CEO REPORT
DECEMBER 2018
The Virginia Railway Express, a joint project of the Northern Virginia Transportation Commission and the Potomac Rappahannock Transportation Commission, will provide safe, cost-effective, accessible, reliable, convenient, and customer responsive commuter-oriented rail passenger service. VRE contributes to the economic vitality of its member jurisdictions as an integral part of a balanced, intermodal regional transportation system.
# CEO REPORT I DECEMBER 2018

## TABLE OF CONTENTS

- **SUCCESS AT A GLANCE** ............................................................................................................................... 3
- **ON-TIME PERFORMANCE** .......................................................................................................................... 4
- **AVERAGE DAILY RIDERSHIP** ...................................................................................................................... 6
- **SUMMONSES ISSUED** ................................................................................................................................. 7
- **TRAIN UTILIZATION** ...................................................................................................................................... 8
- **PARKING UTILIZATION** .................................................................................................................................. 9
- **FINANCIAL REPORT** ....................................................................................................................................... 10
- **FACILITIES UPDATE** ..................................................................................................................................... 11
- **UPCOMING PROCUREMENTS** .................................................................................................................. 13
- **PROJECTS PROGRESS REPORT** ................................................................................................................ 18
- **DECEMBER 2018 RIDE MAGAZINE** ....................................................................................................... 24
SUCCESS AT A GLANCE

The total number of parking spaces used in the VRE system during the month, divided by the total number of parking spaces available.

The average number of boardings each operating day inclusive of Amtrak Step-Up boardings but excluding “S” schedule operating days.

Percentage of trains that arrive at their destination within five minutes of the schedule.

The percent of peak hour train seats occupied.

The monthly operating revenues divided by the monthly operating expenses, which depicts the percent of operating costs paid by the riders.

OCTOBER 2018
ON-TIME PERFORMANCE

OUR RECORD

<table>
<thead>
<tr>
<th></th>
<th>October 2018</th>
<th>September 2018</th>
<th>October 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manassas Line</td>
<td>87%</td>
<td>84%</td>
<td>90%</td>
</tr>
<tr>
<td>Fredericksburg Line</td>
<td>84%</td>
<td>65%</td>
<td>91%</td>
</tr>
<tr>
<td>System Wide</td>
<td>86%</td>
<td>75%</td>
<td>90%</td>
</tr>
</tbody>
</table>

REASONS FOR DELAYS

- AMTRAK SIGNAL ISSUES - TUNNEL
- WEATHER (HEAT/FLASH FLOOD)
- TRAIN INTERFERENCE
- CSX TIE REPLACEMENT
- SWITCH/SIGNAL ISSUES
- OTHER*

VRE operated 704 trains in October.

Our on-time rate for October was 86%.

One hundred-two of the trains arrived more than five minutes late to their final destinations. Forty-seven of those late trains were on the Manassas Line (87%), and fifty-five of those late trains were on the Fredericksburg Line (84%).

For the month, we came up just short of our goal for On-Time Performance (OTP). As compared to March of this year, you can see that weather and signal problems in the tunnel had a smaller influence on the OTP, and that train interference was the primary factor in not meeting the goal.

*L includes trains that were delayed due to operational testing and passenger handling.

LATE TRAINS

<table>
<thead>
<tr>
<th></th>
<th>System Wide</th>
<th>Fredericksburg Line</th>
<th>Manassas Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total late trains</td>
<td>210</td>
<td>154</td>
<td>102</td>
</tr>
<tr>
<td>Average minutes late</td>
<td>21</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Number over 30 minutes</td>
<td>31</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>Heat restriction days / total days</td>
<td>7/23</td>
<td>0/19</td>
<td>0/22</td>
</tr>
</tbody>
</table>
ON-TIME PERFORMANCE

VRE SYSTEM

FREDERICKSBURG LINE

MANASSAS LINE

DECEMBER 2018
AVERAGE DAILY RIDERSHIP

VRE SYSTEM

FREDERICKSBURG LINE

MANASSAS LINE
DECEMBER 2018
RIDERSHIP UPDATES

Average daily ridership (ADR) in October was approximately 18,900.

SUMMONSES ISSUED

VRE SYSTEM

SUMMONSES WAIVED OUTSIDE OF COURT

<table>
<thead>
<tr>
<th>Reason for Dismissal</th>
<th>Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger showed proof of a monthly ticket</td>
<td>18</td>
</tr>
<tr>
<td>One-time courtesy</td>
<td>8</td>
</tr>
<tr>
<td>Per the request of the conductor</td>
<td>13</td>
</tr>
<tr>
<td>Defective ticket</td>
<td>0</td>
</tr>
<tr>
<td>Per Ops Manager</td>
<td>1</td>
</tr>
<tr>
<td>Unique circumstances</td>
<td>0</td>
</tr>
<tr>
<td>Insufficient information</td>
<td>1</td>
</tr>
<tr>
<td>Lost and found ticket</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
<tr>
<td>Total Waived</td>
<td>42</td>
</tr>
</tbody>
</table>

MONTHLY SUMMONSES COURT ACTION

<table>
<thead>
<tr>
<th>Reason for Dismissal</th>
<th>Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guilty (G)</td>
<td>G, 2</td>
</tr>
<tr>
<td>Not Guilty (NG)</td>
<td>NG, 0</td>
</tr>
<tr>
<td>Guilty in absentia (GA)</td>
<td>GA, 20</td>
</tr>
<tr>
<td>Dismissed (D)</td>
<td>D, 29</td>
</tr>
<tr>
<td>Continued to next court date (C)</td>
<td>C, 4</td>
</tr>
<tr>
<td>Prepaid prior to court (PP)</td>
<td>PP, 11</td>
</tr>
</tbody>
</table>
PARKING UTILIZATION

FREDERICKSBURG LINE

MANASSAS LINE

DECEMBER 2018
Fare revenue through the fourth month of FY 2019 is approximately $200,000 below budget (an unfavorable variance of -1.4%) and is 0.3% below the same period in FY 2018.

The operating ratio through October is 52%, which is equal to VRE’s budgeted operating ratio for the full twelve months of FY 2019. VRE is required to budget a minimum operating ratio of 50%.

A summary of the FY 2019 financial results through October follows, including information on major revenue and expense categories. Please note that these figures are preliminary and unaudited.

<table>
<thead>
<tr>
<th>FY 2019 Operating Budget Report</th>
<th>Month Ended October 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CURR. MO.</td>
</tr>
<tr>
<td></td>
<td>ACTUAL</td>
</tr>
<tr>
<td>Operating Revenue</td>
<td></td>
</tr>
<tr>
<td>Passenger Ticket Revenue</td>
<td>3,607,329</td>
</tr>
<tr>
<td>Other Operating Revenue</td>
<td>600</td>
</tr>
<tr>
<td>Subtotal Operating Revenue</td>
<td>3,607,929</td>
</tr>
<tr>
<td>Jurisdictional Subsidy (1)</td>
<td>-</td>
</tr>
<tr>
<td>Federal/State/Other Jurisdictional Subsidy</td>
<td>2,363,502</td>
</tr>
<tr>
<td>Appropriation from Reserve/Other Income</td>
<td>-</td>
</tr>
<tr>
<td>Interest Income</td>
<td>93,194</td>
</tr>
<tr>
<td>Total Operating Revenue</td>
<td>6,064,625</td>
</tr>
</tbody>
</table>

Operating Expenses

| Departmental Operating Expenses | 6,038,999 | 6,506,086 | 27,572,547 | 29,746,602 | 2,174,055 | 7.3% | 81,761,809 |
| Debt Service                   | 518,529 | 559,573 | 2,074,500 | 2,238,290 | 163,790 | 7.3% | 6,714,870 |
| Other Non-Departmental Expenses | (97,020) | 4,048 | 11,737 | 15,640 | 3,903 | 0.0% | 46,000 |
| Total Operating Expenses       | 6,460,508 | 7,069,706 | 29,658,784 | 32,000,532 | 2,341,748 | 7.3% | 88,522,679 |

Net income (loss) from Operations

| (395,882) | (607,762) | 4,366,119 | 2,345,276 | 2,020,844 | 0 |

Operating Ratio

| 52% | 49% | Budgeted | Goal | 52% |

(1) Total jurisdictional subsidy is $17,767,748. Portion shown as budgeted is attributed to Operating Fund only.
FACILITIES UPDATE

The following is a status update of VRE facilities projects:

Completed projects:
1. Cleaning of elevator/stair tower glass at Woodbridge Station
2. Replacement of station entrance sign at Woodbridge Station
3. Striping of additional ADA parking space at Leeland Road Station
4. Repairs to potholes at Manassas Park Station
5. Replacement of electrical and communications conduits and electrical panel at Manassas Park Station
6. Fire lane striping at Broad Run station

Projects scheduled to be completed this quarter:
1. Replacement of tactile warning strip at L’Enfant Station
2. Repairs to platform concrete at L’Enfant Station
3. Repairs to fascia and soffit at Woodbridge Station east building
4. Replacement of gutters and downspouts at Rippon Station
5. Repairs to platform concrete at Manassas Station
6. Installation of automated parking count system at stations with parking lots

Projects scheduled to be initiated this quarter:
1. Design of platform widening at L’Enfant Station
2. Replacement of signage at additional stations (locations TBD)

Ongoing projects:
1. Renovations to Alexandria Headquarters Suite 201
2. Development of specifications for modernization of east elevator at Woodbridge Station
3. Development of IFB for canopy roof replacement at Backlick Road Station
4. Replacement of station posters throughout VRE system
5. Replacement of parking lot entrance signs at various stations
6. Replacement of waste and recycling receptacles at various stations
UPCOMING PROCUREMENTS

• Purchase of Passenger Elevators
• Construction of the Lifecycle Overhaul and Upgrade Facility
• Construction Management Services for the Lifecycle Overhaul and Upgrade Facility
• Program Management Services
• Graphic Design Services
• Canopy Roof Replacement at the Backlick and Rolling Road Stations
• Modernization of VRE Woodbridge Station East Elevator
• Repair and Overhaul of Passenger Car HVAC Assemblies
• Passenger Car Wheelchair Lift Assemblies
• Seat Bottoms for Passenger Cars
• Construction of Benchmark Road Slope Stabilization
• Construction of Rolling Road Platform Extension
• Purchase of LED Light Fixtures
• Construction of L'Enfant South Storage Track Wayside Power
• Variable Messaging System Replacement
CAPITAL PROJECTS UPDATES
AS OF November 7, 2018

Broad Run Expansion Study (BRX)
- Preliminary engineering (PE) design and NEPA for maintenance and storage facility (MSF) expansion, platform modifications, 3rd track and tunnel underway
- NS design review agreement under development; NS comments pending
- Draft agreements between VRE and Prince William County, City of Manassas regarding Broad Run parking expansion funding and other responsibilities under development
- Bi-weekly Project Management Team (PMT) meetings with BRX consultant

Manassas Park Station Parking Expansion
- Final design underway
- Value Engineering recommendations being vetted with City
- Safety Plan received from Consultant for Final Design
- Study underway to avoid water line relocation by adjusting garage location
- Coordinating with NS for access to railroad ROW for survey and geotechnical work

Rolling Road Platform Extension
- Final plans for platform extension complete
- Invitation for Bids (IFB) for platform extension and rehabilitation pending 2019 construction season start

Crossroads Real Estate Acquisition
- Revised appraisal required

Crossroads Lifecycle Overhaul & Upgrade Facility (LOU)
- Property negotiations continue to acquire property needed to the east and south of existing Crossroads Yard
- Design 100% complete

Leeland Road Station Improvements
- DRPT LONP received; execution of REF grant pending
- 30% design underway
- CSXT design review agreement pending

Brooke Station Improvements
- DRPT LONP received; execution of REF grant pending
- 30% design underway
- CSXT design review agreement pending

Quantico Station Improvements
- Completion of FD & construction pending execution of IPROC grant by DRPT
Rippon Station Improvements
- 30% design plans complete
- CSXT design review agreement pending

Lorton Station Improvements (Second Platform)
- Preliminary engineering/30% design plans and NEPA documents are currently under review by CSXT

Franconia-Springfield Station Improvements
- Preliminary engineering/30% design plans and NEPA documents are currently under review by CSXT

Alexandria Station Improvements
- Investigating proposal for accomplishing tunnel and related improvements at lower cost
- Coordinating with FRA, CSXT and DRPT

Slaters Lane/Alexandria Track 1 Access
- CSX forces have begun construction but are on hold until after Jan. 1, 2019

Crystal City Station Improvements
- RFP for preliminary engineering design and NEPA under development
- PE/NEPA completion pending execution of REF grant by DRPT
- REF application for construction under development
- Coordination with CC2DCA and DC2RVA projects is ongoing
- CSXT Design Review agreement is under development

L’Enfant (South) Storage Track Wayside Power
- Coordinating with PEPCO for power supply

L’Enfant Track and Station Improvement
- Phase 1: Background Information technical memorandum is complete
- Initiation of additional work pending execution of REF grant by DRPT
- CSXT Design Review agreement is under development

Midday Storage Replacement Facility
- Draft Categorical Exclusion (CE) being revised based on FTA comments
- Framework/agreement pending for real estate acquisition, design and construction activities
- Amtrak site survey completed and being verified; owner permission for site access pending for privately-owned parcels

VRE Transit Development Plan Update
- Draft TDP document under development
- Bi-weekly progress meetings continue with TDP consultant

Long Bridge Expansion Environmental Impact Statement (EIS)
- Public information meeting held November 29, 2018
• Draft Environmental Impact Statement (EIS) scheduled completion Summer 2019
• Record of Decision (ROD) scheduled completion Spring 2020

Washington Union Station Improvements Environmental Impact Statement (EIS)
• Subbasement, concourse and lower level design continues as well as coordination activities
• Section 106 meeting postponed until 2019
Projects Progress Report to Follow
## Project Progress Report

**As of November 7, 2018**

### Passenger Facilities

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>PHASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexandria Station Improvements</td>
<td>Eliminate at-grade track crossing and pedestrian tunnel to Metro.</td>
<td>CD:</td>
</tr>
<tr>
<td></td>
<td>Modify Slaters Lane Interlocking for passenger trains on Track #1.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extend and widen East Platform and elevate West Platform.</td>
<td></td>
</tr>
<tr>
<td>Franconia-Springfield Station</td>
<td>Extend both platforms and widen East Platform for future third track.</td>
<td>CD:</td>
</tr>
<tr>
<td>Improvements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lorton Station Improvements</td>
<td>Construct new second platform with pedestrian overpass.</td>
<td>CD:</td>
</tr>
<tr>
<td>Rippon Station Improvements</td>
<td>Extend existing platform, construct new second platform with pedestrian overpass.</td>
<td>CD:</td>
</tr>
<tr>
<td>Potomac Shores Station Improvements</td>
<td>New VRE station in Prince William County provided by private developer.</td>
<td>CD:</td>
</tr>
<tr>
<td>Quantico Station Improvements</td>
<td>Extend existing platform, construct new second platform with pedestrian overpass.</td>
<td>CD:</td>
</tr>
<tr>
<td>Brooke Station Improvements</td>
<td>Extend existing platform, construct new second platform with pedestrian overpass.</td>
<td>CD:</td>
</tr>
<tr>
<td>Leeland Road Station Improvements</td>
<td>Extend existing platform, construct new second platform with pedestrian overpass.</td>
<td>CD:</td>
</tr>
<tr>
<td>Manassas Park Parking Expansion</td>
<td>Parking garage to increase parking capacity to 1,100 spaces.</td>
<td>CD:</td>
</tr>
<tr>
<td>Rolling Road Station Improvements</td>
<td>Extend existing platform.</td>
<td>CD:</td>
</tr>
<tr>
<td>Crystal City Station Improvements</td>
<td>Replace existing side platform with new, longer island platform.</td>
<td>CD:</td>
</tr>
<tr>
<td>L’Enfant Track and Station</td>
<td>Replace existing platform with wider, longer island platform. Add fourth track (VA-LE)</td>
<td>CD:</td>
</tr>
</tbody>
</table>

**PHASE:**
- CD - Conceptual Design
- PD - Preliminary Design
- EC - Environment Clearance
- RW - Right of Way Acquisition
- FD - Final Design
- CN - Construction

**STATUS:**
- Completed
- Underway
- On Hold
- part of the "Penta-Platform" program

1. Total project cost estimate in adopted FY2018 CIP Budget

2. Does not include minor (< $50,000) operating expenditures

* $2,181,630 authorization divided across five "Penta-Platform" program stations
<table>
<thead>
<tr>
<th>Project Details</th>
<th>ESTIMATED COSTS ($)</th>
<th>COMPLETION</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 1 Funded</td>
<td>26,674,365</td>
<td>1,814,559</td>
<td>4th QTR 2020 60%</td>
</tr>
<tr>
<td>Unfunded</td>
<td>26,674,365</td>
<td>1,714,242</td>
<td></td>
</tr>
<tr>
<td>Authorized</td>
<td></td>
<td>1,814,559</td>
<td></td>
</tr>
<tr>
<td>Expended</td>
<td></td>
<td>1,714,242</td>
<td></td>
</tr>
<tr>
<td>Percent</td>
<td>60%</td>
<td>4th QTR 2020</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7,000,000</td>
<td>7,000,000</td>
<td>90,749</td>
<td>2nd QTR 2019 30%</td>
</tr>
<tr>
<td>2,400,000</td>
<td>400,000</td>
<td>-</td>
<td>4th QTR 2020 5%</td>
</tr>
<tr>
<td>13,000,000</td>
<td>13,000,000</td>
<td>337,165</td>
<td>4th QTR 2021 25%</td>
</tr>
<tr>
<td>16,150,000</td>
<td>16,150,000</td>
<td>414,788</td>
<td>4th QTR 2021 25%</td>
</tr>
<tr>
<td>16,632,716</td>
<td>16,632,716</td>
<td>328,521</td>
<td>4th QTR 2022 20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No costs for VRE. Private developer providing station.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18,350,745</td>
<td>18,350,745</td>
<td>-</td>
<td>TBD 10%</td>
</tr>
<tr>
<td>23,390,976</td>
<td>23,390,976</td>
<td>259,910</td>
<td>4th QTR 2022 20%</td>
</tr>
<tr>
<td>15,527,090</td>
<td>15,527,090</td>
<td>273,761</td>
<td>4th QTR 2022 20%</td>
</tr>
<tr>
<td>25,983,000</td>
<td>25,983,000</td>
<td>466,841</td>
<td>4th QTR 2022 30%</td>
</tr>
<tr>
<td>2,000,000</td>
<td>2,000,000</td>
<td>321,444</td>
<td>3rd QTR 2020 50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>442,900</td>
<td></td>
</tr>
<tr>
<td>41,810,000</td>
<td>5,410,000</td>
<td>393,642</td>
<td>2nd QTR 2023 10%</td>
</tr>
<tr>
<td>70,650,000</td>
<td>3,226,000</td>
<td>58,793</td>
<td>2nd QTR 2023 10%</td>
</tr>
</tbody>
</table>
## Track and Infrastructure

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>CD</th>
<th>PD</th>
<th>EC</th>
<th>RW</th>
<th>FD</th>
<th>CN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton-to-Crossroads Third Track</td>
<td>2¼-miles of new third track with CSXT design and construction of signal and track tie-ins.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>N/A</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

### Maintenance and Storage Facilities

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>CD</th>
<th>PD</th>
<th>EC</th>
<th>RW</th>
<th>FD</th>
<th>CN</th>
</tr>
</thead>
<tbody>
<tr>
<td>L'Enfant South Storage Track and Wayside Power</td>
<td>Conversion of CSXT Temporary Track to VRE Storage Track (1,350 feet) and Associated Signal Work</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>N/A</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Lifecycle Overhaul and Upgrade Facility</td>
<td>New LOU facility to be added to the Crossroads MSF.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>N/A</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Crossroads Maintenance and Storage Facility Land Acquisition</td>
<td>Acquisition of 16.5 acres of land, construction of two storage tracks and stormwater retention and new</td>
<td>●</td>
<td>N/A</td>
<td>N/A</td>
<td>●</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Rolling Stock

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>CD</th>
<th>PD</th>
<th>EC</th>
<th>RW</th>
<th>FD</th>
<th>CN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Railcar Procurement</td>
<td>Acquisition of 29 new railcars.</td>
<td>●</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Positive Train Control</td>
<td>Implement Positive Train Control for all VRE locomotives and control cars.</td>
<td>●</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

### Planning, Communications and IT

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>CD</th>
<th>PD</th>
<th>EC</th>
<th>RW</th>
<th>FD</th>
<th>CN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad Run Expansion (was Gainesville-Haymarket Extension)</td>
<td>NEPA and PE for expanding commuter rail service capacity in Western Prince William County</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mobile Ticketing</td>
<td>Implementation of a new mobile ticketing system.</td>
<td>●</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

**Phase:**
- CD - Conceptual Design
- PD - Preliminary Design
- EC - Environment Clearance
- RW - Right of Way Acquisition
- FD - Final Design
- CN - Construction

**Status:**
- ● Completed
- ● Underway
- ● On Hold

1 Total project cost estimate in adopted FY2018 CIP Budget
2 Does not include minor (< $50,000) operating expenditures
<table>
<thead>
<tr>
<th>Total</th>
<th>Funded</th>
<th>Unfunded</th>
<th>Authorized</th>
<th>Expended</th>
<th>Percent</th>
<th>Date</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>32,500,000</td>
<td>32,500,000</td>
<td></td>
<td>33,285,519</td>
<td>30,578,003</td>
<td>100%</td>
<td>3rd QTR 2018</td>
<td>Close-out pending repair of storm damage to embankment.</td>
</tr>
<tr>
<td>3,965,000</td>
<td>3,965,000</td>
<td></td>
<td>2,937,323</td>
<td>1,672,293</td>
<td>50%</td>
<td>2nd QTR 2019</td>
<td>Coordination with PEPCO for power supply underway.</td>
</tr>
<tr>
<td>38,183,632</td>
<td>38,183,632</td>
<td></td>
<td>3,176,039</td>
<td>2,129,476</td>
<td>90%</td>
<td>TBD</td>
<td>Design 100% complete. On hold pending property acquisition.</td>
</tr>
<tr>
<td>2,950,000</td>
<td>2,950,000</td>
<td></td>
<td>2,950,000</td>
<td>139,154</td>
<td>95%</td>
<td>TBD</td>
<td>Revised appraisal required.</td>
</tr>
<tr>
<td>89,666,508</td>
<td>89,666,508</td>
<td></td>
<td>3,588,305</td>
<td>1,358,298</td>
<td>35%</td>
<td>4th QTR 2019</td>
<td>Site survey completed and being verified; finalizing NEPA documentation; owner permission pending to survey private parcels.</td>
</tr>
<tr>
<td>75,264,693</td>
<td>75,264,693</td>
<td></td>
<td>69,457,809</td>
<td>47,915,644</td>
<td>95%</td>
<td>4th QTR 2020</td>
<td>All cars received. Completion date reflects end of warranty period.</td>
</tr>
<tr>
<td>10,553,000</td>
<td>10,553,000</td>
<td></td>
<td>10,294,079</td>
<td>7,984,451</td>
<td>80%</td>
<td>4th QTR 2018</td>
<td>Onboard installations ongoing.</td>
</tr>
<tr>
<td>137,230,000</td>
<td>83,825,501</td>
<td>53,404,499</td>
<td>5,208,845</td>
<td>4,437,003</td>
<td>22%</td>
<td>4th QTR 2022</td>
<td>Completion of preliminary engineering and NEPA review pending NS design review agreement and comments.</td>
</tr>
</tbody>
</table>
IN THIS ISSUE:

HOLIDAY SCHEDULE REMINDER (p1)
WASHINGTON UNION STATION UPGRADES (p2)
Life is loved at Potomac Shores. Our resort-style community just 30 miles from DC has it all. Like award-winning homes. A new elementary school. Jack Nicklaus Signature golf. And our Shores Club fitness center, where staying fit is an easy routine.

Share the love on Facebook or Twitter #PSILoveYouVA

VISIT THE WELCOME CENTER
1801 Potomac Shores Parkway, Suite 100
Potomac Shores, VA 22026

FUTURE ON-SITE VRE STATION

FEATURES AND PRODUCTS VARY BY COMMUNITY. PRICE, OFFERS, FINANCING AND AVAILABILITY ARE SUBJECT TO CHANGE WITHOUT NOTICE.
FROM THE CEO

RIDERS OFTEN SHARE WITH US HOW MUCH THEY ENJOY READING OUR RIDE MAGAZINE. CONVERSELY, OTHER RIDERS ENCOURAGE US TO CONSIDER MOVING AWAY FROM A MONTHLY PRINTED PIECE.

We currently see the value in both printed and digital mediums to deliver our messages to riders, and as such, we will begin sending a monthly RIDE E-Newsletter through our Train Talk system in addition to printing the hard copy magazine for distribution on the train.

Some may ask, "What about the cost?" We have a great answer to this great question. The e-newsletter will not have any additional associated cost. The cost of producing the printed version of RIDE magazine will continue to be covered by the magazine's ad revenue. So be assured, the information in both formats is delivered at no cost to riders.

The RIDE E-Newsletter will offer abbreviated versions of the VRE system news articles. Additionally, the e-newsletter will link to the full issue online.

Our first RIDE E-Newsletter will be sent soon to complement this issue. Please be on the lookout for the e-newsletter as a Train Talk VRE News item.

Sincerely,

DOUG ALLEN
Chief Executive Officer
Virginia Railway Express

HOLIDAY SCHEDULE REMINDER

Dec 24th: "S" Schedule
Christmas, Dec 25th: No VRE Service
Dec 26-28th: "S" Schedule
Dec 31st: "S" Schedule

Please note Amtrak will honor Step-Up tickets for designated trains with available seats on days Amtrak runs but VRE trains do not.
Work continues on upgrades to passenger areas of Washington Union Station. The improvements will accommodate Amtrak and Virginia Railway Express passengers who access the lower platforms via Gate L, Tracks 23 to 28. Once the project has been completed, customers will access new escalators, an elevator, and refreshed platforms. The project is expected to be completed by the end of 2018.
COMMITTEE UPDATE

BULL RUN REGIONAL PARK’S FESTIVAL OF LIGHTS
Through January 6
Mon-Thurs 5:30 PM – 9:30 PM
Fri-Sun, holidays 5:30 PM – 10 PM
7700 Bull Run Dr.,
Centreville, Virginia 20121
Learn more: fxva.com

SCOTTISH CHRISTMAS WALK PARADE (FREE)
December 1
11:00 AM
Throughout Old Town
Alexandria, Virginia 22314
Learn more: visitalexandriava.com

WINTER FESTIVAL OF LIGHTS ON LEE HIGHWAY (FREE)
December 1
11:30 AM – 2:30 PM
Lee Highway Corridor
Learn more: arlingtonmagazine.com

SPOTSYLVANIA CHRISTMAS PARADE (FREE)
December 1
1:00 PM – 3:00 PM
Spotsylvania Courthouse Village, Old Battlefield Blvd.,
Spotsylvania Courthouse, VA 22553
Learn more: spotsylvania.va.us

FREDERICKSBURG CHRISTMAS PARADE (FREE)
December 1
Starting 5:30 PM
Downtown, Fredericksburg, Virginia 22401
Learn more: visitfred.com

UMW PHILHARMONIC HOLIDAY POPS
December 7
7:30 PM
Rick Steves’ Symphonic Journey
Learn more: umwphilharmonic.com

Christmas in Stafford
An Annual Tradition-Fun for All Ages
Snowless Toboggan Tunnel ...
a “First” in the Region!
Frosty 5K Run/Walk
Christmas Town Market —
Arts & Crafts, Seasonal Products
Free Photos with Santa
Candy Land
Tree Lighting in Christmas Village
Annual Christmas Parade

Saturday, Dec. 15, Noon – 7:00 pm, Embrey Mill
www.ChristmasinStafford.com

TOUR STAFFORD VIRGINIA

FREE Admission
TOYS FOR TOTS

Each holiday season, VRE riders prove to be one of the largest contributors to the Marine Toys for Tots program in the Northern Virginia area. VRE will collect toys once again this year, and we hope our riders will continue a tradition of generous support.

To participate:
1.) Bring a new, unwrapped toy on your morning train and leave it on the seat for VRE elves to collect after your ride.
2.) Or, give a monetary donation to your morning train conductor.

This year’s date: Wednesday, December 5th

COLOR-CODED TRAIN TALK ALERTS

Announcing new, more detailed, color-coded Train Talk e-mail alerts. The new format for Train Talks allow for deeper explanations on a number of issues, offer helpful reminders, and provide links to related topics. Plus, the color coding and subject line naming convention will enable riders to quickly recognize the time sensitivity of a message.

Service Alert: Red

Service Alerts will be sent in the event of a service change or delay.

Service Advisory: Orange

Service Advisories will be sent if an occurrence or anticipated occurrence may impact service. This will be sent prior to Service Alerts when possible.

Station Update: Blue and Tan

Station Updates will be sent if there is an anticipated or known event or issue related to a specific station.

VRE News: Purple

VRE News will be sent for system enhancement updates, to announce Meet the Management meet and greets, and other helpful but non-urgent messages.

Support System Notifications: Dark Gray

Support System Notifications will be sent if we are experiencing issues with our phone system, website or website tracking GPS.
The Quantico VRE Station, located at 550 Railroad Avenue in the historic town of Quantico, Virginia, is the fifth stop on the Fredericksburg line after Spotsylvania, Fredericksburg, Leeland, and Brooke. The station was originally built by the Richmond, Fredericksburg and Potomac railroad in 1953, and was totally renovated by VRE and re-opened in April of 2005.

The area now known as Quantico (which means “by large stream”) was first inhabited by Native Americans. In 1608, John Smith mapped an area called “Patawomek” and noted with surprise that the Iroquois and some Dogue Indians of the Algonquin Tribe lived there in harmony. Quantico was first visited by European explorers in the summer of 1608. Later in the year, land owners started appearing. After the turn of the century, the area became popular because of tobacco trade in Aquia Harbor. The Quantico Road was opened in 1731, allowing vital access to and from the western part of the state. By 1759 the road stretched across the Blue Ridge Mountains into the Shenandoah Valley.

The first military presence came during the Revolutionary War, when the Quantico Creek village became a main naval base for the Commonwealth of Virginia’s 72 vessel fleet on which many Virginia state militia served. The area was first visited by the Marine Corps in 1816 when a group of Marines traveling by ship to Washington was halted by ice in the Potomac, forcing them to debark and march to the town of Dumfries. Here, they met a young captain, Archibald Henderson, who lived close by. Being a generous man, he hired a wagon for them and sent them on their way. During the Civil War, control of the Potomac River became very important to both armies. The Confederates picked the Quantico Creek area on the Potomac to set up their gun batteries. Their artillery could reach anything on the water, thus deterring the Unions’ use of the water highway. While battles took place in Manassas and Fredericksburg, the gun positions around Quantico were used until the end of the war.

Following the war, railroads became a more integral part of transportation. In 1872, the Richmond, Fredericksburg and Potomac Railroad was formed when several railroads north and south met at Quantico Creek.

The surrounding village known as Quantico was built by The Quantico Company. This was the start of a thriving tourist and fishing town. A large hotel was built, the beach was cleaned and one street was finished complete with sewers. A dance pavilion was set up with a merry-go-round and small lots were offered for sale. By the summer of 1916, the steamer St. Johns and the train brought more than 2,500 “fun-seekers” each week to the site from Washington and Richmond. The same year, railroad side tracks were extended to the shipping point on Quantico Creek. The Quantico shipyard started up with plans to build ocean freighters and tankers.

Soon, the U.S. entered World War I and the company obtained U.S. Navy contracts to build three wooden ships. In 1917, Marine Corps commander Major General George Barnett was desperate to find a suitable area large enough to train at least 7,000 Marines. By then the Quantico Company was in financial trouble and agreed to lease 5,300 acres surrounding the town of Quantico to the U.S. government for the base which became nicknamed “slippery mud” because of the knee-deep, red, gumbo-like mud which often bogged down ox-carts and wagons. The hotel became the officers quarters later named Walter Hall. Temporary tents and crude wooden barracks were built and some slept in the dance pavilion. By August, enough barracks were built along with a hospital capable of housing 100 patients. Brig. General John A. Lejeune took command of the base in September when the first battalion which had been training since July sailed aboard the USS Henderson for France. During the rush to provide housing, hundreds of skilled workers were needed. Many workers were employed and lived and worked in the town. Many of the descendants of those workers still have businesses there today.

The town was officially incorporated in 1927 and received their charter in 1934. Today, the station serves both Amtrak and VRE trains. The waiting room is open week days from 5:00 a.m. to 10:00 a.m. and 3:00 p.m. to 8:00 p.m. The original waiting room has been transformed into a railroad museum of sorts, with walls covered by framed newspaper articles, photos, posters and memorabilia depicting the rich history of the town, the railroad and the Marines. VRE tickets are available for sale from the kiosk vendor located inside the station.
PLAYING IT SMART WITH

What do our safety program and football have in common? Safety certainly is no game, however, we can draw similarities between having a system of rules, working together to achieve a common goal, and having a winning plan.

Positive Train Control (PTC) is automated technology to stop a train when necessary, and its implementation is a massive initiative that will increase rail safety across the country. PTC will act as an overlay for many existing processes, and it should be noted that there are several currently enforced protocols that allow the team to work together for your safety and reinforce the lines of defense.

<table>
<thead>
<tr>
<th>Railroad Worker Safety</th>
<th>Applies Speed Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadway Worker Protection</td>
<td>✓</td>
</tr>
<tr>
<td>Safety Briefings</td>
<td>✓</td>
</tr>
<tr>
<td>Operating Rules</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Efficiency Testing</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Timetable Speed Restrictions</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Locomotive/Cab Car Overspeed</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Locomotive/Cab Car Alertness Control</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Cab Signal</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Positive Train Control (PTC)</td>
<td>✓</td>
</tr>
</tbody>
</table>

Training & Best Practices: Exercising Knowledge & Skill
Conductors, engineers, and other personnel receive frequent training and must play by the rules. They rely on conditioned skills to deliver professional performances.

The Equipment: Added Layers of Protection
All skilled professionals can benefit from being equipped with automated tools. For train crews, this is automated equipment to make sure the train is running according to regulation.

PTC: The Referee
Positive Train Control (PTC) will step in when all other protocols fail – automatically giving the engineer and his/her train a timeout.
<table>
<thead>
<tr>
<th>Automated Technology</th>
<th>Technology to Stop Train</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNDER certain provisions, workers will establish a “work zone” and trains will have to request permission to enter this section of track.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RAILROAD personnel is required to begin the day with a detailed, “all-hands” discussion of safety implications and describe the work to be done. The briefing cannot conclude until everyone understands what is being discussed.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RAILROAD operations are governed by a set of rules that describe in detail how nearly all activities are to be undertaken. The rules specify train speeds, signal types and meanings, requirements for braking, acceleration, horn and bell use and other elements.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Efficiency Testing is a collective term for tests the supervisors of railroad crews perform in unannounced situations. These tests ensure train crews understand and comply with the railroad operating rules.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>When there is a deviation from the prevailing speed limit, as in a curve, the railroad timetable book will note this location and prescribe a safe operating speed. Engineers are tested and qualified to understand where to make these speed reductions.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Embedded within the control system of the locomotive, will limit its operating speeds under a variety of preset conditions.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>A system employed in the cab cars and locomotives that will activate a visible and audible alarm if it doesn’t sense operator activity within a short period of time. If the operator fails to acknowledge the alarm, the train’s airbrake system will automatically engage.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Locomotives and cab cars pick up the cab signal system broadcast through special receivers, and the signal permissions are displayed in the engineer’s cab. If an engineer were to fail to acknowledge a signal change, the train’s airbrakes would activate.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>A processor-based/communication-based control system designed to prevent railway accidents, PTC technology is designed to automatically control train speeds and movements should an engineer not take suitable action for a given situation.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Update: Currently, we are coordinating with our host railroads, CSX and Norfolk Southern, on field and system interoperability.

RIDE Magazine | DECEMBER 2018 7
Reach our passengers with advertising opportunities on our platforms, in our trains and through our award-winning RIDE Magazine. 70 percent of passengers have an annual household income of more than $100,000.

For more information, visit: vre.org/advertising

Contact: advertising@vre.org (703) 838-5417

Get Noticed With VRE Advertising

Ideas, Likes, Critiques? RIDE Magazine Online Survey: vre.org/ridesurvey
# Rail Time Puzzles

## Across
1. Surround securely
2. PD alerts
3. Novelists Unis
4. Overrun (with)
5. Paper to pay
6. Angry feeling
7. Etiquette
8. Convention discussion group
9. Maria’s boss in *The Sound of Music*
10. Utah’s __ Mountains
11. Immune-system stimulus
12. Good-for-nothing
13. Presidential monogram
14. School cafeteria morsel
15. Fructose and glucose
16. Milestones for young cos.
17. Ration (out)
18. Calls off
19. Related
20. Senator Hatch
21. Hawaiian fish, for short
22. Order to attack
23. Labours, for instance
24. Posting on Flickr
25. Biblical brother
26. Shoe-sole material
27. Common cutter
28. Sharp as
29. Founding Father pamphleteer
30. Game-box insert
31. Rather long time
32. Female zebras
33. Accumulate
34. Measures of force
35. Blessed event
36. Nominates
37. Maytag sister brand
38. Canon’s camera competitor
39. Start of a boss’ order
40. *The Time Machine* author
41. Eastern English county, for short
42. Source of the fleece found by 105 Across
43. Strong yens
44. What some parents request at restaurants
45. Hawaiian force of TV
46. Sitting rooms
47. Tiny trace
48. Bambi’s little pal
49. School cafeteria sandwiches, briefly
50. Livestock marker
51. Milne’s first name
52. Sharp-flavored
53. Without refinement
54. Long-term savings plan
55. $$$ source for mags
56. Filmmaker from India
57. Mid-sixth-century year
58. Legal assistant, informally
59. Printer insert
60. “And don’t forget . . .”
61. Sound of a hoofbeat
62. Lots and lots
63. Understood
64. Innate attribute
65. Printer’s proof
66. Chris of CNN
67. Raced on snow
68. Wheel rods
69. Bambi’s little pal
70. School cafeteria sandwiches, briefly
71. Livestock marker
72. Milne’s first name
73. Sharp-flavored
74. Without refinement
75. Long-term savings plan

## Down
1. Word processor function
2. Source of 46 Across
3. City south of West Palm
4. Sends to school
5. Reduces in value
6. Overrate
7. Career athletes
8. Poetic adverb
9. Utah’s __ Mountains
10. Immune-system stimulus
11. Good-for-nothing
12. Presidential monogram
13. School cafeteria morsel
14. Fructose and glucose
15. Milestones for young cos.
16. Ration (out)
17. Labours, for instance
18. Posting on Flickr
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54. “And don’t forget . . .”
55. Sound of a hoofbeat
56. Lots and lots
57. Understood

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## Sudoku

```
8 4 6 2 1 5 7 3 9
7 4 3 8 6 1 5 9 2
6 2 1 7 4 9 3 8 5
5 3 7 9 5 8 2 6 4
1 7 2 4 3 5 6 9 8
3 6 8 5 2 4 1 7 9
9 5 8 7 1 3 2 6 4
4 1 9 6 8 7 3 5 2
2 8 6 3 7 1 4 5 9
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“My dad said to tell you that geometry is ‘squaresville.’ I don’t understand what that means but he assured me that was comedy gold.”

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