is workable. T. Ciccariello asked if there is a high level of confidence that the SHPC will support the working group priorities. T. Pierantozzi believes that the working group provided priorities which would be supported by the SHPC. T. Bent expressed that he

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would have liked to have full SHPC committee input prior to the SHBC meeting. T. Ciccariello asked if the 1895 wing will satisfy current building codes. SMMA reported that the 1895 has some timber components that would need to be addressed but all within their capabilities and nothing they haven't had to deal with before. T. Bent asked is SHPC had jurisdiction over the interior of the building. R. King stated they typically do not and they were not averse to maintaining only the building façade to maintain the aesthetic from Highland Ave. J. Oteri asked if the building could be demolished and components from the original building be reused. R. King reported that this was not the preference of the SHPC.

SMMA presented on current design alternative, they commented on the MBSA current desire to re-use existing building where it makes sense to do so. Renovation of the existing SHS building makes it difficult to achieve 21<sup>st</sup> century learning objectives, program adjacencies, STEM/STEAM, layout needed to make meaningful program connections. Additional program collaborations could be made between the Chapter 74 programs and the public spaces currently in the building. i.e Cambridge Health Alliance and nursing assisting program, daycare and the early child care program, SCAT and the TV broadcast program. Spaces could be designed to complement each other.

The remaining building alternatives were again reviewed. A U12 field was shown on each plan for scale, it is unlikely that a full size field would fit on any building alternative. One option added, option 2A. S. Roix asked if 2a was new, added after PDP. SMMA confirmed it was, but is a minor variation/evolution of alternative 2, removing the western most 1929 wing closest to city hall.

MJ Rossetti asked if any alternatives align driveways to the adjacent roadways. SMMA confirmed that the sketches they have provided to align the driveway to the adjacent roads. This sketches require further investigation and are only for illustration at this point.

**S. Koty MOTION eliminate alternative 5, R.King Second**

**Alternative 5:** All new construction on the existing high school site – as proposed by this alternative - would require the full demolition of the existing school. Portions of the building that date from specific eras hold higher cultural significance for the City, including the original 1895 building and the 1929 War Memorial building that currently houses the school library. Alternatives that maintain some portion of those two elements of the existing building were deemed as preferable. **PASS 12-0**

**T. Bent MOTION eliminate alternative 4a, S. Koty Second:**

**Alternative 4a:** The disconnected nature of individual buildings was deemed to be counter to the main educational goal of creating an integrated comprehensive school with improved opportunity for all programs to interact with each other. In addition to that programmatic issue, the disconnected buildings raised safety and security concerns, and would result in a higher number of stairs, elevators and exterior building surfaces. **PASS 12-0**

**R. King MOTION to eliminate alternative 4, J. Oteri Second**

**Alternative 4:** While this plan could connect the lower levels of the school in an open & fluid manner, the upper levels of the various programs would become isolated, requiring a higher number of stairs, elevators, and support facilities. **PASS 12-0**

**R. King MOTION to eliminate alternative 2, N. Braga Second**

**Tom Bent-** Will alternative 2a still be on the table? –YES

**MJ Rossetti** – Cannot support removal of this option as it has not been presented to the public.

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**S Roix - Cannot support this option**

**Roll Call Vote – (9-2-1; MJR & SR against, TP abstained)**

**Alternatives 2a, 3 and 4b still on the table.**

T. Bent would like alternatives and presentation data to be sent the day before the meeting. T. Pierantozzi would like to see refinements to alternative plans the on the Friday prior to the Monday meeting.

Project Schedule: To maintain the project schedule, the committee is expected to be prepared to discuss and choose their preferred option at the next meeting on 4/11.

Next Steps: MSBA PDP review comments anticipated in the next few weeks. Student SBC meeting on 4/11 to identify preferred option.

Project Budget: Order of Magnitude budgets for each alternative were provided for review.

Historic Process: PMA and SMMA will be working with the SHPC and MHC to review the remaining alternative and collect feedback from each organization.

The meeting was opened to public comments. Public Comments are recorded in official meeting minutes.

**April 11, 2016 – 05:37PM – Library – Healy School**

General Update: PMA then provided an update on the MSBA's PDP review process, MSBA senior staff is reviewing the comments now, the MSBA expect comments will be provided to the district by the end of this week. PMA to forward MSBA PDP review comments to the SBC upon receipt.

Public Outreach A community forum is scheduled for April 26<sup>th</sup> in the HS auditorium, this will be the final community forum prior to submission of the Preferred Schematic Report. T. Pierantozzi advised that the website has received over 4000 hits recently. PMA distributed a summary of comments received to date, it was noted that at least one public commenter (present at tonight's SBC meeting) initially supported Alt 2A but now support Alt 4B after receipt of more detailed information. MJ Rossetti reminded all of the project presentation to the Board of Aldermen, R. King added that he will be present at Thursday's BOA meeting and can provide an update to the SBC after the meeting. T. Pierantozzi is also working to arrange a 30 minute interview on Somerville Community Access TV. M. Nadeau is available to attend with T. Pierantozzi, date is TBD.

General Design Update: SMMA presented each of the three remaining final options for evaluation, discussion followed.

MJ Rossetti inquired what the total height of the building would be if it is 5 or 6 stories as seen in Alternative 4B, SMMA replied that it could be around 105' and may require a variance (it was noted that existing condition is also non-conforming). The existing building is 3.5 stories on Highland Street, not including the roof if it were to be restored (roofs do not count towards building height).

Next, anticipated program disruptions by phase were reviewed for each of the alternatives. T. Ciccariello noted that the Ed Program does away with the isolated nature of the CTE wing, it appears that 4B is most supportive of this idea. T. Ciccariello would like to review phasing options to see if there is a way to mitigate construction impact to CTE operations. SMMA & PMA to investigate.

MJ Rossetti asked about cost delta between Alternative 4B and 4B' (closer to street), the costs for each are close but 4B' is likely slightly less since it allows for more flexible use of the available site area. MJ Rossetti is seriously considering Alt 2A and wants to know what other SBC member's thoughts are. R. King clarified that 4B and 4B' should be considered the same for the purposes of this discussion, there are only 3 options on the table. M Nadeau asked if the impact to CTE spaces would be greater in Alt 2A? Yes, 2A will make it challenging to only move CTE spaces once, multiple moves will result in greater impact and cost. S. Roix asked if the educators present would comment on the remaining options, specifically how each alternative responds to the approved Education Program. Prior to the educators feedback, R. King motioned that Alternative 3 be eliminated for a number of reasons in order to streamline the discussion. Disadvantages of Alt 3 include 1) the costly renovation of the existing auditorium due to seismic code upgrades and necessary stage improvements, 2) the low, dark, undesirable space below the auditorium which is unsuitable for modern education, 3) the undesirable northern blank face of the building towards Gilman Square would remain, 4) lack of available open/field space on the hill under this scenario, 4) this alternative maintains the existing barrier between the north and south portions of the site. Furthermore, this option is more costly than similar Alt 2A and has come close to being eliminated at past meetings.

R. King motion was seconded by J Oteri, no further discussion occurred, **VOTE 13-0 (unanimous) in favor of eliminating Alternative #3.**

School staff (and student) present then proceeded to provide their feedback relevant to the remaining two alternatives and the Education Program. MS sees tradeoffs in both alternatives, each supports the Ed Plan but she is leaning to 4B. The 1895 building preservation opens up many opportunities and provides for a campus feeling, including much needed greenspace and ability to integrate the building into the overall district program. All program being in a smaller footprint is ideal, evening with the additional height in 4B. The site generally flows better and MS is interested in better understanding the interior components of 4B. J. Oteri added that his feelings are similar, he likes the added distance from City Hall, new greenspace, overall look & feel of Alt 4B. Additionally, Alt 4B causes the least disruption to school operations during construction. While the added height is not J. Oteri's preference, the horizontal travel distance is even worse. The compact footprint of 4B will create flexibility and better adjacencies, no concern about the overall shape as it is understood that it will evolve and develop as the design progresses. J. Oteri feels that the SBC should leverage this process to create the best possible building for the community, 2A is 'clunky' and does not address many existing disadvantages. A. Santos concurred with M. Skipper and J Oteri statements, she liked the historical look of the front, and was glad that it is being maintained. Also preferred the vertical approach as the horizontal travel distances are a problem, definitely prefer alternative 4B. N. Braga echoed M.Skipper & J. Oteri as well, 2A does feel 'clunky' and 4B is better aligned with the Ed Plan. M Nadeau added that the compact nature of Alt 4B has environmental benefits too, the building has less surface area and should be more efficient.

MJ Rossetti asked to discuss the location of Next Wave / Full Circle – she does not like the idea of putting the program in the 1895 basement as suggested. SMMA replied that the rear of the 1895 building would be exposed and open to the fields in this scenario, although it is difficult to envision this early in the design. M. Skipper added that if the NW/FC program does end up in the 1895 building we need to be ensure that there are not two different standards.

**S. Roix motioned to select Alternative 4B as the preferred option, A.Santos** seconded.

Discussion: T.Bent suggested that the SBC takes public comments prior to the vote. SR/AS agreed to table their motion for 4B, pending receipt of public comments.

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T Bent motioned to take public comments now, second by T Ciccariello. Vote: (13-0) unanimous to take public comments prior to voting on the preferred alternative. (public comment included in meeting minutes)

Following public comments,

**S. Roix motioned once again to select Alternative 4B as the Preferred Schematic Option. Motion was seconded by A.Santos.** Discussion: MJ Rossetti asked if selection of Alt 4B includes the 1895 building reconstruction, T. Pierantozzi responded that no, determination of future use that building would not be in the SBC's purview. S. Roix clarified that we don't yet know what the 1895 building will be used for; it is subject to future review. M. Skipper asked if it is in the SBC's purview to recommend attaching the 1895 building to the project. T. Pierantozzi responded that this may not be financially feasible at this stage, PMA added that the MSBA will not allow for the school funding vote to be tied to the 1895 building renovation if it is not intended to be used for HS educational program. **VOTE 13-0 (unanimous) in favor of proceeding with Alternative 4B as the Preferred Schematic Option.**

Project Schedule: On track for PSR submission to MSBA by 6/2/16. SBC to meeting on 5/23 to approve submission. MSBA Board Meeting is scheduled for 7/20/16.

Next Steps: MSBA PDP review comments anticipated this week. GLX forum on 4/13(will set up informational table). Community Forum on 4/26. SBC meetings on 5/9 and 5/23.

Historic Process: An update on the historic process was provided, the SHPC met on 3/29 and unanimously voted to support each of the final three alternatives. The second MHC PNF submission was made on 3/31 and a consultation with MHC occurred via conference call on 4/1. R King provided a recap of the SHPC discussion, they identified the 1895/1914 central academic building and 1929 war memorial (current library) as priority elements to maintain. SHPC requested in each of the final 3 alternatives that the opportunity to existing retain facades would be investigated, along with restoration of the 1895 roof and the opportunity to reveal the original rear facing façade of the 1895 building.

**Sustainability / Energy Efficiency (New Business): M Nadeau made a motion to place a priority on environmental impact, specifically sustainability of the building, renewable sourcing of electricity and geothermal heating. Motion was seconded by S Roix.** Discussion followed: T. Pierantozzi asked SMMA at what point the cost-benefit analysis would occur, during SD. SMMA replied that the project is striving to achieve the 2% reimbursement incentive at a very minimum that accompanies a LEED Silver certification; it is not realistic for a project such as this one to attain true net-zero status. M. Nadeau added that 75% of emissions are the result of heating systems, will geo thermal be investigated. Yes, geothermal will be evaluated. S. Roix asked if the City has any green initiative targets beyond those of the MSBA's? R. King responded that discussions have occurred with the office of sustainability and that they are working to develop standards. SMMA added that the goal would be to construct a tight exterior envelope to support newer technology as it becomes available. **VOTE 13-0 (unanimous) to place a priority on environmental impact and sustainability.**

The meeting was opened to public comments. Public Comments are recorded in official meeting minutes

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**May 9, 2016 – 05:41PM – Capuano Early Childhood School**

**General Update:** T. Pierantozzi noted that the district's response to the MSBA's PDP comments was issued on May 2<sup>nd</sup>. MJ Rossetti asked if there is any concern relevant to the MSBA's comments about the Next Wave / Full Circle programs. PMA responded that the MSBA concern centers around Next Wave students in grades 6-8 being in the HS, and if those programs are to remain in scope then it will certainly prompt in depth discussion during the facilities assessment subcommittee meeting. MJ Rossetti would like to see the program included in the new building. T. Pierantozzi advised that it is an educational decision and should be left to the School Department. S. Roix asked if the MSBA will reduce the design enrollment if the program is not included, PMA responded that the enrollment will be reduced by 25 if Next Wave is not included. V. McKay added that it would be difficult to separate the Next Wave and Full Circle programs, the School Dept would prefer to have the benefits of adjacencies with substantially separate spaces.

T. Pierantozzi informed all of his efforts to engage city groups, including PTA, School Councils, Chamber of Commerce, Service Groups, Senior Citizens, etc. T. Pierantozzi and N. Braga to work with SMMA and PMA to develop handout material. Community forum on 4/26 went well, 14 members of the community attended, good discussion followed.

Design Update: SMMA reviewed the PSR table of contents, 3 final options will be included in the PSR per MSBA requirements. The estimators are working up numbers for each option now. SMMA reviewed the preliminary layout of the preferred option 4B floor by floor, the concept is currently 5 stories up and 1 story down.

MJ Rossetti asked if there were any windows in the space proposed for Next Wave and Full Circle. SMMA responded yes, the entire north elevation will have windows and is above grade due to the hill. A. Pitkin noted that the intent is just to reserve square footage now, program locations are not locked in yet.

T. Ciccariello asked if the 4 additional CTE programs are shown. SMMA responded yes. T. Ciccariello noted that central guidance was a component of the Ed Plan, is this included? SMMA replied that yes, guidance is directly above the main office.

T. Bent asked if Leo (DeSimone) was up to date with the layout, J Oteri responded that no he has not seen it yet, today is the first day anybody has seen the plans, but Leo will be brought up to speed.

M Nadeau noted that with the existing 4 stories people are already out of breath, 6 would be tough. M. Skipper & J. Oteri noted that vertical travel will be limited, looking at options to break up floors by grade where possible, there should not be a frequent need to traverse 6 stories at once. T. Pierantozzi noted that the change from horizontal orientation to vertical orientation will require some adjustment from the norm, people are accustomed to traveling long horizontal distances (ie airports) when often times vertical is actually much quicker & shorter.

T. Bent asked if there will be roof access for CTE (ie for electrical programs to work on wind/solar projects). SMMA noted the presence of some rooftop courtyard space and will consider other options as the design progresses.

SMMA reviewed the proposed garage & field elevations, which have evolved to better accommodate the existing topography, delivery vehicles and emergency vehicle access. The field surface itself is now proposed to be 20' lower than prior designs, now it is on the same plane as the lower level of the building which brings much needed natural light into lower level spaces.

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This also reduces the size of the retaining wall along the rear of the site by gradually stepping down. MJ Rossetti asked if the new layout will reduce parking, SMMA replied no, still 300 spaces since the new layout no longer requires a 2 story delivery route inside of the garage.

T Bent asked if phasing & schedule has been locked in yet. PMA & SMMA replied no, not yet, still many considerations, including where the programs ultimately land in the final layout.

S. Roix noted that the School Committee is interested in obtaining additional details and floorplans. M. Skipper to work with SMMA to coordinate providing the info.

Project Schedule: On track for PSR submission to MSBA by 6/2/16. SBC to meeting on 5/23 to approve submission, tentative meeting on 5/26 if needed. MSBA Board Meeting is scheduled for 7/20/16.

Project Budget: PMA provided an overview of the current budget scenario. Values at this time are based upon general market data and anticipated overall building size, the estimators will provide more detail in time for the 5/23 SBC meeting. PMA presented the base project cost and 7 add-alternate options (1138 seat auditorium, parking garage & field, child care space, DPW space, public access TV space, Cambridge Health Alliance space, and a premium for increased cost efficiency in excess of LEED Silver).

MJ Rossetti asked who decides which alternates stay in scope? R. King responded that it is best for the SBC to prioritize and invite the Mayor for a discussion at the 5/23 meeting. MJ Rossetti noted that they project needs to go before the Board of Aldermen for a vote in July, are we allowing enough time? R. King replied that if a decision is made on 5/23 then it would allow the month of June for BOA consideration prior to their ballot question vote/submission in July. MJ Rossetti noted that it is common for the BOA to cancel their July meetings. T. Pierantozzi recommended that E. Bean & R. King bring the Building Committee's feedback to the Mayor's office for a timely decision. T. Ciccarillo added that he is interested in hearing the Mayor's input.

A process ensued where each of the 7 alternates were discussed and assigned either a 'high priority' or a 'low priority' designation by the Building Committee:

BASE 4B Project: T. Ciccarillo motioned that this is a high priority, T. Bent seconded. No discussion. **VOTE: (12-0, unanimous – high priority)**

Alternate #1 – Increase to 1138 Seat Auditorium: TP advised of a lengthy discussion earlier that day with J Oteri and M Skipper present. There was no discernable benefit to the increased capacity since it still cannot fit the school's design enrollment of 1510 students, so you would still need two sessions with the larger auditorium. Also noted the option to put new bleachers in the field house to increase the capacity there. MJR asked if Drama Weekend would have overloaded a MSBA sized auditorium (750 seats), MN responded that no, definitely would have still had room. TP said maybe 600 people attended. MJR expressed opposition to the smaller auditorium and had to leave the meeting before the vote occurred. A motion was made by T. Bent to classify this alternate as a low priority, seconded by R. King. **VOTE: (10-1, approved – low priority)**

Alternate #2 – Parking Garage & Field: A motion as immediately made by T. Bent to consider this a high priority, seconded by M Skipper. No Discussion. **VOTE: (11-0, unanimous – high priority)**

Alternate #3 – Child Care: It was noted that this is daycare space, not a c.74 program. MS stated that this is a big incentive for staff. T Ciccarillo commented that it was originally

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designed specifically for staff and then opened up to the public, he likes the opportunity to tie into the c.74 program that it affords. V.McKay made a motion to place a high priority on this, seconded by S. Roix. Discussion: T Pierantozzi notes program is at capacity (18?), agrees with T Ciccariello that staff use of the program is likely to increase in the future. T Bent cited other centers in the community, he is concerned about impact to the cost of the project. It is believed that the MSBA reimbursed for a similar space in Wellesley, SMMA can pursue this with the MSBA. **VOTE (11-0, unanimous – high priority)**

Alternate #4 – DPW: R. King motion that this be considered low priority, seconded by N. Braga. Discussion: RK clarified that this proposed space serves other schools. SK confirmed that SHS is a distribution point, and the DPW would need to find an alternate location if not included in the program. RK asked if Edgerly would suffice? T Bentr asked if the old 1895 building could be used? S Koty thinks there are enough options available and space in other buildings to make it work, he is OK with the low priority designation. **VOTE (11-0, unanimous – low priority)**

Alternate #5 – Public Access TV: TP stated that they have an enormous amount of portable equipment, they currently occupy (2) 17'x15' storage rooms, plus an office and a separate control room. RK asked if there is value in having a shared space? MS & NB replied no, not if the equipment is not shared with the students. TC noted that the program has always been collaborative. A motion was made by T. Ciccariello to place a high priority, seconded by T. Bent. No further discussion. **VOTE (11-0, unanimous – high priority)**

Alternate #6 – Cambridge Health Alliance: MS states that lots of services are provided by this program. TP added that they offer much needed services to students and their families. Motion was made by S. Koty to place a high priority, seconded by S. Roix. No further discussion. **VOTE (11-0, unanimous – high priority)**

Alternate #7 – Sustainability Measures Exceeding LEED Silver Requirements: SMMA provided a presentation on sustainability, the LEED points system was explained in detail, it was noted that 58 points have been identified for the project to target in order to get the MSBA's 2% reimbursement rate incentive, MSBA requires a minimum of 50 points in order to receive the incentive. The 58 points identified are already captured within the BASE PROJECT cost per square foot presented. TB asked if there is any state funding available from solar panels? SMMA replied that there are grants available through the utility companies. TC inquired about "thermal comfort controls" in SMMA's presentation, does this mean that there needs to be AC in the building? No, mechanical ventilation is required by AC is not a requirement for the LEED points. SMMA noted that a focus on sustainability does not need to mean targeting LEED Gold or Platinum, but rather it could be a selection of the most efficient systems available, ultra high efficiency windows, doors, envelope etc., this is different from merely chasing LEED points.

A motion was made by M. Nadeau to place a high priority on alternate #7, seconded by S. Roix. Discussion: MN reemphasized the moral reasons for this, it is necessary to make the project as environmentally friendly as possible. SR added that it is a big number, but he has no question that it is a high priority item. TP added that you can't overlook the educational advantageous. TC stated that he would have to vote no based on the price tag alone, his preference would be to implement these measures, including geothermal, but lacking enough specific information to be able to vote yes at this time. TB added that the base cost already assumes LEED Silver, need to really look at what is actually being gained for a \$36M premium. There is a huge pricetag for added sustainability certifications and his experience has been that even well known area universities don't always go the extra distance after completing their own in depth analysis of the pros & cons. **VOTE (9-2, approved, high priority)**

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**Historic Process:** T. Pierantozzi updated the SBC on the most recent correspondence from MHC. All three final options have an adverse effect to the MHC and MHC has requested additional information. T. Pierantozzi advised that this matter will not be discussed in detail as it is being reviewed with the City Solicitor and needs to be discussed with the MSBA. S. Ropix asked if MHC's response was expected? No, it was expected that MHC would defer to Somerville's own local historic commission. MJ Rossetti noted that she was worried initially that the Somerville Historic letter was not going to be worded strong enough.

The meeting was opened to public comments. Public Comments are recorded in official meeting minutes

**May 23, 2016 – 05:35PM – SHS Auditorium**

T Pierantozzi (TP) provided an overview of the agenda, the goal of this meeting is to obtain approval to submit the Preferred Schematic Report and obtain formal direction on each of the proposed alternates. The School Committee will then review the Local Actions & Approvals Certification at their meeting on 5/31 and the PSR will be submitted to the MSBA by 6/2. Mayor Curtatone thanked the SBC for their hard work, the SBC's charge is to unlock the best plan, and then the City will have lots of work to do in order to fund the project. Mayor Curtatone spoke about market escalation over the past decade and the drastic increase in cost to construct a school building in the Boston urban market. The City is working to minimize and mitigate the impact to taxpayers wherever possible. Mayor Curtatone then opened for any questions the SBC might have. MJR noted that cost is indeed important, asked if it would be up to the vote of the Board of Aldermen to align the cost with the SBC's goals? When will the Board of Aldermen weigh in? Mayor Curtatone responded that the project will be presented to the Board for consideration sometime between now and the end of the fiscal year. TP then provided an overview of the recent conceptual estimating process and turned it over to PMA for update, see item 1/06:01 below for detail.

TP reviewed the press release dated 5/13/16, which includes the estimated City share of the total project costs. TP reminded all of the need to remain cognizant of cost. Other handouts included a Preferred Report summary package created by NB and her students, copies were available to the SBC and audience. MJR asked if extra handouts were available for resit meetings, NB to provide. NB to also send a copy to PMA for upload to the project website.

SMMA provided a quick update on PSR development. Have focused on aligning the 3D images presented with floor plans. The submission package will align with direction received from the SBC to-date. TP asked SMMA to confirm that the plan is to include program space with the understanding that it can always be re-evaluated at a later date. SMMA confirmed.

A motion was made by M Skipper to approve submission of the Preferred Schematic Report package to the MSBA with Design option 4B included as the district's preferred option and option 2A and option 3 as the district's non-priority options. The motion was seconded by S Koty. Discussion: MJR noted that this is out of sequence with the agenda, alternates have not been discussed yet. TP responded that he is indeed out of sequence, the alternates will be discussed after and voted on separately. No further discussion. **VOTE - unanimous approval to submit the PSR** (12-0, JC & TP abstained)

TP asked that the SBC soon confirm the intent with respect to the alternates being submitted with the PSR by voting on each of the 7 alternates. TC sought clarification, is the charge to vote high vs low priority again? TP responded no, he is hoping for a motion to either include or exclude each of the alternates in the PSR submission.

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Before discussing the alternates, TP opened up for Public Comment period, see item 2/10:01 below for public comments.

After public comment period, the SBC continued discussing the alternates, specifically sustainability. SR noted that while there has been plenty of good dialogue on the increased sustainability alternate, the actual energy savings remains unknown until the next stage of design, what type of sustainability measures could be added after the fact? SMMA responded that the goal of reducing carbon emissions primarily requires the use of electrical power systems (solar/wind) to offset the added electrical costs associated with geothermal pumps, or water recycling systems, this needs to be considered in the overall big picture. Other efficiencies such as improved building envelope performance also need to be considered early.

M. Nadeau asked how much the \$36M sustainability allowance covers? PMA responded that it is not known until schematic design phase investigation, testing and engineering has been completed. We are too early in the process to say with certainty. MN expressed worry about the \$36M added cost burden not making it through a vote for approval and funding. TP provided the option of capping the expenditure at a lower allowance value and designing within that allowance. MJR stated she is not comfortable creating an "X" number, feels that this is one of the most important project components, wishes to remain forward thinking with green initiatives. SR states he agrees with MJR, unable to come up with a new number without the additional level of investigation at schematic design.

J Oteri asked if there is an ideal level of efficiency with respect to cost payback. PMA responded that LEED Silver is often viewed as the break-even point, this is likely why the MSBA does not reward for higher certifications and why not many buildings, private or public, seek higher designations. At some point it becomes more about chasing LEED points and certifications than it does about a true evaluation of pure life cycle costs, very rarely do newer technology systems entirely pay for themselves within their life expectancy period.

T Bent asked E Bean if the cost to the taxpayers for the \$36M premium has been calculated? No, not yet. T Ciccariello noted that the combined value of add-ons number 1 through 6 are roughly the same as the costs for increased sustainability. This is a big not and right now we don't have much in terms of specifics, this is just a hope right now with no tangible immediate benefit.

T Ciccariello made a motion to vote on each of the 7 add-alternate items individually, seconded by MJ Rossetti. Discussion; JO asked to clarify that the intent was to vote whether these were in or out of the PSR, TP confirmed that yes, in or out. **VOTE - unanimous approval to vote on each individual alternate (12-0, JC & TP abstained)**

M Nadeau noted that the sustainability allowance value could fluctuate. S Roix noted that they don't have the energy cost data, some upgrades need to be included in the initial design and at this time there is insufficient information to rule out the added cost.

MJ Rossetti asked why the SBC's focus was on cost if the charge of the SBC is to determine what is in the best interest of the project? TP responded that the concern is about the overall success of the project. Mayor Curtatone added that he did not want to influence the debate but there is a limit on the acceptable burden to the taxpayers, he cannot support an unattainable liability.

TB asked if it were possible that the alternates were to move forward and have an adverse impact on educational goals. TP responded that if it got to that point then the alternates would need to be reconsidered. TB noted the recent expensive lesson with the GLX project, need to

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avoid being in a similar position requiring brutal cuts. SMMA added that the MSBA process will negate any cuts related to the educational program, those will be off the table.

Alternate #1 (larger auditorium): Motion made by M Skipper to include alternate #1, second by MJ Rossetti. No discussion. **VOTE: 2-10, motion fails, alternate #1 will be removed from the PSR.**

Alternate #2 (parking garage & field) : Motion made by R King to include alternate #2, second by T Bent. No discussion. **VOTE: 12-0, unanimous approval to include alt #2** (TP & JC abstained).

Alternate #3 (space for child care): Motion made by S Roix to include alternate #3, second by J Oteri. Discussion: RK reminded that the intent is to review this space with MSBA for reimbursement consideration. **VOTE: 12-0, unanimous approval to include alt #3** (TP & JC abstained).

Alternate #4 (space for DPW): Motion made by A Santos to include alternate #4, second by S Koty. Discussion: MJR asked if it was considered that the DPW could stay in the 1895 building? Yes, that is a consideration but to clarify, this motion is for space in the new building. **VOTE: 0-12, unanimous opposed, alt #4 will be removed from the PSR.** (TP & JC abstained)

Alternate #5 (space for TV studio): AS asked if this was in addition to the CTE program space? TP replied yes, this is channel 22 storage and studio space. MS asked if the MSBA might support this as an educational objective? TP replied not likely.

Motion made by MJ Rossetti to exclude alternate #5, seconded by N Braga. Discussion: TC asked if channel 16 & 22 are both linked to this add-on. TP replied that they are linked because the HS does not currently have their own studio, in the new building they will have their own space. Mayor Curtatone noted that we cannot shut down channel 22 unless they have been relocated. MJR withdrew her motion after hearing the discussion, NB concurred since the programs work together then she sees the benefit of having them together. New motion made by TC to include alternate #5, seconded by SR. No further discussion. **VOTE: (12-0 unanimous approval to include alt #5** (TP & JC abstained).

Alternate #6 (space for health suite): TB asked if there has been discussion about this yet with the Cambridge Health Alliance (CHA). SMMA replied that yes, there have been several program meetings but they did not get into funding, although there does appear to be a mutually beneficial arrangement currently in place. Mayor Curtatone added that while the services provided are critical, the City is not locked into an agreement with the CHA. TP asked that the PSR documents be revised to be more general and not specifically state CHA.

A motion was made by M Skipper to rename this space the "Health Suite" and include alternate #6 in the PSR. Motion was seconded by T Bent. **VOTE: 12-0 unanimous approval to include alt #6** (JC & TP abstained)

Alternate #7 (sustainability exceeding LEED Silver): A motion was made by M Nadeau to include alternate #7, second by MJ Rossetti. No further discussion on this topic at this time. **VOTE: 7-5 approval to include alt #7** (JC & TP abstained).

RK provided an update on the conference call held with MHC on 5/16, they reaffirmed their desire to review the requested documents related to the educational program. The district's third

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submission was hand delivered later that same day, RK will follow up with MHC on 5/25 and update the SBC.

### Public Comment:

1. Are there any sustainable design incentives available from State or Federal agencies? SMMA replied that they will work to identify available utility rebates, but noted that the MSBA will reduce the eligible for reimbursement value by any grants received. A follow up question was asked as to whether or not it made more sense to pursue the sustainable design components after the project was complete. TP responded yes, the City took a similar approach with the Argenziano School solar system and it worked out in their favor.
2. Are the (sustainability) guidelines the same for new and renovation projects? Yes, generally.
3. Is there a ballpark anticipated long term savings value available with the sustainable design add? TP – this “life cycle cost analysis” is something that comes later on, during Schematic Design. SMMA also noted that actual testing needs to occur to determine if the systems are viable, for example test drills will need to be drilled to test the compatibility of geothermal heating with the site.
4. Carrie Normand (SC Chair) stated that the entire SC was present at tonight’s meeting to show their support for the project. Carrie thanked SR & MS for keeping the SC informed for this big decision ahead.
5. Why is the building square footage different between the order of magnitude cost estimate and the independent conceptual estimates? SMMA replied that the design team has since drilled into complexities and that additional in depth analysis has resulted in increased size.
6. How many seats are in the current auditorium? 1138, but some of them have obstructed views.

### **May 26, 2016 – 05:35PM – SHS Library**

T Pierantozzi (TP) provided an overview of the agenda, the goal of this meeting is to review the current budget and vote on some cost reductions. The Mayor sent a letter to the committee by email, and upon review of city finances, expressed concern with the total project budget and asked the committee to revisit the budget and consider cost reduction to bring the project into a more sustainable project value. The mayor stressed that the adjustments made should not sacrifice the quality or the collective goals of the city, school department or building committee.

Members of the Committee, High School Administration, Designs Team and OPM had a conference call with the MSBA and DESE to discuss the inclusion of Next Wave/Full Circle. MS explained to the DESE/MSBA the details of the program and the make-up of the student body. The students are typically a few years older than the peers at the same grade level so co-locating those students into a K-12 school would be inappropriate. The DESE was supportive of the inclusion Next Wave/Full circle. The MSBA will continue to review the program and how the space interacts with the rest of the High School. The Next Wave/Full Circle program, with a square footage of 8034 sqft, will be included as part of the PSR submission.

C Crittenden handed out a list of possible scope reductions developed by SMMA and PMA (attached). MR, AP, CC explained each of the items and impacts to MSBA funding, the education plan and the construction project in general. The OPM and architect made recommendations as to which reductions could be made without impacting the educational plan.

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**Recommendation to accept reduction item I.2A**

M: R King S:T Bent

Accept item I.2A, Provide one level parking structure with synthetic turf in lieu 2 level parking structure.

D:The current garage in the plan accommodate 300 parking spots. The reduction would decrease the structured parking count to 150 spaces. The current school as 187 spaces. The total parking count would be similar to what is currently on site.

VOTE: (11-0-1)

**Recommendation to accept reduction item IV.1A**

M:T Bent S V McKay

Accept item IV.1A – Condense Overall Duration of Phases 1 & 2 by shifting the boundary of Phase 1 and renovating the foot print as summer work.

D: SMMA and PMA have identify some phase changes which may reduce the overall project schedule. This schedule reduction would reduce cost escalation by 1.5 years.

VOTE(10-0)

**Recommendation to accept reduction item II.1**

M:T Ciccariello S:T Bent

Accept scope reduction items II.1 – Remove sustainable design allowance for energy performance exceeding LEED silver classification

D: TC stated that he did not like making this decision without MN present but felt that it is a necessary in order to maintain the full educational program, which is the main goal of the committee. JO echoes the sentiments and added that the building should be adaptable. TB stated that the design of the building and its mechanical systems should be flexible so that sustainable elements can be added in the future. TB also added that LEED silver is great achievement and should not be overlooked. SR stated that he was frustrated that this scope cannot be included but understands the necessity to maintain the educational plan.

VOTE(10-0) SR absent for vote

All items in III Program modifications were reviewed for their global impact. The committee was unified in that it did not want to make any cuts to educational programming. Item 1 and 11 made not adjustment to educational programming. Item 11 asked for a reduction 15,000 square feet of Education programming space from the building. Many of the other items involved reducing specific education scope element. The committee collectively agreed that any reduction in educational square footage should be made by the school's discretion. SMMA and PMA will meet with the Headmaster and Superintendent to review the space summary.

**January 2015**

**Recommendation to accept reduction item III.1,11,14**

M: T Bent S:T Ciccariello

Accept items scope reduction items III.1 – Reduce overall GSF to reflect addition/renovation reallocation in the PSR Space Summary, III.11- Use a 1.55 Net-to-Gross Multiplier instead of 1.59 (to be verified in SD) , III.14 - Eliminate 15,000 of Education Program NSF Space @ the School's Discretion, MSBA allowable NSF is 226,861 SF, current is 253,248 SF

D: TP reread the motion and explanation of each of the items.

VOTE 11-0

In addition to the SBC meetings listed above, the District held one public meeting, which was posted in compliance with the state Open Meeting Law, at which the Project was discussed. This meeting included:

**Somerville High School Project Community Forum**

**November 19, 2015 – 06:30PM – Library – Somerville High School**

A Community forum was held to present the Somerville High School Project, and process to the Somerville Community.

SMMA provided a presentation on the state and condition of the current school building and discussed the need for a new High School in Somerville. SMMA highlighted the limitation on the educational plan imposed by the current building and provided information as to how a new or renovated space could provide educators the resources to support the City's visions for a 21<sup>st</sup> century education model. SMMA explained the role of the MSBA and the opportunity it affords the City via construction cost reimbursements through their grant program. SMMA highlighted the different options being considered, including location of a new high school to remain on the existing site or moving to DPW/Trum Field. SMMA provided a history of the current site, Central Hill, as well as a history of the school building and gave a brief overview of the geotechnical, acoustic and traffic studies which had been performed as part of the site investigations. SMMA provided detail on the Existing High School Program layout within the current building. They recapitulated the meetings and interviews held with the school staff as well as the Visioning Workshop performed as part of the development of the educational plan.

PMA gave an overview of the MSBA modules and related the module key dates to milestones dates in an explanation of the overall project schedule. A link to the project website was provided to inform the public of where to access project information.

Q&A/Public was held. Questions from the meeting were compiled and added to the FAQ section of the Project Fact Sheet and posted to the project website.

**School Committee Finance & Facilities Sub Committee Meeting**

**February 11, 2016 – 06:30PM – Edgerly Education Center**

S. Roix introduced SMMA and PMA to the sub-committee and gave a brief overview of the PDP process. He noted that the PDP was approved by the Somerville High School Building Committee

## January 2015

on February 10<sup>th</sup> and that the School Committee would be asked for their endorsement of the PDP at their next meeting on February 22.

T. Pierantozzi expressed his excitement around the project and conveyed to the committee the vast amount of work that has gone into the creation of the PDP. He discussed the relationship of the Educational Plan, which the School Committee has seen, to the building space summary. He noted that while the MSBA provides guidelines for traditional education spaces, they do not provide guidelines for Ch.74 spaces. The team has worked with the MSBA and DESE and is utilizing state CH. 74 guidelines to determine the CVTE program space needs.

T. Pierantozzi gave a brief history of the Central Hill site, the location of the current High School. He highlighted for the School Committee members that the only registered historic buildings on the current site are City Hall and the library.

T. Pierantozzi explained that with the PDP submission, the city will not be telling the MSBA what the city's preferred option is; only informing the MSBA of all of the alternatives being considered. After submission of the PDP, the committee expects comments back from the MSBA in 2-3 weeks. PMA will assign responsibilities to team members and coordinate a response to the MSBA. The response will be shared with the School Committee by their Building Committee representative.

A. Pitkin reviewed the PSR process and how the two order of magnitude estimates would be performed, one by SMMA and one by PMA to ensure accuracy and appropriateness. It was also noted that the project cost would likely be presented as a range of cost rather than a hard number. Question around funding the project arose. T. Pierantozzi stated that the Board of Alderman would have to vote to fund the project and then the method of funding would be determined; which could include a city budget allocation or require a ballot question for a proposition 2 ½ debt exclusion vote. T. Pierantozzi stated that when the budget for the preferred option was determined, he would bring the project team back to report to the sub-committee and answer their questions.

M. Skipper explained the MSBA grant programs, specially related to eligibility of project cost and current \$299/SF cost cap. A. Pitkin explained specific examples of ineligible costs; the current field house and large auditorium square footage over the space summary allowance.

Pitkin gave a brief overview of the SD process and described it as a rigorous process to ensure valid numbers and estimates are being presented to the city so that the project can move forward.

### **Additional Community Forums**

The SBC scheduled 4 additional community forums as well as an existing building tour as part of the project outreach efforts. In each of these forums, the Architect and OPM presented the a project update. An explanation of the alternates being considered was provided. Q&A sessions were held after the presentation where question and comments from members of the community were fielded by the OPM, Architect and members of the building committee. The forums were held in 2 different locations in the city in an attempt to reach community members across the entire city. The presentation given at the forums and video of presentation are posted at the city's High School Webpage, <http://www.somervillema.gov/highschool/>, and is translated into Spanish, Portuguese, and Haitian Creole.

3/16 – Somerville High School Building Tour

3/22 – Community Forum - Somerville High School

3/30 – Student/Youth Forum at Somerville High School

**January 2015**

- 4/05 – Community Forum – East Somerville School (language translation available provided for Spanish, Portuguese, and Haitian Creole)
- 4/26 – Community Forum - Somerville High School

To the best of my knowledge and belief, each of the meetings listed above complied with the requirements of the Open Meeting Law, M.G.L. c. 30A, §§ 18-25 and 940 CMR 29 *et seq.*

If you have any questions or require any additional information, please contact (*insert name, title, and contact information*).

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

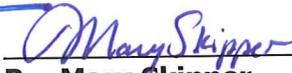
By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.



**By: Hon. Joseph  
Curtatone**

**Title: Chief Executive  
Officer**

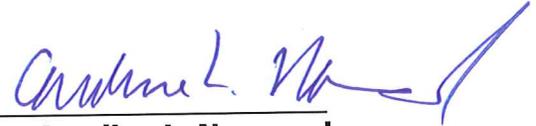
**Date: 6/1/16**



**By: Mary Skipper**

**Title: Superintendent of  
Schools**

**Date: 6/1/16**



**By: Caroline L. Normand**

**Title: Chair of the School  
Committee**

**Date: 6/1/16**

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## 5.2 CERTIFIED MEETING MINUTES



# Somerville High School Building Committee Meeting Minutes

**PROJECT:** Somerville HS Project  
**LOCATION:** Somerville HS Auditorium

**MEETING DATE:** May 26, 2016

**ATTENDEES:** *(Absent in Italics)*

- |                    |  |  |  |  |
|--------------------|--|--|--|--|
| <u>Bldg. Cmte:</u> | <input type="checkbox"/> Mayor Curtatone ( <i>JC</i> ) | <input type="checkbox"/> Tony Pierantozzi (TP)     | <input type="checkbox"/> Tony Ciccariello (TC)           | <input type="checkbox"/> Rob King (RK)         |
|                    | <input type="checkbox"/> Steve Roix (SR)               | <input type="checkbox"/> Mary Skipper (MS)         | <input type="checkbox"/> Stan Koty (SK)                  | <input type="checkbox"/> John Oteri (JO)       |
|                    | <input type="checkbox"/> Max Nadeau ( <i>MN</i> )      | <input type="checkbox"/> Ed Bean (EB)              | <input type="checkbox"/> Vince McKay (VM)                | <input type="checkbox"/> Tom Bent (TB)         |
|                    | <input type="checkbox"/> Nelia Braga (NB)              | <input type="checkbox"/> Adda Santos ( <i>AS</i> ) | <input type="checkbox"/> Mary-Jo Rossetti ( <i>MJR</i> ) |  |
| <u>PMA:</u>        | <input type="checkbox"/> Chris Carroll                 | <input type="checkbox"/> Chad Crittenden           | <input type="checkbox"/> Sean Burke                      | <input type="checkbox"/> <i>Walter Hartley</i> |
| <u>SMMA:</u>       | <input type="checkbox"/> Alex Pitkin                   | <input type="checkbox"/> <i>Lorraine Finnegan</i>  | <input type="checkbox"/> Matt Rice                       | <input type="checkbox"/> <i>Erin Prestileo</i> |
| <u>Others:</u>     | <input type="checkbox"/> SEE ATTACHED SIGN-IN SHEET    |  |  |  |

Meeting Chair TP called the meeting to order at 4:38P.M. Draft minutes from the 5/23/16 SBC meeting were reviewed. A motion to approve the minutes was made by TC, second by SR. No Discussion. Vote: Approved unanimously (10-0-1, TP did not vote, SR absent at vote)

**General**

Item	Responsible	Due	Notes
9/09:01	SBC / PMA	5/26/16	<b>General Update: Update 5/23/16:</b> TP provided an overview of the agenda, the goal of this meeting is to review the current budget and vote on some cost reductions. The Mayor sent a letter to the committee by email, and upon review of city finances, expressed concern with the total project budget and asked the committee to revisit the budget and consider cost reduction to bring the project into a more sustainable project value. The mayor stressed that the adjustments made should not sacrifice the quality or the collective goals of the city, school department or building committee.
9/09:04	SBC / PMA / SMMA	5/26/16	<b>Public Outreach: Update 5/23/16:</b> no update

**Design**

Item	Responsible	Due	Notes
9/09:07	ALL	5/26/16	<b>Design Update: Update 5/23/16:</b> Members of the Committee, High School Administration, Designs Team and OPM had a conference call with the MSBA and DESE to discuss the inclusion of Next Wave/Full Circle. MS explained to the DESE/MSBA the details of the program and the make-up of the student body. The students are typically a few years older than the peers at the same grade level so co-locating those students into a K-12 school would be inappropriate. The DESE was supportive of the inclusion Next Wave/Full circle. The MSBA will continue to review the program and how the space interacts with the rest of the High School. The Next Wave/Full Circle program, with a square footage of 8034 sqft, will be included as part of the PSR submission.
9/09:10	SMMA / SBC	5/26/16	<b>Space Summary: Update 5/23/16:</b> No update at this time.

**Cost / Schedule**

Item	Responsible	Due	Notes
9/09:11	PMA	5/26/16	<b>Project Schedule: Update 5/23/16:</b> no update at this meeting

1/06:01	ALL	5/2616	<p><b>Project Budget: Update 5/23/16:</b> CC handed out a list of possible scope reductions developed by SMMA and PMA (attached). MR, AP, CC explained each of the items and impacts to MSBA funding, the education plan and the construction project in general. The OPM and architect made recommendations as to which reductions could be made without impacting the educational plan.</p> <p><b>Recommendation to accept reduction item I.2A</b>  M: RK S:TB  Accept item I.2A, Provide one level parking structure with synthetic turf in lieu 2 level parking structure.</p> <p>D:The current garage in the plan accommodate 300 parking spots. The reduction would decrease the structured parking count to 150 spaces. The current school as 187 spaces. The total parking count would be similar to what is currently on site.</p> <p>VOTE: (11-0-1)</p> <p><b>Recommendation to accept reduction item IV.1A</b>  M:TB S VM  Accept item IV.1A – Condense Overall Duration of Phases 1 &amp; 2 by shifting the boundary of Phase 1 and renovating the foot print as summer work.</p> <p>D: SMMA and PMA have identify some phase changes which may reduce the overall project schedule. This schedule reduction would reduce cost escalation by 1.5 years.</p> <p>VOTE(10-0)</p> <p><b>Recommendation to accept reduction item II.1</b>  M:TC S:TB  Accept scope reduction items II.1 – Remove sustainable design allowance for energy performance exceeding LEED silver classification</p> <p>D: TC stated that he did not like making this decision without MN present bet felt that it is a necessary in order to maintain the full educational program, which is the main goal of the committee. JO echoes the sentiments and added that the building should be adaptable. TB stated that the design of the building and its mechanical systems should be flexible so that sustainable elements can be added in the future. TB also added that LEED silver is great achievement and should not be overlooked. SR stated that he was frustrated that this scope cannot be included but understands the necessity to maintain the educational plan.</p> <p>VOTE(10-0) SR absent for vote</p> <p>All items in III Program modifications were reviewed for their global impact. The committee was unified in that it did not want to make any cuts to educational programing. Item 1 and 11 made not adjustment to educational programing. Item 11 asked for a reduction 15,000 square feet of Education programing space from the building. Many of the other items involved reducing specific education scope element. The committee collectively agreed that any reduction in educational square footage should be made by the school’s discretion. SMMA and PMA will meet with the Headmaster and Superintendent to review the space summary.</p>
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			<p><b>Recommendation to accept reduction item III.1,11,14</b>  M: TB S:TC</p> <p>Accept items scope reduction items III.1 – Reduce overall GSF to reflect addition/renovation reallocation in the PSR Space Summary, III.11- Use a 1.55 Net-to-Gross Multiplier instead of 1.59 (to be verified in SD) , III.14 - Eliminate 15,000 of Education Program NSF Space @ the School's Discretion, MSBA allowable NSF is 226,861 SF, current is 253,248 SF</p> <p>D: TP reread the motion and explanation of each of the items.</p> <p>VOTE 11-0</p>
3/14:06	PMA / SMMA	5/23/16	<b>Historic Process: Update 5/23/16: no update</b>
2/10:01	ALL	5/23/16	<b>Public Comment: NONE</b>
4/11:01	ALL	5/26/16	<b>Sustainability / Energy Efficiency: see project budget update</b>

A motion was made by NB to adjourn the meeting, second by TB. All approved.

**Meeting Adjourned: 6:10P.M.**

**Next meeting dates are below.**

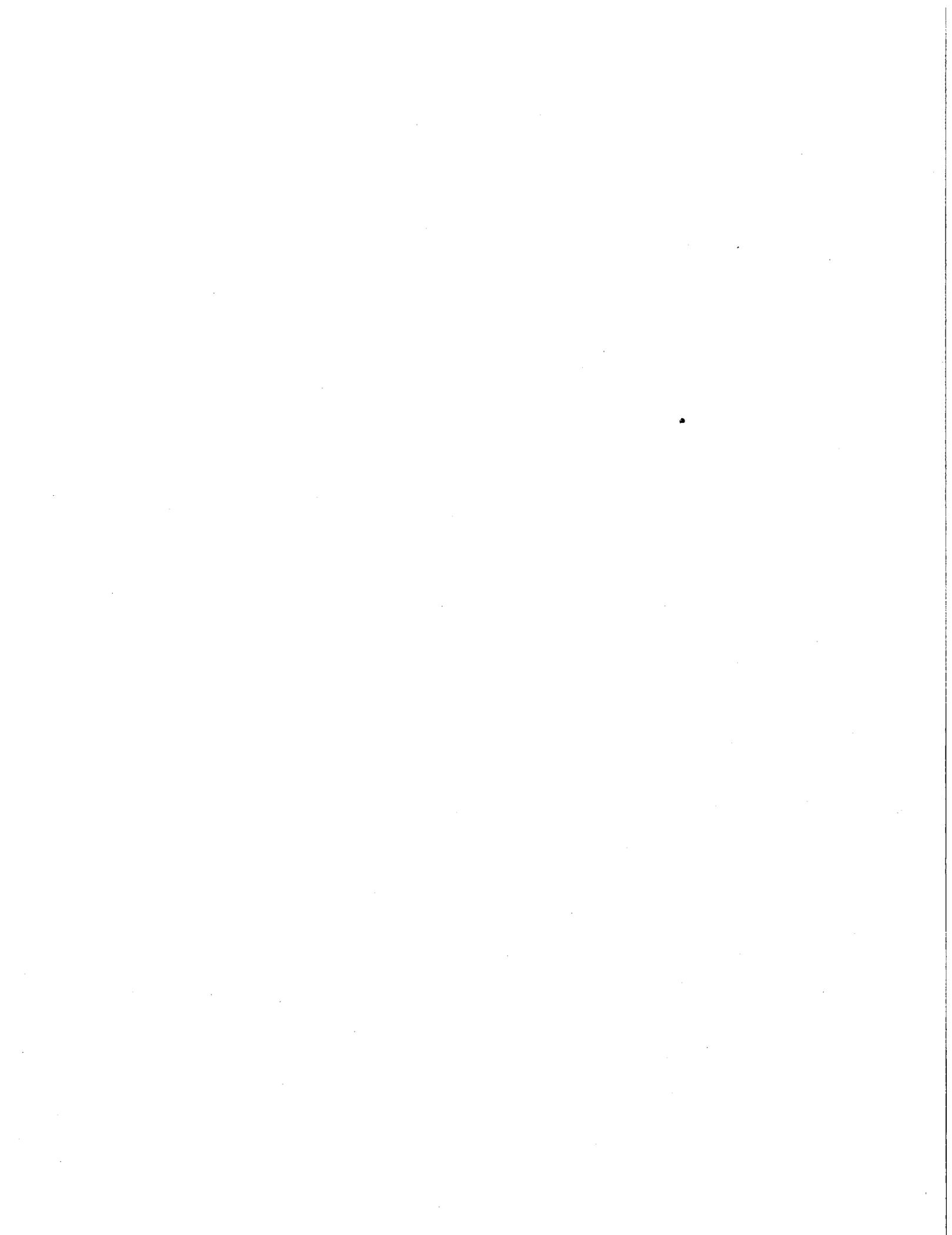
6/27/16 (5:30PM @ SHS)

The author of these minutes assumes, to the best of his or her knowledge, that the above content of these Meeting Minutes depict all that transpired during this Project meeting. All attendees are required to address by memo or via e-mail, any omissions, errors or inconsistencies in the reporting of these Meeting Minutes, to the writer, within two (2) business days of receipt of these Meeting Minutes.

**Prepared By: Sean Burke, PMA Consultants**

Signed: Sean Burke

Date: 5/27/16



# Somerville High School Building Committee Meeting Minutes

**PROJECT:** Somerville HS Project  
**LOCATION:** Somerville HS Auditorium

**MEETING DATE:** May 23, 2016

**ATTENDEES:** *(Absent in Italics)*

- |                    |   |   |  |  |
|--------------------|---|---|--|--|
| <u>Bldg. Cmte:</u> | <input type="checkbox"/> Mayor Curtatone (JC)       | <input type="checkbox"/> Tony Pierantozzi (TP)    | <input type="checkbox"/> Tony Ciccariello (TC)   | <input type="checkbox"/> Rob King (RK)         |
|                    | <input type="checkbox"/> Steve Roix (SR)            | <input type="checkbox"/> Mary Skipper (MS)        | <input type="checkbox"/> Stan Koty (SK)          | <input type="checkbox"/> John Oteri (JO)       |
|                    | <input type="checkbox"/> Max Nadeau (MN)            | <input type="checkbox"/> Ed Bean (EB)             | <input type="checkbox"/> <i>Vince McKay (VM)</i> | <input type="checkbox"/> Tom Bent (TB)         |
|                    | <input type="checkbox"/> Nelia Braga (NB)           | <input type="checkbox"/> Adda Santos (AS)         | <input type="checkbox"/> Mary-Jo Rossetti (MJR)  |  |
| <u>PMA:</u>        | <input type="checkbox"/> <i>Chris Carroll</i>       | <input type="checkbox"/> Chad Crittenden          | <input type="checkbox"/> Sean Burke              | <input type="checkbox"/> <i>Walter Hartley</i> |
| <u>SMMA:</u>       | <input type="checkbox"/> Alex Pitkin                | <input type="checkbox"/> <i>Lorraine Finnegan</i> | <input type="checkbox"/> Matt Rice               | <input type="checkbox"/> <i>Erin Prestileo</i> |
| <u>Others:</u>     | <input type="checkbox"/> SEE ATTACHED SIGN-IN SHEET |   |  |  |

Meeting Chair TP called the meeting to order at 5:35P.M. Draft minutes from the 5/9/16 SBC meeting were reviewed. A motion to approve the minutes was made by SR, second by MS. No Discussion. Vote: Approved unanimously (12-0, JC & TP did not vote)

**General**

Item	Responsible	Due	Notes
9/09:01	SBC / PMA	5/26/16	<b>General Update: Update 5/23/16:</b> TP provided an overview of the agenda, the goal of this meeting is to obtain approval to submit the Preferred Schematic Report and obtain formal direction on each of the proposed alternates. The School Committee will then review the Local Actions & Approvals Certification at their meeting on 5/31 and the PSR will be submitted to the MSBA by 6/2. Mayor Curtatone thanked the SBC for their hard work, the SBC's charge is to unlock the best plan, and then the City will have lots of work to do in order to fund the project. Mayor Curtatone spoke about market escalation over the past decade and the drastic increase in cost to construct a school building in the Boston urban market. The City is working to minimize and mitigate the impact to taxpayers wherever possible. Mayor Curtatone then opened for any questions the SBC might have. MJR noted that cost is indeed important, asked if it would be up to the vote of the Board of Aldermen to align the cost with the SBC's goals? When will the Board of Aldermen weigh in? Mayor Curtatone responded that the project will be presented to the Board for consideration sometime between now and the end of the fiscal year. TP then provided an overview of the recent conceptual estimating process and turned it over to PMA for update, see item 1/06:01 below for detail.
9/09:04	SBC / PMA / SMMA	5/26/16	<b>Public Outreach: Update 5/23/16:</b> TP reviewed the press release dated 5/13/16, which includes the estimated City share of the total project costs. TP reminded all of the need to remain cognizant of cost. Other handouts included a Preferred Report summary package created by NB and her students, copies were available to the SBC and audience. MJR asked if extra handouts were available for resistat meetings, NB to provide. NB to also send a copy to PMA for upload to the project website.

**Design**

Item	Responsible	Due	Notes
9/09:07	ALL	5/26/16	<b>Design Update: Update 5/23/16:</b> SMMA provided a quick update on PSR development. Have focused on aligning the 3D images presented with floor plans. The submission package will align with direction received from the SBC to-date. TP asked SMMA to confirm that the plan is to include program space with the understanding that it can always be re-evaluated at a later date. SMMA confirmed. A motion was made by MS to approve submission of the Preferred Schematic Report package to the MSBA with Design option 4B included as the district's preferred option and option 2A and option 3 as the district's non-priority options. The motion was seconded by SK. Discussion: MJR noted that this is out of sequence with the agenda, alternates have not been discussed yet. TP responded that he is indeed out of sequence, the alternates will be discussed after and voted on separately. No further discussion. <b>VOTE - unanimous approval to submit the PSR (12-0, JC &amp; TP abstained)</b>
9/09:10	SMMA / SBC	5/26/16	<b>Space Summary: Update 5/23/16:</b> No update at this time.

**Cost / Schedule**

Item	Responsible	Due	Notes
9/09:11	PMA	5/23/16	<b>Project Schedule: Update 5/23/16:</b> On track for PSR submission to MSBA by 6/2/16. SC Review on 5/31. MSBA Facilities Assessment Subcommittee meeting tentatively scheduled for 6/15. MSBA Board Meeting is scheduled for 7/20/16.
1/06:01	ALL	5/23/16	<p><b>Project Budget: Update 5/23/16:</b> PMA detailed the estimating process to-date; thus far, "order of magnitude" costs presented have been based upon available market data and applying the appropriate building size, unique parameters, contingencies and escalation. Last Friday the first draft of independent estimates was received and reviewed in depth. The Architect has engaged an independent estimator, their estimate is referred to as the "estimate of record," the OPM has also engaged an independent estimator to conduct a "check estimate." The draft estimates from each of these firms was compared; at this time, the base 4B estimated cost is approximately 5% lower than the most recent order of magnitude costs that were previously being used. However, the parking garage cost estimate has increased and is still in the midst of being reconciled. Revised and reconciled estimates which incorporate the feedback received from SMMA and PMA are due on Wednesday 5/25.</p> <p>TB asked when more detail on sustainability options would be available. TP responded that some additional detail will be provided by SMMA tonight. TB noted that it is important that sustainable technology is adaptable to help with both initial and long term costs.</p> <p>MJR asked if the MSBA reimbursement rate is locked in at ~77%. PMA replied no, it does not get locked until the end of Schematic Design, currently January 2017, but the unknowns are limited to 1) maintenance incentive points and 2) renovation incentive points, neither of which will drastically alter the reimbursement rate. TP reminded all to remember that the reimbursement rate only applies to 'eligible' project costs, the MSBA's \$299/SF construction cost cap and other exclusions need to be considered when discussing reimbursement rates.</p> <p>TP noted that the parking &amp; field is the 2<sup>nd</sup> largest alternate being considered. The MSBA typically covers surface parking and other site improvement costs up to 8% of the direct building cost. Mayor Curtatone has reviewed this with the MSBA and is waiting to hear back, hopefully feedback will be provided prior to the Board of Aldermen vote.</p>

		<p>SR asked if Mayor Curtatone has given any thought to what happens with the 1895 central academic building? Is there a timeframe? Mayor Curtatone responded that the City needs to evaluate all other city-wide assets and available options. The evaluation is at a very conceptual level right now, there may be opportunities to align with other City initiatives that need to be reviewed. Whatever happens with that building will be for community use. Mayor Curtatone asked PMA if the MSBA will assist in costs associated with the stabilization of the 1895 building once broken off of the main building. PMA responded that MSBA participation would be unlikely, due to the \$299/SF cost cap which will have already been exceeded, resulting in ineligible costs.</p> <p>MJR asked if the larger auditorium alternate was not included in the project scope, would the stage and theater equipment still be modernized? SMMA responded yes, the only real difference would be the quantity of seats.</p> <p>SR noted that the increased sustainability costs appeared lower in the revised estimates. PMA replied that the estimate number in question is just the direct cost and does not include incidentals (engineering, design, testing, contingencies, etc). The overall figure equates to a \$50/SF direct trade cost allowance and has not changed.</p> <p>TP asked that the SBC soon confirm the intent with respect to the alternates being submitted with the PSR by voting on each of the 7 alternates. TC sought clarification, is the charge to vote high vs low priority again? TP responded no, he is hoping for a motion to either include or exclude each of the alternates in the PSR submission.</p> <p>Before discussing the alternates, TP opened up for Public Comment period, see item 2/10:01 below for public comments.</p> <p>After public comment period, the SBC continued discussing the alternates, specifically sustainability. SR noted that while there has been plenty of good dialogue on the increased sustainability alternate, the actual energy savings remains unknown until the next stage of design, what type of sustainability measures could be added after the fact? SMMA responded that the goal of reducing carbon emissions primarily requires the use of electrical power systems (solar/wind) to offset the added electrical costs associated with geothermal pumps, or water recycling systems, this needs to be considered in the overall big picture. Other efficiencies such as improved building envelope performance also need to be considered early.</p> <p>MN asked how much the \$36M sustainability allowance covers? PMA responded that it is not known until schematic design phase investigation, testing and engineering has been completed. We are too early in the process to say with certainty. MN expressed worry about the \$36M added cost burden not making it through a vote for approval and funding. TP provided the option of capping the expenditure at a lower allowance value and designing within that allowance. MJR stated she is not comfortable creating an "X" number, feels that this is one of the most important project components, wishes to remain forward thinking with green initiatives. SR states he agrees with MJR, unable to come up with a new number without the additional level of investigation at schematic design.</p> <p>JO asked if there is an ideal level of efficiency with respect to cost payback. PMA responded that LEED Silver is often viewed as the break-even point, this is likely why the MSBA does not reward for higher certifications and why not many buildings, private or public, seek higher designations. At some point it becomes more about chasing LEED points and certifications than it does about a true evaluation of pure life cycle costs, very rarely do newer technology systems entirely pay for themselves within their life expectancy period.</p>
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TB asked EB if the cost to the taxpayers for the \$36M premium has been calculated? No, not yet. TC noted that the combined value of add-ons number 1 through 6 are roughly the same as the costs for increased sustainability. This is a big not and right now we don't have much in terms of specifics, this is just a hope right now with no tangible immediate benefit.

TC made a motion to vote on each of the 7 add-alternate items individually, seconded by MJR. Discussion; JO asked to clarify that the intent was to vote whether these were in or out of the PSR, TP confirmed that yes, in or out. **VOTE - unanimous approval to vote on each individual alternate (12-0, JC & TP abstained)**

MN noted that the sustainability allowance value could fluctuate. SR noted that they don't have the energy cost data, some upgrades need to be included in the initial design and at this time there is insufficient information to rule out the added cost.

MJR asked why the SBC's focus was on cost if the charge of the SBC is to determine what is in the best interest of the project? TP responded that the concern is about the overall success of the project. Mayor Curtatone added that he did not want to influence the debate but there is a limit on the acceptable burden to the taxpayers, he cannot support an unattainable liability.

TB asked if it were possible that the alternates were to move forward and have an adverse impact on educational goals. TP responded that if it got to that point then the alternates would need to be reconsidered. TB noted the recent expensive lesson with the GLX project, need to avoid being in a similar position requiring brutal cuts. SMMA added that the MSBA process will negate any cuts related to the educational program, those will be off the table.

Alternate #1 (larger auditorium): Motion made by MS to include alternate #1, second by MJR. No discussion. **VOTE: 2-10, motion fails, alternate #1 will be removed from the PSR.**

Alternate #2 (parking garage & field) : Motion made by RK to include alternate #2, second by TB. No discussion. **VOTE: 12-0, unanimous approval to include alt #2 (TP & JC abstained).**

Alternate #3 (space for child care): Motion made by SR to include alternate #3, second by JO. Discussion: RK reminded that the intent is to review this space with MSBA for reimbursement consideration. **VOTE: 12-0, unanimous approval to include alt #3 (TP & JC abstained).**

Alternate #4 (space for DPW): Motion made by AS to include alternate #4, second by SK. Discussion: MJR asked if it was considered that the DPW could stay in the 1895 building? Yes, that is a consideration but to clarify, this motion is for space in the new building. **VOTE: 0-12, unanimous opposed, alt #4 will be removed from the PSR. (TP & JC abstained)**

Alternate #5 (space for TV studio): AS asked if this was in addition to the CTE program space? TP replied yes, this is channel 22 storage and studio space. MS asked if the MSBA might support this as an educational objective? TP replied not likely. Motion made by MJR to exclude alternate #5, seconded by NB. Discussion: TC asked if channel 16 & 22 are both linked to this add-on. TP replied that they are linked because the HS does not currently have their own studio, in the new building they will have their own space. Mayor Curtatone noted that we cannot shut down channel 22 unless they have been relocated. MJR withdrew her motion after hearing the discussion, NB concurred since the programs work

			<p>together then she sees the benefit of having them together. New motion made by TC to include alternate #5, seconded by SR. No further discussion. <b>VOTE: (12-0 unanimous approval to include alt #5 (TP &amp; JC abstained).</b></p> <p>Alternate #6 (space for health suite): TB asked if there has been discussion about this yet with the Cambridge Health Alliance (CHA). SMMA replied that yes, there have been several program meetings but they did not get into funding, although there does appear to be a mutually beneficial arrangement currently in place. Mayor Curtatone added that while the services provided are critical, the City is not locked into an agreement with the CHA. TP asked that the PSR documents be revised to be more general and not specifically state CHA. A motion was made by MS to rename this space the "Health Suite" and include alternate #6 in the PSR. Motion was seconded by TB. <b>VOTE: 12-0 unanimous approval to include alt #6 (JC &amp; TP abstained)</b></p> <p>Alternate #7 (sustainability exceeding LEED Silver): A motion was made by MN to include alternate #7, second by MJR. No further discussion on this topic at this time. <b>VOTE: 7-5 approval to include alt #7 (JC &amp; TP abstained).</b></p>
3/14:06	PMA / SMMA	5/23/16	<p><b>Historic Process: Update 5/23/16:</b> RK provided an update on the conference call held with MHC on 5/16, they reaffirmed their desire to review the requested documents related to the educational program. The district's third submission was hand delivered later that same day, RK will follow up with MHC on 5/25 and update the SBC.</p>
2/10:01	ALL	5/23/16	<p><b>Public Comment:</b></p> <ol style="list-style-type: none"> <li>1. Are there any sustainable design incentives available from State or Federal agencies? SMMA replied that they will work to identify available utility rebates, but noted that the MSBA will reduce the eligible for reimbursement value by any grants received. A follow up question was asked as to whether or not it made more sense to pursue the sustainable design components after the project was complete. TP responded yes, the City took a similar approach with the Argenziano School solar system and it worked out in their favor.</li> <li>2. Are the (sustainability) guidelines the same for new and renovation projects? Yes, generally.</li> <li>3. Is there a ballpark anticipated long term savings value available with the sustainable design add? TP – this "life cycle cost analysis" is something that comes later on, during Schematic Design. SMMA also noted that actual testing needs to occur to determine if the systems are viable, for example test drills will need to be drilled to test the compatibility of geothermal heating with the site.</li> <li>4. Carrie Normand (SC Chair) stated that the entire SC was present at tonight's meeting to show their support for the project. Carrie thanked SR &amp; MS for keeping the SC informed for this big decision ahead.</li> <li>5. Why is the building square footage different between the order of magnitude cost estimate and the independent conceptual estimates? SMMA replied that the design team has since drilled into complexities and that additional in depth analysis has resulted in increased size.</li> <li>6. How many seats are in the current auditorium? 1138, but some of them have obstructed views.</li> </ol>
4/11:01	ALL	5/26/16	<p><b>Sustainability / Energy Efficiency: Update 5/23/16:</b> No further discussion beyond budget and public comment items above.</p>

A motion was made by TC to adjourn the meeting, second by SK. All approved.

Meeting Adjourned: 8:315P.M.

Next meeting dates are below.

5/26/16 (4:30PM @ SHS)  
6/27/16 (5:30PM @ SHS)

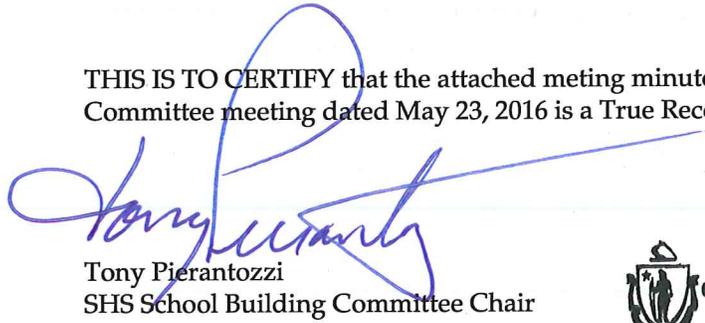
The author of these minutes assumes, to the best of his or her knowledge, that the above content of these Meeting Minutes depict all that transpired during this Project meeting. All attendees are required to address by memo or via e-mail, any omissions, errors or inconsistencies in the reporting of these Meeting Minutes, to the writer, within two (2) business days of receipt of these Meeting Minutes.

Prepared By: Chad Crittenden, PMA Consultants

Signed: Chad Crittenden

Date: 5/24/16

THIS IS TO CERTIFY that the attached meeting minutes of the Somerville High School Building Committee meeting dated May 23, 2016 is a True Record Attest on file.



Tony Pierantozzi  
SHS School Building Committee Chair



**ANTHONY PIERANTOZZI**  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
March 2, 2020

## Somerville High School Building Committee Meeting Minutes

**PROJECT:** Somerville HS Project  
**LOCATION:** Capuano Early Childhood School

**MEETING DATE:** May 9, 2016

**ATTENDEES:** *(Absent in Italics)*

<u>Bldg. Cmte:</u>	<input type="checkbox"/> <i>Mayor Curtatone (JC)</i>	<input type="checkbox"/> Tony Pierantozzi (TP)	<input type="checkbox"/> Tony Ciccariello (TC)	<input type="checkbox"/> Rob King (RK)
	<input type="checkbox"/> Steve Roix (SR)	<input type="checkbox"/> Mary Skipper (MS)	<input type="checkbox"/> Stan Koty (SK)	<input type="checkbox"/> John Oteri (JO)
	<input type="checkbox"/> Max Nadeau (MN)	<input type="checkbox"/> Ed Bean (EB)	<input type="checkbox"/> Vince McKay (VM)	<input type="checkbox"/> Tom Bent (TB)
	<input type="checkbox"/> Nelia Braga (NB)	<input type="checkbox"/> <i>Adda Santos (AS)</i>	<input type="checkbox"/> Mary-Jo Rossetti (MJR)	
<u>PMA:</u>	<input type="checkbox"/> <i>Chris Carroll</i>	<input type="checkbox"/> Chad Crittenden	<input type="checkbox"/> Sean Burke	<input type="checkbox"/> <i>Walter Hartley</i>
<u>SMMA:</u>	<input type="checkbox"/> Alex Pitkin	<input type="checkbox"/> <i>Lorraine Finnegan</i>	<input type="checkbox"/> Matt Rice	<input type="checkbox"/> <i>Erin Prestileo</i>
<u>Others:</u>	<input type="checkbox"/> SEE ATTACHED SIGN-IN SHEET			

Meeting Chair TP called the meeting to order at 5:41P.M. Draft minutes from the 4/11/16 SBC meeting were reviewed. A motion to approve the minutes was made by TC, second by TB. Discussion: Remove the word "absolute" from item 4/11:01 and modify MJR's statement in the fourth paragraph of item 9/09:07, MN and MJR took no exception. TC modified his initial motion in order to approve the minutes as amended, seconded by TB. Vote: Amended minutes approved unanimously.

**General**

Item	Responsible	Due	Notes
9/09:01	SBC / PMA	5/23/16	<p><b>General Update: Update 5/9/16:</b> TP noted that the district's response to the MSBA's PDP comments was issued on May 2<sup>nd</sup>. MJR asked if there is any concern relevant to the MSBA's comments about the Next Wave / Full Circle programs. PMA responded that the MSBA concern centers around Next Wave students in grades 6-8 being in the HS, and if those programs are to remain in scope then it will certainly prompt in depth discussion during the facilities assessment subcommittee meeting. MJR would like to see the program included in the new building. TP advised that it is an educational decision and should be left to the School Department. SR asked if the MSBA will reduce the design enrollment if the program is not included, PMA responded that the enrollment will be reduced by 25 if Next Wave is not included. VM added that it would be difficult to separate the Next Wave and Full Circle programs, the School Dept would prefer to have the benefits of adjacencies with substantially separate spaces.</p> <p>Next TP provided an update on the historic process, see item 3/14:06 below for detail.</p>
9/09:04	SBC / PMA / SMMA	5/23/16	<p><b>Public Outreach: Update 5/9/16:</b> TP informed all of his efforts to engage city groups, including PTA, School Councils, Chamber of Commerce, Service Groups, Senior Citizens, etc. TP and NB to work with SMMA and PMA to develop handout material. Community forum on 4/26 went well, 14 folks from the community, good discussion followed.</p>

**Design**

Item	Responsible	Due	Notes
9/09:07	ALL	5/23/16	<p><b>Design Update: Update 5/9/16:</b> SMMA reviewed the PSR table of contents, 3 final options will be included in the PSR per MSBA requirements. The estimators are working up numbers for each option now. SMMA reviewed the preliminary layout of the preferred option 4B floor by floor, the concept is currently 5 stories up and 1 story down.</p> <p>MRJ asked if there were any windows in the space proposed for Next Wave and Full Circle. SMMA responded yes, the entire north elevation will have windows and is above grade due to the hill. AP noted that the intent is just to reserve square footage now, program locations are not locked in yet.</p> <p>TC asked if the 4 additional CTE programs are shown. SMMA responded yes. TC noted that central guidance was a component of the Ed Plan, is this included? SMMA replied that yes, guidance is directly above the main office.</p> <p>TB asked if Leo (DeSimone) was up to date with the layout, JO responded that no he has not seen it yet, today is the first day anybody has seen the plans, but Leo will be brought up to speed.</p> <p>MN noted that with the existing 4 stories people are already out of breath, 6 would be tough. MS &amp; JO noted that vertical travel will be limited, looking at options to break up floors by grade where possible, there should not be a frequent need to traverse 6 stories at once. TP noted that the change from horizontal orientation to vertical orientation will require some adjustment from the norm, people are accustomed to traveling long horizontal distances (ie airports) when often times vertical is actually much quicker &amp; shorter.</p> <p>TB asked if there will be roof access for CTE (ie for electrical programs to work on wind/solar projects). SMMA noted the presence of some rooftop courtyard space and will consider other options as the design progresses.</p> <p>SMMA reviewed the proposed garage &amp; field elevations, which have evolved to better accommodate the existing topography, delivery vehicles and emergency vehicle access. The field surface itself is now proposed to be 20' lower than prior designs, now it is on the same plane as the lower level of the building which brings much needed natural light into lower level spaces. This also reduces the size of the retaining wall along the rear of the site by gradually stepping down. MJR asked if the new layout will reduce parking, SMMA replied no, still 300 spaces since the new layout no longer requires a 2 story delivery route inside of the garage.</p> <p>TB asked if phasing &amp; schedule has been locked in yet. PMA &amp; SMMA replied no, not yet, still many considerations, including where the programs ultimately land in the final layout.</p> <p>SR noted that the School Committee is interested in obtaining additional details and floorplans. MS to work with SMMA to coordinate providing the info.</p>
9/09:10	SMMA / SBC	5/9/16	<p><b>Space Summary: Update 5/9/16:</b> No update at this time.</p>

**Cost / Schedule**

Item	Responsible	Due	Notes
9/09:11	PMA	5/23/16	<p><b>Project Schedule: Update 5/9/16:</b> On track for PSR submission to MSBA by 6/2/16. SBC to meeting on 5/23 to approve submission, tentative meeting on 5/26 if needed. MSBA Board Meeting is scheduled for 7/20/16.</p>
9/09:12	PMA	5/23/16	<p><b>Next Steps: Update 5/9/16:</b> SBC meetings on 5/23 and 5/26(tentative). MHC conference call being coordinated.</p>

1/06:01	ALL	5/23/16	<p><b>Project Budget:</b> PMA provided an overview of the current budget scenario. Values at this time are based upon general market data and anticipated overall building size, the estimators will provide more detail in time for the 5/23 SBC meeting. PMA presented the base project cost and 7 add-alternate options (1138 seat auditorium, parking garage &amp; field, child care space, DPW space, public access TV space, Cambridge Health Alliance space, and a premium for increased cost efficiency in excess of LEED Silver).</p> <p>MJR asked who decides which alternates stay in scope? RK responded that it is best for the SBC to prioritize and invite the Mayor for a discussion at the 5/23 meeting. MJR noted that they project needs to go before the Board of Aldermen for a vote in July, are we allowing enough time? RK replied that if a decision is made on 5/23 then it would allow the month of June for BOA consideration prior to their ballot question vote/submission in July. MJR noted that it is common for the BOA to cancel their July meetings. TP recommended that EB &amp; RK bring the Building Committee's feedback to the Mayor's office for a timely decision. TC added that he is interested in hearing the Mayor's input.</p> <p>SR asked when the SBC will know how the project will be paid for? EB suggested that the Mayor might be able to respond to this inquiry at the 5/23 meeting.</p> <p>A process ensued where each of the 7 alternates were discussed and assigned either a 'high priority' or a 'low priority' designation by the Building Committee:</p> <p>BASE 4B Project: TC motioned that this is a high priority, TB seconded. No discussion. <b>VOTE: (12-0, unanimous – high priority)</b></p> <p>Alternate #1 – Increase to 1138 Seat Auditorium: TP advised of a lengthy discussion earlier that day with JO and MS present. There was no discernable benefit to the increased capacity since it still cannot fit the school's design enrollment of 1510 students, so you would still need two sessions with the larger auditorium. Also noted the option to put new bleachers in the field house to increase the capacity there. MJR asked if Drama Weekend would have overloaded a MSBA sized auditorium (750 seats), MN responded that no, definitely would have still had room. TP said maybe 600 people attended. MJR expressed opposition to the smaller auditorium and had to leave the meeting before the vote occurred. A motion was made by TB to classify this alternate as a low priority, seconded by RK. <b>VOTE: (10-1, approved – low priority)</b></p> <p>Alternate #2 – Parking Garage &amp; Field: A motion as immediately made by TB to consider this a high priority, seconded by MS. No Discussion. <b>VOTE: (11-0, unanimous – high priority)</b></p> <p>Alternate #3 – Child Care: It was noted that this is daycare space, not a c.74 program. MS stated that this is a big incentive for staff. TC commented that it was originally designed specifically for staff and then opened up to the public, he likes the opportunity to tie into the c.74 program that it affords. VM made a motion to place a high priority on this, seconded by SR. Discussion: TP notes program is at capacity (18?), agrees with TC that staff use of the program is likely to increase in the future. TB cited other centers in the community, he is concerned about impact to the cost of the project. It is believed that the MSBA reimbursed for a similar space in Wellesley, SMMA can pursue this with the MSBA. <b>VOTE (11-0, unanimous – high priority)</b></p> <p>Alternate #4 – DPW: RK motion that this be considered low priority, seconded by NB. Discussion: RK clarified that this proposed space serves other schools. SK confirmed that SHS is a distribution point, and the DPW would need to find an alternate location if not included in the program. RK asked if Edgerly would suffice? TB asked if the old 1895 building could be used? SK thinks there are</p>
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		<p>enough options available and space in other buildings to make it work, he is OK with the low priority designation. <b>VOTE (11-0, unanimous – low priority)</b></p> <p>Alternate #5 – Public Access TV: TP stated that they have an enormous amount of portable equipment, they currently occupy (2) 17'x15' storage rooms, plus an office and a separate control room. RK asked if there is value in having a shared space? MS &amp; NB replied no, not if the equipment is not shared with the students. TC noted that the program has always been collaborative. A motion was made by TC to place a high priority, seconded by TB. No further discussion. <b>VOTE (11-0, unanimous – high priority)</b></p> <p>Alternate #6 – Cambridge Health Alliance: MS states that lots of services are provided by this program. TP added that they offer much needed services to students and their families. Motion was made by SK to place a high priority, seconded by SR. No further discussion. <b>VOTE (11-0, unanimous – high priority)</b></p> <p>Alternate #7 – Sustainability Measures Exceeding LEED Silver Requirements: SMMA provided a presentation on sustainability, the LEED points system was explained in detail, it was noted that 58 points have been identified for the project to target in order to get the MSBA's 2% reimbursement rate incentive, MSBA requires a minimum of 50 points in order to receive the incentive. The 58 points identified are already captured within the BASE PROJECT cost per square foot presented. TB asked if there is any state funding available from solar panels? SMMA replied that there are grants available through the utility companies. TC inquired about "thermal comfort controls" in SMMA's presentation, does this mean that there needs to be AC in the building? No, mechanical ventilation is required by AC is not a requirement for the LEED points. SMMA noted that a focus on sustainability does not need to mean targeting LEED Gold or Platinum, but rather it could be a selection of the most efficient systems available, ultra high efficiency windows, doors, envelope etc., this is different from merely chasing LEED points. A motion was made by MN to place a high priority on alternate #7, seconded by SR. Discussion: MN reemphasized the moral reasons for this, it is necessary to make the project as environmentally friendly as possible. SR added that it is a big number, but he has no question that it is a high priority item. TP added that you can't overlook the educational advantageous. TC stated that he would have to vote no based on the price tag alone, his preference would be to implement these measures, including geothermal, but lacking enough specific information to be able to vote yes at this time. TB added that the base cost already assumes LEED Silver, need to really look at what is actually being gained for a \$36M premium. There is a huge pricetag for added sustainability certifications and his experience has been that even well known area universities don't always go the extra distance after completing their own in depth analysis of the pros &amp; cons. <b>VOTE (9-2, approved, high priority)</b></p>
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3/14:06	PMA / SMMA	5/23/16	<p><b>Historic Process: Update 4/11/16:</b> An update on the historic process was provided, the SHPC met on 3/29 and unanimously voted to support each of the final three alternatives. The second MHC PNF submission was made on 3/31 and a consultation with MHC occurred via conference call on 4/1. RK provided a recap of the SHPC discussion, they identified the 1895/1914 central academic building and 1929 war memorial (current library) as priority elements to maintain. SHPC requested in each of the final 3 alternatives that the opportunity to existing retain facades would be investigated, along with restoration of the 1895 roof and the opportunity to reveal the original rear facing façade of the 1895 building. <b>Update 5/9/16:</b> TP updated the SBC on the most recent correspondence from MHC. All three final options have an adverse effect to the MHC and MHC has requested additional information. TP advised that this matter will not be discussed in detail as it is being reviewed with the City Solicitor and needs to be discussed with the MSBA. SR asked if MHC's response was expected? No, it was expected that MHC would defer to Somerville's own local historic commission. MJR noted that she was worried initially that the Somerville Historic letter was not going to be worded strong enough.</p>
2/10:01	ALL	5/23/16	<p><b>Public Comment:</b></p> <ol style="list-style-type: none"> <li>1. Chris Devers – it would be easier to quantify the costs associated with increased sustainability if it were broken down into cost per taxpayers. TP responded that the SBC has heard this feedback, but the funding mechanism for the project is not directly in the SBC's purview. It was also noted that the requested level of detail is not readily available until the Schematic Design Phase.</li> </ol>
4/11:01	ALL	5/23/16	<p><b>Sustainability / Energy Efficiency (New Business):</b> MN made a motion to place a priority on environmental impact, specifically sustainability of the building, renewable sourcing of electricity and geothermal heating. Motion was seconded by SR. Discussion followed: TP asked SMMA at what point the cost-benefit analysis would occur, during SD? SMMA replied that the project is striving to achieve the 2% reimbursement incentive at a very minimum that accompanies a LEED Silver certification; it is not realistic for a project such as this one to attain true net-zero status. MN added that 75% of emissions are the result of heating systems, will geothermal be investigated? Yes, geothermal will be evaluated. SR asked if the City has any green initiative targets beyond those of the MSBA's? RK responded that discussions have occurred with the office of sustainability and that they are working to develop standards. SMMA added that the goal would be to construct a tight exterior envelope to support newer technology as it becomes available. <b>VOTE 13-0 (unanimous) to place a priority on environmental impact and sustainability. Update 5/9/16:</b> See item 1/06:01 above for detail on Sustainable design discussions during this meeting.</p>

A motion was made by VM to adjourn the meeting, second by RK. All approved.

**Meeting Adjourned: 8:33P.M.**

**Next meeting dates are below.**

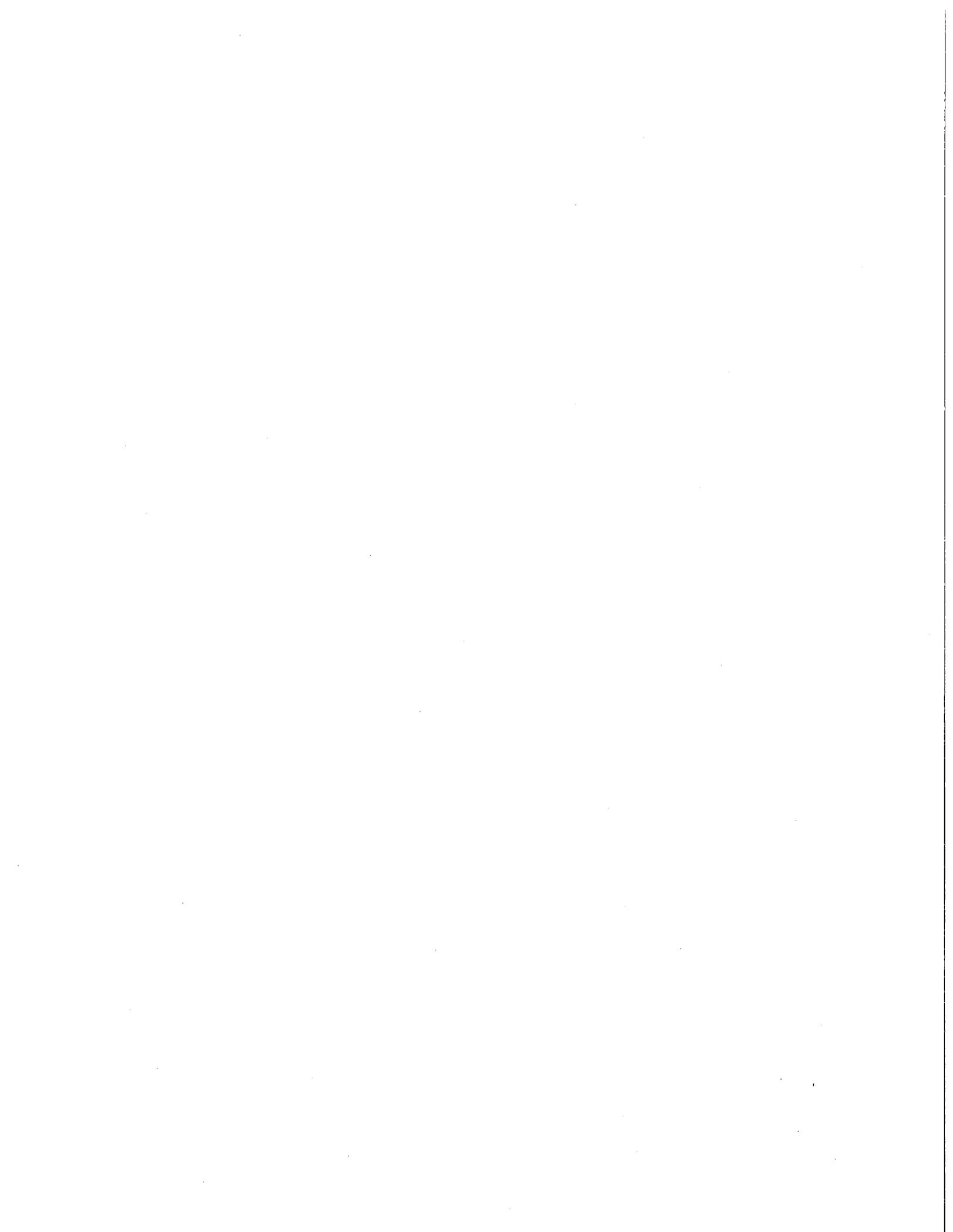
- 5/23/16 (SHS Auditorium, 5:30PM)
- 5/26/16 (Tentative Meeting, 4:30PM @ SHS)

The author of these minutes assumes, to the best of his or her knowledge, that the above content of these Meeting Minutes depict all that transpired during this Project meeting. All attendees are required to address by memo or via e-mail, any omissions, errors or inconsistencies in the reporting of these Meeting Minutes, to the writer, within two (2) business days of receipt of these Meeting Minutes.

**Prepared By: Chad Crittenden, PMA Consultants**

**Signed: Chad Crittenden**  
5/18/16

**Date:**



## Somerville High School Building Committee Meeting Minutes

**PROJECT:** Somerville HS Project  
**LOCATION:** Healy School Library

**MEETING DATE:** April 11, 2016

**ATTENDEES:** *(Absent in Italics)*

<u>Bldg. Cmte:</u>	<input type="checkbox"/> <i>Mayor Curtatone (JC)</i>	<input type="checkbox"/> Tony Pierantozzi (TP)	<input type="checkbox"/> Tony CiccarIELlo (TC)	<input type="checkbox"/> Rob King (RK)
	<input type="checkbox"/> Steve Roix (SR)	<input type="checkbox"/> Mary Skipper (MS)	<input type="checkbox"/> Stan Koty (SK)	<input type="checkbox"/> John Oteri (JO)
	<input type="checkbox"/> Max Nadeau (MN)	<input type="checkbox"/> Ed Bean (EB)	<input type="checkbox"/> <i>Vince McKay (VM)</i>	<input type="checkbox"/> Tom Bent (TB)
	<input type="checkbox"/> Nelia Braga (NB)	<input type="checkbox"/> Adda Santos (AS)	<input type="checkbox"/> Mary-Jo Rossetti (MJR)	
<u>PMA:</u>	<input type="checkbox"/> Chris Carroll	<input type="checkbox"/> Chad Crittenden	<input type="checkbox"/> Sean Burke	<input type="checkbox"/> <i>Walter Hartley</i>
<u>SMMA:</u>	<input type="checkbox"/> Alex Pitkin	<input type="checkbox"/> <i>Lorraine Finnegan</i>	<input type="checkbox"/> Matt Rice	<input type="checkbox"/> <i>Erin Prestileo</i>
<u>Others:</u>	<input type="checkbox"/> SEE ATTACHED SIGN-IN SHEET			

Meeting Chair TP called the meeting to order at 5:37P.M. Draft minutes from the 3/28/16 SBC meeting were reviewed. A motion to approve the minutes was made by SK, second by EB. Discussion: No further questions or comments. Vote: Minutes approved unanimously (13-0)

**General**

Item	Responsible	Due	Notes
9/09:01	SBC / PMA	5/9/16	<b>General Update: Update 4/11/16:</b> An update on the historic process was provided, see item 3/14:06 below for detail. PMA then provided an update on the MSBA's PDP review process, MSBA senior staff is reviewing the comments now, the MSBA expect comments will be provided to the district by the end of this week. PMA to forward MSBA PDP review comments to the SBC upon receipt.
9/09:04	SBC / PMA / SMMA	5/9/16	<b>Public Outreach: Update 4/11/16:</b> A community forum is scheduled for April 26 <sup>th</sup> in the HS auditorium, this will be the final community forum prior to submission of the Preferred Schematic Report. TP advised that the website has received over 4000 hits recently. PMA distributed a summary of comments received to date, it was noted that at least one public commenter (present at tonight's SBC meeting) initially supported Alt 2A but now support Alt 4B after receipt of more detailed information. MJR reminded all of the project presentation to the Board of Aldermen, RK added that he will be present at Thursday's BOA meeting and can provide an update to the SBC after the meeting. TP is also working to arrange a 30 minute interview on Somerville Community Access TV, MN is available to attend with TP, date is TBD - TP to coordinate.

**Design**

Item	Responsible	Due	Notes
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9/09:07	ALL	5/9/16	<p><b>General Design Update: Update 4/11/16:</b> SMMA presented each of the three remaining final options for evaluation, discussion followed.</p> <p>MJR inquired what the total height of the building would be if it is 5 or 6 stories as seen in Alternative 4B, SMMA replied that it could be around 105' and may require a variance (it was noted that existing condition is also non-conforming). The existing building is 3.5 stories on Highland Street, not including the roof if it were to be restored (roofs do not count towards building height).</p> <p>Next, anticipated program disruptions by phase were reviewed for each of the alternatives. TC noted that the Ed Program does away with the isolated nature of the CTE wing, it appears that 4B is most supportive of this idea. TC would like to review phasing options to see if there is a way to mitigate construction impact to CTE operations. SMMA &amp; PMA to investigate.</p> <p>MJR asked about cost delta between Alternative 4B and 4B' (closer to street), the costs for each are close but 4B' is likely slightly less since it allows for more flexible use of the available site area. MJR is seriously considering Alt 2A and wants to know what other SBC member's thoughts are. RK clarified that 4B and 4B' should be considered the same for the purposes of this discussion, there are only 3 options on the table. MN asked if the impact to CTE spaces would be greater in Alt 2A? Yes, 2A will make it challenging to only move CTE spaces once, multiple moves will result in greater impact and cost. SR asked if the educators present would comment on the remaining options, specifically how each alternative responds to the approved Education Program. Prior to the educators feedback, RK motioned that Alternative 3 be eliminated for a number of reasons in order to streamline the discussion. Disadvantages of Alt 3 include 1) the costly renovation of the existing auditorium due to seismic code upgrades and necessary stage improvements, 2) the low, dark, undesirable space below the auditorium which is unsuitable for modern education, 3) the undesirable northern blank face of the building towards Gilman Square would remain, 4) lack of available open/field space on the hill under this scenario, 4) this alternative maintains the existing barrier between the north and south portions of the site. Furthermore, this option is more costly than similar Alt 2A and has come close to being eliminated at past meetings. RK's motion was seconded by JO, no further discussion occurred, <b>VOTE 13-0 (unanimous) in favor of eliminating Alternative #3.</b> School staff (and student) present then proceeded to provide their feedback relevant to the remaining two alternatives and the Education Program. MS sees tradeoffs in both alternatives, each supports the Ed Plan but she is leaning to 4B. The 1895 building preservation opens up many opportunities and provides for a campus feeling, including much needed greenspace and ability to integrate the building into the overall district program. All program being in a smaller footprint is ideal, evening with the additional height in 4B. The site generally flows better and MS is interested in better understanding the interior components of 4B. JO added that his feelings are similar, he likes the added distance from City Hall, new greenspace, overall look &amp; feel of Alt 4B. Additionally, Alt 4B causes the least disruption to school operations during construction. While the added height is not JO's preference, the horizontal travel distance is even worse. The compact footprint of 4B will create flexibility and better adjacencies, no concern about the overall shape as it is understood that it will evolve and develop as the design progresses. JO feels that the SBC should leverage this process to create the best possible building for the community, 2A is 'clunky' and does not address many existing disadvantages. AS concurred with MS and JO statements, she liked the historical look of the front, and was glad that it is being maintained. Also preferred the vertical approach as the horizontal travel distances are a problem, definitely prefer alternative 4B. NB echoed MS &amp; JO as well, 2A does feel 'clunky' and 4B is better aligned with the Ed Plan. MN added that the compact nature of Alt 4B has environmental benefits too, the building has less surface area and should be more efficient.</p>
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			<p>MJR asked to discuss the location of Next Wave / Full Circle – she does not like the idea of putting the program in the 1895 basement as suggested. SMMA replied that the rear of the 1895 building would be exposed and open to the fields in this scenario, although it is difficult to envision this early in the design. MS added that if the NW/FC program does end up in the 1895 building we need to be ensure that there are not two different standards.</p> <p>SR motioned to select Alternative 4B as the preferred option, AS seconded. Discussion: TB suggested that the SBC takes public comments prior to the vote. SR/AS agreed to table their motion for 4B, pending receipt of public comments.</p> <p>TB motioned to take public comments now, second by TC. Vote: (13-0) unanimous to take public comments prior to voting on the preferred alternative. See item 2/10:01 below for summary of public comments received.</p> <p>Following public comments, SR motioned once again to select Alternative 4B as the Preferred Schematic Option. Motion was seconded by AS. Discussion: MJR asked if selection of Alt 4B includes the 1895 building reconstruction, TP responded that no, determination of future use that building would not be in the SBC's purview. SR clarified that we don't yet know what the 1895 building will be used for; it is subject to future review. MS asked if it is in the SBC's purview to recommend attaching the 1895 building to the project. TP responded that this may not be financially feasible at this stage, PMA added that the MSBA will not allow for the school funding vote to be tied to the 1895 building renovation if it is not intended to be used for HS educational program. <b>VOTE 13-0 (unanimous) in favor of proceeding with Alternative 4B as the Preferred Schematic Option.</b></p>
9/09:10	SMMA / SBC	5/9/16	<b>Space Summary: Update 4/11/16:</b> Awaiting MSBA PDP review, no update at this time.

**Cost / Schedule**

Item	Responsible	Due	Notes
9/09:11	PMA	5/9/16	<b>Project Schedule: Update 4/11/16:</b> On track for PSR submission to MSBA by 6/2/16. SBC to meeting on 5/23 to approve submission. MSBA Board Meeting is scheduled for 7/20/16.
9/09:12	PMA	5/9/16	<b>Next Steps: Update 4/11/16:</b> MSBA PDP review comments anticipated this week. GLX forum on 4/13(will set up informational table). Community Forum on 4/26. SBC meetings on 5/9 and 5/23
1/06:01	PMA	5/9/16	<b>Project Budget:</b> No update at this time. Not discussed.
3/14:06	PMA / SMMA	5/9/16	<b>Historic Process: Update 4/11/16:</b> An update on the historic process was provided, the SHPC met on 3/29 and unanimously voted to support each of the final three alternatives. The second MHC PNF submission was made on 3/31 and a consultation with MHC occurred via conference call on 4/1. RK provided a recap of the SHPC discussion, they identified the 1895/1914 central academic building and 1929 war memorial (current library) as priority elements to maintain. SHPC requested in each of the final 3 alternatives that the opportunity to existing retain facades would be investigated, along with restoration of the 1895 roof and the opportunity to reveal the original rear facing façade of the 1895 building.

2/10:01	ALL	5/9/16	<p><b>Public Comment:</b></p> <ol style="list-style-type: none"> <li>1. Q: Is the parking garage part of the plan? A: The preliminary concept shows a 2 story garage under the field.</li> <li>2. Commenter likes that Alt 4B is set back from Highland Street, does not like 4B' which encroaches on the road. Likes that 4B compacts the school footprint and eliminates shadows on the site. Thinks that Alt 4B is much better than Alt 2A, best creative use of site.</li> <li>3. Commenter notes that neither 2A or 4B retain the existing auditorium, wants to know if there is a hierarchy to determine order of importance (ie saving auditorium vs swing space requirements). TP replied that the auditorium is actually more expensive to keep due to the inefficiencies that surround this space.</li> <li>4. Q: Is 4B more energy efficient? A: Possibly, since it is more compact.</li> <li>5. Q: What will the 1895 bldg be used for? A: Not sure, the 1895 building is not in the SBC's purview under Alt 4B unless HS program space ends up in the building as the design progresses.</li> <li>6. MS provided an update on XQ Challenge. Somerville has been identified as one of the 350 finalists.</li> </ol>
4/11:01	ALL	5/9/16	<p><b>Sustainability / Energy Efficiency (New Business):</b> MN made a motion to place a priority on environmental impact, specifically sustainability of the building, renewable sourcing of electricity and geothermal heating. Motion was seconded by SR. Discussion followed: TP asked SMMA at what point the cost-benefit analysis would occur, during SD? SMMA replied that the project is striving to achieve the 2% reimbursement incentive at a very minimum that accompanies a LEED Silver certification; it is not realistic for a project such as this one to attain true net-zero status. MN added that 75% of emissions are the result of heating systems, will geothermal be investigated? Yes, geothermal will be evaluated. SR asked if the City has any green initiative targets beyond those of the MSBA's? RK responded that discussions have occurred with the office of sustainability and that they are working to develop standards. SMMA added that the goal would be to construct a tight exterior envelope to support newer technology as it becomes available.</p> <p><b>VOTE 13-0 (unanimous) to place a priority on environmental impact and sustainability.</b></p>

A motion was made by RK to adjourn the meeting, second by SK. All approved.

**Meeting Adjourned: 8:37P.M.**

**Next meeting dates are below, all meetings at 5:30PM.**

5/09/16 (Capuano Conference Room)  
5/23/16 (SHS Library)

The author of these minutes assumes, to the best of his or her knowledge, that the above content of these Meeting Minutes depict all that transpired during this Project meeting. All attendees are required to address by memo or via e-mail, any omissions, errors or inconsistencies in the reporting of these Meeting Minutes, to the writer, within two (2) business days of receipt of these Meeting Minutes.

**Prepared By: Chad Crittenden, PMA Consultants**

**Signed: Chad Crittenden**

**Date: 4/27/16**

## Somerville High School Building Committee Meeting Minutes

**PROJECT:** Somerville HS Project  
**LOCATION:** West Somerville Community School

**MEETING DATE:** March 28, 2016

**ATTENDEES:** *(Absent in Italics)*

<u>Bldg. Cmte:</u>	<input type="checkbox"/> Mayor Curtatone ( <i>JC</i> )	<input type="checkbox"/> Tony Pierantozzi (TP)	<input type="checkbox"/> Tony Ciccariello (TC)	<input type="checkbox"/> Rob King (RK)
	<input type="checkbox"/> Steve Roix (SR)	<input type="checkbox"/> Mary Skipper (MS)	<input type="checkbox"/> Stan Koty (SK)	<input type="checkbox"/> John Oteri (JO)
	<input type="checkbox"/> Max Nadeau ( <i>MN</i> )	<input type="checkbox"/> Ed Bean (EB)	<input type="checkbox"/> Vince McKay ( <i>VM</i> )	<input type="checkbox"/> Tom Bent (TB)
	<input type="checkbox"/> Nelia Braga (NB)	<input type="checkbox"/> Adda Santos (AS)	<input type="checkbox"/> Mary-Jo Rossetti (MJR)	
<u>PMA:</u>	<input type="checkbox"/> Chris Carroll	<input type="checkbox"/> Chad Crittenden	<input type="checkbox"/> Sean Burke	<input type="checkbox"/> <i>Walter Hartley</i>
<u>SMMA:</u>	<input type="checkbox"/> Alex Pitkin	<input type="checkbox"/> <i>Lorraine Finnegan</i>	<input type="checkbox"/> Matt Rice	<input type="checkbox"/> <i>Erin Prestileo</i>
<u>Others:</u>	<input type="checkbox"/> SEE ATTACHED SIGN-IN SHEET			

Meeting Chair TP called the meeting to order at 5:42P.M. Draft minutes from the 3/14/16 SBC meeting were reviewed. A motion to approve the minutes was made by SK, second by TB. Discussion: No further questions or comments. Vote: Minutes approved unanimously (12-0)

**General**

Item	Responsible	Due	Notes
9/09:01	SBC / PMA	4/11/16	<b>General Update: Update 3/28/16:</b> PDP reviewed comments have not been returned to the committee from the MSBA. The MSBA will provide comments in the next few weeks. The MSBA has indicated that they will focus on the PDP submission and provide comments after the March 30, 2016 board meeting. PMA will update the MSBA on the progress of tonight's meeting. The committee should continue to move forward with the process while awaiting MSBA PDP comments from the MSBA.
9/09:04	SBC / PMA / SMMA	4/11/16	<b>Public Outreach: Update 3/28/16</b> – The project webpage is continually updated with meeting agendas, minutes, and presentations. Each of the building alternatives has been uploaded to the webpage with a space for the public to provide feedback on and to rate each alternate. As feedback is received from the public, it will be distributed to the committee. PMA has distributed the initial public comments to the committee by email. There is a student/youth forum scheduled for Thursday March 30 <sup>th</sup> at 2:30PM in the High School Auditorium. TP asked members of the committee to take and distribute the project information flyers

**Design**

Item	Responsible	Due	Notes
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9/09:07	ALL	4/11/16	<p><b>General Design Update:</b>  SHPC Update – TP, RK, PMA and SMMA met twice with the SHPC, once in a SHPC meeting on 3/15 and again at a working session on 3/23 with 4 members of the SPHC. No votes were taken. There is a follow up meeting tomorrow 3/29. RK updated the committee on the meetings: SMMA provided a general overview of the design process and the alternatives being considered, highlighting each alternative’s impact to the current building. The takeaway from the meetings is that the 1895/1914 section is the highest priority and the War Memorial façade is the next highest priority. MJR asked is the historic process should have been started sooner. CC explained that this process is typically started later but was moved up to assure the MSBA of the SHPC and MHC support of the project as early as possible. JO believes that options leaving the 1895/1914 may have the least impact to operations. TP noted that all option will have challenges in phasing but is confident that each option is workable. TC asked if there is a high level of confidence that the SHPC will support the working group priorities. TP believes that the working group provided priorities which would be supported by the SHPC. TB expressed that he would have liked to have full SHPC committee input prior to the SHBC meeting. TC asked if the 1895 wing will satisfy current building codes. SMMA reported that the 1895 has some timber components that would need to be addressed but all within their capabilities and nothing they haven’t had to deal with before. TB asked is SHPC had jurisdiction over the interior of the building. RK stated they typically do not and they were not averse to maintaining only the building façade to maintain the aesthetic from Highland Ave. JO asked if the building could be demolished and components from the original building be reused. RK reported that this was not the preference of the SHPC.</p> <p>SMMA presented on current design alternative, they commented on the MBSA current desire to re-use existing building where it makes sense to do so. Renovation of the existing SHS building makes it difficult to achieve 21<sup>st</sup> century learning objectives, program adjacencies, STEM/STEAM, layout needed to make meaningful program connections. Additional program collaborations could be made between the Chapter 74 programs and the public spaces currently in the building. i.e Cambridge Health Alliance and nursing assisting program, daycare and the early child care program, SCAT and the TV broadcast program. Spaces could be designed to complement each other.</p> <p>The remaining building alternatives were again reviewed. A U12 field was shown on each plan for scale, it is unlikely that a full size field would fit on any building alternative. One option added, option 2A. SR asked if 2a was new, added after PDP. SMMA confirmed it was, but is a minor variation/evolution of alternative 2, removing the western most 1929 wing closest to city hall.</p> <p>MJR asked if any alternatives align driveways to the adjacent roadways. SMMA confirmed that the sketches they have provided to align the driveway to the adjacent roads. These sketches require further investigation and are only for illustration at this point.</p> <p><b>TB MOTION to eliminate alternate 3 from consideration SK second:</b></p> <p>SR: Wanted to have more clarity of the inefficiency of spaces related to saving the auditorium. CC stated that based on space summary, 16K or additional building would have to be built to make up for the “bad space” under the auditorium, this would cost in the range of \$10MM. SMMA notes that an 1138 seat auditorium could be built new but the MSBA would only reimburse up to 750+/- seat space, approx. 66% of eligible costs, the district would pay for 100% of the overage. TC would like to keep alternative 3 on the table as it is the only option which maintains the existing auditorium. MJR is not comfortable removing alternative. <b>Motion was withdrawn.</b></p>
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			<p><b>SK MOTION eliminate alternative 5, RK Second</b>  <b>Alternative 5:</b> All new construction on the existing high school site – as proposed by this alternative - would require the full demolition of the existing school. Portions of the building that date from specific eras hold higher cultural significance for the City, including the original 1895 building and the 1929 War Memorial building that currently houses the school library. Alternatives that maintain some portion of those two elements of the existing building were deemed as preferable. <b>PASS 12-0</b></p> <p><b>TB MOTION eliminate alternative 4a, SK Second:</b>  <b>Alternative 4a:</b> The disconnected nature of individual buildings was deemed to be counter to the main educational goal of creating an integrated comprehensive school with improved opportunity for all programs to interact with each other. In addition to that programmatic issue, the disconnected buildings raised safety and security concerns, and would result in a higher number of stairs, elevators and exterior building surfaces. <b>PASS 12-0</b></p> <p><b>RK MOTION to eliminate alternative 4, JO Second</b>  <b>Alternative 4:</b> While this plan could connect the lower levels of the school in an open &amp; fluid manner, the upper levels of the various programs would become isolated, requiring a higher number of stairs, elevators, and support facilities. <b>PASS 12-0</b></p> <p><b>RK MOTION to eliminate alternative 2, NB Second</b>  <b>TB-</b> Will alternative 2a still be on the table? –YES  <b>MJR</b> – Cannot support removal of this option as it has not been presented to the public.  <b>SR</b> - Cannot support this option  Roll Call Vote – (9-2-1; MJR &amp; SR against, TP abstained)</p> <p><b>Alternatives 2a, 3 and 4b still on the table.</b>  TB would like alternatives and presentation data to be sent the day before the meeting. TP would like to see refinements to alternative plans the on the Friday prior to the Monday meeting.</p>
9/09:10	SMMA / SBC	4/11/16	<b>Space Summary: No Update</b>

**Cost / Schedule**

Item	Responsible	Due	Notes
9/09:11	PMA	4/11/16	<b>Project Schedule:</b> To maintain the project schedule, the committee is expected to be prepared to discuss and choose their preferred option at the next meeting on 4/11
9/09:12	PMA	4/11/16	<b>Next Steps:</b> MSBA PDP review comments anticipated in the next few weeks. Student SBC meeting on 4/11 to identify preferred option.
1/06:01	PMA	4/11/16	<b>Project Budget:</b> Order of Magnitude budgets for each alternative were provided for review.
3/14:06	PMA / SMMA	4/11/16	<b>Historic Process:</b> Detailed update provided in Design Update. PMA and SMMA will be working with the SHPC and MHC to review the remaining alternative and collect feedback from each organization.

2/10:01	ALL	4/11/16	<b>Public Comment:</b> 1. P. Bockelman – SC Member. SHPC needs to understand the limitations retaining some of the older section of the building places on the educational goals of the project. Vertical construction is good, preferable to a long horizontal sprawling building 2. M, Skipper provided an update in XQ Challenge. XQ Challenge director is making a video about the Challenge and wants to video SHS student to discuss their process and how they decided to make a video for the challenge.
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A motion was made by RK to adjourn the meeting, second by SK. All approved.

**Meeting Adjourned: 8:37P.M.**

**Next meeting dates are below, all meetings at 5:30PM.**

- 4/11/16 (Healey Library)
- 5/09/16 (Capuano Conference Room)
- 5/23/16 (SHS Library)

The author of these minutes assumes, to the best of his or her knowledge, that the above content of these Meeting Minutes depict all that transpired during this Project meeting. All attendees are required to address by memo or via e-mail, any omissions, errors or inconsistencies in the reporting of these Meeting Minutes, to the writer, within two (2) business days of receipt of these Meeting Minutes.

**Prepared By: Sean Burke, PMA Consultants**

**Signed: Sean Burke**

**Date: 4/5/16**

## Somerville High School Building Committee Meeting Minutes

**PROJECT:** Somerville HS Project  
**LOCATION:** Kennedy School Library

**MEETING DATE:** March 14, 2016

**ATTENDEES:** (*Absent in Italics*)

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|--------------------|--|---|---|--|
| <u>Bldg. Cmte:</u> | <input type="checkbox"/> Mayor Curtatone ( <i>JC</i> ) | <input type="checkbox"/> Tony Pierantozzi (TP)    | <input type="checkbox"/> Tony Ciccariello (TC)  | <input type="checkbox"/> Rob King (RK)         |
|                    | <input type="checkbox"/> Steve Roix (SR)               | <input type="checkbox"/> Mary Skipper (MS)        | <input type="checkbox"/> Stan Koty (SK)         | <input type="checkbox"/> John Oteri (JO)       |
|                    | <input type="checkbox"/> Max Nadeau (MN)               | <input type="checkbox"/> <i>Ed Bean (EB)</i>      | <input type="checkbox"/> Vince McKay (VM)       | <input type="checkbox"/> Tom Bent (TB)         |
|                    | <input type="checkbox"/> Nelia Braga (NB)              | <input type="checkbox"/> Adda Santos (AS)         | <input type="checkbox"/> Mary-Jo Rossetti (MJR) |  |
| <u>PMA:</u>        | <input type="checkbox"/> <i>Chris Carroll</i>          | <input type="checkbox"/> Chad Crittenden          | <input type="checkbox"/> Sean Burke             | <input type="checkbox"/> <i>Walter Hartley</i> |
| <u>SMMA:</u>       | <input type="checkbox"/> Alex Pitkin                   | <input type="checkbox"/> <i>Lorraine Finnegan</i> | <input type="checkbox"/> <i>Matt Rice</i>       | <input type="checkbox"/> <i>Erin Prestileo</i> |
| <u>Others:</u>     | <input type="checkbox"/> SEE ATTACHED SIGN-IN SHEET    |   |   |  |

Meeting Chair TP called the meeting to order at 5:35P.M. Draft minutes from the 2/10/16 SBC meeting were reviewed. A motion to approve the minutes was made by TC, second by SR. Discussion: No further questions or comments. Vote: Minutes approved unanimously (10-0, (SK, TB, RK late)).

**General**

Item	Responsible	Due	Notes
9/09:01	SBC / PMA	3/28/16	<b>General Update: Update 3/14/16:</b> Project team introductions were made. TP provided an overview of the agenda, and suggested a change in meeting sequence moving the presentation first as it is being video recorded for the project website. The presentation will be followed by the SBC discussion/deliberation which will be documented in the meeting minutes. TP also outlined the MSBA process and stressed the importance of aligning the proposed project with the education plan. MJR inquired if the MSBA has approved the removal of RM and addition of VM and MN to the SBC, TP replied yes, MSBA has approved. MJR asked if zoning variances and reimbursement rates had been figured for each alternative, SMMA provided a recap of possible zoning variances needed (namely setback & building height which are already non-conforming). PMA gave a quick explanation of reimbursement incentives (2 pts for LEED, 0-5 for renovation depending on % of building renovated, 1 pt for CM @ Risk, 0-2 points for preventative maintenance). The anticipated reimbursement rate for each scenario was included in the budget scenario sheet previously reviewed, PMA will re-issue with a detailed breakout.
9/09:04	SBC / PMA / SMMA	3/28/16	<b>Public Outreach: Update 3/14/16:</b> TP provided an overview of outreach efforts forthcoming. Building tours have been scheduled for 3/16, tours will be led by AS, JO, TC & MN. Public forums have been scheduled for 3/22, 4/5 & 4/26, the 4/5 forum will have translators available. The SBC also hopes to have a presence at the 4/13 GLX meeting due to anticipated high turnout, the intent will be to provide information to those interested. A Somerville youth forum is also being scheduled, tentatively for 3/30, JO to confirm. PMA to update lookahead schedule to include these dates & distribute to SBC members. SMMA to provide floorplans & narrative for tours on 3/16. Media outreach was discussed next, MJR wants to push for feedback through the project's website, she is not sure there has been enough feedback received from the public to-date, TC concurred. TB suggested the possibility of direct correspondence to K-12 parents, TP responded that the information has already been dispersed electronically via school connections. TP stated that a conference call is scheduled for tomorrow morning with City Communications; he will stress the need for more public feedback.

Design

Item	Responsible	Due	Notes
9/09:07	ALL	3/28/16	<p><b>General Design Update:</b> SMMA provided a presentation which outlined the 9 alternatives, the video copy of this presentation will be uploaded to the project website (<a href="http://somervillema.gov/highschool">somervillema.gov/highschool</a>). The presentation was followed by SBC discussion:</p> <p>Alternatives 0 &amp; 1 were discussed, the major drawbacks were that alternative 0 will trigger substantial renovations in order to become code compliant. With these renovations, also part of alternative 1, there would be a reduction in usable SF due to items like seismic bracing, additional bathrooms, etc to satisfy modern building requirements. A motion was made by SR to remove alternatives 0 &amp; 1 from consideration since they could not satisfy the City's educational program. VM seconded the motion. No further discussion occurred. <b>Vote: 13-0 unanimous approval to remove alternatives 0 &amp; 1 from consideration.</b></p> <p>Alternatives 2 &amp; 3 were reviewed next. SMMA stated that these options can be studied concurrently since they are very similar. MN expressed a concern he had about the long hallway. TB had concerns about the costs associated with stabilizing the facades &amp; structure to support the extensive and extremely invasive renovations that would be required. TC inquired if historic components of the existing building could be incorporated into a new building instead (ie decorative lintels), answer is yes. MJR added that alternatives 2/3 are very similar, the differentiating factor is really the reuse of the auditorium in alternative 3. SMMA cautioned that re-use of the auditorium sounds ideal, but it creates some inefficiencies with the spaces below (ie current cafeteria). PMA added that early indicators are that alternative 3 will actually cost the City more than alternative 2 due to MSBA reimbursement calculations. TP reminded that there may still be an opportunity to reuse some components of the auditorium, such as the newer seats, in the final solution. MS asked if there was a matrix available to compare options, SMMA responded that a matrix is included in the handout. General consensus is that alternatives 2 &amp; 3 warrant further investigation, no further discussion on these alternatives at this time.</p> <p>TC made a motion to remove alternate #6 from consideration. The motion was seconded by TB. Discussion: TP outlined Article 97 challenges and potential schedule impact, along with the need to relocate DPW prior to commencing any real work in this scenario. MJR expressed a concern about removing this option too early without full public input, this is the only option on another site. SK wants to start focusing on the 'real' options, does not think that the DPW site is viable. MJR would feel more comfortable if there was a press release explaining why this option was eliminated. TC added that it is important that the community understands that there were several other site options vetted as part of the PDP process (Dillboy, Foss, etc). These other options were presented at the November 2015 public forum and all feedback received indicated a strong preference for the existing site. <b>Vote: 13-0 unanimous approval to remove alternative 6 from consideration.</b></p> <p>TP asked if all were OK moving on to the next item on the agenda. PMA requested if alternative 4A could be discussed and considered to be removed, SBC general consensus was that they would like to keep 4A on the table for the time being. SMMA requested a discussion about alternative 5, SBC declined and wants to leave alternative 5 on the table. PMA reminded all of the need to get down to 3 options for "final evaluation" at the 3/28 meeting and the need to select the 1 "preferred option" by the 4/11 meeting in order to stay on track for the June 2<sup>nd</sup> MSBA submission deadline. MJR requested more visuals at the next meeting so the public can follow along better with the SBC's discussion.</p>

9/09:10	SMMA / SBC	3/28/16	<b>Space Summary: Update 3/14/16:</b> Chapter 74 program approval process was briefly discussed. SMMA is working to obtain the School Committee vote of support for the new programs. VM to check on progress and report back.
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**Cost / Schedule**

Item	Responsible	Due	Notes
9/09:11	PMA	3/28/16	<b>Project Schedule: Update 3/14/16:</b> PMA reviewed the 4 week lookahead schedule, focus is on narrowing down alternatives to 3 by 3/28 and identification of the preferred option by 4/11, this is the project's critical path. SMMA will need this time to develop the preferred option prior to submission by the 6/2 MSBA deadline. A copy of the lookahead schedule is attached to the minutes.
9/09:12	PMA	3/28/16	<b>Next Steps: Update 3/14/16:</b> Somerville HPC presentation on 3/15. Building tours on 3/16. Public forums on 3/22, 4/5 (w/ translators) & 4/26. Youth meeting tentatively scheduled for 3/30. MSBA PDP review comments anticipated by 3/21. SBC meeting on 3/28 & 4/11 to identify preferred option.
1/06:01	PMA	3/28/16	<b>Project Budget: Update 2/10/16:</b> TB asked for clarification on what stage costs are firmed up, TP & PMA responded that until Schematic Design has been completed late this year, there is no tangible set of design documents (detailed drawings & specifications) to perform a detailed, project specific estimate on. At the moment we are using order of magnitude costs for the purpose of comparing each of the 9 alternatives to each other only, with the goal of identifying the preferred option and developing those costs further. The order of magnitude costs in the PDP are on a square foot basis using general market data, the true cost of the project and the district's share will not be set until the January 25, 2017 MSBA Board meeting. MJR added that it will be important for SBC members to understand ineligible costs for each scenario in order to make an educated decision on the preferred option. <b>Update 3/14/16:</b> PMA to update & issue budget scenarios for 6 remaining options, this data will be reviewed at the 3/28 SBC meeting.
3/14:06	PMA / SMMA	3/28/16	<b>Historic Process:</b> A copy of the Massachusetts Historical Commission's (MHC) 2/24/16 response to the Project Notification Form (PNF) mailed on 1/4/16 was provided. The 1895, 1914 and 1929 buildings are in MHC's inventory, although they have not been technically registered as historic buildings. The MHC letter requests photos of existing conditions and requests input from Somerville's Historic Preservation Commission (SHPC). TC requested clarification as to whether or not this MHC letter precludes any of the 4 options, answer is no, not at this time, for now they are just requesting SHPC input. SMMA, RK, TP and PMA have been invited to attend and present at tomorrow's (3/15) SHPC meeting and will report back with findings.

2/10:01	ALL	3/28/16	<p><b>Public Comment:</b></p> <ol style="list-style-type: none"> <li>1. T. Morgan: The SBC should take the alternatives that don't work off of the table, the SBC is trusted by the community. The existing site is correct and the existing field house should remain. It is a smart move to keep the auditorium but as a theater professional everything from the stage back should be blown out, the space under the auditorium could possibly be repurposed as a black box theater. The project should capture as much of the site as necessary to make the most efficient building possible.</li> <li>2. D. Williams: The options removed and decisions made at tonight's meeting are practical. If the auditorium is overbuilt beyond the MSBA's allowable size, will it be partially funded? SMMA replied yes. The project design should also take the existing library, green space &amp; playground into consideration.</li> <li>3. B. Wilson: Likes the existing site civic campus approach. The library is key, not sure if a new library is needed if the library next door is renovated? People will be pleased with the SBC's efforts to-date, there is no concern with taking alternatives off of the table. As far as spreading the word the SBC should reach out to younger couples who are not yet involved with the school system. Sustainability is also important in this community.</li> <li>4. G. Long: Four children in the Somerville school system. Concerns about community are founded, people want to have a voice. Make it clear that options are going to be eliminated in this process. The committee is trusted.</li> <li>5. M. Bean: Are costs associated with swing space captured in the discussions? Yes, swing space costs are being factored into each scenario.</li> </ol>
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A motion was made by SK to adjourn the meeting, second by NB. All approved.

**Meeting Adjourned: 8:12P.M.**

**Next meeting dates are below, all meetings at 5:30PM.**

- 3/28/16 (West Somerville Library)
- 4/11/16 (Healey Library)
- 5/09/16 (Capuano Conference Room)
- 5/23/16 (SHS Library)

The author of these minutes assumes, to the best of his or her knowledge, that the above content of these Meeting Minutes depict all that transpired during this Project meeting. All attendees are required to address by memo or via e-mail, any omissions, errors or inconsistencies in the reporting of these Meeting Minutes, to the writer, within two (2) business days of receipt of these Meeting Minutes.

**Prepared By: Chad Crittenden, PMA Consultants**

**Signed: Chad Crittenden**

**Date: 3/23/16**

## Somerville High School Building Committee Meeting Minutes

**PROJECT:** Somerville HS Project  
**LOCATION:** ESCS Library

**MEETING DATE:** February 10, 2016

**ATTENDEES:** *(Absent in Italics)*

<b>Bldg. Cmte:</b>	<input type="checkbox"/> Mayor Curtatore (JC)	<input type="checkbox"/> Tony Pierantozzi (TP)	<input type="checkbox"/> Tony Ciccariello (TC)	<input type="checkbox"/> Rob King (RK)
	<input type="checkbox"/> Steve Roix (SR)	<input type="checkbox"/> Mary Skipper (MS)	<input type="checkbox"/> Stan Koty (SK)	<input type="checkbox"/> John Oteri (JO)
	<input type="checkbox"/> <i>Richard Melillo (RM)</i>	<input type="checkbox"/> Ed Bean (EB)	<input type="checkbox"/> Tom Bent (TB)	
	<input type="checkbox"/> Nelia Braga (NB)	<input type="checkbox"/> Adda Santos (AS)	<input type="checkbox"/> Mary-Jo Rossetti (MJR)	
<b>PMA:</b>	<input type="checkbox"/> <i>Chris Carroll</i>	<input type="checkbox"/> Chad Crittenden	<input type="checkbox"/> Sean Burke	<input type="checkbox"/> <i>Walter Hartley</i>
<b>SMMA:</b>	<input type="checkbox"/> Alex Pitkin	<input type="checkbox"/> <i>Lorraine Finnegan</i>	<input type="checkbox"/> Matt Rice	<input type="checkbox"/> <i>Erin Prestileo</i>
<b>Others:</b>	<input type="checkbox"/> SEE ATTACHED SIGN-IN SHEET			

Meeting Chair TP called the meeting to order at 5:36P.M. Draft minutes from the 2/3/16 SBC meeting were reviewed. A motion to approve the minutes was made by TC, second by SR. Discussion: MJR requested clarification on the School Committee 2/11 presentation referenced in item 9/09:12, TP replied that it was a Finance & Facilities subcommittee presentation on the PDP. No further questions or comments. Vote: Minutes approved unanimously (11-0, (SK late)).

**General**

Item	Responsible	Due	Notes
9/09:01	SBC	3/14/16	<p><b>General Update: Update 2/3/16:</b> Tony P. outlined the PDP process, approval is being sought by SBC on 2/10, then it needs to go to SC and City Hall for approvals and sign-off. Once submitted to MSBA, they will review for approximately 2 weeks and provide comments. Mary Jo R. requested that copies of MSBA comments are forwarded to the SBC members. PMA added that responsibility will be assigned for response to each of the MSBA comments (indicating City, School, PMA, SMMA responsibility). Mary Jo R. requested an updated status of SBC membership changes, Mary S responded that it is with the Mayor for signature and will be submitted to the MSBA immediately after. Mary Jo R. inquired what the "task force" is on the SBC approval form, Tony P responded that the task force was the group responsible for development of the Statement of Interest (SOI) submission to the MSBA. A copy of the MSBA's approved changes to the SBC will be forwarded to all members once received.</p> <p><b>Update 2/10/16:</b> Project team introductions were made. TP provided an overview of the agenda, and suggested a change in meeting sequence moving the XQ video first, followed by an outreach update and lastly the PDP presentation and discussion. TP also outlined the MSBA and PDP processes, stressed that it is not the intent of tonight's meeting to select an option, merely to approve the submission of 9 alternatives, education plan, and supporting documents to the MSBA. MJR inquired about the process of narrowing down the 9 options, does it makes sense to review 3 options at each of the 3 next SBC meetings? TP replied that it may not be necessary to review all 9 in depth, the MSBA requires that we investigate certain scenarios to demonstrate due diligence and in Somerville's case a few of those scenarios would not satisfy the education plan or contain other major impediments.</p>

9/09:04	SBC	3/14/16	<p><b>Public Outreach: Update 1/20/16:</b> Next SBC meetings to be at elementary schools, 2/3 will be at Argenziano, 2/10 will be at ESCS. S. Roix inquired if an outreach working group will be created; all agreed that this would be beneficial. The SBC meeting on 2/3 will focus on outreach and forming a working group and developing the outreach plan, representation from communications and City should be included on the working group. <b>Update 2/3/16:</b> A public outreach committee was formed consisting of Mary Jo R. (chair), Tony P, Steve R, Susanna M, Rob K, Nelia B, City Hall Communications and Mary S (when necessary). Mary Jo to coordinate first meeting for next week. The approach needs to be multipronged, key critical information needs to be identified and distributed, working group should work with City Communications to find good information to distribute. Tony P suggested distributing an updated version of the brochure that already exists. Mary S added that the XQ challenge video also may aid the outreach effort. Working group to meet and report back at a future SBC meeting. <b>Update 2/10/16:</b> MJR provided an update on the outreach working group meeting held on 2/9/16. There were 13 people in attendance, including 4 from the City's communications department and 3 from PMA. The project's website is in the process of being revamped for interactivity with constituents, the 1<sup>st</sup> page will contain FAQs &amp; a project overview, MJR to notify SBC members when new website is 'live'. The website will contain a means for public comment but it was noted that responses may need to be selective in order to maintain overall schedule and process. Facebook and Twitter accounts will also be set up and monitored by the City where quick responses to questions can be provided. Informational brochures were circulated, the brochures were created by NB's graphics class and will be updated for the next Community Forum in ~6 weeks. MJR is also working to document all community groups to be engaged as part of the outreach effort. It was noted that any and all media questions must be forwarded to TP for review and response.</p>
9/09:06		Closed	<p><b>Working Groups (sub-committees): Update 2/3/16:</b> The Education Plan working group had a conference call with the MSBA on Friday 1/29/16 to discuss c.74/DESE protocol. A new format for reporting c.74 information in the Ed Plan has been provided by the MSBA, this new form will require translation of the current information in narrative format to a simplified table format, Leo DeSimone to work on new format and work with DESE to obtain pre-approvals for new programs. It was noted by John O. that the MSBA's new requirement for pre-approval is being discussed internally at DESE, since pre-approvals are only good for two years, this is actually more of a pre-pre-approval. <b>Update 2/10/16:</b> Ongoing, no updates. This item to be closed and tracked under new items for each individual working group going forward.</p>
9/23:01		Closed	<p><b>XQ Super School Challenge: <a href="http://xqsuperschool.org/">http://xqsuperschool.org/</a></b> <b>Update 12/2/15:</b> SHS "Community Campus" concept submission has been made, feedback is expected in January. February 1<sup>st</sup> is the next XQ deadline. <b>Update 1/6/16:</b> Initial meeting with Quaglia Institute for Student Aspirations has occurred. Concepts to be shared with SBC, idea is to create a videography from a student perspective. <b>Update 1/20/16:</b> M. Skipper working with Charlie LaFauci on video, idea is to have students act out the concept. May be possible for SBC to view video sample at meeting on 2/10. M. Rossetti asked when the award will be made, M Skipper replied that the first round of approvals will be made in May. <b>Update 2/3/16:</b> Mary S. advised all that the video should be ready by the 2/10 SBC meeting. Susanna M noted that the XQ submission deadline has been extended to 2/11, Susanna to forward new timeline. <b>Update 2/10/16:</b> MS provided an explanation of the XQ Challenge to all present. The XQ submission is due tomorrow. Somerville's 8-minute video submission was previewed and the extraordinary effort by all involved was commended. TP stated that this item will no longer appear on the SBC's agenda, it started out on a parallel path due to similarities to the Ed Plan requirements but has since evolved into a separate process that has no impact to the School Building Project effort. This item closed.</p>

**Design**

Item	Responsible	Due	Notes
9/09:07	SMMA	3/14/16	<p><b>General Design Update: Update 2/3/16:</b> The new "Central Hill East" alternative was briefly discussed; this option is in the early stages of development and will be developed further in a design charrette meeting on Friday 2/5/16. The purpose of this new option is to provide additional flexibility with options going forward under the MSBA program. Tom B. and others stressed that the HS goal needs to remain the primary goal. <b>Update 2/10/16:</b> SMMA presented the new 9<sup>th</sup> alternative "4B", this is an add-reno option at the east side of the site that centers around the 80s wing field-house. The other 8 alternatives were also presented, challenges related to implementation of the Ed Plan in the base repair and base renovation options were discussed. Challenges related to the Article 97 open space protection policy were discussed as they relate to the Trum Field/DPW alternative. MJR inquired about the reference to a parking garage in the traffic study, SMMA responded that there is an option for a garage in some of the alternatives. MJR expressed concern about some of the problem traffic intersections referenced in the study, requested that more detailed information be provided prior to selection of a preferred option. TP added that the project's impact to traffic patterns will be minimal if the existing site is utilized, traffic studies in scenarios where new traffic is being introduced at new sites are often more complex. SMMA added that school impact to traffic is less than other office type buildings since most students utilize alternative forms of transportation. Lastly, MJR requested that SMMA outline any OSPCD variances required for each alternative prior to selection of a preferred option.</p>
9/09:09		Closed	<p><b>Site Selection: Update 1/6/16:</b> SMMA provided an overview of existing and potential zoning non-conformities (ie setback, building height, fence height). A meeting with OSPCD on 12/3/15 confirmed that a special permit should be sufficient provided existing non-conformities are not made worse in the preferred option. On 12/14/15 another meeting occurred to review the latest GLX project design and potential implications. It is understood that there is an easement in place for utilities supporting GLX on HS property that may affect design. It is also understood that the Homan's site has been offered to DOT as laydown space for the GLX project with the understanding that they would abate and demolish the building. Need to better understand timing of the GLX project to determine if there is an opportunity for the HS project to use the Homan's site for laydown as it would be incredibly advantageous. <b>Update 2/10/16:</b> Site selection is captured in the PDP submission, no further discussion required, this item closed.</p>
9/09:10	SMMA	3/14/16	<p><b>Space Summary: Update 1/6/16:</b> The possible addition of Next Wave to the building and Ed Plan was discussed. MSBA approved enrollment was 1515 (base), plus 50 (full circle), plus 25 (next wave). School to include NW in Ed Plan for now and re-evaluate prior to PSR submission. M. Rossetti voiced a concern about size DPW storage spaces in the program. S. Koty explained that DPW is the school's maintenance provider, those spaces will store supplies and equipment to be used for the School Dept. SMMA provided an overview of the updated Ed Plan, changes include the addition of a 3<sup>rd</sup> gym station, SMMA has had luck demonstrating the need for the 3<sup>rd</sup> station to the MSBA in the past on schools this size. M. Rossetti requested a breakdown of SPED spaces, what is included? M. Rice to follow up with clarification. <b>Update 1/20/16:</b> SMMA provided a breakdown of SPED spaces contained within the space summary. <b>Update 2/3/16:</b> SMMA is updated the space summary to confirm accurate interpretation of the Educational Plan in order to eliminate inefficiencies and design a "right-sized" building. An updated copy will be provided to the SBC with the PDP draft documents tomorrow. <b>Update 2/10/16:</b> SMMA discussed the two versions of the space summary (new and add/reno) being submitted with the PDP. TB inquired about the building size in option 4B, SMMA responded that all add/reno options are approximately the same size.</p>

**Cost / Schedule**

Item	Responsible	Due	Notes
9/09:11	PMA	3/14/16	<p><b>Project Schedule: Update 1/6/16:</b> PMA presented an updated master schedule. PSR approval is now targeted for July Board Meeting (previously September) and Schematic Design duration has been reduced by 8 weeks. Schedule was accelerated to maintain project momentum, updated schedule will allow for groundbreaking in Spring 2018. There is no change to project completion or occupancy date at this time, still tentatively targeting Fall 2021 occupancy. <b>Update 1/20/16:</b> On target for July 2016 MSBA Board meeting, PMA to outline key steps/dates in a simplified lookahead schedule format at 2/3/16 SBC meeting. <b>Update 2/10/16:</b> PMA reviewed the 4 week lookahead schedule, focus is on PDP approvals, signatures and submission to MSBA by 3/1/16. A copy of the lookahead schedule is attached to the minutes.</p>
9/09:12	PMA	3/14/16	<p><b>Next Steps: Update 12/2/15:</b> Draft Mass Historic PNF submission by end of Dec   OSPCD meeting on 12/3/15   DESE meeting in mid December   Winchester site tour on 12/9. Site visit notes to be collected by J. Oteri after final visit for discussion by SBC at 1/6/16 meeting. <b>Update 1/6/16:</b> 2/3/16 SBC Meeting will focus on Community Outreach. 2/10/16 Meeting to approve PDP. MassHistoric PNF response anticipated in early February. <b>Update 2/10/16:</b> School Committee Finance &amp; Facilities subcommittee presentation on 2/11/16, SC approval of PDP on 2/22/16, Mayor approval of PDP by 2/29/16, PMA to submit PDP on 3/1/16. Still awaiting MassHistoric response to Project Notification Form. Project remains on target for 7/20/16 MSBA board approval to proceed into Schematic Design.</p>
1/06:01	PMA SMMA	3/14/16	<p><b>Project Budget: Update 1/20/16:</b> Cost analysis for new campus/concourse alternatives is being developed. T. Pierantozzi and E. Bean. explained the debt exclusion and proposition 2½ override processes and challenges that the SBC will likely face. E. Bean explained the difference between the two, a debt exclusion is a temporary property tax increase for the life of the loan, an override is permanent. If project funding question is to be included on the November 2016 ballot then the ballot question will need to be approved by the secretary of state by 8/3/16, a Board of Alderman 2/3 vote will be required prior to 8/3/16. This is out of sequence in the MSBA process (ballot vote usually comes <i>after</i> MSBA board vote), but other districts have done it this way before so it would not be unprecedented. PMA cautioned that appropriate contingencies need to be in place if the target budget is to be set so soon in Schematic Design, the estimated cost will need to be on the higher/safe side since the detailed design and detailed estimates will not yet be available. T. Ciccariello and others expressed concern about the timeline getting to a vote in November, need to increase outreach efforts ASAP. <b>Update 2/3/16:</b> Order of magnitude cost data is forthcoming. Costs presented utilize general market data and are for comparison of each of the alternatives to one another to identify the preferred schematic option. Tony P cautioned that detailed design and estimates for a specific option will not be fully developed until completion of Schematic Design and MSBA project scope &amp; budget approval in January 2017. SMMA asked that if any new furniture is being purchased for the building that the school consult with them to ensure that it can be used in the new program. <b>Update 2/10/16:</b> TB asked for clarification on what stage costs are firmed up, TP &amp; PMA responded that until Schematic Design has been completed late this year, there is no tangible set of design documents (detailed drawings &amp; specifications) to perform a detailed, project specific estimate on. At the moment we are using order of magnitude costs for the purpose of comparing each of the 9 alternatives to each other only, with the goal of identifying the preferred option and developing those costs further. The order of magnitude costs in the PDP are on a square foot basis using general market data, the true cost of the project and the district's share will not be set until the January 25, 2017 MSBA Board meeting. MJR added that it will be important for SBC members to understand ineligible costs for each scenario in order to make an educated decision on the preferred option.</p>

2/10:01	ALL	3/14/16	<p><b>Public Comment:</b> MJR made a motion to take public comments prior to the PDP vote, second by SR. Unanimously approved (12-0). Public comments:</p> <ul style="list-style-type: none"> <li>• Sal G (media) – Will the XQ challenge aid the project in any way? TP – no, the XQ effort began at the same time due to similarities with the MSBA's educational program requirements, but it has evolved into a separate process with separate goals. The XQ challenge is entirely independent from a school construction project and would not reduce the burden on Somerville.</li> <li>• Laura H (resident) – Is the Education Program the only component being submitted at this time? TP – No, the full PDP is being submitted, including the Ed Plan, Alternatives, Existing Conditions Study and Subconsultant Reports.</li> <li>• Richard W (resident) – If the plan [PDP] is submitted to the MSBA on 3/1/16, when will it be accessible to residents? TP – the PDP will be posted to the project website once it has been submitted to the MSBA.</li> </ul>
2/10:02		Record	<p><b>Preliminary Design Program (PDP) Submission:</b> A motion was made by SK to approve the Preliminary Design Program package in its entirety as submitted, the motion was seconded by TB. TP asked those present if there were any other discussion items relating to the PDP submission package, there were none.</p> <p><b>Vote: 12 in favor, 0 opposed, 0 abstained. Unanimously in favor to approve the PDP in its entirety.</b></p>

A motion was made by MJR to adjourn the meeting, second by TC. All approved.

**Meeting Adjourned: 7:12P.M.**

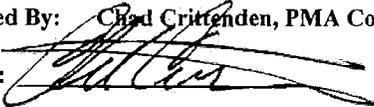
**Next meeting dates are below, all meetings at 5:30PM.**

- 3/14/16 (Kennedy School Library)
- 3/28/16 (West Somerville Library)
- 4/11/16 (Healey Library)
- 5/09/16 (Capuano Conference Room)
- 5/23/16 (SHS Library)

The author of these minutes assumes, to the best of his or her knowledge, that the above content of these Meeting Minutes depict all that transpired during this Project meeting. All attendees are required to address by memo or via e-mail, any omissions, errors or inconsistencies in the reporting of these Meeting Minutes, to the writer, within two (2) business days of receipt of these Meeting Minutes.

**Prepared By:** Chad Crittenden, PMA Consultants

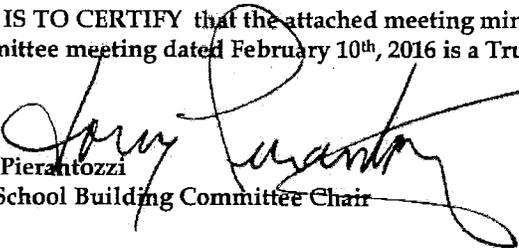
**Signed:**



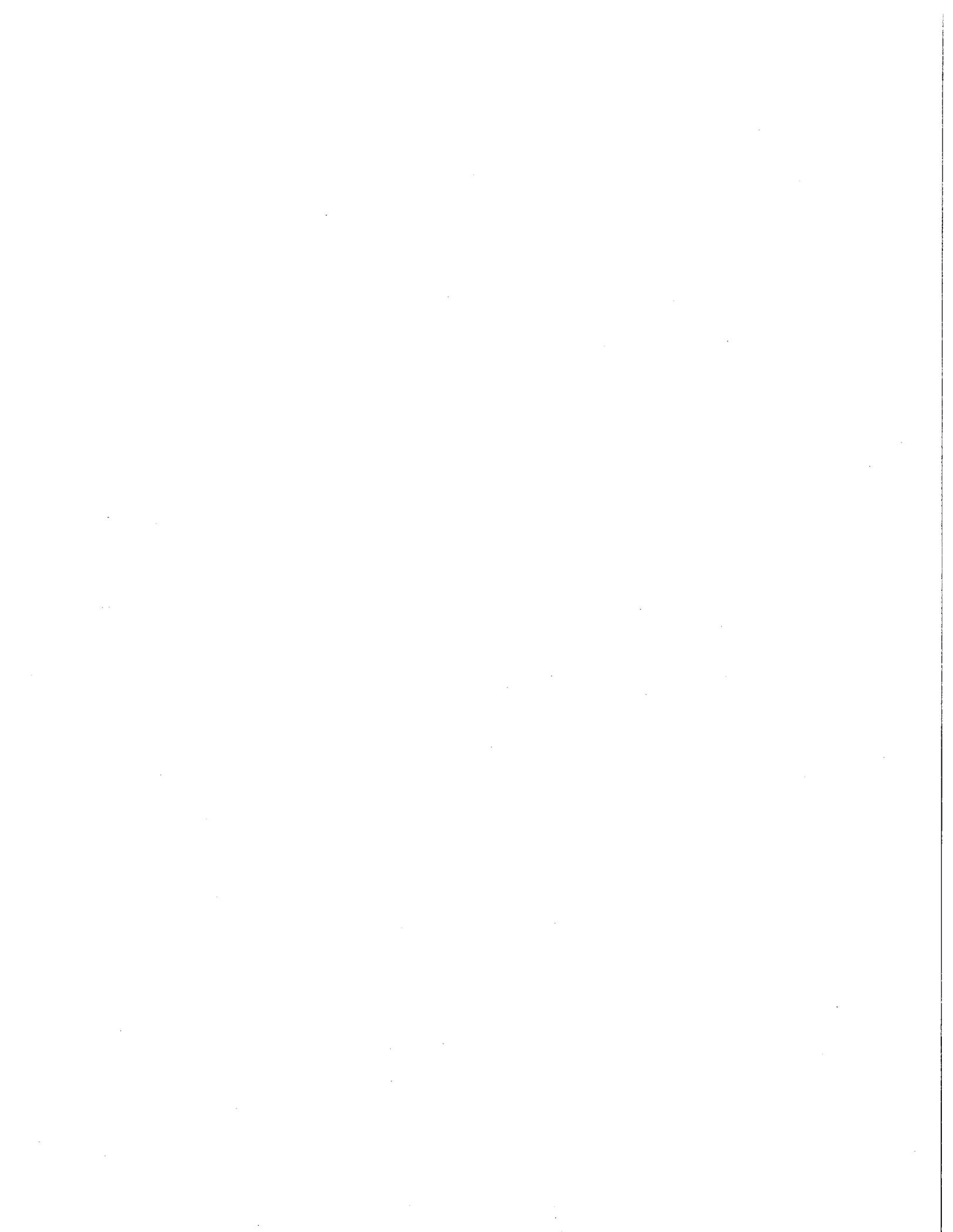
**Date:** 2/11/16

**THIS IS TO CERTIFY that the attached meeting minutes of the Somerville High School Building Committee meeting dated February 10<sup>th</sup>, 2016 is a True Record Attest on file.**

**Tony Pierantozzi**  
SHS School Building Committee Chair



**TONY PIERANTOZZI**  
NOTARY PUBLIC  
Commonwealth of Massachusetts  
My Commission Expires  
March 20, 2016



## Somerville High School Building Committee Meeting Minutes

**PROJECT:** Somerville HS Project  
**LOCATION:** Argenziano School Conference Room

**MEETING DATE:** February 3, 2016

**ATTENDEES:** *(Absent in Italics)*

<u>Bldg. Cmte:</u>	<input type="checkbox"/> <i>Mayor Curtatone</i>	<input type="checkbox"/> Tony Pierantozzi	<input type="checkbox"/> Tony Ciccariello	<input type="checkbox"/> Rob King
	<input type="checkbox"/> Steve Roix	<input type="checkbox"/> Mary Skipper	<input type="checkbox"/> Stan Koty	<input type="checkbox"/> John Oteri
	<input type="checkbox"/> <i>Richard Melillo</i>	<input type="checkbox"/> Ed Bean	<input type="checkbox"/> Mary-Jo Rossetti	<input type="checkbox"/> Tom Bent
	<input type="checkbox"/> <i>Nelia Braga</i>	<input type="checkbox"/> <i>Adda Santos</i>		
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<u>Others:</u>	<input type="checkbox"/> Vincent McKay	<input type="checkbox"/> <i>Denise Taylor</i>	<input type="checkbox"/> Susana Morgan	<input type="checkbox"/> Natalie Vieira
	<input type="checkbox"/> <i>Max Nadeau</i>	<input type="checkbox"/> Sal Ghamo	<input type="checkbox"/> Shawn P	

Meeting Chair Tony Pierantozzi called the meeting to order at 5:33P.M. Draft minutes from the 1/20/16 SBC meeting were reviewed. A motion to approve the minutes was made by Tony C, second by Steve R. Discussion: Mary Jo R. requested “cuts” be changed to “approvals” in 9/23:01, “focused” change to “will focus” in 9/09:12, and that 1/06:01 be reworded to clarify that others present also shared Tony C’s concern about the short timeline. Vote: Amended minutes approved unanimously (8-0, (TB & EB late)).

**General**

Item	Responsible	Due	Notes
9/09:01	SBC PMA	2/10/16	<p><b>General Update: Update 1/20/16:</b> Proposed changes to the SBC membership were discussed; Max Nadeau was introduced as the proposed student voting member. Max is a SHS freshman who has previously expressed interest in the project and who has attended tours at Winchester and Everett HS. Rick Melillo will also be replaced by Vince McKay on the SBC. Lastly, Omar Boukili (on the “SHS Building Task Force”) will be replaced by Tim Snyder on the proposed staffing update submission to the MSBA. The proposed changes will become official upon receipt of MSBA approval of the change. Site visits were also discussed, comments include: 1) MJR concern that QHS had a freshmen academy that was underutilized; SMMA advised that this was a result of the economic downturn and funding cuts. 2) MJR liked the lecture hall idea, this is in the SHS Ed Plan. 3) MJR liked the IT grant in Essex where equipment was bought at cost, MS to look into developing relationships, JO spoke about some if the partnerships already existing. 4) TP spoke about the lecture hall at Biogenetics, design is optimal and he would like to see something like it considered. 5) SR and others were not a fan of the café/kitchen at Everett, no windows, felt confined. 6) AS like the size of the classrooms at Everett, Essex classrooms were too small as a result of the breakout space in the corridor. T. Pierantozzi thanked all for their attendance and feedback at the tours. <b>Update 2/3/16:</b> Tony P. outlined the PDP process, approval is being sought by SBC on 2/10, then it needs to go to SC and City Hall for approvals and sign-off. Once submitted to MSBA, they will review for approximately 2 weeks and provide comments. Mary Jo R. requested that copies of MSBA comments are forwarded to the SBC members. PMA added that responsibility will be assigned for response to each of the MSBA comments (indicating City, School, PMA, SMMA responsibility). Mary Jo R. requested an updated status of SBC membership changes, Mary S responded that it is with the Mayor for signature and will be submitted to the MSBA immediately after. Mary Jo R. inquired what the “task force” is on the SBC approval form, Tony P responded that the task force was the group responsible for development of the Statement of Interest (SOI) submission to the MSBA. A copy of the MSBA’s approved changes to the SBC will be forwarded to all members once received.</p>

9/09:04	SBC	2/10/16	<p><b>Public Outreach: Update 1/20/16:</b> Next SBC meetings to be at elementary schools, 2/3 will be at Argenziano, 2/10 will be at ESCS. S. Roix inquired if an outreach working group will be created; all agreed that this would be beneficial. The SBC meeting on 2/3 will focus on outreach and forming a working group and developing the outreach plan, representation from communications and City should be included on the working group. <b>Update 2/3/16:</b> A public outreach committee was formed consisting of Mary Jo R. (chair), Tony P, Steve R, Susanna M, Rob K, Nelia B, City Hall Communications and Mary S (when necessary). Mary Jo to coordinate first meeting for next week. The approach needs to be multipronged, key critical information needs to be identified and distributed, working group should work with City Communications to find good information to distribute. Tony P suggested distributing an updated version of the brochure that already exists. Mary S added that the XQ challenge video also may aid the outreach effort. Working group to meet and report back at a future SBC meeting.</p>
9/09:06	PMA SBC	2/10/16	<p><b>Working Groups (sub-committees): Update 2/3/16:</b> The Education Plan working group had a conference call with the MSBA on Friday 1/29/16 to discuss c.74/DESE protocol. A new format for reporting c.74 information in the Ed Plan has been provided by the MSBA, this new form will require translation of the current information in narrative format to a simplified table format, Leo DeSimone to work on new format and work with DESE to obtain pre-approvals for new programs. It was noted by John O. that the MSBA's new requirement for pre-approval is being discussed internally at DESE, since pre-approvals are only good for two years, this is actually more of a pre-pre-approval.</p>
9/23:01	School	2/10/16	<p><b>XQ Super School Challenge:</b> <a href="http://xqsuperschool.org/">http://xqsuperschool.org/</a> <b>Update 12/2/15:</b> SHS "Community Campus" concept submission has been made, feedback is expected in January. February 1<sup>st</sup> is the next XQ deadline. <b>Update 1/6/16:</b> Initial meeting with Quaglia Institute for Student Aspirations has occurred. Concepts to be shared with SBC, idea is to create a videography from a student perspective. <b>Update 1/20/16:</b> M. Skipper working with Charlie LaFauci on video, idea is to have students act out the concept. May be possible for SBC to view video sample at meeting on 2/10. M. Rossetti asked when the award will be made, M Skipper replied that the first round of approvals will be made in May. <b>Update 2/3/16:</b> Mary S. advised all that the video should be ready by the 2/10 SBC meeting. Susanna M noted that the XQ submission deadline has been extended to 2/11, Susanna to forward new timeline.</p>

**Design**

Item	Responsible	Due	Notes
9/09:07	SMMA	2/10/16	<p><b>General Design Update: Update 1/6/16:</b> SMMA provided a design update presentation with the latest PDP concepts. There are a total of 6 concepts (base repair, renovation, add/reno using existing auditorium, add/reno with new auditorium, new build on existing site, new build on Trum/DPW site). M. Rossetti expressed desire to save the existing auditorium if possible due to recent investments, sentiment was echoed by others. SMMA responded that unfortunately the auditorium comes with a good deal of “bad” space around and underneath it. A cost analysis is being performed as part of the PDP development to determinate if it is logical to save the existing auditorium. T. Pierantozzi spoke about including a campus concept with multiple buildings on the existing site as one of the alternatives, SMMA to develop and include with PDP. <b>Update 1/20/16:</b> SMMA presented the Concourse and Campus alternatives. One of the major challenges is the distance between the existing auditorium and gymnasium. These alternatives will be included in the PDP submission. <b>Update 2/3/16:</b> The new “Central Hill East” alternative was briefly discussed; this option is in the early stages of development and will be developed further in a design charrette meeting on Friday 2/5/16. The purpose of this new option is to provide additional flexibility with options going forward under the MSBA program. Tom B. and others stressed that the HS goal needs to remain the primary goal.</p>
9/09:09	ALL	2/10/16	<p><b>Site Selection: Update 1/6/16:</b> SMMA provided an overview of existing and potential zoning non-conformities (ie setback, building height, fence height). A meeting with OSPCD on 12/3/15 confirmed that a special permit should be sufficient provided existing non-conformities are not made worse in the preferred option. On 12/14/15 another meeting occurred to review the latest GLX project design and potential implications. It is understood that there is an easement in place for utilities supporting GLX on HS property that may affect design. It is also understood that the Homan’s site has been offered to DOT as laydown space for the GLX project with the understanding that they would abate and demolish the building. Need to better understand timing of the GLX project to determine if there is an opportunity for the HS project to use the Homan’s site for laydown as it would be incredibly advantageous. <b>Update 2/3/16:</b> Ongoing, no update.</p>
9/09:10	SMMA School	2/10/16	<p><b>Space Summary: Update 1/6/16:</b> The possible addition of Next Wave to the building and Ed Plan was discussed. MSBA approved enrollment was 1515 (base), plus 50 (full circle), plus 25 (next wave). School to include NW in Ed Plan for now and re-evaluate prior to PSR submission. M. Rossetti voiced a concern about size DPW storage spaces in the program. S. Koty explained that DPW is the school’s maintenance provider, those spaces will store supplies and equipment to be used for the School Dept. SMMA provided an overview of the updated Ed Plan, changes include the addition of a 3<sup>rd</sup> gym station, SMMA has had luck demonstrating the need for the 3<sup>rd</sup> station to the MSBA in the past on schools this size. M. Rossetti requested a breakdown of SPED spaces, what is included? M. Rice to follow up with clarification. <b>Update 1/20/16:</b> SMMA provided a breakdown of SPED spaces contained within the space summary. <b>Update 2/3/16:</b> SMMA is updated the space summary to confirm accurate interpretation of the Educational Plan in order to eliminate inefficiencies and design a “right-sized” building. An updated copy will be provided to the SBC with the PDP draft documents tomorrow.</p>

**Cost / Schedule**

Item	Responsible	Due	Notes
9/09:11	PMA	2/10/16	<p><b>Project Schedule: Update 1/6/16:</b> PMA presented an updated master schedule. PSR approval is now targeted for July Board Meeting (previously September) and Schematic Design duration has been reduced by 8 weeks. Schedule was accelerated to maintain project momentum, updated schedule will allow for groundbreaking in Spring 2018. There is no change to project completion or occupancy date at this time, still tentatively targeting Fall 2021 occupancy. <b>Update 1/20/16:</b> On target for July 2016 MSBA Board meeting, PMA to outline key steps/dates in a simplified lookahead schedule format at 2/3/16 SBC meeting. <b>Update 2/3/16:</b> PMA reviewed the 4 week lookahead schedule, focus is on PDP approvals, signatures and submission to MSBA by 3/1/16. PMA to continue to provide 4 week lookahead schedules to all present at SBC meetings.</p>
9/09:12	ALL	2/10/16	<p><b>Next Steps: Update 12/2/15:</b> Draft Mass Historic PNF submission by end of Dec   OSPCD meeting on 12/3/15   DESE meeting in mid December   Winchester site tour on 12/9. Site visit notes to be collected by J. Oteri after final visit for discussion by SBC at 1/6/16 meeting. <b>Update 1/6/16:</b> 2/3/16 SBC Meeting will focus on Community Outreach. 2/10/16 Meeting to approve PDP. MassHistoric PNF response anticipated in early February. <b>Update 2/3/16:</b> SBC approval of PDP on 2/10/16, Finance Presentation on 2/11/16, SC approval of PDP on 2/22/16, Mayor approval of PDP by 2/29/16, PMA to submit PDP on 3/1/16. Next 6 SBC meeting dates were confirmed (2/10, 3/14, 3/28, 4/11, 5/9, 5/23), PMA to send email calendar invites. Still awaiting MassHistoric response to Project Notification Form. Project remains on target for 7/20/16 MSBA board approval to proceed into Schematic Design.</p>
1/06.01	PMA SMMA	2/10/16	<p><b>[NEW ITEM] Project Budget:</b> PMA provided a presentation about current market data, both nationally and MSBA project specific. Items like inflation and escalation were reviewed. Current cost/SF was reviewed. MSBA categorically ineligible costs were reviewed. MSBA data indicates upper range for SD estimates in 2015 is \$441/SF. With annual escalation anywhere from 4.5%-8% through 2018, this could translate to an avg cost/SF in excess of \$500 for SHS. Unfortunately SHS project may be on the upper end of MSBA data, due to challenging site, urban market conditions, constraints w/ existing building, etc. MSBA cost/SF cap is currently at \$299/SF, this creates a challenge for many urban projects as it results in a high percentage of ineligible costs (recently approved Brookline school was profiled, where only 56% of total budget was "eligible" for reimbursement). PDP high level cost estimates will be reviewed in detail at the 1/20/16 SBC meeting. <b>Update 1/20/16:</b> Cost analysis for new campus/concourse alternatives is being developed. T. Pierantozzi and E. Bean. explained the debt exclusion and proposition 2½ override processes and challenges that the SBC will likely face. E. Bean explained the difference between the two, a debt exclusion is a temporary property tax increase for the life of the loan, an override is permanent. If project funding question is to be included on the November 2016 ballot then the ballot question will need to be approved by the secretary of state by 8/3/16, a Board of Alderman 2/3 vote will be required prior to 8/3/16. This is out of sequence in the MSBA process (ballot vote usually comes <i>after</i> MSBA board vote), but other districts have done it this way before so it would not be unprecedented. PMA cautioned that appropriate contingencies need to be in place if the target budget is to be set so soon in Schematic Design, the estimated cost will need to be on the higher/safe side since the detailed design and detailed estimates will not yet be available. T. Ciccariello and others expressed concern about the timeline getting to a vote in November, need to increase outreach efforts ASAP. <b>Update 2/3/16:</b> Order of magnitude cost data is forthcoming. Costs presented utilize general market data and are for comparison of each of the alternatives to one another to identify the preferred schematic option. Tony P cautioned that detailed design and estimates for a specific option will not be fully developed until completion of Schematic Design and MSBA project scope &amp; budget approval in January 2017. SMMA asked that if any new furniture is being purchased for the building that the school consult with them to ensure that it can be used in the new program.</p>

2/03:01		Record	<p><b>[NEW ITEM] School Accreditation:</b> John O. distributed correspondence to and from the New England Association of Schools &amp; Colleges (NEASC). In their communication, NEASC stressed the importance of implementation of a plan for replacing the aging High School building. John O. also distributed the district's response to NEASC's 5-year report &amp; NEASC's most recent letter commending Somerville for their efforts related to the School Building Project. Tony P. stressed the importance of maintaining accreditation for Somerville HS. Record item.</p>
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A motion was made by T. Ciccariello to adjourn the meeting, second by T. Bent. All approved.

**Meeting Adjourned: 7:05P.M.**

**Next meeting dates are below, all meetings at 5:30PM.**

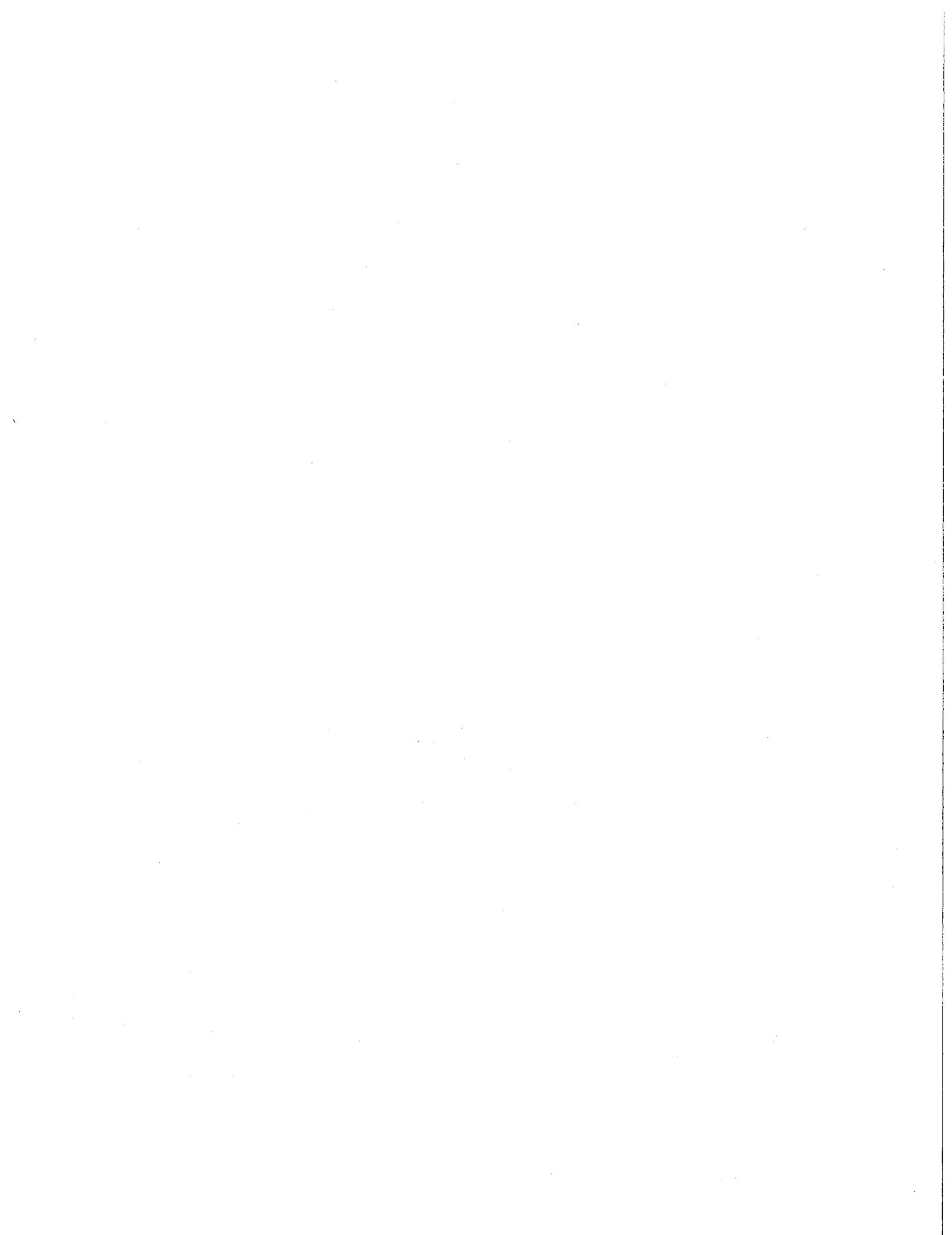
- 2/10/16 (East Somerville Community School)
- 3/14/16 (Kennedy School Library)
- 3/28/16 (West Somerville Library)
- 4/11/16 (Healey Library)
- 5/09/16 (Capuano Conference Room)
- 5/23/16 (SHS Library)

The author of these minutes assumes, to the best of his or her knowledge, that the above content of these Meeting Minutes depict all that transpired during this Project meeting. All attendees are required to address by memo or via e-mail, any omissions, errors or inconsistencies in the reporting of these Meeting Minutes, to the writer, within two (2) business days of receipt of these Meeting Minutes.

**Prepared By: Chad Crittenden, PMA Consultants**

**Signed: Chad Crittenden**

**Date: 2/10/16**



## Somerville High School Building Committee Meeting Minutes

**PROJECT:** Somerville HS Project  
**LOCATION:** Somerville HS – Library

**MEETING DATE:** January 20, 2016

**ATTENDEES:** *(Absent in Italics)*

<u>Bldg. Cmte:</u>	<input type="checkbox"/> <i>Mayor Curtatone</i>	<input type="checkbox"/> Tony Pierantozzi	<input type="checkbox"/> Tony Ciccariello	<input type="checkbox"/> Rob King
	<input type="checkbox"/> Steve Roix	<input type="checkbox"/> Mary Skipper	<input type="checkbox"/> Stan Koty	<input type="checkbox"/> John Oteri
	<input type="checkbox"/> <i>Richard Melillo</i>	<input type="checkbox"/> Ed Bean	<input type="checkbox"/> Mary-Jo Rossetti	<input type="checkbox"/> <i>Tom Bent</i>
	<input type="checkbox"/> Nelia Braga	<input type="checkbox"/> Adda Santos		
<u>PMA:</u>	<input type="checkbox"/> <i>Chris Carroll</i>	<input type="checkbox"/> Chad Crittenden	<input type="checkbox"/> Sean Burke	<input type="checkbox"/> <i>Walter Hartley</i>
<u>SMMA:</u>	<input type="checkbox"/> Alex Pitkin	<input type="checkbox"/> <i>Lorraine Finnegan</i>	<input type="checkbox"/> Matt Rice	<input type="checkbox"/> <i>Erin Prestileo</i>
<u>Others:</u>	<input type="checkbox"/> Vincent McKay	<input type="checkbox"/> <i>Denise Taylor</i>	<input type="checkbox"/> <i>Susana Morgan</i>	<input type="checkbox"/> Natalie Vieira
	<input type="checkbox"/> Max Nadeau			

Meeting Chair Tony Pierantozzi called the meeting to order at 5:40P.M. Draft minutes from the 1/6/16 SBC meeting were reviewed. A motion to approve the minutes was made by Steve Roix, second by Tony Ciccariello. Vote: Minutes approved unanimously (9-0, (SK & EB late)).

**General**

Item	Responsible	Due	Notes
9/09:01	SBC PMA	2/03/16	<b>General Update: Update 1/20/16:</b> Proposed changes to the SBC membership were discussed; Max Nadeau was introduced as the proposed student voting member. Max is a SHS freshman who has previously expressed interest in the project and who has attended tours at Winchester and Everett HS. Rick Melillo will also be replaced by Vince McKay on the SBC. Lastly, Omar Boukili (on the “SHS Building Task Force”) will be replaced by Tim Snyder on the proposed staffing update submission to the MSBA. The proposed changes will become official upon receipt of MSBA approval of the change. Site visits were also discussed, comments include: 1) MJR concern that QHS had a freshmen academy that was underutilized; SMMA advised that this was a result of the economic downturn and funding cuts. 2) MJR liked the lecture hall idea, this is in the SHS Ed Plan. 3) MJR liked the IT grant in Essex where equipment was bought at cost, MS to look into developing relationships, JO spoke about some of the partnerships already existing. 4) TP spoke about the lecture hall at Biogenetics, design is optimal and he would like to see something like it considered. 5) SR and others were not a fan of the café/kitchen at Everett, no windows, felt confined. 6) AS like the size of the classrooms at Everett, Essex classrooms were too small as a result of the breakout space in the corridor. T. Pierantozzi thanked all for their attendance and feedback at the tours.
9/09:04	SBC	2/03/16	<b>Public Outreach: Update 1/20/16:</b> Next SBC meetings to be at elementary schools, 2/3 will be at Argenziano, 2/10 will be at ESCS. S. Roix inquired if an outreach working group will be created; all agreed that this would be beneficial. The SBC meeting on 2/3 will focus on outreach and forming a working group and developing the outreach plan, representation from communications and City should be included on the working group.

9/09:06	PMA SBC	2/03/16	<p><b>Working Groups (sub-committees): Update 1/20/16:</b> Outreach working group to be formed and tracked in item 9/09:04 above. Ed Plan was distributed to all, J. Oteri made a motion to approve, second by T. Ciccariello. Discussion followed. MS provided an overview, lots of feedback received, SM worked to incorporate feedback wherever possible while maintaining the overall vision. TP asked if anybody wanted to review the Ed Plan development process. MJR inquired if feedback was mostly from educators? MS replied that it was mostly from educators, many comments were focused on areas that required additional detail or related to linkage between sections or takeaways from site visits. MRJ asked if the SC reviewed the NW/FC program inclusion? MS replied that this folds into a larger programmatic review, to pull these programs out now would be premature. MJR commented about a lack of sustainability in the plan. SMMA explained that sustainability is addressed in other sections of the Feasibility/Schematic process. MJR inquired about the centralization of guidance, JO responded that the idea is to maintain maximum flexibility through collaboration, the house structure will still be accommodated. MJR presented a question about adding HVAC to CTE, this program was cut due to low enrollment years ago. JO responded that the Regional Education Board has identified HVAC as an in demand vocation. NB had a question about collaboration between academic &amp; CTE programs, would like the Ed Plan to better reflect integration. TC expressed concern about the short timeline for reviewing, asked that future changes are tracked. TC believes it is a good foundational document. Some redundancy in CTE but generally seems to capture all input and the evolution in the document is evident from rough to final draft. J Oteri and T Ciccariello agreed to table the motion/vote pending final revisions to be completed by 2/10/16.</p>
9/23:01	School	2/03/16	<p><b>XQ Super School Challenge:</b> <a href="http://xqsuperschool.org/">http://xqsuperschool.org/</a> <b>Update 12/2/15:</b> SHS "Community Campus" concept submission has been made, feedback is expected in January. February 1<sup>st</sup> is the next XQ deadline. <b>Update 1/6/16:</b> Initial meeting with Quaglia Institute for Student Aspirations has occurred. Concepts to be shared with SBC, idea is to create a videography from a student perspective. <b>Update 1/20/16:</b> M. Skipper working with Charlie LaFauci on video, idea is to have students act out the concept. May be possible for SBC to view video sample at meeting on 2/10. M. Rossetti asked when the award will be made, M Skipper replied that the first round of approvals will be made in May.</p>

**Design**

Item	Responsible	Due	Notes
9/09:07	SMMA	2/03/16	<b>General Design Update: Update 1/6/16:</b> SMMA provided a design update presentation with the latest PDP concepts. There are a total of 6 concepts (base repair, renovation, add/reno using existing auditorium, add/reno with new auditorium, new build on existing site, new build on Trum/DPW site). M. Rossetti expressed desire to save the existing auditorium if possible due to recent investments, sentiment was echoed by others. SMMA responded that unfortunately the auditorium comes with a good deal of “bad” space around and underneath it. A cost analysis is being performed as part of the PDP development to determine if it is logical to save the existing auditorium. T. Pierantozzi spoke about including a campus concept with multiple buildings on the existing site as one of the alternatives, SMMA to develop and include with PDP. <b>Update 1/20/16:</b> SMMA presented the Concourse and Campus alternatives. One of the major challenges is the distance between the existing auditorium and gymnasium. These alternatives will be included in the PDP submission.
9/09:09	ALL	2/03/16	<b>Site Selection: Update 1/6/16:</b> SMMA provided an overview of existing and potential zoning non-conformities (ie setback, building height, fence height). A meeting with OSPCD on 12/3/15 confirmed that a special permit should be sufficient provided existing non-conformities are not made worse in the preferred option. On 12/14/15 another meeting occurred to review the latest GLX project design and potential implications. It is understood that there is an easement in place for utilities supporting GLX on HS property that may affect design. It is also understood that the Homan’s site has been offered to DOT as laydown space for the GLX project with the understanding that they would abate and demolish the building. Need to better understand timing of the GLX project to determine if there is an opportunity for the HS project to use the Homan’s site for laydown as it would be incredibly advantageous. <b>Update 1/20/16:</b> Ongoing, no update.
9/09:10	SMMA School	2/03/16	<b>Space Summary: Update 1/6/16:</b> The possible addition of Next Wave to the building and Ed Plan was discussed. MSBA approved enrollment was 1515 (base), plus 50 (full circle), plus 25 (next wave). School to include NW in Ed Plan for now and re-evaluate prior to PSR submission. M. Rossetti voiced a concern about size DPW storage spaces in the program. S. Koty explained that DPW is the school’s maintenance provider, those spaces will store supplies and equipment to be used for the School Dept. SMMA provided an overview of the updated Ed Plan, changes include the addition of a 3 <sup>rd</sup> gym station, SMMA has had luck demonstrating the need for the 3 <sup>rd</sup> station to the MSBA in the past on schools this size. M. Rossetti requested a breakdown of SPED spaces, what is included? M. Rice to follow up with clarification. <b>Update 1/20/16:</b> SMMA provided a breakdown of SPED spaces contained within the space summary.

**Cost / Schedule**

Item	Responsible	Due	Notes
9/09:11	PMA	2/03/16	<b>Project Schedule: Update 1/6/16:</b> PMA presented an updated master schedule. PSR approval is now targeted for July Board Meeting (previously September) and Schematic Design duration has been reduced by 8 weeks. Schedule was accelerated to maintain project momentum, updated schedule will allow for groundbreaking in Spring 2018. There is no change to project completion or occupancy date at this time, still tentatively targeting Fall 2021 occupancy. <b>Update 1/20/16:</b> On target for July 2016 MSBA Board meeting, PMA to outline key steps/dates in a simplified lookahead schedule format at 2/3/16 SBC meeting.
9/09:12	ALL	2/03/16	<b>Next Steps: Update 12/2/15:</b> Draft Mass Historic PNF submission by end of Dec   OSPCD meeting on 12/3/15   DESE meeting in mid December   Winchester site tour on 12/9. Site visit notes to be collected by J. Oteri after final visit for discussion by SBC at 1/6/16 meeting. <b>Update 1/6/16:</b> 2/3/16 SBC Meeting will focus on Community Outreach. 2/10/16 Meeting to approve PDP. MassHistoric PNF response anticipated in early February.

1/06:01	PMA SMMA	2/03/16	<p><b>[NEW ITEM] Project Budget:</b> PMA provided a presentation about current market data, both nationally and MSBA project specific. Items like inflation and escalation were reviewed. Current cost/SF was reviewed. MSBA categorically ineligible costs were reviewed. MSBA data indicates upper range for SD estimates in 2015 is \$441/SF. With annual escalation anywhere from 4.5%-8% through 2018, this could translate to an avg cost/SF in excess of \$500 for SHS. Unfortunately SHS project may be on the upper end of MSBA data, due to challenging site, urban market conditions, constraints w/ existing building, etc. MSBA cost/SF cap is currently at \$299/SF, this creates a challenge for many urban projects as it results in a high percentage of ineligible costs (recently approved Brookline school was profiled, where only 56% of total budget was "eligible" for reimbursement). PDP high level cost estimates will be reviewed in detail at the 1/20/16 SBC meeting. <b>Update 1/20/16:</b> Cost analysis for new campus/concourse alternatives is being developed. T. Pierantozzi and E. Bean. explained the debt exclusion and proposition 2½ override processes and challenges that the SBC will likely face. E. Bean explained the difference between the two, a debt exclusion is a temporary property tax increase for the life of the loan, an override is permanent. If project funding question is to be included on the November 2016 ballot then the ballot question will need to be approved by the secretary of state by 8/3/16, a Board of Alderman 2/3 vote will be required prior to 8/3/16. This is out of sequence in the MSBA process (ballot vote usually comes <i>after</i> MSBA board vote), but other districts have done it this way before so it would not be unprecedented. PMA cautioned that appropriate contingencies need to be in place if the target budget is to be set so soon in Schematic Design, the estimated cost will need to be on the higher/safe side since the detailed design and detailed estimates will not yet be available. T. Ciccariello and others expressed concern about the timeline getting to a vote in November, need to increase outreach efforts ASAP.</p>
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A motion was made by N. Braga to adjourn the meeting, second by T. Ciccariello. All approved.

**Meeting Adjourned:** 8:29P.M.

**Next meeting dates are 2/3/16 (AFA School), and 2/10/16 (East Somerville Community School).**

The author of these minutes assumes, to the best of his or her knowledge, that the above content of these Meeting Minutes depict all that transpired during this Project meeting. All attendees are required to address by memo or via e-mail, any omissions, errors or inconsistencies in the reporting of these Meeting Minutes, to the writer, within two (2) business days of receipt of these Meeting Minutes.

**Prepared By:** Chad Crittenden, PMA Consultants

**Signed:** Chad Crittenden

**Date:** 2/1/16

## Somerville High School Building Committee Meeting Minutes

**PROJECT:** Somerville HS Project  
**LOCATION:** Somerville HS – Library

**MEETING DATE:** January 6, 2016

**ATTENDEES:** *(Absent in Italics)*

<u>Bldg. Cmte:</u>	<input type="checkbox"/> Mayor Curtatone	<input type="checkbox"/> Tony Pierantozzi	<input type="checkbox"/> Tony CiccarIELlo	<input type="checkbox"/> Rob King
	<input type="checkbox"/> Steve Roix	<input type="checkbox"/> Mary Skipper	<input type="checkbox"/> Stan Koty	<input type="checkbox"/> John Oteri
	<input type="checkbox"/> Richard Melillo	<input type="checkbox"/> Ed Bean	<input type="checkbox"/> Mary-Jo Rossetti	<input type="checkbox"/> Tom Bent
	<input type="checkbox"/> Nelia Braga	<input type="checkbox"/> Adda Santos		
<u>PMA:</u>	<input type="checkbox"/> Chris Carroll	<input type="checkbox"/> Chad Crittenden	<input type="checkbox"/> Sean Burke	<input type="checkbox"/> Walter Hartley
<u>SMMA:</u>	<input type="checkbox"/> Alex Pitkin	<input type="checkbox"/> Lorraine Finnegan	<input type="checkbox"/> Matt Rice	<input type="checkbox"/> Erin Prestileo
<u>Others:</u>	<input type="checkbox"/> Vincent McKay	<input type="checkbox"/> Denise Taylor	<input type="checkbox"/> Susana Morgan	<input type="checkbox"/> Natalie Vieira

Meeting Chair Tony Pierantozzi called the meeting to order at 5:40P.M. Draft minutes from the 12/2/15 SBC meeting were reviewed. A motion to approve the minutes was made by Steve Roix, second by Rob King. Discussion: Mary-Jo Rossetti noted that R. Melillo was not present at the 12/2 meeting, the draft minutes should be amended accordingly, all concurred. The amended minutes were approved unanimously (11-0).

**General**

Item	Responsible	Due	Notes
9/09:01	SBC PMA	1/20/16	<p><b>General Update: Update 11/4/15:</b> T. Pierantozzi provided a brief overview of visioning meetings, upcoming outreach, working groups, project fact sheet &amp; XQ challenge, details contained in appropriate sections below. M. Rosetti inquired as to what attendance requirements were for the SBC and expressed disappointment that some members have not been involved and concern that they might be present up only when a vote is needed. R. King noted that some members have areas of expertise that are not yet required at this early stage of educational programming, R. King will check SBC attendance requirements (if any – possibly “Robert’s Rules”?). <b>Update 12/2/15:</b> T. Pierantozzi provided an update from the site tours at Quincy and Essex, Winchester tour is scheduled for 12/9. SBC expressed interest in touring the Everett HS as well, PMA &amp; M. Skipper to pursue. SBC attendance requirements were also discussed, PMA advised that the committee can establish their own attendance rules, committee elected to hold off for the time being unless attendance continues to be a concern. If the SBC elects to replace a member of the committee then paperwork to be prepared by PMA, signed by Mayor and submitted to the MSBA for approval. <b>Update 1/6/16:</b> The meeting began with a discussion about building committee member attendance concerns. T. Pierantozzi informed the committee that the intent is to replace R. Melillo with V. McKay as a voting member as recommended by the School Committee. With the Mayor’s approval the SBC member form will be updated and submitted to the MSBA for approval. T. Pierantozzi added that the School Committee has also recommended adding one student member to the SBC. A motion was made by S. Roix and second by S. Koty to add a voting student member to the SBC. Discussion: M. Rossetti voiced a continued concern about attendance requirements, J. Oteri thinks that an attendance commitment for a student member would be difficult and prefers to defer the attendance component of the discussion/decision until a later date. S. Roix amended his original motion to remove the voting authority of the student member. This motion was subsequently tabled with the approval of S. Roix and S. Koty. A new motion was made by M. Rossetti that if 3 consecutive meetings were missed or 1/3 of meetings to-date are missed then voting rights would be lost, this motion was not seconded. <u><i>A final motion was made by S. Roix, and second by S. Koty to recommend that the Mayor add a student as a voting member, J. Oteri to work with student council to identify a student to represent the student body. Vote, 11-0 in favor, unanimous approval to recommend that the mayor add a voting student member.</i></u></p>

9/09:04	SBC	1/20/16	<p><b>Public Outreach: Update 12/2/15:</b> Community Forum #1 recap was provided by PMA and a memo outlining the discussion was distributed, it was noted that the library is no longer subject to Carnegie restrictions. Community Forum #2 to be scheduled in late February or early March at one of the elementary schools. The updated fact sheet has been posted to the project website. 500 informational brochures are available for distribution, M. Rossetti will take some for local distribution, PMA to post on project website. A property tax newsletter is also being mailed out soon, E. Bean to contact Communications Director to see if a HS project update can be included as part of that newsletter. Student participation in Design Workgroups and possibly site visits was requested, J. Oteri to coordinate. The option of providing a project update via Our Schools / Our City was also identified for consideration. <b>Update 1/6/16:</b> Public outreach efforts are ongoing. Project documents have been updated on the project website. R. King to check with Communications about next outreach effort.</p>
9/09:06	PMA SBC	1/20/16	<p><b>Working Groups (sub-committees): Update 11/4/15:</b> SMMA to create agendas for working groups. It was clarified that the role of these groups are advisory only, they are not decision making groups. PMA to include working group sign in sheet with minute distribution, those interested in signing up should contact PMA. First working group anticipated to occur after receipt of draft ed plan on 11/25/15. <b>Update 12/2/15:</b> PMA updated working group list and will re-issue. Education plan working group to be scheduled shortly after receipt of draft Ed Plan outline. <b>Update 1/6/16:</b> Ed Plan working group met on 1/5/16 to review draft outline. M. Skipper provided an update about approach to development, input from site visits, exemplars reviewed w/ SMMA's guidance. Ed Plan development was an inclusive process which included two visioning seminars and a community meeting to obtain feedback. The outline has been drafted with input from the School Committee, department heads, teachers, students, support staff (guidance, nurse, etc). S. Morgan has taken the lead on development and assembling the plan. J. Oteri spoke about the process, how SMMA helped them to "think outside of the box." SHS staff has been pleased with the outcome of the sessions &amp; information gathered at site tours. S. Morgan added that the visioning process also included community partners. A timeline of the process was provided: 12/23/15 first rough draft sent to SMMA   1/5/16 first draft discussed with working group   1/8/16 updated draft will be provided from SBC, SC and BOA review   1/11/16 SC will review at their meeting   1/13/16 all comments due   1/15/16 final draft to be issued. T. Ciccariello asked if 100% of department feedback was received? Yes. S. Morgan added that comments to be provided via MS Word tracking feature if possible. The document is really to approve the overall vision of the plan. M. Rosetti expressed concern about whether or not input from site visits would be included in the Ed Plan. M. Skipper will review site visit input and incorporate where/if appropriate. SMMA added that this is the first step in the process and will not, in itself, fully define the building; details will be refined as design develops. Final draft of Ed Plan will be discussed at 1/20/16 SBC meeting.</p>
9/23:01	School	1/20/16	<p><b>XQ Super School Challenge: <a href="http://xqsuperschool.org/">http://xqsuperschool.org/</a> Update 11/4/15:</b> Nothing new to report at this time, still pursuing. SMMA noted that they are available to assist if needed. T. Pierantozzi reminded all that MSBA "eligible costs" would not include reimbursement for project costs where grant funding was used. <b>Update 12/2/15:</b> SHS "Community Campus" concept submission has been made, feedback is expected in January. February 1<sup>st</sup> is the next XQ deadline. <b>Update 1/6/16:</b> Initial meeting with Quaglia Institute for Student Aspirations has occurred. Concepts to be shared with SBC, idea is to create a videography from a student perspective.</p>

**Design**

Item	Responsible	Due	Notes
9/09:07	SMMA	1/20/16	<p><b>General Design Update: Update 11/4/15:</b> SMMA to schedule DESE follow up meeting to discuss SPED &amp; c.74 program, tentatively targeting 12/1/15. Geotech report is forthcoming. Geoenv testing, noise monitoring and traffic studies have been scheduled (existing site only). Visioning meeting #2 is scheduled for 11/9/15. Education program development is ongoing, draft Ed plan targeted for 11/25/15. R. King advised that house doctor design contract is being used to address minor structural deficiencies (ie loose brick) noted in the SMMA report which need to be addressed ASAP. <b>Update 12/2/15:</b> Visioning meeting notes were distributed to the SBC, SMMA provided an overview of the meetings. SMMA has contacted DESE to set up a meeting to discuss new c.74 programs, no response received yet, meeting will hopefully occur in the coming weeks. SMMA also provided a report on recent site studies (geotech, geoenv, hazmat, survey, etc). Preliminary investigations did not reveal anything unexpected, PMA/SMMA to distribute copies of the reports to SBC members. <b>Update 1/6/16:</b> SMMA provided a design update presentation with the latest PDP concepts. There are a total of 6 concepts (base repair, renovation, add/reno using existing auditorium, add/reno with new auditorium, new build on existing site, new build on Trum/DPW site). M. Rossetti expressed desire to save the existing auditorium if possible due to recent investments, sentiment was echoed by others. SMMA responded that unfortunately the auditorium comes with a good deal of "bad" space around and underneath it. A cost analysis is being performed as part of the PDP development to determinate if it is logical to save the existing auditorium. T. Pierantozzi spoke about including a campus concept with multiple buildings on the existing site as one of the alternatives, SMMA to develop and include with PDP.</p>
9/09:09	ALL	1/20/16	<p><b>Site Selection: Update 9/23/15:</b> SMMA to present Franey Rd site options at upcoming meeting. Other possible sites were discussed but CPMD feels that the Franey Rd site is the only viable option without leasing land from the State or "taking" land from elsewhere. R. King developing scope of work for 3<sup>rd</sup> party review of possibility of relocating the DPW. <b>Update 10/14/15:</b> SMMA reviewed all potential sites in town over 10 acres, both state owned and city owned. Trum field/DPW appears to be the only other site which would warrant further investigation due to size, location and current ownership. <b>Update 11/4/15:</b> A quick recap of options previously presented was provided by SMMA. <b>Update 12/2/15:</b> Analysis of other sites within the City suggests that the existing site appears to be the preferred location. SMMA to include this analysis and results in the PDP submission. R. King and E. Bean to update the Mayor. <b>Update 1/6/16:</b> SMMA provided an overview of existing and potential zoning non-conformities (ie setback, building height, fence height). A meeting with OSPCD on 12/3/15 confirmed that a special permit should be sufficient provided existing non-conformities are not made worse in the preferred option. On 12/14/15 another meeting occurred to review the latest GLX project design and potential implications. It is understood that there is an easement in place for utilities supporting GLX on HS property that may affect design. It is also understood that the Homan's site has been offered to DOT as laydown space for the GLX project with the understanding that they would abate and demolish the building. Need to better understand timing of the GLX project to determine if there is an opportunity for the HS project to use the Homan's site for laydown as it would be incredibly advantageous.</p>

9/09:10	SMMA School	1/20/16	<p><b>Space Summary:</b> MSBA space allowance was discussed, the allowable square footage is based upon anticipated enrollment using the MSBA's pre-defined formula. A concern about the new building attracting higher enrollment was discussed, the Team noted that the MSBA formula allows for ~15% growth. Chapter 74 space allowances are calculated using DESE guidelines and are in addition to the MSBA standard space summary allocation. M. Rossetti stated that in conversations with Jack McCarthy of the MSBA, he stressed constant communication in the event that the projected enrollment changes. <b>Update 12/2/15:</b> A draft copy of the new construction option space summary was distributed and discussed at length. M. Rossetti inquired about the possibility of accessible green roof space, while this is possible it is highly unlikely that the MSBA would participate in any of the costs due to the 8% sitework cost cap or \$299/SF building allowance. The possibility of adding a c.74 Media program to work with City Cable was discussed. The various programs which may be part of the project were discussed, it was agreed that all proposed programs should remain part of the project during the early portion of the feasibility study. SMMA to update Space Summary based upon feedback received and re-issue. <b>Update 1/6/16:</b> The possible addition of Next Wave to the building and Ed Plan was discussed. MSBA approved enrollment was 1515 (base), plus 50 (full circle), plus 25 (next wave). School to include NW in Ed Plan for now and re-evaluate prior to PSR submission. M. Rossetti voiced a concern about size DPW storage spaces in the program. S. Koty explained that DPW is the school's maintenance provider, those spaces will store supplies and equipment to be used for the School Dept. SMMA provided an overview of the updated Ed Plan, changes include the addition of a 3<sup>rd</sup> gym station, SMMA has had luck demonstrating the need for the 3<sup>rd</sup> station to the MSBA in the past on schools this size. M. Rossetti requested a breakdown of SPED spaces, what is included? M. Rice to follow up with clarification.</p>
1/06:01	Closed		<p>[NEW ITEM] Enrollment: T. Pierantozzi added this item for the record. Based upon insight provided by PMA, the project is too far along to revisit enrollment data with the MSBA. MSBA has previously stated that projects wishing to revisit enrollment must return to "eligibility" phase in order to do so, as this is when enrollment numbers are determined and agreed upon. This item closed.</p>

#### Cost / Schedule

Item	Responsible	Due	Notes
9/09:11	PMA	1/20/16	<p><b>Project Schedule: Update 11/4/15:</b> Updated schedule provided, no change in critical path dates. Education program remains on the project's primary critical path to achieve PDP submission by 2/15/16. <b>Update 12/2/15:</b> PMA distributed and reviewed a copy of the updated lookahead schedule. Education plan is on the critical path and trending 4 days behind schedule. A new format for the Ed Plan was received by the MSBA yesterday. M. Skipper to review this new format and her team will begin to assemble the Ed Plan. <b>Update 1/6/16:</b> PMA presented an updated master schedule. PSR approval is now targeted for July Board Meeting (previously September) and Schematic Design duration has been reduced by 8 weeks. Schedule was accelerated to maintain project momentum, updated schedule will allow for groundbreaking in Spring 2018. There is no change to project completion or occupancy date at this time, still tentatively targeting Fall 2021 occupancy.</p>
9/09:12	ALL	1/20/16	<p><b>Next Steps: Update 12/2/15:</b> Draft Mass Historic PNF submission by end of Dec   OSPCD meeting on 12/3/15   DESE meeting in mid December   Winchester site tour on 12/9. Site visit notes to be collected by J. Oteri after final visit for discussion by SBC at 1/6/16 meeting. <b>Update 1/6/16:</b> Everett HS site tour on 1/13, bus leaves SHS at 11:30AM, returning by 2:30PM. MA Historic PNF submission was made; draft copy circulated for review at meeting, review takes 30 days. Ed Plan schedule outlined in item 9:09:06 above is next critical dates. PDP submission remains on target for 2/15/16.</p>

1/06:01	PMA SMMA	1/20/16	<p><b>[NEW ITEM] Project Budget:</b> PMA provided a presentation about current market data, both nationally and MSBA project specific. Items like inflation and escalation were reviewed. Current cost/SF was reviewed. MSBA categorically ineligible costs were reviewed. MSBA data indicates upper range for SD estimates in 2015 is \$441/SF. With annual escalation anywhere from 4.5%-8% through 2018, this could translate to an avg cost/SF in excess of \$500 for SHS.</p> <p>Unfortunately SHS project may be on the upper end of MSBA data, due to challenging site, urban market conditions, constraints w/ existing building, etc. MSBA cost/SF cap is currently at \$299/SF, this creates a challenge for many urban projects as it results in a high percentage of ineligible costs (recently approved Brookline school was profiled, where only 56% of total budget was "eligible" for reimbursement). PDP high level cost estimates will be reviewed in detail at the 1/20/16 SBC meeting.</p>
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A motion was made by R. King to adjourn the meeting, second by N. Braga. All approved.

**Meeting Adjourned: 8:53P.M.**

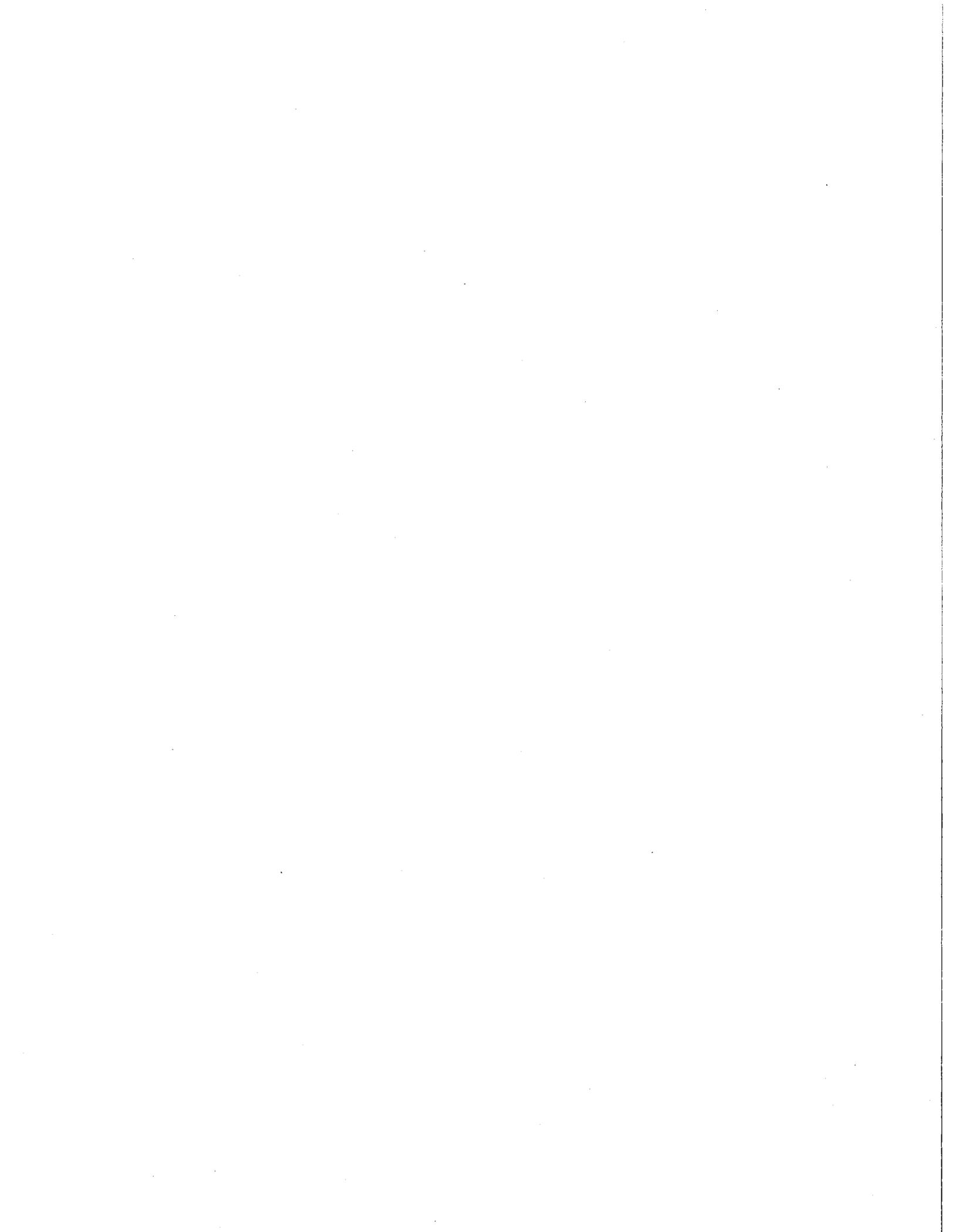
**Next meeting dates are 1/20/16, 2/3/16 (tentative), 2/10/16. All meetings at 5:30PM in SHS Gallery 81.**

The author of these minutes assumes, to the best of his or her knowledge, that the above content of these Meeting Minutes depict all that transpired during this Project meeting. All attendees are required to address by memo or via e-mail, any omissions, errors or inconsistencies in the reporting of these Meeting Minutes, to the writer, within two (2) business days of receipt of these Meeting Minutes.

**Prepared By: Chad Crittenden, PMA Consultants**

**Signed: Chad Crittenden**

**Date: 1/11/16**



## Somerville High School Building Committee Meeting Minutes

**PROJECT:** Somerville HS Project  
**LOCATION:** Somerville HS – Gallery 81

**MEETING DATE:** December 2, 2015

**ATTENDEES:** *(Absent in Italics)*

<u>Bldg. Cmte:</u>	<input type="checkbox"/> <i>Mayor Curtatone</i>	<input type="checkbox"/> Tony Pierantozzi	<input type="checkbox"/> Tony Ciccarriello	<input type="checkbox"/> Rob King
	<input type="checkbox"/> Steve Roix	<input type="checkbox"/> Mary Skipper	<input type="checkbox"/> Stan Koty	<input type="checkbox"/> John Oteri
	<input type="checkbox"/> <i>Richard Melillo</i>	<input type="checkbox"/> Ed Bean	<input type="checkbox"/> Mary-Jo Rossetti	<input type="checkbox"/> Tom Bent
	<input type="checkbox"/> Nelia Braga	<input type="checkbox"/> Adda Santos		
<u>PMA:</u>	<input type="checkbox"/> <i>Chris Carroll</i>	<input type="checkbox"/> Chad Crittenden	<input type="checkbox"/> Sean Burke	<input type="checkbox"/> <i>Walter Hartley</i>
<u>SMMA:</u>	<input type="checkbox"/> Alex Pitkin	<input type="checkbox"/> <i>Lorraine Finnegan</i>	<input type="checkbox"/> Matt Rice	
<u>Others:</u>	<input type="checkbox"/> <i>Vincent McKay</i>	<input type="checkbox"/> <i>Denise Taylor</i>		

Meeting Chair Tony Pierantozzi called the meeting to order at 5:31P.M. Draft minutes from the 11/4/15 SBC meeting were reviewed. A motion to approve the minutes was made by Mary-Jo Rosetti, second by Steve Roix. The minutes were approved unanimously (9-0, 3 members (EB, MS, TB) absent at time of vote).

**General**

Item	Responsible	Due	Notes
9/09:01	PMA	1/6/16	<b>General Update: Update 11/4/15:</b> T. Pierantozzi provided a brief overview of visioning meetings, upcoming outreach, working groups, project fact sheet & XQ challenge, details contained in appropriate sections below. M. Rosetti inquired as to what attendance requirements were for the SBC and expressed disappointment that some members have not been involved and concern that they might be present up only when a vote is needed. R. King noted that some members have areas of expertise that are not yet required at this early stage of educational programming, R. King will check SBC attendance requirements (if any – possibly “Robert’s Rules”?). <b>Update 12/2/15:</b> T. Pierantozzi provided an update from the site tours at Quincy and Essex, Winchester tour is scheduled for 12/9. SBC expressed interest in touring the Everett HS as well, PMA & M. Skipper to pursue. SBC attendance requirements were also discussed, PMA advised that the committee can establish their own attendance rules, committee elected to hold off for the time being unless attendance continues to be a concern. If the SBC elects to replace a member of the committee then paperwork to be prepared by PMA, signed by Mayor and submitted to the MSBA for approval.
9:09:04	SBC	1/6/16	<b>Public Outreach: Update 12/2/15:</b> Community Forum #1 recap was provided by PMA and a memo outlining the discussion was distributed, it was noted that the library is no longer subject to Carnegie restrictions. Community Forum #2 to be scheduled in late February or early March at one of the elementary schools. The updated fact sheet has been posted to the project website. 500 informational brochures are available for distribution, M. Rosetti will take some for local distribution, PMA to post on project website. A property tax newsletter is also being mailed out soon, E. Bean to contact Communications Director to see if a HS project update can be included as part of that newsletter. Student participation in Design Workgroups and possibly site visits was requested, J. Oteri to coordinate. The option of providing a project update via Our Schools / Our City was also identified for consideration.

9:09:05	Closed		<b>Program Consolidation:</b> T. Pierantozzi discussed options available to make the City's use of space more efficient. This includes consolidation of Next Wave / Full Circle, Community Spaces, Daycare, City Cable, SCALE, Community Schools & City Offices, SPED Administration, PIC, Early Childhood ELL, and possibly others. Many of these spaces are likely not eligible for reimbursement through the MSBA. M. Rossetti stated that the City reviewed this concept in the past and may be able to re-use some of the data from that study. Tony agreed but thinks that the programs have changed slightly so the data would need to be confirmed. <b>Update 12/2/15:</b> This item closed, program consolidation discussion moved to item 9:09:10 "Space Summary."
9:09:06	PMA SBC	12/2/15	<b>Working Groups (sub-committees):</b> <b>Update 11/4/15:</b> SMMA to create agendas for working groups. It was clarified that the role of these groups are advisory only, they are not decision making groups. PMA to include working group sign in sheet with minute distribution, those interested in signing up should contact PMA. First working group anticipated to occur after receipt of draft ed plan on 11/25/15. <b>Update 12/2/15:</b> PMA updated working group list and will re-issue. Education plan working group to be scheduled shortly after receipt of draft Ed Plan outline.
9:23:01	School	12/2/15	<b>XQ Super School Challenge:</b> <a href="http://xqsuperschool.org/">http://xqsuperschool.org/</a> <b>Update 11/4/15:</b> Nothing new to report at this time, still pursuing. SMMA noted that they are available to assist if needed. T. Pierantozzi reminded all that MSBA "eligible costs" would not include reimbursement for project costs where grant funding was used. <b>Update 12/2/15:</b> SHS "Community Campus" concept submission has been made, feedback is expected in January. February 1 <sup>st</sup> is the next XQ deadline.

#### Design

Item	Responsible	Due	Notes
9:09:07	SMMA	12/2/15	<b>General Design Update:</b> <b>Update 11/4/15:</b> SMMA to schedule DESE follow up meeting to discuss SPED & c.74 program, tentatively targeting 12/1/15. Geotech report is forthcoming. Geoenv testing, noise monitoring and traffic studies have been scheduled (existing site only). Visioning meeting #2 is scheduled for 11/9/15. Education program development is ongoing, draft Ed plan targeted for 11/25/15. R. King advised that house doctor design contract is being used to address minor structural deficiencies (ie loose brick) noted in the SMMA report which need to be addressed ASAP. <b>Update 12/2/15:</b> Visioning meeting notes were distributed to the SBC, SMMA provided an overview of the meetings. SMMA has contacted DESE to set up a meeting to discuss new c.74 programs, no response received yet, meeting will hopefully occur in the coming weeks. SMMA also provided a report on recent site studies (geotech, geoenv, hazmat, survey, etc). Preliminary investigations did not reveal anything unexpected, PMA/SMMA to distribute copies of the reports to SBC members.
9:09:09	ALL	12/2/15	<b>Site Selection:</b> <b>Update 9/23/15:</b> SMMA to present Franey Rd site options at upcoming meeting. Other possible sites were discussed but CPMD feels that the Franey Rd site is the only viable option without leasing land from the State or "taking" land from elsewhere. R. King developing scope of work for 3 <sup>rd</sup> party review of possibility of relocating the DPW. <b>Update 10/14/15:</b> SMMA reviewed all potential sites in town over 10 acres, both state owned and city owned. Trum field/DPW appears to be the only other site which would warrant further investigation due to size, location and current ownership. <b>Update 11/4/15:</b> A quick recap of options previously presented was provided by SMMA. <b>Update 12/2/15:</b> Analysis of other sites within the City suggests that the existing site appears to be the preferred location. SMMA to include this analysis and results in the PDP submission. R. King and E. Bean to update the Mayor.

9:09:10	SMMA	1/6/16	<p><b>Space Summary:</b> MSBA space allowance was discussed, the allowable square footage is based upon anticipated enrollment using the MSBA's pre-defined formula. A concern about the new building attracting higher enrollment was discussed, the Team noted that the MSBA formula allows for ~15% growth. Chapter 74 space allowances are calculated using DESE guidelines and are in addition to the MSBA standard space summary allocation. M. Rossetti stated that in conversations with Jack McCarthy of the MSBA, he stressed constant communication in the event that the projected enrollment changes. <b>Update 12/2/15:</b> A draft copy of the new construction option space summary was distributed and discussed at length. M. Rosetti inquired about the possibility of accessible green roof space, while this is possible it is highly unlikely that the MSBA would participate in any of the costs due to the 8% sitework cost cap or \$299/SF building allowance. The possibility of adding a c.74 Media program to work with City Cable was discussed. The various programs which may be part of the project were discussed, it was agreed that all proposed programs should remain part of the project during the early portion of the feasibility study. SMMA to update Space Summary based upon feedback received and re-issue.</p>
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**Schedule**

Item	Responsible	Due	Notes
9:09:11	PMA	12/2/15	<p><b>Project Schedule: Update 11/4/15:</b> Updated schedule provided, no change in critical path dates. Education program remains on the project's primary critical path to achieve PDP submission by 2/15/16. <b>Update 12/2/15:</b> PMA distributed and reviewed a copy of the updated lookahead schedule. Education plan is on the critical path and trending 4 days behind schedule. A new format for the Ed Plan was received by the MSBA yesterday. M. Skipper to review this new format and her team will begin to assemble the Ed Plan.</p>
9:09:12	ALL	12/2/15	<p><b>Next Steps: Update 12/2/15:</b> Draft Mass Historic PNF submission by end of Dec   OSPCD meeting on 12/3/15   DESE meeting in mid December   Winchester site tour on 12/9. Site visit notes to be collected by J. Oteri after final visit for discussion by SBC at 1/6/16 meeting.</p>

A motion was made by T. Ciccariello to adjourn the meeting, second by N. Braga. All approved.

**Meeting Adjourned: 8:11P.M.**

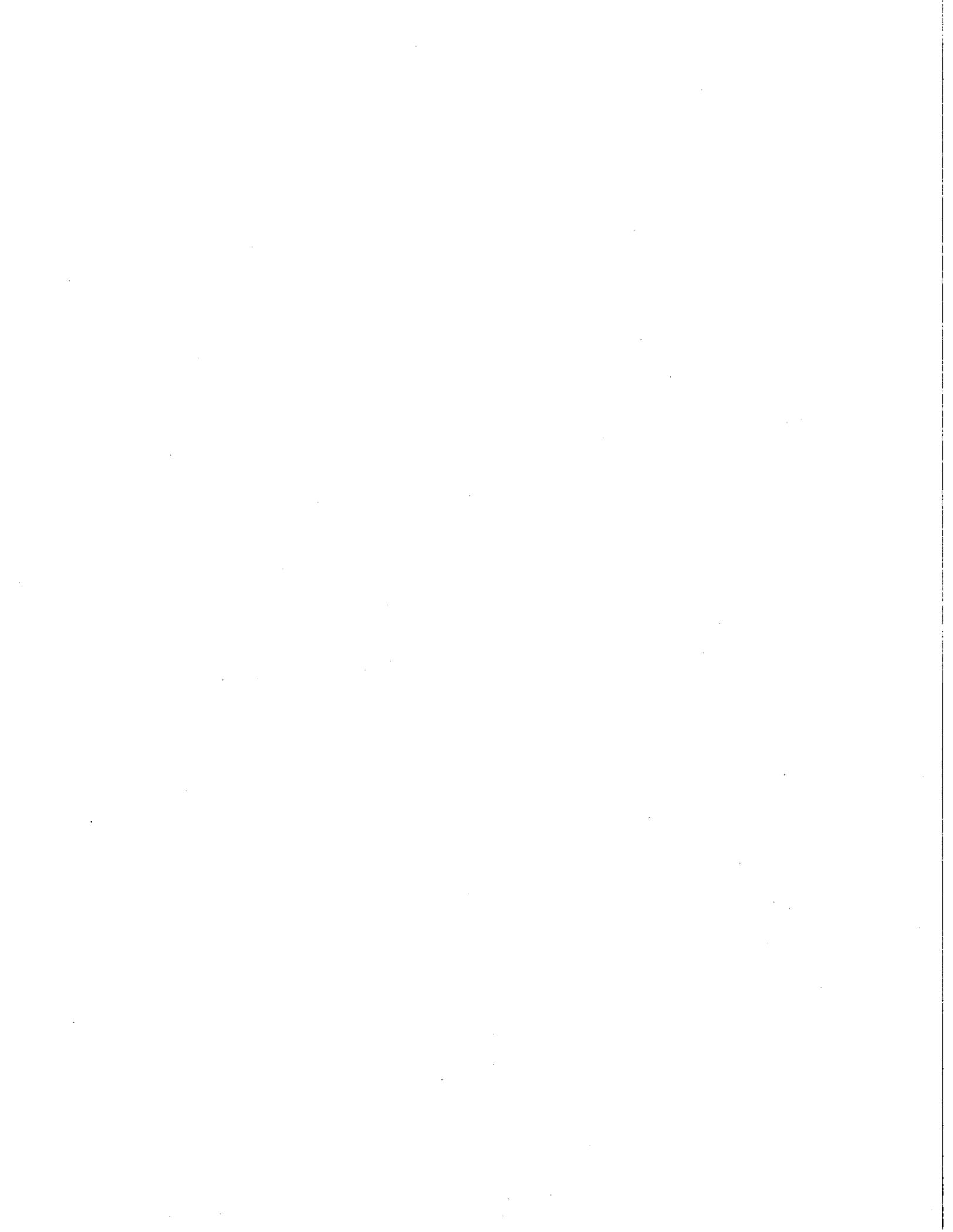
**Next meeting dates are 1/6/16, 1/20/16, 2/10/16. All meetings at 5:30PM in SHS Gallery 81.**

The author of these minutes assumes, to the best of his or her knowledge, that the above content of these Meeting Minutes depict all that transpired during this Project meeting. All attendees are required to address by memo or via e-mail, any omissions, errors or inconsistencies in the reporting of these Meeting Minutes, to the writer, within two (2) business days of receipt of these Meeting Minutes.

**Prepared By: Chad Crittenden, PMA Consultants**

**Signed: Chad Crittenden**

**Date: 12/3/15**



## 5.3 MEETING MINUTES AND AGENDA LOG



CITY OF SOMERVILLE  
MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 39 SECTION 23A AMENDED.

NAME OF COMMITTEE/BOARD: Somerville HS School Building Committee

LOCATION OF MEETING: 81 Highland Ave, Somerville, MA 02143  
(Somerville High School Library)

DATE & TIME: Thursday May 26, 2016, 4:30 pm

AUTHORIZED PERSON: John Oteri

**Somerville HS School Building Committee Agenda**  
**Thursday, May 26, 2016**  
**4:30 P.M.**

**Somerville High School – Library**

	Estimated Time Frame
<b>I. Chair Tony Pierantozzi</b> Call to Order	4:30 P.M.
<b>II. 5-23-16 Meeting Minutes</b> Discussion Motion and Second Needed <b>Vote</b> to Approve	4:35 P.M.
<b>III. Overview of Meeting Agenda</b> Tony Pierantozzi – SBC Chair	4:40 P.M.
<b>IV. Old Business</b> a. Next Wave Update b. Design & Budget Update i. Reconciled Conceptual Estimates ii. Final PSR Scope Review	4:45 P.M.
<b>V. Public Comment Period</b>	5:30 P.M.
<b>VI. Old Business (Continued)</b>	6:00 P.M.
<b>VII. New Business</b> a. Other New Business (TBD)	6:30 P.M.

CITY OF SOMERVILLE  
MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 39 SECTION 23A AMENDED.

NAME OF COMMITTEE/BOARD: Somerville HS School Building Committee

LOCATION OF MEETING: 81 Highland Ave, Somerville, MA 02143  
(Somerville High School Auditorium)

DATE & TIME: Monday May 23, 2016, 5:30 pm

AUTHORIZED PERSON: John Oteri

**Somerville HS School Building Committee Agenda**  
**Monday, May 23, 2016**  
**5:30 P.M.**

**Somerville High School – Auditorium**

	Estimated Time Frame
<b>I. Chair Tony Pierantozzi</b> Call to Order	5:30 P.M.
<b>II. 5-09-16 Meeting Minutes</b> Discussion Motion and Second Needed Vote to Approve	5:35 P.M.
<b>III. Overview of Meeting Agenda</b> Tony Pierantozzi – SBC Chair	5:40 P.M.
<b>IV. Old Business</b> a. General Update i. MHC Update ii. Public Outreach 1. Press Release  b. Design & Budget Update i. Preferred Schematic Report Review ii. Conceptual Estimates Presentation iii. Add Alternates Discussion	5:45 P.M.
<b>V. Public Comment Period</b>	6:30 P.M.
<b>VI. Old Business (Continued)</b> a. Add Alternates Vote b. Next Wave Discussion c. Project Schedule Update	7:00 P.M.
<b>VII. New Business</b> a. Vote to Approve PSR Submission b. Other New Business (TBD)	7:30 P.M.

CITY OF SOMERVILLE  
MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 39 SECTION 23A AMENDED.

NAME OF COMMITTEE/BOARD: Somerville HS School Building Committee

LOCATION OF MEETING: 150 Glen St, MA 02145  
(Michael Capuano Early Childhood School Conf Rm)

DATE & TIME: Monday May 9, 2016, 5:30 pm

AUTHORIZED PERSON: John Oteri

**Somerville HS School Building Committee Agenda**  
**Monday, May 9, 2016**  
**5:30 P.M.**

**Capuano School – Conference Room**

	Estimated Time Frame
<b>I. Chair Tony Pierantozzi</b> Call to Order	5:30 P.M.
<b>II. 4-11-16 Meeting Minutes</b> Discussion Motion and Second Needed <b>Vote</b> to Approve	5:35 P.M.
<b>III. Overview of Meeting Agenda</b> Tony Pierantozzi – SBC Chair	5:40 P.M.
<b>IV. Old Business</b>	5:45 P.M.
a. General Update	
i. PDP Update – MSBA Review	
ii. MHC Update – PNF #2	
iii. Next Wave / Full Circle Discussion	
b. Design Update	
i. Alternative 4B Plan Review	
ii. Alt 4B Site Plan Review	
iii. PSR Submission Components	
iv. Sustainable Design Overview	
c. Public Outreach	
i. Outreach and Community Engagement Update	
ii. Update on Public Forums	
d. Project Schedule Update	
i. Next Steps / Key Dates	
e. Project Budget	
<b>V. New Business</b>	7:15 P.M.
a. New Business (TBD)	
<b>VI. Public Comment Period</b>	8:00 P.M.

CITY OF SOMERVILLE  
MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 39 SECTION 23A AMENDED.

NAME OF COMMITTEE/BOARD: Somerville HS School Building Committee

LOCATION OF MEETING: 5 Meacham Street, Somerville, MA 02145  
(Arthur Healy School Library)

DATE & TIME: Monday April 11, 2016, 5:30 pm

AUTHORIZED PERSON: John Oteri

**Somerville HS School Building Committee Agenda**  
**Monday, April 11, 2016**  
**5:30 P.M.**

**Arthur D. Healey School – Library**

	Estimated Time Frame
<b>I. Chair Tony Pierantozzi</b> Call to Order	5:30 P.M.
<b>II. 3-28-16 Meeting Minutes</b> Discussion Motion and Second Needed <b>Vote</b> to Approve	5:35 P.M.
<b>III. Overview of Meeting Agenda</b> Tony Pierantozzi – SBC Chair	5:40 P.M.
<b>IV. Old Business</b> a. General Update i. PDP Update – MSBA Review b. Report Historic Commission Discussions c. Design Update i. Presentation & Discussion – Narrowing down to 1 Preferred Alternative d. Public Outreach i. Outreach and Community Engagement Update ii. Update on Public Forums	5:45 P.M.
<b>V. Project Master Schedule</b> a. Project Schedule Update b. Next Steps:	6:45 P.M.
<b>VI. New Business</b> a. Somerville Community Access TV Interview b. Other New Business (TBD)	7:15 P.M.
<b>VII. Public Comment Period</b>	8:00 P.M.

CITY OF SOMERVILLE  
MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 39 SECTION 23A AMENDED.

NAME OF COMMITTEE/BOARD: Somerville HS School Building Committee

LOCATION OF MEETING: 177 Powder House Blvd, Somerville, MA 02144  
(West Somerville Neighborhood School Library)

DATE & TIME: Monday March 28, 2016, 5:30 pm

AUTHORIZED PERSON: John Oteri

**Somerville HS School Building Committee Agenda**  
**Monday, March 28, 2016**  
**5:30 P.M.**

**West Somerville Neighborhood School – Library**

	Estimated Time Frame
<b>I. Chair Tony Pierantozzi</b> Call to Order	5:30 P.M.
<b>II. 3-14-16 Meeting Minutes</b> Discussion Motion and Second Needed <b>Vote to Approve</b>	5:35 P.M.
<b>III. Overview of Meeting Agenda</b> Tony Pierantozzi – SBC Chair	5:40 P.M.
<b>IV. Old Business</b> a. General Update i. PDP Update – MSBA Review b. Report on Meetings with Somerville Historic c. Design Update i. Presentation & Discussion – Narrowing down to 3 Alternatives d. Public Outreach i. Outreach and Community Engagement Plan	5:45 P.M.
<b>V. Project Master Schedule</b> a. Project Schedule Update b. Next Steps:	6:45 P.M.
<b>VI. New Business</b> a. Other New Business (TBD)	7:15 P.M.
<b>VII. Public Comment Period</b>	8:00 P.M.

CITY OF SOMERVILLE  
MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 39 SECTION 23A AMENDED.

NAME OF COMMITTEE/BOARD: Somerville HS School Building Committee

LOCATION OF MEETING: 5 Cherry St, Somerville, MA 02144  
(John F. Kennedy School Library)

DATE & TIME: Monday March 14, 2016, 5:30 pm

AUTHORIZED PERSON: John Oteri

**Somerville HS School Building Committee Agenda**  
**Monday, March 14, 2016**  
**5:30 P.M.**

**John F. Kennedy School – Library**

	Estimated Time Frame
<b>I. Chair Tony Pierantozzi</b> Call to Order	5:30 P.M.
<b>II. 2-10-16 Meeting Minutes</b> Discussion Motion and Second Needed Vote to Approve	5:35 P.M.
<b>III. Overview of Meeting Agenda</b> Tony Pierantozzi – SBC Chair	5:40 P.M.
<b>IV. Old Business</b> a. General Update i. PDP Submission Update b. Public Outreach i. Outreach and Community Engagement Plan c. Working Groups d. Design Update i. Presentation – Narrowing down Alternatives	5:45 P.M.
<b>V. Project Master Schedule</b> a. Project Schedule Update b. Next Steps: i. Preferred Schematic Report Workplan	6:45 P.M.
<b>VI. New Business</b> a. Mass Historical Commission Review b. Other New Business (TBD)	7:15 P.M.
<b>VII. Public Comment Period</b>	8:00 P.M.

CITY OF SOMERVILLE  
MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 39  
SECTION 23A AMENDED.

NAME OF COMMITTEE/BOARD: Somerville HS School Building Committee

LOCATION OF MEETING: 50 Cross St, Somerville, MA 02145  
(East Somerville Community School)

DATE & TIME: Wednesday, February 10, 2016, 5:30 pm

AUTHORIZED PERSON: John Oteri

**Somerville HS School Building Committee Agenda**  
**Wednesday, February 10, 2016**  
**5:30 P.M.**

**East Somerville Community School – Media Center**

	Estimated Time Frame
<b>I. Chair Tony Pierantozzi</b> Call to Order	5:30 P.M.
<b>II. 2-03-16 Meeting Minutes</b> Discussion Motion and Second Needed <b>Vote to Approve</b>	5:35 P.M.
<b>III. Overview of Meeting Agenda</b> Tony Pierantozzi – SBC Chair	5:40 P.M.
<b>IV. Old Business</b> a. General Update b. Public Outreach i. Outreach working group c. Working Groups i. Upcoming meetings / agendas ii. Education plan d. XQ Super School Challenge e. General Design Update f. Site Selection g. Space Summary	5:45 P.M.
<b>V. Project Master Schedule</b> a. Project Schedule Update	6:45 P.M.
<b>VI. New Business</b>	7:15 P.M.
<b>VII. Public Comment Period</b>	8:00 P.M.

CITY OF SOMERVILLE  
MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 39 SECTION 23A AMENDED.

NAME OF COMMITTEE/BOARD: Somerville HS School Building Committee

LOCATION OF MEETING: 290 Washington Street, Somerville, MA 02143  
(Argenziano School at Lincoln Park)

DATE & TIME: Wednesday, February 3, 2016, 5:30 pm

AUTHORIZED PERSON: John Oteri

**Somerville HS School Building Committee Agenda**  
**Wednesday, February 3, 2016**  
**5:30 P.M.**

**Albert F. Argenziano School – Conference Room**

	Estimated Time Frame
<b>I. Chair Tony Pierantozzi</b> Call to Order	5:30 P.M.
<b>II. 1-20-16 Meeting Minutes</b> Discussion Motion and Second Needed <b>Vote</b> to Approve	5:35 P.M.
<b>III. Overview of Meeting Agenda</b> Tony Pierantozzi – SBC Chair	5:40 P.M.
<b>IV. Old Business</b> a. General Update b. Public Outreach i. Outreach working group c. Working Groups i. Upcoming meetings / agendas ii. Education plan d. XQ Super School Challenge e. General Design Update f. Site Selection g. Space Summary	5:45 P.M.
<b>V. Project Master Schedule</b> a. Project Schedule Update	6:45 P.M.
<b>VI. New Business</b> a. NEASC SHS Accreditation Report Discussion b. Upcoming meeting s & location(s)	7:15 P.M.
<b>VII. Public Comment Period</b>	8:00 P.M.

CITY OF SOMERVILLE  
MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 39 SECTION 23A AMENDED.

NAME OF COMMITTEE/BOARD: Somerville HS School Building Committee

LOCATION OF MEETING: 81 Highland Ave, Somerville, MA 02143 (Somerville High School, Gallery 81)

DATE & TIME: Wednesday, January 20, 2016, 5:30 pm

AUTHORIZED PERSON: John Oteri

**Somerville HS School Building Committee Agenda**  
**Wednesday, January 20, 2016**  
**5:30 P.M.**  
**Somerville High School – Gallery 81**

		Estimated Time Frame
<b>I.</b>	<b>Chair Tony Pierantozzi</b> Call to Order	5:30 P.M.
<b>II.</b>	<b>1-13-16 Meeting Minutes</b> Discussion Motion and Second Needed Vote to Approve	5:35 P.M.
<b>III.</b>	<b>Overview of Meeting Agenda</b> Tony Pierantozzi – SBC Chair	5:40 P.M.
<b>IV.</b>	<b>Old Business</b>	5:45 P.M.
	a. General Update	
	i. Everett Site Visit Discussion	
	b. Public Outreach	
	c. Working Groups	
	i. Upcoming meetings / agendas	
	ii. Education plan	
	d. XQ Super School Challenge	
	e. General Design Update	
	i. New “Concourse” Alternative	
	f. Site Selection	
	g. Space Summary	
<b>V.</b>	<b>Project Master Schedule &amp; Budget</b>	6:45 P.M.
	a. Project Schedule Update	
	b. Project Budget	
<b>VI.</b>	<b>New Business</b>	7:15 P.M.
<b>VII.</b>	<b>Public Comment Period</b>	7:30 P.M.

CITY OF SOMERVILLE  
MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 39 SECTION 23A AMENDED.

NAME OF COMMITTEE/BOARD: Somerville HS School Building Committee

LOCATION OF MEETING: 81 Highland Ave, Somerville, MA 02143 (Somerville High School, Gallery 81)

DATE & TIME: Wednesday, January 6, 2016, 5:30 pm

AUTHORIZED PERSON: John Oteri

**Somerville HS School Building Committee Agenda**  
**Wednesday, January 6, 2016**  
**5:30 P.M.**  
**Somerville High School – Gallery 81**

	Estimated Time Frame
<b>I. Chair Tony Pierantozzi</b> Call to Order	5:30 P.M.
<b>II. 12-2-15 Meeting Minutes</b> Discussion Motion and Second Needed Vote to Approve	5:35 P.M.
<b>III. Overview of Meeting Agenda</b> Tony Pierantozzi – SBC Chair	5:40 P.M.
<b>IV. Old Business</b> a. General Update i. Site Visit Discussion b. Public Outreach c. Working Groups i. Upcoming meetings / agendas ii. Education plan d. XQ Super School Challenge e. General Design Update f. Site Selection g. Space Summary	5:45 P.M.
<b>V. Project Master Schedule</b> a. Project Schedule Update i. Accelerated Schedule / Re-Baseline b. Next Steps i. Everett Site Visit	6:45 P.M.
<b>VI. New Business</b> a. Enrollment	7:00 P.M.
<b>VII. Public Comment Period</b>	7:15 P.M.

CITY OF SOMERVILLE  
MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 39 SECTION 23A AMENDED.

NAME OF COMMITTEE/BOARD: Somerville HS School Building Committee

LOCATION OF MEETING: 81 Highland Ave, Somerville, MA 02143 (Somerville High School, Gallery 81)

DATE & TIME: Wednesday, December 2, 2015, 5:30 pm

AUTHORIZED PERSON: John Oteri

**Somerville HS School Building Committee Agenda**  
**Wednesday, December 2, 2015**  
**5:30 P.M.**  
**Somerville High School – Gallery 81**

		Estimated Time Frame
<b>I.</b>	<b>Chair Tony Pierantozzi</b> Call to Order	5:30 P.M.
<b>II.</b>	<b>11-4-15 Meeting Minutes</b> Discussion Motion and Second Needed <b>Vote</b> to Approve	5:35 P.M.
<b>III.</b>	<b>Overview of Meeting Agenda</b> Tony Pierantozzi – SBC Chair	5:40 P.M.
<b>IV.</b>	<b>Old Business</b> <ul style="list-style-type: none"> <li>a. General Update</li> <li>b. Public Outreach <ul style="list-style-type: none"> <li>i. 11/19 Community Forum update</li> <li>ii. 11/28 Craft Fair update</li> <li>iii. ResiStat update</li> <li>iv. Fact sheet revisions</li> </ul> </li> <li>c. Program Consolidation</li> <li>d. Working Groups <ul style="list-style-type: none"> <li>i. Upcoming meetings / agendas</li> </ul> </li> <li>e. XQ Super School Challenge</li> <li>f. General Design Update <ul style="list-style-type: none"> <li>i. Visioning meeting #2 update</li> <li>ii. DESE updates (SPED &amp; c.74)</li> </ul> </li> <li>g. Site Selection</li> <li>h. Space Summary</li> </ul>	5:45 P.M.
<b>V.</b>	<b>Project Master Schedule</b> <ul style="list-style-type: none"> <li>a. Project Schedule Update</li> <li>b. Next Steps <ul style="list-style-type: none"> <li>i. Site Visits</li> </ul> </li> </ul>	6:45 P.M.
<b>VI.</b>	<b>New Business</b> Geo-Technical Update	7:00 P.M.
<b>VII.</b>	<b>Public Comment Period</b>	7:15 P.M.