About the MBTA Bus Service Network

- More than 1/3 of all MBTA trips are taken on buses.
- The MBTA’s bus network consists of 175 routes that serve about 450,000 customers on a single weekday.
- Serving 50 communities, the bus network provides critical connections where our rail system does not go.
Overview of the MBTA Bus Network

- 10 MBTA bus garages
- 175 directly-operated routes + 5 contracted-bus routes
- 1,100+ MBTA bus operators
- 1,500+ MBTA buses
- Approximately half of all bus trips include a transfer
- Types of bus routes:

<table>
<thead>
<tr>
<th>Type of Bus Routes</th>
<th>% of Routes</th>
<th>% of Bus Ridership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local bus routes (full weekday service)</td>
<td>73%</td>
<td>55%</td>
</tr>
<tr>
<td>Key bus routes (longer span, higher frequency)</td>
<td>11%</td>
<td>42%</td>
</tr>
<tr>
<td>Commuter bus routes (limited peak-direction trips, express bus routes)</td>
<td>24%</td>
<td>3%</td>
</tr>
</tbody>
</table>
MBTA Strategic Vision
Focus40: Meeting the Needs of the Region in 2040

- Fleet & Facilities Plan
- Blue Line Resiliency Planning
- Green Line Capacity Study
- Orange Line Capacity Study
- Mattapan High Speed Line Study
- Commuter Rail Vision
- Better Bus Project
About the Better Bus Project

Goal:
Understand the gap between today’s bus service and the standards set by the January 2017 Service Delivery Policy.
Make recommendations to close the service gap that incorporates public engagement and municipal partnerships.

- **Evaluate the bus network** against the January 2017 Service Delivery Policy.
- **Identify changes to each route** to better serve our bus customers.
- **Outreach to communities, riders, and municipalities** to identify their needs and concerns.
- **Develop plans and recommendations**.
- **Begin to implement** capital improvements in 2018 and service recommendations in 2019.
Service Delivery Policy – Objectives and Standards

Service availability
- Hours service is available
- Frequency of service
- Coverage

Reliability
- Schedule adherence
- Passenger wait time
- Service operated

Comfort
- Vehicle load

Accessibility
- Platform
- Vehicle
Service Delivery Policy – Objectives and Standards

<table>
<thead>
<tr>
<th></th>
<th>Key Bus Routes/Silver Line (18 Total)</th>
<th>Other Routes (141 Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reliability</strong></td>
<td>9 below target</td>
<td>128 below target</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>1 below target</td>
<td>67 below target</td>
</tr>
<tr>
<td><strong>Span of Service</strong></td>
<td>2 below target</td>
<td>55 below target</td>
</tr>
<tr>
<td><strong>Comfort</strong></td>
<td>3 below target</td>
<td>8 below target</td>
</tr>
</tbody>
</table>

“More than a third of all MBTA trips are taken on buses. But an aging bus fleet, insufficient maintenance facilities, congested roads, and other problems – some of them beyond the MBTA’s control – means that these 446,700 daily riders, many of them of lower income and dependent upon bus service, frequently do not receive the service that they deserve or that would meet the MBTA’s own standards.” Focus40 State of the System Report, Bus.
Potential Changes

**Service changes**
Hours and frequency of service

**Operational changes**
Dispatching buses and improved MBTA procedures

**Capital investments**
Additional buses and supporting infrastructure

**Partnerships with municipalities**
Implement street changes that improve service

---

Potential Benefits

Buses will show up on schedule

People get to work faster

Less crowded on buses

Easy to understand routes

Resources are spent more efficiently
Balancing Service Trade-offs

<table>
<thead>
<tr>
<th>USE OF RESOURCES</th>
<th>Fix operational issues (reliability, missed trips, etc)</th>
<th>Provide more service</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPROVE &amp; EXPAND</td>
<td>Provide more service on existing routes</td>
<td>Expand to new areas</td>
</tr>
<tr>
<td>FREQUENCY &amp; HOURS</td>
<td>Provide more frequent service for shorter hours</td>
<td>Provide less frequent service for longer hours</td>
</tr>
<tr>
<td>DAYS OF SERVICE</td>
<td>Provide less weekday service; more weekend service</td>
<td>Provide more weekday service; less weekend service</td>
</tr>
<tr>
<td>DIRECTNESS</td>
<td>Provide faster, more direct service but longer walks to stops</td>
<td>Provide slower, less direct service but with shorter walks to stops</td>
</tr>
<tr>
<td>STOP SPACING</td>
<td>Provide faster service with fewer stops but longer walks to stops</td>
<td>Provide slower service with many stops but shorter walks to stops</td>
</tr>
<tr>
<td>FREQUENCY &amp; COVERAGE</td>
<td>Provide more widely spaced routes that operate more frequently</td>
<td>Provide more closely spaced routes that operate less frequently</td>
</tr>
</tbody>
</table>
Cambridge Service Concepts Received

- Cambridge TAC Service Plan Concepts
- Cambridge Strategic Transit Plan
- Kendall Square Mobility Square Task Force Concepts
Improving bus service with municipal partnerships

What the MBTA can help with:

- Buses, bus stop placement
- Guidelines and management
- Bus schedules, fare payment structure

What municipalities can help with:

- Streets, signals, parking, curb management
- Sidewalk space, intersections, enforcement

PARTNERSHIP PROCESS:

- Connect with Partners
- Watch for Opportunities
- Discuss Issues and Trade-offs
- Take Action
- Inform and Engage
Defining City & Transit Agency Partnerships

**Transit Streets**
- Transit Streets
- Two-way Streets
- One-Way Streets

**Stations and Stops**
- Stop Design Factors
- Stop Configurations
- Stop Elements

**Transit Lanes & Transitways**
- Transit Lanes
- Transitways
- Lane Elements
- Lane Design Controls

**Intersections**
- Signals & Operations
- Intersection Design for Transit
- Transit Route Turns

**Transit System Strategies**
- Network Strategies
- Performance Measures

2016 NACTO Transit Street Design Guide
Partnership Examples to Improve Bus Speed and Reliability

**Bus Operations tools**
- Stop Relocation
- Stop Consolidation
- Route Design

**Infrastructure tools**
- Turn Radius Improvements
- Bus Bulbs
- Roadway Channelization/Signage

**Traffic Control tools**
- Transit Signal Priority
- Lane Restriction/Exemption
- Queue Jumps

**Transit Lane tools**
- Curbside bus lane
- Queue bypass (short bus lane)
- Center bus lane
Public Engagement Plan (Spring 2018)

Website Feedback
www.mbta.com/betterbus

Transit Talks
Meeting with stakeholder groups

Street Teams
One-on-one engagement at stations

Regional Public Meetings
Large public meetings

Municipal Engagement
Staff-to-staff engagement and council presentations on request
# Regional Public Meetings

<table>
<thead>
<tr>
<th>Location</th>
<th>Hub</th>
<th>Date</th>
<th>Time of Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruce C. Boling Municipal Building</td>
<td>Dudley Square</td>
<td>Wednesday, May 23</td>
<td>5:00 PM – 7:30 PM</td>
</tr>
<tr>
<td>Cambridge Rindge &amp; Latin</td>
<td>Harvard Square</td>
<td>Wednesday, May 30</td>
<td>6:00 PM – 8:00 PM</td>
</tr>
<tr>
<td>Jamaica Plain Branch Library</td>
<td>Forest Hills</td>
<td>Thursday, May 31</td>
<td>6:00 PM – 8:00 PM</td>
</tr>
<tr>
<td>North Quincy High School</td>
<td>Quincy</td>
<td>Monday, June 4</td>
<td>6:30 PM – 8:30 PM</td>
</tr>
<tr>
<td>North Shore Community College</td>
<td>Lynn</td>
<td>Wednesday, June 6</td>
<td>6:00 PM – 8:00 PM</td>
</tr>
<tr>
<td>Holiday Inn Boston - Bunker Hill</td>
<td>Sullivan Square</td>
<td>Thursday, June 7</td>
<td>6:00 PM – 8:00 PM</td>
</tr>
</tbody>
</table>
Online and in-Person Feedback Form

Website: www.mbta.com/betterbus

Meetings & Street Teams
Discussions with MBTA bus operators and staff

Market Analysis
Route Profiles
Framework Evaluation
Meeting riders at bus stops
Public meetings/workshops
Municipal/Stakeholder Outreach

Results/Resource analysis
Development of draft recommendations
Municipal/stakeholder outreach
Meeting riders at bus stops
Public meetings/workshops

Finalization of Recommendations
Presentation to Board
Board to Vote on final recommendation
Implementation of Recommendations

Feb.–Mar. 2018
Apr.–May 2018
June–July 2018
July–Nov. 2018
Dec. 2018
Jan.–Apr. 2019
We want your input!

- What do you consider to be the greatest bus issues/challenges for the entire MBTA service area?
- What do you consider to be the greatest bus issues/challenges for your employees, customers, clients, organization, etc.?
- What bus services do you consider to be the most effective and why?
- What bus services do you consider to be the least effective and why?
- Are there particular geographic areas where bus service needs to be improved?

Participate on the project website: www.mbta.com/betterbus
Routes Served by In-Person Outreach Activities

Community meetings and Street Teams cover:
• 95% of all bus routes
• 49 of 50 Communities
• 408,256 out 414,340 (avg. weekly riders)

Other system-wide outreach:
• Webpage
• Transit Talks
• Ads on buses
• Other Marketing
Plan for Accessible Transit Infrastructure (PATI)

Construction of bus stop improvements

- $7.6 Million obtained for construction
- Identified highest priority stops
- Commenced design at 120 bus stops; construction scheduled to commence Spring 2018
Plan for Accessible Transit Infrastructure (PATI)
Surveyed 7,685 Stops in 50 Municipalities

Examples of Inaccessible Stops

400 Totten Pond Rd., Waltham
Granite St @ Brookline St., Cambridge
Beacon St. opposite Walnut St., Beacon Hill/ Boston
Charles Park Rd. @ Rivermoor St., West Roxbury
Infrastructure Tools

Floating Island

Seattle Bus Island

Bus Stop Bulb
Curb Management

Above, Curb Management Impacts

Right, Curb Management Impacts

King County Flex Bus Stop & Loading Zone
Bus Stop Placement
Queue Jumps

MTA Queue Jump Manhattan

Bellingham, WA Queue Jump with Transit Signal
Transit Signal Priority
Turn Pockets

San Francisco

Las Vegas
San Francisco Turn Restrictions

Turn-Movement Restrictions

Legal Movement

Existing allowed turn to be restricted

Existing Required Turn

29
Dedicated Bus Lane

1st Avenue, New York City (NYC DOT)

Washington Street, Boston
Transit Approach Lane Design

Transit Approach Lane

San Francisco Approach Lane – Stockon Street
## 15 Proposed Street Team Locations

<table>
<thead>
<tr>
<th>Proposed Street Team Location</th>
<th>Ridership</th>
<th>Routes Served</th>
<th>OTP &lt; 70%</th>
<th>No Auto Availability &gt; 25%</th>
<th>% Low Income &gt; 25%</th>
<th>% Minority &gt; 25%</th>
<th>Always Able to Understand English &lt; 90%</th>
<th>% Seniors (65+) &gt; 15%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alewife</td>
<td>6,098</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Ashmont</td>
<td>40,288</td>
<td>11</td>
<td>7</td>
<td>8</td>
<td>9</td>
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<tr>
<td>Andrew</td>
<td>19,774</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>5</td>
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<td>0</td>
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<tr>
<td>Central</td>
<td>30,439</td>
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<td>7</td>
<td>6</td>
<td>7</td>
<td>1</td>
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<tr>
<td>Copley</td>
<td>35,879</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Downtown*</td>
<td>30,059</td>
<td>13</td>
<td>10</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>1</td>
<td>0</td>
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<tr>
<td>Haymarket</td>
<td>62,775</td>
<td>17</td>
<td>12</td>
<td>12</td>
<td>14</td>
<td>10</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Kenmore</td>
<td>26,896</td>
<td>7</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Lechmere</td>
<td>12,285</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>0</td>
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<tr>
<td>Malden Center</td>
<td>23,841</td>
<td>13</td>
<td>12</td>
<td>10</td>
<td>11</td>
<td>7</td>
<td>2</td>
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<tr>
<td>Mattapan</td>
<td>33,561</td>
<td>9</td>
<td>6</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>1</td>
<td>0</td>
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<tr>
<td>Maverick</td>
<td>14,718</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Salem Station</td>
<td>5,349</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>0</td>
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<tr>
<td>South Station</td>
<td>29,267</td>
<td>9</td>
<td>4</td>
<td>2</td>
<td>8</td>
<td>7</td>
<td>2</td>
<td>0</td>
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<tr>
<td>Wellington</td>
<td>16,909</td>
<td>9</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

*Possible locations include: Federal St. @ Franklin St., Otis St. @ Summer St., and Pearl St. @ Congress St.*  

Note: All numbers in these columns reflect number of routes with ridership of these characteristics based on the CTPS Systemwide Passenger Survey.
<table>
<thead>
<tr>
<th>Community Meeting Target Area</th>
<th>Ridership</th>
<th>Routes Served</th>
<th>OTP $&lt; \frac{70%}{70%}$</th>
<th>No Auto Availability $&gt; 25%$</th>
<th>% Low Income $&gt; 25%$</th>
<th>% Minority $&gt; 25%$</th>
<th>Always Able to Understand English $&lt; \frac{90%}{90%}$</th>
<th>% Seniors (65+) $&gt; \frac{15%}{15%}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dudley Square</td>
<td>97,251</td>
<td>18</td>
<td>10</td>
<td>13</td>
<td>12</td>
<td>14</td>
<td>1</td>
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<tr>
<td>Forest Hills</td>
<td>55,709</td>
<td>17</td>
<td>12</td>
<td>14</td>
<td>14</td>
<td>17</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Harvard Square</td>
<td>57,095</td>
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<td>6</td>
<td>9</td>
<td>7</td>
<td>10</td>
<td>1</td>
<td>5</td>
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<tr>
<td>Lynn</td>
<td>11,937</td>
<td>12</td>
<td>11</td>
<td>7</td>
<td>8</td>
<td>10</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Quincy Center</td>
<td>19,116</td>
<td>16</td>
<td>14</td>
<td>16</td>
<td>16</td>
<td>14</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Sullivan Square</td>
<td>34,372</td>
<td>12</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

*All numbers in these columns reflect number of routes with ridership of these characteristics based on the CTPS Systemwide Passenger Survey.
# Routes Not Currently Served by Street Teams or Community Meetings

<table>
<thead>
<tr>
<th>Routes Not Currently Served</th>
<th>Ridership</th>
<th>OTP &lt; 70%</th>
<th>No Auto Availability &gt; 25%</th>
<th>% Low Income &gt; 25%</th>
<th>% Minority &gt; 25%</th>
<th>Always Able to Understand English &lt; 90%</th>
<th>% Seniors (65+) &gt; 15%</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>6,084</td>
<td>5</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Routes not currently served include: 43 – Ruggles Station-Park and Tremont Streets; 52 – Dedham Mall-Watertown Yard; 59 – Needham Junction-Watertown Square; 85 – Spring Hill-Kendall MIT Station; 94 – Medford Square-Davis Square Station; 119 – Northgate Shopping Center-Beachmont Station; 201 – Fields Corner Station-Fields Corner Station; 202 – Fields Corner Station-Fields Corner Station

Note: All numbers in these columns reflect number of routes with ridership of these characteristics based on the CTPS Systemwide Passenger Survey.