

SELECT BOARD

6:00 p.m. November 24, 2020

Needham Town Hall

Revised Agenda

Under Governor Baker's emergency "Order Suspending Certain Provisions of the Open Meeting Law G.L. c. 30A, S20", issued March 12, 2020 and in effect until termination of the emergency, meetings of public bodies may be conducted virtually provided that adequate access is provided to the public.

To listen and view this virtual meeting on a phone, computer, laptop, or tablet, download the "Zoom Cloud Meeting" app in any app store or at www.zoom.us. At the above date and time, click on "Join a Meeting" and enter the meeting **835 6099 6922** or click the link below to join the webinar: <https://us02web.zoom.us/j/83560996922>.

	5:00	Executive Session Exception 6 – Acquisition of Real Property
	5:45	Informal Meeting with Citizens <i>One or more members of the Select Board will be available between 5:45 and 6:00 p.m. for informal discussion with citizens. Because of planning constraints during the COVID emergency, residents wishing to speak during that time should call the Select Board Office at (781)-455-7500, extension 204, not later than 3PM on the business day before the meeting to request an appointment. This enables the Board to better assure opportunities for participation and respond to citizen concerns.</i>
1.	6:00	School Master Plan Presentation • Dan Gutekanst, Superintendent of Schools • Steve Popper, Director of Design & Construction • Hank Haff, Senior Project Manager • Don Walter, Dore & Whittier • Michele Rogers, Dore & Whittier • Jason Boone, Dore & Whittier
2.	6:45	Emery Grover Presentation • Dan Gutekanst, Superintendent of Schools • Steve Popper, Director of Design & Construction • Hank Haff, Senior Project Manager • Joel Bargmann, BH+A
3.	7:15	Town Manager • Termination and Release of Easement -Mill Creek • Proposed MBTA Service Cuts • Minuteman School Fields Project & CARES Funding Request • Preliminary FY2022 – FY2026 Capital Improvement Plan

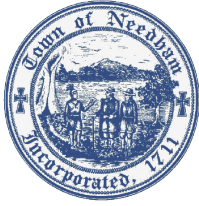
		• Budget Priorities • Town Manager's Report
4.	8:00	Board Discussion • Preliminary Discussion FY2021 – FY2022 Goals • Committee Reports

APPOINTMENTS

1.	Water & Sewer Rate Structure Committee	Harold Burger (term expires 6/30/2023)
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CONSENT AGENDA *=Backup attached

1.	Accept a \$100 donation made to the Needham Aging Services Donation Account from Nancy and Jon Schneider, Needham residents.
2.*	Approve a 20B Exemption for Lulu Tsai who is an employee in the Needham School Department as an Instructor to engage in work with the Aging Services Department as an activity instructor.
3.*	Water & Sewer Abatement Order #1299.
4.	Accept the following donations made to the Needham Health Division's Gift of Warmth Program: \$10,000 from the Needham Community Council; and \$250 from Mary Clare Siegel, a Needham resident.
5.	Accept a \$100 donation made to the Needham Aging Services Donation Account from Ruth & Paul Richards, Needham residents.
6.*	Approve minutes of November 9, 2020 (open session) and November 10, 2020 (executive session).



**Select Board
TOWN OF NEEDHAM
AGENDA FACT SHEET**

MEETING DATE: 11/24/2020

Agenda Item	Executive Session
Presenter(s)	

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
	Exception 6: Purchase, Exchange, Lease or Value of Real Property
2.	VOTE REQUIRED BY SELECT BOARD
	<u>Exception 6:</u> To consider the purchase, exchange, lease, or value of real property if the chair declares that an open meeting may have a detrimental effect on the negotiating position of the public body. The Board will reconvene in open session at 6:00.
3.	BACK UP INFORMATION ATTACHED
	none



**Select Board
TOWN OF NEEDHAM
AGENDA FACT SHEET**

MEETING DATE: 11/24/2020

Agenda Item	School Master Plan Presentation
Presenter(s)	Dan Gutekanst, Superintendent of Schools Steve Popper, Director of Design & Construction Hank Haff, Senior Project Manager Don Walter, Dore & Whittier Michele Rogers, Dore & Whittier Jason Boone, Dore & Whittier

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
	The project team will present the final School Master Plan Report.
2.	VOTE REQUIRED BY SELECT BOARD
	Discussion Only.
3.	BACK UP INFORMATION ATTACHED
	(Describe backup below) • Select Board -School Master Plan summary slideshow • School Master Plan- Executive Summary • School Master Plan- Final Report is available here: https://needhamma.sharefile.com/d-s300476a29a38401



NEEDHAM SCHOOL MASTER PLAN

Project Update

Select Board 11-24-2020

History / Process

- December 2019 : Awarded Contract & Began Work
- Visited Buildings – Met with principals, reviewed schedules, existing educational programs and goals, and limitations of the building
- Review Enrollment Projections and Capacity Needs
- Assessed Buildings with Consultants for Capital Needs

History / Process

- Developed Assessment Reports and Capital Improvement Plan
- Developed Cost Estimates of the Capital Improvement Plans
- Developed Possible Solutions to Address Educational & Facility Needs
- Test Fit the Options on Building Sites

History / Process

- Developed Cost Estimates for Building Solutions
- Developed Master Plan Timelines with Costs Estimates to Completion
- Presentation to School Committee & PPBC
- Complete and Issue Report

Facility Needs

EXISTING CONDITIONS GRAPH FOR NEEDHAM 2020 MASTER PLAN



	School	Site & Civil	Site Accessibility -Parking / Play Area	Exterior Building Elements	Interior Building Elements	Accessibility	Structural Elements	Mechanical Systems	Electrical Systems	Plumbing Systems	Fire Protection System	Functional Use of Space
MIDDLE SCHOOLS	Pollard Middle School	Good	Good	Fair	Fair	Fair	Excellent	Fair	Fair	Good	Fair	Fair
	High Rock (Gr 6 School)	Excellent	Good	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Poor
ELEMENTARY SCHOOLS	Broadmeadow Elementary School	Good	Excellent	Excellent	Excellent	Excellent	Good	Fair	Excellent	Excellent	Excellent	Excellent
	Eliot Elementary School	Good	Excellent	Excellent	Excellent	Excellent	Excellent	Fair	Excellent	Good	Excellent	Good
	Mitchell Elementary School	Good	Fair	Fair	Fair	Poor	Good	Poor	Fair	Poor	Poor	Poor
	Newman Elementary School	Good	Excellent	Excellent	Excellent	Excellent	Good	Excellent	Fair	Excellent	Excellent	Excellent
	Sunita L Williams Elementary School	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
	Former Hillside Elementary School	Poor	Poor	Poor	Fair	Poor	Good	Poor	Poor	Fair	Poor	Poor

Results

Educational Space Needs

High Rock
Mitchell
Pollard

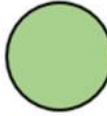
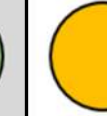
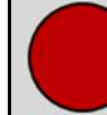
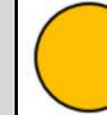
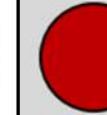
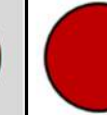
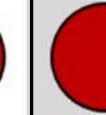
Physical Building Needs

Mitchell
Pollard

Capital Improvement Cost Estimates

EXISTING CONDITIONS GRAPH FOR NEEDHAM 2020 MASTER PLAN

Key					
	Excellent New or nearly new condition with no compromise of quality or function	Very Good Highly functional condition with little compromise of quality or function	Good Noticeable wear with some compromises of quality or function	Fair Below median functional condition, near future replacement or repair	Poor Poor: non or poorly functioning, replacement or repair required

School	Site & Civil	Site Accessibility Parking / Play Area	Exterior Building Elements	Interior Building Elements	Accessibility	Structural Elements	Mechanical Systems	Electrical Systems	Plumbing Systems	Fire Protection System	Functional Use of Space
Pollard Middle School											
\$40,000,000 +/-	\$3,226,377		\$14,092,560	\$1,618,044		\$488,520 *	\$12,705,412	\$4,686,542	\$158,976	\$2,072,339	
Mitchell Elementary School											
\$25,000,000 +/-	\$1,338,387		\$5,504,357	\$1,831,496		Included *	\$10,528,158	\$3,076,073	\$1,778,267	\$744,369	

What's Included

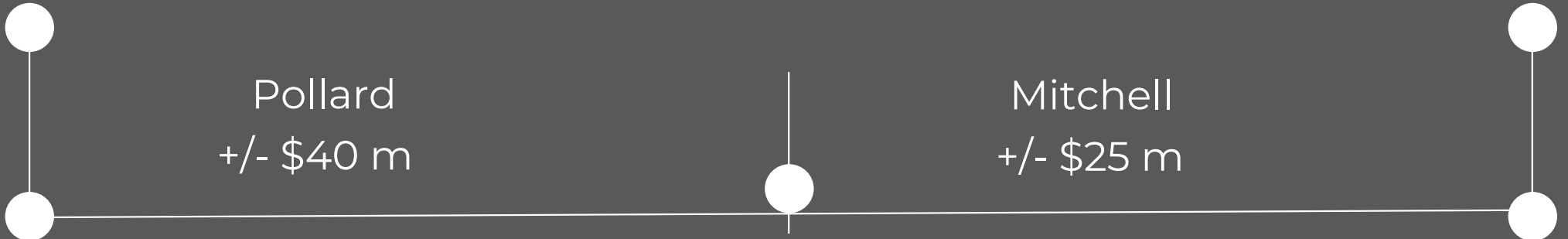
Pollard
+/- \$40 m

- Accessibility of the Courtyard
- Repairs to Exterior Columns
- Building Envelope Upgrades
- Window Replacement
- Modular Building Replacement (\$9m)
- HVAC, Electrical , Plumbing Upgrades
- Fire Protection Installation

Mitchell
+/- \$25 m

- Window and Vent Replacement
- HVAC, Electrical , Plumbing Upgrades
- Fire Protection Installation

What's Not Included



Pollard
+/- \$40 m

Mitchell
+/- \$25 m

- Seismic Upgrades
- Additions to Address Capacity Issues (Overcrowding)
- Renovations to Address Functional Use of Space
- Replacement of Mitchell Modulars

Possible Solutions

Solving The Problem

7 Options Studied

Mitchell
Pollard

	Status Quo	Discontinue High Rock 5ES & MS	High Rock As ES 6ES & MS	Two 6-8 Middle Schools 5ES & 2MS	One 5-8 Middle School 5ES & MS	Two 5-8 Middle Schools 5ES & 2 MS	Super School 5ES* & MS
	Pk, K-5 th , 6 th , 7 th , 8 th	Pk, K-5 th , 6 th -8 th	Pk, K-5 th , 6 th -8 th	Pk, K-5 th , 6 th -8 th	Pk, K-4 th , 5 th -8 th	Pk, K-4 th , 5 th -8 th	Pk, K-5 th , 6 th -8 th
Broad-meadow	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-4 th Remains	K-4 th Remains	K-5 th Remains
Eliot	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-4 th Remains	K-4 th Remains	K-5 th Remains
Mitchell	K-5th New ES (5 sect.)	K-5th New ES (5 sect)	K-5th New ES (3 sect)	K-5th New ES (7 sect)	K-4th New ES (4 sect)	K-4th New ES (3 sect)	Dis-continue
Newman	PK, K-5 th Remains	PK, K-5 th Remains	PK, K-5 th Remains	6th-8th MS Reno	PK, K-4 th Remains	5th-8th Reno/ Add	PK, K-5 th Remains
Williams	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-4 th Remains	K-4 th Remains	K-5 th Remains
High Rock	6th Only Addition	Re-purposed TBD	Re-purposed for ES	Re-purposed for ES	Re-purposed TBD	Re-purposed K-4th	Re-purposed TBD
Pollard	7th-8th Reno/ Add or New	6th-8th Reno/Add or New	6th-8th Reno/ Add or New	6th-8th Reno or New	5th-8th Reno/ Add or New	5th-8th Reno or New	K-5th & 6th-8th Reno/ Add or New

FINAL OPTIONS

Status Quo Grade Configuration

Pollard 7&8

Renovations + Addition
907-955 Students

High Rock 6

Addition
430-477 students

Mitchell

5 sect / grade
New School
650 +/- Students

Discontinue High Rock

Pollard 6-8

Renovations + Addition
1,337-1,432 Students

High Rock

Vacant
0 Students

Mitchell

5 sect / grade
New School
650 +/- Students

High Rock 6th Elementary School

Pollard 6-8

Renovations + Addition
1,337-1,432 Students

High Rock K-5

3 sect / grade
Renovations
330 +/- Students

Mitchell

3 sect / grade
New School
330 +/- Students

Building / Site Test Fits

FINAL OPTIONS

Status Quo Grade Configuration

Pollard 7&8

Renovations + Addition
907-955 Students

High Rock 6

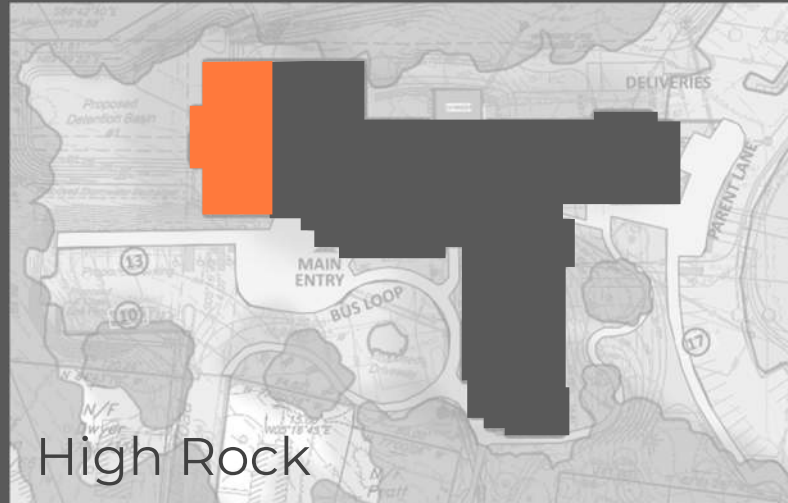
Addition
430-477 students

Mitchell*

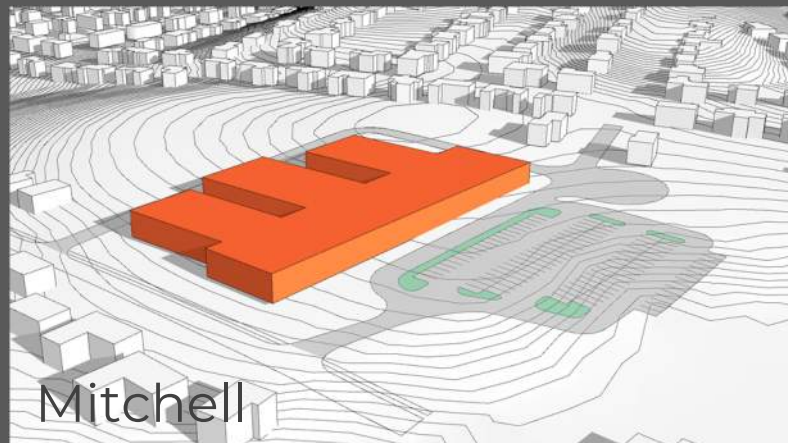
5 sect / grade
New School

650 +/- Students

* Requires temp. school



High Rock



Mitchell

FINAL OPTIONS

Discontinue High Rock

Pollard 6-8

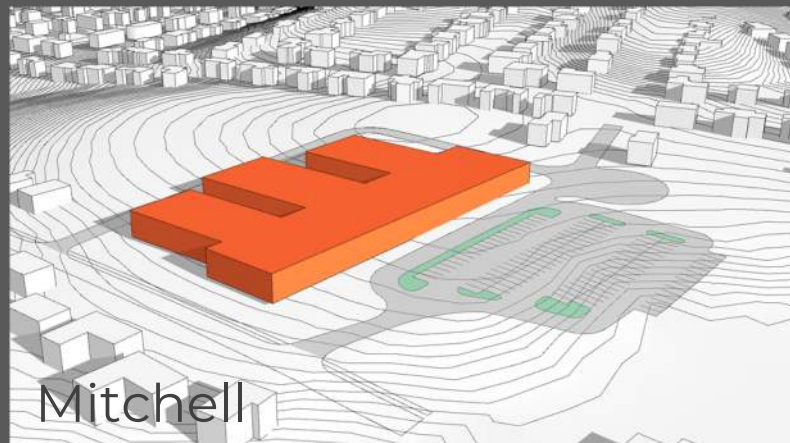
Renovations + Addition
1,337-1,432 Students

High Rock

Vacant
0 Students

Mitchell

5 sect / grade
New School
650 +/- Students



FINAL OPTIONS

High Rock 6th Elementary School

Pollard 6-8

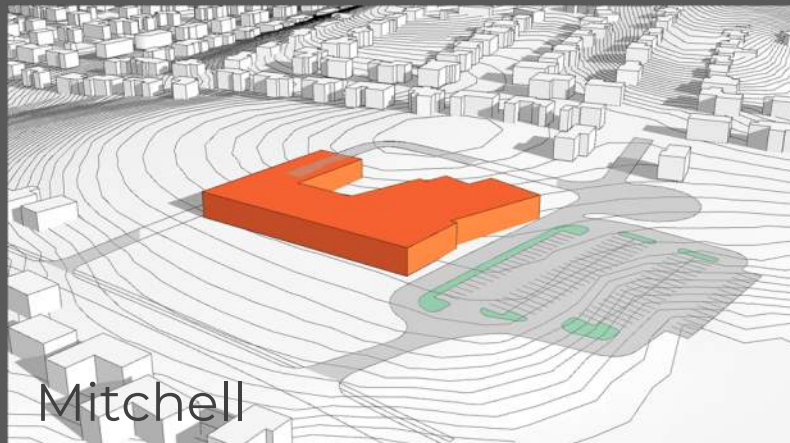
Renovations + Addition
1,337-1,432 Students

High Rock K-5

3 sect / grade
Renovations
330 +/- Students

Mitchell

3 sect / grade
New School
330 +/- Students



Master Plan Sequences w/ Cost Estimates

2020 Cost Estimates :

Mitchell 5 Section School	= \$ 86.9m
Mitchell 3 Section School	= \$ 59.3m
Pollard 7-8 Add / Reno	= \$ 97.7m
Pollard 6-8 Add / Reno	= \$148.5m
High Rock Grade 6 Add / Reno	= \$ 15.9m
High Rock K-5 Reno	= \$.3m
Temp. Modular School	= \$ 34.2m

***Cost Estimates in Master Plan Timelines reflect
2020 costs escalated at 4.5 % / year**

***Cost Estimates do not include MSBA participation**

Master Plan Options

Status Quo Grade Configuration

\$ 304.5 - \$ 317.8 +/-

Pollard 7&8

Renovations + Addition
907-955 Students

High Rock 6

Addition
430-477 students

Mitchell

5 sect / grade
New School
650 +/- Students

Discontinue High Rock

\$ 287.8 +/-

Pollard 6-8

Renovations + Addition
1,337-1,432 Students

High Rock

Vacant
0 Students

Mitchell

5 sect / grade
New School
650 +/- Students

High Rock 6th Elementary School

\$ 252.0 - \$ 281.4 +/-

Pollard 6-8

Renovations + Addition
1,337-1,432 Students

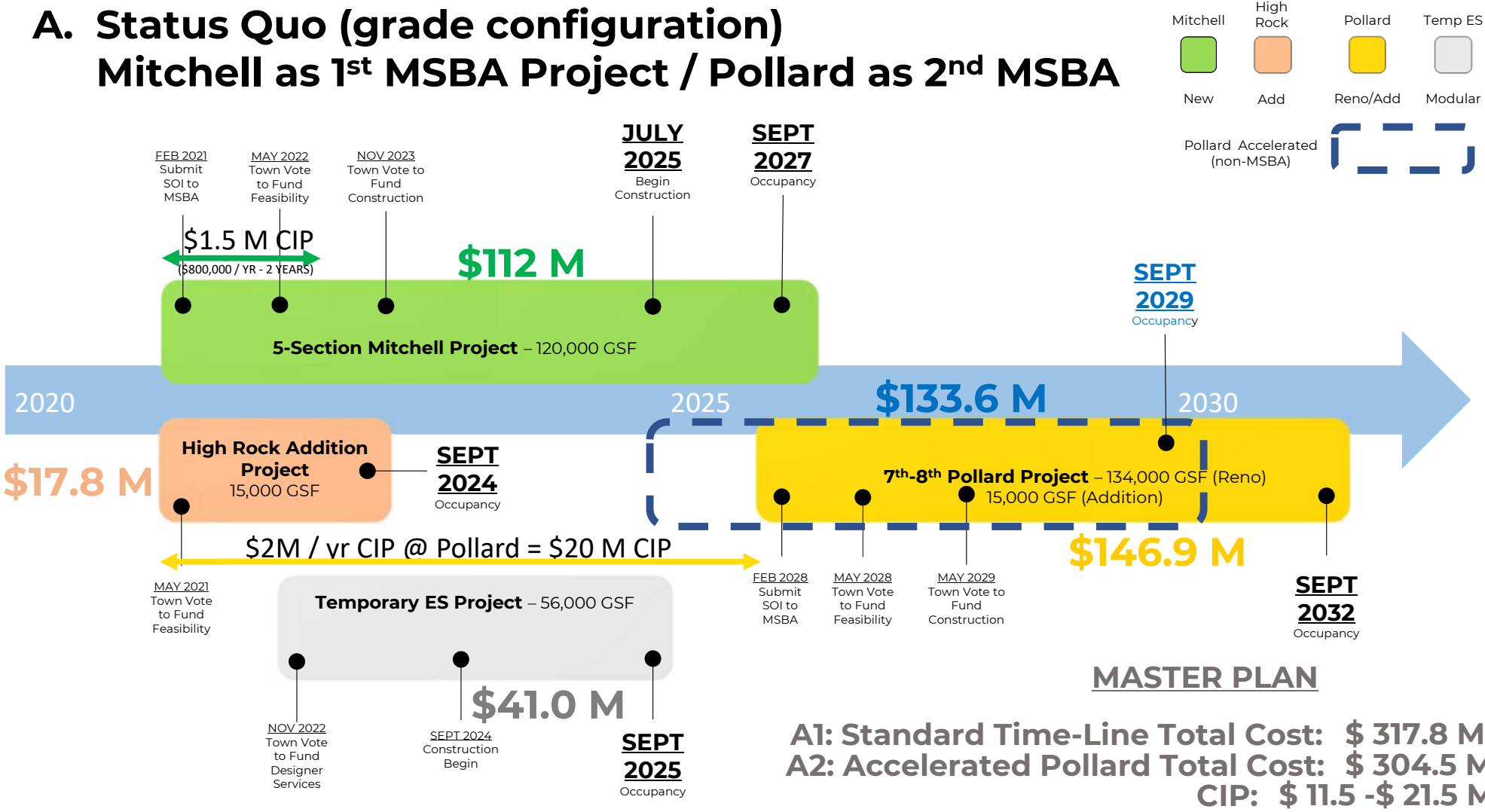
High Rock K-5

3 sect / grade
Renovations
330 +/- Students

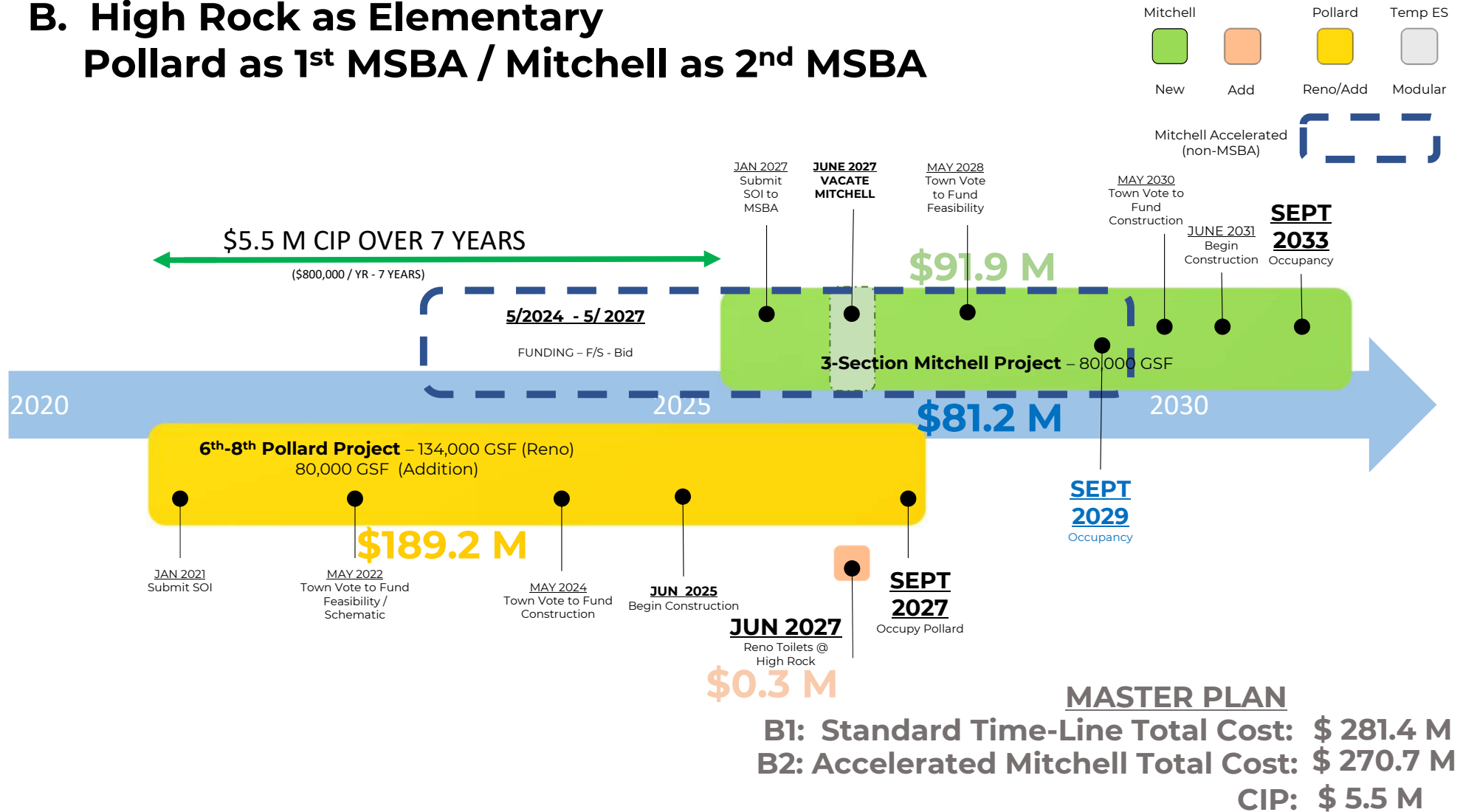
Mitchell

3 sect / grade
New School
330 +/- Students

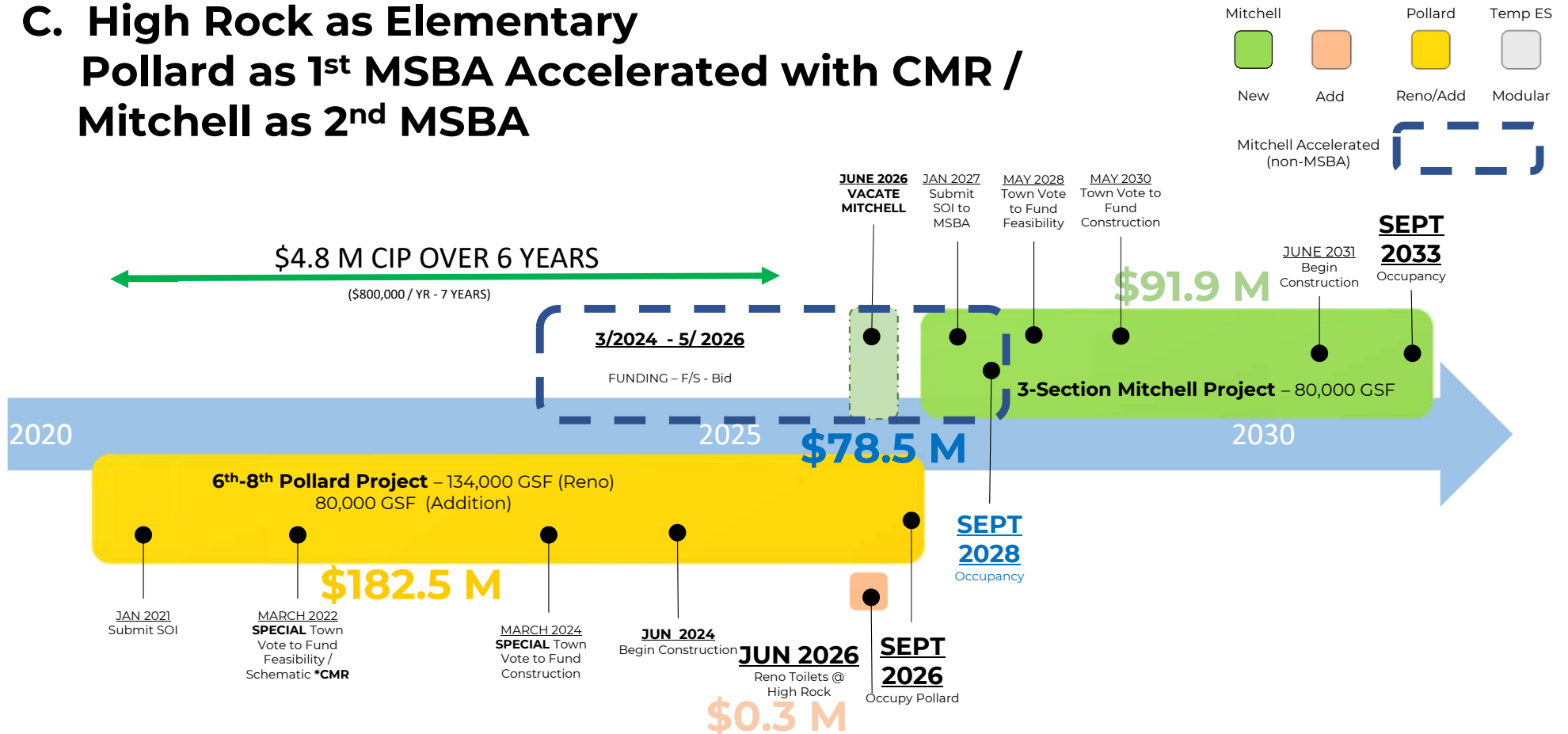
A. Status Quo (grade configuration)
Mitchell as 1st MSBA Project / Pollard as 2nd MSBA



B. High Rock as Elementary Pollard as 1st MSBA / Mitchell as 2nd MSBA



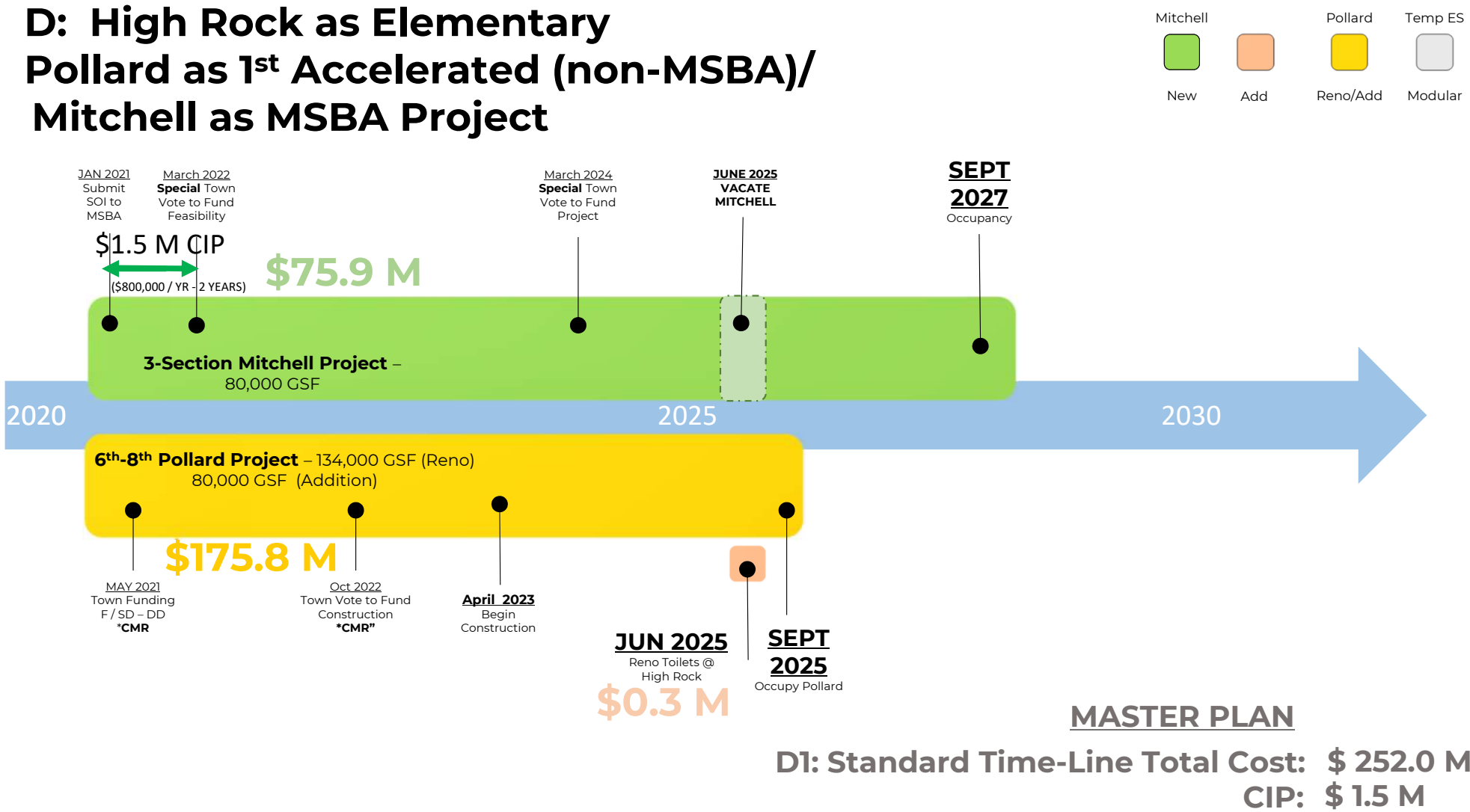
C. High Rock as Elementary Pollard as 1st MSBA Accelerated with CMR / Mitchell as 2nd MSBA



MASTER PLAN

C1: Standard Time-Line Total Cost: \$ 274.7 M
C2: Accelerated Mitchell Total Cost: \$ 261.3 M
CIP: \$ 4.8 M

D: High Rock as Elementary
Pollard as 1st Accelerated (non-MSBA)/
Mitchell as MSBA Project



MODIFIED APPROACH TO IMPLEMENTING OPTION D

(in the event that the Town wishes to delay the SMP timeline for any reason)

- Pollard Feasibility Study (consistent with MSBA guidelines and standards)
 - a) Programming study for 6-8 School
 - b) Space use layouts consistent with long term goals and current functions
- Identify priority Capital Improvements
(consistent with long term goals and below Code Triggering Upgrades)
 - a) Accessibility
 - b) MEP / FP
- “Modified Approach” was approved by the School Committee & supported by PPBC
- Capital Improvement funding at May 2021 ATM in the range of \$280,000



NEEDHAM SCHOOL MASTER PLAN



EXECUTIVE SUMMARY I

INTRODUCTION AND BACKGROUND

I-A.1

INTRODUCTION & BACKGROUND

In August 2019 the Town of Needham, MA issued a Request for Proposal (RFP) for the comprehensive facilities assessment and master plan study of its public elementary and middle schools. Dore + Whittier Architects responded to this request and was chosen by the Permanent Public Building Committee (PPBC) to perform this study. This study includes a comprehensive facility assessment, analysis of projected enrollment growth and shifts across the district, and the development of a multi-year master plan to address the identified needs.

THE REPORT

This report reflects the work, data, and analysis that led to the development of multiple scenarios to resolve key issues that were identified through our research. The report is broken into four sections:

Section I – Executive Summary: This section, provides an overview of the work, findings, and options that are found in greater detail in the subsequent sections of this report.

Section II - Facility Assessments: This section includes an in-depth report of the physical condition of each of the facilities included in this report. Each facility assessment includes overall site and building data, a regulatory assessment, civil, structural, architectural, mechanical, electrical, plumbing and fire protection assessment. These assessments outline the existing conditions and identify needs. A Capital Improvement Plan (CIP) spreadsheet records each of the building needs and provides a cost estimate for repair or replacement.

Section III – Analysis & Programing: This section includes capacity and space needs analysis, and the educational program analysis that informed the development of the master plan options

Section IV- Master Plan: This section provides an overview of the process, the master plan scenarios and the total project cost estimate and time to completion for each of the scenarios.

OVERVIEW OF THE DISTRICT

The Needham Public School District currently serves approximately 3,979 students in grades K thru 8 and is projected to reach 3,884 students by the 2028-29 school year. Five elementary schools serve the district's 2,587 K-5 students. These schools vary considerably in enrollment size, sections per grade, and age of facility. The newest school, the Sunita L. Williams School, opened in September 2019 and replaced the aging Hillside School. With a design enrollment of 430 students the school currently serves 518 students. The oldest elementary school in the district is the Mitchell School. This school was constructed in 1949. Additions to the building were added in 1948 and 1968. This school currently serves 484 students. A single school, the High Rock School, serves the District's 499 grade six students while the Pollard Middle School serves grades seven and eight with an enrollment of 893 students.

This Study provides the following for each school:

1. Documentation of existing conditions and physical assessment of each building and site with recommendations to address deficiencies at each school.

2. Review of the district's enrollment and consideration of the impact on future needs.
3. Review of Educational Program needs, goals, strengths and deficiencies, including a 'Space Utilization Analysis'.
4. A review of the potential and suggested capital improvements to extend the useful life of each facility in relationship to building systems and equipment, health, safety and welfare of building occupants.
5. Conceptual master planning solutions for long term replacement or repairs to the facilities*.

*All long-term building renovation recommendations developed during the course of this study support the integration of sustainable design components including energy efficiency, recycling of materials, water conservation, renewable energy technology and environmentally friendly materials to the extent feasible.

DOCUMENTATION

This report is based on information gathered by visual observations of each facility and site conducted by Dore + Whittier Architects, Inc. and its consultants, as well as a review of the available existing building drawings, documents, reports and enrollment projections that were provided to the Design Team from the Town of Needham. The extent and accuracy of the documentation available varies with each building.

Existing Buildings:

Building	Address	Year built / Renovated	Total Sq. Ft	Grades & Enrollment
Pollard Middle School	200 Harris Ave. Needham, MA. 02492 (781) 455-0480	Original Building: 1956 Add/Reno: 1969, 1996 Modular Addition 2004	147,224 GSF (includes modular bldg.)	Grades: 7-8 Students: 893
High Rock School	77 Ferndale Rd. Needham, MA. 02492 (781) 455-0455	Original Building: 1959 Add/Reno: 1953, 2007	72,927 GSF	Grade: 6 Students: 499
Broadmeadow Elementary School	120 Broadmeadow Rd. Needham, MA. 02492 (781) 455-0448	Original Building: 1959 Add/Reno: 2003	116,466 GSF	Grades: K-5 Students: 548
Eliot Elementary School	135 Wellesley Ave. Needham, MA. 02492 (781) 455-0452	Original Building: 2003 Add/Reno:	70,850 GSF	Grades: K-5 Students: 412
Mitchell Elementary School	187 Brookline St. Needham, MA. 02492 (781) 455-0466	Original Building: 1949 Add/Reno: 1958, 1968 Modular Addition: 2015, 2019	53,785 GSF	Grades: K-5 Students: 484

Newman Elementary School	1155 Central Ave. Needham, MA. 02492 (781) 455-0416	Original Building: 1960 Add/Reno: 1995	139,710 GSF	Grades: K-5 Students: 625
Sunita L Williams School	585 Central Ave. Needham, MA 02492 (781) 455-0461	New construction: Opened: 9/2019	90,702 GAF	Grades: K-5 Design Enrollment: 430 Current Enrollment: 518
(Former) Hillside Elementary School	28 Glen Gary Rd. Needham, MA. 02492	Original Building: 1959 Add/Reno: 1968 Modular: 2000	47,095 GSF	Currently used as temporary Fire & Police Station

- **Student enrollment as of September 2019**

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EXECUTIVE SUMMARY

I-A.2

EXECUTIVE SUMMARY

INTRODUCTION

This report provides an independent architectural and engineering assessment of the middle and elementary school facilities in the Needham Public School District. The study serves as a tool to assist the town with identifying and prioritizing a long-term master plan including a capital improvement plan for each facility included in the study. The plan identifies facility space needs based on enrollment projections and current educational delivery methods and educational programs.

Dore & Whittier used the following method to develop this report:

- A. Data gathering and review of previous studies
- B. Facility Assessments (non-destructive only)
- C. Analysis and Programming
- D. Master Plan Scenarios
- E. Feasibility of Master Plan Components

Throughout the course of this study, Dore + Whittier Architects consulted with the town building design and construction department, building maintenance department, the school district administration, school committee members, and the permanent public building committee (PPBC) to identify and prioritize facility and educational space needs. The result of this work includes facility assessment reports, capital improvement plans (CIP) and options for building additions, renovations, or replacements over an extended time period.

A - DATA GATHERING AND REVIEW OF PREVIOUS STUDIES

The District provided the Design Team with existing building and site plans as available, prior capital improvement project lists, previous master plans and reports, and tax cards reporting the current value of each facility. This “current value of the building” is important when reviewing the scope of work proposed for repairs or renovations: it is important to review the current value of the facility, as a percentage of this value is used to trigger other code related work such as seismic, accessibility, and fire protection upgrades. The current value of each building and site is included in the facility assessment, Section II, under Section B – Existing Site & Building Data for each building and in Appendix B of this report. Data was also provided regarding enrollment projections. This information was developed by McKibben Demographic Associates and included an enrollment projection for each grade level for fifteen years. The preliminary projections are included in Appendix C of this report.

B - FACILITY ASSESSMENTS AND CAPITAL IMPROVEMENT PLANS

The Facility Assessment Reports were developed by the architectural and consultant teams and involved visual assessment of each building and site. No destructive or investigative work was conducted. These reports include Architectural, Civil, Structural, Mechanical, Electrical, Plumbing, and Fire Protection. These assessments identify existing conditions, note specific issues, and make recommendations for repairs or replacements. It is important to note that these assessments were made prior to the COVID 19 pandemic and do not reflect any recommendations or requirements associated with COVID 19.

The Capital Improvement Plan (CIP) spreadsheet records each of the specific issues identified as in need of repair or replacement provides an estimated cost of the repair and identifies a timeline for when the repair should be considered. The CIP spreadsheet does not consider bundled scopes of work (ie. the installation of sprinklers with the replacement of ceiling tile systems) which could add to potential cost savings or reprioritize the timeline for a particular repair or replacement.

In addition to identifying the cost of a repair, the CIP spreadsheet also categorizes the capital need as Health, Safety & Welfare, Code Compliance, Functional Use of Building or Site, Handicap Accessibility, Extending the Life of the Building (Maintenance), Energy Efficiency / Energy, Water Savings, and Hazardous Material Abatement to further assist the Owner in prioritizing the needs of the facility. Note that these items are solely addressing building conditions and do not include a review of the educational program. Items that fall under Health, Safety, & Welfare often receive the highest priority.

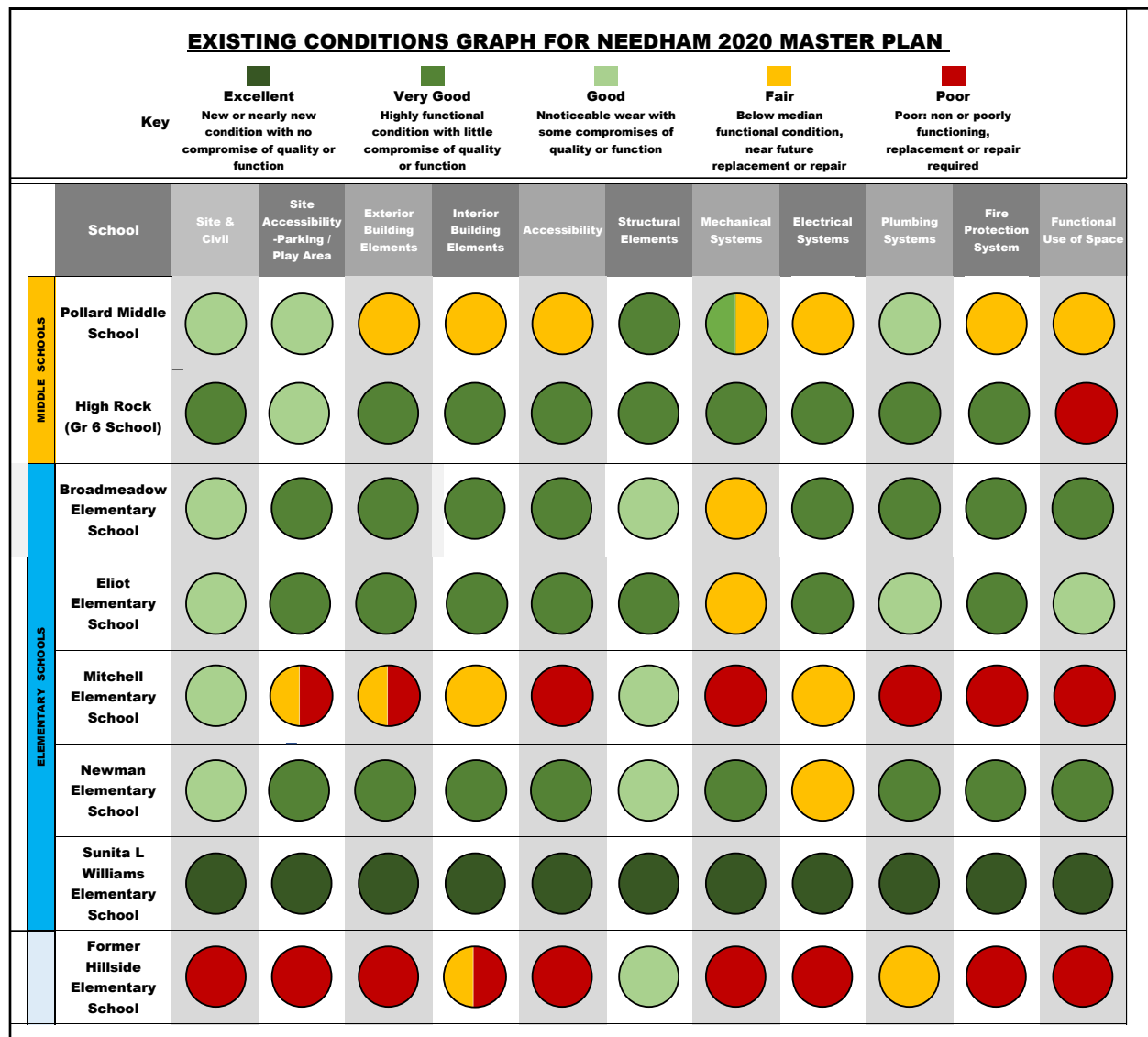
Cost estimates are given in today's dollars (June 2020). These costs are developed based on an approximate quantity or area of repair. Estimates were prepared for budgetary purposes only and are preliminary in nature based on recent bid history and area calculations. The CIP spreadsheet reflects the cost of the work, designer pricing contingency (15%), and soft cost (25%) to arrive at an estimated project cost. Further refinement of costs will need to be evaluated as the scope of work is developed further.

Cost estimates assume that the work is placed out to bid. Use of building maintenance staff to address certain maintenance items (that are within the limits of MGL) identified could result in significant offsets to the costs identified.

FACILITIES OVERVIEW

The following chart is a summary of the facility assessment needs for each school. The categories of assessment are (from left to right) Site & Civil, Site Accessibility / Parking / Play Areas, Exterior Building Elements (doors, windows, walls, roof, etc.), Interior Building Elements (floors, ceilings, walls, doors, etc.), Interior Accessibility, Structural Elements, Mechanical Systems, Electrical Systems, Plumbing Systems, Fire Protection, and the Functional Use of the Building, which reflects how well the building serves the educational program. Elements that performed poorly or are in the greatest need for repair or replacement are shown in red; yellow is fair condition – not an immediate need but generally will need replacement in the near future. The lightest green notes systems in good condition, medium green indicates very good condition, and the dark green is excellent or new condition. A quick view of the chart shows that the former Hillside School facility performed at the lowest level in almost every category. The purpose of including this facility in the study was to assess its potential use as swing space during the renovation of other school facilities. The facility is currently in use as a temporary police and fire station while those facilities are under construction. Research conducted as part of this study indicated that the facility was converted to Business Use, a lower risk category than School, and thereby not requiring the upgrade to a fully sprinklered facility. Should this building be considered for school swing space it would require a re-classification as a School, which would trigger full compliance with the building code for schools resulting in: upgrades to the structural system for seismic, wind and snow loads, the installation of a sprinkler system throughout the facility, installation of a code compliant fire alarm system, upgraded electrical service, new ventilation system, energy code compliant plumbing fixtures and the upgrade of the entire building to meet ADA / MAAB including the installation of a three stop elevator to service all areas of the building. A letter dated December 13, 2019 from our office to Mr. Steven Popper outlining these issues is included in Section G of this report.

Excluding the former Hillside School, the Mitchell School facility has been identified as the facility with the most needs, followed by the Pollard School. All other facilities are in good condition with isolated needs such as mechanical or electrical systems. The column on the far right of the chart identifies how well the facility is serving the educational program. This is equally important when we begin to address master planning needs. It indicates that, aside from the Mitchell School, the only other school that is doing poorly in this category is the High Rock School. In general, this is due to overcrowding. The High Rock School serves approximately 499 students in Grade 6 and is limited in its ability to provide appropriate special education teaching spaces and spaces for specials among other program deficits. More information regarding the educational program deficits for this school is listed below and in Section III of this report.



The town has taken proactive and strategic measures to address ongoing maintenance and extend the useful life of both the Pollard Middle School and the Mitchell Elementary School. The Pollard School has received a new roof, new boilers (the old dual fired burners for the boilers were moved to Mitchell School), and new domestic hot water heaters. Multi-user toilet rooms have been upgraded with water saving fixtures and new finishes, new seating has been added to the theater, new carpet has been placed in the media center, and the administration office has been relocated to provide additional space for guidance. Both the blue and the green gyms have received new floors, pads and wall finishes.

The Mitchell School has recently had two major building projects to address the educational program needs. These include the construction of a four-classroom modular building in 2015 that is currently serving the kindergarten population and a two-classroom modular building in 2019 that serves art and music. This construction has provided space within the building to accommodate special education programs and provide all- day kindergarten.

Outlined below is a general overview of our findings for each building. It is important to note that throughout this report, references have been made to the current building codes. It is assumed that at the time of construction, each facility met the existing building codes and that existing conditions have been grandfathered. Upgrades for compliance with current building codes are suggested in all areas of life safety and accessibility.

Where repairs and replacements are noted in the reports, all new work and renovations to existing conditions must comply with current building codes. In some instances, new repair or renovation work may trigger facility upgrades such as the addition of sprinklers, seismic bracing, or ADA / MAAB (handicap accessibility) compliance. A full, detailed scope of work must be developed along with a complete code review and updated cost estimate prior to the start of any repair, renovation, or new construction project. A summary of current codes is provided in Section I A-3 and is used as the basis for this study. Where repairs and replacement of building conditions extend over time, the work will need to be in compliance with the building codes in effect at the time of permitting, which may differ from those noted herein.

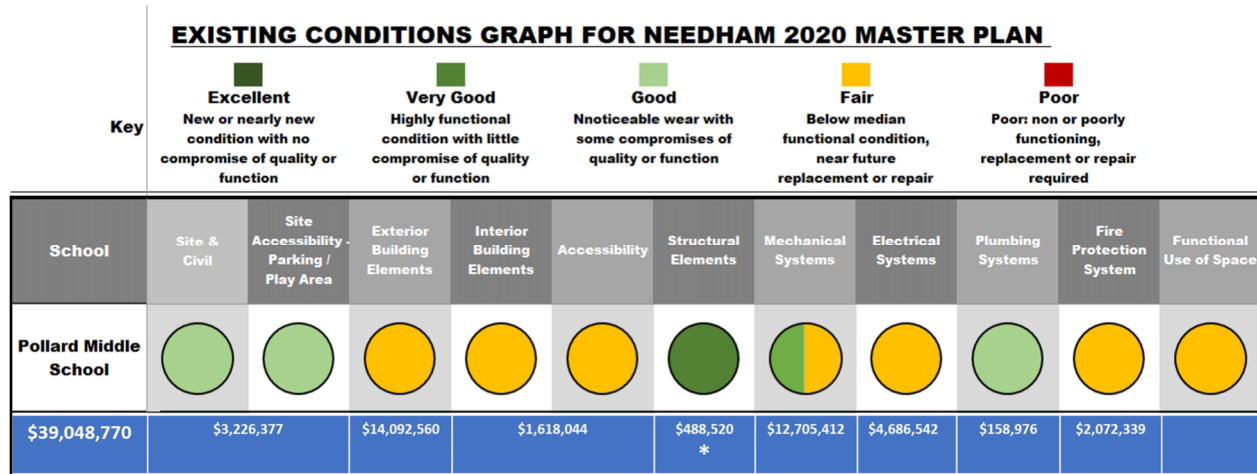
MIDDLE SCHOOLS

Pollard Middle School

Based on the MSBA guidelines for a middle school, the Pollard Middle School has adequate gross square footage for its population. However, there are many undersized classrooms, inadequate teacher planning, administration, or meeting spaces, insufficient space for special education, and antiquated science labs. The modular classroom building is fully occupied but, the building has exceeded its useful life and is in need of replacement.

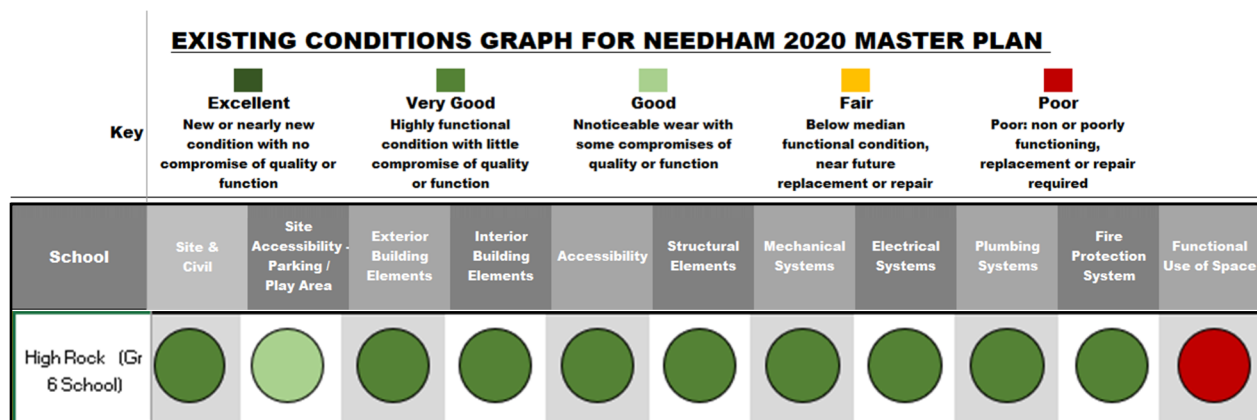
The school was constructed in 1956 and had a significant renovation in 1996. Overall, the building is in fair condition and in need of upgrades to the building envelope, mechanical system, and electrical system. Heating and cooling the building consistently is difficult given the age of the equipment, the fluctuation of gas pressure being delivered to the boilers, and the lack of a proper thermal envelope. There are several areas throughout the building that do not meet current ADA / MAAB requirements including stair railings, door push / pull clearances and equal accessibility to all spaces. Finally, the building is only partially sprinklered. Any upgrades to the facility will trigger the need to provide a fully automated fire suppression system throughout the entire building. The cost of this work may trigger other code upgrades including seismically clipping interior walls, a cost that is not anticipated in the CIP scope. The project cost estimate for the identified facility needs was estimated to be approximately \$40,000,000 over the next ten years

(without escalation). Upgrades to the facility need to be carefully planned as to not trigger additional whole facility renovations.



High Rock Grade 6 School

By comparison the High Rock school has far fewer capital needs. The addition and renovations in 2009 provided a fully sprinklered building and brought the building into compliance with accessibility requirements. Aside from on-going maintenance and small repairs, the facility does not require any major capital investments in the immediate future. However, the educational program needs would suggest that a major classroom addition is needed to serve the Grade 6 community. This is further discussed in the 'Analysis and Programming' section below.



ELEMENTARY SCHOOLS

Overall, the elementary schools, with the exception of the Mitchell School, are in very good condition. The extensive renovations / additions to Broadmeadow Elementary School in 2003, High Rock School in 2009, the Newman School in 2012, and the replacement of the Eliot School in 2001 and the Hillside School in 2019 are clear examples of the community's commitment to their school facilities. Each of these schools have been brought into compliance with ADA / MAAB and with the need for fire protection throughout the entire facility.

Broadmeadow, Eliot & Newman Schools

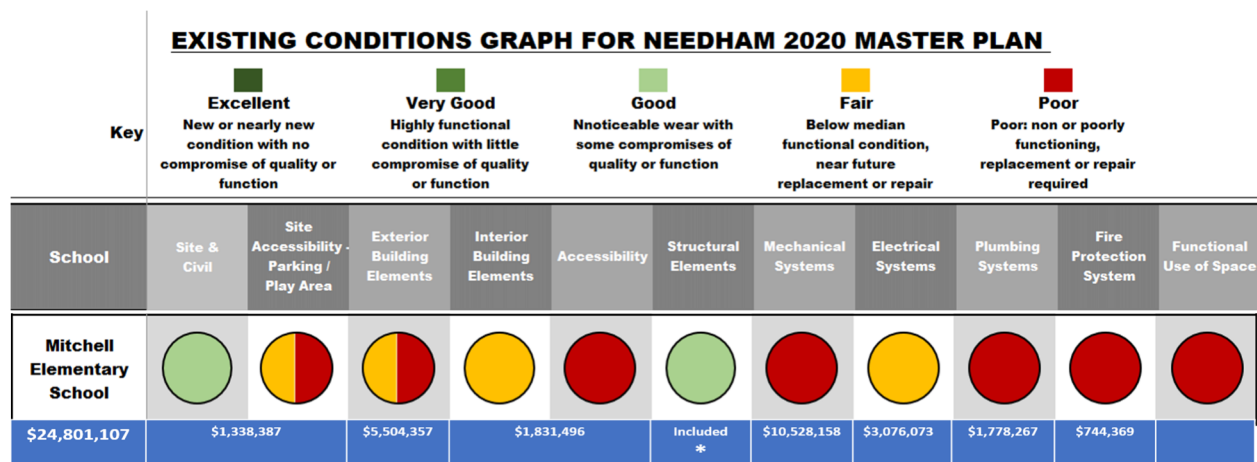
Some HVAC systems at Broadmeadow have surpassed their life expectancy while other parts of the system are approaching their 20 year life expectancy and will become more expensive to repair over time. This is true, albeit to a lesser degree, for the Eliot School as well. The Newman School underwent a full building renovation in 2010. However, some of the 1960 electrical system equipment remains in use and in need of replacement.

Sunita L. Williams School

This school is the newest facility in the district. Opening in September of 2019, the school was in use for approximately six months prior to closing for COVID-19 pandemic reasons. Currently all building systems are still under warranty.

Mitchell School

Despite the ongoing efforts to maintain the Mitchell Elementary School facility, many systems are beyond their useful life and require replacement. The original building was constructed in 1948, with additions in '58 and '68. Many of the building systems are original. Upgrades to the facility, while occupied, are difficult as any renovation will likely trigger code required upgrades to the entire facility including the addition of sprinklers, full compliance with handicap accessibility, and structural upgrades to meet current seismic code requirements; a cost that is not anticipated in the CIP scope. The project cost estimate for the identified facility needs was estimated to be approximately \$25,000,000 over the next ten years (without escalation). Upgrades to the facility need to be carefully planned in three-year increments as to not trigger additional whole facility renovations.



C - ANALYSIS and PROGRAMMING

Dore & Whittier performed a review of an enrollment forecast produced by McKibben Demographics in December of 2019. Dore & Whittier used that information to perform a space needs analysis to identify how many general classrooms and teaching stations would be necessary to maintain class sizes within the District's guidelines. In addition, Dore & Whittier performed a capacity analysis to refute or corroborate the enrollment and space needs analyses. The details of this analysis can be found in Section III of this report. The bullets below highlight the key findings from these analyses.

Enrollment Forecast:

- The elementary population is expected to experience a slight uptick before a slow decline, peaking at 2,634 students in 2020-21 and declining to 2,428 in 2034-35.
- The middle grades population (6th-8th) is expected to experience a slight up-tick before a slow decline peaking at 1,405 in 2021-22 and declining to 1,364 in 2034-35.

Space Needs Analysis:

- Existing elementary schools contain a total of 116 general education classrooms. Seven spaces (four modular classrooms at Mitchell and one repurposed space at each of Eliot, Broadmeadow, and Newman) were not counted toward this total.
- In order to remain within the District's guidelines for students per classroom, the District needs between 114 to 141 general classrooms.
- It appears there are enough general classrooms within the District to accommodate the entirety of the enrollment forecast by redistricting around the edges if the District maximizes the number of students per classroom.
- To have all general classrooms be near the mid-point of its class size guidelines, the District would need a maximum of 127 general classrooms. Dore & Whittier, however, recommends a minimum of 126 general classrooms in the District due to the slightly declining enrollment. Dore & Whittier also observes that there may be a case for a few more general classrooms to give the District more flexibility in its class sizes and/or to provide dedicated space for specials.
- The existing High Rock School contains a total of 25 teaching stations.
- In order to maintain an average class size of 22 students per teaching station, the building requires at least 31 teaching stations at the school's current utilization rate of 71%.
- High Rock School also has spatial deficiencies related to special education spaces, an undersized cafeteria, and an undersized gymnasium. Dore & Whittier did not explore ways to address the deficiencies associated with the gymnasium or cafeteria but recommend any classroom additions contain approximately 10 spaces to address both the teaching station and special education needs.
- The existing Pollard Middle School has 61 existing teaching stations. The ten existing modular classrooms are excluded from this count.
- Should Pollard Middle School continue to serve only grades 7th & 8th, it appears the existing 61 teaching stations are enough to serve the enrollment forecast assuming the school adjusts its daily schedule to utilizing space slightly more efficiently, similar to the daily schedule used at High Rock.
- Should the Pollard Middle School serve grades 6th-8th, the analysis suggests a need for 90 total teaching stations, necessitating an addition to the existing building or a newly constructed facility.

Capacity Analysis:

- The table below communicates the calculated capacities for each elementary school and compares them to the individual school forecast from the McKibben demographic study. The analysis corroborates the space needs analysis, suggesting the District can accommodate the entirety of the enrollment forecast within existing classrooms if class sizes average the maximum identified in the District's class size guidelines and by re-districting around the edges. It also communicates there are localized capacity challenges at Broadmeadow, Eliot, and Mitchell.

	Capacity		Need
	General Classrooms	Students	Enrollment Forecast
Broadmeadow Current = 548	24	448 to 544	504 to 560
Eliot Current = 412	18	336 to 408	413 to 443
Mitchell* Current = 484	20	376 to 456	423 to 481
Newman Current = 624	30	560 to 680	586 to 648
Williams Current = 518	24	448 to 544	502 to 533
	116	2,168 to 2,632	2,428 to 2,634

* Does not include modular classrooms for Kindergarten. Including those modular classrooms would increase capacity to 448 to 544.

The table below communicates the calculated capacities for Pollard Middle School and the High Rock school and compares them to the individual school forecast from the McKibben demographic study. Capacity calculations are based on the midpoint of the District's class size guidelines (20-24) and the capacity range is based on two utilization models (71% and 75%). The analysis corroborates the space needs analysis:

- A capacity challenge exists at High Rock for the entirety of the enrollment forecast.
- Pollard Middle School appears to have sufficient capacity (without the use of the modular classrooms) to accommodate the enrollment forecast assuming a slight change in the daily schedule to utilize space more efficiently.

	Capacity		Need
	Current Teaching Stations	Students	Enrollment Forecast
High Rock (6 th Only) Current = 499	25	391 to 412	430 to 477
Pollard* (7 th – 8 th) Current = 892	61	953 to 1,007 (895) Based on current utilization of 67%.	907 to 955
Pollard* (6 th – 8 th) Current = 1,391	61	953 to 1,007	1,361 to 1,405

* Does not include modular classrooms. Including those modular classrooms would increase capacity to 1,109 to 1,172.

D – MASTER PLAN SCENARIOS

Dore & Whittier explored seven master plan scenarios to address the three basic findings of the facility assessments, enrollment and space needs analysis, and the capacity analysis:

- Mitchell Elementary School possesses the greatest facility and spatial needs of all the schools in the District’s inventory.
- High Rock School exhibits capacity needs.
- Pollard exhibits the second greatest facility needs and may possess some capacity needs depending on the school scheduling methodology.

Master Plan Scenarios Being Explored:
 Major Project Required

	Status Quo Pk, K-5th, 6 th , 7 th , 8 th	Discontinue High Rock 5ES & MS Pk, K-5th, 6 th , 8 th	High Rock As ES 6ES & MS Pk, K-5th, 6 th , 8 th	Two 6-8 Middle Schools 5ES & 2MS Pk, K-5th, 6 th , 8 th	One 5-8 Middle School 5ES & MS Pk, K-4th, 5 th , 8 th	Two 5-8 Middle Schools 5ES & 2 MS Pk, K-4th, 5 th , 8 th	Super School 5ES* & MS Pk, K-5th, 6 th , 8 th
Broadmeadow	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-4 th Remains	K-4 th Remains	K-5 th Remains
Eliot	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-4 th Remains	K-4 th Remains	K-5 th Remains
Mitchell	K-5 th New ES (5 sections)	K-5 th New ES (5 sections)	K-5 th New ES (3 sections)	K-5 th New ES (7 sections)	K-4 th New ES (4 sections)	K-4 th New ES (3 sections)	Discontinued
Newman	PK, K-5 th Remains	PK, K-5 th Remains	PK, K-5 th Remains	6th-8th MS Reno	PK, K-4 th Remains	5th-8th Reno/Add	PK, K-5 th Remains
Williams	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-4 th Remains	K-4 th Remains	K-5 th Remains
High Rock	6th Only Addition	Repurposed TBD	Repurposed for ES	Repurposed for ES	Repurposed TBD	Repurposed K-4th	Repurposed TBD
Pollard	7th-8th Reno/Add or New	6th-8th Reno/Add or New	6th-8th Reno/Add or New	6th-8th Reno or New	5th-8th Reno/Add or New	5th-8th Reno or New	K-5th & 6th-8th Reno/Add or New

Each scenario was explored by calculating the size of each potential project (component of the scenario) and testing its feasibility as either a renovation, renovation/addition, or new construction project depending on the specifics of the project. The scenarios were then cost estimated and sequenced on a timeline. Based on these explorations, three scenarios were eliminated from consideration.

- **Two 6th-8th Middle Schools** – Relocate 6th grade to be housed with grades 7th and 8th grade at both the Pollard and Newman sites. Repurpose the High Rock School as an elementary school to partially replace Newman as an elementary school. Essentially, address the High Rock and Pollard needs with projects at Pollard and Newman (addressing these needs in two projects limits the number of students on the Pollard campus.) Address Mitchell needs at Mitchell. This scenario was eliminated from further consideration because the project at Mitchell needs to be seven sections per grade to accommodate the loss of classrooms at Newman. Even if the students could be relocated during construction, a seven section school was deemed infeasible because of the site constraints present at Mitchell.

- **One 5th-8th Middle School** – Relocate 5th and 6th grades to be housed with grades 7th and 8th grades at the Pollard site. Repurpose the High Rock School as swing space for a Mitchell project. Essentially, address the High Rock and Pollard needs at Pollard. Address Mitchell needs at Mitchell. This scenario was eliminated from further consideration for two reasons:
 - The project at Pollard would result in approximately 2,000 students on that campus, even more than the existing high school, which was considered unattractive to the Working Group and the PPBC.
 - In order to create a facility large enough to house 2,000 students, it appears necessary to relocate the existing 7th-8th grade students to another site during construction so that the project could be located where the existing building sits. Currently there are no locations to house students off-site during construction.
- **Super School** – Explores a single project to house all grades 6th-8th and the equivalent of a replacement for Mitchell all under one roof as a school-within-a-school model at the Pollard site. This scenario was eliminated from further consideration for two reasons:
 - The project at Pollard would result in approximately 2,000 students on that campus, even more than the existing high school, which was considered unattractive to the Working Group and the PPBC.
 - In order to create a facility large enough to house 2,000 students, it appears necessary to relocate the existing 7th-8th grade students to another site during construction so that the project could be located where the existing building sits. Currently there are no locations to house students off-site during construction.

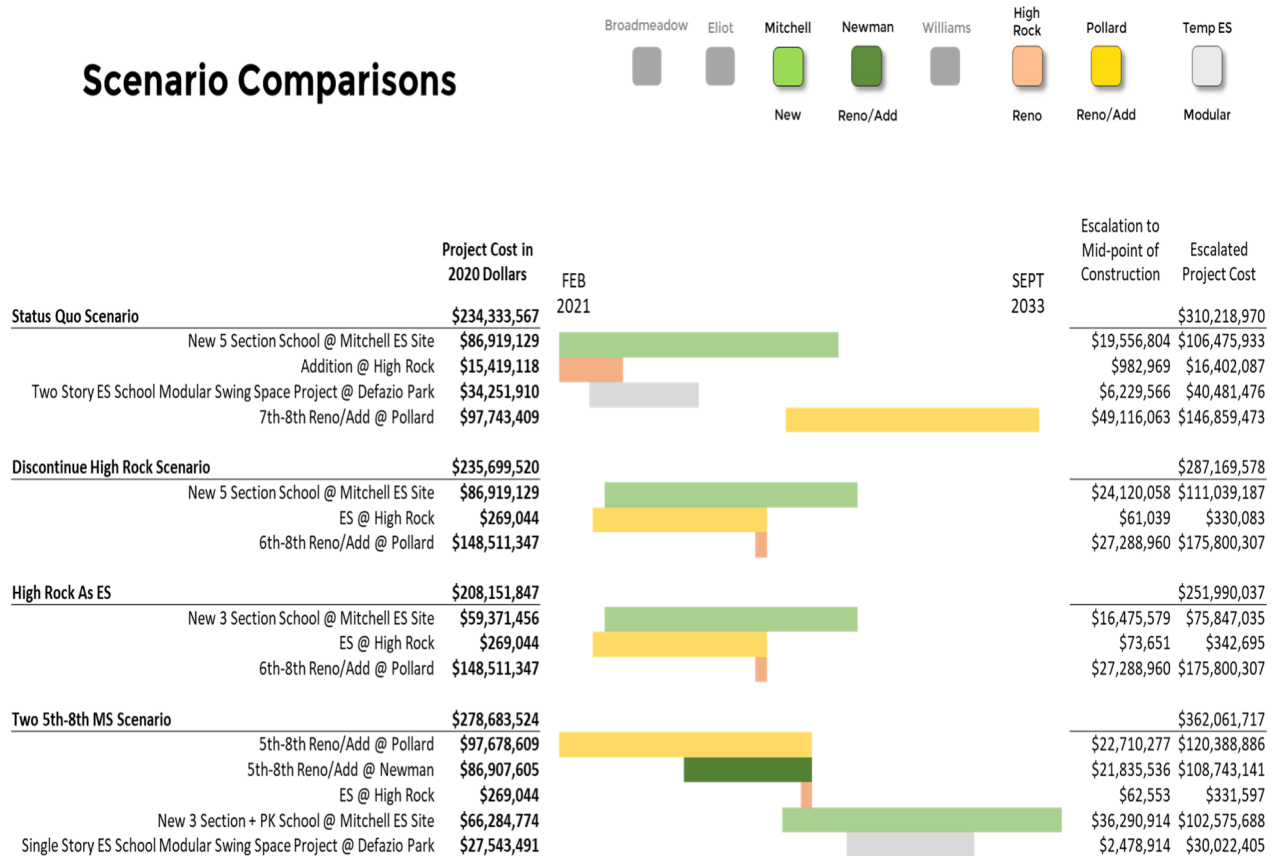
The four scenarios identified for the District to consider include:

- **Status Quo** – Perform the work necessary to address each of the identified needs without changing the grade configuration or the number of elementary schools. Essentially address the Mitchell needs at Mitchell. Address the High Rock needs at High Rock. Address the Pollard needs at Pollard.
- **Discontinue High Rock** – Relocate 6th grade to be housed with grades 7th and 8th grade at the Pollard site. Use the vacant High Rock School as swing space for a Mitchell project sized to address all the capacity needs across the elementary schools, then discontinue High Rock for educational use. Essentially address the High Rock and Pollard needs at Pollard. Address the Mitchell needs at Mitchell with a five section per grade project.
- **High Rock as Elementary School** – Relocate 6th grade to be housed with grades 7th and 8th at the Pollard site. Use the vacant High Rock School as swing space for a Mitchell project, sized only for three sections per grade and then allow High Rock to serve as a permanent elementary school to address some of the capacity needs at the other elementary schools. Essentially address the High Rock and Pollard needs at Pollard. Address the Mitchell needs at Mitchell with a three section per grade project.
- **Two 5th-8th Middle Schools** - Relocate 5th and 6th grade to be housed with grades 7th and 8th at both the Pollard and Newman sites. Newman requires an addition. Reconfigure elementary schools to be K-4th with the Pre-K incorporated into the Mitchell project. Repurpose the High Rock School as an elementary school to partially replace Newman as an elementary school. Essentially, address the High Rock and Pollard needs with projects at Pollard and Newman (addressing these

needs in two projects limits the number of students on the Pollard campus.) Address Mitchell needs at Mitchell.

The table below summarizes the individual component cost estimates for each of these four scenarios, the sequence of project's timeline, and the estimated overall total escalated project cost of each scenario.

Scenario Comparisons



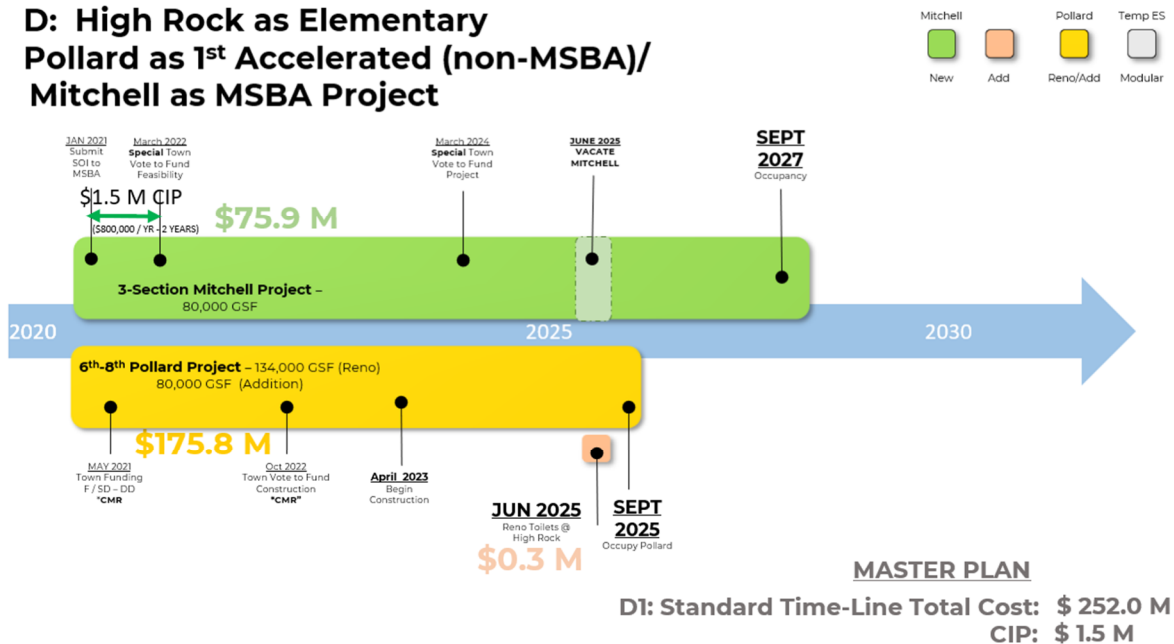
It is important to note that all four scenarios under consideration require at least two projects to be in process concurrently. Some scenarios could be sequenced differently to limit the concurrency of projects in an effort to reduce the financial commitment of the Town at any one time, but doing so may result in a longer time to completion, greater escalation costs, and an increase to the overall project costs. Based on the scenarios presented, the High Rock School as an elementary school which includes an addition and renovation to the Pollard School has both the shortest time to completion and is the most cost effective solution. This scenario also presents the best use of the Town's current assets.

Should the District consider the High Rock as an Elementary School scenario, the key question is 'which of the major projects should be identified as the District's priority project for the Massachusetts School Building Authority (MSBA) grant program'. Based on the space needs and capacity analysis, the District may consider the Pollard School addition /renovation project to be the priority. Should the District be successful in being invited into the MSBA's Core program, the High Rock facility will become available upon the completion of the Pollard School addition / renovation project which will defray the capacity challenges at the elementary school level. Following the completion of the Pollard project, the Town could seek MSBA participation in the Mitchell School project. If the Town is not successful in receiving the

assistance of the MSBA for the Mitchell School, the District can continue to operate with the five elementary schools (including High Rock and discontinuing Mitchell) and maximize the average elementary school class sizes across the district to accommodate the enrollment, understanding that doing so provides limited flexibility should the enrollment forecast trend back upward.

Preliminary discussions with the MSBA by the School Department indicate that the Town of Needham would need to present a Statement of Interest (SOI) with the “most pressing project” to get into the MSBA pipeline. The School Master Plan is a useful reference but will only be viewed as background information in the submission of the SOI. Once the feasibility stage of the study starts a “larger solution” may be studied, if approved by the MSBA. However, the MSBA makes no guarantees regarding acceptance into the program or on the level of funding for a project as they are mandated to strive for equity across the Commonwealth. Also, given the on-going complications of the COVID-19 Pandemic the MSBA may not allow the submission of SOIs in 2021, as most of the SOIs in 2020 were placed on hold. The October 2020 School Committee meetings and associated votes have expressed a preference for the Option D-1 timeline (shown below) which encompasses the “High Rock as ES” scenario (pg I-A-2-11) and demonstrates the least cost and most rapid solution to the address the District’s needs. This scenario and timeline are explained in greater detail in Section III of this report.

D: High Rock as Elementary Pollard as 1st Accelerated (non-MSBA)/ Mitchell as MSBA Project



SUMMARY OF CODES

I-A.3

SUMMARY OF CODES

The Regulatory Overview for Massachusetts outlines the current building codes that the facility assessments were measured against. This document in combination with the Massachusetts School Board Authority (MSBA) space guidelines assisted the team in determining both the facility and space needs for each of the school buildings. The facility assessments for each building are found in Section II. A detailed evaluation of the enrollment and space needs is included in Section III.

The Capital Improvements Plan (CIP) included in each facility assessment outlines the cost of improvements. It is important to note that a complete scope of work must be developed and coordinated with other trades and improvements including hazardous material abatement for each line item in the CIP. Each improvement has a potential impact on the code compliance of the existing facility and on previously grandfathered code compliant issues including accessibility and life safety. Improvements and renovations of any amount may trigger the need for additional work to meet the current code. These code required upgrades may include, the addition of sprinklers, upgrades to handicap accessibility, and upgrades to the building structural system to meet seismic requirements. The regulatory overview noted below is applicable to each building assessment. It is also noted that it may be in the best interest of the school department to group several capital improvements together to save the cost of replicating work, for example: ceiling renovations should be combined with the replacement of light fixtures and the installation of any above ceiling work such as sprinklers and hvac ductwork. A full scope of work should be developed and reviewed in coordination with the applicable regulations to assess the potential of code required upgrades triggered by cost, square footage, or general nature of the of each improvement project.

REGULATORY OVERVIEW FOR MASSACHUSETTS

Applicable Regulations

Buildings undergoing repairs, alterations, additions, changes in use, or relocation will be permitted under the 9th edition of the Massachusetts State Building Code (780 CMR). The base code for the 9th Edition is comprised of the following 2015 International Code Council family of codes with Massachusetts amendments:

- International Building Code (IBC)
- International Energy Conservation Code (IECC)
- International Existing Building Code (IEBC)
- International Mechanical Code (IMC)

Additional building regulations, included by reference in the base code or enforceable under Massachusetts General Law include:

- Massachusetts Fire Code (527CMR)
- Massachusetts Elevator Code (524 CMR)
- Massachusetts Plumbing Code (248 CMR)
- Massachusetts Electrical Code (NFPA 70 – NEC)

Accessibility regulations applicable to the project are the Massachusetts Architectural Access Board Rules (MAAB) (521 CMR), and the 2010 Americans with Disabilities Act Architectural Guidelines. Where these two regulations are in conflict, the regulation that provides the greater accessibility should be provided.

Finally, in addition to the sprinkler protection requirement found in the building codes, certain Massachusetts General Laws (M.G.L.s) require sprinkler protection in certain types of new and existing non-residential buildings over 7,500 gross square feet.

Scoping Requirements and Thresholds for Compliance

Of the regulations described above, three of them require special consideration since they contain specific thresholds for full compliance with the regulation. These threshold-defining regulations are:

- The International Existing Building Code (IEBC)
- 521 CMR, or the Architectural Access Board (MAAB)
- M.G.L. c.148 s.26G, or the Automatic Sprinkler System Requirements

Compliance thresholds are based on either the area or cost of proposed work in comparison the existing building area or building value and are defined in greater detail under each specific regulation description below. Generally, when the proposed scope of work does not exceed a defined threshold, only the work being performed is required to comply with the current edition of the codes. The Americans with Disabilities Act (ADA) also contains requirements for incorporating improvements to an accessible path to Primary Function areas where alterations to that area are undertaken.

International Existing Building Code (IEBC)

When considering changes to an existing building, the principal guiding regulation is the International Existing Building Code (IEBC), which is enforced by the local building official. The IEBC requires that any proposed work on an existing building or portion thereof first undergo an evaluation to determine the effect of the proposed work on at least the following systems: structural, means of egress, fire protection, energy conservation, lighting, hazardous materials, accessibility, and ventilation for the space under consideration. Because no specific scope of work is being proposed as part of an existing conditions survey, this report includes a Regulatory Assessment for each building under consideration in order to determine to what degree the existing building[s] and systems comply with current regulations. It should be understood that non-compliance with current regulations does not compel corrective action. Only when a scope of work is defined can the Existing Building Code be applied to determine the applicable requirements.

Following completion of an evaluation for a proposed scope of work, a *compliance path* needs to be selected for the application of building code requirements. Owners must choose either the Prescriptive, Work Area, or Performance Compliance path and apply only the provisions of the chosen compliance path to the project. *The Prescriptive Compliance Path* provides a broad-brush approach to existing buildings and could result in requiring additional work that may not be necessary under the other compliance paths and will not be employed for this assessment.

The Performance Compliance Path uses a calculation based methodology to determine the general level of life safety of a building. This path assigns numeric values to various life safety features of a building to

arrive at an overall building “score”. Different building types require different scores to determine compliance or non-compliance with this path. This numeric value approach can be useful to evaluate the general life safety performance of an existing building as compared to current building regulations; because of this the Performance Compliance Path will be used to evaluate the general life safety condition of the existing facilities. Again, it should be noted that a non-compliant score does not compel corrective action – this methodology will be used to convey only how the existing building compares to current regulations.

The *Work Area Compliance* path typically offers the most advantageous approach to defining the code requirements for each portion of a building undergoing a scope of work because it most closely correlates the required upgrades to building systems and components to that specific defined scope of work; for this reason, the Work Area compliance path will be the assumed compliance path for sake of any proposed work on the facilities, should they be pursued.

Work Area Compliance relies on identifying the type of work that is occurring throughout the building, and then applying the requirements for that type of work to the *Work Area*. The *Work Area*, as defined by the IEBC is:

That portion or portions of a building consisting of all reconfigured spaces as indicated in the construction documents. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed...

Using the definitions provided in the Code, the scope of work identified for existing buildings or portions thereof is categorized as follows:

Repairs: "...include the patching or restoration or replacement of damaged materials, elements, equipment, or fixtures for the purpose of maintaining such components in good or sound conditions with respect to loads or performance requirements..." (IEBC s. 502.1) Examples of repair would be repair or replacement of damaged plaster finishes, tiled or wood floors, replacement of wood trim, replacement of door hardware, replacement of any plumbing, heating, electrical ventilating, air conditioning, refrigerating, and fire protection equipment as well as the repair of any exterior masonry or roofing system, and repair of damaged structural elements with "in kind" elements or equipment. Chapter 6 of the IEBC is applicable to all Repairs.

Level 1 Alterations: "...include the removal and replacement or the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose." This classification could be described as replacement with different systems, materials, or equipment, but providing the same function. Replacing wood flooring with a tile floor system, or proving all new kitchen equipment to replace outdated equipment would be considered Level 1 Alterations. (IEBC s. 503.1). Chapter 7 of the IEBC is applicable to all Level 1 alterations.

Level 2 Alterations: "...include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment." (IEBC s. 503.1). Chapter 7 and Chapter 8 of the IEBC is applicable to all Level 2 alterations.

Level 3 Alterations: "...apply where the work area exceeds 50 percent of the *building area*."

Change of Occupancy: "A change in the use of the building or a portion of the building. A change of occupancy shall include any change of occupancy classification, any change from one group to another

group within an occupancy classification or any change in use within a group for a specific occupancy classification."

Additions: "An extension or increase in floor area, number of stories, or height of a building structure."

Under the work area compliance path, each of the classifications of work described above require increasing levels of compliance with the building code. Repairs have the least restrictive requirements, essentially permitting replacement-in-kind for any repaired elements. Additions require the highest level of compliance and require that the addition comply with the building code as for new construction. The other classifications require increasing compliance and, for each classification, define prescriptive requirements for specific systems and elements such as means of egress, mechanical, electrical and fire protection systems, building materials, fire resistance ratings, and structural systems.

Work Areas, including Level 2 Alterations and Additions would be required to be identified on the construction documents. Repairs and Level 1 alterations, because they do not include reconfigured spaces, are not considered part of the "Work Area" defined by the code. Although there may be substantial repairs and Level 1 alterations throughout the building, this distinction is important; when the Work Area exceeds 50% of the floor area, the provisions for Level 3 alterations become applicable.

In addition to alterations that affect the building spaces and areas, it is necessary to understand how alterations affect the building structural system and elements. Where alterations change individual gravity or lateral load resisting elements, each element requires evaluation to determine if the alteration will result in additional loads and, if so, the element must be altered or replaced. For buildings with concrete or unreinforced masonry walls, when the work area exceeds 50 percent of the floor area, then all of the structural concrete or masonry walls (both gravity and lateral load resisting walls) are required to be secured to the floor or roof deck above.

Sprinkler Protection Requirements

There are two separate regulations that govern the requirements for sprinkler protection: the IEBC and M.G.L. c.148 s.26G.

IEBC requirements, enforced by the building official, would require sprinklers where the *work area* (defined previously) exceeds 50 percent of the floor area and the work area is required to be provided with sprinklers in accordance with the International Building Code, Chapter 9.

M.G.L. c.148 s.26G, which is enforced by the fire official, requires enhanced sprinkler protection in certain buildings which total more than 7,500 gross square feet in aggregate (adding all stories) floor area. This requirement is applicable when "major" alterations or modifications are occurring to a building. Because the statute is not specific about the definition of a "major" alteration, a memo issued on October 14, 2009 by the Fire Safety Commission's Automatic Sprinkler Appeals Board provides additional guidance on this subject.

This memo indicates two factors that are used to determine whether "major" alterations are taking place: a Nature of Work factor and a Scope of Work factor.

If the **Nature of the Work** is such that the effort to install sprinklers is substantially less than if the building was intact, or is the nature of work merely minor repairs and cosmetic work, or is the Nature of the Work "major" in its scope. There is no specific definition of "major", but the memo offers examples

including: the demolition of existing ceiling or installation of suspended ceilings; the removal and installation of subflooring, exposing the building framing (not merely the replacement of finished flooring); the reconstruction or repositioning of walls; and the removal or relocation of a significant portion of the buildings HVAC, plumbing, or electrical systems involving penetrations of walls, floors, or ceilings.

If the **Scope of Work** affects a substantial portion of the building, or the cost of work is moderate in comparison to the total cost of work, then the Scope of Work criteria would be applicable to a project. The Scope of Work Thresholds defined in the memo are as follows:

1. Alterations or modifications are reasonably considered major when the work affects **33 percent or more of the total gross square footage of the building** (all floor levels combined). Again, no specific definition of alterations or modifications is provided, but we can infer from other codes and definitions that alterations relate specifically to the reconfiguration of spaces, or the "major" Nature of Work examples above.
2. Alterations or modifications are reasonably considered major when the total cost of the work (excluding costs related to sprinkler expenditure) is equal to or greater than **33 percent of the assessed value of the subject building**.

The memo then indicates that if the Nature and Scope of work criteria and the Scope of Work (either 1 or 2) is satisfied, then the Board would consider the alterations "major" and thus require the installation of a sprinkler system.

Accessibility

In Massachusetts, the state developed Architectural Access Board Regulations (521 CMR) replace the accessibility provisions of the building code. Like the other sections of the building code, the accessibility regulations are enforced by the building official. However, waivers or variances to 521 CMR cannot be granted by the building official. Rather, any such appeal or variance request needs to be reviewed and accepted by the Architectural Access Board.

Chapter 3 of the Architectural Access Board Regulations outlines the scoping thresholds for the applicability of accessibility guidelines for a project. Specifically, section 3.3 describes three different dollar value thresholds for any proposed *additions to, reconstruction, remodeling, and alterations or repairs* to existing buildings as compared to the buildings "full and fair cash value". The full and fair cash value is generally the assessed value of the building as recorded with the town assessor's office. This section then lists the applicability requirements for each dollar value threshold:

- For work costing less than \$100,000, only the work being performed is required to comply with Accessibility regulations.
- A scope of work that is more than \$100,000, but less than 30% of the full and fair cash value requires the incorporation of an accessible public entrance, toilet, telephone, and drinking fountain.
- When a scope of work costing more than 30% of the full and fair cash value is proposed, the entire facility is required to be brought into compliance with the accessibility guidelines. This threshold also clarifies that additions costing more than 30% of the current building value would require the entire existing facility to be brought into compliance.

Two additional sections in Chapter 3 require special consideration. Section 3.4 requires that when a building undergoes a change from a private use to a public use, an accessible entrance must be provided, even if no work is being performed. This is significant because it is the *only compulsory requirement* found in the building or accessibility codes when no other work is proposed or anticipated.

Finally, 521 CMR section 3.9 allows for variances to the accessibility guidelines for Historic Structures listed on the State or National Register of historic places. The process of documenting and being granted variances for a broad range of accessibility requirements based on historic status is a complicated and nuanced process that requires careful coordination with the Access Board. The Board reviews the proposed variances to ensure that people with disabilities are granted dignified access to the primary function spaces of the building with as little influence on the historic fabric of the building as is feasible.

The Americans with Disabilities Act Architectural Guidelines (ADAAG 2010) is part of a federal civil rights regulation that is also applicable to work on existing buildings depending on their intended users. ADA applicability would be under Title II for any state or local government entity, program, service, or facility whereas Title III is applicable for any places of public accommodation or commercial facilities that fall into specifically defined categories. The requirements for buildings under the ADA are enforced by the US Department of Justice, and enforcement is typically through investigations or civil lawsuits resulting from complaints filed by individuals or organizations for perceived violations of the Act. These actions can be brought against a building Owner at any time, as opposed to building codes which are typically enforced when an building permit is granted for a proposed scope of work.

Title II (State and Local Governments) of the ADA requires that all services, programs, and activities provided by state and local government entities be accessible to people with disabilities. This does not require that all existing facilities be brought into compliance, but that barriers be removed in existing buildings such that all public services or programs, when viewed in their entirety, are accessible. Any proposed work on an existing building under Title II would be required to comply with ADA guidelines to the maximum extent feasible and new facilities would be required to comply completely with the guidelines. Additionally, when work is proposed that affects a primary function of an existing facility, the path of travel to that area, including the bathrooms, drinking fountain, and telephones on that path would need be made accessible as well. There are exceptions in Title II for structural impracticability, historic buildings, certain types of spaces, and disproportionality of cost for alterations to an accessible path serving a primary function area which all require close consideration for each scope of work in each building under consideration.

Title III facilities are privately owned buildings that are either defined as places of public accommodation (business open to the public and fall into one of 12 categories listed in the ADA) or as commercial facilities (non-residential facilities that are not defined as places of public accommodation). The requirements for alterations to these facilities are similar to those as for Title II facilities, including the provisions for an accessible path serving a space that is considered a primary function. The most significant difference is that Title III existing facilities are not held to the same "removal of existing barriers" standard or program and service access standards as Title II facilities. Still, any proposed work in a Title III building would be required to comply to the maximum extent feasible, taking all of the applicable exceptions into consideration.

Energy Conservation

The 2015 International Energy Conservation Code (IECC) replaces the Chapter 13 requirements of the building code. This specialized code, also enforced by the building official, is intended to regulate the design and construction of facilities with respect to the use and conservation of energy over the life of the building. Chapter 5 of the IECC controls the alteration, repair, addition, and change of occupancy of existing buildings and has no authority to require the removal, alteration, or prevent the continued use of any existing buildings. For communities that have adopted the Massachusetts STRETCH Code, increased reductions in energy consumption beyond the baseline thresholds established in the 2009 IECC would be required for new buildings and additions to existing buildings only. Alterations to existing buildings in these communities would be subject to the requirements of Chapter 5 of the 2015 IECC, described below.

Section C501.6, states that no provisions of the code relating to the repair, alteration, restoration or change of occupancy shall be mandatory for historic structures provided a report is submitted to the building official demonstrating that compliance with the provision would threaten, degrade, or destroy the historic fabric function of the building. While this is not a categorical exemption to the energy conservation code, it does place a high degree of value on the historic fabric of the building.

Proposed additions to existing structures would be required to comply with the IECC as for new construction. Alterations to existing buildings also need to comply with the IECC as for new construction and cannot make the existing building less conforming to the code than it was prior to the alteration. In general, this means that when a building envelope or mechanical system or piece of equipment is modified as part of a scope of work, the replacement elements or systems are required to comply with the IECC for new construction. There is no provision, based on the work area or dollar value of alterations, which would require an existing facility to be brought into full compliance with the energy code.

Certain specific scopes of work that may be limited to one portion of the building, whether considered as additions or alterations to existing facilities, are required to consider the effect on the entire facility. The addition of windows or other fenestration, including skylights, needs to incorporate all of the building fenestration areas in the total allowable fenestration area. Alternatively, a project could pursue the Total Building Performance method, requiring energy modeling, but would then need to demonstrate full compliance with the IECC as for new construction. Otherwise, alteration and addition compliance requirements are limited to the work performed.

Although not part of the energy conservation code, it is important to note that in Massachusetts, M.G.L. chapter 7C, section 29 requires that for any new construction or renovation of a public facility where the cost exceeds \$25,000 and includes systems or elements that affect energy or water consumption, a life-cycle cost analysis (LCCA) would be required to be performed. This analysis is required to determine the short and long term costs and feasibility of different technologies or systems considered as part of the scope of work. These systems and components would include both energy consuming equipment as well as building envelope elements or systems, since all of these elements affect energy consumption.

Fire Safety Code

In addition to the building code (780 CMR), there is also a Massachusetts Comprehensive Fire Safety Code (527) which is enforced by the local Fire Official. The Fire Code is generally enforced as a safety maintenance code, intended to prevent or remedy any conditions that may be fire hazards and to provide safety requirements to protect the public in the event of a fire. This code also regulates the installation and maintenance of fire safety equipment such as sprinkler systems and fire detection systems.

The Fire Code does apply to both new and existing conditions, but this code states that all installations of equipment completed prior to the adoption of the code are deemed to be in compliance. However, the fire official still has the authority to require compliance with the code for any condition which constitutes an imminent danger.

For the purposes of this report, it is important to note that the Fire Code also states that any provision related to the construction, alteration, movement, enlargement, replacement, repair, equipment, use, occupancy, removal, or demolition of buildings shall effectively be regulated by the building code and is subject to the jurisdiction of the Building Official. As such, this report contains minimal references to the Fire Code and will rely on the IEBC requirements outlines above for evaluation and consideration of existing conditions and any proposed scope of work.

Historic Structures

Massachusetts General Laws require that any project that requires funding, licensing, or permitting from a state agency to be reviewed by the Massachusetts Historical Commission (MHC). This review and the regulations that guide the review are designed to identify historic properties, evaluate the impact of a proposed project, and consult with the invested parties to avoid, minimize, or mitigate any adverse effects of the project. Once a general scope of work is defined, a Project Notification Form should be filed with the MHC to determine if any historical or archeological considerations will need to be addressed as part of the project.

Beyond the State of Massachusetts regulations, the US Department of the Interior has developed a set of standards and guidelines related to the maintenance, repair, replacement of historic materials, and the design of alterations or additions to historic structures. The *Standards* are a set of concepts related to these different treatments, whereas the Guidelines offer design and technical recommendations in applying the Standards.

In order to determine which Standards and Guidelines are applicable, it is necessary to determine which treatment of a historic structure would be pursued for a given facility. A proposed scope of work outlined in a Capital Improvements Plan generally falls into work that could be classified as one of the following Treatments:

- **Preservation:** the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time.
- **Rehabilitation:** recognizing the need to alter or add to a historic property to meet continuing or changing uses while retaining the properties historic character.

In working to develop a defined scope of work as well as a sustainable capital improvement plan for the future, the Standards for Preservation and Rehabilitation as well as the Guidelines for the Treatment of Historic Properties will serve as guiding documents in the development of such plans. Compliance with the Guidelines is not obligatory but will provide the best practice approach to both maintaining the building and allowing for alterations to serve the intended end use. It also serves to demonstrate that the Owner values and wishes to maintain the historic integrity of a building, reinforcing the appropriate application of any historic structure exceptions to accessibility and building code regulations.

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**Select Board
TOWN OF NEEDHAM
AGENDA FACT SHEET**

MEETING DATE: 11/24/2020

Agenda Item	Emery Grover Study Presentation
Presenter(s)	Dan Gutekanst, Superintendent of Schools Steve Popper, Director of Design & Construction Hank Haff, Senior Project Manager Joel Bargmann, BH+A

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
The Emery Grover Project Team will provide the Board with a summary of the final report.	
2.	VOTE REQUIRED BY SELECT BOARD
Discussion Only.	
3.	BACK UP INFORMATION ATTACHED
• Select Board – Emery Grover Presentation Slideshow • Emery Grover Final Report (6/25/2020) is available here: https://needhamma.sharefile.com/d-s3b82de592d84448	

Needham School Administration Emery Grover Building Study

November 24, 2020
Select Board Presentation

Pickering Street

Oakland Avenue

1330 Highland Ave

May Street

Highland Avenue



**1330 Highland Avenue
Emery Grover Building Study**

Presentation to the Select Board – November 24, 2020

Summary of Concept Developments and Conclusions 2019 - 2020

Review: Historical Significance

Review: Initial Studies

Review: Preliminary Six Options

Review: Final Three Options

Review: Analysis and Conclusions

Historic Significance of the Emery Grover Building

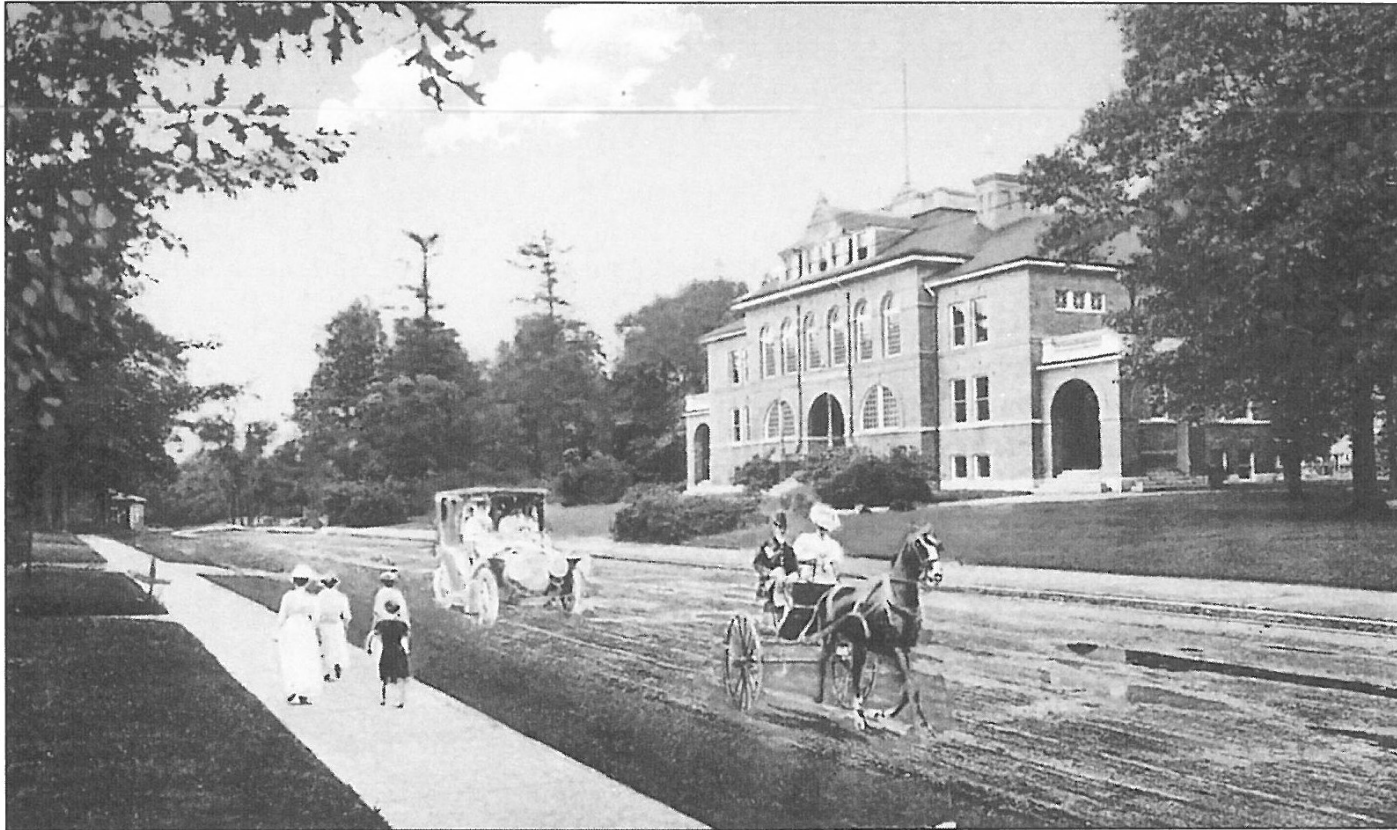
Constructed in 1897 as a High School

- Designed by Whitman & Hood
- GC was F. G. Colburn
- Served as the Town's High School until 1923
- A Junior HS from 1923 to 1929
- Elementary School 1929-1944

The oldest Public Building in Needham

- Second Renaissance Revival Style
- Location was chosen between the Heights and Needham Center
- Housed School Administration from 1947 to present
- 8/20/1987 – listed in the National Register of Historic Places

Historic Gateway Building on Highland Ave



Built in 1898, this was the town's first high school and only example of the Renaissance Revival style. It was built halfway between the two sections of town on a site donated by knitting company owner John Moseley. Named for Judge Emery Grover, a twenty-two-year member of the school committee, the building has been the office of the school administration since 1930

4



View from Highland Ave

early 1900's (Needham Historic Society)

and Today

November 24, 2020

National Register Building

August 20, 1987

NPS Form 10-900
(Rev. 5-85)

RECEIVED OMB No. 1024-0018

United States Department of the Interior
National Park Service

JUL 24 1987

National Register of Historic Places Registration Form

NATIONAL
REGISTER

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in Guidelines for Completing National Register Forms (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Emery Grover Building (preferred)
other names/site number Needham High School

2. Location

street & number 1330 Highland Avenue N/A not for publication
city, town Needham N/A vicinity
state Massachusetts code 025 county Norfolk code 021 zip code 02192

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
☐ private	☒ building(s)	Contributing	Noncontributing
☒ public-local	☐ district	<u>1</u>	<u> </u> buildings
☐ public-State	☐ site	<u> </u>	<u> </u> sites
☐ public-Federal	☐ structure	<u> </u>	<u> </u> structures
	☐ object	<u>1</u>	<u> </u> objects
		<u>1</u>	<u> </u> Total

Name of related multiple property listing: N/A
Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ☒ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ☒ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Valerie A. Talman July 20, 1987
Signature of certifying official Executive Director, State Historic Preservation Office Date
Massachusetts Historical Commission
State or Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of commenting or other official _____ Date _____
State or Federal agency and bureau _____

5. National Park Service Certification

I, hereby, certify that this property is:

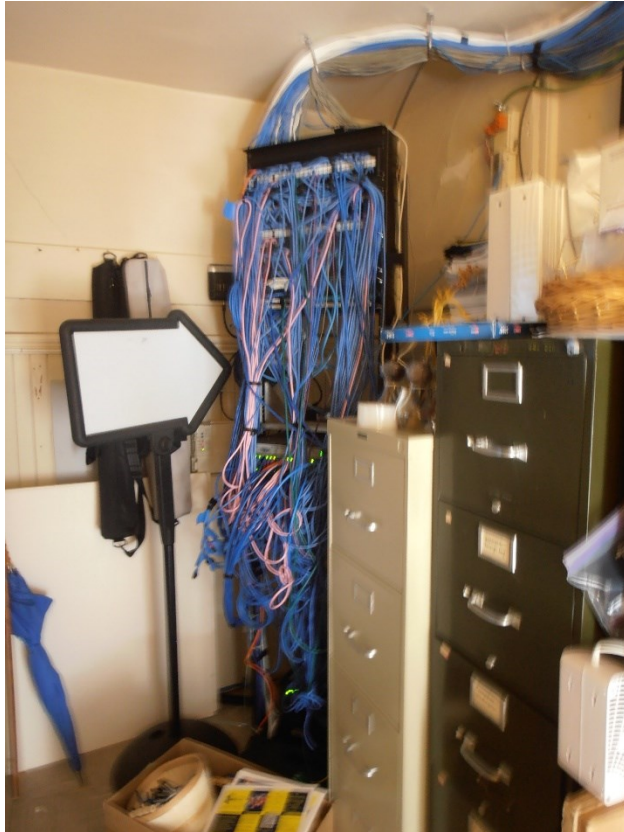
☒ entered in the National Register. Entered in the 8/20/87
☐ See continuation sheet. National Register
☐ determined eligible for the National Register. ☐ See continuation sheet.
☐ determined not eligible for the National Register.
☐ removed from the National Register.
☐ other, (explain): _____

for Signature of the Keeper Date of Action



Urgent Major Repairs

- M.E.P Systems are outdated and there is no fire protection
- Original slate roof leaks requires rain barrel on 3rd floor



- Temporary steel braces added to South Portico to stop collapse.
- No handicapped access
- All windows require replacement
- Seismic reinforcing necessary
- No Fire Sprinklers

Urgent Major Repairs

- Stairs are supported by tie rods to prevent further sagging.
- Improper ventilation.



November 24, 2020

Initial Studies 2019

- Program Test Fits: Four Studies for fitting Departments into Emery Grover
 - Existing interior structure is maintained
 - Existing Interior structure is removed
 - Existing Interior structure to remain and 4 vent shafts are removed
 - New addition to rear of building
- Studies did not include relocation of IT or 1,200 sf Conference Center
- Five Alternate Town Owned Sites for New Construction
 - 0 Greendale
 - 0 Harris Ave
 - Dwight Road (parking lot)
 - Dwight Road (cut into hill)
 - Hillside Elementary
- Property Best Use Study
 - Land value for development options

Summary of Preliminary Six Options 2019 – 2020

- Option One – Tear Down / New Construction
 - Most on-site parking
 - New building
 - Concern for tearing down historic building
- Option Two – Preserve Existing Façade Only / New Construction (*Eliminated*)
 - Reduced on-site parking
 - New building
 - Expensive to brace and save façade only
- Option Three – Renovation and Addition
 - Reduced on-site parking
 - Restoration of historic exterior
 - Addition on rear
- Option Four – Stephen Palmer Tear Down / New Construction (*Eliminated*)
 - Existing building is leased through 2027
- Option Five – Stephen Palmer Field / New Construction (*Eliminated*)
 - Green's Field is in use for town sports and activities
- Option Six – Hillside Elementary Tear Down / New Construction (*Eliminated*)
 - Away from Town Center
 - Existing soils conditions
- All Options include moving Information Technology to new facility
- All Options include 1,200 SF Conference Center

Summary of Final 3 Options – 2020

- Option One – Tear Down / New Construction
 - Most on-site parking at 62 Cars + 24 off-site = 86 Parking Spaces
 - New building
 - Concern for tearing down historic building
 - Middle cost of the three options
- Option Two (formerly Three) – Renovation and Addition
 - Reduced on-site parking at 48 Cars + 24 off-site = 72 Parking Spaces
 - Restoration of historic exterior
 - Addition on rear
 - Least cost of the three options
- Option Three Rotated – Renovation and Addition
 - Reduced on-site parking 42 Cars + 24 off-site = 66 Parking Spaces
 - Restoration of historic exterior
 - Addition on rear rotated to form “L” plan
 - Better natural light into new offices
 - Most expensive cost of the three options plus add for parking garage option
- Option Three Rotated – Renovation and Addition w/Garage
 - A parking garage for additional net 8 cars is possible under the addition = 74 Parking Spaces

- All Options include moving Information Technology to new facility
- All Options include 1,200 SF Conference Center
- All Options include 24 spaces off-site parking at Stephen Palmer

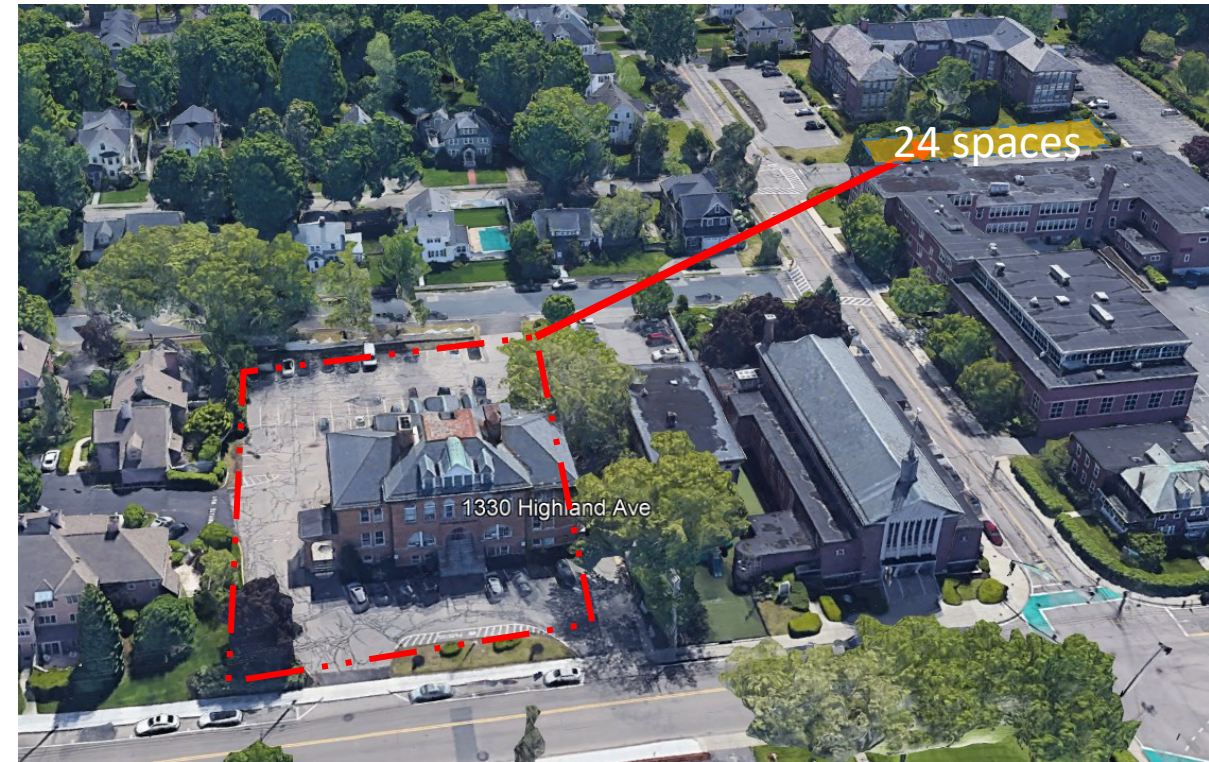
Summary of Parking Requirements

School Administration Parking Needs

Full Time Equivalent (FTE) Employees with IT = 48
+
Transitional Visitor Parking (typical day) = 18
Total Parking Need on a Daily Basis = 66

Overflow Parking during Conference Functions

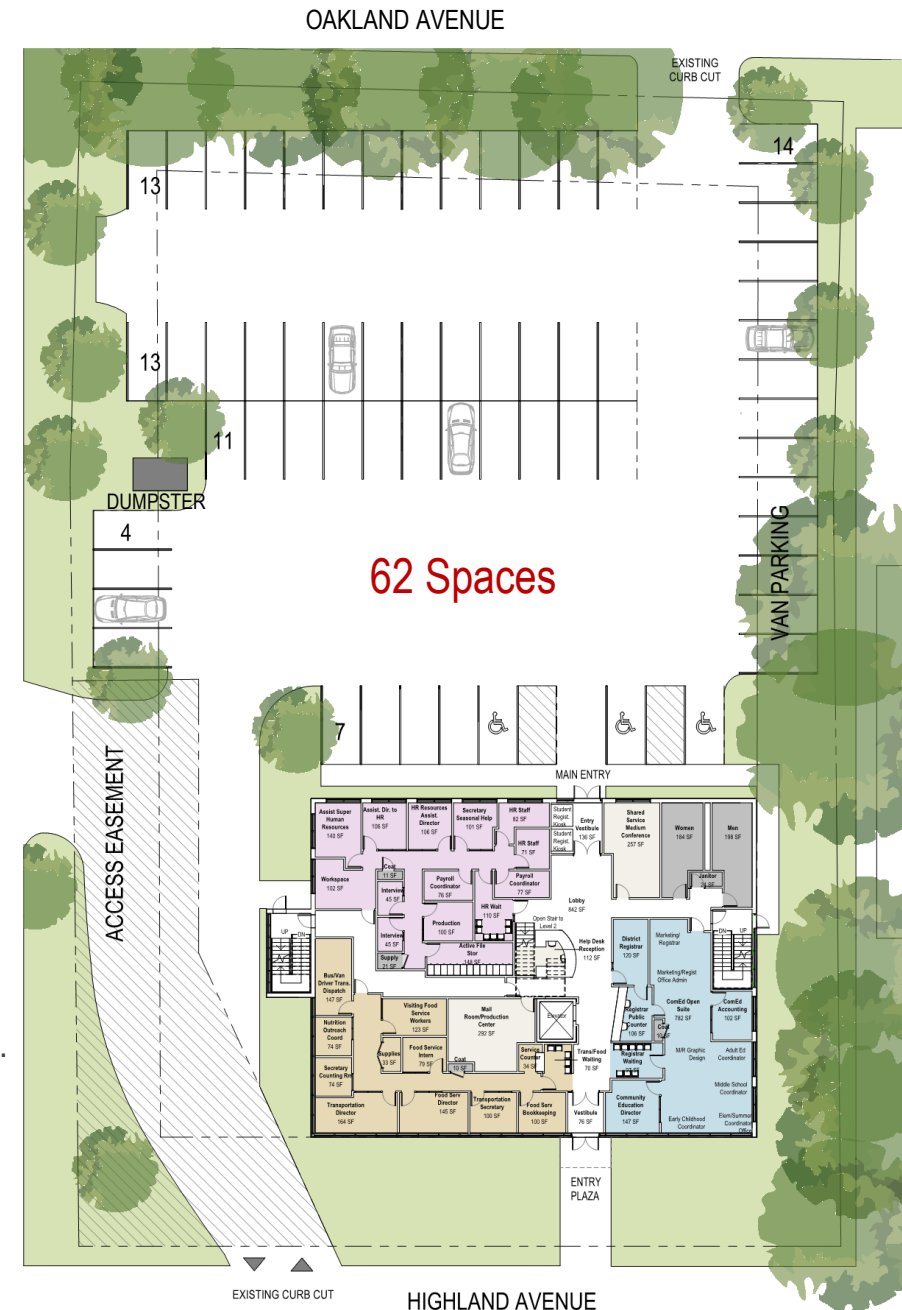
- Remotely
 - Oakland Avenue
 - Highland Avenue
-
- Option One – Tear Down / New Construction
 - 62 Cars + 24 off-site = **86 Parking Spaces**
 - Option Two – Renovation and Addition
 - 48 Cars + 24 off-site = **72 Parking Spaces**
 - Option Three Rotated – Renovation and Addition
 - 42 Cars + 24 off-site = **66 Parking Spaces**
 - Option Three Rotated – Renovation and Addition w/Garage
 - 50 Cars + 24 off-site = **74 Parking Spaces**



Food Service = 4
Business = 7
SpEd/Student Services = 6
Transportation = 3
Superintendent = 2
Community Education = 7
HR/Payroll = 7
Curriculum/ Program Development = 4
Production Center = 1
Technology = 4
District IT = 3
Subtotal = 48

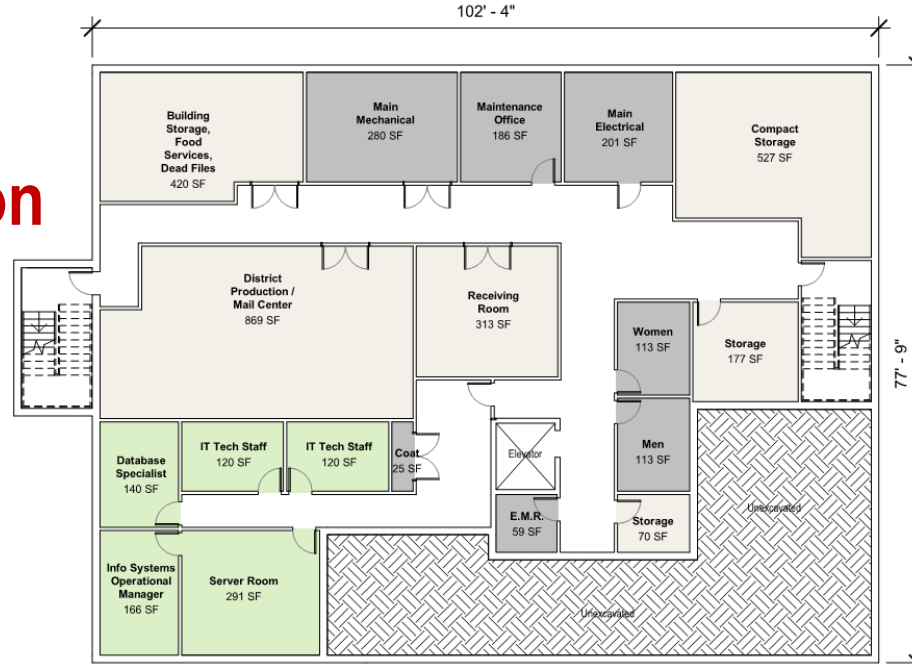
- Tear Down Emery Grover
- 31,162 GSF New Construction (closer to Highland Avenue)
- Program includes
 - 1200 sf Conference Center
 - Full IT Department
- 62 Parking Spaces
 - (100 spaces required @ 1/300 sf per Zoning)

- Zoning By-Law Amendment is required for FAR to exceed 0.5
- Zoning Waiver is required for number of parking spaces provided on site.
- Zoning Waiver is required for additional future parking at Stephen Palmer site.
- Zoning Waiver is required for remote parking at a distance greater than 300 feet.

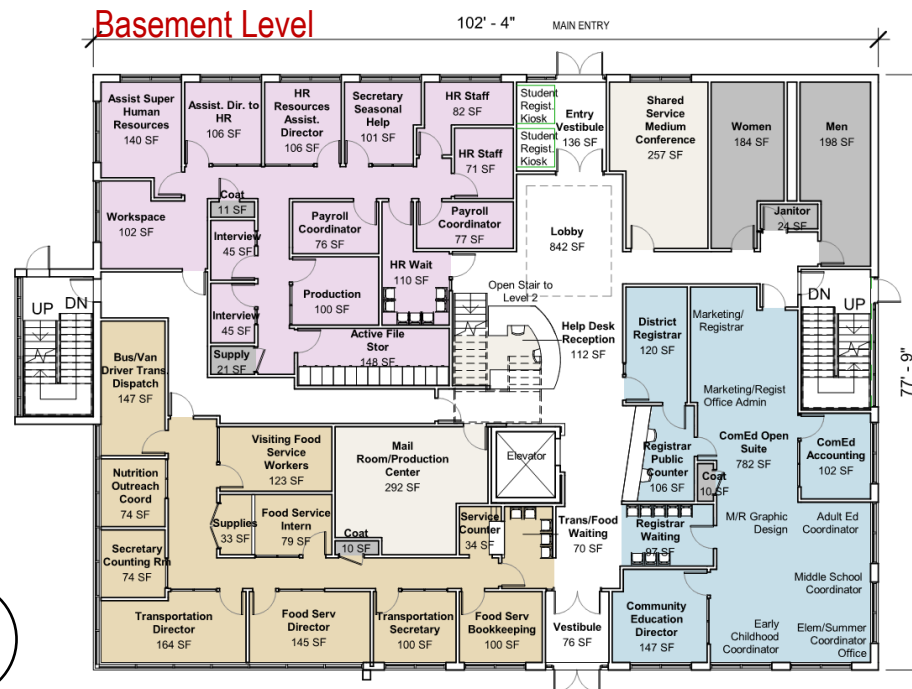


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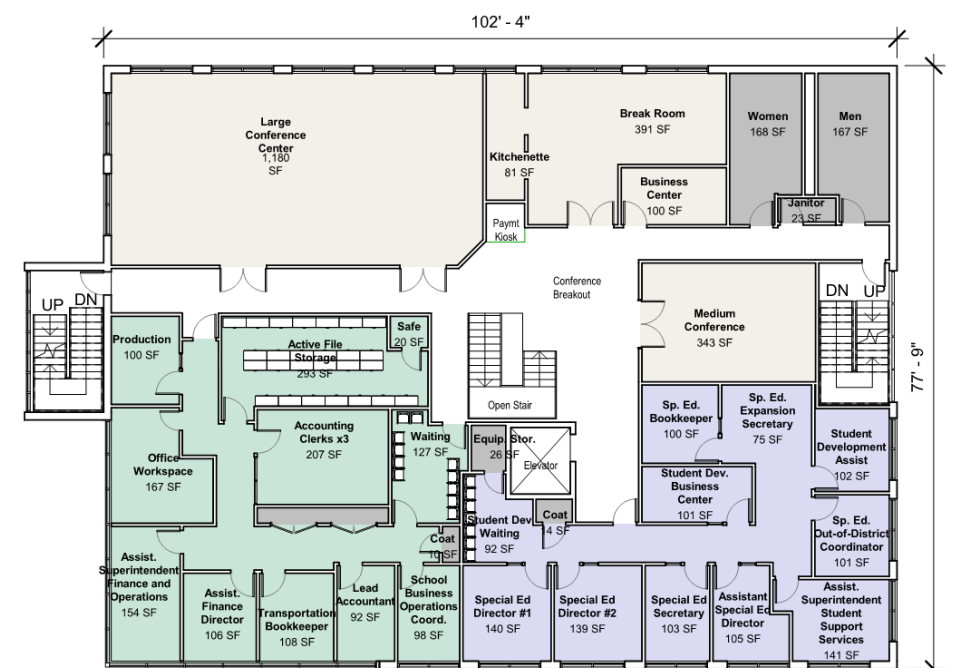
- Innovation Technology
- Shared Building Service
- Building MEP



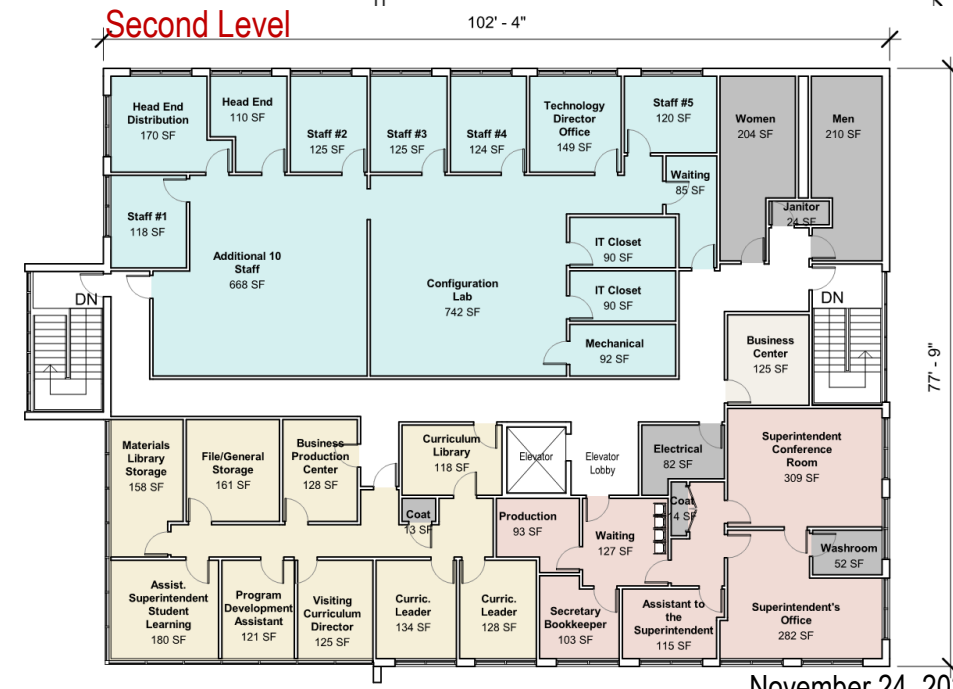
Basement Level



First Level



Second Level

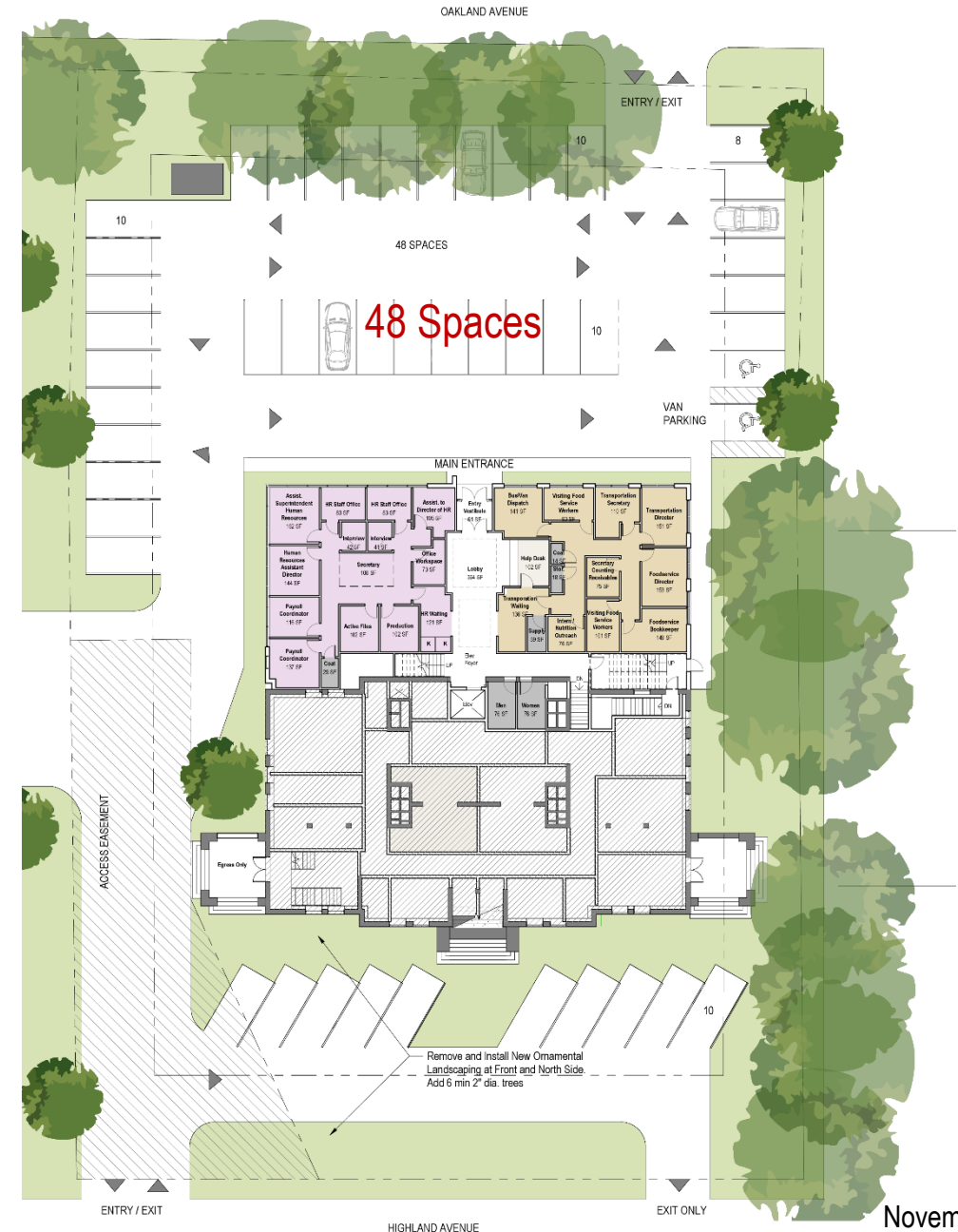


Third Level

November 24, 2020

Option Two – Renovation & Addition

- Renovation of Existing
- New 50' Addition for 32,907 GSF
- Program includes
 - 1200 sf Conference Center
 - Full IT Department
- 48 Parking Spaces
 - (100 spaces required @ 1/300 sf per Zoning)
- Zoning Waiver is required for side yard setback (existing is 11')
- Zoning Waiver is required for height of building exceeding 40 feet by aligning floors.
- Zoning By-Law Amendment is required for FAR to exceed 0.5
- Zoning Waiver is required for number of parking spaces provided on site.
- Zoning Waiver is required for additional future parking at Stephen Palmer site.
- Zoning Waiver is required for remote parking at a distance greater than 300 feet.
- Zoning Waiver is required for existing non-conforming driveway opening on Highland Avenue.



November 24, 2020

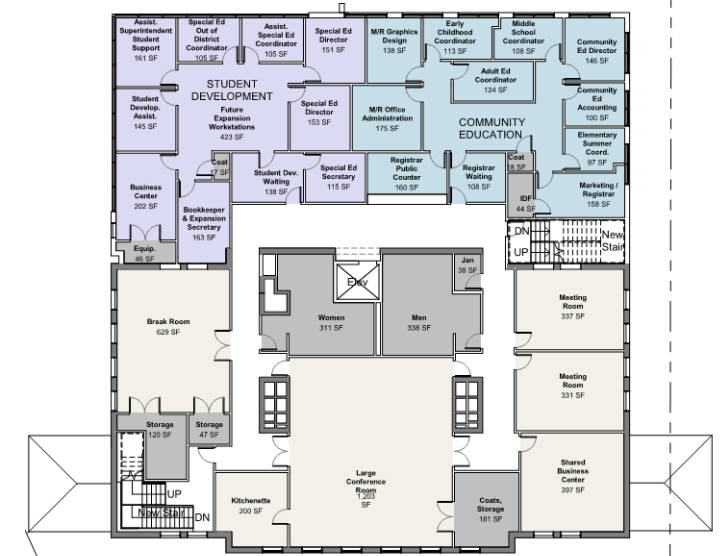
Option Two – Renovation & Addition

Program:

- Information Technology
- Shared Building Services
- Building MEP



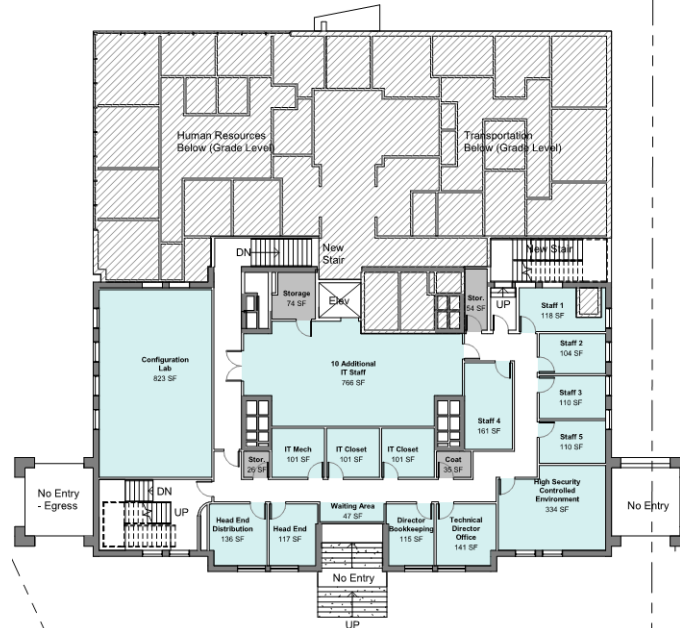
Ground Level



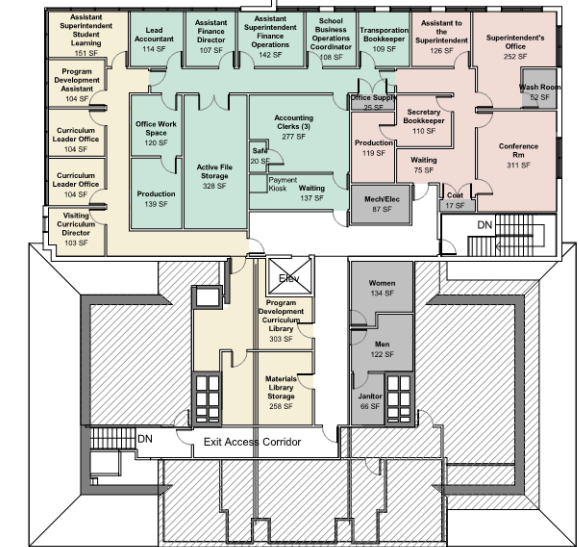
Second Level



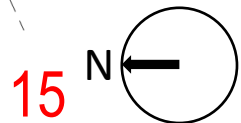
Basement Level



First Level

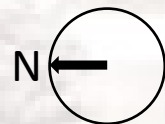


Third Level

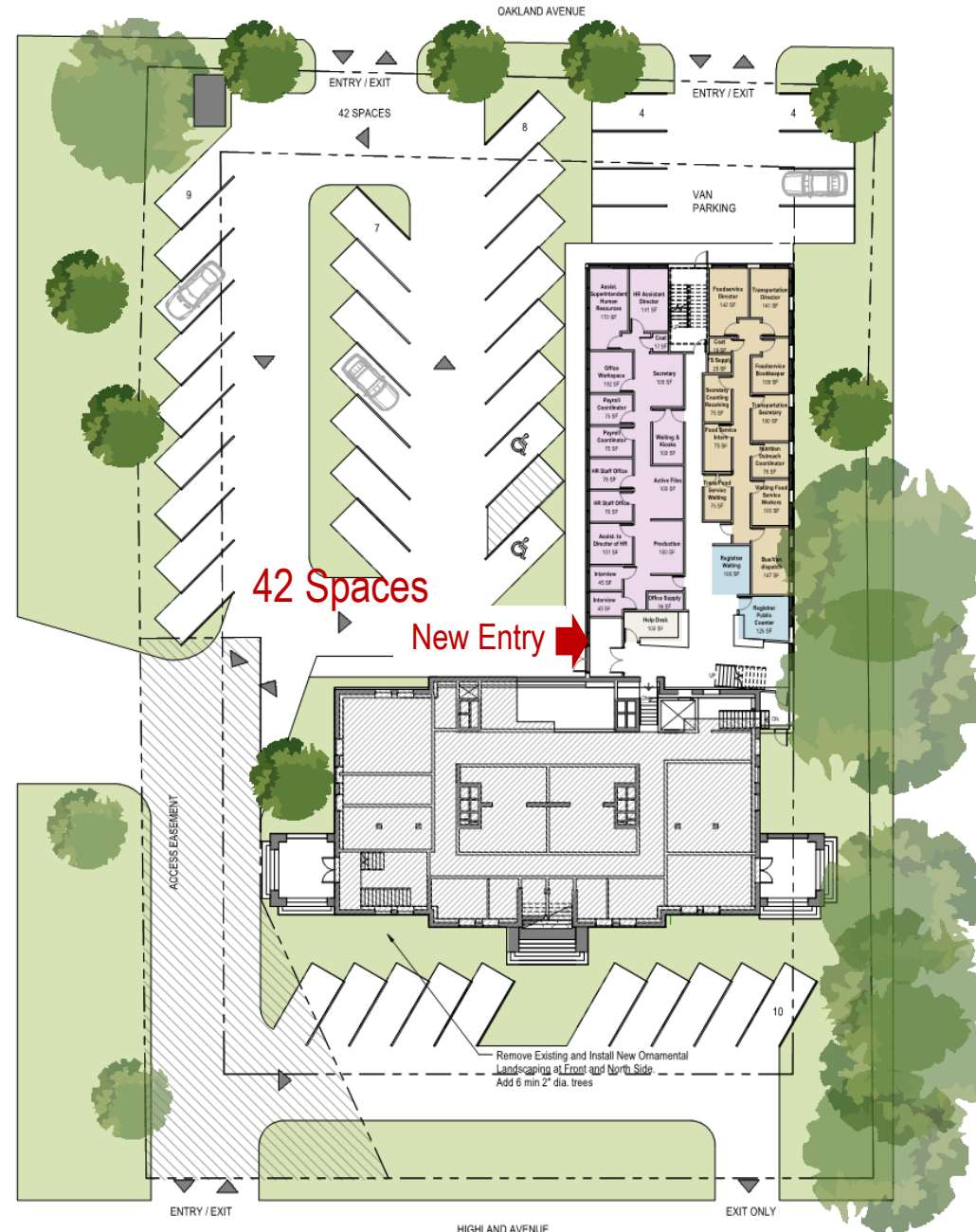


Option Three – Addition Rotated

- Renovation of Existing
- New 50' Addition for 34,717 GSF
- Program includes
 - 1200 sf Conference Center
 - Full IT Department
- 42 Parking Spaces
 - (100 spaces required @ 1/300 sf per Zoning)



Site Plan & First Level



First Level

The floor plan of the 1st floor includes the following rooms and areas:

- Control Room (280 SF)
- Control Room (140 SF)
- Service Point (214 SF)
- Main Office (120 SF)
- Reception (200 SF)
- Mail Distribution (200 SF)
- New Electrical (200 SF)
- New Mechanical (400 SF)
- 3rd Floor Lift (200 SF)
- Unoccupied (hatched area)

17 N 



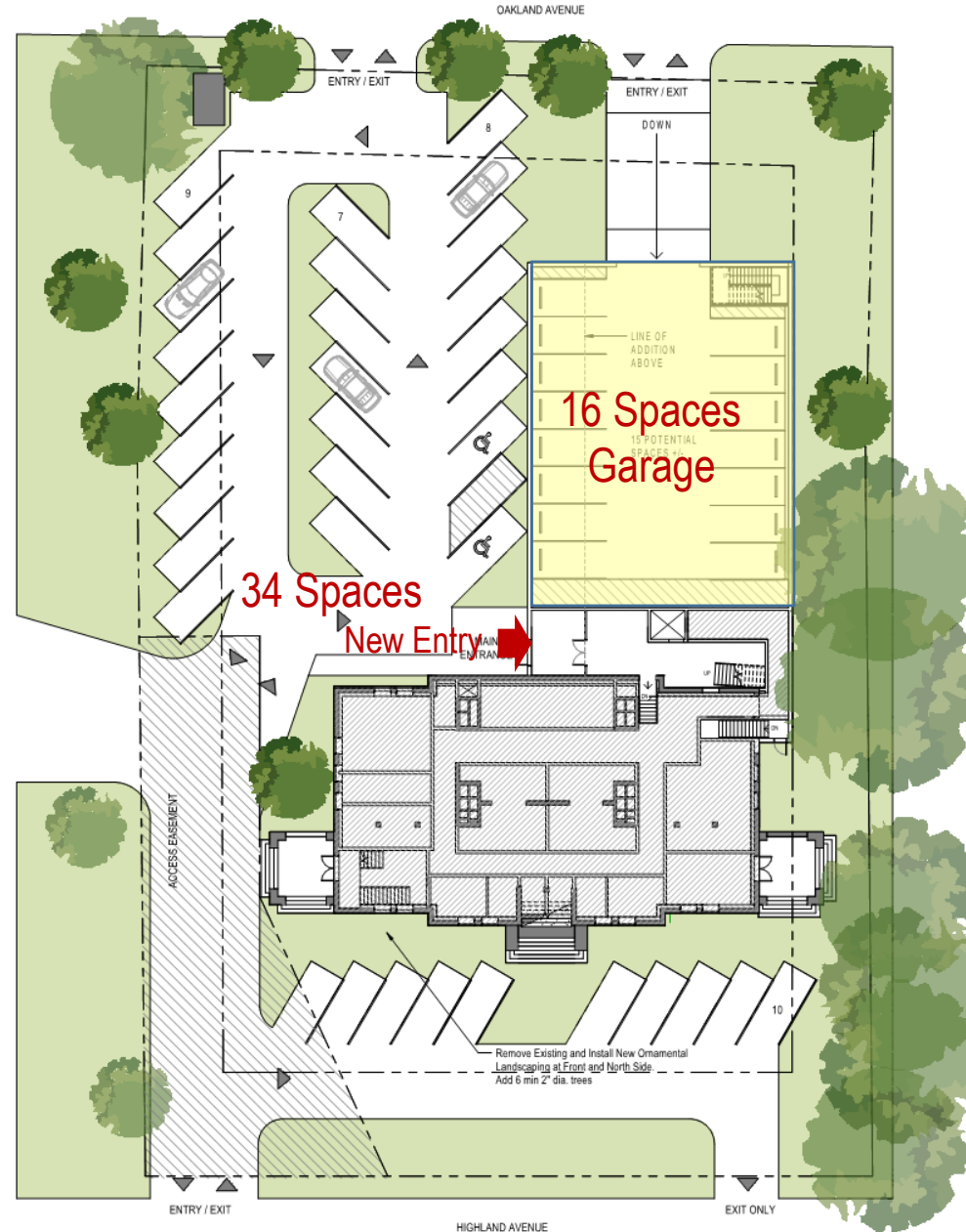
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Option Three – Addition Rotated with Garage

- Renovation of Existing
- New 50' Addition Rotated
- Parking Garage for 16 Cars +/-
- Program includes
 - 1200 sf Conference Center
 - Full IT Department
- 50 Parking Spaces w/Garage (need minimum 100 spaces)



Projected Schedule

EMERY GROVER - Feasibility Study													Assuming Accelerated Schedules with Design Start in 2021																																																														
DRAFT - 4/29/2020			(R-3)	2020												2021												2022												2023												2024												2025											
Option	Description		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	Feasibility Study		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	Funding Review		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	CPC Funding (if needed)		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	Town Meeting Approvals		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
1	Emery Grover- Demo & New Const.		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	Demolition Delay		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	Funding		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	Design		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	Bid		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	Temp facilities		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	Construction		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	Move into New	Jul-24	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
2 & 3	Emery Grover- Add & Renovation		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
	Funding		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D													
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↑
Design Funds

Construction Funds

Analysis and Conclusions

- Why Option 3 – Addition Rotated is preferred
 - Desire to save EG as gateway to town center
 - One of the oldest building in town.
 - Best compromise between preservation, department needs, and parking
 - Best natural light/windows ratio, including natural ventilation opportunities.
- Resale value of Emery Grover
 - Condominiums – New Building / Demolition of Emery Grover
 - Apartments as investment – New Building / Demolition of Emery Grover
 - Apartments sold to Investor – 18 within EG / 18 New Construction
- Review of construction costs
 - final 3 options (highest cost option offers the best building)

Analysis and Conclusions

- Summary of Rental versus Construction

area	30,000 sf
rent per square foot	\$45 psf
annual rent	\$1,350,000
year comparison	20 years
20-year flat rent	\$27,000,000

area	30,000 sf
tenant improvement cost above allowance	\$100 psf
out of pocket tenant improvement cost	\$3,000,000

total rent plus tenant improvement	\$30,000,000
add soft costs & broker fees	\$2,500,000
	\$32,500,000

Cost Summary of 3 Final Options

		Option 1 Emery Grover Demolish and Construct New Building	Option 2 Emery Grover Renovation and Addition	Option 3 Emery Grover Renovation and Addition Rotated
Construction Cost		\$18,777,000	\$18,559,000	\$19,513,000
Utility Back Charge		\$35,000	\$35,000	\$35,000
Soft Costs		\$2,482,286	\$2,464,832	\$2,563,094
FF&E		\$700,000	\$700,000	\$700,000
Technology including Hub Relocation		\$250,000	\$250,000	\$250,000
Solar Panels		\$500,000	\$500,000	\$500,000
Contingency	15%	\$3,411,643	\$3,376,325	\$3,534,164
TOTAL		\$26,155,929	\$25,885,157	\$27,095,258

Values taken from p. 118 of Emery Grover Feasibility Study – Final Report, June 25, 2020

Why CPA funds are appropriate for this Emery Grover Project

- Last major historic public building needing renovation
- EG is highest Historic Commission preservation priority
- Preservation of Gateway Building into downtown
- Cost effective path to preservation – equal to demolition and new building for current use
- Best chance for preservation is Town renovation and reuse
- Demolition likely if property is sold to a developer

Why CPA funds are appropriate for this Emery Grover Project

- Urgent need due to decades of deferred maintenance while waiting for this plan
- ADA/MAAB accessibility to a major public building
- Life safety upgrades required
- Code required thresholds for roof and window projects will trigger a comprehensive renovation to meet current energy, seismic, egress, fire safety, mechanical, electrical and plumbing requirements.

Community Preservation Act

Part C Historic Preservation Factors for Consideration:

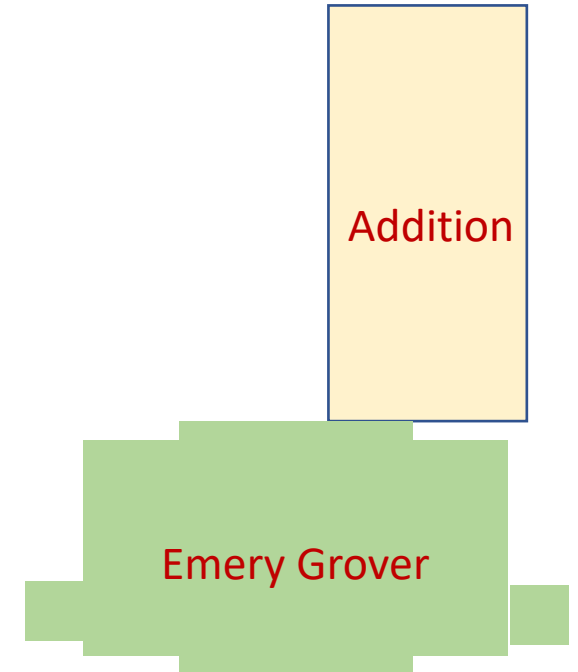
Factors for consideration by the Committee toward approval of funding through the Community Preservation Act.

-  • Preserves and protects historic and cultural properties and sites to the extent allowed under the CPA.
-  • Demonstrates a public benefit to preserve historic resources. Town-owned facilities may be preferred in The Committee's evaluation process.
-  • Incorporates the remodeling, reconstruction, renovation and making of extraordinary repairs to historic resources, such as improvements intended to make historic facilities functional for their intended use, including but not limited to, handicapped accessibility and building code requirements.

Maximum Potential CPA Eligible Project Cost

(Option #3 – Renovation with “L-Shaped Addition”)

Eligible Category	Option #3 Preferred Design
Site & Exterior ADA access	
Exterior Restoration of Envelope	
Elevator (accessibility)	
Egress Stairs (accessibility)	
Interior Renovations	
Mech, Elec., Plumbing, Fire Protection	
Utilities	
Total Hard Costs	\$9,604,899
Soft Costs	\$2,999,025
Maximum Potentially Eligible Project Costs*	\$12,603,924



** CPC to determine final amount to be awarded from Historic Preservation Funds*

Option Three - Rotated

Maintains Historic Building as Gateway

Envelope improvements

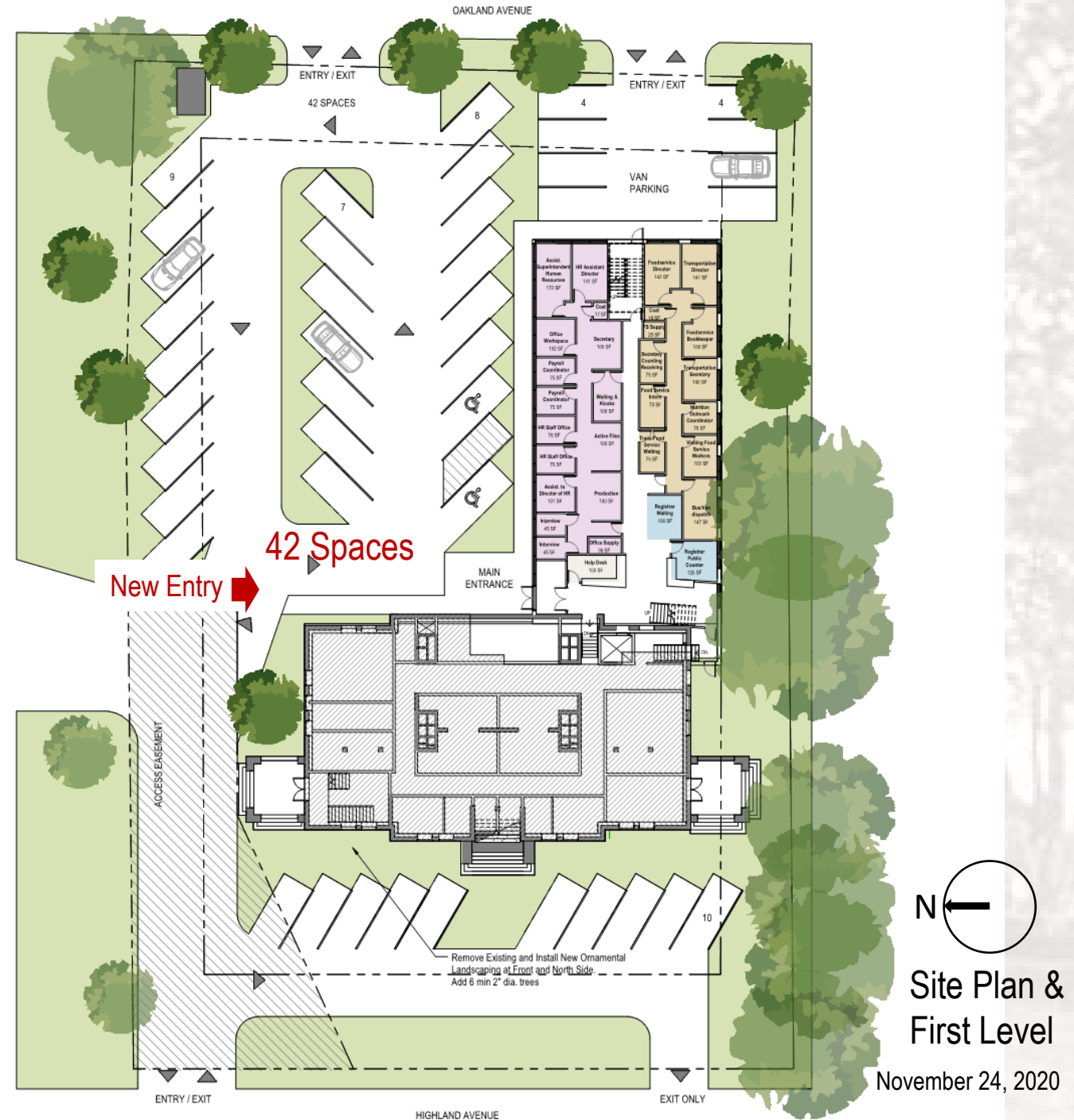
- Renovates N, S, W and half of E elevation
- Repair / replace slate roof
- Code compliant energy efficient windows
- Brick repointing / repair
- Insulation added inside

Necessary Code upgrades

- Fully MAAB/ ADA accessible building
- Code compliant egress stairs
- Code compliant fire & life safety systems
- Code compliant seismic bracing
- Code compliant Mechanical, Electrical, Plumbing systems

New addition minimizes impact on historic Bldg

- New 50' Addition for 34,717 GSF
- Program provides for School Admin. needs





Needham School Administration Emery Grover Building Study

November 24, 2020



**Select Board
TOWN OF NEEDHAM
AGENDA FACT SHEET**

MEETING DATE: 11/24/2020

Agenda Item	Termination And Release Of Easement – Mill Creek
Presenter(s)	Kate Fitzpatrick, Town Manager

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
The Town Manager will recommend that the Select Board approve the Termination and Release of Easement for the Mill Creek (Modera Needham) project on Greendale Avenue. The developer of Modera Needham received a Comprehensive Permit issued by the Zoning Board of Appeals to allow the development of its project on Greendale Avenue. After the developer relocated the Town's sewer line at its own expense, the Select Board authorized the developer to encroach on the existing sewer easement to construct the facility. The 2019 Annual Town Meeting, under Article 48, authorized the Select Board to extinguish the easement running from Greendale Avenue to the Route 128 Right-of-Way. The Department of Public Works has confirmed that all necessary work is complete to the satisfaction of the Town.	
2.	VOTE REQUIRED BY SELECT BOARD
<i>Suggested Motion:</i> That the Board approve and authorize the Town Manager to sign the Termination and Release of Easement.	
3.	BACK UP INFORMATION ATTACHED
(Describe backup below) a. Termination and Release of Easement Document	

TERMINATION AND RELEASE OF EASEMENT

THIS TERMINATION AND RELEASE OF EASEMENT (this “Release”) is executed as of the 24th day of November, 2020, by the Town of Needham, a municipal corporation having an address at 1471 Highland Avenue, Needham, Massachusetts 02492 (the “Town”).

WHEREAS, MCREF Needham LLC, a Delaware limited liability company (the “Applicant”) is the owner of certain premises located at 700 Greendale Avenue in Needham, Massachusetts (the “Property”) pursuant to deeds recorded with the Norfolk Registry of Deeds (the “Registry”) in Book 34522, Page 347 and Book 34522, Page 351;

WHEREAS, the Town benefits from a sewer easement encumbering a portion of the Property pursuant to that certain taking recorded July 16, 1959 in the Registry in Book 3743, Page 551 (the “Original Easement”), which encumbers that portion of the Property shown on Exhibit A-1 attached hereto and more particularly described on Exhibit A-2 attached hereto;

WHEREAS, the Needham Zoning Board of Appeals granted Applicant approval to construct a project (the “Project”) on the Property as described further in the Comprehensive Permit dated October 20, 2015 and recorded with the Registry in Book 34522, Page 353, as amended by an Amendment to Comprehensive Permit dated April 27, 2016 recorded with the Registry in Book 34522, Page 414 (collectively, the “Comprehensive Permit”);

WHEREAS, pursuant to Condition #22 of the Comprehensive Permit, the Applicant shall relocate the sewer line located in the area described in the Original Easement to a new area within the Property as approved by the Town;

WHEREAS, in accordance with Condition #22 of the Comprehensive Permit, the Applicant relocated the sewer line and on December 6, 2016, the Applicant granted the Town a sewer easement, which grant of easement is recorded in the Registry in Book 34740, Page 408;

WHEREAS, the Needham Select Board consented to the construction of the Project over the area burdened by the Original Easement pursuant to a Consent of the Select Board recorded in the Registry in Book 34522, Page 409;

WHEREAS, on May 6, 2019, the Town of Needham approved Warrant Article 48 at the 2019 Spring Town Meeting, authorizing the Select Board to execute this Termination and Release of the Original Sewer Easement; and

WHEREAS, the Town now intends to release and terminate the Original Easement in its entirety.

NOW THEREFORE, for Ten Dollars (\$10.00) and other good and valuable consideration paid, the receipt and sufficiency of which are hereby acknowledged, the Town hereby releases and conveys to the Applicant and its successors all right, title and interest acquired by the Town under the Original Easement. All rights of the Town or anyone claiming by, through or under the Town under the Original Easement are hereby terminated and of no further force and effect.

ACCEPTANCE OF TERMINATION AND RELEASE OF EASEMENT

I, _____, hereby acknowledge the acceptance of the foregoing Termination and Release of Easement by the Town of Needham, a Municipal Corporation, acting by and through its Select Board pursuant to authority granted by vote under Warrant Article 48 of the May 6, 2019 Annual Town Meeting, which Article is attached hereto.

In witness whereof, I have hereunto set my hand and seal this ____ day of _____, 2020.

TOWN:

TOWN OF NEEDHAM a Municipal Corporation,
acting by and through its SELECT BOARD

By: _____
 Name: _____
 Title: _____
 Hereunto duly authorized _____

[illegible]

On this ____ day of _____, 2020, before me, the undersigned notary public, personally appeared _____, proved to me through satisfactory evidence of identification which was _____ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose as _____ for the Town of Needham, a Municipal Corporation, acting by and through its Select Board.

Notary Public
My Commission Expires:

EXHIBIT A-1

Released Sewer Easement Area Plan

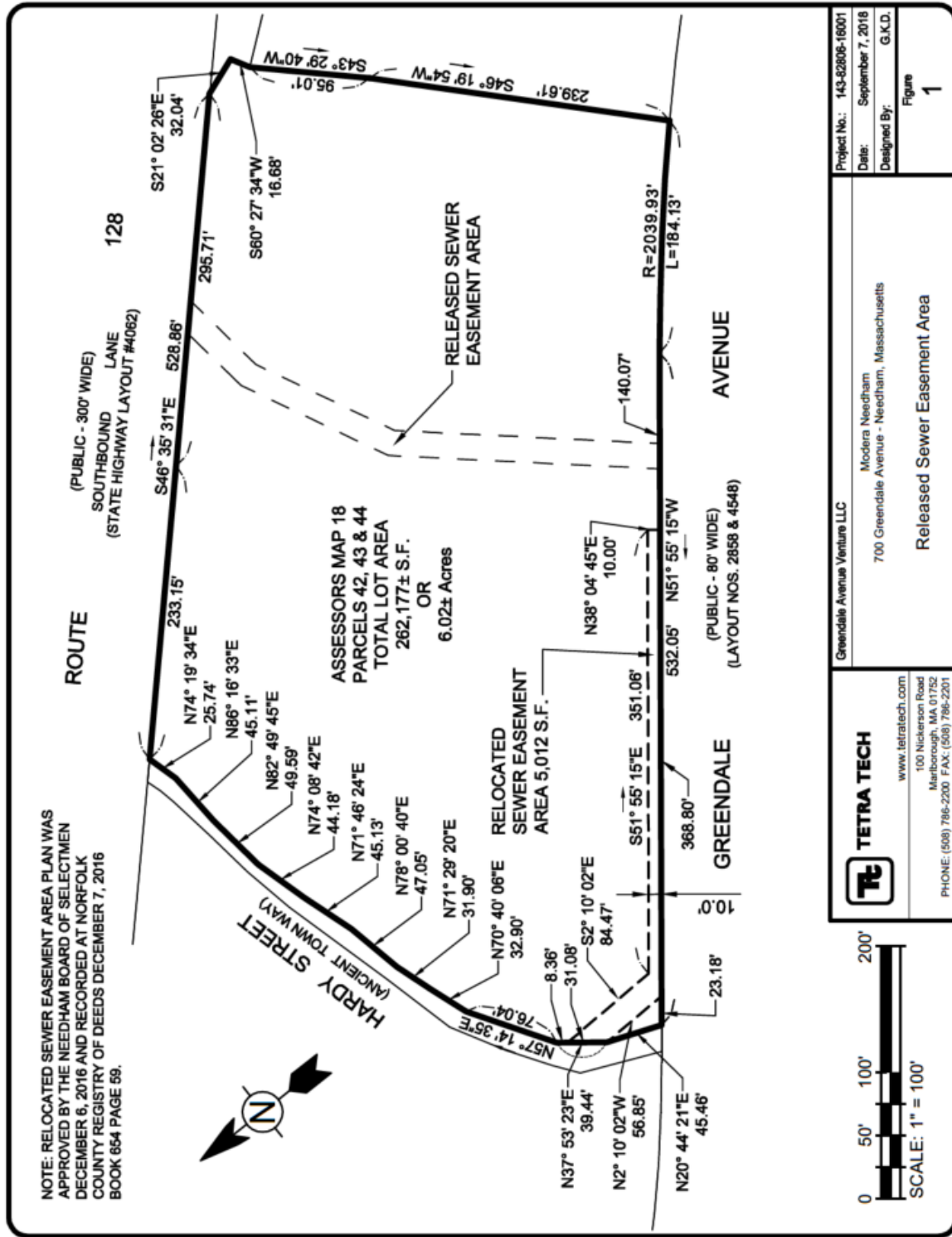


EXHIBIT A-2

Released Sewer Easement Area Legal Description

The area shown on the plan recorded as Plan No. 848 of 1959 entitled "Easement to be acquired in Needham, Mass., Greendale Avenue to Route 128, scale 1 in = 40 ft., H. Gordon Martin, Town Engineer," dated June 1959, the centerline of such 20.00 ft. wide easement being located and described as follows:

Beginning at a point on the northeasterly sideline of Greendale Ave., said point being 81.75 ft. N52°06'34"W from the northerly end of a curve of 2039.93 ft. radius; thence 212.72 ft. N40°51'43"E, 125.23 ft. N63°33'27"E and 65.16 ft. N62°24'13"E to the southwesterly sideline of the State Circumferential Highway (Rte. 128) as laid out by the Commonwealth of Massachusetts in 1953.

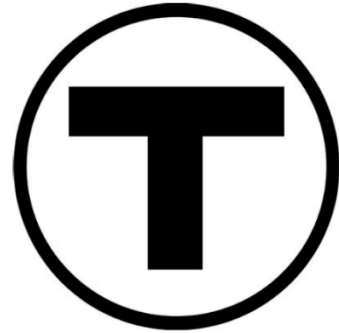


**Select Board
TOWN OF NEEDHAM
AGENDA FACT SHEET**

MEETING DATE: 11/24/2020

Agenda Item	Proposed MBTA Service Cuts
Presenter(s)	Kate Fitzpatrick, Town Manager

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
The Town Manager will update the Board on proposed service cuts at the MBTA and will recommend that the Board submit a letter during the comment period expressing the Town's concerns.	
2.	VOTE REQUIRED BY SELECT BOARD
<i>Suggested Motion:</i> That the Board authorize the Town Manager to send a letter to the MBTA expressing concerns about the proposed reductions in service and potential disruptions in system reliability associated with the current proposal.	
3.	BACK UP INFORMATION ATTACHED
(Describe backup below) a. MBTA Forging Ahead PowerPoint Presentation 11/9/2020	



**Massachusetts Bay
Transportation Authority**

Forging Ahead: Scenario and Service Planning

Fiscal and Management Control Board

November 9, 2020

Laurel Paget-Seekins and Kat Benesh

Agenda

- Forging Ahead
 - Why do we need to make service changes
 - How we are planning for uncertainty
- Preserving Essential Service
 - Base Service and impacts
- The Plan to Build Back
 - Service Packages
- Budget analysis
- Public engagement and next steps

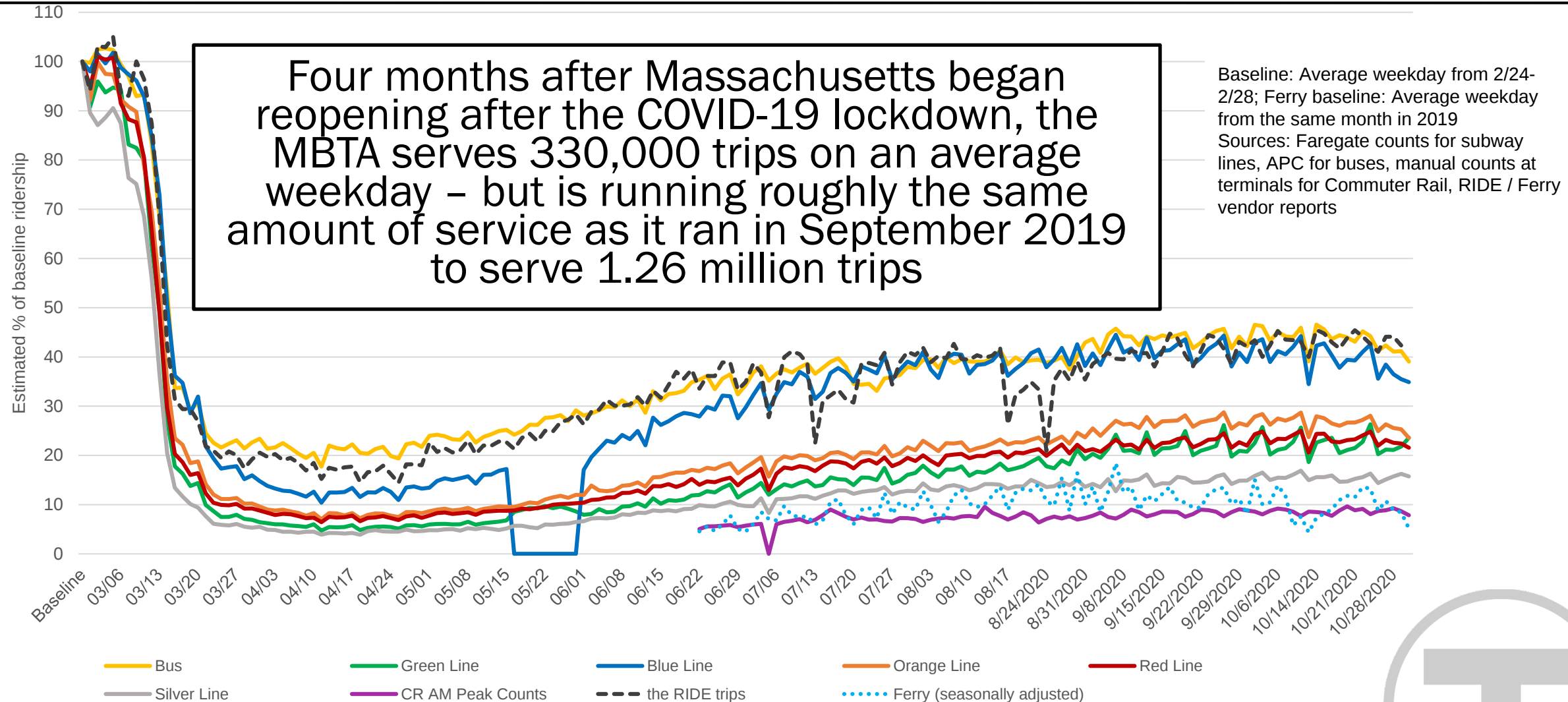


What is Forging Ahead?

- Forging Ahead is the process the MBTA is using to focus our operating and capital resources on the riders who depend most on the MBTA for frequent and reliable service.
- In order to do this we are:
 - Evaluating all internal spending to reduce expenditures
 - Assessing our capital program and reallocating a limited amount of funds from our capital budget to support our operating budget
 - Defining a core of **essential** transit services to prioritize and determining the costs needed to run them
- Out of this difficult situation, we are **forging** a more equitable and efficient transit system to move **ahead** economic recovery for Massachusetts.



Our ridership fell significantly and is slowly recovering



Overview of Service Changes

- The MBTA is providing more service than its revenues can support and its ridership justifies so today staff will propose adjusting service levels to a new, temporary “Base Service” that will gradually be implemented in CY 2021. This Base Service realigns service to match current ridership patterns while also preserving and protecting service for those who depend most critically on the MBTA for frequent and reliable service by reducing primarily non-essential services.
- The vast majority of MBTA service will continue and the service changes are not permanent. The MBTA will periodically realign service to match current and future ridership patterns, when durable revenue is available for pay for such service.
- No increases in fares are being proposed.
- The proposed service adjustments are not final and an extensive public engagement process begins today. On Tuesday the MBTA will hold the first of 11 virtual public meetings, which will continue through December 3, to accept public feedback on the proposed service changes. Online feedback is also being accepted, allowing riders to comment on proposed changes to the services that they use.
- The FMCB is scheduled to vote on the changes on December 7, so that planning can begin for gradually making the changes in 2021.
- While some service changes on Commuter Rail and Ferry could take place as early as January, the changes to Rapid Transit would be made in the spring and to Bus in the summer. This will allow the MBTA to adjust the proposed basic service if warranted by changes in ridership and if additional, durable revenue becomes available.



Why Does the MBTA Need to Change Service?

- Ridership has declined dramatically due to COVID-19. Commuter rail ridership at the end of October was down 87% compared to next year, with the system carrying only 8.5% of its pre-COVID morning peak ridership. Ferry ridership is at 12% of pre- COVID ridership, with the T paying to operate 112 trips daily with an average of 7 riders per trip. In October ridership at gated rapid transit (subway) stations was still at roughly one-quarter of pre-COVID levels
- As a result, the MBTA is operating nearly empty trains, ferries and buses and scenario planning forecasts show that substantially lower ridership levels could well continue into the fiscal year beginning July 1, 2021
- Even accounting for the need to reduce crowding and accommodate social distancing, the MBTA is providing more service than its revenues can support and its ridership justifies
- Given the continuing pandemic and economic dislocation, ridership may not return to pre-COVID levels for some time and, as service is brought back, some schedules and routes may be changed to reflect changes in where and how people work, learn and receive health care
- Social equity demands that the MBTA focus its available resources on those who depend most on the MBTA for frequent and reliable service
- Using limited resources to operate nearly-empty trains, ferries and buses is not a responsible use of the money provided to the MBTA by riders, communities and taxpayers

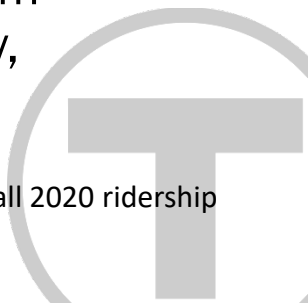
The MBTA is therefore opening up a dialogue with its riders, the businesses and communities it serves and the stakeholders who depend on the MBTA about how best to prioritize the transit services that it provides.

Preserving Essential Services

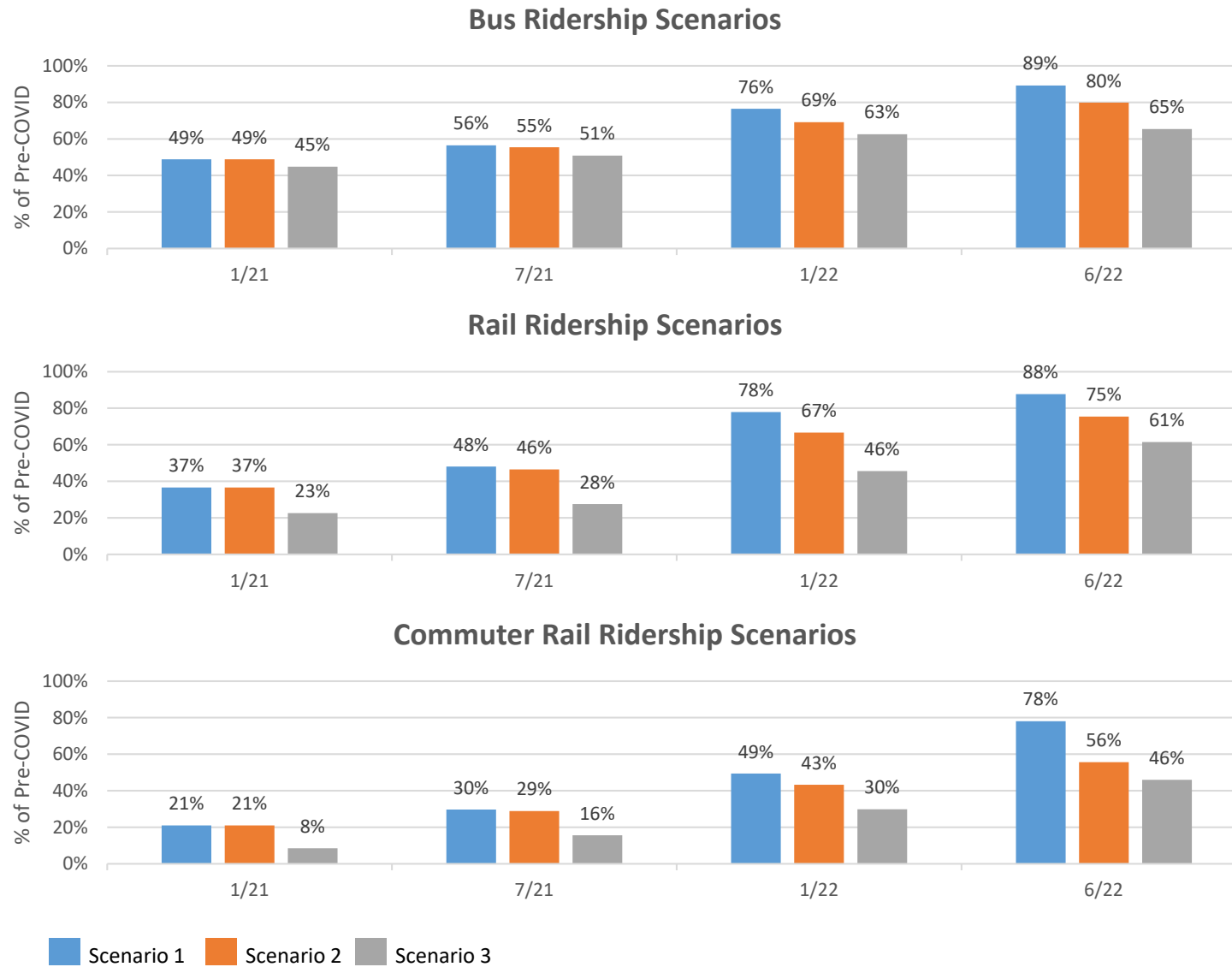
Mode	Highly Transit Critical	Less Transit Critical
High Ridership Potential FY22	Blue Line, Orange Line, Red Line, Green Line (trunk), Mattapan line, many bus routes, Fairmount CR line	Some bus routes
Low Ridership Potential FY22	Some bus routes, some Commuter Rail service, Charlestown ferry*	Hingham/Hull ferry, some bus routes, some Commuter Rail service

- Goal of this framework is to preserve service at or above Service Delivery Policy levels for all services in the High Ridership and High Transit Critical quadrant
- Service Delivery Policy was approved by FMCB in 2017 and quantifies MBTA's target minimum acceptable service level by mode across multiple metrics (incl. hours of operation, frequency, crowding)

*Charlestown Ferry was initially considered as part of essential service, but after further examination, has been moved to low ridership based on further review of Fall 2020 ridership



Planning for an uncertain future



- MBTA ridership return will vary depending on future of local travel, vaccine timing, and economic recovery
- Ridership did not decrease the same amount across modes, lines, and routes; and will not be uniform in how it returns either
- When we build back, we can use our planning via Bus Network Redesign and RailVision to better serve our riders and communities



Service Change Implementation Timeline

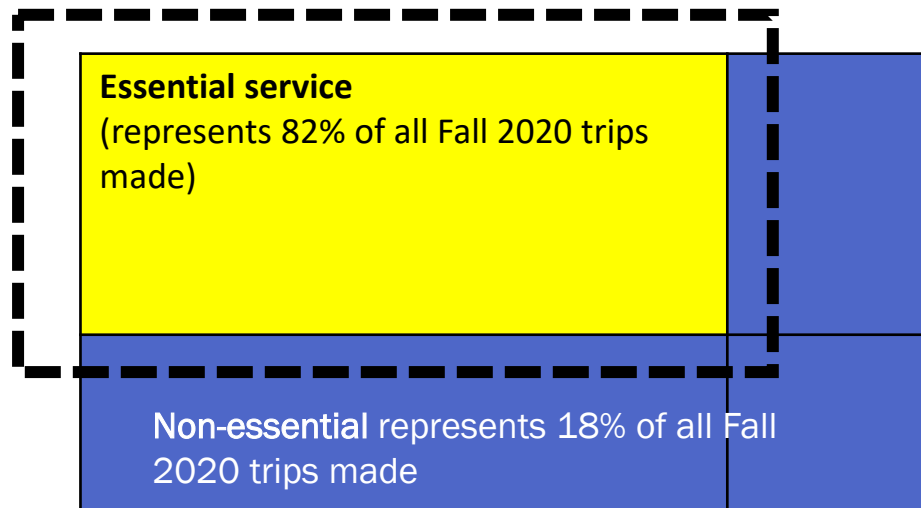
Mode	Presentation of proposed service changes	Public engagement	Contingent vote on service changes	Implementation start	Ability to adjust service as part of Service Planning (new schedules)
Commuter Rail	November 9 th FMCB meeting	November & December 2020	December 7 th FMCB meeting <i>(Contingent on acceptance of Title VI analysis and Environmental Review)</i>	January & May	Twice a year (Oct / May)
Ferry				March	Twice a year
Rapid Transit				March	Four times a year (Mar, Jun, Sep, Dec)
Bus				Late June	Four times a year (Mar, Jun, Sep, Dec)
The RIDE				As impacted by other changes	As impacted by other changes

Base Service Overview



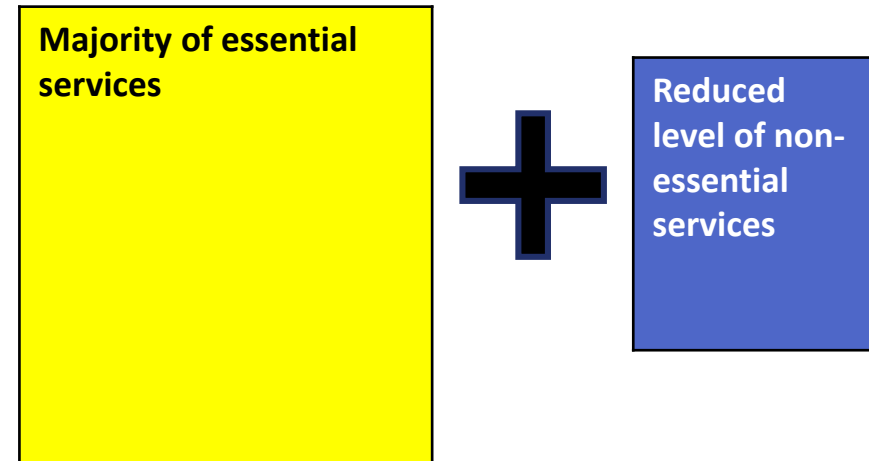
What is base service?

ESSENTIAL SERVICE



Essential services are the services that serve high transit critical populations AND have high ridership potential

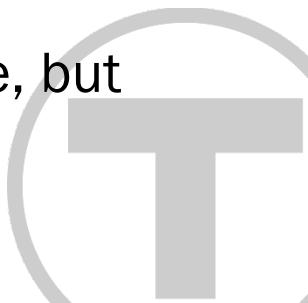
BASE SERVICE



Base service is the proposed new service level, which is the majority of essential service and a reduced level of non-essential services

Base Service proposal - considerations

- **“Base Service”** represents quality service for all essential services, as well as a reduced amount of non-essential service that is still viable for many of those who depend on it. **For many using essential services, service will continue to look very similar to Pre-COVID.**
- Non-essential services will generally see less frequent service or elimination, but this **allows MBTA to prioritize and preserve essential services**
- Due to lower ridership, **service reductions are not expected to significantly increase crowding.** And we will adjust service quarterly or semi-annually (based on mode) to continue to match resources with where/when there is ridership or need
- Additional caveats on base service proposal:
 - All cost savings are gross savings (do not account for lost fare revenues)
 - As ridership returns, service can be added back based on demand, but ridership return may outpace ability to re-add service
 - Ridership scenarios developed presuppose 100% of pre-COVID service available, but service reductions will impact ridership return



Definition of Base Service

- **All essential services at or above Service Delivery Policy (SDP) for frequency, span and crowding**
 - Fairmount Line
 - All Rapid Transit
 - Bus Routes (~80 routes)
 - RIDE with policy changes (e.g. scheduling window)
- **Reduced level of non-essential services based on demand and alternatives**
 - Reduced peak service on all other Commuter Rail lines (no weekend or evening service, reduced midday service)
 - Reduced frequency on remaining Bus Routes, including smaller service area and consolidated routes
- **Note: These are only proposals and to be discussed and reviewed via public engagement over next month**

Future SDP crowding standards
estimated based on ridership scenarios –
**service will be adjusted based on actual
ridership**



Most Service Is Preserved

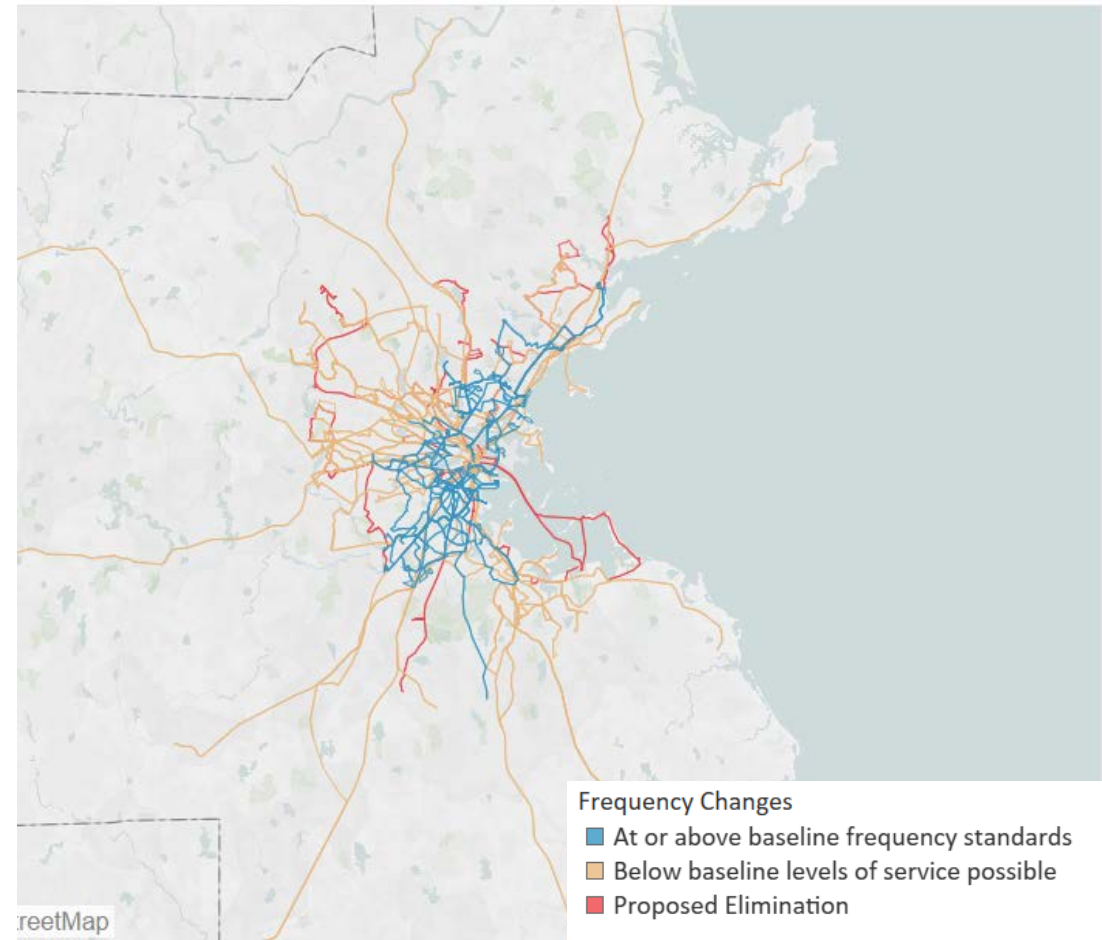
Current Weekday trips (Sept. 2020):

- 82% of weekday trips on essential services
- 18% of weekday trips on non-essential services
- 3% of current weekday trips will lack access or have to divert due to proposed changes (span, eliminations, station closures, short-turns)

Base service represents (weekly service hours vs. pre-COVID):

- 85% of Bus
- 70% of Rapid Transit
- 65% of Commuter Rail
- 0% of Ferry

Under this proposal 78.5% of households in the MBTA service area have MBTA service within ½ mile compared to 82% previously



Types of Ridership Impacts

- Lack of Access
 - Due to span changes so no longer service at the hour a passenger wishes to travel or on that day of the week
 - Due to elimination of all service within $\frac{1}{2}$ mile
- Divert to Alternative Service
 - Need to use alternative service within $\frac{1}{2}$ mile
- Less Frequent service
 - Less frequent service still within Service Delivery Policy
 - Less frequent service that could be below Service Delivery Policy



Commuter Rail

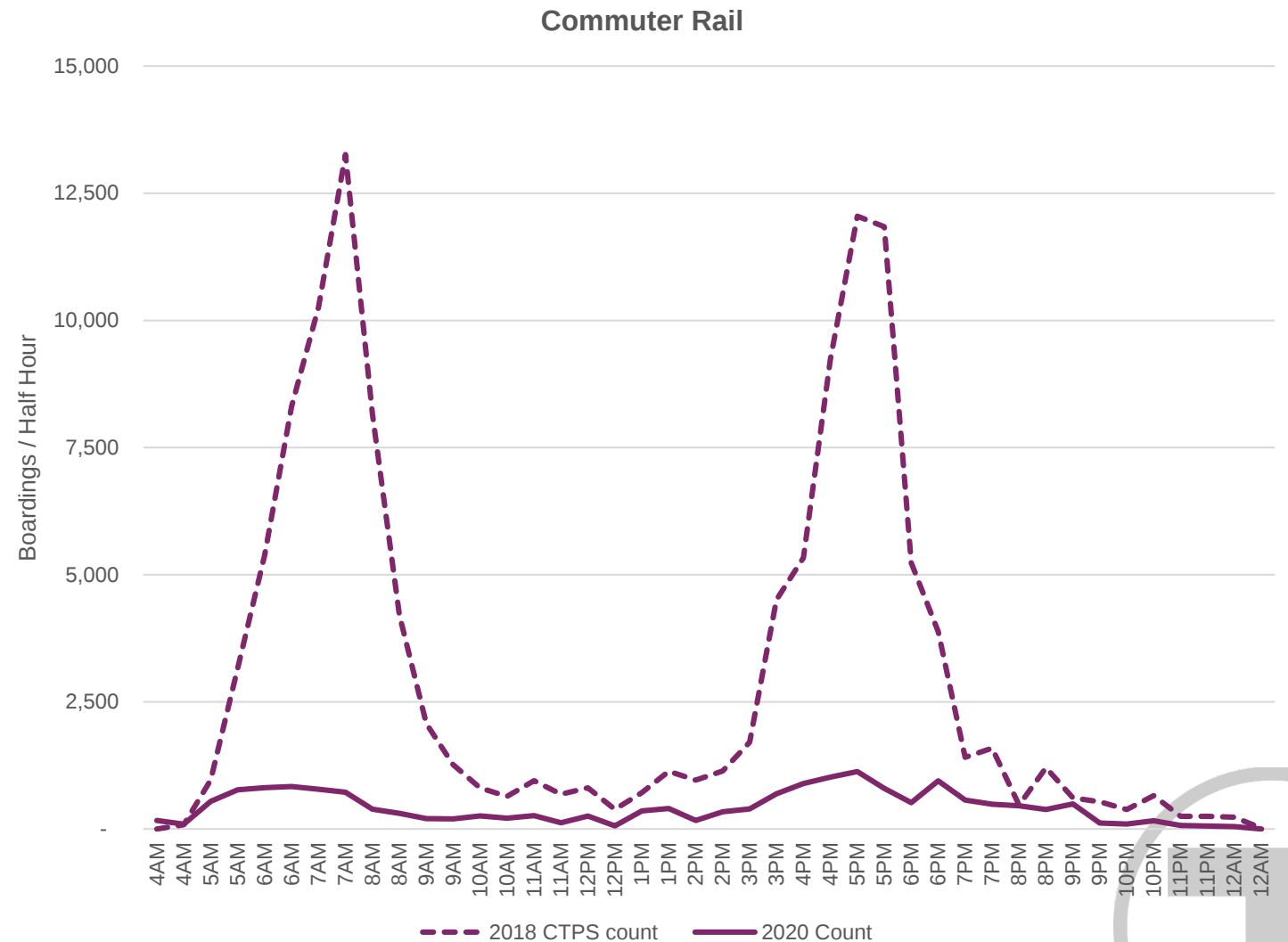


Commuter Rail Ridership

- Approximately 13% of normal ridership, or ~16,000 daily riders (but during AM Peak, ridership is only 8.5% of normal)
 - Running ~85% of regular service in Sept/Oct 2020 (435 trains vs. 505)
 - Starting Nov 2, 2020, “smoothing” service throughout day and running 544 trains
- Weekend Boardings:**
~14K (vs. 31K in 2019)

Weekday Boardings after 9pm

	2019	2020
Boardings	2929	939
Percent	2.3%	5.9%



Changes at a glance – Commuter Rail

- Stop all service after 9 PM (Fairmount closer to 10 PM)
- Stop all weekend service (Fairmount replaced by bus)
- Decrease weekday peak service and some midday service, reducing from 505 trains (Fall 2019) to 430 trains
- Close 6 (out of 141) stops based on low ridership, operational impacts, and availability of alternatives
- Specific service levels by line to take into account ridership patterns from adjusted Fall 2020 schedules (more balanced service throughout day)



Commuter Rail Base Service

Base service at a glance:

Sept. 2020 ridership: 12% of pre-COVID rider.
65% of pre-COVID service hours
\$45M annual savings vs. FY21 budget

	FY21 Budgeted service	FY22 Base Service	2017 Service Delivery Policy (only applicable for essential service)
Hours of operations (varies by line)	5/6:00 AM until 1:00 AM (weekdays) – all lines in operation	5/6:00 AM until 9:00 PM (weekdays only) – all lines in operation	7:00 AM – 10:00 PM (weekdays) 8:00 AM – 6:30 PM (Saturdays)
Frequency of trains	505 trains (Fall 2019); 544 trains (Fall 2020)	430 trains, rebalanced across lines	3-4 trips in peak direction - Every 3 hours in each direction all other times
Weekend service	Saturday & Sunday service	No weekend service (Fairmount Line replaced by bus)	Saturday service only
Additional customer impacts		~6 station closures (low foot traffic, operational time savings) - Shorter trainsets	

Commuter Rail details

Ridership impacts (based Sept. 2020 ridership):

- Lack of Access (loss of weekend and post-9PM service): ~15,000 weekend riders
- Divert/Lack of Access: <50 riders
- Less frequency service: ~16,000 daily riders

Consequences/impacts from reducing service to base service level:

- Will take at least 1-2 years to re-hire and re-train workforce when returning service, potentially longer to expand locomotive and coach fleet size
- Savings do not include additional cost to mothball assets (up to 100 coaches and 8 locomotives)
- Closure of Needham Facility

Total gross savings:

- Up to \$8M in FY21
- \$45M in FY22



Potential Station Closures

Station	Line	City/Town	2018 Boardings (inbound)	2020 Boardings (inbound)	Reason	Closest alternative (all the same Commuter Rail zone)
Plimptonville	Franklin	Walpole	12	<5	Low ridership, not accessible	Walpole, 1.8mi – 345 parking spaces (only ~15 cars/day)
Prides Crossing	Rockport	Beverly	12	<5	Low ridership, not accessible	Beverly Farms, 1mi – 25 parking spaces*
Silver Hill	Fitchburg	Weston	11	<5	Low ridership, not accessible	Kendal Green, 2.1mi – 57 parking spaces*
Hastings	Fitchburg	Weston	18	<5	Low ridership, not accessible	Kendal Green, .8mi - 57 parking spaces*
Plymouth	Plymouth	Plymouth	21	<10	Operational improvements	Kingston, 2.4 mi – 1,030 parking spaces (very low utilization)
Cedar Park	Haverhill	Melrose	98	~20	Low ridership, not accessible	Wyoming Hills, .6 mi – ~30 parking spaces*

Stations selected due to low ridership, operational impacts, and availability of alternatives

* Parking lots operated by non-MBTA affiliates or local authorities, so utilization data unavailable

Ferry



Ferry Ridership

- Ridership is approximately 12% of pre-COVID ridership (803 riders)
- Ferry is currently running 112 trips a day (approximately 75% of pre-COVID service)
- This is equivalent to 7 riders per trip

Ferry	September average weekday ridership		%
	2019	2020	
Hingham (F1)	4,183	279	7%
Hingham/Hull (F2H)	1,350	314	23%
Charlestown (F4)	1,230	210	17%
Total	6,763	803	12%

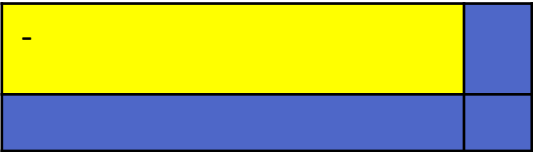
Changes at a glance – Ferry

- Stop all Ferry service (F1, F2H, F4)
- Charlestown/Boston service (F4) flagged as potentially essential service, but due to very low COVID ridership, and highly redundant service on Bus Route 93 (an essential Bus route), propose stopping F4 service
- Bus Route 93 currently has minimal crowding and can support the diverted riders (will review as part of quarterly Service Planning process)



Base service at a glance:
 Sept. 2020 ridership: 12% of pre-COVID rider.
 0% of pre-COVID one-way trips
 \$13M annual savings vs. FY21 budget

Ferry Base Service



	FY21 Budgeted service	FY22 Base Service	2017 Service Delivery Policy (only applicable for essential service)
Services	- Charlestown/Boston (F4) - Hingham/Hull Local (F2H) - Hingham/ Boston direct (F1)	No ferry service	
Hours of operations	5:40 AM until 9:33 PM (weekdays) 5:40 AM until 10:48 PM (Friday only)	No ferry service	7:00 AM – 10:00 PM (weekdays) 8:00 AM – 6:30 PM (Saturdays – seasonally)
Frequency of trains	- F1: 36 trips - F4: 78 trips - F2H: 38 trips, +2 Friday only	No ferry service	3 trips in peak direction - Every 3 hours all other times
Weekend service	- F2H: 32 trips Saturday, 28 trips Sunday (seasonal) - F4: 34 trips Sat/Sun (annual)	No ferry service	Saturday seasonally

Ferry details

Ridership impacts (based Sept. 2020 ridership):

- Lack of Access: 593 riders (though within 5-15 minute drive of Commuter Rail Greenbush stations)
- Divert: 210 riders

Consequences/impacts from reducing service to base service level:

- Loss of skilled labor
- Savings do not include additional cost to maintain MBTA assets (4 ferry boats and Hingham facility)
- May take significant time to re-procure new ferry contracts when re-starting service, and may be more costly due to perceived additional risk by market

Total gross savings:

- Up to \$3.5M in FY21
- \$13M in FY22



Rapid Transit



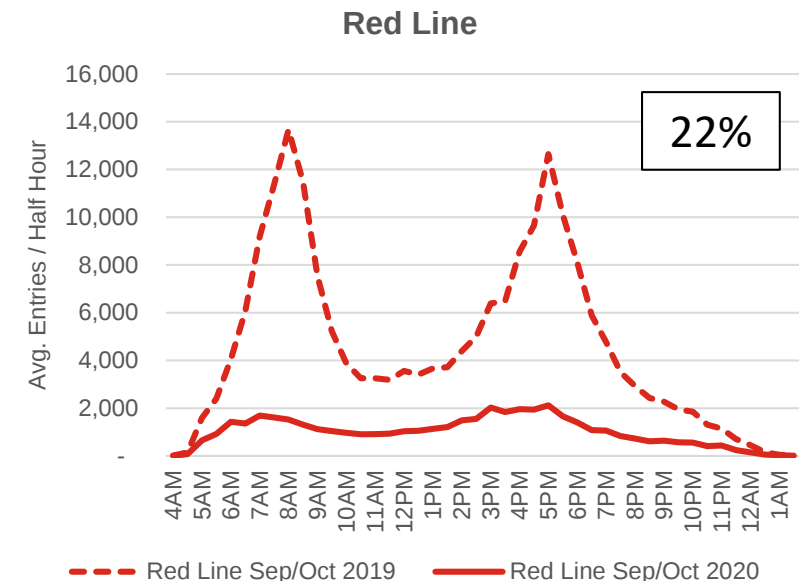
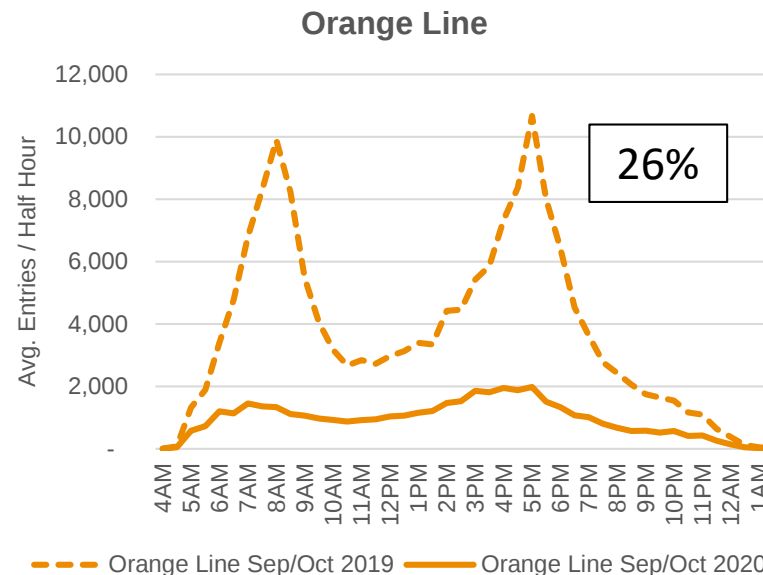
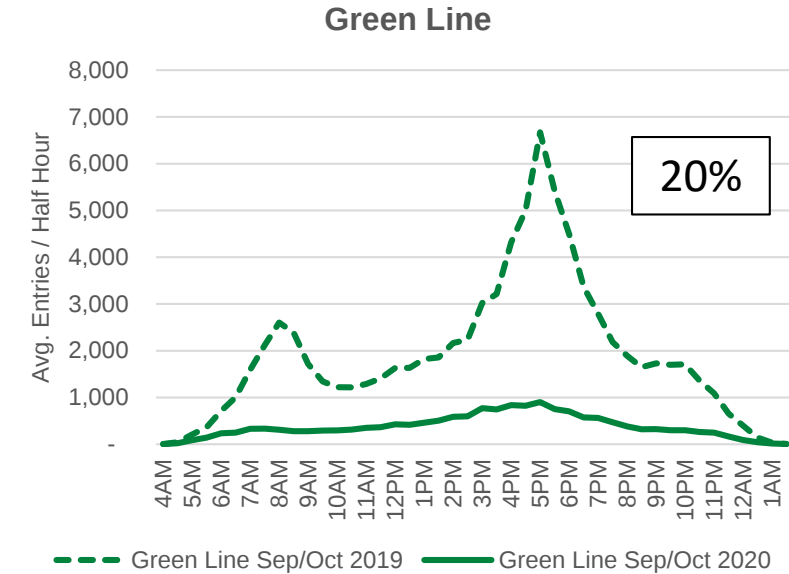
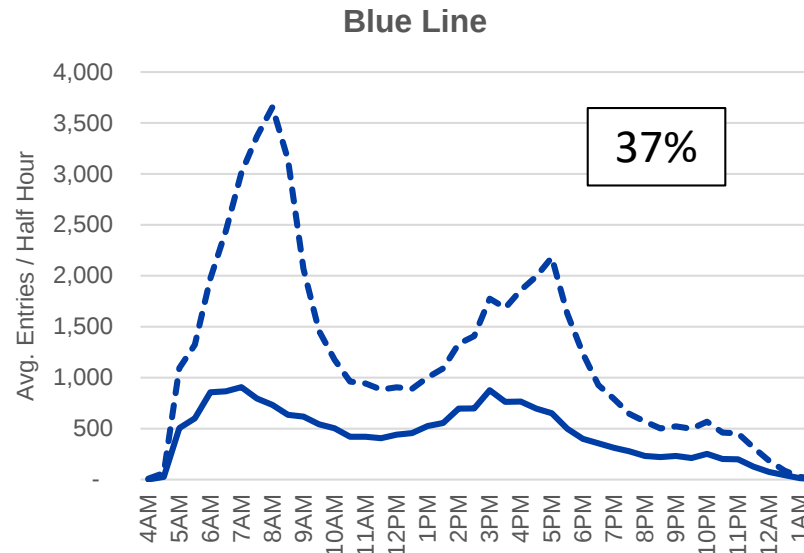
Rapid Transit Ridership

- Heavy Rail and Green Line trunk: ~120,000 gate entries on weekdays, 24% pre-COVID
- Running close to 100% of pre-COVID service & frequencies

Sept/Oct 2020 Boardings after midnight

Blue: 134
Green: 155
Red: 247
Orange: 237

(On average, <20 riders per trip that starts after midnight)



Changes at a glance – Rapid Transit

- Stop all service after midnight (versus 1 AM currently), but no changes to start of service
- Reduce frequency by 20% across all lines, though may vary line by line and by time of day based on ridership patterns
 - Will be reviewed and adjusted as part of quarterly Service Planning process
 - Implementation timeline may be adjusted based on state and federal guidelines for social distancing
- Stop E Line Service at Brigham Circle, diverting E Line riders (at 5 stops along 0.8 miles) to Route 39
 - Route 39 service would be increased and crowding will be reviewed as part of quarterly Service Planning process



Base service at a glance:
 Sept. 2020 ridership: 24% of pre-COVID rider.
 70% of pre-COVID service hours
 \$32M annual savings vs. FY21 budget

Rapid Transit Base Service

Orange, Blue, Red, Green
Line (trunk), Mattapan

		FY21 Budgeted service	FY22 Base Service (may adjust based on ridership)	2017 Service Delivery Policy (only applicable for essential service)
Services		All Rapid Transit Lines (7 days / week)	All Rapid Transit Lines (7 days / week)	
Hours of operations (varies by line)		5:00 AM to 1:00 AM (weekdays & Saturdays) 6:00 AM to 1:00AM (Sundays)	5:00 AM to midnight (weekdays & Saturdays) 6:00 AM to midnight (Sundays)	6:00 AM to midnight (weekdays & Saturdays) 7:00 AM to midnight (Sundays)
Frequency of trains	Red (trunk)	4 ½ min. peak / 7 min. off-peak	5 ½ min. peak / 8 ½ min. off-peak	- Every 10 minutes at peak - Every 15 minutes all other times
	Orange	6 ½ min. peak / 10 min. off-peak	8 min. peak / 12 ½ min. off-peak	
	Blue	4 ½ min. peak / 9 ½ min. off-peak	6 min. peak / 12 ½ min. off-peak	
	Green (branches, once GLX opens)	6 min. peak (7 ½ with GLX) / 9 min. off-peak (10 min. with GLX)	9 ½ min. peak / 13 min. off-peak (assumes GLX open)	
	Mattapan	5 min. peak / 7 ½ min. off-peak	6 min. peak / 7 ½ min. off-peak	
Additional customer impacts			E Line service terminate at Brigham Circle (transfer to Route 39)	

Note: All off-peak frequencies shown are weekday and Saturday

Rapid Transit details

Ridership impacts (based Sept. 2020 ridership):

- Lack of Access: 733 riders (due to loss of post-midnight service)
- Divert: <1,000 riders (E Line riders to Route 39 after Brigham Circle towards Heath Street, expected to add Route 39 service to support)
- Frequency: ~120K riders, but will still be within Service Delivery Policy standards

Consequences/impacts from reducing service to base service level:

- Loss of skilled labor
- Will take more than a year to re-hire and re-train labor when returning service levels

Total gross savings:

- Up to \$3M in FY21
- \$32M in FY22 (pending adjustment to implementation timeline based on state and federal social distancing guidelines)

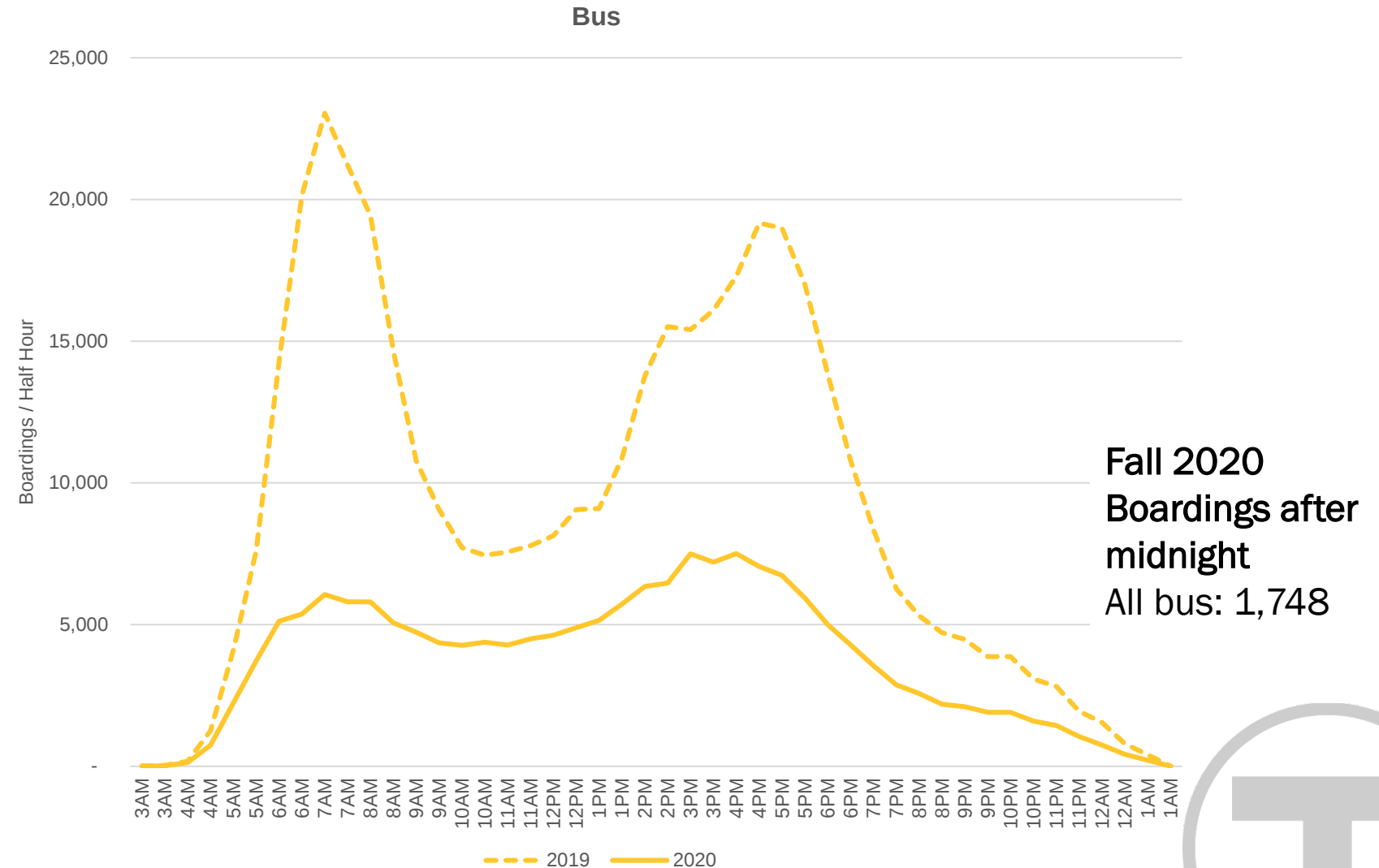


Bus



Bus Ridership

- 171,000 boardings on weekdays, which is 41% pre-COVID
- Significant variation on route by route basis, e.g. Route 111 at >60% and SL2 at 20%
- Close to pre-COVID service levels system-wide, but distributed differently to account for different ridership patterns and support social distancing
- 21 Routes have more significantly more service than pre-COVID to help prevent crowding (e.g. Routes 22, 23, 66, 111, 116/117, 109)



Changes at a glance – Bus

- Stop all service after midnight, but no changes to start of service or days of operation
- Reduce frequency on essential and non-essential routes:
 - **Reduce frequency on essential routes by 5% on average system-wide.** Reduction will vary route by route and by time of day (in some cases likely no change vs. pre-COVID service levels for routes like 111, 116/117, 109, etc.; for others potentially 20-30%), **all based on ridership**
 - **Reduce frequency on non-essential routes by 20% on average system-wide.** Reduction will also vary route by route and by time of day
- Out of 169 MBTA routes, consolidate 14 routes, shorten 5 routes, and eliminate 25 routes. Of those eliminated:
 - 7 routes within $\frac{1}{4}$ mile of alternative bus or rapid transit, so no riders are stranded
 - 12 routes serve non-transit critical, low ridership trips (“bottom right box”)
 - 6 routes serve high transit critical riders, but have very low ridership and have significant, but not fully alternative options
- Eliminate suburban subsidy program which partially funds 5 additional services (Bedford, Beverly, Burlington, Lexington, and Mission Hill), but fewer than 200 avg. weekday riders
- About 1.1% of pre-COVID RIDE trips would be shifted from ADA to Premium; no changes to overall geographic coverage area, though hours of operation may change based on changes to other modes. Lengthen scheduling window from 30 to 40 minutes.
- **All operating routes will continue to be reviewed for crowding and adjusted as part of quarterly Service Planning process, including social distancing guidelines**

65% of Pre-COVID service hours	

Base service at a glance:
 Sept. 2020 ridership: 41% of pre-COVID rider.
 85% of pre-COVID service hours
 \$38M annual savings vs. FY21 budget

Bus overview

	FY21 Budgeted service	FY22 Base Service	2017 Service Delivery Policy* (only applicable for essential service)
Services	169 routes	~140 routes	
Hours of operations (varies by line)	Varies significantly by route	All bus service stops at midnight, but early bird service will continue on essential routes	Weekdays & Saturdays: 6:00 AM to midnight for Key Bus Routes (KBR); 7/8:00 to 6:30/7:00 PM for Local Routes Sundays: 7:00 AM to midnight for KBR; 10:00 AM to 6:30 PM for Local
Frequency	Varies significantly by route	~80 essential routes operate within existing Service Delivery Policy, including crowding standards ~60 non-essential routes that come 20-30% less frequently than pre-COVID	Peak: Every 10 min. for KBR, every 30 min. for Local Off-Peak weekday: Every 15-20 for KBR, every 60 min for Local Weekends: Every 20 min for KBR, every 60 min for Local
Additional customer impacts		19 routes consolidated or restructured 25 routes eliminated, but only <1,700 pre-COVID riders stranded (<0.5% of Pre-COVID ridership)	

**Commuter or Community Route Standard not shown; Minimum span only standard for high-density areas. There is no span standard for low-density areas on weekend*

Bus details

Ridership impacts (based Sept. 2020 ridership):

- Lack of Access:
 - 1,697 riders (Sept. 2019 ridership), less than 0.5% of all bus ridership, due to greater than ½ mile from alternatives, **likely closer to fewer than 700 riders (conservatively)**
 - 1,748 riders due to service stopping at midnight
- Divert: <6,000 riders
- Frequency:
 - ~31K riders, likely not within SDP (non-essential routes)
 - ~130K riders, service still within SDP (essential routes)

Consequences/impacts from reducing service to base service level:

- Loss of skilled labor
- Will take more than a year to re-hire and re-train labor when returning service levels

Total gross savings:

- No savings in FY21
- \$38M in FY22



Additional Analysis

For all proposed changes that would reduce access or divert passengers for other modes we conducted additional analysis.

- Fare impact analysis on bus routes eliminated/consolidated
- Secondary analysis on Senior/TAP ridership
- Secondary analysis on key locations impacted by route elimination/consolidations (hospitals, senior housing, etc.)
- Developments coming online



Service Packages



Prioritizing How We Build Back

- Service Packages are thematic groupings of service additions to “base service”, meant to enable policy-level discussion on returning service
- Public process and Board input provide prioritization and highlight if any other packages should be considered
- If more funding is available in December (based on other trade-offs made or external events), can add service packages to base services
- Understanding preferences and prioritization of Board and Public will also be useful if additional funding available in Spring 2021 to make service decisions faster



Service Packages to add back to Base Service

RAPID TRANSIT

A1

Restore frequency to
Rapid Transit (\$14M)

A2

Restore evening service on Rapid Transit
(\$3M)

COMMUTER RAIL

B1

Restore weekend service on Commuter Rail
(\$7M for partial - \$15M for full)

B2

Restore evening service on Commuter Rail
(\$7M)

B3

Invest in new connections & service based on
RailVision (\$10-15+ M)

BUS

C1

Restore frequency to
Essential Bus Routes (\$7M)

C2

Restore frequency on
non-essential Bus routes (\$7M)

C3

Restore evening service on Bus (\$3M)

C4

Invest in new connections & service based on
Bus Network Redesign (\$10-15+ M)

FERRY

D1

Restore partial Ferry Service to Charlestown/
Boston (\$1.5M)

D2

Restore partial Ferry Service to Hingham/Hull
(\$2M)

Base Service (~\$1B)

Represents ~\$128M in savings in FY22 and up to \$14M in FY21

Note: All costs shown are estimated annual FY22 expenses

Proposed service packages

Exact service patterns may change as part of normal service planning cycles to reflect changing ridership patterns

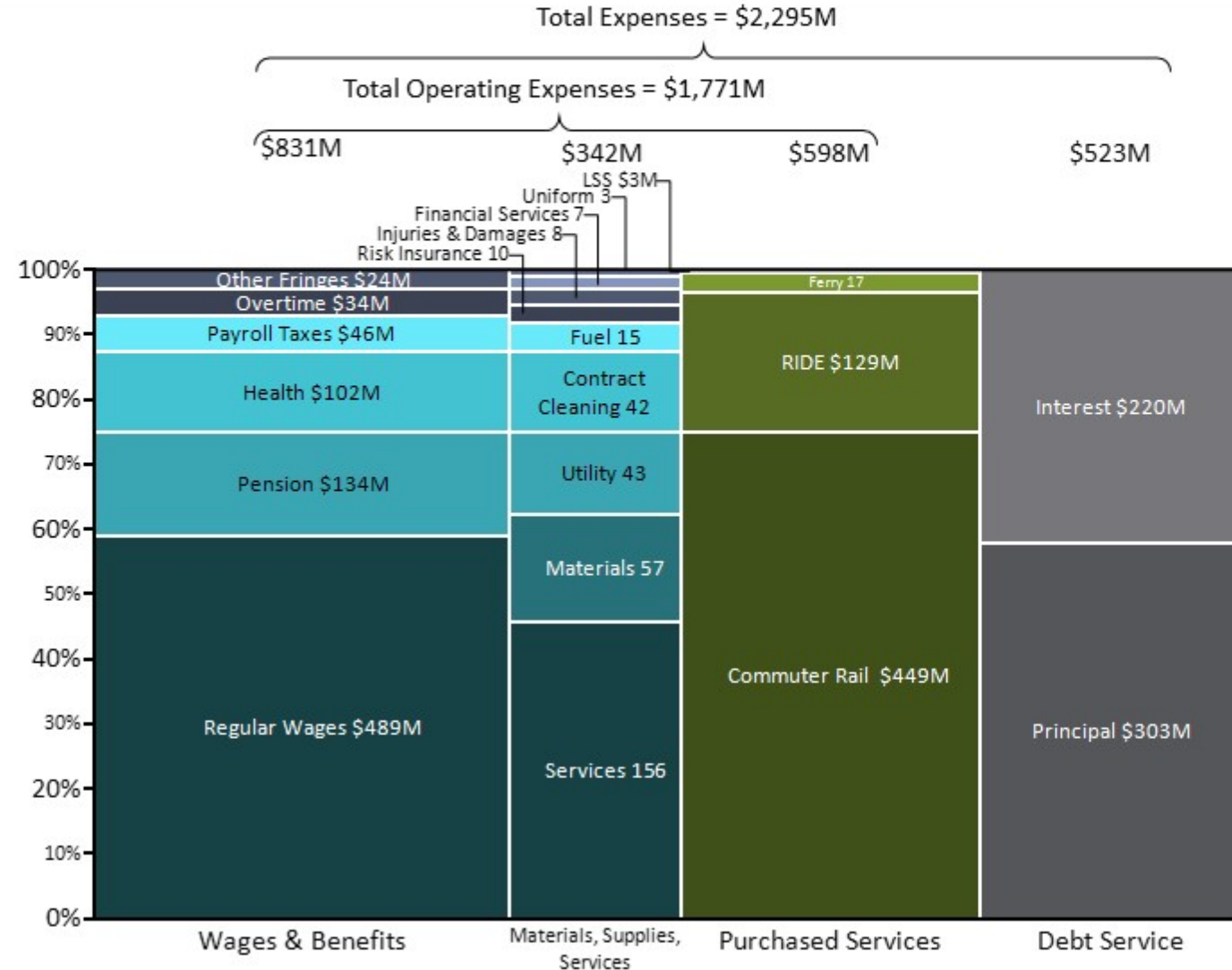
Service Package		Daily Riders impacted (Sept. 2020)	Annual cost	Additional details
A1	Restore frequency to Rapid Transit	~120,000 Frequency	\$14M	• Rapid Transit to 90% of pre-COVID frequency
A2	Restore evening service on Rapid Transit	733 Lack of Access	\$3M	• Rapid Transit operates past midnight
B1	Restore weekend service on Commuter Rail	~14,000 (weekend) Lack of Access	\$7-15M	• Partial (\$7M) on some lines or full weekend service on all lines (\$15M)
B2	Restore evening service on Commuter Rail	939 Lack of Access	\$7M	• Commuter Rail operates past 9 PM
B3	Invest in new connections & service based on RailVision for Commuter Rail	N/A	\$10-15+M	• New Commuter Rail Service patterns (e.g. midday service)
C1	Restore frequency to essential Bus routes	~130,000 Frequency	\$7M	• Essential bus frequency to 100% of pre-COVID, and potentially restore RIDE scheduling window to 30 minutes <i>(bus service may still be adjusted based on crowding)</i>
C2	Restore frequency on non-essential Bus routes	~31,000 Frequency	\$7M	• Non-Essential bus frequency to 90% of pre-COVID <i>(service may still be adjusted based on crowding)</i>
C3	Restore evening service on Bus	1,748 Lack of Access	\$3M	• Bus routes operate past midnight <i>(not all routes, but those that operate past midnight pre-COVID)</i>
C4	Invest in new connections & service based on Bus Network Redesign	N/A	\$10-15+M	• New bus routes to provide better access and/or service for transit critical riders. May partially address eliminated or consolidated routes <i>(may need to be paired with bus priority investments)</i>
D1	Restore partial Ferry to Charlestown/Boston	210 Divert	\$1.5M	• Restore partial Ferry service to Charlestown/Boston (no weekend service)
D2	Restore partial Ferry to Hingham/Hull	593 Lack of Access	\$2M	• Restore partial Ferry service to Hingham/Hull (local only, may not serve all Boston stops, no weekend service)

Financial Implications of Base Service



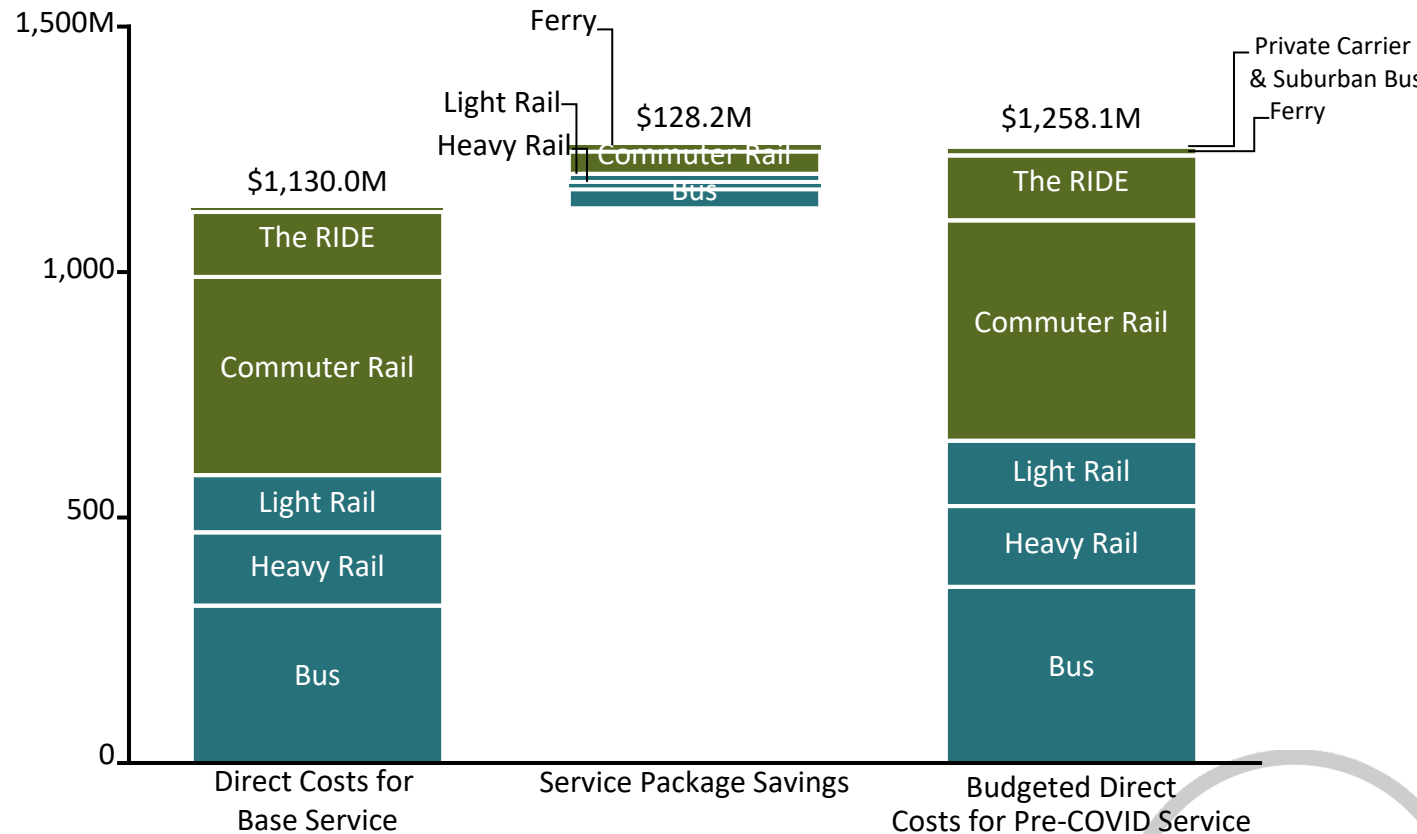
Overview of FY21 Total Budgeted Spending by Category

- Total FY21 budgeted spending is \$2,295M and can be categorized into four broad categories
- 36% for wages and benefits, including pension payments
- 15% for materials, supplies, and services
- 26% for contracted purchased transit services like commuter rail, ferry, and the RIDE
- 23% for debt service payments, a non-operating expense



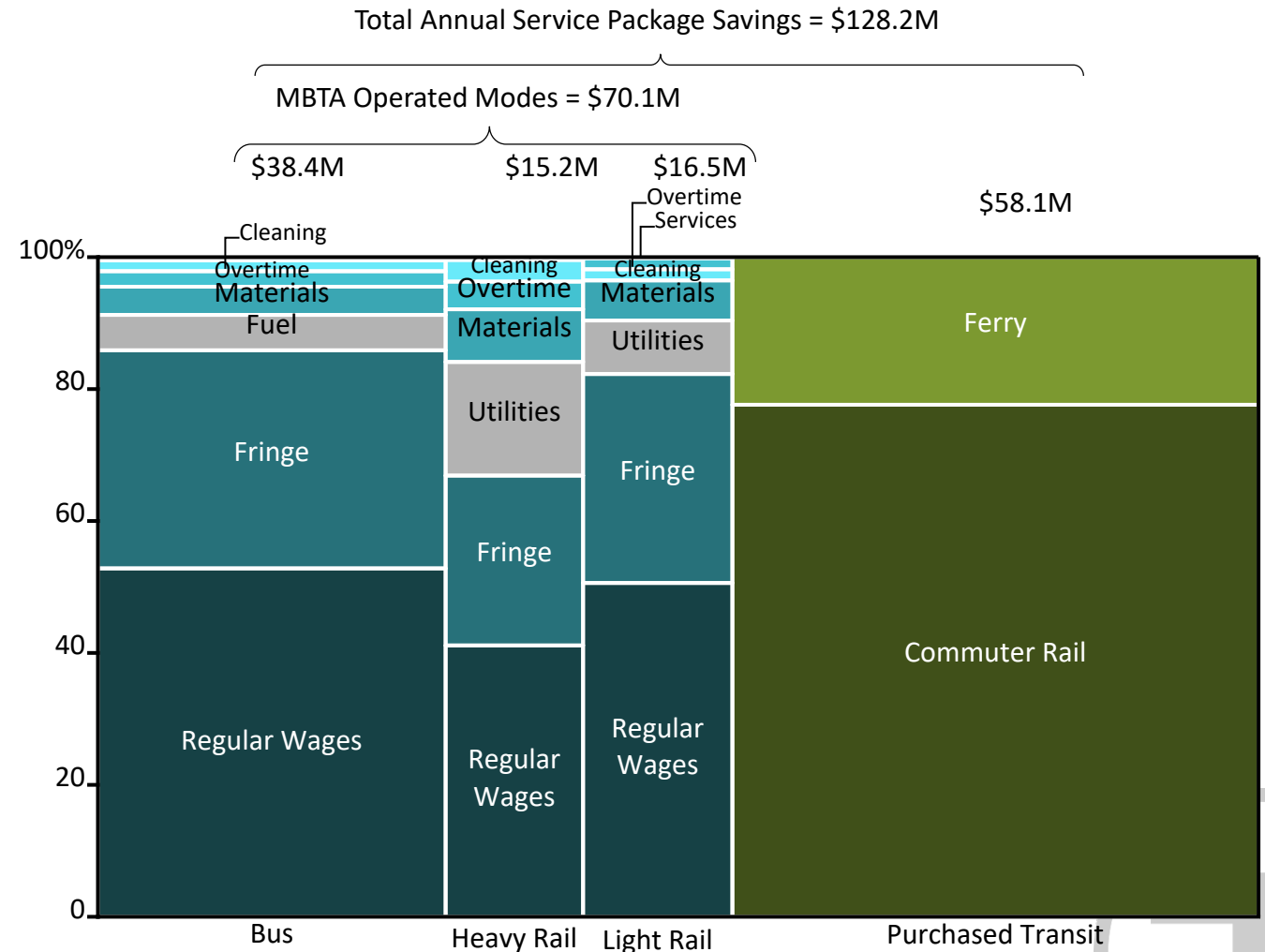
Overview of Budgeted Direct Service Costs

- Budgeted direct service costs for pre-COVID service represent \$1,258M (71%) of the \$1,771M of total MBTA operating expenses across all modes
- Direct service costs include transportation, vehicle maintenance and purchased transit (incl. fuel and utilities), but excludes infrastructure maintenance and other operations
- Purchased services include total annual contract value
- Not all direct service costs are variable with service levels



Potential Gross Annual Savings from Service Packages

- Identified \$128M in potential gross annual savings from service reductions
- Additional \$14M in gross savings possible through enacting some service changes prior to the start of FY22
- \$70.1M (55%) of savings come from MBTA operated modes
- Savings are gross of fare revenue impacts and do not include additional measures being evaluated outside of direct service operations departments
- Savings are based off of current FY21 budgeted levels, which will be adjusted for expected growth rates for FY22



Next Steps



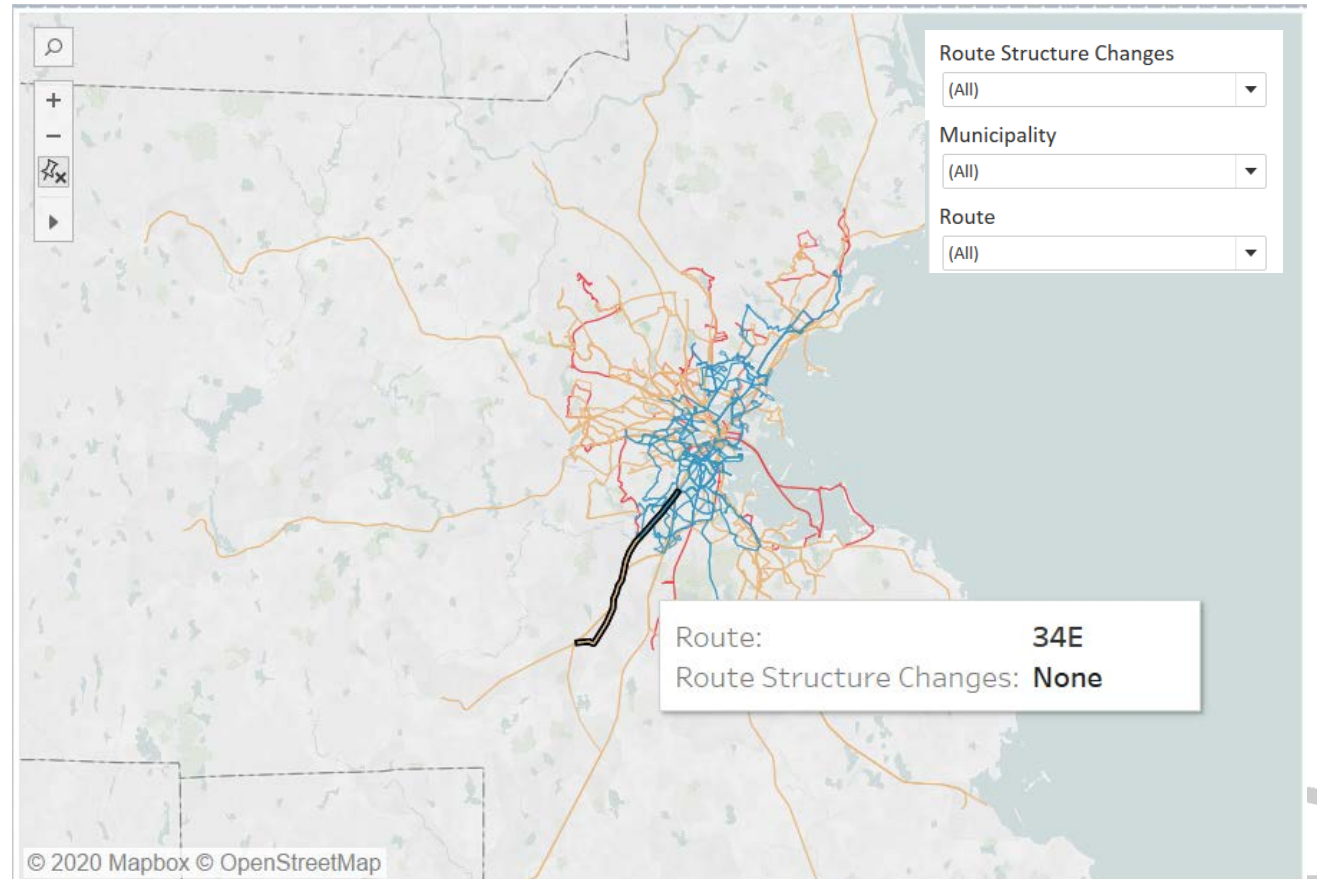
Summary of Public Engagement so far

- Outreach so far
 - 24 additional meetings with community organizations and neighborhood associations confirmed
 - 196 emails and phone calls to organizations in Boston, inner core, and Metrowest regions
- Feedback so far
 - The majority of commenters have urged us to reconsider making drastic cuts and have put forth questions/ concerns about how we prioritize services
 - Concerns about Hingham/Hull ferry service

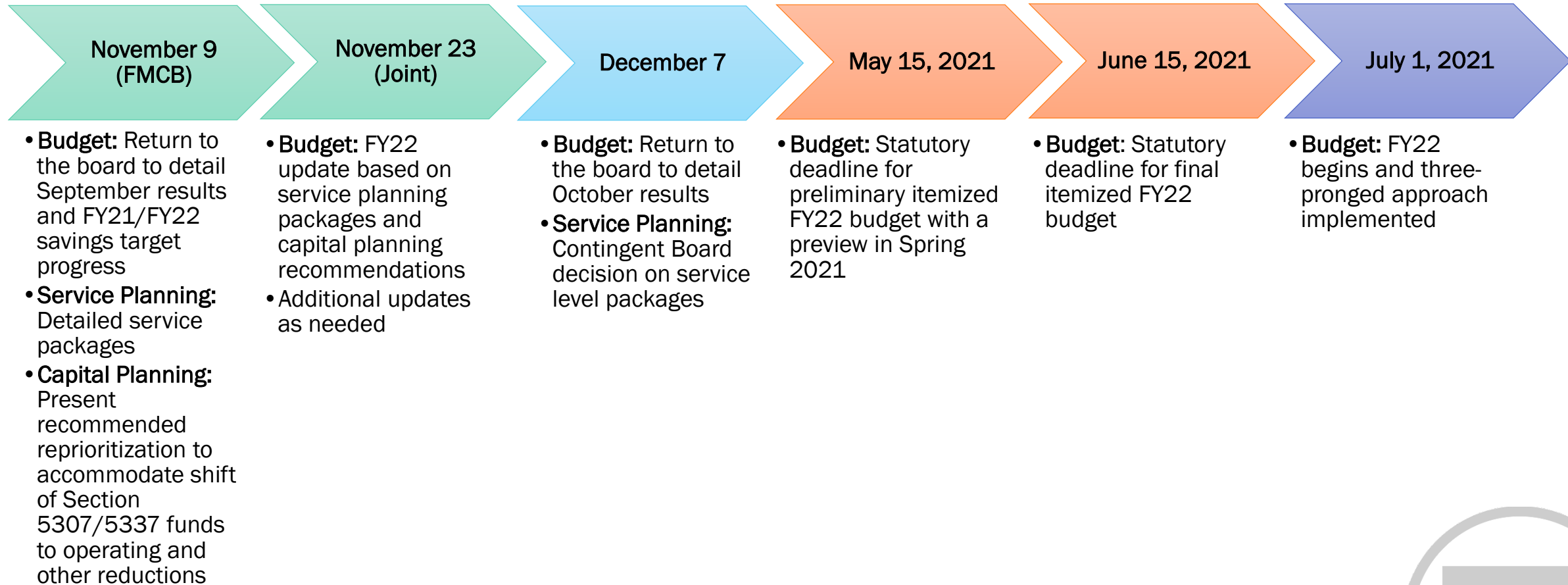


Public Engagement Online Tools

- Interactive map to look up proposed changes by route or town
- Look-up tool by mode or route
- Comment form to provide feedback on proposed changes and prioritization of service return
- Public comment period closes December 4, 2020



Timeline for Service, Budget, and Capital Decisions



Appendix



Blue = will take significant amount of time to re-add service after reductions
All levers shown are additive and do not overlap

Fairmount Line

Appendix: Commuter Rail

Lever	% of service hours represented	Pre-COVID weekly riders impacted	Sept. 2020 riders impacted	Gross Savings (\$M)		Risks / Consequences
				FY21	FY22	
• End Foxboro Pilot & Old Colony Late Night	1%	2K	N/A Lack of Access	\$1 (Nov 2020)	\$2	
• Eliminate all weekend service (Fairmount via bus)	12%	31K	~14K Lack of Access	\$4 (Jan)	\$17	
• Eliminate weekday service after 9 PM	13%	11.7K	939 Lack of Access	\$0.5 (May)	\$7	
• Reduce midday trains	2%	5.7K	~16K Frequency	\$0.3 (Jan)	\$1	
• Reduce peak service by 18%, incl. reduction of locomotives (8) and coaches (50)	7%	97.9K		\$1.8 (May)	\$14	- Station Closures (see below) - Closure of Needham Facility - Loss of skilled labor - Additional cost to mothball assets
• Additional reduction in coaches (50)	-	-		n/a	\$4 (Nov 2021)	
• Station Closures	-	<200 Lack of Access (likely Divert)	<50 Lack of Access (likely Divert)	-	minimal	Supports operationalization of peak service reduction
TOTAL	35%			\$8	\$45	

Appendix: Ferry

-	

Lever	% of trips represented	Pre-COVID riders impacted	Sept. 2020 riders impacted	Gross Savings (\$M)		Risks / Consequences
				FY21	FY21	
- Eliminate Direct Hingham service (F1) - Eliminate Hingham/Hull local (F2H) - Eliminate weekend Charlestown/Boston (F4)	100%	F1: 4,183 F2H: 1,350 Lack of Access F4: 1,230 Divert	F1: 279 F2H: 314 Lack of Access F4: 210 Divert	\$3.5 <i>(Mar)</i>	\$13	- Maintain MBTA ferries and other assets - Bus Route 93 provides alternative service to the F4 - Greenbush stations within 5-15 minute drive of Hull & Hingham
Total	100%	5,533 Lack of Access 1,230 Divert	593 Lack of Access 210 Divert	\$3.5	\$13	

Blue = will take significant amount of time to re-add service after reductions

All levers shown are additive and do not overlap



Appendix: Rapid Transit

Lever	% of service hours represented	Riders impacted (avg. wkdy)		Gross Savings (\$M)		Risks / Consequences
		Pre-COVID	Sept. 2020	FY21	FY22	
• Short-turn E Line at Brigham Circle, no Green Line service to Heath Street	3%	4,057 Divert	<1,000 (est.) Divert	\$0.5 <i>(March)</i>	\$2.0	• Route 39 replacement service (assuming some increase in Rt. 39 frequency); ~1,000 riders equivalent to ~25% of current Rt. 39 Ridership
• End service at midnight on all lines	2%	2,785 Lack of Access	733 Lack of Access	\$0.6 <i>(March)</i>	\$2.8	• Increase window of work available for maintenance and construction
• Reduce peak frequency by 20% on all lines*	10%	~497K SDP Frequency	~120K SDP Frequency	\$0.8 <i>(partially in March)</i>	\$12.1	• Green Line operations will not receive additional resources when GLX opens
• Reduce off-peak frequency by an additional 20% on all lines*	15%			\$0.9 <i>(partially in March)</i>	\$14.9	• Green Line operations will not receive additional resources when GLX opens
Total	30%			\$2.8	\$32	

Blue = will take significant amount of time to re-add service after reductions

All levers shown are additive and do not overlap

*Implementation timing for lever on Blue Line may need to be adjusted based on state and federal guidelines in regards to social distancing

Appendix: Bus (1/2)

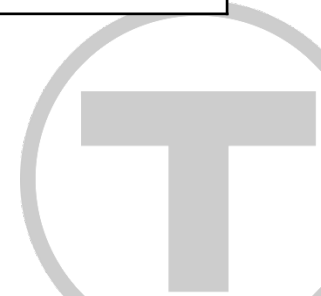
Lever	% of service hours represented	Riders impacted (avg. wkdy)		Gross Savings (\$M)		Notes
		Pre-COVID	Sept. 2020	FY21	FY22	
5% frequency reduction on essential (top left box) routes*	3%	~308K Freq, within SDP	~130K Freq, within SDP	-	\$6.0	5% on average system-wide, impact may vary significantly route by route based on ridership (e.g. Routes 111, 116, 117, 104 and similar routes unlikely to reduced due to ridership)
10% reduction on all non-essential routes	3%	~100K Freq, not SDP	~31K Freq, not SDP	-	\$7.2	10% on average system-wide, impact may vary route by route based on ridership
10% additional reduction on all non-essential routes	3%			-	\$5.5	10% on average system-wide, impact may vary route by route based on ridership
Eliminate or restructure bottom-right box routes, including Suburban Program subsidy	3%	6,794 Divert/ 1,444 Lack of Access + suburban subsidy	1,058** Divert/ 386** Lack of Access + suburban subsidy	-	\$7.6	- Shorten route: 553, 554, 556, 558, 230 Eliminate: 52, 72, 79, 131, 136, 212, 351, 451, 465, 505, 710, 714 - Eliminate Suburban Subsidy Program

Blue = will take significant amount of time to re-add service after reductions

All levers shown are additive and do not overlap

*Implementation timing for lever on essential routes may need to be adjusted based on state and federal guidelines in regards to social distancing

**Some routes have been consolidated/restructured/suspended as part of COVID-19 response and unable to count all impacted riders



Appendix: Bus (2/2)

Lever	% of service hours represented	Riders impacted (avg. wkdy)		Gross Savings (\$M)		Notes
		Pre-COVID	Sept. 2020	FY21	FY21	
Eliminate redundant routes that are within 1/4 mile of bus or rapid transit	2%	8,601 Divert	2,283** Divert	-	\$4.8	- Fully redundant: 325, 326, 456 - Within ¼ mile of alt.: 43, 55, 68 - Within ¼ mile of alt. (post-GLX): 80, 88 (consolidate 88 & 90, extend to Clarendon Hill)
Consolidate routes	1%	68 Lack of Access	N/A** Lack of Access	-	\$2.1	62/76, 84/78, 214/216, 352/354, 501/503, 502/504
Stop service at midnight	1%	4,212 Lack of Access	1,748 Lack of Access	-	\$2.5	
Eliminate very low ridership bottom-left routes, redundant options on portion of most routes	<1%	914 Divert/ 170 Lack of Access	134** Divert/ 54** Lack of Access		\$0.9	Eliminate: 18 (w/in ½ mile of Red Line), 170, 221, 428, 434, 716
Total	16%				\$38M	

Blue = will take significant amount of time to re-add service after reductions

All levers shown are additive and do not overlap

**Some routes have been consolidated/restructured/suspended as part of COVID-19 response and unable to count all impacted riders

Nearly 99% of pre-COVID trips are unaffected

Appendix: The RIDE



Lever	Pre-COVID trips impacted		Gross Savings (\$M) FY22	Risks / Consequences
	Annual	Avg. daily		
Increase scheduling window from 30 to 40 minutes	All riders		\$0.4 - \$1.2	Some trips may be booked 40 minutes from request time instead of current 30 minutes
Changes to ADA/Premium service area based on fixed route eliminations/restructuring	~18,000 impacted (assume of that, ~4,000 trips no longer made)	~50 trips impacted (assume of that, ~11 trips no longer made)	\$0.3 - \$0.5	- Of 1.5M pre-COVID weekday trips, approx. 18,000 would shift from ADA to premium service - Of these, it's estimated customers would avoid taking 4,000 trips due to the higher premium fare, leaving 14,000 trips shifted to premium service Dependent on final package of service changes for fixed route
Changes to ADA/Premium service to fully adhere fixed route times of service	Under review			Start/stop of RIDE service adjusted to fully match times of service of other MBTA modes (e.g. Bus/Rapid transit stopping at midnight, Commuter Rail at 9 PM)

RIDE fares per trip:

- Premium - \$5.60
- ADA - \$3.35

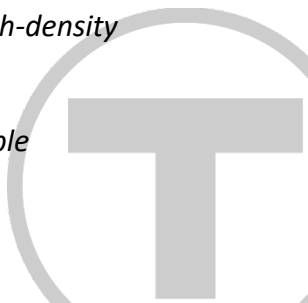
Appendix: List of all essential bus routes

High Transit Priority & High Ridership Potential (Key Bus Routes and Silver Line Routes in gray)							
1	21	32	42	69	105	120	504
8	22	33	44	83	106	121	CT2
9	23	34	45	85	108	202	CT3
10	24	35	47	86	109	210	SLW
11	26	36	50	89	110	215	SL1
14	27	37	51	91	111	240	SL2
15	28	38	57	93	114	411	SL3
16	29	39	64	97	116	424	SL4
17	30	40	65	99	117	429	SL5
19	31	41	66	104	119	455	

	2017 Service Delivery Policy* (only applicable for essential service)
Hours of operations	Weekdays & Saturdays: 6:00 AM to midnight for Key Bus Routes (KBR); 7/8:00 to 6:30/7:00 PM for Local Routes Sundays: 7:00 AM to midnight for KBR; 10:00 AM to 6:30 PM for Local
Frequency	Peak: Every 10 min. for KBR, every 30 min. for Local Off-Peak weekday: Every 15-20 for KBR, every 60 min for Local Weekends: Every 20 min for KBR, every 60 min for Local

**Commuter or Community Route Standard not shown; Minimum span only standard for high-density areas. There is no span standard for low-density areas on weekend*

Note: Route 68 initially included in essential services (as serves essential trips), but as multiple alternatives exist with ¼ mile, proposed eliminating route



Appendix: List of all non-essential bus routes (without major structural changes)

Non-essential bus routes w/o major structural changes (Key Bus Routes in gray)					
4	74	101	195	238	450
7	75	112	201	245	712
34E	77	132	211	350	713
59	87	134	216	426	
60	90	137	217	430	
61	92	171	220	435	
67	94	191	222	436	
70	95	192	225	439	
71	96	193	226	441	
73	100	194	236	442	

- All routes listed here will continue to operate
- All routes will stop service at midnight
- Frequency may be significantly reduced throughout the day



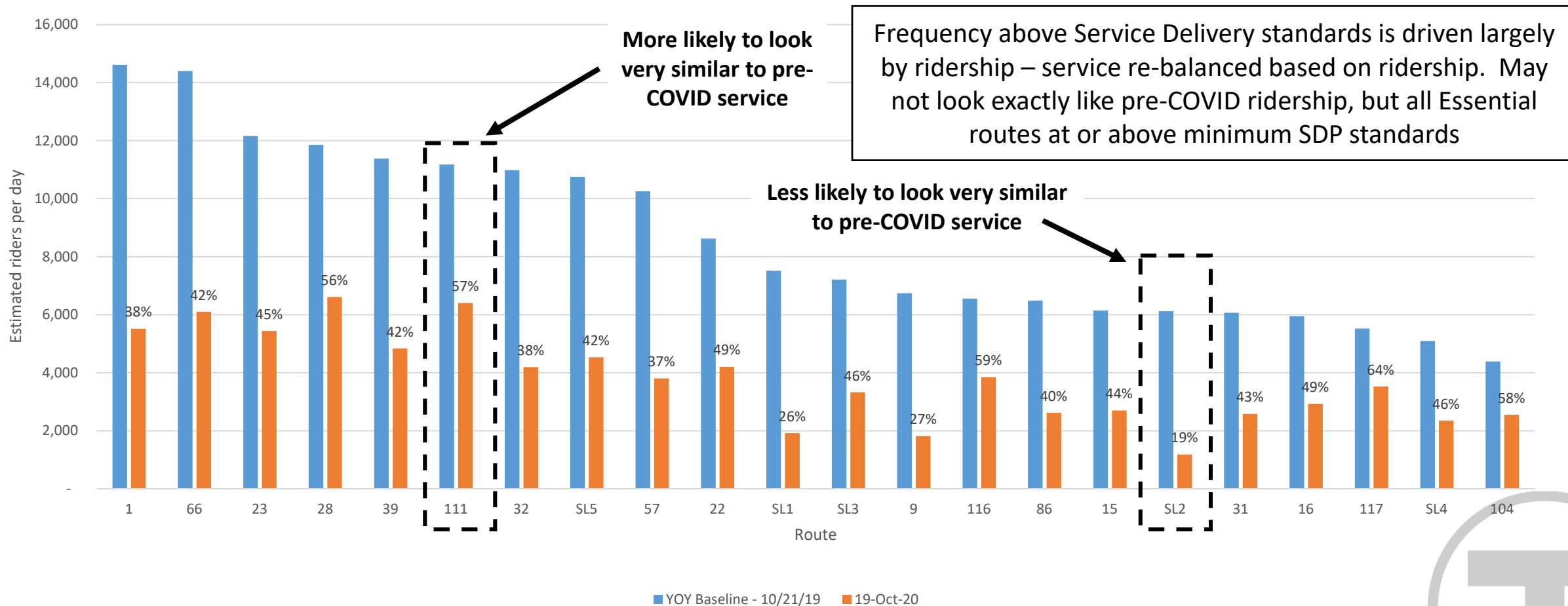
Appendix: All bus routes with major structural changes or eliminations

Consolidated Routes	Restructured routes (shortened)
62 & 76	553
84 & 78	554
88 & 90 (w/ GLX)	556
214 & 216	558
352 & 354	230
501 & 503	
502 & 504	
Restructured & consolidated routes will continue to operate, but stop at midnight and with lower frequency	

Eliminated routes			
Within ¼ mile of bus or rapid transit	High transit critical, very low ridership, redundant options available on portion of most routes	Low transit critical, low ridership)	
43	18	52	505
55	170	72	710
68	221	79	714
80 (w/ GLX)	428	131	Suburban subsidies
325	434	136	
326	716	212	
456		351	
		451	
		465	

Appendix: What 5% frequency reduction looks like on Essential Services

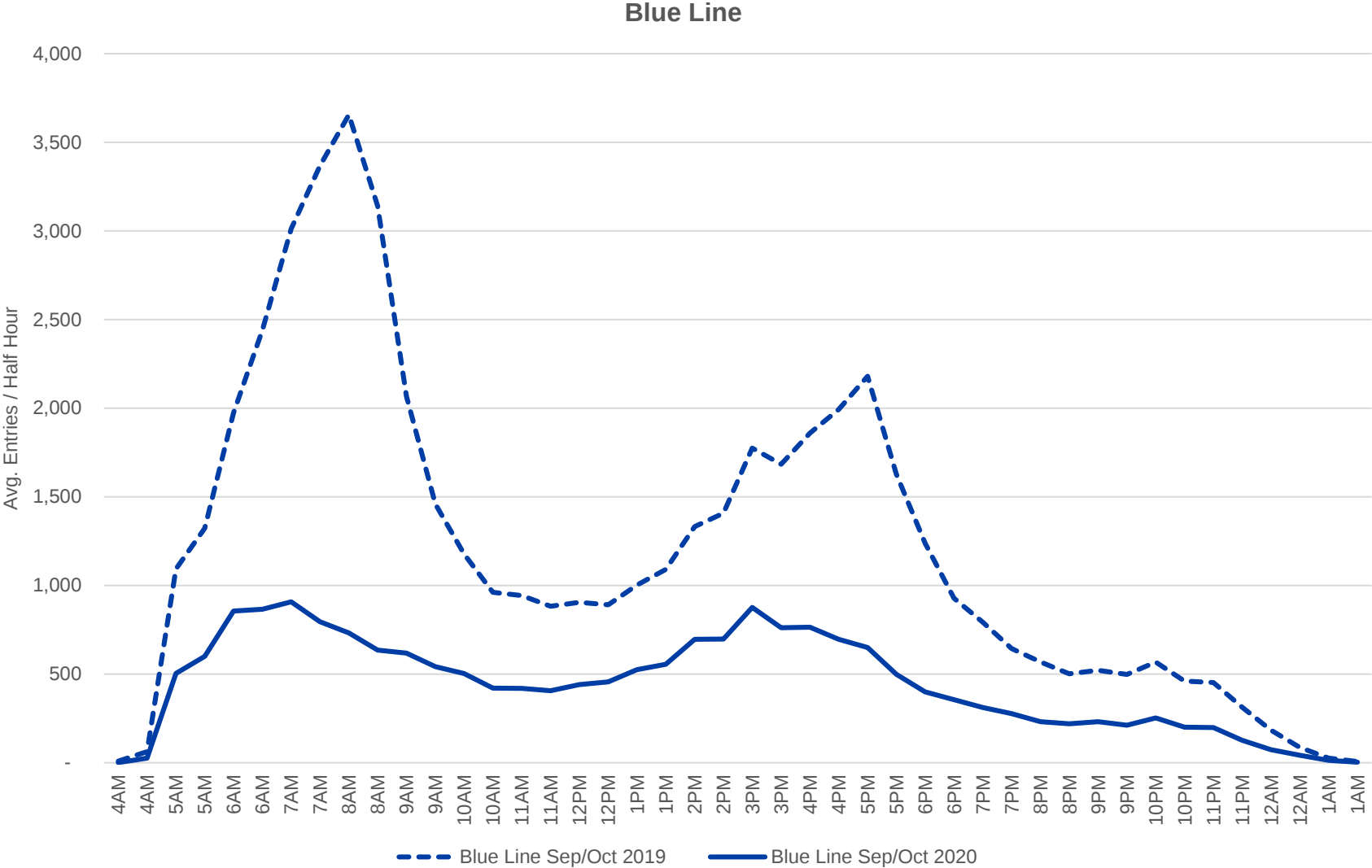
Daily Bus Ridership YOY, 10/21/19 vs. 10/19/20, Example Essential Routes by Ridership



Rapid Transit Ridership: Blue Line

~19,700 gate entries on weekdays, 37% pre-COVID

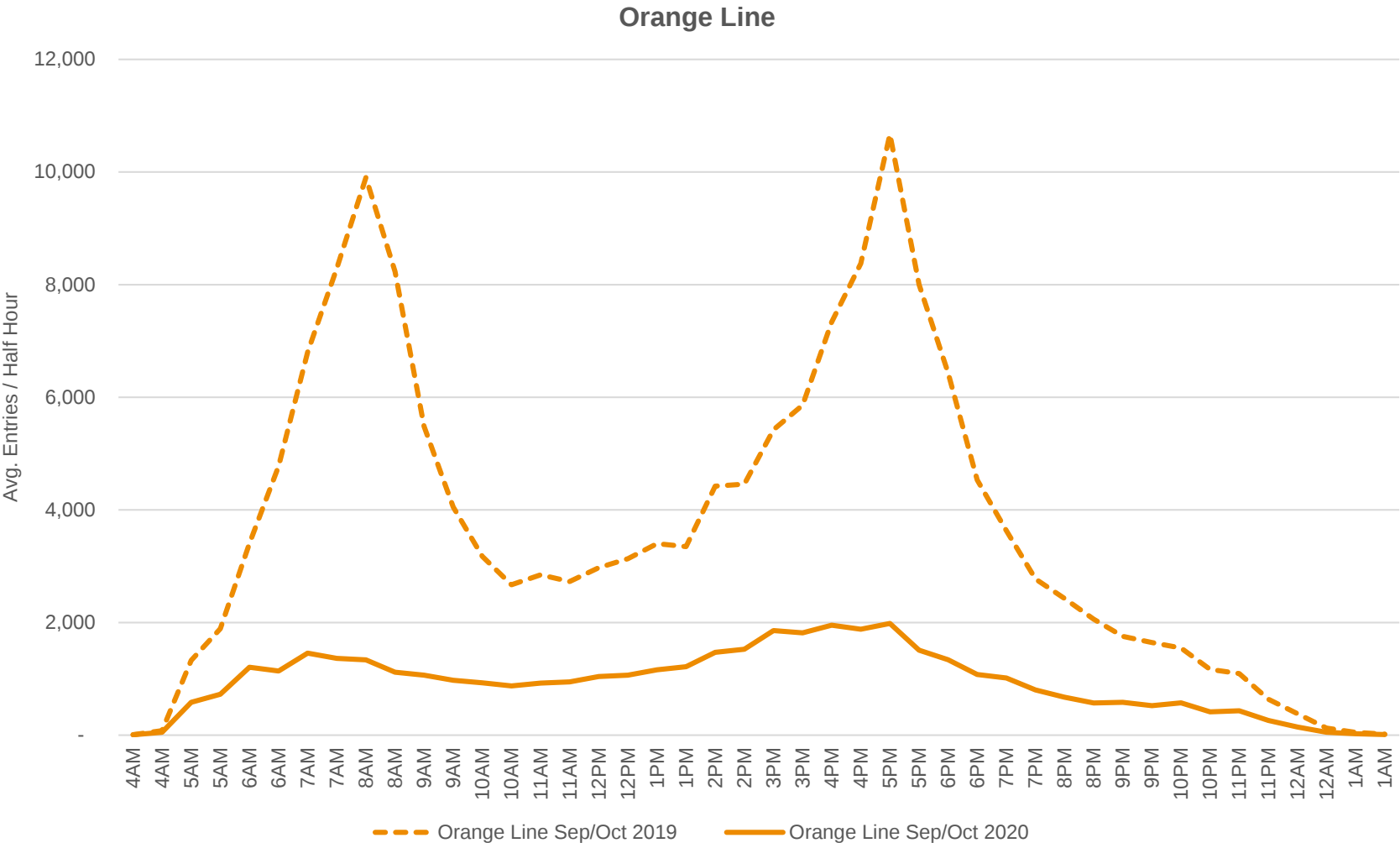
Sept/Oct 2020 Boardings after midnight
Blue: 134



Rapid Transit Ridership: Orange Line

~41,700 gate entries on weekdays, 26% pre-COVID

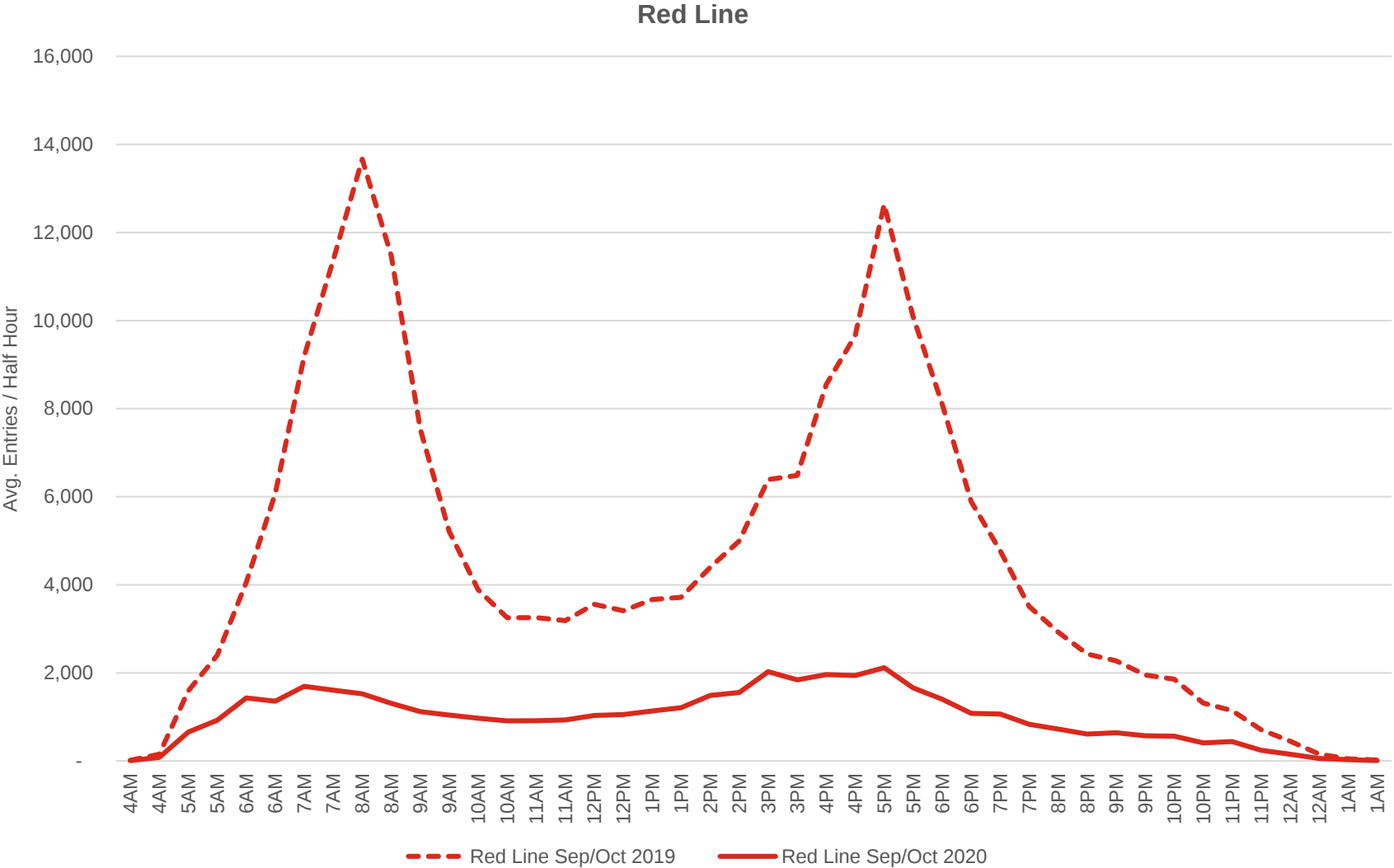
Sept/Oct 2020 Boardings after midnight
Orange: 237



Rapid Transit Ridership: Red Line

~44,400 gate entries on weekdays, 22% pre-COVID

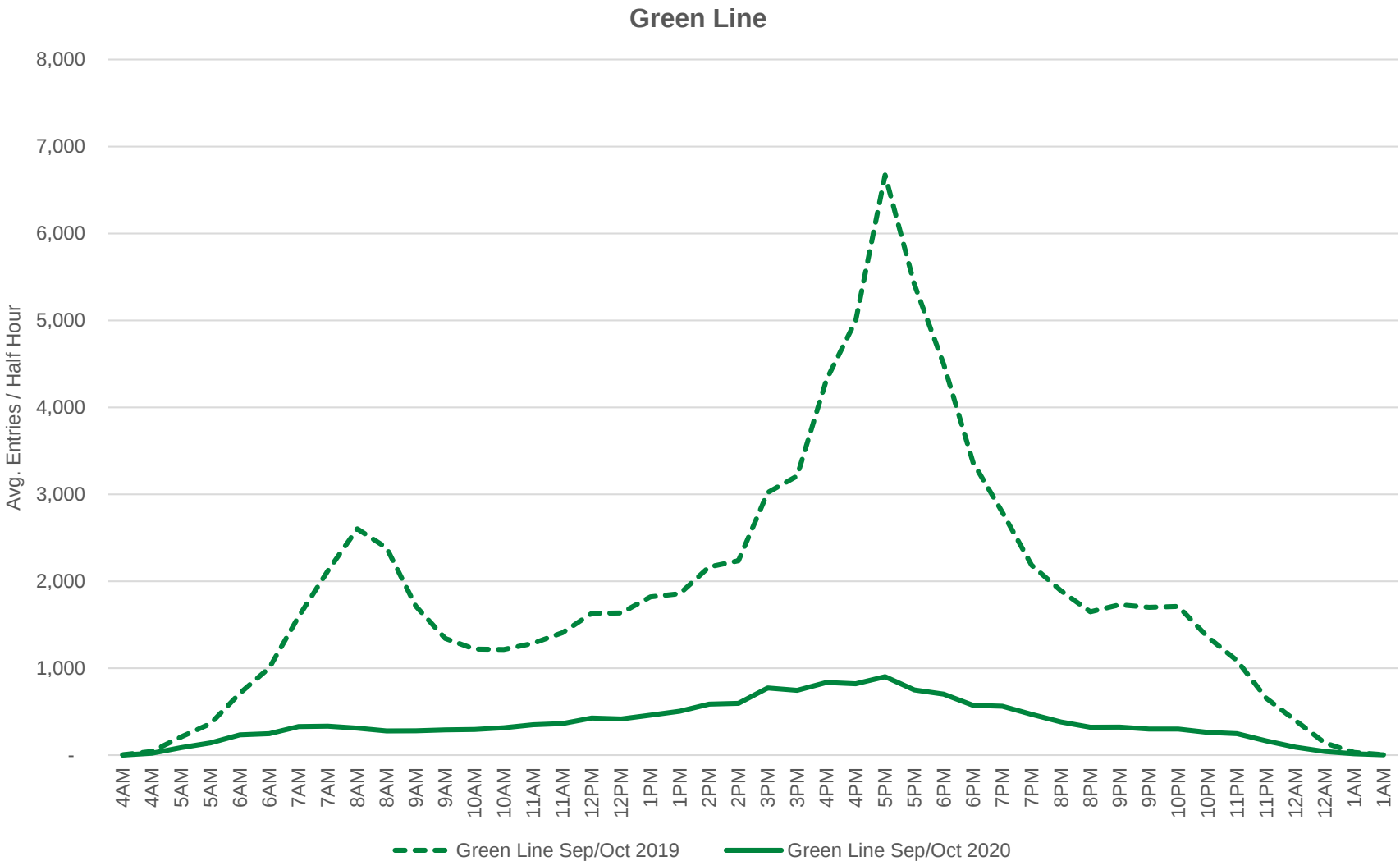
Sept/Oct 2020 Boardings after midnight
Red: 247



Rapid Transit Ridership: Green Line (gated stations)

~16,500 gate entries on weekdays, 20% pre-COVID

Sept/Oct 2020 Boardings after midnight
Green: 155



Appendix: Service Delivery Policy - Frequency & Span

		Commuter Rail	Ferry	Rapid Transit	Bus – Key Bus Routes	Bus – Local Routes*
Frequency	AM & PM Peak	3-4 trips in peak direction	3 trips in peak direction	Every 10 minutes	Every 10 minutes	Every 30 minutes
	All other weekday periods	Every 3 hours in each direction	Every 3 hours	Every 15 minutes	Every 15-20 minutes	Every 60 minutes
	Saturday	Every 3 hours in each direction	-	Every 15 minutes	Every 20 minutes	Every 60 minutes
	Sunday	-	-	Every 15 minutes	Every 20 minutes	Every 60 minutes
Span of Service	Weekday	7:00 AM – 10:00 PM	7:00 AM – 6:30 PM	6:00 AM - midnight	6:00 AM - midnight	7:00 AM – 7:00 PM
	Saturday	8:00 AM – 6:30 PM	8:00 AM – 6:30 PM (seasonal)	6:00 AM – midnight	6:00 AM – midnight	8:00 AM – 6:30 PM*
	Sunday	-	-	7:00 AM – midnight	7:00 AM – midnight	10:00 AM – 6:30 PM*

*Commuter or Community Route Standard not shown; Minimum span only standard for high-density areas. There is no span standard for low-density areas on weekend

Appendix: Major Service Change Requirements

Statutory and regulatory requirements for a service reduction of more than 10% of revenue vehicle hours

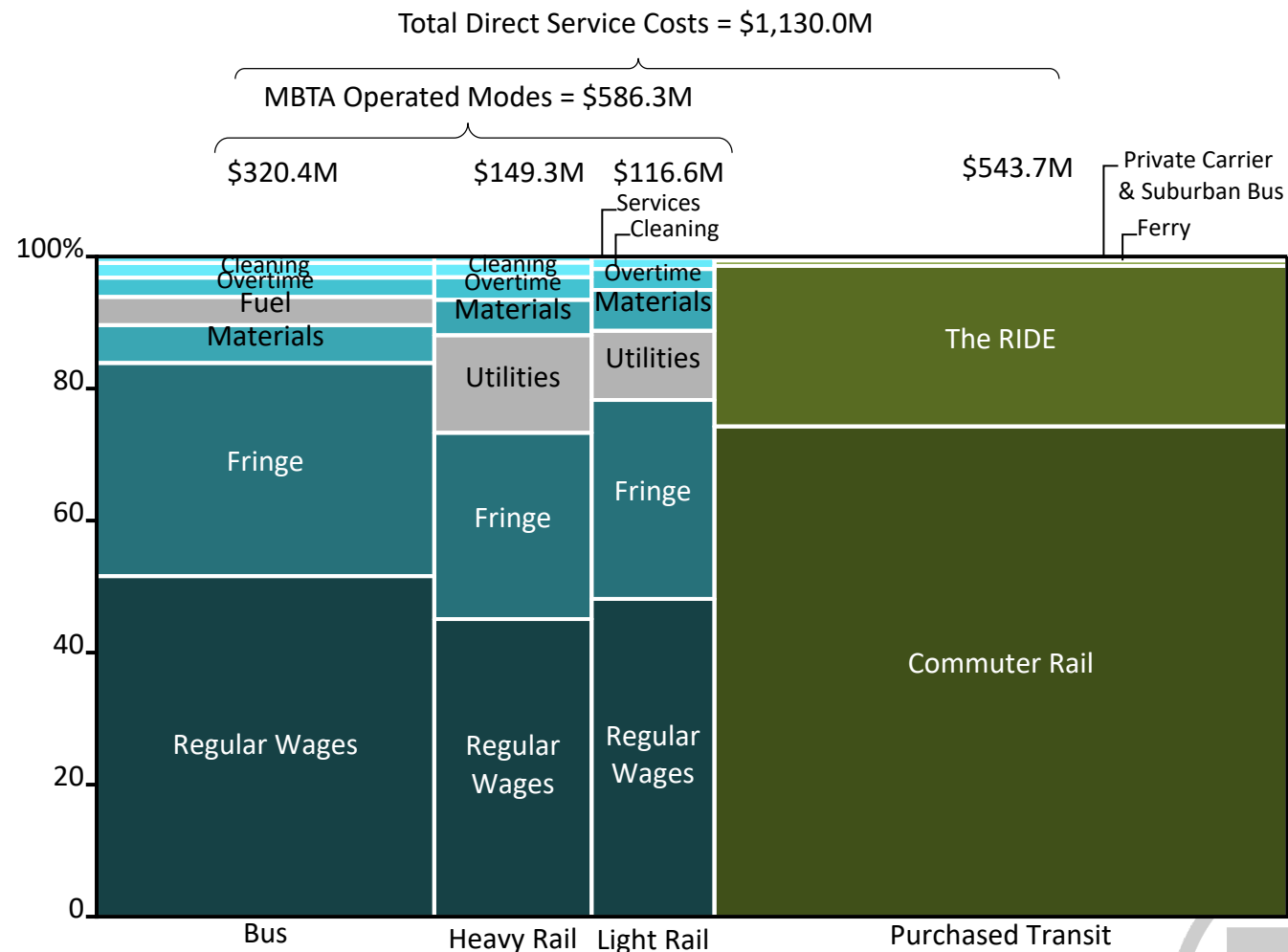
- Title VI service equity analysis for all concurrently proposed changes in the aggregate (implementation dates can vary)
- One or more public hearings
- Review by MBTA Advisory Board
- Decrease shall be the subject of an environmental notification form initiating review pursuant to MEPA

Title VI and MEPA analysis will be done after Board decides on preferred package and will come back to the Board for final approval in February



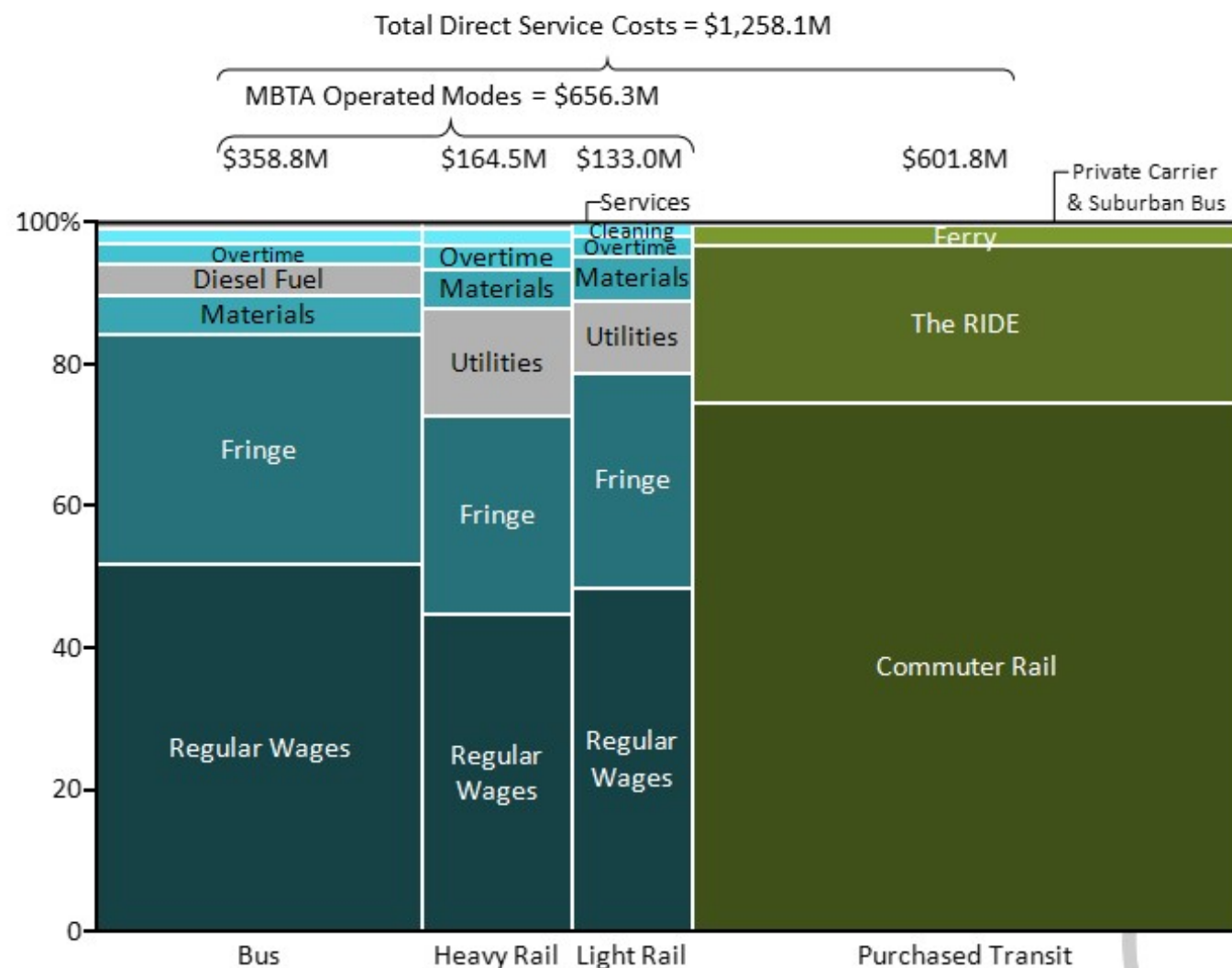
Direct Cost of providing Base Service Levels

- Direct service costs after savings from service packages is \$1,130M
- \$586M (52%) is for MBTA operated services
 - Of this, \$488M (83%) is regular wages, overtime and fringe
- \$544M (48%) is for purchased transit services
- Infrastructure Maintenance, and Other Operations are not included in these costs as their costs are assumed to be fixed with service levels



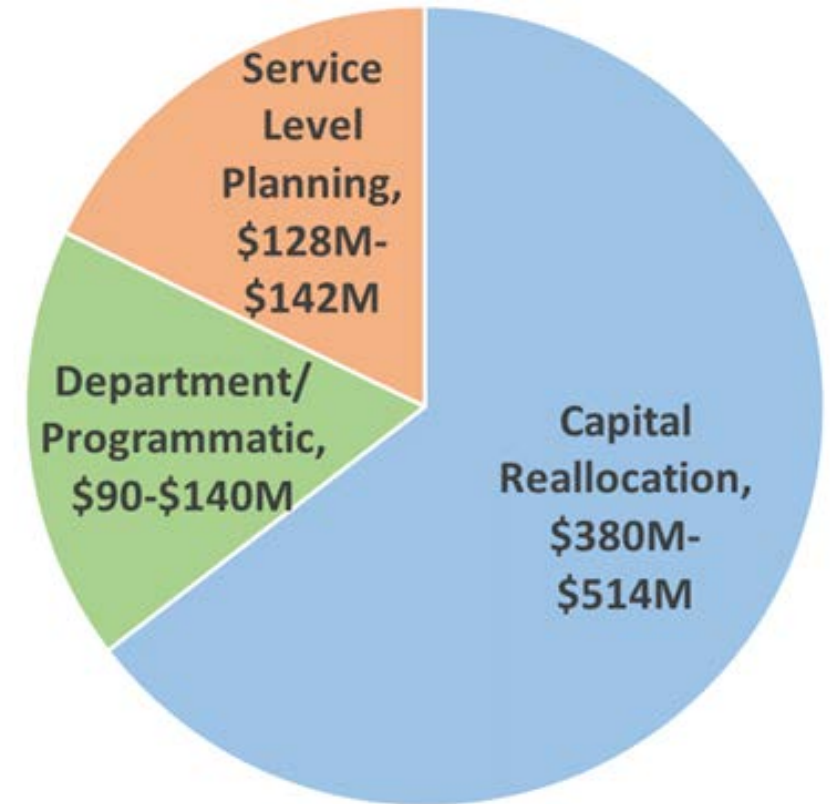
Direct Cost of providing Pre-COVID Service Levels

- Direct service costs for Pre-COVID service levels is budgeted for \$1,258M
- \$656M (52%) is for MBTA-operated services
 - Of this, \$546M (83%) is regular wages, overtime and fringe
- \$602M (48%) is for purchased transit services
- Infrastructure Maintenance, and Other Operations are not included in these costs as their costs are assumed to be fixed with service levels



Resolving the Budget Gap Summary

- Incorporating Scenario 3 Fare Revenue projection (as presented October 19th) FY22 budget gap projection at \$579M.
- Taking steps now in FY21 to build reserves and reduce the level of spending cuts next year
- With the FY22 budget gap estimate at the upper bound of the initially projected range, altering recommendations results in direct trade-offs among the approaches
- Lowering recommendations in any one of the approaches would mean raising recommendations among the other approaches in order to achieve budget balance
- All cost saving actions are estimates and likely upon implementation will not reach full amounts listed





**Board of Selectmen
TOWN OF NEEDHAM
AGENDA FACT SHEET**

MEETING DATE: 11/24/2020

Agenda Item	Minuteman School Fields Project & CARES Funding Request
Presenter(s)	Kate Fitzpatrick, Town Manager

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
The original plan for the Minuteman School Building and Campus project was a fully designed full build out of an Athletic complex located on the Lexington site of the old building which has been torn down. The Athletic Complex was an add alternate that was not eligible for MSBA funding and was held until the building project was complete. The Base project includes: multi-sport synthetic turf stadium field & equipment; asphalt walking track & spectator fencing; synthetic turf softball/ multi-use field, dugouts, bullpens, & batting cage; synthetic turf baseball/ multi-use field, dugouts, bullpens, & batting cage; emergency vehicle access & visitor vehicle drop-off/ pick-up loop; accessible walkways, safety netting, & spectator viewing areas; maintenance equipment; and scoreboards & utilities for each field. The approved alternates include: stadium field lighting; softball/ multi-use field lighting; baseball/ multi-use field lighting; competitive running track and track events; non-fixed track equipment; and perimeter fencing. At its meeting this week, the Minuteman School voted to authorize borrowing in the amount of \$1,900,000 for the project. Now that the Minuteman School Committee has voted to borrow the funds and has notified each of the District communities, the District members have 60 days to call a Special Town Meeting to <i>disapprove</i> Minuteman's borrowing. If there is no such vote, then the borrowing is deemed approved by that community. The expected first year assessment for the Town of Needham is \$15,915. The Minuteman School has also requested funding from CARES Act ("CvRF") to support expenses related to COVID-19. Regional vocational schools were not eligible to receive the pass-through Federal funds. Minuteman has requested \$12,613.55 to support Needham students. A reserve fund transfer from the Finance Committee would be required for the Town to make this payment before the December 30, 2020 deadline.	
2.	VOTE REQUIRED BY BOARD OF SELECTMEN



**Board of Selectmen
TOWN OF NEEDHAM
AGENDA FACT SHEET**

Suggested Motion:

That the Board vote to:

1. Approve the Minuteman School Debt Issuance for the Completion of the field component of the School Building Project; and
2. Approve a request from the Minuteman School for \$12,613.55 from the Town's allocated CvRF Municipal Fund and endorse a Reserve Fund Transfer Request to provide the funding to the Minuteman School in advance of reimbursement from the Commonwealth.

3. BACK UP INFORMATION ATTACHED

- a. Ten Year Projected Cost of Athletic Fields
- b. Minuteman Town Review PowerPoint Presentation
- c. Needham Revised Municipal CvRF Request
- d. Letter to Select Board re: Debt Vote dated November 20, 2020

Athletic Fields (Borrowing \$1,909,000 at 1.7% based on 10/1/20 enrollment share)											
	TOTAL										
FISCAL	ANNUAL	Town	Acton	Arlington	Bolton	Concord	Dover	Lancaster	Lexington	Needham	Stow
YEAR	PAYMENT	% Share	9.79%	34.55%	3.59%	8.00%	1.95%	10.90%	15.96%	7.13%	8.13%
2021	-										
2022	223,250.00		21,858	77,130	8,018	17,865	4,352	24,338	35,634	15,915	18,140
2023	219,925.00		21,533	75,981	7,898	17,599	4,288	23,975	35,103	15,678	17,870
2024	216,600.00		21,207	74,832	7,779	17,333	4,223	23,613	34,572	15,441	17,600
2025	213,275.00		20,882	73,684	7,659	17,067	4,158	23,250	34,041	15,204	17,329
2026	209,950.00		20,556	72,535	7,540	16,801	4,093	22,888	33,511	14,967	17,059
2027	206,625.00		20,230	71,386	7,421	16,535	4,028	22,525	32,980	14,730	16,789
2028	203,300.00		19,905	70,237	7,301	16,269	3,963	22,163	32,449	14,493	16,519
2029	199,975.00		19,579	69,089	7,182	16,003	3,899	21,800	31,919	14,256	16,249
2030	196,650.00		19,254	67,940	7,062	15,737	3,834	21,438	31,388	14,019	15,979
2031	193,325.00		18,928	66,791	6,943	15,471	3,769	21,075	30,857	13,782	15,708



MINUTEMAN REGIONAL VOCATIONAL TECHNICAL HIGH SCHOOL

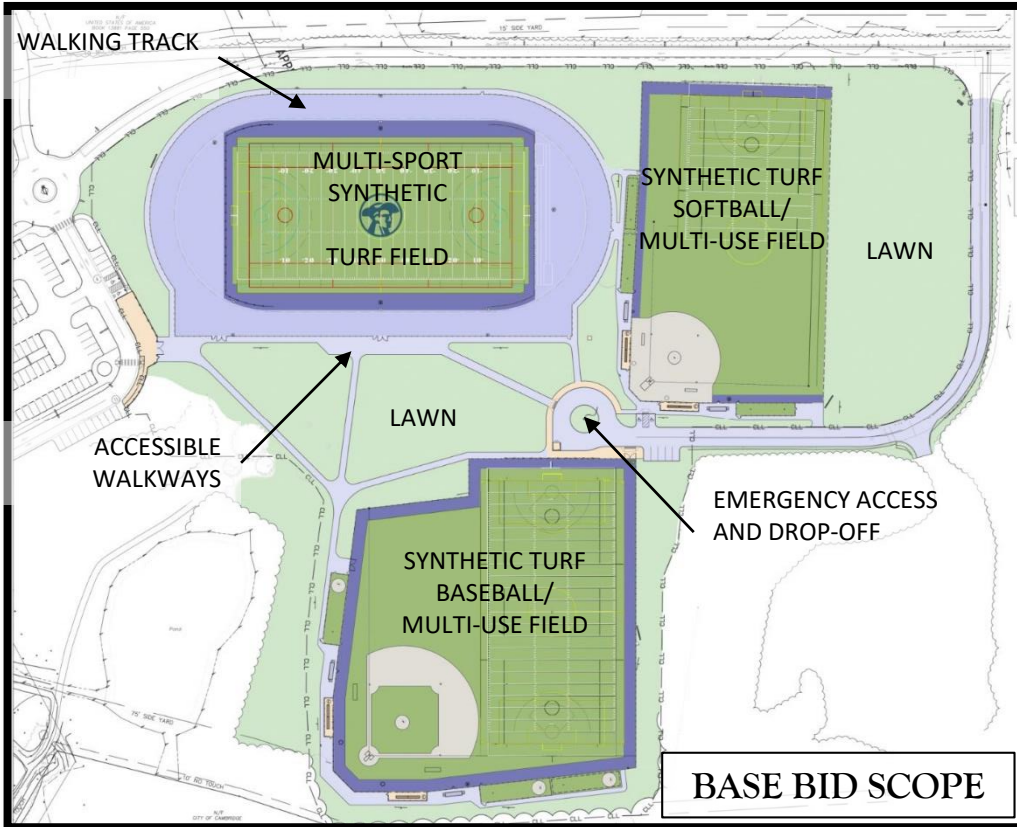
Athletic Complex Project Phase I Update



TO REVIEW

- MSBA Project 1 year early and ON Budget
- Original MSBA Budget Included minimal fields (<\$1M)
- Exemplary Project Management = \$4M available for fields
- Competitive Bidding = Great Pricing
- Economic/COVID Crisis = Low Interest Rates
- Small Incremental Investment = Greater Revenue Opportunity
 - All reports and data are available for review
 - Compressed time to act

ATHLETIC FIELDS PROJECT: BASE BID SCOPE



Estimated ≤ \$5,915,000

- MULTI-SPORT SYNTHETIC TURF STADIUM FIELD & EQUIPMENT
- ASPHALT WALKING TRACK & SPECTATOR FENCING
- SYNTHETIC TURF SOFTBALL/ MULTI-USE FIELD, DUGOUTS, BULLPENS, & BATTING CAGE
- SYNTHETIC TURF BASEBALL/ MULTI-USE FIELD, DUGOUTS, BULLPENS, & BATTING CAGE
- EMERGENCY VEHICLE ACCESS & VISITOR VEHICLE DROP-OFF/ PICK-UP LOOP
- ACCESSIBLE WALKWAYS, SAFETY NETTING, & SPECTATOR VIEWING AREAS
- MAINTENANCE EQUIPMENT
- SCOREBOARDS & UTILITIES FOR EACH FIELD

PROJECT BASE BID PLUS ALTERNATES

ALTERNATE #1/#2/#3

- STADIUM FIELD LIGHTING
- SOFTBALL/ MULTI-USE FIELD LIGHTING
- BASEBALL/ MULTI-USE FIELD LIGHTING

ALTERNATE #4

- COMPETITIVE RUNNING TRACK AND TRACK EVENTS

ALTERNATE #5

- NON-FIXED TRACK EQUIPMENT

ALTERNATE #6

- PERIMETER FENCING



FUNDING THE BASE BID SCOPE OF WORK

<u>Source of Funds</u>	<u>Amount</u>	<u>Comments</u>
MSBA Building Project	\$ 4,100,000	Pending Verified Close out
MM Facilities Rental Rev. Acct.	\$ 615,000	Current balance - \$725K
MM Stabilization Account	\$ 1,215,000	Current balance plus \$85k in FY22
	\$ 5,930,000	

BID RESULTS (NOT INCLUDING CONSTRUCTION SOFT COSTS): OCT 7, 2020

Company	Bid Price	Alt 1 Stadium Lighting	Sub-Total W/Alts 1	Alt 2 Softball Lighting	Sub-Total W/Alts 1 -2	Alt 3 Baseball Lighting	Sub-Total W/Alts 1 -3	Alt 4 Track & Field	Sub-Total W/Alts 1 -4	Alt 5 Equip	Sub-Total W/Alts 1 -5	Alt 6 Fence	Total W/Alts 1 -6
Heimlich Construction	\$4,444,000	\$400,000	\$4,844,000	\$259,000	\$5,103,000	\$360,000	\$5,463,000	\$614,000	\$6,077,000	\$283,000	\$6,360,000	\$90,000	\$6,450,000
Quirk Construction	\$5,350,000	\$400,000	\$5,750,000	\$240,000	\$5,990,000	\$353,000	\$6,343,000	\$720,000	\$7,063,000	\$250,000	\$7,313,000	\$95,000	\$7,408,000
D.W. White & Son	\$5,610,000	\$425,810	\$6,035,810	\$253,857	\$6,289,667	\$375,390	\$6,665,057	\$719,260	\$7,384,317	\$265,065	\$7,649,382	\$109,367	\$7,758,749
Argus Construction	\$5,760,000	\$440,000	\$6,200,000	\$270,000	\$6,470,000	\$405,000	\$6,875,000	\$650,000	\$7,525,000	\$310,000	\$7,835,000	\$99,000	\$7,934,000
R.A.D. Sports	\$5,979,000	\$471,145	\$6,450,145	\$288,392	\$6,738,537	\$427,046	\$7,165,583	\$926,714	\$8,092,297	\$90,857	\$8,183,154	\$105,070	\$8,288,224
Green Acres Construction	\$6,355,406	\$423,573	\$6,778,979	\$264,219	\$7,043,198	\$403,112	\$7,446,310	\$850,244	\$8,296,554	\$278,494	\$8,575,048	\$98,435	\$8,673,483
FieldTurf USA	\$6,414,528	\$461,265	\$6,875,793	\$310,160	\$7,185,953	\$413,052	\$7,599,005	\$1,483,003	\$9,082,008	\$229,510	\$9,311,518	\$142,380	\$9,453,898
H.I. Stone & Son	\$6,419,000	\$495,000	\$6,914,000	\$294,000	\$7,208,000	\$424,000	\$7,632,000	\$1,021,000	\$8,653,000	\$278,000	\$8,931,000	\$105,000	\$9,036,000

PROJECT BASE BID PLUS ALTERNATES

ALTERNATE #1/#2/#3

- STADIUM FIELD LIGHTING (\$400K)
- SOFTBALL/ MULTI-USE FIELD LIGHTING (\$259K)
- BASEBALL/ MULTI-USE FIELD LIGHTING (\$360K)

ALTERNATE #4 (\$614K)

- COMPETITIVE RUNNING TRACK AND TRACK EVENTS

ALTERNATE #5 (\$283K)

- NON-FIXED TRACK EQUIPMENT

ALTERNATE #6 (\$90K)

- PERIMETER FENCING



LOWEST QUALIFIED BID INCLUDING ALTERNATES

Project Components	Base Bid + Soft costs	Sub-Total W/Alt 1	Sub-Total W/Alts 1-2	Sub-Total W/Alts 1-3	Sub-Total W/Alts 1-4	Sub-Total W/Alts 1-5	Total W/Alts 1-6
Construction Budget	4,444,000	4,844,000	5,103,000	5,463,000	6,077,000	6,360,000	6,450,000
Contingency	444,400	484,400	510,300	546,300	600,000	600,000	600,000
SKANSKA (OPM)	315,000	315,000	315,000	315,000	315,000	315,000	315,000
KBA (Architect)	155,000	155,000	155,000	155,000	155,000	155,000	155,000
Other Costs (Fees, etc.)	141,000	141,000	141,000	141,000	141,000	141,000	141,000
Total – Project	5,499,400	5,939,400	6,224,300	6,620,300	7,288,000	7,571,000	7,661,000
10/27 Budget	5,752,000	5,752,000	5,752,000	5,752,000	5,752,000	5,752,000	5,752,000
DIFFERENCE	\$252,600	\$187,400	\$472,300	\$863,300	\$1,536,000	\$1,819,000	\$1,909,000

FUNDING THE BASE BID SCOPE PLUS ALTERNATES

<u>Source of Funds</u>	<u>Amount</u>	<u>Comments</u>
MSBA Building Project	\$ 4,100,000	Pending Verified Close out
MM Facilities Rental Revolving Acct.	\$ 615,000	Current balance - \$725K
MM Stabilization Account	\$ 1,215,000	Current balance plus \$85k in FY22
	\$ 5,930,000	
ALL ALTERNATES PHASE 1 FUNDS REQUIRED	(\$1,909,000)	BORROW @ Rate favorable < 1.7%)

REVENUE POTENTIAL PHASE 1 WITH LIGHTS ON ATHLETIC FIELDS

- **ANNUAL PHASE I FIELDS RENTAL REVENUE** (per Ballard-King report. CONSERVATIVE ESTIMATES)
 - **\$340,000 – Year 1 (partial year FY22)**
 - **\$400,000 – Year 2 (established FY23)**
- **PHASE I REDUCES EXPENSES FOR RENTAL FEES & TRANSPORTATION COSTS FOR MINUTEMAN ATHLETIC PROGRAMS: **\$75,000 - \$100,000/YR.****
- **LIGHTED ATHLETIC FIELDS WILL COMPLIMENT RENTAL REVENUE WITH OTHER DISTRICT RESOURCES (Theatre, gymnasium, corporate meeting rooms, courtyard, student union, restaurant, training areas and common spaces)**

MEMBER TOWN SHARE AND ANNUAL OPERATING CAPITAL COST ASSESSMENT INCREASE

FISCAL YEAR	ANNUAL PAYMENT	Acton 9.8%	Arlington 34.6%	Bolton 3.6%	Concord 8.0%	Dover 2.0%	Lancaster 10.9%	Lexington 16.0%	Needham 7.1%	Stow 8.1%
2021										
2022	223,250.00	21,858	77,130	8,018	17,865	4,352	24,338	35,634	15,915	18,140
2023	219,925.00	21,533	75,981	7,898	17,599	4,288	23,975	35,103	15,678	17,870
2024	216,600.00	21,207	74,832	7,779	17,333	4,223	23,613	34,572	15,441	17,600
2025	213,275.00	20,882	73,684	7,659	17,067	4,158	23,250	34,041	15,204	17,329
2026	209,950.00	20,556	72,535	7,540	16,801	4,093	22,888	33,511	14,967	17,059
2027	206,625.00	20,230	71,386	7,421	16,535	4,028	22,525	32,980	14,730	16,789
2028	203,300.00	19,905	70,237	7,301	16,269	3,963	22,163	32,449	14,493	16,519
2029	199,975.00	19,579	69,089	7,182	16,003	3,899	21,800	31,919	14,256	16,249
2030	196,650.00	19,254	67,940	7,062	15,737	3,834	21,438	31,388	14,019	15,979
2031	193,325.00	18,928	66,791	6,943	15,471	3,769	21,075	30,857	13,782	15,708

PROJECT SCOPE – PHASING 1

ANTICIPATED PROJECT CONSTRUCTION SCHEDULE

- PROJECT AWARD 10/28/2020
- SUBMITTALS 10/29/2020 – 12/18/2020
- MOBILIZATION 11/16/2020
- SITE & BASE WORK WINTER 2020 – SPRING 2021
- SYNTHETIC TURF SUMMER 2021
- MISC. SITE & LANDSCAPING FALL 2021
- SUBSTANTIAL COMPLETION OCTOBER 2021





MINUTEMAN REGIONAL VOCATIONAL TECHNICAL HIGH SCHOOL

Athletic Complex Project Update

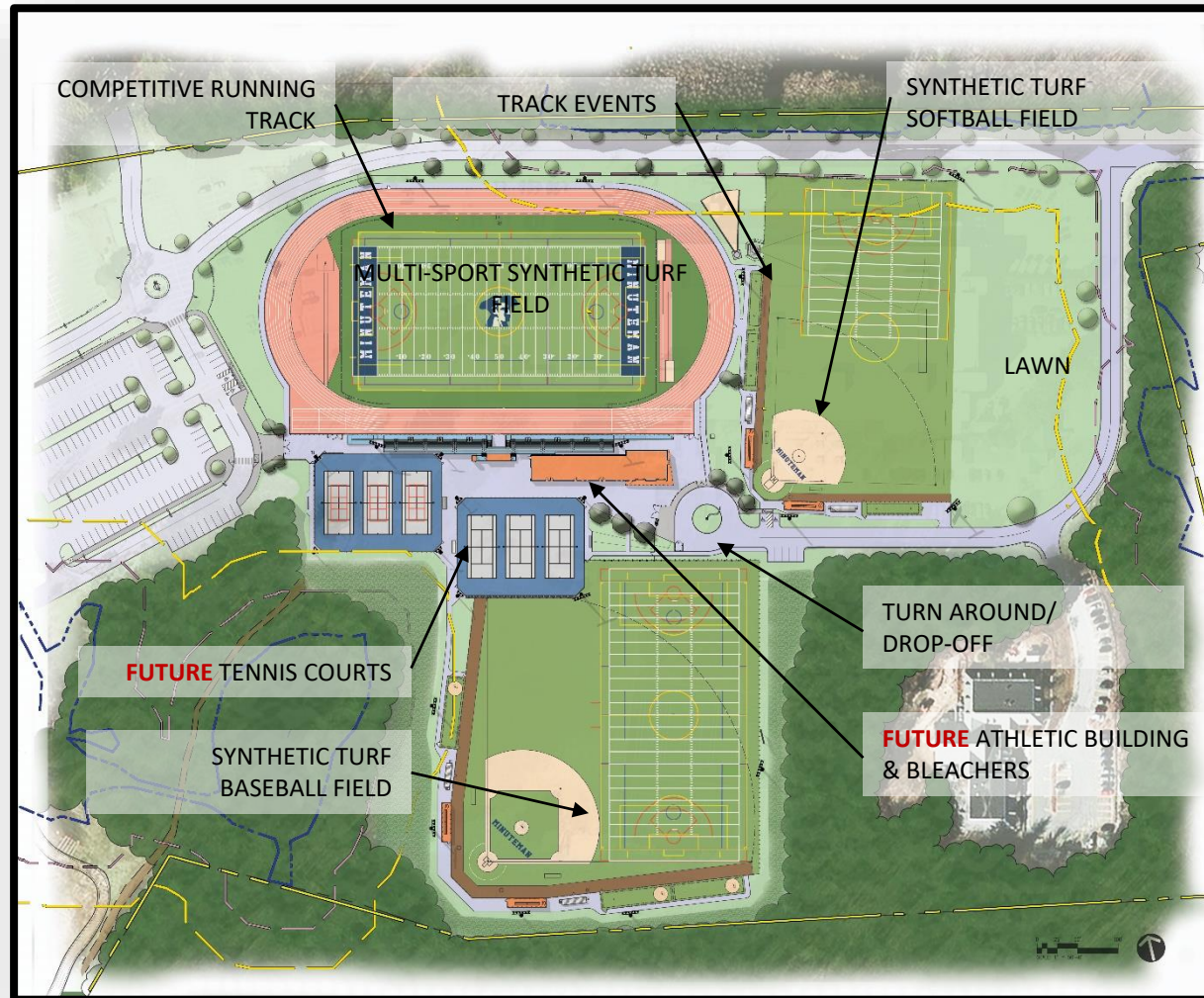


Thank You!
QUESTIONS?



MINUTEMAN
A REVOLUTION IN LEARNING

LATER PROJECT SCOPE: MORE EXPENSIVE BUT.....



- ✓ **SCOPE OF WORK COMPLETED**
- ✓ MULTI-SPORT SYNTHETIC TURF FIELD
- ✓ COMPETITIVE RUNNING TRACK
- ✓ TRACK EVENTS
- ✓ TRACK AND FIELD LIGHTING
- ✓ VEHICLE TURN AROUND/ DROP-OFF LOOP
- ✓ SYNTHETIC TURF VARSITY SOFTBALL FIELD
- ✓ SYNTHETIC TURF VARSITY BASEBALL FIELD
- ✓ BASEBALL AND SOFTBALL FIELD LIGHTING

☐ **SCOPE OF WORK NOT BUILT BUT PERMITTED**

- ☐ **ATHLETIC BUILDING**
- ☐ **1,200 SEAT STADIUM BLEACHERS**
- ☐ **TENNIS COURTS AND LIGHTING**

ESTIMATED ADDITIONAL PROJECT COST

■ CONSTRUCTION	\$ 5,500,000
■ ESCALATION (10%/YR)	\$ 1,650,000
■ OWNER SOFT COSTS	\$ 1,150,000
■ TOTAL	\$ 8,300,000

ANTICIPATED PROJECT SCHEDULE

■ DESIGN	JUNE - JULY 2024
■ BIDDING	AUGUST 2024
■ CONSTRUCTION	SEPT. 2024 – SEPT. 2024 (12 MONTHS)



October 28, 2020

Kate Fitzpatrick
Needham Town Manager
1471 Highland Avenue, Needham, MA 02492

Dear Kate,

Regional school districts were provided a memo from Michael J. Heffernan, Secretary of Administration and Finance for the Commonwealth of Massachusetts. That memo identifies that municipalities can use the Coronavirus Relief Funds (CvRF) for the following:

- School distance learning, to the extent not funded from other sources, including
 - Planning and development, including information technology (IT) costs
 - Incremental costs of special education services required under individual education plans (IEPs) in a remote, distance, or alternative location
 - Food for families that rely on food through the school system

District Wide COVID Related Expenses Addressed Through Alternative Grant Funding:

To date, we have submitted the following expenses through other grant sources:

- Additional guidance staff through the DESE ESSERs Grant
- IT and stipend support for learning through the CvRF School Reopening Grant
- Personal Protective Equipment of which 75% is reimbursable by FEMA

Ongoing District Wide COVID Related Expenses:

We are aware that regional school districts may submit expenses to its member towns for your consideration. Our district wide COVID needs before December 30, 2020 to maintain our hybrid learning model includes:

- | | |
|--|-------------------|
| • IT and Communications (e.g. video conferencing, instructional software, & infrastructure). | \$189,958.94 |
| • Additional Maintenance Expenses (e.g. water testing, nursing office and PPE signage). | 6,288.63 |
| • Personal Protective Equipment (e.g. 25% not covered by FEMA). | <u>+13,978.34</u> |
| • Total District Wide Expenses | \$210,225.91 |

Total Minuteman CvRF Request:

Given that we have nine member towns, I am using the same ratios that we use for calculating FY21 operating expenses (based on a 4-year rolling average of student enrollment). Using the FY21 operating expense ratios, The Needham student enrollment is 6% of the Minuteman school population. The total request from Minuteman for CvRF Municipal Fund sharing is \$12,613.55

Sincerely,

A handwritten signature in blue ink that reads "Edward A. Bouquillon".

Edward A. Bouquillon, Ed.D. Superintendent-Director
Minuteman Regional Vocational Technical School District



November 20, 2020

Maurice P. Handel, Chair
Select Board
Town of Needham
3 Rosemary Street
Needham, MA 02494

Dear Mr. Handel:

As indicated below, I am writing to inform the Boards of Selectmen of all of the member towns of the Minuteman Regional Vocational School District (hereinafter "the District") that the Minuteman Regional School Committee, at a meeting held on November 17, 2020, took the following votes pursuant to the Minuteman Regional Vocational Technical School District Regional Agreement and the provisions of Section 16(d) of Chapter 71 of the General Laws:

VOTE: That the Minuteman Regional Vocational Technical School District (the "District") hereby appropriates the sum of One Million Nine Hundred Thousand Dollars (\$1,900,000) to pay additional costs of completing the athletic fields complex, including, but not limited to, costs of constructing turf fields, costs of field lighting, site work and the payment of all other costs incidental and related thereto, said sum to be expended at the direction of the School Building Committee, and to meet this appropriation there is hereby authorized, under and pursuant to G.L. c. 71, §16(d) and the District Agreement, as amended, and any other enabling authority, the incurring of debt on the full faith and credit of the District in the amount of One Million Nine Hundred Thousand Dollars (\$1,900,000). Any premium received upon the sale of any bonds or notes approved by this vote, less any such premium applied to the payment of the costs of issuance of such bonds or notes, may be applied to the payment of costs approved by this vote in accordance with G.L. c. 44, §20, thereby reducing the amount authorized to be borrowed to pay such costs by a like amount.

Passed: 8-0-0

FURTHER VOTE: That within seven (7) days from the date on which this vote is adopted the Secretary be and hereby is instructed to notify the Board of Selectmen of each of the member towns of this District as to the amount and general purposes of the debt herein authorized, as required by Chapter 71, Section 16(d), of the General Laws, and by the District Agreement.

Passed: 8-0-0

Please be advised that member towns **need not take any further action regarding the School Committee vote.** Your Board may choose to simply accept the School Committee's decision to incur debt for this project.

No further votes in favor of the decision to incur the debt are actually required under the terms of Section 16(d) of M.G.L Chapter 71. The School Committee vote is binding on the District, unless at least one member town votes to disapprove within 60 days.

Please contact Superintendent Edward A. Bouquillon at e.bouquillon@minuteman.org or 781-861-6500 ext. 7301, should you have any procedural questions or need further information.

Sincerely,



Alice DeLuca, Secretary
Minuteman District School Committee

cc: Kate Fitzpatrick, Town Manager



**Select Board
TOWN OF NEEDHAM
AGENDA FACT SHEET**

MEETING DATE: 11/24/2020

Agenda Item	Preliminary FY2022 – FY2026 Capital Improvement Plan
Presenter(s)	Kate Fitzpatrick, Town Manager David Davison, Assistant Town Manager/Finance Katie King, Assistant Town Manager/Operations

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
	We will discuss with the Board the preliminary FY2022 cash capital and debt-financed project submissions. We will discuss the FY2023 – 2026 projects at your meeting on December 8th and will seek final approval of the Capital Improvement Plan on December 22nd. In accordance with Section 20C of the Town Charter: “All boards, departments, committees, commissions and officers of the Town shall annually, at the request of the Town Manager, submit to him in writing a detailed estimate of the capital expenditures as defined by by-law, required for the efficient and proper conduct of their respective departments and offices for the ensuing fiscal year and the ensuing four year period. The Town Manager, after consultation with the Select Board, shall submit in writing to the Select Board a careful, detailed estimate of the recommended capital expenditures for the aforesaid periods, showing specifically the amount necessary to be provided for each office, department and activity and a statement of the amounts required to meet the debt service requirements or other indebtedness of the Town. The Select Board shall transmit a copy of the capital budget to the finance committee along with the Select Board’s recommendations relative thereto. The calendar dates on or before which the capital budget is to be submitted and transmitted shall be specified by by-law.” In accordance with section 2.2.2.1 of the General By-law, the Select Board shall transmit the capital budget to the Finance Committee no later than the first Tuesday after the first Monday in January (Tuesday, January 5, 2021).
2.	VOTE REQUIRED BY SELECT BOARD
	Discussion Only
3.	BACK UP INFORMATION ATTACHED
	a. Preliminary Capital Plan Recommendations FY2022 b. Capital Project Requests for Fiscal Years 2023 - 2026

FY2022 Preliminary Funding Recommendations

FY2022 Capital Budget Preliminary Funding Recommendations

Title	Code*	Function	Cat*	2022 Department Request	Cash	Debt	Other	Deferred/Not Recommended	Note	Page
Public Safety Mobile Devices	P	Public Safety	1	50,000	50,000					005
Town Internet Control, Analysis and Reporting	P	General	1	75,000	75,000					006
LIFEPAK 15 V4 Monitor/Defibrillator	NU	Public Safety	1	30,577	30,577			New request but a high priority item		020
Self Contained Breathing Apparatus	NU	Public Safety	1	192,120	192,120			New request but a high priority item		022
Personal Protective Equipment	M	Public Safety	1	43,358	43,358					024
School Copiers	RM	Schools	1	61,264	61,264					030
School Furniture	R	Schools	1	25,000			25,000	Recommended as Tier II		036
School Technology	RM	Schools	1	479,650	479,650					042
Library Technology	M	Community	1	48,500			48,500	Recommended as Tier II		053
Fleet Refurbishment	PB	Public Works	1	150,000			150,000	Funding request does not qualify as capital; is recommended as a FWA		057
Permanent Message Boards	P	Community	1	56,000			56,000	Recommended as Tier II		060
Specialty Equipment - Unit 334 Specialty Mower (PF)	P	Public Works	1	38,000	38,000					066
Broadmeadow School Technology Room Conversion	M	Schools	2	213,100	213,100					067
Renovate/Reconstruct Emery Grover Building at Highland Avenue Location	M	Schools	5	1,475,130				1,475,130	Board discussions pending, no recommendation at this time.	070
Auditorium Theatrical Sound and Lighting Systems Needs Assessment (High School, Newman School, and Pollard School)	P	Schools	2	60,000			60,000	Recommended as Tier II		075

FY2022 Preliminary Funding Recommendations

FY2022 Capital Budget Preliminary Funding Recommendations

Title	Code*	Function	Cat*	2022 Department Request	Cash	Debt	Other	Deferred/Not Recommended	Note	Page
Pollard School Feasibility Study	N	Schools	2	280,000	280,000				New request but is an urgent request in light of the substantial building capital requests.	080
Pollard School Renovation/Expansion as 6-8 Middle School	M	Schools	5	3,500,000				3,500,000	Board discussions pending, no recommendation at this time.	083
Mitchell Elementary School	M	Schools	5	1,250,000				1,250,000	Board discussions pending, no recommendation at this time.	088
Library Space Planning	P	Community	2	60,000			60,000		Recommended as Tier II	093
Library Materials Handler	PS	Community	2	100,000				100,000	On hold until a space study is funded and completed.	095
Energy Efficiency Upgrade Improvements	P	Utilities	2	100,000	100,000				Ongoing program which seeks to improve building systems and reduce cost.	109
Public Works Facilities Improvements	N	Public Works	5	60,000				60,000	Board discussions pending, no recommendation at this time.	123
Ridge Hill Building Demolition	GMU	General	2	885,000	746,891			138,109	Revised cost estimate for the project.	127
Recycling and Transfer Station Property Improvements	M	Public Works	3	480,000	480,000				Required stormwater area 2 improvements	128
Hillside School Boiler Installation	M	General	2	16,000	16,000				Design only estimated construction cost is \$235,000	135
Open Space Acquisitions	PI	Community	5	1,000,000				1,000,000	No parcel identified	149
NPDES Support Projects	M	Stormwater	3	666,000			666,000		Prior funding was based on adoption of a stormwater fee.	165
Public Works Infrastructure Program	M	Transportation Network	3	2,639,000	2,203,000		436,000		\$436,000 recommended as Tier II	179
Traffic Improvements	P	Transportation Network	3	50,000			50,000		Recommended as Tier II	192
Unit 10 replace with a class 8 dump truck	L	Public Works	4	284,119			284,119		Recommended as Tier II	228
Unit 32 replace with a class 3 heavy duty truck	C	Public Works	4	61,916	61,916					228

FY2022 Preliminary Funding Recommendations

FY2022 Capital Budget Preliminary Funding Recommendations

Title	Code*	Function	Cat*	2022 Department Request	Cash	Debt	Other	Deferred/Not Recommended	Note	Page
Unit 39 replace with a class 5 dump truck	L	Public Works	4	94,210			94,210	Recommended as Tier II		228
Unit 45 replace with a utility van	C	Public Works	4	54,973	54,973					228
Unit 404 replace with a 14 passenger va	C	Community	4	90,050			90,050	Recommended as Tier II		228
Unit 712 replace with a class 2 utility van	C	Public Works	4	69,831	69,831					228
Unit 756 replace with a hybrid SUV	C	Public Works	4	50,814	50,814					228
Unit C-02 replace with a large public safety response vehicle	C	Public Safety	4	62,540	62,540					228
Unit R-03 Ambulance	L	Public Safety	4	353,843	353,843					228
Van 10 replacement passenger van	C	Schools	4	51,419	51,419					228
Van 9 replacement passenger van	C	Schools	4	51,419	51,419					228
General Fund				15,308,833	5,765,715		2,019,879	7,523,239		

FY2022 Preliminary Funding Recommendations

FY2022 Capital Budget Preliminary Funding Recommendations

Title	Code*	Function	Cat*	2022 Department Request	Cash	Debt	Other	Deferred/Not Recommended	Note	Page
Town Hall Clock Repairs	N	General	2	83,000	83,000				Historic designation	134
Athletic Facility Improvements (DeFazio Synthetic Track)	M	Community	3	166,000	166,000				Recreation designation	156
Athletic Facility Improvements (McCloud Field renovation design)	P	Community	3	45,000	45,000				Recreation designation	156
Town Common Historic Redesign and Beautification	M	Community	3	1,364,000	1,364,000				Historic designation	190
Walker Pond Improvements	N	Community	3	125,000	125,000				Open Space designation	197
Town Reservoir Sediment Removal	P	Stormwater	3	262,000	262,000				Open Space designation	204
Community Preservation Fund				2,045,000	2,045,000					
Sewer Main Greendale/Rte. 128 (Cheney to GPA)	M	Utilities	3	363,000	363,000					207
Unit 17 replace with a class 5 dump truck	L	Utilities	4	94,210	94,210					228
Unit 19 replace with a class 8 dump truck	L	Utilities	4	284,119	284,119					228
Unit 29 replace with a class 8 dump truck	L	Utilities	4	332,531	332,531					228
Sewer Enterprise Fund				1,073,860	1,073,860					

FY2022 Preliminary Funding Recommendations

FY2022 Capital Budget Preliminary Funding Recommendations

Title	Code*	Function	Cat*	2022 Department Request	Cash	Debt	Other	Deferred/Not Recommended	Note	Page
Water Distribution System Improvements (Rosemary)	M	Utilities	3	460,000	460,000				Design was funded in FY2020	217
Water Distribution System Improvements (South Street/Charles River to Chestnut)	M	Utilities	3	250,000	250,000				Design only, construction estimate is \$2.9M	217
Water Service Connections	MR	Utilities	3	1,000,000		1,000,000			Possible State Financing	222
Unit 25 replace with a class 4 work truck	L	Utilities	4	92,437	92,437					228
Unit 30 replace with a class 5 dump truck	L	Utilities	4	135,452	135,452					228
Unit 40 replace with a class 3 heavy duty truck	C	Utilities	4	78,745	78,745					228
Water Enterprise Fund				2,016,634	1,016,634	1,000,000				
Grand Total				20,444,327	9,901,209	1,000,000	2,019,879	7,523,239		

FY2022 Preliminary Funding Recommendations

FY2022 Capital Budget Preliminary Funding Recommendations

Title	Code*	Function	Cat*	2022 Department Request	Cash	Debt	Other	Deferred/Not Recommended	Note	Page
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Code

B = Funding may be considered under the operating budget/special warrant article
 C = Core Fleet
 D = Recommendation is deferred or on hold pending other actions
 E = Emergency approval
 F = Funded appropriation outside the capital plan
 G = Request may not qualify as capital submission
 L = Specialized Fleet Equipment
 I = Project submission is incomplete or waiting additional information
 M = Submission has been modified from previous submission
 N = New submission with this CIP
 P = Project request has appeared in previous CIP's
 Q = Request does not qualify as a capital submission
 R = Request is a regularly occurring capital expense
 S = No recommendation; under study
 U = Urgent request based on identified conditions

Cat (Category)

1 = Equipment or Technology
 2 = Building or Facility
 3 = Infrastructure
 4 = Fleet
 5 = Extraordinary

Truck Classification

Class 1 = Smallest Pick-up Trucks 6,000 lbs.
 Class 2 = Full Size or 1/2 Ton Pick-up Trucks 6K to 10K lbs. (ex Ford F150 and F250)
 Class 3 = Heavy Duty Pick-up Trucks 10K to 14K lbs. (ex Ford F350)
 Class 4 = Medium Size Work Trucks 14K to 16K lbs. (ex Ford F450)
 Class 5 = Medium Job Trucks 16K to 19.5K lbs. (ex Ford F550)
 Class 6 = Medium to Large Trucks 19.5K to 26K (ex Ford F650)
 Class 7 = Heavy Duty Trucks 26K to 33K (ex Ford F750) Requires Class B Commercial
 Class 8 = Largest Heavy Duty Trucks 33K lbs. or more (specialized equipment)