Final CIP SFY 2022 Joint Boards presentation

June 21, 2021



Overview

Since last CPC meeting:

- Held public meetings and completed comment period
- Completed draft equity analysis
- Updated sources
- Updated projects / spending

Today:

 Need feedback on final proposed CIP before consideration for a vote by Joint MassDOT/FMCB Boards



Public engagement - CIP and STIP

- COVID continued to present the Capital Planning/MPO teams with unique challenges in developing both the CIP and the STIP and the public engagement process
- All the 13 MPOs/TPOs continued with virtual meeting platforms throughout the year for hosting their respective meetings to review and build their draft Transportation Improvement Programs (TIPs)
 - Meeting materials and documents were developed and posted for on-line viewing and access
- Each of the MPOs has had a robust public participation process for their TIPs
 - Draft TIPs were released by the MPOs in early April for 21-day public comment period in coordination with the CIP development timeline
 - Draft STIP was released concurrently with draft CIP on May 25 for public comment (21 days)
- All projects programmed in the draft STIP are incorporated and reflected in the draft CIP that was available for public comment
 - A total of 850 public comments on the draft TIPs (and STIP) were received during the public comment period on either projects programmed in the draft documents or requested for consideration in future TIPs



Public input process and CIP Public Meeting Schedule

- 6 virtual regional public meetings held to cover the entire Commonwealth
 - Tuesday May 25th Western Mass/Berkshires
 - Wednesday May 26th Northern Middlesex / Merrimack Valley
 - Thursday May 27th Central Massachusetts
 - Tuesday June 1st Boston
 - Wednesday June 2nd Southeastern Mass
 - Thursday June 3rd Cape and Islands
 - Comments accepted from participants in the
 - meetings
- Online comment tool
 - Comments accepted directly on proposed projects
 - General comments on overall CIP
- Emails & letters



WHAT ARE YOUR TRANSPORTATION PRIORITIES?

The Massachusetts Department of Transportation (MassDOT) and the Massachusetts Bay Transit Authority (MBTA) are currently developing the annual Capital Investment Plan (CIP), that guides how we prioritize and fund local and statewide transportation projects.

Your input can inform project design and helps MassDOT understand the level of community support for proposed projects, ensuring that MassDOT's investments align with the needs and priorities of all Massachusetts residents.

There are several ways to participate at MASS.gov/CIP

- Join us for a Virtual Public Meeting see dates and links below.
- Send an email with your comments to: MASSCIP@STATE.MA.US
- Explore projects included in the CIP and provide comments online using our CIP Comment Tool.

Comments must be received by June 14th, 2020.

VIRTUAL PUBLIC MEETINGS

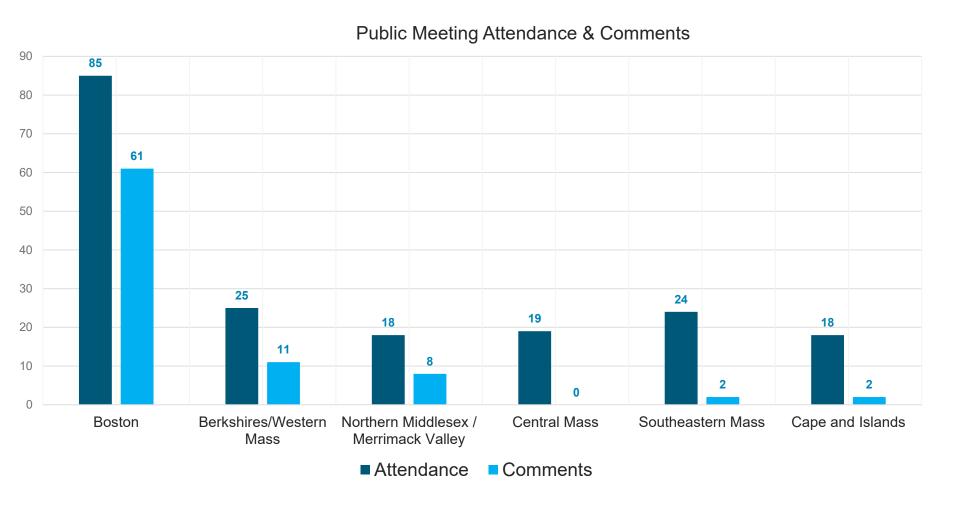
Location	Date & Time	Location	Date & Time
Western Mass.	May 25, 2021 6:00 PM	Boston	June 1, 2021 6:00 PM
Northern Mass. & Merrimack Valley	May 26, 2021 6:00 PM	Southeastern Mass.	June 2, 2021 6:00 PM
Central Mass.	May 27, 2021 5:30 PM	Cape Cod & Islands	June 3, 2021 6:00 PM

CAN'T MAKE A MEETING? POST YOUR IDEAS AT <u>WWW.MASS.GOV/CIP</u> OR EMAIL COMMENTS TO THE RESEARCH A U.S.

Virtual meetings will be accessible to those with limited English proficiency. Language services will be provided free of charge upon request, and as available. Requests should be submitted within ten days of the meeting at which services will be required, if at all possible. Presentation materials will be made available in multiple languages upon request. For more information or to request language services, please contact Patrick Nestor one week before the meeting at (617) 680-6092 or



Public Meeting Attendance & Comments*



^{*}Comments received at the public meetings only; public comment period closed June 14



Public Meetings Recap

Public Meeting	# of Attendees	# of Comments	Key Topics
Western Mass/Berkshires	25	11	 Protective Barriers for French King Bridge Electric bus procurement for PVTA Positive Train Control for the Valley Flyer Route 5 in Holyoke – bike/pedestrian accommodations
Northern Middlesex / Merrimack Valley	18	8	 Chapter 90 increased funding First mile/last mile investments to provide connections to transit Increased parking at Commuter Rail stations
Central Mass	19	0	No comments
Southeastern Mass	24	2	 Supports the investments at the South Attleboro commuter rail station Support for the SCR program and future access to jobs/educational opportunities from the southeast and future TOD possibilities
Cape and Islands	18	2	 Request to fund the Bourne Rail Trail Request for increased funding for Shared Use Path / Bike/Ped accommodations



Public Meetings Recap

Public Meeting	# of Attendees	# of Comments	Key Topics
Boston	85	61	 Sound Barriers along I-93 in East Somerville (TBB earmark) Route 28/Route 38 Safety Improvements (TBB earmark) EIR funding for GLX extension to Medford Support for new Municipal Pavement Program Support for Shared Streets/Spaces Program Support for investments that improve accessibility Local Bottleneck Reduction program – emphasis should be broader than just vehicle traffic flow Accessibility improvements at Newton commuter rail stations Support for Red/Blue Connector Request to fund replacement of General Edwards Bridge Support for MBTA Bus/Rail Electrification Support for investments in Blue Line Harbor Tunnel Support for Battery Electric Buses and infrastructure Investments should consider climate change and resiliency especially in EJ communities
Totals	189	84	



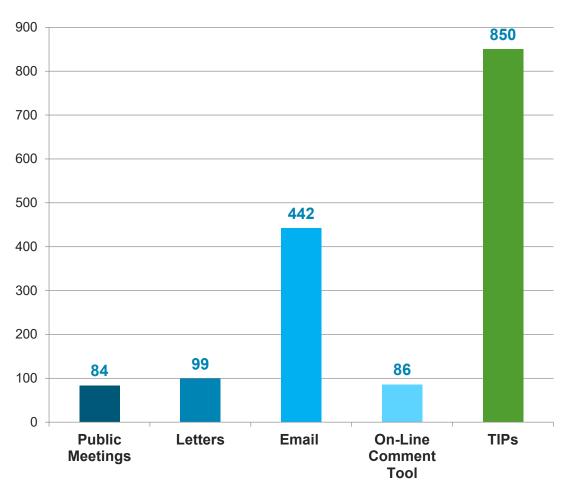
MBTA Advisory Board Report

- Demonstrates broad support for the SFY 2022 CIP, with some recommendations:
 - Create an independent, 7-person MBTA Board of Directors with municipal participation and a committee structure
 - · Resume creation of a rolling, five-year CIP, and move the publishing date to January of each year
 - Re-establish MBTA Planning Department and standalone MBTA CIP
 - Publish the SGR backlog on an annual basis
 - Clarify the strategy for and status of Fare Transformation, bus electrification, and the bus facility replacement program
 - Program funding for the Red-Blue Connector, Old Colony Line double tracking, and additional commuter rail
 maintenance facilities west and south of Boston
 - Improve two-way coordination with municipalities
- Includes additional statements from municipalities in support of several capital investments and operational improvements:
 - <u>Town of Ashland</u>: Support for capital maintenance and renovation of Ashland Station and other nearby stations on the Framingham-Worcester Line
 - <u>Town of Duxbury:</u> Support for weekend rail service on the South Shore, as well as double tracking of the Commuter Rail segment spanning Braintree to Boston in advance of future service to Fall River and New Bedford
 - <u>City of Malden:</u> Supports renovation and ADA improvements at Malden Center station on the Orange Line
 - <u>Town of Natick:</u> Support for continued investment in Commuter Rail electrification, accessibility improvements, and a third express track on the Framingham-Worcester line to support increased frequency of service
 - <u>City of Newton:</u> Support for rebuilding the three Newton Commuter Rail stations to be fully accessible and allow use of both tracks, and reinstatement of express bus service to Newton
 - <u>City of Revere:</u> Support for the Red-Blue Connector, the addition of a Commuter Rail station at Wonderland, and additional investments in the bus network
 - Town of Stoneham: Support for preservation of the 132 and other bus routes serving Stoneham

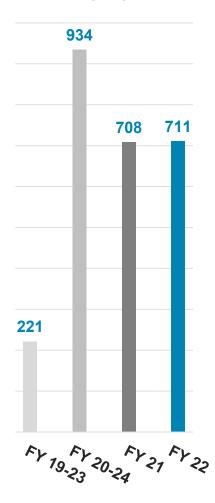


CIP comments received

Number of Comments Received^{1,2}



CIP Comments only by Year



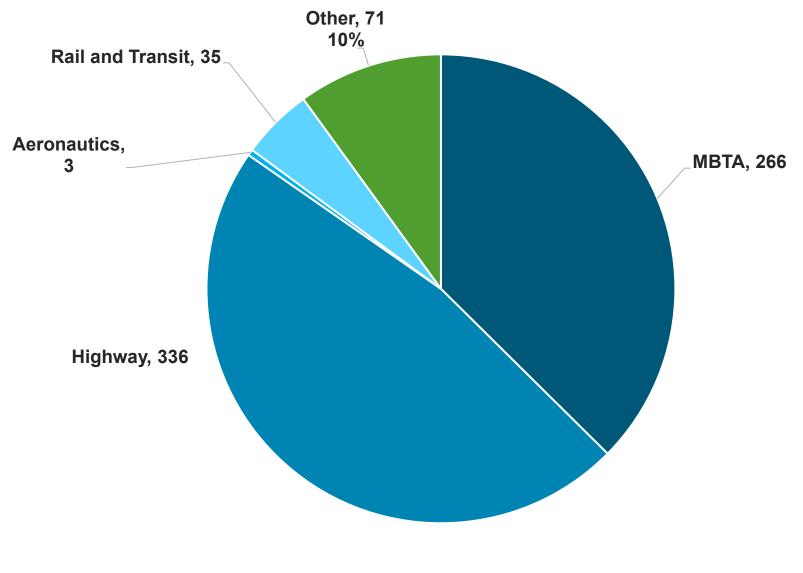
¹As of June 14th, 2021, a total of 711 comments were received on the CIP plus 850 on the draft MPO TIPs



² 1,561 comments in total including those submitted on MPO/TPO TIPs

Distribution of CIP Comments by Division

MBTA



HighwayAeronauticsRail and TransitOther



Recap of public comments: key highlights by Division

Aeronautics

 Support for noise/sound barriers at Barnstable Municipal Airport and runway replacement at Orange Municipal Airport

Highway

- Support for replacement of the Sagamore and Bourne Bridges over the Cape Cod Canal
- Support for installation of suicide prevention barriers on French King Bridge to address serious public safety concerns
- Support for increased prioritization of investments in **bicycle/pedestrian** accommodations and **rail trails** across the Commonwealth and request to fund **Bourne Rail Trail**
- Request for MassDOT to develop municipal grant program to install Flashing Arrow signal head replacements and fund a study for adaptive traffic signal installations
- Request for noise barriers along I-93 in the Somerville Corridor (TBB earmark)
- Request for safety improvements along Routes 28/38 (e.g. raised crosswalks, protected bike lanes, ADA compliant ramps) in Cambridge/Somerville (TBB earmark)
- Support for Allston Multi-Modal Program

Registry of Motor Vehicles

No Comments received

Rail & Transit

- Support for East-West Rail
- Request funding for Positive Train Control on the Connecticut River Line (Knowledge Corridor)
- Support for investments on New England Central Rail Corridor, Adams Branch, Berkshire Line
- Support for increased capital investments for the RTAs and fleet electrification (PVTA)

General

- Request to return to five-year CIP development and greater transparency
- Support for Public Realm Improvements through the Shared Streets/Spaces program



Recap of Public comments: Key Highlights by Division

MBTA

Rapid Transit

- Support for the Green Line Transformation program and Red Line/Orange Line Transformation program investments
- Support for station consolidation on the Green Line's B Branch
- Support for the E branch accessibility & capacity improvements and request to fund extension to Hyde Square
- Request to fund **Red-Blue Connector** in conjunction with MGH expansion
- Request to fund Environmental Impact Report to extend GLX to Medford

Bus

• Support for **bus electrification and other improvements** (bus rapid transit lines) to the bus network

Commuter Rail

- Support for commuter rail station improvements including South Attleboro commuter rail station and Natick commuter rail station
- Requests for accessibility improvement projects, including at Newton commuter rail stations
- Support for new South Coast Rail program commencement of commuter rail service
- Support for electrification of Commuter Rail and procurement of new locomotives/coaches
- Support for Widett Circle layover facility

Systemwide

- Support for investments in garage and maintenance facility upgrades
- Overall support for station improvements and accessibility



2022 CIP Equity Analysis: Approach

- As part of MassDOT's/MBTA's commitment to civil rights and non-discrimination proposed investments and projects are evaluated annually
 - Analysis done to ensure proposed investments are equitable both geographically and to population groups that benefit
- This year's analysis continues to follow the approach implemented with 2021 CIP process (2014 American Community Survey data)
 - Investments analyzed in the aggregate and by investment category
 - Investments analyzed individually for each mode and investment category to identify particular areas of concern
 - Variable buffering was used to analyze impacts of CIP investments depending upon the location of Highway (rural, suburban, urban); by mode for Transit – RTA/MBTA, Rail; and for Aeronautics
 - Improvements to source information for data analytics
 - Methodology and process for undertaking equity analysis was automated to improve outputs, consistency, and ability for future comparative analyses
 - Chapter 90 program formula is used as a proxy for geographic distribution of transportation investments throughout the Commonwealth
 - Chapter 90 formula considers population (20.83%) employment (20.83%) and lane miles (58.33%) in distributing the annual allocation of local transportation aid (\$200 million) to all 351 cities and towns in the Commonwealth
 - If the ratio of CIP funding allocated to a municipality is the same as the Chapter 90 allocation received, this indicates the CIP distribution is equitable



Social Equity Analysis: Summary

Minority communities (Communities with 24% minority or more)

- Overall the analysis of the 2022 proposed investments demonstrates that per capita spending in minority tracts is slightly more than non-minority tracts
- Approximately 7% more* per capita spending in minority tracts for 2022 than non-minority areas

Limited English Proficiency (LEP) (Communities with 6.25% or more)

(Communities with 6.25% or more of population that are LEP)

- LEP communities receive approximately 12% less* per capita spending as compared to non-LEP areas in 2022
- Proposed investment is within the 20% DI/DB* threshold level

Low-income

(Median income at or below \$44,100)

- Low-income communities receive approximately 23.7% less per capita spending investment as compared to non low-income communities for 2022 (12% less in 2021 in low-income)
- There are several large bridge projects in western Mass in areas that are not considered low income or diverse populations; these areas have low populations and thus the high per capita spending
- Since the analysis only considers 2022 spending the impact of these larger projects is more pronounced

Overall

(Combined social equity analysis)

- Analysis of all programmed investments for 2022 does not indicate any significant social equity concerns and demonstrates a reasonably equitable distribution of proposed investments for 2022
- Title VI** and EJ investments represent 20.8% less per capita spending as compared to total per capita
- MassDOT/MBTA will continue to monitor the potential impacts to low Income and Title VI/EJ communities to ensure the 2022 impacts were a result of analysis of a one-year spending plan vs a five-year plan

^{*24.8%} more in 2021 in minority tracts

^{*15.4%} more in 2021 in LEP communities

^{*}DI/DB threshold stands for Disparate Impact/Disproportionate Burden Threshold

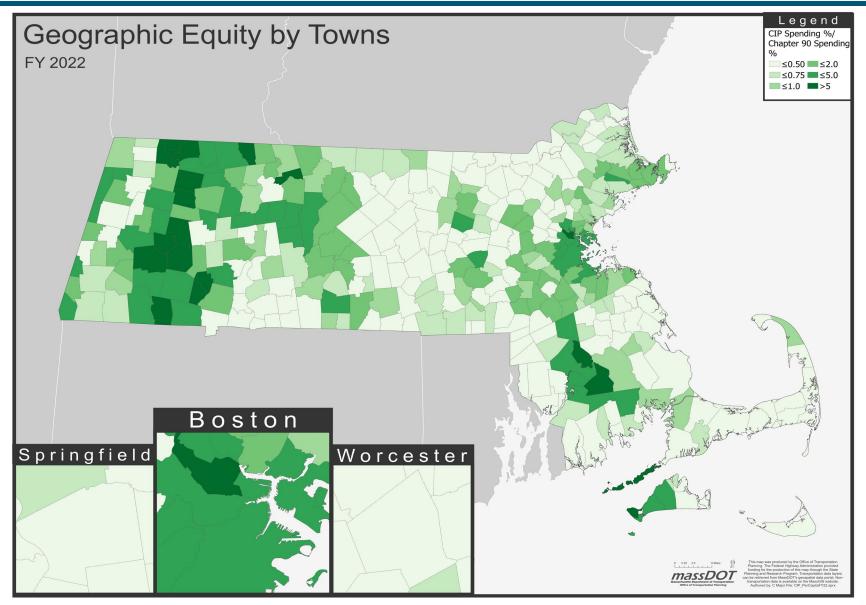
^{**}Title VI includes minority and/or LEP communities and EJ includes minority and/or low-income communities

2022 CIP Equity Analysis: Conclusions

- Overall, the projected investments for 2022 appear to be equitable
 - No significant disparate impacts/burdens on vulnerable populations
- In the 2022 CIP there are several large bridge projects in Western Mass, an area with generally low population centers relative to the rest of the Commonwealth
 - Large projects and spending in low population areas has a disproportionate impact on the equity analysis within a one-year timeframe
- Normally, over a five-year period MassDOT/MBTA uses a 20% threshold to compare per capita spending for protected populations (Title VI and Environmental Justice communities) vs non-protected population
- If only one year of capital spending is considered, our analysis indicates that a 20% threshold may risk identifying false positives for possible disparities
 - Large projects in low population centers with little or no protected populations would be expected over a five-year period to not have as large an impact
 - MassDOT/MBTA will continue to monitor the trends when we revamp the five-year CIP to ensure there are no real disparate impacts



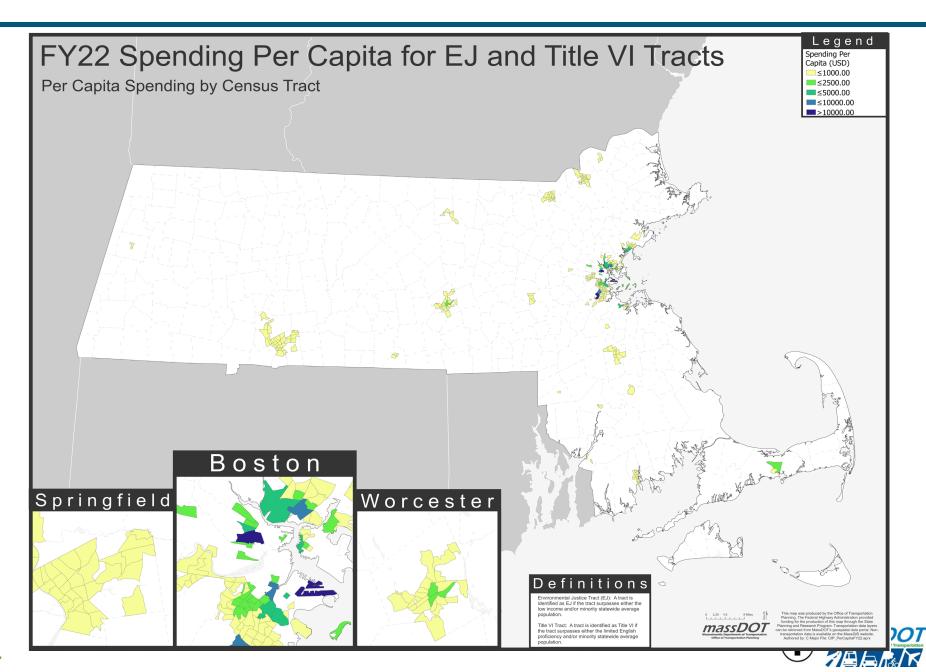
Geographic Equity Analysis: Spending by City/Town*



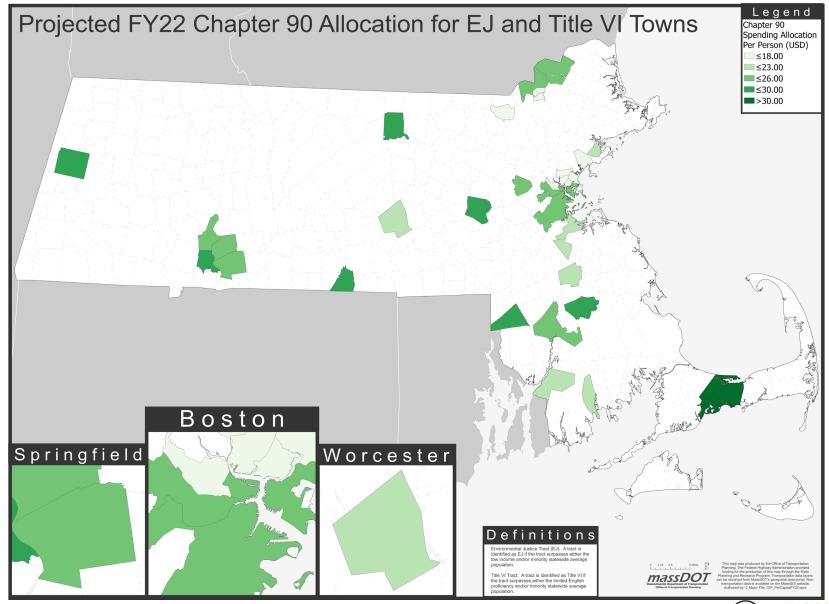




Social Equity: Per capita spending in Environmental Justice/Title VI tracts



Social Equity: Chapter 90 spending in EJ* /Title VI communities







Sources update

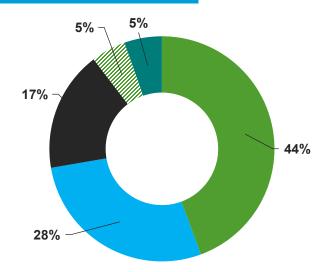
- MassDOT pay-go capital funds for 2022
 - Assumptions for available pay-go capital funds have been further revised to align with MassDOT FY 22 operating budget assumptions and revised traffic and revenue projections for the toll facilities
 - Annual pay-go funds decrease of \$2 million for MHS; increase of \$2 million for WT; \$2 million for Tobin pay-go capital
 - Parcel 7 revenues received in FY 21 have been added to the MHS reserves (\$55 million)
- MassDOT/MBTA state bond cap funds
 - ANF has allocated an additional \$5 million in 2022 to fund the new Transit Infrastructure Partnership program
- MBTA no changes in sources



2022 CIP programmed Investments by Division

Reliability	Aeronautics	Highway	IT	MBTA	Rail	RMV	Transit	ОТР	Total SFY22
	\$47.3 (millions)	\$941.4	\$12.0	\$695.1	\$55.5	\$0.5	\$32.3	\$-	\$1,784.2
Modernization	Aeronautics	Highway	IT	MBTA	Rail	RMV	Transit	ОТР	Total SFY22
	\$4.8 (millions)	\$292.7	\$9.0	\$757.2	\$26.1	\$8.3	\$19.3	\$5.0	\$1,122.4
Expansion	Aeronautics	Highway	IT	MBTA	Rail	RMV	Transit	Highway / OTP	Total SFY22
	\$0.0 (millions)	\$141.1	\$0.0	\$547.8	\$2.7	\$0.0	\$0.0	\$5.2	\$696.7

Overall spending breakdown*



millions	SFY 2021	SFY 2022	Difference
Reliability	\$1,751.7	\$1,787.7	+\$32.5
Modernization	\$944.4	\$1,122.4	+\$178.0
Expansion	\$578.3	\$696.7	+\$118.4
Chapter 90	\$200.0	\$200.0	\$ -
Planning, Enterprises Services, & Other	\$213.4	\$210.5	(\$2.9)
One Year total	\$3,687.7	\$4,013.7	+\$325.9



Spending updates

- Aeronautics Division no changes
- Highway Division
 - MPOs have endorsed all TIPs and they are reflected in the final CIP for discussion
 - Some spending has shifted into FY 23 and beyond based on revised ad dates, project sequencing, etc. and some increases are reflected in FY 22 spending
 - Examples of projects with significant shifts in spending out of FY22:
 - Sumner Tunnel Rehab (\$18.1 million)
 - Structural Rehab and painting of the Tobin Bridge (\$11.3 million)
 - Structural Repairs to the Tobin Bridge (\$11.2 million)
 - Somerville Bridge Preservation I-93 NB/SB (\$7.2 million)
 - Examples of projects with significant shifts in spending into FY22:
 - French King Bridge protective barriers \$0.6 million
 - Hopkinton-Upton-Westborough Resurfacing project on I-90 \$3.5 million
 - Ashland Reconstruction on Route 126 (Pond Street) \$3.1 million
 - Full funding (2022-2026 costs) for the design and permitting for roadways in the vicinity of the Cape Bridges has been included in the CIP
 - No adjustment needed for 2022 anticipated spend; additional spending will be incorporated in the 2023-2027 CIP
- IT no changes
- MBTA no changes
- Rail and Transit Division additional spending of \$28.5 million programmed in 2022
- RMV no changes
- Office of the Secretary
 - \$5 million programmed in 2022 for launch of the new the Transit Infrastructure Partnership program



Project Additions/Deletions

Highway Division - additions

- 608056 New \$4.3 million bridge project (\$0.6 million in FY 22) to add protective barriers to the historic French King Bridge (Erving/Gill)
- 612231- Allston Interim Repair project (\$75 million) has been included in the CIP; no spending anticipated in 2022
 - Funded with MHS pay-go capital (\$20 million) and Parcel 7 revenues (\$55 million)
- 608807 Boston Roadway Reconstruction of Cypher Street to E Street (\$12.3 million total)
 - Funded with state bond cap and Massport BUILD grant; no spending anticipated until FY 23
- 605820 Worcester Blackstone River Bikeway (segment 7) added (\$7.1 million total;
 \$2.8 million in 2022)
- 607137 Boston leak sealing, fireproofing, & miscellaneous in MassDOT Tunnels (\$16.5 million total; \$5.2 million in 2022)
- 607917 Auburn to Worcester Guide & traffic sign replacement on a section of I-290 (\$4.3 million total; \$1.2 million in 2022)

Highway Division - deletions

 606555 - Northampton roundabout construction project at the intersection of Routes 5/10 (North King Street & Hatfield Street has been removed from the CIP (\$3 million in 2022)



Project updates continued

- **IT** no changes
- **MBTA** no changes
- Rail three new projects added
 - Project to add Positive Train Control to the Knowledge Corridor on the Connecticut River rail line (\$65 million total; \$25 million in 2022)
 - Project for emergency bridge, culvert and grade crossing work on the Berkshire Line (\$5 million total; \$2.5 million in 2022)
 - Springfield Area Master Planning work to support ongoing East-West Rail options (\$2 million total; \$1 million in 2022)
- RMV no changes



Next steps and discussion

- Incorporate input from Joint MassDOT/FMCB Boards for final CIP
- Finalize content in online CIP for publication

Today:

 Request approval from Joint MassDOT Board and FMCB on proposed 2022 Capital Investment Plan



Requested Boards Action

VOTED:

To approve the Fiscal Year 2022 Capital Investment Program ("CIP"), as presented at the June 21, 2021 joint meeting of the Board Massachusetts Department of Transportation and Fiscal and Management Control Board and as attached hereto as Appendix A, and to authorize the Secretary/CEO, in the name of and on behalf of the Massachusetts Department of Transportation, to take any steps he deems necessary and appropriate, to provide notice to the Legislature and the public of the CIP

VOTED:

To approve the Fiscal Year 2022 Capital Investment Program ("CIP"), as presented at the June 21, 2021 joint meeting of the Board Massachusetts Department of Transportation and Fiscal and Management Control Board and as attached hereto as Appendix A, and to authorize the General Manager, in the name of and on behalf of the Massachusetts Bay Transportation Authority, to take any steps he deems necessary and appropriate to provide notice to the Legislature and the public of the CIP



Appendix

- Future process improvements for equity analysis
- Spending by Source comparison May vs June

2022 CIP Equity Analysis: Process improvements for future analyses

- The new Municipal portal is anticipated to be completed by the end of FY 21; portal will enable analysis of individual investments (projects) made under the Chapter 90, Complete Streets and Small Municipal Bridge program
 - Investments made under these programs at the municipal level will then be captured as part of the equity analysis
 - An analysis will occur to capture the universe of eligible funding at the municipal level
- Total universe of assets will be analyzed and compared to proposed investments
- Total universe of potential projects will be digitized to facilitate development of future plans and analyses; universe will be linked to online comment tool to solicit public feedback
- Further work on conceptualizing how to capture investments will be performed for individual RTAs and their system routes
- We will investigate a methodology improvement for future one-year analyses to better assess any disparate impacts on protected communities



MassDOT Spending by Source (Draft vs. Final)

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Projected sources (in millions)	Draft FY 22	Final FY 22	Delta
Federal sources of funds			
Federal Highway (FHWA) reimbursements	\$773.9	\$762.5	(\$11.4)
Federal Transit (FTA) reimbursements**	6.0	6.0	\$ -
Federal Aviation (FAA) reimbursements and grant draws	37.7	37.7	\$ -
Federal Rail (FRA) reimbursements and grant draws	5.0	5.0	\$ -
Subtotal federal sources*	\$822.6	\$811.2	(\$11.4)
Bond cap	\$901.2	\$906.2	\$ 5.0
Next Generation Bridge GANs	15.0	15.0	\$ -
Accelerated Bridge bonds	10.0	10.0	\$ -
Rail enhancement bonds	5.2	5.2	\$ -
CARM	30.6	26.4	(\$4.2)
Metropolitan Highway system (MHS) pay-go	83.6	75.1	(\$8.5)
Tobin Bridge (Tobin) pay-go	28.3	5.5	(\$22.8)
Western Turnpike (WT) pay-go	137.2	139.4	\$2.2
Municipal, reimbursable and local funds	2.9	2.9	\$ -
Other State Funds***	16.6	16.6	\$ -
Subtotal of non-federal sources*	\$1,230.6	\$1,202.5	(\$28.3)
Total sources*	\$2,053.2	\$2,013.7	(\$39.7)



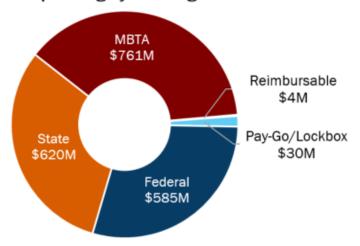
^{*} Totals may not add due to rounding | ** FTA reimbursements for MassDOT projects only; RTA federal funds are not included | *** New funding source made available to MassDOT that will be programmed.

MBTA Spending by Source

FY22 CIP Spending by Priority



FY22 CIP Spending by Funding Source



The FY22 CIP reflects significant on-going investment in the Reliability and Modernization priorities, which will continue to deliver improved safety, reliability and quality of service for riders

 No changes in spending by priority or by funding source since the draft FY22 CIP

Spending by Funding Source Highlights:

- Federal fund spending is driven by progress on Green Line Extension and the continued drawdown of carry over funds
- MBTA funds includes Revenue Bonds to support the 20% match for Federal projects, as well as MBTA-only funded projects. Also includes financing for PTC, ATC and Fiber Burial programs
- State funds include Bond Cap and Rail Enhancement Program special obligation bonds for GLX, Red Line/Orange Line improvements, South Coast Rail, and other projects
- Other funding sources include municipal contributions, other reimbursements and the new \$30M transfer of operating funds

