WARREN STREET
Bus Service Improvements

Lindiwe Rennert | BTD Transit Planner
lindiwe.rennert@boston.gov
AN INTRODUCTION TO WARREN

Familiarity is Key
ORIENTATION

Extent
South of Dudley Street and Northwest of Blue Hill Avenue

Neighborhood Artery
Warren Street runs through the heart of Roxbury, connecting the commercial corridor of Blue Hill Ave with the commerce, service, and transit hub of Dudley Square.
VARIED FUNCTIONS

Community

Home

Work + Shop
There are **14 schools** within **1 mile** of Warren Street.

Any bus-related service improvements that elevate not only MBTA service but also BPS service, will have a sizable impact on **Roxbury students**.
STREET CONFIGURATION | SECTION 1

- 32 feet Roadway width
- 10 feet Sidewalk width
STREET CONFIGURATION | SECTION 3

24 feet Roadway width

10 feet Sidewalk width
RESEARCH
Past Explorations of Mobility on Warren
2012
RDM Transit Needs Study
MassDOT

2016
Prioritization of Dedicated Bus Lanes
CTPS

2017
Go Boston 2030: Vision and Action Plan
City of Boston

2018
Better Buses: Getting Boston On Board
LivableStreets

2019
Better Bus: State of the System
MBTA
Warren Street is **vital** to the effectiveness of the city’s transit network.

Bus riders who travel along Warren Street are subject to a **disproportionately** inefficient travel experience.
EXISTING CONDITIONS
Mobility on Warren Street Today
EXISTING TRANSIT ROUTES

From Blue Hill Ave. to Dudley St.

28 | Mattapan to Ruggles
   #1 highest ridership route in the system

23 | Ashmont to Ruggles
   #4 highest ridership route in the system

19 | Fields Corner to Kenmore
   2nd worst on-time performance: 43%

14 | Roslindale to Heath Street
   4th worst on-time performance: 49%

Data Source: MBTA - 2018
ADDITIONAL EXISTING ROUTES

Along Warren St.

44 | Local Route
Jackson Square Station to Ruggles Station

School Buses
Boston Public Schools bus services

Route 44
Runs along Warren Street between Dudley Street and Circuit Street

Boston Public School Buses
Buses funnel into Warren Street from the side streets of Harrison, Winthrop, Moreland, Walnut, Dale, MLK, Townsend, and Elm Hill serving the 14 schools that sit within a mile of Warren Street.
EXISTING TRANSIT VEHICLE VOLUMES

Average Weekday

**MBTA BUSES**

- Total Daily Buses: 691
- AM Peak Buses: 104
- PM Peak Buses: 104

**BPS BUSES**

- Individual Buses: 335
- Trip Segments: 1,025

Data Source: MBTA + BPS - 2019
EXISTING MBTA VEHICLE VOLUMES

Average Weekday

Weekday MBTA Vehicle Volumes

After Blue Hill Ave. and Washington St. in Roslindale, Warren St. hosts the highest transit vehicle volumes in the entire MBTA system.
EXISTING MBTA RIDERSHIP

Average Weekday

20,272 People daily

MBTA Riders who travel along Warren on a weekday

Data Source: MBTA - 2018
EXISTING MBTA RIDERSHIP

Average Weekday

- 7,924 Riders board before the intersection at Dudley St. and enter Warren St. heading south
- 3,060 Riders board on Warren St. heading north
- 2,651 Riders board on Warren St. heading south
- 6,637 Riders board before the intersection at Blue Hill Ave. and enter Warren St. heading north

Total: 20,272 People daily

Data Source: MBTA - 2018
## EXISTING MBTA RIDERSHIP BY STOP | INBOUND

<table>
<thead>
<tr>
<th>Stop</th>
<th>Ons</th>
<th>Offs</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kearsarge</td>
<td>68</td>
<td>303</td>
<td>371</td>
</tr>
<tr>
<td>Moreland</td>
<td>96</td>
<td>104</td>
<td>200</td>
</tr>
<tr>
<td>Whiting</td>
<td>87</td>
<td>131</td>
<td>218</td>
</tr>
<tr>
<td>Waverly</td>
<td>301</td>
<td>169</td>
<td>470</td>
</tr>
<tr>
<td>Woodbine</td>
<td>318</td>
<td>146</td>
<td>464</td>
</tr>
<tr>
<td>Maywood</td>
<td>479</td>
<td>399</td>
<td>878</td>
</tr>
<tr>
<td>Quincy</td>
<td>658</td>
<td>400</td>
<td>1,058</td>
</tr>
<tr>
<td>Gaston</td>
<td>279</td>
<td>161</td>
<td>440</td>
</tr>
<tr>
<td>Intervale</td>
<td>228</td>
<td>126</td>
<td>354</td>
</tr>
<tr>
<td>Sunderland</td>
<td>547</td>
<td>230</td>
<td>777</td>
</tr>
</tbody>
</table>

**Daily Weekday Activity by Stop**

5228 people board or alight inbound on Warren Street

Data Source: MBTA - 2018
### EXISTING MBTA RIDERSHIP BY STOP | OUTBOUND

<table>
<thead>
<tr>
<th>Ons</th>
<th>Offs</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>281</td>
<td>103</td>
<td>384</td>
</tr>
<tr>
<td>139</td>
<td>152</td>
<td>291</td>
</tr>
<tr>
<td>119</td>
<td>141</td>
<td>260</td>
</tr>
<tr>
<td>197</td>
<td>264</td>
<td>461</td>
</tr>
<tr>
<td>240</td>
<td>408</td>
<td>648</td>
</tr>
<tr>
<td>446</td>
<td>372</td>
<td>818</td>
</tr>
<tr>
<td>558</td>
<td>534</td>
<td>1,092</td>
</tr>
<tr>
<td>185</td>
<td>280</td>
<td>465</td>
</tr>
<tr>
<td>157</td>
<td>239</td>
<td>396</td>
</tr>
<tr>
<td>328</td>
<td>519</td>
<td>847</td>
</tr>
</tbody>
</table>

**Daily Weekday Activity by Stop**

- **5,662 people** board or alight outbound on Warren Street.

Data Source: MBTA - 2018
# Existing Roadway Usage by Mode | Person Throughput

**Average Weekday**

<table>
<thead>
<tr>
<th>Mode</th>
<th>AM Peak</th>
<th>PM Peak</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toward Dudley</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycles</td>
<td>0.3%</td>
<td>0.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cars</td>
<td>43%</td>
<td>51%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buses</td>
<td>54%</td>
<td>47%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Toward Blue Hill</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycles</td>
<td>0.1%</td>
<td>0.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cars</td>
<td>31%</td>
<td>45%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buses</td>
<td>67%</td>
<td>53%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data Source: MBTA Load Volumes + BTD Traffic Counts - 2018
EXISTING MBTA RIDERSHIP | DEMOGRAPHICS

Data Source: MBTA Passenger Survey - 2017
The average Route 14, 19, 23, or 28 rider is spending between **20 and 30 minutes longer** than necessary on Warren Street each day.

This amounts to 100 to 150 minutes, or **1.7 to 2.5 hours**, per work week.

Warren Street is a prime contributor to **racial inequity** with respect to quality of trip: on average, black riders each spend 64 hours a year longer on MBTA buses than their white counterparts.*

*Data Source: State of Equity in Metro Boston - MAPC 2017*
EXISTING DELAYS | AT THEIR WORST

Inbound 90th Percentile Delay by Segment by Time of Day

Data Source: MBTA - 2018
Ridership by Race Along Boston Bus Lanes

Washington St. in Roslindale
Brighton Ave.
N. Washington St.
Warren St.

Data Source: MBTA Passenger Survey - 2017
691 MBTA buses and 61 student-carrying BPS buses travel along Warren every weekday.

Bus riders account for 54% of peak period roadway users on Warren.

Warren's 20,272 daily bus riders are experiencing 20 to 30 minute longer than necessary travel times every weekday; 1.7–2.5 hours per work week.

Delays are worst at the intersections of Warren with both Dudley Street and Blue Hill Avenue.