



**Massachusetts Bay
Transportation Authority**

ACEC MA State Markets: Transportation

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Agenda

- Overview of the MBTA
- COVID Impacts
- Forging Ahead
- Highlights
- Key Performance Indicators
- Current Initiatives
- Disadvantaged Business Enterprise (DBE) Program
- Upcoming Opportunities
- Conclusion

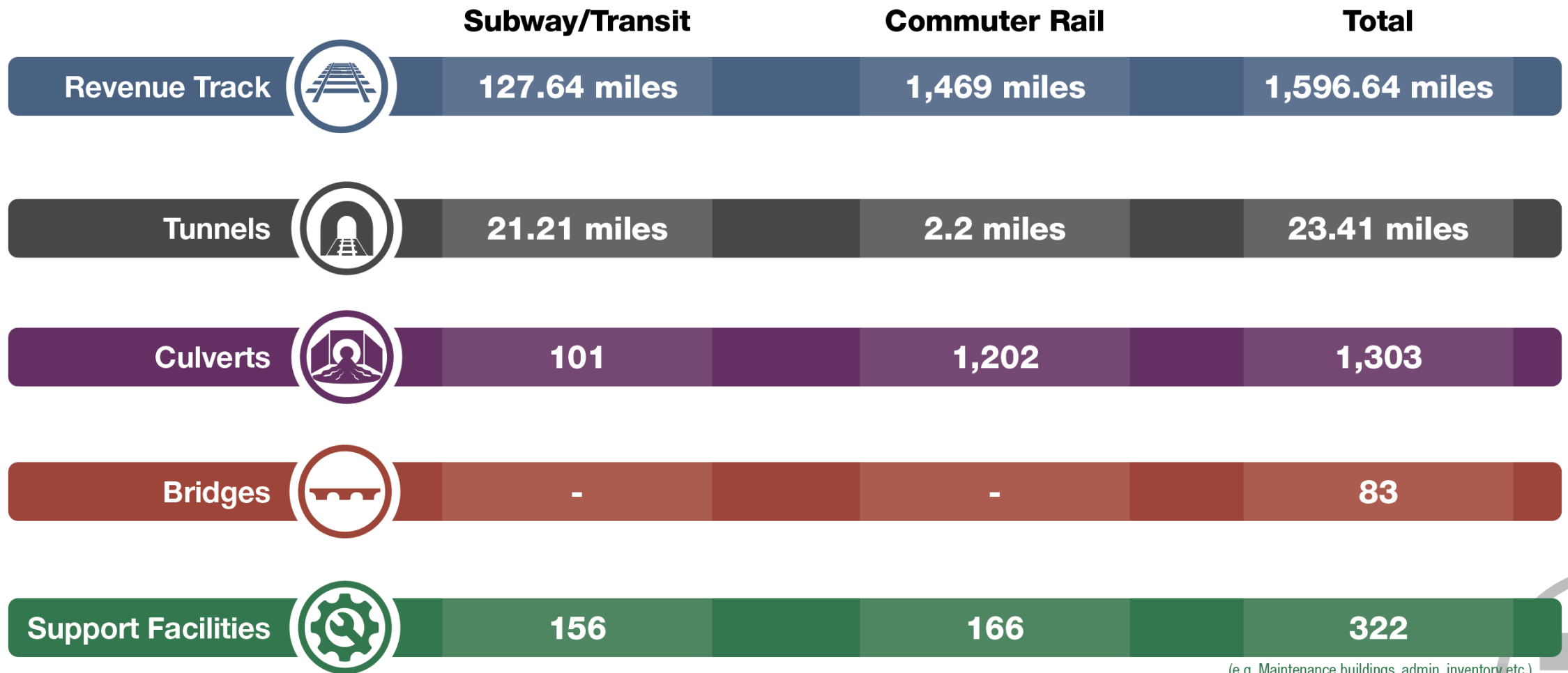


Overview of the MBTA: Infrastructure

MBTA transit & commuter rail systems require upgrades to track, signals, vehicles, and stations to improve **safety** and **quality of service** for riders

SW Systemwide	<ul style="list-style-type: none"> 2 Light Rail Transit Lines (GL, Mattapan) 3 Heavy Rail Transit Lines (RL, OL, BL) 13 Commuter Rail Lines 	 ~4,889,280 Feet of Track (926 miles)	 30+ Years Average Age of Track	 267 Transit Stations (including Silver Line)	 1.23M Trips Each Day (All modes, October 2019)
 Green Line B C D E	Light Rail (2-car trains) 	242,600 Feet of Track (46 miles)	30 Years	66 Stations 53 at surface level	150k Trips Each Day
 Red Line	Rapid Transit (6-car trains) Light Rail (Mattapan trolley) 	257,600 Feet of Track (50 miles, +Mattapan)	31 Years	22 Stations +8 on Mattapan	240k Trips Each Day
 Orange Line	Rapid Transit (6-car trains) 	121,400 Feet of Track (23 miles)	38 Years	20 Stations	210k Trips Each Day
 Blue Line	Rapid Transit (6-car trains) 	63,360 Feet of Track (12 miles)	23 Years	12 Stations	80k Trips Each Day
 Commuter Rail	Commuter Rail Coaches (varying lengths) 	4,202,880 Feet of Track (796 miles)	30+ Years	139 Commuter Rail Stations	120k Trips Each Day

Overview of the MBTA: By the Numbers



(e.g. Maintenance buildings, admin, inventory etc.)

Overview of the MBTA: By the Numbers



Red Line

» 218 Vehicles » 22 Stations/Stops



Green Line

» 206 Vehicles » 66 Stations/Stops



Orange Line

» 120 Vehicles » 20 Stations/Stops



Blue Line

» 112 Vehicles » 12 Stations/Stops



Mattapan Line

» 10 Vehicles » 8 Stations/Stops



Bus

» 1,055 Vehicles » 7,690 Bus Stops
» 9 Garages » 175 Bus Routes
» 3,244 Bus Route Miles



Commuter Rail

» 90 Locomotives » 420 Coaches
» 137 Stations » 394 Track Miles
» 5 North Side Lines » 7 South Side Lines
» Operated by Keolis



Ferry

» 12 Boats (3 owned by the MBTA)
» 7 Terminals
» 3 Routes
» Operated by Boston Harbor Cruises

COVID Impacts: Ride Safer & Employee Protection

Stations and Facilities

- **Daily** cleaning
- **2x per day**: disinfecting touch points in high-traffic facilities
- **Every 4 hours**: disinfecting touch points on surfaces such as handrails, fare gates, and fare vending machines in core subway stations
- Hired additional vendors for disinfecting using chemical fogging, electrostatic sprayers and manual disinfecting wipes/solutions

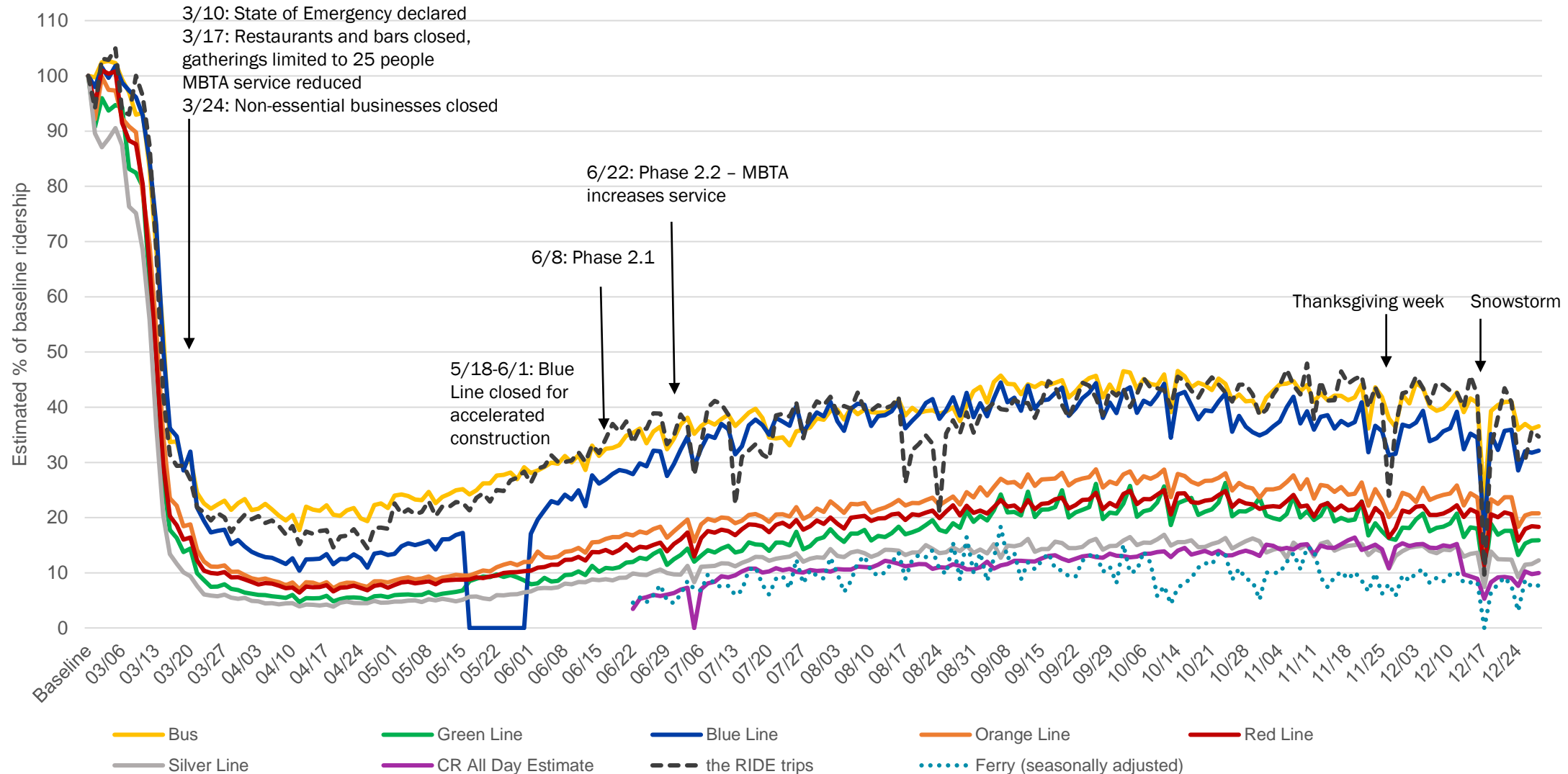


Bus and Rail Vehicles

- **Daily**: Decontaminating all revenue vehicles nightly with disinfecting wipes and mopping
- **Daily**: Performing mid-day decontamination at layover locations daily by wiping down operator cabs and high-touch locations
- **Daily**: Wiping down cab, farebox, and entrance for first/second shift bus pullbacks
- **Every 2 weeks**: Performing electrostatic fogging for additional decontamination of all bus vehicles
- Isolating and electrostatic decontamination of any vehicle reported as operated by an employee who tested positive for COVID-19



COVID Impacts: Weekday Ridership by Line and Mode



Baseline:
Average weekday from 2/24-2/28

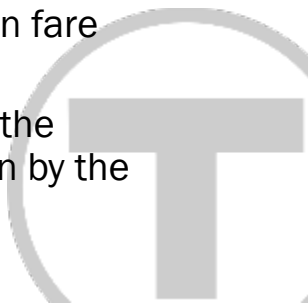
Ferry baseline:
Average weekday from the same month in 2019

Sources:
Faregate counts for subway lines
APC for buses
Manual counts for Commuter Rail
RIDE/Ferry vendor reports

Notes:
Recent data preliminary.

Forging Ahead: FY21 and FY22 Financial Overview

- **\$236-\$276 million at the end of FY21 in the Deficiency Fund:**
 - MBTA staff have been focused on cutting expenses without cutting service
 - \$40 million in one-time accelerated sales tax revenue (pending final approval) to put the MBTA on track to end FY21 with as much as \$276 million in a deficiency fund to help cover the FY22 budget deficit
 - All state funds will continue to be used to offset the current budget challenge
- **\$570 million in one-time sources will be used for FY22 budget:**
 - Although this use of one-time sources creates real risks for budgets in FY23 and beyond, we are focused on the FY22 budget gap
 - Combining revenue from the deficiency fund with additional funds diverted from the capital budget generates \$570M in one-time revenue sources that will be used to balance the FY22 budget
 - Accounting for risks during implementation of our cost saving efforts, we have projected potential year end balances, but are not proposing to retain any “surplus” at the end of FY22
- **FY22 fare revenue ranges from \$279-\$347 million:**
 - The total size of the FY22 budget gap depends on a number of variables, including how much fare revenue is assumed which in turn depends on how fast ridership returns during FY22 as vaccination occurs and the Massachusetts economy reopens
 - The projection for FY22 fare revenue increases by \$68 million if ridership tracks Scenario 2 (generating \$347 million in fare revenue) rather than Scenario 3 (generating \$279 million in fare revenue)
 - Scenario 2 assumes that the vaccine becomes available to the general public in the second quarter of CY21 and that the economy is substantially reopened in the third quarter but still does not anticipate a return to pre-COVID ridership even by the end of FY22



Forging Ahead: FY21 and FY22 Financial Overview

- **Projected FY22 budget challenge ranges from \$577-\$652 million:**
 - We recommend that, for now, FY22 budget planning should be based on a range of fare revenue, relying on Scenarios 2 and 3 to create that range
 - This results in an FY22 budget challenge ranging in size from \$577 million (if fare revenues increase consistent with planning Scenario 2) to \$652 million (if fare revenues continue to track planning Scenario 3 throughout FY22)
 - The scenarios will be revisited as part of the budget process for FY22, which begins this month
- **Needed savings from service adjustments in FY22 range from \$19 million to \$85 million:**
 - In the FY22 budget, service changes remain a last resort and the MBTA has and will continue to identify non-service cost savings
 - If fare revenue matches Scenario 2 projections, \$19 million in net savings will be needed from service level changes
 - If the fare revenue continues to track Scenario 3 throughout FY22 the net savings needed rises to \$85 million



Forging Ahead: Defining Our Essential Services

Analysis was done at the bus route/corridors, rapid transit lines, commuter rail lines/corridors, ferry routes, and overall RIDE service area.

	Serving high transit critical population	Serving low transit critical population
Higher ridership (current or propensity)	Preserve or enhance service/ access <i>(though individual trips may still be affected)</i>	Consider trade-offs depending on budget availability
Lower ridership (current or propensity)	Consider trade-offs depending on budget availability	Reduce service levels

Transit critical is defined as low-income, people of color, zero- or-low car households.
Transit propensity includes demographics, land use, and employment factors.



Forging Ahead: Preserving Essential Services

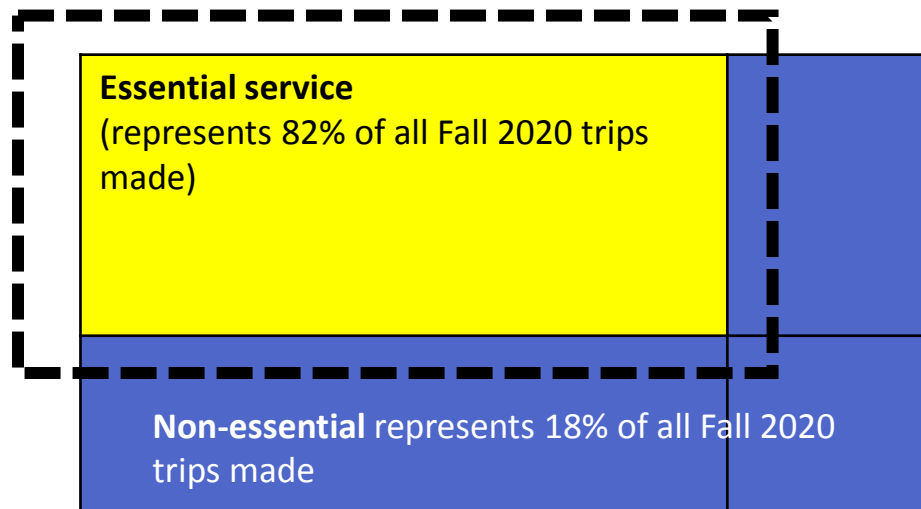
Mode	Highly Transit Critical	Less Transit Critical
High Ridership Potential FY22	Blue Line, Orange Line, Red Line, Green Line (trunk), Mattapan line, many bus routes, Fairmount CR line	Some bus routes
Low Ridership Potential FY22	Some bus routes, some Commuter Rail service, Charlestown ferry	Hingham/Hull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



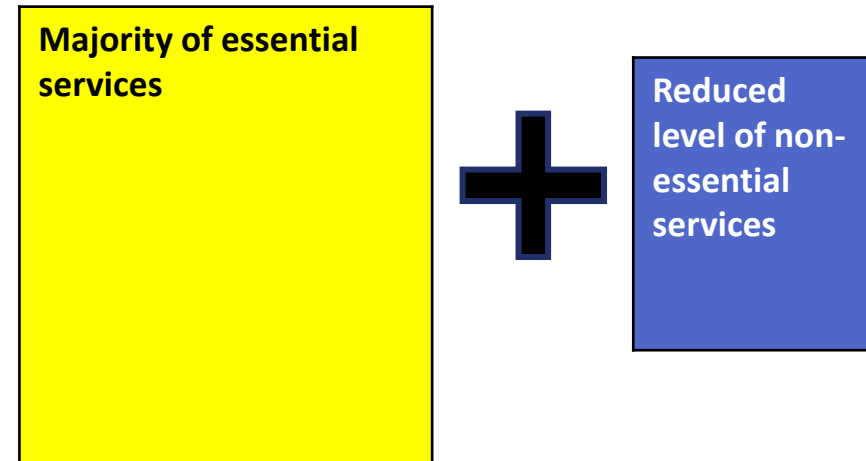
Forging Ahead: What is base service?

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

Capital Programs Highlights

- On-track to exceed FY 21 Goal of \$1.75 Billion in Capital Spend
- Sustained levels of investment in FY22 and beyond
- Strong contribution of the MA Consultant community and ACEC
- Significant backlog of projects across delivery phases (planning, design and construction)
- Seeking innovative technical and project delivery solutions to deliver backlog
- Expect additional Federal funding.
- Need ACEC help in funding and grant application/strategies

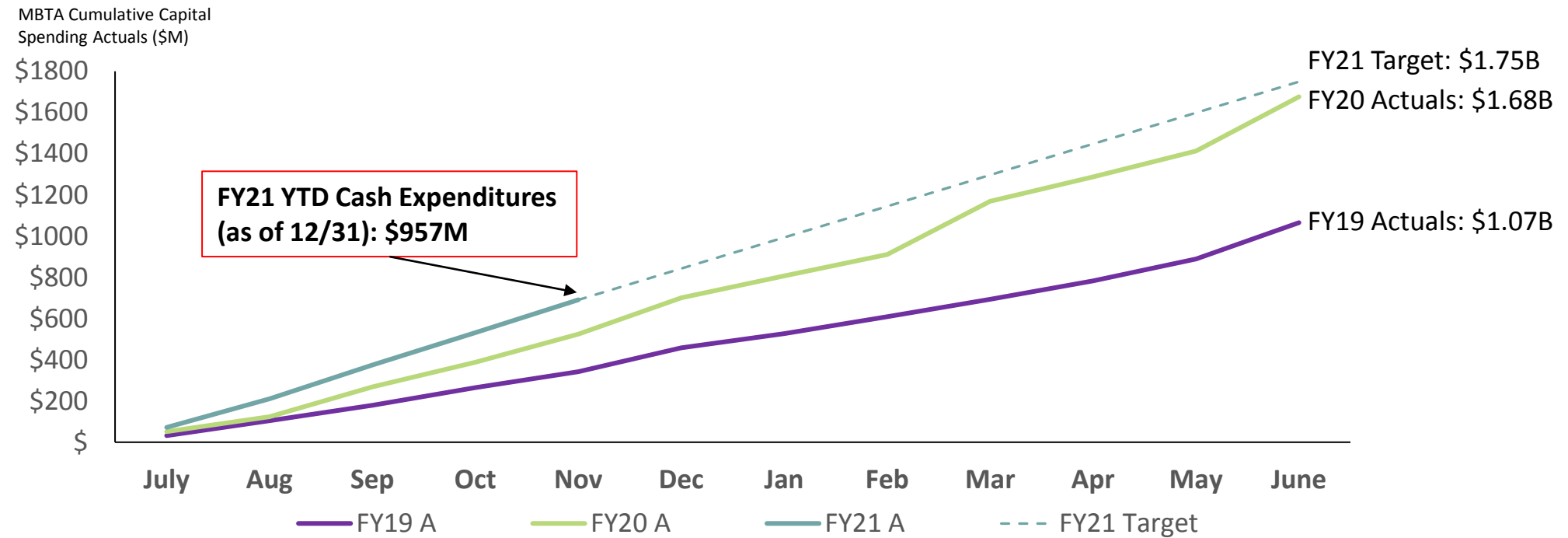


Key Performance Indicators

Key Performance Indicator	FY 2019		FY 2020		FY 2021 <small>(12/31/20)</small>	
	Actual	Target	Actual	Target	Actual	Target
Total Capital Investment	\$1.07B	\$1B	\$1.67B	\$1.4B	\$957M	\$1.75B
Reliability/Modernization Programs Capital Investment	\$857M	\$850M	\$1.19B	\$875M	\$663M	\$1.3B
Expansion Programs Capital Investment	\$208M	\$150M	\$481M	\$539M	\$294M	\$450M
Capital Construction Contracts Awarded	\$849M	\$650M	\$343M	\$850M	\$416M	\$628M
Vehicle Procurement Contracts Awarded	\$406M	>\$300M	\$397M	\$250M	\$81M	\$244M

Key Performance Indicators

Total Capital Investment by Month and Fiscal Year (\$Millions) (FY21 actuals through 12/31/20)



MBTA Cumulative Capital Spending Actuals (\$M)

	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>
FY21 (\$M)	\$72	\$211	\$375	\$532	\$691	\$957						
FY20 (\$M)	\$51	\$125	\$269	\$388	\$525	\$702	\$807	\$911	\$1,170	\$1,288	\$1,413	\$1,676
FY19 (\$M)	\$33	\$105	\$180	\$265	\$343	\$459	\$527	\$609	\$694	\$784	\$889	\$1,065



Current Initiatives

- All Construction Contracts in e-Builder – Program Management System
- Primavera P6 Enterprise Project Management System Launched
- Professional Services Go-Live in e-Builder in 2021
 - Streamlined invoice processing & A/P
 - Better program/project management & delivery
 - Management of Professional Services and Construction through dashboards
- Capital Programs focus on **efficiency & effectiveness** in 2021



Disadvantage Business Enterprise (DBE) Program

- Required per USDOT Regulation 49 CFR Part 26
- Office of Diversity and Civil Rights (ODCR) owns and adjusts project specific goals
- Triennial goal of 20% for Federal Fiscals 2021-2023
- DBE % includes race conscious goal of 16% and Race Neutral 4%
- \$290 million towards DBE/SBE over 3 years on Federal contracts worth \$1.44 Billion



Disadvantage Business Enterprise (DBE) Program

Table 1 FFY 2021 – 2023 FTA-Funded Projects

Federal Funding Program	2021	2022	2023	FFY21-23 Total (Federal)
5307	\$53,010,366	\$28,575,695	\$28,575,695	\$110,161,756
Signals/Systems Upgrade Program	\$48,000,000	\$27,136,607	\$27,136,607	\$102,273,214
Stations and Facilities Program	\$5,010,366	\$1,439,088	\$1,439,088	\$7,888,542
5337	\$157,047,726	\$142,588,304	\$145,158,209	\$444,794,240
Bridge & Tunnel Program	\$23,927,558	\$42,698,292	\$42,698,292	\$109,324,142
Signals/Systems Upgrade Program	\$71,888,842	\$38,220,226	\$38,220,226	\$148,329,295
Stations and Facilities Program	\$61,231,326	\$61,669,786	\$64,239,691	\$187,140,803
FY21-23 FTA Formula Funding	\$210,058,092	\$171,163,999	\$173,733,904	\$554,955,996
5309 - GLX	\$100,000,000	\$46,121,000	\$0	\$146,121,000
Green Line Extension (Bridge & Station Work)	\$100,000,000	\$46,121,000	\$0	\$146,121,000
Other Federal	\$100,570,000	\$526,000,000	\$115,680,000	\$742,250,000
PTC/ATC/Fiber - RRIF Financing (Signals/Systems)	\$100,570,000	\$526,000,000	\$115,680,000	\$742,250,000
FY21-23 Total Federal Funding	\$410,628,092	\$743,284,999	\$289,413,904	\$1,443,326,996



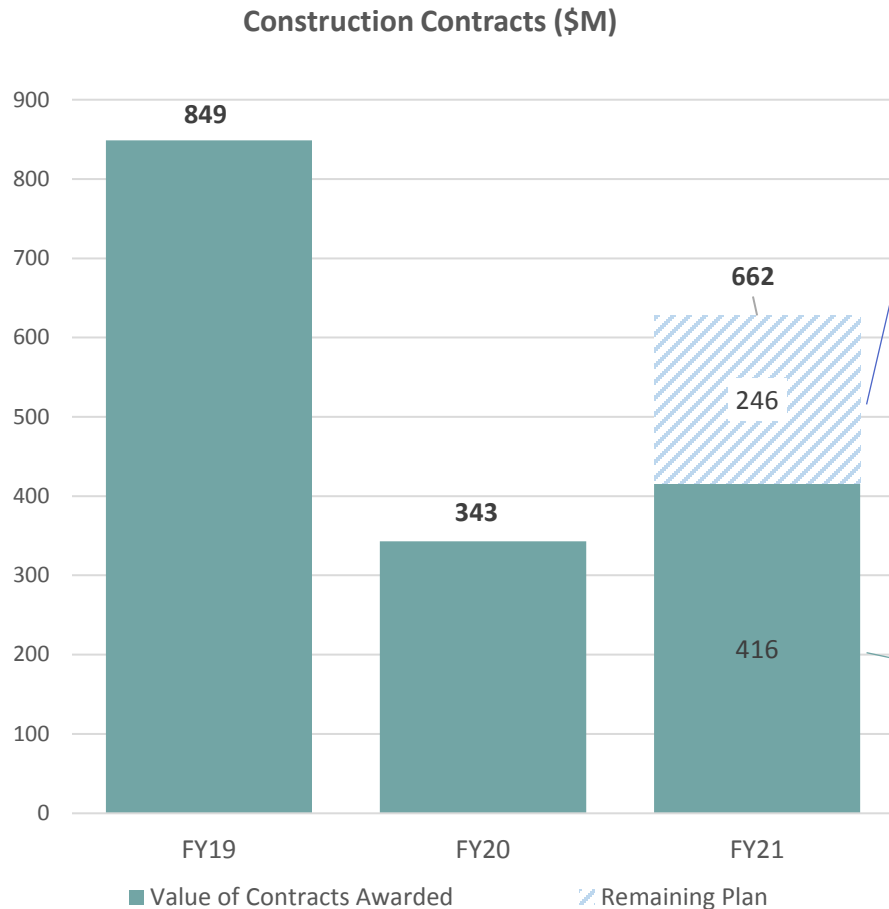
Upcoming Opportunities

- Sourced \$300 million in Professional Services (PS) contracts in 2020
- \$100 million in PS contracts to be advertised in 2021
- Consultant services through task orders
- Seeking innovative technical and project delivery solutions to deliver backlog



Upcoming Opportunities: Construction Contracts

MBTA is on track to meet FY21 Target



Anticipated Construction Contracts FY21	
Contract Description	Est. Value (M)
Fiber optic Resiliency (CR)- (Design Build)	\$75
Worcester Union Station	\$38
Dorchester Ave. Bridge*	\$34
East Cottage Street - Dedham	\$18
Rt. 128 Parking Garage Repairs	\$15
On-Call Roofing - Transit Facilities	\$10
Alewife Parking Garage Repairs- MEP- Life Safety	\$7
On- Call Structures Repairs Systemwide	\$7
Winchester Commuter Rail Station	\$42
Total	\$246

* CIP Change in process for Dorchester Ave. Bridge

Awarded Construction Contracts – through 11/30/20	
Contract Description	Contract Value (M)
SCR- Middleboro Secondary NBML (New Bedford Main Line)	\$403
On-Call Track and MOW (Commuter Rail)	\$11
Aquarium Station Floodproofing Improvements	\$2
Total	\$416

Upcoming Opportunities: Professional Services

Year	Awards	<i>Total Awards</i>
2020 Contract Awards	Project Specific	\$ 136,122,088
	GEC Ceiling (Up-To) Limit	\$168,750,000
2021 Upcoming Contracts	Project Specific	\$81,873,027
	GEC Ceiling (Up-To) Limit	\$25,500,000

Upcoming Opportunities: Professional Services

- Worcester Line Track and Station Accessibility Improvements Project
- South Boston to Forest Hills Duct Bank Project
- Blue Line Infrastructure Upgrade Final Design
- Dam Inspection and Rating Services
- CM Services for AFC 2.0 Installation Work
- GECs



Conclusion

- Continued ACEC partnership critical for MBTA's success
- Funding and grant management support needed
- Efficiency & Effectiveness is the focus
- Need innovative, cost effective solutions to meet our priorities
- Thank you for your partnership and support!

