Getting to BRT
Implementation Guide for U.S. Cities

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July 31, 2019
10 cities, 12 corridors
What is BRT?
Dedicated bus lanes at least 1.9 miles long

The BRT Standard online
1. Dedicated right-of-way
2. Busway alignment
3. Intersection treatments
4. Platform-level boarding
5. Off-board fare collection
Albuquerque Rapid Transit (ART)*
Cleveland, HealthLine
Eugene, EmX, Green Line
Fort Collins, MAX**
Hartford, CTfastrak
LA Metro, Orange Line
Las Vegas, Strip & Downtown Express (SDX)
Pittsburgh, MLK Jr. East, South & West Busways
Richmond, The Pulse
San Bernardino, sbX
South Miami-Dade Busway**

*Only ART’s design was certified, not its operations.

**Fort Collins and South Miami-Dade have not been officially certified by the BRT Standard Technical Committee but are included here as at least basic BRT based on ITDP’s assessment.
Steady growth over 4 decades

12 corridors
73 miles
1977 - 1997: 2 cities added 3 corridors
1998 - 2018: 8 new cities & 9 new corridors

1977: Pittsburgh South Busway opens
2005: LA Metro Orange Line opens

More than 142,000 passengers each weekday

Ridership data is for the entire BRT route, not just the BRT-rated corridor section.

<table>
<thead>
<tr>
<th>CITY, BRT CORRIDOR</th>
<th>PASSENGERS PER WEEKDAY 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pittsburgh, MLK Jr. East Busway</td>
<td>23,600</td>
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<tr>
<td>LA Metro, Orange Line</td>
<td>22,573</td>
</tr>
<tr>
<td>Hartford, CTfastrak</td>
<td>18,000</td>
</tr>
<tr>
<td>South Miami-Dade Busway</td>
<td>16,000</td>
</tr>
<tr>
<td>Las Vegas, SDX</td>
<td>12,789</td>
</tr>
<tr>
<td>Cleveland, HealthLine</td>
<td>11,300</td>
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<tr>
<td>Eugene, EmX, Green Line</td>
<td>10,000</td>
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<tr>
<td>Pittsburgh, West Busway</td>
<td>7,600</td>
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<tr>
<td>Richmond, The Pulse</td>
<td>7,075</td>
</tr>
<tr>
<td>Pittsburgh, South Busway</td>
<td>5,300</td>
</tr>
<tr>
<td>Fort Collins, MAX</td>
<td>4,022</td>
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<tr>
<td>San Bernardino, sbX</td>
<td>3,323</td>
</tr>
</tbody>
</table>

Notes: Ridership is for whole corridor, not just the BRT-rated segment. Sources: Cleveland (Ozment 2018); Eugene 2013 data (BRT+ Centre of Excellence & WRI 2019); Fort Collins (Colburn 2019); Hartford 2019 data (CTDOT 2019); Las Vegas (RTC 2019); Los Angeles (Metro 2019); Pittsburgh (Gree 2019); Richmond 2019 data (GRTC 2019); San Bernardino 2017 data (Goverment 2018); South Miami-Dade 2019 data (Miami-Dade County 2019).
Help cities get to high-quality BRT
How 3 cities implemented BRT

Hartford, CTfastrak
Richmond, Pulse
Albuquerque, ART*

* ART construction is complete and launch of operations is pending arrival of new fleet
Hartford’s CTfastrak
Hartford’s CTfastrak

9.4-mile busway

Direct service model

Source: ITDP
From abandoned rail corridor to regional BRT

Source: CTDOT
7 US BRT corridors are former rail rights-of-way

Use Keywords

CTfastrak Parkville Station situated adjacent to the active Amtrak right-of-way

Source: CTDOT
$4 to $82 million per mile to implement BRT

Busways along rail rights-of-way have higher costs.

Right-of-way acquisition
Extensive civil engineering
Richmond’s Pulse

Greater Richmond’s first rapid transit
2.6-mile BRT corridor

Source: GRTC
Trend: Proof-of-payment challenges

Preserve efficient boarding

Decriminalize fare evasion

Source: GRTC
Albuquerque Rapid Transit (ART)

Source: Aileen Carrigan
Transforming Route 66

9-mile Central Avenue corridor

Source: Samat Jain via Flickr
Trend: Bi-directional BRT lanes

One lane used one direction at a time

Bi-directional BRT lanes:
- ART
- EmX Green Line
- Fort Collins MAX

Source: Aileen Carrigan
Trend: electric BRT buses

Source: STUDIO HILL DESIGN
Trend: electric BRT buses

Source: ABQRide
3 steps towards BRT

1. Set the table
2. Arrange funding
3. Cultivate support
1. Set the table

Invite all necessary parties to the table

Corridors through multiple jurisdictions, rail rights-of-way require more coordination

Source: GRTC via Twitter
60% of U.S. BRT capital cost funded with federal $

Diverse state & local sources

South-Miami Dade Busway funding data unavailable.

2. Arrange funding
2. Arrange funding

5 - New Starts
3 - Small Starts
1 - BUILD / TIGER

South-Miami Dade Busway funding data unavailable.

Notes: Funding data for South-Miami Dade Busway unavailable. Sources: Albuquerque (FTA 2017a); Cleveland (Callaghan 2007b; GCRTA 2018); Eugene-Springfield (Callaghan 2007b; Thele et al. 2009); Fort Collins (Poll 2014); Hartford (Callaghan 2009b; FTA 2015); Las Vegas (Callaghan 2009a); Los Angeles (Callaghan 2007a; FTA 2017); Pittsburgh (Callaghan 2007b; National Academies of Sciences, Engineering, and Medicine 2003a,b; Richmond (DOT 2005); Salt Bernardino (Brewer 2015); Cincinnati (2015); Perry 2017; Storace 2015).
3. Cultivate support

Anticipate common concerns:

Stop consolidation

Parking changes

Construction impacts

Source: GRTC
3. Cultivate support

Walk the corridor

Engage diverse stakeholders

Lean on advocates

Emphasize uses for the BRT

Source: RVA Transit via Twitter
Projects to watch

Albuquerque launch
Indianapolis’ Red Line
San Francisco’s Van Ness Blvd
East Bay’s International Blvd
Denver’s East Colfax Avenue

Bus corridor projects in development

Source: Aileen Carrigan
Thank you!

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