2018 VTCA Consultant Forum
Breakout Session III

Presented by: Jennifer DeBruhl, AICP
Chief of Public Transportation
Virginia Department of Rail and Public Transportation

Ashley Lickliter, P.E.
Vice President
Kimley-Horn and Associates, Inc.
What is Bus Rapid Transit?

- Streamlined Transfers
- Low Floor Buses
- Sidewalk and Crosswalk Improvements
- Off Board Ticketing
- Dedicated Lanes
- Transit Signal Priority
GRTC Pulse is a modern, high quality, high capacity bus rapid transit system connecting riders to destinations in the City of Richmond and Henrico County.

- 14 Stations: 5 median, 9 curbside
- 7.6 Mile Route
- 3.2 Miles of Dedicated Bus-Only Lanes
- Frequency: 10 Minute Daytime, 15 Minute Evenings
- 10 Modern CNG Bus Rapid Transit Vehicles
- Near Level Boarding
- Off-Board Fare Collection
- Transit Signal Priority
- CCTV Cameras and Emergency Phones
Project Corridor

2018 VTCA Consultant Forum
## Project Budget

<table>
<thead>
<tr>
<th>Source</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIGER Grant (FTA/USDOT)</td>
<td>$24,900,000</td>
</tr>
<tr>
<td>City of Richmond</td>
<td>$7,600,000</td>
</tr>
<tr>
<td>Henrico County</td>
<td>$400,000</td>
</tr>
<tr>
<td>Commonwealth of Virginia (DRPT/VDOT)</td>
<td>$32,016,000</td>
</tr>
<tr>
<td><strong>Total Fixed Contributions:</strong></td>
<td><strong>$64,916,000</strong></td>
</tr>
</tbody>
</table>
Engineering Challenges

Typical

Stations

Left-Turn Lanes
Engineering Challenges
## Engineering Challenges

<table>
<thead>
<tr>
<th>Subarea</th>
<th>Existing Parking Spaces</th>
<th>Proposed Change in Number of Spaces</th>
<th>Preserved Parking Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thompson Street to Sheppard Street</td>
<td>124</td>
<td>-99</td>
<td>25</td>
</tr>
<tr>
<td>Sheppard Street to Lombardy Street</td>
<td>244</td>
<td>-94</td>
<td>150</td>
</tr>
<tr>
<td>Lombardy Street to Foushee Street</td>
<td>246</td>
<td>-85</td>
<td>161</td>
</tr>
<tr>
<td>Foushee Street to 4th Street</td>
<td>38</td>
<td>+28</td>
<td>66</td>
</tr>
<tr>
<td>4th Street to 14th Street</td>
<td>56</td>
<td>-56</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>708</strong></td>
<td><strong>-306</strong></td>
<td><strong>402</strong></td>
</tr>
</tbody>
</table>
Construction Time Lapse
Pulse BRT Station
Exclusive Bus Lanes
Level Boarding
Security and Traveler Information
Off Board Fare Collection
Richmond Transit Network Plan

- Bus routes essentially unchanged since the 1940s
- Comprehensive redesign – maximize the investment in the Pulse
- Faster, more frequent routes with easier connections – no increase in operating cost
- Launched June 24, 2018
- Henrico redesign launched in September – included expansion to serve Amtrak and RIC Airport
Ridership

GRTC Ridership
June 25-August 11

Week 1 (Fare Free - 2018)
Week 2 (Holiday)
Week 3
Week 4
Week 5
Week 6
Week 7

0 50000 100000 150000 200000 250000

2018 VTCA Consultant Forum
2040 Vision Plan
- Includes 5 BRT corridors
  - Broad Street
  - West End South
  - Midlothian
  - Hull Street Road
  - Mechanicsville
- Includes 4 Enhanced Local
  - Airport, Staples Mill, Rte 1 North, Jeff Davis
Other High Capacity Transit Projects

- Northern Virginia
  - Crystal City-Potomac Yards Metroway (Arlington/Alexandria)
  - West End Transitway (Alexandria)
  - Richmond Highway BRT (Fairfax County)

- Hampton Roads
  - Peninsula BRT
Crystal City-Potomac Yards

- Opened Spring 2015, dedicated lanes in April 2016
- Extends between Crystal City Metrorail in Arlington and the Braddock Road Metrorail in Alexandria
- Expansion currently in design
West End Transitway

- Van Dorn/Beauregard corridor – connecting Van Dorn Metrorail, Shirlington Transit Center, Beauregard residential area, and the Pentagon

![Diagram showing the Van Dorn/Beauregard corridor](image-url)
Embank Richmond Highway –
- Median BRT from Huntington Metrorail to Fort Belvoir
- Corridor land use plan to support walking, biking, and BRT in the corridor

Recommended Cross-Section

Multiuse Path  
Vehicular Through Travel Lanes  
Transitway Median (BRT)  
Vehicular Through Travel Lanes  
Multiuse Path
Peninsula BRT

- Study completed in 2012 with three options
- Projected opening year weekday trips +4,000