Agenda Item 9-A
Action Item

To: Chairman Smedberg and the VRE Operations Board

From: Doug Allen

Date: March 17, 2017

Re: Approval of Gainesville-Haymarket Extension Study
Alternative for Preliminary Engineering and National
Environmental Policy Act Evaluation and Authorization of
Funds from Capital Reserves to Supplement Existing Study
Funding

Recommendation:

The VRE Operations Board is asked to approve advancing either Alternative 1 - Broad Run Terminus or Alternative 4 – Gainesville Terminus (Option B) to enter Phase B of the GHX Study to complete Preliminary Engineering and prepare National Environmental Policy Act evaluation. The Operations Board is also asked to authorize the use of funds from VRE capital reserves in the amount of $750,000 for Alternative 1 or Alternative 4 to supplement existing study funding and enable completion of Phase B.

Background:

The VRE Gainesville-Haymarket Extension (GHX) Study was initiated in July 2015. As background, a VRE extension to Haymarket has been a part of VRE’s long-range growth plans since 2004. The VRE System Plan 2040, adopted in 2014, outlined the need to expand VRE capacity and service to provide expanded VRE travel options, including the Gainesville-Haymarket area of Prince William County, as regional population and employment grows and highway congestion increases on I-66 and parallel roadways. The VRE System Plan Financial Plan, completed in 2015, identified the Natural Growth scenario,
in addition to the full System Plan, as a short-term growth path that focuses on expanding VRE capacity by running longer trains while VRE continues to pursue funding for the implementation of System Plan 2040 service concepts (e.g., additional peak trains, extension, reverse peak and off-peak trains).

The purpose of the GHX study is to evaluate alternatives for serving the western end of the Manassas Line to cost effectively meet future ridership growth while accommodating freight rail needs. Other objectives include adding capacity to the I-66 corridor of statewide significance and supporting local economic development goals. The study consists of two phases:

Phase A: Develop and evaluate service, station, and railroad alignment alternatives, resulting a recommendation of one or more alternatives for further investigation in Phase B; and

Phase B: Develop preliminary engineering and environmental documentation in accordance with the National Environmental Policy Act (NEPA) for the Phase A alternative(s), resulting in a recommendation of a Locally Preferred Alternative (LPA).

After 18 months, Phase A is complete. A long list of alternatives was winnowed down to five short-list alternatives, which were subjected to more detailed planning, analysis, outreach and evaluation:

1. **Broad Run Terminus**: Operate Manassas Line service out of a larger Broad Run Station and expanding the capacity of the existing Broad Run Maintenance and Storage Facility (MSF).

2. **Innovation Terminus**: Operate Manassas Line service out of a new station on the Norfolk Southern (NS) B-Line in the vicinity of Innovation Park with a new MSF nearby. The existing Broad Run MSF and station would be closed.

3. **Gainesville Terminus (Option A)**: Operate Manassas Line service out of a new station on the NS B-Line east of University Boulevard, with one additional new station (Innovation) and a new MSF west of Lee Highway (US 29). The existing Broad Run MSF and station would be closed.

4. **Gainesville Terminus (Option B)**: Operate Manassas Line service out of a new station on the NS B-Line west of Lee Highway (US 29) with two additional new stations (Innovation and Gainesville) and a new MSF west of Lee Highway (US 29). The existing Broad Run MSF and station would be closed.

5. **Haymarket Terminus**: Operate Manassas Line service out of a new station on the NS B-Line near Haymarket with a new MSF nearby and two additional new stations (Innovation and Gainesville). The existing Broad Run MSF and station would be closed.
For consistency, all alternatives were evaluated on the basis of 22 daily VRE trains (the maximum allowable under VRE’s current railroad agreements), an increase from the 16 daily trains presently operated on the Manassas Line. The actual level of future Manassas Line service would be set by the VRE Operations Board independent of this study as part of the annual budgeting process and subject to NS approval. It should be noted that pursuing any VRE expansion plans, including Natural Growth, require increasing the capacity of the Broad Run MSF. That facility will reach capacity when the expansion coaches currently being manufactured are received beginning in FY2018. Three of the 14 expansion coaches will be assigned to the Manassas Line in order to lengthen current train consists. Expansion beyond that point – whether continuing to lengthen existing trains consistent with the Natural Growth scenario or adding new trains – requires construction of additional yard tracks at the Broad Run facility to accommodate storage of the longer trains, which also could necessitate relocation of the Broad Run Station platform.

Based on the GHX Study Phase A analysis, Alternative 1 (Broad Run Terminus) was determined to be the most cost-effective means, on a cost per rider basis, to meet ridership growth on the western end of the Manassas Line. In 2040, this alternative would yield about 5,100 more daily passenger trips compared to a “no-build” alternative. It enables expansion of VRE station and MSF capacity to support multiple future growth scenarios, including the Natural Growth scenario as well as the 22 train scenario evaluated in the GHX Study.

In contrast, the four alternatives that would extend Manassas Line service over the B-Line would yield from 470 to 1,110 more daily passenger trips than Alternative 1 but at considerably more capital and operating expense. Furthermore, the Phase A analysis concluded the four B-Line alternatives would not be competitive for federal funding, a critical funding source for a capital investment of this size.

On December 16, 2016 Operations Board Member Nohe, representing Prince William County, asked that a decision be deferred to allow the County to reach consensus on which alternative is best for the County. Since then the County has had several internal discussions on this issue to reach consensus on the best approach.

Shortly after the December Operations Board meeting, one of the sites under study for a relocated Broad Run station was sold. It does not appear to be a viable alternative site due to this action. Subsequently VRE staff was directed to revisit the earlier analysis to see if the existing Broad Run location could be modified to accommodate the needed yard expansion while retaining the station at the existing site. This analysis indicated that remaining at the Broad Run complex is a viable option.

The Phase A planning and alternatives analysis required greater analysis and effort on the part of VRE’s planning and engineering consultant to complete than envisioned at the start of the study. This included evaluation of a greater number of VRE expansion alternatives, more extensive ridership forecast modeling, and significant public and stakeholder outreach efforts. As a result, the cost to complete Phase A is greater than budgeted.
Modification of the existing agreement with NS relating to impacts of VRE service extension on NS operations, infrastructure and property is anticipated for additional NS analyses and support during Phase B. The currently estimated cost to complete the full study – for either Alternative 1 or Alternative 4 – exceeds the available grant funding. The need for the following additional funding has been identified:

<table>
<thead>
<tr>
<th>Estimated Cost to Complete</th>
<th>Alternative 1, Broad Run Terminus</th>
<th>Alternative 4, Gainesville Terminus (Option B)</th>
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<tbody>
<tr>
<td>A</td>
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<tr>
<td>B</td>
<td>$2,787,650</td>
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<td>Total</td>
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<table>
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<tr>
<th>Existing Funding Sources</th>
<th>Alternative 1, Broad Run Terminus</th>
<th>Alternative 4, Gainesville Terminus (Option B)</th>
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<tbody>
<tr>
<td>DRPT REF</td>
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<tr>
<td>NVTA</td>
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<td>VRE Capital Planning Fund</td>
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<td>Other Grant Sources</td>
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<td>Total Committed Funding</td>
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<td>Funding Shortfall</td>
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<td>$2,080,462</td>
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</tbody>
</table>

Because both Alternative 1 - Broad Run Terminus and Alternative 4 – Gainesville Terminus (Option B) are still under consideration and a decision on one of these options is anticipated at the March 2017 Operations Board meeting, two resolutions have been prepared. The VRE Operations Board is requested to approve advancing either Alternative 1 (Broad Run Terminus) or Alternative 4 – Gainesville Terminus (Option B) for analysis in Phase B of the GHX Study. The approved Alternative will be evaluated along with a No Build alternative to identify potential impacts to the natural and built environment. Preliminary engineering plans will also be prepared in Phase B. A key early part of the next phase of this effort will be to work with the Norfolk-Southern (NS) to obtain their approval of a design concept for their railroad. It is also recommended that $750,000 from the VRE Capital Reserve be allocated to complete the study if Alternative 1 is selected to advance to complete preliminary engineering and NEPA evaluation. If Alternative 4 is selected to advance, it is recommended that $750,000 be allocated from the VRE Capital Reserve with the remaining balance required, $1,330,462, to be provided by Prince William County.

**Fiscal Impact:**

The GHX Study was included in the FY 2015 capital budget, through a Virginia Rail Enhancement Fund (REF) grant and funding from the Northern Virginia Transportation Authority (NVTA). An additional $450,000 from the VRE Capital Planning Fund to allow Norfolk Southern to conduct analyses of the impact of an extension on their operations was approved by the Operations Board in July 2015 and included in the 2016 amended VRE capital budget. The additional funding recommended would come from the VRE Capital Reserve and would be included in the amended FY 2018 capital budget which will be
presented to the Operations Board in December 2017 for approval and referral to the Commissions.
WHEREAS, the VRE Gainesville-Haymarket Extension (GHX) Study was initiated in July 2015 to address the natural growth potential of VRE Manassas Line ridership and evaluate VRE’s role in contributing to the I-66 Corridor of Statewide Significance; and,

WHEREAS, the GHX study consists of Phase A, Alternatives Analysis, and Phase B, National Environmental Policy Act (NEPA) evaluation and Preliminary Engineering (PE) design; and,

WHEREAS, Phase A is now complete and has resulted in five short-list alternatives which were subjected to detailed planning, analysis, outreach and evaluation; and,

WHEREAS, Alternative 1, Broad Run Terminus, is the most cost-effective means of addressing the future needs of the VRE Manassas Line service area on the basis of cost per rider and other metrics; and,

WHEREAS, Alternative 1, Broad Run Terminus, addresses the need for additional train storage capacity to serve the future needs for the entire VRE Manassas Line service area; and,

WHEREAS, additional funding in the amount of $750,000 is required to supplement committed grant funds to complete the Phase B analyses;

NOW, THEREFORE, BE IT RESOLVED THAT, the VRE Operations Board does hereby approve advancing Alternative 1 (Broad Run Terminus) to Phase B of the GHX Study to complete Preliminary Engineering and prepare National Environmental Policy Act evaluation; and,
BE IT FURTHER RESOLVED THAT, the VRE Operations Board does hereby authorize the use of additional funds from the Capital Reserve in the amount of $750,000 for the GHX Study.

Approved this 17th day of March 2017.

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Paul Smedberg
Chairman

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Katie Cristol
Secretary
Virginia Railway Express
Operations Board

Resolution
9A.2-03-2017

Approval of Gainesville-Haymarket Extension Study Alternative 4 – Gainesville Terminus (Option B) for Preliminary Engineering and National Environmental Policy Act Evaluation and Authorization of Funds from Capital Reserves to Supplement Existing Study Funding

WHEREAS, the VRE Gainesville-Haymarket Extension (GHX) Study was initiated in July 2015 to address the natural growth potential of VRE Manassas Line ridership and evaluate VRE’s role in contributing to the I-66 Corridor of Statewide Significance; and,

WHEREAS, the GHX study consists of Phase A, Alternatives Analysis, and Phase B, National Environmental Policy Act (NEPA) evaluation and Preliminary Engineering (PE) design; and,

WHEREAS, Phase A is now complete and has resulted in five short-list alternatives which were subjected to detailed planning, analysis, outreach and evaluation; and,

WHEREAS, Alternative 4 – Gainesville Terminus (Option B), is the preferred means of addressing the goals of Prince William County as outlined in the adopted county Comprehensive Plan while also acknowledging the funding challenges associated with the alternative; and,

WHEREAS, Alternative 4 – Gainesville Terminus (Option B), addresses the need for additional train storage capacity to serve the future needs for the entire VRE Manassas Line service area; and

WHEREAS, additional funding in the amount of $2,080,462 is required to supplement committed grant funds to complete the Phase B analyses, with $1,330,462 to be provided by Prince William County;

NOW, THEREFORE, BE IT RESOLVED THAT, the VRE Operations Board does hereby approve advancing Alternative 4 – Gainesville Terminus (Option B) to Phase B of the GHX Study to complete Preliminary Engineering and prepare National Environmental Policy Act evaluation; and,

BE IT FURTHER RESOLVED THAT, the VRE Operations Board does hereby authorize the use of additional funds from the Capital Reserve in the amount of $750,000 for the GHX Study; and,
[Resolution 9A.2-03-2017 continued]

**BE IT FURTHER RESOLVED THAT**, this approval is subject to Prince William County commitment of supplemental funding in the amount of $1,330,462 to complete Phase B.

Approved this 17th day of March 2017.

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Paul Smedberg
Chairman

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Katie Cristol
Secretary