RAIL VISION

Open House

MARCH 5, 2019

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Presentation Agenda

- Project Overview
- Seven Service Alternatives
- Next Steps
- Participation Tonight and in the Future

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Project Goal

Leverage the MBTA's extensive commuter rail network to best meet the transportation and economic growth needs of the region.

Project Objectives

1. Match service with the growing and changing needs of the region
2. Enhance economic vitality
3. Improve the passenger experience
4. Provide an Equitable and Balanced Suite of Investments
5. Help the Commonwealth achieve its climate change resiliency targets
6. Maximize return on investment (financial stewardship)

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Overarching Assumptions

✓ Cost Considerations	Vision will not be financially constrained, but must be implementable
✓ Motive Power and Rolling Stock	Vision will evaluate new technologies, fleets, full electrification
✓ Tradeoffs	Vision will explore alternatives with tradeoffs
✓ Geographic Scope	Vision will focus primarily on the existing system
✓ Fare and Parking Policies	Vision will be coordinated with Fare Policy and Parking efforts, but will not lead those discussions
✓ Management and Oversight	Vision will assume current management and oversight structure

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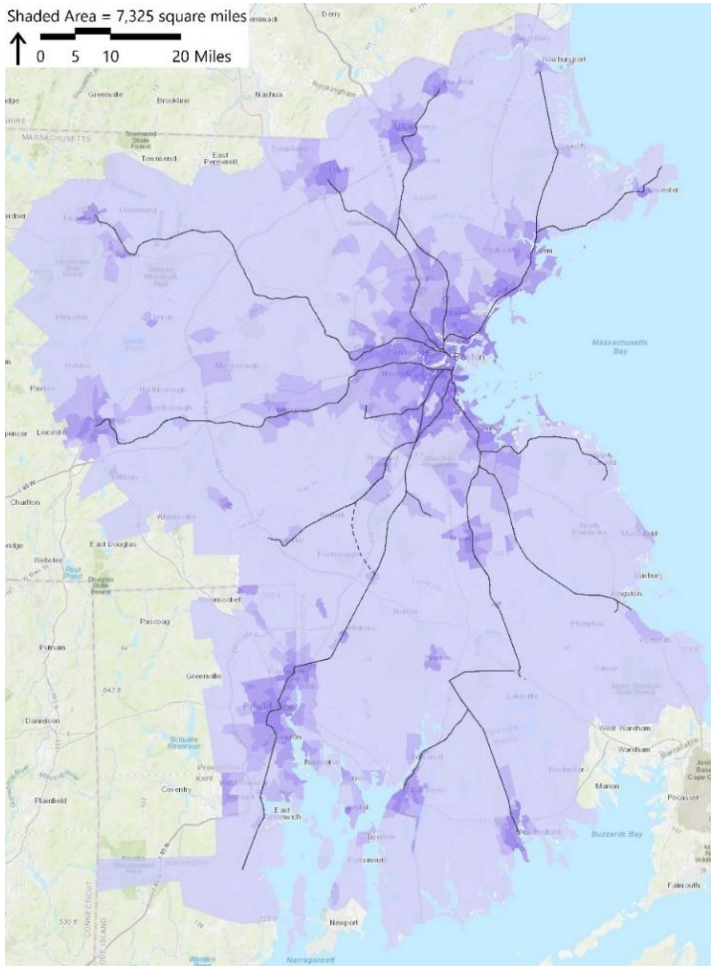
Rail Vision Guiding Questions:

What are the Purposes of MBTA Rail Service?

1. Reduce highway congestion, auto emissions, and VMT by focusing on long-distance trips?
2. Provide service in the inner core that operates more like rapid transit?
3. Enable access to Boston's employment pool for job clusters beyond the inner core by focusing on reverse commutes?
4. Support economic development in the Gateway Cities and other urban areas outside of the inner core by focusing schedules/ service levels on needs of those communities?



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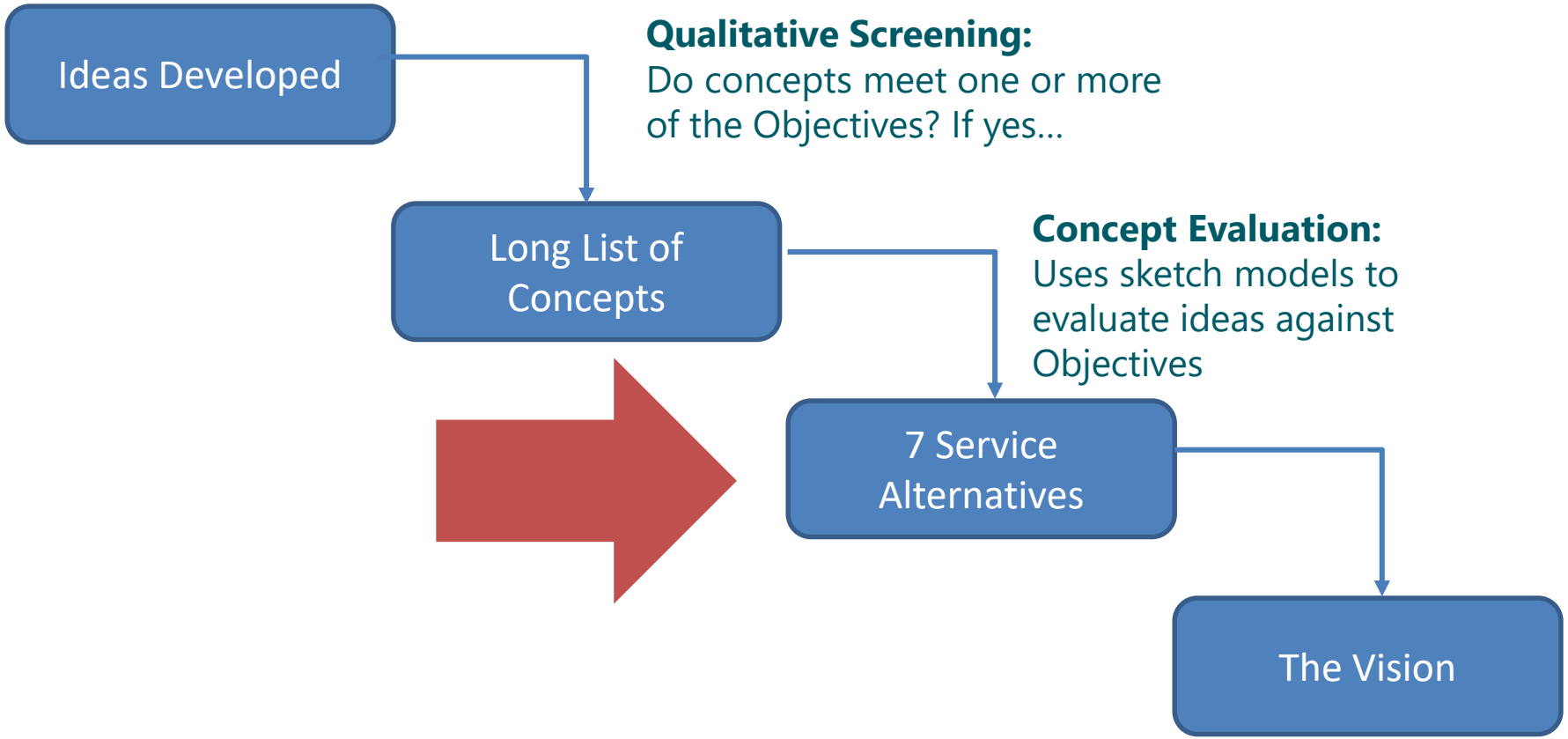
Where We Are Now



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Advisory Committee

- 22 member Advisory Committee represents diverse MBTA service area perspectives and provides informed advice to agency leadership
  - Local, state and federal elected officials, transportation and business organizations, transit and advocacy groups
- Members review information and provide advice to MassDOT and MBTA at key milestones
- Members have attended five meetings and provided comments and concerns

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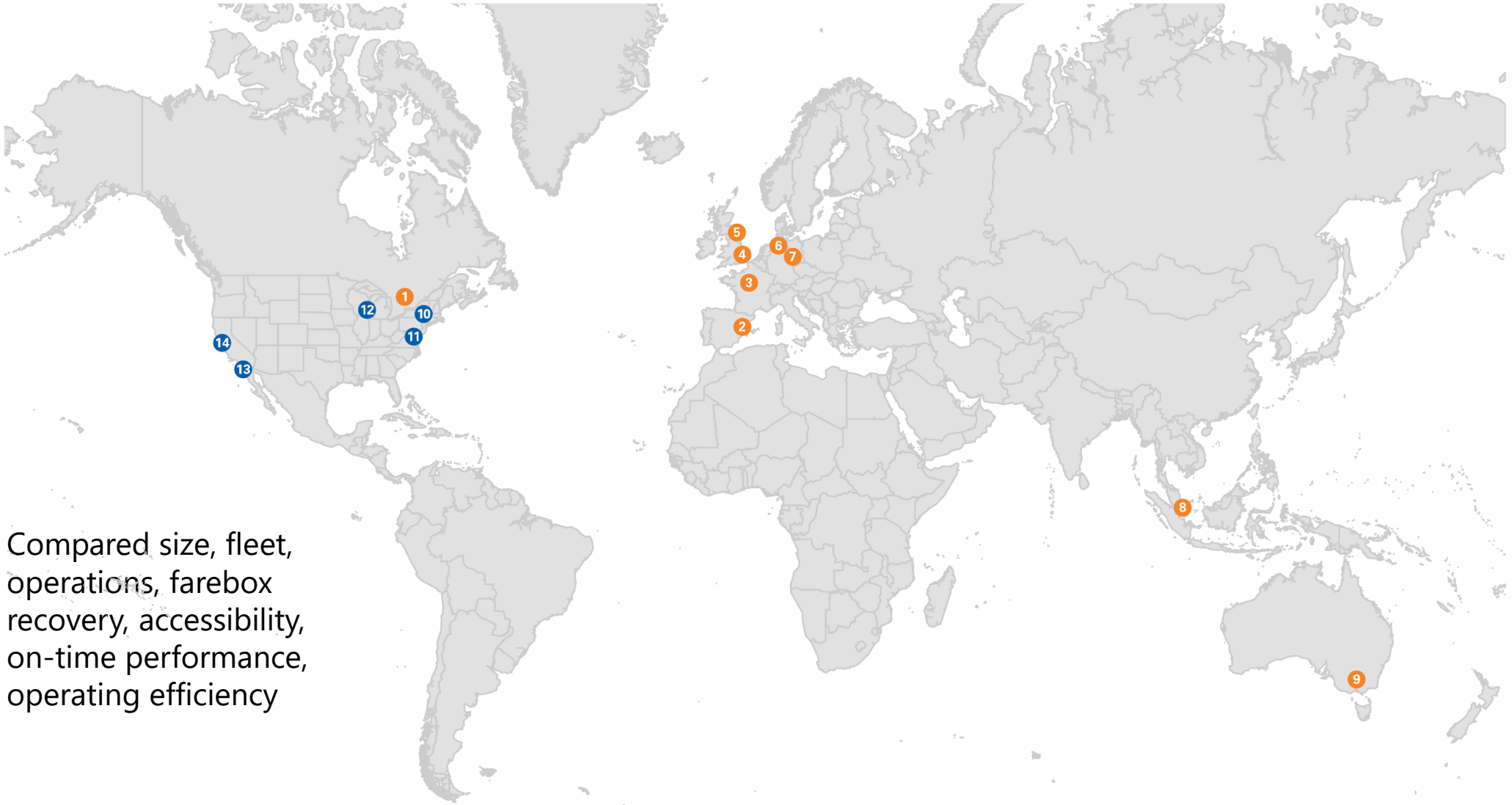
Where We Started: Peer Systems Review



Compared size, fleet, operations, farebox recovery, accessibility, on-time performance, operating efficiency

What We Heard – Riders and Non-Riders

Keolis surveys Commuter Rail riders annually – most recently in February 2018

- 4,000 individual comments on topics ranging from wi-fi to reliability to increasing seat capacity
- Results showed that most respondents are likely to continue to use Commuter Rail in the future
- Fare promotions and special ticket deals were well rated

Rail Vision developed a survey for non-riders to ask what factors affect their decision to drive versus switch to rail

- 2,500 non-riders completed the survey as of March 4
- Lack of convenience was a bigger barrier to using Commuter Rail than cost

Elements Covered in Rail Vision Service Alternatives

Alternatives aim to **reduce travel time, increase service frequency, and improve system connectivity** based on results from the first phase

Alternatives to consider mix of service and investment elements:

- New vehicle technology
- System electrification
- High level platforms
- Station typology and frequency
- Double and triple tracking
- Facility needs and expansions
- Station locations
- More express service
- Span of service
- Transfer hubs
- Operational feasibility
- Order of magnitude operating and capital costs

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Station Typologies

Alternatives will consider a mix of service and investment elements to provide higher levels of service to:

- **Key stations,** due to their density, regional access, and transit connectivity
- **Inner core stations,** in and around Boston
- **Outer stations,** outside the Inner Core

Typical Characteristics of Key Stations

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High Level Platforms / Accessibility Upgrades

- Existing system has a mixture of platform types:
  - **High-level**, with a level boarding surface
  - **Mini-high**, with a portion of the platform at a high-level to provide a level boarding surface
  - **Low-level**, requiring use of stairs or ramp
- High-level boarding and powered doors on trains could reduce dwell times at stations
- The project will assume different levels of platform upgrades across the alternatives to test a range of capital improvements.

Electrification and Vehicle Technology

- Some alternatives will consider full or partial system electrification
- Vehicle options include locomotives paired with coaches or multiple units (multiple self-propelled vehicles) – either can be diesel, electric, or dual mode
- Vehicle powered by electricity produce lower emissions
- Multiple unit trains can provide travel time savings
- Procurement and O&M costs vary across the range of vehicle types

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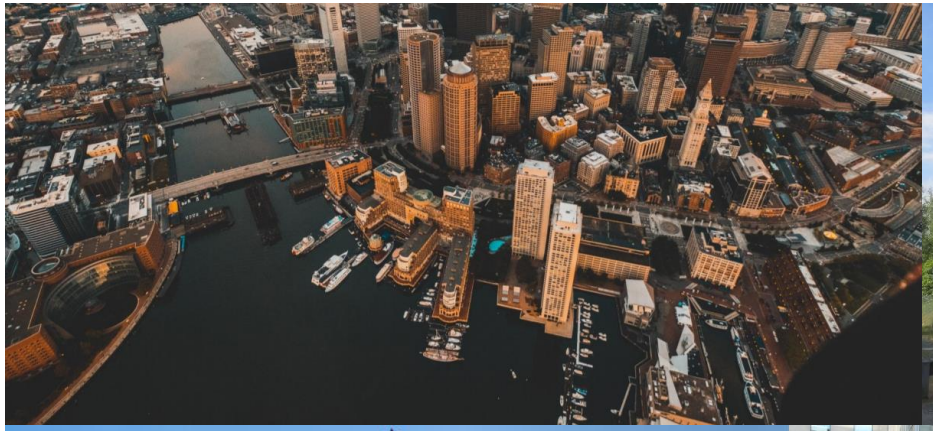
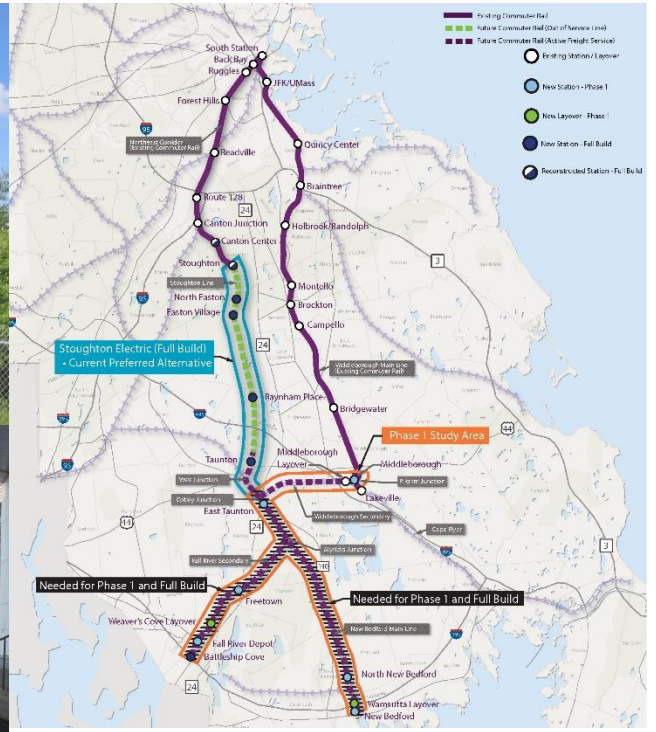
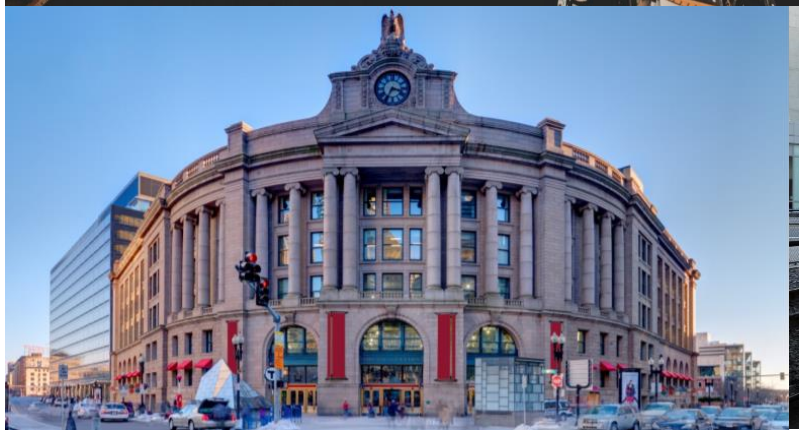
Terminal Capacity and System Expansions

Examples include North South Rail Link, South Station Expansion, South Coast Rail (Phase 1 and Full Build), Foxborough, Grand Junction







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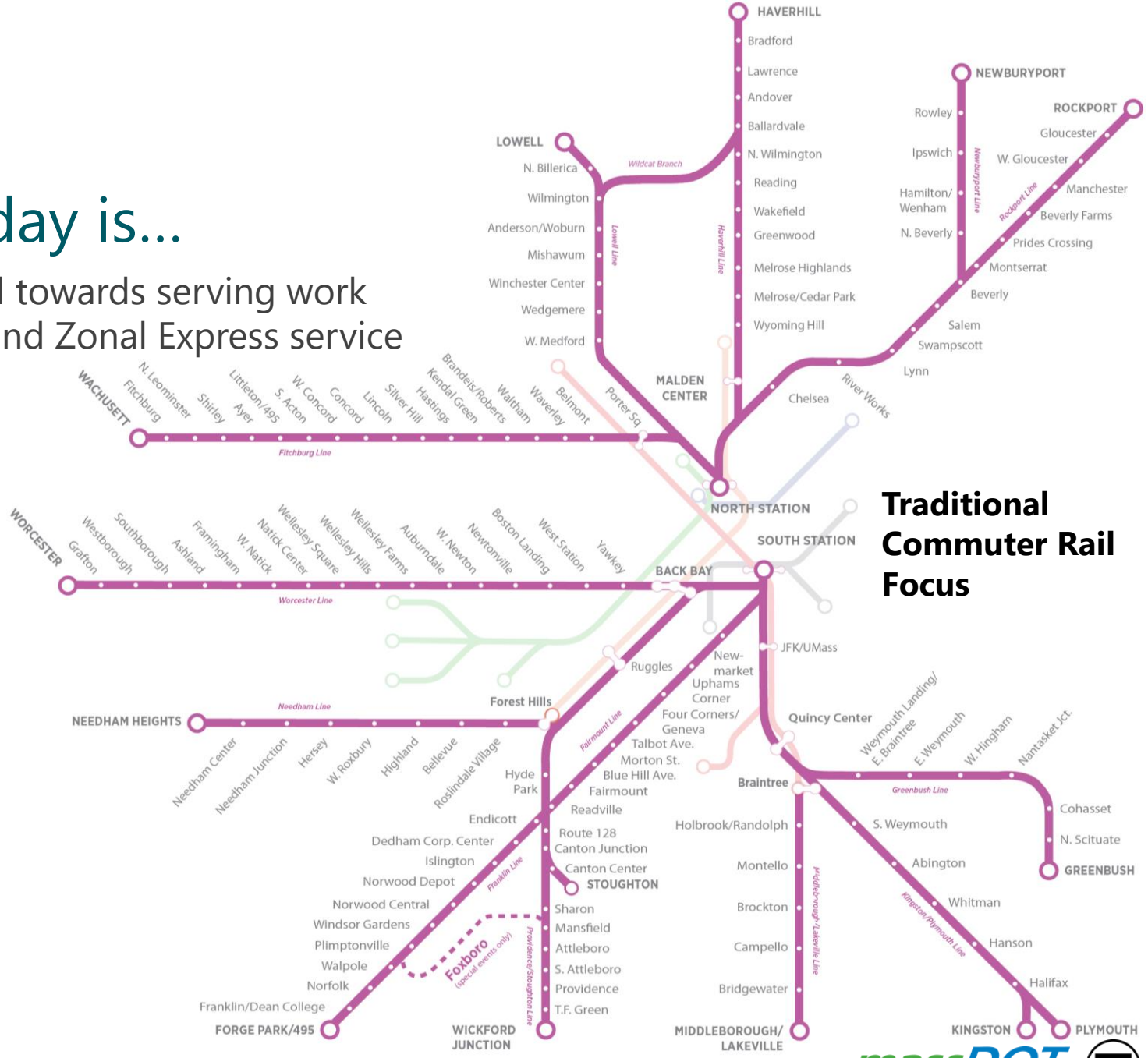
The System of Today is…

Today's system is largely local service geared towards serving work trips into downtown Boston. Some Express and Zonal Express service operates on longer lines.

What Exists Today…or in the Very Near Future

Typical Frequency	30/75 peak direction
Electrification	None (Amtrak only)
Rolling Stock	Diesel locomotives
Terminals	Existing (North Station, South Station), with North Station capacity upgrades
System Expansions	N/A
Committed New or Upgraded Stations	Blue Hill Ave. (Fairmount) Pawtucket (Providence) SCR Phase 1 stations Other station upgrades
Interlining	Haverhill/Lowell (2 trips/day)
Station Accessibility	Mixed



Traditional Commuter Rail Focus

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Seven Rail Vision Service Alternatives

Open House tables provide more detail on alternatives, by theme:

Table 1: Optimization	Alternative 1: Optimize Existing System
	Alternative 7: Hybrid System
Table 2: Key Stations	Alternative 2: Regional Rail to Key Stations (Diesel)
	Alternative 5: Regional Rail to Key Stations (Electric)
Table 3: Inner Core	Alternative 3: Urban Rail (Diesel)
	Alternative 4: Urban Rail (Electric)
Table 4: Full Transformation	Alternative 6: Full Transformation

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Next Steps: Alternatives Evaluation

- Develop robust ridership estimates for all 7 Alternatives using the CTPS Travel Demand Model
- Model operations, infrastructure and capital costs with Rail Traffic Controller (RTC) modeling tools
- Identify potential land-use and demographic effects of one or more Alternatives using the Regional Dynamic Model (RDM)
- Develop capital and operating cost estimates
- Share results with Advisory Committee and public

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What the Alternatives Analysis Will Tell Us

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Integrating Parking and Fare Policy

Parking Constraints

- Test the effects of un-constraining parking supply at some stations, in some alternatives

Fare Policy Analysis

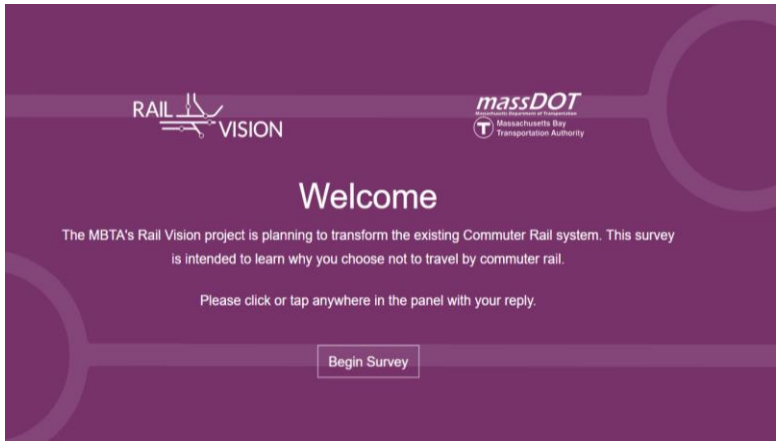
- Work with the MBTA team conducting a network-wide analysis of fare policy, which will identify and evaluate potential alternative fare structures
- Test the effects of implementing a different fare structure in at least one alternative

How Can You Participate Tonight?

- Learn about the concepts included in the 7 service alternatives
- Provide feedback on what you like and do not like about the alternatives

How You Can Spread the Word

- Attend future meetings of the Advisory Committee and/or Open Houses
- Send comments to us on the Alternatives at https://www.mbta.com/projects/rail-vision
- Encourage non-rider family and friends to take the quick Rail Vision survey



Project Contacts & Website

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Project Website
www.MBTA.com/rail-vision

Project Survey
www.MBTARailVision.com