<table>
<thead>
<tr>
<th>I-95 Corridor Improvements</th>
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</thead>
<tbody>
<tr>
<td>Acca Yard</td>
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<tr>
<td>DC2RVA – Tier II EIS</td>
</tr>
<tr>
<td>Atlantic Gateway Projects</td>
</tr>
<tr>
<td>Long Bridge Expansion</td>
</tr>
</tbody>
</table>
Acca Yard Improvements

- Improvements include:
  - Eight miles of double track
  - Multiple universal crossovers
  - Yard reconstruction and passing sidings
- Ease congestion on CSX A-Line Corridor which parallels I-95 between Richmond stations
- Provides slots for two additional frequencies to Norfolk
- Projects near completion
• The DC2RVA study provides environmental clearance for projects between DC and Richmond
  
• Follows CSX’s 123 miles of CSX rail line
  
• Shared freight rail and passenger rail corridor
  
• Virginia Railway Express provides commuter rail service
  
• Amtrak provides intercity passenger rail service
• 3rd Track between Franconia and Occoquan: $220M
  • Design and Signals – 30% complete
  • Collaborating on bridges with VDOT and Fairfax County

• Long Bridge Phase 1: $185M
  • Constructs 6 miles of fourth track from Alexandria to the south bank of the Potomac River
  • Based on alignment of Long Bridge Project
  • CSX and DRPT in discussion to move beyond 30% design
Atlantic Gateway and Long Bridge Expansion
• **TOP PRIORITY** for Virginia

• Bridge is currently at **98%** capacity in peak hours

• All freight, Amtrak, and VRE rail traffic between VA and northeast uses Long Bridge

• Major bottleneck for rail network on entire East Coast

• Cost Estimate in Summer 2019

• DDOT is completing NEPA with 2020 estimate completion
Port of Virginia: Rail Projects
Richmond Marine Terminal

- $3.2M rail rehab project completed in June 2018 allows rail access to Richmond Marine Terminal
- Project possible with $2.2M REF funding
- Rehabilitated Terminal Yard Tracks
- Rehabilitated 2+ Miles of Connecting Lead to CSX
- In July Nucor Steel became the first customer to utilize the rail tracks
Port of Virginia: Rail Projects in Planning Stage

DRPT and the Port continue to expand on its longstanding relationship that has resulted in 37% of goods to be moved by rail – the highest percentage on the East Coast

- NIT Terminal Expansion
  - $15.1M ($10.5M REF)

- VIP Terminal Expansion
  - $11M ($7.7M REF)

- CWRY Marshalling Yard
  - $24.3M ($17M REF)
Positive Train Control (PTC)

- PTC is mandated by Congress in order to prevent:
  - Train-to-train collisions
  - Derailments caused by excessive speed
  - Unauthorized movement onto track where maintenance is occurring
  - Movement of a train through a track switch left in the wrong position
- Required where passenger service and/or hazmat trains exist
- PTC equipment must be installed on locomotives and signals, and the two must integrate regardless of the Operator
  - i.e. In Virginia, Amtrak/VRE locomotive equipment must be compatible with CSX/NS/NEC wayside equipment.
- Employees must be trained to operate, maintain, and repair the system.
- Federal deadline for implementation was extended from December 2015 to December 2018, with the ability to request an extension to 2020 to “turn it on.”
Both CSX and NS are on track to meet the federal PTC mandate by December 2018

VRE and Amtrak are on track to meet the federal PTC mandate by December 2018

Buckingham Branch has a federal exemption because of low density traffic.
  • Amtrak long-distance Cardinal service 3x per week.

Amtrak, VRE, CSX, NS are filing for an extension
  • Because there is only one chance to request an extension, most railroads are taking the option as a precaution.

<table>
<thead>
<tr>
<th>Railroad (System-wide, including beyond Virginia)</th>
<th>Total Hardware Installed (On-board &amp; Wayside Hardware)</th>
<th>Employees Trained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia Railway Express</td>
<td>100%</td>
<td>108/108</td>
</tr>
<tr>
<td>Amtrak</td>
<td>94%</td>
<td>2,050/2,050</td>
</tr>
<tr>
<td>CSX</td>
<td>99%</td>
<td>15,370/15,634</td>
</tr>
<tr>
<td>Norfolk Southern Railway</td>
<td>98%</td>
<td>18,469/18,832</td>
</tr>
</tbody>
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PTC Status in Virginia
Questions?

October 29, 2018