Planning is happening in the context of tremendous change and uncertainty
Where will Millennials Live?

Photo Source:
Will Housing Prices Continue to Rise in the Core?

Source: MAPC
Will Ridesharing Continue to Grow?

Source: MAPC
Will Bike-Sharing be Widely Utilized?

Photo Source: Blue Bikes
How will Autonomous Vehicles Impact Congestion and Mobility?
Will Micro-Transit be Adopted?

Photo Source: Wbur.org
Will the Region be Prepared for Increasing Impacts of Climate Change?

Photo Source: Boston Public Library
In response to emerging trends, the MBTA is currently pursuing several reimagining exercises:

- Focus40
- Rail Vision
- Bus Network Redesign
Focus40 Outreach

We asked the question: What is a challenge the MBTA needs to address in the future?

We collected ideas from more than 2,000 people.

Focus40 Comments

Responses:
- 0
- 1
- 2 - 10
- 11 - 30
- 31 - 60
- 61 - 95

Over 3,000 ideas collected!

Street Team Hours

The Focus40 Street Team Outreach was designed to correspond with overall MBTA ridership by mode.

- 60 hours at Rapid Transit Stations
- 30 hours at Bus Stations
- 10 hours at Commuter Rail Stations
What we Heard

- "Focus investments on improvements to the existing system"
- "Make buses faster, more reliable, and on time!"
- "I want to see better reliability and on-time service across the system"

Bar chart showing:
- Street Team:
  - Expansion: 6%
  - Reliability: 23%
- Web & Stakeholders:
  - Expansion: 16%
  - Reliability: 4%
Focus40 identified priority corridors for on-street transit accommodation based on:

- **Transit ridership** by corridor
- **Traffic congestion**
- **Share of roadway users** already on transit

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Where to Favor Transit: Dedicated Bus Lanes Prioritization
Where to Focus Future Investment: Focus40 Priority Places

- **Major employment districts** (Kendall, LMA, Seaport, Logan)

- **Inner core communities lacking rapid transit** (Everett, Chelsea, Revere, Roxbury, Dorchester, Mattapan, South Boston, Roslindale)

- **Urban Gateways** (Lynn, Salem, Waltham, Brockton, Lowell, Lawrence)
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?

Doing all of these = $$$$$

Prioritizing some trip types over others = Tradeoffs
Commuter Rail and MBTA System Overview

Weekday Ridership
- Commuter Rail: 125,075
- Red Line: 272,684
- Orange Line: 203,406
- Blue Line: 63,225
- Green Line: 227,645

Route Miles
- Commuter Rail: 388
- Red Line: 21
- Orange Line: 11
- Blue Line: 6
- Green Line: 23

Routes
- Commuter Rail: 14
- Red Line: 2
- Orange Line: 1
- Blue Line: 1
- Green Line: 2

Communities Served
- Commuter Rail: 175
- Red Line: 7
- Orange Line: 8
- Blue Line: 4
- Green Line: 8

One-Way Trips
- Commuter Rail: 500
- Red Line: 438
- Orange Line: 324
- Blue Line: 354
- Green Line: 1,117

Parking
- Commuter Rail: 25,977
- Red Line: 8,595
- Orange Line: 2,720
- Blue Line: 3,013
- Green Line: 2,019

Stations
- Commuter Rail: 138
- Red Line: 22
- Orange Line: 19
- Blue Line: 12
- Green Line: 13

Passenger Miles
- Commuter Rail: 729,585,705
- Red Line: 604,916,804 (combined)
- Orange Line: 168,749,849
Evaluating relative benefits and costs across the seven alternatives will provide the foundation to build one or more Visions for the future of commuter rail, which may combine features from multiple alternatives to maximize the effectiveness of the MBTA rail network.

Note: The alternatives as described above are subject to change during the modeling process. All text and maps describe a typical application at the system level but may vary to some extent at the line, station, or segment levels.

### Comparing Rail Vision Alternatives

<table>
<thead>
<tr>
<th>1: Higher Frequency Commuter Rail</th>
<th>2: Regional Rail to Key Stations (Diesel)</th>
<th>3: Regional Rail to Key Stations (Electric)</th>
<th>4: Urban Rail (Diesel)</th>
<th>5: Urban Rail (Electric)</th>
<th>6: Full Transformation</th>
<th>7: Hybrid System</th>
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</thead>
<tbody>
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<td>Key Stations</td>
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<tr>
<td>Inner Core</td>
<td>30/60</td>
<td>30/30 (South Side)</td>
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### Fully Accessible High-Level Platforms

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### Electrification

- Higher Frequency Commuter Rail
- Regional Rail to Key Stations (Diesel)
- Regional Rail to Key Stations (Electric)
- Urban Rail (Diesel)
- Urban Rail (Electric)
- Full Transformation
- Hybrid System

### Major Expansions

- Inner Core Stations
- Key Stations
- Outer Stations
Demographics and land use characteristics surroundings stations directly shape the level of frequency, investments in high-levels boarding platforms, and other elements of service alternatives.

Alternatives identify three station types:

- Key stations
- Inner core stations
- Outer stations
Transformative transportation investments can drive individuals’ decisions about where to live and work and influence employers’ decisions about where to locate.

The Regional Dynamic Model (RDM) – a strategic simulation model focused on how transportation, land-use, population, and employment interact – will help us understand how populations and employers may shift as a result of different Rail Vision Alternatives.
Bus Network Redesign Overview

The MBTA bus network carries 1/3 of our customers but has not changed drastically since mid-20th century.

Since that time:

- Demographics have shifted
- New destinations have emerged and many communities have transformed
- Travel patterns have changed alongside new mobility options such as ridesharing and bike share
- Traffic congestion has increased
- Ridership has declined

In order to respond to this changing context, the Network Redesign will recommend a new network that meets today’s regional needs.
Using Location Based Data To Reimagine The Bus System

Source: LA Metro NextGen Study
Note: Competitiveness in this graphic is just focused on travel time
Approach To Developing Metrics

Regional connectivity needs to define two components of access: for whom and to what? Serving demand means making transit a viable option for any trip we choose to serve.

Through the last three years of engaging with stakeholders, we have identified the following factors of making transit a viable option:

- Trip time
- Frequency
- Cost
- Span of service
- Reliability
- Comfort
- Simplicity of Network
- Transfers
- First/Last Mile Connections; Coverage
- Communications

Connectivity for whom and to what:

Existing riders
- Riders that previously used the system but no longer do today
- Environmental Justice communities
- People with mobility issues

Potential riders
- People who do not use the system but could given proximity to MBTA
- People whose tripmaking patterns are not served by MBTA