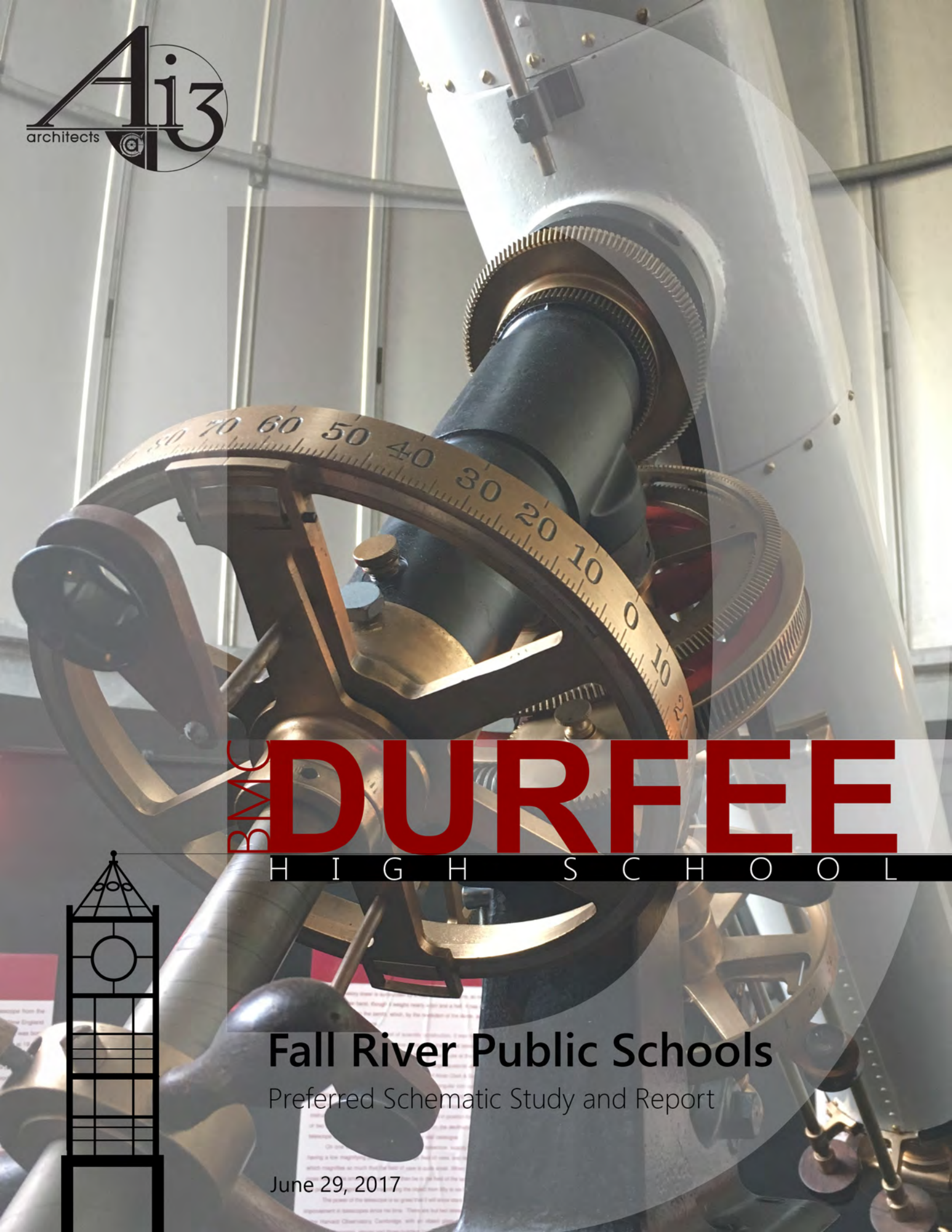

architects

BMC DURFEE

HIGH SCHOOL

Fall River Public Schools

Preferred Schematic Study and Report

June 29, 2017

Report Prepared by:

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Wayland, MA 01778

Project Number: 1607.00

June 29, 2017

Report Prepared for:

City of Fall River - School Building Committee
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OVERVIEW OF PROCESS TAKEN SINCE SUBMITTAL OF PRELIMINARY DESIGN PROGRAM

Introduction

The City of Fall River and the School Building Committee submitted the Preliminary Design Program (PDP) on April 20, 2017. Subsequent to the submittal of the Preliminary Design Program, the Designer and the Owner's Project Manager have been working collaboratively with the Owner to further refine the proposed Space Summary, review and update the Educational Program, and develop multiple building and site options for consideration by the City and School Building Committee. The City assembled key individuals as part of a "Leadership Group" to attend meetings and provide input during the Proposed Schematic Study & Report (PSR) phase. The School Department assembled key administration, faculty, and staff from the BMC Durfee High School for multiple discussions related to existing and proposed educational programs, building space adjacencies, and site development. In addition to the scheduled meetings, the School Department has engaged the public in a variety of ways including social media (Facebook, Twitter, etc.), project website, cable television (FRED TV), public radio, and conducting two (2) public forums to discuss the building construction process, existing conditions at BMC Durfee High School, educational visioning, development with the proposed options, and the project status. The School Building Committee has also created and posted project boards within highly visible locations in the City. A more detailed description of the public engagement is further described in the "Community Outreach" section of the report.

The existing BMC Durfee High School building and site conditions were revisited in order to verify previous assumptions and reports. There were no surprises associated with this additional work, but it was helpful in assisting the cost estimators in establishing an accurate analysis of the costs associated with each option, particularly on the renovation/addition options.

The Designer, Owner's Project Manager, and Owner collaborated on the development of the following seven (7) building and site options:

- **Base Repair Option:** (Code Required Upgrades ONLY) Base Repair Option to the existing BMC Durfee High School. The Base Repair Option is intended to identify the significant expenditures required to resolve basic infrastructure, accessibility, and code compliance issues within the existing BMC Durfee High School over the next several years. This option does not provide any additional or new educational space and does not modernize any existing educational space. It does not provide new instructional technology, needed programs, expanded community resources, or many of the educational and community benefits inherent in a viable solution.

- **Option 1A:** Renovation to the existing Athletics Building and Performing Arts Building. Remainder of the proposed building area constructed as New Construction (NC area constructed within the footprint of the existing building). This option positions the new construction area centrally located within the site, physically connected to the existing Athletic Building and disconnected from the existing Performing Arts Building.

- **Option 1B:** Renovation to the existing Athletics Building and Performing Arts Building. Remainder of the proposed building area constructed as New Construction. This option positions the new construction area centrally located within the site, physically connected to the existing Athletics Building and disconnected from the existing Performing Arts Building.

- **Option 1C:** Renovation to the existing Athletics Building and Performing Arts Building. Remainder of the proposed building area constructed as New Construction. This option positions the new construction area with direct frontage on

Eslbree Street, physically connected to the existing Athletics Building and disconnected from the existing Performing Arts Building.

- **Option 1D:** Renovation to the existing Athletics Building and Performing Arts Building. Remainder of the proposed building area constructed as New Construction (the majority of the new construction area constructed within the footprint of the existing building). This option positions the new construction area between the two (2) existing buildings, physically connected to the existing Athletics Building and the existing Performing Arts Building.

- **Option 1E:** Renovation to the existing Athletics Building. Remainder of the proposed building area constructed as New Construction. This option positions the new construction area with direct frontage on Eslbree Street, physically connected to the existing Athletics Building. A portion of the new construction area proposed as a pre-fabricated/pre-engineered building. The existing Performing Arts Building will remain, will not be demolished, and will not be considered part of the proposed BMC Durfee High School project.

- **Option 2A:** New Construction - No Pool

- **Option 2B:** New Construction with Pre-Engineered Building

As a result of the development and evaluation process conducted during the PSR phase, the School Building Committee, Fall River Public Schools, City Officials, the Office of the Mayor and the Mayor's Leadership Group have all endorsed Option 1E as the Preferred Schematic Option to continue developing through the Schematic Design Phase.

Community Outreach Program

To engage the community in the project, the School Department has partnered with the Bristol County Chamber of Commerce Foundation, which is funding a robust communications plan using traditional and social media channels. The Foundation hired the communication firm ThreeC Strategy to develop and implement a plan to engage the community in the potential for a new high school. The communication plan, called Durfee Rising, includes interaction with Fall River local media, starting with an editorial board meeting with the Superintendent and the Chief Operating Officer before the first that resulted in news coverage and a positive editorial; and appearances on several shows on the local talk radio station, WSAR. In addition, the campaign launched and maintains a web site (DurfeeRising.com) with links to reports and materials submitted to the MSBA as well as social media channels on Facebook (/DurfeeRising) and Twitter (@DurfeeRising). Traction on social media is strong and closely monitored to ensure the generation of "buzz" about the "being the generation that builds a new Durfee" and #BuildingForTheFuture.
The campaign uses social media advertising on Facebook to drive awareness and attendance at the two public forums in May and June, as well as continuing engagement with design and progress. Facebook-boosted posts target Fall River parents with children of all ages to reach those who will benefit the most from a new Durfee. The media mix is intended, however, to ensure that all voters learn about the value of the project.

In addition to the social media outreach, the School Building Committee holds a meeting monthly that is open to the public. Additionally, the School Building Committee established two (2) public forums and televised meetings that were for the specific purpose of presenting, in detail, all options evaluated by the City, conducting an open discussion and receiving feedback from the public. The open public forums were attended by residents, local business owners, faculty, staff, students, parents, City Officials, Building Committee Members, School Administration, and others.

The support for Option 1E, (Renovation of the existing Athletic Building and new construction), was overwhelming. In addition to Option 1E being the least costly option, there are many reasons for the strong support, including; the educational advantages, site and building security advantages, the simplified building organization and way-finding, the new building's presence along Elsbree Street, shorter construction timeline, preferred site layout, re-use of the existing stadium and practice fields, and reduced disruption to the educational environment during construction.

SUMMARY OF UPDATED PROJECT SCHEDULE

Introduction

The Projected Meetings and Milestones Schedule included within the "Preferred Solution" section of this submission has been updated and included to indicate all meetings and milestones that have been achieved or are currently planned or projected. The Preliminary Project Schedule, also included within the "Preferred Solution" section of this submission, has been updated to reflect the changes in the Facilities Assessment Subcommittee meeting dates, to include the planned schedule for submission of the Massachusetts Historical Commission Project Notification Form, and to postpone the decision on the construction delivery method.

With the submission of the Preferred Schematic Study and Report (PSR), the BMC Durfee High School Project remains on track with the previously submitted Preliminary Project Schedule. The Schematic Design Submission (SD) is scheduled to be submitted on January 3, 2018 for a February 14, 2018 MSBA Board Meeting. The SD dates are anticipated dates and will be adjusted as required once the 2018 MSBA Meeting Calendar is published. The SD Submission date allows for construction to begin in the spring of 2019 if a Design-Bid-Build construction delivery is chosen or on a similar or slightly accelerated start if a CM-at-Risk construction delivery is chosen. The decision on the construction delivery method has been postponed until after the PSR so that the advantages and disadvantages of both in comparison to anticipated project costs can more fully be explored for the BMC Durfee High School Project. The Preliminary Project Schedule indicates a timeline for CM-at-Risk procurement due to the more extensive time commitment for the process. A Design-Bid-Build construction delivery would start at the same timeline as the Bidding of the Main Bid Package indicated on the schedule.

The Massachusetts Historical Commission Project Notification Form submission and approval timeline has been added to the schedule. Ample time is provided to allow approval from the Massachusetts Historical Commission prior to completion of the Construction Documents.

SUMMARY OF FINAL EVALUATION OF EXISTING CONDITIONS

Introduction

The existing conditions were further reviewed; there were no substantive changes to any of the original conclusions and observations at the existing BMC Durfee High School. However, as a result of the MSBA's request for additional information regarding future subsurface geotechnical investigations, we provide the following narrative / work plan in response to this request.

Subsurface Geotechnical Investigations:

As part of the feasibility study LGCI performed a desk review of existing subsurface and historic data. LGCI identified that the site two streams used to run across or near the site and that a portion of the site used to be a gravel pit. Soil borings performed as part of the construction of the existing athletic fields indicated the presence of large boulders, possibly blasted rock, in the fill.

To further characterize the existing fill and to explore its lateral extend and depth, LGCI is arranging for preliminary exploration slated to start on July 6 at the site. The preliminary explorations will consist of test pits and soil borings located primarily within the proposed building footprint as currently defined. A few explorations will also be performed around the existing fills in proposed parking lot and athletic field areas. Our preliminary test pits will extend to depths of up 15 feet provided groundwater allows for such deep excavations. Our borings will be advanced to depths of up 20 feet or to refusal, whichever occurs first. The drilling subcontractor will perform standard penetration tests (SPT) and will obtain split-spoon samples at 5-foot intervals and at perceived strata changes. If refusal is encountered in the top 20 feet in a boring, a 5-foot rock core will be obtained in up to four borings. Depending on access restrictions and whether vacuum explorations are needed, up to 28 explorations will be completed as part of the preliminary explorations.

After the building size and location are selected, LGCI will perform additional explorations during the Design Development (DD) phase, including soil borings and test pits. Our explorations locations will be selected so as to provide subsurface data at points located at about 100-foot intervals. Our DD phase explorations will also include installing groundwater observation wells to monitor the groundwater table at the site.

LGCI will contact Dig Safe and will coordinate our explorations with the school and City staff to make sure that the private utilities are cleared by the school/City staff. Where the locations of utilities are not known, LGCI will recommend starting the boring with vacuum explorations.

SUMMARY OF FINAL EVALUATION OF ALTERNATIVES

Introduction

The existing BMC Durfee High School is situated on a parcel of land with a total area of 63.86 acres. The site generally slopes downgradient from the west to the east. The southwest corner of the Site rests at elevation 230ft, while the eastern boundary rests at 155ft. The existing school was constructed "into the hill" of the most significant change in grade on the existing site, a difference in elevation of approximately 40' across the existing academic core of the building. Connected to the academic core of the building, the performing arts building is located at the top of the slope and the athletic building is located at the bottom of the slope.

The City chose to continue to investigate five (5) renovation-addition options and two (2) new construction options. The options investigated many variables, including: educational benefits, educational disruption, construction complexity, program size, placement of program on site, building height, building and site organization, financial impact, construction timeline impact, along with many, many more.

Renovation & New Construction Options:

Option 1A – Renovation of existing performing arts and athletic buildings & New Construction

Option 1A includes the renovation of the existing performing arts and athletic building and significant addition that investigates demolishing some of the more inefficient and poorly organized portions of the existing school (i.e. the central core academic zone). Option 1A considers renovation of the existing performing arts building and the existing athletic building. This approach ultimately results in the demolition of approximately 384,000 gross square feet, the renovation of the remaining 189,500 square feet of BMC Durfee High School, and a proposed addition of 402,807gsf in order to meet the proposed total building program. The overall building size for Option 1A is 526,044gsf.

This option places a four-story academic core centrally located within the site, adjacent and connected to the existing athletic building at the "bottom of the hill", and renovates the performing arts building at the "top of the hill". The performing arts building would be physically disconnected from the remainder of the proposed building. The placement of the new building centrally located within the site results in the displacement and re-construction of the football stadium and practice fields.

After careful consideration, it was determined by the City, School Building Committee, and School Department that Option 1A offers no educational, financial, or strategic benefits. This option also included the re-construction of the existing football stadium and artificial turf practice field, resulting in added cost to the project and a more significant disruption in the athletics program. The disconnected performing arts building from the core academic

building was undesirable due to the distance. Therefore, there was no support for this option.

Option 1B – Renovation of existing performing arts and athletic buildings & New Construction

Option 1B is similar to Option 1A and includes the renovation of the existing performing arts and athletic building and significant addition that investigates demolishing some of the more inefficient and poorly organized portions of the existing school (i.e. the central core academic zone).

This option places a three-story academic core (as opposed to a four-story building in Option 1A) centrally located within the site, adjacent and connected to the existing athletic building at the "bottom of the hill", and renovates the performing arts building at the "top of the hill". The performing arts building would continue to be physically disconnected from the remainder of the proposed building. However, the three-story building organization extends the footprint closer to the performing arts building, reducing the overall distance between the two buildings. As a result, the proposed building would overlap a portion of the existing building and, as a result, increase the number of construction phases, increase the construction timeline, increase project costs, and create further educational disruption. The placement of the new building centrally located within the site results in the displacement and re-construction of the football stadium and practice fields.

After careful consideration, it was determined by the City, School Building Committee, and School Department that Option 1B

offers no educational, financial, or strategic benefits. Similar to Option 1A, this option also included the re-construction of the existing football stadium and artificial turf practice field, resulting in added cost to the project and a more significant disruption in the athletics program. The disconnected performing arts building from the core academic building was undesirable due to the distance. As mentioned above, this option also would make the construction phasing more complex, increase the construction timeline, create further educational disruption, and increase the overall project costs. Therefore, there was no support for this option.

Option 1C – Renovation of existing performing arts and athletic buildings & New Construction

Option 1C includes the renovation of the existing performing arts and athletic building and significant addition that investigates demolishing some of the more inefficient and poorly organized portions of the existing school (i.e. the central core academic zone).

This option places a four-story academic core building with frontage along Elsbree Street that is adjacent and connected to the existing athletic building, and renovates the performing arts building at the "top of the hill". The performing arts building would continue to be physically disconnected from the remainder of the proposed building, with a more significant distance between the two buildings as compared to Option 1A and 1B. The placement of the new construction along Elsbree Street would allow the existing football stadium, artificial turf practice field, softball field and baseball field to remain as is, thereby reducing the overall construction costs.

After careful consideration, it was

determined by the City, School Building Committee, and School Department that Option 1C offers no educational, financial, or strategic benefits. Similar to Option 1A and 1B, the disconnected performing arts building from the core academic building was undesirable due to the distance of separation. Therefore, there was no support for this option.

Option 1D – Renovation of existing performing arts and athletic buildings & New Construction

Option 1D includes the renovation of the existing performing arts and athletic building and a significant addition that investigates demolishing some of the more inefficient and poorly organized portions of the existing school (i.e. the central core academic zone).

This option investigates placing a four-story academic core building within the current footprint of the existing building and physically connecting to both the existing athletic building and performing arts building. This option is the most expensive option and is problematic for many reasons, including (but not limited to): multiple occupied construction phases, significant educational disruption, extended construction timeline, constructing into the existing scope and the resultant sub-surface unknowns. As a result of the numerous drawbacks of this option, it was determined by the City, School Building Committee, and School Department that Option 1D offers no educational, financial, or strategic benefits and, therefore, there was no support for this option.

Option 1E – Renovation of existing athletic building & New Construction

Option 1E includes new construction and the renovation of the existing athletic building that investigates

demolishing some of the more inefficient and poorly organized portions of the existing school (i.e. the central core academic zone).

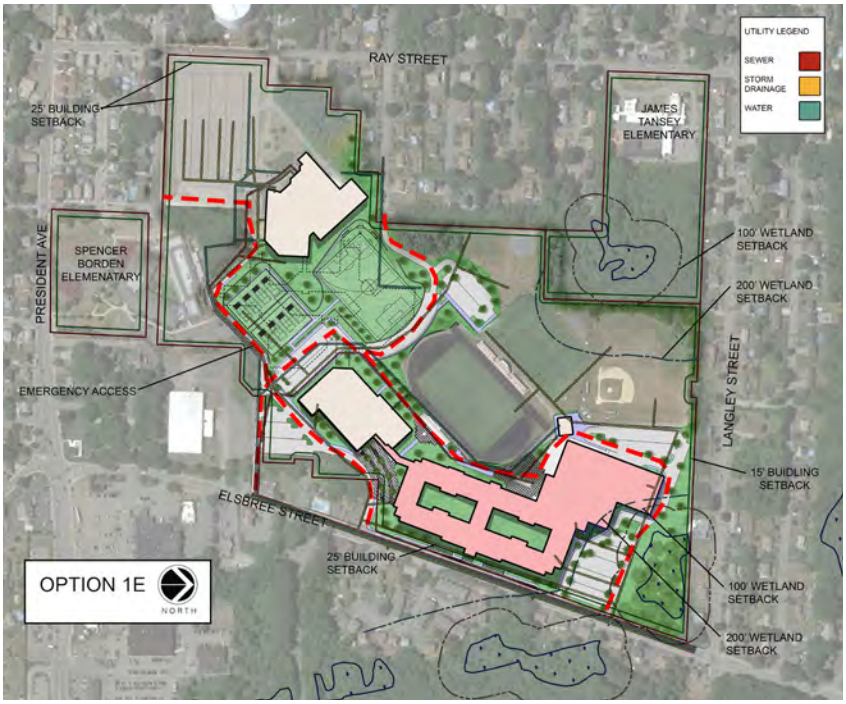
There are many attributes of Option 1E (new construction and renovation of the existing athletic building) that ultimately made it an easy selection as the Preferred Schematic Option for the City and the School Building Committee.

It is the only option that fully meets the goals of the proposed

educational program, educational vision, and is simultaneously the least expensive option for the District with the least amount of risk.

Option 1E is also the only option with direct street frontage and presence along Elsbree Street with a clearly identifiable primary building entrance, future clock tower, and future observatory. As mentioned in the PDP submission, the old BMC Durfee High School building (located on Rock Street) has a significant place in the history of Fall River and gave rise to the Fall River School District's seal, the school's athletics nickname (The Hilltoppers), the school colors of black and red (for the two roof colors), the school's newspaper (The Hilltop), and the school alumni newspaper (The Chimes). The current BMC Durfee High School does not celebrate the rich history of Fall River or the history of BMC Durfee High School, so the importance that the new building embody and incorporate this history was very high on the list of all involved in the educational visioning sessions and discussions when evaluating the several building and site options.

The current BMC Durfee High School is approximately 573,210 gross square feet (gsf) in size. The Preferred Solution intends to reuse and renovate the existing athletic building which is approximately 98,523 gsf in size. The solution also intends to leave the existing performing arts building (approximately 91,000 gsf) in place for future development and to separate this portion of the existing high school from the proposed project. The resultant area of the existing building that will be demolished as part of this option is approximately 384,210 gsf. The area of the existing building that will remain and be renovated (athletic building) is 98,523 gsf and the area of new construction is 402,807 gsf. As a result, the preferred option includes a total of 501,330 gsf at an estimated total project cost of $239 million.



The project would be completed in minimal phases on an occupied site, including;

1. Phase I: Construction of new building (movement of students from the existing building into the new building when complete).
2. Phase II: Renovation of the existing athletic building and demolition of the existing core academic building.
3. Phase III: Completion of the site related construction.

This Option 1E concept received overwhelming support from the City, School Building Committee, and School Department. The discussion and evaluation of this option included advantages such as:

- Efficient and compact building footprint and envelope with a simplified organization and building circulation – improved security, sightlines, wayfinding, natural daylighting, etc.
- Ideal adjacencies of programmatic areas and overall educational layout
- Full integration of CVTE (Chapter 74) spaces within the core academic environment
- Meets the goals and objectives of educational visioning and program
- The least expensive option
- Meets the proposed project timeline
- Less disruption to students and staff (new construction located furthest away from existing building)
- Less unknowns or unanticipated sub-surface conditions during construction (less risk) – construction on the "flat" area of the site vs. locating the building on the "slope"
- Best site layout for the school and

the community, creating an overall high school campus
- Improved distribution of parking and site circulation
- Maintains existing site amenities the City invested in within the last 10 years (athletic stadium, practice field, and concession building)
- Building presence and identifiable entrance along Elsbree Street (celebration of and reference to the Historic BMC Durfee High School Building on Rock Street)

Option 2A: New Construction – No pool

Option 2A investigates the construction of a new building centrally located within the site. This option results in the demolition of the existing BMC Durfee High School in its entirety. It also re-constructs all the site amenities, including: the football stadium, turf practice field, softball field, baseball field, concessions building, site roads and parking.

The overall building size for Option 2A is 476,296gsf and does not include the construction of a pool. This option is considered one of the most expensive options.

After careful consideration, it was determined by the City, School Building Committee, and School Department that Option 2A offers no educational, financial, or strategic benefits. The fact that this option created the most site disruption, eliminated a highly utilized pool facility, and was the most expensive option for the District in a fiscally conscience community, resulted in no support for this option.

Option 2B: New Construction - (portion as pre-engineered construction)

Option 2B investigates the construction

of a new building located to the northeast portion of the site with frontage along Elsbree Street. This option results in the demolition of the existing BMC Durfee High School in its entirety.

The overall building size for Option 2B is 489,966 gsf. This option investigates the use of 170,000 gsf of pre-engineered construction for the larger span spaces, including: the gymnasium, pool, auditorium, and student dining. This option also maintains the existing football stadium, softball field, and concession building.

Although this option was very appealing to the City, School Building Committee and School Department, after careful consideration, it was determined that Option 2B did not provide any financial benefit and the proximity of the proposed building to the north property line and adjacent abutters was not desirable as a "good neighbor".

Base Repair Option:
The Base Repair Option ***IS NOT*** intended to be a viable solution for the City of Fall River. It does not resolve the Facility or Educational Deficiencies within the BMC Durfee High School. It does not provide any additional or new educational space and does not modernize any existing educational space. It does not provide new instructional technology, needed programs, expanded community resources, or many of the educational and community benefits inherent in a viable solution.

The Base Repair Option ***IS*** intended to identify the significant expenditures required to resolve basic infrastructure, accessibility, and code compliance issues within the existing BMC Durfee High School over the next several years. It is intended to demonstrate that it would be much more fiscally responsible to address the comprehensive needs of the BMC Durfee High School with a viable solution (Option 1 or 2) that includes MSBA grant reimbursement funding than it would to proceed with capital repair expenditures on a building that is wholly inadequate for a comprehensive high school education. The MSBA requires that a Base Repair Option be evaluated in order to compare it to viable options which address the comprehensive needs of the District. In the case of Fall River, the significant cost of the Base Repair Option makes it obvious that the City of Fall River has managed to keep its school building in service for the last nearly 40 years, but current significant infrastructure, accessibility, and code compliance issues must be addressed.

SUMMARY OF DISTRICT'S PREFERRED SOLUTION

Introduction

There are many attributes of **Option 1E** (new construction and renovation of the existing athletic building) that ultimately made it an easy selection as the Preferred Schematic Option for the City and the School Building Committee.

It is the only option that fully meets the goals of the proposed educational program, educational vision, and is simultaneously the least expensive option for the District with the least amount of risk.

Option 1E is also the only option with direct street frontage and presence along Elsbree Street with a clearly identifiable primary building entrance, future clock tower, and future observatory. As mentioned in the PDP submission, the Old BMC Durfee High School building (located on Rock Street) has a significant place in the history of Fall River and gave rise to the Fall River School District's seal, the school's athletics nickname (The Hilltoppers), the school colors of black and red (for the two roof colors), the school's newspaper (the Hilltop), and the school alumni newspaper (The Chimes). The current BMC Durfee High School does not celebrate the rich history of Fall River or the history of BMC Durfee High School so the importance that the new building embody and incorporate this history was very high on the list of all involved in the educational visioning sessions and discussions when evaluating the several building and site options.

The current BMC Durfee High School is approximately 573,210 gross square feet (gsf) in size. The Preferred Solution intends to reuse and renovate the existing athletic building which is approximately 98,523 gsf in size. The solution also intends to leave the existing performing arts building (approximately 91,000 gsf) in place for future development and separate this portion of the existing high school from the proposed project. The resultant area of the existing building that will be demolished as part of this option is approximately 384,210 gsf. The area of the existing building that will remain and be renovated (athletic building) is 98,523 gsf and the area of new construction is 402,807 gsf. As a result, the preferred option includes a total of 501,330 gsf at an estimated total project cost of $239 million.

The following is a summary of the preferred option's attributes:

- Efficient and compact building footprint and envelope with a simplified organization and building circulation – improved security, sightlines, wayfinding, natural daylighting, etc.
- Ideal adjacencies of programmatic areas and overall educational layout
- Full integration of CVTE (Chapter 74) spaces within the core academic environment
- Meets the goals and objectives of educational visioning and program
- The least expensive option
- Meets the proposed project timeline
- Less disruption to students and staff (new construction located furthest away from existing building)
- Less unknowns or unanticipated sub-surface conditions during construction (less risk) – construction on the "flat" area of the site vs. locating the building on the "slope".
- Best site layout for the school and the community, creating an overall high school campus.
- Improved distribution of parking and site circulation.
- Maintains existing site amenities the City invested in within the last 10 years (athletic stadium, practice field, and concession building)
- Building presence and identifiable entrance along Elsbree Street (celebration of and reference to the Historic BMC Durfee High School Building on Rock Street)

Option 1E
Site Plan

Building Massing Diagram
Looking from Northeast

Building Massing Diagram
Looking from Southeast

Building Massing Diagram
Looking from Southwest

MSBA PRELIMINARY DESIGN PROGRAM REVIEW AND DISTRICT RESPONSE
Introduction

Professional Team Responses dated 6.2.17

ATTACHMENT A
MODULE 3 – PRELIMINARY DESIGN PROGRAM REVIEW COMMENTS

District: City of Fall River
School: BMC Durfee High School
Owner's Project Manager: Leftfield, LLC
Designer Firm: Ai3 Architects, LLC
Submittal Due Date: April 20, 2017
Submittal Received Date: April 20, 2017
Review Date: April 20 – May 17, 2017
Reviewed by: C. Alles, F. Bradley, A. Waldron, J. Jumpe

MSBA REVIEW COMMENTS

The following comments[1] on the Preliminary Design Program (PDP) submittal are issued pursuant to a review of the project submittal document for the proposed project presented as a part of the Feasibility Study submission in accordance with the MSBA Module 3 Guidelines.

ITEMS REQUIRING IMMEDIATE ACTION - *Please provide an OPM Certification of Completeness and Conformity for this submittal as this was not found in the information provided.*

Response: Attachment 1 includes the OPM Certification Letter dated April 20, 2017 indicating completeness and conformity of the Preliminary Design Submission. It was inadvertently not included in the PDF of the submission and should have been found in the hard copy binder.

3.1 PRELIMINARY DESIGN PROGRAM

Overview of the Preliminary Design Program Submittal	Complete	Provided; *Refer to comments following each section*	Not Provided; *Refer to comments following each section*	Receipt of District's Response; *To be filled out by MSBA Staff*
OPM Certification of Completeness and Conformity	☐	☐	☒	☐
Table of Contents	☒	☐	☐	☐
3.1.1 Introduction	☐	☒	☐	☐
3.1.2 Educational Program	☐	☒	☐	☐

[1] 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.

Overview of the Preliminary Design Program Submittal	Complete	Provided; *Refer to comments following each section*	Not Provided; *Refer to comments following each section*	Receipt of District's Response; *To be filled out by MSBA Staff*
3.1.3 Initial Space Summary	☐	☒	☐	☐
3.1.4 Evaluation of Existing Conditions	☐	☒	☐	☐
3.1.5 Site Development Requirements	☐	☒	☐	☐
3.1.6 Preliminary Evaluation of Alternatives	☒	☐	☐	☐
3.1.7 Local Actions and Approvals Certification(s)	☒	☐	☐	☐
3.1.8 Appendices	☒	☐	☐	☐

3.1.1 INTRODUCTION

	Provide the following Items	Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Summary of the Facility Deficiencies and Current S.O.I.	☒	☐	☐	☐
2	Date of invitation to conduct a Feasibility Study and MSBA Board Action Letter	☒	☐	☐	☐
3	Executed Design Enrollment Certification	☒	☐	☐	☐
4	Narrative of the Capital Budget Statement and Target Budget	☐	☒	☐	☐
5	Project Directory with contact information	☒	☐	☐	☐
6	Updated Project Schedule	☒	☐	☐	☐

MSBA Review Comments:

4) The information provided on page 23 of the Capital Budget Statement section, document titled "Estimated Cash flow" contains an inaccurate approach to calculating a potential MSBA grant which does not take into account the MSBA policies and potential exclusions which are an integral part of the feasibility study process. The District and consultants are reminded that a potential MSBA grant amount is calculated at the conclusion of schematic design. The MSBA recommends that the District work with its consultants to estimate a potential grant based on its initial estimate of eligible costs. Further, on page 387 of the Preliminary Evaluation of Alternatives section, document titled "Comparative Cost Analysis", a similar approach to presuming a potential MSBA grant amount is provided for each project option.

Response: It is understood that the indicated Estimated MSBA Reimbursement amount used in the City of Fall River's Construction Cash Flow/Issue Proceed/Investment Earnings spreadsheet on Page 23 is not an accurate approach to determining the MSBA grant amount. The spreadsheet used an average of the potential project costs indicated in the Comparative Cost Analysis on Page 387 and the Estimated MSBA Reimbursement and the City's Share indicated was a straight interpretation of the City's 80% reimbursement rate. The intent of the Treasurer was to indicate the cash flow and timing of bonds for a City Share of $48 million. The City has determined that they can support up to $40 million out of their General Funds and would like to

limit the debt exclusion request to the City to no more than $48 million. This is an easier approach for the citizens to support as they have heard that the City has an 80% reimbursement rate and the actual reimbursement percentage is a very difficult explanation.

The potential grant amounts indicated in the Comparative Cost Analysis on Page 387 were derived after reviewing and making assumptions on the ineligible costs based on previous collective experience on other projects. It was important to provide some information to the City regarding the probable MSBA grant amount and City share because of the hard funding limits established by the City.

No further review comments for this section.

3.1.2 EDUCATIONAL PROGRAM

Provide a 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. Include description of the following items:

	Provide the following Items	Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Grade and School Configuration Policies	☒	☐	☐	☐
2	Class Size Policies	☐	☒	☐	☐
3	School Scheduling Method	☐	☒	☐	☐
4	Teaching Methodology and Structure				
	a) Administrative and Academic Organization/Structure	☒	☐	☐	☐
	b) Curriculum Delivery Methods and Practices	☒	☐	☐	☐
	c) English Language Arts/Literacy	☒	☐	☐	☐
	d) Mathematics	☒	☐	☐	☐
	e) Science	☒	☐	☐	☐
	f) Social Studies	☒	☐	☐	☐
	g) World Languages	☒	☐	☐	☐
	h) Academic Support Programming Spaces	☒	☐	☐	☐
	i) Student Guidance and Support Services	☒	☐	☐	☐
5	Teacher Planning and Professional Development	☒	☐	☐	☐
6	Pre-kindergarten *(not applicable)*	☐	☐	☐	☐
7	Kindergarten *(not applicable)*	☐	☐	☐	☐
8	Lunch Programs	☒	☐	☐	☐
9	Technology Instruction Policies and Program Requirements	☐	☒	☐	☐
10	Media Center/Library	☒	☐	☐	☐
11	Visual Arts Programs	☒	☐	☐	☐
12	Performing Arts Programs	☒	☐	☐	☐
13	Physical Education Programs	☒	☐	☐	☐

14	Special Education Programs	☒	☐	☐	☐
15	Vocation and Technology Programs				
	a) Non-Chapter 74 Programming	☒	☐	☐	☐
	b) Chapter 74 Programming	☒	☐	☐	☐
16	Transportation Policies	☐	☒	☐	☐
17	Functional and Spatial Relationships	☐	☐	☐	☐
18	Security and Visual Access Requirements	☐	☐	☐	☐

MSBA Review Comments:

2) The submittal indicates that in accordance with the Fall River Educators Association "FREA" guidelines, no class size may exceed 32 students in any discipline. It is noted in the District's Educational Profile Questionnaire dated 4/1/2015; "Fall River School Committee policy recommends class sizes not to exceed 25 students". In response to this submittal, please confirm the targeted class sizes for each discipline. In addition, please indicate the typical class sizes for each discipline that will be used to calculate the school's utilization rates.

Response: The targeted class size for all disciplines at Durfee High School is approximately 25 students or less but can be more due to staffing and school or programmatic needs. A considerable effort is being taken to make freshman core classes smaller than other grade levels due to the challenge of 9th grade transition. In addition, special education sub-separate classroom average is between 8 and 10 students. In the 2016-2017 school year, the average class size was approximately 28 students per class.

Fine and Performing Arts: 27 students

Health and PE: 30 students

English: 25 students

ELL: 20 students

Math: 27 students

Social Science: 28 students

Science: 28 students

World Language: 27 students

CVTE: Varies by program, according to regulations and guidelines.

3) The information provided indicates that the District is in the process of reviewing the current structure of school schedule, and are planning to make recommendations for revisions to maximize teaching and learning. In order for the MSBA to further understand the proposed project, please provide updated information that identifies the changes made to the structure of the school schedule.

Response: In the 2016-2017 school year, a committee of Durfee teachers and administrators met weekly to discuss the strengths and challenges of the current 5-period schedule. There were representatives from each school department on the committee in order to talk about department specific impacts to any changes. After an exhaustive review of different high school schedules, and review of Durfee teacher and student surveys and other data, the committee reached consensus to move from a 5-period schedule of 72 minute blocks to a 6-period schedule of 60 minute blocks. The move to a 6-period schedule will allow for Durfee to offer

more interventions for students in academic need. In addition, it will offer the opportunity to convert semester core courses to full year increasing instructional hours and time on learning. Finally, the move to a 6-period schedule will allow for more flexibility in a student's schedule and will allow students to maximize their high school experience based on individualized learning needs and career goals.

A vote was taken by all FREA members at the high school to approve a 6-period schedule. This schedule vote passed. We are in the process of developing a 6-period 60 minute blocks for the School Year 2017-2018.

9) The submittal indicates there is currently one full-time technology integration specialist who is responsible for providing staff with any educational technology related training and professional development. Please provide a description of the overall professional support and training offered to staff. In addition, please provide a description of how the updated equipment and systems would be managed and maintained by the District.

Response: In addition to the full-time tech integration specialist teacher, the District Tech Support Center occupies space at Durfee and its full staff of both data and fixit staff are available to assist Durfee as needed. As a District, all account and user management are done systematically and automatically. A ticketing system is used to triage issues and assign to the appropriate person in the tech team. Equipment is routinely checked and during vacations and summer, overhauls and replacements are done as warranted.

16) The information provided indicates that 75% of the student population is eligible for school transportation. In response to this submittal, please clearly list the school bussing assignment policy and the approximate number of school buses that will use the drop-off areas each day.

Response: Currently Durfee has 4 (47 passenger) special education door/door school buses and approximately 103 students being transported.

There are 7 McKinney Vento (homeless/displaced). Currently there are approximately 16 students being transported.

There are 5 wheelchair vans. Currently, approximately 6 students are being transported.

There are 11 Southeastern Regional Transportation Authority (SRTA) buses that come to Durfee daily. The buses run a route in the morning servicing only the high school. They arrive on campus between 7:00 am and 7:40 am. In the afternoon, for dismissal, another 11 buses arrive to bring students to either the central bus terminal or to their neighborhood city bus stop.

Approximately 700 students use the public buses to and from school.

No further review comments for this section.

3.1.3 INITIAL SPACE SUMMARY

	Provide the following Items	Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Space summary; one per approved design enrollment	☒	☐	☐	☐

2	Floor plans of the existing facility	☒	☐	☐	☐
3	Narrative description of reasons for all variances (if any) between proposed net and gross areas as compared to MSBA guidelines	☐	☒	☐	☐

MSBA Review Comments:

1) *Based on the agreed upon design enrollment of 2,570 students in grades 9-12, the MSBA has performed an initial review of the space summary and offers the following:*

- ***Core Academic*** *– Per the information provided, the following spaces will be proposed in order for the District to deliver its educational program:*

Anticipated Core Academic Spaces	*MSBA Comments*
(84) General Classrooms	*Please provide additional information that supports the curriculum delivery in general classrooms sized at 825 nsf where the maximum class size could reach 32 students as indicated in the educational program. Please include room data sheets with potential furnishings that demonstrating the ability to accommodate a maximum class size of 32 students.*
(16) Science Classrooms/ Labs	*Please further explain the rationale for providing (8) Science classrooms at 1,250 nsf.*
*(9) Freshman Academy Science Classrooms/ Labs**	*Please further explain the rationale for providing (6) Science classrooms at 1,250 nsf.*
(13) Science Prep Space	*No preliminary comments*
*(1) Planetarium***	*No preliminary comments*
*(1) Observatory***	*No preliminary comments*
(1) Large Group Seminar Space	*Proposes (1) 2,500 nsf space*
(12) Small Group Support Spaces	*No preliminary comments*
*(16) Independent Study Spaces**	*Please provide conceptual layouts that demonstrates how these spaces are differentiated from other breakout spaces.*
(8) Teacher Planning and Work Rooms	*No preliminary comments*

**Please provide proposed scheduling information specific to these spaces.*
***The MSBA will rely on the District's Educational Program and additional information to understand how proposed spaces that are unique to the District will be utilized in the proposed project.*

Response:

General Classrooms – As indicated within the class size response above, the targeted class size for all disciplines at Durfee High School is approximately 25 students, or less. The average class size for the 2016-2017 school year was approximately 28 students per class. Although a core classroom of 825nsf could accommodate 32 students, it would not be ideal. It is the Districts intent to make a concerted effort to maintain a class population between 25-28 students for all disciplines.

As requested, we have attached a room data sheet (Attachment #2) for a typical classroom, including a hypothetical layout for a maximum of 32 students.

Freshman Academy and Science Classrooms – The District has further reviewed their Freshman Academy and general science curriculum to determine the most appropriate quantity and size science classrooms necessary at each level. As part of the review, the

existing building's wide diversity of science classroom sizes and configurations provided the faculty and staff the ability to evaluate the size, configuration, and organization of learning space based on the curriculum, and to determine which size spaces best support the individual science program. As an example, the Freshman Academy Biology and Integrated Science program needs and requirements are different compared to the more robust lab set-up with the Chemistry and Physics Classrooms.

As a result, the District is identifying the following breakdown for science classrooms included in the upcoming PSR submission:

1. 11 science classrooms at 1,440 nsf (8 serving Grades 10-12 and 3 dedicated to Freshman Academy)
2. 14 science classrooms at 1,250 nsf (8 serving Grades 10-12 and 6 dedicated to Freshman Academy)

There would be no substantial difference between these labs, we have only sorted them to confirm that we have the appropriate number of labs across all grade levels. The fourteen science classrooms sized at 1,250sf each would serve physics, environmental science, general science, and other instruction applications that do not require a comprehensive lab/classroom environment. Eight of these would be for grades 10th through 12th and six of them would serve our Freshman Academy. The District currently has 26 science labs and classrooms of varying size and our 2017 schedule results in approximately 71% utilization of the classrooms. The proposed count of 25 classrooms and/or classroom lab environments, combined with future course offering and schedules, will result in a utilization rate of almost 80% of the available periods.

Independent Study Spaces – The existing BMC Durfee High School building lacks functional small group breakout space that is physically and visibly connected to the core academic classrooms. The building also lacks independent study space that is physically and visibly connected to each core academic neighborhood (i.e., Freshman Academy, 10th Grade, 11th Grade and 12th Grade). During the educational visioning sessions and programming discussions, the faculty, staff, deans, administration, and students identified this condition as a specific weakness to the existing building and current academic environment.

The attached sketch (Attachment #3) titled "Typical Academic Layout – A103" visually describes the conceptual organization and interrelationship of the academic "neighborhood" environment, the typical core academic classroom, small group breakout space, and independent study spaces.

The proposed core academic neighborhood is currently organized by grade level, with two neighborhoods per floor (i.e., Freshman Academy and 10th Grade on the second floor and 11th and 12th Grade located on the third floor). Each neighborhood also has small group breakout spaces directly connected to the academic classroom to allow the instructor the ability to have 3-5 students work independently with supervision. Each neighborhood includes two independent study spaces disconnected from the individual classroom, yet strategically positioned to allow for greater student independence while providing a comfortable level of oversight and supervision. The independent study spaces can aide in supporting the need for cross-discipline instruction where a small group of students representing multiple disciplines is allowed to work independently outside of the classroom. These spaces were determined by staff and administration to be much more valuable and more highly utilized than a larger group space. They satisfy a strong need for small group work among 10-12 students who are completing cooperative work by teachers and students across classes and disciplines. They

also allow a group of students from a single classroom to complete independent study where such need is warranted due to varying learning styles and abilities. The enormous size and variety of spaces within the current Durfee High School have given staff and administration many opportunities to evaluate the size, configuration, and organization of learning space, and to determine which spaces best support varying learning styles and student needs. The small group rooms shared by interchangeable classrooms (perhaps one small group room for every two classrooms) combined with larger group rooms (two per neighborhood) that support independent study by 10-12 students is an outstanding formula for a flexible and varied learning environment. The faculty and staff have also been able to identify an approximate utilization rate of approximately 75% within the 6-period block schedule.

The overall square footage in this category exceeds the MSBA guidelines by 1,585 nsf. This overage is primarily due to the inclusion of proposed Greenhouse, Planetarium, and Observatory spaces which are unique to the District and currently provided in the existing facility. Please note that while the MSBA would not object to the District including a greenhouse in the proposed project, associated costs would be considered ineligible for reimbursement.

No response required.

- ***Special Education*** *– The overall square footage in this category exceeds the MSBA guidelines by 7,810 nsf. Please note that the Special Education program is subject to approval by the Department of Elementary and Secondary Education ("DESE"). The District should provide the required information with the Schematic Design submittal. Formal approval of the District's proposed Special Education program by the DESE is a prerequisite for executing a Project Funding Agreement with the MSBA.*

  No response required.

- ***Art & Music*** *– The overall square footage in this category exceeds the MSBA guidelines by 675 nsf. Please provide additional information related to the continued utilization of a "MIDI Lab" and "Piano Lab" not specifically identified in the District's educational program.*

  Response: The MIDI Lab is home to hundreds of students interested in pursuing an education in music and audio technology. This course teaches students how to mix and loop audio to create musical pieces for either theater, film, or audio recording. This classroom setup consists of a teacher workstation with projector and 15 student workstations with desktop computers and MIDI keyboards for digital composition. The Piano Lab is used for not only introduction to piano and music theory, but also for Advanced Placement Music Theory. This classroom's set up consists of a teacher workstation with projector, and 22 electric piano keyboards with headphones for students to practice and master the learning objective. In addition to the keyboard stations, students need desk space and access to computers for writing (AP Music Theory).

- ***Vocations & Technology*** *– The overall square footage in this category exceeds the MSBA guidelines by 14,705 nsf. Based on DESE's review of the District's Chapter 74 submission, the MSBA accepts this variation to the guidelines and will continue to monitor the proposed square footage in subsequent submittal.*

  No response required.

- ***Health & Physical Education*** *– The overall square footage in this category exceeds the MSBA guidelines by 15,800 nsf. The proposed program includes 48,342 nsf inclusive of a 12,000 nsf gymnasium and six 3,000 nsf additional teaching stations. Based on the information provided, it is unclear how the proposed gymnasium square footage is being calculated. In addition, the existing floor plans should include square footage of each space associated with the Health and Physical Education category.*

  Per the MSBA's policy revision to space summary guidelines, the District may choose to build a new gymnasium and related spaces in excess of MSBA guidelines, but in no event shall the gymnasium exceed 18,000 nsf for new construction. The MSBA will participate in a gymnasium of up to 12,000 nsf unless adjusted by the MSBA to increase teaching stations for enrollment and/or the educational plan. Please refer to the attached memorandum which presents MSBA policy regarding Gymnasium spaces beyond those included in the guidelines.

  In order for MSBA to complete its review of the proposed square footage, please provide conceptual layout(s) that indicate the proposed square footage of each space.

  Response: It is anticipated that the District's Preferred Option will incorporate the renovation of the existing athletic building. The majority of the existing spaces are defined within the "Health & Physical Education" category such as the fieldhouse, pool, fitness/weight rooms, wrestling room, locker rooms, offices, etc. Since the submission of the Preliminary Design Program (PDP), the Design Team has had the opportunity to conduct a more detailed take-off of the existing spaces within the athletic building related to this category, as outlined in the matrix below. As a result of the take-off, the athletic building is approximately 98,000 gross square feet in size.

  As requested, we have attached the existing first and second floor plan (Attachment #4 – XAB-1 and Attachment #5 – XAB-2) for the athletic building with the individual spaces and corresponding net square footages identified.

  In addition to the "Health & Physical Education" category, the five (5) proposed Health classrooms will replace the existing SPED and District Parenting Center spaces. As described in the educational program, the current remote location of the Health classrooms relative to the athletic and fitness spaces is a significant issue. Placing the Health Classrooms within the athletic building will be a significant improvement, allow of collaboration and unity within the department and create a true "wellness program".

HEALTH & PHYSICAL EDUCATION			62,048
Teaching Station #1 (Gymnasium)	13,477	1	13,477
Teaching Station #2	3,000	1	3,000
Teaching Station #3	3,000	1	3,000
Teaching Station #4	3,000	1	3,000
Teaching Station #5	3,000	1	3,000
Teaching Station #6 (Weight Room 1)	2,300	1	2,300
Teaching Station #6 (Weight Room 2)	1,116	1	1,116
Teaching Station #7 (Wellness Center - Dance Studio)	2,304	1	2,304
PE Alternatives			0
Wrestling Room	905	1	905
Training Room	222	1	222

Athletic Trainer's Office	276	1	276
Natatorium (Pool)	6,742	1	6,742
Boys Pool Shower / Lockers / Toilets	460	1	460
Girls Pool Shower / Lockers / Toilets	546	1	546
Pool Storage	207	1	207
Pool Office	91	1	91
Gym Storage	1,093	1	1,093
Gym Storage #1	400	1	400
Gym Storage #2	403	1	403
Gym Storage #3	794	1	794
Gym Storage #4	96	1	96
Locker Rooms - Boys / Girls w/ Toilets			
Boys Lockers	3,427	1	3,427
Boys Showers & Drying Area	2,370	1	2,370
Girls Lockers	1,464	1	1,464
Girls Showers & Drying Area	6,921	1	6,921
Phys. Ed. Storage	932	1	932
Phys. Ed. Storage	803	1	803
Phys. Ed. Storage	403	1	403
Phys. Ed. Storage	184	1	184
Coaches Office #1	96	1	96
Coaches Office #2	107	1	107
Coaches Office #3	262	1	262
Coaches Office w Toilet/Shower #4	303	1	303
PE Office w Toilet/Shower #1	350	1	350
PE Office w Toilet/Shower #2	306	1	306
PE Office #3	142	1	142
PE Office #4	256	1	256
Laundry	290	1	290
Athletic Director's Office			
Health Instructor's Office w/ Shower & Toilet			

We have also attached floor plan diagrams (Attachment #6 – AB-1 and Attachment #7 – AB-2) graphically depicting the teaching stations outlined in the educational narrative, including; the competition court within the gymnasium (Station #1), the four (4) 3,000 sf teaching stations (Station #2 thru #5) also contained within the gymnasium, the two (2) adjoining weight rooms (Station #6), and the Wellness Center – Dance Studio (Station #7).

As the educational program outlines, in detail, the existing athletic building is an extremely active building during the school day with physical education, ROTC, SPED,

CVTE, Health and Adaptive PE, as well as after-school with the athletic program. The District has provided a detailed explanation of the course offerings, related participation levels, and the extensive athletic program, verifying the need to maintain the existing spaces and number of teaching stations.

- ***Media Center*** *– The overall square footage in this category appears to align with the MSBA guidelines. No further preliminary comments. The space summary indicates a single line item for proposed square footage. In future versions of the space summary please provide a breakdown of spaces that aligns with the District's educational program.*

  No response required.

- ***Auditorium/Drama*** *– The overall square footage in this category exceeds the MSBA guidelines by 1,175 nsf. Please provide information the supports the need for a 2,000 nsf stage and a Stage Set Design/Construction space which is not referenced in the material provided. Also, please clarify if the proposed stage set design/construction space is to be designed to serve a "Black Box Theater" as indicated in the educational program as proposed square footage for such a space is not indicated in the Option 1 space summary.*

  Response: The proposed net square footage for the stage has been adjusted to 1,600sf, consistent with the MSBA space guidelines.

  The black-box theater has been eliminated from the proposed project. The currently proposed set design/construction space, at a size of 825 nsf would not be large enough to accommodate a black-box theater.

  The set-design/construction will serve many roles in the performing arts and traditional arts program and is an integral part of the Districts current program. The space will accommodate an instruction classroom for the technical theater class as well as a multi-purpose space for building sets, painting, and prop making.

- ***Dining & Food Service*** *– The overall square footage in this category appears to align with the MSBA guidelines. No further preliminary comments.*

  No response required.

- ***Medical*** *– The overall square footage in this category appears to align with the MSBA guidelines. No further preliminary comments.*

  No response required.

- ***Administration & Guidance*** *– The overall square footage in this category exceeds the MSBA guidelines by 5,100 nsf. Limited information was provided in the District's educational program that explains the specific use of the 'Class Office' spaces. Please provide additional information that supports the continued use of this concept.*

  Response: At BMC Durfee High School, we have adopted an administrative structure that is conducive to student learning; fosters communication between faculty, students, parents and guardians; and provides the continuity and structure to ensure all students' experiences will be marked by excellence. Students will enter BMC Durfee High School at their appropriate grade level and will be assisted by a team of administrators that will follow them as they progress through completion of a high school diploma. The teams will consist of a Vice Principal and two Guidance Counselors, supplemented by

Adjustment Counselors, a Truant Officer, and a School Resource Officer. We have increased the support services in the freshman team to support students during their high school transition. In the Freshman Academy Grade Office, the team structure consists of the following: Vice Principal, Clerk, School Administrator Manager, two Guidance Counselors, and a Behavior Specialist. Just outside of the grade office are two School Adjustment Counselors and a Student Support Specialist.

- ***Custodial & Maintenance*** *– The overall square footage in this category appears to align with the MSBA guidelines. No further preliminary comments.*

  No response required.

This review is based on the submitted preliminary space summary for new construction titled 'Option 2'. The final MSBA determination of compliance with MSBA space guidelines in subsequent submittals will vary (in part) depending on the District's preferred solution and the extent that the proposed spaces are located either in existing construction, substantially renovated existing areas, or newly constructed portions of the proposed facility. MSBA will expect spaces located in new or substantially renovated areas to be compliant with MSBA space standards. Please note that upon selection of a preferred solution, the District may be required to adjust spaces/square footage that exceeds the MSBA guidelines and is not supported by the Educational Program provided.

No further review comments for this section.

3.1.4 EVALUATION OF EXISTING CONDITIONS

Provide the following Items		Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Confirmation of legal title to the property.	☒	☐	☐	☐
2	Determination that the property is available for development.	☒	☐	☐	☐
3	Existing historically significant features and any related effect on the project design and/or schedule.	☐	☒	☐	☐
4	Determination of any development restrictions that may apply.	☒	☐	☐	☐
5	Initial Evaluation of building code compliance for the existing facility.	☒	☐	☐	☐
6	Initial Evaluation of Architectural Access Board rules and regulations and their application to a potential project.	☒	☐	☐	☐
7	Preliminary evaluation of significant structural, environmental, geotechnical, or other physical conditions that may impact the cost and evaluations of alternatives.	☒	☐	☐	☐
8	Determination for need and schedule for soils exploration and geotechnical evaluation.	☐	☒	☐	☐

	Provide the following Items	Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
9	Environmental site assessments minimally consisting of a Phase I: Initial Site Investigation performed by a licensed site professional.	☐	☒	☐	☐
10	Assessment of the school for the presence of hazardous materials.	☐	☒	☐	☐
11	Previous existing building and/or site reports, studies, drawings, etc. provided by the district, if any.	☒	☐	☐	☐

MSBA Review Comments:

3) Please include the timeline associated with filing with the Massachusetts Historical Commission ("MHC") and obtaining MHC approval in subsequent versions of the project schedule. 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.

Response: In conformance with MGL 950, CMR 71, the Project Team intends to complete and submit the Project Notification Form (PNF) to the Massachusetts Historical Commission (MHC) during the Schematic Design Phase of the project, currently scheduled for November 13, 2017 (Attachment #8 - Project Schedule). The completed PNF and supplemental documentation will be included in the Schematic Design submission to the MSBA scheduled for January 3, 2018.

8) The information provided indicates that the existing site may contain sub-surface boulders and blasting debris as a result of previous site use and development, the existing site previously contained two streams and a gravel pit that have been filled-in, and indicates that the site has a water table height of 3-11 feet below the site's surface. Given these initial observations, please provide a detailed work plan in the Preferred Schematic Report ("PSR") that demonstrates how the project team intends to address existing conditions and further subsurface exploration that may have an impact to the future development of the existing site and how potential costs will be accounted for in the District's total project budget.

Response: The Project Team has begun the process of implementing a sub-surface investigation program that will commence in July. The program will consist of at least 6 borings and 15 test pits strategically located on site to determine, more definitively, the groundwater levels, soil composition, potential quantities of small rock and boulders, etc. Once complete, the Project Team will incorporate a detailed workplan in the Preliminary Schematic Report (PSR) submission outlining the planned approach to gather as much subsurface information as possible in an effort to address any existing on-site conditions and steps to mitigate unforeseen conditions during the construction phase.

9) Please acknowledge that the recommendations identified in the Phase I Site Assessment will be addressed in subsequent phases of the project.

Response: Consider this confirmation that the Project Team will be addressing the four recommendations contained within the Phase I Environmental Site Analysis in subsequent phases of the project:

1) Potential testing for PCBs within the existing transformers,
2) Screening the existing soil adjacent to the athletic complex
3) Groundwater testing
4) Screening the soils beneath the existing elevator pit contained within the current high school building.

10) It should be noted that all costs associated with the removal of asbestos containing floor and ceiling tiles are categorically ineligible for MSBA reimbursement. Additionally, the project team should be aware of the current policies associated with MSBA participation in the abatement and removal of fuel storage tanks and any associated contaminated soils. Please acknowledge.

Response: The City, District, and Project Team is aware of 963 CMR 2.16 (5) and the policies established within the MSBA's "Site Cost Allowance Guidelines" describing the potential and categorically ineligible costs. (Asbestos Containing floor and ceiling tiles and the abatement and removal of fuel storage tanks and associated contaminated soils.)

No further review comments for this section.

3.1.5 SITE DEVELOPMENT REQUIREMENTS

Provide the following Items		Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	A narrative describing project requirements related to site development to be considered during the preliminary and final evaluation of alternatives.	☐	☒	☐	☐
2	Existing site plan(s)	☒	☐	☐	☐

MSBA Review Comments:

1) The information provided suggests that 0.23 vehicles per student for high schools in suburban areas will be used to calculate parking requirements. The agreed upon enrollment is 2,570 students. In the PSR submittal, please identify in either narrative or graphic form the number of parking spaces that will be targeted, and strategies that were used to reduce the amount of impervious area on the site. It is noted that according to the zoning requirements listed in this submittal, there is a 25% maximum lot coverage of impervious area, as well as a 35 feet maximum building height. In response to this submittal, please confirm if the design team will be seeking any variances. In addition, please provide an associated timeline to complete any zoning approvals.

Response: Currently there are 922 parking spaces (including ADA) at the high school. Based on the proposed enrollment of 2,570 students and the ITE recommended 0.23 spaces per student, the recommended student parking is 592 spaces, however, please note that there are no regulations under the City zoning that require student parking for a school. From Section 86-441 of the Fall River Zoning, given the full-time faculty of 150 and part-time of 60, 1 space required for each full-time equivalency equals 180 spaces. Also from the same (Section 86-441), the required parking is 1 space for every 5 seats for the performing arts and for the athletic facility (stadium). The performing arts @ 1,200 seats + the football stadium @ 2,500 seats = 3,700 seats

* 0.2 = 740 spaces. Total required spaces = 740+180 = 920 spaces, generally we need to duplicate what is there now.

There is a 25% maximum impervious coverage allowed by zoning, the current site is at 41%. Some methods that we are proposing to reduce impervious area is for 30% of new parking stalls to be compact, providing more spaces in a smaller area. In addition, the current school layout requires a number of vehicle access roads and paved paths running in between the building due to an excessive number of entrances and loading areas. The proposed design will streamline the pedestrian and vehicle access, reducing the amount of impervious paved and concrete areas. In fact, to reduce the impervious material even further, we will propose porous paving for the parking lots and porous pavers where functional. There will be an increase in the number of tree wells along sidewalk areas and surrounding the parking lots, as well as parking buffers within the parking lots rather than just striping on asphalt. Green style retaining walls can be used, in a stepped manor, providing planters and low seating.

As far as timeline for zoning approvals, typically 6-8 weeks would be a good estimate.

No further review comments for this section.

3.1.6 PRELIMINARY EVALUATION OF ALTERNATIVES

	Provide the following Items	Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Analysis of school district student school assignment practices and available space in other schools in the district	☒	☐	☐	☐
2	Tuition agreement with adjacent school districts	☒	☐	☐	☐
3	Rental or acquisition of existing buildings that could be made available for school use	☒	☐	☐	☐
4	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	☒	☐	☐	☐
5	Renovation(s) and/or addition(s) of varying degrees to the existing building(s)	☒	☐	☐	☐
6	Construction of new building and the evaluation of potential locations	☒	☐	☐	☐
7	List of 3 distinct alternatives (including at least 1 renovation and/or addition option) are recommended for further development and evaluation.	☐	☒	☐	☐

MSBA Review Comments:

7) The submittal proposes three options for further consideration including:

- *Renovation / Addition Option of the existing facility;*
- *Renovation / Addition Option of the existing facility with variations;*
- *New Construction Option on the existing site.*

Based on the information provided, preliminary project costs for these options range from approximately $232M to $241 million. In subsequent submittals, and for cost comparative purposes, please carry the base repair/code repair option in the final evaluation of alternatives. Please acknowledge.

Response: The Project Team acknowledges that the base/code repair option will be included in the final evaluation of alternatives.

In addition to the options matrix provided, please provide a brief narrative that further describes the reasons why each alternative site initially considered will not be further evaluated in subsequent phases of the feasibility study.

Response: The following narrative describes the reasons why each alternative site will not be further evaluated as a viable site for the development of the BMC Durfee High School project:

There are some initial factors to consider when siting a high school within a City. There are economical, geographical, environmental, and physical constrictions to review and consider. Economic factors primarily include the cost of the site if the City was to require purchasing a piece of property. Geographical considerations include location to the City's residences, downtown and other schools. Environmental consideration mainly involves environmental contamination which can add significant design and construction costs to the project. Physical constrictions on properties include factors such as buildable area, resource areas onsite, existing uses and structures on the property, and access to the property. The following parameters were used to initially evaluate the 3 properties.

- **Cost of Property:** Some of the properties in consideration are not currently owned by the City. Any property currently not owned by the City was considered less favorable than the properties in possession of the City.

- **Location in the City:** The location within the City is an important consideration for busing and access. Sites at the perimeter of the City may not be as desirable due to increased busing costs and lack of easy accessibility for the people of the City to utilize the school and its facilities.

- **Buildable Area:** The amount of buildable area on the property may be restricted due to one or more of the following: lot size, building setbacks or wetland resource areas. The new development will need to replicate the existing facilities which include the school building, adequate parking, and athletic fields including two football fields, a running track, a baseball field, two softball fields, a soccer field, a field hockey field, and eight tennis courts. On the existing site, these amenities occupy approximately 55 acres. Based on the existing uses, it was determined that some sites did not provide enough buildable area.

- **Abutting Properties:** The surrounding areas of the site(s) were evaluated to determine if it would be desirable to have a school in close proximity to the surrounding use(s). Abutters that were favorable included residential areas, commercial areas, and roads that have existing sidewalks. Areas that were less desirable included industrial areas and roads with high volumes of traffic and a lack of sidewalks.

- **Environmental Contamination:** The feasibility of development may be restricted by known and unknown contaminant releases at the site. Cost and complication added to the site due

to contamination include extensive pre-construction testing and necessary remediation. In addition to the known costs, unknown contamination can add significant unanticipated cost to a project if and when it is discovered.

As described in the PDP submission, the sites considered, further evaluated, and ultimately eliminated from further consideration as a viable site for the project were as follows:

1. **Duro Mills Site:** The most significant factors that led to the sub-committee eliminating this site from further consideration include: documented environmental contamination and the restricted buildable area.
2. **Industrial Park Site:** The most significant factors that led to the sub-committee eliminating this site from further consideration include: the location in the City, lack of sufficient buildable area, current use of abutting properties, and the site acquisition cost for the property.
3. **Anawan Mills Site:** The most significant factors that led to the sub-committee eliminating this site from further consideration include: site acquisition cost for the property, documented environmental contamination, the restricted buildable area, steep slopes on a small site, and the majority of the site being contained within the FEMA flood boundary.

For additional information, please reference the attached existing conditions site diagram for each property, including the existing BMC Durfee High School site.

No further review comments for this section.

3.1.7 LOCAL ACTIONS AND APPROVAL

	Provide the following Items	Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Certified copies of the School Building Committee meeting notes showing specific submittal approval vote language and voting results, and a list of associated School Building Committee meeting dates, agenda, attendees and description of the presentation materials	☒	☐	☐	☐
2	Signed Local Actions and Approvals Certification(s):				
	a) Submittal approval certificate	☒	☐	☐	☐
	b) Grade reconfiguration and/or redistricting approval certificate (if applicable)	☐	☐	☐	☐
3	[Applicable for Districts proposing grade reconfiguration and/or redistricting /consolidation] Provide the following items to document approval and public notification of school configuration changes associated with the proposed project				

a)	A description of the local process required to authorize a change to the existing grade configuration or redistricting in the district	☐	☐	☐	☐
b)	A list of associated public meeting dates, agenda, attendees and description of the presentation materials	☐	☐	☐	☐
c)	Certified copies of the governing body (e.g. School Building Committee) meeting notes showing specific grade reconfiguration and/or redistricting, vote language, and voting results if required locally	☐	☐	☐	☐
d)	A certification from the Superintendent stating the District's intent to implement a grade configuration or consolidate schools, as applicable. The certification must be signed by the Chief Executive Officer, Superintendent of Schools, and Chair of the School Committee	☐	☐	☐	☐

MSBA Review Comments:

No further review comments for this section.

3.1.8 APPENDICES

	Provide the following Items	Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Current Statement of Interest	☒	☐	☐	☐
2	MSBA Board Action Letter including the invitation to conduct a Feasibility Study	☒	☐	☐	☐
3	Design Enrollment Certification	☒	☐	☐	☐

MSBA Review Comments:

No further review comments for this section.

Regarding past projects:
Both the MSBA's enabling legislation, M.G.L. c. 70B, and the MSBA's regulations, 963 CMR 2.00 et seq. specifically address the issue of past projects. MSBA records show a total MSBA payment of $6,440,827 for the BMC Durfee High School HVAC Replacement Project #W20034351 completed in 2003. Pursuant to these requirements and depending on the School District's ultimate plan for the School, the MSBA may recover a pro-rated portion of the financial assistance that the School District has received for previous renovation grants. The exact amount recovered will be established at the conclusion of the Schematic Design / Total Project Budget phase. Please see the MSBA website to view the MSBA's regulations, statute and closed school bulletin for additional information.

Response: The City, District and Project Team understand the MSBA's regulations regarding past projects and past MSBA participation/reimbursement of project costs at the current Durfee High School and the potential for ineligibility or pro-rated recovery of these costs.

End

List of Attachments:

Attachment 1: OPM Certification Letter on Completeness and Conformity of PDP Submission
Attachment 2: Example - Typical High School Classroom Layout
Attachment 3: Typical Academic Team Layout (Small Group Breakout & Independent Study Spaces)
Attachment 4: Existing Athletic Building First Floor Plan (XAB-1)
Attachment 5: Existing Athletic Building First Floor Plan (XAB-2)
Attachment 6: Existing Athletic Building First Floor Plan (Teaching Station Diagram – AB-1)
Attachment 7: Existing Athletic Building First Floor Plan (Teaching Station Diagram – AB-2)
Attachment 8: Project Schedule Indicating the Timeline for Submission of the MHC PNF
Attachment 9: Duro Mill Site – Existing Conditions Map
Attachment 10: Fall River Industrial Park Site – Existing Conditions Map
Attachment 11: Anawan Mill Site – Existing Conditions Map
Attachment 12: BMC Durfee High School – Existing Conditions Map

LEFTFIELD
THE RIGHT CHOICE IN PROJECT MANAGEMENT

April 20, 2017

Ms. Sarah Blache-Schwartz
Senior Project Coordinator
Massachusetts School Building Authority
40 Broad Street, Suite 500
Boston, MA 02109

Re: BMC Durfee High School
Preliminary Design Program Submission

Dear Sarah:

Enclosed for your review is the Preliminary Design Program Submission for the BMC Durfee High School Project in Fall River, MA. The following are included:

- (1) Hard copy binder of the Preliminary Design Program Submission
- (1) CD with an electronic file in PDF format containing all documents

Leftfield hereby certifies that we have reviewed and coordinated the materials contained in this submittal and that the submittal is complete. We also confirm that the District, City and the Durfee School Building Committee have approved the Preliminary Design Program for submission to the MSBA.

Please contact me with any questions or comments.

Sincerely,

P. Lynn Stapleton, AIA, MCPPO, LEED AP B D +C

Attachment: Preliminary Design Submission

cc: Mayor Jasiel F. Correia, II, City of Fall River
Matthew H. Malone, PH.D., Superintendent of Schools, Fall River Public Schools
Scott Dunlap, Ai3 Architects, LLC
Troy Randall, Ai3 Architects, LLC
Jim Rogers, Leftfield LLC
Adam Keane, Leftfield LLC

main: 617-737-6400 fax: 617-217-2001
225 franklin street, 26th floor, boston, ma 02110

TYPICAL HIGH SCHOOL CLASSROOM:

FUNCTIONAL DATA

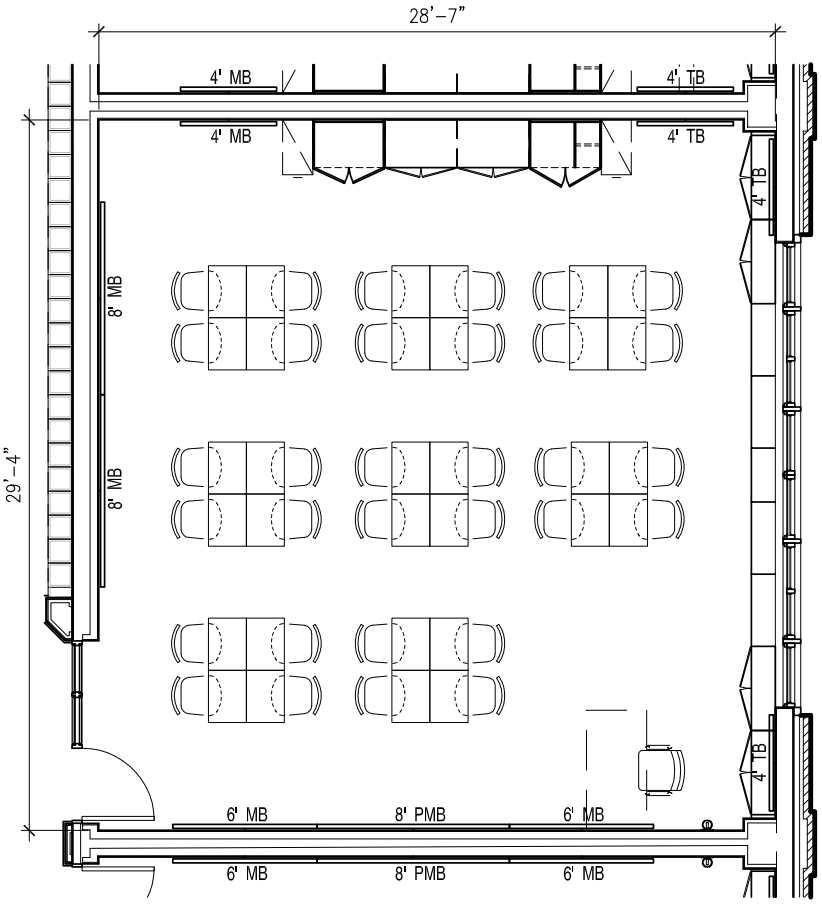
Description:	General instructional classroom for Grades 9-12
Quantity:	76 (TBD)
Users:	1 Teacher, 32 Students

SPATIAL DATA

Floor Area:	825 Net Square Feet
Ceiling Height:	10'-0"

MATERIALS/FINISHES DATA

Floors:	12x12 Vinyl composition floor tiles
Walls:	Painted gypsum wallboard
Ceiling:	Acoustical ceiling tiles
Doors:	Solid core flush wood doors with adjacent sidelight glazing
Windows:	Insulated, single hung aluminum windows
HVAC:	Forced air, ceiling diffused air conditioning, heating and ventilation, ceiling mounted radiant panels at exterior wall
Plumbing:	N/A
Fire Protection:	Fully sprinklered fire protection system
Electrical:	N/A
Lighting:	Direct/Indirect pendant light fixtures, task lights at teaching wall
Communications:	Telephone, digital clock, internet access, wireless access, CATV/School broadcasts, PA speakers



ORGANIZATIONAL DATA

Location:	Located on all floors of academic classroom wing.
Adjacencies:	Grouped by department, but remaining flexible enough to respond to department sizes and needs.
Orientation:	Classrooms will be oriented to all four cardinal directions to make use of daylighting possibilities. South, East and West facing windows will include appropriate light filtering and/or blocking devices.

FURNITURE, FURNISHINGS AND EQUIPMENT DATA

Casework/Cabinetry:	- Two (2) 36" wide, 24" deep solid wood base cabinets with 12" deep upper wall cabinets. - Two (2) 36" wide, 24" deep, 72" high wardrobe/storage cabinets (Built-in)
Specialties:	One (1) 6'-0" wide, white board; One (1) 8'-0" wide, interactive white board; One (1) 6'-0" wide, tack board; Three (3) 4'-0" wide, tack board; One (1) 4'-0" wide, white board; Two (2) 8'-0" wide, white board
Furniture:	32 student desks and chairs; 1 teacher's desk and chair; 2 file cabinets
Technology Equipment:	LCD/Data Projector; Interactive white board infrastructure; Presentation camera; Amplified voice system with 2 microphones and 4 ceiling speakers.

** NOTE: THIS IS FOR DEMONSTRATION PURPOSES ONLY. ROOM WILL BECOME FURTHER REFINED AS PROJECT DEVELOPS.

TYPICAL ACADEMIC LAYOUT
B.M.C. DURFEE HIGH SCHOOL
Independent Study Space
Small Group Breakout Space
Direct visible & physical connection to adjacent academic classrooms
Independent Study Space
- 2 Spaces per Team
- Physical & visible connection to corridor (open to corridor)
TEAM 2
10TH GRADE
TEAM 1
FRESHMAN ACADEMY
Small Group Breakout Space
Independent Study Space
Independent Study Space
CR
A-103

B.M.C. DURFEE HIGH SCHOOL
350 Eastern Street
Fall River, MA 02720
Ai3
526 Boston Post Road
Wayland, MA 01778
TEL: 508.358.0790
FAX: 508.358.0791
XAB-1
DRAWN BY: Author
SCALE: 1/32" = 1'-0"
JOB NO.: 1607.00
DATE: June 2017
REF DWG.
ATHLETIC BUILDING - EXISTING FIRST FLOOR
POOL 6742 SF
TOILET
TOILET
LOBBY
POOL OFFICE 91 SF
POOL STORAGE 207 SF
STAIR 1
P.E. STORAGE 194 SF
BOYS POOL SHOWER 450 SF
ELEC. CLOSET 131 SF
STAIR 2
GYM STORAGE #3 794 SF
GYM STORAGE #2 463 SF
GYM STORAGE #1 409 SF
LAUNDRY 250 SF
TRAINING ROOM 222 SF
COACHES OFFICE #2 107 SF
COACHES OFFICE #3 282 SF
BOYS SHOWERS & DRYING AREA 2370 SF
COACHES OFFICE #4 303 SF
GYMNASIUM 2547 SF
STAIR 3
CUSTODIAN 146 SF
P.E. STORAGE 932 SF
TOILETS
BOYS LOCKERS 3427 SF
P.E. OFFICE #3 142 SF
P.E. OFFICE #1 350 SF
STAIR 4
GYM STORAGE 1093 SF
TOILET
TOILET
WRESTLING ROOM 905 SF
WEIGHT ROOM #1 2330 SF
WEIGHT ROOM #2 1116 SF
P.E. STORAGE 803 SF
LOBBY
SPED HS CLASSROOM 624 SF
SPED HS CLASSROOM 678 SF
SPED CONFERENCE ROOM 670 SF
EARLY CHILDHOOD PRE-K 678 SF
PARENTING CENTER K-8 672 SF
PARENTING CENTER K-8 721 SF
Access to Existing Core Academic Building

B.M.C. DURFEE HIGH SCHOOL
360 Elkhree Street
Fall River, MA 02720
526 Boston Post Road
Wayland, MA 01778
TEL: 508.358.0790
FAX: 508.358.0791
DRAWN BY: CLO / JEC
SCALE: 1/32" = 1'-0"
JOB NO: 1607.00
DATE: June 2017
REF DWG:
XAB-2
ATHLETIC BUILDING - EXISTING SECOND FLOOR
POOL BELOW
STAIR 1
GIRLS POOL SHOWER 546 SF
GYM STORAGE #4 96 SF
GIRLS LOCKER 692 SF
GIRLS LOCKER 692 SF
STAIR 2
COACHES OFFICE #1 95 SF
P.E. OFFICE #2 306 SF
STAIR 3
GIRLS SHOWERS & DRYING AREA 1921 SF
TOILETS
P.E. OFFICE #4 256 SF
ATHLETIC TRAINERS OFFICE 275 SF
STAIR 4
WELLNESS CENTER / DANCE STUDIO 2304 SF
P.E. STORAGE 403 SF
GYMNASIUM BELOW
WRESTLING ROOM BELOW
WEIGHT ROOM BELOW
Access to Existing Core Academic Building

B.M.C. DURFEE HIGH SCHOOL
350 Eskhre Street
Fall River, MA 02720

Ai3 ARCHITECTS
526 Boston Post Road
Wayland, MA 01778
TEL: 508.358.0790
FAX: 508.358.0791

DRAWN BY:	CLO / JEG
SCALE:	1/32" = 1'-0"
JOB NO:	1607.00
DATE:	June 2017
REF DWG:	

AB-1

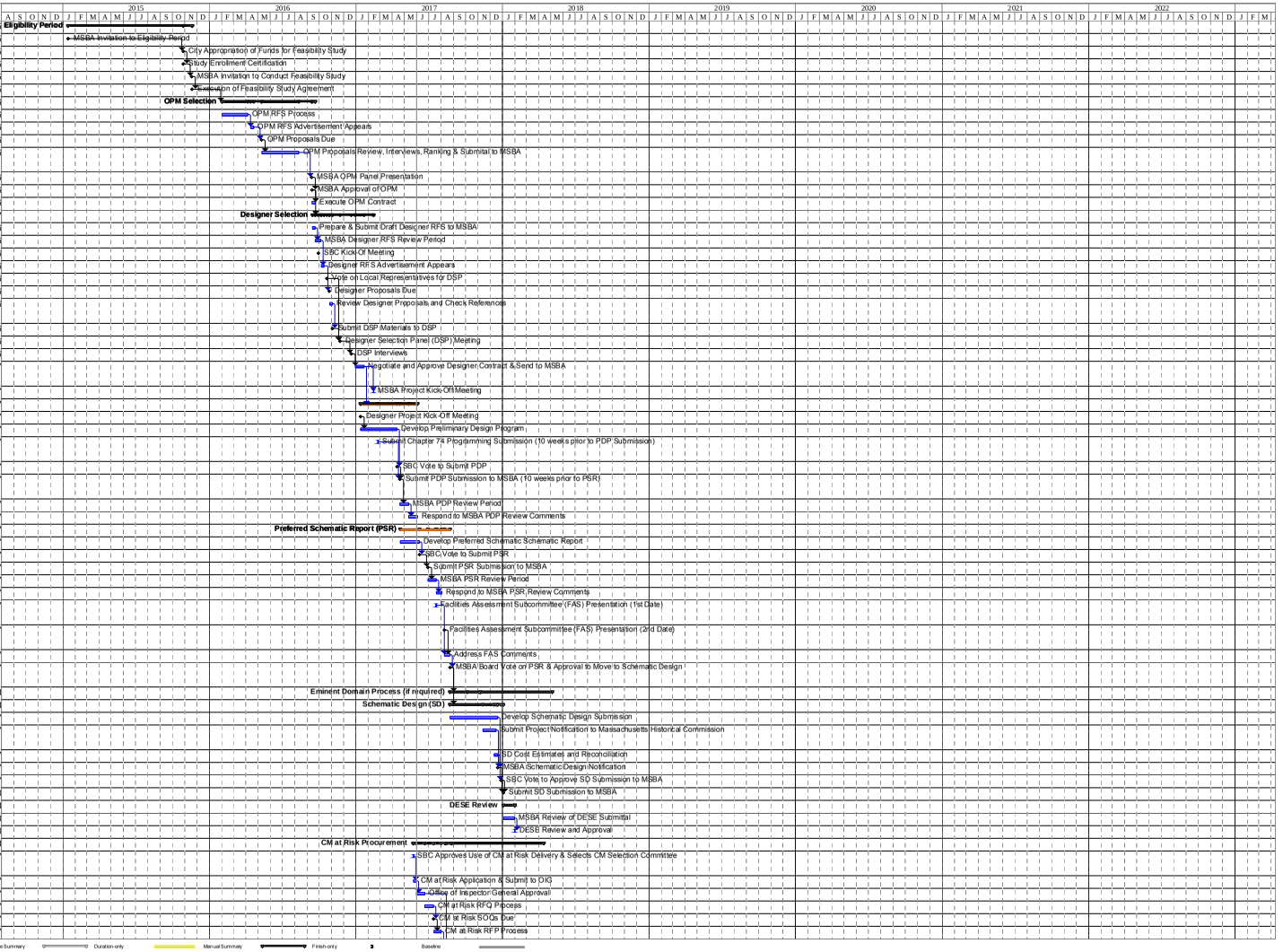
ATHLETIC BUILDING - FIRST FLOOR

B.M.C. DURFEE HIGH SCHOOL
360 Elsbree Street
Fall River, MA 02720
526 Boston Post Road
Wayland, MA 01778
TEL: 508.358.0790
FAX: 508.358.0791
DRAWN BY: Author
SCALE: 1/32" = 1'-0"
JOB NO: 1607.00
DATE: June 2017
REF DWG:
AB-2
ATHLETIC BUILDING - SECOND FLOOR
Existing Pool Below
Existing Gym Below
Existing Locker Rooms
Teaching Station #7
Wellness Center / Dance Studio
Existing Weight Room Below
Access to Existing School

LEFTFIELD
THE RIGHT CHOICE IN PROJECT MANAGEMENT

FALL RIVER - BMC DURFEE HIGH SCHOOL
PRELIMINARY PROJECT SCHEDULE
Feasibility Study Phase: May 31, 2017

ID	Task Name	Start	Finish
1	Eligibility Period	Wed 1/14/15	Thu 11/19/15
2	MSBA Invitation to Eligibility Period	Wed 1/14/15	Wed 1/14/15
3	City Appropriation of Funds for Feasibility Study	Wed 10/28/15	Wed 10/28/15
4	Study Enrollment Certification	Wed 10/28/15	Wed 10/28/15
5	MSBA Invitation to Conduct Feasibility Study	Wed 11/18/15	Wed 11/18/15
6	Execution of Feasibility Study Agreement	Thu 11/19/15	Thu 11/19/15
7	OPM Selection	Tue 2/2/16	Tue 9/20/16
8	OPM RFS Process	Tue 2/2/16	Tue 4/5/16
9	OPM RFS Advertisement Appears	Wed 4/13/16	Wed 4/20/16
10	OPM Proposals Due	Tue 5/10/16	Tue 5/10/16
11	OPM Proposals Review, Interviews, Ranking & Submittal to MSBA	Wed 5/11/16	Wed 8/10/16
12	MSBA OPM Panel Presentation	Mon 9/12/16	Mon 9/12/16
13	MSBA Approval of OPM	Tue 9/13/16	Tue 9/13/16
14	Execute OPM Contract	Tue 9/13/16	Tue 9/20/16
15	Designer Selection	Wed 9/14/16	Mon 2/13/17
16	Prepare & Submit Draft Designer RFS to MSBA	Wed 9/14/16	Tue 9/20/16
17	MSBA Designer RFS Review Period	Wed 9/21/16	Tue 10/4/16
18	SBC Kick-Of Meeting	Thu 9/29/16	Thu 9/29/16
19	Designer RFS Advertisement Appears	Thu 10/6/16	Wed 10/12/16
20	Vote on Local Representatives for DSP	Thu 10/20/16	Thu 10/20/16
21	Designer Proposals Due	Wed 10/26/16	Wed 10/26/16
22	Review Designer Proposals and Check References	Thu 10/27/16	Wed 11/2/16
23	Submit DSP Materials to DSP	Thu 11/3/16	Thu 11/3/16
24	Designer Selection Panel (DSP) Meeting	Tue 11/22/16	Tue 11/22/16
25	DSP Interviews	Tue 12/20/16	Tue 12/20/16
26	Negotiate and Approve Designer Contract & Send to MSBA	Fri 12/30/16	Fri 1/20/17
27	MSBA Project Kick-Off Meeting	Mon 2/13/17	Mon 2/13/17
28	Preliminary Design Program (PDP)	Thu 1/12/17	Fri 6/2/17
29	Designer Project Kick-Off Meeting	Thu 1/12/17	Thu 1/12/17
30	Develop Preliminary Design Program	Thu 1/12/17	Wed 4/12/17
31	Submit Chapter 74 Programming Submission (10 weeks prior to PDP Submission)	Fri 2/24/17	Fri 2/24/17
32	SBC Vote to Submit PDP	Thu 4/13/17	Thu 4/13/17
33	Submit PDP Submission to MSBA (10 weeks prior to PSR)	Thu 4/20/17	Thu 4/20/17
34	MSBA PDP Review Period	Thu 4/20/17	Thu 5/11/17
35	Respond to MSBA PDP Review Comments	Fri 5/12/17	Fri 6/2/17
36	Preferred Schematic Report (PSR)	Fri 4/21/17	Wed 8/23/17
37	Develop Preferred Schematic Schematic Report	Fri 4/21/17	Wed 6/7/17
38	SBC Vote to Submit PSR	Thu 6/8/17	Thu 6/8/17
39	Submit PSR Submission to MSBA	Thu 6/29/17	Thu 6/29/17
40	MSBA PSR Review Period	Thu 6/29/17	Wed 7/19/17
41	Respond to MSBA PSR Review Comments	Thu 7/20/17	Wed 8/2/17
42	Facilities Assessment Subcommittee (FAS) Presentation (1st Date)	Wed 7/19/17	Wed 7/19/17
43	Facilities Assessment Subcommittee (FAS) Presentation (2nd Date)	Wed 8/9/17	Wed 8/9/17
44	Address FAS Comments	Wed 8/9/17	Tue 8/22/17
45	MSBA Board Vote on PSR & Approval to Move to Schematic Design	Wed 8/23/17	Wed 8/23/17
46	Eminent Domain Process (if required)	Wed 8/23/17	Fri 5/4/18
54	Schematic Design (SD)	Wed 8/23/17	Wed 1/3/18
55	Develop Schematic Design Submission	Wed 8/23/17	Tue 12/19/17
56	Submit Project Notification to Massachusetts Historical Commission	Mon 11/13/17	Fri 12/15/17
57	SD Cost Estimates and Reconciliation	Mon 12/11/17	Tue 12/19/17
58	MSBA Schematic Design Notification	Wed 12/20/17	Wed 12/20/17
59	SBC Vote to Approve SD Submission to MSBA	Thu 12/28/17	Thu 12/28/17
60	Submit SD Submission to MSBA	Wed 1/3/18	Wed 1/3/18
61	DESE Review	Wed 1/3/18	Wed 1/31/18
62	MSBA Review of DESE Submittal	Wed 1/3/18	Tue 1/30/18
63	DESE Review and Approval	Wed 1/31/18	Wed 1/31/18
64	CM at Risk Procurement	Tue 5/23/17	Fri 4/13/18
65	SBC Approves Use of CM at Risk Delivery & Selects CM Selection Committee	Tue 5/23/17	Tue 5/23/17
66	CM at Risk Application & Submit to OIG	Wed 5/24/17	Tue 5/30/17
67	Office of Inspector General Approval	Wed 5/31/17	Tue 6/20/17
68	CM at Risk RFQ Process	Wed 6/21/17	Wed 7/12/17
69	CM at Risk SOQs Due	Thu 7/13/17	Thu 7/13/17
70	CM at Risk RFP Process	Fri 7/14/17	Mon 7/31/17



Inactive Task | Inactive Summary | Duration-only | Manual Summary | Finish-only | Baseline
Inactive Milestone | Manual Task | Manual Summary Rollup | Start-only | Slippage

Revised 11/28/12

BMC DURFEE HIGH SCHOOL

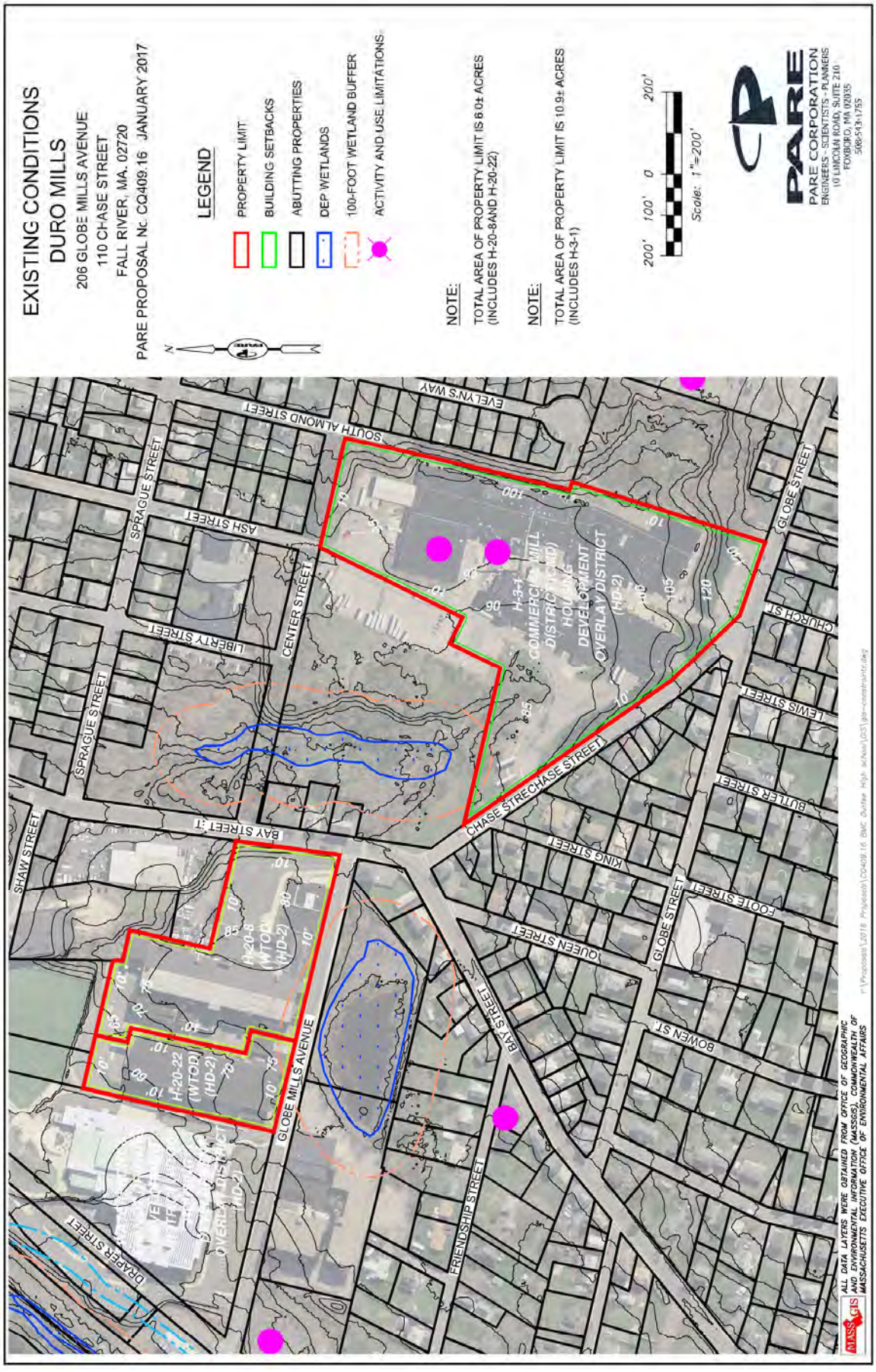
LEFTFIELD
THE RIGHT CHOICE IN PROJECT MANAGEMENT

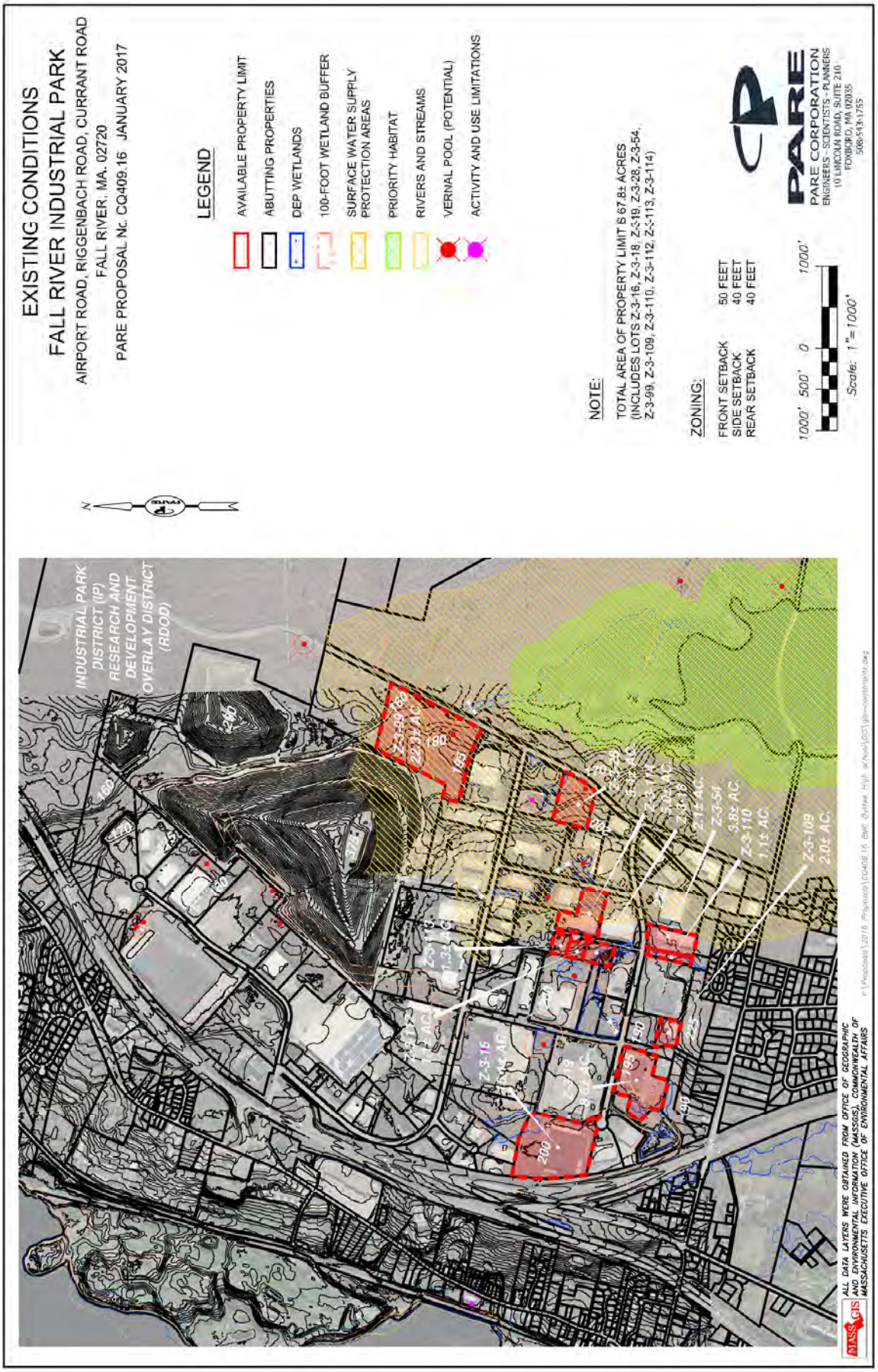
FALL RIVER - BMC DURFEE HIGH SCHOOL
PRELIMINARY PROJECT SCHEDULE
Feasibility Study Phase: May 31, 2017

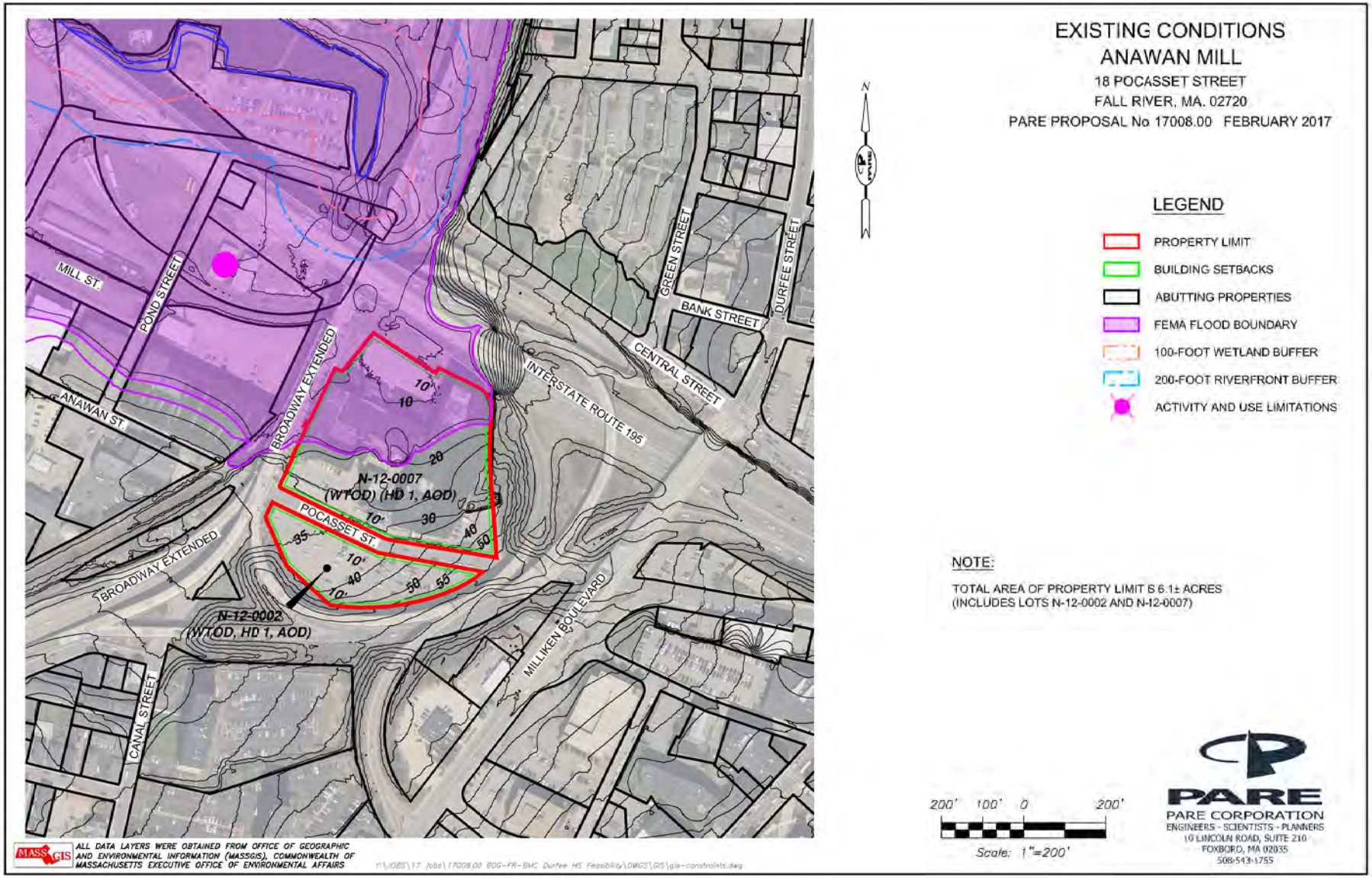
ID	Task Name	Start	Finish
71	CM at Risk Proposals Due	Tue 8/1/17	Tue 8/1/17
72	CM Interviews	Thu 8/10/17	Fri 8/11/17
73	CM Award, Contract and Notice to Proceed	Mon 8/14/17	Fri 8/25/17
74	Pre-Construction	Mon 8/28/17	Fri 4/13/18
75	Project Scope and Budget/ Project Funding Agreement	Wed 1/17/18	Mon 6/25/18
76	PSB Conference	Wed 1/17/18	Wed 1/17/18
77	Execute PSBA	Wed 1/17/18	Thu 1/18/18
78	City Council to Vote to Appropriate & Schedule Election	Tue 1/23/18	Tue 1/23/18
79	Board Vote on Project Scope and Budget	Wed 2/14/18	Wed 2/14/18
80	City Vote on Project Funding	Tue 3/6/18	Tue 3/6/18
81	City Council to Authorize Mayor to Execute PFA	Thu 3/8/18	Thu 3/8/18
82	Timeframe to Execute PFA	Wed 2/14/18	Mon 6/25/18
83	Execute PFA	Mon 6/25/18	Mon 6/25/18
84	LEED	Mon 2/26/18	Wed 2/2/22
85	LEED Registration	Mon 2/26/18	Mon 2/26/18
86	Submit Design Documents to USGBC for Review	Mon 4/1/19	Mon 4/1/19
87	Submit Documents from Construction to USGBC for Review	Mon 7/26/21	Mon 7/26/21
88	Final LEED 10-month Commissioning Report	Thu 4/29/21	Wed 2/2/22
89	Design Development	Thu 2/15/18	Fri 7/6/18
90	Design Development Documents	Thu 2/15/18	Wed 6/6/18
91	DD Cost Estimate	Thu 6/7/18	Thu 6/28/18
92	DD Value Engineering	Fri 6/29/18	Thu 7/5/18
93	Submit DD Package to MSBA	Fri 7/6/18	Fri 7/6/18
94	Contract Documents	Mon 7/9/18	Tue 3/26/19
95	CD 60% Documents	Mon 7/9/18	Fri 10/12/18
96	CD 60% Cost Estimate	Mon 10/15/18	Thu 11/8/18
97	CD 60% VE	Fri 11/9/18	Thu 11/15/18
98	Submit 60% CD Package to MSBA	Fri 11/16/18	Fri 11/16/18
99	CD 90% Documents	Mon 11/19/18	Fri 1/18/19
100	CD 90% Cost Estimate	Mon 1/21/19	Mon 2/11/19
101	CD 90% VE	Tue 2/12/19	Fri 2/15/19
102	Submit 90% CD Package to MSBA	Mon 2/18/19	Mon 2/18/19
103	CD 100% Documents	Tue 2/19/19	Mon 3/25/19
104	Submit CD 100% CD Package to MSBA	Tue 3/26/19	Tue 3/26/19
105	Trade Contractor Prequalification	Thu 1/10/19	Tue 2/19/19
106	Advertise Trade Contractors RFQ 1	Thu 1/10/19	Wed 1/16/19
107	Trade RFQ Contractor Advertisement & Response Time	Thu 1/17/19	Thu 1/31/19
108	Trade Contractors SOQ Due	Thu 1/31/19	Thu 1/31/19
109	Review Trade Contractor SOQ	Thu 1/31/19	Tue 2/19/19
110	Prequalification Committee Review Meeting	Tue 2/19/19	Tue 2/19/19
111	Bid Package No.1-Site, Foundations, Concrete, Elevator, Structural Steel, UG Electrical & Plumbing	Wed 2/20/19	Wed 3/20/19
112	Bid Package No. 1 Drawings Complete	Wed 2/20/19	Wed 2/20/19
113	Bid Package No. 1 Bid Period (Including Early UG Plumbing & Electrical Trade Contractors)	Wed 2/20/19	Thu 3/14/19
114	Early Underground Plumbing & Electrical Trade Contractors Bids Due	Thu 3/14/19	Thu 3/14/19
115	Bid Package No. 1 - Interim GMP 1/ Award BP 1	Fri 3/15/19	Wed 3/20/19
116	Bid Package No. 2 - Main Package	Tue 3/26/19	Wed 5/15/19
117	Bid Package No. 2 Drawings Complete	Tue 3/26/19	Tue 3/26/19
118	Bid Package No. 2 Bid Period (Including All Trade Contractors)	Wed 3/27/19	Wed 4/24/19
119	Trade Contractors Bids Due	Wed 4/24/19	Wed 4/24/19
120	Award Bid Package 2	Wed 5/1/19	Wed 5/1/19
121	Final GMP	Wed 5/15/19	Wed 5/15/19
122	Construction	Thu 3/21/19	Fri 7/23/21
123	Start Bid Package No. 1 - Demolition, Site, Foundations, Concrete, Elevator, Structural Steel, UG MEP	Thu 3/21/19	Wed 11/27/19
124	Start Bid Package No. 2 - Main Construction	Wed 5/1/19	Tue 4/27/21
125	Substantial Completion	Wed 4/28/21	Wed 4/28/21
126	FFE Installation	Thu 4/29/21	Wed 7/21/21
127	Final Completion - Certificate of Occupancy	Fri 7/23/21	Fri 7/23/21
128	School Opening	Mon 8/23/21	Mon 8/23/21
129	Demolition/Construction of Ball Fields	Fri 4/30/21	Fri 12/31/21

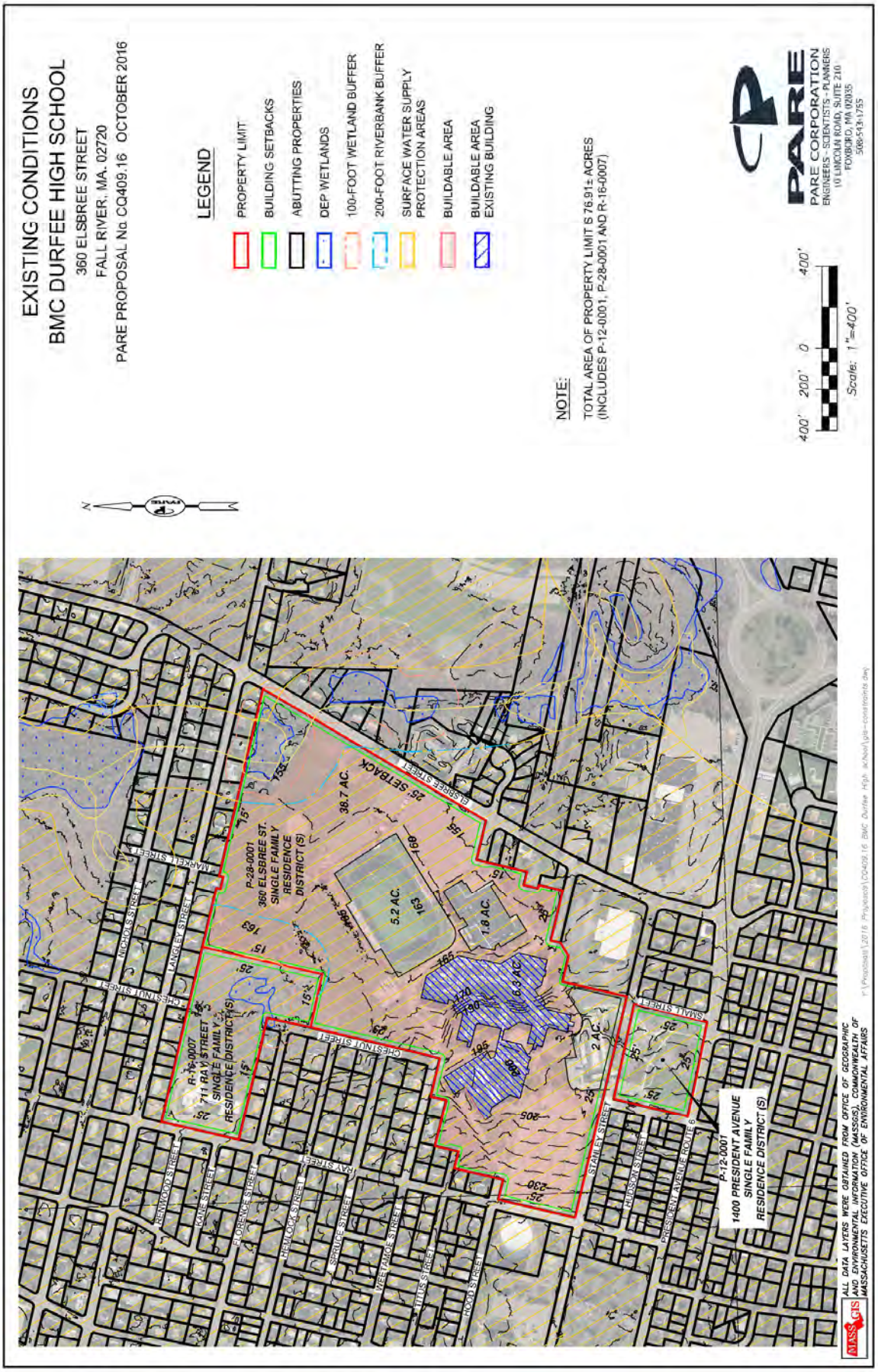
Inactive Task · Inactive Summary · Duration-only · Manual Summary · Finish-only · Baseline
Inactive Milestone · Manual Task · Manual Summary Rollup · Start-only · Slippage

Revised 11/28/12


EXISTING CONDITIONS
DURO MILLS
206 GLOBE MILLS AVENUE
110 CHASE STREET
FALL RIVER, MA. 02720
PARE PROPOSAL No. CQ409.16 JANUARY 2017
LEGEND
PROPERTY LIMIT
BUILDING SETBACKS
ABUTTING PROPERTIES
DEP WETLANDS
100-FOOT WETLAND BUFFER
ACTIVITY AND USE LIMITATIONS
NOTE:
TOTAL AREA OF PROPERTY LIMIT IS 6.0± ACRES
(INCLUDES H-20-8AND H-20-22)
NOTE:
TOTAL AREA OF PROPERTY LIMIT IS 10.9± ACRES
(INCLUDES H-3-1)
200' 100' 0 200'
Scale: 1"=200'
PARE
PARE CORPORATION
ENGINEERS - SCIENTISTS - PLANNERS
10 LINCOLN ROAD, SUITE 210
FOXBORO, MA 02035
508-543-1755
SOUTH ALMOND STREET
EVELYN'S WAY
SPRAGUE STREET
ASH STREET
CENTER STREET
LIBERTY STREET
SPRAGUE STREET
BAY STREET
SHAW STREET
GLOBE MILLS AVENUE
DRAPER STREET
FRIENDSHIP STREET
CHASE STREET
GLOBE STREET
CHURCH ST
LEWIS STREET
BUTLER STREET
KING STREET
QUEEN STREET
FOOTE STREET
BOWEN ST
H-3-1 (COMMERCIAL MILL DISTRICT (CMD) HOUSING DEVELOPMENT OVERLAY DISTRICT (HD-2)
H-20-8 (WTOD) (HD-2)
H-20-22 (WTOD) (HD-2)
ALL DATA LAYERS WERE OBTAINED FROM OFFICE OF GEOGRAPHIC INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS


EXISTING CONDITIONS
FALL RIVER INDUSTRIAL PARK
AIRPORT ROAD, RIGGENBACH ROAD, CURRANT ROAD
FALL RIVER, MA. 02720
PARE PROPOSAL No. CQ408.16 JANUARY 2017
LEGEND
AVAILABLE PROPERTY LIMIT
ABUTTING PROPERTIES
DEP WETLANDS
100-FOOT WETLAND BUFFER
SURFACE WATER SUPPLY PROTECTION AREAS
PRIORITY HABITAT
RIVERS AND STREAMS
VERNAL POOL (POTENTIAL)
ACTIVITY AND USE LIMITATIONS
NOTE:
TOTAL AREA OF PROPERTY LIMIT IS 67.8± ACRES
(INCLUDES LOTS Z-3-16, Z-3-18, Z-3-19, Z-3-28, Z-3-54,
Z-3-99, Z-3-109, Z-3-110, Z-3-112, Z-3-113, Z-3-114)
ZONING:
FRONT SETBACK 50 FEET
SIDE SETBACK 40 FEET
REAR SETBACK 40 FEET
1000' 500' 0 1000'
Scale: 1"= 1000'
PARE
PARE CORPORATION
ENGINEERS - SCIENTISTS - PLANNERS
10 LINCOLN ROAD, SUITE 210
FOXBORO, MA 02035
508-543-1755
INDUSTRIAL PARK DISTRICT (IP)
RESEARCH AND DEVELOPMENT OVERLAY DISTRICT (RDOD)
Z-3-99 22.01± AC
Z-3-54 3.85± AC
Z-3-110 1.15± AC
Z-3-109 2.04± AC
Z-3-15
ALL DATA LAYERS WERE OBTAINED FROM OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS


EXISTING CONDITIONS
ANAWAN MILL
18 POCASSET STREET
FALL RIVER, MA. 02720
PARE PROPOSAL No 17008.00 FEBRUARY 2017
LEGEND
PROPERTY LIMIT
BUILDING SETBACKS
ABUTTING PROPERTIES
FEMA FLOOD BOUNDARY
100-FOOT WETLAND BUFFER
200-FOOT RIVERFRONT BUFFER
ACTIVITY AND USE LIMITATIONS
NOTE:
TOTAL AREA OF PROPERTY LIMIT IS 6.1± ACRES
(INCLUDES LOTS N-12-0002 AND N-12-0007)
MILL ST.
POND STREET
ANAWAN ST.
BROADWAY EXTENDED
N-12-0007
(WTOD) (HD 1, AOD)
POCASSET ST.
N-12-0002
(WTOD, HD 1, AOD)
CANAL STREET
MILLIKEN BOULEVARD
INTERSTATE ROUTE 195
CENTRAL STREET
BANK STREET
GREEN STREET
DURFEE STREET
200' 100' 0 200'
Scale: 1"=200'
PARE
PARE CORPORATION
ENGINEERS - SCIENTISTS - PLANNERS
10 LINCOLN ROAD, SUITE 210
FOXBORO, MA 02035
508-543-1755
ALL DATA LAYERS WERE OBTAINED FROM OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS


EXISTING CONDITIONS
BMC DURFEE HIGH SCHOOL
360 ELSBREE STREET
FALL RIVER, MA. 02720
PARE PROPOSAL No CQ409.16 OCTOBER 2016
LEGEND
PROPERTY LIMIT
BUILDING SETBACKS
ABUTTING PROPERTIES
DEP WETLANDS
100-FOOT WETLAND BUFFER
200-FOOT RIVERBANK BUFFER
SURFACE WATER SUPPLY PROTECTION AREAS
BUILDABLE AREA
BUILDABLE AREA EXISTING BUILDING
NOTE:
TOTAL AREA OF PROPERTY LIMIT IS 76.91± ACRES
(INCLUDES P-12-0001, P-28-0001 AND R-16-0007)
400' 200' 0 400'
Scale: 1"=400'
PARE
PARE CORPORATION
ENGINEERS - SCIENTISTS - PLANNERS
10 LINCOLN ROAD, SUITE 210
FOXBORO, MA 02035
508-543-1755
P-28-0001
360 ELSBREE ST.
SINGLE FAMILY
RESIDENCE
DISTRICT (S)
38.7 AC.
5.2 AC.
1.8 AC.
6.6 AC.
2 AC.
25' SETBACK
ELSBREE STREET
R-16-0007
711 RAY STREET
SINGLE FAMILY
RESIDENCE DISTRICT (S)
P-12-0001
1400 PRESIDENT AVENUE
SINGLE FAMILY
RESIDENCE DISTRICT (S)
RAY STREET
CHESTNUT STREET
NARCELL STREET
NICHOLS STREET
LANGLEY STREET
LINWOOD STREET
KANE STREET
FLORENCE STREET
HEDLOCK STREET
SEAGLE STREET
WESTAMOS STREET
TITUS STREET
WOOD STREET
STANLEY STREET
HUDSON STREET
PRESIDENT AVENUE ROUTE 6
SMALL STREET
ALL DATA LAYERS WERE OBTAINED FROM OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
MASSGIS

NARRATIVE OF PRELIMINARY DESIGN PROGRAM

Evaluation of Existing Conditions

The existing conditions were further reviewed but there were no substantive changes to any of the original conclusions and observations. The original reports are included as part of the previous submission - Preliminary Design Program (PDP) Report dated April 20, 2017.

SITE ANALYSIS
Final Evaluation of Alternatives

DURFEE HIGH SCHOOL SITE 1- EXISTING SCHOOL SITE

B.M.C. Durfee High School consists of one building originally constructed in 1886 and the new building completed in 1978. The site is located at 360 Elsbree Street, Fall River, Massachusetts on 63.86± acres of land according to the City of Fall River ("City") Assessors Database (Parcel P-28-0001). The High School currently accommodates approximately 2,250 students. The Site is accessible via four (4) two-way driveways, one each off Elsbree Street, Chestnut Street, Hood Street, and Weetamoe Street. The site is furnished with school buildings, athletic facilities, parking facilities, and associated structures.

The site is bound by residential properties and Langley Street to the north and Elsbree Street to the east. The Site is bound to the south by Stanley Street and the Spencer Borden School, which falls partially within the site. The Spencer Borden School is an inventoried historical site on MACRIS and the Fall River Register of Significant Structures, but not on the national register. Based on pictures, the old building was demolished. The Site is bound to the west by Chestnut Street, residential properties, and wooded wetlands behind James Tansey Elementary School.

Zoning Regulations

According to the "Zoning Map of the City of Fall River" updated March 1, 2013, the site is located in an area zoned Single-family residence district (S). Educational facilities are noted to be allowed within a Zone S according to "the Revised Ordinances of the City of Fall River: Chapter 86" with Amendments through July, 2013. The Zoning Ordinance indicates the following would control the development on this site:

S – Single-Family Residence District:
- 12,000 square feet minimum area
- 100 feet minimum lot frontage
- 25 feet minimum front yard setback
- 15 feet minimum side yard setback
- 25 feet minimum rear yard setback
- 35 feet maximum building height
- 25% maximum lot area coverage*

*defined as all impervious area

The parking capacity requirement for an educational facility is one (1) space for each full-time equivalent employee and one (1) loading space for each building. There are no required parking spaces for students based on the Fall River Zoning Regulations, however one (1) space for every five (5) seats for both the performing arts building and the football stadium is required. Since all future design options will maintain the current educational, athletic, and auditorium uses, the current number of parking spaces will remain the same. All three (3) site layout options propose maintaining the required parking quantity in parking lots distributed throughout the site. The proposed parking layouts are discussed later in this report.

Natural Environment

Topography: The topography of the site generally pitches gradually downgradient from the west to the east. The highest elevations on site appear to be at the southwest corner of the property at elevation 235ft. The lowest elevation appears to be along the eastern property line along Elsbree Street at elevation 155ft. There are a number of steep slopes throughout the site. Record topographic maps (dated 1967) indicate that a low lying wetland area once existed on the east side of the site near Elsbree Street at the northeast corner of the current building with the most recent topographic maps (dated 1979 and 1985) indicating that this area has since been developed and mostly filled.

Soils: Existing soils were evaluated based on the USDA Natural Resource Conservation Services Web Soil Survey. Below is a

description of the soils that are shown throughout the site as shown on the web soil survey (see attached NRCS Soil Survey).

Within the parking lot areas and the athletic fields on the north side of the site, the soil consist of Udorthents, smoothed rated Type A (Map Unit 651). This map unit consists of excessively drained sands and gravely sands.

Within the footprint of the school and surrounding walks, drives, and parking lots, the soils consist of unrated urban land (Map Unit 602). This map unit consists of areas where 85 percent or more of the land is covered with impervious surfaces, such as buildings, pavement, etc.

Within the parking lot to the southwest of the site, the soils consist of Paxton fine sandy loam rated Type C (Map Units 307B and C). These map units consist of areas with well drained, although extremely stony, soil. The depth to the water table is approximately 18-37 inches.

Based on the web soil survey information, it is anticipated that the soils along the south and west sides of the existing building may limit infiltration of stormwater due to their slow permeability and the depth to seasonal high groundwater in regards to future development. However, infiltration may be possible in the soils on the northeast side of the site. Stormwater infiltration practices may be considered in this area. Stormwater detention will likely be considered elsewhere on site.

For purposes of stormwater infiltration, we would recommend additional future test pits along the north and east sides of the existing building (closer to Elsbree Street) which would provide soil information necessary to confirm if infiltration could be provided in those areas.

For purposes of investigating the subsurface conditions under the stadium, pavement, and athletic field footprints, a preliminary site specific soil boring and test pit investigation program has been completed by McArdle Gannon Associates, Inc. (MGA). Geotechnical explorations confirmed the subsurface is made up of several layers. In order from the surface down, these layers include the following: organic topsoil, a bouldery fill layer, followed by a layer of natural glacial till soils, then bedrock ranging from a depth of 2.5± to 17± feet beneath the surface. Groundwater was measured between elevations 148± and 166±. Please refer to the "Subsurface Conditions Summary Letter, Durfee High School Athletic Complex, Fall Fiver, MA" prepared by MGA, Inc. and dated December 1, 2005 for more information.

For purposes of building foundations and future site improvements, we would recommend an additional site specific soil boring and test pit investigation program.

Wetlands: After review of the Massachusetts GIS data layers (MassGIS), it does appear that there are wetlands located in the northeast and northwest corners of the site in undisturbed wooded areas. If determined to be jurisdictional wetlands, these areas will have a minimum 100-foot regulatory buffer zone. There is an unnamed stream running through the wetland at the northeast corner of the site. This stream is protected as an Outstanding Resource Water (314 CMR 4.05(3)(a)) and has a 200-foot regulatory buffer. Additionally, the site is largely within the Zone C Surface Water Supply Protection Area and therefore stormwater is required to be treated and attenuated prior to discharge. Both the wetland and the stream do not prohibit proposed work, however a permit and request for determination through the Conservation Commission will be required.

After review of the MassGIS layers, the site does not appear to have any Critical Resources including aquifers or potential or certified vernal pools as defined by the Natural Heritage and Endangered Species Program (NHESP). If it is determined in an environmental review that a vernal pool exists on the site, the local regulations require a 100-foot No-Disturbance Zone around the upland area edge or the wetland area edge that encompasses the vernal pool.

According to the Flood Insurance Rate Maps available through FEMA (Federal Emergency Management Agency), this site is located entirely outside of the 0.2% annual chance flood (Figure 4). There are no restrictions for development.

Rare Species & Cultural Resources: Information regarding rare species was obtained from the MassGIS Rare

Species and Priority Habitat data layer showing data recorded by the NHESP in the State Registry. Review of this information indicates that there are no known significant habitat areas within the Site.

Infrastructure

Roadways and Parking Lots: The existing site is accessible via four (4) two-way driveways, one (1) each off Elsbree Street, Chestnut Street, Hood Street, and Weetamoe Street. All streets adjacent to the Site are under the City's jurisdiction and therefore will require only local approval for future modifications.

The site is furnished with the existing school buildings, paved parking areas, driveways, pedestrian walks, athletic facilities, and associated structures. The existing paved parking lots and drives are in poor condition with deep surface cracks, pot holes, low points, and pavement patches throughout.

Future development Option 1E orients the main building on a north south axis along the east property line such that the main entrances for both parents and busses are off Elsbree Street. The access roads off President Avenue (Route 6), Ray Street, Hood Street, and Weetamoe Street are maintained as alternate entrances. Parent traffic is directed to a drop-off loop around a proposed northeast parking lot. The parent drop-off loop enters at the north of the parking lot to prevent traffic backup in Elsbree Street and loops around the perimeter of the lot to drop students off on the north-facing entrance of the school. Bus traffic is directed to a separate drop off loop at the east-facing main entrance to the building.

Future development Option 1E proposes to maintain the south lot and construct six (6) new parking lots distributed throughout the Site. The new primary parking lot is north of the new school. There are also five (5) smaller alternate lots located one each south of the existing athletic building, west of the existing athletic building, west of the existing track and field, northwest of the existing track and field, and northwest of the proposed school near the existing varsity baseball field.

Future development Option 2B orients the main building on an east west axis along the north property line such that the main entrances for both parents and busses are off Elsbree Street. The access roads off President Avenue (Route 6), Ray Street, Hood Street, and Weetamoe Street are maintained as alternate entrances. Both parent and bus drop-off is directed to a drop-off loop around the existing east parking lot. The drop-off area is east of the existing athletic field, south of the school main entrance.

Future development Option 2B proposes to maintain the east lot, and construct three (3) new parking lots distributed throughout the site. The primary parking lot is the existing east lot, south of the new school. There are also three (3) smaller alternate lots located on the south side of the existing athletic building, west of the existing track and field, and at the southwest corner of the site in place of the existing south lot.

We would recommend a traffic impact analysis to further assess existing traffic patterns, existing roadways, and the future development. Future development design considerations will likely require an emergency vehicle access route to each face of the school building. We would also recommend milling and re-paving existing parking areas proposed to be maintained.

Summary

There are no constraints which prohibit this site from serving as a viable location for a newly constructed school or an expansion of the existing Durfee High School Complex. Design considerations should include infiltration practices for stormwater treatment and attenuation which are consistent with ons-ite soils and water supply protection zone requirements. Development should include recognition of the wetland resource areas and consideration for their buffer zones in regards to development. We would recommend these considerations be made part of future development options. However, we do not believe there are any constraints which preclude this site from being a viable candidate for future school development.

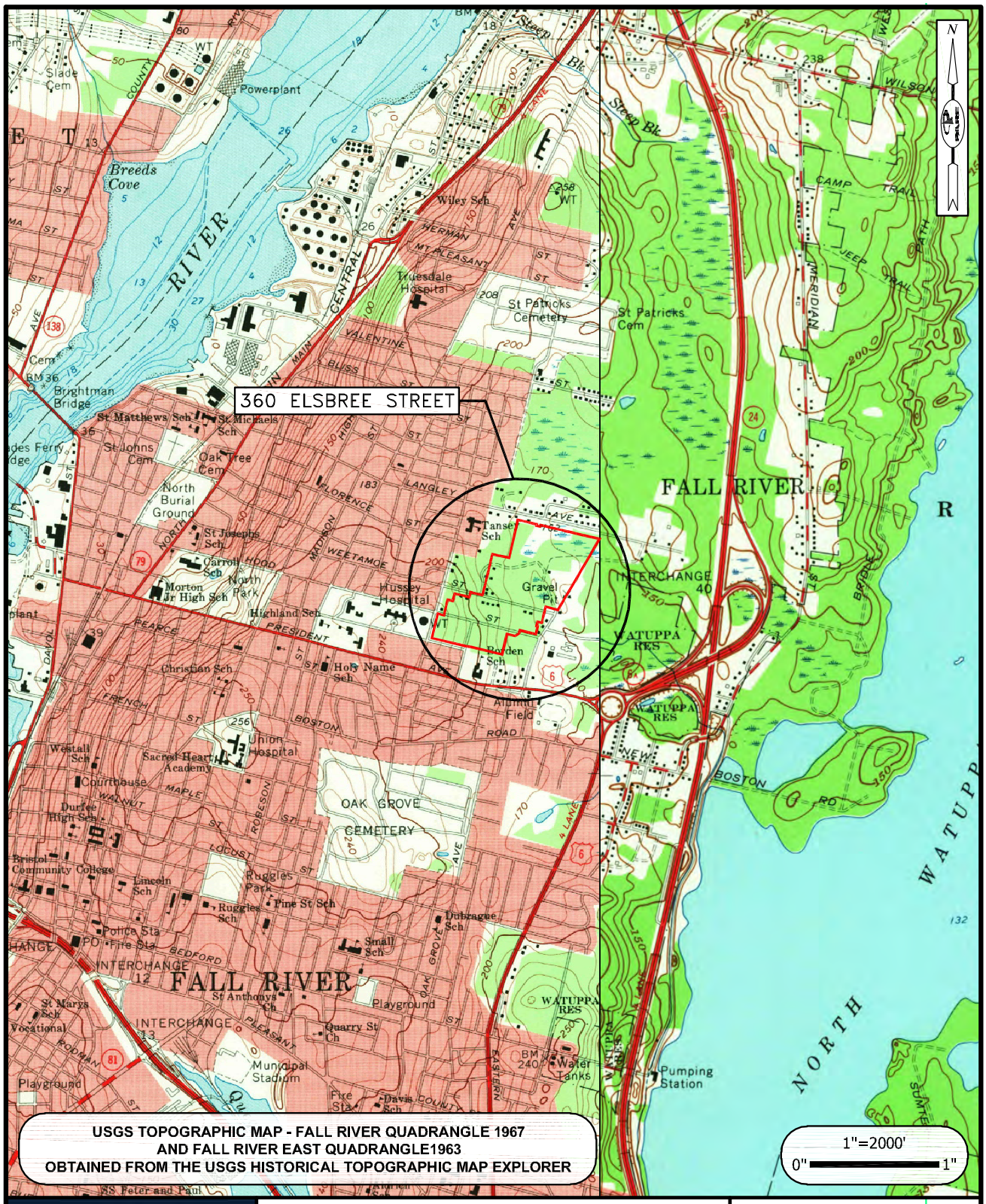

PROJECT LOCATION
N
1"=2000'
0"
1"
USGS TOPOGRAPHIC MAP FROM OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
PARE CORPORATION
BMC DURFEE HIGH SCHOOL
360 ELSBREE STREET
FALL RIVER, MASSACHUSETTS
LOCUS PLAN
JANUARY 2017
FIGURE 1

PARE CORPORATION

BMC DURFEE HIGH SCHOOL
360 ELSBREE STREET
FALL RIVER, MASSACHUSETTS

AERIAL PLAN

JANUARY 2017 FIGURE 2



PARE CORPORATION

BMC DURFEE HIGH SCHOOL
360 ELSBREE STREET
FALL RIVER, MASSACHUSETTS

HISTORIC USGS PLAN

MARCH 2017 FIGURE 3

PARE CORPORATION

BMC DURFEE HIGH SCHOOL
360 ELSBREE STREET
FALL RIVER, MASSACHUSETTS

FEMA
FLOOD
PLAN

MARCH 2017 FIGURE 4


Hydrologic Soil Group—Bristol County, Massachusetts, Southern Part
Soil Map may not be valid at this scale.
Natural Resources Conservation Service
Web Soil Survey
National Cooperative Soil Survey
2/27/2017
Page 1 of 4
Map Scale: 1:7,460 if printed on A landscape (11" x 8.5") sheet.
Meters
Feet
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84
N
School Brook Rd
Langley St
Esbree
Esbree St
Langley
Spruce St
Stanley St
Oakland St
Hood St
Robeson
311B
73A
651
705C
656
53A
312B
602
307B
307C
9

SITE UTILITIES
Final Evaluation of Alternatives

The existing conditions utility information was collected through communications with the Engineering Department and the Water Department. Future development options would require that the existing utilities be surveyed and included in design plans.

Sewer

A record plan for the Fall River High School titled "Site Utilities Plan" by "Hallwell Engineering Associates, Designers, and Consultants" dated May 4, 1973 was available at the City to review. Sanitary waste from the building is conveyed via gravity sewer line to two discharge locations in Elsbree Street. There are two primary service lines, one on the north side and one on the south side of the building. The line that services the north side of the building is a 12-inch line flowing east. The line that services the south side of the building is a 10-inch line flowing east.

There is an approximately 20-foot section of 4-inch sewer force main servicing the south side of building one and discharging to the south service line. There are two 4-inch acid resistant service pipes discharging to the south service line. Plans we obtained do not indicate the presence of an existing exterior grease trap.

A record As-Built titled "Elsbree Street Plan and Profile of Sewer" by "Whitman & Howard Inc." dated December 1965 was available at the City to review. The record drawing shows the sewer main in Elsbree Street is an 8-inch vitrified clay pipe flowing north from President Avenue to Hood Street and a 12-inch vitrified clay pipe flowing south from Langley Street to Hood Street. The 12-inch high school sewer service ties into the main in Elsbree Street north of Hood Street. The 10-inch high school sewer service ties into the main in Elsbree Street south of Hood Street. At manhole 102, located on Hood Street, the two flows combine into a 15-inch vitrified clay pipe flowing east to a sewer pump station.

During design for all future development options, the capacity of the existing sewer line will need to be evaluated to determine if it can handle increased use or the need to provide an additional connection to the sewer main in Elsbree Street. Future development would require new PVC sewer services and the installation of an exterior grease trap to service cafeteria functions.

Water

A record plan for the Fall River High School titled "Site Utilities Plan" by "Hallwell Engineering Associates, Designers, and Consultants" dated May 4, 1973 was available at the City to review. Water mains are located in Elsbree Street, Weetamoe Street, and Hood Street. There is an 8-inch water main in Weetamoe Street which cuts across the north side of the site and ties into the 20-inch main in Elsbree Street. There is a 20-inch water main in Hood Street which cuts across the south side of the site and ties into the 20-inch main in Elsbree Street. The drawings do not call out the pipe material on-site, or in Elsbree Street, Weetamoe Street, or Hood Street. Fire hydrants are located on Elsbree Street with additional hydrants onsite.

Six (6) onsite hydrants are distributed throughout the site on all sides of the building. Three (3) hydrants are serviced from the 8-inch Weetamoe Street main and the other three (3) are serviced from the 20-inch Hood Street main.

The drawings show two 10-inch water services to building one off the Hood Street line; three 6-inch water services to building two off the Hood Street line; two 4-inch, three 6-inch, and one 8-inch water services to building two off the Weetamoe line; three 6-inch and one 4-inch water services to building three off the Hood Street line; and one 4-inch water service to building two off the Weetamoe line.

Information as to the existence, design, and location of an infiltration system in the athletic fields is unknown. We would

recommend that record plans of the existing irrigation system and its components be provided if future development plans include the use of this system.

During design for all future options, a hydrant flow test will be required to determine available flow for fire suppression system design. Additionally, the need to relocate the existing service may need to be evaluated, along with the installation of an additional service for fire suppression. If future development plans include partial building demolition, the service could be evaluated to see if connecting and maintaining a portion of the existing line would be feasible. However, it is likely that in all design options, additional service lines will be necessary and the existing service will require replacement.

Drainage

A record plan for the Fall River High School titled "Site Utilities Plan" by "Hallwell Engineering Associates, Designers, and Consultants" dated May 4, 1973 was available at the City to review. The record drawings show a 30" drainage culvert located in Elsbree Street. The drawings do not call out the pipe material on-site or in Elsbree Street. The onsite drainage system appears to consist mainly of conveyance via a closed drainage system. Additionally, the onsite closed drainage system appears to act as a conveyance system for stormwater being captured upstream towards Stanley Street, Ray Street, and Spruce Street.

The Stanley and Ray Street drain line appears to enter the site from the southwest in the parking lot. Similarly, the Spruce Street drain line appears to enter the site from the north. The pipes are cut off with an infinity symbol not identified in the Legend. Site drainage is tied into both lines. The spruce Street drain line is routed through the north of the site. The point of discharge is not shown. The Stanley and Ray Street drain line is routed through the south of the site. There is one point of discharge for the drainage system located in Elsbree Street at the northeast corner of the site. Stormwater ultimately discharges east to the Watuppa Pond Basin.

On-site drainage is collected from impervious and pervious surfaces via catch basins and conveyed via a closed drainage system to the discharge point. It appears that the stormwater system is receiving little treatment in regards to Total Suspended Solid (TSS) removal. During design, it should be evaluated if the current drainage pattern should be maintained or rerouted. This would also include review of an existing conditions plan that will be provided by the project surveyor "Welch Associates" in a later phase of this project. The existing on-site drainage system should be evaluated for integrity and for re-use in future development conditions.

The existing drainage pattern, which conveys stormwater from Stanley Street, Ray Street, and Spruce Street, as described above, will be required to be maintained in future development conditions. This will need to be considered during the design process.

The future development drainage design will need to be re-designed to meet the Massachusetts Department of Environmental Protection (MassDEP) stormwater standards, the City of Fall River Stormwater and Construction Site Management Ordinance, and will require quantity and quality mitigation measures. Both design options will consider low impact design and non-structural best management practices to treat and control stormwater.

Gas

Liberty Utilities is the supplier of natural gas to the City of Fall River. There are four connections, one to each of the buildings, schematically routed around the north side of the site. The gas is metered individually at each building. Future development options would require that the existing system be located and analyzed for capacity. Coordination should occur with Liberty Utilities regarding any service improvements.

Electric

National Grid is the supplier of electricity to the City of Fall River. Electricity is not shown on the record drawings. Future development options would require that the existing system be located and analyzed for capacity. Coordination should occur with National Grid regarding any service improvements.

PERMITTING REQUIREMENTS

Final Evaluation of Alternatives

Based on the Preferred Schematic Design Plans for the project site, there are multiple permits that will be required at the local, state, and federal levels for site construction. The local permitting information was compiled from the City of Fall River Revised Ordinances, the Planning Board Rules and Regulations, and the Zoning Ordinance Number 2013-18 which replaces the chapter relating to Zoning in its entirety. According to the "Zoning Map of the City of Fall River" revised March 2013, the site is located in an area zoned Single Family Residence District (S) with no overlay districts. Educational facilities are a permitted use within a Zone S as stated in the table of uses in Section 86-36. The following is a list of anticipated permits:

Planning Board

Planning Board approval under the Subdivision Control Law is not anticipated for this project. For plans believed not to require approval, Form A shall be completed and submitted to the Planning Board and City Clerk. The submission shall meet the content and submission requirements set forth in the Planning Board Rules and Regulations in Section 1.000.

The planning board shall review the plans without a public hearing and issue an endorsement within twenty-one (21) days.

Zoning Board of Appeals

The project is considered an educational use and is a permitted use within a Zone S as stated in the table of uses in Section 86-36.

A Special Permit may be required for reduced or modified parking service for the facility. Based on Zoning, the parking requirements for schools are one (1) space for every employee per shift, and one (1) space for every five (5) seats in the auditorium and athletic facility. The future development is schematically programmed to employ 150 full-time staff and 60 part-time staff, which equals 180 full-time equivalency staff, and having a total of 3,700 seats in the combined auditorium and sports facility spaces. This would require a minimum of 920 parking spots by Zoning. Based on the existing parking count at the school, the Zoning requirement appears higher than what may be needed. As such, a Special Permit may be requested from the Zoning Board of Appeals. Further review of the parking needs will be evaluated as the design progresses.

Additionally, the project may require a Special Permit for use from the Zoning Board of Appeals if it infringes on the dimensional regulations set forth in Section 86-35 of the Revised Zoning Ordinance. It is not anticipated that any relief will be required from the building setbacks or height. It is anticipated that relief will be necessary for lot coverage. The maximum allowed lot coverage is 25 percent.

Special Permit Applications shall be submitted to the Planning Department by the fourteenth (14th) of the month to be included in the agenda heard the following month. Upon submission of a complete application, the Planning Department sends notifications to all abutting property owners and the public hearing agenda is posted in the local newspaper. After the public hearing, a decision shall be issued fourteen (14) days after the public hearing. It is likely that the review period may be extended if the decision is stretched over multiple hearings. The total anticipated review period for a special permit would likely be around three (3) to five (5) months.

Conservation Commission

Pare Inc. completed a review of Massachusetts GIS data and conducted a preliminary review of the wetlands on-site. During the field investigation, wetlands were identified on the site. According to the City of Fall River's Conservation Commission Regulations, wetlands have minimum 100-foot regulatory buffers. Work is anticipated within the associated buffers and further review of the wetlands will be conducted in future phases of the project.

Based on the scope of the work, a Notice of Intent will be required to be submitted to the Fall River Conservation Commission and the Massachusetts Department of Environmental Protection. After a completed Notice of Intent is filed with the Commission, a public hearing will be held. Based on the Fall River events calendar, hearings are not held monthly, but on an at-need basis. It will likely require attendance at multiple hearings prior to closing. A determination will be issued by the Commission within thirty (30) days of the close of the hearing. It is anticipated that the permitting process with the Commission would take approximately two (2) to three (3) months.

Engineering Department Applications
The Contractor awarded the contract will be responsible for making all constructing notifications and obtaining all necessary permits.

Demolition Permit
The Contractor awarded the contract will be responsible for attaining letters from the Engineering Division, Water Division, Electric Company, and Gas Company for disconnecting utility services.

Engineering Department
The project will also require permitting through the Engineering Department for construction related permits including, but not limited to, a Trench Permit, a Street Opening Permit, and a Curb Cut Permit.

Fire Department
The project may require coordination with the Fall River Fire Department to review emergency vehicle accessibility.

Inspectional Services
The Contractor awarded the contract will be responsible for obtaining a Building Permit through Inspectional Services prior to beginning construction activity. Upon substantial completion of the project, the Contractor shall submit certification from the Professional Engineer who prepared the Final Site Plan to the Building Inspector for approval. Upon approval, the Building Inspector will issue a Certificate of Occupancy.

Historical Commission
There are no historical buildings or monuments on the site listed in the National Historical Registry, or in the Massachusetts Cultural Resource Information System (MACRIS). However, the Fall River Register of Historic Structures lists the Old Durfee High School Telescope and Durfee Bells as historical monuments. Further coordination will be necessary with the Fall River Historical Commission to determine if a permit will be required.

Massachusetts Department of Environmental Protection (MassDEP)
The project will meet the 2008 Stormwater Management Guidelines and appropriate submissions will be made to the Fall River Conservation Commission and MassDEP, the jurisdictional entities for these guidelines.

An Underground Injection Control Registration will need to be filed for any stormwater systems proposed to infiltrate into the ground. The registration would be submitted to the Fall River Board of Health, Conservation Commission, and MassDEP. The review of the registration required typically is complete within 48 days of submission.

National Pollutant Discharge Elimination System (NPDES)
The proposed project will require filing a NPDES construction general permit with the EPA for disturbance of an area of more than one (1) acre of land. The Contractor awarded the contract will be responsible for filing the NPDES General Permit and preparing a project specific Stormwater Pollution Prevention Plan. The contractor must submit a Notice of Intent fourteen (14) days prior to any earth disturbing activities.

Massachusetts Environmental Policy Act (MEPA)
The scope of work for the preferred schematic plans does not appear to trigger MEPA thresholds at this time. However, the following are potential triggers that we will continue to monitor as the design progresses: In the category of land, creation of ten (10) or more acres of impervious area would require a MEPA review. As the preferred schematic plans are defined further, the increase in impervious area over the existing conditions will be checked. As the preferred schematic plans are defined further the category of wetlands, waterways and tidelands,

the alteration of 5,000 or more square feet of bordering or isolated vegetated wetlands will be checked. In the category of transportation, the construction of 300 or more new parking spaces at a single location would require MEPA review. As the preferred schematic plans are defined further, the parking space count will be checked.

Once a schematic design is developed, all thresholds will be reviewed in regards to the proposed project. If MEPA review is required, MEPA requires applications to be submitted one (1) year prior to construction.

CONSTRUCTION IMPACT

Final Evaluation of Alternatives

As a result of the information gathered during the Feasibility Study (Preliminary Design Program) phase of the process, the Fall River School Building Committee elected to continue the evaluation of "Option 1E", new construction and renovation of the existing athletic building, with plans to demolish the central academic core of the existing BMC Durfee High School building following construction of the new building area and renovation of the existing athletic building.

Constructing a new building on the same site as the existing school building, in addition to renovating a portion of the existing building (athletic building) will create challenges and opportunities.

The construction phasing for the preferred option would consist of three (3) major phases:

- **Phase I:** Construction of the new building area along Elsbree Street.
- **Phase II:** Renovation of the athletic building and demolition of the existing building (except the existing performing arts building).
- **Phase III:** Site reconstruction within the existing building footprint.

In an effort to mitigate the negative impact on the existing educational environment and surrounding neighboring properties throughout the construction duration, with any option (new construction or renovation/ addition), the construction of the proposed project would require that the contractor implement several measures, including, but not limited to:

Environmental Quality Procedures

- Hazardous Materials removal notifications and procedures in accordance with applicable codes and regulatory agency requirements.
- Construction Indoor Air Quality (IAQ) Management Plan (including scheduled testing and monitoring).
- Pollution prevention: Healthy air quality goals during construction.
- Maintain proper ventilation during construction and eliminate contaminating indoor air quality within the adjacent occupied spaces.
- Environmentally-benign construction techniques.

Work Restrictions, Worker Conduct, and Work Rules

- Restricted site access hours
- Contractor coordination with Owner's school vacation dates
- Contractor coordination with Owner's school parking and vehicular/bus access roads
- Police details at any time during construction where the construction takes place in a public right-of-way
- Contractor coordination with and notification to the Owner related to temporary disruption of existing services (i.e., electric, gas, water, telephone, Internet) during construction

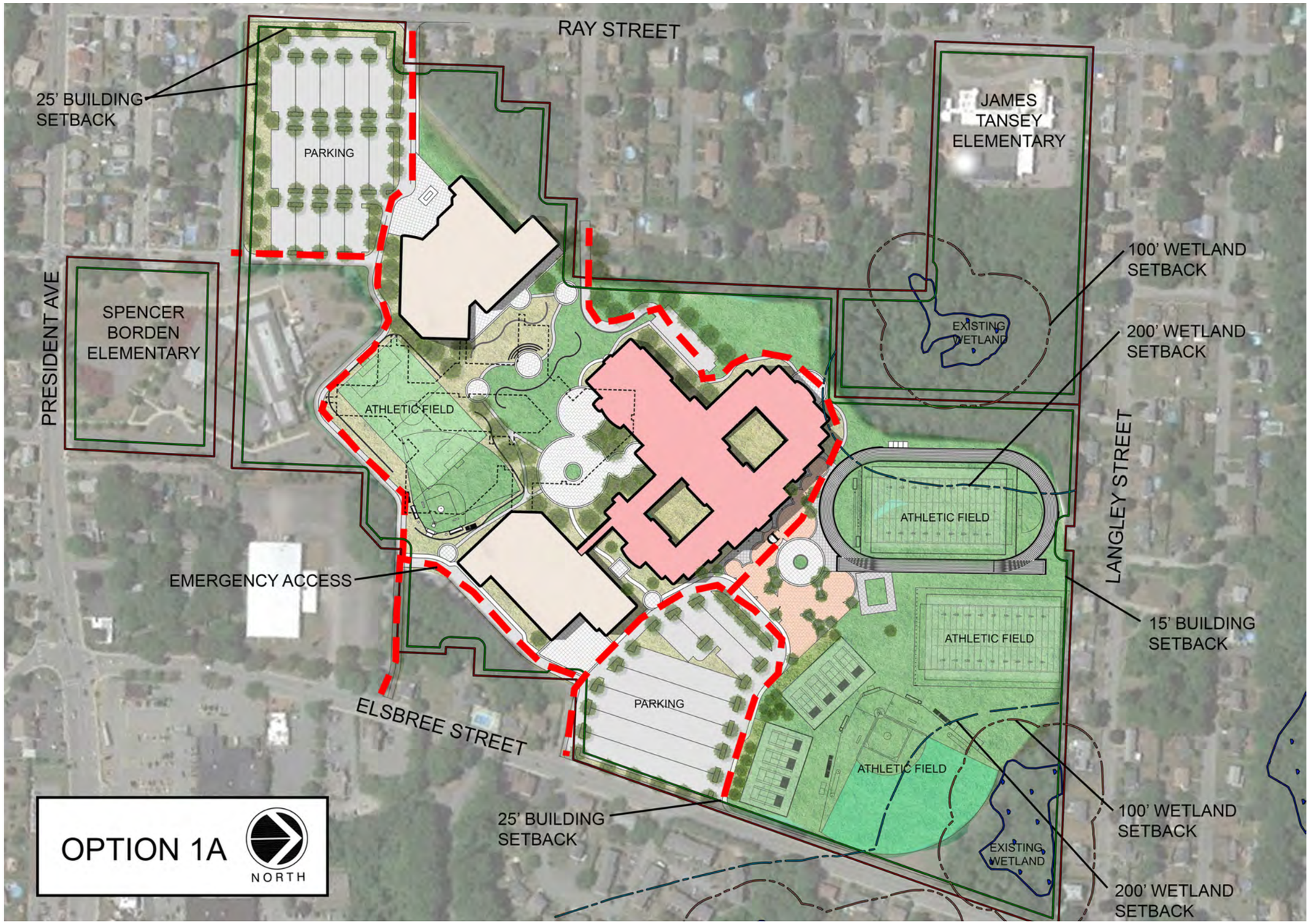
Temporary Facilities and Controls

- Provide and maintain all temporary facilities, controls, and construction aids during the course of construction to provide a safe environment.
- Temporary utility services: Contractor must ensure that temporary services (protective night lighting, heating, water, etc.) used for construction are maintained during construction and comply with local, state, and national codes.
- Temporary construction signage: Construction signage clearly delineating site and building construction areas from public areas.
- Noise control measures: Noise reduction methods will include, but are not limited to, noise-abatement program, scheduling noise-related activities to minimize the impact on surrounding neighborhood (cutting, drilling, jack-hammering, etc.), configuration of construction site relative to the existing building(s), air compressors with silencers, power equipment with mufflers, and limiting equipment idling on site.
- Dust control measures: Construction entrances, site, and building construction area.

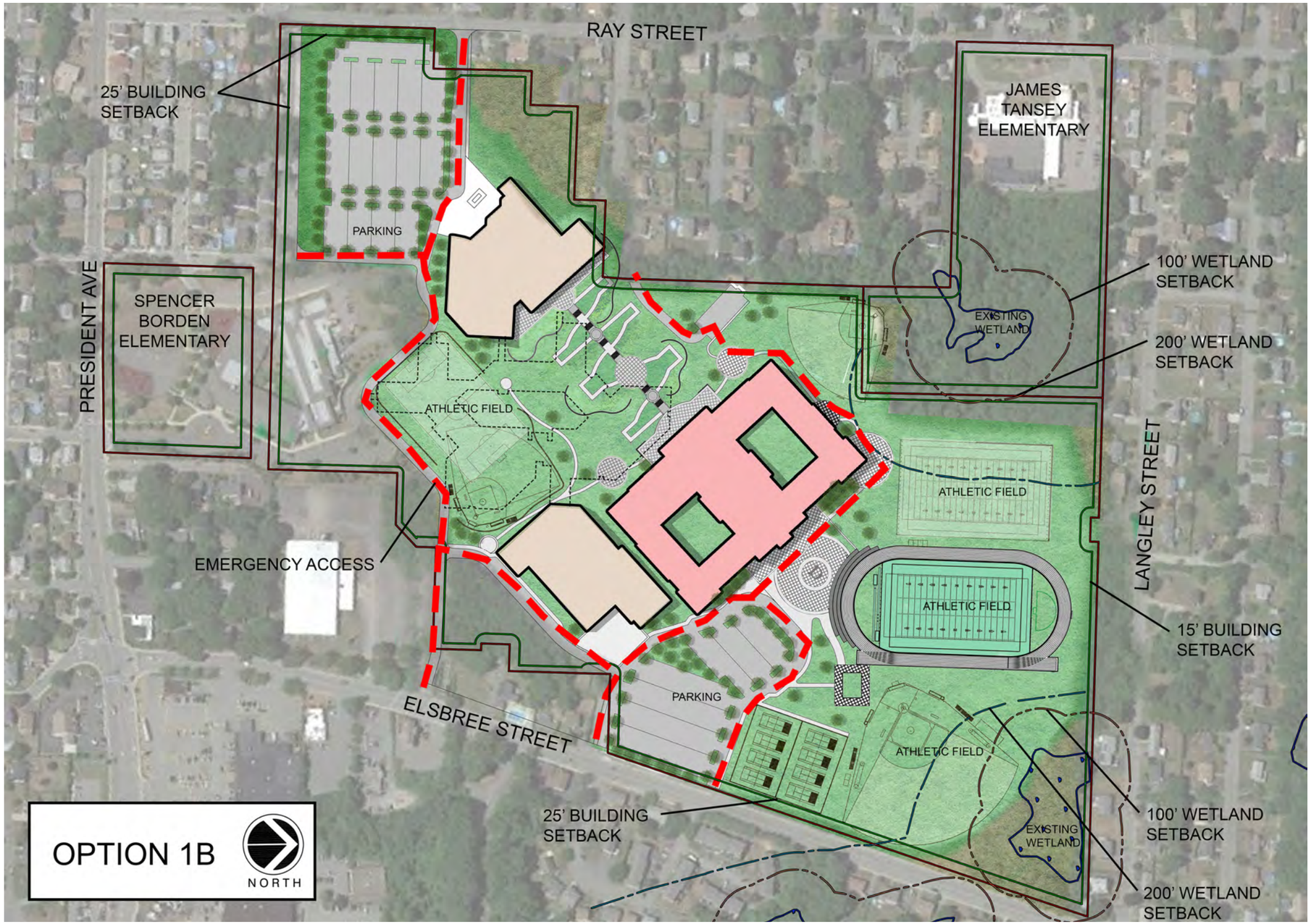
- Temporary barricades: Clear separation between construction zone and occupied spaces.
- Temporary fences: provide clear separation and secure perimeter around the construction site and construction equipment with vehicular locks and gates. The fence should include an opaque applied scrim to provide a 'solid visual barrier' between the construction area and public right-of-way.
- Vehicular traffic control: The contractor shall not close or obstruct any portion of any street, public or private, without obtaining the necessary permits from the proper authorities.
- Security measures

CONCEPTUAL SITE PLANS

Final Evaluation of Alternatives



Renovation of Existing Performing Arts Building and Athletic Building (Demolition of Existing Academic Core) and Construction of a New Academic Core Addition



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