



**Massachusetts Bay
Transportation Authority**

Forging Ahead: Scenario and Service Planning

Fiscal and Management Control Board

October 5, 2020

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Agenda

- Essential services analysis and reminder of trade-offs by mode
- Review of statutory obligations
- Public engagement plan



Defining Our Essential Services

Based on two analyses:

- Where are the trips made by transit critical populations
- Where we have high ridership now or are likely to in the next year or two

| | Serving high transit critical population | Serving low transit critical population |
|--|--|--|
| Higher ridership (current or propensity) | Preserve service / access at SDP standards <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 | Most likely to reduce service levels |

This process is designed to create an equitable network that preserves access and quality of service available to transit critical populations (low-income, people of color, seniors, people with disabilities, and no to low vehicle households).



MBTA Essential Services Methodology

- The “quadrants” are created by two axes: ridership potential and transit criticality
 - The unit of measure at this point is a route (e.g. bus route, commuter rail line)
 - Ridership data is from **weekdays** September 2020 compared to September 2019
 - Ridership data is normalized by service hours to compare modes to each other
- Ridership potential based on pre-COVID ridership and COVID ridership retention per service hour (to adjust for routes that lost some service during the pandemic)
- Transit criticality is a travel demand measure (travel not necessarily on MBTA) that captures where low income people, people of color, and people in zero- and low-vehicle households traveled in July-August 2020
 - Transit criticality is an index accounts for the multiplicative effect of multiple group membership
 - Transit usage by seniors and people with disabilities will be used for route level trade-off decisions
- **The data used in this analysis will be updated as we develop future scenarios and more data becomes available**
 - What services are defined as essential can change over time

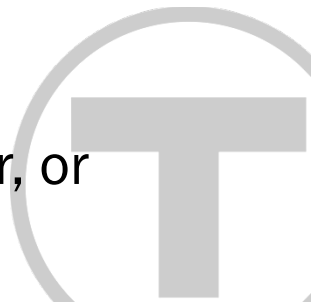


Overview of Essential Service analysis

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

*Incomplete data

- Most of the variation is in commuter rail and bus; trade-off decisions will be based on characteristics of routes/lines/corridors
- Analysis included evaluation for transit propensity based on pre-COVID rider demographics; the routes that retained a high proportion of ridership were overwhelmingly those with above system-average of low-income riders, riders of color, or riders from zero- or low-vehicle households



Heavy and Light Rail

| Heavy and Light Rail | Highly Transit Critical | Less Transit Critical |
|-------------------------------|---|-----------------------|
| High Ridership Potential FY22 | Orange, Blue, Red, Green Line (trunk), Mattapan | -- |
| Low Ridership Potential FY22 | -- | -- |

- All lines fall into essential services, but service levels within Service Delivery Policy standards will vary based on demand on each line
- Green Line branches data are incomplete, service levels will vary based on demand by branch

Heavy rail and GL trunk: ~120,000 gate entries on weekdays, 24% pre-COVID (weekdays September 2020 vs September 2019)

Possible Levers:

- Reduce headways to Service Delivery Policy
- End service at 12 AM

| | Service Delivery Policy | Rapid Transit |
|----------------------|---------------------------|--------------------|
| Headways (frequency) | AM & PM Peak | Every 10 minutes |
| | All other weekday periods | Every 15 minutes |
| | Saturday | Every 15 minutes |
| | Sunday | Every 15 minutes |
| Span of Service | Weekday | 6:00 AM - midnight |
| | Saturday | 6:00 AM - midnight |
| | Sunday | 7:00 AM - midnight |

Ferry

| Ferry | Highly Transit Critical | Less Transit Critical |
|-------------------------------|---|---|
| High Ridership Potential FY22 | Charlestown* (30% of 2019 Ferry service hours) | -- |
| Low Ridership Potential FY22 | -- | Hingham/Hull (70% of 2019 Ferry service hours) |

*Incomplete data for the Charlestown ferry, analysis will continue

Possible Levers:

- Eliminate routes
- Reduce frequency

Ferry: ~775 trips on weekdays, 11% of Pre-COVID (weekdays September 2020 vs September 2019)



Commuter Rail

| Commuter Rail | Highly Transit Critical | Less Transit Critical |
|-------------------------------|--|---|
| High Ridership Potential FY22 | Fairmount Line <i>(4% of 2019 CR service hours)</i> | (0%) |
| Low Ridership Potential FY22 | Newburyport/Rockport, Middleborough/Lakeville, Providence/Stoughton <i>(34% of 2019 CR service hours)</i> | All others <i>(62% of 2019 CR service hours)</i> |

- Next step is additional analysis at the corridor and station level

Commuter Rail: ~14,500 trips on weekdays, 12% pre-COVID (weekdays September 2020 vs manual counts Spring 2018)

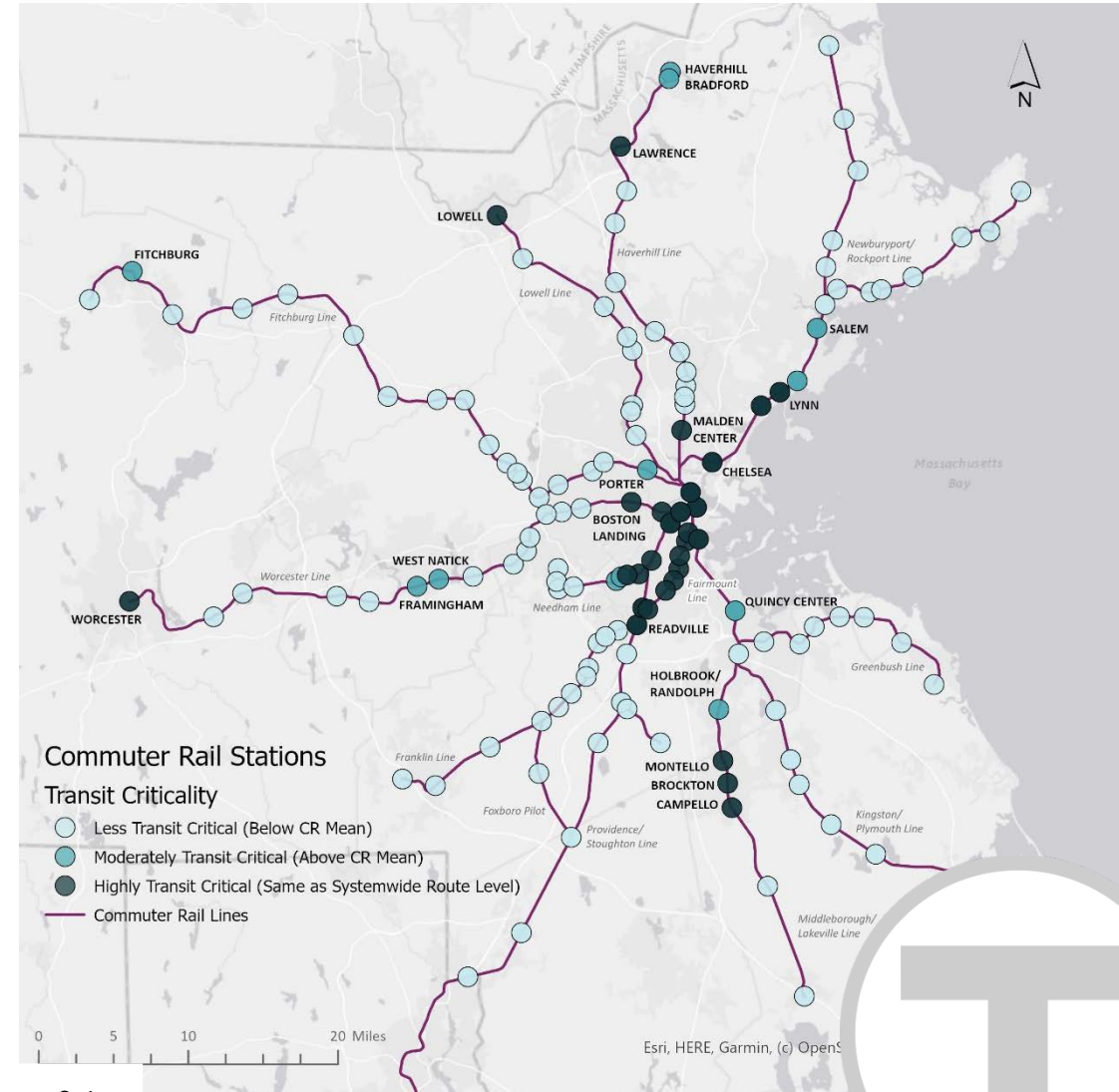
Possible levers:

- Eliminate weekend service on some or all lines
- End weekday service after 9 PM
- Reduce or eliminate midday frequency
- Reduce peak frequency
- Station closures

Commuter Rail: Transit-Critical Stops

- Some lines have their transit-critical service at the end of the line
- Others have transit-critical service mid-route
- **Dataset only includes travel in MA, so Providence station is not evaluated but expected to be highly transit critical*

| Commuter Rail Line | Pre-COVID Riders per Service Hour Retained | Essential Services Classification |
|-------------------------------|--|---|
| Fairmount Line | 21% | High Ridership Potential/ Highly Transit Criticality |
| Middleborough/ Lakeville Line | 18% | |
| Newburyport/ Rockport Line | 15% | |
| Providence/ Stoughton Line | 14% | Low Ridership Potential/ Highly Transit Critical |
| Fitchburg Line | 8% | |
| Framingham/ Worcester Line | 11% | Low Ridership Potential/ Less Transit Critical |
| Franklin Line | 15% | |
| Greenbush Line | 8% | |
| Haverhill Line | 8% | |
| Kingston/ Plymouth Line | 15% | |
| Lowell Line | 16% | |
| Needham Line | 12% | |



Bus

| Bus | Highly Transit Critical | Less Transit Critical |
|-------------------------------|--|---|
| High Ridership Potential FY22 | Majority of routes <i>(65% of 2019 Bus service hours)</i> | e.g. 350, 225, 77, 73 <i>(20% of 2019 Bus service hours)</i> |
| Low Ridership Potential FY22 | e.g. 4, 7, 18, 43, 55 <i>(8% of 2019 Bus service hours)</i> | e.g. 553, 554, 351, 52 <i>(8% of 2019 Bus service hours)</i> |

- Bus at the route level has the most variation
- Route level changes in all quadrants will consider usage data by people with disabilities and senior cardholders
- Bus routes suspended during COVID or with significant changes during COVID will be evaluated outside of this framework

Possible Levers:

- Reduce frequency & span to Service Delivery Policy for essential routes (top left box)
- Reduce frequency & span below Service Delivery Policy for non-essential routes
- Route eliminations & consolidations for non-essential routes

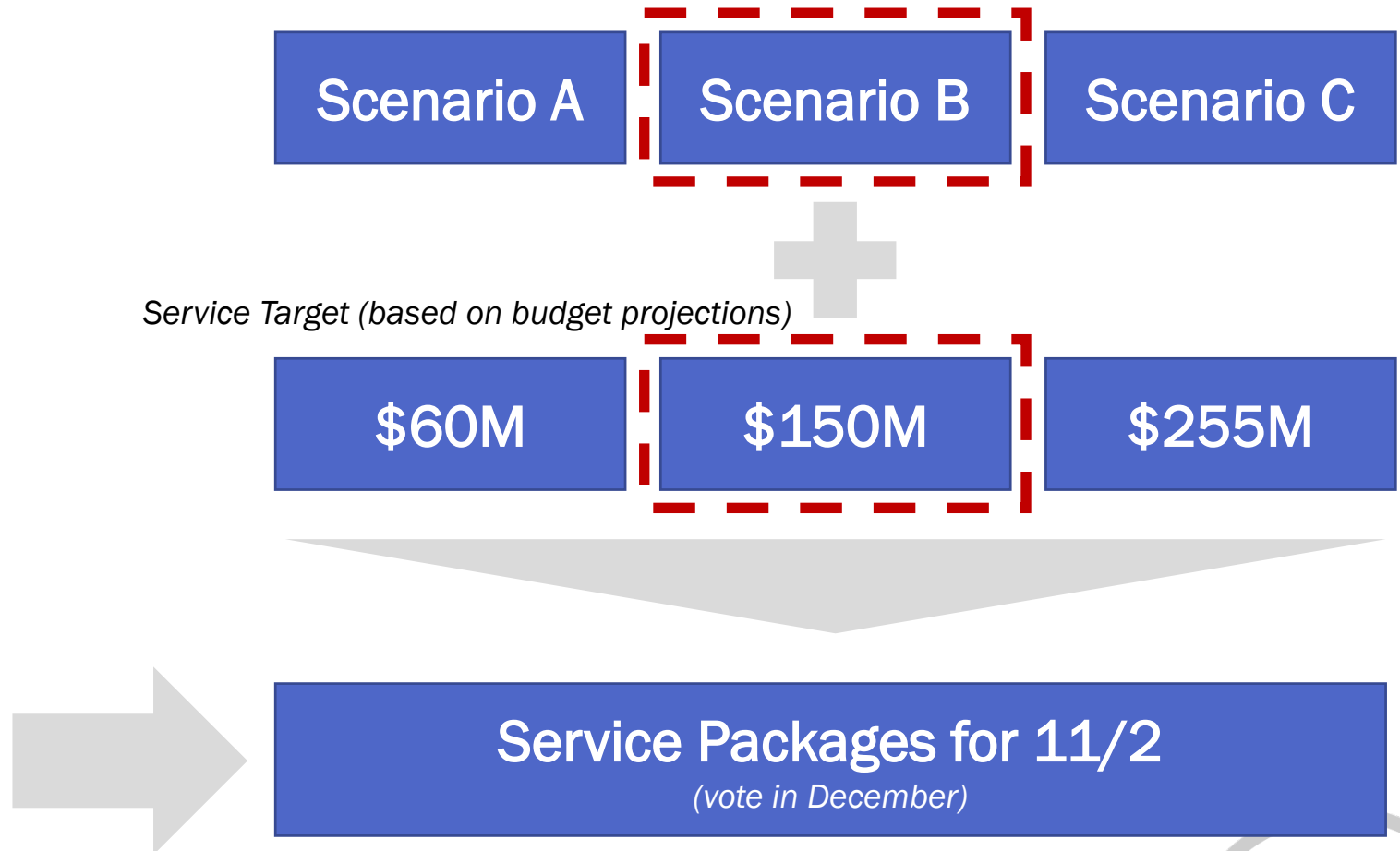
Bus: 171,000 trips on weekdays, 41% pre-COVID (weekdays September 2020 vs September 2019)

Service Packages for November 2nd

Service Packages

- Commuter Rail span, weekend service, and line-specific changes
- Ferry lines operating
- Heavy Rail headways & span
- Light Rail headways & span
- Major Bus changes
- Any RIDE implications

Will include detail as possible about any fare or accessibility implications for riders



Service Implementation Timeline

- **Bus, light rail, and heavy rail changes can be made quarterly, first changes to take effect ~July 1, 2021**
 - *Major implementation activities include:* Route planning, municipal outreach, scheduling, labor impacts, re-picking work & training, signage incl. stop closures (for bus), customer information
- **Ferry and commuter rail changes subject to contract negotiations, could be implemented as soon as Spring 2021**
 - *Major implementation activities include:* Scheduling, labor & legal impacts, re-picking work, customer information
- **Once implemented, it could take months to years to re-add service depending on mode, scale of reductions, actions taken, and financial certainty.**
 - Changes will be permanent and we will build back a network that better serves the region.



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



Forging Ahead External Engagement

- We will be launching a public engagement process for the weeks following today's presentation to engage and seek input from riders and community members on service scenarios.
- The engagement process for Forging Ahead will be:
 - **Transparent** – we will share all information needed to provide input
 - **Proactive** – we will reach out to impacted communities
 - **Iterative** – we will return to communities when we have more information
 - **Accessible** – we will ensure language access and access to persons with disabilities
- Engagement Strategy:
 - Virtual public meetings
 - Proactive, non-virtual engagement with communities
 - Online feedback tools at www.mbta.com/forgingahead

All engagement will be in accordance with the MBTA Public Engagement Plan.



Forging Ahead Engagement Audiences

Multipronged coordinated strategy for external and internal audiences

- Internal

- MBTA workforce and unions

- External

- Riders
- Advocates
- Business community
- Elected officials
- Municipal partners



Two Phases of Engagement

Phase 1 Essential Services: October 5 - October 30

- Focus on explaining our process to prioritize essential services
- Reaching out to advocates, business community, elected officials to provide briefings and get feedback
- Feedback report back to the FMCB on November 2nd

Phase 2 Service Packages: November 2 - December 4

- Virtual public meetings, including an official public hearing
- Outreach directly to community organizations and the public
- Online feedback tools
- Feedback report back to the FMCB on December 6th



MBTA Community Liaisons

- Liaisons will supplement virtual public engagement with tactical physical distanced community outreach:
 - street teams,
 - Working directly with partner organization to reach their members
 - attending community events
- The group will also ensure language access by reaching out to riders directly in various languages.
- The goal of the Community Liaison program is to invest resources in community engagement to ensure we are hearing from our riders who are least likely to engage virtually.
- Feedback received through the Community Liaison program will be shared directly with MBTA leadership and decision-makers.
- Learn more about our new Community Liaisons at www.mbta.com/forgingahead.



Forging Ahead Online Feedback + Public Outreach

Online Feedback

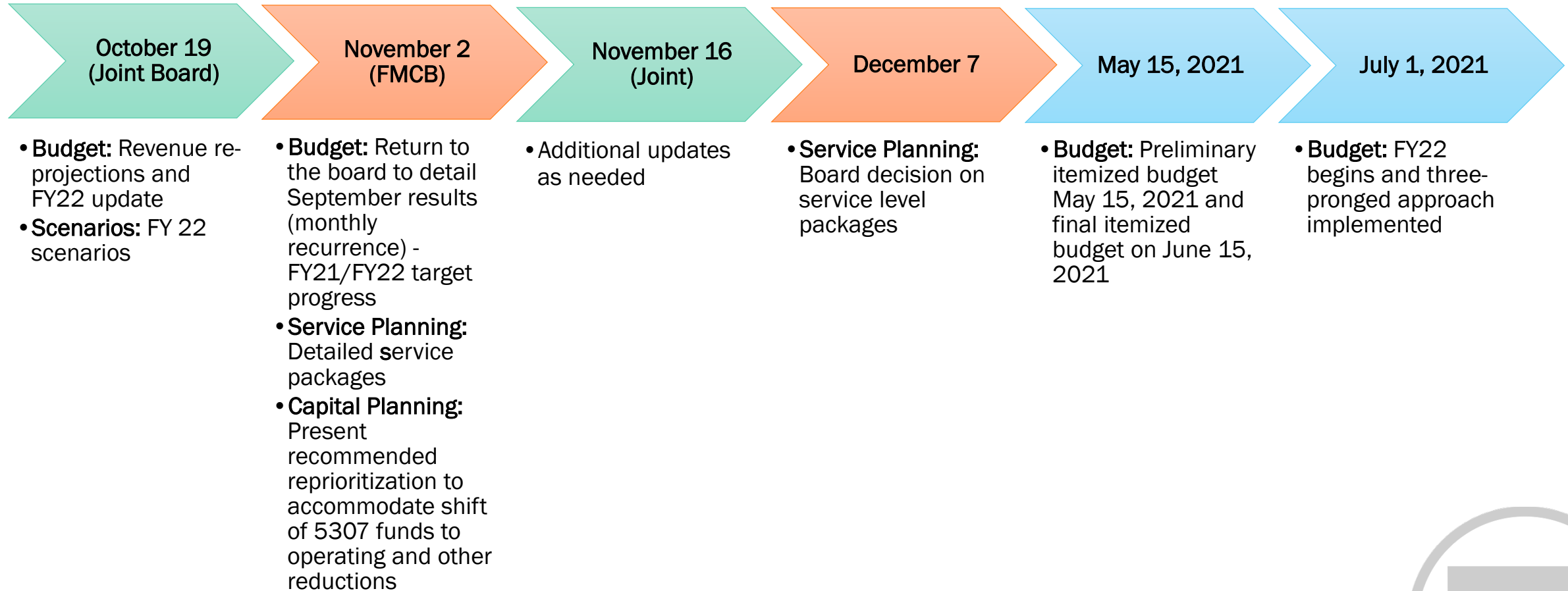
- Online tools will also be made available for riders to give the MBTA direct feedback on Forging Ahead service scenarios.
- Feedback from these online tools will be provided directly to MBTA leadership and decision-makers

Public Outreach

- We will use various tools at our disposal to notify riders of these opportunities to provide feedback:
 - Digital station screens
 - On-vehicle and in-station print media
 - Newspaper ads
 - Website and social media
 - Community partners (community groups, transportation advocates, accessibility organizations, municipal partners)



Timeline for Service, Budget, and Capital Decisions



Appendix



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