

**REPORT OF THE VIRGINIA DEPARTMENT OF
RAIL AND PUBLIC TRANSPORTATION**

**Report on the Progress in
Meeting the Request of
Senate Joint Resolution 292**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



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**COMMONWEALTH OF VIRGINIA
RICHMOND
2011**



COMMONWEALTH of VIRGINIA

THELMA DRAKE
Director

DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION
600 East Main Street, Suite 2102
RICHMOND, VA 23219

(804) 786-4440
FAX (804) 786-7286
VIRGINIA RELAY CENTER
1-800-828-1120 (TDD)

December 21, 2011

The Honorable Robert F. McDonnell
Governor of Virginia
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, Virginia 23219

Honorable Yvonne B. Miller
Chairman, Senate Transportation Committee
General Assembly Building, Room 315
Richmond, Virginia 23219


Honorable Joe T. May
Chairman, House Transportation Committee
General Assembly Building
P.O. Box 406
Richmond, Virginia 23218

Lady and Gentlemen:

Attached for your review is a report on progress to evaluate the level of study necessary to advance potential public transportation services to Fort Belvoir and the Marine Corps Base Quantico on the Route 1 corridor, as directed in Senate Joint Resolution 292 of the 2011 Acts of Assembly [SJ 292]. The Bill directed the Virginia Department of Rail and Public Transportation to consult with Fort Belvoir, the Marine Corps Base at Quantico, the Washington Metropolitan Area Transit Authority, the Northern Virginia Transportation Commission, the Potomac and Rappahannock Transportation Commission, the Virginia Railway Express, the Counties of Fairfax, Prince William, and Stafford, and affected federal agencies. This progress report is provided by the Virginia Department of Rail and Public Transportation to:

- i. Inform the General Assembly of progress to date with affected localities, transit partners, Fort Belvoir, Marine Corps Base at Quantico.
- ii. Communicate the concerns and feedback from received by stakeholders in the evaluation process.
- iii. Clarify the next steps which will be taken by the Department and affected localities to implement the goals of SJ 292.

Sincerely,


Thelma Drake

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Executive Summary

The 2011 General Assembly passed Senate Joint Resolution (SJ 292) that directed the Department of Rail and Public Transportation (DRPT) to evaluate the level of study necessary to identify and advance potential public transportation services to Fort Belvoir in Fairfax County and the Marine Corps Base at Quantico in Prince William and Stafford Counties. This evaluation comes at a critical time in which the Route 1 roadway is becoming increasingly congested due to population growth and Base Realignment and Closure (BRAC) related actions affecting Fort Belvoir and Quantico. Currently, local jurisdictions, the Virginia Department of Transportation (VDOT), the Department of Defense (DOD), and the Federal Highway Administration (FHWA) are working on various roadway and transit related projects to address the mobility issues on Route 1. Recently, the United States Office of Economic Adjustment (a division within the Department of Defense) approved Fairfax County's grant proposal to widen a 3-mile segment of Route 1 near Fort Belvoir from four to six lanes. In Prince William County, there are on-going efforts to improve the Route 1 and State Route 123 intersection and to widen segments of Route 1. Further study is necessary to potentially advance roadway widening from Woodlawn Road to the I-95/I-495 Capital Beltway.

DRPT convened a Steering Committee to provide direction to staff over the course of the SJ292 study that consisted of staff from Fairfax County, Prince William County and the federal, state and local elected officials within the subject jurisdictions. Representatives from the Marine Corps Base Quantico and Fort Belvoir also participated in the SJ292 steering committee. A summary of meeting notes and presentations may be found at www.drpt.virginia.gov. Through its research, DRPT compiled numerous recommendations from completed studies and plans that have been developed by VDOT, Fairfax County, Prince William County, Stafford County, local transit agencies and private organizations over the past ten years. These recommendations were aimed at improving mobility for commuters, local residents and establishing transit-supportive, pedestrian-friendly, mixed use development along Route 1. The completed studies and plans recommended a range of road-widening, improved local transit service, potential rapid transit service, such as Bus Rapid Transit (BRT), Light Rail Transit (LRT), or MetroRail, and transit supportive mixed-use development. As funding has materialized, implementing agencies have taken steps to advance these recommendations by making roadway and transit-related improvements such as establishing new limited stop bus service, expanding roadway capacity and constructing new sidewalks and bus shelters. In addition, Fairfax County has worked with VDOT to develop signal priority technology solution on the traffic signals that is intended to improve transit operations along Route 1, but the technology has not been utilized.

The improvements that have been made on Route 1 are indeed an excellent step forward in improving the travel conditions; nevertheless, the traffic volume continues to meet or exceed the Route 1 roadway capacity. As such, a desire remains among local elected officials to continue to make improvements in the near-term, but also continue to move toward making a long-term major capital investment in rapid transit service such as consideration of Bus

Rapid Transit (BRT), Light Rail Transit (LRT) or extending MetroRail in the corridor. Implementing a major capital investment could not only improve mobility, but with proper land-use decision-making, it could jump-start economic revitalization efforts.

Given the vast array of study and subsequent recommendations related to Route 1 over the past ten years, the need to improve travel conditions on Route 1 in the near-term, and the desire of the local elected officials to pursue a major capital investment in a rapid transit system technology, two courses of actions were agreed upon by the Steering Committee. In the first course of action, DRPT will work with its transit partners and affected jurisdictions to initiate a near-term initiative that will seek to advance and/or implement the recommendations that have been made to improve transit operations and traffic conditions in the near-term (two year to five year timeframe) on Route 1 from Huntington Metro Station down to Woodbridge and potentially extending to Quantico, as appropriate. It is anticipated that the near-term implementation analysis will be initiated by spring of 2012 and conclude in the spring of 2013. DRPT will assemble a stakeholder group to oversee and advise the near-term implementation initiative. This group will include representatives from local jurisdictions, elected officials offices, Fort Belvoir and the Marine Corps Base Quantico. In addition, DRPT will seek significant and meaningful public involvement and input by residents, business owners and interested parties located along Route 1 throughout the process.

The second course of action includes initiating the long-term planning and project development that is necessary to be eligible for FTA Section 5309 "New Starts" funding. This long-term planning initiative includes the initiation of countywide transit network study and an Alternatives Analysis that will be led by Fairfax County with support from DRPT. The Fairfax County Department of Transportation's transit network study is intended to identify travel patterns, desired land-uses, prospective station locations and challenges affecting implementation. The project will be completed in 2012, on the condition of Fairfax County Board approval. The information from this transit network study will serve as an input into the Alternative Analysis (AA). One of the goals of the AA is to determine which mode of public transit is feasible in the long-term (light-rail, bus rapid transit, etc) and how it would qualify for Federal Transit Administration (FTA) Section 5309 "New Starts" funding. Led by Fairfax County, this analysis may take between two to five years to complete.

Prince William County Department of Transportation is aware of Fairfax County's alternatives analysis process. However, the County will focus its efforts on implementing roadway expansion projects, in coordination with VDOT, in order to address chokepoints that hinder vehicular movement and affect on-time performance of commuter and local buses that serve communities along the Route 1 corridor. The County will coordinate with the Potomac and Rappahannock Transportation Commission (PRTC) to implement an extension of the Route 1 OmniLink route from the Woodbridge VRE station to Fort Belvoir, once a funding source is identified to cover capital and operating costs.

In 2012, DRPT will consult with its transit partners, State agencies, and affected jurisdictions on the development of the near-term implementation analysis. Once Fairfax County launches their County-wide Transit Network Study, DRPT staff will monitor their efforts and exchange project-related information, at the appropriate time. Throughout this process, DRPT will maintain contact with staffs from Prince William County and other interested agencies to solicit input and, if necessary, facilitate involvement with future studies.

DRPT believes these efforts will add momentum to a long-standing desire among elected officials, residents and commuters to identify and implement solutions that improve mobility and public transportation services on the Route 1 corridor.

I. Introduction

This report was prepared pursuant to Senate Joint Resolution 292, which, as stated below, requests the:

“Department of Rail and Public Transportation to evaluate the level of study necessary to identify and advance potential public transportation services to Fort Belvoir in Fairfax County and the Marine Corps Base at Quantico in Prince William and Stafford Counties.”

This document summarizes the progress and accomplishments made towards meeting the request of Senate Joint Resolution 292 (“SJ 292”), passed in the 2011 General Assembly session. This report begins with a brief overview of the Route 1 corridor and outlines previous studies initiated by VDOT, Fairfax County, Prince William County, Stafford County, local transit agencies and private organizations. In addition, the document provides a synopsis of transit-related recommendations and strategies from those studies and existing efforts to undertaken by local governments and transit agencies.

II. Overview of Route 1 Corridor

In Northern Virginia, U.S. Route 1 (“Route 1”) serves as “Main Street” for local communities and a highway alternative to Interstate 95 for commuters and non-local traffic. The Virginia Department of Transportation (“VDOT”) estimates that 37,000 to 56,000 vehicles navigate the road each day in Fairfax County, as compared to an annual average of 14,000 to 33,000 vehicles on certain portions of Route 1 within the Richmond city limits. This high level of vehicular traffic is generated from a variety of retail, employment and residential uses near or adjacent to this corridor. The Route 1 roadway segment in Fairfax County, known as Richmond Highway, contains a mix of retail strip malls, apartments, townhomes and single family residential. This highway bisects Fort Belvoir, an expansive military installation that attracts military personnel and civilian employees throughout the region, especially from the southern portion of the Northern Virginia region. Route 1 also provides a gateway for tourists to the historic Mount Vernon estate. In Prince William County, the Route 1 corridor contains similar commercial, retail and residential land-uses as in Fairfax County but the land-use density are less intense south of Route 234. However, the available land and attractive housing prices are increasing urban sprawl development and subsequently the pressure on the already congested corridor.

The complexity of the Route 1 corridor cannot be understated due to its long history of suburban style strip mall development, single and multi-family residential, major military installations, tourist attractions, commuter travel, and the varying extents of public right-of-way that provide the mobility capacity to serve these land-uses and destinations. The land-use complexity of this corridor places a unique set of challenges on Route 1 that are not easily solved. The public right-of-way along the length of Route 1 from the I-495 Capital Beltway south through Prince William County varies from four to six lanes. In recent years,

portions of the roadway have been widened from four lanes to six lanes in certain segments in Fairfax County, but the majority of the Route 1 corridor consists of four-lanes. In addition, segments of Route 1 also include pedestrian facilities (sidewalks), crosswalk signals, and bus shelters within the public right-of-way that support and connect to existing public transportation service.

At present, there are a number of public transportation routes that serve the diversity of uses and destinations along Route 1 in Fairfax and Prince William Counties. Most notably, the Washington Metropolitan Area Transportation Authority (WMATA) offers a limited stop bus service, the “Richmond Highway Express” (REX) between the King Street MetroRail Station and Fort Belvoir via Route 1. In PRTC’s OmniLink “Route 1” bus route travels between the Town of Quantico and the Woodbridge VRE Station. In recent years, actions related to BRAC at Fort Belvoir and Quantico have renewed desires to maximize the capacity of Route 1 and identify and implement increased public transportation services to improve the mobility for Northern Virginia commuters and residents who use the corridor everyday. The impetuses for these desires are reflected in existing and past studies that have been compiled and summarized by DRPT in Appendix.

III. Existing and Past Transit Related Studies affecting the Route 1 Corridor

Given its role as a major transportation corridor in the region, State and local governments have initiated projects and produced plans aimed at enhancing the Route 1 highway from a mobility, land use and public transportation perspective. Since 2001, at least 10 separate studies and plans have been conducted by a variety of agencies, including VDOT, WMATA, Fairfax County, Prince William County, PRTC and other private organizations. Collectively, these studies and plans provided a wealth of information related to the land use and travel conditions on Route 1, and they provide sound recommendations for potential improvements for public transportation on Route 1 that could be advanced into implementation in a near-term or long-term timeframe. In recent years, BRAC-related studies or assessments have put forth potential improvements to address the immediate access to and from the respective military installations via Route 1. Section A-1, of the Appendix, provides a detailed summary of the relevant studies related to Route 1 that were compiled by DRPT.

IV. Recommendations from Previous Studies

Studies conducted since 2001 have generated a significant number of recommendations that include strategies such as: examining the potential for BRT, LRT, or MetroRail service, roadway widening and bus preferential treatments, restructured bus routes, and transit facilities. In some cases, specific recommendations were contingent upon action from other agencies, future development or ridership demand. Within Fairfax County, WMATA and Fairfax County have outlined potential transit service enhancements such as BRT and Light Rail to serve major activity centers along the Route 1 highway as well as implementing transit

supportive infrastructure, including sidewalks and bus shelters. In Prince William County, PRTC and the local government have made recommendations regarding the implementation of BRT and infrastructure improvements to enhanced bus travel time on Route 1. In Stafford County, there are transit-related recommendations related to improving parking capacity at VRE stations and widening Route 1 to improve vehicular traffic flow. Section A-2 of the Appendix provides a detailed summary of the relevant recommendations from the studies that were compiled by DRPT.

V. Outreach

For this effort, DRPT formed a steering committee comprised of elected officials, jurisdictional agency staff, and military representatives. The committee included representation from the following offices and agencies:

- Virginia Senate 36th District
- Virginia House of Delegate 43rd District
- Virginia House of Delegate 44th District
- Fairfax County Board of Supervisor Chairman
- Fairfax County Supervisor – Lee District
- Fairfax County Supervisor – Mount Vernon District
- Prince William County Supervisor – Woodbridge District
- Prince William County Supervisor – Neasbco District
- Fairfax County Department of Transportation
- Prince William County Department of Transportation
- Stafford County
- Town of Dumfries
- Fort Belvoir
- Marine Corps. Base Quantico

The first steering committee meeting was held on July 25, 2011, where DRPT staff provided the steering committee with a detail of existing transit conditions on the corridor and a listing of the recommendations generated from previous studies. DRPT staff also provided recommendations on improving Route 1 from a transit and land-use perspective. Members expressed a desire for enhanced transit such as dedicated bus lanes or Bus Rapid Transit, in the near-term and they agreed that the Route 1 transit study should identify projects that can be implemented incrementally in light of limited resources at the local, State and Federal levels. In the long-term, the committee members thought it was necessary to examine the feasibility of constructing a light-rail or Metrorail extension to stimulate economic development and to provide high-capacity transit service as a way to manage the congestion and provide mobility options on Route 1.

The second steering committee meeting was convened via a conference call on November 16, 2011 where DRPT staff briefed participants on DRPT's recommendation to proceed with a near-term implementation analysis of the valid and appropriate recommendations identified from previous studies. During this meeting, Fairfax County staff also informed the committee about their intent to examine long-term improvements the Route 1 corridor. Prince William County elected officials and staff provided an overview of their recent studies and initiatives. However, a subsequent meeting between DRPT and Prince William County elected officials and staff was held to discuss their involvement with the near-term implementation study led by DRPT and the long-term Alternatives Analysis that would be led by Fairfax County. It was agreed that Prince William County would participate in the near-term implementation analysis for Route 1, but may wait to pursue an Alternatives Analysis at a later time.

VI. Recommendations

As a result of researching past studies and recommendations, and with input from the steering committee, DRPT proposed to initiate a near-term implementation analysis that focuses on projects that will improve transit operations and traffic conditions on Route 1 and may be implemented within a two to five year timeframe. This near-term effort will examine existing conditions on Route 1 between the Huntington Metro Station in Fairfax south to Prince William County. It will analyze a range of improvements that were recommended in WMATA's Priority Corridor Network Plan and other studies, and it will develop a comprehensive assessment of the traffic, right-of-way and financial costs associated with implementing the near-term improvements.

DRPT will convene a stakeholder group consisting of representatives from transit agencies, local governments, military installations, VDOT and Federal agencies to provide input throughout the process. DRPT will conduct meaningful public outreach to engage and get feedback from the local residents, business, and other interested parties along Route 1. This near-term implementation analysis is anticipated to begin by spring of 2012 and conclude by spring of 2013. DRPT believes the near-term improvements for the Route 1 corridor will serve as a catalyst for improving transit service and mobility options that will attract new riders and prepare the corridor for higher capacity transit service in the future.

The Fairfax County Department of Transportation proposed to evaluate the long-term transit improvements for the Route 1 corridor through a County-wide transit network study and an Alternative Analysis. The transit network study will identify travel patterns, desired land-uses, prospective station locations and challenges affecting implementation and the Alternative Analysis effort will determine the cost-effective locally preferred transit alignment alternative and transit mode in the Route 1 corridor. Fairfax County anticipates starting the transit network study in 2012 and starting the multi-year Alternative Analysis project shortly thereafter.

Prince William County Department of Transportation is aware of Fairfax County's alternatives analysis process. However, the County will focus its efforts on implementing roadway expansion projects, in coordination with VDOT, in order to address chokepoints that hinder vehicular movement and affect on-time performance of commuter and local buses that serve communities along the Route 1 corridor. The County will coordinate with the Potomac and Rappahannock Transportation Commission (PRTC) to examine the potential of implementing an extension of the Route 1 OmniLink route from the Woodbridge VRE station to Fort Belvoir; however, additional funding will be necessary to cover capital and operating costs.

VII. Summary

The passage of SJ 292 and subsequent discussions with local jurisdictions have served as a catalyst in determining the next steps in improving public transportation service throughout the Route 1 corridor. Through DRPT's research and outreach to elected officials and agency staff, it is apparent that the corridor has been studied extensively and many recommendations have been put forth as prospective solutions to alleviate congestion and improve transit service. These recommendations will serve as reference points for DRPT's near-term implementation analysis. Fairfax County will lead the long-term improvements by conducting a phased evaluation process. Prince William County will continue to work towards expanding roadway capacity on Route 1 with the aim of improving travel flow for motorists and transit service operations. With respect to transit, Prince William County will coordinate with PRTC on the proposed extension of an existing local route to Fort Belvoir in Fairfax County. Collectively, these efforts will generate a momentum in developing a corridor that maximizes transit opportunities and mobility options for residents and commuters using the Route 1.

VIII. Appendix

Appendix A-1: Summary of Existing Initiatives and Transit Related Studies affecting the Route 1 Corridor

On-Going Local Initiatives

- **Richmond Highway Public Transportation Initiative:** In 2004, Fairfax County initiated a multi-year project to upgrade transit services and facilities along Route 1. Specifically, this initiative is designed to address long-standing deficiencies with passenger access to transit stops and pedestrian safety in the Richmond Highway corridor between Fort Belvoir and Huntington Station.

Studies in Progress

- **Fairfax County Route 1 Transit Center Draft Feasibility Analysis:** Fairfax County DOT is studying the feasibility of building a transit center on Richmond Highway (US Route 1) at Fordson Road to support revitalization and the transportation goals for the corridor.
- **WMATA 2040 Regional Transit System Plan:** The WMATA long-range plan is studying various hypothetical service enhancements and extensions to address travel in the downtown Washington, D.C. core and within the suburban areas.
- **Fort Belvoir Area Route 1 Transit Study:** In 2011, Fairfax County received grant money to initiate a transit study in the Fort Belvoir area. The scope of this project is under development by jurisdictional staff.

Completed Studies:

- **Route 1 Corridor Bus Study:** In 2001, the Northern Virginia Transportation Commission completed a Route 1 Corridor Bus Study to examine conditions and to propose new bus service and facility enhancements in Fairfax and Prince William County.
- **WMATA US 1 Ft. Belvoir to Huntington Metro Station Transit Improvement Study:** In 2003, WMATA conducted an internal study to examine transit alternatives on the Route 1 corridor between Huntington MetroRail station and Fort Belvoir. This study recommended three phases of recommendations that could be implemented in both the near and long term.

Appendix A-1: Summary of Existing Initiatives and Transit Related Studies affecting the Route 1 Corridor (continued)

- **WMATA Transit Service Impacts of BRAC:** WMATA completed this study in June 2010 to document the impacts to and opportunities for regional transit service due to the BRAC activities in the Washington region.
- **WMATA Regional Bus Study:** In 2003, WMATA initiated and completed a regional bus study to evaluate the short and long-term requirements for regional and non-regional bus services in the WMATA compact area.
- **Urban Land Institute – Washington Technical Assistance Panel Report:** In 2005, the Fairfax County Department of Housing and Community Development, in collaboration with the Fairfax County Department of Planning and Zoning, invited ULI Washington to convene a Technical Assistance Panel to generate ideas and strategies to revitalize the Richmond Highway corridor.
- **Mount Vernon District Visioning Effort:** In 2010, Fairfax County Board Supervisor Gerald Hyland appointed a 75 member visioning task force, consisting of local residents, to develop a 25-year vision of the Mount Vernon district. The charge of the taskforce included examining existing conditions, assessing needs and making recommendations on a variety of community issues including transportation.
- **Fairfax County Transit Development Plan (TDP):** Fairfax County Department of Transportation completed a comprehensive TDP for all bus service in the County including the Richmond Highway corridor.
- **Fairfax County Comprehensive Plan:** In 2011, Fairfax County released the goals and concepts for improving transit options on the Richmond Highway corridor in the Mount Vernon Planning District section of the comprehensive plan.
- **Revitalization Concept Plan for the Woodland and Accotink Village CBCs on Richmond Highway:** In July 2010, a group of Virginia Tech graduate urban planning students completed a report which outlined a phased conceptual land use plan for two commercial business districts in the central section of the Richmond Highway corridor.

Appendix A-1: Summary of Existing Initiatives and Transit Related Studies affecting the Route 1 Corridor (continued)

- **Prince William County/PWC BRT Feasibility Study:** In April 2011, Prince William County, in conjunction with PRTC, completed a Route 1 BRT feasibility study to assess the operational and financial feasibility of various degrees of bus service improvements in the Route 1 corridor within Prince William County.
- **PRTC Transit Development Plan:** PRTC, with technical support from DRPT, completed their TDP for all bus service serving the County and activity centers in Northern Virginia and Washington, DC.
- **PRTC Long Range Plan:** In 2007, PRTC adopted a long-range plan that evaluated four alternative service policies to guide the expansion of PRTC bus services over the next 25 years (2030).
- **VDOT Centerline Study (2009):** As part of its 1998 session, the General Assembly directed VDOT to perform a roadway expansion design study of the Route 1 corridor, to make recommendations for prioritization and funding for improvements and to present the study to the Governor and the General Assembly.
- **Potomac River Commuter Ferry Service Study:** In 2009, the Prince William County Department of Transportation conducted a feasibility study of a proposed commuter ferry service on the Potomac River between Washington, DC and Quantico – with a potential stops at Old Town Alexandria, National Airport, Fort Belvoir, National Harbor and at Marshall Hall in Charles County, Maryland.
- **Stafford County Comprehensive Plan:** In 2010, Stafford County approved their plan which outlined goals and concepts for improving transportation and commuter options on the Jefferson Davis Highway corridor.
- **Boswell Corner Redevelopment Plan:** In 2011, Stafford County drafted a development plan to examine the opportunities to concentrate residential and commercial development on and near the Route 1 corridor between Telegraph Road and the Quantico Marine Corps Base.

Appendix A-2: Recommendations from Previous Transit-Related Studies

New or Reconfigured Bus Service Related Recommendations

- In the near-term (2003-2010), streamline bus service and routes, add GPS and SmartCard payment technology to buses, implement signal priority in the corridor for buses and improve/enhance pedestrian and passenger facilities. (*WMATA, 2003*)
- Extend PRTC's Route 1 OmniLink Route from Prince William County to the South Post entrance and improving connections to existing transit centers by extending the Metrobus REX line to Lorton VRE and improving local bus connections to the Franconia-Springfield Station (*WMATA, 2010*).
- Establish a commuter rush hour bus service from the Mount Vernon area to and from Tyson's Corner as a way to "unclog" Route 1 and nearby highways. (*Mount Vernon Visioning Task Force Report, 2010*)
- Implement short-term transit improvements include more direct and frequent bus service, timed transfers between bus lines, bus turnouts and lay-by lanes, shelters for waiting passengers, and other passenger amenities. (*Urban Land Institute - Washington Panel Report, 2005*)
- Modify Schedule for Metrobus 11Y Mt. Vernon Express Line Trips / Restructure and Improve Metrobus REX – Richmond Highway Express / Increase Service and Revise Routing on Connector 151/152 and 161/162 & Restructure Connector 171 Richmond Highway Line. (*Fairfax Connector TDP, 2009*)
- Extend Route 1 OmniLink from its current northern terminus at the Woodbridge VRE Station to Fort Belvoir, during the peak periods. (*PRTC Long-Range Plan, 2007/ TDP, 2011*)

Bus Rapid Transit (BRT) Related Recommendations

- In the long-term (2010 – 2025+), implement BRT and implement light rail transit in the corridor as ridership demand and land-use density and development will support the major capital investment. (*WMATA, 2003*)
- Implement intermediate-term improvements include bus rapid transit (BRT), which could operate within its own right-of-way in the median of a widened Richmond Highway. (*Urban Land Institute- Washington Panel Report, 2005*)
- Any BRT system in the Richmond Highway corridor will be feasible only after the road widening, which is expected to take place. (*Virginia Tech. Studio Report, 2010*)

Appendix A-2: Recommendations from Previous Transit-Related Studies (continued)

- *Assuming significant ridership demand and high density land uses warranted such service -- Establish two local BRT routes to serve the PRTC Transit Center and the Route 123 Commuter Lot to the north and the other loop serving the PRTC Transit Center, the Town of Dumfries and the Triangle section of Prince William County to the south via Route 1. The regional BRT alignment would consist of “spurs” from the northern and southern loops to other regional destinations outside of Prince William County such as Fort Belvoir, Stafford and an intra-County option to loop around the Quantico Marine Base. (PRTC / Prince William County BRT Feasibility Study, 2011)*
- Identify and develop alternative transit concepts such as bus rapid transit (BRT), light rail transit (LRT), Potomac ferry service, Metrorail (Blue Line) extension to Potomac Mills. (*Prince William County Comprehensive Plan*)
- Initiate feasibility studies of alternative transit concepts that would identify conceptual alignment and engineering, proposed station locations, transit vehicle technology and suitability, initial scan of environmental issues, fatal flaw analysis and possible funding sources. (*Prince William County Comprehensive Plan*)

Light Rail / MetroRail Related Recommendations

- Implement Enhanced Transit Service along Richmond Highway such as Metrorail, BRT or LRT and establish Rail/BRT/LRT Stations on Richmond Highway at North Kings Highway, at Beacon Hill Road, near Fordson Lane, near Mohawk Lane, near Sacramento, near Railroad line on Fort Belvoir Base and at Telegraph Road, (*Fairfax County Comprehensive Plan*)
- Consider using the existing rail right-of-way connecting Fort Belvoir to Springfield Metro should be a viable opportunity to ease Richmond Highway corridor traffic. (*Mount Vernon Visioning Task Force Report, 2010*)
- If Metrorail service is extended to Fort Belvoir, Metro stations should be placed in locations that provide access to Richmond Highway’s activity centers (*Urban Land Institute- Washington Panel Report, 2005*)

Pedestrian Enhancements Recommendations

- Fairfax County and VDOT should consider pedestrian improvements such as continuous, well appointed, ADA-compliant sidewalks and trails, marked crosswalks, countdown pedestrian signal heads, appropriate signal timings, and place-making plazas and other public spaces. (*Urban Land Institute- Washington Panel Report, 2005*)

Appendix A-2: Recommendations from Previous Transit-Related Studies (continued)

New Transit Facility / Centers Recommendations

- Establish a transit center on Belvoir Road at Pence Gate to serve proposed local, express and shuttle routes to Fort Belvoir's South Post and to accommodate the modification of the WMATA REX route. (*WMATA, 2010*)
- Expand existing commuter parking lots and VRE parking lots. (*Stafford County Comprehensive Plan*)

Roadway Improvements Recommendations

- Widen Route 1 from the Capital Beltway to the Stafford County line with accommodations for trails and transit bus pullouts in key locations. (*VDOT Centerline Study, 2009*)
- Encourage VDOT to install traffic responsive technology on all traffic signals in the Mount Vernon District. (*Mount Vernon Visioning Task Force Report, 2010*)
- Create a rush hour only HOV BUS lane on Richmond Highway. (*Mount Vernon Visioning Task Force Report, 2010*)
- Widen the highway to accommodate three lanes and a turning lane in each direction, as well as a 34-foot median for future transit use. (*Urban Land Institute- Washington Panel Report, 2005*)
- With respect to infrastructure investments, the study proposed queue jump lanes and transit signal priority to offset the effect of increase travel times on Route 1 due to increase congestion arising from population growth and regional travel through the corridor. (*PRTC / Prince William County BRT Study, 2011*)
- Widen Jefferson Davis Highway from Telegraph Road to Prince William County Line. (*Stafford County Comprehensive Plan*)

Land-Use Related Recommendations

- Develop a complementary mix of residential and commercial uses in close proximity to one another. (*Urban Land Institute- Washington Panel Report, 2005*)
- Any development of an improved mass transit line must be done after considerable economic development has taken place along the corridor. (*Virginia Tech. Studio Report, 2010*)

Appendix A-2: Recommendations from Previous Transit-Related Studies (continued)
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Commuter Ferry Related Recommendations

- Coordinate with the proper authorities to obtain speed restriction waivers along the Potomac River. (*Potomac River Commuter Ferry Service Study*)
- Conduct a rigorous market analysis to analyze prospective demand by market in order to account for all the significant variables bearing on usage and estimated ridership diversions by mode. (*Potomac River Commuter Ferry Service Study*)
- Continued coordination with local governments and military installations that front the Potomac River. (*Potomac River Commuter Ferry Service Study*)

