



BMC DURFEE HIGH SCHOOL

Fall River Public Schools

Preliminary Design Program
Feasibility Study

April 20, 2017



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Project Number: 1607.00

April 20, 2017

Report Prepared for:

City of Fall River - School Building Committee
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PROJECT SUMMARY

Introduction

FALL RIVER HISTORY

Fall River is a city in Bristol County, Massachusetts, United States. Fall River's population was 88,857 at the 2010 census, making it the tenth-largest city in the state.

Located along the eastern shore of Mount Hope Bay at the mouth of the Taunton River, the City became famous during the 19th Century as the leading textile manufacturing center in the United States. While the textile industry has long since diminished, its impact on the City's culture and landscape remains to this day. Fall River's official motto is "We'll Try," dating back to the aftermath of the Great Fire of 1843. It is also nicknamed "the Scholarship City" because Dr. Irving Fradkin founded Dollars for Scholars here in 1958.

Fall River is known for the Lizzie Borden case, Portuguese culture, its numerous 19th-Century textile mills, and Battleship Cove, the world's largest collection of World War II naval vessels and the home of the USS Massachusetts (BB-59). Fall River is also the only city in the United States to have its City Hall located over an interstate highway.

The "Falling River" from which the name Fall River is derived refers to the Quequechan River which flows through the city, dropping steeply into the bay. Fall River's industrial development occurred along the falling river from which it was named. The river had eight falls which, combined, make Fall River the best tidewater privilege in southern New England. It was perfect for industrialization; big enough for profit and expansion, yet small enough to be



developed by local capital without interference from Boston.

The advantage of being able to transport bales of cotton and coal to fuel the steam engines via Fall River's deep water harbor, and to also ship out the finished goods, made Fall River the choice of a series of cotton mill magnates. At one time, there were 120 cotton mills located along the river. In 1854, Fall River was officially incorporated as a city, and had a population of about 12,000.

Fall River profited greatly from the American Civil War and positioned itself to take advantage of the prosperity that followed. By 1868, it had surpassed Lowell as the leading textile city in America, running over 500,000 spindles. Then, during 1871 and 1872, the "most dramatic expansion" of the city occurred: 15 new corporations were founded which built 22 new mills throughout the





and was the largest printer of cloth in the world. Dozens of other city mills solely produced cloth to be printed at the APC. World War I had caused an increase in demand for textiles, and many of the mills of New England benefited during this time. However, the post-war economy quickly slowed, and production quickly outpaced demand. In 1923, Fall River faced the first wave of mill closures. Some mills merged and were able to limp along until the late 1920s. By the 1930s during the Great Depression, many more mills were closed and the city went bankrupt.

The City of Fall River experienced many "firsts" and "largest", and a few "seconds" during the turn of the

city, and many of the older mills expanded. The City's population increased by 20,000 people during these two years, while overall mill capacity doubled to more than 1,000,000 spindles. By 1876, the "Spindle City" as it became known, was second in the world only to Manchester, England.

Fall River rode the wave of economic prosperity well into the early 20th Century. During this time, the City boasted several fancy hotels, theaters, and a bustling downtown. Expansion and growth continued throughout the late 19th Century with the development of several fine parks, schools, streetcar lines, a public water supply, and sewerage system to meet the needs of its growing population.

The cotton mills of Fall River had built their business largely on one product, print cloth. Around 1910, the City's largest employer, the American Printing Company (APC), employed 6,000 people



Century's activity and growth. A few are listed below:

Number one producer of cotton cloth in the U.S.: (Second largest producer in the world...Manchester, England) - 1911

43 Corporations – 222 mills – 3.8M spindles (2 miles of cloth for every minute of every working day)

Largest cloth printing company in the U.S. (American Print Works – Established by Holder Borden): 1835
7 mills – 29 printing machines – 10 engines



First textile manufacturing City in the U.S. to use self-acting mules:
1846

Self-acting mules were the latest technology in textile manufacturing in which the operations ordinarily performed by the spinner were achieved by automatic means. (In 1838, Bradford Durfee visited Manchester, England to purchase the new technology.)

One of the earliest communities in the U.S. to establish a High School:

1849 – same year as New York
(In April 1849 at Town Meeting, a High School was authorized and \$1,500 was appropriated for maintenance.)

First City in MA to make public education absolutely free without direct cost to the parents:

Fall River began providing free text books in 1874. In August 1884, a general state law took effect requiring free text books and supplies.

Largest historic naval exhibit in the world:

Battleship Cove
World's largest collection of WWII naval vessels

First public building construction over a Federal public highway:

One of the most collected cities in New England (Antiquarian Booksellers)

Highest percentage of foreign-born inhabitants than any other large City in the U.S.: 1900

Largest Schooner afloat in the U.S.:

1900 – named "Mary W. Bowen"
Owned by Joseph A. Bowen Company for the transportation of coal from NY. U.S. Government purchased from J.A. Bowen in 1917 for transportation of war materials.

First double-hull with watertight compartment vessel in the U.S.: 1883
– named "Pilgrim"



Passenger transporter from Fall River to NYC was "designed to be unsinkable". The ship was equipped with Thomas Edison's new invention....the electric lights.

Largest "side-wheeler" in the world: 1894 – named "Priscilla"
440-foot passenger vessel traveling from Fall River, Newport RI, NYC

Second largest theater stage in MA: 1876 – The Academy Theater

Second largest natural body of water in MA: North Watuppa Pond

With the demise of the textile industry, many of the City's mills were

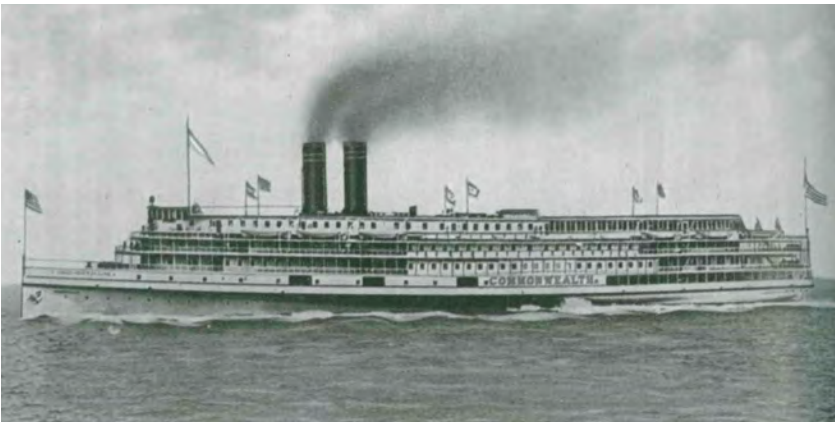




occupied by smaller companies, some in the garment industry, traditionally based in the New York City area but attracted to New England by the lure of cheap factory space and an eager workforce in need of jobs. The garment industry survived in the City well into the 1990s but has also largely become a victim of globalization and foreign competition.

In the 1960s, the City's landscape was drastically transformed with the construction of the Braga Bridge and Interstate 195, which cut directly through the heart of the City. In the wake of the highway building boom, the City lost some great pieces of its history. The Quequechan River was filled in and re-routed for much of its length. The historic falls, which had given the city its name, were diverted into underground culverts. A series of elevated steel viaducts were constructed to allow for construction of the new Braga Bridge. Many historic buildings were demolished.

Since about 1980, there has been a considerable amount of new development in the North-end of the City, with many new single and multi-family housing developments, particularly along North Main Street.



Today, Fall River is similar to many of the larger Massachusetts cities that previously thrived on a very specialized commercial development, which has since disappeared and now seeks transformation toward a more diversified economy which encourages business and development. It is well known for its unique local cuisine and has many popular restaurants, bakeries and food retail establishments. The emerging waterfront includes parks, restaurants, and attractions that attract visitors from all over the region. The Southeastern Massachusetts Bioreserve and Fall River Freetown State Forest take advantage of the largely unspoiled eastern-end of the City, and new bicycle paths are encouraging visitors and locals to explore the City.

The City recognizes that education is one of the most important elements in transforming the City's business, social, and economic development and has made significant investments in the Fall River Public Schools. The original 1887 BMC Durfee High School was a source of pride for the City for almost a century, and restoring that pride to the City's flagship high school is a key step towards the future.

Notable People from Fall River

- **Lizzie Borden** (1860–1927), tried and acquitted of the 1892 murder of her father and step-mother in Fall River. She is buried with them and the rest of their immediate family in Oak Grove Cemetery.
- **Sam Hyde**, comedian, writer and actor
- **David Glendenning Cogan** (1908–1993), ophthalmologist
- **Brandon Gomes**, Major League Baseball player
- **Leslie Gourse**, jazz writer, was born here in 1939
- **Louie Howe**, political advisor to President Franklin D. Roosevelt, who appointed spouse Grace Hartley

Howe as Fall River, MA Postmaster; Mr. and Mrs. Howe are interred at Oak Grove Cemetery, Fall River, MA; it is reported and documented that President Roosevelt personally attended Mr. Howe's funeral services.

- **Emeril Lagasse**, celebrity chef
- **Tom Lawlor**, professional mixed martial artist
- **George Luz**, World War II veteran, portrayed in the HBO miniseries Band of Brothers
- **Marc Megna**, American and Canadian football player
- **Ernest Moniz**, 13th U.S. Secretary of Energy
- **John Moriarty**, Collaborative Pianist, Vocal Coach, Diction and Repertoire Professor, New England Conservatory of Music
- **Hank the Angry Drunken Dwarf** (Henry Joseph Nasiff Jr.), entertainer
- **Joe Raposo**, songwriter for Sesame Street
- **Jerry Remy**, former Major League Baseball player
- **Chris Santos**, celebrity chef
- **Andrew Sousa**, professional soccer player
- **George Stephanopoulos**, Good Morning America co-host
- **Tecia Torres**, professional mixed martial artist

BMC DURFEE HIGH SCHOOL HISTORY

The original B.M.C. Durfee High School was occupied in 1887 as one of the first comprehensive high schools in the country, and was the envy of every City and Town in the Commonwealth. It last served as a school in 1977 and now serves as a Probate and Family Court for the Commonwealth of Massachusetts. It was added to the National Register of Historic Places in 1981. The entire costs of the original building, furnishings, and land was a donation from Mrs. Mary B. Young as a gift to the people of the City of Fall River, in memory of



her son Bradford Matthew Chaloner Durfee, who had died at a young age in 1872. The iconic building, with its tall red-capped clock tower and red-domed observatory tower, occupies prime real estate overlooking the Taunton River and gives rise to the Fall River School District's seal, the school's athletics nickname (the Hilltoppers), their school colors of black and red (for the two roof colors), the school newspaper (The Hilltop), and their school alumni newspaper (The Chimes).

In the 1960s, with significant overcrowding and no room for expansion, planning began for a new high school on an alternative site. The City's intentions were good as they looked to modernize the facilities for teachers and students while simultaneously alleviating the overcrowding at the former site. Unfortunately, the design, planning, and occupancy of the new school provided many challenges. An energetic team of architects with no prior school design experience proceeded to design a sprawling open-classroom facility of over 500,000sf. The project ballooned from \$15.0 million to \$27.5 million, and was delayed two years in its



completion resulting in litigation between the City and both the Architect and the General Contractor. Even after completion and occupancy, the teachers, students, and facility personnel continued to suffer from a poorly organized building with numerous physical defects. Leaking roofs, leaking windows, and poor air quality plagued the building through its first 10 years of occupancy. The organization of the building with its hidden entries, lack of visual sightlines, and maze-like hallways resulted in the need to hire an outside security consultant to develop strategies and modifications for the District. The open classroom pods, each alienated from one another, provided a challenging acoustical and educational environment. The six-level floor plan, staggered up the side of the hill, made movement between many program areas both challenging and time-consuming.

Over the past four decades, the administrators, teachers, students, and facility personnel have made the best of the building they inherited in 1978. Open classroom areas have been enclosed, roofs and windows have been modified, faulty mechanical and electrical equipment has been replaced, and portions of the building which are unsafe or non-functional have been abandoned. Anyone who has ever toured Durfee High School as a teacher, parent, student, community member, or visitor fully understands the immediately-obvious challenges of the poorly designed facility.

Within the past Century, there have been many distinguished Alumni from BMC Durfee High School. The following is a partial list representing the diversity of professionals who have passed through the hallways of this important and historical City institution:

- **Mark Bombback** - Former MLB player (Milwaukee Brewers, New York Mets, Toronto Blue Jays)
- **James Chace** - (1949) - Distinguished historian.
- **Warren A. Cole** - (1908) - Founder of Lambda Chi Alpha International Fraternity.
- **Morton Dean** - (1953) - American television news journalist
- **Margery Eagan** - journalist and writer
- **Edward Francis Harrington** - (1951) - United States federal judge.
- **Tom Gastall** - Former MLB player (Baltimore Orioles)
- **Russ Gibson** - Former MLB player (Boston Red Sox, San Francisco Giants)
- **Brandon Gomes** - Current MLB player (Tampa Bay Rays)
- **Chris Herren** - (1994) - Former NBA player for the Denver Nuggets, Boston Celtics
- **Sam Hyde** - Comedian, co-creator of sketch comedy group Million Dollar Extreme, and actor and writer of Adult Swim's Million Dollar Extreme Presents: World Peace
- **Brig. Gen. John J. Liset, USAF** - (1938) - chief of the USAF Section of the Joint Brazil-United States Military Commission, and chief of the Air Force Section, Military Assistance Advisory



Group in Brazil.

- **James M. McGuire** - (1931) - Supreme Court Justice of the State of New York
- **Ernest Moniz** - (1962) - United States Secretary of Energy under Barack Obama.
- **Humberto Sousa Medeiros** - (1937) - Cardinal of the Roman Catholic Church; Former Archbishop of Boston.
- **John Moriarty** - (1948) - noted vocal coach and accompanist and a conductor and stage director of productions at opera companies throughout America.
- **Jerome Namias** - (1928) - Prominent American meteorologist; former Chief of the Extended Forecast Division of the National Weather Service and was involved in the research of both the Dust Bowl and El Niño phenomena.
- **William J. Porter** - (1930) - American diplomat; former ambassador to Canada, Saudi Arabia, and others.
- **William K. Reilly** - (1958) - former Administrator of the United States Environmental Protection Agency and current director of DuPont.
- **James M. Swift** - first head football coach at Michigan State Normal School (now Eastern Michigan University)
- **Luke Urban** - Former MLB player (Boston Braves)
- **Gen. Melvin Zais, US Army** - (1933) - Decorated United States Army General

On April 9, 2014, on behalf of the School Committee, former Superintendent of Schools, Meg Mayo Brown, submitted a Statement of Interest (SOI) to the Massachusetts School Building Authority (MSBA) for the BMC Durfee High School. Please refer to **Appendix A** for a complete copy of the Statement of Interest. At the January 14, 2015 Board of Director's meeting, the MSBA Board voted to issue an invitation to

Fall River to enter into the Eligibility Period. Subsequently, at the November 18, 2015 Board of Director's meeting, the MSBA Board voted to issue an invitation to Fall River to conduct a Feasibility Study for BMC Durfee High School and to identify and study possible solutions and through a collaborative process with the MSBA to reach a mutually-agreed upon solution. Refer to **Appendix B** for all MSBA Board Actions on the BMC Durfee High School Project.

Statement of Interest Summary (SOI):

The SOI identified the following priorities to which the City of Fall River would like to address in the Feasibility Study:

3. Prevention of the loss of accreditation
5. Replacement, renovation or modernization of school facility systems, such as roof, windows, boilers, heating and ventilation systems, to increase energy conservation and decrease energy related costs in a school facility

The SOI identifies crucial Programs and Operations that cannot be implemented due to the facility constraints and issues. For example:

1. Various vocational construction programs suffer from building services infrastructure restrictions.
2. Culinary Arts suffers from an inadequate teaching kitchen that does not have proper sightlines or visually connected facilities.
3. Science program lacks adequate technology and power infrastructure.
4. Areas are not ADA accessible and given its 1970s construction do not comply with current guidelines.
5. The school is unable to add programs due to the inability to expand or modify existing areas. The DESE will not certify needed programs due to these deficiencies.

Science labs are very limited, and were cited in the District's recent NEASC report. Although the technology infrastructure has had some upgrades, the lack of coverage, proper wiring, internet capacity, and current technology (needed to provide coursework in the STEM and engineering emerging areas) handicaps potential programming for students.

The building's closed-circuit television system (CCTV) is limited, outdated, and has been marginally operating with the most recent "updates" occurring in 2013-2014 utilizing refurbished equipment. The existing doors and door hardware have had numerous repairs with some compromised and needing to be permanently locked to be secured. This condition adds to the current difficulties in providing a secure and safe building and environment for the school community.

The SOI identified the building's core academic spaces (i.e. general

educational classrooms) as being organized by department (ELA, Math, Science, Social Studies, etc.). The classrooms vary considerably in size, averaging from between 650 to 1,100 sq. ft. The original building design contained "open classroom" spaces in a wing configuration, which have since been sub-divided into individual classroom spaces. The original spaces and even the subsequent renovations created rooms that are not conducive to student learning. Future classrooms will require interactive white boards, sound reinforcement, and wireless access for teacher and student devices.

The science labs are original, without renovation to any of the existing finishes (ceiling, wall, floor, etc.) and building services (gas, water, electrical). Some of the science classrooms have been retrofitted with technology (although currently outdated) since the original construction. As previously indicated, the NEASC report cited the school for the lack of proper lab spaces. Future science labs should be designed to meet the guidelines of mandated state requirements and include the appropriate amenities.

The media center contains traditional open study and library spaces, as well as a series of classroom/computer lab spaces that were added over the past four years. These spaces struggle with the appropriate reading areas and study rooms, as well as acoustic and security issues.

The SOI very clearly details the numerous building issues and limitations that the District has been challenged with for many year. These deficiencies and limitations have had significantly negative impacts on the educational environment.

The SOI indicates that the City understands the need to study all possible options for resolving these deficiencies, but also correctly points out that there may be benefits associated with a proposed solution that renovates a portion of the existing BMC Durfee High School building.

Existing BMC Durfee High School Summary:

The existing BMC Durfee High School, located on 360 Elsbree Street, was constructed in 1978 and is centrally located within the City of Fall River. The school is located in a densely populated residential neighborhood on a 63.86-acre site and provides approximately 573,210 gross square feet of building space.

The site is accessible via four two-way driveways, one each off Elsbree Street, Chestnut Street, Hood Street, and Weetamoe Street. All adjacent streets are under the City's jurisdiction and therefore, only require local approval for future modifications.

The site is comprised of the existing school buildings, paved parking areas, driveways, pedestrian walks, athletic facilities, and

associated structures. The existing paved parking and drives are in poor condition with deep surface cracks, pot holes, low points, surface drainage issues and pavement patches throughout. Future development and parking options could look to Elsbree Street, President Avenue (Route 6), Ray Street, Hood Street, and Weetamoe Street as potential entrance/exit locations for vehicular circulation. A traffic impact analysis will need to be conducted to further assess existing traffic patterns, existing roadways, and the future development impacts.

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. The most significant grade change occurs within the center of the core academic building, with the performing arts building connecting on the higher elevation and the gymnasium / natatorium building connecting on the lower elevation. As a result of placing the existing building in the center of the most significant grade change, the building has many floor level changes. The building design has a maze of corridors connecting the various buildings and academic wings resulting in a very difficult building to navigate, oversee, and secure.

The existing 1978 building structure is constructed of reinforced, cast-in-place concrete which extends vertically five stories and has a convoluted, maze-like horizontal configuration. Other than the necessary alterations to address immediate building facility deficiencies such as moving classrooms due to building damage and heating

and cooling issues, sub-dividing open-classroom areas, etc., the building has not been substantially renovated, altered, expanded, or improved since its original construction. The building's exterior walls are constructed of asbestos panels with minimal insulation. Two boilers have been replaced, one approximately 15 years ago, and the other in 2013. However, most plumbing, piping, and plumbing fixtures are original. The electrical service is undersized and original with minimal upgrades and repairs over the lifespan of the school. Classroom lighting is outdated and inefficient by today's standards. The building elevator is not code-compliant. Significant amounts of asbestos-containing building materials remain within the building, although appropriate steps have been taken to contain any potential exposure. Many non-traditional spaces such as storage spaces and basement areas are utilized for maintenance staff and instructional spaces. Adequate meeting space for faculty, staff, and parents is non-existent. The cafeteria is located adjacent to the main entrance which is a security issue. It is a single, large space which is not conducive to alternative educational uses during the typical school day and lacks modern acoustics. The building lacks the appropriate quantity of teaching stations to provide a safe environment for the physical education and athletics programs. The boys' locker rooms lack modern amenities and contain the original gang-style showers. The girls' locker room is antiquated with exposed water valve controls and inadequate temperature mixing controls. The girls' locker room contains individual changing stations that are not handicap accessible. Lavatory and toilet counts do not meet the needs of the student population in the boys' and girls' locker rooms.

Perhaps most importantly, the building is NOT designed and organized to

support a modern 21st Century comprehensive high school educational program, as further defined and detailed herein.

Although none of these features prohibit the renovation of the building, they do require a careful analysis to determine if any proposed re-use of the existing building is physically viable, financially feasible, and/or educationally appropriate.

The specific goals of this study include a review and investigation of the problems and challenges identified in the SOI, including exploration of the facility deficiencies and the development of the desired educational program. The strategic goals of the Fall River Public Schools and the educational program should be analyzed in conjunction with existing and available resources to determine which options should be further studied as potential long-term solutions for the District.

In order to formulate a plan to address the City of Fall River's needs, Ai3 Architects, LLC proceeded with the following process and tasks:

- Document detailing existing conditions at the BMC Durfee High School building.
- Conduct a series of Educational Visioning sessions which included our educational consultant, David Stephen of New Vista Design.
- Summarize educational and facility challenges.
- Assist the Owner with the development of an educational program that describes grade and school configuration policies, class size policies, the use of a Freshman Academy and Grade 10/11/12 "teams", school policies, lunch programs, technology instruction policies and programs, creative arts, music and performing arts, physical education, special education, transportation policies, functional and spatial relationships and adjacencies, security and visual access requirements while ensuring that the educational program is fully incorporated into the process.
- Conduct an initial space summary to determine the space necessary to deliver the planned educational program.
- Generate options for resolving educational, site, and facility challenges.
- Develop costs for each of the options.
- Evaluate options based on their proposed cost versus their value in resolving District-wide educational and facility deficiencies.

The MSBA Board of Directors invited Fall River to begin a Feasibility Study for the BMC Durfee High School on November 18, 2015. The Feasibility Study is one step in the MSBA's grant program process for school building construction and renovation projects. Please refer to **Appendix B** for a complete copy of the Massachusetts

School Building Authority Feasibility Study Agreement that outlines the requirements of this phase of the process.

On August 27, 2015, the Massachusetts School Building Authority issued the BMC Durfee High School Design Enrollment Certification to former Superintendent Meg Mayo-Brown. The City of Fall River has acknowledged and accepted the design enrollment and that the proposed "Project" will be a comprehensive high school facility serving Grades 9-12 with a total population of 2,570 students. Please refer to **Appendix C** for a signed copy of the Design Enrollment Certification.

CAPITAL BUDGET STATEMENT

Introduction

The City of Fall River clearly understands that the BMC Durfee High School project will have a significant effect on the City's budget and financing capacity. City and School officials, their financial teams, civic leaders, and the SBC's Finance Subcommittee are working together to analyze the City's existing debt limit, debt service capacity, and financing capabilities to determine the City's ability to support the various building options that are being explored. A letter from the City Treasurer indicates the City's inside debt limit is \$271,084,560 and the City's inside debt capacity as of June 30, 2016 is \$185,499,345. Also, a Debt Service Analysis that includes all current debt and known future debt amortized over the length of each debt is provided herein, along with a Tax Impact Analysis of the City's potential share of costs for the range of options being explored.

The Capital Budget Statements prepared by the City Treasurer and City's CFO can also be found within this section.

The City of Fall River is committed to providing the necessary financial resources to fund the BMC Durfee High School Project in a prudent and responsible manner that does not preclude other high-priority known and future capital expenditure needs. This team understands that they will have to work closely with the City to develop a building option that not only meets the educational goals, objectives and needs of the District and its students but one that is fiscally feasible for the City.

The City will provide a more refined

set of capital budget documents during the next phase of the Feasibility Study as each Option is explored in more detail.

CITY DEBT LIMITS LETTER

Capital Budget Statement



**CITY OF FALL RIVER
MASSACHUSETTS**

DEPARTMENT of FINANCIAL SERVICES
TREASURER • COLLECTOR • AUDITOR • ASSESSOR

JASIEL F. CORREIA II
Mayor

PAULIANNE MARTINS-TEIXEIRA
Treasurer

April 11, 2017

My name is Paulianne Martins-Teixeira and I am the duly appointed Treasurer for the City of Fall River. The city's inside debt limit is \$ 271,084,560 and the city's inside debt capacity as of June 30, 2016 is \$185,499,345.

Paulianne Martins-Teixeira

Paulianne Martins Teixeira
Treasurer

One Government Center Fall River, MA 02722
TEL: (508) 324-2260 FAX (508) 324-2040

CITY OF FALL RIVER

CITY DEBT LIMIT, ALSO REFERRED TO AS DEBT LIMIT

The inside debt limit is based on five percent (5%) of the equalized valuation of the City.

Equalized Valuation	5,421,691,200.00
Inside Debt Limit (5%)	271,084,560.00
Existing Inside Debt	(72,460,300.00)
Authorized Debt but Unissued	<u>(13,124,915.00)</u>
Current Debt Capacity	185,499,345.00

OUTSIDE DEBT

Current Outside Debt related to schools	8,234,086.00
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DEBT SERVICE ANALYSIS

Capital Budget Statement

Total Net Debt Service as of 6-30-2016 (after August 2016 Refunding and 12/16/2016 MCWT Swap)

A

	General Fund		School		Water Net of MWPAT Subsidy		Sewer Net of MWPAT Subsidy		GF City + School
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	P & I
2017	2,698,000.00	893,398.02	4,280,906.65	1,446,410.51	3,144,527.71	1,315,857.53	5,288,099.88	2,836,401.63	9,318,715.18
2018	2,101,500.00	787,104.54	3,998,206.65	2,072,515.39	3,164,386.37	1,184,365.72	5,325,296.43	2,762,652.64	8,959,326.58
2019	2,041,000.00	686,590.76	4,045,206.65	1,634,270.72	3,238,706.67	1,081,149.46	5,469,798.93	2,610,254.03	8,407,068.13
2020	1,991,000.00	594,250.76	4,138,106.65	1,481,415.59	3,293,403.99	980,607.26	5,588,126.17	2,453,395.93	8,204,773.00
2021	2,015,800.00	506,185.76	4,217,406.65	1,323,929.46	3,344,621.68	878,267.81	5,708,482.05	2,296,730.76	8,063,321.87
2022	1,939,000.00	418,523.76	3,783,906.65	1,160,776.32	3,374,097.42	781,409.34	5,711,432.27	2,123,616.98	7,302,206.73
2023	1,684,000.00	332,158.76	3,494,906.65	1,019,883.19	3,417,098.43	692,502.11	5,637,859.01	1,980,015.18	6,530,948.60
2024	1,668,000.00	259,568.76	3,593,906.65	881,715.06	3,261,375.70	602,354.32	5,667,670.01	1,823,644.74	6,403,190.47
2025	1,703,000.00	199,748.76	3,690,906.65	753,946.93	3,297,405.44	533,760.64	5,925,477.13	1,590,808.94	6,347,602.34
2026	1,257,000.00	143,173.76	3,796,906.65	620,273.79	2,517,475.95	465,205.30	6,160,721.34	1,426,871.84	5,817,354.20
2027	1,185,000.00	98,480.63	3,920,906.65	480,599.41	2,384,885.76	397,962.68	6,308,682.82	1,260,956.81	5,684,986.69
2028	728,000.00	72,686.25	3,589,906.65	348,720.03	2,318,883.72	335,560.47	6,247,976.38	1,116,619.10	4,739,312.93
2029	378,000.00	55,635.00	3,684,906.65	220,146.89	2,014,156.68	279,117.04	6,385,664.98	971,617.03	4,338,688.54
2030	350,000.00	44,550.00	965,000.00	136,043.76	1,961,321.62	226,083.77	6,523,094.46	834,716.77	1,495,593.76
2031	370,000.00	33,750.00	975,000.00	104,443.76	1,980,703.03	172,851.03	6,180,608.74	694,850.74	1,483,193.76
2032	380,000.00	22,500.00	995,000.00	72,393.76	1,727,126.90	123,807.54	6,088,476.84	556,155.95	1,469,893.76
2033	390,000.00	10,950.00	505,000.00	39,893.76	1,431,732.23	78,876.10	6,135,161.29	418,152.04	945,843.76
2034	170,000.00	2,550.00	520,000.00	24,518.76	905,281.01	47,951.28	5,301,218.18	328,074.38	717,068.76
2035	-	-	535,000.00	8,359.38	777,459.21	27,789.41	3,183,571.76	247,820.79	543,359.38
2036	-	-	-	-	586,699.00	10,983.98	2,469,375.45	173,866.55	-
2037	-	-	-	-	-	-	2,467,572.70	114,861.63	-
2038	-	-	-	-	-	-	1,744,962.96	64,355.74	-
2039	-	-	-	-	-	-	1,787,790.52	21,624.59	-
2040	-	-	-	-	-	-	-	-	-
Totals	23,049,300.00	5,161,805.52	54,731,086.45	13,830,256.47	48,141,348.52	10,216,462.79	117,307,120.30	28,708,064.79	96,772,448.44

	Principal	Interest
Grand Total	243,228,855.27	57,916,589.57
	301,145,444.84	

City of Fall River, Massachusetts
Existing & Proposed Long-Term General Fund Debt Service

Estimated Interest Rate on Proposed Notes Issued 2018: 2.00%
Estimated Interest Rate on Proposed Notes Issued 2019: 2.25%
Estimated Interest Rate on Proposed Notes Issued 2020: 2.50%
Estimated Interest Rate on Proposed Notes Issued 2021: 2.50%

Estimated Interest Rate on Proposed Bonds Issued 2018: 4.50%
Estimated Interest Rate on Proposed Bonds Issued 2022: 5.00%

Durfee High School Financing Model #1A - 20 year bonds (2/22/2017)

	A	B	C = A + B	D	E	F = C + D + E	
Fiscal Year	Total Existing Long-Term General Fund Tax-Supported Debt Service Outstanding (page 2)	Plus: Existing General Fund Tax-Supported Short-Term Bond Anticipation Note Interest & Principal Paydowns (page 3)	Equals: Net Existing General Fund Tax-Supported Debt Service	Plus: Total Projected Debt Service on \$10.986M General Fund Tax-Supported SQ Bonds dated February 2018 (see pages 5 - 8)	Plus: Total Projected Debt Service on \$48M General Fund Tax-Supported SQ Bonds dated February 2022 (see pages 9 - 10)	Equals: Total Existing & Projected Long-Term General Fund Tax-Supported Debt Service	Fiscal Year
2017	9,318,715	163,624	9,482,339	-	-	9,482,339	2017
2018	8,927,827	219,111	9,146,938	-	-	9,146,938	2018
2019	8,368,068	432,708	8,800,776	1,824,898	-	10,625,674	2019
2020	8,161,773	1,305,000	9,466,773	1,755,063	-	11,221,836	2020
2021	8,020,322	1,587,500	9,607,822	1,748,300	-	11,356,122	2021
2022	7,259,207	1,587,500	8,846,707	1,049,925	-	9,896,632	2022
2023	6,482,949	-	6,482,949	903,763	3,853,250	11,239,961	2023
2024	6,355,190	-	6,355,190	875,188	3,858,250	11,088,628	2024
2025	6,294,602	-	6,294,602	670,663	3,859,750	10,825,015	2025
2026	5,760,354	-	5,760,354	679,513	3,857,250	10,297,117	2026
2027	5,627,987	-	5,627,987	672,350	3,860,500	10,160,837	2027
2028	4,678,313	-	4,678,313	556,988	3,859,250	9,094,550	2028
2029	4,277,689	-	4,277,689	543,650	3,858,375	8,679,714	2029
2030	1,495,594	-	1,495,594	539,863	3,857,625	5,893,081	2030
2031	1,483,194	-	1,483,194	559,838	3,861,625	5,904,656	2031
2032	1,469,894	-	1,469,894	377,625	3,855,250	5,702,769	2032
2033	945,844	-	945,844	295,700	3,858,250	5,099,794	2033
2034	717,069	-	717,069	304,900	3,855,250	4,877,219	2034
2035	543,359	-	543,359	298,538	3,860,875	4,702,772	2035
2036	-	-	-	301,725	3,854,875	4,156,600	2036
2037	-	-	-	294,463	3,857,000	4,151,463	2037
2038	-	-	-	301,638	3,861,625	4,163,263	2038
2039	-	-	-	-	3,858,500	3,858,500	2039
2040	-	-	-	-	3,857,375	3,857,375	2040
2041	-	-	-	-	3,857,750	3,857,750	2041
2042	-	-	-	-	3,859,125	3,859,125	2042
Total	96,187,948	5,295,444	101,483,392	14,554,586	77,161,750	193,199,728	

Assumptions:

- ✦ Proposed bonds are structured assuming level debt service payments. Interest is estimated and subject to change.
- ✦ Only considers currently authorized projects with notes outstanding and the Durfee High School construction project.
- ✦ Proposed/projected projects are not considered.
- ✦ Durfee High School construction cash flow is estimated.

City of Fall River, Massachusetts

Total Existing General Fund Tax-Supported Debt Service

Outstanding as of June 30, 2016 (including subsequent issues)

Date	Principal	Interest	Total P+I
06/30/2017	6,978,906.65	2,339,808.53	9,318,715.18
06/30/2018	6,068,206.65	2,859,619.93	8,927,826.58
06/30/2019	6,047,206.65	2,320,861.48	8,368,068.13
06/30/2020	6,086,106.65	2,075,666.35	8,161,773.00
06/30/2021	6,190,206.65	1,830,115.22	8,020,321.87
06/30/2022	5,679,906.65	1,579,300.08	7,259,206.73
06/30/2023	5,130,906.65	1,352,041.95	6,482,948.60
06/30/2024	5,213,906.65	1,141,283.82	6,355,190.47
06/30/2025	5,340,906.65	953,695.69	6,294,602.34
06/30/2026	4,996,906.65	763,447.55	5,760,354.20
06/30/2027	5,048,906.65	579,080.04	5,627,986.69
06/30/2028	4,256,906.65	421,406.28	4,678,312.93
06/30/2029	4,001,906.65	275,781.89	4,277,688.54
06/30/2030	1,315,000.00	180,593.76	1,495,593.76
06/30/2031	1,345,000.00	138,193.76	1,483,193.76
06/30/2032	1,375,000.00	94,893.76	1,469,893.76
06/30/2033	895,000.00	50,843.76	945,843.76
06/30/2034	690,000.00	27,068.76	717,068.76
06/30/2035	535,000.00	8,359.38	543,359.38
Total	\$77,195,886.45	\$18,992,061.99	\$96,187,948.44

Par Amounts Of Selected Issues

July 15 2006 non-called -Slade School (I).....	50,000.00
July 15 2006 non-called -Letourneau School (I).....	50,000.00
July 15 2006 non-called -Kuss Middle School Planning (I).....	70,000.00
July 15 2006 non-called -Kuss Middle School Construction (I).....	100,000.00
July 15 2006 non-called -Morton Middle School Design (I).....	120,000.00
July 15 2006 non-called -Morton School Construction (I).....	50,000.00
July 15 2006 non-called -Small School Design (I).....	130,000.00
July 15 2006 non-called -City Hall Remodeling (I).....	200,000.00
July 15 2006 non-called -Street Construction (I).....	35,000.00
July 15 2006 non-called -Field House Remodeling (School) (I).....	385,000.00
June 12 2008 Section 108 Loan (O).....	160,000.00
July 15 2008 non-called -Slade Elementary School (ISQ).....	155,000.00
July 15 2008 non-called -Letourneau Elementary School (ISQ).....	555,000.00
July 15 2008 non-called -Kuss Middle School (ISQ).....	315,000.00
July 15 2008 non-called -Small Middle School (ISQ).....	200,000.00
July 15 2008 non-called -Recreational Facility - Durfee HS (ISQ).....	20,000.00
July 15 2008 non-called -Public Building Remodeling (ISQ).....	1,893,198.45
October 23 2008 MSBA Loan 1 (O) Slade Sch.....	2,629,588.00
October 23 2008 MSBA Loan 2 (O) Small Sch.....	665,000.00
May 23 2012 -Cur Ref June 1 2001 non-called Doran School (OSQ).....	655,800.00
May 23 2012 -Cur Ref June 1 2001 non-called Borden School (OSQ).....	745,500.00
May 23 2012 -Cur Ref June 1 2001 non-called Greene School (OSQ).....	390,500.00
May 23 2012 -Cur Ref June 1 2001 non-called Slade (ISQ).....	310,500.00
May 23 2012 -Cur Ref June 1 2001 non-called Letourneau (ISQ).....	259,400.00
May 23 2012 -Cur Ref June 1 2001 non-called North End (ISQ).....	75,000.00
May 23 2012 -Cur Ref June 1 2001 non-called Fire Station (ISQ).....	854,600.00
May 23 2012 -Adv Ref Feb 1 2003 Durfee School HVAC (ISQ).....	1,335,800.00
May 23 2012 -Adv Ref Feb 1 2003 Fire Station (ISQ).....	485,000.00
May 23 2012 -Adv Ref Feb 1 2003 Library Remodeling 1 (ISQ).....	59,000.00
May 23 2012 -Adv Ref Feb 1 2003 Library Remodeling 2 (ISQ).....	67,500.00
May 23 2012 -Adv Ref Feb 1 2003 School Boilers (ISQ).....	2,400,000.00
May 23 2012 -Morton School 1 (ISQ).....	5,600,000.00
May 23 2012 -Morton School 2 (ISQ).....	1,125,000.00
May 23 2012 -Equipment (Vehicles) 1 (ISQ).....	635,000.00
May 23 2012 -Equipment (Vehicles) 2 (ISQ).....	315,000.00
February 13 2014 revised -Britland Part Renovations & Improvements (ISQ).....	775,000.00
February 13 2014 revised -Kennedy & Highland Park Improvements (ISQ).....	1,645,000.00
February 13 2014 revised -Cur Ref Feb 1 03 Non-called North End School (ISQ).....	3,820,000.00
February 12 2015 -Morton School I (ISQ).....	3,910,000.00
February 12 2015 -Morton School II (ISQ).....	1,515,000.00
February 12 2015 -Departmental Equipment & Police Cruisers I (ISQ).....	1,105,000.00
February 12 2015 -Departmental Equipment & Police Cruisers II (ISQ).....	1,255,000.00
February 12 2015 -Departmental Equipment & Police Cruisers III (ISQ).....	555,000.00
February 12 2015 -Refuse & Recycling Bins I (ISQ).....	635,000.00
February 12 2015 -Refuse & Recycling Bins II (ISQ).....	935,000.00
February 12 2015 -Refuse & Recycling Bins III (ISQ).....	2,430,000.00
February 12 2015 -Public Building Remodeling I (ISQ).....	2,340,000.00
February 12 2015 -Public Building Remodeling II (ISQ).....	530,000.00
February 12 2015 -Public Building Remodeling III (ISQ).....	25,000.00
February 12 2015 -Commercial Mower (ISQ).....	130,000.00
February 12 2015 -Street Sweeper (ISQ).....	80,000.00
February 12 2015 -Sidewalk Sweeper (ISQ).....	35,000.00
February 12 2015 -1 Ton Truck (ISQ).....	120,000.00
February 12 2015 -Salt Body for Sanders (ISQ).....	190,000.00
February 12 2015 -Wood Chippers (ISQ).....	40,000.00
February 12 2015 -Fire Department Repeaters (ISQ).....	70,000.00
February 12 2015 -Various Department Vehicles (ISQ).....	130,000.00
February 12 2015 -SUV Police Cruisers (ISQ).....	180,000.00
February 11 2016 -SUV Police Cruisers (ISQ).....	125,000.00
February 11 2016 -Departmental Equipment - Backhoe (ISQ).....	160,000.00
February 11 2016 -Departmental Equipment - Loader (ISQ).....	65,000.00
February 11 2016 -Departmental Equipment - Brush Cutter (ISQ).....	2,960,000.00
February 11 2016 -Street Lighting Upgrades (ISQ).....	508,000.00
February 11 2016 -Computer System Hardware/Software (ISQ).....	453,000.00
September 29 2016 -Cur Ref July 15 2006 Slade School (ISQ).....	453,000.00
September 29 2016 -Cur Ref July 15 2006 Letourneau School (ISQ).....	634,000.00
September 29 2016 -Cur Ref Jul 15 06 Kuss Middle School Planning(ISQ).....	905,750.00
September 29 2016 -Cur Ref Jul 15 06 Kuss Middle School Constr(ISQ).....	1,086,750.00
September 29 2016 -Cur Ref Jul 15 06 Morton Middle School Design(ISQ).....	453,000.00
September 29 2016 -Cur Ref Jul 15 06 Morton Middle School Constr(ISQ).....	453,000.00
September 29 2016 -Cur Ref July 15 2006 Small School Design (ISQ).....	1,090,000.00
September 29 2016 -Cur Ref July 15 2006 City Hall Remodeling (ISQ).....	134,000.00
September 29 2016 -Cur Ref Jul 15 06 Field House Remodel(School)(ISQ).....	2,502,000.00
September 29 2016 -Adv Ref July 15 2008 Slade Elementary School (ISQ).....	2,435,750.00
September 29 2016 -Adv Ref July 15 2008 Letourneau Elem School (ISQ).....	8,795,250.00
September 29 2016 -Adv Ref July 15 2008 Kuss Middle School (ISQ).....	4,975,000.00
September 29 2016 -Adv Ref July 15 2008 Small Middle School (ISQ).....	3,109,500.00
September 29 2016 -Adv Ref July 15 2008 Rec Facility-Durfee HS (ISQ).....	301,500.00
September 29 2016 -Adv Ref July 15 2008 Public Building Remodel(ISQ).....	

TOTAL..... 77,195,886.45

<div> <div>City of Fall River, Massachusetts</div> <div>Durfee High School Financing Model #1A - 20 year bonds (2/22/2017)</div> <div>Existing/Projected Bond Anticipation Note Schedule - General Fund</div> </div>									
DATED	DUE	AMOUNT		TYPE	TERM (IN DAYS)	30/360 Day Count RATE (4)	INTEREST/ PAYDOWNS	FY TOTAL	
2/12/2016	2/11/2017	\$	8,204,000	(1) New Money/Renewal BANs*	359	2.00%	\$ 163,624	\$ 163,624	FISCAL 2017
2/10/2017	2/8/2018	10,986,600	(2)	New Money/Renewal BANs* Paydown	358	2.00%	218,511 600		
2/8/2018	2/8/2019	8,000,000		New Money - Durfee High School	360	2.00%	160,000	219,111	FISCAL 2018
8/1/2018	2/8/2019	30,000,000		New Money - Durfee High School	187	1.75%	272,708	432,708	FISCAL 2019
2/8/2019	2/8/2020	38,000,000		Renewal - Durfee High School	360	2.25%	855,000		
2/8/2019	2/8/2020	20,000,000		New Money - Durfee High School	360	2.25%	450,000	1,305,000	FISCAL 2020
2/8/2020	2/8/2021	58,000,000		Renewal - Durfee High School	360	2.50%	1,450,000	1,587,500	FISCAL 2021
2/8/2020	2/8/2021	5,500,000		New Money - Durfee High School	360	2.50%	137,500		
2/8/2021	2/8/2022	63,500,000		Renewal - Durfee High School	360	2.50%	1,587,500	1,587,500	FISCAL 2022

*Actual.

(1) Total Bond Anticipation Note issue was \$9,804,000, of which \$1,600,000 is supported by the sewer enterprise fund and the water enterprise fund.

(2) Total Bond Anticipation Note issue was \$14,018,925, of which \$3,032,325 is supported by the sewer enterprise fund and the water enterprise fund.

City of Fall River, Massachusetts Construction Cash Flow / Issue Proceeds / Investment Earnings				INTEREST RATES SUBJECT TO CHANGE 22-Feb-17			
Estimated Total Project Costs: MSBA Reimbursement %: Estimated MSBA Reimbursement: City's Net Share of Project Costs:				240,000,000 80.00% 192,000,000 48,000,000			
ESTIMATED CASH FLOW							
Date	Note/Bond Proceeds	Assumed MSBA Reimbursement	Available Funds	Projected Total Spending	Funds Available for Investment	Investment Earnings @ 1.50%	Investment Earnings by Fiscal Year
Feb-18	8,000,000	-	8,000,000	1,500,000	6,500,000	8,125	24,800
Mar-18	-	-	6,500,000	1,500,000	5,000,000	6,250	
Apr-18	-	1,140,000	6,140,000	1,500,000	4,640,000	5,800	
May-18	-	1,140,000	5,780,000	3,000,000	2,780,000	3,475	
Jun-18	-	1,140,000	3,920,000	3,000,000	920,000	1,150	
Jul-18	-	2,280,000	3,200,000	3,000,000	200,000	250	188,650
Aug-18	30,000,000	2,280,000	32,480,000	10,000,000	22,480,000	28,100	
Sep-18	-	2,280,000	24,760,000	10,000,000	14,760,000	18,450	
Oct-18	-	7,600,000	22,360,000	10,000,000	12,360,000	15,450	
Nov-18	-	7,600,000	19,960,000	10,000,000	9,960,000	12,450	
Dec-18	-	7,600,000	17,560,000	11,000,000	6,560,000	8,200	
Jan-19	-	7,600,000	14,160,000	11,000,000	3,160,000	3,950	
Feb-19	20,000,000	8,360,000	31,520,000	11,000,000	20,520,000	25,650	
Mar-19	-	8,360,000	28,880,000	11,000,000	17,880,000	22,350	
Apr-19	-	8,360,000	26,240,000	10,000,000	16,240,000	20,300	
May-19	-	8,360,000	24,600,000	10,000,000	14,600,000	18,250	
Jun-19	-	7,600,000	22,200,000	10,000,000	12,200,000	15,250	
Jul-19	-	7,600,000	19,800,000	10,000,000	9,800,000	12,250	
Aug-19	-	7,600,000	17,400,000	7,500,000	9,900,000	12,375	
Sep-19	-	7,600,000	17,500,000	7,500,000	10,000,000	12,500	
Oct-19	-	5,700,000	15,700,000	7,500,000	8,200,000	10,250	
Nov-19	-	5,700,000	13,900,000	7,500,000	6,400,000	8,000	
Dec-19	-	5,700,000	12,100,000	7,500,000	4,600,000	5,750	
Jan-20	-	5,700,000	10,300,000	7,500,000	2,800,000	3,500	
Feb-20	5,500,000	5,700,000	14,000,000	7,500,000	6,500,000	8,125	
Mar-20	-	5,700,000	12,200,000	7,500,000	4,700,000	5,875	
Apr-20	-	5,700,000	10,400,000	5,000,000	5,400,000	6,750	
May-20	-	5,700,000	11,100,000	5,000,000	6,100,000	7,625	
Jun-20	-	3,800,000	9,900,000	5,000,000	4,900,000	6,125	
Jul-20	-	3,800,000	8,700,000	5,000,000	3,700,000	4,625	
Aug-20	-	3,800,000	7,500,000	5,000,000	2,500,000	3,125	
Oct-20	-	3,800,000	6,300,000	5,000,000	1,300,000	1,625	
Nov-20	-	3,800,000	5,100,000	5,000,000	100,000	125	
Dec-20	-	3,800,000	3,900,000	2,500,000	1,400,000	1,750	
Jan-21	-	3,800,000	5,200,000	2,500,000	2,700,000	3,375	
Feb-21	-	1,900,000	4,600,000	2,500,000	2,100,000	2,625	
Mar-21	-	1,900,000	4,000,000	-	4,000,000	5,000	
Apr-21	-	1,900,000	5,900,000	-	5,900,000	7,375	
May-21	-	-	5,900,000	-	5,900,000	7,375	
Jun-21	-	-	5,900,000	-	5,900,000	7,375	
Jul-21	-	9,600,000	15,500,000	-	15,500,000	19,375	
Aug-21	-	-	15,500,000	-	15,500,000	19,375	
Sep-21	-	-	15,500,000	-	15,500,000	19,375	
Oct-21	-	-	15,500,000	-	15,500,000	19,375	
Nov-21	-	-	15,500,000	-	15,500,000	19,375	
Dec-21	-	-	15,500,000	-	15,500,000	19,375	
Jan-22	-	-	15,500,000	-	15,500,000	19,375	
Feb-22	(15,500,000)	-	-	-	-	-	44,375
Mar-22	-	-	-	-	-	-	
Apr-22	-	-	-	-	-	-	
May-22	-	-	-	-	-	-	
Jun-22	-	-	-	-	-	-	
	48,000,000	192,000,000		240,000,000		492,575	492,575

City of Fall River, Massachusetts
General Obligation State Qualified Municipal Purpose Loan of 2018 Bonds
Dated February 7, 2018

Assumes Level Debt Service

General (continued to next page)											
	Repairs to City Parks	Yard Waste Carts	Lewiston Street Garage Improvements	Industrial Park Paving Improvements	New Fire Pumper Truck	Fire Department SCBA	Various Outdoor Recreational Facility Improvements	Community Maintenance Equipment	Jefferson St. Area Land Acquisition & Construction Services	Sucker Brook Driveway Crossing	MIS Departmental Equipment
12/1/2018	10,000	200,000	5,000	49,000	20,000	95,000	10,000	34,000	10,000	20,000	90,000
12/1/2019	10,000	220,000	5,000	65,000	25,000	105,000	10,000	30,000	25,000	35,000	95,000
12/1/2020	10,000	230,000	5,000	65,000	30,000	110,000	10,000	35,000	25,000	35,000	100,000
12/1/2021	10,000	-	10,000	70,000	30,000	115,000	10,000	35,000	25,000	35,000	105,000
12/1/2022	15,000	-	10,000	70,000	30,000	125,000	15,000	35,000	25,000	40,000	-
12/1/2023	15,000	-	10,000	75,000	35,000	130,000	15,000	40,000	30,000	40,000	-
12/1/2024	15,000	-	10,000	80,000	35,000	-	15,000	-	30,000	40,000	-
12/1/2025	15,000	-	10,000	85,000	35,000	-	15,000	-	30,000	45,000	-
12/1/2026	15,000	-	10,000	85,000	40,000	-	15,000	-	30,000	45,000	-
12/1/2027	15,000	-	10,000	90,000	40,000	-	15,000	-	35,000	50,000	-
12/1/2028	15,000	-	10,000	95,000	40,000	-	15,000	-	35,000	50,000	-
12/1/2029	15,000	-	10,000	100,000	45,000	-	15,000	-	35,000	50,000	-
12/1/2030	20,000	-	10,000	105,000	45,000	-	20,000	-	40,000	55,000	-
12/1/2031	-	-	10,000	-	-	-	20,000	-	40,000	55,000	-
12/1/2032	-	-	10,000	-	-	-	-	-	40,000	60,000	-
12/1/2033	-	-	15,000	-	-	-	-	-	45,000	65,000	-
12/1/2034	-	-	15,000	-	-	-	-	-	45,000	65,000	-
12/1/2035	-	-	15,000	-	-	-	-	-	50,000	70,000	-
12/1/2036	-	-	15,000	-	-	-	-	-	50,000	70,000	-
12/1/2037	-	-	15,000	-	-	-	-	-	55,000	75,000	-
Total	\$ 180,000	\$ 650,000	\$ 210,000	\$ 1,034,000	\$ 450,000	\$ 680,000	\$ 200,000	\$ 209,000	\$ 700,000	\$ 1,000,000	\$ 390,000
Original Issue Date of BANs	2/12/2016	2/12/2016	2/12/2016	2/12/2016	2/12/2016	2/12/2016	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017
BANs Outstanding	\$180,000	\$650,000	\$210,000	\$1,034,000	\$450,000	\$680,000	\$200,000	\$209,000	\$700,000	\$1,000,000	\$390,000
Reference	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(9)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)
Maximum Term	15	5	30	15	15	8	15	7	30	30	5
Date of MFOB Approval	4/1/2016	1/27/2016	1/27/2016	1/27/2016	1/27/2016	1/27/2016	TBD	TBD	TBD	TBD	TBD
Original Auth. Amt	\$380,000	8/20/3679	\$210,000	\$1,034,000	\$475,000	\$680,000	\$367,490	\$209,375	\$1,000,000	\$1,000,000	\$390,000
Date of Auth.	2/24/2015	8/19/2015	9/24/2015	2/24/2015	10/29/2015	10/29/2015	1/13/2016	2/11/2016	9/30/2016	9/30/2016	10/28/2016
Amount of Paydown	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maximum Maturity	2/12/2031	2/12/2021	2/12/2046	2/12/2031	2/12/2031	2/12/2024	2/10/2032	2/10/2024	2/10/2047	2/10/2047	2/10/2022
Minimum Principal Payment	\$13,846	\$216,667	\$7,500	\$79,538	\$34,615	\$113,333	\$14,286	\$34,833	\$24,138	\$34,483	\$97,500
Remaining Life	13	3	28	13	13	6	14	6	29	29	4

City of Fall River, Massachusetts
General Obligation State Qualified Municipal Purpose Loan of 2018 Bonds
Dated February 7, 2018

Assumes Level Debt Service

General (continued from previous page)													
	Fire Departmental Equipment	Buildings & Grounds Departmental Equipment (10)	Buildings & Grounds Departmental Equipment (8)	Buildings & Grounds Departmental Equipment (6)	Buildings & Grounds Departmental Equipment (5)	Buildings & Grounds Departmental Equipment (3)	Parks & Cemetery Departmental Equipment (10)	Parks & Cemetery Departmental Equipment (8)	Parks & Cemetery Departmental Equipment (7)	Parks & Cemetery Departmental Equipment (4)	Streets & Highways Departmental Equipment (10)	Streets & Highways Departmental Equipment (5)	Streets & Highways Departmental Equipment (2)
12/1/2018	20,000	16,300	5,000	21,300	28,500	3,900	8,000	3,000	20,000	17,000	34,000	20,000	21,000
12/1/2019	20,000	20,000	5,000	25,000	25,000	5,000	10,000	-	20,000	20,000	35,000	20,000	-
12/1/2020	25,000	20,000	-	25,000	30,000	-	10,000	-	20,000	20,000	35,000	25,000	-
12/1/2021	25,000	20,000	-	25,000	30,000	-	10,000	-	20,000	-	35,000	25,000	-
12/1/2022	25,000	25,000	-	30,000	-	-	10,000	-	25,000	-	40,000	-	-
12/1/2023	25,000	25,000	-	-	-	-	10,000	-	25,000	-	40,000	-	-
12/1/2024	30,000	25,000	-	-	-	-	10,000	-	-	-	40,000	-	-
12/1/2025	30,000	25,000	-	-	-	-	10,000	-	-	-	45,000	-	-
12/1/2026	30,000	30,000	-	-	-	-	10,000	-	-	-	45,000	-	-
12/1/2027	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2028	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2029	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2030	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2031	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2032	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2033	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2034	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2035	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2036	-	-	-	-	-	-	-	-	-	-	-	-	-
12/1/2037	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	\$ 230,000	\$ 206,300	\$ 10,000	\$ 126,300	\$ 113,500	\$ 8,900	\$ 88,000	\$ 3,000	\$ 130,000	\$ 57,000	\$ 349,000	\$ 90,000	\$ 21,000
Original Issue Date of BANs	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017
BANs Outstanding	\$230,000	\$206,300	\$10,000	\$126,300	\$113,500	\$8,900	\$88,000	\$3,600	\$130,000	\$57,000	\$349,000	\$90,000	\$21,000
Reference	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)
Maximum Term	10	10	8	6	5	3	10	8	7	4	10	5	2
Date of MFOB Approval	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Original Auth. Amt	\$300,000	\$206,300	\$10,000	\$126,300	\$113,500	\$8,900	\$88,000	\$3,600	\$130,000	\$57,000	\$349,000	\$90,000	\$21,000
Date of Auth.	10/28/2016	10/28/2016	10/28/2016	10/28/2016	10/28/2016	10/28/2016	10/28/2016	10/28/2016	10/28/2016	10/28/2016	10/28/2016	10/28/2016	10/28/2016
Amount of Paydown	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$600	\$0	\$0	\$0	\$0	\$0
Maximum Maturity	2/10/2027	2/10/2027	2/10/2025	2/10/2023	2/10/2022	2/10/2020	2/10/2027	2/10/2025	2/10/2024	2/10/2021	2/10/2027	2/10/220	2/10/2019
Minimum Principal Payment	\$25,556	\$22,922	\$1,429	\$25,260	\$28,375	\$4,450	\$9,778	\$429	\$21,667	\$19,000	\$38,778	\$22,500	\$21,000
Remaining Life	9	9	7	5	4	2	9	7	6	3	9	4	1

City of Fall River, Massachusetts
General Obligation State Qualified Municipal Purpose Loan of 2018 Bonds
Dated February 7, 2018

Assumes Level Debt Service

General (continued from previous page)										School			Grand Total
Replace Sidewalks - Shared Homeowner Program	Streetscapes - Purchase Street	Streetscapes - Bank		Police Departmental Equipment	Middle Street Flood Control	Total General	Westall School	Durfee High	Total School				
		Street/Columbia Square	Streetscapes - East Main Street				Wind Storm Damage Repair	School Feasibility Study					
12/1/2018	5,000	10,000	10,000	5,000	60,000	5,000	\$ 856,000	35,000	310,000	\$ 345,000	\$ 1,201,000		
12/1/2019	5,000	15,000	15,000	5,000	70,000	5,000	945,000	65,000	335,000	400,000	1,345,000		
12/1/2020	5,000	15,000	15,000	5,000	70,000	5,000	980,000	65,000	355,000	420,000	1,400,000		
12/1/2021	5,000	15,000	15,000	5,000	-	5,000	680,000	70,000	-	70,000	750,000		
12/1/2022	5,000	15,000	15,000	5,000	-	5,000	565,000	70,000	-	70,000	635,000		
12/1/2023	5,000	15,000	15,000	5,000	-	5,000	560,000	75,000	-	75,000	635,000		
12/1/2024	5,000	15,000	15,000	5,000	-	5,000	375,000	80,000	-	80,000	455,000		
12/1/2025	5,000	20,000	20,000	5,000	-	5,000	400,000	85,000	-	85,000	485,000		
12/1/2026	10,000	20,000	20,000	5,000	-	5,000	415,000	85,000	-	85,000	500,000		
12/1/2027	10,000	20,000	20,000	5,000	-	5,000	315,000	90,000	-	90,000	405,000		
12/1/2028	10,000	20,000	20,000	-	-	5,000	315,000	95,000	-	95,000	410,000		
12/1/2029	10,000	20,000	20,000	-	-	5,000	325,000	100,000	-	100,000	425,000		
12/1/2030	10,000	25,000	25,000	-	-	5,000	360,000	105,000	-	105,000	465,000		
12/1/2031	10,000	25,000	25,000	-	-	5,000	190,000	110,000	-	110,000	300,000		
12/1/2032	-	-	-	-	-	5,000	115,000	115,000	-	115,000	230,000		
12/1/2033	-	-	-	-	-	5,000	130,000	120,000	-	120,000	250,000		
12/1/2034	-	-	-	-	-	5,000	130,000	125,000	-	125,000	255,000		
12/1/2035	-	-	-	-	-	5,000	140,000	130,000	-	130,000	270,000		
12/1/2036	-	-	-	-	-	5,000	140,000	135,000	-	135,000	275,000		
12/1/2037	-	-	-	-	-	5,000	150,000	145,000	-	145,000	295,000		
Total	\$ 100,000	\$ 250,000	\$ 250,000	\$ 50,000	\$ 200,000	\$ 100,000	\$ 8,086,000	\$ 1,900,000	\$ 1,000,000	\$ 2,900,000	\$ 10,986,000		
Original Issue Date of BANs	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017	2/10/2017		2/12/2016	2/12/2016		\$10,986,600		
BANs Outstanding	\$100,000	\$250,000	\$250,000	\$50,000	\$200,000	\$100,000		\$1,900,000	\$1,000,000				
Reference	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)	Ch. 44 s. 7(1)		Ch. 44 s. 7(1)	Ch. 44 s. 7		\$600		
Maximum Term	15	15	15	15	4	30		30	5				
Date of MFOB Approval	TBD	TBD	TBD	TBD	TBD	1/14/2015		1/27/2016	1/27/2016				
Original Auth. Amt	\$200,000	\$1,398,000	\$1,260,500	\$2,075,000	\$600,000	\$3,000,000		\$3,800,000	\$1,000,000				
Date of Auth.	10/28/2016	10/28/2016	10/28/2016	10/28/2016	10/28/2016	7/1/2013		10/5/2015	10/28/2015				
Amount of Paydown	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0				
Maximum Maturity	2/10/2032	2/10/2032	2/10/2032	2/10/2032	2/10/2021	2/10/2047		2/12/2046	2/12/2021				
Minimum Principal Payment	\$7,143	\$17,857	\$17,857	\$3,571	\$66,667	\$3,448		\$67,857	\$333,333				
Remaining Life	14	14	14	14	3	29		28	3				

City of Fall River, Massachusetts
General Obligation State Qualified Municipal Purpose Loan of 2018 Bonds
Dated February 7, 2018
Assumes Level Debt Service
ESTIMATED DEBT SERVICE SCHEDULE
Interest Estimated and Subject to Change

<u>Fiscal Year</u>	<u>Principal</u>	<u>Coupon</u>	<u>Interest</u>	<u>Total P+I</u>
6/30/2019	\$ 1,201,000	4.50%	\$ 623,898	\$ 1,824,898
6/30/2020	1,345,000	4.50%	410,063	1,755,063
6/30/2021	1,400,000	4.50%	348,300	1,748,300
6/30/2022	750,000	4.50%	299,925	1,049,925
6/30/2023	635,000	4.50%	268,763	903,763
6/30/2024	635,000	4.50%	240,188	875,188
6/30/2025	455,000	4.50%	215,663	670,663
6/30/2026	485,000	4.50%	194,513	679,513
6/30/2027	500,000	4.50%	172,350	672,350
6/30/2028	405,000	4.50%	151,988	556,988
6/30/2029	410,000	4.50%	133,650	543,650
6/30/2030	425,000	4.50%	114,863	539,863
6/30/2031	465,000	4.50%	94,838	559,838
6/30/2032	300,000	4.50%	77,625	377,625
6/30/2033	230,000	4.50%	65,700	295,700
6/30/2034	250,000	4.50%	54,900	304,900
6/30/2035	255,000	4.50%	43,538	298,538
6/30/2036	270,000	4.50%	31,725	301,725
6/30/2037	275,000	4.50%	19,463	294,463
6/30/2038	295,000	4.50%	6,638	301,638
Total	\$ 10,986,000		\$ 3,568,586	\$ 14,554,586

City of Fall River, Massachusetts
General Obligation State Qualified Municipal Purpose Loan of 2022 Bonds
Dated February 2022
Assumes Level Debt Service

	Durfee High School 2	Durfee High School 3	Durfee High School 4	Grand Total
12/1/2022	315,000	280,000	75,000	\$ 670,000
12/1/2023	715,000	640,000	175,000	1,530,000
12/1/2024	755,000	670,000	185,000	1,610,000
12/1/2025	790,000	705,000	195,000	1,690,000
12/1/2026	835,000	740,000	205,000	1,780,000
12/1/2027	875,000	780,000	215,000	1,870,000
12/1/2028	920,000	820,000	225,000	1,965,000
12/1/2029	970,000	860,000	235,000	2,065,000
12/1/2030	1,020,000	905,000	250,000	2,175,000
12/1/2031	1,070,000	950,000	260,000	2,280,000
12/1/2032	1,125,000	1,000,000	275,000	2,400,000
12/1/2033	1,180,000	1,050,000	290,000	2,520,000
12/1/2034	1,245,000	1,105,000	305,000	2,655,000
12/1/2035	1,305,000	1,160,000	320,000	2,785,000
12/1/2036	1,375,000	1,220,000	335,000	2,930,000
12/1/2037	1,445,000	1,285,000	355,000	3,085,000
12/1/2038	1,520,000	1,350,000	370,000	3,240,000
12/1/2039	1,595,000	1,420,000	390,000	3,405,000
12/1/2040	1,680,000	1,490,000	410,000	3,580,000
12/1/2041	1,765,000	1,570,000	430,000	3,765,000
Total	\$ 22,500,000	\$ 20,000,000	\$ 5,500,000	\$ 48,000,000
Original Issue Date of BANs	8/1/2018	2/8/2019	2/8/2020	
BANs Outstanding	\$30,000,000	\$20,000,000	\$5,500,000	\$55,500,000
Reference	Ch. 70B	Ch. 70B	Ch. 70B	
Maximum Term	30	30	30	
Amount of Paydown	\$7,500,000	\$0	\$0	\$7,500,000

Assumes MSBA grant receipts and unspent note proceeds would satisfy any required principal paydowns.

City of Fall River, Massachusetts
General Obligation State Qualified Municipal Purpose Loan of 2022 Bonds
Dated February 2022
Assumes Level Debt Service
ESTIMATED DEBT SERVICE SCHEDULE
Interest Estimated and Subject to Change

<u>Fiscal Year</u>	<u>Principal</u>	<u>Coupon</u>	<u>Interest</u>	<u>Total P+I</u>
6/30/2023	\$ 670,000	5.00%	\$ 3,183,250	\$ 3,853,250
6/30/2024	1,530,000	5.00%	2,328,250	3,858,250
6/30/2025	1,610,000	5.00%	2,249,750	3,859,750
6/30/2026	1,690,000	5.00%	2,167,250	3,857,250
6/30/2027	1,780,000	5.00%	2,080,500	3,860,500
6/30/2028	1,870,000	5.00%	1,989,250	3,859,250
6/30/2029	1,965,000	5.00%	1,893,375	3,858,375
6/30/2030	2,065,000	5.00%	1,792,625	3,857,625
6/30/2031	2,175,000	5.00%	1,686,625	3,861,625
6/30/2032	2,280,000	5.00%	1,575,250	3,855,250
6/30/2033	2,400,000	5.00%	1,458,250	3,858,250
6/30/2034	2,520,000	5.00%	1,335,250	3,855,250
6/30/2035	2,655,000	5.00%	1,205,875	3,860,875
6/30/2036	2,785,000	5.00%	1,069,875	3,854,875
6/30/2037	2,930,000	5.00%	927,000	3,857,000
6/30/2038	3,085,000	5.00%	776,625	3,861,625
6/30/2039	3,240,000	5.00%	618,500	3,858,500
6/30/2040	3,405,000	5.00%	452,375	3,857,375
6/30/2041	3,580,000	5.00%	277,750	3,857,750
6/30/2042	3,765,000	5.00%	94,125	3,859,125
Total	\$ 48,000,000		\$ 29,161,750	\$ 77,161,750

TAX IMPACT ANALYSIS

Capital Budget Statement

City of Fall River, Massachusetts

\$40,000,000 General Obligation State Qualified Bonds dated February 15, 2018

Durfee High School

30 year bonds - Level Debt Service - Interest Estimated at 4.50% (Subject to Change)

Fiscal Year	Principal	Interest	Total P+I	Tax Rate Impact (Assumes No Growth in Assessed Value)		
				Residential Tax Rate Impact per \$100,000 of Assessed Value	Commercial/ Industrial/ Personal Property Tax Rate Impact per \$100,000 of Assessed Value	Impact on Average Single Family Home Valued at \$212,852
06/03/2019	\$ 135,000.00	\$ 2,326,962.50	\$ 2,461,962.50	\$ 36.82	\$ 80.58	\$ 78.37
06/03/2020	685,000.00	1,778,512.50	2,463,512.50	36.84	80.63	78.42
06/03/2021	715,000.00	1,747,012.50	2,462,012.50	36.82	80.58	78.37
06/03/2022	745,000.00	1,714,162.50	2,459,162.50	36.78	80.49	78.28
06/03/2023	780,000.00	1,679,850.00	2,459,850.00	36.79	80.51	78.30
06/03/2024	820,000.00	1,643,850.00	2,463,850.00	36.85	80.64	78.43
06/03/2025	855,000.00	1,606,162.50	2,461,162.50	36.81	80.56	78.35
06/03/2026	895,000.00	1,566,787.50	2,461,787.50	36.82	80.58	78.37
06/03/2027	935,000.00	1,525,612.50	2,460,612.50	36.80	80.54	78.33
06/03/2028	980,000.00	1,482,525.00	2,462,525.00	36.83	80.60	78.39
06/03/2029	1,025,000.00	1,437,412.50	2,462,412.50	36.83	80.60	78.39
06/03/2030	1,070,000.00	1,390,275.00	2,460,275.00	36.79	80.53	78.32
06/03/2031	1,120,000.00	1,341,000.00	2,461,000.00	36.81	80.55	78.34
06/03/2032	1,170,000.00	1,289,475.00	2,459,475.00	36.78	80.50	78.29
06/03/2033	1,225,000.00	1,235,587.50	2,460,587.50	36.80	80.54	78.33
06/03/2034	1,280,000.00	1,179,225.00	2,459,225.00	36.78	80.49	78.28
06/03/2035	1,340,000.00	1,120,275.00	2,460,275.00	36.79	80.53	78.32
06/03/2036	1,405,000.00	1,058,512.50	2,463,512.50	36.84	80.63	78.42
06/03/2037	1,465,000.00	993,937.50	2,458,937.50	36.77	80.48	78.27
06/03/2038	1,535,000.00	926,437.50	2,461,437.50	36.81	80.56	78.35
06/03/2039	1,605,000.00	855,787.50	2,460,787.50	36.80	80.54	78.33
06/03/2040	1,680,000.00	781,875.00	2,461,875.00	36.82	80.58	78.37
06/03/2041	1,755,000.00	704,587.50	2,459,587.50	36.78	80.50	78.30
06/03/2042	1,840,000.00	623,700.00	2,463,700.00	36.85	80.64	78.43
06/03/2043	1,920,000.00	539,100.00	2,459,100.00	36.78	80.49	78.28
06/03/2044	2,010,000.00	450,675.00	2,460,675.00	36.80	80.54	78.33
06/03/2045	2,105,000.00	358,087.50	2,463,087.50	36.84	80.62	78.41
06/03/2046	2,200,000.00	261,225.00	2,461,225.00	36.81	80.56	78.35
06/03/2047	2,300,000.00	159,975.00	2,459,975.00	36.79	80.52	78.31
06/03/2048	2,405,000.00	54,112.50	2,459,112.50	36.78	80.49	78.28
Total	\$ 40,000,000.00	\$ 33,832,700.00	\$ 73,832,700.00			

City of Fall River, Massachusetts
\$80,000,000 General Obligation State Qualified Bonds dated February 15, 2018
Durfee High School
30 year bonds - Level Debt Service - Interest Estimated at 4.50% (Subject to Change)

Date	Principal	Interest	Total P+I	Tax Rate Impact (Assumes No Growth in Assessed Value)		
				Residential Tax Rate Impact per \$100,000 of Assessed Value	Commercial/ Industrial/ Personal Property Tax Rate Impact per \$100,000 of Assessed Value	Impact on Average Single Family Home Valued at \$212,852
06/03/2019	\$ 270,000.00	\$ 4,653,925.00	\$ 4,923,925.00	\$ 73.64	\$ 161.16	\$ 156.74
06/03/2020	1,365,000.00	3,557,137.50	4,922,137.50	73.61	161.11	156.69
06/03/2021	1,430,000.00	3,494,250.00	4,924,250.00	73.64	161.17	156.75
06/03/2022	1,495,000.00	3,428,437.50	4,923,437.50	73.63	161.15	156.73
06/03/2023	1,560,000.00	3,359,700.00	4,919,700.00	73.58	161.03	156.61
06/03/2024	1,635,000.00	3,287,812.50	4,922,812.50	73.62	161.13	156.71
06/03/2025	1,710,000.00	3,212,550.00	4,922,550.00	73.62	161.12	156.70
06/03/2026	1,790,000.00	3,133,800.00	4,923,800.00	73.64	161.16	156.74
06/03/2027	1,870,000.00	3,051,450.00	4,921,450.00	73.60	161.08	156.66
06/03/2028	1,955,000.00	2,965,387.50	4,920,387.50	73.59	161.05	156.63
06/03/2029	2,045,000.00	2,875,387.50	4,920,387.50	73.59	161.05	156.63
06/03/2030	2,140,000.00	2,781,225.00	4,921,225.00	73.60	161.08	156.66
06/03/2031	2,240,000.00	2,682,675.00	4,922,675.00	73.62	161.12	156.70
06/03/2032	2,345,000.00	2,579,512.50	4,924,512.50	73.65	161.18	156.76
06/03/2033	2,450,000.00	2,471,625.00	4,921,625.00	73.60	161.09	156.67
06/03/2034	2,565,000.00	2,358,787.50	4,923,787.50	73.64	161.16	156.74
06/03/2035	2,680,000.00	2,240,775.00	4,920,775.00	73.59	161.06	156.64
06/03/2036	2,805,000.00	2,117,362.50	4,922,362.50	73.62	161.11	156.69
06/03/2037	2,935,000.00	1,988,212.50	4,923,212.50	73.63	161.14	156.72
06/03/2038	3,070,000.00	1,853,100.00	4,923,100.00	73.63	161.14	156.72
06/03/2039	3,210,000.00	1,711,800.00	4,921,800.00	73.61	161.09	156.67
06/03/2040	3,360,000.00	1,563,975.00	4,923,975.00	73.64	161.17	156.74
06/03/2041	3,515,000.00	1,409,287.50	4,924,287.50	73.64	161.18	156.75
06/03/2042	3,675,000.00	1,247,512.50	4,922,512.50	73.62	161.12	156.70
06/03/2043	3,845,000.00	1,078,312.50	4,923,312.50	73.63	161.14	156.72
06/03/2044	4,020,000.00	901,350.00	4,921,350.00	73.60	161.08	156.66
06/03/2045	4,205,000.00	716,287.50	4,921,287.50	73.60	161.08	156.66
06/03/2046	4,400,000.00	522,675.00	4,922,675.00	73.62	161.12	156.70
06/03/2047	4,600,000.00	320,175.00	4,920,175.00	73.58	161.04	156.62
06/03/2048	4,815,000.00	108,337.50	4,923,337.50	73.63	161.14	156.72
Total	\$ 80,000,000.00	\$ 67,672,825.00	\$147,672,825.00			

City of Fall River, Massachusetts
\$120,000,000 General Obligation State Qualified Bonds dated February 15, 2018
Durfee High School
30 year bonds - Level Debt Service - Interest Estimated at 4.50% (Subject to Change)

Date	Principal	Interest	Total P+I	Tax Rate Impact (Assumes No Growth in Assessed Value)		
				Residential Tax Rate Impact per \$100,000 of Assessed Value	Commercial/ Industrial/ Personal Property Tax Rate Impact per \$100,000 of Assessed Value	Impact on Average Single Family Home Valued at \$212,852
06/03/2019	\$ 405,000.00	\$ 6,980,887.50	\$ 7,385,887.50	\$ 110.46	\$ 241.75	\$ 235.11
06/03/2020	2,050,000.00	5,335,650.00	7,385,650.00	110.45	241.74	235.11
06/03/2021	2,140,000.00	5,241,375.00	7,381,375.00	110.39	241.60	234.97
06/03/2022	2,240,000.00	5,142,825.00	7,382,825.00	110.41	241.65	235.02
06/03/2023	2,345,000.00	5,039,662.50	7,384,662.50	110.44	241.71	235.07
06/03/2024	2,450,000.00	4,931,775.00	7,381,775.00	110.40	241.61	234.98
06/03/2025	2,565,000.00	4,818,937.50	7,383,937.50	110.43	241.68	235.05
06/03/2026	2,685,000.00	4,700,812.50	7,385,812.50	110.46	241.74	235.11
06/03/2027	2,805,000.00	4,577,287.50	7,382,287.50	110.40	241.63	235.00
06/03/2028	2,935,000.00	4,448,137.50	7,383,137.50	110.42	241.66	235.03
06/03/2029	3,070,000.00	4,313,025.00	7,383,025.00	110.42	241.65	235.02
06/03/2030	3,210,000.00	4,171,725.00	7,381,725.00	110.40	241.61	234.98
06/03/2031	3,360,000.00	4,023,900.00	7,383,900.00	110.43	241.68	235.05
06/03/2032	3,515,000.00	3,869,212.50	7,384,212.50	110.43	241.69	235.06
06/03/2033	3,675,000.00	3,707,437.50	7,382,437.50	110.41	241.63	235.00
06/03/2034	3,845,000.00	3,538,237.50	7,383,237.50	110.42	241.66	235.03
06/03/2035	4,025,000.00	3,361,162.50	7,386,162.50	110.46	241.76	235.12
06/03/2036	4,210,000.00	3,175,875.00	7,385,875.00	110.46	241.75	235.11
06/03/2037	4,400,000.00	2,982,150.00	7,382,150.00	110.40	241.62	234.99
06/03/2038	4,605,000.00	2,779,537.50	7,384,537.50	110.44	241.70	235.07
06/03/2039	4,815,000.00	2,567,587.50	7,382,587.50	110.41	241.64	235.01
06/03/2040	5,040,000.00	2,345,850.00	7,385,850.00	110.46	241.74	235.11
06/03/2041	5,270,000.00	2,113,875.00	7,383,875.00	110.43	241.68	235.05
06/03/2042	5,510,000.00	1,871,325.00	7,381,325.00	110.39	241.60	234.97
06/03/2043	5,765,000.00	1,617,637.50	7,382,637.50	110.41	241.64	235.01
06/03/2044	6,030,000.00	1,352,250.00	7,382,250.00	110.40	241.63	235.00
06/03/2045	6,310,000.00	1,074,600.00	7,384,600.00	110.44	241.70	235.07
06/03/2046	6,600,000.00	784,125.00	7,384,125.00	110.43	241.69	235.06
06/03/2047	6,905,000.00	480,262.50	7,385,262.50	110.45	241.73	235.09
06/03/2048	7,220,000.00	162,450.00	7,382,450.00	110.41	241.63	235.00
Total	\$120,000,000.00	\$101,509,575.00	\$221,509,575.00			

City of Fall River, Massachusetts

\$160,000,000 General Obligation State Qualified Bonds dated February 15, 2018

Durfee High School

30 year bonds - Level Debt Service - Interest Estimated at 4.50% (Subject to Change)

Date	Principal	Interest	Total P+I	Tax Rate Impact (Assumes No Growth in Assessed Value)		
				Residential Tax Rate Impact per \$100,000 of Assessed Value	Commercial/ Industrial/ Personal Property Tax Rate Impact per \$100,000 of Assessed Value	Impact on Average Single Family Home Valued at \$212,852
06/03/2019	\$ 535,000.00	\$ 9,307,962.50	\$ 9,842,962.50	\$ 147.20	\$ 322.17	\$ 313.33
06/03/2020	2,730,000.00	7,114,500.00	9,844,500.00	147.23	322.22	313.38
06/03/2021	2,855,000.00	6,988,837.50	9,843,837.50	147.22	322.20	313.36
06/03/2022	2,990,000.00	6,857,325.00	9,847,325.00	147.27	322.31	313.47
06/03/2023	3,125,000.00	6,719,737.50	9,844,737.50	147.23	322.23	313.38
06/03/2024	3,270,000.00	6,575,850.00	9,845,850.00	147.25	322.26	313.42
06/03/2025	3,420,000.00	6,425,325.00	9,845,325.00	147.24	322.25	313.40
06/03/2026	3,575,000.00	6,267,937.50	9,842,937.50	147.20	322.17	313.33
06/03/2027	3,740,000.00	6,103,350.00	9,843,350.00	147.21	322.18	313.34
06/03/2028	3,915,000.00	5,931,112.50	9,846,112.50	147.25	322.27	313.43
06/03/2029	4,095,000.00	5,750,887.50	9,845,887.50	147.25	322.26	313.42
06/03/2030	4,285,000.00	5,562,337.50	9,847,337.50	147.27	322.31	313.47
06/03/2031	4,480,000.00	5,365,125.00	9,845,125.00	147.24	322.24	313.40
06/03/2032	4,685,000.00	5,158,912.50	9,843,912.50	147.22	322.20	313.36
06/03/2033	4,900,000.00	4,943,250.00	9,843,250.00	147.21	322.18	313.34
06/03/2034	5,130,000.00	4,717,575.00	9,847,575.00	147.27	322.32	313.48
06/03/2035	5,365,000.00	4,481,437.50	9,846,437.50	147.26	322.28	313.44
06/03/2036	5,610,000.00	4,234,500.00	9,844,500.00	147.23	322.22	313.38
06/03/2037	5,870,000.00	3,976,200.00	9,846,200.00	147.25	322.27	313.43
06/03/2038	6,140,000.00	3,705,975.00	9,845,975.00	147.25	322.27	313.42
06/03/2039	6,420,000.00	3,423,375.00	9,843,375.00	147.21	322.18	313.34
06/03/2040	6,715,000.00	3,127,837.50	9,842,837.50	147.20	322.16	313.32
06/03/2041	7,025,000.00	2,818,687.50	9,843,687.50	147.22	322.19	313.35
06/03/2042	7,350,000.00	2,495,250.00	9,845,250.00	147.24	322.24	313.40
06/03/2043	7,690,000.00	2,156,850.00	9,846,850.00	147.26	322.30	313.45
06/03/2044	8,040,000.00	1,802,925.00	9,842,925.00	147.20	322.17	313.33
06/03/2045	8,410,000.00	1,432,800.00	9,842,800.00	147.20	322.16	313.32
06/03/2046	8,800,000.00	1,045,575.00	9,845,575.00	147.24	322.25	313.41
06/03/2047	9,205,000.00	640,462.50	9,845,462.50	147.24	322.25	313.41
06/03/2048	9,630,000.00	216,675.00	9,846,675.00	147.26	322.29	313.45
Total	\$160,000,000.00	\$135,348,575.00	\$295,348,575.00			

PROJECT DIRECTORY

Introduction

The Project Directory included herein identifies and provides contact information for all Project Stakeholders. The directory is a living document and is continuously being updated as consultants are added to the Project Team or as new City of Fall River or Fall River Public School Officials or constituents become involved with the Project. To support the efforts of the Preliminary Design Program, the School Building Committee (SBC) established three Subcommittees to assist the Project Team with specific areas of focus. These Subcommittees included an Educational Programming Subcommittee, a Site Selection Subcommittee, and a Finance Subcommittee. These Subcommittees attended development meetings on behalf of the SBC and reported back to the SBC at each SBC Meeting.

The following members of the School Building Committee volunteered for the Educational Program Subcommittee because of their background in and interest in the educational field. The Educational Program Subcommittee participated in the four Educational Visioning Sessions led by the Educational Programming Consultant, David Stephen of New Vista Design, as well as participated in meetings with Department Leads and Administrators throughout the development of the Educational Program. Refer to **Section II** for the Educational Program developed for the Durfee High School.

Educational Program Subcommittee

Maria Pontes
Dr. Matthew Malone
Gary Bigelow

Melissa Fogarty
Mark Costa
Catarina Pereira
Jensen Riley

The following people formed the Educational Program Working Group/Visioning Team for the BMC Durfee High School Project. Some of these individuals were also members of the SBC's Educational Subcommittee which kept the SBC informed of the process and progress made. The members of this group represented administrators and teachers from a range of educational disciplines. Working sessions were held to provide information and content for the Educational Program, to brainstorm ideas, and to determine how to best incorporate the Educational Program within a new BMC Durfee High School. Members of the group met numerous times to discuss current educational issues at BMC Durfee High School and to make recommendations for improvement. Previous, current, and future educational opportunities for the Durfee students were explored. Members of the group visited several other recently-completely high schools in the region to experience how other Districts successfully integrated their Educational Program within a new building project. Refer to **Section III** for the Initial Space Summary resulting from the information provided by this group and the overall Educational Program.

Educational Planning Working Group/Visioning Team

Maria Pontes
Melissa Fogarty
Dr. Matthew Malone
Ken Pacheco
Ana Arsénio
Dorothy Barros
Kelly Beaulieu
Vanessa Beck
Gary Bigelow
Susan Marrietti Black
Aimee Bronhard
Taylor Brown
Sarah Carreiro
Jessee Clements
Lauren Correa
Aubrey Correiro
Michael Costa

Shannon Dufresne
Derek Farias
Rachel Fellows
Jacqueline Francisco
Donald Gossic III
Laura Iannaccone
Michael Keane
Gary Leite
Kali Lima
Oliver McNeely
Carlton Medeiros
Ray Medeiros
Adam Melville
Shayna Morgan
Jim Mullen
Jack O'Connor
Brendan O'Neill
Catarina Pereira
Kolby Perxoto
Andrew Rebello
Jensen Riley
Michele Sharpe
Loryn Shea
Rachel Silva
Nicholas Sousa
Amaya Travassos
Jessica Vinacco
Andrew Woodward

background in finance, budget management, and knowledge of City and School budgets and finances. This group has just formed now that the building option costs have been developed. This group will be involved in finance meetings with the City and School Officials and will represent and report back to the SBC.

Finance Subcommittee

Mary Sahady
Cathy Ann Viveiros
Maria Pontes
Ken Pacheco
Chris Gallagher
Nick Christ
Kevin Almeida

The following members of the School Building Committee volunteered for the Site Selection Subcommittee because of their background and expertise in buildings and grounds, real estate, urban planning, and development. Members of the Site Selection Subcommittee met several times to explore all available sites within the City that could potentially be viable for the High School Project. Four sites were selected for further investigation. The group deliberated the advantages and disadvantages of each site and analyzed the development opportunities of each site. Refer to **Section V ("Site Development Requirements")** for more information on the sites investigated.

Site Selection Subcommittee

Carole Fiola
Ken Pacheco
Chris Gallagher
Ed Costar
Tim McCoy
Cathy Ann Viveiros

The following members of the School Building Committee volunteered for the Finance Subcommittee because of their

Durfee High School Project- Fall River, MA

PROJECT DIRECTORY

City of Fall River

City Hall:	One Government Center Fall River, Massachusetts 02722 Tel: (508) 324-2600	
City Council:	City Hall, 2nd Floor Tel: (508) 324-2233	Colleen A. Taylor - Secretary Email: city_council@fallriverma.org
<u>Mayor</u>		
Jasiel F. Correia II	Tel: (508) 324-2600	Email: Mayor@fallriverschools.org
<u>City Councilors</u>		
Richard Cabeceiras	Tel: (774) 488-0631	Email: RichC@fallriverma.org
Joseph D. Camara	Tel: (508) 674-4361	Email: city_council@fallriverma.org
Steven A Camara	Tel: (508) 678-1463	Email: steve@stevecamara.com
Pam Laliberte-Lebeau	Tel: (508) 367-6819	Email: Pam.Laliberte-Lebeau@fallriverma.org
Stephen R. Long	Tel: (508) 717-1683	Email: city_council@fallriverma.org
Raymond A Mitchell	Tel: (508) 679-6070	Email: city_council@fallriverma.org
Linda M. Pereira, Vice President	Tel: (508) 965-8266	Email: lindamp55@gmail.com
Cliff Ponte	Tel: (508) 567-8604	Email: CliffPonteJr@gmail.com
<u>Council President</u>		
Shawn E. Cadime	(774) 930-6142	Email:scadime.citycouncil@gmail.com
Chris Gallagher	Tel: (508) 922-6715	Email: cgallagher@fallriverma.org
<i>Director of Building & Grounds</i>		
Vacant	Tel: (781) 586-6907	Email: treasurers@fallriverma.org
<i>CFO</i>		
Vacant	Tel: (781) 586-6907	Email: treasurers@fallriverma.org
<i>Treasurer</i>		
Tim McCoy	Tel: (774) 301-4901	Email: tim.mccoy@fallriverha.org
<i>Purchasing Agent</i>		

School Department

Fall River Public Schools:	Fall River Public Schools Administration Building 417 Rock Street Fall River, MA 02720 Tel: (508) 675-8420	
Dr. Matthew Malone	Tel: (508) 675-8420 Ext 53705	Email: mmalone@fallriverschools.org
<i>Superintendent of Schools</i>		
Becky Caron	Tel: (508) 675-8420 Ext 53702	Email: bcaron@fallriverschools.org
<i>Administrative Assistant Superintendent's Office</i>		
Ken Pacheco	Tel: (508) 675-8420 Ext 53704	Email: kenpacheco@fallriverschools.org
<i>Chief Operating Officer</i>		
Maria Pontes	Tel: (774) 644-1016	Email: mpontes@fallriverschools.org
<i>Principal Durfee High School</i>		
Melissa Fogarty	Tel: (774) 201-9400	Email: mfogarty@fallriverschools.org
<i>Operations Durfee High School</i>		

Durfee High School Project- Fall River, MA

PROJECT DIRECTORY

Massachusetts School Building Authority (MSBA)

40 Broad Street, Suite 500 Boston, MA 02109	Tel: (617) 720-4466 Fax: (617) 720-5260	Website: www.massschoolbuildings.org
Christopher Alles <i>Project Manager</i>	Tel: (617) 720-4466	Email: Chris.Alles@MassSchoolBuildings.org
Sarah Blache-Schwartz <i>Project Coordinator</i>	Tel: (617) 720-4466	Email: Sarah.Blache@massschoolbuildings.org
Joseph Buckley, PE <i>Chief Engineer</i>	Tel: (617) 720-4466	Email: joseph.buckley@massschoolbuildings.org
Kristine McAndrews <i>ProPay Assistance</i>	Tel: (617) 720-4466	Email: Kristine.McAndrews@MassSchoolBuildings.org

School Building Committee (SBC)

Voting Members:

Jasiel F. Correia II	Tel: (508) 324-2600	Email: Mayor@fallriverschools.org
Cathy Ann Viveiros	Tel: ()	Email: cviveiros@fallriverma.org
Rhonda Pinnell	Tel: ()	Email: rpinnell@fallriverma.org
Tim McCoy	Tel: (774) 301-4901	Email: tim.mccoy@fallriverma.org
Chris Gallagher	Tel: (508) 922-6715	Email: cgallagher@fallriverma.org
Carole Fiola	Tel: (617) 722-2460	Email: carole.fiola@mahouse.gov
Mathew Malone	Tel: (508) 675-8423	Email: mmalone@fallriverschools.org
Ken Pacheco	Tel: (508) 989-2160	Email: kenpacheco@fallriverschools.org
Joseph Camara	Tel: (508) 810-1167	Email: joeicecam@aol.com
Mark Costa	Tel: ()	Email: markcosta@fallriverschools.org
Ed Costar	Tel: (508) 642-8756	Email: ecostar@fallriverschools.org
Maria Pontes	Tel: (774) 644-1016	Email: mpontes@fallriverschools.org
Melissa Fogarty	Tel: (774) 201-9400	Email: mfogarty@fallriverschools.org
Michael Costa	Tel: (508) 801-0466	Email: mikecosta@fallriverschools.org
Gary Bigelow	Tel: (508) 558-5134	Email: gbigelow@fallriverschools.org
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Durfee High School Project- Fall River, MA

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PROJECT SCHEDULE

Introduction

The Project Schedule provided herein anticipates the MSBA Board of Director's approval of the Preferred Schematic Report and authorization to proceed into Schematic Design at the August 23, 2017 MSBA Board Meeting, and the MSBA Board of Director's approval of the Project Scope and Budget at their projected February 14, 2018 MSBA Board Meeting. The City Council's vote to appropriate funds and schedule a public election is planned for the month of January 2018. The public vote is planned for the month of March 2018.

The Project Schedule is efficient and positions the Project to take advantage of early bid packages in the summer of 2018 to reduce the impact of rising construction costs should CM at Risk be chosen as the preferred construction delivery method. Or should a Design/Bid/Build delivery approach be preferred, it places the bid period in an off-season bid environment which will also help mitigate costs. The Project Team, District, and the City have been working closely to ensure that sufficient time is being taken to review the data and options effectively and sufficiently. Throughout the process, the Project Team will notify the MSBA promptly if additional time is needed for any phase and the Project Schedule will be modified as necessary.

The Preliminary Project Schedule provided herein indicates the timeframe for the various preliminary phases through construction to school opening and closeout of the Project. Also included within this section is a Meetings and Milestones Schedule that

provides a list of all project-related meetings, investigations and milestones and provides the basic agenda and participant groups.

Durfee High School - Fall River, MA

April 20, 2017

Meeting and Milestone Schedule

Meeting Date & Time				Room	Resp./Attendees
✓	Tues	09/20/16		Submit Draft Designer RFS to MSBA for Review	LF
✓	Thurs	09/29/16	4:30pm	Durfee HS Building Committee Meeting No. 1 OPM Introductions, Establish Working Groups/Sub-Committees, Review Designer RFS, DSP Process	Durfee HS-Library SBC/LF
✓	Thurs	10/06/16		Designer RFS Advertised in Central Register and Local Paper	LF
✓	Tues	10/11/16		Designer RFS Approval from MSBA	MSBA
✓	Tues	10/18/16	10:00am	Designer RFS Briefing and Tour of Existing Building	LF/PMS, City, SBC Reps
✓	Thurs	10/20/16	4:30pm	Durfee HS Building Committee Meeting No. 2 Review RFS status and DSP member selection	Durfee HS-Library SBC/LF
✓	Wed	10/26/16	2:00 PM	Designer RFS Due	One Gvt Center, Room 321 City
✓	Weds	10/26/16		Distribute Proposals to City	LF
✓	Thurs	11/03/16		Submit Designer Proposal/DSP Packages to MSBA	LF
✓	Thurs	11/17/16	3:30pm	Process Meeting w/Local DSP Reps Explanation of DSP Selection Process	Durfee HS-Library LF/Local DSP Reps
✓	Thurs	11/17/16	4:30 PM	Durfee HS Building Committee Meeting No. 3 Status of Designer Evaluation Process; Preliminary Design Program Review	Durfee HS-Library SBC/ LF
✓	Tues	11/22/16	8:30 AM	MSBA DSP Meeting	MSBA MSBA/DSP, Local DSP Reps, LF
✓	Thurs	12/08/16	4:30 PM	Durfee HS Building Committee Meeting No. 4 Status of Designer Evaluation Process; Preliminary Design Program Review	Durfee HS-Library SBC/LF
✓	Tues	12/20/16	10:00am	MSBA DSP Interviews	MSBA MSBA/DSP, Local DSP Reps, LF
✓	Thurs	12/29/16		Leftfield Negotiated and Approved Contract with Ai3 and forwarded to City for Signature	LF/Ai3/City
✓	Weds	01/04/17	9:00AM	Leftfield, Ai3, City and District did a Preliminary Walkthrough of Durfee HS	Durfee HS LF/Ai3/District/City
✓	Mon	01/09/17	9:00AM	Leftfield, Ai3, City, District and MEP, FP and Structural Engineers did a Preliminary Walkthrough of Durfee HS	Durfee HS LF/Design Team/District/City
✓	Thurs	01/12/17	9:00AM	Leftfield, Ai3, Civil Engineer, Landscape Arch, City and District did a Preliminary Walkthrough of Durfee HS	Durfee HS LF/Design Team/District/City
✓	Thurs	01/12/17	3:30pm	Pre-Visioning Educational Meeting with LF,Ai3,City and District	Durfee-Principal's Conference Room LF,Ai3,City and District



Durfee High School - Fall River, MA

April 20, 2017

Meeting and Milestone Schedule

Meeting Date & Time					Room	Resp./Attendees
✓	Thurs	01/12/17	4:30pm	Durfee HS Building Committee Meeting No. 5 Designer Kick-off Meeting	Durfee HS-Library	SBC/LF/Ai3
✓	Thurs	01/19/17	2:00pm	Chapter 74 Meeting with District,LF,Ai3 and City	Durfee-Principal's Conference Room	LF,Ai3,City and District
✓	Thurs	01/19/17	3:00pm	Educational Visioning Session No. 1 (Education Program Sub-Committee)	Durfee HS-Library	New Vista Design/ Sub-Committee,
✓	Mon	01/23/17	9:00AM	Leftfield met Universal Environmental and District to begin Haz Mat Testing	Durfee HS	LF, Universal, District
✓	Tues	01/24/17	10:00 AM	Site Selection Meeting No. 1 - (Site Selection Sub-Committee)	Durfee HS-Library	Sub-Committee/ LF, Ai3, PARE
✓	Thurs	01/26/17	9:00AM	LF met PARE on site to start Phase 1 Environmental Site Assesment	Durfee HS	LF, PARE
✓	Mon	01/30/17	2:00pm	Chapter 74 Follow up Meeting with District,LF and City	Durfee-Principal's Conference Room	LF,City and District
✓	Tues	01/31/17	9:00AM	LF,and PARE on site with surveyors establishing control	Durfee HS	LF, PARE
✓	Wed	01/31/17	3:00PM	Educational Visioning Session No. 2 (Education Program Sub-Committee)	Durfee HS-Library	New Vista Design/ Sub-Committee,
✓	Mon	02/06/17	2:00pm	Chapter 74 Follow up Meeting with District,LF and City	Durfee-Principal's Conference Room	LF,City and District
✓	Mon	02/13/17	10:00am	MSBA Kick-Off Meeting	Conference Call	MSBA/District, City, LF, Ai3
✓	Mon	02/13/17	1:00PM	Durfee Security and Technology Meeting	Durfee HS-Library	LF,Ai3, City and District
✓	Weds	02/15/17	4:30pm	Durfee HS Building Committee Meeting No. 6 PDP Review,Community Engagement, Site Selection, Finance Sub Committee	Durfee HS-Library	SBC/LF/Ai3
✓	Weds	02/16/17	5:30 AM	Site Selection Meeting No. 2 - (Site Selection Sub-Committee)	Durfee HS-Library	Sub-Committee/ LF, Ai3, PARE
✓	Mon	02/27/17	4:30pm	Site Selection Meeting No. 3 - (Site Selection Sub-Committee)	Durfee HS-Library	Sub-Committee/ LF, Ai3, PARE
✓	Tues	02/28/17	3:00pm	Educational Visioning Session No. 3 (Education Program Sub-Committee)	Durfee HS-Library	New Vista Design/ Sub-Committee,
✓	Thurs	03/02/17	1:30pm	Educational Planning Meeting- Space Planning	Durfee-Principal's Conference Room	Sub-Committee/ LF, Ai3
✓	Mon	03/06/17	9:00 AM	Finance Meeting with Mayor	Mayor's Office	City, LF, Ai3
✓	Weds	03/09/17	4:30pm	Durfee HS Building Committee Meeting No. 7 PDP Review,Community Engagement, Site Selection, Finance Sub Committee	Durfee HS-Library	SBC/LF/Ai3
✓	Mon	03/27/17	3:00pm	Educational Visioning Session No. 4 (Education Program Sub-Committee)	Durfee HS-Library	New Vista Design/ Sub-Committee,
✓	Mon	04/03/17	3:00pm	PDP Submission Coordination Meeting	Conference Call	LF and Ai3
✓	Tues	04/11/17	1:30pm	Finance Meeting with Mayor and Civic Leaders	Kuss School- Conference Room	City, LF, Ai3 and Civic Leaders

Durfee High School - Fall River, MA

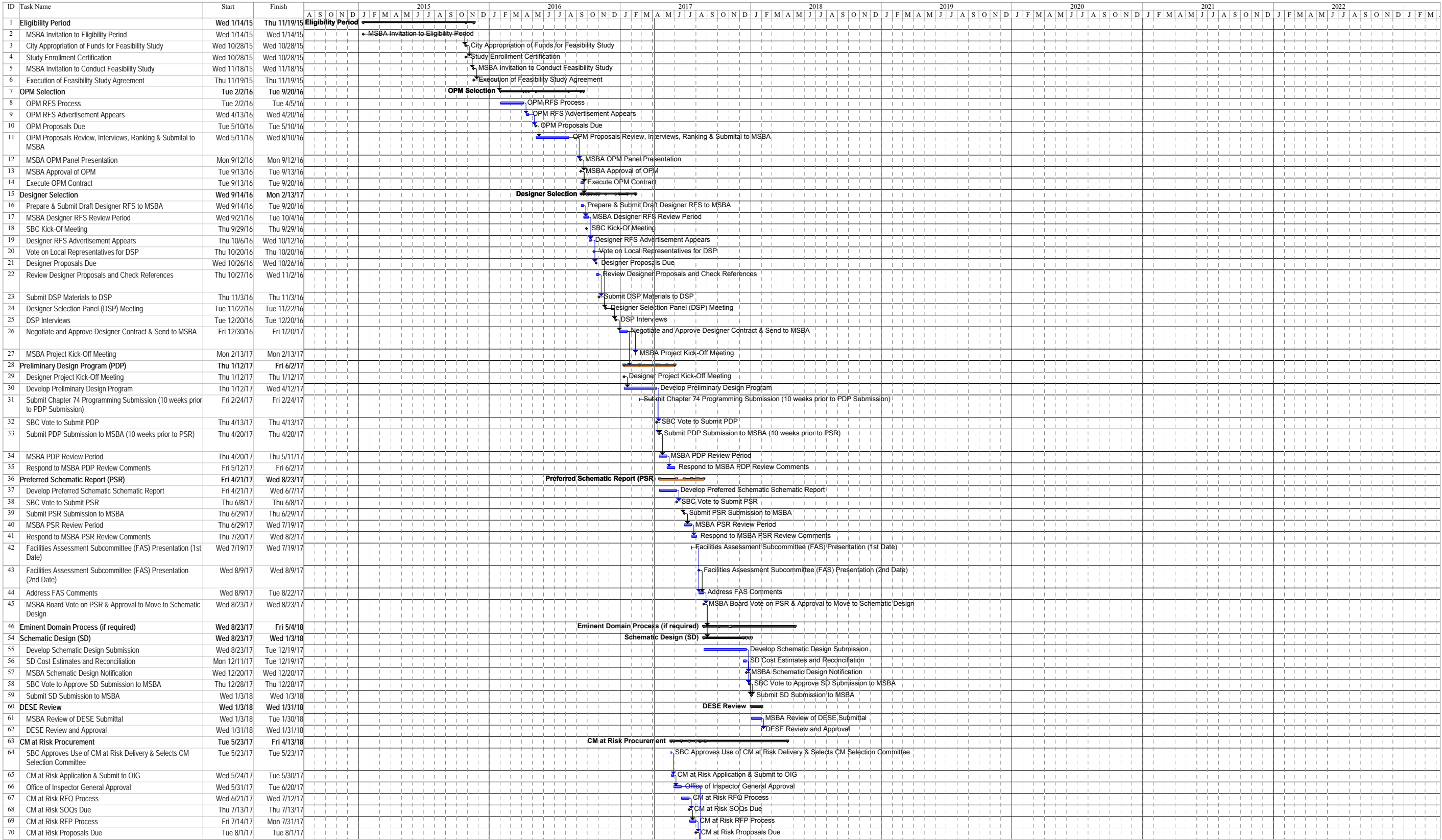
April 20, 2017

Meeting and Milestone Schedule

Meeting Date & Time				Room	Resp./Attendees
✓	Thurs	04/13/17	4:30pm	Durfee HS Building Committee Meeting No. 8 Vote to submit PDP ,Community Engagement, Finance Sub Committee	Durfee HS-Library City, LF, Ai3
✓	Weds	04/19/17	6:30pm	Public Forum #1- Building Existing Conditions, Site Selection, MSBA Process	Durfee- Auditorium City, LF, Ai3, Public
✓	Thurs	04/20/17	8:00am	Submission of PDP to MSBA	40 Broad Street, Boston, MA Ai3, LF and City
				MILESTONES SCHEDULE	
		Feb 2016 -	Aug 2017	Feasibility Study Phase	
		08/23/17	1/3/2018	Schematic Design Phase	
		01/03/18		Submit Schematic Design Project Scope & Budget to MSBA	
		08/09/17		Facilities Assessment Subcommittee Meeting	
		02/14/18		MSBA Board Meeting Approval of Schematic Design/Project Scope & Budget	
		03/06/18		City Approval / Debt Exclusion Vote	
		2/15/18 -	7/6/2018	Design Development (5 months)	
		7/9/18 -	3/26/2019	Construction Documents (6 months)	
		2/20/19 -	8/23/2021	Bidding / Construction	

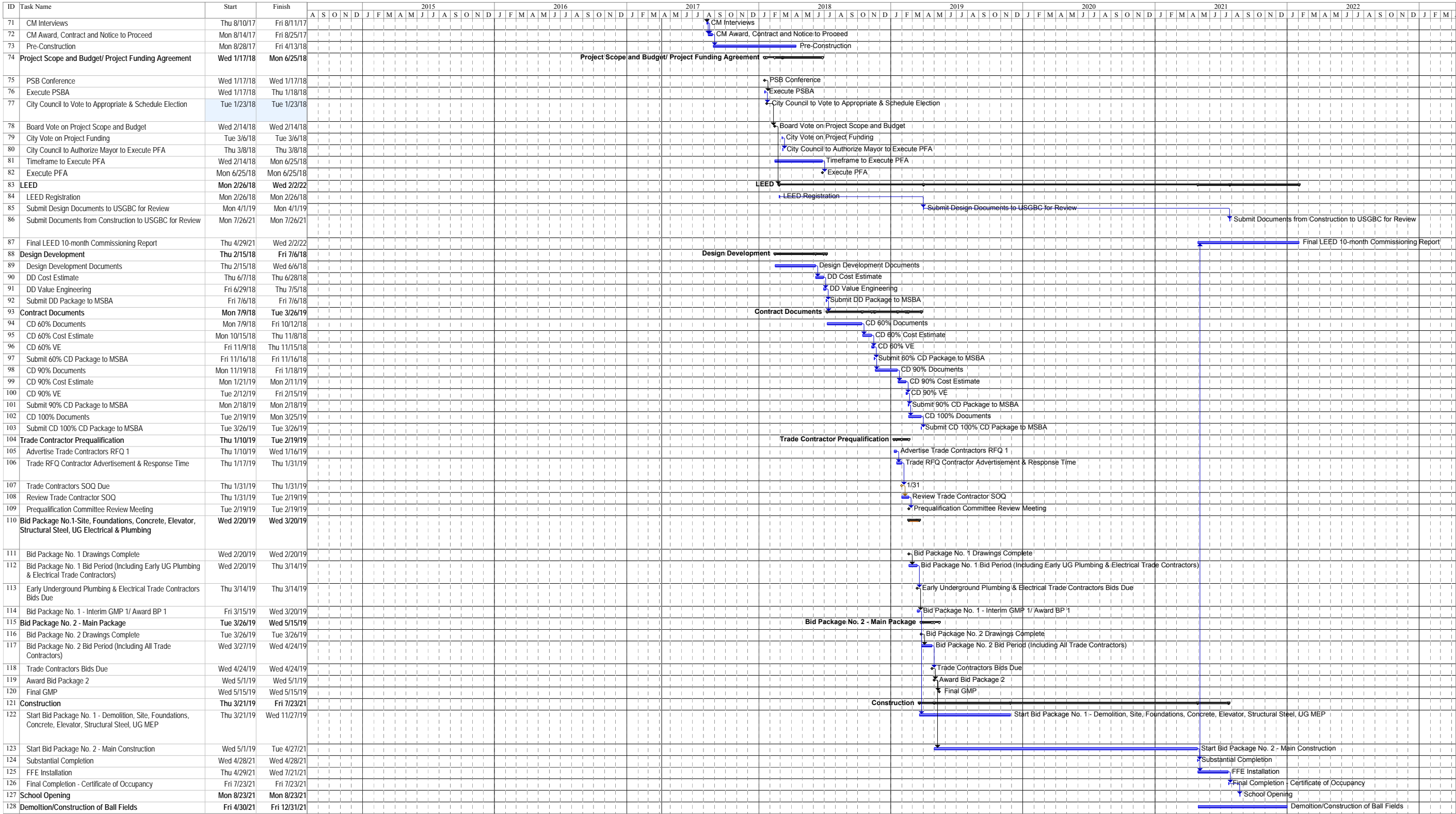


FALL RIVER - BMC DUFEE HIGH SCHOOL
PRELIMINARY PROJECT SCHEDULE
Feasibility Study Phase: Preliminary Design Program Submission April 20, 2017





FALL RIVER - BMC DUFFEE HIGH SCHOOL
PRELIMINARY PROJECT SCHEDULE
Feasibility Study Phase: Preliminary Design Program Submission April 20, 2017



Legend: Inactive Task, Inactive Milestone, Inactive Summary, Manual Task, Manual Summary, Manual Summary Rollup, Start-only, Finish-only, Baseline, Slippage

EDUCATIONAL PROGRAM

Educational Program

BMC DURFEE HIGH SCHOOL EDUCATIONAL PROGRAM

MODULE 3: PRELIMINARY DESIGN PROGRAM

1.2 EDUCATIONAL PROGRAM

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- C. CLASS SIZE POLICIES
- D. SCHOOL SCHEDULING METHOD
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APPENDIX A – VISIONING SESSION SUMMARY

A. INTRODUCTION

Fall River Public Schools Mission Statement

The mission of the Fall River Public Schools is to provide a quality education so that all students will attain their fullest potential and become responsible members of society. We are committed to providing quality teaching and learning in a respectful, safe, healthy, and supportive environment that links students, parents, and staff in a community of life-long learners and capable problem solvers.

City History and Future

Fall River is a city in Bristol County, Massachusetts, United States. Fall River's population was 88,857 at the 2010 census,^[2] making it the tenth-largest city in the state.

Located along the eastern shore of Mount Hope Bay at the mouth of the Taunton River, the city became famous during the 19th century as the leading textile manufacturing center in the United States. While the textile industry has long since moved on, its impact on the city's culture and landscape remains to this day. Fall River's official motto is "We'll Try," dating back to the aftermath of the Great Fire of 1843. It is also nicknamed "the Scholarship City" because Dr. Irving Fradkin founded Dollars for Scholars here in 1958.

Fall River is known for the Lizzie Borden case, Portuguese culture, its numerous 19th-century textile mills and Battleship Cove, the world's largest collection of World War II naval vessels and the home of the USS *Massachusetts* (BB-59). Fall River is also the only city in the United States to have its city hall located over an interstate highway.

The "Falling River" that the name Fall River refers to is the Quequechan River which flows through the city, dropping steeply into the bay. The real development of Fall River's industry occurred along the falling river from which it was named. The river had eight falls, which combined to make Fall River the best tidewater privilege in southern New England. It was perfect for industrialization—big enough for profit and expansion, yet small enough to be developed by local capital without interference from Boston.^[4]

The advantage of being able to import bales of cotton and coal to fuel the steam engines to Fall River's deep water harbor, and ship out the finished goods also by water, made Fall River the choice of a series of cotton mill magnates. In 1854, Fall River was officially incorporated as a city, and had a population of about 12,000.

Fall River profited well from the American Civil War and was in a fine position to take advantage of the prosperity that followed. By 1868, it had surpassed Lowell as the leading textile city in America with over 500,000 spindles. Then, during 1871 and 1872, a "most dramatic expansion" of the city occurred: 15 new corporations were founded, building 22 new mills throughout the city, while some of the older mills expanded. The city's population increased by 20,000 people

during these two years, while overall mill capacity doubled to more than 1,000,000 spindles. By 1876, the "Spindle City", as it became known, was second in the world to only Manchester, England.

Fall River rode the wave of economic prosperity well into the early 20th century. During this time, the city boasted several fancy hotels, theaters, and a bustling downtown. As the city continually expanded during the late 19th century, its leaders built several fine parks, schools, streetcar lines, a public water supply, and sewerage system to meet the needs of its growing population.

The cotton mills of Fall River had built their business largely on one product: print cloth. About 1910, the city's largest employer, the American Printing Company (APC), employed 6,000 people and was the largest company printer of cloth in the world. Dozens of other city mills solely produced cloth to be printed at the APC. World War I had provided a general increase in demand for textiles, and many of the mills of New England benefited during this time. The post-war economy quickly slowed however, and production quickly outpaced demand. In 1923, Fall River faced the first wave of mill closures. Some mills merged and were able to limp along until the late 1920s. By the 1930s and the Great Depression, many more mills were out of business and the city was bankrupt.

With the demise of the textile industry, many of the city's mills were occupied by smaller companies, some in the garment industry, traditionally based in the New York City area but attracted to New England by the lure of cheap factory space and an eager workforce in need of jobs.^[12] The garment industry survived in the city well into the 1990s but has also largely become a victim of globalization and foreign competition.^[13]

In the 1960s, the city's landscape was drastically transformed with the construction of the Braga Bridge and Interstate 195, which cut directly through the heart of the city. In the wake of the highway building boom, the city lost some great pieces of its history. The Quequechan River was filled in and re-routed for much of its length. The historic falls, which had given the city its name, were diverted into underground culverts. A series of elevated steel viaducts was constructed as to access the new Braga Bridge. Many historic buildings were demolished.

Since about 1980, there has been a considerable amount of new development in the North end of the city, with many new single- and multi-family housing developments, particularly along North Main Street.

Today, Fall River is similar to many of the large Massachusetts cities that previously thrived on a very specialized commercial development, which has since disappeared and now seeks transformation toward a more diversified economy which encourages business and development. It is well known for its unique local cuisine, with popular restaurants, bakeries and food retail establishments. The emerging waterfront includes parks, restaurants and attractions that attract visitors from all over the region. The Southeastern Massachusetts Bioreserve and Fall

River Freetown State Forest take advantage of the largely unspoiled eastern end of the city, and new bicycle paths are encouraging visitors and locals to explore the City.

The City recognizes that education is one of the most important elements in transforming the City's business, social, and economic development and has made significant investments in the Fall River Public Schools. The original 1887 BMC Durfee High School was a source of pride for the City for almost a century, and restoring that pride to the City's flagship high school is a key step towards the future.

BMC Durfee High School History

The original **BMC Durfee High School** was occupied in 1887 and one of the first comprehensive high schools in the country and was the envy of every city and town in the Commonwealth. It last served as a school in 1977 and now serves as a Probate Court House for the Commonwealth of Massachusetts. It was added to the National Register of Historic Places in 1981. The entire costs of the original building, furnishings, and land was a donation from Mrs. Mary B. Young as a gift to the people of the City of Fall River, in memory of her son, Bradford Matthew Chaloner Durfee, who had died at a young age in 1872. The iconic building, with its tall red-capped clock tower and red-domed observatory tower, occupies prime real estate overlooking the Taunton River and gives rise to our Fall River school district seal, our athletics nickname, the Hilltoppers, our school colors of black and red (for the two roof colors), the school newspaper, the Hilltop, and our school alumni newspaper, the Chimes.

In the 1960s, with significant overcrowding and no room for expansion, planning began for a new high school on an alternative site. The City's intentions were good as they looked to modernize the facilities for teachers and students while simultaneously alleviating the overcrowding at the former site. Unfortunately, the design, planning, and occupancy of the new school provided many challenges. An energetic team of architects with no prior school design experience proceeded to design a sprawling open-classroom facility of over 575,000sf. The project ballooned from \$15.0 million to \$27.5 million, was delayed two years in its completion, and resulted in litigation between the City and both the architect and the general contractor. Even after completion and occupancy, the teachers, students, and facility personnel continued to suffer from a poorly organized building with numerous physical defects. Leaking roofs, leaking windows, and poor air quality plagued the building through its first 10 years of occupancy. The organization of the building, with its hidden entries, lack of visual sightlines, and maze-like hallways resulted in the need to hire an outside security consultant to develop strategies and modifications for the district. The open classroom pods, each alienated from one another, provided a challenging acoustical and educational environment. The six-level floor plan, staggered up the side of a hill, makes movement between many program areas both challenging and time-consuming.

Over the past four decades, the administrators, teachers, students, and facility personnel have made the best of the building they inherited in 1978. Open classroom areas have been enclosed, roofs and windows have been modified, faulty mechanical and electrical equipment have been

replaced, and portions of the building which are not safe or have become non-functional have been abandoned. Anyone who has ever toured Durfee High School as a teacher, parent, student, community member, or visitor fully understands the numerous challenges of the poorly designed facility.

Within the past century, there have been many distinguished Alumni from BMC Durfee High School. The following is a partial list representing the diversity of professionals who have passed through the hallways of this important and historical City institution:

- Mark Bomback - Former MLB player (Milwaukee Brewers, New York Mets, Toronto Blue Jays)
- James Chace - (1949) - Distinguished historian.
- Warren A. Cole - (1908) - Founder of Lambda Chi Alpha International Fraternity.
- Morton Dean - (1953) - American television news journalist.
- Margery Eagan - journalist and writer.
- Edward Francis Harrington - (1951) - United States federal judge.
- Tom Gastall - Former MLB player (Baltimore Orioles).
- Russ Gibson - Former MLB player (Boston Red Sox, San Francisco Giants).
- Brandon Gomes - Current MLB player (Tampa Bay Rays).
- Chris Herren - (1994) - Former NBA player for the Denver Nuggets, Boston Celtics.
- Sam Hyde - Comedian, co-creator of sketch comedy group Million Dollar Extreme, and actor and writer of Adult Swim's Million Dollar Extreme Presents: World Peace.
- Brig. Gen. John J. Liset, USAF - (1938) - chief of the USAF Section of the Joint Brazil-United States Military Commission, and chief of the Air Force Section, Military Assistance Advisory Group in Brazil.
- James M. McGuire - (1931) - Supreme Court Justice of the State of New York.
- Ernest Moniz - (1962) - United States Secretary of Energy under Barack Obama.
- Humberto Sousa Medeiros - (1937) - Cardinal of the Roman Catholic Church; former Archbishop of Boston.
- John Moriarty - (1948) - noted vocal coach and accompanist and a conductor and stage director of productions at opera companies throughout America.
- Jerome Namias - (1928) - Prominent American meteorologist; former Chief of the Extended Forecast Division of the National Weather Service and was involved in the research of both the Dust Bowl and El Niño phenomena.
- William J. Porter - (1930) - American diplomat; former ambassador to Canada, Saudi Arabia, and others.
- William K. Reilly - (1958) - former Administrator of the United States Environmental Protection Agency and current director of DuPont.
- James M. Swift - (1888) - first Head Football Coach at Michigan State Normal School (now Eastern Michigan University).
- Luke Urban - Former MLB player (Boston Braves).
- Gen. Melvin Zais, United States Army - (1933) - Decorated United States Army General.

Educational Vision

For over a year, the faculty, staff, and administration at Durfee High School have been meeting, collaborating, planning, and brainstorming their vision of a future educational facility that would meet the needs of the community, students, teachers, and administrators. More specifically, over the past several months, hundreds of hours have been dedicated to educational visioning sessions targeted at formulating these ideas into priority goals and guiding principles. All of their thoughts, ideas, strategies, priorities, and goals are contained herein. The City of Fall River and the Fall River Public Schools have worked strategically to create programs that engage the student in a project based learning environment where curriculum standards are taught through highly engaging, rigorous, and relevant real-world projects. Creating adequate and appropriately outfitted space is critical to this endeavor. The staff and administration believe that academic subjects should be integrated such that students see the connections in learning and do not perceive any subjects in isolation. Science, Technology, Engineering, Arts, History, and Math should all be fully integrated and their organization should support the strands that are inherent within the respective Chapter 74 CVTE programs and non-Chapter 74 Career path programs.

The current school methodology includes administrative teams which follow each grade level throughout their respective high school years in an effort to increase personal knowledge of each individual and their specific social, emotional, and academic needs. This approach is bolstered through teacher collaboration, dictating a critical need for dedicated and appropriate space which allows both formal and informal discussion and collaboration to take place throughout the school day. This focus on “knowing the student” also requires that the building support smaller academic teams with dedicated teacher and support services and a student commons that supports the development of student projects, presentations, and socialization. Traditional specials such as art, theatre/drama, and robotics/engineering should be located in close proximity to core subjects in order to help facilitate the desired integration. A positive culture and sense of pride is important in any high school environment, but it is particularly critical in a large high school like Durfee, where adequate gallery space must exist for the celebration and display of student work. This same space should also support student presentation and performance, as the opportunity to bring a group of students together quickly in a convenient and supportive location provides more opportunities for students to develop their communication skills, a critical 21st century educational component. Ubiquitous technology should be fully integrated into each teaching and learning activity, without the cumbersome task of set-up or movement of devices. Outdoor learning environments are critical for science and environmental program studies, but are equally important as part of the educational environment for many other academic disciplines. Indoor/outdoor connections should occur seamlessly throughout the academic environment and should also utilize these outdoor connections to bring natural lighting into all areas of the academic environment.

The BMC Durfee High School is a community facility. It should be designed to support both school and community use which extends beyond the traditional school day, allowing students to continue their academic, athletic, and social endeavors in a safe environment which also supports and incorporates the greater community. As the administration, staff, and students contemplated

the “ideal” educational environment, even before the “official” visioning sessions began with the design professionals, there was overwhelming agreement that a forward-thinking facility should be inspirational, sustainable, safe, and secure...with abundant natural light, a flexible and adaptable space that would support the ever-changing educational paradigm, much of which has not yet been imagined. One of the most important components of this evolving educational environment will be the flexibility of the student dining and socialization experience, as the popularity of culinary programs grows rapidly, and the student’s desire for casual learning and socialization increases. These combinations warrant a special design focus on creating student-run cafes and restaurants that are strategically located to support the complete student and staff experience. A successful BMC Durfee High School educational program will support these desired outcomes while simultaneously taking careful note of the rich history, background, culture, community, innovation, and philanthropy that thrive within the City. It will be educationally innovative, historically respectful, and community sensitive. The creation of a “new” BMC Durfee High School must clearly recognize the key elements that will foster a collaborative relationship of learning and service throughout the neighborhood, bringing all cultures and backgrounds together as one inclusive community which thrives on diversity. Much of the legwork for creating a roadmap to success is already underway by the City of Fall River and the Fall River Public Schools. As part of the Preliminary Design Program process, the City assembled key educators and administrators for a series of meetings, discussions, and educational visioning sessions targeted at formulating a specific educational program for the BMC Durfee High School which aligns with prior strategic planning, but also delves deeper into the specifics of educational delivery within the high school environment. The BMC Durfee High School environment is already a successful example of how an integrated and collaborative staff can work together to provide a highly successful and customized educational delivery to a very large (2,750 students) and diversified student population, regardless of the challenges of the existing physical facility. The current BMC Durfee High School environment utilizes grade-level administrative support teams, interdisciplinary instruction, and hands-on activities to engage students throughout the school day and beyond, offering a large and broad array of academic subjects and after-school activities targeted at engaging all students. The educational visioning narrative and the educational program information contained herein are representative of the discussions, collaboration, and desired goals developed by the administration, staff, teachers, and students of the Fall River Public Schools. It defines the current and future goals and priorities for educational delivery within the BMC Durfee High School. It includes a careful analysis and understanding of the various attributes that make Fall River a significant and historic City for education, and more specifically the specific attributes which can make the BMC Durfee High School an even more successful educational and social environment for the students, teachers, parents, and the entire neighborhood. The program incorporates 21st Century high school design patterns, and will bring innovative thought into a City with a history of innovation and leadership. It also includes a sensitive understanding of the large size and diversity of the school population, promoting an environment where students, parents, and community members can come together in a harmonious environment of enthusiasm, confidence, security, respect, social exchange, and academic excellence.

There are several key design themes or strategies that are critical to the support of learning, teaching, and socialization within the BMC Durfee High School environment. These strategies

evolved as a result of teachers and administrators, who have spent decades working with the students at Durfee High School, joining the design team in brainstorming the priority goals and guiding principles that can make the new Durfee High School a huge success. They are the physical manifestation of how an educational environment can truly impact the student and teacher experience on a daily basis. These themes and strategies are sprinkled throughout the entire educational program and visioning narrative and some of the most important concepts can be summarized as follows:

The Entry Experience

Although this might not immediately come to mind as a top priority when thinking about the design of a school environment, it repeatedly floated to the top as a guiding principle throughout all of the educational visioning workshops. The large and diverse student body at Durfee High School results in an equally large and diverse range of experiences that students encounter outside of school. They enter the campus carrying a wide range of burdens, emotions, and challenges. The school should represent an opportunity to shed these burdens and challenges. The appearance upon entry to the campus should be welcoming, inspirational, motivational, and should produce a sense of pride. It should be a place students want to be. Students should be made to feel important and the facility they enter represents that importance. This “pride in appearance” and “importance of place” was fully inherent in the original 1887 BMC Durfee High School facility, but is completely absent in the 1978 Durfee High School building. Students should be proud to enter the new BMC Durfee High School and should feel a welcoming, personalized experience. There should be a strong sense of history reminding them of the greatness that has passed through Fall River and the alumni of Durfee High School. There should be an obvious pride in the current success of Durfee High School through the exhibit of student work, activities, and successes. Additionally, the interaction of community members and parents, as well as the impression they receive during their visit to the school, is important. Most of the visitors will not have the opportunity to tour throughout all areas of the school, and certainly will not have the opportunity to observe the activities and products of student academic work. The ability for key public areas of the building to exhibit this work, not just statically but also dynamically, is a key component in allowing visitors to experience the amazing work that is going on throughout the building, without the need to tour deep into the academic zones, which is obviously not practical. The building should place “education and student activity on display for all to absorb”. This instills student pride through the exhibit of their work, which can easily be done by providing opportunities for fixed exhibits, video display, and any other practical and functional means. This kind of exhibit opportunity should not be limited to just the displays at entry points accessible to visitors, but should also be inherent within the academic zones, allowing students to present and exhibit their project work to other students.

It is also important that entry areas exhibit the history and flavor of the City and School Department through the presentation of artifacts, information, and exhibits. Fall River has a rich and amazing history, yet there is no sense of this in the current building. The staff and administration feel it is very important that visitors have the same sense of pride and history that they desire for the students.

Classroom Neighborhoods

Although the term “neighborhood” is often reserved for the discussion of a middle school environment, it repeatedly evolved during the visioning sessions as a term which represents the need to divide the enormous student body (2,600 pupils) into manageable, personalized, smaller schools within the school. This need is identified throughout the priority goals and guiding principles with terms like “small school feel, large school pride” and “classroom neighborhoods”. After many discussions about the appropriate size for these “smaller schools within the school” or “classroom neighborhoods”, it was generally agreed that if the student body could be divided into smaller schools of about 650 students, and then these schools further subdivided into a humanities neighborhood and a math/science neighborhood, this could achieve the desired learning neighborhoods. It also allows each 650-pupil school to focus more specifically and easily on cross-discipline instruction, as each discipline would be equally represented within the smaller school. The size and configuration of interdisciplinary teams and their need to collaborate with vocational applications changes routinely as the curriculum evolves, therefore the visioning team concluded that a large number of flexible (identically designed) classrooms within each school or neighborhood could be used interchangeably for history, English, language, or math. The science classrooms/labs would be more specific, but should be equally divided among the smaller schools. These interchangeable classrooms would increase flexibility and allow for multiple team sizes and configurations.

A Collaborative Environment for Teachers

Each of these smaller schools must contain spaces that support teachers in their efforts to collaborate, plan, and work. The diverse student body at Durfee High School, and their equally diverse needs, require that teachers be able to plan specific strategies to support each individual student’s needs. Additionally, cross-discipline instruction can only succeed if teachers have appropriate space for curriculum planning and discussion. Technology has greatly assisted collaboration among teachers and staff, however the power of face-to-face interaction has yet to be replicated by technology. Human interaction is everything, especially in a creative, innovative, and knowledge-intensive sector such as education. The strength of any creative organization is shaped as much by the day-to-day chance contact of its members as it is by formal gatherings such as scheduled conferences and collaborative meetings. Critical information leading to educational innovation and an in-depth understanding of student needs often comes from informal encounters between teachers from varying disciplines and backgrounds. The design of the Durfee High School should include spaces and strategies which promote this interaction while also supporting a variety of professional activities. Additionally, these spaces avoid isolating teachers at their desks by giving them a secondary ‘home’ in the workplace where they are able to organize their activities and instruction across a variety of disciplines, a range of ideas and strategies which they share with their colleagues.

Flexible and Varied Learning Spaces

21st Century learning is underpinned by varying and flexible teaching methods and spaces that are engaging, motivational, and that allow teachers to tailor instruction to specific student needs. Flexible learning spaces complement current and evolving pedagogies and provide creative and energised learners and teachers. Flexible learning spaces enable social and collaborative learning, integrated curriculum delivery, mix of teacher-directed and student-directed teaching and learning, independent learning, project work, direct instruction, innovative and creative thinking, relationship building, and problem-solving skills. Flexible and varied spaces also allow for a more productive integration of special education students into the general academic environment. The staff and administration at Durfee High School are particularly sensitive to the distinct difference between “flexible learning spaces” and “open learning environments” and want to define them accordingly. The current Durfee High School originally included open learning environments and this type of organization has been an enormous challenge to the staff and administration. Flexible learning spaces are different in that they provide a variety of spaces that can be used for specific learning tasks and activities. Available support spaces of varying sizes in a flexible learning environment can be utilized to suit learning styles and abilities, while simultaneously generating engaging and exciting learning opportunities. Open learning environments on the other hand are completely open and provide the necessary variety of learning spaces. Attempting to configure them into smaller or varied spaces is not feasible, and the required noise separation and privacy is non-existent. In open learning environments, students are only able to do one form of learning in a large space reducing the ability to create small group space, or quiet areas and spaces tailored for specific tasks.

Small group support spaces or “breakout spaces” directly adjacent to the flexible classrooms allow teachers to tailor the learning to suit the students and the learning outcomes. These spaces should be separated from the main learning space with glazing or sliding glass doors so that the teacher in the main learning space can passively supervise the space. Students who need a quiet space can be given this opportunity in an adjacent and visible small workroom which accommodates quiet work. If collaborative group discussion is desired, flexible and interchangeable general classrooms which are appropriately sized can accommodate this need. Flexible classrooms with adjacent support spaces also allow teachers to use their available space more effectively than a traditional inflexible classroom with no small group support space. Additionally, flexible learning spaces allow adults and support staff to work within the space, meaning both general education and special education students have access to support more readily. In addition to these small breakout spaces, slightly larger independent study spaces strategically located throughout the classroom neighborhoods 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, identified as “independent study”, 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. We feel strongly that small group rooms shared by interchangeable classrooms (perhaps one small group room for every two classrooms) combined with larger group rooms (perhaps two per neighbourhood) that support independent study by 10-12 students is an outstanding formula for a flexible and varied learning environment. Note that most of the staff and administration have experienced classrooms with moveable walls, and they have determined that this arrangement is much less effective for a variety of reasons. Therefore, there is no request for such herein.

Indoor/Outdoor Connections

The connection of indoor and outdoor spaces is important to creating a vibrant and energized educational environment. Students can become more engaged in utilizing outdoor space if an effort is made to ensure the appropriate visual and physical connections. Outdoor space can go beyond recreational playfield use and can provide project space, social space, classrooms, study areas, and other support areas for the educational environment. It has a natural integration to many sciences and should not be ignored as part of a 21st Century educational environment. Participants in the educational visioning sessions identified indoor/outdoor connections as both a guiding principle and a priority goal. They all realized that an efficient and compact facility for 2,600 pupils would likely be multiple stories; however, they did not feel this in any way compromises the ability to provide the necessary indoor/outdoor connections. Outdoor connectivity does not mean having to walk directly outdoors from a classroom; in fact, in most cases, this would be impractical and defeat security goals. The current 1978 facility rarely exceeds two stories, and yet one can travel through the building for great distances without ever seeing the outdoors, without ever experiencing any indoor/outdoor connectivity. The current facility also includes an outdoor amphitheater, but it is poorly located/designed and remains in shadow throughout most of the day. The staff and administration want to be actively involved in a thoughtful design process that continually considers convenient outdoor access for students and that also incorporates multiple organizational strategies that keep natural light pouring into all areas of the building. Outdoor learning areas should be developed in convenient and usable locations which receive maximum sunlight throughout the day.

Branding, Identity, and a Sense of School Community

The personalization and pride desired as part of the "entry experience" goes beyond the entry sequence into the facility and should extend throughout the entire school. One of the most critical measures of any high school is the strength of its internal school community. The educators at

Durfee High School have worked enthusiastically and collaboratively for decades to overcome the challenges associated with the existing high school facility. The organizational attributes of a 21st Century high school environment can foster school community by creating a learning environment that promotes safety, identity, personalization, pride, belonging, support, and confidence. The facility must be organized so that it accommodates student needs from morning arrival until end-of-day departure. The student must feel a personal connection to the staff and students of their community, and such connection begins at arrival. The need for student exhibition of work and personalization of space is also a key ingredient in strengthening the sense of school community. The entire building should become a dynamic canvas for the display of learning and student activity. Students and teachers must see the fruits of their efforts surrounding them at all times, reinforcing their sense of purpose and personalizing the school environment. This pride of school environment should extend to the greater community through pride in City and community history. The school environment can incorporate numerous business, community, and historical references and artifacts that engage students in the achievements and the pride of previous generations and give them a powerful sense of place within their school community and their role within the greater community.

Real World Connections

There are many important elements in creating a successful school environment where civic engagement and community responsibility become an integral part of the program and function. One strategy for fostering this connectivity involves the evaluation of academic and vocation-based activity that can be visually and physically integrated into the core of the school while simultaneously opening itself to community involvement. It requires re-thinking the "core" or "commons" of the school, the definition of "entry", and all of the necessary aspects of security. The school greatly desires to operate the appropriate vocational programs very much like a business and/or business incubator, promoting the desired collaboration with the outside community while simultaneously creating the necessary boundaries for staff, administrators, parents, and students. Programs that may potentially fit within this desired connectivity include the culinary restaurant, cosmetology, early education and care, health assisting, environmental science and technology, design and visual communications, and construction crafts. As the design for the Durfee High School evolves, the placement of each of these programs should strike a delicate balance between connectivity to the academic core and connectivity to the greater community and public.

Student Socialization and Observation

Social skills and the need to communicate outside of the project/instructional environment are key elements in promoting positive student development. Students must have the opportunity

to socialize with their peers without being restricted to an enormous cafeteria or crowded hallway. It is also critical that these student socialization zones be located in a manner that includes passive observation by administration and teachers at all times. The current building includes large open areas that were intended for student socialization, but they are isolated from observation by the staff. This makes them a safety and security threat and requires that school policy include no congregating in these areas. The staff and administration feel strongly that the student dining experience should occur in multiple areas as the current enormous cafeteria is a failure on many levels. The boundaries of the dining experience can also be explored, and although student supervision will continue to be a critical component of a well-designed dining space, allowing the dining experience to flow into an adjacent lobby area or to an outdoor patio should be considered as part of the planning effort. The student dining area can also play a significant role in parent and community interaction within the school by providing flexible space which supports presentations, programs, and events. It can serve as one of the primary social hubs of not only the school, but also the entire Fall River community. There is also a strong desire for student-run cafes located throughout the building, as this could improve student socialization and the overall school environment while simultaneously offering multiple opportunities for the Culinary, Marketing, and Visual Communications programs.

Simplified Organization and Circulation

The current Durfee High School floor plan is a sprawling, confusing maze of over 575,000sf. Navigation throughout the school is extremely confusing and both visitors and students are easily lost. The challenges of the current plan organization are significant and provide a constant burden to teachers and students. As a result of decades of frustration in the existing building, there was a strong message from the educational visioning team regarding the desire for simplified plan organization and the development of a single circulation spine around which all programs and activities are organized.

Vocational and Academic Integration

The integration and collaboration of academic and vocational learning are important goals of the staff and administration at Durfee High School. The school schedule allows all students to participate in both academic and vocational lab opportunities. It also eliminates any stigma traditionally associated with pursuing either of these two paths. Ideally, students learn the application of academic study within real-world trades, design, and engineering problems and challenges. Unfortunately, one of the biggest obstacles currently facing Durfee High School is the physical separation of certain vocational programs that could be much more closely integrated to the academic and social core of the school. This physical separation creates significant boundaries and does not allow for the timely movement of students to their respective destinations. The current layout also does not include appropriate collaboration and planning areas for staff and administration. The newly proposed design should resolve these obstacles by locating the appropriate vocational opportunities within the core of the building. For example, the culinary

program includes both a restaurant and a bakery that should be in close proximity to the students. The proximity of these programs does not have to include direct adjacency, as this would be impractical in many instances. However, good proximity can strengthen the educational relationships between vocational and academic. As programs in the construction trades evolve with advancements in science and technology, they will continue to have a strong correlation with the academic science classrooms. Therefore, these large-scale spaces will be designed to be flexible and incorporate evolving technologies. These application labs are unlike a project-based lab in a purely academic high school, as they will always involve the large-scale building, design, and engineering of full-scale projects with real-world applications. They require large open spaces that can accommodate design, assembly, and production equipment. Their placement within the floor plan involves a delicate balance between keeping them integrated with the academic classrooms and providing the necessary separation to avoid the disruption that may be caused by activities (noise) within the space. The educational program and visioning also place an additional burden on these spaces; they must be located on the first floor and allow for easy access to the public and community.

Several of the CVTE programs are identified in the educational program as “stand alone” programs; these include programs like Cosmetology, Design & Visual Communications, Early Education & Care, Health Assisting, Radio & Television, and Engineering. Each of these programs has a specific set of adjacencies, connections, and integrations with various academic disciplines and other related programs. For example, Early Education & Care must be near a primary access point for easy access by the preschool students, but also must maintain some key adjacencies to Medical Assisting and the academic classrooms. Medical Assisting must maintain a connection to Early Education, but also has a strong connection to Science. The Cosmetology program would benefit from access to the public, and therefore would need a direct connection to an identifiable public entry. However, as a rapidly evolving field, Cosmetology also has key connections to Medical Assisting.

The modern comprehensive high school environment must maintain large vocational labs which are flexible enough to evolve with changes in science, technology, and the required workforce. However, they do include specialized sound, acoustic, and equipment needs which require specialized components and some specific attributes such as sound separation from academic classrooms. The key to a successful Durfee High School is to create labs which have enough separation, but avoid the isolation which exists at the current building.

Learning Beyond the School Day

As students become involved in more activities, the time they spend on the academic campus expands. These activities include music, performances, athletics, research, science, academics, and more. Many students study after school as they await upcoming practices, performances, or

activities which involve them and their friends. Providing appropriate spaces for such activities is a key component of the 21st Century academic environment.

Community Use

In Fall River, the Durfee High School has truly become the center of community use. Gymnasiums, performance theaters, lecture halls, media labs, etc. all become highly utilized community and educational resources. These facilities are not “extras” to be added if funding allows, but are inherent resources that will serve the students, teachers, administrators, and members of the community for decades to come. Their careful planning and inclusion, as well as their integration into the community-wide environment, are critical to supporting community interaction with the educational community. The current high school is a great example - local organizations utilize the gymnasiums, meeting rooms, and auditorium for events and functions. The City currently lacks adequate community spaces and educational resources.

B. GRADE AND SCHOOL CONFIGURATION POLICIES

The Fall River Public Schools has developed a Mission Statement, Core Beliefs, and Vision Statement that are the guiding principles of the District’s educational priorities. The mission of the Fall River Public Schools is to provide a quality education so that all students will attain their fullest potential and become responsible members of society. Fall River Public Schools is committed to providing quality teaching and learning in a respectful, safe, healthy, and supportive environment that links students, parents, and staff in a community of lifelong learners and capable problem solvers.

The Fall River School District shall be one where students are safe and prepared for college and/or careers, where individualization and personalization is strived for, where excellence for all is expected, and where collaboration and communication among all stakeholders is the norm.

The District has an approximate enrollment of 10,100 students and provides comprehensive educational services to students PreK-12. It has eight K-5 elementary schools, two K-8 schools, three middle schools, one comprehensive high school, one therapeutic K-8 school, and one alternative high school. Full-day kindergarten is available free of cost at all Fall River Elementary Schools. In addition, there is a District subsidized pre-school program. Throughout all schools, Fall River prioritizes providing all students a personalized, rigorous, and supportive learning environment.

BMC Durfee High School is a comprehensive high school with grades 9 through 12 and has over 2,200 students and 170 teachers. BMC Durfee High School is configured in a traditional grade configuration that has a static Freshman Academy and grade level support teams that cycle with students from 10th through 12th grades. BMC Durfee High School has developed a mission and vision that aligns with the District and sets priorities for the building.

Core Beliefs and Values Statement

The BMC Durfee High School community is dedicated to providing a safe, rigorous learning environment that is equitable, inclusive, and collaborative, empowering students to explore diverse paths and succeed in the 21st Century.

All Hilltoppers have Durfee **PRIDE!**

- P PURPOSE:** Students will demonstrate informational literacy through clear and effective articulation of ideas using various forms of communication.
- R RESPONSIBILITY:** Student will demonstrate personal accountability to the school community.
- I INNOVATION:** Students will demonstrate content literacy by analyzing and solving problems in collaborative academic and real world settings.
- D DILIGENCE:** Students will demonstrate care, effort, and persistence in accomplishing their academic, social, and future goals.
- E EMPOWERMENT:** Students will be able to synthesize the PRIDE expectations.

The current school configuration, due largely to the physical layout of the building, consists of isolated departments that limit the ability to deliver instruction in an interdisciplinary manner. However, one area of the building, Freshman Academy, has been strategically designed to be interdisciplinary in the areas of English, Math, and Science. All freshman students are able to be clustered into freshman teams to makes the school feel physically smaller and to support the socio-emotional and academic needs of the freshman. This teaming allows teachers to maximize students supports.

The proposed high school project would continue to be a comprehensive high school model that serves the 9-12 population. However, we would be requesting a change to the existing vocational education structure. These changes are being recommended based on enrollment trends, data from the Bureau of Labor Statistics, and statistics regarding emerging career pathways. The new facility will allow cross-curricular opportunities in keeping departmental structures but blend both vocational and special education classrooms into those areas. We would also like a facility that ensures that 21st Century learning expectations are the norm. The existing facility limits the ability to prepare our students for 21st Century college and careers.

C. CLASS SIZE POLICIES

No class size may exceed 32 students in any discipline in accordance with the FREA guidelines.

D. SCHOOL SCHEDULING METHOD

The school day begins at 7:55 a.m. and ends at 2:40 p.m., consisting of a five-period modified block schedule. The task of scheduling is completed collaboratively by administration and guidance. Some required courses are year-long courses while others are taken as semester. Due to a red/black rotation of classes, students are able to take multiple electives in various areas. CVTE classes are offered in a block-scheduling format with upper grades staying in their CVTE pathways for approximately two or three periods of the day.

Durfee High School has a school-wide Advisory program that is designed to connect students to a caring staff member, support positive connections to the school, and to support academic achievement. Advisory is offered one day per week for students in grades 9-12.

Currently our school is reviewing the current structure of our schedule and are planning to make recommendations for revisions to maximize teaching and learning.

E. CURRENT SPATIAL AND FACILITY DEFICIENCIES WHICH IMPACT PROGRAM

The 1978 BMC Durfee High School Building was designed as a sprawling 500,000sf multi-level facility intended to incorporate many "modern" trends in education. Unfortunately, many of these "trends" were not successful and soon became familiar mistakes incorporates into 1970s facilities. The original design created "open classrooms", with many of these areas having been retrofitted over the years to attempt to provide acoustical separation for classrooms. All large buildings require multiple floors, however the BMC Durfee High School facility includes six different levels staggered across the hillside, none of which stack for more than two levels congruently resulting in a confusing maze when attempting to navigate from one portion of the building to another. The following is a summary of the challenges of the existing facility, intended to facilitate an understanding of current challenges faced by the administrators, teachers, and students and to allow for better planning in any proposed future facility.

- Retrofitted classrooms (areas of previous open classrooms) improve acoustics but do not have fully enclosed walls because existing HVAC systems cannot function properly if walls were to go to the ceiling.
- Air quality problems have plagued the building since occupancy as it was designed with no operable windows and is 100% reliant on mechanical ventilation.
- The entire building originally included carpeted floors. Poor ventilation has resulted in moldy carpets and the requirement for removal. The original building was highly reliant on the carpet for proper acoustics and now many areas of the building are extremely loud.
- The classroom "pods" include large internal stairways and surrounding lobby space which is not functional for use by students due to its isolation, noise, and lack of connection to the academic classrooms or student/staff support areas. This area is a large waste of inefficient space that serves very little purpose and is inefficient to ventilate/heat/cool.

- The original design assumed (incorrectly) that there would be limited student traffic flow between pods and other areas of the building. The result is numerous bottlenecks that create student conflict and increase movement time between classes.
- There is a lack of flexible learning spaces for educational projects that require collaboration.
- There are inadequate spaces in the Science Department. All of the rooms that are utilized as “labs” are grossly inadequate as they were designed with the philosophy that very little dedicated lab space was required and science instruction could be provided within the “open classroom” environment. Some spaces have been retrofitted, but NEASC reports cite the school for lack of proper lab space, which is actually quite an understatement when one views the kind of space the high school has available to provide science experiences and applications for 2,500 students. Basic amenities like appropriate electrical and technology services are not available in these areas and the building’s concrete structure and open floor plan with limited walls have restricted retrofitting efforts in these areas.
- A school population of 2,500 students requires significant collaboration among teachers and administrators, but the current building includes no appropriate spaces for such.
- The classrooms are poorly-organized within the pods which deters interdisciplinary or collaborative learning.
- The building is a 1970s “brutalist” example of architecture, with its exposed concrete exterior and minimal windows on some facades. It resembles a bunker or prison and lacks natural light and/or windows in many key areas. This dramatically impacts both student and staff morale.
- Many of the vocational spaces were not designed to support modern careers and programs. Many of the highly successful programs like Culinary Arts have limited space and no ability to accommodate all of the students who wish to participate. Many areas and components are not ADA (or CMR 521) accessible, compounding the challenges the school faces when considering the expansion of existing programs or the introduction of new programs.
- Many of the special education classrooms and support areas are undersized and/or poorly located. The multiple levels within the building provide significant challenges for the movement of students with physical challenges.
- Major heating and cooling issues have plagued the building since its occupancy. Classrooms and programs are constantly relocated throughout the year to ensure that the most highly-occupied spaces find a warm room during the winter or an acceptably comfortable temperature during the shoulder months of the Spring and Fall.
- The building is extremely inefficient in terms of its overall exterior building envelope (walls and roof) versus its available floor area. Its unusually large amount of building envelope results in increased operational costs (heating and cooling) and although this may not seem like an educational issue, the budget required to operate such a building does ultimately impact the available budget of other educational needs.
- The building has an unusually large and complex roof system for a building of its size. It includes approximately 250,000sf of surface area and a multitude of unusual level changes and flashing conditions. Maintaining such a roof system makes it nearly impossible to keep all areas dry and available for occupancy. The result is constant movement of classrooms

and programs throughout each year (this has occurred since its original 1978 occupancy) in order to provide spaces that are warm, safe, and dry. New leaks (even in recently replaced roof areas) occur so frequently that ceiling tiles are no longer replaced in order to eliminate potential sources of mold.

- At the time that the building was designed, there was little consideration for the necessary passive and active security provisions which should be inherent in a school facility. There are numerous blind corners, hiding spaces, and unsupervised areas that resulted in the need (1978) to hire a security and safety consultant immediately upon occupancy for review and recommendations. The consultant was highly critical of the building's design and the recommendations came at a significant cost and were initially rejected as being unreasonable for a new school facility. Today, security guards roam the building full-time and the local police play a significant role in assisting the school on safety and security matters. Security cameras have been retrofitted to assist with active security technology. However, the building's inherently poor organization requires significantly more resources than a typical school building of the same size, and much could be done as part of planning a future building to insure a safer and more secure school environment without all of the resources currently required.
- Educational spaces have been created in areas not originally designed for instructional purposes. Most of these spaces include some form of compromise such as size, ventilation, acoustics, or lack of natural lighting.
- CVTE equipment/machinery is almost 40 years old and in need of constant repair and maintenance.
- The Library/Media Center was originally designed as a vast open space and needs significant modifications in order to support the varied and flexible integrated programs of a modern media center. BMC Durfee High School has a very strong television broadcasting program that occupies original and retrofitted space within the Media Center, but lack of accessibility and truly appropriate support space prohibits the expansion of this popular and successful program.
- The original poured-in-place concrete building structure is settling in many areas. Although this does not pose any imminent safety threat in terms of structural failure, it does cause many constant challenges such as interior and exterior doors that may be operating freely one day, and may be inoperable the next due to minor settlement causing the frames to be out of plumb. This does cause safety and security concerns and should be addressed as quickly as possible. The settlement has also caused several windows to fall out of their frames over the past two years, and it's fairly common to find a piece of spalling (fractured or separated) concrete within the interior of the building.
- The BMC Durfee High School facility includes a pool. Although considered a luxury by some districts, the BMC Durfee High School program has a long history of aquatics dating back to the 19th Century. Many former valedictorians and class leaders chose swimming as their form of life-long fitness and exercise, and the swimming programs at Durfee have become second to none over the past decades with regard to participation, championships, and scholar-athletes. Unfortunately, much maintenance is required on a daily basis to keep the pool available for students. The current pool is leaching hundreds of gallons of water into the ground on a weekly basis and the physical building envelope

enclosing the pool shows even more significant settlement than remaining portions of the building.

- There is limited "usable" square footage in most tech programs that is not in accordance with Chapter 74 regulations.
- All Technical Studies programs do not all have "related" theory rooms and are not closely integrated to the academic classrooms. The building was designed at a time when CVTE labs were viewed as requiring "isolation" from the remaining facilities. This is no longer true, as these programs should be as fully integrated as practical and their current isolation creates a stigma of reduced importance and/or significance while simultaneously creating an enormous challenge to the integration of academics and hands-on learning.
- Existing electrical panels are at maximum capacity, which does not allow for new machines/technology installation.
- Due to the facility issues, not the budget, the school is unable to add many technical studies programs that are in high demand in accordance with the Bureau of Labor Statistics.

F. TEACHING METHODOLOGY AND STRUCTURE

Administrative and Academic Organization Overview

BMC Durfee High School, originally established in 1887 and moved to the current building in 1978, is a comprehensive educational facility offering academic and technical studies programs currently serving 2,310 students. There are seven Chapter 74 programs at BMC Durfee High School. BMC Durfee is proud of its varied academic offerings, an extensive Advanced Placement program, outstanding broadcasting program, award-winning art program, performing arts center and programs, and the many career and technical pathways that provide valuable resources to the community; including, but not limited to, Culinary Arts, Design and Visual Communication, Health Assisting, Early Education and Child Care, and Cosmetology.

The administrative structure of the high school has been and will continue to be organized in grade level teams. Each grade has a grade level office team, with the exception of the Freshman team, and is comprised of a Vice Principal, two guidance counselors, an adjustment counselor, an office manager, and a clerk. The Freshman team includes an additional school adjustment counselor, a behavior specialist, and a student support specialist.

At BMC Durfee High School, we take great pride in our comprehensive high school model. All students are able to take rigorous academic course of study while simultaneously exploring various elective opportunities and career and vocational pathways. Durfee's graduation requirements are aligned to MASS CORE, which are requirements designed to prepare students to be successful in Massachusetts institutions of higher education.

Our comprehensive model is possible through a parallel scheduling model with students taking academic, career, and technical offerings throughout their school day. This comprehensive academic approach is very different than the typical “vocational school” scheduling model (week-on/week-off). As a result, the facility and the classrooms are used to their capacity each period of the day at BMC Durfee High School. For example, in the Cosmetology program, there are sections for cosmetology for 11th and 12th grade students in the morning and for 9th and 10th graders in the afternoon. Students who take their cosmetology programming in the morning take their academic coursework in the afternoon. This allows for the same academic expectations and time on learning for all students.

In order for this model to work in regards to the building schedule, the spaces are used throughout the entire day as evidenced by our master schedule. The core academic classes are scheduled with a similar approach. For example, we offer grade 10 English sections in the morning as well as in the afternoon. Advanced Placement (AP) courses are offered with multiple sections throughout the day so there is equal access for all students – both CVTE and Academic. Many of our career and technical students are also involved in the AP program.

This model would continue to be in place in a new and/or renovated BMC Durfee High School. Classrooms and CVTE programs would continue to be used throughout the entire school day in order to allow scheduling flexibility. The flexibility within our schedule in regards to academic course offerings and the times they are offered have helped us ensure that there are as many options as possible for our students.

Our goal for the new and/or renovated BMC Durfee High School is that it will be the comprehensive high school of the future - a school with high academic standards that also integrates career and vocational technical education so that students are both career and college ready. Currently, we have excelled as a school community despite an incredibly deficient facility. Our goal is to build a school that ensures that all students at Durfee can receive the best education possible.

Room Assignment Policies

Currently, the assigning of rooms is done in collaboration between School Administration and the Dean of each academic subject. Each subject area is located in a separate wing of the building. The majority of teachers have their own classrooms in the current facility.

The proposed design may not allow for a classroom for each teacher. However, all classrooms should be designed as flexible, interchangeable spaces such that they can be organized to support various educational approaches. The support of interdisciplinary instruction at Durfee is achieved in many ways, but it does not require “forced” interdisciplinary instruction by breaking up the departments. For example, the freshman

academy is currently operated as 175 student teams with interdisciplinary instruction; however, these teams are not isolated into pods, and doing so would be too restrictive. As described in the educational visioning, the size of the teams can vary, and the best design solution would include large groups of classrooms which are flexible and interchangeable to serve varying disciplines. These classrooms do not need to be broken into pods or small groups of classrooms, as this would be too rigid and would not allow us to change the size and configuration of the teams. These classrooms can share planning and collaboration space, as long as there is at least one planning space per floor and they have access to the small group seminar room. The District wants to maintain the ability to continue the current departmental structures, with the flexibility to organize interdisciplinary teams in various sizes and locations, just as they do now for the freshman academy.

BMC Durfee High School - 2015-2016 Enrollment Data

Enrollment by Race/Ethnicity (2015-16)			
Race	% of School	% of District	% of State
African American	8.9	7.4	8.8
Asian	5.1	4.3	6.5
Hispanic	22.0	23.5	18.6
Native American	0.3	0.2	0.2
White	60.4	57.9	62.7
Native Hawaiian, Pacific Islander	0.1	0.1	0.1
Multi-Race, Non-Hispanic	3.2	6.6	3.2

Enrollment by Gender (2015-16)			
	School	District	State
Male	1,119	5,230	488,472
Female	1,092	4,893	464,957
Total	2,211	10,123	953,429

Title	% of School	% of District	% of State
First Language not English	27.0	20.3	19.0
English Language Learner	8.5	9.5	9.0
Students With Disabilities	17.5	18.9	17.2
High Needs	62.2	69.7	43.5
Economically Disadvantaged	50.9	59.1	27.4

Source: Massachusetts Department of Elementary and Secondary Education

Curriculum Delivery Methods and Practices

Historically, BMC Durfee High School has been traditional in its teaching methodologies. Over the past several years, the school community has engaged in a significant amount of professional development to begin to move to an educational delivery model that is more reflective of 21st Century skills, smaller learning communities, inquiry-based instruction, and authentic assessment. The Fall River Public Schools was fortunate to receive several competitive federal grants to support this work.

While the school has made great strides to integrate 21st Century skills into instructional practice, the current physical layout of the building poses great challenges for such teaching methodologies. We were cited by the New England Association of Secondary Schools and Colleges (NEASC) for the poor physical condition of the building and lack of ADA compliance.

The proposed high school would maintain programs such as freshman academy and departmental structure while affording more opportunities for students and staff to work in a horizontal and vertical interdisciplinary manner while fully integrating special education programming. In order to support the desired interdisciplinary instruction, departments would be subdivided into smaller departmental groups that are intermixed with other departments, as further defined herein.

As stated earlier, BMC Durfee High School has prioritized a number of school initiatives that focus on personalization. Personalization of programs, student schedules, course selections, and most importantly, personalized relationships. As a result of these efforts, we have made great strides and attained specific goals related to overall student achievement. In addition to the personalization efforts, we have also made a conscious decision to enhance all course offerings. As a result, we have an outstanding course of study with a broad range of courses at all levels of instruction. We are now hoping to have a school facility that matches the high-level courses that we offer.

Several current methodologies and practices will remain integral to the structure of BMC Durfee High School.

Freshman Academy Model

Grade 9 is a year of transition from middle school to high school. The transition is supported by the Freshman Academy. Entering 9th graders are offered additional socio-emotional supports and are placed on teams for their English, Math and Science classes. The team of teachers work collaboratively with student support staff and are committed to achieving common objectives, producing high quality results. The goal is to assist incoming 9th graders in adjusting to high school standards and expectations.

The team model is developed around the concept of a small learning community. Students are grouped into one of three teams. Each team consists of approximately 175 students. Teamed teachers are scheduled strategically, affording them a weekly period of common planning time to collectively address the social-emotional and academic needs of their students. These teams are not separated from the remainder of the high school population.

The staff and administration feel that there is no need to physically isolate these students from the remaining grades at the high school and that doing so would hinder some effects of the program. The "Freshman Academy" is more of an educational and strategic approach than a "separate school". The District believes a plan where academic classrooms are all identically outfitted and sized, and are also in close proximity to laboratory spaces, will provide the necessary physical environment to continue the successful implementation of the "Freshman Academy".

Our Freshman Academy model is thriving with its new structure of supports. Comparing SY 14-15 to SY 15-16, retention and dropout rates are dramatically decreased. Failure reports are completed each quarter in the hopes of engaging families in the work towards reducing high school dropouts. Enhanced communication with parents and dropout prevention are focal points for the Freshman Academy. Parents are very appreciative of the strategies implemented to enhance communication during the difficult transition period to high school.

Advanced Placement Program

The Advanced Placement Program of the College Board offers college-level courses and exams. It allows students the opportunity to earn advanced standing in college by earning college credit while still in high school. The following courses are offered for Advanced Placement at BMC Durfee High School:

English Literature AP
English Language AP

U.S. History AP

European History AP

Chemistry AP

Calculus AB AP

Calculus BC AP

Statistics AP

American Government

Spanish AP

Biology AP

Physics I AP

Physics II AP

Environmental Science AP(Virtual)

Economics AP (Virtual)

Music Theory AP

Calculus BC AP (Virtual)

Advanced Placement courses are rigorous in nature and culminate in an examination in May. It is required that students take the AP exam at the conclusion of each course. Students selecting an AP course for the upcoming year will be given independent summer assignments, which will become the basis for initial work within the course.

Dual Enrollment Program

Through affiliations with area colleges, students can participate in the Dual Enrollment Program. This program allows students to take college-level courses while enrolled at Durfee High School. Courses taken can be used to fulfill graduation requirements or be used as elective credit. Dual Enrollment courses are intended to provide advanced standing at their chosen college. The Director of Guidance, in conjunction with the student's Guidance Counselor or Grade Administrator, will determine the GPA weight that will be associated with the course. All Dual Enrollment courses will appear on the student's high school transcript.

Students must have a minimum high school GPA of 2.5 to participate. All students who meet the GPA requirement are eligible to participate upon recommendation of their counselor. Some scholarships are available to pay for Dual Enrollment courses at Bristol Community College.

Project Lead the Way (PLTW)

The STEM Scholars-Project Lead the Way (PLTW) Program is a nationally normed and recognized program that allows students to earn college credit on the high school campus. The curriculum is a rigorous set of courses made up of honors biomedical or engineering topics. Eighth grade students committed to pursuing career pathways in STEM fields with the minimum of completion of Algebra I are eligible for the program as freshmen. STEM Scholars pursuing an engineering pathway would begin by taking Introduction to Engineering Design along with Honors Biology during their freshman year. STEM Scholars pursuing a biomedical pathway would begin by taking Principles of Biomedical Science along with Honors Biology during their freshman year. Scholars are able to participate in additional college credit opportunities such as Dual Enrollment (DE) courses which meet

graduation requirements for high school and Associate of Arts Degree requirements for Bristol Community College and College Board Advanced Placement (AP) courses.

We want a balanced, comprehensive plan of courses in PLTW Engineering and Biomedical Pathways. Additionally, we want to deliver rigorous, competitive coursework that includes online portfolios, hands-on activities, online assessment, integrated technology experiences and high technical skill competencies. We need a flexible choice of courses to meet individual needs to include honors, DE & AP coursework. With successful completion of PLTW assessments, scholars can earn college credit for PLTW courses while in high school.

Promotion and Graduation Requirements at BMC Durfee High School

The BMC Durfee High School diploma is awarded in recognition of meeting local and statewide academic requirements. The diploma also signifies that the student has, in the opinion of the School Committee, met standards of conduct during the period up to and including the time of graduation.

Fall River Public Schools has endorsed MassCore requirements for all students and has embedded these requirements into the graduation requirements at BMC Durfee High School. MassCore is a recommended, rigorous course of study based on standards in Massachusetts's curriculum frameworks that aligns high school coursework with college and career expectations. MassCore was developed to provide guidance for a course of study that will help provide students with the academic preparation required for success in post-secondary education and the workplace.

To obtain a diploma from BMC Durfee High School, each student must satisfy the following requirements in addition to acquiring the mandated passing scores of the Massachusetts Comprehensive Assessment System (MCAS) in ELA, Math, and Science. The following list indicates the minimum course requirements as well as the minimum credit requirements for each graduating year needed to fulfill graduation requirements.

Minimum Course Graduation Requirements

English - 4 Courses

Math - 4 Courses

Science - 3 Lab Science Courses

Social Science - 3 Social Science Courses

World Language - 2 Courses of the same Language

Health - 2 Health Courses

Physical Education - 4 Physical Education Courses

Fine or Performing Arts -1 Course

As mandated by state law, all students must pass the English Language Arts, Mathematics, and Science portions of the MCAS test, first given in grade 10, in order to receive a high school diploma. Opportunities for remediation and retakes are offered in subsequent years as necessary.

Minimum Credits Needed for Promotion & Graduation

CLASS of 2020

To enter the Sophomore Class, a student must have earned a minimum of 3.5 credits.

To enter the Junior Class, a student must have earned a minimum of 7.5 credits.

To enter the Senior Class, a student must have earned a minimum of 12 credits.

The minimum Graduation Requirement is 17 credits.

CLASS of 2019

To enter the Sophomore Class, a student must have earned a minimum of 3.5 credits.

To enter the Junior Class, a student must have earned a minimum of 7.5 credits.

To enter the Senior Class, a student must have earned a minimum of 12 credits.

The minimum Graduation Requirement is 17 credits.

CLASS of 2018

To enter the Junior Class, a student must have earned a minimum of 9 credits.

To enter the Senior Class, a student must have earned a minimum of 13.5 credits.

The minimum Graduation Requirement is 18.5 credits.

CLASS of 2017

To enter the Senior Class, a student must have earned a minimum of 15 credits.

The minimum Graduation Requirement is 19.5 credits.

Course Levels

Advanced Placement (AP)

Students taking courses at the Advanced Placement (AP) level are expected to meet the highest standards and are required to take the AP exam at the end of the course. The AP exam is a national exam that oftentimes carries either college credit or reduction of college requirements for graduation. These courses will follow curriculum approved by The College Board and students taking these classes are required to take the AP exam at the culmination of the course. If students do not take the AP exam, they will only receive honors level for the course. Students taking AP courses in ELA, mathematics, and science are required to attend three Saturday study sessions in preparation for the AP examination.

Honors (H)

Honors courses are extremely demanding academic programs intended for the self-motivated, academically talented student who can work independently and use critical, creative, analytical, and abstract thinking and problem-solving skills.

College Preparation (CP)

College Preparation courses are challenging, standards-based academic programs that will prepare the student to attend a four-year college or university. Students are expected to use creative and analytical thinking and problem-solving skills. They should be able to move from more structured tasks to independent learning activities.

English Language Arts/Literacy

Several of the current English classrooms are undersized, making them inflexible when it comes to varying teacher styles and learning strategies. Seven of the current classrooms are between 650sf and 750sf and prohibit flexible organization. These smaller classrooms significantly compromise our projects, presentations, or interdisciplinary activities. We are proposing that the new program include 24 English classrooms that are at least 825sf each.

The ELA Department also believes that all students need to be seen as equals and, to the extent possible, would like to avoid classroom arrangements that center around a particular focal point in the room (i.e., no fixed front of the room). In short, the department is looking for beautiful classroom spaces that allow teachers to rearrange them as needed and include various comfortable seating arrangements (including standing desks and comfortable reading chairs for silent reading) and fast internet access. Every ELA classroom should also have a SmartBoard, plenty of whiteboard space (preferably dispersed around the room), soft lighting for reading, plenty of flexible furniture, and a printer located in the room for all to use.

To better meet the needs of our students, the ELA Department would also like to ask that flexible furniture be considered a top priority in the hopes that it can outfit the ELA classrooms on any given day differently to match the day's learning objective. For example, often times our department prefers to arrange the student desks in large circles so that more student-led discussions/debates can ensue, and yet on other days, our teachers would like to be able to set up small work stations for different configurations of student groups to work together on group projects, etc.

The English Language Arts curriculum at Durfee High School is delivered in two ways. The first way is via a face-to-face lesson located in a classroom on site at the school, and the second way is through an Edgenuity course that is accessed by students in need of credit recovery on site at the school in a computer lab. As a progressive department, we are interested in embedding as much technology as we can into our classrooms and hope to insert more blended learning

activities into our lesson plans in the very near future. Therefore, we would like to kindly request that our classrooms have a sizeable amount (more than ten) of Chromebooks on hand and available for daily student use. Considering the number of essays and papers our students are expected to produce (approximately one essay or paper per unit per course), we feel that having Chromebooks in the classrooms is an essential resource needed to get the job done well. Also, we would like to kindly request there be at least one designated distance learning lab on site at the school for credit recovery students.

Our ELA core classes specialize in building literacy skills as well as speaking/listening skills. We model many of our strategies for our students including how to conduct a close read (annotate appropriately, identify deeper hidden meaning in a text), how to revise written work (authentic writing, present model texts to reference as students work), how to speak in front of an audience (Socratic seminars, debate, classroom performances like monologues or slam poetry, etc.), and how to decode unfamiliar words/build vocabulary skills (word walls, etc.). In addition to our core English classes (ELA I, II, III, and IV), our department offers the following electives: Freedom Writers (specializes in personal narratives/empowerment through writing), Creative Writing, Film Studies (Side note: lighting could be an issue in these classrooms), and Journalism. We also offer a special reading program to many of our sub-separate special education students, which we hope to grow and offer to regular education students that are academically behind their peers in the years to come.

In addition to the 24 classrooms requested in the space summary, our ELA and ESL teachers believe they could benefit greatly from a small space directly adjacent to the classroom and fully visible by a teacher within the classroom. This would allow our ESL teachers to conduct listening assessments and would provide an opportunity for ELA and ESL teachers to allow students who are working at a different pace (faster or slower) the opportunity for small group study and instruction. This space would also allow special education students to be more fully integrated into the classroom for a greater amount of time, as those students who need some independent support and require less distractions could utilize these connected small group spaces. Consideration should be given to providing one of these small group spaces for each classroom, and at least one such space should be shared by every two classrooms.

There should be adequate teacher planning and collaboration space to support individual, departmental, and inter-disciplinary collaboration. One of the most significant challenges to our current desire to implement cross-discipline instruction is our lack of readily available planning space. This space is also critical for allowing teachers to collaborate on targeted strategies which address specific student needs. The design of the new Durfee High School must include strategies which promote this interaction while also supporting a variety of professional activities. This planning and collaboration space must include modern and efficient technology amenities such as teacher workstations and interactive virtual bulletin board. The virtual bulletin boards would allow multiple departments to share a canvas for posting/reviewing data and sharing ideas for lessons, etc.

The size of our student body and associated teachers requires that we have a full-time science Dean who is not in the classroom, but is instead fully dedicated to the responsibilities of the department. This requires a dedicated office space and should be located within reasonable proximity to the classrooms.

The ELA Department would love to see expanded opportunities for cross-curricular work and integration. We welcome more opportunities to work with other departments to show the relevance of English and language in its application to other humanities, science, and math; strengthening the applications and connections. For example, we could benefit from a close proximity to the other humanities and a relatively close physical proximity to math and science. We propose that in order to promote more cross-disciplinary instruction and collaboration, the ELA classrooms be distributed throughout the building in small "clusters" of ELA classrooms, each cluster being in close proximity to a history, social studies, and world language cluster. This would provide the efficiency of having the ELA staff grouped into small clusters that are in close proximity to the other humanities. Although math and science would not have to be directly adjacent, some proximity would be helpful. The ELA clusters should not be too far apart, as we also want the opportunity to easily meet as a department without having to traverse the entire building.

Mathematics

Many of our current math classrooms are undersized, making them inflexible when it comes to varying teacher styles and learning strategies. They were designed assuming students would be seated in tightly-configured narrow rows viewing a single "teaching wall." These smaller classrooms, ranging from 650sf to 750sf and representing approximately 50% of our available classrooms, prohibit flexible organization and greatly compromise any desired projects, presentations, or interdisciplinary activities. They should be appropriately sized in our future building plan.

The Math Department currently offers AP Computer Science A and is looking to expand our Computer Science program to offer AP Computer Science Principles and Introduction to Computer Science. These offerings require classrooms with technology that can support the software necessary to run these computer science classes. Also, our Senior Math course offering will involve computer lab time (approximately half time), and we are pushing blended learning in our Geometry classrooms and in our other math courses, so again, classrooms with technology that can support the software necessary to run these course offerings is imperative to the success of our math students. Every so-called "math classroom" should also be an adaptable, flexible, technology rich environment that easily supports whole classroom programming and research activities. We currently lose significant time scheduling students into dedicated "math labs" because our classrooms lack the necessary technology to be instantaneously utilized as labs. This access to computers and technology within all classrooms will give our students a leg up toward 21st Century College and Career Readiness.

Our proposed program includes 24 825 sq. ft. classrooms. As we push the use of graphing calculators in our curriculum, charging stations should be available in classrooms for calculators, rechargeable batteries, and for cell phones with a graphing calculator app. Math classrooms should also be fit with SmartBoards and plenty of whiteboard space for students to be up and mobile, presenting and collaborating on work.

In addition to the 24 classrooms requested in the space summary, we could benefit greatly from a small space directly adjacent to the classroom and fully visible by a teacher within the classroom. This would provide an opportunity for our math teachers to allow students who are working at a different pace (faster or slower) the opportunity for small group study and instruction. This space would also allow special education students to be more fully integrated into the classroom for a greater amount of time, as those students who need some independent support and require less distractions could utilize these connected small group spaces. Consideration should be given to providing one of these small group spaces for each classroom, and at least one such space should be shared by every two classrooms.

The size of our student body and associated teachers requires that we have a full-time math Dean who is not in the classroom, but is instead fully dedicated to the responsibilities of the department. This requires a dedicated office space and should be located within reasonable proximity to the classrooms.

The current arrangement of math classrooms clusters almost all classrooms into a singular area of the building. This provides many challenges to cross-discipline instruction and is one of the primary reasons Durfee High School lacks the desired interdisciplinary instruction. We would propose that the new building provide expanded opportunities for cross-curricular work and integration, including key connections to the science classrooms. We propose that in order to promote more cross-disciplinary instruction and collaboration, the math classrooms be distributed throughout the building in groups of between four and six classrooms. This would allow are math teachers to collaborate in both small and large groups internally, while simultaneously linking them to other departments. It would be ideal if some of the "grouped" math classrooms were stacked vertically by floor to allow efficient movement of teachers and students. We would also propose that consideration be given to locating math classrooms in close proximity to science classrooms in the interest of promoting STEM objectives.

There was much discussion during the educational visioning sessions about providing the necessary space and organization to promote teacher collaboration. The students at Durfee have a broad range of social, emotional, and educational needs and in order to serve them well, teachers must have an opportunity to collaborate on the specific student needs daily. The design of the new Durfee High School must include strategies which promote this interaction while also supporting a variety of professional activities. Additionally, teachers are no longer tied to their desks but rather they have a 'home' in the workplace where they are able to organize their

activities across a variety of environments with a range of different qualities which they share with their colleagues.

Science

OVERVIEW

Currently, the physical space assigned to science at Durfee High School does not meet minimal, basic programming requirements. Our program is built upon lab-based core courses (e.g., biology, chemistry, physics) that are designed around the new Massachusetts Standards. These new standards are aligned with the Next Generation Science Standards and focus on Scientific Practices, integrated engineering and design and project based instruction and assessments. Our program is also built around lab-based electives and pathways including our Project Lead the Way pathways in biomedicine and engineering. Our core offerings and electives are carefully designed to address societal and student interests (e.g., engineering design process, forensics, environmental studies) and to give students opportunities to gain experience with a range of STEM careers and pathways.

The assigned classrooms lack adequate physical space, as well as for space per individual student. This is the most important factor in maintaining safe instructional spaces for both students and faculty and in decreasing the rate of accidents in a classroom. According to the National Science Teachers' Association (NSTA), the minimum recommended floor space per student, in square feet, for combination laboratory/classroom is 60 at the high school level. Therefore, the minimum room size for a class of 24, in square feet, at the high school level, is 1,440. This is also a standard that has been adopted by the MSBA as part of their guidelines. Many of our current science classrooms are "open" classrooms with no walls between the different classroom and lab areas making it difficult to keep one class focused on important lab instructions. It also creates a dangerous situation when students are distracted or are unable to hear instructions due to the disruptions from surrounding classrooms.

In addition, many of these classrooms lack adequate basic services necessary for doing science, such as access to electricity, water, vacuuming, and gas. Our program does not have specified lab/hands-on time. Our courses blend content with science and engineering practices; they do not separate one from the other. Without adequate basic services in the classrooms, this blending is a struggle (e.g., too few outlets for hot plates, laptops, air tracks; portable fume hoods that limit the number of students and set-ups). In certain cases, temporary services have been made available (e.g., portable burners) in conjunction with modified set-ups that offer anchoring (e.g., ring stands) to ensure safer conditions whenever possible. Furthermore, classroom spaces assigned to science should have eyewashes, emergency showers, hot water, sterilizing cabinets with full sets of safety goggles, and fume hoods. Most classrooms lack some, if not all items listed here.

Finally, the central storage area for all equipment is impractical. Again, blending content with science and engineering practices works best when teachers have easy access to equipment for

the “aha” moments of teaching where students can use an inquiry based approach for learning and demonstrate their comprehension through higher level skills involving creating and modeling. Dispersing equipment to areas where teachers can use it more frequently is ideal and is not possible in the space we have available. We would propose utilizing one central chemical storage area and then distributing remaining equipment to the science prep rooms.

We are proposing thirteen science classroom/lab environments sized at 1,440sf each. Eight of these would serve grades 10th through 12th and three of them would serve our 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. We are proposing an additional fourteen science classrooms sized at 1,250sf each. These classrooms 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. We currently have 26 science labs and classrooms of varying size and our 2017 schedule results in approximately 71% utilization of the classrooms. Our 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.

PROGRAM OF STUDIES

The BMC Durfee Science Department has consistently offered a variety of courses and pathways to support a range of options for our students. We offer core science lab classes in Integrated Science, Biology, Chemistry, and Physics. These classes are standards based courses with curriculum designed and modified by each of Professional Learning Community. Currently, our students are not receiving the level of science offerings that we feel are critical to a high quality science education, and this is a result of inadequately sized and outfitted science labs. For example, our Freshman Science Biology courses are all taking place in nine regular classrooms that are not equipped for the necessary laboratory experiences.

In addition to our Core Science Courses, we offer five Advanced Placement courses: Biology, Chemistry, Environmental Science, Physics 1, and Physics 2. Our open enrollment for Advanced Placement, increasing student enrollment and gains in qualifying scores, have earned our AP Program recognition from Mass Insight including two science teachers being awarded Partners in Excellence. Our Program of Studies also offers the Nationally Accredited Project Lead the Way pathway in biomedical science. Students can either complete the four-year pathway of courses or jump into the Introduction course, Principles of Biomedical Science, at any time. These courses provide students with the academic content, skills, and applied experiences to introduce them to and prepare them for a career in biomedicine.

In addition to our pathways and core courses, we offer a number of Science courses that introduce students to a range of scientific fields and practices. These courses have been designed by the teachers and include Marine Biology, Aerospace Engineering, Astronomy, Urban Farming, Human Biology and Forensics, and Biology of Reproductions. These options have strengthened our Program of Studies and have provided more options for all of our students.

Our Urban Farming course has had 100 students enrolled over the past year. These students have learned about agriculture and botany by helping to maintain our working greenhouse. This class has engaged students in learning about farming and could be expanded into a program that helps start Community Gardens for the City of Fall River. The greenhouse and Urban Farming classes could also work with Culinary in CVTE to provide food for their program and use composting materials from the CVTE Culinary program. The greenhouse is also used for engaging a range of students including summer school students and our Bridge and Ungraded Students who worked on supplying the greenhouse with electricity. Many of our science students are involved in projects that involve going outdoors for investigation and discovery. This approach would benefit greatly from some science labs that are placed on the first floor and have direct exterior exits from the labs. This would allow students to easily move in and out of the classrooms without spending significant time navigating through the building. We are proposing to replicate our current greenhouse in the new program.

BMC Durfee High School offers Astronomy courses in its Program of Studies for students to learn about Earth and Space Science. These courses, which had an enrollment of 278 students in the current academic year, utilize a planetarium and an observatory. Both the planetarium and the observatory have been part of Durfee's history since 1887 when the original donor for the high school, Mary Young, specifically requested that these two spaces be designed into the new facility as part of the "advancement of science education". The planetarium is used in all of the Astronomy courses to show students how the movement of the Earth and planets effect the view of stars and constellations. Other District Schools and the Preschool also visit the planetarium for field trips. The Observatory houses a rare and historic telescope that was made in 1887 by a company called Warner and Swasey. It was donated by Mary Young as part of the "outfitting" of the school in 1887 and remains one of the few functional telescopes of its type in the world. In 1943, it was restored by Professor Leon Campbell, Pickering Professor at Harvard University. It recently underwent a second restoration through the work of numerous volunteers, including the Astronomical Society of Southern New England. It provides a rare asset to student instruction and there have been numerous public viewings offered at the current Durfee Observatory.

The size of our student body and associated teachers requires that we have a full-time science Dean who is not in the classroom, but is instead fully dedicated to the responsibilities of the department. This requires a dedicated office space and should be located within reasonable proximity to the classrooms.

FUTURE GOALS

In addition to sustaining and strengthening our current offerings by providing the necessary Instructional and Lab Space for effective science education, we have a number of goals that align to our District goals and also the national focus on STEM education. One of our goals is to expand our Biotechnology and Engineering options by providing a space that can accommodate multiple groups in a space that mirrors industry standards. A new building which includes 25 appropriately sized and equipped labs would allow us to have a building with the appropriate science lab

technology opportunities. In addition, we could expand the Project Lead the Way (PLW) Biomedical program by providing more experiences in biotechnology into the core feeder courses.

Another goal is to expand our Aerospace program. We currently offer a Project Lead the Way Engineering course in Aerospace Engineering and are in beginning talks of working with other districts to possibly expand our Aerospace program. We currently have an active Aerospace club that has worked to restore a small plane and facilitated by two teachers who can also pilot a plane.

The Science Department would love to see expanded opportunities for cross-curricular work and integration. We welcome more opportunities to work with other departments to show the relevance of science and strengthen the applications and connections. For example, we could work with the CVTE Department to provide more experiences in engineering and design (i.e., biotechnology, environmental engineering). We propose that in order to promote more cross-disciplinary instruction and collaboration, the science classrooms/labs be distributed throughout the building in groups of between four and six classrooms/labs. This would provide the efficiency of having the plumbing, science equipment, etc. consolidated to a few areas within the building but would simultaneously avoid having all of the science classrooms/labs located in a singular department area. It would be ideal if some of the "grouped" science classrooms/lab areas were stacked vertically by floor to allow efficient movement of teachers and students. We would also propose that consideration be given to locating science classrooms in close proximity to math classrooms in the interest of promoting STEM objectives.

The visioning sessions included much discussion about indoor/outdoor connections. In addition to the providing direct exterior access whenever possible, the District would like to expand its scientific reach to the numerous resources that are available within the boundaries of Southeastern Massachusetts. Scientific programs in areas like marine biology, oceanic research, atmospheric analysis, aquatic applications, and biotechnology can become an inherent part of the science and engineering curriculum.

The current science classroom model that is included on the MSBA website includes all of the desired spatial and organizational requirements as well as the necessary amenities identified herein. It represents the kind of science environment necessary to meet our vision of future STE education at Durfee High School. We also hope to explore and add integrated biotechnology opportunities to a range of the core science courses by creating a building which includes the appropriate science lab technology.

Last, but certainly not least, there was much discussion during the educational visioning sessions about providing the necessary space and organization to promote teacher collaboration. Technology has greatly assisted collaboration among teachers and staff, however the power of face-to-face interaction has yet to be replicated by technology. Human interaction is everything, especially in a creative, innovative, and knowledge-intensive sector such as education. The strength of any creative organization is shaped as much by the day-to-day chance contact of its members as it is by formal gatherings such as scheduled appointments. Critical information

leading to educational innovation often comes from informal encounters between teachers from varying disciplines and backgrounds. The students at Durfee have a broad range of social, emotional, and educational needs and in order to serve them well, teachers must have an opportunity to collaborate on the specific student needs daily. The design of the new Durfee High School must include strategies which promote this interaction while also supporting a variety of professional activities. Additionally, teachers are no longer tied to their desks but rather they have a 'home' in the workplace where they are able to organize their activities across a variety of environments with a range of different qualities which they share with their colleagues.

Social Studies

The current physical space occupied by social studies classes at DHS does not meet the needs of 21st Century learners and their development of the necessary skills for today's world. The assigned classrooms lack adequate infrastructure to support technology related to reliable student internet access and power. The design of most classrooms is a retrofitted open classroom concept, resulting in cavernous rooms with poor acoustics and an unfinished, industrial aesthetic. Consistent noise from exposed HVAC ducts competes with students' and teachers' voices throughout most rooms.

Social studies programming is centered on the study of United States and World History, with related AP offerings, as well as content electives (e.g., psychology, sociology, law) and thematic electives (e.g., Sports in American Life, Political Assassinations, Lizzie Borden Case). Students are required to take three core history classes. Elective courses are available to all students to choose from, based on grade level and interest.

Social Studies Core Course Offerings

COURSE #	DESCRIPTION	LEVEL	GRADES	TERM	CREDIT
	GATE U.S. and World History 1	1	9	YR	.5
16251	Honors U.S. and World History I	1	9	YR	.5
16252	U.S. and World History 1 – College	2	9	YR	.5
16261	Honors U.S. and World History II	1	10	YR	.5
16262	U.S. and World History 1 – College	2	10	YR	.5
16271	Honors U.S. and World History III	1	11	YR	.5
16272	U.S. and World History III – College	2	11	YR	.5
	Senior U.S. and World History	2	12	YR	.5
16151	Pre-AP US and World History II/III	Pre-AP	10	YR	1
16221	AP United States History	AP	11,12	YR	1

16321	AP European History	AP	11,12	YR	1
16521	AP American Government &	AP	11,12	YR	1

Elective Course Offerings

COURSE #	DESCRIPTION	LEVEL	GRADES	TERM	CREDIT
16784	Sports in American Life	El	10, 11, 12	SEM	.25
16664	History of Fall River	El	10,11, 12	SEM	.25
16304	Economics	El	11, 12	SEM	.25
16414	Introduction to Psychology Part I	El	11, 12	SEM	.5
16514	Introduction to Psychology Part II	El	11, 12	SEM	.5
16404	Introduction to Sociology	El	11, 12	SEM	.25
16544	Practical Law	El	11, 12	SEM	.25
16824	American Assassinations	El	11, 12	SEM	.25
16734	Civic Engagement and Action	El	11, 12	SEM	.25
	Introduction to Debate	El	10, 11, 12	SEM	.25
	Introduction to American	El	10, 11, 12	SEM	.25
	Topics in American History: Lizzie	El	10, 11, 12	SEM	.25
	Social and Cultural History of Rock	El	11, 12	SEM	.25
	21 st Century Current Events and	El	11, 12	SEM	.25

The current staffing for the Social Studies Department includes 16 general education teachers, three special education teachers, and one Dean. Two grade level teams of teachers (10 and 11) are situated in contiguous classrooms, while one team is located within the Freshman Academy (9). Two special education teachers are located nearby their teams, while the third is contained within the BRIDGE program. These locations are spread over three floors. All classes make use of one computer lab, located adjacent to the Grade 10 team.

The varying types of classrooms within the department, along with their sprawling locations, present a multitude of challenges in terms of programmatic equity for students, maximizing use of collaboration time for teacher teams, and a cohesive alignment of pacing and transition among and between grade level courses.

Teachers across the department have aligned instruction to embed the workshop model. Instruction has shifted from teacher-centered to student-centered, with collaborative strategies and blended learning embedded in all classes. All teachers work to include use of online resources within lessons via 'Smartboards', Chromebook carts, and computer labs. We would

propose that the program include adequate space for teacher collaboration, planning, conferencing, and work.

The Social Studies Department is seeking expanded opportunities for cross-curricular work and integration. We feel strongly about the benefits of working with other departments to show the relevance of social studies in its application to other humanities, science, and math; strengthening the applications and connections. For example, we could benefit from a close proximity to the other humanities, and a relatively close physical proximity to math and science. We propose that in order to promote more cross-disciplinary instruction and collaboration, the social studies classrooms be distributed throughout the building in small "clusters" of social studies classrooms, each cluster being in close proximity to a history, English, and world language cluster. This would provide the efficiency of having the social studies staff grouped into small clusters that are in close proximity to the other humanities. Although math and science would not have to be directly adjacent, some proximity would be helpful. The social studies clusters should not be too far apart, as we also want the opportunity to easily meet as a department without having to traverse the entire building.

The size of our student body and associated teachers requires that we have a full-time science Dean who is not in the classroom, but is instead fully dedicated to the responsibilities of the department. This requires a dedicated office space and should be located within reasonable proximity to the classrooms.

The Social Studies Department feels strongly about the benefits of providing the necessary space and organization to promote teacher collaboration. The students at Durfee have a broad range of social, emotional, and educational needs and in order to serve them well, teachers must have an opportunity to collaborate on the specific student needs daily. The design of the new Durfee High School must include strategies which promote this interaction while also supporting a variety of professional activities. Additionally, teachers should have a professional workspace outside of their classrooms, allowing them to organize their activities across a variety of environments with a range of different qualities which they share with their colleagues.

Our proposed program includes 24 classrooms sized at 825sf each. Instruction within our department blends direct instruction with an emphasis on student collaboration and project-based learning. This approach will greatly benefit from some flexible spacing in common areas to allow for a range of collaborative groupings, small and medium conferencing spaces next to classroom clusters to meet intervention and seminar discussion needs, as well as an adjacency to an amphitheater/distance learning venue for expert/large format presentations and programming. Proximity to the arts cluster would support elevated collaboration between these departments.

In addition to the 24 classrooms requested in the space summary, we could benefit greatly from a small space directly adjacent to the classroom and fully visible by a teacher within the classroom. This would provide an opportunity for our social studies teachers to allow students who are working at a different pace (faster or slower) the opportunity for small group study and instruction. This space would also allow special education students to be more fully integrated into the classroom for a greater amount of time, as those students who need some independent support and require less distractions could utilize these connected small group spaces. Consideration should be given to providing one of these small group spaces for each classroom, and at least one such space should be shared by every two classrooms.

World Languages

The current physical space occupied by world language classes at DHS does not meet the needs of 21st Century learners and their development of the necessary skills for today's world. The assigned classrooms lack adequate infrastructure to support technology related to reliable student internet access and power. The design of most classrooms is a retrofitted open classroom concept resulting in cavernous rooms with poor acoustics and an unfinished, industrial aesthetic. Consistent noise from exposed HVAC ducts competes with students' and teachers' voices throughout most rooms.

World Language programming is centered on the study of French, Portuguese, and Spanish, with related AP offerings. Presently, the department is comprised of eleven teachers and one Dean. All students are required to pass two years of a language to graduate. World Language classrooms are spread out across parts of the building with few contiguous rooms. This was a result of establishing a Freshman Academy which took over an area formerly dedicated to World Languages.

World Language Courses					
COURSE #	DESCRIPTION	LEVEL	GRADES	TERM	CREDIT
11101	French I Honors	HON	9-12	SEM	.5
11102	French I CP	CP	9-12	SEM	.5
11111	French II Honors	HON	10-12	SEM	.5
11112	French II CP	CP	10-12	SEM	.5
11121	French III Honors	HON	11-12	SEM	.5

11122	French III CP	CP	11-12	SEM	.5
11131	French IV Honors	HON	11-12	SEM	.5
11151	AP French	AP	11-12	YR	1
11201	Portuguese I Honors	HON	9-12	SEM	.5
11202	Portuguese I CP	CP	9-12	SEM	.5
11211	Portuguese II Honors	HON	10-12	SEM	.5
11212	Portuguese II CP	CP	10-12	SEM	.5
11221	Portuguese III Honors	HON	11-12	SEM	.5
11222	Portuguese III CP	CP	11-12	SEM	.5
11231	Portuguese IV Honors	HON	11-12	SEM	.5
11261	Advanced Portuguese	HON	11-12	SEM	.5
11292	Portuguese I for Heritage Lang. Learners	CP	9-12	SEM	.5
11282	Portuguese II for Heritage Lang. Learners	CP	10-12	SEM	.5
11301	Spanish I Honors	HON	9-12	SEM	.5
11302	Spanish I CP	CP	9-12	SEM	.5
11311	Spanish II Honors	HON	9-12	SEM	.5
11312	Spanish II CP	CP	9-12	SEM	.5
11321	Spanish III Honors	HON	11-12	SEM	.5
11322	Spanish III CP	CP	11-12	SEM	.5
11331	Spanish IV Honors	HON	11-12	SEM	.5
11351	AP Spanish	AP	11-12	YR	1
11382	Spanish I for Heritage Lang. Learners	CP	9-12	SEM	.5
11362	Spanish II for Heritage Lang. Learners	CP	10-12	SEM	.5

11372	Spanish III for Heritage Lang. Learners	CP	10-12	SEM	.5
11392	An Invitation to Languages and Cultures I CP	CP	9-12	SEM	.5
11394	An Invitation to Languages and Cultures II CP	CP	10-12	SEM	.5
World Language Elective Courses					
11204	Portuguese for Health Careers CP	CP	11-12	SEM	.25
11304	Spanish for Health Careers CP	CP	11-12	SEM	.25

The varying types of classrooms within the department, along with their sprawling locations, present a multitude of challenges in terms of programmatic equity for students, maximizing use of collaboration time for teacher teams, and a cohesive alignment of pacing and transition among and between grade level courses.

Teachers across the department have aligned instruction to embed the workshop model. Instruction has shifted from teacher-centered to student-centered, with collaborative strategies and blended learning embedded in all classes. All teachers work to include use of online resources within lessons via 'Smartboards', Chromebook carts, and computer labs.

The World Language Department believes a new facility offers an opportunity for promoting cross-curricular work and integration. We feel strongly about the benefits of working with other departments to show the relevance of language and its application to other humanities, science, and math; strengthening the applications and connections. For example, we could benefit from a close proximity to the other humanities, and a relatively close physical proximity to math and science. We propose that in order to promote more cross-disciplinary instruction and collaboration, the world language classrooms should be distributed throughout the building in small "clusters" of language classrooms, each cluster being in close proximity to a history, English, and social studies cluster. This would provide the efficiency of having the world language staff grouped into small clusters that are in close proximity to the other humanities. Although math and science would not have to be directly adjacent, some proximity would be helpful. The world language clusters should not be too far apart as we also want the opportunity to easily meet as a department without having to traverse the entire building.

The size of our student body and associated teachers requires that we have a full-time science Dean who is not in the classroom, but is instead fully dedicated to the responsibilities of the department. This requires a dedicated office space and should be located within reasonable proximity to the classrooms.

The World Language Department feels strongly about the benefits of providing the necessary space and organization to promote teacher collaboration. The students at Durfee have a broad range of social, emotional, and educational needs and in order to serve them well teachers must have an opportunity to collaborate on the specific student needs daily. The design of the new Durfee High School must include strategies which promote this interaction while also supporting a variety of professional activities. Additionally, teachers should have a professional workspace outside of their classrooms, allowing them to organize their activities across a variety of environments with a range of different qualities which they share with their colleagues.

Our proposed program includes 15 classrooms sized at 825sf, with an adjacent digital language lab of a similar size. World Language instruction employs a diverse set of strategies to develop the four domains of acquisitions—speaking, listening, reading, and writing. This approach will greatly benefit from some flexible spacing in common areas to allow for a range of collaborative groupings, small and medium conferencing spaces next to classroom clusters to meet intervention and seminar discussion needs, as well as an adjacency to an amphitheater/distance learning venue for expert/large format presentations and programming. The need for a state-of-the-art digital language lab will support current instructional model as well as next steps to expand offerings. In particular, students are often faced with a choice of upper level language classes and participation in CVTE, Arts, and AP classes. These students will have an online option to meet their individual scheduling needs. The digital lab will also serve to offer languages not currently in our program of studies, such as Mandarin and Arabic. Proximity to the arts cluster would support elevated collaboration between these departments.

In addition to the fifteen classrooms requested in the space summary, we could benefit greatly from a small space directly adjacent to the classroom and fully visible by a teacher within the classroom. This would provide an opportunity for our world language teachers to allow students who are working at a different pace (faster or slower) the opportunity for small group study and instruction. This space would also allow special education students to be more fully integrated into the classroom for a greater amount of time, as those students who need some independent support and require less distractions could utilize these connected small group spaces. Consideration should be given to providing one of these small group spaces for each classroom, and at least one such space should be shared by every two classrooms.

Student Guidance and Support Services

We have a very strong advisory program targeted at meeting the needs of our specific student population. The purpose of this program is to increase the personalization of our students' high school experience by creating a course in which students can connect in a small group setting

with one adult. These small groups provide a safe supportive environment where students can explore decision-making and life skills that may not be addressed in a classroom curriculum. The student's classroom teacher has in-depth knowledge of the content of various courses taught within his/her department, as well as levels of expectation within each course. The quality of work the student is capable of producing, in addition to knowing the individual student, allows teachers to make valid recommendations as to which core academic courses the student should take within the department. The student's guidance counselor has a broad overview of the entire curriculum. Besides having a strong sense of the student's performance and ability level, the counselor is knowledgeable of the courses necessary to fulfill graduation requirements as well as the courses necessary to be accepted into various post-secondary institutions. One of the major roles of the counselor can be to advocate for the student's academic, personal/social and career/college needs. The guidance counselor advises students and families about academic pathways and courses that will align with post-high school plans. All students are assigned to counselors for a one year period during their freshman year. These counselors will support and advocate for students as they transition into Durfee High School. Beginning in the sophomore year, students remain with their counselor through their remaining years at BMC Durfee High School. During this same period of sophomore through senior year, the students remain with the same administrative and advisory team, including advisor, counselor, vice principal, etc., for the duration of their high school experience. This allows the administrative team to be acutely aware of each student's social, physical, emotional, and academic needs.

G. TEACHER PLANNING AND COLLABORATION

BMC Durfee High School has consistently supported a culture of collaboration. Each teacher is assigned to a Professional Learning Community that meets every week. These meetings are used to collaborate on curriculum, instruction, and assessments. These teams meet to design and modify benchmarks and assessments, plan their administration and analyze the resulting data to plan instructional interventions. These times are also used to collectively plan instructional activities, modify Standards Based Units and share best practices. Each Department has its own Professional Learning Community room so that student data can be posted and tracked in a confidential setting. The ideal Professional Learning Community Room would have a seminar setting (conference table and chairs) with dry erase boards, bulletin boards, and an interactive board with projector.

Teachers also spend time collaborating outside of their Professional Learning Community meetings. The Freshman Academy teachers regularly meet with other subject teachers in their cohort along with a Freshman Guidance counselor to discuss each student and the best way to support the student's academic, social, and emotional needs. Teachers also spend time with

other teachers during their prep periods to collaborate on their lesson plans and discuss resource allocation and best instructional practices.

BMC Durfee High School has four Deans of Teaching and Learning (ELA, Math, Science, Social Studies and World Languages) who are in charge of supervising the teachers in their departments and overseeing curriculum, instruction and assessments. The Deans of Teaching and Learning each have an inner and outer office space located near their department classrooms, teacher rooms, and collaboration areas. The outer office space is used to meet with teachers and small teams of teachers to support their growth. For example, each Dean conducts coaching cycles with teachers to support their growth as effective educators. The inner office is used to complete the managerial and supervisory tasks that are required of each Dean and to have confidential meetings with teachers. The inner office is also used to store confidential personnel paperwork. Since Deans of Teaching and Learning are also in charge of staffing, they utilize the inner office to meet with applicants.

Each department at BMC Durfee also has a teacher's room that is used for teacher lunch times and informal gatherings. These teacher's rooms foster a culture of collaboration by giving teachers an area to informally meet, plan, and share. By providing an area for informal teacher gathering and a department lunch area, Durfee has helped create strong communities between our teachers.

Ideally, there would be teacher collaboration, planning, and work areas throughout the building to allow for both departmental and cross-curricular collaboration. Technology has greatly assisted collaboration among teachers and staff, however the power of face-to-face interaction has yet to be replicated by technology. Human interaction is everything, especially in a creative, innovative, and knowledge-intensive sector such as education. The strength of any creative organization is shaped as much by the day-to-day chance contact of its members as it is by formal gatherings such as scheduled appointments. Critical information leading to educational innovation often comes from informal encounters between teachers from varying disciplines and backgrounds. The design of the Durfee High School must include strategies which promote this interaction while also supporting a variety of professional activities. Additionally, teachers are no longer tied to their desks but rather they have a 'home' in the workplace where they are able to organize their activities across a variety of environments with a range of different qualities which they share with their colleagues. Each department should also have an area for teachers to plan, collaborate, and

meet in small groups and as Professional Learning Teams. In addition to a large teacher work area, each department should have a room for Professional Learning Team meetings and smaller offices available for individual planning and small group meetings. This planning and collaboration space must include modern and efficient technology amenities such as teacher workstations and interactive virtual bulletin boards. The virtual bulletin boards would allow multiple departments to share a canvas for posting/reviewing data and sharing ideas for lessons, etc. Each department should have an informal area for teachers to eat lunch and gather as this provides an ideal opportunity for spontaneous interaction and discussion. These areas should also have their Dean offices included or nearby so that Deans could be in close proximity to collaborate, plan, coach and provide other necessary support.

H. LUNCH PROGRAM AND STUDENT DINING

Lunch Program

Durfee High School has its own full-service kitchen that provides breakfast and lunch daily for the students. We currently service all the students in three lunch periods which, because of the design of the kitchen, provides a challenge for service time. In fiscal year 2015, we averaged approximately 1,800 lunches and 500 breakfasts daily. We have nine serving stations and an “a la carte” station that was built six years ago in the front side area of the cafeteria/auditorium.

We have replaced or repaired many of the major pieces of equipment in the kitchen, but many others are approaching their life limits. We also share our refrigeration and freezer space with the District making storage space extremely limited.

I. TECHNOLOGY INSTRUCTION POLICIES AND PROGRAM REQUIREMENTS

Existing Educational Technology

Currently, Durfee has a sufficient network infrastructure and wireless footprint covering the majority of the building to support educational technology initiatives. The building was completely updated in 2008 via E-RATE project money and a smaller E-RATE project is underway this year to replace core switches and wireless access points to modernize the school as we move toward the new building which is several years away.

A typical classroom contains a teacher computer, projector, and in most a document camera. There are 15 full size labs located throughout the building and each department has a Chromebook carts of 20-30 devices which are available for teacher sign out. The District manages these devices centrally via our technology support center which remotely pushes out updates to machines after hours. The school currently encourages BYOT/BYOD to fill in any other gaps.

Educational technology usage varies from room to room at the high school with the ultimate goal of the District being for staff and student to incorporate some form of blended/personalized learning each day as an instructional strategy. One full-time technology integration specialist is employed at the high school and is responsible for providing staff with any educational technology related training and professional development.

Technology Infrastructure

Durfee serves as the head end of our District fiber private network in which 17 1G connections connect our buildings and share 2-4 GB of bandwidth. All switches are either 10/100 or 1G to the desktop and wireless is b/g/n. As a district, we have standardized on Cisco-Meraki network and wireless equipment and have received training on such and is preferred for new building. One drawback with the design of the building was that network closets were located inefficiently throughout the building, some being in classrooms and other in occupied offices causing distractions to the teaching and learning process. All classrooms have a VOIP telephone with voicemail.

Printing Needs

Durfee has removed most smaller printers instead forcing printing to more efficient and cost effective centralized copy machines located throughout the building. Each lab does have a printer that offices can use as well.

Cloud Technology

All staff and students have a Google Apps for Education accounts which included Google Drive for all cloud storage needs.

Proposed Educational Objectives

The District has made great strides in providing technology access to students over the past few years. The high school project represents an opportunity to increase end user's devices and professional development around blended/personal learning. The proposed design will provide multiple layers for using technology as an instructional tool. Educational technology should be integrated seamlessly throughout the campus, both in the building as well as exterior teaching spaces. Campus-wide wireless access is key to creating a flexible environment where students can complete assignments without the confines or boundaries of fixed computer labs. Labs which are dedicated for specific classroom purposes (i.e., science labs, video production, etc.) will serve specific instructional roles and shall be distributed in key locations throughout the new building.

Media Center

The library of the future needs to be a place for teams to work together, teachers and students, formally and informally. This space should be a "learning commons," encouraging a wider scope of use by more school personnel for tutoring, instructional support services, and collaboration.

The library/media center must be a creation space giving all students access to workstations with fast processing speed, software for video editing, music production, voice recordings, computer programming, and multi-media production. With a robust wireless network infrastructure, this space must possess ample computer stations, mobile devices, and outlets to recharge mobile technologies. The library/media center needs to expand its presentation spaces.

This space also needs to include an Assessment Center to accommodate the school's assessment materials as mandated per DESE. The assessment center will also house the Assessment Coordinator who oversees state assessments and supports implementation and administration of the testing. The teaching space used by the school's information and research expert, the school librarian, remains vital. This space needs to be prominently placed for one-on-one assistance.

Given that many of our students do not have access to printers and other technology at home, the media center should also include a student-friendly copy/printing station where students have easy access to print assignments.

Our current library/media center is a very active space and there are a number of computers for student use. However, the structure itself is very dysfunctional in that four classrooms are cut into this area due to lack of available space in the English wing of the building. Moving forward, it is critical that this space be designed as a flexible learning center that is welcoming and inviting for staff, students, and parents.

Media Distribution and Retrieval

In addition to the library/media center, which should serve as the hub for media distribution and resource retrieval, the entire school environment should support media distribution as students are retrieving data resources constantly. This need for distribution of media resources is not intended to imply that books and other physical items that might appear in a traditional library would be distributed throughout the building in "satellite libraries". Instead, the objective is to recognize that as media moves from hardcopy to electronic at a very rapid pace, the need for books will become much more limited and the availability of electronic resources throughout the school environment will be the key to appropriate media distribution. Research needs to be possible throughout the building and supported through a dynamic, wireless environment. Fiber connectivity for video broadcasting should be possible throughout the school building with individual feeds from the classrooms and multiple feeds originating from various locations in the auditorium and gym in order to provide multiple camera angles for productions being done. Additionally, a multiple channel fiber line should be installed out to the football field press box to allow for live broadcasts of football games and events held on the football field.

Video Broadcasting TV Studio

Durfee High School's Broadcast Journalism program (FREDTV) produces a number of programs for cablecasting on Comcast Channel 9 as part of the Educational Access Programming for the City. Additionally, we operate the Government Access Channel (FRGTV) Channel 18 out of our facilities.

Our students produce the morning announcements, a weekly news program, sports programming, and District-wide coverage of educational achievements round out the 15 hours of programming per week. Our students also work on community service staffing the various government channel productions, city council meetings, etc.

Regional Emmy awards, Safe Driving and Manufacturing awards, Comcast Scholarships and other numerous awards have been bestowed on our students. Our graduates are working across the industry for Disney, NBC, Discovery, Golf Channel, Hearst News and our program has been a model for other schools across the state. In the years since the building of Durfee High School in 1979, the program has outgrown its space on the second floor of the library. In order to provide the students an adequate educational space, a ground floor accessible studio with control room, Head End room, editing suites and classroom computer lab /viewing room would be necessary for multimedia and broadcast journalism instruction. Four Offices will also be needed to accommodate our production staff.

J./K. PERFORMING ARTS & VISUAL ARTS

BMC Durfee High School Fine & Performing Arts

Durfee High School prides itself on the diversity of culture represented in the over two thousand students that walk its halls every day. The Fine and Performing Arts *celebrate* that cultural diversity via the arts, both visual and performing. Within the fine arts, we have courses that range from art foundation to Advanced Placement art, including design, ceramics, non-traditional sculpture and painting. In the performance arts, students participate in acting courses, music theory, piano, guitar, band, chorus, orchestra and music technology (mixing and composing music digitally). BMC Durfee graduates must take at least one arts course in order to graduate.* Our students compete in a range of interscholastic adjudication festivals, drama and theater competitions and art contests, and have achieved high standards of work in all areas due to the programming, curriculum, and faculty that we are proud to have at DHS.

One of the key community aspects we pride ourselves on is the City-wide events that we hold at Durfee. Annually, we invite all art teachers from the elementary and middle schools to bring student work to display in the Annual K-12 Spring ARTS EXPO. This event is huge, held in the Nagle Auditorium foyer, as well as throughout the arts wing. Over 10,000 pieces of student work are displayed for the community to view as we celebrate student accomplishment in the fine arts from each of our 17 schools. Student band and orchestra ensembles also perform throughout the evening. In addition to this event, we host the All City Band and All City Orchestra Concerts for the District. These wonderful events bring together students from grades five to twelve as they play in one ensemble for parents and the Fall River Community. The BMC Durfee Musical (with a live pit), held in December of each year involves students in playing, acting and singing, as well as the technical theater students who design and build sets for each show. Next year, our new design course students will be helping with costuming for this event. In the spring, theater students perform a piece for the Fall River community, and both of these events are always well attended by students, FRPS faculty and community members. The spring and winter concerts are both herculean efforts of preparation, both on the part of the teachers and the students as they

perform within their ensembles pieces chosen at a high level of difficulty. This year, we are proud to report that thousands of visitors sat in our auditorium supporting the efforts of our students and faculty, and this is a tribute to the hard work, expertise, and effort that they put in every day in class and after school.

The Nagle Auditorium is also where the year begins for all Fall River Public School employees. The Superintendent of Schools addresses the entire faculty and staff at an annual welcoming meeting and sends schools off to begin the year on a motivating and inspirational note as we come together to acknowledge our successes and the work ahead as a District! Our wish for the future would be to have an auditorium that is located in close proximity to not only the music and performing arts classrooms, but also to the cafeteria/culinary area so that we can hold these aforementioned events alongside a refreshments/food venue therefore creating a sense of community through a "dinner and a show" or "coffee and a meeting" type of venue. For the City of Fall River, Durfee's auditorium space is a central location used by City officials (Mayor, Council, School Committee, etc.) as well as outside organizations for rental thereby creating a small amount of revenue for the District.

In each of the two arts clusters (fine arts and performing), we have four teachers who teach a plethora of core courses and electives for students. These courses include, but may not be limited to:

- Performing Arts: Acting I, II, III, Dance, Musical Theater, Technical Theater, Band, Percussion, Orchestra, Chorus, Music and Audio Production, Music Theory, Piano and Guitar
- Fine Arts: Art I, II, III, Portfolio Prep, AP Art 2/3 D, Ceramics I, II, III, Sculpture I, II and Design.

Our course selection in the Fine and Performing Arts includes a wide range of options for art, music and theater. Below is a table of each and the number of students enrolled in a year in these courses:

Performing Arts Courses	#
Dance I	60
Acting I	73
Acting II	10
Acting III/Performance Techniques	10
Honors Acting IV	8
Musical Theatre	21
Technical Theatre	42
Band 9/10	20
Band 11/12	21
Honors Band	15
Introduction to Drum/Percussion	30
Advanced Drum/Percussion	10
Orchestra / String Orchestra 9/10	21
Orchestra/ String Orchestra 11/12	13
Honors Orchestra	9
Mixed Chorus	50
Honors Chorus	10
Introduction to Music and Audio Production	86
Advanced Music and Audio Production	15
AP Music Theory	N/A
Introduction to Piano Lab & Music Theory	130
Advanced Piano Lab & Music Theory	25
Introduction to Guitar/ Songwriting	60
Advanced Guitar/Songwriting	10

Fine Arts Courses	#
Art 1	354
Art Foundation	N/A
Art II	66
Honors Art III	25
Honors Art Portfolio Prep	5

Ceramics I	200
Honors Ceramics II	26
Honors Ceramics III	11
Sculpture I	162
Advanced Sculpture II	12
Design	18
AP Studio Art 2-D Design	8
AP Studio Art 3-D Design	3

Total Students Served: 2,926

For the new building, our goal is to provide the students with the spaces that support the above listed curricula and, in addition, have a black box theater and dance studio (dance studio would be shared with Physical Education Department). Currently, these classes are run in classrooms that are not designed to support the technology nor the specific needs of the class. As the building was designed with "open classrooms" for the arts in the 1970s, these retro-fitted spaces do not have sufficient outlets for technology nor the footprint that is most beneficial to learning in the arts. The design class needs space for machinery, dress forms, and tables. The ceramics room needs a separate space for the kiln that is outfitted with sufficient ventilation and adequate room for storage of pieces in progress. The 2D drawing and painting room needs easel space, sinks, and table space with options for both artificial and natural lighting. The sculpture room needs space for research and design as well as open space for the construction of small installation work. In the music wing, there exist two performance group spaces (we have four major groups - Band, Orchestra, Chorus and Theater) with practice rooms, but the theater group works in a classroom that is not designed for this type of learning, hence the need for a black box theater. Band and Chorus currently are scheduled so that they are not offered at the same time so that the practice room can be shared by the two ensembles. The Orchestra practice room is shared with guitar but there is not sufficient space for storage of instruments so guitars are currently kept in a room across the hall. There is also currently no designated classroom for the technical theater class which demands a large multi-purpose space for building sets, painting, and prop making. For the music and audio technology classes, ideally, we would like to have a classroom space that is modeled on what students would see in a post-secondary setting, with the optimal technology necessary for this rigorous work.

In addition to the classroom work spaces, it is our desire to have exposition spaces throughout the building for displaying student work. Glass cases for both 2D and 3D work would allow us to celebrate student accomplishment through the arts and also promote our programs for all students as we display examples in common spaces throughout the building. We would love to have a gallery space in a central location for the community to see the great work that students do at Durfee. In addition, the performing arts team would love to share video from

concerts, musicals, theater productions, etc. on flat screens throughout the common spaces in the building.

With the expanding use of technology in the music and art world, it is very important that we have state-of-the-art technology in each of the classroom spaces, including projectors, laptops for research and a 3-D printer for the sculpture class. In addition, the music and audio technology classroom should be modeled on current post-secondary standards for soft/hardware outfitting. Technology in the auditorium should also be modeled on industry standards for a large space such as this. Lighting, sound and projection are areas to consider when thinking about outfitting this important performance space.

A consistent need in future planning is similar to other departments in an increase in space, but more importantly flexible space. Our course requests in the Fine and Performing Arts department are at an all-time high. A new school facility could potentially bring the arts to the forefront of what we do and a state of the art facility is necessary for our students to be prepared for the competitive world that lies ahead in the realm of the arts. We would also like to incorporate the concept of STEAM integration between the CVTE department and our own. Currently, our facility makes this goal difficult to achieve due to CVTE classrooms location in relation to ours.

The city of Fall River is a community of 88,700 residents. The Fine and Performing Arts program is a vital part of the BMC Durfee High School and community. The proposed Fine and Performing Arts spaces will allow access for our students to take part in innovative programming, both current and new (music, art, dance, black box theater). In addition, there are currently no other schools in Fall River (including elementary and middle schools) that have a performing arts center large enough to potentially house an appropriate size crowd as well as necessary lighting and sound systems that we currently assume responsibility for. We look forward to designing and creating a wing that supports the learning of all of our fine and performing arts students, as well as the community of Fall River.

*1 Arts Course Unit is required for high school graduation in accordance with Mass CORE Requirements

L. PHYSICAL EDUCATION AND HEALTH

Durfee High School offers students a high quality Health and Physical Education Program. The overall goal of the program is to provide all students with the knowledge and skills to value and apply physical activity and its benefits for a lifetime. Through active participation in movement and sport, students will foster an appreciation for personal fitness and other social skills vital to becoming healthy, productive members of the community. The Durfee curriculum is designed to engage and help inspire students to pursue a lifetime of fitness-related activities and healthy decisions. The variety of classes offered for students in both disciplines has been provided to showcase those offerings.

Durfee High School students are required to enroll in and pass four Physical Education courses and two Health courses to graduate. Students are mandated to take a Physical Education class each year of their high school careers. These graduation requirements have ensured that the gymnasium, pool, weight room, dance studio, and classrooms are being used continually throughout the school day for instruction. Unfortunately, the current teaching spaces are inadequate for the high number of students and the overall facility severely impacts the program of study that can be offered.

The included tables identify the vast array of course offerings at Durfee High School and the high level of participation from students. Durfee High School has five class periods, each period is 72 minutes long and each teacher teaches three class periods a day. The Physical Education classes are listed on the table by each period block, the teacher is identified by their initials, and the number of students assigned to each individual teacher are listed. The total number of students is also summarized. The classes that are listed in each individual block are taught consecutively during the listed time period. The table has two columns, one column is labeled as **Red** and the other column as **Black**. Durfee High School has a school schedule that has a **Red Day/ Black Day** schedule. An example of this schedule is if Monday is a Red day then Tuesday is a Black day and Wednesday would be a Red day, it changes each day between Red and Black. Student's schedules would show Physical Education and Health classes scheduled on those alternate Red/Black day schedules. As an example, if a student has Health period 1 on Red Tuesday, they would not have Health period 1 on Black Wednesday but would have Health period 1 on Red Thursday, so that Health class would be period 1 only on Red days and the Black Days Period 1 the student would have another class scheduled. **Health Classes** are primarily taught in the classrooms but the elective classes also have one day designated to be in the field house. The Physical Education classes are listed in **blue** within the table and the student totals for the days they are in the field house is also shown in blue. The classes and student numbers that have a *star marked before them indicate that the location for those classes/students is the field house, any other locations will be specifically named.

Physical Education	Monday to Friday Red Days		Monday to Friday Black Days
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Per 1 Total Students *96 *125 on Thurs *138 on Friday	*PE-AC-31 students *PE-KD-33 students *PE-AS-32 students Thursdays-*Stress-GG-29 students Fridays-*Study of D-CS-29 students Fridays-*ROTC-13 students	Per 1 Total Students *159 *198 on Friday	*PE-BK- 32 students *PE-AC- 32 students *PE-KD- 32 students *PE-JG -32students *PE-AS- 31 students Fridays-*Stress-29 students Fridays-*ROTC-10 students
Per 2 Total Students *11	Prep-Common Plan Time *APE-JP-11 students	Per 2 Total Students *79 *89 on Friday	*PE-JC-32 students *PE-JG-32 students *APE-JP-15 students Fridays-*ROTC-10 students
Per 3 Total Students *145 20-pool *171 on Thurs *157 on Friday	*PE-AS-28 students *PE-AC-32 students *PE-JC-24 students *PE-JG-22 students *Fitness-CP-24 students *APE-JP-15 students Aqua-BK-20 students-Pool Thursdays -*Nutrition-KD-26 student Fridays-*ROTC-12 students	Per 3 Total Students *79 31 studio 31 pool *149 on Fridays	*PE-AS-32 students *PE-JC-32 students *APE-JP-15 students Dance-KV-31 students-Studio Lifeguarding-BK-11 students-Pool Swim-CP-20 students-Pool Fridays-*Stress-29 students Fridays-*Study of D-CS-29 students Fridays-*ROTC-12 students

Per 4 Total Students <u>* 136</u> *160 on Thurs *146 on Friday	*PE-JC-32 students *PE-JG-32 students *PE-BK-31 students *PE-CP-30 students *APE-JP-11 students Thursdays-*Nutrition-KD-24 students Fridays-*ROTC-10 students	Per 4 Total Students <u>*170</u> 11 pool *183 on Friday	*PE-AS-31 students *PE-AC-32 students *PE-KD-32 students *PE-JG-31 students *PE-CP-32 students *APE-JP-12 students Lifeguarding-BK-11 students-Pool Fridays-*ROTC-13 students
Per 5 Total Students <u>*121</u> 12-pool * 147 on Wed	*PE-AS-32 students *PE-JC-31 students *PE-JG-28 students *PE-CP-30 students Lifeguarding-BK-Pool Wednesday-S of D-AS-26 students	Per 5 Total Students <u>*96</u>	*PE-CP-32 students *PE-AC-32 students *PE-JC-32 students

The above table shows that the number of students scheduled for each physical education class grossly exceeds the current available teaching and learning spaces. This results in an extremely large number of students within each class and restricts our ability to offer creative and engaging physical activities. Many of the programs and courses have been eliminated or altered to accommodate the overcrowding. Unfortunately, this often means that teachers focus more on crowd control and minimizing movement than they do on teaching effective physical skills.

The table also identifies teaching spaces within the field house that are shared for three periods a day with our special education program **Adapted PE-(APE)**. The APE classes require extra space for movement as some students use walkers or wheelchairs. Many students are physically fragile or have sensory disabilities so combining with another group in a space would be very unsafe and uncomfortable for the students. For this reason, the class requires a separate larger area for instruction for three periods a day. The other program that shares the Physical Education space is the **Reserve Officer Training Corps-(ROTC) program**. The Cadets have their physical activity classes every Friday for periods 1 to 4 and the size of the group can vary from 8 to 15 students

per class. They require their own space with their leading officer teaching physical activity. Twice a year they take the field house for the whole day for exercise ceremonies and all Physical Education classes are moved to the library or cafeteria.

Although the **Career and Technical Education (CTVE)** students who utilize the gym for physical education are not listed in the table, these students attend Physical Education classes every other week for one day. This adds approximately 7 to 12 additional students to the class rosters. Physical Education is not able to fit in their schedules for Junior and Senior years so they are scheduled to come every other week for a term. The numbers fluctuate and are not always consistent in teacher assignments or terms attended, therefore the students are not counted in the official numbers within the table. Another department that is not fully recognized within the table is **Special Education (SPED)**. Special Education offers several programs where students earn privileges throughout the day. Some students choose going to the field house as their reward, and are allowed to participate in physical education. They join their paraprofessional in finding a teaching station within the field house. These students generally play basketball or some other movement-driven games/activities. This requires teachers finding or sharing spaces without advance notice. Unfortunately depending on the paraprofessional that accompanies the students, the teachers can find themselves organizing or supervising the students. So beside the scheduled classes, there are many other programs or individuals that utilize/shares the spaces that Physical Education uses for teaching. The space and needs of these various school programs can truly impacts the teacher's ability to consistently provide effective and safe Physical Education instruction.

There are obvious student safety concerns with the current structure due to the sheer volume of students in the field house during each class period. The current field house has the ability to provide **4 separate areas** for teaching physical education for about 20 to 28 students. It is possible to further divide the field house into **6 individual** small teaching spaces for 15 to about 20 students. The division of 6 individual spaces is not appropriate when there are 4 to 6 classes per class periods assigned to the field house with 30 to 32 students per each individual class. If the field house was divided into 4 spaces, it is still not appropriate for the current Physical Education classes due to high class sizes but more specifically the lack of space to accommodate more than 4 smaller classes of 25 students.

The current configuration of the Durfee High School is not adequate to meet the needs of the current school population and the request being made is for more teaching and learning spaces through reorganization and/or additional space. As the table showed, there is a need for an **additional 2 teaching spaces which would equal to be 4 individual teaching and learning**

centers. This is needed to accommodate the current larger class sizes of 30 to 32 and to provide spaces for 4 to 8 large classrooms and other programs such as APE safely in the field house.

An adequate facility with the appropriate teaching spaces would afford the department to offer a Physical Education/Health program that meets the needs of our entire population – something we have never been able to accomplish due to the space constraints. Currently some of our Health Classes offer a day every other week to have physical instruction in the field house and it was counting toward the PE credit. This is done due to lack of space which again limits the amount of offerings. Durfee teachers have had to be creative and find some space within the gymnasium walls to conduct their instruction. This has been found to be nearly impossible with the current design of the facility. Though the PE and Health Departments offer a rigorous curriculum, an updated facility with more teaching spaces would allow for classes to be taught every day per semester instead of using the current black and red day schedule that is necessary to use to fit in all the classes.

The gymnasium/field house not only lacks in space but also in functionality of the space. The field house is an open space with two ineffective curtains that offer no privacy or sound blocking ability. So voices and noises boom through the open space causing intelligibility and difficulty for students to hear and understand their teacher's instructions. The mechanics of the curtains, basketball hoops and the bleachers are no longer serviceable so the motors are on borrowed time and the threat of them completely breaking is high. Also, the heating system is extremely ineffective where in the winter it is freezing and toward the spring and summer the space is like an oven. The flooring in the facility is made of rubber which is not the best for teaching ball skills and conducting games. The surface is very unforgiving and does not lend to best performance.

The layout of the facility is even more troublesome as there are various exits points throughout which are definite safety concerns. In addition, a main entrance/exit comes from the back parking lot which involves numerous students walking through the facility and interrupting instructional lessons. The facility has a room off the main field house that has an awkward low ceiling and it is quite small. The room is too small for our current class sizes so it is used for the wrestling team but due to a lack of equipment storage, the room ends up being a storage closet and completely unusable.

Another room which is also located off the main facility use to hold a Project Adventure indoor rope course with a climbing wall, bridge and platforms. In the past few years, it had to be dismantled due to the inspector's safety concerns as the walls do not go the full length to the ceiling and to have the apparatus on the walls was causing cracks and was deemed unusable and

unsafe. So it is used as a weight room which continues into a smaller back room that also houses weight equipment. Due to the lack of teaching spaces, teachers will instruct their students within the tight constraints of a room full of exercise equipment. The current facility is extremely overcrowded and student options and participation are limited by the current resources.

The odd layout continues upstairs where there is a small studio that is used for Dance and Yoga. Due to lack of space, we could only offer one Dance class at a time. This led to over 300 students not having the opportunity to take dance classes. The heating system ineffectiveness continues throughout the small studio and into another upstairs room filled with cardiovascular machines. The girls locker room is located on the second floor, the boys have to walk into the back hallway of the girls locker room to access the studio and the weight room.

The locker room is poorly designed in a manner that resembles a maze and does not allow easy access or the teachers the ability to see all students. Daily, students are caught hiding among the maze of changing areas. The locker room has approximately five exit and entrance points which makes supervision of so many students very difficult as none of the doors have working locks. The state of the locker rooms is quite sad with outdated plumbing and facilities. Located below the girls locker room is the boys locker room which is also in the same state of disrepair and needing new plumbing/bathrooms and shower areas. The lack of office spaces for both male and female teachers is also an issue with many professionals sharing cramped quarters.

The back staircase from the girls locker room and the boys locker room lead out to the school's pool deck. The ability to offer a diverse aquatics program is an outstanding health benefit as swimming conditions the whole body, improves cardiovascular, muscle strength, endurance, posture, and flexibility. Durfee having a pool also allows the opportunity for students to take a CPR/First Aid Lifeguarding Class that offers students their certification as lifeguards. Throughout the year, the students are able to participate in before school lane swimming and having the pool allows our large swim and dive team a facility to practice at within their school. Unfortunately, the full benefit of the pool is not fully recognized due to the wear and tear over time that has caused the pool to be in need of a full repair job from the walls, installing tiles, securing surrounding windows, updating the timing system and the securing the dangerous viewing areas that suffers from lack of railings and space. An upgraded or a new pool would allow the school program to expand its aquatics offerings/program. It would also allow for more community use and continue to build on the current swim and dive programs.

Outside the building, we are not able to use the baseball and softball fields much as they do not drain well from the rain and are quite dusty with lots of rocks. There are two turf fields but due to the community programs and school usage, they need to be resurfaced soon.. The tennis courts

unfortunately need to be repaved due to developing cracks that create small pools of water. The outdoor spaces need to be updated and expanded to allow the appropriate teaching spaces which would create more learning opportunities for students.

In regard to Health and PE classrooms, there are none located near the physical learning spaces. The closest classrooms are far away on the second floor which makes it almost impossible for the educators who teach both physical education and health classes to outrun the large student population to or from the second floor. This design and lack of classroom teaching spaces does not allow for collaboration or unity within the department. To be a true wellness program, the need for classroom teaching spaces is critical. Currently, when PE classes such as life management and CPR need a classroom, they go to the weight room as there are no classrooms nearby. The current classrooms occupied by the Health teachers do not have full walls to the ceiling and some do not go the full length of the room. It is extremely challenging to teach when the classes next door have the ability to hear the other class discussion/lesson as it distracts students from the learning. One of the classrooms does not have a door and is wide open to the students passing through the back hallway where another room has no windows/or natural sunlight. All the Health rooms suffer from a lack of proper insulation and are quite cold in the winter and, unfortunately, a heavy rain or snowfall will result in puddles forming in the classrooms. What is also lacking is the availability of technology as all the rooms are not outfitted with ceiling projectors and the teachers must rely on the chance of relocating their classes by securing a booking in the computer lab to have students utilize technology in their learning. The accessibility and location of teaching classrooms to the field house/gymnasium is a needed crucial design piece. A table has been provided to show the number of health sections and the usage of the classrooms that are needed for approximately 80% of the day. Unfortunately, due to lack of proper Health classrooms, some classes are held in rooms in the library or in small computer labs. Class sizes are high in many classes so the need for proper classrooms to be located near the field house are very important. The Health table is designed to show class sizes and the need for **6 Health classrooms** to accommodate the **6 Health Teachers** larger classes and for effective instruction. **Rooms 261, 262, 263, 264, 270, IMC 6 are used for 3 to 4 teaching periods a day.**

Health	Monday to Friday Red Days		Monday to Friday Black Days
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Per 1 Total Students <u>147</u>	Health 1 -KV-30 Room 263 Health II -CC-30 Room 264 Stress M-GG-29 Room 262 Health II-MR-29 Room 270 Study of Disease-CS-29 IMC 6	Per 1 Total Students <u>58</u>	Health 1 -KV-29 Room 263 Health II -CC-29 Room 264
Per 2 Total Students Prep	Prep-Common Plan Time Use room 262 for planning	Per 2 Total Students <u>46</u>	Nutrition -KD-30 Room 261 Health I -CC-29 Room 264 Health I-MR-13 Room 270
Per 3 Total Students <u>77</u>	Health 1 -KV-18 Room 263 Nutrition -KD-26 Room 261 Health 1-GG-12 Room 262 Life Management-CS-21 IMC 6	Per 3 Total Students <u>84</u>	Health II-MR-26 Room 272 Study of Disease-CS-29 IMC 6 Health I -CC-29 Room 264
Per 4 Total Students	Health II-GG-23 Room 262 Health I -CC-30 Room	Per 4 Total Students	Health I -CC-30 Room 264 Health Issues-CS-21 IMC 6

<u>98</u>	264 Nutrition-KD 24 Room 261 Health II-MR-21 Room 270	<u>51</u>	
Per 5 Total Students <u>123</u>	Health 1 -KV-20 Room 263 Health I -CC-23 Room 264 Health II-GG-29 Room 262 Health II-MR-25 Room 270 Study of Disease-AC-26 IMC 6	Per 5 Total Students <u>68</u>	Health 1 -KV-27 Room 263 Health II-MR-13 Room 270 Health II-CS-28 IMC 6

In addition to teaching classroom spaces, meeting spaces are needed for the Health and PE Departments. Currently, if we want to meet with colleagues, hold a department meeting, meet with parents, or conference with outside community members, the only option is the small and poorly proportioned teachers’ lunch room. The Health and PE department head currently utilizes a lunch table as a desk and this does not allow opportunity for privacy or a professional work space. A properly sized and dedicated office space within the department’s location would be very beneficial.

The requested and programmed teaching stations, which are included within the gymnasium, pool facility, wellness center, weight rooms, wrestling room, and natatorium will allow us to continue to offer the current course offerings. Although we understand that we are unable to request any additional space (beyond the amount of our current existing space), we do hope that some reconfiguration of existing spaces either in a new facility or a renovation to the existing

facility will allow us to create a more efficient layout. This could allow even higher utilization and would work to alleviate some of the current overcrowding within our facility. Additionally, new or renovated locker rooms and health classrooms which are more in closer proximity to other physical education spaces would help us to staff programs more efficiently and avoid time consuming transitions between periods. Additionally, a thoughtful and comprehensive approach to outside learning spaces, including their placement and organization, will allow the PE and Health Department to effectively teach more students and to expand the program offerings for all students.

Durfee Health and Physical Education Courses						
COURSE	DESCRIPTION	LEVEL	GRADES	TERM	Credit	Health or PE Req?
57394	Health I	CP	9	SEM	.25	Health
57024	Health II	CP	11	SEM	.25	Health
57384	Physical Education- Wellness Program*	CP	9-12	SEM	.25	PE
57374	CPR/First Aid/Lifeguard Training *	CP	11-12	SEM	.25	PE
57234	Health Issues in Life Management	CP	11-12	SEM	.25	Health

57254	Fitness Management Concepts & Activities*	CP	11-12	SEM	.25	PE
57354	Aquatic Activities/Team Sports *	CP	11-12	SEM	.25	PE
57265	Stress Management Course	CP	11-12	SEM	.25	Health
56662	Dance	CP		SEM	.25	PE
57375	Swimming for Fitness*	CP	11-12	SEM	.25	PE
57224	Study of Disease	CP	11-12	SEM	.25	Health
	PE Buddies	CP	11-12	SEM	.25	PE
57255	Nutrition, Fitness Concepts/Weight Management	CP	11-12	SEM	.25	PE
57101	Honors Human Anatomy	HON	11-12	SEM	.25	Health
57121	Honors Sports Medicine	HON	11-12	SEM	.25	Health

*=Is a course that meets the Physical Education Graduation Requirement

Athletics

Currently, we offer a total of 38 sport programs with 22 being at the varsity level. As a result of such a large program, we feel that a state-of-the-art athletic facility both inside and outside is a critical need for our students/athletes and the community. Durfee has a rich tradition, including 12 team state championships and 9 individual state championships. Boys basketball games in the late 1970s, 1980s, and early 1990s frequently had over 2,000 people in attendance. The field house is the site of our Senior graduation, our Senior after-prom party, entire school pep rallies, and several other school functions for our 2,000 plus population.

Our field house has major issues. For example, the bleachers are non-compliant with current handicap regulations and are constantly breaking down. The curtains that separate the courts routinely break down where they cannot be lifted or brought down. We have been told that the motors that run the curtains are not even made any longer. The curtains also have graffiti written on them and have rips. The gym floor is made of a rubber substance that is not ideal for basketball games. A hardwood floor is highly recommended. We have an indoor track but it is not large enough to hold actual track meets inside. The athletic locker rooms have broken lockers, no ventilation, and not enough space for all our athletes. The coaches and officials do not have an adequate changing area. Visiting teams also do not have a safe, adequate changing area. Our training room needs to be bigger to adequately serve all our athletes.

The indoor Project Adventure course developed in 1980 had to be removed because the walls were deemed to be unsafe. The walls are free floating and the tension from the Project Adventure equipment posed a serious risk. We have been told to not drill any holes into the current walls. The Project Adventure room became a weight room for athletics and Physical Education classes. Our wrestling room is not large enough to hold an adequate practice and it is often used as storage for Physical Education equipment, ruining the wrestling mats that cover the floor.

Our pool has been a huge positive for our school over the last 38 years. It has been used to teach swimming to students of all ages throughout our school system, certify high school students to become lifeguards, and has been home to our boys and girls swim teams. Our students benefit greatly from having a pool on campus. Our swim team participation might not be as high if it was required to go off campus to be on the team.

Two "Field Turf" fields, and eight tennis courts were constructed in 2008. This greatly improved our football, soccer, field hockey, tennis, and track facilities. However, the Field Turf is getting run down and will soon need to be resurfaced. Several outside organizations use these fields when Durfee sports are not. This has been tremendous for community involvement but has led to more wear and tear on the fields. The tennis courts have started to crack and the surface has settled to where puddles now occur after rain storms. During the construction of the turf fields, track and tennis courts, the varsity and junior varsity baseball and softball fields were not touched. These grass, stone dust, and dirt fields are extremely wet in the spring and are often unable to be used because of it. Varsity baseball is often required to move their games off campus or postpone games on sunny days due to the wetness of the field.

Community use of our athletic facilities is a major positive for our school. Outside organizations, such as youth soccer, pop warner football, little leagues, AAU programs, United States Tennis Association, and several other community partners, use our facilities regularly. Having state-of-the-art indoor and outdoor facilities maximizes opportunities for the entire Fall River community.

Athletic Participation Numbers at Durfee High School for 2016-2017

- **Fall: 297**
- **Winter: 271**
- **Spring: 230**

Outside Organizations that Use the Durfee High School Athletic Facilities

- **New England Futsal Soccer**
- **Nor'easter Soccer**
- **Fall River Falcons Football**
- **American Little League of Fall River**
- **Bristol County Sheriff's Department Free Clinics**
- **Massachusetts Youth Soccer Association**
- **Special Olympics**
- **New England Futbol Club**
- **Opportunity for Players to Shine Baseball Club**
- **United States Tennis Association**

M. SPECIAL EDUCATION

According the Department of Elementary and Secondary Education (DESE), Special Education facilities and classrooms should align with the guidelines listed below. The school District provides facilities and classrooms for eligible students that:

- Maximize the inclusion of such students into the life of the school.
- Provide accessibility in order to implement fully each student's IEP.
- Are at least equal in all physical respects to the average standards of general education facilities and classroom.
- Are given the same priority as general education programs in the allocation of instructional and other space in public schools in order to minimize the separation or stigmatization of eligible students.
- And are not identified by signs or other means that stigmatize such students.

The policies above are in direct alignment with the following items:

- 603 CMR 28.03(1)(b)
- Section 504 of the Rehabilitation Act of 1973
- SE 55 is related to State Performance Plan Indicator 5

Currently, one of our special education programs may be in direct violation with the DESE laws and regulations listed below. They are housed in one area of the building. This area is used to facilitate access to classrooms as the elevator is not reliable. Locating programs in this area also increases ease of access to therapy spaces, nursing, and bathroom/changing areas. DESE has not

cited us on this issue at present, however the last audit did not locate these classrooms solely to this area.

Inclusion Programs

Students with mild to moderate disabilities can receive special education services in the general education classroom. The delivery of the services in the general education classrooms are documented in the service delivery of the student's IEP and can be occur in the following ways:

- **Consultation:** Curriculum may be modified for the student's needs are accommodated by the general education teacher in consultation with the special needs teacher and/or specialist.
- **Co-teaching:** The general education curriculum is being followed in a classroom that has both a general education teacher and a special education teacher presenting it in ways that is determined by the needs, education goals, and styles of the students in the class.
- **Paraprofessional Support:** In this setting, the general education teacher will lead the instruction to the follow the general education curriculum with the assistance of a paraprofessional to help provide accommodations and modifications per the IEPs of special education students in the class.

Language –Based

This is an academic program that is designed for students with academic and/or communication challenges, typically diagnosed as Specific Learning Disabilities, Communication and/or Neurological. At the high school level, academic supports and strategies focus on skills to promote vocabulary development, receptive and expressive language skills via both oral and written modalities and foundational mathematics to be able to successful meet the districts and MCAS requirements for graduation. In addition, assistive technology may be utilized for students who benefit from read aloud, speech to text, word prediction, etc. Classrooms are substantially separate and taught by a special education teacher with one para professional. Typically, these classrooms are associated with curriculum content and have an overarching theme which emphasizing key concepts. Modifications include pace and quantity while supporting the development of individualized learning objectives and strategy development. Thus, depending on the population, it is projected that one class per core content area for each grade level would be warranted. This equates to at least 16 classes to accommodate 12 students per class with a teacher and a paraprofessional. In addition, we have a growing need for a supported academic study and would strongly recommend two allocated classrooms allocated for this need.

Social Emotional: Bridge

This is a program that is designed for students with social emotional issues that may manifest in behavioral concerns and reduced academic engagement. Participation in this program is

determined through the IEP process and is alignment with the districts kindergarten through grade 8 program. It is a substantially separate program that teaches to the curriculum of each grade level of the students in the program in order to facilitate targeted skills development while fostering requirements necessary to receive a traditional diploma. The goal of the program is to foster appropriate pro-social and the development of healthy coping mechanisms with transference of skills across academic, community and social settings. This occurs under certain timelines with the use of steps and levels with incentives at every step or level. The curriculum is provided by a special needs teacher, school adjustment counselor, consulting psychologist and paraprofessionals.

Autism Spectrum Disorder Program (ASD) (Special Education Regulations, 603 CMR 28.02 (7) (a)).

This program is relatively new to the high school and currently only houses grade 9 students. Based on District projections, it is anticipated that over the course of the next four years, we will require at least one classroom per grade level for our High Functioning Autism classes. These students will be able to access some inclusion opportunities but may need a separate environment to develop social skills and behavioral regulation. In addition, we will require at least three functional ASD classrooms for students who will require a more life skills continuum through age 22 years. Any student that has been diagnosed on the Autism Spectrum can participate in this program. ASD is a neurological disability that can affect verbal and non-verbal communication as well as social interaction. The spectrum of the program is very wide. There are students that are integrated into the general education classes and other students that are substantially separated all day as indicated in their IEPs. The students that are integrated in the general education classrooms are accompanied by a special needs teacher and/or a paraprofessional. The students in the substantially separate classroom are in the room with a special education teacher and one or two paraprofessionals depending on the period of the day. The High Functioning ASD students work on general education curriculum that is highly modified and accommodated. The students in the substantially separate classroom work on functional life skills. All students in this program attend social skills group, sensory integration, mobility and speech and language therapy.

Community Based Program

This program focuses on functional academic and life skills. There are two components of the program. For students grades 9 through 12, emphasis is on a modified curriculum with critical standards identified via DESE and Common Core. Students in this program typically earn a Certificate of Attainment. The second component of the program is geared for students aged 18 – 22 years old. This is a developing portion of the program with emphasis on career readiness, transitional skills, life skills and enhancing skills to foster independent living. Ideally, as this program continues to grow, students will have an alternative schedule that allows for increased volunteer and work experiences in the school and larger community. This program is supported by the work of a transitional specialist and, as sites become secured, job coaches will be utilized to support the students.

Occupational Therapy

This therapy area provides services to students who demonstrate special needs in fine and perceptual motor skills development. A certified occupational therapist provides evaluation, consultation, and direct services. The delivery of services is provided in accordance with the student's IEP.

Physical Therapy

This therapy area provides services to students who demonstrate special needs in gross motor development. A certified physical therapist provides evaluation, consultation, and direct services. The delivery of services is provided in accordance with the student's IEP.

Speech and Language Therapy

A certified speech pathologist provides speech and language therapy for students whose receptive and expressive language interferes with his/her ability to make effective progress. Therapy services are provided either individually, in small groups, or in a consultative model as indicated in the IEP.

Psychological/Adjustment Counselor Services

The school psychologist conducts the psychological assessment of special education evaluations through formal testing and observation. The school psychologist also runs the social skills group that is indicated on a student's IEP. The school psychologist will work collaboratively with the adjustment counselor to provide direct counseling services for students who have been identified by the special education team as having behavioral, emotional, or social problems that interfere with their adjustment to school.

There are currently sixteen special education teachers, one department head, one adjustment counselor, one school psychologist, and twelve paraprofessionals that support special education programming.

Proposed Design

Special Education rooms will be spread around the school. There will be separate offices so inclusion teachers can collaborate. The Bridge program will consist of four to five classrooms, one with a science lab and another as a computer lab for access to online credit recovery programs. The ASD program is a growing program based on the established District design and growing population of these students. In order to continue to foster in-District opportunities for these students, six classrooms with office space and a sensory room will need to be provided. The Community Based program will require ten classrooms with access to handicap accessible kitchen to foster personal care and life skills. The Fall River Public Schools is dedicated to providing

programming to maximize in-District offerings for students to minimize out-of-District placements. Currently, during the transition from middle to high school, parents request OOD programming as the current physical space does not foster the same access as the students received at the middle school level. As our special education population is such a significant cohort within our community, we would like programs to be available that continue to promote options in accordance with the guiding principles of Least Restrict Environment while continuing to foster optimal opportunities for our students

N/O. VOCATIONS AND TECHNOLOGY & CHAPTER 74 PROGRAMMING

See Appendix D for Chapter 74 Submission for both non-chapter 74 and Chapter 74 programs

P. TRANSPORTATION POLICIES

A large number of Durfee High School students are transported to school through transportation methods other than the school bus. Fall River is a very large city. Therefore, it is even more important that appropriate transportation is available throughout the entire City of Fall River. Although a large number of students rely upon of the transportation provided by Southeastern Regional Transit Authority, many avail themselves and take their own vehicles. For this reason, ample student parking and visitor parking, as well as an effective student drop-off and pick-up process, are crucial to the design of the proposed school. Approximately 75% of our student population is eligible for school transportation.

Q. FUNCTIONAL AND SPATIAL RELATIONSHIPS

The functional and spatial relationships and adjacencies are a critical part to the design and development of a new and/or renovated BMC Durfee High School. We have highlighted a number of the priority areas below.

- Currently, the majority of our career and vocational technical education (CVTE) spaces are housed in a specific area of the high school. We refer to this area as the “tech wing.” In designing a new program, we would like to immerse our career and vocational classrooms throughout the entire building. This will help with interdisciplinary opportunities for staff, but also for exposure for our students. We would also like to locate programs such as Child Care, Marketing, Culinary, and Cosmetology near the building’s primary entry to promote public and community use of these resources. For example, we would like to design a primary entrance to the high school where our public service shops are accessible to both the school community and the public. We would also like to locate our student union in this area such that it would have connections to the building entry and the student dining area allowing us to create a café or coffee shop atmosphere. It could be a gathering

area for students and staff where laptops and other electronic devices are a part of the culture. We feel that this type of atmosphere will welcome visitors into the building, and it will also be a showcase for student work.

- Science labs should be located in close proximity to the transportation and construction clusters. These programs often team as part of vocational/academic collaboration.
- Marketing, Graphics, and Art should be in close proximity to each other. Although these are "stand-alone" programs, they often collaborate on team projects.
- In regards to specific locations of the FRED TV program and TV Studio, we would like this space to have its own secure entrance to accommodate the varied schedule of the staff and to allow for easy access.
- We would like to ensure that special education classrooms are dispersed throughout the school community so that there is equal access and delivery for all.
- Currently our guidance and house offices are located within each grade level office. In addition, our adjustment counselor offices should be located near the grade level office (not within grade level office) in order to ensure student confidentiality. We feel that grade level support teams are one of the strengths of our current building. We would like to maintain this type of structure.
- Our school is a very busy place after school hours and late into the evening. Many of our students participate in a variety of extracurricular activities and, as a result, do not go home in between school and evening events. Therefore, we would like to develop an extracurricular entrance to the building that also includes a student cafe. The gym and its related spaces, auditorium, cafeteria, and FRED TV television studio would be located in this area, and there would be a student union located near this entrance so that students had an area to gather.
- The custodial area and receiving should be located near the cafeteria due to deliveries.
- The media center should be located in a central part of the school as we envision it to be a "hub" of student and staff activity.
- The proposed high school would maintain a Freshman Academy and neighborhood structure (within grade levels) while affording more opportunities for students and staff to work in a horizontal and vertical, interdisciplinary manner while fully integrating special education programming.
- The gymnasium would include a cardio workout space as well as a weight lifting area. It would include an upper-level track and a wellness center for community and staff access.

Indoor/Outdoor Connections

The connection of indoor and outdoor spaces is important to create a vibrant and energizing educational environment. Students can become more engaged in utilizing outdoor space if an effort is made to insure the appropriate visual and physical connection. Outdoor space can go beyond the recreation fields and provide project space, social learning spaces, study areas, and other supports for the education environment. It has a natural integration to many sciences and should not be ignored as part of the 21st Century educational environment. This indoor/outdoor connection is mentioned in the priorities for science labs.

R. SECURITY AND VISUAL ACCESS REQUIREMENTS

The Fall River Police Security Resource Officers (SROs), Fall River School District Security Officers, District Administration, faculty, and staff have already been engaged in the feasibility study process to provide the necessary background information and initial conceptual input related to a newly proposed project. This dialogue will continue during the next phase of the feasibility study and subsequent design phases. The District and design team plan to review the Emergency Response Plan at each stage of the design process and make the necessary adjustments to the document as the newly proposed project (site and building) begins to develop with more specificity.

The Medical Emergency Response Plan (MERP) has been submitted to the DESE. This plan is a comprehensive document that includes detailed information related to the security policies (promulgation, implementation, practice, and enforcement) required for situations such as traditional lockdowns, evacuation, evacuation routes and staging areas, bomb threats, explosions, fire/arson, gas leaks, medical emergencies, among many others. Due to the sensitivity of the information contained within this document, a copy can be provided by the District, upon specific request.

A holistic approach to security design for a newly proposed project (educational facility or another use) begins at the commencement of the design process and is NOT considered exclusively an add-on “system” integrated at the end of the design process via the use of technology. Site approach, site circulation, physical placement of the building on site, the interrelationship of the building’s physical interior and exterior spaces, and simplification of the building’s internal organization must be interwoven into the planning process. It is very evident the topic of security was not truly integrated as part of the design of the current 1978 BMC Durfee High School building.

Fall River Police Security Resource Officers (SRO’s) have been active at BMC Durfee High School at varying degrees of coverage since the opening of the current building in 1978. Currently, there are two Fall River Police Security Resource Officers and seven (five daytime and two nighttime) District security personnel dedicated to the high school building. The Fall River Police SRO’s are responsible for scanning the entire building (interior and exterior perimeter) and the seven District security officers are assigned specific areas of the building. Due to budget constraints, a few years ago, the District security personnel were reduced from thirteen staff members down to its current level. The District has indicated to us that the number of incidents has increased since the reduction in personnel.

The existing BMC Durfee High School site and building includes a myriad of passive security deficiencies, including a remotely located, non-descript main entrance; poorly organized site circulation; cafeteria located adjacent to the main entrance; over 50 exterior perimeter doors; maze-like building organization; insufficient lighting for night-time events; security communication “dead-spots”; etc.

Over the last several years, the District has implemented a mixture of various camera types to help reduce “blind spots” within and outside the facility. This has resulted in various recording devices being implemented and disparate systems being relied upon to effectively react to security events. Currently, the cameras are not actively monitored; they are used purely as a reactive tool after a security event occurs. A unified and robust campus-wide video surveillance system would enable the staff to respond to events in real time based upon motion detection in some areas, coupled with active monitoring of key cameras at specific locations in other areas. Currently, video retention is very low, causing further issues as some events are not detected for days. Retention is from 7-14 days down to one day on some recorders. There are currently only five cameras in the parking lot, and not every outside door is covered by video surveillance.

The intrusion detection system is non-existent. Most exterior doors are not monitored.

The access control system currently only controls two doors- the main entry and west main entry. Both doors include an entry system. The existing Kantech access control system is not effective and has been problematic. As such, it is seldom used. Security awareness of all exterior doors and interior spaces while the building is occupied, primarily the responsibility of the access control system, is non-existent since almost all of the exterior doors are not currently monitored.

A more extensive camera system as part of a proposed design solution will enhance school-wide safety and security. Our current camera system is used regularly to help students with issues that arise in regards to theft as well as other student management issues. The expansion of a campus-wide CCTV system will enhance our overall school culture. A new system should be web based so it can be viewed by administration even when they are not in the building. The system should cover all public areas (hallways, common areas, and entrances to the school). Outside coverage should include all student and staff parking and athletic areas. An increased number of cameras would also be very beneficial. This type of model can only enhance school security.

S. STUDENT DAY

The day at Durfee starts for all students at 7:55 a.m. and ends at 2:40 p.m. The schedule runs on a modified block format with students taking five 72-minute classes during the school day. In addition to the five-block schedule, there is an odd/even rotation (Durfee calls it red/black) of some classes allowing for students to explore more elective classes and career pathways. Classes are run for a semester (90 days) or a full school year (180 days). Students are assigned lunch during their four-period class based on the department and class they have. There are three 25-minute lunch periods during this period as well as passing time for students to get to and from lunch.

After the official school day ends, there are various extra-curricular activities, clubs, sports, music, and theatre programs that students can join as enrichment opportunities.

Below is an example of a Freshman Academy student schedule:

Non-Advisory Day Schedule	Classes	Advisory Day Schedule	Classes
Period 1 - 7:55-9:02	U.S./World History 1 (S1) Spanish 1 (S2)	Period 1: 7:55-8:57	U.S./World History 1 (S1) Spanish 1 (S2)
Period 2 - 9:07 - 10:19	English 1 (FY)	Period 2: 9:02 - 10:09	English 1 (FY)
Period 3: 10:24 - 11:36	Biology (FY)	Advisory: 10:14 - 10:34	Advisory
Period 4: 11:41 - 1:23	Algebra 1 (FY)	Period 3: 10:39 - 11:46	Biology (FY)
Period 5: 1:28 - 2:40	CTE Exploratory (Black) Health 1 (S1, Red) PE (S2, Red)	Period 4: 11:51 - 1:28	Algebra 1 (FY)
		Period 5: 1:33 - 2:40	CTE Exploratory (Black) Health 1 (S1, Red) PE (S2, Red)

Below is an example of a Junior student interested in the arts:

Non-Advisory Day Schedule	Classes	Advisory Day Schedule	Classes
Period 1 - 7:55-9:02	English III (FY)	Period 1: 7:55-8:57	English III (FY)
Period 2 - 9:07 - 10:19	Honors Art III (S1) Honors Ceramics III (S2)	Period 2: 9:02 - 10:09	Honors Art III (S1) Honors Ceramics III (S2)
Period 3: 10:24 - 11:36	PE (S1, Red) and Health II (S1, Black) Design (S2)	Advisory: 10:14 - 10:34	Advisory
Period 4: 11:41 - 1:23	Algebra II (FY)	Period 3: 10:39 - 11:46	PE (S1, Red) and Health II (S1, Black) Design (S2) PE and Health (S10) Design (S2)

Period 5: 1:28 - 2:40	Physics (S1) World History III (S2)	Period 4: 11:51 - 1:28	Algebra II (FY)
		Period 5: 1:33 - 2:40	Physics (S1) World History III (S2)

Below is an example of a senior CTE student:

Non-Advisory Day Schedule	Classes	Advisory Day Schedule	Classes
Period 1 - 7:55-9:02	Health Assisting III (FY)	Period 1: 7:55-8:57	Health Assisting III (FY)
Period 2 - 9:07 - 10:19	Health Assisting III (FY)	Period 2: 9:02 - 10:09	Health Assisting III (FY)
Period 3: 10:24 - 11:36	Health Assisting III (FY)	Advisory: 10:14 - 10:34	Health Assisting III (FY)
Period 4: 11:41 - 1:23	Pre-Calculus Honors (S1) Psychology (S2)	Period 3: 10:39 - 11:46	Health Assisting III/ Advisory (11:26-11:46)
Period 5: 1:28 - 2:40	English 4 (FY, Red); Physical Education (S1 Black) Honors Human Anatomy (S2, Black)	Period 4: 11:51 - 1:28	Pre-Calculus Honors (S1) Psychology (S2)
		Period 5: 1:33 - 2:40	English 4 (FY, Red); Physical Education (S1 Black) Honors Human Anatomy (S2, Black)

Conclusion

We have worked closely with the architects at Ai3 Architects, LLC and their consultant, David Stephens from *New Vista Designs for Learning*, in developing our vision as well as the guiding principles in designing the new school. We have conducted brainstorming sessions with teachers and administrators throughout the District to visualize the school of the future. Guiding principles were developed and they are woven throughout this document.

BMC Durfee High School has a vibrant community and school culture. This is evident the minute you walk through the doors of the current school. This culture and community should not be lost in the development of the new high school. Like many communities, the high school can and should be a center for community use. The significance of the gymnasium, performing arts center, media labs, flexible spaces, vocational structure, public service access, etc., are all an important and highly utilized community and educational resource. These spaces cannot be seen as “*extras*,” rather, inherent resources that will serve the students, teachers, administrators, and community members for decades to come. Their careful planning and inclusion, as well as their integration into the community-wide environment, is critical to supporting the interaction of community with education.

BMC Durfee High School will be the **COMPREHENSIVE** high school of the future – a school with high academic standards that also integrates vocational technical education so that students are both career and college ready. Currently, we have excelled as a school community despite an incredibly deficient facility. Our goal is to build a school that ensures all students in Fall River can receive the best education possible.

Educational Visioning is a process which brings together a large cross-section of stakeholders, residents, and educators to develop learning concepts, goals, and values which result in a comprehensive, long-term planning tool for the school District. When a new project is being considered or proposed, educational visioning provides the cornerstone of all educational planning, and it defines the nature of school operations, function, and opportunities for the future. It literally shapes school and community relations for decades to come.

Educational Visioning in Fall River was facilitated by Ai3 Architects, LLC and David Stephen of New Vista Design.

The sessions were a catalyst for generating ideas regarding how the school might best be designed to foster 21st Century education while simultaneously incorporating the needs of the entire community. It enables the architects to develop building plans which are consistent with the needs of the City of Fall River, incorporating the educational, community, organizational, and functional goals and values articulated in the visioning sessions.

The Educational Visioning process included an evaluation of the existing BMC Durfee High School educational delivery, the facility today, and a projection of the facility in the future. The Educational Visioning report contains the result of that evaluation. Some examples of barriers to effective educational delivery in the current high school include the lack of flexible learning spaces for educational projects that require teamwork; inadequate science labs; grossly undersized classrooms that lack adequate acoustics, natural lighting, and ventilation; segregated technology

labs and shops; the absence of teacher centers for collaboration; a lack of support for applied learning and student presentations; and a poorly organized and restrictive high school floor plan that greatly impedes interdisciplinary or hands-on, project based collaborative learning.

The Educational Visioning and Programming sessions are summarized in the following section.

EDUCATIONAL VISIONING SESSIONS

Educational Program

Educational Visioning is a process which brings together a large cross-section of stakeholders, residents, and educators to develop learning concepts, goals, and values which result in a comprehensive, long-term planning tool for the school district. When a new project is being considered or proposed, educational visioning provides the cornerstone of all educational planning, and it defines the nature of school operations, function, and opportunities for the future. It literally shapes school and community relations for decades to come.

Educational Visioning at BMC Durfee High School in Fall River was facilitated by David Stephen of New Vista Design. David holds a Bachelor in Architecture degree from Rhode Island School of Design and a Masters in Education from Lesley College. As an educator and licensed architect, David has collaborated with many pioneering architectural firms, playing a key role in the architectural design of over forty new and redesigned elementary, middle, and high schools, and has twenty years of experience partnering with some of the field's visionaries, working with schools nationwide to imagine, develop, and implement innovative school programs. At New Vista Design, David has helped districts, schools, and educators develop student-centered and inquiry-based curricula and programs.

Educational Visioning is a catalyst for generating ideas regarding how the school might best be designed to foster 21st Century education while simultaneously incorporating the needs of the entire community. It enables the

architects to develop building plans which are consistent with the needs of the City of Fall River; incorporating the educational, community, organizational, and functional goals and values articulated in the visioning sessions.

The Educational Visioning process included an evaluation of the existing BMC Durfee High School educational delivery, the facility today, and a projection of the facility in the future. The Educational Visioning report contains the result of that evaluation. Some examples of barriers to effective educational delivery in the current BMC Durfee High School facility include: the lack of flexible learning spaces for educational projects that require teamwork; inadequate science labs; grossly undersized classrooms that lack adequate acoustics, natural lighting, and ventilation; segregated technology labs and shops; the absence of teacher centers for collaboration; a lack of support for applied learning and student presentations; and a poorly organized and restrictive high school floor plan that greatly impedes interdisciplinary or hands-on, project based collaborative learning.

The Educational Visioning and Programming sessions included the following:

- January 12, 2017: Two-hour session with administrators and Deans
- January 19, 2017: Half-day session with administrators, Deans, Faculty, Staff and Students
- January 31, 2017: Half-day session with administrators, Deans, Faculty, Staff and Students
- February 28, 2017: Half-day session with administrators, Deans, Faculty, Staff and Students
- March 27, 2017: Two-hour session with administrators, Deans, Faculty, Staff and Students

The following individuals are recognized for their commitment and involvement in this extensive and comprehensive process. Their input and guidance proved invaluable and will become a key component in shaping the future of the City of Fall River and Fall River Public Schools.

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SESSION 1a – January 12, 2017

The Agenda for the January 12, 2017 session included the review of the educational visioning process with the administration and Deans.

SESSION 1b – January 19, 2017

The Agenda for the January 19, 2017 session included the following:

1. Introductions/Welcome
2. Workshop Goals
3. Overview of MSBA Feasibility Study Process
4. BMC Durfee Snapshot
5. Priority Goals for the proposed project
6. 21st Century Teaching and Learning (Presentation)
7. 21st Century Learning Goals (Small Group review – Large Group Prioritization)
8. BMC Durfee High School – Present and Future Educational Priorities
9. BMC Durfee SCOG Analysis (Strengths, Challenges, Opportunities and Goals)
10. Next Steps and Exit Ticket

The following list of attributes of the B.M.C. Durfee High School were brainstormed by the B.M.C Durfee High School Educational Working Group (EWG) during Workshop One. The EWG is a group of approximately 50 participants that is focusing on setting priorities for the design of the renovated and/or new school facility and includes Fall River Public Schools leadership, as well as Durfee administrators, teachers, students, parents and community partners.

- Tolerance (students can be who they are)
- Potential – lots of great things
- Well-rounded students
- Character – more with less
- GRIT, thrift
- School spirit – Pep Rally!
- Tradition – Durfee story, athletics and academics
- Diverse population and offerings

- Active acceptance of a broad range of students
- Talent!
- Opportunity – curricular – bring your passion
- Pride – students and adults
- Social
- Diligent
- Community camaraderie
- Dated
- Real
- Unhealthy building
- Decay
- Clubs
- Extra-curricular



The following list of priority goals for the design of the new and/or renovated B.M.C. Durfee High School was recorded during the participant introduction section of the Educational Working Group's (EWG) Workshop One, with each participant offering one priority goal.

- Welcoming
- Warm and inviting
- Safe and secure
- Insures safety throughout
- Ease of access
- Shared spaces for collaboration
- Accessible
- A blend of old Durfee into new
- Linking past/present/future
- Ease of access to resources
- Layout
- Academic functionality
- Student friendly
- Interconnectivity



- Co-location of vocational shops
- Access to technology
- Spatial adjacencies/synergies
- Community access
- Technical spaces
- New technology
- Student spaces
- Teacher/student collaboration
- Cross-curricular collaboration
- L More integration of fine/performing arts
- Functional lab spaces for all science rooms
- Integration of science and technology
- Labs with walls between
- Storage space in classrooms and science labs
- Interactive media spaces
- Bringing outdoors in
- Adaptability – connections to higher education
- Teacher workspaces
- Large working areas/studios
- Thoughtful placement of arts
- Spaces replicate industry standards
- Take pride
- Tech for PTLL students
- Warm and inviting
- 21st Century vocational opportunities
- Comfortable and well-lit classrooms
- Faculty and students proud
- Community involvement and access
- Shop spaces that envision future needs
- Reuse of existing spaces when appropriate
- Adequately sized classrooms for 30
- Students
- Schools within a school

The SCOG (Strengths, Challenges, Opportunities, and Goals)

analysis looks at the perceived Strengths and Challenges of the school program, the District and the larger BMC Durfee High School community, as well as the Opportunities and Goals that emerge from them, particularly with regard to the re-design of the school facility. The following is a summary of what they believed to be the Strengths, Challenges, Opportunities, and Goals within the BMC Durfee High School. The group first documented their brainstorming on paper and then shared their thoughts with all of the participants. The following is a summary of their discussions and presentation:

STRENGTHS/CHALLENGES/ OPPORTUNITIES/GOALS ANALYSIS:

STRENGTHS – Academic, Educational, Cultural

- Dedicated teachers
- Students
- Kids with grit
- Available teachers
- Support staff
- Tradition
- Commitment and relationships
- Guidance support
- Own experts (Professional Development)
- Diverse courses
- Variety
- Diverse population
- After-school opportunities
- Creative students
- Pride
- Languages
- Strong athletics
- Teacher collaboration
- Strong Arts programs
- Organized MCAS delivery
- AP programs
- Access for all to AP opportunities
- Good problem solvers
- Risk takers (kids)
- Community and family
- Freshman academy
- Electives
- Investment in school

- SAT ACT Test Center
- Teacher expertise
- Club offerings
- Success
- Talent search program

CHALLENGES – Academic, Educational, Cultural

- Complacency
- Attendance
- Materials
- Security and safety
- Transportation
- Lack of technology
- Staff diversity
- Turnover rates
- Student transiency
- Scheduling conflict
- Blending technology/academic integrity
- Maintaining creativity within required curriculum
- Inconsistent middle school offerings
- Socioeconomic barriers
- Accessibility
- Strong partnerships
- Parent involvement
- Community involvement
- Class size
- Wide range of student needs
- Outside academics
- Language barriers
- ELL population
- Learning gaps
- Budget
- Attracting/Maintaining teachers
- Mill mentality –education not seen as important
- Large student population
- High school preparedness
- Lack of modeling/mentoring
- Immaturity
- Life skills
- Fear of failure

OPPORTUNITIES – Academic and Building

- Improved technology
- Safe and secure environments
- Welcoming classrooms
- Re-branding



- Dual enrollment
- Better facility!
- Advisory
- AP classes
- Civil engagement
- Flexible schedule and learning
- Club offerings
- Student leadership
- Display of student work
- Proximity to BCC
- OST programming
- Career Tech Education (CTE)
- Teachers giving opportunities
- Community partnerships
- School to career
- Parent learning center
- Daycare
- Alternative programming





- Upward bound (BCC)
- Job shadowing
- Internships
- Collaborative spaces
- Social spaces
- Welcoming building
- Community access and integration
- Interdisciplinary
- Student Center
- Engaging community CVTE
- Accommodate clubs
- S of A science labs
- Break down dining – café
- Black box theatre
- Incorporate outdoor environment
- HC accessibility
- 21st Century library

GOALS – Academic and Building

- Crown jewel of City
- Incorporate history/tradition
- Adaptable learning environments
- Alternative pathways
- Personalized learning
- School as "HOME"
- Integrated project-based learning
- Academic/CVTE connectivity
- College and career readiness
- Fostering a participatory environment
- Clear sightlines
- Better organization – hallways
- Multi-lingual signage
- 21st Century CTE (Career Tech)
- Cross-curricular integration
- Increased community partnerships

- Honor past
- Provide stability
- Stable faculty
- Flexible classrooms
- Embrace cultural differences
- Welcoming/Secure entrance
- Engagement (civic opportunities)
- Equipment that works efficiently o Pink bean
- Green building
- Welcoming and inviting
- Rebranding
- Accessibility to ALL
- Convenience
- Student retention
- Safety and security
- Welcoming freshman academy
- Pride
- Stronger connection with UMass Dartmouth
- Worthy of flagship
- Open space
- Distance learning
- Professional development spaces
- Teacher collaboration spaces
- Black box theatre
- Small school feel
- Student run café and coffee (Starbucks)
- Dining space with tech and social/ homework opps.
- Outdoor dining
- Outdoor learning
- Legitimate/Professional campus store, school store
- Location for graduation (nice venue)
- Gym/Wellness access to community
- Garden connection to café (grow it and cook it)

The Educational Working Group (EWG) brainstormed the following list of key academic programs, initiatives and traditions within B.M.C Durfee High School.

English Language Arts (ELA)

- Passionate about stories and storytelling – presentation
- Poetry slam – performance



- Digital portfolios
- Audio
- Videos

English Language Learners (ELL)

- Untold Story
- Newcomers Program
- Students tested and Placed accordingly
- Step by Step approach
- Lots of work to do to get their voices out there.
- "School as a Blank Slate"

Arts

- Inspiring environments
- Home base for students
- Narrative – "Tell a Story"
- K-12 Art Expo (Once a year each spring)
- Technology
- Ramped Up – Google Clickers as an engagement tool

Advanced Placement

- 2D and 3D
- Design class – mini pods/breakout
- Ceramic (strong)
- Painting and drawing

- Sculpture
- K12 arts expo – District-wide in foyer by auditorium

Music

- 4 musical ensembles
- Theater (METG) Awards
- Orchestra, band, chorus
- Partner with UMass Dartmouth
- Host SEMSBA
- Host Fall River All City Band
- Space for blended learning
- Host competitions

Health and Physical Education

- Cohesive, caring, collaborative
- Coaching – connections with students
- Local/Graduates
- Cohesive wellness program
- New Phys. Ed. = Field House – Great but odd structure.
- Health spread out
- Co-teaching and planning is difficult
- APE - ADAPTIVE PHYS. ED.
- More open spaces for others to use
- Upgrade tech
- All share field house
- Wellness Program – Re-branding new building

Career Technical Education (CVTE)

- 11 Programs, 6 Chapter 74
- Some programs developing
- Expertise and passion
- 11 different dept.
- How to adapt to what's going on in field
- Adopt to schedule in school
- Some community internships



- Early education
- Health assisting
- Career and college connections
- Transferable skills
- Shop and related at some time, challenge to provide control and activities
- Internships work best – but challenging
- Opportunities
- More functional spaces
- More accessible and attractive to more students
- College and career partnerships – communities

Social Studies

- Caring, compassionate, creative, and flexible
- Empathetic, idealistic
- Seeking what works
- Excited about collaboration spaces
- Sharing across classes -draw on strengths
- Technology and distance learning
- Language lab
- Plenty of whiteboards



Math

- Young and inexperienced
- Hardworking
- Space for collaboration
- Small group intervention
- SPED nearby
- Lots of whiteboards
- New facility as incentive for new teachers
- Hire and develop solid Math Department
- CRs have ENO BDS – Smart boards would be great

Science

- Some experienced teachers
- Lots of career changers
- Passionate about subject area
- Lots of inquiry and PBL
- Solid department – keep people here
- Equity – technology in lab space
- Good working spaces
- Collaboration, i.e., biotech
- Equity and sustainability
- Blended Learning

21st Century Learning Goals 1.0

The following sets of priority “21st Century Learning Goals” for B.M.C. Durfee High School students were developed by the Educational Working Group (EWG). Six teams of six participants worked to create their own set of Learning Goals, after which each team presented to the larger group. Participants were then given the opportunity to prioritize their top learning goals. Each team’s list has been grouped by like goals, which are listed in order of the priority votes they received, with each learning goal starting with 6 votes (based on their initial selection by each team) and given one additional vote for each red dot that it received from group members during the subsequent larger group priority voting process.

1. Empathy and Caring (71 votes)
 - Cultural Awareness
 - Connect to Others
 - Learning to Live Together
 - Empathy and Play
2. Self-Directed Learning (66 votes)
 - Commitment
 - Agility and Adaptability
 - Adaptability and Risk Taking
 - How Do You Learn?
 - Learn to Know
3. Real World (53 votes)
 - Career Prep

- Application
- High Productivity
- 4. Collaboration (39 votes)
 - Partnership
 - Effective Communication
 - Leadership and Teamwork
 - Inter- and Intra-Disciplinary
- 5. Digital Age Literacy (37 votes)
 - Science and Technology Literacy
 - Visual, Technology and Information Literacy
- 6. Citizenship and Ethics (36 votes)
 - Personal, Social and Civic Responsibility
- 7. Critical Thinking (35 votes)
 - Inventive Thinking
- 8. Symphony (27 votes)
 - Design

Envisioning the Future

Members of the Educational Working Group (EWG) each reflected on the ways in which they would like to see the B.M.C. Durfee High School educational program and school culture evolve as a result of the renovated and/or new school facility. Their reflections are recorded below:

"I would like to see Durfee evolved into a warm, welcoming building that students, teachers, staff, & other adults in the community want to be a part of. Between the physical building to the opportunities that are created in the building, if people all want to be a part of the new building, a whole new life could be created in Fall River."

"I would like BMC Durfee to evolve into an inviting place that is safe and community based."

"Safe, inviting facility with strong community connections."

"Build connections – create a strong school culture, a welcoming community."

"What I would like to see evolve about B.M.C. Durfee High is an advancement in technology, and an overall easier to understand layout." (Nicholas Sousa)

"In the new/renovated Durfee I would like to see more of a connection between all in the building and really a togetherness where everyone has the ability to work together." (Dorothy Barros)

"A more secure building & safe learning environment that incorporates our city and school's history with the current and future of our city!! A welcoming entrance and opportunities for the community to also enjoy our "New" school."

"My hope is that whatever the product of this process, we experience a renaissance of support and belief in our work from the community as a whole. I believe a dark specter looms over this building, created by external entities through the graft and mismanagement



experienced in the construction of our current facility. Without this support, we will remain in the category of "having potential."

"Grow: Increase the number of students enrolled in AP courses. Evolve: Have a stable staff who is excited to come to work. Evolve: School to be open the majority of the day because it is jam packed with academic and social opportunities for students and the community."

"Internship program. Educational plan. Pot Luck. 4-yr. requirement. PLC – common planning time. Intervention space small group – special ed. Hear us. Whiteboards – classroom space for calculators."

Building as an incentive. Inexperienced young hardworking – working to build stability.”

“Internship program. More than one cafeteria.”

“I would like to see that the new Durfee Building is a symbol of our



Durfee Pride, talent, character, and scholarship. The building will house our Durfee spirit; I hope that we the students are supplied with all the tools we need to succeed such as supplies and new innovative ways to learn and apply what we have learned.”

“A variety of spaces such that every person (teachers, students, Admin., etc.) has a place to unwind, focus, be productive, and collaborate.”

“I would love to see that the students begin to take pride in Durfee and where they are in Fall River. Because of all that has happened recently and the disparities that they are living FR that the school bring this community together.”

“One way to see the school evolve...In the purposeful placement and design of each learning space, we will create a school that invites all students to excel in all areas. More collaboration!”

“Changing public perception of the school itself. It would be nice to see kids working behind class. Also, connecting to the community with a community annex of some sorts. This could would be centered around the CTG program & the arts areas.”

“Immerse ourselves in work place needs of tomorrow – Robotics, Biotech, Medical, Business, Education, Engineering, Management (Homeland Security Tech). We become the template of high school education for today’s students.”

“Grow, Evolve or Change – My vision for the new Durfee High School is a welcoming and inclusive environment in which students are able to discover their own learning path and be passionate about pursuing their goals. Having open spaces (library, lounge room, etc.) would allow students to thrive at their own pace around others that are encouraging each other to persevere in their endeavors.”

“I would enjoy to see the new Durfee become a more modern and advanced school that serves the needs of all students. By having collaborative spaces and improved technology around the school, students can have accessible spaces to become innovators.”

“Consistent Faculty so we can build capacity with our teachers & maintain a stable learning environment for our students.”

“I would like to see Durfee evolve within its new facility as a more welcoming and inclusive place which makes education desirable rather than a necessity. A more warm and welcoming aesthetic will improve building perception, and turnout.”

“Would like to see education take a higher priority in Fall River and more pride in learning, school/city wide, rather than the relatively small proportion that really values it now.”

“I would like to see Durfee evolve into a community inclusive environment that allows students to present their ability and knowledge to their city and community. To have a building that welcomes the outside world and isn’t closed off could create a very flexible, comfortable, and productive environment.”

“#1 Priority:

- *Labs w/space to store equipment/*

sinks/safety stations.

- Science labs could be center hubs of School so that we can still share materials but be close to other Departments."

"While I would say that "tolerance" is certainly an evident component of Durfee High School's current culture, I am hopeful that as we transition toward/into a new school building we will become increasingly accepting/inviting of difference."

"Become a destination for families, students, _____??? Sporting events, performance, shows, etc. Outside vendors accessing fields, auditorium for concerts, restaurants for community, coffee shop. All student led."

"I would like to see B.M.C. Durfee H.S. be a building where it is welcoming to students/parents/families/and outside community agencies. We want families to want to send their children to Durfee. Be an established school that holds students to a higher standard."

"I would like to see Durfee evolve into a high performing learning community, where no child is left behind, everyone is held to high standards and the community is proud of its flagship school for its incredible achievements."

"I hope the new school helps us to evolve by offering additional



collaborative spaces for interdisciplinary collaboration and community partnerships. These collaborative spaces if equipped with the right technology and equipment could help support connections across country and world."

"One way....grow; adopt a new mindset around how tech tools can be used in the classroom; embrace shared spaces."

"I would love to see a school that not only promotes college readiness but also embraces voc. and alternate pathways to show 21st Century job skills are possible. A school where every student is shown a successful future pathway, our students and community as well as the incoming middle school students."

"Have more time with our students. I feel that we need better lab space. And that the new building to be better with more lighting."

"I would like to see a new Durfee H.S. bring a new _____??? to this city of Fall River. WHY NOT US!"

"I would like to see Durfee High School evolve to be the high school we can all be proud of!"

"I would like to see the new Durfee become a positive place for students & staff to feel comfortable in. I would like to see more opportunities for Special Ed. students to be included w/in the main stream."



"I would like to see Durfee evolve into a 21st Century version of the school's past. A place where everyone has the opportunity, sees the opportunity, and takes advantage of those opportunities."

"What is one way you would like to see school grow, evolve, and change? Stability of staff that want to come to work and become



a Durfee "lifer".

"In a new facility, I would like to see a rectangle with an open middle that serves as a cafeteria/patio space where students are able to interact in a study period or for lunch. Also, a more inclusive freshman academy that warms 1st years up for the rest of their high school careers. Additionally, a connected arts program with the rest of the school & community (BCC & other children and students)." (Kalil)

"What is one way I would like to see the school grow as a community? This is our opportunity to re-define who we are as DHS. This is our time to create our future, purposefully, to address our challenges through the process and rebrand ourselves as the flagship institution within our surrounding communities."

"One way in which I would like to see the new B.M.C. Durfee High School evolve is through its reputation. Durfee's reputation is often in the dark, and I would like the school to be one in which the students, faculty, and community take pride in." (Jensen Riley, Sophomore)

"I would like to see the new building be a trademark for the future. I would also like to see the building be made adaptive, able to be built on for the future and any needs we find in the future. Not to be limited to one thing physically."

"Taking pride in a building is such an important aspect in investing in a community. Technology, spacing, and 21st Century skills are all foundational blocks of a new Durfee, however, a building that people, staff, students can take pride in (and create a ripple effect, a tipping point that will revolutionize the district and the forward trajectory we're heading). "Why not us?!"

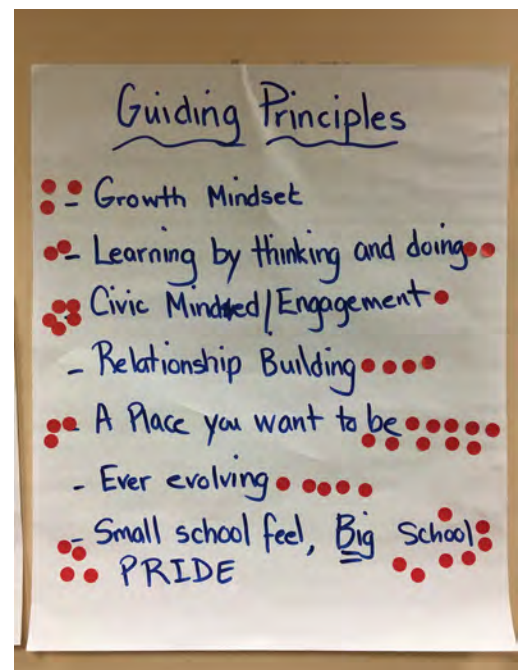
"I would like to see a school that offers students the opportunity to become owners of their education and create professional, high quality work that utilizes technology. I would like to see a school that becomes the center of a community, welcoming students and allowing them to have pride in their city and their education."

"More spacious athletic department (locker rooms), new technology B.M.C. Durfee."

SESSION 2 – January 31, 2017

Agenda

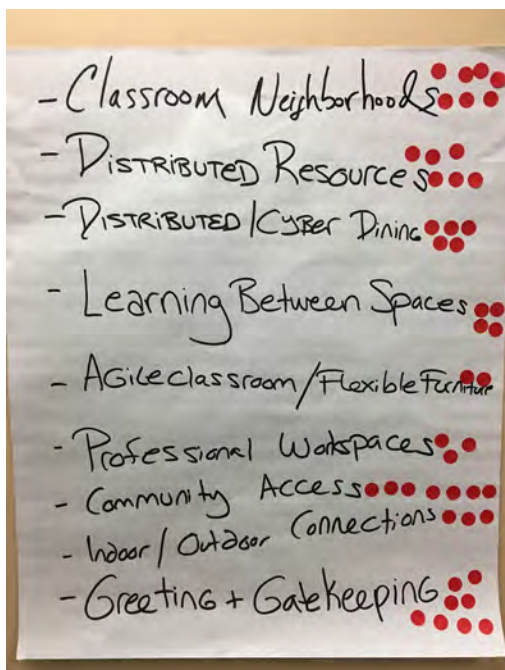
1. Introductions and Agenda Review
2. Review of Workshop One Findings:
 - Priority Goals: Review, Reflection and Tuning
 - b. Concerns



3. Guiding Principles for Design
 - Presentation
 - Individual Writing Prompt
 - Large Group Brainstorm
4. Key Spaces
 - Individual Writing Prompt
 - Group Debrief and Recording
5. Bubble Diagramming Review & Activity

Reviewing and Tuning of Priority Goals:

The following set of priority "Priority Design Patterns" for the design of the renovated and/or new BMC Durfee High School was developed by the Educational Working Group (EWG). Six teams of six participants each worked to create their own set of priority Design Patterns, after which each team presented to the larger group. Individual participants were then given the opportunity to further prioritize their top six Design Patterns. These are listed below in order of the number of votes they received, with each Design Pattern given seven points for each time it appeared on one of the original team lists, and one additional point for each priority vote it received.



1. Classroom Neighborhoods (60 votes)
 - Teacher Teaming
 - Synergetic Connections
 - Freshman Academy
 - Small Learning Communities



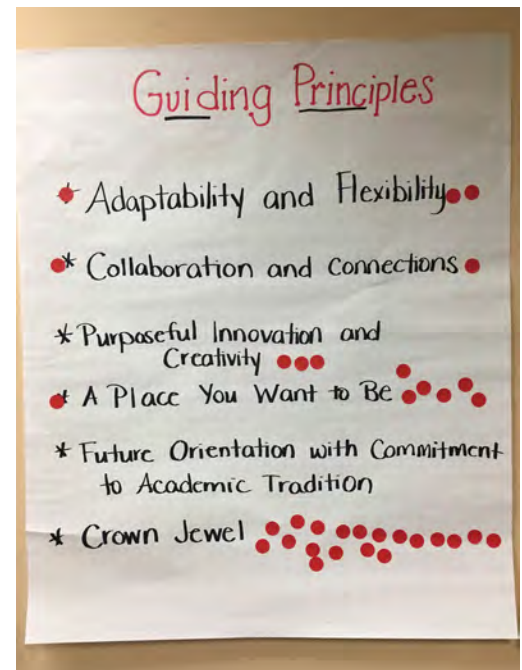
2. Distributed Dining (60 votes)
 - Cyber Dining
 - Cafeteria Redesign
 - Central Hub and Servery
 - Multiple Uses
3. Greeting and Gatekeeping (57 votes)
 - Welcoming Entryway
 - Multiple Entries and Convenient Parking
 - Artwork Displayed
4. Varied Spaces (54 votes)
 - Collaborative Spaces
 - Resource Spaces/Breakout Rooms
 - Spaces for Teachers and Students
 - Multi-Purpose Spaces
 - Pull-Out Spaces
 - Relaxing Spaces
5. Indoor/Outdoor Connections (50 votes)
 - Outdoor Spaces
 - Outdoor Access
 - Amphitheater
6. Branding and Identity (34 votes)
 - Purposeful Design
 - Smaller School Feel



7. Visible Learning and Transparency (32 votes)
 - Windows into Learning Spaces
8. Agile Classrooms (30 votes)
 - Flexible Furniture
9. Teacher Spaces (26 votes)
 - Professional Work Spaces
 - Private Spaces for Teachers
 - Proximity to Classrooms
10. Seamless Technology (25 votes)
11. Ubiquitous Learning (24 votes)
 - Between Spaces
 - Hallway Commons Areas Possible Practice Rooms and Small Group



12. Community Access (21 votes)
13. Research Center (13votes)
14. Collaborative Maker Spaces (12 votes)
 - Garage/Glass Door
15. Distributed Resources (12 votes)
16. Media Center / Learning Commons (12 votes)
17. Display and Exhibition (9 votes)

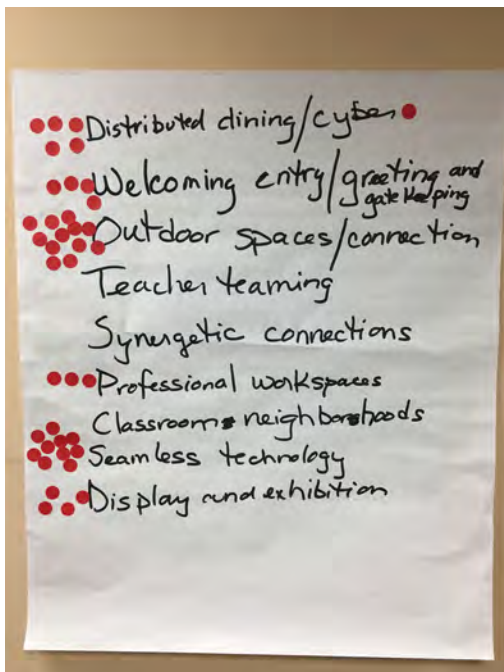


18. Building as Teacher (7 votes)
 - Reggio Emilia Philosophy
19. More Traditional Classrooms (7 votes)

DRAFT Guiding Design Principles 1.0

The following set of DRAFT "Guiding Design Principles 1.0" for design of the new and/or renovated B.M.C. Durfee High School was developed by the Educational Working Group (EWG) during the Educational Visioning Workshop that took place on January 31, 2017. Seven teams of six participants

worked to create their own listings of Guiding Design Principles, after which each team presented to the larger group. Team lists were then displayed in a gallery format and participants were given the opportunity to vote for their top six priority Guiding Design Principles. These are listed below in order of the number of priority votes they received, with each Guiding Design Principle given six base points for appearing on one of the original team lists, and each subsequent priority vote given one point. Guiding



2. Small School Feel, Large School Pride (95 votes)
 - Collaboration and Connections
 - Personalization, Connection and Ownership
 - Timeless and Classical Program Elements
 - Small School Support
3. Real World Connections (83 votes)
 - Civic Engagement and Community Responsibility
 - Connections to 21st Century Skills
 - High Expectations and Accountability
 - Learning by Thinking and Doing
 - Growth Mindset
4. Personalized Learning (70 votes)
 - Relationship Building
 - Student, Teacher, Parent, School Community
 - Empathic Engagement

Design Principles offer a framework of educational priorities that prove invaluable in helping stakeholders and design team members to set design goals and focus their work. This first iteration of Guiding Principles may continue to develop as the design process unfolds.

1. A Place You Want to Be (109 votes)
 - Flagship School
 - Future Orientation with Commitment to Tradition
 - Crown Jewel





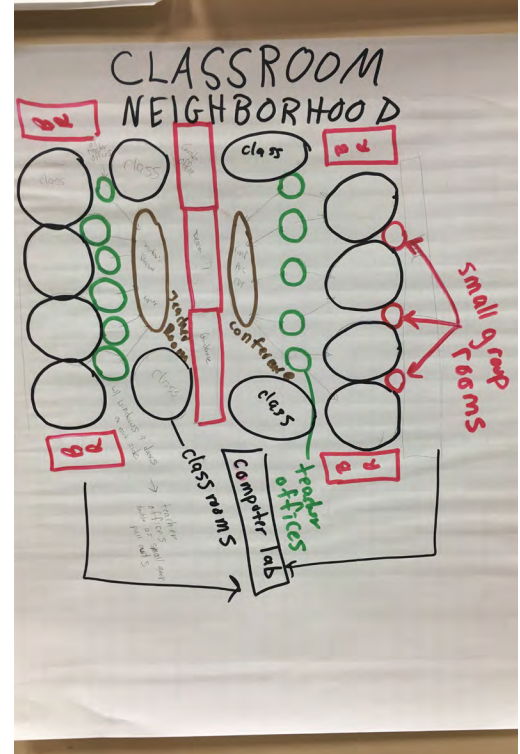
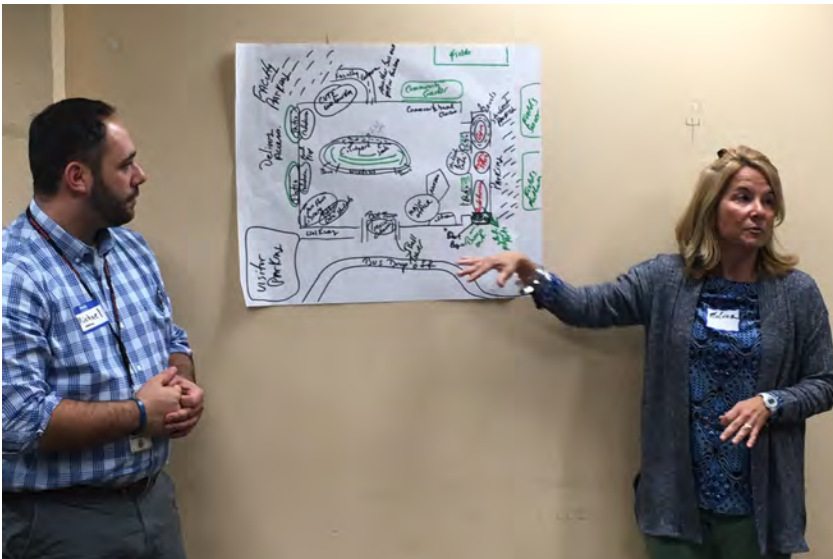
- Ever Evolving
- Adaptability and Flexibility

- Purposeful Innovation and Creativity (52 votes)
 - Explore, Create, Learn
 - Fun!
- School as Community Resource (44 votes)
- Outdoor Connections (15 votes)

SESSION 3 – February 28, 2017

Agenda

- Introductions and Agenda Review
- Review of Workshop Two Findings:
 - Guiding Principles for Design: Review, Reflection and Tuning
- Key Spaces



- Individual Writing Prompt
 - Group Debrief and Recording
- Blue Sky Ideas
 - Bubble Diagramming Review & Activity

DRAFT Guiding Design Principles 2.0

The following set of "Guiding Design Principles 2.0" for design of the new and/or renovated B.M.C. Durfee High School was developed by the Educational Working Group (EWG) during the Educational Visioning Workshop that took place on February 28, 2017. The group discussed, evaluated and expanded their thoughts related to the initial list of Guiding Design Principles. The results are as follows:

- A Place You Want to Be
 - Flagship School
 - Future Orientation with Commitment to Tradition
 - Crown Jewel
 - Comfort
 - Dream house
 - Beauty
 - Light and open
 - Outdoor areas – track



- "At home"
 - "Extra" spaces – make them feel more than school
 - Sunrise/set
2. Small School Feel, Large School Pride
 - Collaboration and Connections
 - Personalization, Connection and Ownership
 - Timeless and Classical Program Elements
 - Small School Support
 3. Real World Connections
 - Civic Engagement and Community Responsibility
 - Connections to 21st Century Skills
 - High Expectations and Accountability
 - Learning by Thinking and Doing
 - Growth Mindset
 4. Personalized Learning
 - Relationship Building
 - Student, Teacher, Parent,



- School Community
 - Empathic Engagement
 - Ever Evolving
 - Adaptability and Flexibility
- 5. Purposeful Innovation and Creativity
 - Explore, Create, Learn
 - Fun!
- 6. School as Community Resource
- 7. Outdoor Connections

The following Key Spaces and Adjacencies for the new and/or renovated Durfee B.M.C. High School were brainstormed by individual participants during Workshop Three.

KEY SPACES & ADJACENCIES (Group Discussion)





Main Office

- At entry
- Professional – reception
- Leadership/Admin.
- Separate waiting --> Guidance Offices
- Multi-conf. rooms – varied sizes
- Visitors don't need to go in school.
- Integrate history/future.

Main Entry

- Display cases/time capsule
- TV screens
- Photos
- Comfy waiting area
- People can see from street – main entry
- Bold – (i.e., Isabella Stuart Garage)
- Curb appeal
- Memorabilia
- Multi-lingual
- Prep rallies
- Reflects diversity
- Hall with flags

Special Ed/Pull Out

- Flex seating
- Yoga balls
- Sensory stuff
- Windows
- Can be blacked out
- Adjustable lighting
- 3-D projector

Sub Separate Special Ed

- Separate therapy area

- Changing areas/hygiene
- Sensory area
- Seating come out from wall
- Vibrant colors
- White board
- Functional lab spaces with hoods
- Specialized
- Space for plants and animals
- Storage cabinets
- Place to show of experiments

Maker Space for Science

- Industry lab

Maker Space/Biotech

- Industry standards
- State of the art safety area
- Go outside – nature walks/hikes

Café

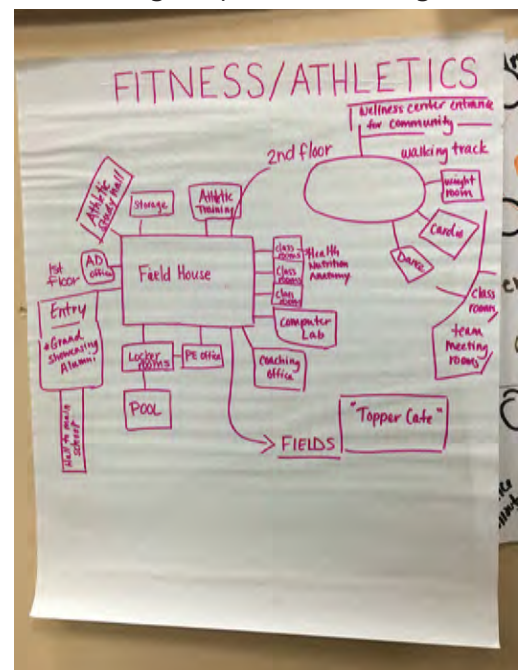
- Accessible to students
- Near library
- Go outside of school hours
- Culinary Program runs it

Quiet area as part of library.

KEY SPACES & ADJACENCIES **(Comment Cards)**

Library:

- Reading space with garden/



courtyard feel

- Bean bags and couches = comfort vibe
- Charging stations and Apple technology one to one ratio to whoever is in the Library
- Cafe in the Library (Starbucks)
- Students can get hired
- (See drawing on card.)

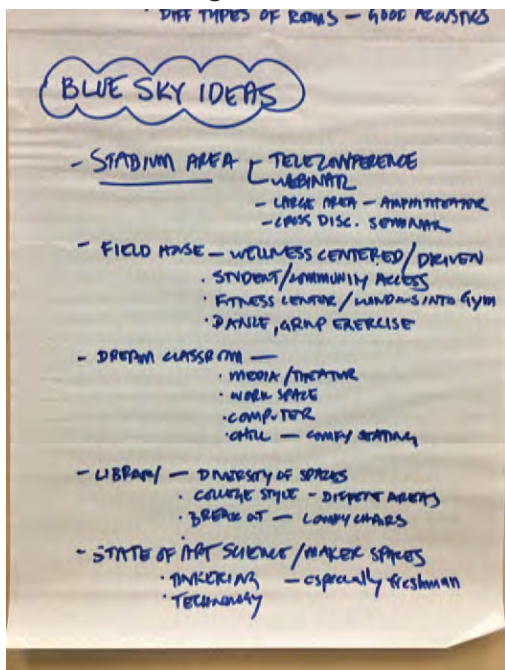
Science Rooms:

- Functional lab spaces – hoods!
- Biochem spaces/equipment
- Space for plants/animals in the room
- Cabinets/storage so kids don't get into equipment
- Place to show off experiments
- Close to outdoor spaces to go on adventures!

Key Space:

- High top tables
- Bose speakers
- Tropical colors
- Patio
- Wall of sliding doors
- Student artwork and pottery
- "Durfee remembers the past building for the future."

Teacher Planning Area:



- Multiple teacher areas for:
 - Individual areas for planning quietly
 - Collaboration area
- PLC – Collaboration area with interactive whiteboard/projector
- Technology
- Areas to meet with parents and students

Biotech Lab:

- Big screen/interactive/networked to pull in community
- Lab quality equipment – electrophoresis, thermocycler, waterbaths, etc.
- Stations set up like industry
- Safety area that is state of the art
- Design area with benches for planning
- Computers for research
- HOOPS1
- Refrigerators for bacteria and enzymes

PLC Room:

- Couches with smartboard and pillow with hard side to write on – all laptops, TV, surround sound, speakers, music, ability to communicate via video conferencing, whiteboard calendar, whiteboards, mats to sit on floor, with smaller offices to break into groups

Teachers' Room:

- Technology in common area
- Bathroom off of common area (state of the art)
- Common area with round tables, comfortable seats. Common area will be used for CPT Meetings or eating.
- Mini-kitchen for Teachers' Room (refrigerator, stove, sink). Storage for dishes, etc. Capacino machine
- Book shelves
- Copy machine off of common area
- Private offices (spaces) with doors for teachers to do work.



- Comfy chairs
- Mailboxes

Main Office at Main Entrance:

- Professional presentation – Receptionist
- Houses key leadership – Principal, AP, SPED Reg.
- Reception/waiting area in glass room
- Multiple conference rooms (one large)
- Integrate elements of school's history and city's history
- Space to allow for dispersed administrators to access for meetings
- Keeping outside traffic confined to minimize disruption

Small Group/Special Education Pull Out Rooms:

- Relaxing manipulatives/yoga ball, stress balls
- Flexible areas – bean bags or table/chairs
- Chalkboards and whiteboards
- Lighting that can change color to affect mood
- Close proximity in each community
- 3-D projector to show real life visuals
- Round room/sliding door
- Lots of windows with blinds (built-in) – social/emotional

Keyspace:

- This space would also include classrooms for Health, Anatomy, and Nutrition classes.
- It would also be easily accessible to the outdoor facilities and near the café so that nutrition classes could cook.
- There would also be a separate entrance/hallway so people do not walk through the gym itself.
- The pool would also be updated with equipment and easy access to locker rooms.

Café:

- Space near library

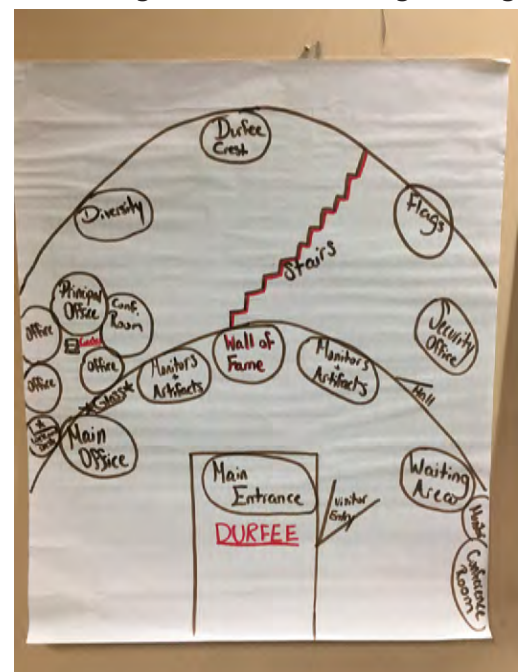
- Accessible from outside (community)
- Tables, comfy chairs – students use before/after school, free periods
- Students do work, play games, research
- Food run by culinary
- Groups meet up to work!!!
- Whiteboards for groups, math students
- Charging stations – technology

Art Room(s):

- An art space that has a window wall overlooking the possible garden of just the community.
- The rooms are open and spacious with high ceilings and skylights.
- The rooms have a solid amount of cabinet/storage space.
- They also have a theatre/lecture area for a space to critique and demonstrate.
- (See drawing on card.)

Key Space:

- Full TV Studio with easy access to lighting
- Instructional area (separate room)
- Separate editing area or "suite"
- A newsroom feel; classroom, editing suites, tech/engineering



overlooking the studio

Special Ed. Sub. Sep. Area:

- Clean hygienic changing area for students
- Sensory area with resources appropriate for disabilities
- OT, PT have separate areas to use
- Proper, functional changing tables, noyer chairs, mats

Cafeteria:

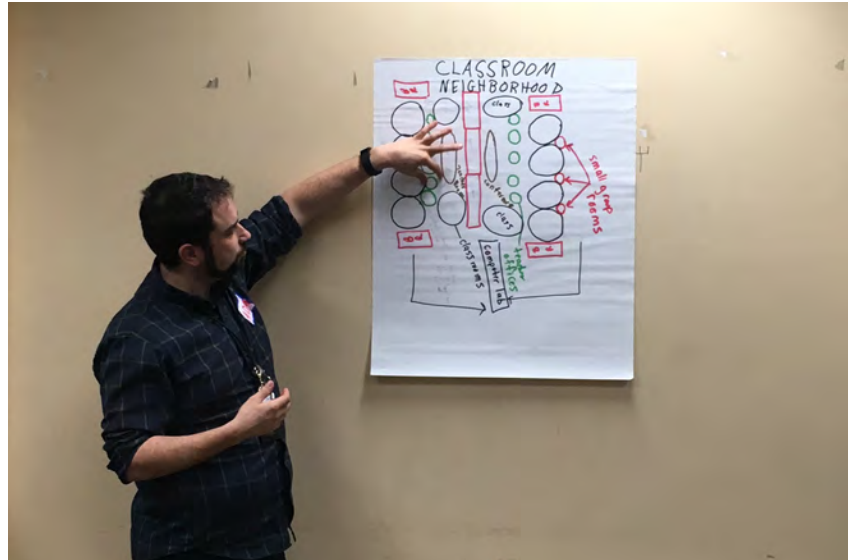
- Windows surround all walls and it looks out to beautiful location (field, etc.).
- There are various choice options which are more rooms, not lines.
- A huge salad bar is focal point.
- There is a student made area (voc... garden)
- Counters to eat and for students to work on devices
- Cyber-café feel in smaller cafeteria option
- Outdoor dining options
- Can be used as common space during day
- (Written sideways: Classroom Neighborhood)

Library:

- Levels
- Bottom Floor – Comfortable and quiet
- Upper Floor – Break-out rooms
 - o Balcony
 - o Technology labs
- Bringing in history, grandeur and modern twist
- Work spaces and collaboration spaces
- Big windows/outdoor access

Main Entrance:

- The main entrance should be the most accessible and the largest entrance. The entrance should be bright, vibrant, and welcoming. There should be a large and visible logo for Durfee High.



Classroom:

- Windows that are able to be opened
- Not a lot of distractions from the outside
- Easily-movable desks and furniture
- Enough security on doors and windows

Special Ed. Room is definitely my main focus:

- Individual rooms for teachers
- My senior students have to share a room with sophomore students which can be frustrating because it is cluttered with classwork and student work unrelated and visually distracting/overwhelming.
- Needed resources for different disability

Outdoor Connections:

- Solar parking structures providing pathways to entrance ways
- Easy access parking using LED embedded road materials leading to walkway surrounding school perimeter with water





elements (waterfalls leading to outdoor amphitheater and outside patio seating spaces with small wind turbines)

Key Space:

- Front door that have people know where to enter
- Have ID's that open doors



The Grand Entrance:

- The grand entrance would be a grand entrance incorporating the CTE Programs with inviting store-front type spaces.

Key Space:

- Room in the multi-media center dedicated to guidance, where students can go to research colleges on the computers, hear from college admission reps., military, and or business people from community to hear about career paths, and meet with counselors (guidance) and teachers to work on college

applications/college essays.

Entry Way:

- Welcoming entry way
- Main office very open and visible
- Reception area and waiting area
- Security office visible and accessible
- Photographs of students
- Memorabilia of "old" Durfee
- Large front door and smaller doors as well
- Television broadcasting film/FRED-TV work by students
- Little chairs and tables to hang out in the morning, for parents to wait
- Outlets and coffee areas (Keurig Makers)

Hallways:

- Include murals that reflect who we are, depict Durfee pride
- Touches of red/black but not overpowering
- Artwork, hall of fame

Entrance to Building:

- Community feel
- Hall of fame/murals
- Lounge space – with technology
- Bright with windows
- CUTE/Auditorium etc. close to main

Media Center/Docking Station/Fill Up Station (Swipe a card for a snack [healthy])

- A place to plug in
- Re-charge your devices and your mind/body
- Fill stations for water!!!! all over the building
- Comfy sitting
- TVs
- Access to media, listen to music
- People are reading/working
- Magnetic poetry
- Multilingual need to welcome ELL students; outside ELA classrooms
- Chalkboard paint?
- Smoothie station in the dining area

Coffee Shop:

- Connected to field house and outside.
- Student run
- Open for sports events, etc.

Furniture Built into Walls

- Imaging color color pull out furniture to make quick meeting space or class seating
- Ability to control lights
- Heights of ceiling vary
- Classroom normal ceiling
- Tech area specified to tech

Key Space:

- Learning community are return often
- Historical impact areas of past
- Use floors to accent vibrant colors, floor cubs that can showcase student work, art, sculptures, poetry, etc.



Science Labs:

- Large Area
- Flexible/movable lab tables (nothing bolted in floor) wheels?? –



may be height changing

- Multiple sinks with hot/cold water
- Multiple walls with whiteboards
- Significant storage space and adjacent room for larger equipment
- Gas hookups at each station, and hoods
- Electrical power supplies built into walls (0-20 V) with analog dials, all outlets controlled by switchboard in classroom. Separate breakers for classroom.
- Can make into dark room (blackout shades)
- Ice machine/large freezer (in room or storage room)/mini fridge

The following Blue Sky Ideas for the design of the new and/or renovated Durfee B.M.C. High School were brainstormed by the Educational Working Group during Workshop Three.

BLUE SKY IDEAS (Large Group Brainstorming)

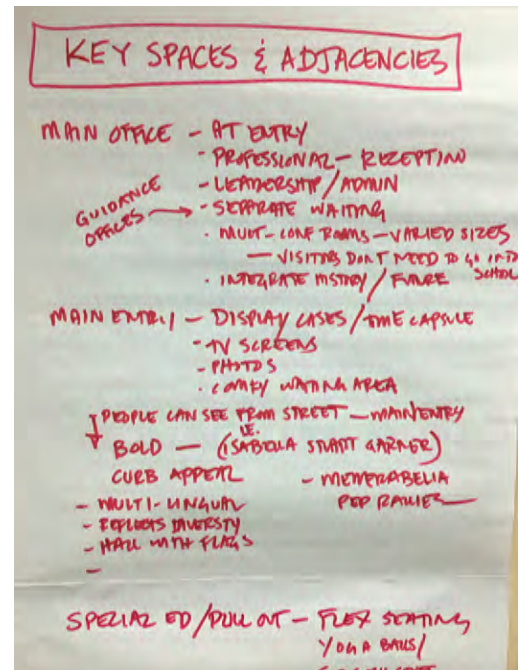
- Stadium area
 - Teleconference
 - Webinar
 - Large area – amphitheater
 - Cross disc. seminar
- Field House
 - Wellness centered/driven
 - Student/community access
 - Fitness center/windows into gym
 - Dance, group exercise
- Dream classroom
 - Media/theater
 - Work space
 - Computer
 - Chill – comfy seating

- Library
 - Diversity of spaces
 - College style – different areas
 - Break out – comfy chairs



- State of the art science/ Maker Spaces
 - Tinkering – especially freshman
 - Technology
- Library
 - Mult. Outlets
 - Sections
 - Student artwork – showcase
 - Technology!!
 - Classic books
- Café attached
 - Barnes & Noble – like
 - Outdoor component
 - Kids run café
- Greenhouse Expanded to community garden
 - Give back to community
 - Farmer's market
- Amphitheater
 - Community access
 - Graduation/concerts
 - Outdoor classroom
- Artwork spaces – connected visually to outdoors
 - Bigger spaces to work
 - Raised spaces
 - Sliding door windows

- Grand/functional entrance
 - Easy way finding
 - Diff. types of rooms – good acoustics
 - Community mall
 - Honor past and present – we are Durfee
 - Tech screen boards for classrooms
- Roof – science gardens
- Escalators
- Slide
- Retractable Roof – football field in center
- Observatory – replicates look of original school
- Marble
- Aquarium wall
- Movie theater – FRED TV
- Waterfall
- No TNLH faucets
- Less commercial finishes, non-institutional
- Net zero building



- Bose sound throughout
- Compost facilities
- Nice planetarium
- Biodome

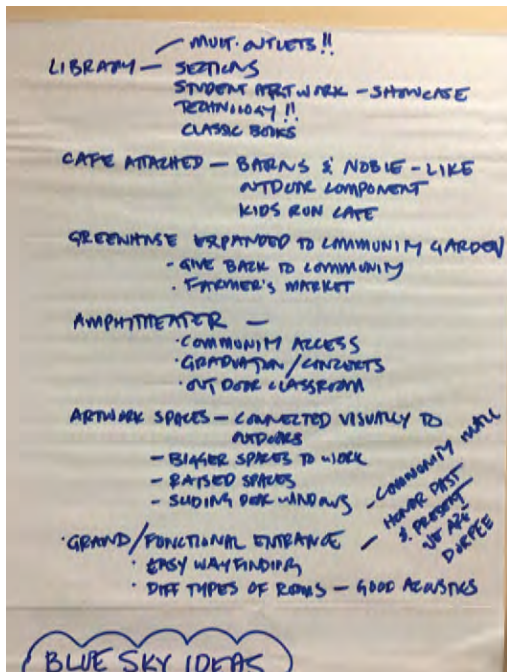
BLUE SKY IDEA (Comment Cards)

Large Entertainment

- Expanded libraries and increased gym space
- Increased entertainment, the color may surround with bright colors to encourage joy within the room.
- There might be skylights and open windows to allow light and fresh air to enter the room.
- The areas may be near each other to allow the entire community to contribute to the primary area.
- Create a stadium feel.

Blue Sky Ideas:

- Big size, open space
- Maybe circular or octagonal
- Should be close to community and vice versa
- Flow! Feng Shui!
- Students/teachers/community in harmony.
- open/comfortable furniture –



Skylights!

- Neutral yet calming colors that can change with/times
- Maker Spaces/state of the art labs and performing arts

- Seamless tech in all classrooms – that works!!!
- Space For students to hang out.

Blue Sky Ideas:

- Teleconference stadium for big lectures, webinars, seminars



- Big screens in all rooms
- Café with GOOD coffee
- Lots of windows/natural light
- A comfortable furniture with flexibility
- Maker Spaces – café feel
- Lounge spaces for students/staff
- Private office spaces for teachers to plan and meet with families
- Wireless/seamless technology
- Welcoming teachers room

Blue Sky Ideas:

- Office space with a "cool" café attached
- Television/speakers ceiling
- Ceiling fan
- Conference table
- Comfy seats
- Tropical colors/bright/vibrant
- Pergo flooring
- Natural sunlight!!!!

Blue Sky Ideas (?):

- Basically full entertainment systems in office and classrooms
- Comfortable furniture
- Full kitchen, dishwasher and stove
- Charging stations – calculator, Chromebook, iPad, iPhone, compatible

Blue Sky Ideas:

- Track/walkway around the building

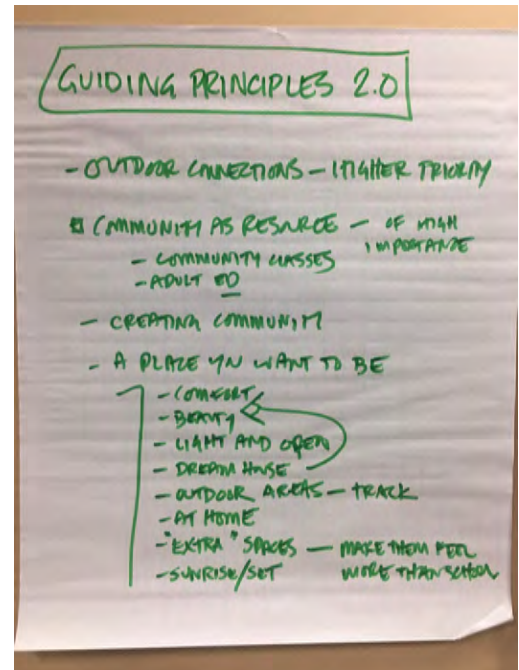
- Lots of technology
- Classroom/computer lab
- Calculator charging stations
- Computer lab: 25 stations that has room for computer and space for students to write. Not all stations against walls so that more whiteboards can be mounted.
- Comfortable flooring
- Teacher station on computer: program to be able to see what students are doing on their computers.
- Eno board, light, blue walls, cupboards to store materials
- Off of lab, space for students to collaborate
- Plants

Blue Sky Ideas:

- Wooden doors (not institutional)
- Colors everywhere (no beige)
- Natural elements – silver doorknobs, wooden trim, cork flooring
- Drop down, electric computer screen, projectors
- Sturdy (not ugly) moveable desks
- Skylights with electric shades
- Sliding chalkboards
- Natural lighting (no fluorescent)
- Rooms (all classes) have reading nooks
- Color copiers in every room

Blue Sky Ideas: Field House/Wellness Area:

- I picture a large field house with a track and retractable bleachers. This field house would include an overlooking track as well. There would also be a large supply closet for PE/Sports equipment. At one end of the field house, glass windows looking into a state of the art wellness center with treadmills and other cardio equipment. Also, a weight room! On each side, locker rooms with showers and bathrooms. Also, an office with enough room for 3 teachers to each have



a desk and workspace. Finally, a dance room with mirrors and fitness equipment for group classes.

Blue Sky Ideas – Library:

- Circular room, with couches and chairs that are comfortable for students to be able to sit in.
- All windowed walls and ceilings to get the feel of the weather outside (can be blocked off when distracting).
- Large assortment of books on every subject, good wi-fi for students to access and work
- Places to charge devices
- Easy access to outside, more available seating with greenery and comfort.
- Colorful, bright, artwork

Blue Sky Ideas:

- Wrap around building: no dead ends, the school may loop around in a circle so that it continuously flows and it's easier to navigate (see drawing on card).
- Top floor classrooms with skylights: let in more light – feels more open/inviting.
- Pods in hallway for student "breakout" spaces: a dip in the wall

that has a cushion seat for places to relax, possibly near a window. (See picture on card.)

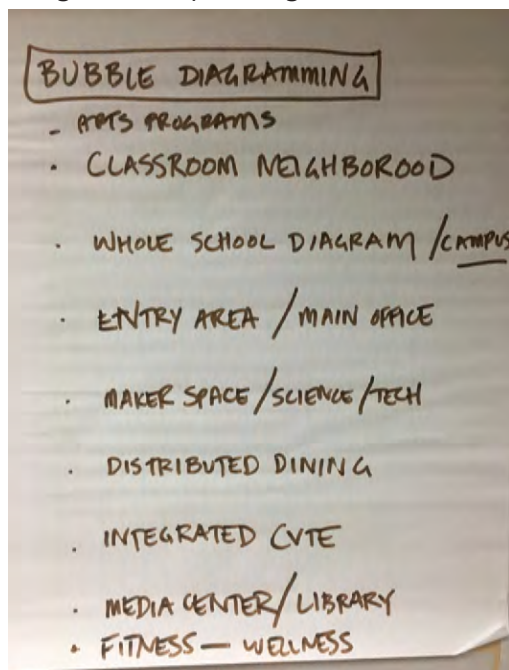
- Art studios with easel desks and proper work stations and cabinet space.
- Also more area to display artwork with theater area for lessons/demonstrations.

Blue Sky Ideas:

- The Media Arts/Visual Arts Program would be an area that brings the Arts together. A working professional TV studio for the continued success of the program. It would contain a "viewing room" with a theatre feel to it. There, TV could use it for film studies, watching student work, theatre could use the space for smaller productions or used as a "black box". It would have its own access to outside, making moving equipment in and out of the building easier,

Blue Sky Idea:

- Outdoor basketball courts
- Roof top track
- Outdoor garden area where special needs students can help grow "simple" vegetables – or be



included with peers.

- Outdoor area for theater plays, productions, movies.

Blue Sky Idea:

- If the sky was the limit, my classroom would have tons of natural lighting, no fluorescent lights at all. There would be no desks but various alternate seating options, couches, lounge chairs, standing desks, etc. There would be built in technology for all students and a smart cam for me. There would be hard floors with plus throw rugs. Storage would be more Ikea than Durfee.

Blue Sky Idea:

- Durfee High School
- Landscaping that is appealing from street.
- Beautiful building (aesthetically pleasing).
- Ample parking
- Welcoming area as you enter
- Greeted by people (security) (attractive people)
- Warm inviting classrooms
- Flexible furniture (options for classroom design)
- Dining area similar to colleges with cyber dining and outdoor dining
- Green space for students and community
- Common area for clubs or events
- Media Center useful for classes to Skype or conference seminars, webinar (distance learning)

Blue Sky Idea:

- Outdoor performance area
- Feng Shui/"Zennish" gardens/landscaping
- Brings in natural elements with equipped technology, screen/sound system/lighting
- Utilized for clubs, activities, teaching and learning.
- Access in courtyard or close proximity to school.



Blue Sky Idea:

- Library Area
- A large open space with different areas with different sound limits (areas for no speaking, areas specifically for free periods)
- Spaces with technology (TVs as well)
- Space for eating available at all times.

Blue Sky Idea:

- Sewing Machine Room – for fashion classes
- Free area – for kids to hang out in before and after school
- Free outdoor area – for kids to hang out in before and after school
- Movie theatre area – for kids in media/TV classes and for kids who have free periods
- Study hall – for kids who have free periods

Blue Sky Idea:



- Large windows to the outdoors
- Something that has the same appeal as like the Marble House/Breakers in Newport. That light marble façade so its bright.
- A classroom for everyone – comfy chairs too!
- Roof deck with picnic tables.
- Resourced classes for the moderate SPED population, i.e., swivel board under desks for ADHD student; de-stress area for students with anxiety, etc.
- Bathrooms that are nice! Stalls that are like little rooms; floor to ceiling door and wall and touchless sinks/hand dryer – not cement floor and cinderblock walls that eventually small like sewerage.

Blue Sky Idea:

- Engineering Lab - Maker Space large room, round or at least no sharp edges- as much natural light as possible – a safe space
- Movable tables and chairs to adjust to projects – to work as individuals or in groups
- All walls are writable either glass (plexi) or white board space – access to outdoors, garage doors
- Enough storage space for all equipment, in and outside to be stored but easily reachable.
- To be able to combine mechanical, electrical, and computer (programming) equipment to come up with ideas that are uncommon/out of box.

Blue Sky Idea:

- My space would have all new machines, lots of room to work, and would love to see all the students with the Lates Chorus Book to help them and us as teachers, to help them with their school work. And have large window and doors that could open to fresh air into our classes.

Blue Sky Idea:

- I can envision an open mall type area that would be the community entrance to the school, CUTE, auditorium, gym. This area would look and function like the mall areas popular on cruise ships where there are build-in work areas, sitting areas, lots of light and acoustics.

Blue Sky Idea: Multi-Media Center:

- The multi-media center would be located in middle of building. It would be circular in size with high ceilings to allow natural lighting. There would be comfy chairs in middle in center spread out to allow students to gather and relax. There would also be small rooms closed off with Tables to allow discussion groups. One other feature would be computer rooms where students would do research.

Blue Sky Idea:

- Have the football field in the center of the entire school along with the sports that fit there
- Possibly the top like the original Durfee/clock tower -->(snow runoff)
- Football games are what bring the community out/inside Durfee together so make it the center of the school
- Main gateway go through to field, community sees school on way to game, sees what Durfee is up to and what is going on along with student work. Colorful and inviting entryway.
- See drawing on card.

Blue Sky Idea:

- The entrance needs to be large enough to accommodate an environment where we honor the past as well as the present and future. The entrance will "honor" the past with artifacts such as a "hall of fame" for alum.



- Multi-level – lots of glass so that it is the center.
- Welcoming area for visitors with waiting area that allows multi-lingual signs, reflects diversity of our community.

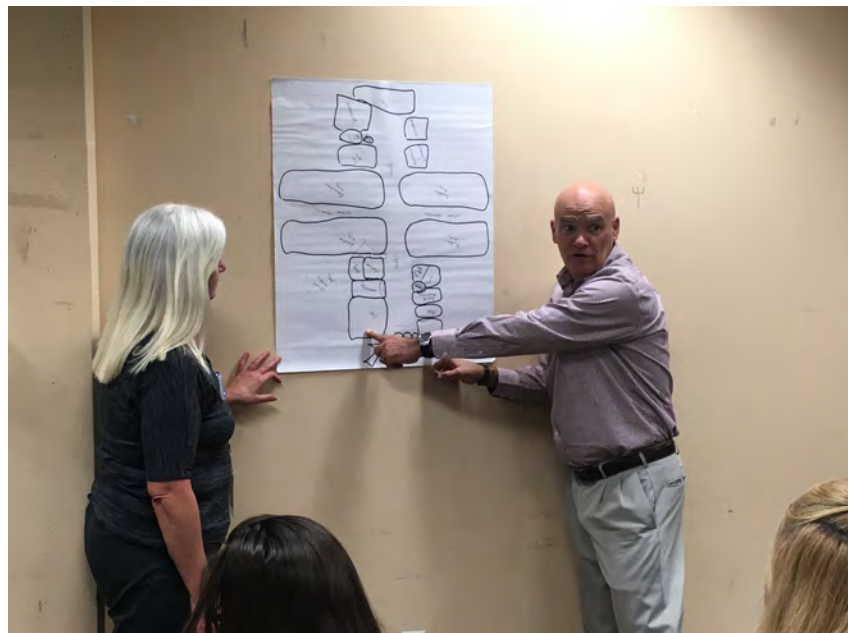
Blue Sky Idea:

- Main entrance – honoring the past and future.
- Also, designing the shared spaces around the main entrance.
- Wellness Center for counseling, nursing, etc.

Blue Sky Idea:

- Project photo booth in Principal's area/main office
- Display connected to all TVs in the building, website
- Recording studio
- Separate area

Blue Sky Idea:



- Offices with great views
- Meeting spaces that are attractive so when parent, community and students visit, they are in awe.
- All window glass ceiling to floor overlooking football field, city, water, etc.
- Roof deck with tables, meeting, eating areas.

Blue Sky Ideas:

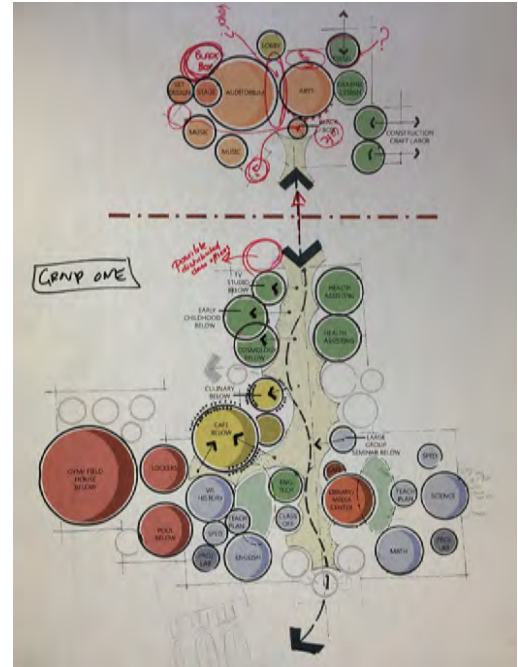
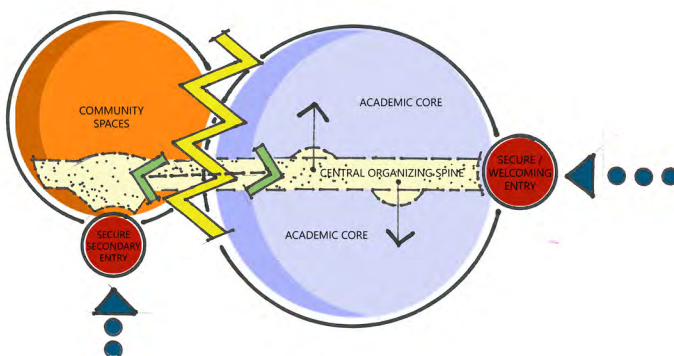
- Water falls – Fall River originally with in structure has many flowing water falls where I95 was constructed.
- Furniture built into walls
- Need a quick meeting space
- Flow part of class into hallways pull block of furniture out of walls
- Vibrant colors to accept natural light
- Windows that open
- Utilize history of Fall River through building.

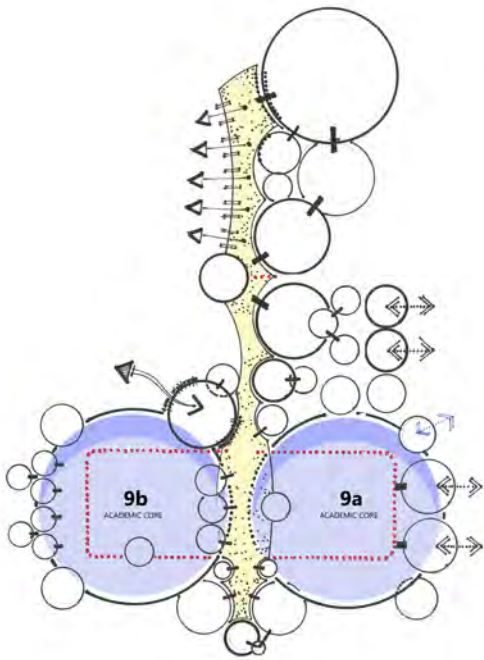
Blue Sky Idea:

- Large electronic sign outside the school!
- Be able to put daily announcements, and even notify the public about what's going on.
- Room with couches and a huge projector screen that teachers can rent out to show movies, or even to have a film studies class!
- A small reading room which could be used to hold economic and finance classes in the school.

Blue Sky Idea:

- Small pockets off the beaten path (alcove) with comfy chairs and space to relax, read, hang before/after school. These could also be used by teachers for small group work.
- Large Maker space with everything you would need.
- Small white board rooms for small group study (4-6 persons). Glass walls to be able to see in (whiteboard on other walls).
- Maybe a few of these (probably in the library area). Teachers could send responsible students to work.





and provide direct feedback related to the design team's initial key adjacency bubble diagrams. The resultant feedback was very productive and positive.

reviewed the individual key spaces & adjacency diagrams produced by the group during the February 28, 2017 workshop. The group discussed, evaluated and expanded their thoughts related to the diagrams, which included:

1. Performing Arts
2. Entry Area
3. Classroom Neighborhood
4. Athletics Program
5. Outdoor Spaces
6. Whole School
7. Media Center
8. Science Lab clusters

Following review of the working group's key spaces diagrams, the design team shared a series of initial whole building bubble diagrams and images to solicit feedback from the group. The diagrams incorporated the Guiding Principles for Design along with many of the key design concepts discussed during previous visioning sessions and incorporated within the staff's diagrams. After a short presentation, the group was divided into three smaller teams to review the bubble diagrams



Initial Space Summary

4/12/2017

4/12/2017

BMC Durfee High School			Existing Conditions	
ROOM TYPE			ROOM NTA	# OF RMS area totals
SCORE ACADEMIC SPACES				113,857
(List classrooms of different sizes separately)				
Classroom - General				
English	1,023	1	1,023	
English	1,248	1	1,248	
English	1,818	1	1,818	
English	422	1	422	
English	820	4	3,280	
English	828	2	1,656	
English	844	4	3,376	
English	646	2	1,292	
English	858	1	858	
English	705	1	705	
English	698	1	698	
English	704	1	704	
English	858	1	858	
English	858	2	1,716	
English	852	1	852	
English	851	1	851	
English	0		0	
English Dean Office	149	1	149	
English Small Conference	135	1	135	
Math	814	2	1,628	
Math	820	3	2,460	
Math	620	2	1,240	
Math	756	2	1,512	
Math	772	2	1,544	
Math	632	2	1,264	
Math	826	1	826	
Math	659	1	659	
Math	852	1	852	
Math	765	2	1,530	
Math	698	1	698	
Math	746	2	1,492	
Math	1,222	1	1,222	
Math Dean Office	174	1	174	
Computer Lab	836	1	836	
Computer Lab	801	1	801	
Science Computer Lab	772	1	772	
World Language	646	1	646	
World Language	838	2	1,676	
World Language	826	2	1,652	
World Language	853	1	853	
World Language	964	1	964	
World Language	991	1	991	
World Language	838	1	838	
World Language Lab	1,345	1	1,345	
World Language Dean Office			0	
History	843	1	843	
History	742	1	742	
History	806	3	2,418	
History	606	3	1,818	
History	755	2	1,510	
History	861	1	861	
History	705	1	705	
History	852	1	852	
History	705	2	1,410	
History	765	2	1,530	
History	283	1	283	
History Dean Office			0	
Teacher Planning & Workroom			0	
Teacher's Room #1	233	1	233	
Teacher's Room #40	570	1	570	
Teacher's Room #41	571	1	571	
Teacher's Room #42	373	1	373	
Teacher's Room #43	432	1	432	
Teacher's Room #46	348	1	348	
Teacher's Room #47	533	2	1,066	
Teacher's Room #48	400	1	400	
Teacher's Room #49	188	1	188	
Teacher's Room #491			0	
Small Group Support			0	
Science Classroom / Lab			0	
Science	1,306	1	1,306	
Science	1,618	1	1,618	
Science	1,455	1	1,455	
Science	1,219	1	1,219	
Science	1,385	1	1,385	
Science	1,022	2	2,044	
Science	645	1	645	
Science	806	1	806	
Science	602	2	1,204	
Science	836	1	836	
Science	858	1	858	
Science	1,287	2	2,574	
Science	737	2	1,474	
Science	2,126	2	4,252	
Science	2,126	2	4,252	
Science	963	2	1,926	
Science	987	2	1,974	
Science	616	1	616	
Science	862	1	862	
Science	705	1	705	
Science	848	1	848	
Science	765	1	765	
Greenhouse	500	1	500	
Greenhouse	941	1	941	
Planetarium	76	1	76	
Planetarium Storage	76	1	76	
Planetarium Office	900	1	900	
Observatory			0	
Science Dean Office	150	1	150	
Prep Room	351	1	351	
Prep Room	567	2	1,134	
Prep Room	133	2	266	
Prep Room	269	1	269	
Prep Room	263	1	263	
Prep Room	362	1	362	
Prep Room	500	1	500	

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OPTION #1

4/12/2017

[illegible]¹ Individual Room Net Floor Area (NFA)

2 Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.

Name of Architect Firm: A3 Architects LLC

Name of Principal Architect: Troy L. Randall, AIA, LEED AP BD+C

Signature of Principal Architect: _____

Date: 18-Apr-17

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OPTION #2

Proposed Space Summary - BMC Durfee High School

4/12/2017

BMC Durfee High School	Existing Conditions		
	ROOM NFA ¹	# OF RMS	area totals
BOOITVIVE	Health-Assisting (510000): Classroom	1,129	1
	Health-Assisting (510000): Classroom	1,362	1
	Health-Assisting (510000): Skills Room	569	1
	Health-Assisting (510000): Skills Room	446	1
	Health-Assisting (510000): Storage	162	1
	Health-Assisting (510000): Storage	100	1
	Health-Assisting (510000): Changing Rooms		
	Health-Assisting (510000): Training Rooms		
	Health-Assisting (510000): Laundry Room		
	Health-Assisting (510000): Offices	52	1
	Health-Assisting (510000): Kitchen		
	Culinary Arts (120500): Tradewinds Restaurant	2,191	1
	Culinary Arts (120500): Tradewinds Classroom	890	1
	Culinary Arts (120500): Kitchen	1,770	1
	Culinary Arts (120500): Dishwashing		
	Culinary Arts (120500): Laundry	296	1
	Culinary Arts (120500): Lockers/Storage	1,817	1
	Culinary Arts (120500): Bakery	356	1
	Culinary Arts (120500): Storage	97	1
	Culinary Arts (120500): Office	140	1
	Culinary Arts (120500): Refrigerator/Freezer		
	Radio and Television Broadcasting (080701): Classroom	781	1
	Radio and Television Broadcasting (080701): Studio	840	1
	Radio and Television Broadcasting (080701): Control Room	174	1
	Radio and Television Broadcasting (080701): Office	103	1
	Engineering Technology (150000)	1,277	3
	Engineering Technology (150000)	1,232	1
	Engineering Technology (150000): Offices		
	Engineering Technology (150000): Storage		
	Marketing (190203): Campus Bank	0	1
	Marketing (190203): Campus Store	200	1
	Marketing (190203): Retailing	0	1
	Construction Craft Laborer (400909)	3,154	1
	Construction Craft Laborer (400909)	2,450	1
	Construction Craft Laborer (400909): Storage	258	2
	Construction Craft Laborer (400909): Finishing Room	201	1
	ROT/C: Classroom	867	2
	ROT/C: Storage	375	1
	ROT/C: Office / Kitchen	448	1
	Aviation (PLTW - Aerospace)	3,154	1
	CTVE: Career Tech Office	268	1
	CTVE: Career Tech Office	217	1
CTVE: Career Tech Office - Storage	439	1	
HEALTH & PHYSICAL EDUCATION		61,968	
Teaching Station #1 (Gymnasium)	13,489	1	
Teaching Station #2	3,000	1	
Teaching Station #3	3,000	1	
Teaching Station #4	3,000	1	
Teaching Station #5	3,000	1	
Teaching Station #6 (Weight Room 1)	2,298	1	
Teaching Station #6 (Weight Room 2)	1,103	1	
Teaching Station #7 (Wellness Center - Dance Studio)	2,417	1	
PE Alternatives		0	
Wrestling Room	905	1	
Training Room	228	1	
Athletic Trainer's Office	200	1	
Natatorium	6,665	1	
Boys Pool Shower / Lockers / Toilets	462	1	
Girls Pool Shower / Lockers / Toilets	505	1	
Pool Storage	193	1	
Pool Office	95	1	
Gym Storeroom	765	1	
Gym Storage #1	411	1	
Gym Storage #2	405	1	
Gym Storage #3	793	1	
Gym Storage #4	115	1	
Locker Rooms - Boys / Girls w/ Toilets			
Boys Lockers	3,408	1	
Boys Showers & Drying Area	2,147	1	
Girls Lockers	1,464	1	
Girls Showers & Drying Area	6,857	1	
Phys. Ed. Storage	851	1	
Phys. Ed. Storage	666	1	
Phys. Ed. Storage	399	1	
Phys. Ed. Storage	265	1	
Phys. Ed. Storage	181	1	
Phys. Ed. Storage Supplies	121	1	
Couaches Office	105	2	
Couaches Office	261	1	
Couaches Office w/ Toilet/Shower	294	1	
PE Office w/ Toilet/Shower	359	2	
PE Office	170	1	
PE Office	144	1	
PE Office	260	1	
Laundry	290	1	
Athletic Director's Office		0	
Health Instructor's Office w/ Shower & Toilet		0	
MEDIA CENTER		23,440	
Media Center / Reading Room	18,449	1	
Computer Lab	1,080	1	
Instructional Media Classroom 1	685	1	
Instructional Media Classroom 2	840	1	
Instructional Media Classroom 3	849	1	
Assessment Center	760	1	
Professional Library	325	1	
Audio/Visual Storage	226	1	
Library Media Office	226	1	
AUDITORIUM / DRAMA		21,973	
Auditorium	14,123	1	
Stage	3,250	1	
Auditorium Storage	166	1	
Auditorium Storage	70	1	
Auditorium Storage	100	3	
Stage Set Design / Construction	831	1	
Costume Storage Room	527	1	
Mixing / Dressing Rooms	281	2	
Controls / Lighting / Projection	136	3	
Blackbox Theater	1,675	1	
Ticket Office	65	1	
DINING & FOOD SERVICE		26,201	
Cafeteria / Student Lounge / Break-out	16,420	1	
Chair / Table Storage		0	
Dry Food Storage	1,610	1	
Dishect Kitchen Storage	2,398	1	
Food Service Office	90	3	
Locker Area	107	1	

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Proposed Space Summary - BMC Durfee High School

OPTION #2

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BMC Durfee High School	PROPOSED						MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
	Existing Conditions		RemainRenovated		New		ROOM NFA ¹	# OF RMS	area totals	Comments
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	
Proposed Student Capacity/ Enrollment									2,570	157
Total Building Gross Floor Area (GFA) ²			573,210			473,920			403,480	
Grossing Factor (GFANFA)			1.49			1.46			1.46	

¹ Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular program area including such spaces as non-communal lobby and storage rooms.

² Total Building Gross Floor Area (GFA)


Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement made under the penalties of perjury.

Name of Architect Firm: A3 Architects LLC

Name of Principal Architect: Troy L. Randall, AIA, LEED AP BD+C

Signature of Principal Architect: 

Date: 4/12/17

CORE ACADEMIC SPACES

The proposed BMC Durfee High School Space Summary includes 123,515sf, exceeding the MSBA guideline of 121,930sf by 1,585sf. This overage is primarily due to the inclusion of the planetarium, observatory, teacher planning and workrooms, and independent study spaces within this category.

Planetarium and Observatory

BMC Durfee High School offers Astronomy courses in its Program of Studies for students to learn about Earth and Space Science. These courses, which had an enrollment of 278 students in the current academic year, utilize a planetarium and an observatory. Both the planetarium and the observatory have been part of Durfee's history since 1887 when the original donor for the high school, Mary Young, specifically requested that these two spaces be designed into the new facility as part of the "advancement of science education". The planetarium is used in all of the Astronomy courses to show students how the movement of the Earth and planets affect the view of stars and constellations. Other District Schools and the Preschool also visit the planetarium for field trips. The Observatory houses a rare and historic telescope that was made in 1887 by a company called Warner and Swasey. It was donated by Mary Young as part of the "outfitting" of the school in 1887 and remains one of the few functional telescopes of its type in the world. In 1943, it was restored by Professor Leon Campbell, Pickering Professor at Harvard University. It recently underwent a second restoration through the work of numerous volunteers, including the Astronomical Society of Southern New England. It provides a rare asset to student instruction, and there have been numerous public viewings offered at the current Durfee Observatory.

Teacher Planning and Workrooms

BMC Durfee High School has consistently supported a culture of collaboration. Each teacher is assigned to a Professional Learning Community that meets every week. These meetings are used to collaborate on curriculum, instruction, and assessments. These teams meet to design and modify benchmarks and assessments, plan their administration, and analyze the resulting data to plan instructional interventions. These times are also used to collectively plan instructional activities, modify Standard Based Units, and share best practices. Each Department has its own Professional Learning Community room so that student data can be posted and tracked in a confidential setting. The current space(s) is inadequately sized, lacking appropriate technology, and inefficiently located within the existing BMC Durfee High School building.

Teachers also spend time collaborating outside of their Professional Learning Community meetings. The Freshman Academy teachers regularly meet with other subject teachers in their cohort along with a Freshman Guidance counselor to discuss each student and the best way to support the student's academic, social, and emotional needs. Teachers also spend time with other teachers during their prep periods to collaborate on their lesson plans and discuss resource allocation and best instructional practices.

BMC Durfee High School has four core academic Deans of Teaching and Learning (ELA, Math, Science, Social Studies and World Languages) who are in charge of supervising the teachers in their departments and overseeing curriculum, instruction and assessments. The Deans of Teaching and Learning each have an inner and outer office space located near their department classrooms, teacher rooms, and collaboration areas. The outer office space is used to meet with teachers and small teams of teachers to support their growth. For example, each Dean conducts coaching cycles with teachers to support their growth as effective educators. The inner office is used to complete the managerial and supervisory tasks that are required of each Dean and to have confidential meetings with teachers. The inner office is also used to store confidential personnel paperwork. Since Deans of Teaching and Learning are also in charge of staffing, they utilize the inner office to meet with applicants.

Each department at BMC Durfee also has a teacher's room that is used for teacher lunch times and informal gatherings. These teacher's rooms foster a culture of collaboration by giving teachers an area to informally meet, plan, and share. By providing an area for informal teacher gathering and a department lunch area, Durfee has helped create strong communities between our teachers.

The design of the proposed BMC Durfee High School project will

need to provide:

1. Teacher collaboration, planning, and work areas throughout the building to allow for both departmental and cross-curricular collaboration.
2. Appropriate integration of technology, greatly assisted collaboration among teachers and staff. That said, the power of face-to-face interaction has yet to be replicated by technology. Human interaction is everything, especially in a creative, innovative, and knowledge-intensive sector such as education. The strength of any creative organization is shaped as much by the day-to-day chance contact of its members as it is by formal gatherings such as scheduled appointments. Critical information leading to educational innovation often comes from informal encounters between teachers from varying disciplines and backgrounds.
3. Strategies which promote this interaction while also supporting a variety of professional activities. Additionally, teachers are no longer tied to their desks but rather they have a 'home' in the workplace where they are able to organize their activities across a variety of environments with a range of different qualities which they share with their colleagues.
4. Each department should also have an area for teachers to plan, collaborate, and meet in small groups and as Professional Learning Teams.
5. A large teacher work area -- each department should have a room for Professional Learning Team meetings and smaller offices available for individual planning and small group meetings. This planning and collaboration space must include modern and efficient technology amenities such as teacher workstations and interactive virtual bulletin boards. The virtual bulletin boards would allow multiple departments to share a canvas for posting/reviewing data and sharing ideas for lessons, etc.
6. Each department should have an informal area for teachers to eat lunch and gather as this provides an ideal opportunity for spontaneous interaction and discussion.
7. Dean offices included or nearby so that Deans could be in close proximity to collaborate, plan, coach and provide other necessary support.

SPECIAL EDUCATION

The proposed BMC Durfee High School Space Summary includes 32,990sf, exceeding the MSBA guideline of 25,180sf by 7,810sf. The BMC Durfee High School serves a larger Special Education population than any other school in the district, and includes a highly specialized and well-developed program offering a wide array of support services for students. The existing BMC Durfee High School, even though it lacks the necessary space for all Special Education needs, already includes a total of 25,180sf dedicated to Special Education. The quantity and sizes of the individual spaces identified in the proposed space program support the

specialized education programs such as; Language based program, Community Based Program, Social Emotional 'Bridge Program', 'Autism Spectrum Disorder Program' (ASD), and academic sub-separate classrooms as detailed within the educational program and educational vision. The District understands that they will need to seek and receive DESE approval for the proposed Special Education program. This will be completed at the appropriate time.

ART & MUSIC

The proposed BMC Durfee High School Space Summary includes 13,750sf, exceeding the MSBA guideline of 11,350sf by 2,400sf. This overage is resulting from the potential re-use and renovation of the existing performing arts building associated with Option 1 outlined within this report, which will be further evaluated during the next phase of the feasibility study.

VOCATIONS & TECHNOLOGY

The proposed BMC Durfee High School Space Summary includes 43,647sf, exceeding the MSBA guideline of 28,800sf by 14,847sf. See Appendix D for Chapter 74 Submission for both non-Chapter 74 and Chapter 74 programs associated with this category.

HEALTH & PHYSICAL EDUCATION

The proposed BMC Durfee High School Space Summary includes 61,868sf, exceeding the MSBA guideline of 30,592sf by 31,276sf. This overage is resulting from the potential re-use and renovation of the existing gymnasium building building associated with Option 1 outlined within this report, which will be further evaluated during the next phase of the feasibility study. BMC Durfee High School students are required to enroll in and pass four physical education courses and two health education courses to graduate. Students are mandated to take a

Physical Education course each year of their high school careers. These graduation requirements have ensured that the gymnasium, pool, weight room, dance studio, and classrooms are being used continually throughout the school day for instruction. The educational program defines in detail the vast array of course offerings at BMC Durfee High School. In addition to the high utilization of the current space with the physical education and health program offerings, the gymnasium and associated teaching spaces also must accommodate specialized programs such as; Adapted PE (APE) program, Reserve Officer Training Corps (ROTC) program, Career and Technical Education (CTVE) program, Special Education (SPED) program, and the athletics programs. As a result, the current teaching spaces are over-utilized, with programs either compromising adequate space or appropriate schedule. Please refer to the Educational Program for detailed information related to the Health & PE & Athletics programs.

AUDITORIUM/DRAMA

The proposed BMC Durfee High School Space Summary includes 21,973sf, exceeding the MSBA guideline of 10,400sf by 11,573sf. This overage is resulting from the potential re-use and renovation of the existing performing arts building associated with Option 1 outlined within this report, which will be further evaluated during the next phase of the feasibility study.

ADMINISTRATION & GUIDANCE

The proposed BMC Durfee High School Space Summary includes 12,244sf, exceeding the MSBA guideline of 8,179sf by 4,065sf. As outlined in the education program and visioning documents, the administrative structure of the high school has been and will continue to be organized in grade level teams. Each grade has a grade level office team,

with the exception of the Freshman team, and is comprised of a Vice Principal, two guidance counselors, an adjustment counselor, an office manager, and a clerk. The Freshman team includes an additional school adjustment counselor, a behavior specialist, and a student support specialist. This academic administration structure is in addition to the standard administration positions currently existing within BMC Durfee High School, such as; Principal, Director of Operations, School Psychologists, attendance, etc. Also, outlined in detail within the Educational Program, the building security personnel, currently under-accommodated, will require adequate office and meeting space within the newly proposed building. The proposed space of 12,244sf has been reduced from the existing space of 14,020sf currently utilized by the administration and guidance, recognizing the inherent efficiencies in the design of a newly proposed project.

CUSTODIAL & MAINTENANCE

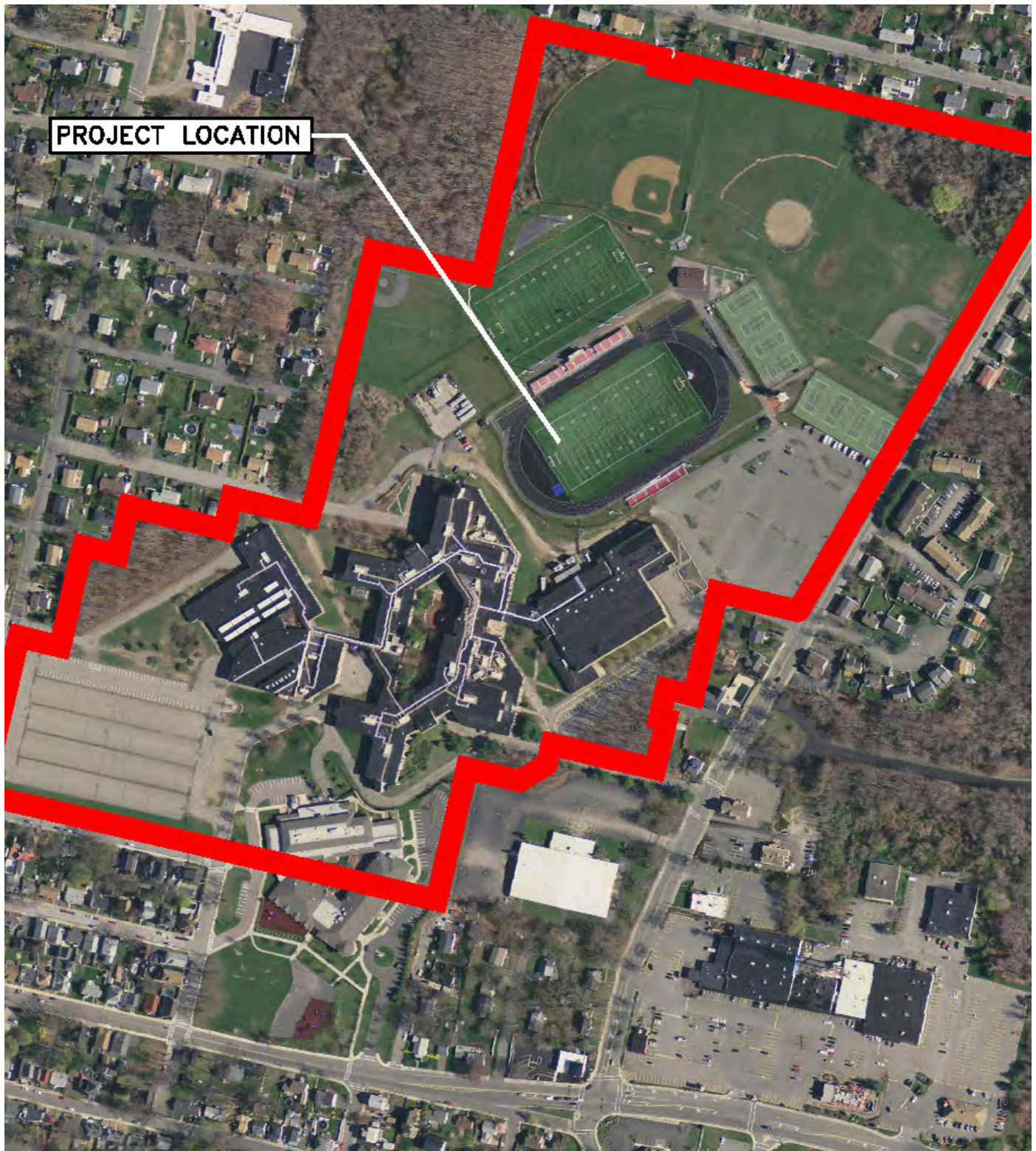
The proposed BMC Durfee High School Space Summary includes 4,985sf, exceeding the MSBA guideline of 3,553sf by 1,432sf. This overage is resulting from the potential re-use and renovation of the existing performing arts building, specifically the building maintenance spaces, associated with Option 1. Also, it is important to point out that the existing building includes over 15,000sf of custodial storage, academic storage, technology rooms, and building maintenance work areas. Although a newly organized building will result in some spacial efficiencies, the proposed project includes a significant reduction in space as compared to their current conditions.

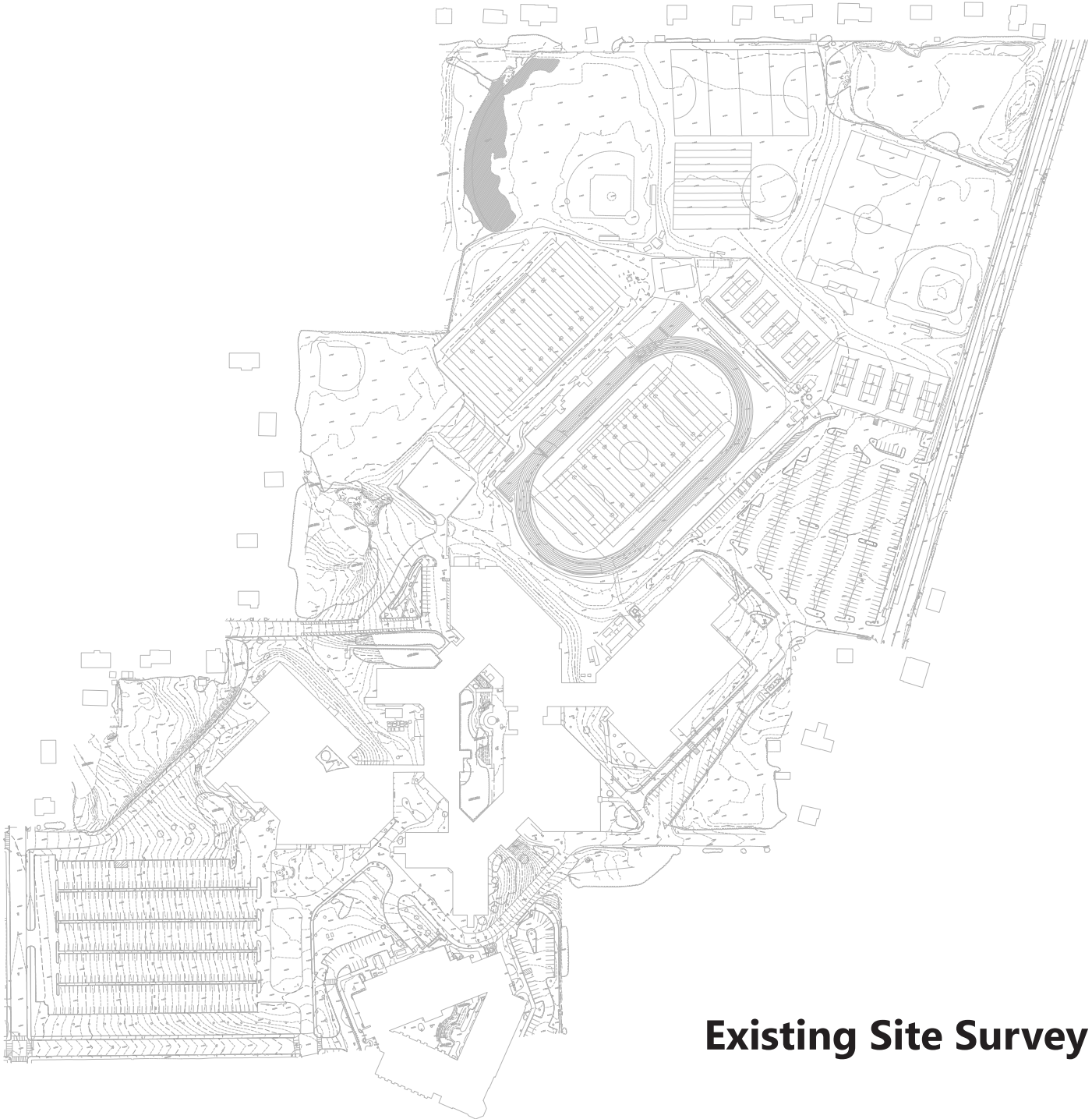
GROSSING FACTOR (GFA)

The size of the existing BMC Durfee High School is 573,210 gsf with a grossing factor of 1.49. The majority of the existing building program area is poorly organized and inefficient. It is recognized by the district and professional team that the MSBA guidelines for a new building identifies a grossing factor of 1.46. Option 1, which will be further evaluated during the next phase of the feasibility study, proposes the re-use and renovation of the existing gymnasium / pool building and the performing arts building. Due to the inefficiencies of the existing building, the proposed space summary is identifying a grassing factor of 1.48 for this option, as it would be unrealistic for the new addition to absorb the square footage associated with the re-use of the existing building. Option 2, also further evaluated during the next phase of the feasibility study, involves proposed new construction and has identified a 1.46 grossing factor per the MSBA guidelines.

EXISTING HIGH SCHOOL SITE

Evaluation of Existing Conditions





Existing Site Survey

RECORD OF TITLE TO THE PROPERTY

Evaluation of Existing Conditions

DETERMINATION OF WHETHER PROPERTY IS AVAILABLE FOR DEVELOPMENT

Site 1- Exiting High School Property

The existing school property located at 360 Elsbree Street contains 2,781,742 sq ft of land and is classified as CITY ED and is owned by the City. Building on this lot would not require rezoning.

Site 2- Duro Mills Sites located at 110 Chase Street and 206 Globe Mills Ave

The Duro Mills option consists of two parcels located at 110 Chase Street and 206 Globe Mills Ave. These sites were formerly a textile mill that has gone out of business and filed for bankruptcy. The City does not own this property but will be taking this property formally for non-payment of taxes shortly. These sites are presently in a Commercial Mill District and a Housing Development Overlay (HD-s). An application would be need to be submitted to the Planning Board with a determination from the Zoning Board of Appeals to change this designation and allow for school construction.

Site 3- Fall River Industrial Park at Innovation Way

The Fall River Industrial Park is a block of properties totaling over 425 acres. The Greater Fall River Development Corp governs the park. This area is located within the Industrial Park District and the Research and Development Overlay. An application would be need to be submitted to the Planning Board with a determination from the Zoning Board of Appeals to change this designation and allow for school construction.

Site 4- Anawan Mill located at 18 Pocasset Street

The Anawan Mills site is comprised of two parcels and is located at 18 Pocasset Street (Parcels N-12-0002 and N-12-0007). The main parcel has been developed into a commercial complex. The smaller parcel is a parking lot located across the street. The City does not own this site and a sale would need to be negotiated. The site is located in the Waterfront Transit District and the Arts Overlay District. An application would be need to be submitted to the Planning Board with a determination from the Zoning Board of Appeals to change this designation and allow for school construction.

DEVELOPMENTAL RESTRICTIONS INVESTIGATION

Site 1- Exiting High School Property

The existing school property located at 360 Elsbree Street contains 2,781,742 sq ft of land and is classified as CITY ED. The existing 565,000 sf school is located in the South West side of the lot. There is ample space to the North East side of the lot for a new building. A portion of the site is within a 200 foot riverfront buffer and a 100 foot wetland buffer both of which do not prohibit the proposed work however will require a permit and request for determination through the Conservation Committee. There are no known environmental issues on the site. Geotechnical reports are limited to the current footprint of the building and some of the surrounding playing fields. These reports indicate that the North East side of the site contains urban fill that contains some large stone boulders.

Site 2- Duro Mills Sites

The Duro Mills option consists of two parcels located at 110 Chase Street and 206 Globe Mills Ave. These sites were formerly a textile mill that has gone out of business and filed for bankruptcy. The City does not own this property but will be taking this property formally for non-payment of taxes shortly. This site would require the demolition of two large factory buildings. There are two reported #6 fuel oil spills over the past. There is good reason to expect other environmental issues and potentially unreported hazardous material incidents. Also these two sites are separated by Bay Street which would not allow for a connected school. The sites are not large enough to accommodate both the school and the required athletic fields. Therefore, the athletic fields would need to be located at a separate site.

Site 3- Fall River Industrial Park at Innovation Way

The Fall River Industrial Park is a block of properties totaling over 425 acres. The Greater Fall River Development Corp governs the park. This area is located at the Northeast corner of the City, which would make bus transportation to the site expensive and inconvenient. Most of the available parcels are less than 7 acres, which are not of adequate size to accommodate the proposed High School. The intent of the Industrial Park is to encourage and attract new businesses to the region for badly needed jobs. Rezoning of this area for a High School may be viewed unfavorably.

Site 4- Anawan Mill located at 18 Pocasset Street

The Anawan Mills site is comprised of two parcels and is located at 18 Pocasset Street (Parcels N-12-0002 and N-12-0007). The main parcel has been developed into a commercial complex. The smaller parcel is a parking lot located across the street. The main parcel has a large former factory that would need to be demolished. Approximately 40% of the site is located in a FEMA flood boundary. The site is very close to the I-195 off ramps, which would be a concern for traffic as well as noise and air pollution. The likelihood of hazardous materials being present on this site are high.

862 FEB 27 1968
1022 298*City of Fall River, In City Council*

ORDERED,

WHEREAS the City of Fall River, County of Bristol, Commonwealth of Massachusetts is desirous of taking an interest in fifty-one (51) certain parcels of land situated in Fall River, Massachusetts on the Elsbree Street site, so-called, located south of Langley Street, east of Elsbree Street, north of Stanley Street and west of Ray Streets, for the purpose of constructing a new high school, as set out in two said orders of this Council adopted on November 15, 1966 and July 14, 1970, and

WHEREAS the land in question is necessary and desirous and suitable for said school purposes.

NOW THEREFORE, it is hereby

ORDERED, that this Council does hereby adjudicate and decree that common convenience and necessity require the taking in fee simple by said City of the land hereinafter more fully and particularly described for said school purposes, and it is hereby

ORDERED, that the City of Fall River hereby takes in fee simple for the public purpose hereinbefore set forth the land situated in Fall River on the Elsbree Street site so-called, located south of Langley Street, east of Elsbree Street, north of Stanley Street and west of Ray Street, as more particularly set forth in the following perimeter description:

"That certain parcel or tract of land with all buildings and improvements thereon situated on the northerly side of Stanley Street, and the westerly side of Elsbree Street, in the City of Fall River, County of Bristol, Commonwealth of Massachusetts, and is bounded and described as follows:

Beginning at the southwesterly corner of the parcel herein described, said point being the intersection point of the northerly line of Stanley Street with the easterly line of Ray Street, said point also being located 50.00 feet northerly of a granite bound located at the southeasterly corner of Stanley and Ray Streets;

City of Fall River, In City Council

thence running N 13°-05'-02" E along the easterly line of Ray Street for a distance of 432.16 feet to a corner and property now or formerly belonging to William G. Grady and Janice M. Grady;

thence turning an interior angle of 89°-41'-00" and running S 76°-35'-58" E bounding northerly by said Grady property for a distance of 101.28 feet to a corner;

thence turning an interior angle of 270°-19'-00" and running N 13°-05'-02" E bounding westerly in part by said Grady property and in part by property now or formerly belonging to Charles D. Harrington, and in part by Titus Street, for a distance of 233.33 feet to a corner and property now or formerly belonging to Fred Almas;

thence turning an interior angle of 89°-36'-20" and running S 76°-31'-18" E bounding northerly by said Almas property for a distance of 84.48 feet to a corner;

thence turning an interior angle of 270°-23'-40" and running N 13°-05'-02" E bounding westerly by said Almas property for a distance of 80.00 feet to a corner and property now or formerly belonging to Bernard and Mary Ryan;

thence turning an interior angle of 89°-36'-20" and running S 76°-31'-18" E and bounding northerly in part by said Ryan property and in part by property now or formerly belonging to Arthur G. and Doris A. Paul for a distance of 232.10 feet to a corner;

thence turning an interior angle of 270°-23'-40" and running N 13°-05'-02" E bounding westerly by said Paul property for a distance of 80.00 feet to a corner and the southerly line of Weetamoe St.;

thence turning an interior angle of 89°-36'-20" and running S 76°-31'-18" E along the southerly line of Weetamoe Street for a distance of 139.26 feet to a corner;

thence turning an interior angle of 270°-23'-40" and running N 13°-05'-02" E bounding westerly by Weetamoe Street for a distance of 50.00 feet to a granite bound and property now or formerly belonging to Isidore E. Bogus;

thence continuing N 13°-05'-02" E bounding westerly by said Bogus property for a distance of 200.00 feet to a granite bound located at the southerly line of Spruce Street;

thence continuing N 13°-05'-02" E bounding westerly in part by Spruce Street, in part by property now or formerly belonging to John H. Cyr, in part by property now or formerly belonging to Victor E. and Nina Lee Adler, in part by Hemlock Street, in part by property now or formerly belonging to Joseph H. Cyr for a distance of 398.56 feet to a corner and property now or formerly belonging to the City of Fall River;

thence turning an interior angle of 89°-56'-45" and running S 76°-51'-43" E bounding northerly in part by Chestnut Street and in part by property of the City of Fall River for a distance of 153.71 feet to a granite bound;

City of Fall River, In City Council

thence continuing S 76°-51'-43" E bounding northerly by City of Fall River property for a distance of 163.29 feet to a corner;

thence turning an interior angle of 270°-13'-43" and running N 12°-54'-34" E bounding westerly by City of Fall River property for a distance of 598.14 feet to a corner and property now or formerly belonging to Margaret A. Curt;

thence turning an interior angle of 89°-30'-45" and running S 76°-36'-11" E bounding northerly in part by said Curt property and in part by property now or formerly belonging to Mary Pacheco and in part by property now or formerly belonging to Antone and Mary Pacheco for a distance of 293.91 feet to a corner and said Antone and Mary Pacheco property;

thence turning an interior angle of 89°-57'-55" and running S 13°-25'-54" W bounding easterly by said Pacheco property for a distance of 20.00 feet to a corner;

thence turning an interior angle of 270°-02'-05" and running S 76°-36'-11" E bounding northerly by said Pacheco property for a distance of 60.00 feet to a corner;

thence turning an interior angle of 269°-57'-55" and running N 13°-25'-54" E bounding westerly by said Pacheco property for a distance of 20.00 feet to a corner and Markell Street;

thence turning an interior angle of 90°-02'-05" and running S 76°-36'-11" E bounding northerly in part by Markell Street, in part by property now or formerly belonging to Franklin D. Hoy and in part by property now or formerly belonging to Franklin D. Hoy and William T. Pearson for a distance of 461.11 feet to an angle and property now or formerly belonging to H and H Realty Corp.;

thence turning an interior angle of 179°-33'-02" and running S 76°-09'-13" E bounding northerly by said H and H Realty Corp. property for a distance of 471.67 feet to a corner and the westerly line of Elsbree Street;

thence turning an interior angle of 73°-38'-30" and running S 30°-12'-17" W along the westerly line of Elsbree Street for a distance of 1342.08 feet to a point of curve and property now or formerly belonging to Lucien H. and Lottie Michaud;

thence running northerly and northwesterly curving to the left along an arc of a curve having a radius of 30.00 feet, a central angle of 106°-43'-35" for an arc distance of 55.88 feet to a tangent point;

thence running N 76°-31'-18" W bounding southerly by said Michaud property for a distance of 141.67 feet to a corner;

thence turning an interior angle of 270°-13'-45" and running S 13°-14'-57" W bounding easterly in part by said Michaud property and in part by property now or formerly belonging to August J. and Mary T. Correia for a distance of 200.00 feet to a corner;

thence turning an interior angle of 89°-46'-15" and running N 76°-31'-18" W bounding southerly by said Correia property for a distance of 66.42 feet to a corner;

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thence turning an interior angle of 270°-00'-00" and running S 13°-28'-42" W bounding easterly by said Correia property for a distance of 70.87 feet to a corner;

thence turning an interior angle of 270°-07'-00" and running S 76°-38'-18" E bounding northerly by said Correia property for a distance of 16.70 feet to a corner and property now or formerly belonging to David S. and Mary A. Travis;

thence turning an interior angle of 90°-00'-27" and running S 13°-21'-15" W bounding easterly by said Travis property for a distance of 120.53 feet to a corner;

thence turning an interior angle of 269°-57'-13" and running S 76°-35'-58" E bounding northerly by said Travis property for a distance of 98.37 feet to a point of curve;

thence running easterly and northeasterly curving to the left along an arc of a curve having a radius of 20.00 feet, a central angle of 74°-01'-14" for an arc distance of 25.84 feet to a point of reverse curve and the westerly line of Elsbree Street;

thence running southerly along the westerly line of Elsbree Street curving to the left along an arc of a curve having a radius of 1106.28 feet a central angle of 4°-53'-31" for an arc distance of 94.46 feet to a point of tangency;

thence running S 24°-29'-17" W along the westerly line of Elsbree Street for a distance of 333.25 feet to a point of curve;

thence curving to the right along an arc of a curve having a radius of 20.00 feet a central angle of 78°-28'-55" for an arc distance of 27.40 feet to a point of tangency, and the northerly line of Stanley Street;

thence running N 77°-01'-48" W along the northerly line of Stanley Street for a distance of 1551.97 feet to the point and place of beginning;

the last described line forming an interior angle of 89°-53'-10" with the first described line.

Said parcel contains 64.280 Acres."

The land to be taken is shown on a plan entitled:

"Plan of Survey in Fall River, Mass. for NEW FALL RIVER HIGH SCHOOL by Stanley Engineering, Inc. SCALE: 1"=100: MARCH, 1971 Revised August, 1971"

Said plan to be recorded in the Fall River District Registry of Deeds together with the notice of this Taking.

Included within the above mentioned perimeter description are fifty-one (51) certain parcels of land which are more particularly bounded and described as shown on Schedule "B" attached hereto and made a part of this Order.

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Certain parcels of land included in this Taking are registered land and are shown on the Plan hereinbefore referred to as Parcels 2, 3A, 4, 5A, 7A, 9, 14, 21, 37 and 40; said land being registered at the Land Court in Boston (Land Court cases 9690B and 30706A) and recorded in the Registered Land Division of the Bristol County Fall River District Registry of Deeds as follows:

<u>Parcel #</u>	<u>Owner</u>	<u>Book</u>	<u>Page</u>	<u>Certificate #</u>
2	Anthony Salvo & Shirley I. Salvo	8	291	1510
3A	Ursula Harrington, Charles D. Harrington & Frederick J. Harrington	12	89	2177
4	William Smith	2	337	380
5A	Peter A. Cummings	2	443	427
7A	Angela R. Cummings	3	147	513
9	Michael Shaker	10	359	1910
14	Gertrude Hurley	13	445	2510
21 & 37	Justin W. Morganstein & George W. Carpenter	10	75	1804

The preceding described land is hereby taken in fee simple, including, but not limited to, all streets, public or private, easements, rights of way, water sources, water courses, water rights, riparian rights, buildings, improvements and other structures and trees thereupon; and it is hereby further

ORDERED, that this Council does hereby award the damages sustained in the property of the owners of the parcels taken to be the sums set against their names on Schedule "A" hereto annexed; said sums to be as compensation in full in accordance with the provisions of General Laws, Chapter 79, Section 6, as amended for any and all damages sustained by them as aforesaid:

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SCHEDULE "A"

<u>Parcel</u>	<u>Name</u>	<u>Amount</u>
1.	City of Fall River	\$ 16,800.00
2.	Anthony Salvo & Shirley I. Salvo	900.00
3., 3A	Charles D. Harrington, Jr., Frederick J. Harrington & Ursula Harrington	750.00
4.	William Smith	3,500.00
5., 5A	Peter A. Cummings	1,250.00
6.	George P. Reilly & Margaret N. Reilly	1,000.00
7., 7A	Angela R. Cummings	1,250.00
8.	August Santos, Jr.	500.00
9.	Michael Shaker	2,000.00
10.	Arthur G. Paul & Doris A. Paul	1,125.00
11.	Joseph S. Thomas	1,000.00
12.	Robert G. Gagne & Theresa Gagne	3,000.00
13.	City of Fall River	30,000.00
14.	Marceline Shaker Gertrude Hurley	1,100.00
15.	City of Fall River-Included in #13.	—
16.	George E. Caya & Aurore M. Caya	19,000.00
17.	Joseph T. & Eileen M. Duffy	20,500.00
18.	Julien G. Allie, a/k/a Julien Gerard Allie & Blanche V. Allie	750.00
19.	Imelda Smith	17,800.00
20.	Wilfred Cote	1,900.00
21.	Justin W. Morganstein & George W. Carpenter	9,000.00
22.	Joseph S. Thomas	8,500.00
23.	Jules Caya & Antoinette Caya a/k/a Jules E. Caya & Antoinette T. Caya	23,000.00
24.	Lester Bailey & Cecile E. Bailey	23,500.00
25.	Manuel Gonsalves & Valeda M. Gonsalves	18,500.00
26.	Francis J. Downey	2,250.00
27.	Sidney Winokoor & Ethel Winokoor	1,250.00