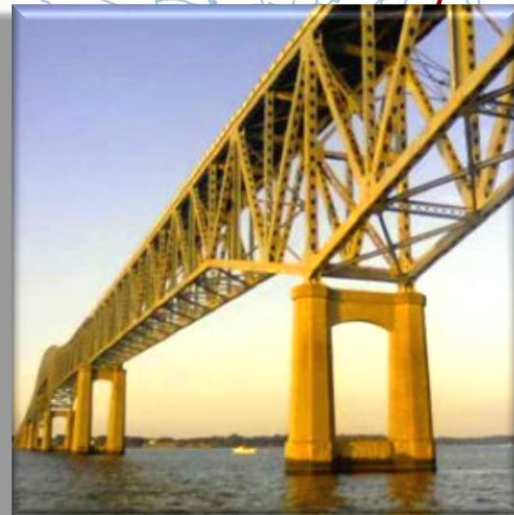
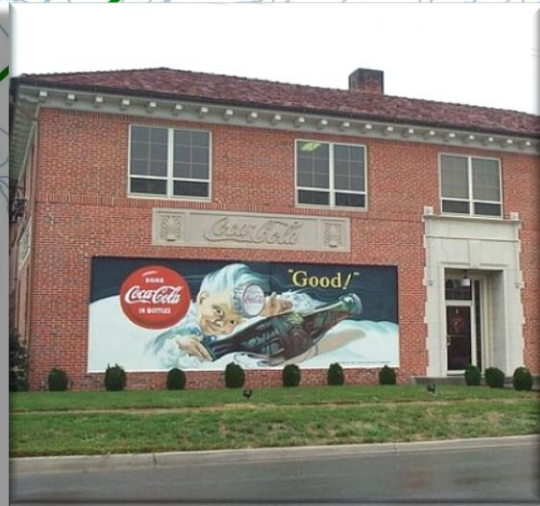
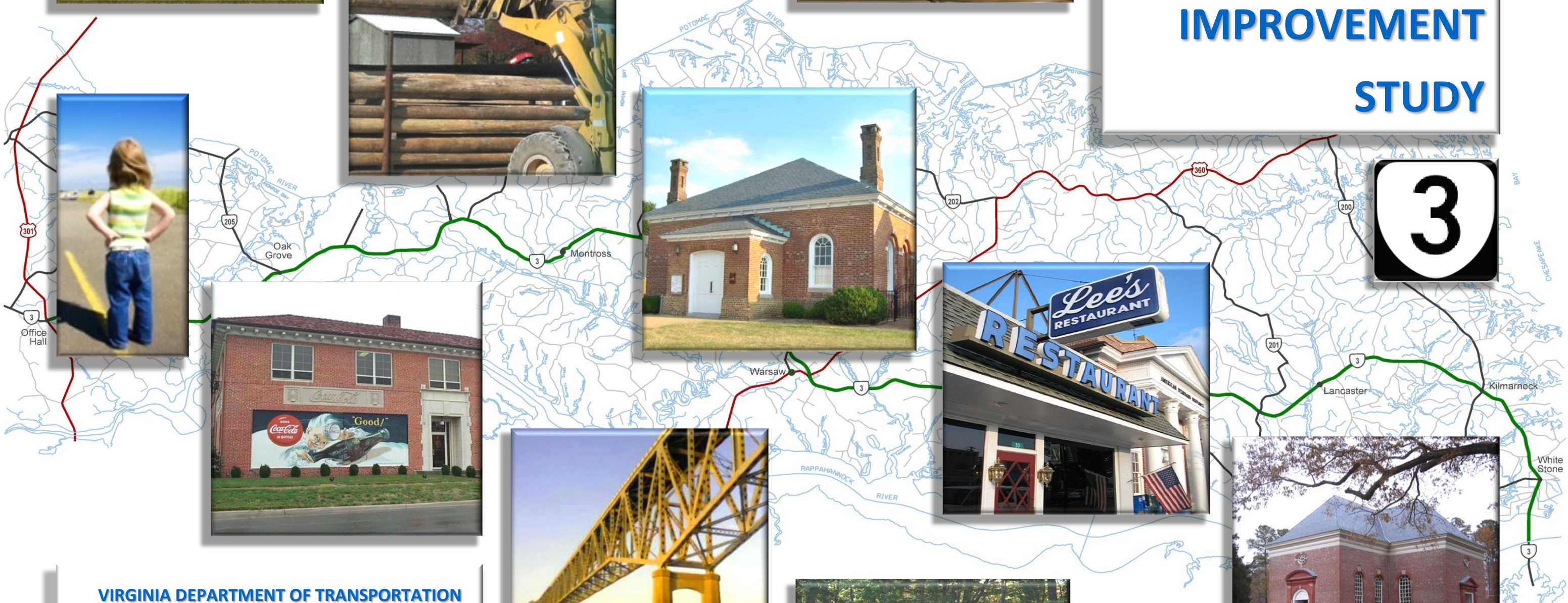




VDOT

ROUTE 3 NORTHERN NECK CORRIDOR IMPROVEMENT STUDY



**VIRGINIA DEPARTMENT OF TRANSPORTATION
FREDERICKSBURG DISTRICT PLANNING SECTION**



MAY 2016

Executive Summary

General

Route 3 is one of two main highway facilities in the Northern Neck (the second being Route 360) and the only highway that traverses from one end of the geographic region to the other. In late spring of 2014, VDOT staff met with the Northern Neck Planning District Commission staff, County Administrators and several supervisors, including King George County, to initiate a study of the Route 3 corridor. The purpose was to evaluate the facility and corridor to determine ways to increase efficiency for local (including school buses and agriculture), seasonal and freight traffic.

The Route 3 corridor is generally characterized by moderately low current and projected traffic volumes through the design year of 2040 (less than 15,000 vehicles per day) for a majority of the corridor. Additionally, the incidence of crashes along Route 3 is low in most areas, so safety concerns are relatively minor. Fifty-five miles of the seventy-two mile facility consists of a simple, two-lane highway with infrequent opportunities for passing.

Localities along the corridor have expressed an interest in widening Route 3 to four lanes (divided) for its entire length from US 301 to, and including, the Norris Bridge. With a cost estimate exceeding \$400 million (not including the cost of replacement of the Norris Bridge), the construction of a dual-lane facility for the length of the Northern Neck is impractical, as such an expenditure cannot be justified on the basis of safety or congestion.

Two two-lane segments near Kilmarnock and White Stone may approach/exceed 15,000 VPD in 2040 and will likely warrant widening to four lanes as long-range improvements. Additionally, Route 3 near the Route 301 intersection in King George County could soon see volumes requiring the provision of expanded capacity.

Traffic volumes along the corridor should be analyzed on a regular basis (every five years with Comprehensive Plan updates) to determine the need for future road widening and safety improvements based on actual development that occurs along the corridor.

Conclusions

Passing Lanes

This study concludes that the installation of passing lanes is an affordable and effective means of improving the efficiency of the Route 3 corridor in the Northern Neck. Three-lane or four-lane sections provide passing capability at selected segments along Route 3. Selection criteria and preferred locations are noted on pages 24-27 of this report. Priority locations (in order) are as follows:

Western Section:

- Location 6-Westmoreland County
- Undetermined Location – Eastern King George County or Western Westmoreland County
- Location 8-Westmoreland County



Figure 1-1

Eastern Section:

- Location 14- Lancaster County
- Location 11- Richmond County

Note: If, after further analysis, any of the recommended priority passing-lane locations are determined to be unacceptable, consideration should be given to one of the remaining locations shown on the maps.



Figure 1-2

Safety Improvements

According to the VDOT Road Design Manual, 40 intersections along Route 3 have appropriate turn lanes, based on volumes and movements. There are five intersections for which turn lane improvements are recommended:

- | | | |
|----------------------|---------------------------|------------------|
| • King George County | Rte 3 Eastbound @ Rte 629 | Left Turn Lane |
| • King George County | Rte 3 Eastbound @ Rte 647 | Right Hand Taper |
| • Lancaster County | Rte 3 Westbound @ Rte 604 | Left Turn Lane |
| • Lancaster County | Rte 3 Westbound @ Rte 605 | Right Hand Taper |
| • Lancaster County | Rte 3 Eastbound @ Rte 637 | Right Hand Taper |

Making improvements at these locations will make the intersections safer by providing defined turn lanes and the ability to slow and make turns without impacting through traffic. In addition to the intersections noted above, several others have been identified for long-term safety improvements. These intersections should be monitored and improved as necessary.

Multimodal Improvements

Multimodal improvements noted in this report relate to bicycle/pedestrian improvements, transit, commuter parking and car or van pools. Areas of concern should be continually monitored by the localities and NNPDC in conjunction with the mode facilitators to expand or improve services and make infrastructure improvements when warranted.

House Bill 2

All projects in the corridor proposed to be funded by state or federal dollars must go through the HB2 prioritization process. Projects that score well within the statewide or district grant program and are selected by the Commonwealth Transportation Board (CTB), will advance to the Six Year Improvement Plan for funding and construction. One recommendation of this study was applied for under HB2, a passing lane project (location #6, at left) which was submitted by Westmoreland County for inclusion in the 2015 prioritization application process. Efforts should be made to apply for additional projects on subsequent House Bill 2 cycles.

2015 ROUTE 3 NORTHERN NECK CORRIDOR IMPROVEMENTS STUDY

TABLE OF CONTENTS

	Page
Executive Summary	1
Table of Contents	2
Chapter 1 Introduction	3
Chapter 2 Study Area	4
Chapter 3 Functional Classification of Route 3 in the Northern Neck	4
Chapter 4 Background Development of Route 3 in the Northern Neck	
A. Existing Right-of-Way Widths	5
B. Existing Density of Access	5
C. Existing Traffic Volumes	6
D. Existing Geometric Deficiencies	7
E. Existing Passing Zones	7
Chapter 5 Traffic Patterns and Trends on Route 3 in the Northern Neck	
A. Thirty-Year Growth Trend	8
B. Recent Trends and Current Facilitation of Movements	9
C. Growth Trend for Trucks	9
D. Peak-Hour Pattern	10
E. Seasonal Peaks	10
F. The Route 17 Alternative	11
Chapter 6 Current Safety and Efficiency of Route 3	11
Chapter 7 Existing Bicycle and Pedestrian Accommodations	13
Chapter 8 Demographics	
A. Population	14
B. Economy/Employment	14
C. Regional Commuting Patterns	15
D. Emergency Services and Hospitals	16
E. Transit/Commuter Parking/TDM	16
Chapter 9 Existing Land Use	16
A. Current Land Development Projects	16
B. Locality Long-Range Planning Documents	17

Supplemental Exhibits – Existing Conditions:

	Supplemental Maps 1 & 2, Existing Right-of-Way Widths	18
	Supplemental Maps 3 & 4, Existing Traffic Volumes and Density of Access	19
	Supplemental Maps 5 & 6, Existing Geometric Deficiencies and Passing Zones	20
	Existing (2014) and Projected (2040) Traffic Volumes - Western Section	21
	Existing (2014) and Projected (2040) Traffic Volumes - Eastern Section	21
Chapter 10	Steering Committee	22
Chapter 11	Public Involvement	22
	A. Citizen Information Meetings	22
	B. House Bill 2 and Local Gov't Endorsement of Project	22
Chapter 12	Improvement Options	23
	A. Potential Four-Lane Widening - Locations and Costs	23
	B. Passing Lanes - Locations and Costs	25
	C. Safety Improvements – Turn Lanes	29
	D. Grade Improvements	30
	E. Multimodal Recommendations	30
	Map of Recommended Improvements – Western Section	31
	Map of Recommended Improvements – Eastern Section	32
Appendix A	Public Information Meeting Documents	33
Appendix B	Resolutions of Support for HB2 Passing lanes Project – Westmoreland County	43

LIST OF TABLES AND FIGURES

		Page
Figure 1-1	Initial Potential Passing Lane Locations – Western Section	1
Figure 1-2	Initial Potential Passing Lane Locations – Eastern Section	1
Figure 2-1	Route 3 Northern Neck Study – Location Map of Western Section	4
Figure 2-2	Route 3 Northern Neck Study – Location Map of Eastern Section	4
Table 4-1	Access Density on Route 3 in the Northern Neck	6
Table 4-2	Locations of Geometric Deficiencies on Route 3	7
Table 4-3	Number of Existing Passing Zones on Select Segments	8
Figure 5-1	Total Traffic Volume on Route 3 from 1985 to 2010	8
Figure 5-2	Truck Volumes on Route 3 from 1985 to 2010	10
Figure 6-1	Crashes per Square Mile along Route 3 (2000-2011)	11

Figure 6-2	Locations of Fatal Crashes along Route 3 (2000-2011)	11
Figure 6-3	Posted Speed Limits for Route 3	12
Figure 6-4	Travel Speeds During the Weekday Peak Hour Period	12
Figure 6-5	Levels-of-Service for Route 3 in 2012	12
Table 8-1	Seniors / Second Homes Percentages	14
Figure 8-1	Workplace Location of Residents in the Northern Neck	15
Figure 8-2	Commuting Pattern for King George County	15
Figure 8-3	Commuting Pattern for Westmoreland County	15
Figure 8-4	Commuting Pattern for Richmond County	15
Figure 8-5	Commuting Pattern for Lancaster County	15
Figure 12-1	Four-Lane, Divided Typical Sections	24
Figure 12-2	Recommended Four-Lane, Divided Improvements on Eastern Section	24
Figure 12-3	Initial Potential Passing Lane Locations – Western Section	25
Figure 12-4	Initial Potential Passing Lane Locations – Eastern Section	25
Figure 12-5	Passing Lane Design – Features and Dimensions	26
Figure 12-6	Passing Lane Design – Typical Sections	27

GLOSSARY OF ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
ADT	Average Daily Traffic
CTB	Commonwealth Transportation Board
FHWA	Federal Highway Administration
HB2	House Bill 2 (Virginia General Assembly, July 2014)
HCOD	Highway Corridor Overlay District
LOS	Level of Service
MPH	Miles per Hour
NHS	National Highway System
NNPDC	Northern Neck Planning District Commission
PHNST	Potomac Heritage National Scenic Trail
STIP	Six Year Improvement Plan
VDOT	Virginia Department of Transportation
VPD	Vehicles per Day

2015 ROUTE 3 NORTHERN NECK CORRIDOR IMPROVEMENTS STUDY

1. INTRODUCTION

An effective transportation network in the Northern Neck of Virginia is needed to provide for the safe and efficient movement of people, goods and services, and help to promote a vibrant local economy for its residents. **Route 3 is the only roadway corridor in the Northern Neck that runs the entire length of the peninsula.** By volume, it is the main highway serving Westmoreland and Lancaster Counties and is the second highway in traffic volume for the counties of King George and Richmond.

Between Route 301 and the Rappahannock River at White Stone, Route 3 traverses over 70 miles through the Northern Neck. Approximately 55 of these miles consist of two-lanes with little opportunity for passing. The economy of the Northern Neck is based largely on agriculture (farming, logging, lumbering), tourism (recreational and historic resources), fishing and processing, and small, local businesses. As rail is not an option at this time, the larger manufacturing businesses such as Carry On Trailer and Potomac Supply depend on trucks to move goods, along with other agriculture and forest product businesses. Many of these employers bring seasonal traffic, which when placed upon a two-lane highway such as Route 3, lead to a decrease in Levels of Service (LOS) and safety as well as an increase in congestion and travel times.

As traffic volumes on Route 3 continue to increase, solutions are needed to relieve both daily delays (school buses, farm equipment and log trucks) and seasonal congestion (tourists, beach traffic, towed boats and other recreational vehicles). A comprehensive solution for the corridor may include the provision of frequent, protected passing opportunities. The resulting increase in efficiency will provide an improved road system for the motoring public, commerce and emergency services and will further promote a more competitive economy for the Northern Neck. As a part of these improvements, access management practices should be implemented and bicycle and pedestrian needs should be accommodated where practical.

Route 3 in the Northern Neck is not solely a transportation corridor. It supports existing businesses dependent on a regional road network that lacks an interstate and rail system. Further, its ability to adequately respond to local and regional freight needs, serves as a catalyst to attract new business and industry to the area. An efficient Route 3 will be instrumental in determining the future of the Northern Neck by supporting existing businesses, attracting new business and providing attractive jobs for future generations. Both the Westmoreland County Comprehensive Plan and Northern Neck Comprehensive Economic Development Plan identify improvements to Route 3 as a critical need for the region.

The purpose of this study is to identify alternatives for improvements to the Route 3 Corridor in the Northern Neck that can be incorporated into the individual County Comprehensive plans and that offer a consistent approach along the entire length of the corridor. It is intended to address issues identified above with resulting recommendations which will support an efficient transportation facility well into the future. This study is an expansion and refinement of the 1988 Route 3 Corridor Study. This new analysis includes trends and forecasts, highway capacities and levels of service, safety, recommendations and priorities, and cost estimates for multiple alternatives. This study concludes with a list of proposed construction projects to be developed and considered for programming into the VDOT Six-Year-Improvement-Plan (SYIP) and the House Bill 2 (HB2) prioritization process.

Note: This update will retain the same western terminus as the 1988 Study, but will remove the southern section in the Middle Peninsula. The new eastern terminus will be the Norris Bridge at White Stone.

2. ROUTE 3 – NORTHERN NECK OF VIRGINIA – STUDY AREA

Total Study Area

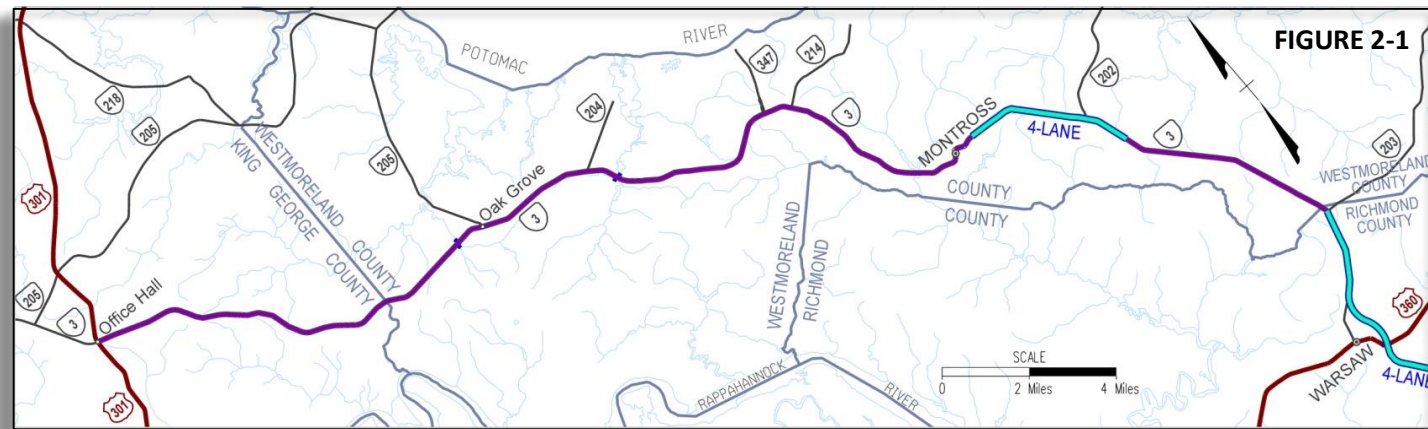
Description: Route 3, from Route 301 (Office Hall, King George County) to the Robert Opie Norris, Jr. Bridge

Total length = 71.6 miles Two lane segments = 54.8 miles (77%) Four lane segments = 16.8 miles (23%)

Western Section

Description: Route 3, from Route 301 (Office Hall, King George County) to Route 360 (Warsaw, Richmond County)

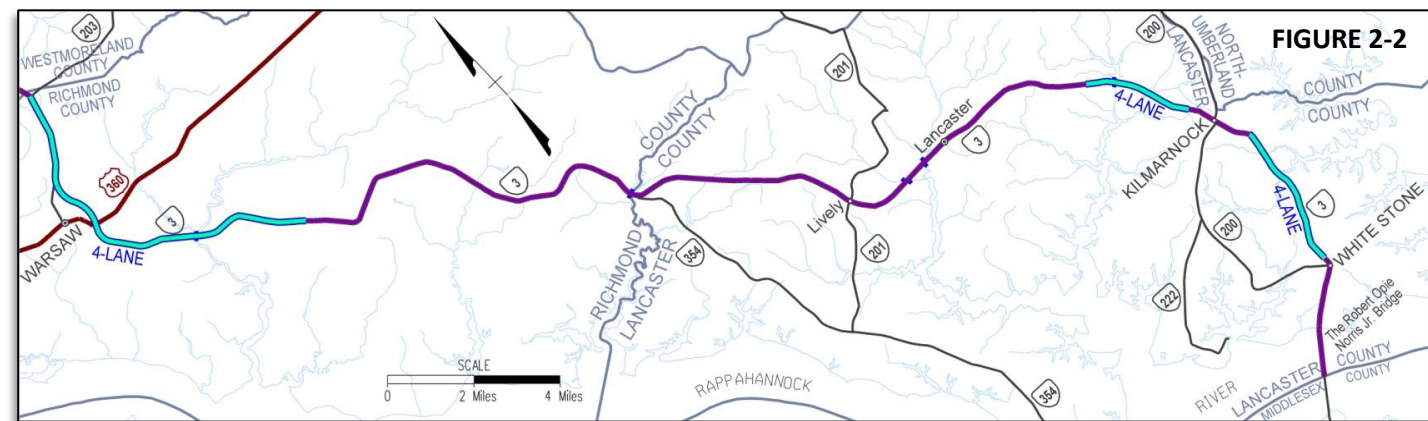
Total length = 36.0 miles Two lane segments = 30.5 miles (85%) Four lane segments = 5.5 miles (15%)



Eastern Section

Description: Route 3, from Route 360 (Warsaw, Richmond County) to the Robert Opie Norris, Jr. Bridge

Total length = 35.6 miles Two lane segments = 24.3 miles (68%) Four lane segments = 11.3 miles (32%)



The four-lane segments of Route 3 in the Northern Neck of Virginia, most of which are median-divided, currently operate at a high level-of-service and carries only a fraction of their capacity; which should be expected to be the case for the foreseeable future. In addition to providing for high traffic volumes, these four-lane sections provide

for protected passing of slow-moving vehicles, resulting in safety, efficiency and convenience. Most opportunities for improvements to Route 3 in the Northern Neck are on the two-lane portions, and this study will focus primarily on the condition and potential for such improvements on those segments.

3. ROUTE 3 FUNCTIONAL CLASSIFICATION IN THE NORTHERN NECK

The Functional Classification (FC) of the roadway network is a federal system defined by the 2013 Edition of The *Highway Functional Classification: Concepts, Criteria and Procedures*. The Classification System consists of seven categories of roads as follows:

- Interstate
- Other Expressways and Freeways
- Other Principal Arterials
- Minor Arterials
- Major Collectors
- Minor Collectors
- Local

The Functional Class System in the Commonwealth was updated and approved by the Federal Highway Administration (FHWA) on October 30, 2014. National Highway System (NHS) changes received FHWA approval on October 9, 2015.

Route 3 is classified as a **Minor Arterial** in the southeastern portion of King George County (east of Route 301) and throughout the Northern Neck. It is important to note that any relation between functional class and traffic volume is strictly coincidental, as volume is not the sole basis for a road's functional classification.

Characteristics of Minor Arterial Highways

Urban

- Interconnect and augment the higher-level Arterials
- Serve trips of moderate length at a somewhat lower level of travel mobility than Principal Arterials
- Distribute traffic to smaller geographic areas than those served by higher-level Arterials
- Provide more land access than Principal Arterials without penetrating identifiable neighborhoods
- Provide urban connections for Rural Collectors

Rural

- Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing inter-state and inter-county service
- Spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distance of an Arterial roadway
- Provide service to corridors with trip lengths and travel density greater than those served by Rural Collectors and Local Roads and with relatively high travel speeds and minimum interference to through movement

Over the years, the system of functional classification has come to assume additional significance beyond its purpose as a framework for identifying the particular role of a roadway in moving vehicles through a network of highways. Functional classification carries with it expectations about roadway design, including its design speed, capacity and relationship to existing and future land use development. Federal legislation continues to use functional classification in determining eligibility for funding under the federal-aid program. Transportation agencies describe roadway system performance, benchmarks and targets by functional classification. As agencies continue to move towards a more performance-based management approach, functional classification will be an increasingly important consideration in setting expectations and measuring outcomes for preservation, mobility and safety.

4. BACKGROUND DEVELOPMENT OF ROUTE 3 IN THE NORTHERN NECK

A. EXISTING RIGHT-OF-WAY WIDTHS

See Supplemental Maps 1 and 2 – Page 18

Route 3, as a Virginia Primary Highway, exists on right-of-way of varying widths. All of existing Route 3 in the Northern Neck has been constructed since 1929 (which was known as Route 37 until 1933). Portions of Route 3 built in the 1920's and 1930's have a RW width of 50', which is the minimum width currently found on Route 3 in the Northern Neck. From the 1940's onward, RW widths for improvements to Route 3 varied depending on applicable design standards and the question of whether the proposed right-of-way acquired was intended to accommodate future widening. As improvements to Route 3 were made over the course of several decades, RW widths for two-lane improvements varied from 50' – 80' and RW widths intended for long-term widening were normally 110'.



110' EXISTING RIGHT-OF-WAY IN WESTMORELAND COUNTY

Of the current 54.8 miles of two-lane Route 3 between Route 301 and the Norris Bridge, 52% (28.6 miles) has an existing RW width of 50', 36% (19.8 miles) has a RW width of 110' and the remaining segments (6.4 miles) fall somewhere between. Highway segments with an existing RW width of 110' are most favorable to widening, as a majority of work may be performed within the existing RW and most existing utilities are located outside of the RW.

There are four segments of roadway between Route 301 and the Norris Bridge with this 110' wide existing RW:

1. Route 301 (Office Hall) to the King George /Westmoreland County Line – 7.1 Miles
2. Route 204 (Stratford Hall) to Route 624 South – 2.4 Miles

3. Route 692 (Farnham) to 1.1 Miles W. of Route 201 (Lively) – 9.9 Miles
4. Segment south of White Stone, immediately north of Norris Bridge* – 0.4 Mile

*The 110' Existing RW continues across the Norris Bridge to Route 33 (Harmony Village) in Middlesex County

The four segments exist in four counties. Segment #1 in King George County begins at Route 301, continuing east, to the county line. Segment #2 in Westmoreland County is 12.8 miles from the nearest four-lane section of Route 3 to the west at Route 301 and 8.3 miles from the nearest four-lane section to the east (the section east of Montross), making it a viable candidate for improvements that would provide for vehicular passing in an area far from the nearest protected passing lanes. Segment #3 in Richmond and Lancaster Counties is 3.5 miles east of the nearest four-lane section of Route 3 to the west (the divided highway east of Warsaw/Route 360) and 7.7 miles west of the nearest four-lane section to the east (leading into Kilmarnock). Portions of this nearly ten mile segment with wide existing RW are remote and undeveloped, offering an opportunity for potential passing improvements. The fourth segment is the northern approach to the Norris Bridge. Until the bridge is replaced/modified/widened, no major improvements are expected at this location.



MODERATE TO HEAVY DENSITY OF MIXED USES ALONG ROUTE 3

Note: As a general planning guideline, constructing to current VDOT Standards on Route 3 (a Rural Minor Arterial Highway) requires a minimum RW width of 80'-90' for two-lane improvements and up to 180' for four-lane-divided improvements, depending upon the scope of the project. A three-lane segment built under today's standards would require approximately 100'-110' of RW and the minimum width for an undivided four-lane highway would be in the range of 110'-120'. Various temporary and permanent easements may be required beyond the proposed right-of-way.

B. EXISTING DENSITY OF ACCESS

See Supplemental Maps 3 and 4 – Page 19

Points of access along Route 3 consist of various roadway connections and all types of entrances/driveways. The number of these points of access within a given distance can be defined as **access density**. Rural areas are characterized by very sparse development and very few points of access most of which are residential driveways and farm entrances. On the opposite end of the spectrum, business districts may have a high density of access points including many commercial entrances for a wide variety of land uses. For the purposes of this study, the approximately 55 miles of two-lane highway between Route 301 and the Norris Bridge were broken down into mile-long segments. It was determined that one of seven distinct density types was applicable to each segment.

C. EXISTING TRAFFIC VOLUMES

Current daily traffic volumes on Route 3 in the Northern Neck average from approximately 2,000 vehicles per day (VPD) to approximately 12,000 vehicles per day. Most of the volumes used in this report are actual counts taken in 2014 or 2015.

Western Area

For the western half of the study (west of Route 360), volumes on the two-lane segments are fairly consistent, ranging from 4,200 to 6,100 ADT (average daily traffic) over the 30.5 miles. Generally, traffic is oriented toward Route 301 and the Westmoreland and Richmond County Seats, Montross and Warsaw. Breaks in traffic volumes on Route 3 occur at higher volume primary and secondary routes, such as Route 205/638 at Oak Grove, Route 214 at Lerty (Stratford Hall), Route 621 at Nomini Grove, and Route 203 at Lyells. A large portion of traffic, to and from the west, utilizes Route 3 Business at Warsaw, resulting in low volumes on the Warsaw Bypass section of Route 3. Route 360, which was chosen as the mid-point of the study, is a traffic break, as well.

Town of Montross

In addition to being the most highly developed area along the western portion of the study corridor, Route 3 through Montross and eastward also carries the highest traffic volume, approximately 7,400 ADT. While the area immediately around the county courthouse is vibrant, Route 3 is only two-lanes wide in this location, but traffic flow is generally adequate. All intersecting roadways have moderate volumes (<1,000 ADT) and commercial attractors are generally low-volume.



CURVED INTERSECTION IN VILLAGE OF MONTROSS

Eastern Area

Traffic volumes on the eastern portion of the study vary significantly, with one ten-mile stretch averaging less than 3,000 ADT. The lowest volume on Route 3 within the entire study area occurs between the Richmond/Lancaster County Line and Lively, where the ADT is less than 2,400 VPD. Ten miles east of this traffic minimum-point, the daily volume reaches an ADT of 13,000 on a four-lane segment at the northern edge of Kilmarnock, the highest volume within the study. Traffic volumes of approximately 9,000 ADT exist on Route 3 between Kilmarnock and White Stone. Similar volumes cross the Norris Bridge daily into Middlesex County. Several high-volume connections intersect Route 3 in the eastern study area including primary Route 201 at Lively and Route 200 at Kilmarnock and White Stone.

Town of Kilmarnock

While traffic volumes on Route 3 north of the Route 200 intersection are the highest in the corridor, recent streetscape enhancements have created a pedestrian-friendly traffic pattern through the downtown area which will likely preclude widening improvements in the future. Currently, a through-truck restriction is in-place, which prohibits the use of Route 3 through Kilmarnock. This restriction is mitigated by the use of a full-time truck bypass around the downtown area to

TABLE 4-1 ACCESS DENSITY CATEGORIES ON ROUTE 3 IN THE NORTHERN NECK

Heavily Developed – Mixed Uses

Montross (approx. 2 miles), Kilmarnock (approx. 2 miles) and White Stone contain segments in this category. (Note: Warsaw is mostly bypassed by a four-lane, access-controlled segment of Route 3 and is, therefore, not included.)

Moderate to Heavy Density – Mixed Uses

Segments in Lively (approx. 2 miles) and Lancaster CH are included in this category

Moderate Density – Mixed Uses

Oak Grove, a segment near Farnham and a segment between White Stone and the bridge met this criterion

Moderate Density – Mostly Residential

Three segments fell into this category: One mile near the KG/Westmoreland County Line, one mile between Nomini Grove and Lyells and the first mile immediately east of the end of the four-lane segment at Emmerton. The remaining 41 mile-long segments were contained within one of these rural categories:

Light to Moderate Density – Mixed Uses

Light to Moderate Density – Residential

Light Density - Residential

Highway segments in the three rural categories, characterized by light or light-to-moderate density are generally most favorable to widening projects due to lower RW costs, minimal turning movements and so on.

The longest uninterrupted section of light access density on Route 3 in the Northern Neck occurs between the developed areas of Farnham and Lively, within the eastern section of the study. This segment, straddling Richmond and Lancaster Counties, also has the lowest daily traffic volumes of any two-lane portion of Route 3 within the study area. The nine miles of Route 3 beginning at Farnham and ending approximately one mile west of Lively has an existing RW width of 110', providing the potential for various road widening improvements.

In the western section (between Route 301 and Route 360), segments of lightest density are more sporadic, generally tending to comprise several two-mile segments. By combining segments characterized by light and light-to-moderate density, a section of approximately nine miles of Route 3 between Oak Grove and Montross emerges as the most likely candidate for improvements based upon access density. The only two-lane portion of Route 3 in Westmoreland County with an existing RW width of 110' occurs between Potomac Mills and Flat Iron. The density of access at this location, covering approximately 2.3 miles, is relatively light and traffic volumes are moderate, suggesting this segment may have high potential for low-cost widening. However, a bridge over Popes Creek may limit the length available.

the west, utilizing roads on the secondary system: Route 688 (James B. Jones Mem. Hwy.) from Route 3 north of town to Route 200 and Route 1036 (Harris Road) from Route 200 to Route 3 south of town. Volumes along this unofficial bypass

are high. The Route 688 portion carries approximately 5,200 ADT, which includes many trips from Route 200 traveling between the Irvington/Weems area and the northern Kilmarnock commercial area and points west. The Route 1036 segment handles approximately 1,800 ADT and serves the Rappahannock General Hospital. The northern terminus of this routing occurs at the signalized intersection of Route 3 and Route 688, at the CVS Pharmacy and Walgreens. As stated previously, this is the busiest section of Route 3 in the Northern Neck (with approximately 13,000 ADT) and, while this segment is four lanes wide, there is no median and access management is virtually nonexistent with the exception of newer businesses.



STREETSCAPE OF DOWNTOWN KILMARNOCK

D. EXISTING GEOMETRIC DEFICIENCIES

See Supplemental Maps 5 and 6 – Page 20

The approximately 71.5 miles of Route 3 between Route 301 in King George County and the Norris Bridge over the Rappahannock River consists of widely varying eras of construction and design standards. Sixty to eighty-five years ago, design standards and construction methods were radically different from today. Motorists of that era expected to travel at a maximum speed of 25-30 MPH on the best roads. Pavement was optional. When roads were built or improved, grading was minimized, as large earth-moving equipment was still many years in the future. These and other factors provide understanding into why roads built then do not resemble roads built recently. On Route 3 in the Northern Neck, while all segments have seen improvements and widening to varying degrees, some of the original grades are still present. Where this is the case, certain vertical sight distances are far below those required by current standards and, to a lesser degree, grades are steeper than current standards recommend. Areas with significant numbers of deficiencies are unacceptable as passing zones and are poor candidates for certain types of improvements (unless the road grade is completely reworked, adding greatly to both RW and construction costs). The areas with the highest concentration of geometric deficiencies on Route 3 are as follows:

TABLE 4-2 LOCATIONS OF GEOMETRIC DEFICIENCIES ON ROUTE 3				
Location	Number of Deficiencies	Segment Length	Deficiencies per mile	
1. KG/Westmoreland Co. Line to Oak Grove	11	2.4 miles	4.6	
2. Templeman to Nomimi Grove	12	1.8 miles	6.5	
3. Route 612 to Lyells	5	0.8 miles	6.1	
4. Farnham to Robley	7	1.5 miles	4.6	

Other locations of geometric deficiencies tend to be isolated.

Sections of Route 3 that have received the least improvements to vertical alignment and which have the most geometric deficiencies are located in some of the most rural areas where negative impacts are minimal. However, opportunities for passing are virtually absent in these areas, where trips are often long and most affected by slow-moving vehicles.

E. EXISTING PASSING ZONES

See Supplemental Maps 5 and 6 – Page 20

Slightly less than ¼ of the 71.5 miles of Route 3 in the Northern Neck consists of four-lane typical sections. The remaining 55 miles is two-lane highway. Within these 55 miles, there are 32 passing zones consisting of a total length of approximately 16 miles. These zones are identified by centerline striping that is of a dashed/broken pattern. Outside of these zones, passing is prohibited (with double solid lines) on ¾ of all two-lane portions of Route 3. The average passing zone is ½ mile in length and provides for passing in both directions. A typical passing zone, moving west to east, begins as east-only passing, followed by a two-way passing segment (broken line), and ends as west-only passing, in order to make the most of the sight-distance available.



EXISTING PASSING ZONE

Actual passing opportunities in a particular direction are considerably less than the total length of passing zones. According to the American Association of State Highway and Transportation Officials (AASHTO), the minimum passing sight distance for 55 MPH is 900'. Most passing areas on Route 3, for a given direction, meet this minimum, with the optimal ½ mile zone providing 1800' (approx. 1/3 mile) of passing opportunity in each direction, approximately half of which is two-way passing (broken line).

Passing zones on two-lane highways offer no built-in protection; only driver attention and discernment assure the infrequency of catastrophe. The ability to pass within a two-lane passing zone depends upon the complete absence of opposing traffic, the immediate recognition of the presence of a passing zone by the motorist, driver confidence in the maneuver under consideration and immediate action. Unless the vehicle being overtaken is travelling well below the posted speed limit, a passing maneuver can be particularly daunting, considering that the passing vehicle is accelerating head-on toward opposing traffic that may appear at a closing-rate of 110 miles per hour (MPH) or greater. Conditions such as total or partial darkness, rain, snow, fog, glare and certain driver characteristics have a negative effect on passing opportunities, as passing zones are generally adequate only under ideal conditions. **Infrequent and ineffective passing opportunities are the most significant obstacles to mobility on Route 3 throughout the Northern Neck of Virginia.**

In the western section of the study, between Route 301 and Route 360, there are 17 passing zones over the course of 30.5 miles of two-lane highway. In the eastern portion, from Route 360 to the Norris Bridge there are 15 passing zones within the 24.3 miles of two-lane highway. The table below illustrates that the passing situation is more problematic in

the western half, as four rural segments have no opportunities for passing, primarily due to a high concentration of geometric deficiencies.

Between Route 301 and Montross (a 23.5 mile portion of Route 3), there are no sections of four-lane, the longest stretch on the entire route with no protected passing area. Within that section, there are several segments – two of which are over four miles in length – where all passing is prohibited by pavement markings. The longest current passing zone in the western section is 0.8 mile. By contrast, the longest segment without a passing zone in the eastern half, between Route 360 and the Norris Bridge, is only two miles and the longest existing passing zone is 1.7 miles in length. Furthermore, passing opportunities in the eastern portion are enhanced by the low traffic volumes (mostly <3000 ADT) over a large portion of the corridor in which passing zones exist.

TABLE 4-3 NUMBER OF EXISTING PASSING ZONES ON SELECT SEGMENTS

Segment:	# of Existing Passing Zones:
1. Route 301 to KG/Westmoreland Co. Line	5
2. KG/Westmoreland Co. Line to Oak Grove	0
3. Oak Grove (Rte 205) to Flat Iron (Rte 624)	4
4. Flat Iron (Rte 624) to Lerty (Rte 214)	0
5. Lerty (Rte 214) to Montross	3
6. Montross to Templeman (Rte 202)	N/A (Four-Lane)
7. Templeman (Rte 202) to Nomini Grove (Rte 621)	0
8. Nomini Grove (Rte 621) to Route 612	3
9. Route 612 to Lyells (Rte 203)	0
10. Lyells (Rte 203) to Route 3 Business	2
11. Route 3 Business to Route 360	N/A (Four-Lane)
12. Route 360 to Emmerton (Rte 619)	N/A (Four-Lane)
13. Emmerton (Rte 619) to Farnham (Rte 692)	2
14. Farnham (Rte 692) to Robley (Rte 601)	2
15. Robley (Rte 601) to Richmond/Lancaster Co. Line	1
16. Richmond/Lancaster Co. Line to Lively (Rte 201)	3
17. Lively (Rte 201) to Lancaster CH (Rte 600)	3
18. Lancaster CH (Rte 600) to Route 614	3
19. Route 614 to NCL Kilmarnock	N/A (Four-Lane)
20. Town of Kilmarnock	0
21. SCL Kilmarnock to White Stone	N/A (Four-Lane)
22. White Stone to Lancaster/Middlesex Co. Line	1

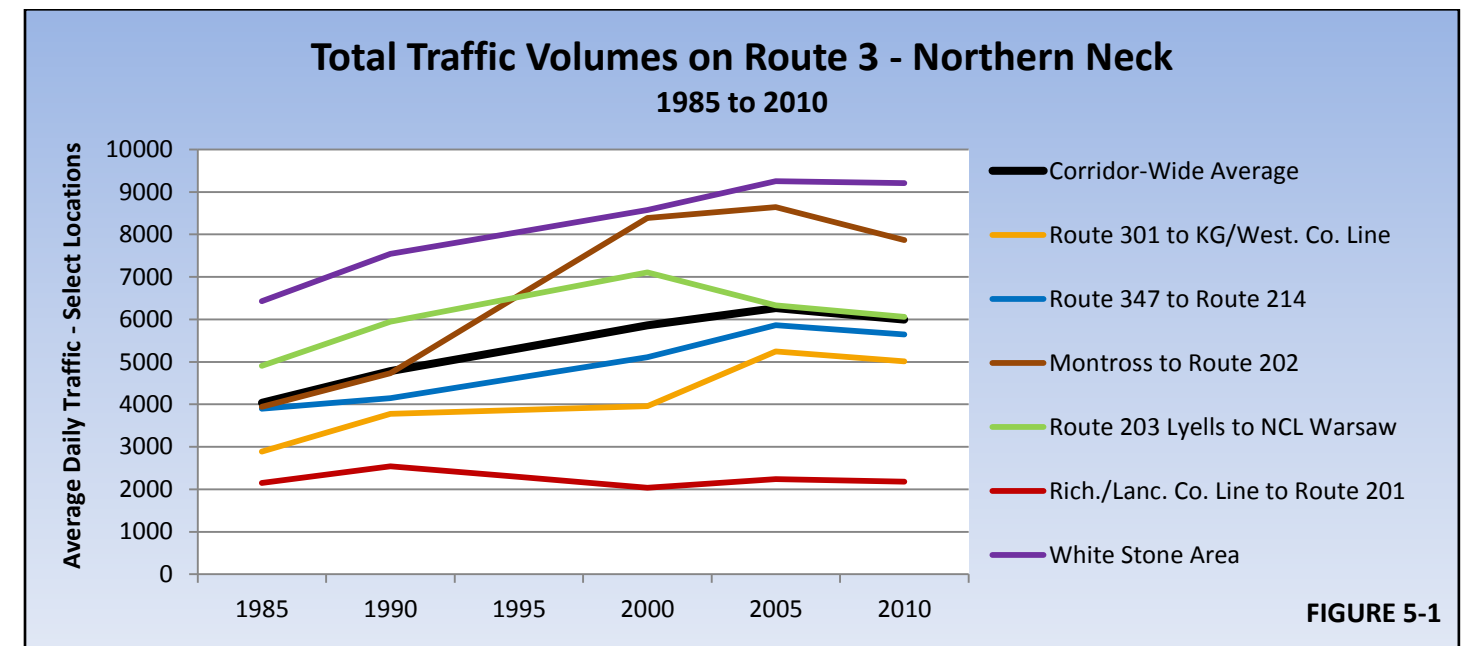
Three of the four areas identified as having a high concentration of geometric deficiencies directly correspond to three of the five segments on which there are no opportunities for passing.

5. TRAFFIC PATTERNS AND TRENDS ON ROUTE 3 IN THE NORTHERN NECK

A. THIRTY-YEAR GROWTH TREND

Traffic on Route 3 in the Northern Neck experienced growth at a steady pace from 1985 through 2005. Between 2005 and 2010, virtually every segment experienced negative growth, presumably due to the economic downturn. Since 2010, most segments have seen continued decline or remained stagnant.

Growth rates in the Northern Neck over the past fifteen years are strongly positive on the western and eastern ends, with traffic volumes growing at +2.5% or greater at both Route 301 and in the Kilmarnock/White Stone areas. In the center of the study area, several segments have experienced zero or negative growth over the same period, with the area from Montross through Warsaw to the Richmond/Lancaster County Line averaging -0.5% since the late 1990's. The dates of the counts indicate the lowest rates correspond to the recent national economic recession. The locations selected to be illustrated on the charts are those for which long-range traffic data with various vehicle classifications are available for those segments.



Four of the six selected segments have grown at a strong, positive rate for most of the study period. Route 3 in the area of White Stone reflects the steady growth of the lower portion of Lancaster County, where some of the highest volumes are found. The fastest growth among selected segments was experienced on Route 3 east of Montross between 1990 and 2000. The opening of the dual, four-lane roadway in that area the late 1980's was likely a factor. A third section of strongly positive growth on Route 3 was in eastern King George County. Likewise, the portion of Route 3 near Stratford Hall had a steady upward growth rate prior to the drop circa 2005.

Based upon the corridor-wide averages, two segments were a bit unusual. Route 3 in western Richmond County between Warsaw and Lyells saw the recession dip begin five years earlier than the others. Prior to 2000, growth on this segment had been among the strongest. The second outlier is Route 3 in the rural area between the Richmond/Lancaster County Line and Lively. In terms of traffic growth, this area has remained flat for thirty years. Volumes here actually decreased during the 1990's, at a time when all other sections were growing strongly. Oddly, the low volumes and low growth seem to have had a neutralizing effect on this segment through the downturn of the 2000's, as volumes have remained level.

B. RECENT TRENDS ON ROUTE 3 AND CONNECTING ROADWAYS AND CURRENT FACILITATION OF MOVEMENTS

King George County

Route 3 in King George County, between Route 301 and the Westmoreland County Line, consists entirely of two-lane highway that carries approximately 5600 vehicles per day and has experienced growth at an average rate of +2.57% between 1998 and 2013. Currently, none of the fifteen secondary connections within this portion of the study area have dedicated left turn lanes on Route 3.

The busiest secondary connections along this section of Route 3 are Route 629, Route 647 south and Route 628. A left-turn-lane is currently warranted on Route 3 eastbound at Route 629 and a right-turn-taper is warranted at Route 647 south, based upon existing PM peak volumes and guidance from the VDOT Road Design Manual. Other connections may soon require dedicated turn lanes, as well.

Westmoreland County

Growth on Route 3 in Westmoreland County over recent decades has been highest on the westernmost segment between the county line and Oak Grove at +1.38%. Between Oak Grove and Montross, average growth has ranged from approximately 0% to +1%. The highest volume connections in this area are Route 205 (between Oak Grove and Colonial Beach) and Route 214 (at Stratford Hall), as well as secondary Routes 638, 664 and 624 south. At Oak Grove, Route 3 connects with Routes 205 and 638 at a signalized intersection, the only signal on a two-lane segment of Route 3 in Westmoreland County. This intersection is the busiest in the western study area and operates well, as turn lanes are provided on all legs. There are also left turn lanes on Route 3 at Route 664 and Route 214, meeting all current turn-lane warrants, along this segment. East of Montross, a four-lane stretch of approximately four miles ends approximately half way between Montross and the Richmond County Line. On the two-lane segment west of Lyells, traffic growth on Route 3 has averaged approximately +1%. The highest volume secondary connections are Route 621 north and south at Nomini Grove and Route 613, at the county line. Left turn lanes do not exist at these connections.

Richmond County

Traffic on most two-lane segments of Route 3 in Richmond County has experienced negative growth between 1998 and 2013. The greatest percentage decrease occurred between Route 203 (Lyells) and Route 360 (Warsaw), with an average decrease of -1.4% or greater. The general stagnation is apparently due to the national economic recession which continues and which seems to have affected Richmond County more than the surrounding jurisdictions. Traffic volumes grew on Routes 3, 203 and 360 between 1998 and 2006 (when they peaked). Through 2013, average volumes continued to decrease with resulting traffic dropping below that of 1998. East of Warsaw, traffic growth rates are also negative over the period analyzed.



ROUTE 3 APPROACHING THE WARSAW BYPASS

The Route 203 intersection at Lyells has the highest volume turning movements on a two-lane section of Route 3 in Richmond County. Left and right turn lanes have been provided. East of Warsaw, the connection of Route 614 south occurs at the end of the four-lane and turn lanes are provided. The remaining secondary connections onto Route 3 within Richmond County that exhibit significant traffic volumes and turning movements are Routes 619, 642, and 608. None have existing turn lanes or currently warrant turn lanes, as mainline volume is very low through this area.

Lancaster County

Contrary to the downward population trend in Lancaster County in the first decade of the century, traffic on Route 3 has increased across the county. The growth rate on the western end of the county has been moderate, in the +1% range, while the rates closer to Kilmarnock have increased dramatically, particularly around the northern corporate limits of the town where traffic grew at a rate of nearly +3½% between 1999 and 2011. Between Kilmarnock and White Stone, the increase was moderate, in part due to the presence of Route 200, which diverts trips through/from/to Irvington. South of White Stone, the rate grew to nearly 4% between 1999 and 2011.



LIVELY INTERSECTION OF ROUTES 3 AND 201

A number of connecting roadways in Lancaster County have relatively high traffic volumes. On the western end, Route 354, Route 622/617 and Route 201 north and south are on segments of Route 3 with volumes not meeting turn lane warrants. The intersection at Route 354 and the intersection of Route 3 and Route 622/617 have existing right-turn tapers. The Route 201 intersection at Lively has an overhead flashing warning light, requiring the north and south approaches to stop. There are no turn lanes.

All of the intersections of higher-volume roadways east of Lively warrant a turn lane. Most have turn-lanes in-place. Those requiring improvement are the intersection of Route 604 south, which warrants a left turn lane on Route 3 westbound and the intersection of Route 605, which needs a right turn taper on Route 3 westbound. However, these locations fall into the zone where the predominant direction in the PM peak is westbound. Within the business districts of Kilmarnock and White Stone, there are a few movements at intersections that do not have ideal accommodation. These are in low-speed locations where provision of greater roadway width could do significant damage to commercial and residential properties. The Town of Kilmarnock, in particular, functions as a downtown area for the eastern Northern Neck, having four-lane portions of Route 3 leading in from both directions, but only having a two-lane highway through the downtown area.

C. GROWTH TRENDS FOR TRUCKS

Since 1985, the number of trucks traveling along Route 3 in the Northern Neck has varied significantly. Trends reflect the influence of the national economic recession, although both volumes and percentages indicate the most severe drop in truck traffic occurred between 2001 and 2004, slightly earlier than the general economy. The most recent three-year-period ending in 2014 has seen a leveling-off on most segments. In nearly all locations, the decrease over the recessionary period was more pronounced among single-unit trucks than among heavy trucks. This would seem to indicate that the smaller carriers and businesses were more severely impacted by the recession than were larger freight transporters and larger businesses.

From 1985 through the end of the century, the use of Route 3 by trucks increased steadily. Beginning in the late 1990's, truck volumes hovered near 500 vehicles per day as an average, throughout the corridor. In the mid 2000's this dropped to an average of 400 per day, a decrease of 20%. By 2010, the average throughout the Northern Neck was slightly greater than 300 trucks per day, or a decrease of nearly 25% on the selected segments, reflecting a drop to approximately 1990 levels. While overall vehicular volumes have been generally stale (little or no growth), the most recent truck volumes tell a story of a major dip in commerce, economic well-being and employment.

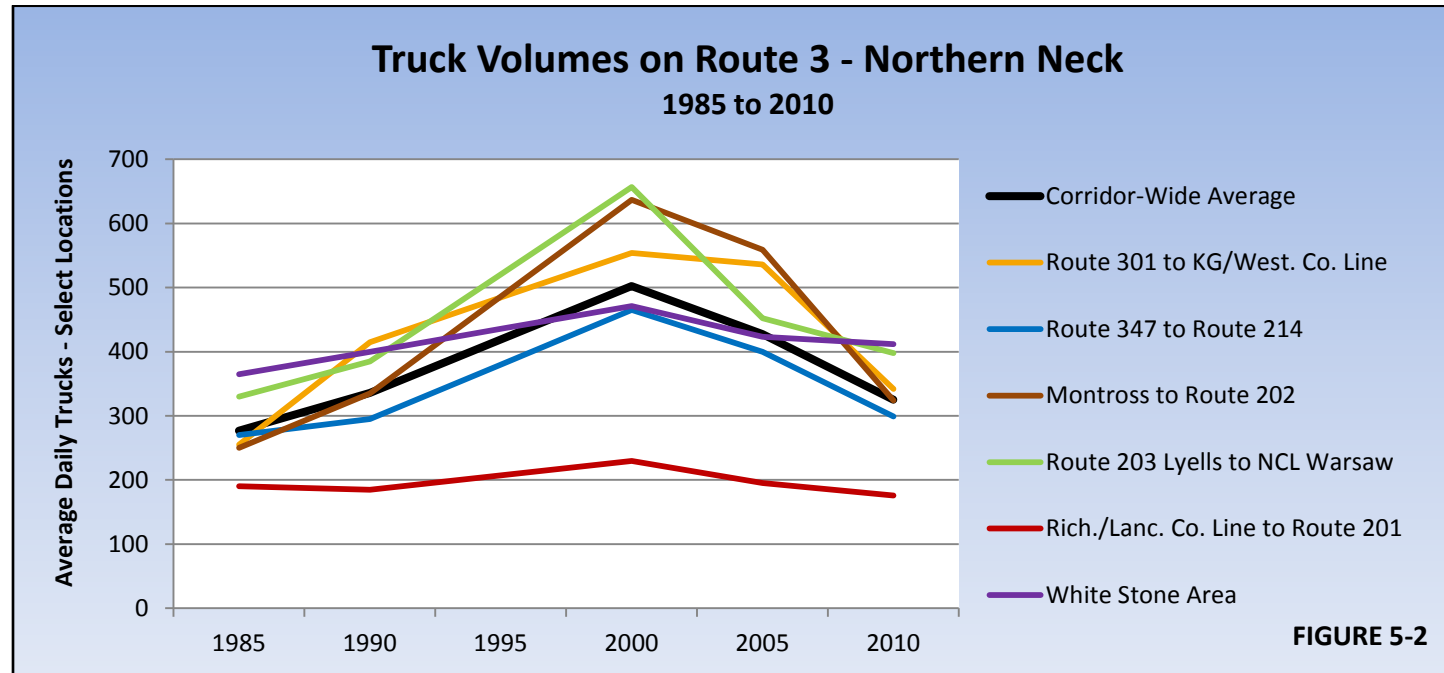


FIGURE 5-2

Daily truck volumes in the rural section spanning the Richmond-Lancaster County Line are the lowest on Route 3, at approximately 200 vehicles per day for many years. The other five selected locations have exhibited a more robust pattern with observable upward and downward trends. The section between Montross and Warsaw and the section in King George County were the most volatile in terms of positive and negative growth.

Route 3 in King George County (east of Route 301) carries the highest percentage of trucks in the study area and has experienced the greatest decrease, with approximately 12% in the late 1990's dropping to approximately 7%.

The lowest truck percentage within the study area is found in southeastern Lancaster County, through the Kilmarnock/White Stone area, where the highest overall traffic volumes exist on Route 3 in the Northern Neck. Due to the historically low proportion of trucks, the percentage has held steady, not dropping as significantly as it has on other segments. Heavy trucks have consistently comprised only 1-2% of overall traffic, through this area. This may have been a contributing factor to the acceptability of a through-truck restriction on Route 3 in Kilmarnock; the inconvenience does not affect a large proportion of overall drivers.



ROUTE 3/301 INTERSECTION IN KING GEORGE COUNTY

D. PEAK HOUR PATTERNS

Peak hours in the Northern Neck of Virginia are characterized by fairly balanced local trips eastward and westward combined with a significant concentration of commuter traffic toward employment centers. Generally, the commuter pattern on Route 3 is westbound in the AM peak and eastbound in the PM. In the western half of the study area, employees head towards jobs at Dahlgren, the Fredericksburg area and the Northern Virginia/DC area, with the directional distribution during peak periods as high as 65% westward to 35% eastward (AM). The exception to this pattern is found in the area beginning at Warsaw and extending several miles westward, where the employers and services in Warsaw and Tappahannock attract commuters. In the eastern half of the study area, peak-hour distribution is closely associated with the county through which Route 3 passes. In Richmond County, 55-60% of morning trips are headed westward, toward Warsaw/Tappahannock, with the reverse holding true in the afternoon. In Lancaster County, nearest the Richmond County Line, east/west traffic is nearly balanced, as the influence of employers and services westward gives way to those in Kilmarnock and areas to the south. Approaching Kilmarnock from the west, traffic volume increases significantly east of Lively and Lancaster Courthouse. At Kilmarnock, the highest volumes are generally drawn to the commercial area on the north side of town from both directions on Route 3 as well as from Route 200 which draws from Northumberland County to the north and northeast and from Irvington and Weems, to the southwest. The four-lane segment of Route 3 northwest of Kilmarnock has the greatest volume of traffic within the study corridor, with over 12,000 vehicles per day, the distribution of which is nearly 50/50, indicating that the immediate vicinity is a major destination from multiple directions. Traffic in the downtown area of Kilmarnock is characterized by slow speeds along urban-style streetscapes with one lane in each direction plus turn lanes. Traffic south of Kilmarnock is divided between the four-lane Route 3 and two-lane Route 200, converging at White Stone prior to the Rappahannock River crossing, which currently carries 9500 vehicle per day. South of the Irvington/White Stone area, records indicate the distribution of peak-hour trips begins to favor the southward (AM) movement toward services and employment centers in Gloucester County and beyond.



VILLAGE OF WHITE STONE

E. SEASONAL PEAKS

During the tourist/boating season, primarily the months of June through August, a significant seasonal-peak-period occurs. The most significant manifestation of this is seen on Friday and Sunday evenings, as motorists are arriving and leaving the Northern Neck. Towed boats, travel trailers and motor homes present the greatest challenges to traffic flow, as passing opportunities may become non-existent during these times and under these conditions. Data collected in the summer of 2015 indicates a much higher expression of this effect occurs west of Montross than in the areas to the east, where any increases due to tourism and recreation on the weekend are offset by lower overall weekend volumes. Between Route 301 and Route 202, traffic on Route 3 experiences a significant summer increase in the eastbound direction on Friday afternoon, with an increase in traffic of approximately 30% as compared to the average weekday PM peak hour. In addition, Sunday peak hours are observed which are contrary to the usual weekday directional concentration. For example, a westbound peak is observed to occur late Sunday afternoon which exceeds the normal weekday traffic during that period by 50%-80% from the Route 205 intersection westward. Traffic speeds are affected very little by these fluctuations in volume at the locations where counts were taken. However, as general volumes increase throughout the corridor, these seasonal fluctuations may be expected to have an increasingly negative effect.

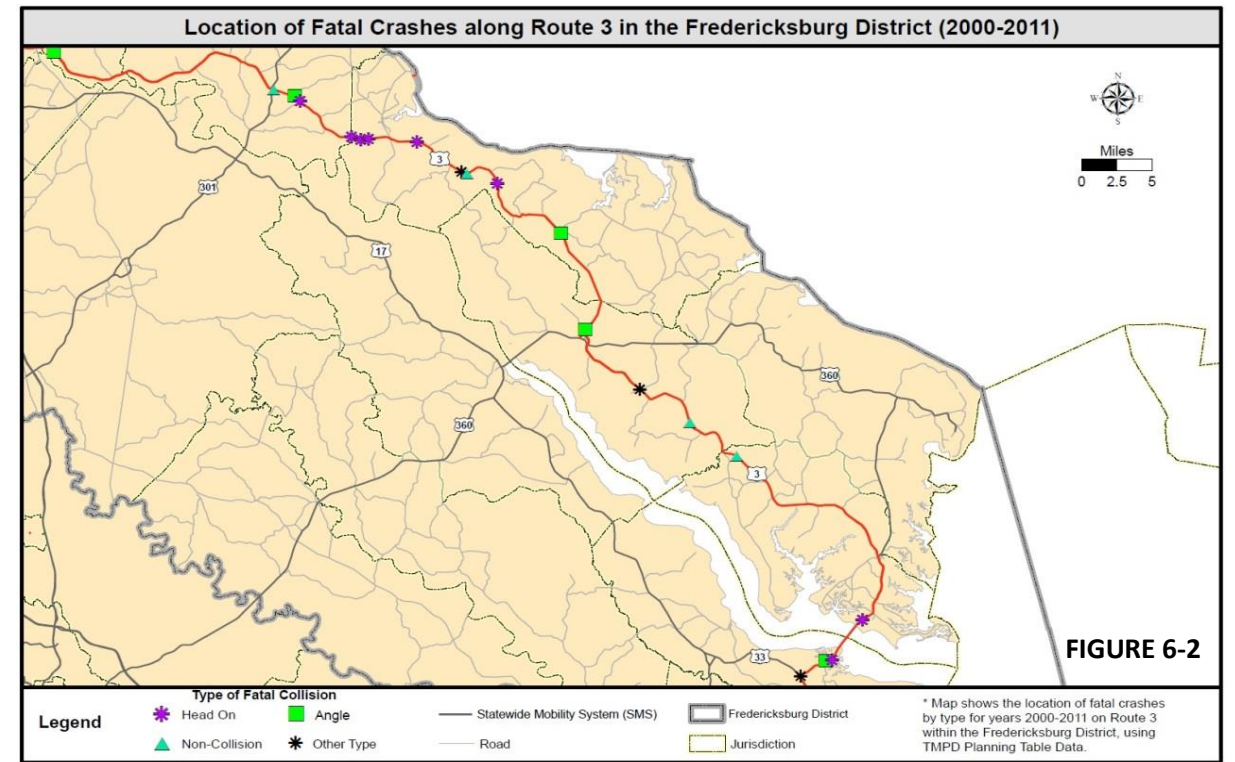
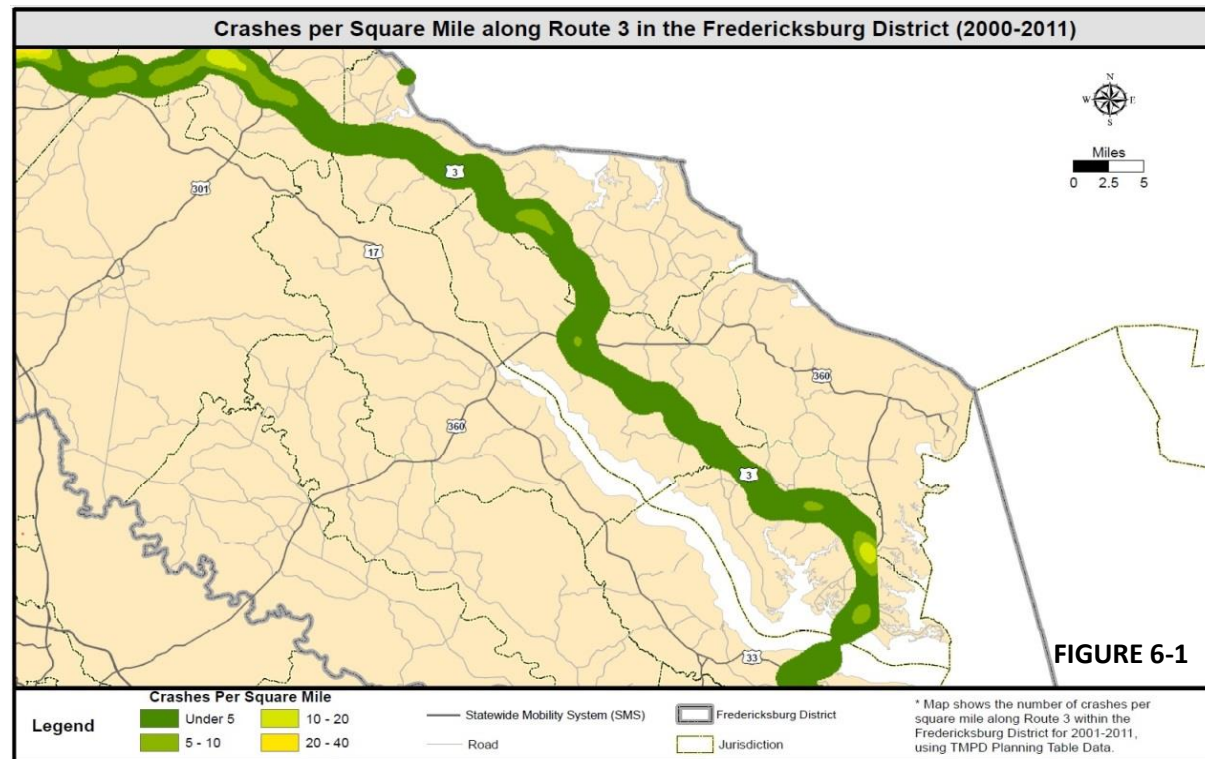
F. THE ROUTE 17 ALTERNATIVE

A likely significant contributor to the low rate of growth on Route 3 for a majority of the Northern Neck is the presence of U.S. Route 17, a principal arterial highway, which runs parallel to Route 3 in the Middle Peninsula of Virginia providing a higher-speed, higher-capacity alternative for many travelers. At the western terminus of the area defined by this study, and in the Warsaw/Tappahannock area, Route 3 and Route 17 are separated by only six miles. Utilizing Route 17 is particularly attractive to motorists between the Warsaw/Tappahannock area and the Fredericksburg area. A driver in Warsaw bound for I-95 Exit 130 at Fredericksburg (Route 3 Exit), may utilize Route 17 – of which a significant portion is a rural, divided highway with a posted speed of 60 MPH - by crossing the Downing Bridge (Route 360) and turning northwest towards Port Royal. The increase in speed limit, which was authorized by the General Assembly in 2005 for Route 17 between Port Royal and Saluda, has given greater impetus to the use of Route 17 by Northern Neck motorists. The time savings on Route 17 versus Route 3 is largely due to the motorists’ inability to maintain speed on Route 3 when slow-moving traffic is present. Taking Route 17 reduces the trip time by an average of seven minutes as compared to traveling Route 3 for the entire distance. Furthermore, if the motorist prefers an uninterrupted four-lane trip, they can turn north on Route 301 at Port Royal, re-crossing the Rappahannock River, and then turn left at Office Hall onto four-lane Route 3 through King George and westward.

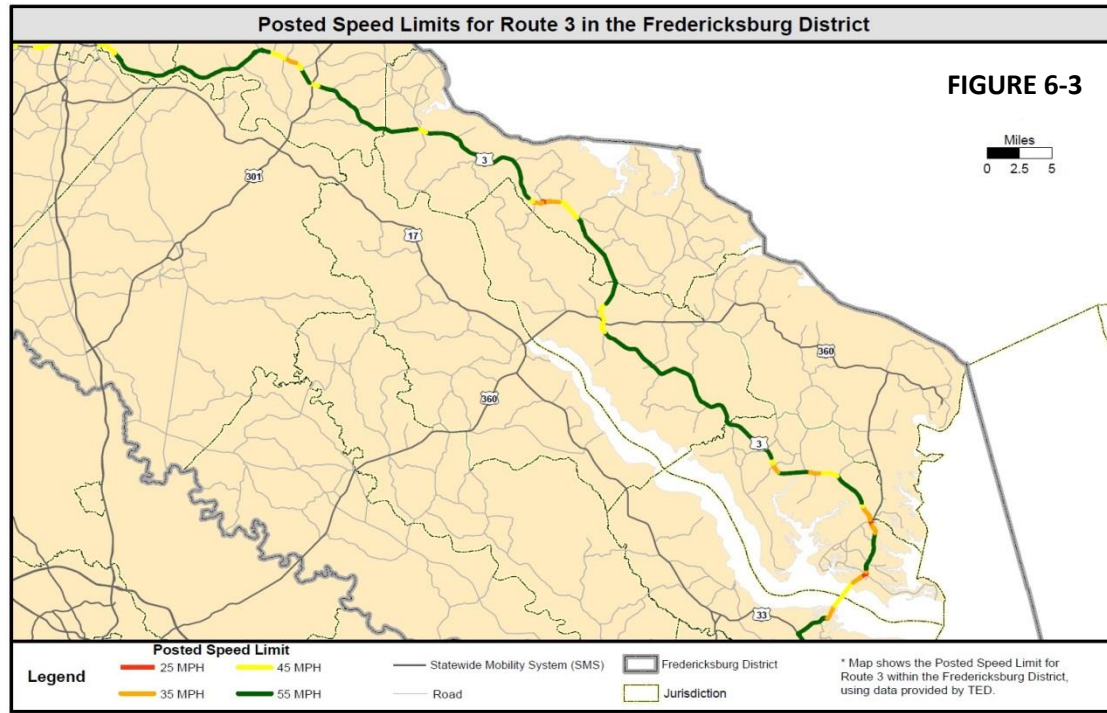
While Route 17 covers similar terrain as Route 3, the construction of the dual lane portions of Route 17 over the course of the past several decades has not brought significant development to the long stretches of rural landscape along the Middle Peninsula. Operating at the highest level-of-service due its low-volumes and high-capacity, Route 17 remains largely undeveloped and readily available as an alternate to Route 3 for travelers across the area. Note: Route 17 from Route 1/I-95 to the Spotsylvania/Caroline County line is currently listed on the FAMPO 2040 Constrained Long-Range-Plan for widening to four-lanes.

6. CURRENT SAFETY AND EFFICIENCY OF ROUTE 3

As Figure 6-1 illustrates, Route 3, between Route 301 and the Norris Bridge, is a relatively safe highway. Factors that contribute to this include the scarcity of congestion, good sight-distance, a general scarcity of roadside obstacles/access points and moderate travel speeds. Not surprisingly, the number of crashes per mile corresponds to the volume of traffic. The highest density of crashes over the past decade occurred in Kilmarnock, where the highest traffic volumes and highest concentration of access points in the corridor exist. Additional “blips” on the map occur at the towns and villages of Montross, Warsaw, Lively, White Stone and the first few miles just east of Route 301 in King George County.



Fatal crashes over the same period do not follow the same pattern, although certain similarities are present. Figure 6-2 shows that the highest concentration of fatal crashes occurred along the section between the King George – Westmoreland County Line and Oak Grove. The characteristics of the highway along this stretch include narrow shoulders and geometric deficiencies in the form of a “roller-coaster grade”, as this section has not seen significant improvements in many decades. There are no passing zones along this stretch. Similar deficiencies exist west of Route 347, where two fatalities occurred. The third concentrated area of fatalities is located near the Route 301 intersection, in King George County, where volumes are greater than most other areas. The remaining fatal crashes are isolated. It is notable that while the Kilmarnock area has the highest volumes and a concentration of crashes, no fatalities have occurred within the sample timeframe, as the speeds travelled in the urbanized area are considerably slower. Nearly every fatal crash occurred on higher-speed areas, many on the most rural highway segments, such as those single-vehicle incidents near the Richmond – Lancaster County Line.



In most rural areas, Route 3 has a posted speed limit of 55 MPH. At Office Hall, Oak Grove and Warsaw, the posted limit on Route 3 drops to 45 MPH. At Lively and Lancaster the speed limit is lowered to 35 MPH. The most highly developed areas at Montross, Kilmarnock and White Stone have posted speed limits as low as 25 MPH.

E: unstable flow

F: forced or breakdown flow

Not surprisingly, the highest LOS segments are the four-lane, divided segments:

- East of Montross
- The Warsaw bypass
- East of Warsaw
- West of Kilmarnock
- Between Kilmarnock and White Stone

These segments all experience an overall LOS of "A" due to the high capacity of the facility and the ability of the motorist to travel at the speed limit due to unlimited passing opportunities. Generally, two-lane segments of Route 3 experience levels-of-service of "B" and "C", in the Northern Neck. The highest of these LOS locations are found where volumes are lowest, eastern Westmoreland County and the most rural sections in the area of the Richmond-Lancaster County Line, with a LOS of "B". All other segments are LOS "C" except for the Norris Bridge which is LOS "D". The lower level on the bridge is largely a result of travel-speeds being frequently lowered due to the grades which significantly affect trucks and driver apprehension, based upon factors such as narrow shoulders and fear of heights.

Figure 6-4 illustrates the actual peak-hour travel-speeds experienced during the four quarters of 2012. Notably, there is very little seasonal difference in PM peak-hour speeds on Route 3, in the Northern Neck. Also apparent, average speeds traveled during the peak hour are at or near the posted speed for a majority of locations.

LEVELS-OF-SERVICE

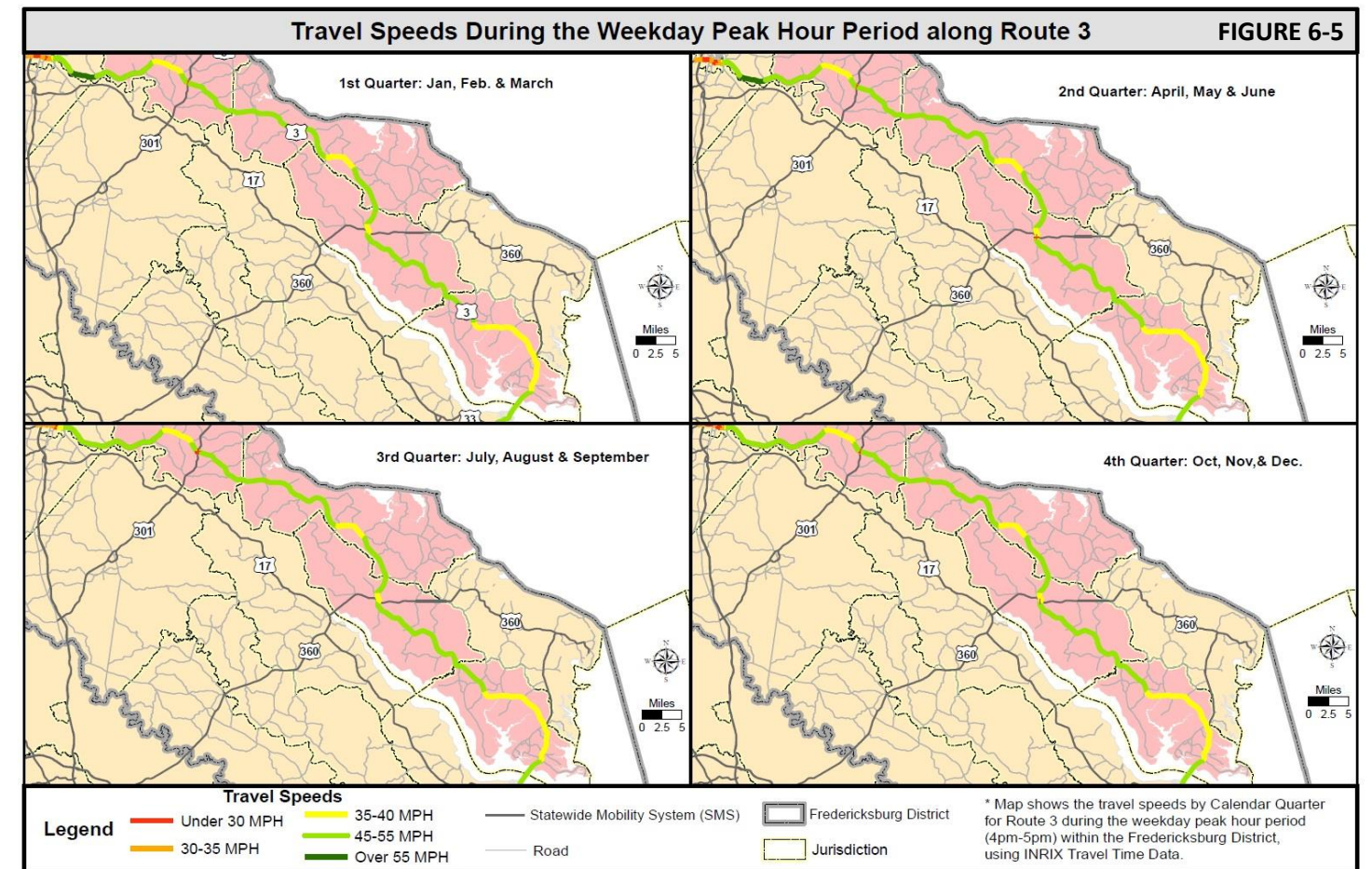
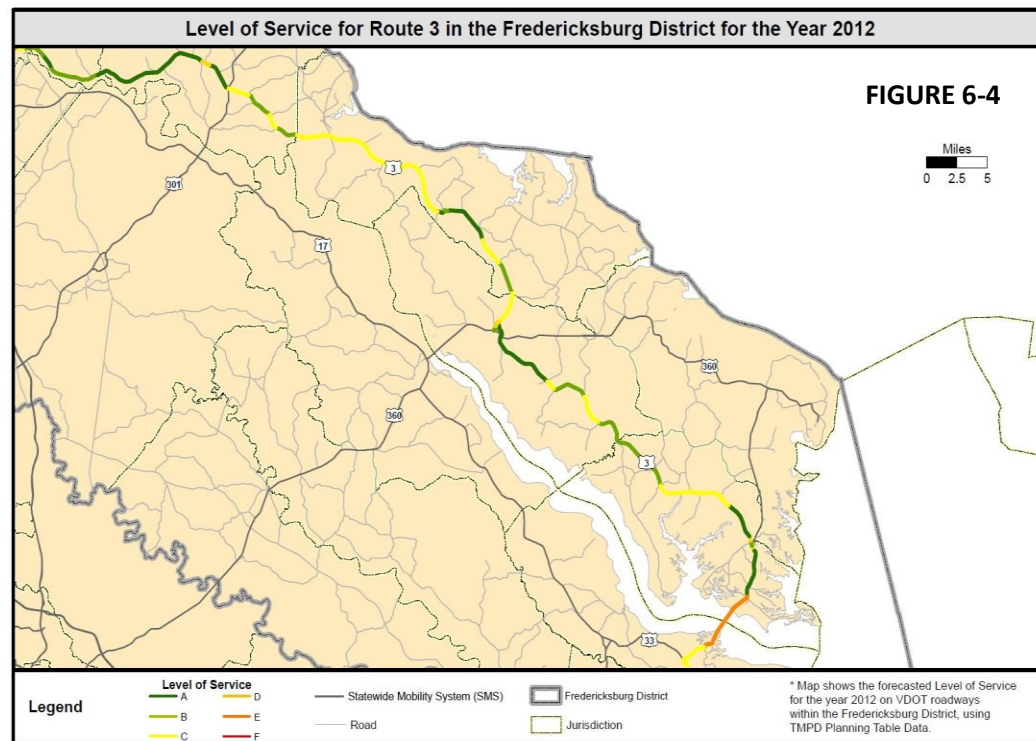
A frequently used measure of efficiency is shown in Exhibit E, the average Level-of-Service (LOS). LOS is a qualitative term – A through F - describing the density of traffic, and relating travel speeds, delays, and other measures to performance:

A: free flow

B: reasonably free flow

C: stable flow, at or near free flow - This is the target LOS for some urban and most rural highways

D: approaching unstable flow



7. EXISTING BICYCLE AND PEDESTRIAN ACCOMMODATIONS

On Route 3 in the Northern Neck, bicycles share the road with motor vehicles along most of Route 3 and pedestrians utilize the shoulders in all areas outside the towns and villages. An exception for bicyclists is those segments with wide, paved shoulders, which normally correspond to certain areas of wide existing right-of-way. In these locations, bicycles can safely ride on the shoulder. Sidewalks are rare outside of developed areas, but the general need for pedestrian accommodation is low in rural areas, and walking on the shoulder is a reasonable accommodation, in most places. In the section of this report regarding geometric deficiencies on Route 3 (see page 7), areas along Route 3 are specified as lacking modern characteristics. In some of those locations, shoulders do not exist for pedestrians, as sideslopes and ditches are immediately adjacent to the paved roadway or guardrail is placed very close to the edge of the traveled way. These areas are generally the most sparsely populated and the need for pedestrian accommodation is very low.



SIDEWALK AND PEDESTRIAN CROSSING ON ROUTE 3

Formal pedestrian crosswalks on Route 3 are mostly within the towns and villages. In the western section, four crosswalks are found in the Town of Montross. Crosswalks have recently been upgraded as part of Montross's Downtown Revitalization Program, which included streetscape improvements. One crossing located west of the curve in the area of the Westmoreland County Courthouse will include pedestrian warning lights. Beyond this, no special pedestrian equipment is found on any of the four signals associated with the western portion of the study.

The eastern study area is characterized by contrasting densities of population and motorists. Crosswalks are found in the following locations: Lancaster courthouse village (no signal), Town of Kilmarnock (both signal and non-signal locations), and White Stone (both signal and non-signal locations). Of the seven signals associated with the eastern portion of the study area, three have pedestrian accommodation, the rest do not.

Current plans from the various jurisdictions mention plans for bicycle and pedestrian accommodation.

The **2013 King George Comprehensive Plan** (adopted April 16, 2013) focuses the discussion of bike and ped plans on current and future areas of development, none of which are on Route 3 within the study area.

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The **Westmoreland County Comp Plan** (adopted December 13, 2010) lists several locations along Route 3 where consideration should be given for bicycle and pedestrian accommodation. Those include the striping of bike-lanes on Route 3 south (east) of Montross, on the portion of Route 3 near Washington and Lee High School, and on Route 3 at Lyells. The document also recommends the paving of shoulders north of Montross, leading to Hurt Field and Chandler's Mill Pond. Further, the Comp Plan states the following: "Bikeways and sidewalks should be considered in all road projects (improvements and new construction). The inclusion of sidewalks and bikeways concurrent with road improvements is much easier and cheaper than retrofitting an existing road." Also stated, "Installation of Share the Road signs will also begin the process of acclimating people to observing the rules of the road and making room for bicyclists. Larger projects such as paved shoulders and separate paths could be constructed along heavily traveled or dangerous roadways, or as part of development projects in more populated areas."

The **Richmond County Comp Plan** (adopted July 11, 2013) does not mention bicycle or pedestrian accommodation along Route 3.

The **2012 Lancaster County Comprehensive Plan Update** (drafted February 16, 2012) does not elaborate on the comments provided in the 2007 Comp Plan. In the 2007 Plan, no specific mention of Route 3 is made with regard to bikes and pedestrians. However, the Plan includes the following general recommendations: "Bike paths and sidewalks will be considered in the design of improved and new road projects. Small projects such as painting bike lane stripes on existing roadways with sufficient pavement width, minor grading, gravel compaction, and vegetation trimming will be undertaken as a means of improving safety and utility. Consistent with the plan, additional grant funding will be sought to carry out such larger projects as bridge widening, separate path construction, and shoulder paving."

The **Town of Warsaw Comp Plan** does not specifically mention bike or ped improvements to Route 3, but calls for the development of "a Town-wide bicycle and pedestrian plan with a prioritized, phased implementation plan."

The **Town of Kilmarnock 2014 Comprehensive Plan** also has general comments regarding the need for improvements for bicycles and pedestrians. Specific locations listed along Route 3 are North Main Street and downtown, where the plan calls for pedestrian connectivity between the two and other areas, as well as additional parking.

The **Northern Neck Heritage Trail Bicycling Route** is a segment of the **Potomac Heritage National Scenic Trail** that



passes through the Northern Neck of Virginia. A planned portion of the trail runs along Route 3 from Route 205 to Route 214 and is concurrent with Route 3 from Montross to Route 202, all within Westmoreland County. At more than a dozen points, segments of the trail that follow the Secondary road network intersect Route 3. In Lancaster County, two "Local Loops" of the trail follow Route 3 between Kilmarnock and White Stone and between White Stone and the Norris Bridge. Sections of Route 3 are planned to be designated as a segment of the PHNST. Potential funding sources could be utilized for paved shoulder widening.

Route 3 is a recreational feature of the Northern Neck as the Potomac Heritage National Scenic Trail (PHNST) follows Route 3 in a portion of the study area. A study was completed by VDOT, in conjunction with other local, state and federal stakeholders, to upgrade a portion of the shoulders of Route 3 in Westmoreland County to enhance bicycle travel along the PHNST / Route 3 corridor. Another aspect of the study is to investigate the potential of "loop" or "spur" trails that access the recreational areas along Route 3. Several of the facilities listed above have access to the Potomac River which may be experienced by bicyclists as part of their cycling experience.

Current VDOT policies concerning bicycle and pedestrian accommodation state that, "the Virginia Department of Transportation (VDOT) will initiate all highway construction projects with the presumption that the projects shall accommodate bicycling and walking."

http://www.virginiadot.org/programs/resources/bike_ped_policy.pdf

8. DEMOGRAPHICS

A. POPULATION

The current population of the Northern Neck, not including King George County, is 50,429. The population of King George County is 23,584. According to the 2010 census, the population of the localities increased by nearly 12 percent from 1990 to 2000, but increased by less than 2.5 percent from 2000 to 2010. Based upon the 2035 Northern Neck Regional Long Range Plan, Northumberland, Richmond, and Westmoreland Counties are experiencing moderate growth, while Lancaster is experiencing limited growth. Localities in the Northern Neck are attempting to either temper growth and preserve the rural character of the area or seek new economic opportunities and diversification ventures. (2035 Northern Neck Regional Long Range Plan - NN RLRP p. 5) Although the Route 3 Corridor does not geographically traverse Northumberland County, reference is made to this locality as its traffic is served by and oriented toward the Route 3 Corridor.

The highest population growth in the study area occurred in King George County – increasing from 16,803 to 20,637 between the years of 2000 and 2005, as it is closest to employment centers including Greater Washington D.C., Fredericksburg, and local employers, such as the Naval Surface Warfare Center at Dahlgren and those north of the Nice Bridge in Maryland. This 22.8 percent increase represents a much higher rate of growth in comparison to other Northern Neck counties. Lancaster County, the furthest county geographically from the Fredericksburg area, grew at only a rate of 0.2 percent. (UNC Report, page 11-12)

Approximately 22 percent of the Northern Neck population is under the age of 18, and nearly 19 percent is age 65 or older (seniors). Since these groups may be less likely to hold full-time jobs, they are referred to as “dependent,” relying on family, savings and government programs such as Social Security to support their needs, according to the UNC Report. The senior population of the Northern Neck region is proportionally higher than that of the state as a whole, with the percentage for the state at approximately 12 percent. In contrast, seniors account for 31 percent of Lancaster County’s population. While many young adults leave the region to seek employment elsewhere, the higher percentage of seniors is characteristic of other rural areas, where “aging in place” occurs. In addition to the occurrence aging in place, the Northern Neck region includes a population of seniors that have moved into the region from other areas to retire. Young adults of ages 20-39 represent a lower percentage (approximately 23 percent) by comparison to the rest of the state (approximately 30 percent), indicating that members of this segment of the population often relocate away from the Northern Neck region to seek employment elsewhere.

Another distinct characteristic of the Northern Neck region is the relatively high second-home population. According to Census data, approximately 20 percent of residential units in both Westmoreland County and Lancaster County are classified as “occasional use” housing. This can be expected as it is consistent with the large number of houses located along the Chesapeake Bay, Potomac and Rappahannock Rivers, and their tributaries in the region. These houses include weekend homes where occupants travel to the region from other areas, especially during the summer months.

The counties with the highest percentage of seniors (Lancaster and Westmoreland) also have the highest percentage of second homes, and the county with the lowest percentage of seniors (King George) has the lowest percentage of second homes. This factor may have an unexpected effect on Route 3 traffic, as some of these part-time residents enter and leave the area on a schedule that is not unlike the pattern of tourists and vacationers, which may be observed as a minor spike on Friday and Sunday afternoons and evenings.

TABLE 8-1– Percentage of Seniors / Percentage of Second Homes

	% of Seniors	% of Second Homes
King George County	10%	3%
Westmoreland County	21%	20%
Richmond County	18%	7%
Lancaster County	31%	18.5%

B. ECONOMY/EMPLOYMENT

The Route 3 Corridor is an integral factor in the economic development of the Northern Neck.

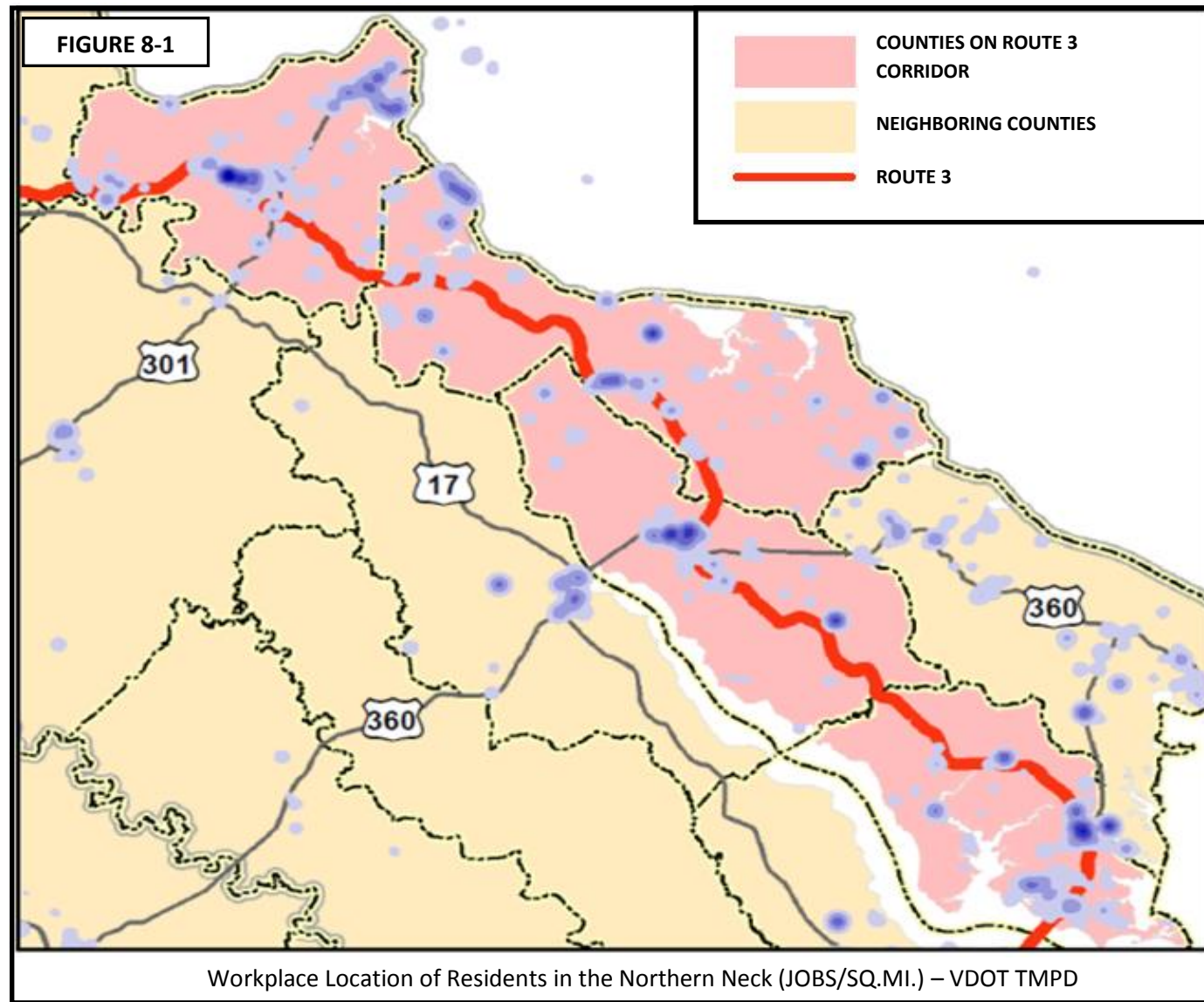
The economic focus of western section of the Route 3 Corridor includes commercial and industrial uses, such as agriculture and logging, along with recreation and tourism. Similarly, the eastern section is largely founded on commercial uses, recreation and tourism, and secondary/vacation residences.

Localities comprising the western section of the study area have expressed an interest in the installation and expansion of fiber telecommunications, extension of rail service through the region, and overall existing public infrastructure expansion, such as gas utilities. Such infrastructure improvements would support a wide variety of industry sectors ranging from manufacturers to data centers.

The Northern Neck does not have rail service to complement the roadway transportation infrastructure. This places a high importance on the maintenance of free-flow operations on Route 3 in order to have an effective means of transportation which has the potential to attract domestic and international corporations to the Northern Neck region in a competitive manner.

The heavy reliance on Route 3 as the primary means of transportation is specifically referenced as a weakness for the region in the “Northern Neck, Virginia: A Competitiveness Assessment” study that was conducted by the Kenan-Flagler Business School at the University of North Carolina. The report states, “...transportation remains an obstacle to economic development” and “...no major highway crosses the region.” To enhance Economic Development in the Northern Neck, the report indicates in the Recommendations section that the region should attract businesses from the Richmond, Fredericksburg and District of Columbia regions, where proximity to these commercial hubs is of key importance. These businesses would likely be able to realize lower real-estate and other costs, “...while maintaining the opportunity for face-to-face interactions.” However, the lack of transportation options is referenced throughout the report, as well as the need for expanding the IT-data infrastructure necessary to support these commercial-hubs and associated businesses.

Figure 8-1 illustrates that employment centers in the Northern Neck are concentrated around the towns and villages. Prominent industries include agriculture, tourism and recreation, manufacturing, social services, and commercial/retail. Over 25 percent of jobs in the Northern Neck are in social services. Approximately 21 percent are in transformative activities and 20 percent are in distributive services. Producer services (e.g. finance, insurance, information services, etc.) represent the main difference in distribution of jobs in the Northern Neck by comparison to the whole of Virginia, accounting for 16.7 percent of jobs in Northern Neck versus 22.1 percent statewide. (UNC report, p. 15)

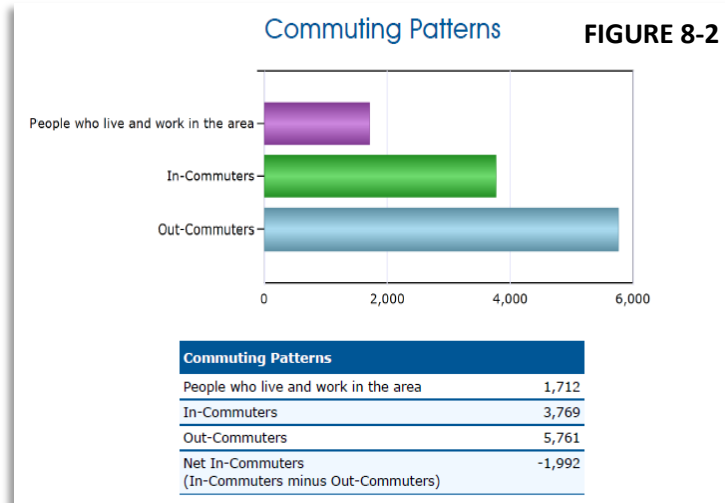


C. REGIONAL COMMUTING PATTERNS

In the Northern Neck, a majority of workers commute outside the county in which they reside. These statistics indicate a potential imbalance of residential centers and employment/commercial centers, with the latter having a shortage. Data from the US Census Bureau affirms that approximately twice as many workers commute from the region than those who commute into the region.

Commuting Patterns in King George County

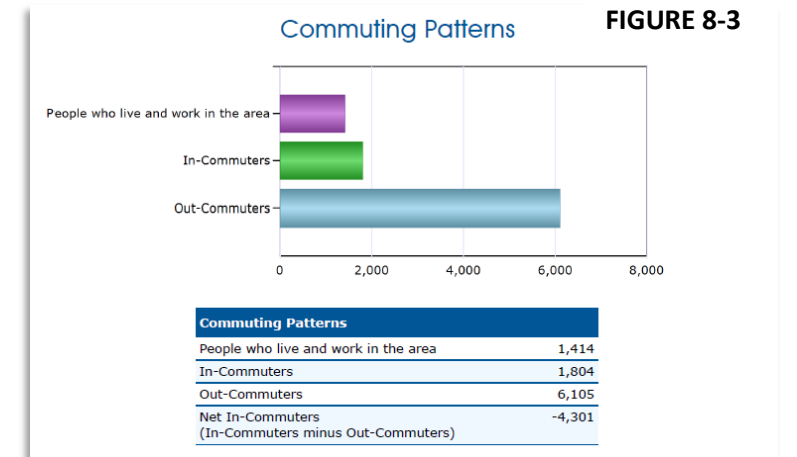
On a daily basis, approximately 2000 more persons leave King George County for employment as compared to the workforce entering King George from the surrounding counties. Census Bureau data illustrates this pattern,



which is largely driven by a local population that commutes to Fredericksburg or the Washington, D.C. Area, but also consists of a significant number of professionals attracted into the County to work at the Naval Surface Warfare Center at Dahlgren.

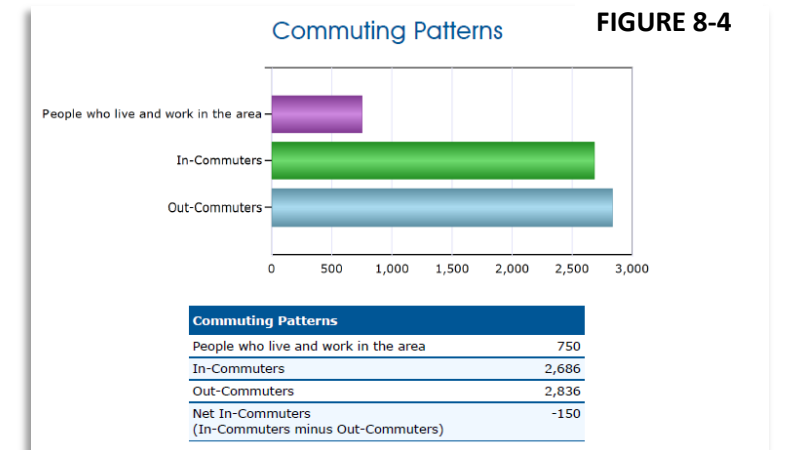
Commuting Patterns in Westmoreland County

Generally, the population of Westmoreland County commutes out of the county at a rate similar to the King George workforce. However, the number of employees entering Westmoreland County on a daily basis is considerably lower than their neighbor to the west, with the number leaving the county exceeding the number entering by a margin of greater than three-to-one. Some of the out-commuters travel to similar employment centers as workers from King George County, while others head eastward to Warsaw and Tappahannock.



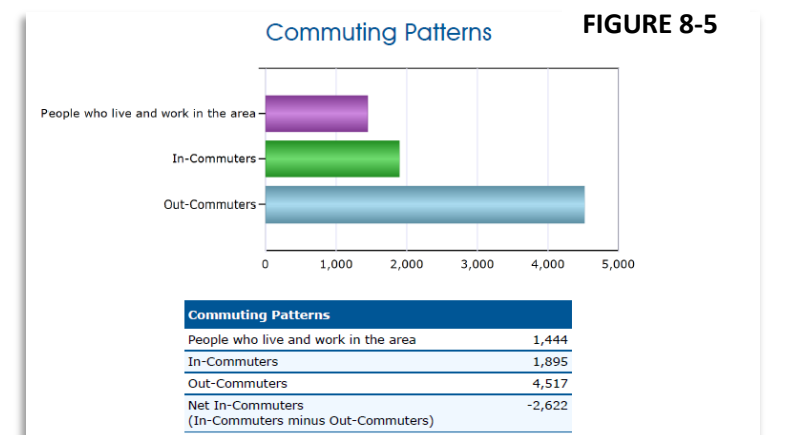
Commuting Patterns in Richmond County

The commuting patterns of Richmond County are unique as compared to King George and Westmoreland Counties. Richmond County can be characterized as being balanced with regard to the proportion of the workforce that leaves the County and those that enter Richmond County to work, based on the census data. The number of County citizens that find employment locally is very low. All of these factors indicate a workforce with skills poorly matched to the jobs available.



Commuting Patterns in Lancaster County

The travel patterns in Lancaster County are similar to those of King George and Westmoreland Counties, with considerably more persons out-commuting than those entering the County to work daily, as well as a similarly low number of the local population remaining within the county to work. Those choosing to commute away from Lancaster County may be destined westward toward Warsaw and Tappahannock or southward, toward large employment centers in Tidewater, Virginia.



Source (All exhibits): U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2011.

D. EMERGENCY SERVICES AND HOSPITALS

Emergency Services (EMS) in the Northern Neck are typical of rural regions across America. While fire and rescue stations are spread out much further than those in urban areas, response times are enhanced by relatively low traffic volumes. The most critical factor, in terms of response time, is the inability of motorists to pull-to-the-right in some areas to allow passage of emergency vehicles, thereby forcing most such service providers to pass in the oncoming lane. While vehicles being passed may slow-down to better enable the EMS vehicle to overtake them, geometric factors exist in some locations which prohibit efficient emergency passing, potentially affecting arrival time.

There are two local hospitals that service the residents the Northern Neck: Riverside Tappahannock Hospital and Rappahannock General Hospital in Kilmarnock. Medical emergencies on the far western portion of the study area are often treated at Mary Washington Hospital, in Fredericksburg. More serious or specialized needs are usually met at the Medical College of Virginia Hospital in Richmond.

E. TRANSIT/COMMUTER PARKING/TRAVEL DEMAND MANAGEMENT

The Northern Neck region has utilized limited Travel Demand Management (TDM) strategies to increase the efficiency of the Route 3 corridor, although expansion of these strategies could be beneficial with further reductions of single-occupant vehicles traveling on Route 3. TDM strategies employed in the Northern Neck area include transit service, commuter parking infrastructure and carpools/vanpools. Since the corridor is mostly rural with relatively low trip densities, few areas are conducive to mass transit. In turn, “public transit is sparse in the area and paratransit service operates on a limited basis in the Northern Neck area.” (NN RLRP p.9). Paratransit involves specialized transportation services for individuals with disabilities and seniors. Bay Transit (a division of Bay Aging) is the provider of on-demand transit service along the corridor, (NN RLRP p.7) serving all four counties along the study area. The service includes a new route between Colonial Beach and Fredericksburg which is outside the Route 3 Northern Neck Corridor Study area.

Route 3 has two established commuter parking lots on the study corridor. The lot at Oak Grove is located near the Route 3 / Oak Grove Drive intersection and contains 55 parking spaces. The lot at Montross is located near the Route 3 / Zacata Road intersection and also contains 55 parking spaces. Both lots are paved, but the lot at Montross is lighted while the one at Oak Grove is not lighted according the commuter parking lots inventory found on the VDOT website. Neither lot currently provides access to transit service. Carpool/vanpool ride-matching services for commuters are provided by the Northern Neck Planning District Commission (NNPDC), which coordinates the Northern Neck Rideshare Program. (NN RLRP p.7)

9. EXISTING LAND USE

Existing Land Use along the Route 3 corridor is rural residential, agriculture, and forest. Variations to these land uses are evident in the villages and towns which are suburban in character, with commercial, retail and suburban residential uses.

Growth areas are identified by the NNPDC as Montross, Warsaw and Kilmarnock.

For the purposes of description in this study, land uses have been reduced (from each county’s zoning categories) to five (5) primary categories; Agriculture, Residential, Business/Commercial, Industrial and Public/Recreation/Conservation.

In a more detailed review of existing land uses, beginning at the western terminus at the Route 3 and Route 301 (Office Hall) and heading east, the crossroad area is Business Commercial, highlighted with a Sheetz (convenience/gas) and a CVS (pharmacy). From this point eastward, the primary land use is agriculture, typical for the corridor, with scattered

areas of business/commercial and residential through King George County, to the county line with Westmoreland County.

Continuing east, the land use remains primarily agricultural with business/commercial at Oak Grove. Leaving Oak Grove, land use again is agricultural and remains as such, with scattered business/commercial and residential uses through Potomac Mills to Montross.

Montross is an established town center with typical urban land uses – restaurants, shops, gas stations, etc. The Coca-Cola plant has recently closed, but the town is in the process of a revitalization effort designed to attract more visitors. East of Montross, businesses such as car dealers and a variety of other suburban uses are found along the four-lane section of Route 3.

Urban uses become less evident once the four-lane section ends and agricultural uses are again more prevalent.

Crossing into Richmond County, land uses remain agricultural until the heavy commercial/industrial area north of Warsaw. These uses/zoning exist through the intersection of Route 3/Route 360 (sheet 11) and then return to agriculture and residential along the four-lane section of Route 3 south of Warsaw, to its termination in Emmerton where it continues as a two-lane highway.

Crossing into Lancaster County, land uses again are typically agriculture with scattered areas of residential and limited business/commercial. Higher intensity residential and business/commercial uses exist approaching and leaving Lively. Residential land uses exist along Route 3, with commercial uses evident approaching Kilmarnock. The northern portion of Kilmarnock is an intensely utilized area, evidenced by Wal-Mart and supporting development surrounding the area (sheet 19).

Crossing Route 200, commercial uses continue towards White Stone where, above White Stone, residential is strong and then transitions back to business/commercial, centered on the Route 3/Route 200 intersection.

Heavy business/commercial and residential land uses are typical as Route 3 traverses towards the Norris Bridge, the study terminus (sheet 22).

A. CURRENT LAND DEVELOPMENT PROJECTS

Based on the VDOT LandTrack database of proposed land-use projects within the Commonwealth, there are no active zoning land development projects proposed along the Route 3 corridor. As of November 2014, 18 plat/site plan reviews are underway or were recently completed along the corridor. Plat/site plan applications are consistent with the existing zoning categories and land uses.

Current **County Comprehensive Plans** have established potential future growth areas along the study corridor. According to these plans, future growth will be directed based on existing transportation infrastructure, water and sewer capacity, current retail locations, and chief employers.

The Westmoreland County Comprehensive Plan identifies the towns of Colonial Beach and Montross as primary growth areas. Secondary growth areas include Monroe Hall, Oak Grove, Coles Point, Carmel Church and Kinsale. Areas of recommended focus include coastal management, conservation, residential and commercial development, planning and tourism. In Richmond County, Warsaw was identified as an area of growth, and conservation of the Chesapeake Bay was an area of primary focus regarding land use practices. The Lancaster County Comprehensive Plan references

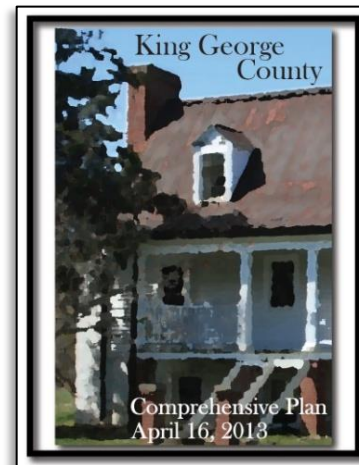
different methods to allow for optimal open space, including context sensitive development and design. The main areas where retail and commercial activities exist are the towns of Kilmarnock, White Stone and Irvington. (NNRLRP p. 17)

One of the current goals referenced in the Rural Long Range Plan for the Northern Neck region is to “Encourage land use and transportation coordination, including but not limited to, development of procedures or mechanisms to incorporate all modes, while engaging the private sector.” (NNRLRP p. 4) Both the multimodal and private sector components of this goal are addressed in more detail in the Economic Development section of the study. This goal is being explored along the corridor in the western section counties (King George and Westmoreland) to promote new industrial and commercial development.

B. LOCALITY LONG-RANGE PLANNING DOCUMENTS

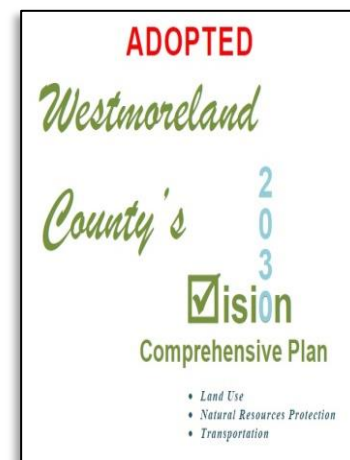
King George County Comprehensive Plan

The King George County Comprehensive Plan addresses the widening feasibility of the Route 3 Corridor through multiple references to provisions aimed at system preservation and future enhancement. It contains specific references to 4-lane widening recommendations from Office Hall to the Westmoreland County line, as well as access management practices. The Highway Corridor Overlay District (HCOD) references establishing the setback limits, which is 50’ from the right-of-way, excluding signage. The right-of-way widths along the Route 3 Corridor the County are planned for 90’ in urban areas and 140’ in rural areas. The Comprehensive Plan also references the requirement for right-of-way dedications and on-site roadway improvements in association with land development applications/projects.



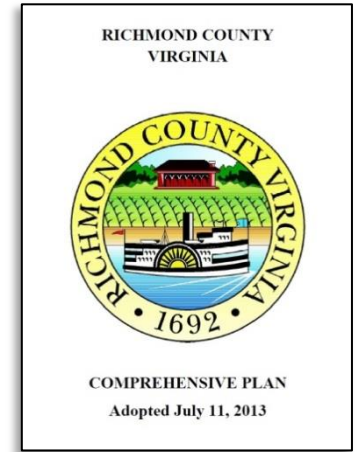
Westmoreland County Comprehensive Plan

Like the King George Comprehensive Plan, the Westmoreland County Comprehensive Plan contains references to future improvements and system preservation measures for the Route 3 Corridor. The referenced improvements include an initial effort to construct shoulder pull-offs along the Corridor. Longer term improvements include indirect references to four-lane widening for the length of the corridor within the County, and the Plan specifically mentions the four-lane widening for the entire corridor study area from Route 301 to beyond the Norris Bridge. The Westmoreland County Comprehensive Plan also specifies setbacks 50’ from the right-of-way but does not reference actual right-of-way widths. This Plan does mention access management practices and other corridor protection measures, such as an HCOD specifically for the Route 3 Corridor.



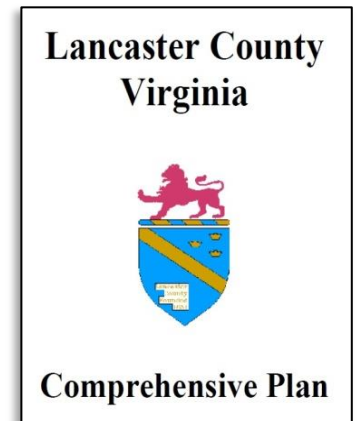
Richmond County Comprehensive Plan

The Richmond County Comprehensive Plan differs from the other counties along the study corridor in that it contains no references to Route 3 widening, setbacks or HCODs. Although the plan does not specifically prescribe right-of-way widths, County Zoning Ordinance requires a developer’s proportional dedication of right-of-way to address deficiency in cases where the existing right-of-way is less than 50’ in width or where it is otherwise required by a plan. County Ordinance also requires minimum right-of-way widths “per VDOT standards.” The Warsaw Comprehensive Plan contains references to the four-lane widening project from Warsaw to Lyells.



Lancaster County Comprehensive Plan

Similar to the two western section counties, the Lancaster County Comprehensive Plan contains more detailed references to corridor attributes than does Richmond County. The plan references the total four-lane widening VDOT project for Route 3 between Lancaster and Kilmarnock. Although right-of-way references are not included, the plan specifies the allowance of reduced setbacks for “compact” developments in the land use section. The Kilmarnock Comprehensive Plan references four-lane widening recommendations for the Route 3 corridor as specified by the “VDOT Southern Lancaster Planning Study.” Similar to the Lancaster County Comprehensive Plan, the Kilmarnock Comprehensive Plan contains no specific reference to right-of-way widths. However, the plan does note that Kilmarnock added additional off-street parking in 2012 to minimize the competition between through traffic and on-street parking on Route 3.

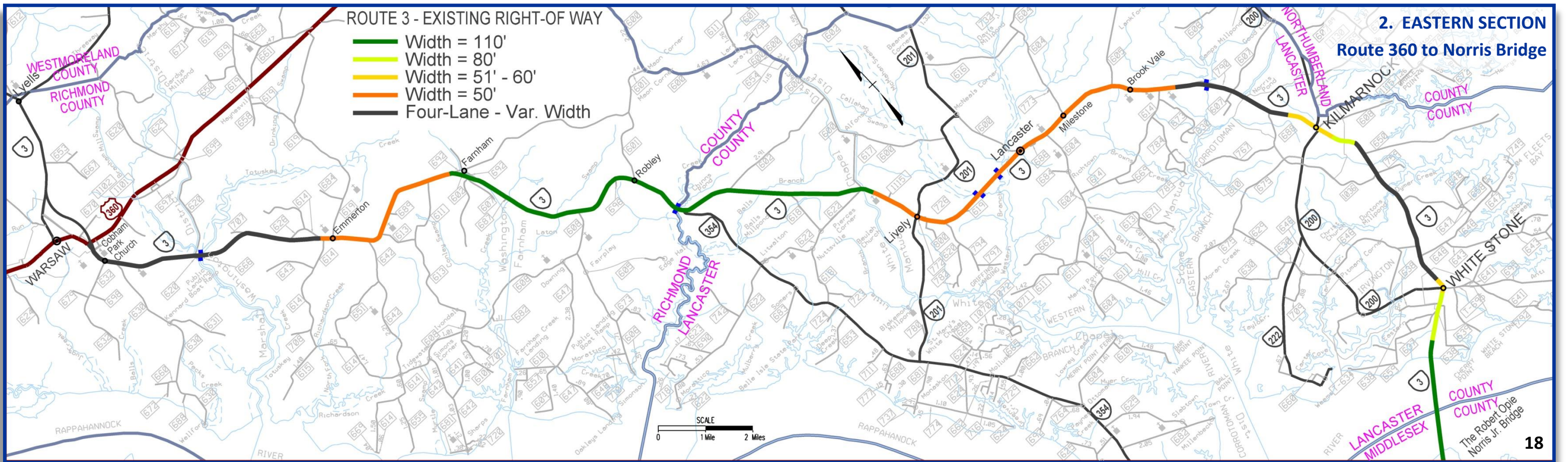
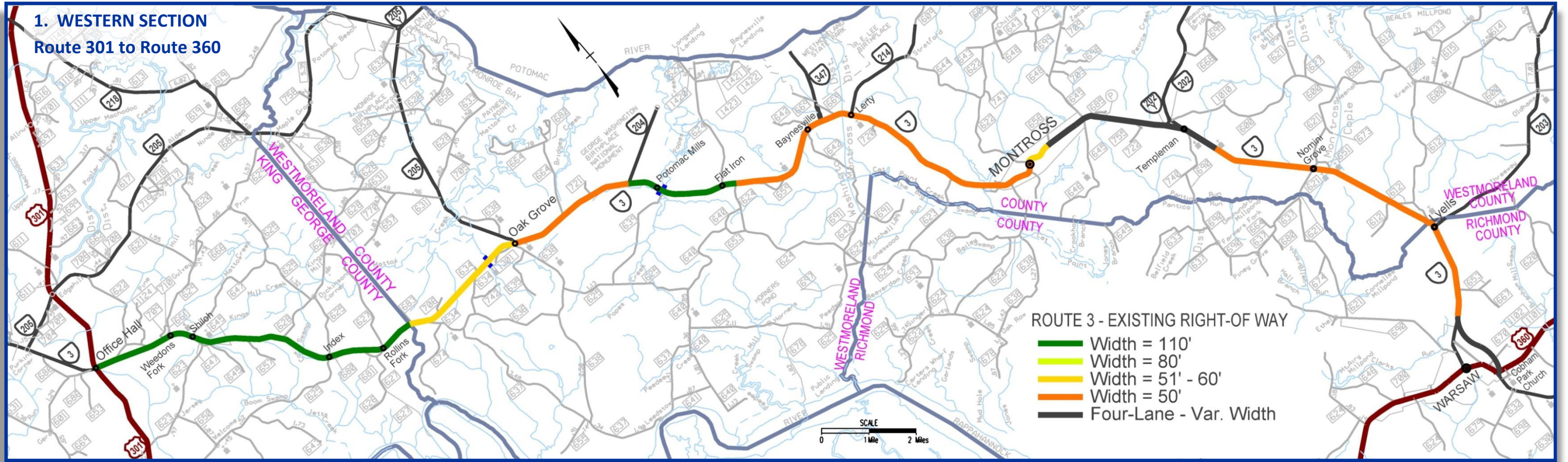


Recreation

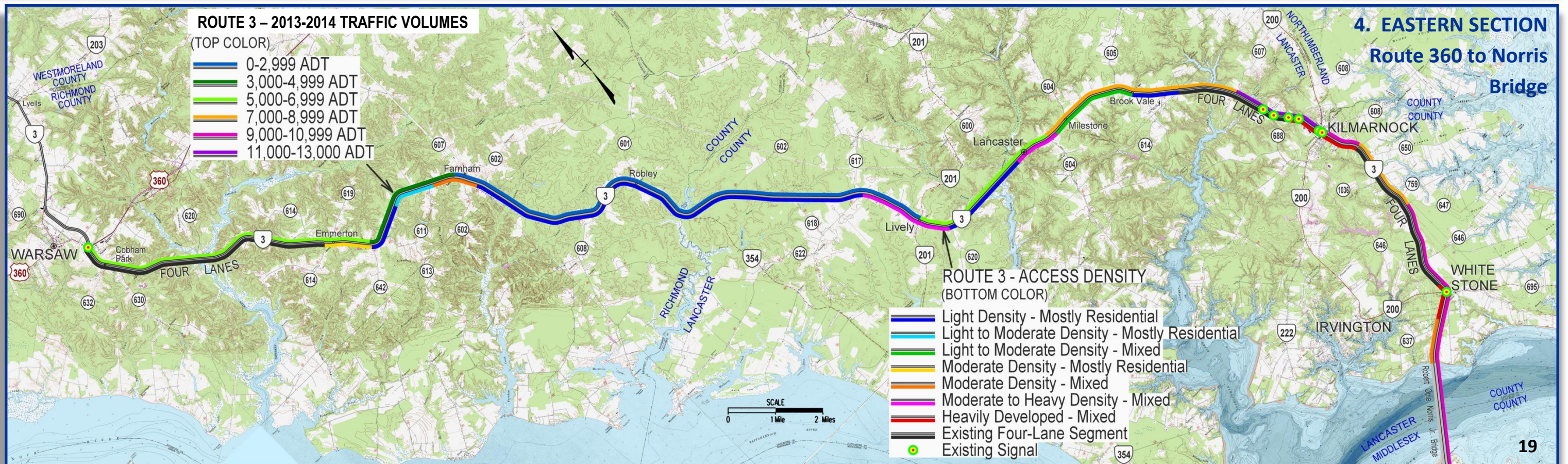
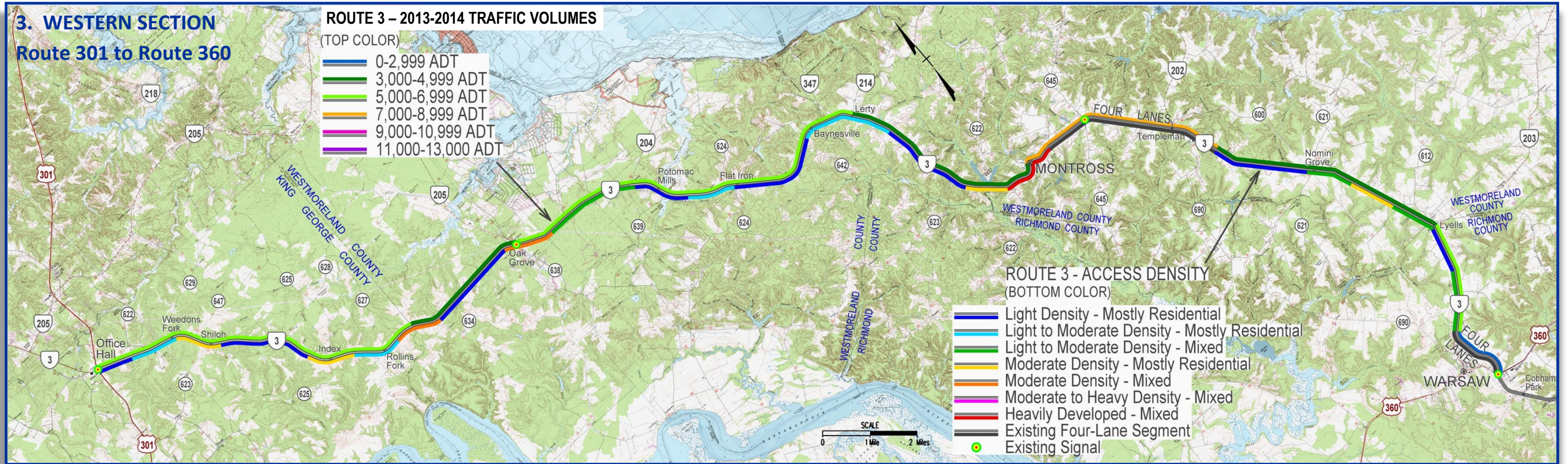
The Northern Neck region is known for its historic and recreational assets. Providing access to these facilities is of chief importance. Although many of these destinations are located on connecting roadways, a majority of trips to these sites include Route 3. These include (but are not limited to) the following:

- Westmoreland State Park
- Belle Isle State Park
- George Washington’s Birthplace National Monument
- Robert E. Lee’s Birthplace (Stratford Hall Plantation)
- Historic Christ Church
- Potomac Heritage National Scenic Trail
- Potomac and Rappahannock Rivers
- Local Museums and Parks
- Artisan Trails
- Shopping Trails

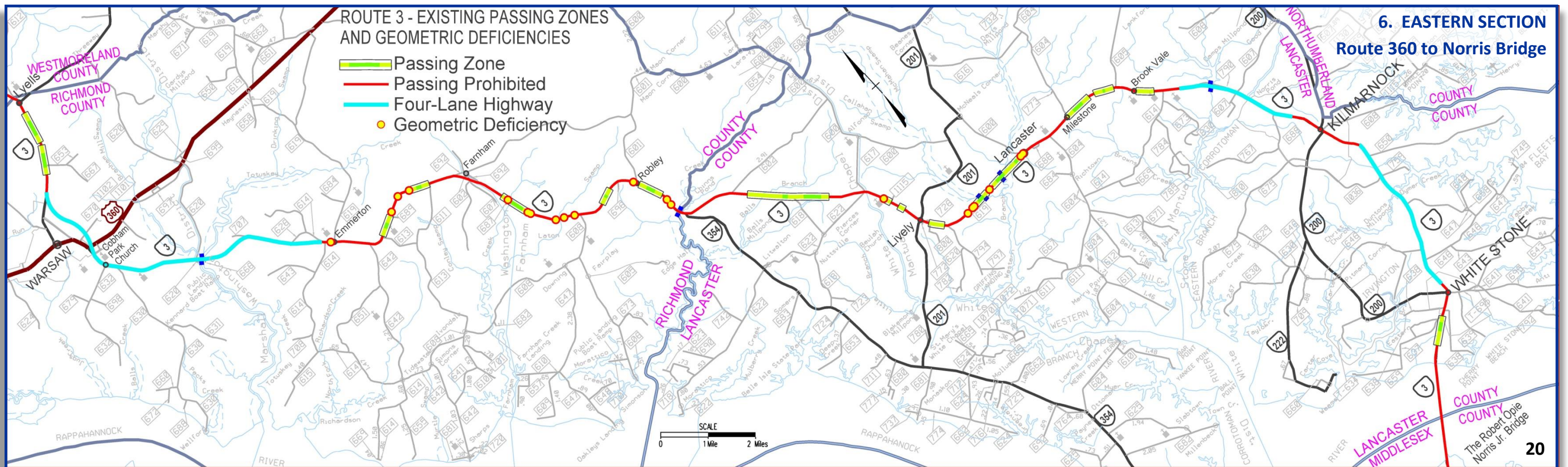
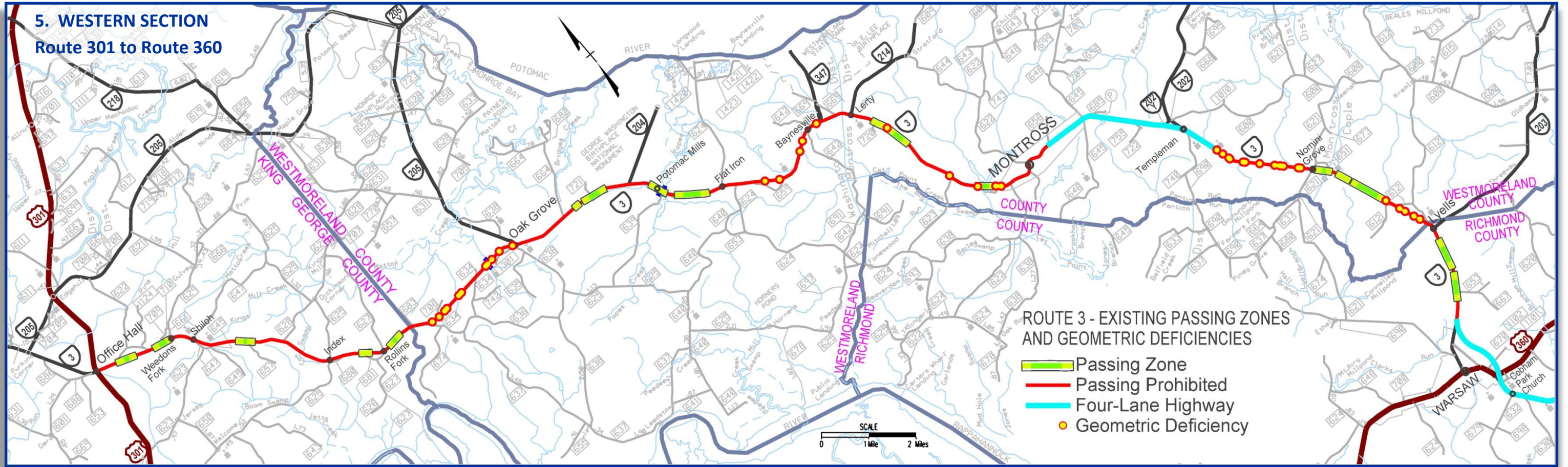
SUPPLEMENTAL MAPS 1 AND 2 – EXISTING RIGHT-OF-WAY WIDTHS ON ROUTE 3



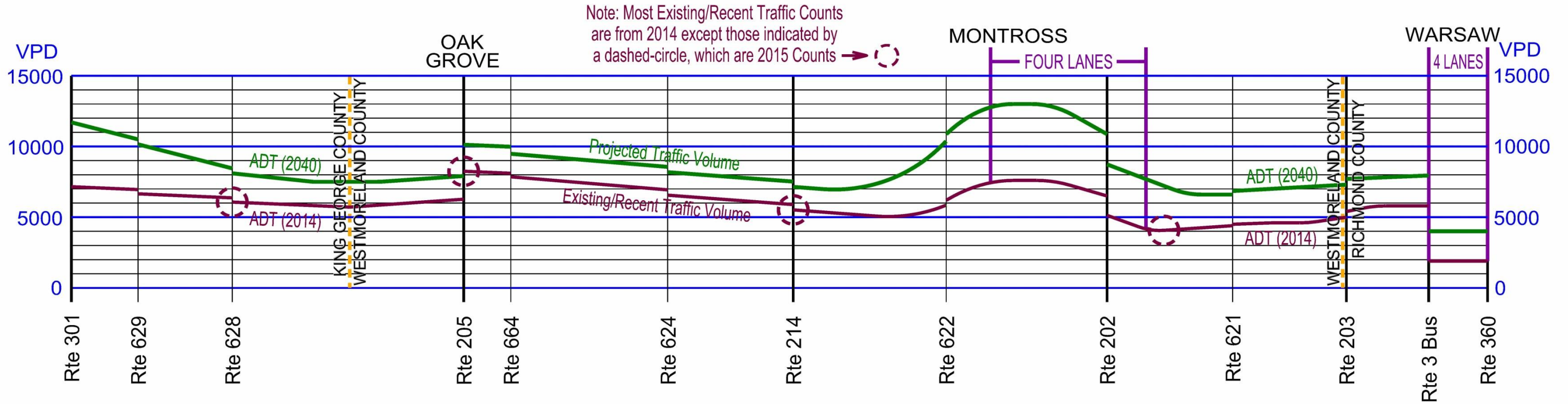
SUPPLEMENTAL MAPS 3 AND 4 – EXISTING TRAFFIC VOLUMES (2013-2014) AND ACCESS DENSITY ON ROUTE 3



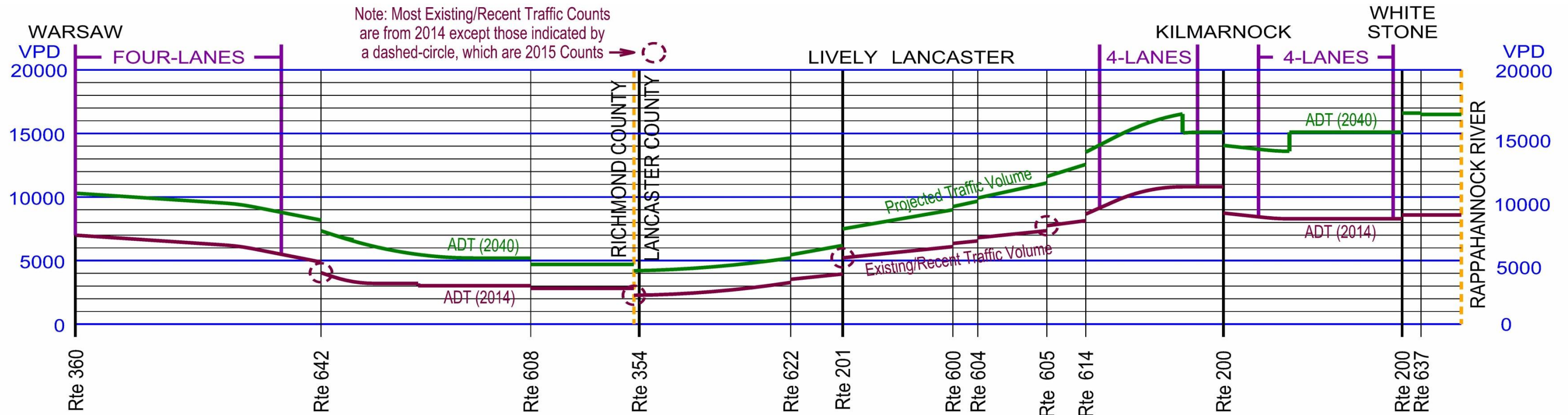
SUPPLEMENTAL MAPS 5 AND 6 – EXISTING GEOMETRIC DEFICIENCIES AND PASSING ZONE LOCATIONS ON ROUTE 3



EXISTING (2014) AND PROJECTED (2040) TRAFFIC VOLUMES – WESTERN SECTION



EXISTING (2014) AND PROJECTED (2040) TRAFFIC VOLUMES – EASTERN SECTION



10. STEERING COMMITTEE

The importance of Route 3 to the Northern Neck has been highlighted each year by the NNPDC in its communications to VDOT at the Spring and Fall Six Year Improvement Plan meetings. At the request of the NNPDC, the individual counties and King George County (GWRC) met to discuss the regional impacts of Route 3 and began an effort to promote Route 3 from a regional perspective. This is one of the first times that a facility has been looked at other than from a locality perspective, as it traversed through each county.

The Steering Committee was comprised of County Administrators, Supervisors and/or staff members from:

- NNPDC
- Westmoreland County
- King George County
- Richmond County
- Lancaster County
- Northumberland County

Beginning in late Spring 2014 the Steering Committee has met on several occasions to discuss how the study would progress and to offer input and direction as they deemed necessary. Prior to the first public information meetings in June 2015, a preview presentation was made to the Committee.

Draft recommendations were presented to the Steering Committee in October 2015. Ensuing discussion resulted in the addition of an additional recommendation; the improvement to the “roller-coaster grade” between the King George/Westmoreland County Line and Oak Grove.

11. PUBLIC INVOLVEMENT

Regularly scheduled public involvement has been an integral part of the Route 3 Northern Neck Corridor Improvement Study.

A. CITIZEN INFORMATION MEETINGS

Initial findings were presented to the public and citizen input was solicited at two meetings held in Montross and Kilmarnock in June, 2015. These meetings were moderately attended, with 17 citizens registering at the first and 18 signing-in at the second. Exhibits were on display and both written and oral comments were collected. All comments received have been given full consideration in the development of the recommendation phase of this study.

The most frequent request from the public (and the only comment common to both meetings) was that VDOT construct dual-lanes for the entire length of Route 3, from Route 301 to Route 33 (wherever such a facility is currently absent) and the most frequently stated *need* for four-laning is the perceived positive effect such a facility would have on the economy of the Northern Neck, with the result being more traffic and greater revenues for local businesses and the tax base.

Additional suggestions from the public included:

- Construct a Truck-Route Bypass of White Stone
- Construct a light-rail facility, parallel to Route 3, throughout the Northern Neck
- Explore ways to better utilize the navigable water assets along the Northern Neck
- Place a higher emphasis on the maintenance (particularly the painting) of Norris Bridge
- Replace the Norris Bridge with a modern multi-lane structure
- Build a bicycle trail between Kilmarnock and Irvington

While some of the comments received related directly to Route 3 in the study area, several were more far-reaching (such as water and rail transportation), requiring a wider scope not planned for the Route 3 Study. These suggestions will be directed to the appropriate individuals.

In December 2015, follow-up informational meetings were held for both the western and eastern sections to present study recommendations and seek final public comments.

Notes, comments and attendance lists may be found in Appendix A.

B. HOUSE BILL 2 AND LOCAL GOVERNMENT ENDORSEMENT OF PROJECT

House Bill 2 encourages localities, MPO’s and regional planning commissions to pursue available transportation funding based upon addressing specific project needs established by the Office of Inter-Modal Planning and Investment (OIPI) on the statewide transportation system. HB2 was first implemented in 2015 for projects to be included in the 2017 SYIP. Applications are scored and ranked statewide by established criteria. At the completion of the process, all projects determined to have acceptable applications are presented to the Commonwealth Transportation Board (CTB) for final consideration for funding. The top recommendation from the Route 3 – Northern Neck Study, is a set of passing lanes in western Westmoreland County, and has been applied for through the HB2 process. The NNPDC and four counties (Westmoreland, Richmond, Lancaster, and Northumberland) have provided resolutions of support for this project. (See Appendix B)

12. IMPROVEMENT OPTIONS

A. POTENTIAL FOUR-LANE WIDENING LOCATIONS AND COSTS

In order for a road to be widened to a divided, four-lane typical section, projected traffic volumes must warrant such improvements. A general rule-of-thumb to begin considering four-lane widening is when the ADT of a particular stretch of highway approaches 15,000 vehicles for rural areas, slightly lower for suburban and urban areas. With the exception of Kilmarnock and White Stone, no other two-lane segments of Route 3 in the Northern Neck have projected volumes in this range by the design year of 2040. The segment of Route 3 just east of the Route 301 intersection at Office Hall has the potential for such volumes, as well, depending upon the development direction taken by King George County.

Four-Lane Typical Sections and Per Mile Costs

The current **cost-per-mile** for the three divided, four-lane typical sections (see Figure 12-1, Page 23) are as follows:

Divided Four-Lane Typical Section	Geometric Standard	Current (Total) Cost Range per Mile (today's \$s)
A – Rural, 60 MPH, Build Four Lanes	GS-2	\$8 million - \$10 million
B – Rural, 60 MPH, Build Two Lanes	GS-2	\$4.5 million - \$6.5 million
C – Urban, 45 MPH, Build Four Lanes	GS-6	\$9 million - \$11 million

Note: Variations are largely dependent upon the width of existing right-of-way, presence of utilities, number of residential and commercial parcels affected, environmentally sensitive areas, and general topographical features. In estimating the proposed improvements, a mean value will be applied, unless otherwise noted.

As a baseline for cost, the following estimate is provided. **This is not a recommendation.**

Location of Four-Lane Improvement	Improvement Description	Length (Mi)	Estimate (millions)
A Majority of Current Two-Lane Segments	Typical Section B	37.5	\$206
Segments Where Improvements Switch Sides	Typical Section A	2.0	\$ 18
Areas of Geometric Deficiencies	Typical Section A	7.0	\$ 63
Developed/Developing Towns and Villages	Typical Section C	8.5	\$ 85
Bridges and Large Drainage Structures	N/A	N/A	\$ 24
Total Cost to Four-Lane Entire 55 Miles			\$396

Note: All estimates are total costs (Construction, Right-of-Way and Utilities, Preliminary Engineering)

Based upon the lack of congestion and relatively low traffic projections, it is anticipated that few areas on Route 3 in the Northern Neck will be able to successfully compete for the funding needed to build four-lane highways.

Western Section

In the western study area, no sections have a 2040 projected volume exceeding 15,000 vehicles-per-day. The highest projected volume for the western portion is in King George County, where the ADT is projected to fall between 11,000 and 13,000 vehicles, but this projection will increase if infrastructure improvements are constructed which promote a higher rate of development. A long-range strategy for this section should include careful monitoring of both volumes and performance, with a goal of providing additional lanes at such time as they may become needed to support growth. East of Route 301 in King George County, Route 3 has an existing Right-of-Way width of 110'. This would provide most of the width needed to apply either rural four-lane typical section (Typical Section A or B, Figure 12-1, Page 23) or an urban typical section (Typical Section C). Most of the widening on this section could utilize the less expensive Typical Section B, which maintains the existing roadway for travel in one direction while constructing two new lanes for the opposite direction. In the vicinity of the intersection of Route 3 and Route 301, Typical Section C will likely be the best alternative as it minimizes the need for the acquisition of high-cost right-of-way and applies an intuitive speed-lowering zone approaching the commercial areas.

Four-Lane Widening of Route 3 in King George County may follow the following schedule:

1. Route 301 through Route 629	2 miles	approx. \$20 million	Construction by 2030
2. Route 629 through Route 645	1.2 miles	approx. \$9 million	Construction by 2040

Eastern Section

In the eastern portion of the study, two, two-lane sections of Route 3 have projected 2040 volumes exceeding 15,000 vehicles-per-day, which place them on the threshold of consideration for dual-laning, particularly in light of the highly developed roadsides along the sections under consideration. The first high-volume segment is in Kilmarnock, between the existing four-lane section northwest of town and the Route 200 intersections. The second is between the existing four-lane segment north of White Stone and the Norris Bridge. Both of these sections should have, as a long-range solution, the future provision of additional capacity, possibly in the form of Typical Section C. The northern section should have the widening extended southward to completely close the gap between the two existing four-lane sections.

Widening within the Town of Kilmarnock would be challenging and expensive. A Kilmarnock Bypass has been suggested in various planning documents for several years, but the congestion has not emerged that would garner strong support. However, the recent truck prohibition on Route 3 has placed a new priority on the facility. The current truck route, Route 688/1036, with an ADT of 4,600 (2011), is a high volume secondary road that has room for expansion. The rate of growth on this roadway is +8% over the past 15 years, indicating a great demand for its use and a high likelihood for continued growth. If growth continues at half of that pace, the 2040 ADT will exceed 14,000 vehicles per day. The most effective method of addressing future traffic congestion on Route 3 through Kilmarnock is to provide an efficient method of removing non-local trips from the traffic mix. The current truck route provides this function and should continue to do so.

The widening of the high volume segment of Route 688 between Route 3 and Route 200 should be the initial four-lane project, with an urban typical section for two miles, crossing Route 200 to a point beyond the Rappahannock General Hospital entrance on Route 1036. Beyond this, the southern portion may be constructed as an improved two-lane roadway on an ultimate four-lane Right-of-Way to the intersection of Route 3, south of Kilmarnock. A follow-up phase of the Route 1036 project could complete the four-lane link back to Route 3, south of Kilmarnock, at such time as the need arises.

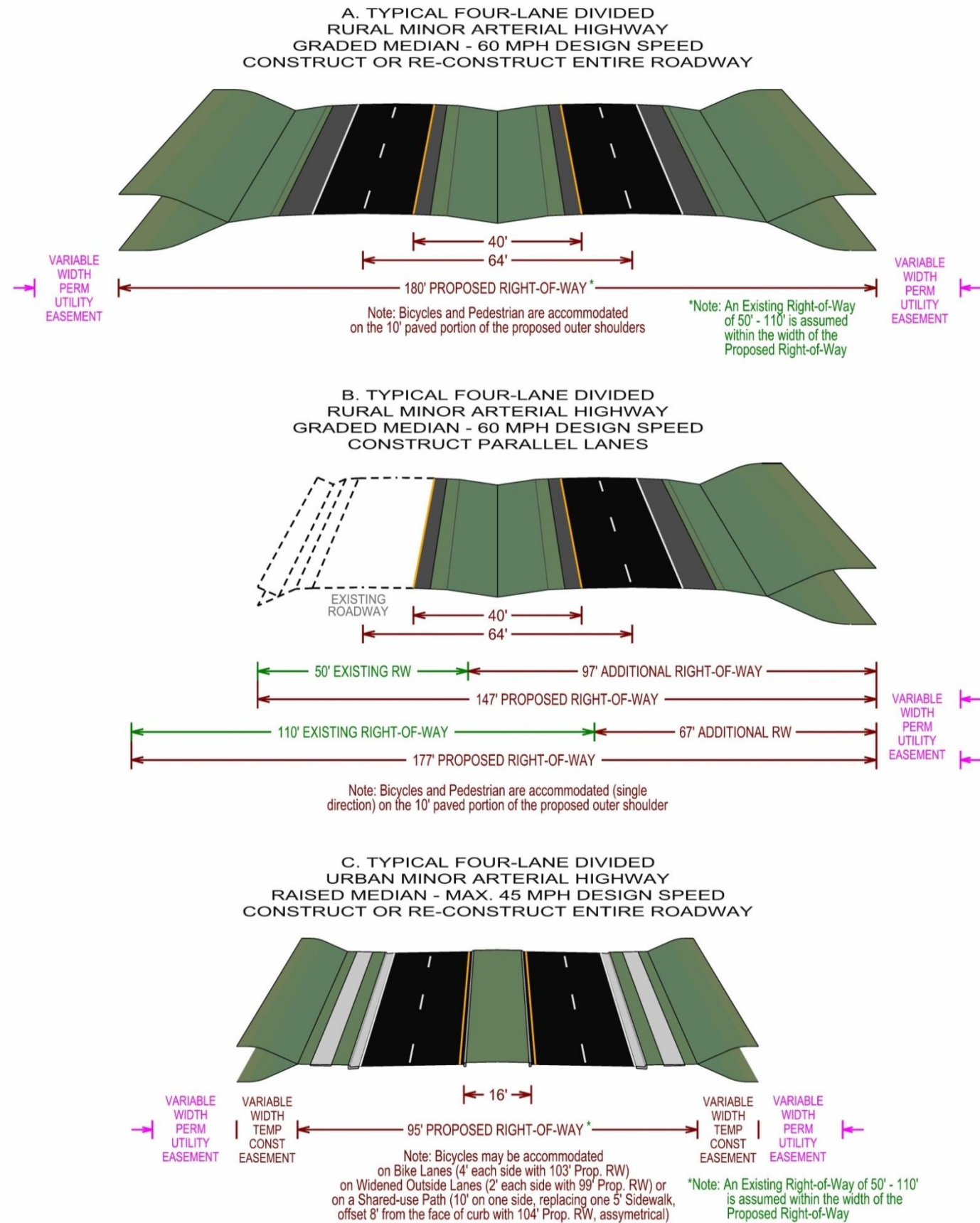
Note: In order for this new Route 688/1036 corridor to remain a viable alternative for Route 3, access management will be needed in order to prevent the natural pattern of development that will be expected from degrading service.

The Norris Bridge also has a projected 2040 ADT of approximately 16,000 vehicles. While a bridge has no side friction or turning movements, which stretch the "capacity ceiling" above normal roadways, the narrowness and relative steep grades found on the structure degrade efficiency and can impose a decrease in speeds and create periodic delays. When the bridge is eligible for replacement, four-lanes should be considered. The segment of Route 3 between the bridge and the terminus of the existing four-lane should be widened when the bridge is replaced, or when daily congestion dictates. These improvements may involve the widening of existing Route 3 through White Stone or widening with a bypass segment on the western side of town. Similar improvements may be desired south of the Norris Bridge to Route 33 in Middlesex County, addressing future capacity needs.

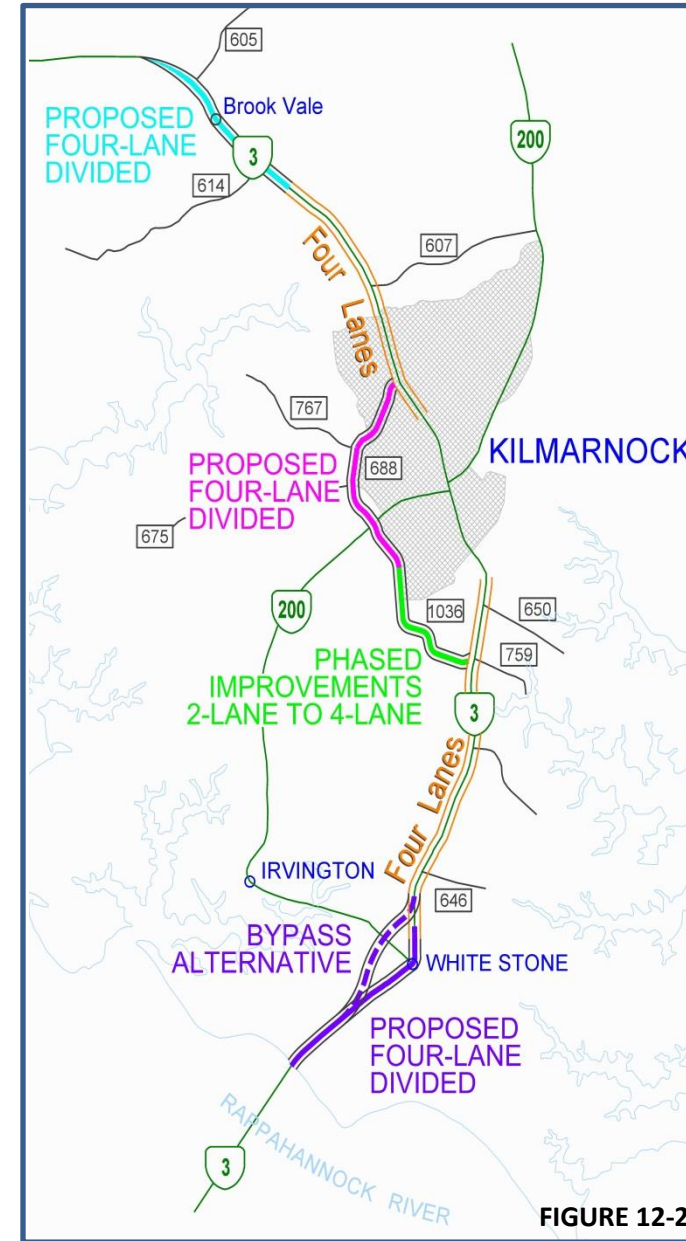
Any other segments of Route 3 that experience rapid growth over the next quarter century may need to be considered for four-laning. Typical Section B will be the most cost-effective solution in rural areas, although the accommodation of bicycles and pedestrians on the existing roadway half may not be desirable in many locations, and the paving of the existing right-hand shoulder should be considered anywhere this section is applied. Wherever substantial development is present and access management is needed (such as in towns and villages), Typical Section C will likely be the best alternative.

Note: The baseline Standard typical section for a Rural Minor Arterial Highway (VDOT Geometric Standard GS-2, Road Design Manual Figure A-1-2) with average daily traffic (ADT) greater than 2000 vehicles per day and rolling terrain has a design speed of 60 miles-per-hour (MPH). Highways such as these will normally have a posted speed limit of 55 MPH. For a vast majority of Route 3 in the Northern Neck, this Design Standard is applicable for all improvements, the exception being the possible use of Urban Standard GS-6 within developed areas, where lower speeds are appropriate.

FIGURE 12-1



Recommended Divided, Four-Lane Improvement Projects on the Eastern Section



- 1. Kilmarnock Bypass – Northern Section**
Route 688/1036 from Route 3 (north of Kilmarnock) through the Rappahannock General Hospital entrance
Lancaster County - Typical Section C
Approx. Length - 2.0 Miles
Approx. Cost - \$20 million (2015 \$'s)
Includes signalized intersection at Route 3 and possible signal/roundabout at Route 200
Includes bicycle and pedestrian accommodation
Possible construction – 2025
- 2. Kilmarnock Bypass – Southern Section (Phase 1)**
Route 1036 from Rappahannock General Hospital entrance to Route 3 (south of Kilmarnock)
Lancaster County
Two-Lane Hybrid Typical Section, fully compatible with Typical Section C (Acquire Ultimate Four-Lane Right-of-Way)
Approx. Length – 1.5 Miles
Approx. Cost - \$8 million (2015 \$'s)
Primary purpose is to provide better horizontal alignment and set-up for future widening
Bike and Ped accommodation to be provided
Possible construction – 2035
- 3. White Stone Widening or Bypass**
Route 3 from End of Current Four-Lane (between Kilmarnock and White Stone) to Robert Opie Norris, Jr. Bridge
Lancaster County - Typical Section C - Approx. Length – 1.6 Miles
Approx. Cost - \$17 million (2015 \$'s) - Includes Intersection of Routes 3 and 200 (Signal or Roundabout) as well as bicycle and pedestrian accommodation.
As an alternative, a bypass could be constructed (dashed line on exhibit) for approximately the same cost, which could serve to remove trucks from the town.
Modifications at Norris Bridge will influence the design and scheduling of this widening.
Possible construction – 2040
- 4. Kilmarnock Bypass – Southern Section (Phase 2)**
Route 1036 from Rappahannock General Hospital entrance to Route 3 (south of Kilmarnock)
Completion of construction began in Phase 1 - Approx. Length – 1.5 Miles
Approx. Cost - \$8 million - Includes signalized intersections at Route 3
Includes bicycle and pedestrian accommodation - Typical Section C
Approx. Length - 1.5 Miles - Approx. Cost - \$7 million (2015 \$'s)
Possible construction – 2045
- 5. Extension of Four-Lane Dual-Roadway North of Kilmarnock**
Route 3 from the end of the current Four-Lane Highway through the Intersection of Route 605
Approx. Length – 1.9 Miles
Approx. Cost - \$15 million (2015 \$'s)
Typical Section B – Additional features to be determined
Possible construction – 2050

B. PASSING LANES

The greatest need for vehicular traffic on Route 3 in the Northern Neck is significant opportunities for passing. This study has stated that passing is prohibited on $\frac{3}{4}$ of the existing two-lane portions of Route 3 and has illustrated that existing passing zones are frequently ineffective. As traffic volumes are not expected to warrant the construction of four lanes on a majority of Route 3 in the Northern Neck, a better method of providing frequent opportunities for passing is needed.

Typically, the term “passing lane” applies to a **three-lane arrangement** in which passing occurs on a third lane in one-direction-at-a-time for a certain distance before switching to a passing lane in the opposite direction. In Virginia, the greatest use of passing lanes is on Route 11 in the Shenandoah Valley. Several locations in Shenandoah, Rockingham and Augusta Counties are very effectively served by passing lanes with daily traffic volumes similar to those found on Route 3 in the Northern Neck. Note: A system of end-to-end passing lanes, as we have on Route 11, is sometimes referred to as a “2+1 Roadway”.

Another method of providing passing lanes is by widening a two-lane road to an **undivided four-lane section**, similar to Route 1 throughout the Fredericksburg District, only in short segments. It should be noted that undivided four-lane highways have been rarely built in recent years, as the use of the safer median-divided, dual-lane highway has become the norm. However, a four-lane passing segment is as inherently safe as a three-lane passing segment for short distances under certain conditions, including adequate sight distance and a low demand for left turns along the segment. The sporadic occurrences of wide, 110’ existing right-of-way throughout the corridor provide improved opportunities for passing lanes. As four-lane passing lanes cover only about half of the distance of a set of end-to-end, three-lane passing lanes, they will often be a more efficient design.

Locations for potential passing lanes may be identified and prioritized according to the following criteria:

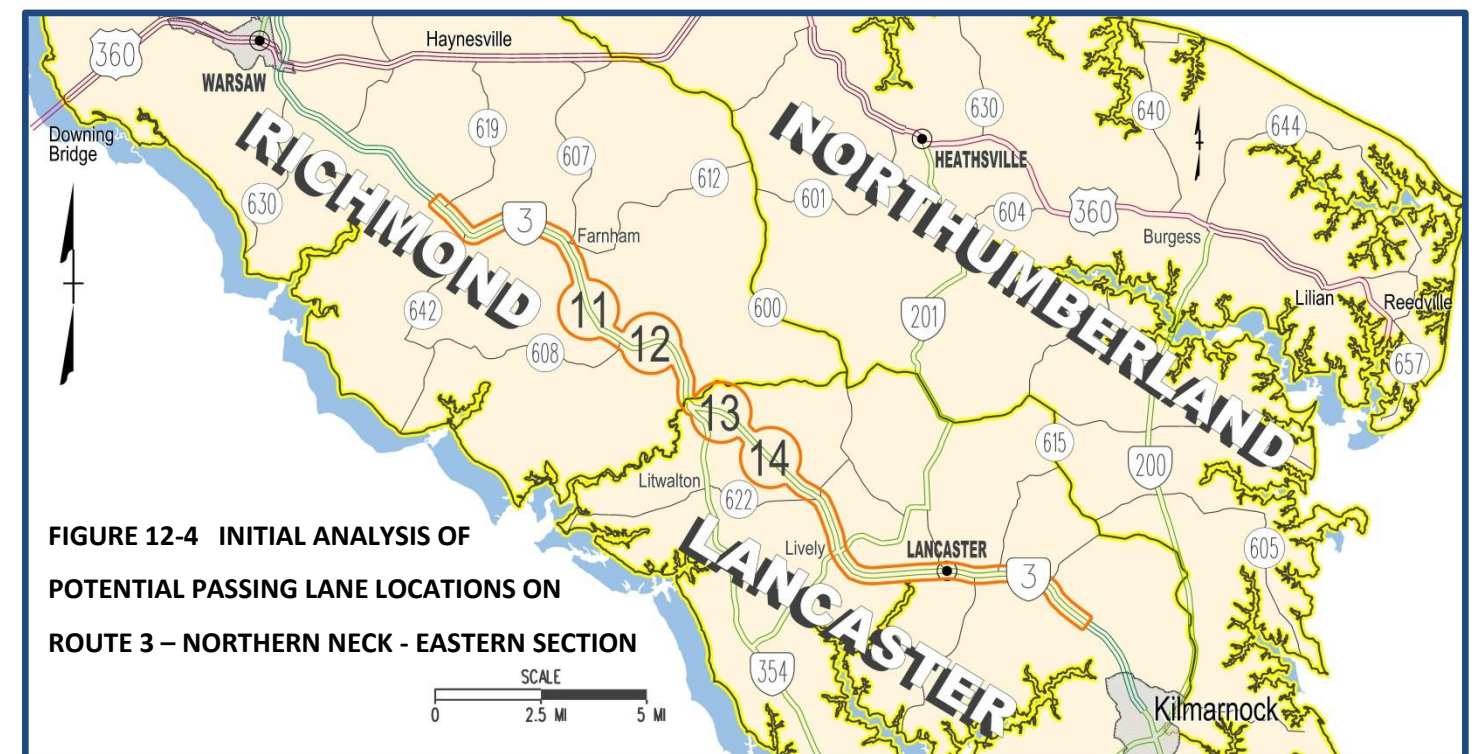
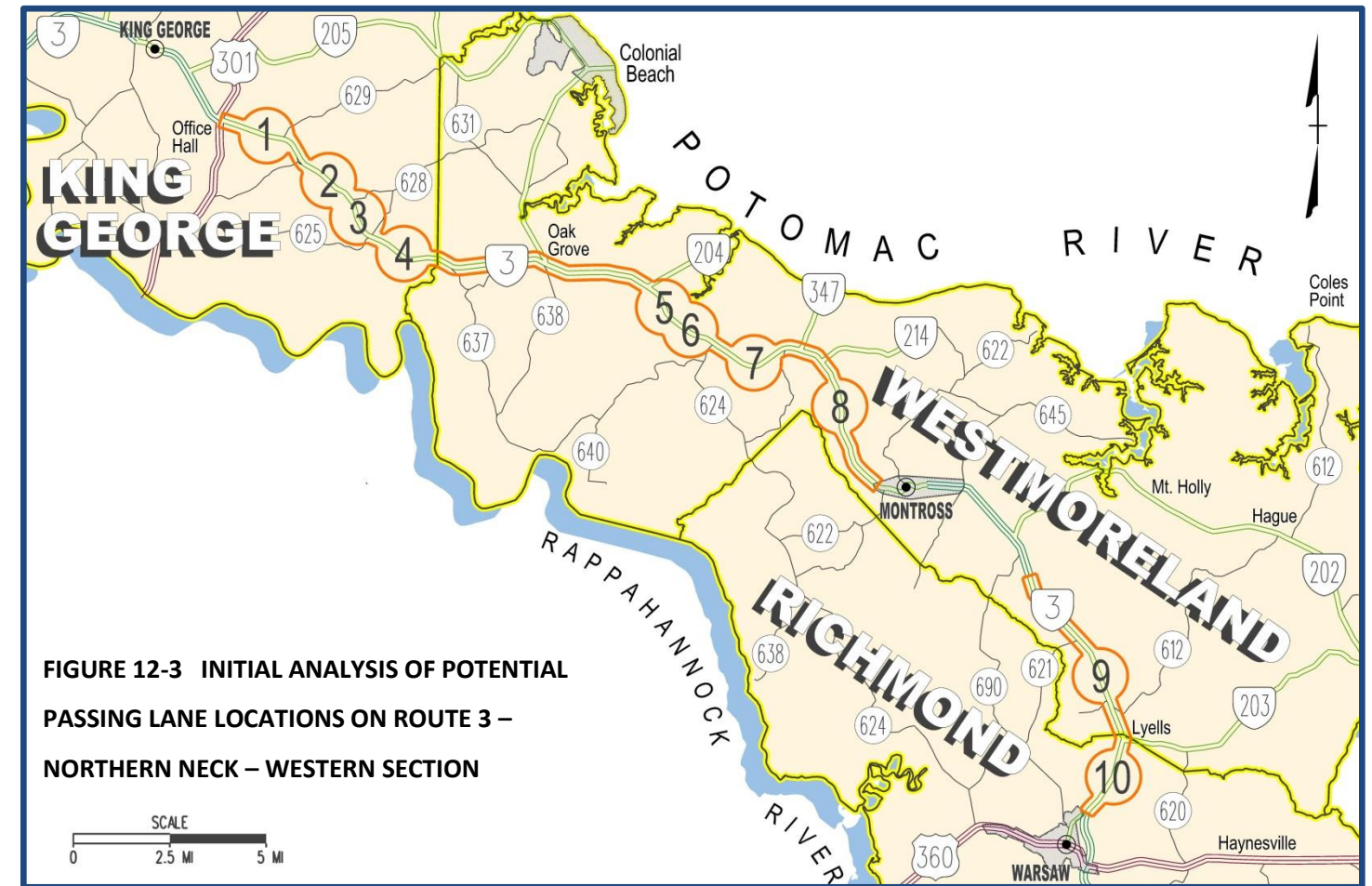
- Greater distance from existing four-lane sections = Greater Need
- Higher existing and projected traffic volumes = Greater Need
- Wider existing Right-of-Way on segment = Lower Cost
- Fewer connections and entrances on segment = Lower Cost
- Fewer geometric deficiencies = Lower Cost

Based upon these criteria, fourteen locations were identified as potential passing lanes, each exhibiting the five characteristics in varying proportions, which are shown on Figure 12-3 and 12-4, at right.

Note: Numbers are for identification (west to east) and do not indicate priority.

There are four suitable locations in King George County, five in Westmoreland, three in Richmond and two in Lancaster County. These locations tend to be loosely clustered along the portions of highway that are favorable to widening without the need for significant grading and where the need for Right-of-Way acquisition is the least. It would not be beneficial to simply construct a facility at all of the locations. The preferred method of selection is to determine a logical set of locations across the region which is affordable and programmable as VDOT construction projects and provides the best service.

Each of the fourteen locations is intended to provide the opportunity to construct a pair of passing lanes; one in each direction. The following pages contain information on the most effective lengths and most efficient arrangement of lanes, based upon the unique circumstances of each location. There is little data available regarding the most appropriate spacing of these pairs. The assumption in this study is that more passing opportunities are positive, more cost is negative, and that a reasonable balance between the two is desirable. Note: This study does not recommend an improvement in each of the fourteen locations, but suggests that an improvement could be provided at those locations, if selected.



Proposed Passing Lanes – Design Features and Dimensions

The AASHTO Green Book, Section 3.4.4, addresses methods of increasing passing opportunities on two-lane roads. The recommended minimum length for a passing lane is ½ mile and the desirable lane length is ¾ mile for locations with one-way traffic volumes of 201-400 vehicles per hour, which is the range found on Route 3, for the peak hour/peak direction. All passing lanes will be introduced on the left of the general-purpose “thru-lane”, thereby allowing the passing vehicle to merge left to pass and slower vehicles to keep-right, meeting driver expectation. This requires the through-lane to be transitioned 12’ to the right prior to the introduction of the passing lane, in most situations. For safety and function, the passing lane will terminate as a lane-ending taper (striped), followed by a pavement transition back to the typical width. On a highway with a posted speed of 55 MPH, the following minimum lengths apply:

- | | |
|--|---|
| 1. Pavement Width Transition of 12’ or 24’ | Min. 660’ (12’ shift/widening assumed) |
| 2. Passing Lane-Addition Taper | Min. 200’ |
| 3. Passing Lane Length | Min. 2640’ (Desirable - 3960’) |
| 4. Passing Lane-Drop Taper | Min. 660’ |
| 5. Pavement Width Transition of 12’ or 24’ | Min. 660’ (12’ shift/ widening assumed) |
| Total (from Begin. Trans. to End Trans.) | Min. 4820’ (Desirable - 6140’+) |

See Figure 12-5 at right for more details and scenarios

Ideally, based on current standards and guidelines (2014), one passing lane normally requires a length of 6140’ (approximately 1.2 miles) or greater from the beginning of widening of pavement to the end or narrowing of pavement. If the minimum length is selected, the overall length is reduced to 4820’ or approximately 0.9 mile. These dimensions apply to single, one-direction passing lanes (on a 3-Lane typical section) or two-way, side-by-side passing lanes (on a 4-Lane typical section).

In locations on Route 3 where general characteristics provide the minimum length required for a passing lane, the existing RW and existing roadside features should be considered to determine whether 3-lane or 4-lane widening is most appropriate. Figure 6 on Page 26 illustrates two methods of providing a three-lane typical section for a single-direction passing lane and two four-lane typical sections for side-by-side, two-direction passing lanes. Several segments have an existing RW width of 110’. For proposed passing lanes in those areas, a 4-lane (normally, undivided) section should be strongly considered, providing side-by-side passing lanes in each direction. In areas with existing RW widths of less than 110’, 3-lane typical sections may be most practical, with widening for one passing lane added to preferred side, in terms of right-of-way and utility relocation costs. If a length in excess of two miles is available for passing lane construction, end-to-end passing lanes (also referred to as a “2+1 Roadway” where carried for an extended distance) may provide the most efficient facility, and should be considered. Typically, combining a pair of passing lanes into a set of end-to-end lanes reduces the overall length by 1400’ as compared to two separate single-direction passing lanes.

Passing lanes should be located where there are either no connections/entrances or where only low-volume connections and entrances are present throughout the length of the lane and transitions. Horizontal sight-distances should meet current VDOT Standards throughout all proposed passing lanes. Most geometric deficiencies on Route 3 are substandard vertical sight distances on crest vertical curves. Without improvements to the road grade, such areas are generally excluded as potential passing lane locations except for the most remote locations where no driveways or connections exist.

Depending upon the situation, introducing or terminating a passing lane at a left turn lane may be desirable. Where a passing lane approaches a location requiring a left-turn-lane or where failure to provide a left-turn-lane would create a hazard or cause confusion, the passing lane must taper and drop completely prior to the beginning of the turn-lane-taper. Please see the following exhibits for further explanation.

A viable passing lane will consist of the full-width segment plus a transition at both ends. Many of these transitions will include one or more roadway connections. Based upon these features, cost estimates will be determined.

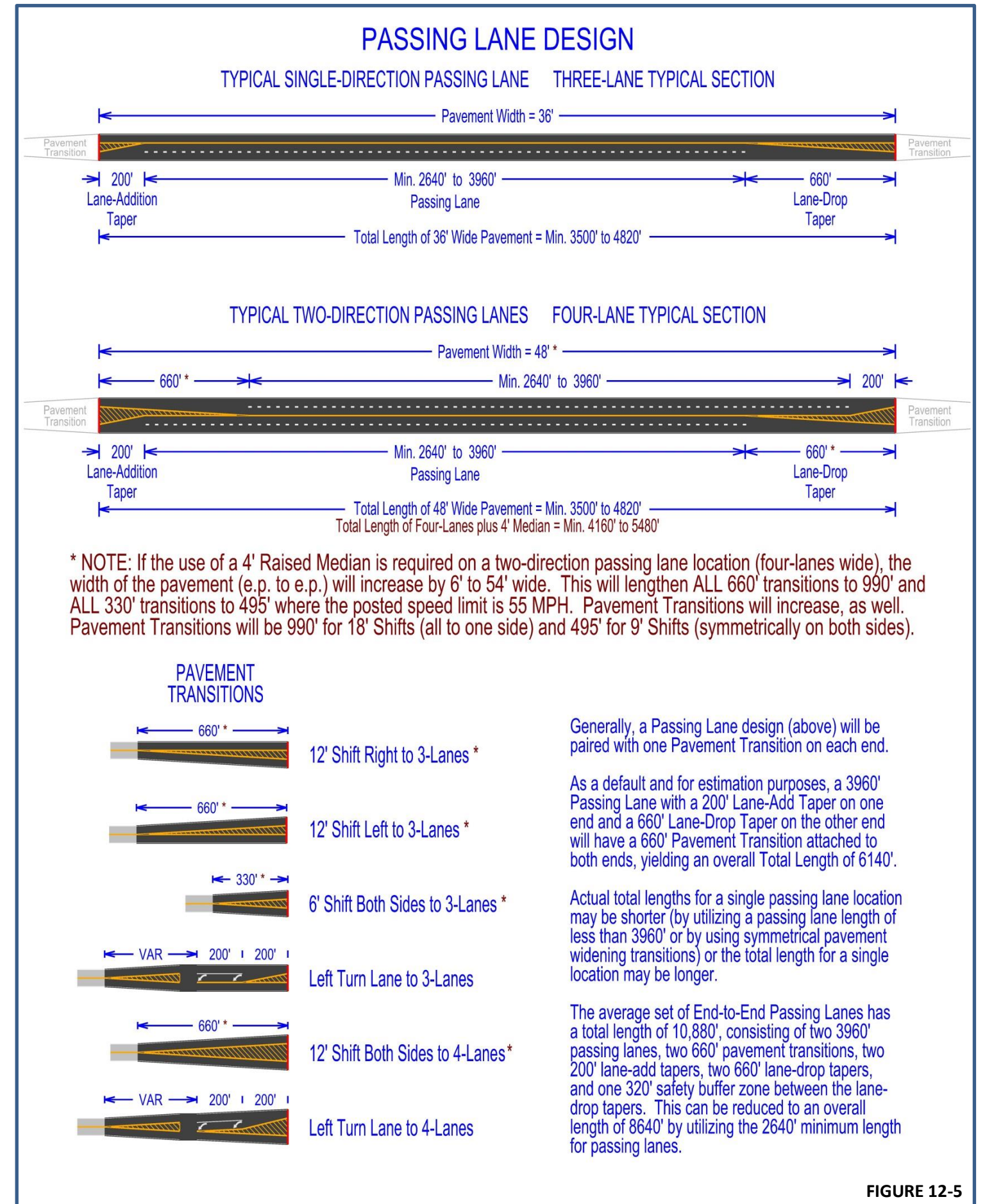
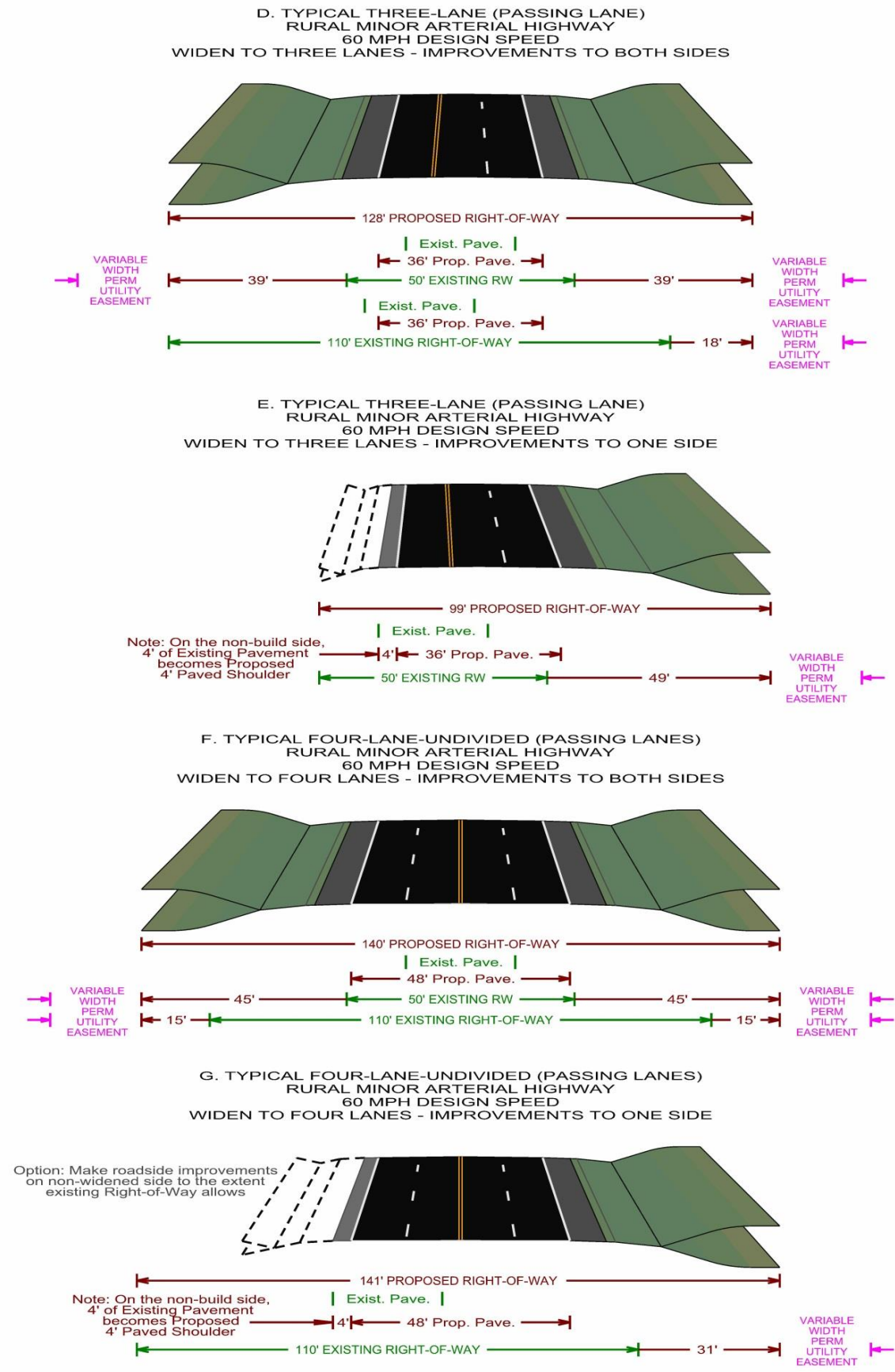


FIGURE 12-5

PROPOSED THREE-LANE AND UNDIVIDED FOUR-LANE TYPICAL SECTIONS (PASSING LANES)



This study will suggest a priority order for several of the preferred locations shown on this map, beginning with the most critical need. Subsequent recommendations will assume those of higher priority will be built, thus establishing a logical system of passing lanes as opposed to random individual locations. As earlier chapters have pointed out, the greater need for passing opportunities is in the western section, and the recommendations will reflect this.

The various design alternatives will also be optimally applied for each location, based upon existing conditions, and an approximate total cost will be estimated.

Proposed Passing Lanes – Priority Locations on Route 3 in the Northern Neck

Priority #1 – Western Section - Construct Passing Lanes in both directions in Western Westmoreland County

The highest priority location on the western section of the Study was determined to be #6 (on the map of potential locations, on page 24), in Westmoreland County. On segment of 110' Existing Right-of-Way in Westmoreland County, this segment is the most remote, in terms of distance from nearest four-lane highways. Traffic is moderate and there are no geometric deficiencies.

- Fully Utilize Existing 110' Right-of-Way
- Construct Typical Section F or G (Four-Lanes)
- Construct Passing Lanes of Approx. 4400' Eastbound and Westbound
- Provide Left Turn Lanes Westbound at Routes 761 and 639 and Eastbound at Route 624N
- Close Existing Connection by Cul-de-sac (or Right In/Right Out Only) at Route 761
- Total Length of Project = 1.5 Miles
- Approx. Total Cost = To Be Determined



Note: Each subsequent determination of priority assumes the prior (higher) priorities will be built, thus establishing a logical system of passing lanes rather than randomly placed stand-alone facilities.

Priority #2 – Western Section - Construct Passing Lanes in both directions in Eastern King George County or Western Westmoreland County

Location to be determined upon further study

- Where feasible, Fully Utilize Existing 110' Right-of-Way
- Construct either Typical Section D or E (Three-Lanes) or Typical Section F or G (Four-Lanes) based upon location chosen and Right-of-Way availability

- Construct Passing Lanes of Approx. 4400' Eastbound and Westbound
- Total Length of Project = Approx. 1.6 Miles to 2.5 Miles depending upon typical section selected
- Approx. Total Cost = To Be Determined

Note: Initially, the segment of Route 3 between the intersection of Route 625 and Route 627 in eastern King George County was determined to be the preferred location for these passing lanes. After additional public input, the recommendation for the location of *Proposed Passing Lanes - Priority #2* has been expanded to cover a range of approximately 7 miles in eastern King George County and western Westmoreland County, likely between Route 645 (Shiloh area) and Route 205 (Oak Grove).

Priority #3 – Western Section - Construct Passing Lanes in both directions in Lerty / Montross Area

Assuming prerequisite construction of the first two priority locations, the third recommended location on the western section should be near Map Location #8, between Lerty and Montross. A length of nearly two miles between Route 720 and Route 623 provides an opportunity for the installation of end-to-end passing lanes, at this location. Typical Section D or E should be chosen.

- Construct Passing Lanes of Approx. 4000' Eastbound and 4000' Westbound
- Utilize Typical Section E
- Should not require turn lanes at any connections
- Total Length of Project = 2.5 Miles
- Approx. Total Cost = To Be Determined

The construction of three recommended passing zones – priorities number 1, 2 and 3, listed above - within the western portion of the study area would be highly beneficial based upon existing and projected traffic volumes and patterns. Currently, the distance between the four-lane segment ending at Route 301 and the four-lane segment east of Montross is approximately 23 miles without a protected passing area. By constructing these passing-lane facilities, the distance would drop to a maximum of approximately 7 miles between passing lanes. The recommended passing lanes would be spaced, as follows:

Segment	Distance
Route 301 to Proposed Passing Lanes Priority #2	Approx. 5 mi. (TBD)
Prop. Passing Lanes Priority #2 to Prop. Passing Lanes at Potomac Mills/Flat Iron	Approx. 7 mi. (TBD)
Prop. Passing Lanes at Potomac Mills/Flat Iron to Prop. Passing Lane between Lerty and Montross	4 miles
End of Exist. Four-Lane at Templemans to Beg. of Exist. Four-Lane at Warsaw	7 miles

Priority #4 – Eastern Section – Construct Passing Lanes in both directions in Western Lancaster County

This segment has the 110' wide existing Right-of-Way and virtually no development along the roadside. By placing the EB and WB Passing Lanes “end-to-end”, they should be constructible within the 110' Existing RW. This set of lanes would be approximately 11 miles from the end of the four-lane coming from Warsaw and approximately 7.5 miles from the four-lane leading into Kilmarnock. On the map (page 24), this location corresponds to Location #14. This facility would include turn lanes at Route 622

- Passing Lanes of Approx. 4000' Eastbound and 4000' Westbound
- Construct Typical Section E
- No RW Acquisition / Minimal Utility Relocation Required
- Turn Lanes should be Provided at Route 622
- Length of Project = 2.5 Miles

- Approx. Total Cost = To Be Determined

Priority #5 – Eastern Section - Construct Passing Lanes in both directions in Eastern Richmond County

By constructing a second set of passing lanes between the two four-lane highways east of Warsaw and west of Kilmarnock, the greatest remaining distance between protected passing would be reduced to 7.5 miles. Eastern Priority Location #2, (Location #11 on the map on page 24) would also be “end-to-end” and should fit completely within the Existing Right-of-Way. The lanes would begin approximately 4 miles from the four-lane at Emmerton and a little over 4.5 miles from Eastern Priority Location #1, and would provide turn lanes at Route 608.

- Passing Lanes of Approx. 4000' Eastbound and 4000' Westbound
- Construct Typical Section E
- No RW Acquisition Required / Minimal Utility Relocation Required
- Turn Lanes should be Provided at Route 608
- Length of Project = 2.5 Miles
- Approx. Total Cost = To Be Determined

Optional – Western Section – Construct Passing Lanes in both directions near Westmoreland/Richmond Co. Line

A final set of passing lanes could be constructed between Route 621 and the Route 3, Warsaw Bypass. This set would be split into two, separate locations in two counties (Westmoreland and Richmond). A westbound passing lane would be located between Warsaw and Lyells (Route 203 intersection) and an eastbound passing lane would fit between Route 621 and Route 612.

The WB passing lane is a portion of Project UPC #56939, which is currently on a deferred status. The design features of the project are turn lanes at the lumber yards near Warsaw and a WB passing lane approaching Route 203. The passing lane transition was designed to seamlessly tie into the existing turn widening lane at Rte. 203.

The EB passing lane would fit between Route 651 and Route 612 without the need for providing turn lanes at the connections.

- Passing Lanes of Approx. 4000' Eastbound and 4000' Westbound
- Construct Typical Section E
- Total Length of Project (Both Passing-Lane Segments) = 2.5 Miles
- Approx. Total Cost = To Be Determined

Note: A determination on the scheduling and funding of UPC #56939 may reduce this cost by half. The turn-lanes portion of 56939 is not included or considered, in this report.

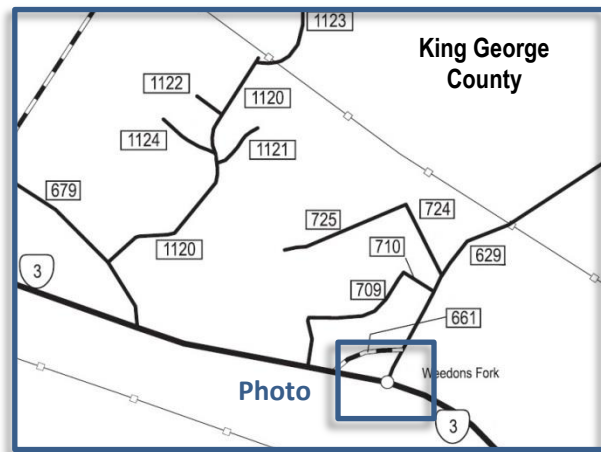
Optional – Western Section – Provide a set of passing lanes with proposed grade improvements between the King George/Westmoreland County Line and Oak Grove – see page 30. This could provide the set of passing lanes identified as Priority #2 or it could be an additional set of lanes.

C. SAFETY IMPROVEMENTS – TURN LANES

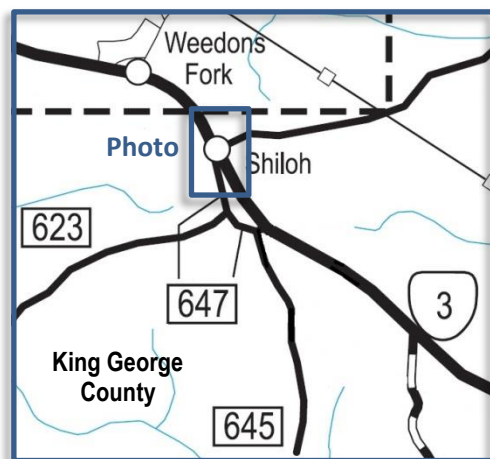
Currently, the majority of the 40 existing highway connections along the two-lane segments of Route 3 in the Northern Neck have the proper turn lanes, according to the VDOT Road Design Manual, based upon traffic volumes and turning movements. The table below lists five locations on Route 3 which currently do not have desirable turning accommodation or are borderline for needing such facilitation.

County	Route 3 Direction	Connection Route #	Street Name	Feature Needed
King George	EB	629	Round Hill Road	Left Turn Lane
King George	EB	647	Shiloh Loop	Right Turn Lane
Lancaster	WB	604	Merry Point Road	Left Turn Lane
Lancaster	WB	605	Pinckardsville Road	Right Turn Lane
Lancaster	EB	637	James Wharf Road	Right Turn Lane

1. Route 3 Eastbound @ Route 629, Round Hill Road, King George County, Proposed Left Turn Lane



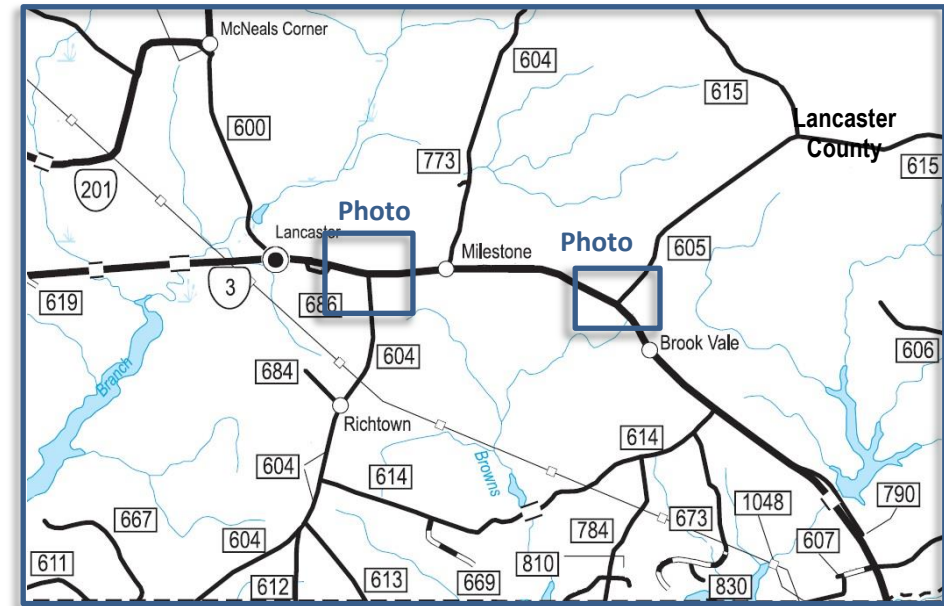
2. Route 3 Eastbound @ Route 647, Shiloh Loop, King George County, Proposed Right Turn Decel Taper



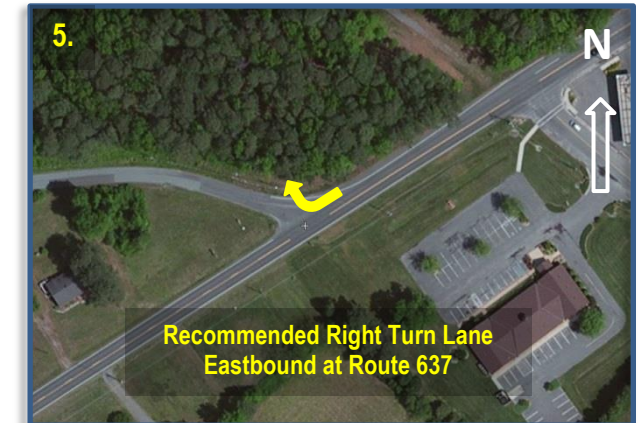
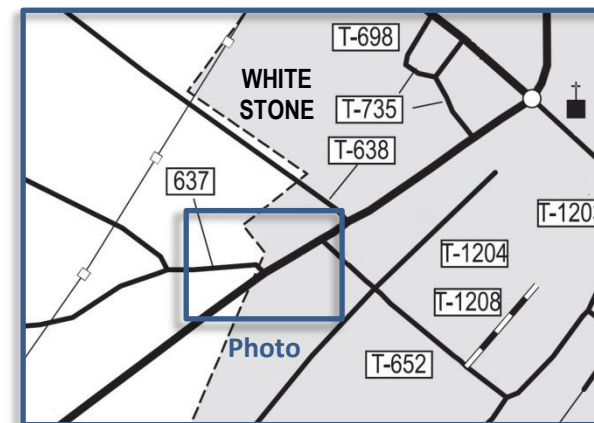
3. Route 3 Westbound @ Route 604, Merry Point Road, Lancaster County, Proposed Left Turn Lane*

*Note: It would be prudent to also construct a Left Turn Lane Eastbound at the Route 604 intersection, as the northern leg is the main entrance to the Lancaster High School, as well as Right Turn Tapers in both directions.

4. Route 3 Westbound @ Route 605, Pinckardsville Road, Lancaster County, Proposed Right Turn Decel Taper



5. Route 3 Eastbound @ Route 637, James Wharf Road, Lancaster County, Proposed Right Turn Decel Taper



Potential Future Safety Improvements – Turn Lanes

The following intersections and turning movements should be closely monitored. Volumes are currently below the warrant thresholds for potential improvements but may exceed those levels over the next 10-15 years.

King George County

Route 3 Eastbound @ Route 628 Possible Left Turn Lane

Westmoreland County

Route 3 Eastbound @ Route 624 Possible Right Turn Lane/Taper

Route 3 Eastbound @ Route 622 Possible Right Turn Lane/Taper

Route 3 Westbound @ Route 621 Possible Left Turn Lane and Possible Right Turn Lane/Taper*

*Note: Any provision of turn lanes westbound at the Route 621 crossroads (Nomimi Grove) should include consideration of the same facilities on the Route 3 Eastbound approach.

Richmond County

Route 3 Eastbound @ Route 608 Possible Right Turn Lane/Taper

Lancaster County

Route 3 Eastbound @ Route 354 Possible Right Turn Lane/Taper

Route 3 Westbound @ Route 622 Possible Left Turn Lane

Route 3 Westbound @ Route 201 Possible Left Turn Lane and Right Turn Lane/Taper**

**Note: Any provision of turn lanes westbound at the Route 201 crossroads (Lively) should include consideration of the same facilities on the Route 3 Eastbound approach.

Note: Some safety improvement locations overlap recommendations for four-laning and/or passing lanes. The first five safety improvements listed are currently warranted or nearly warranted based upon existing traffic volumes and turning movements applied to nomographs and formulas found in the VDOT Road Design Manual. These projects should be constructed as soon as possible. The eight additional potential locations should be constructed as needed.

D. GRADE IMPROVEMENTS

The area with the highest concentration of fatal crashes along the entire corridor between 2000 and 2011 is found between the King George/Westmoreland County Line and Oak Grove. Two independent areas separated by approximately 750' either side of the Farmers Market require will re-construction of the entire roadway to achieve minimum sight distance and to provide a Standard typical section. Each of the areas is approximately 4500' in length. Construction will require extensive drainage accommodation and wetlands impacts are expected.

As a part of this improvement, an additional lane could be added to each of the two sites, providing a set of passing lanes, one in each direction.

As the re-grading project is a long-term solution, a few options exist in the short-term which should improve safety. This area is fairly undeveloped and few entrances are present. The creation of a centerline rumble-strip through this zone could provide a higher margin-of-safety. Paving the shoulders could increase the likelihood of recovery for errant vehicles. Traffic Engineering should review these and other low-cost alternatives for short-term improvements.

E. MULTIMODAL RECOMMENDATIONS

The existing conditions analysis found the Northern Neck region has utilized limited Travel Demand Management (TDM) strategies to increase the efficiency of the Route 3 corridor. In addition to bike/ped accommodations found mostly in the towns and associated with streetscape improvements, these TDM strategies include transit service, commuter parking and carpools/vanpools. Further expansion of these TDM measures is recommended and should be implemented primarily in the more populated areas, such as the towns and village centers.

Specific multimodal recommendations are as follows:

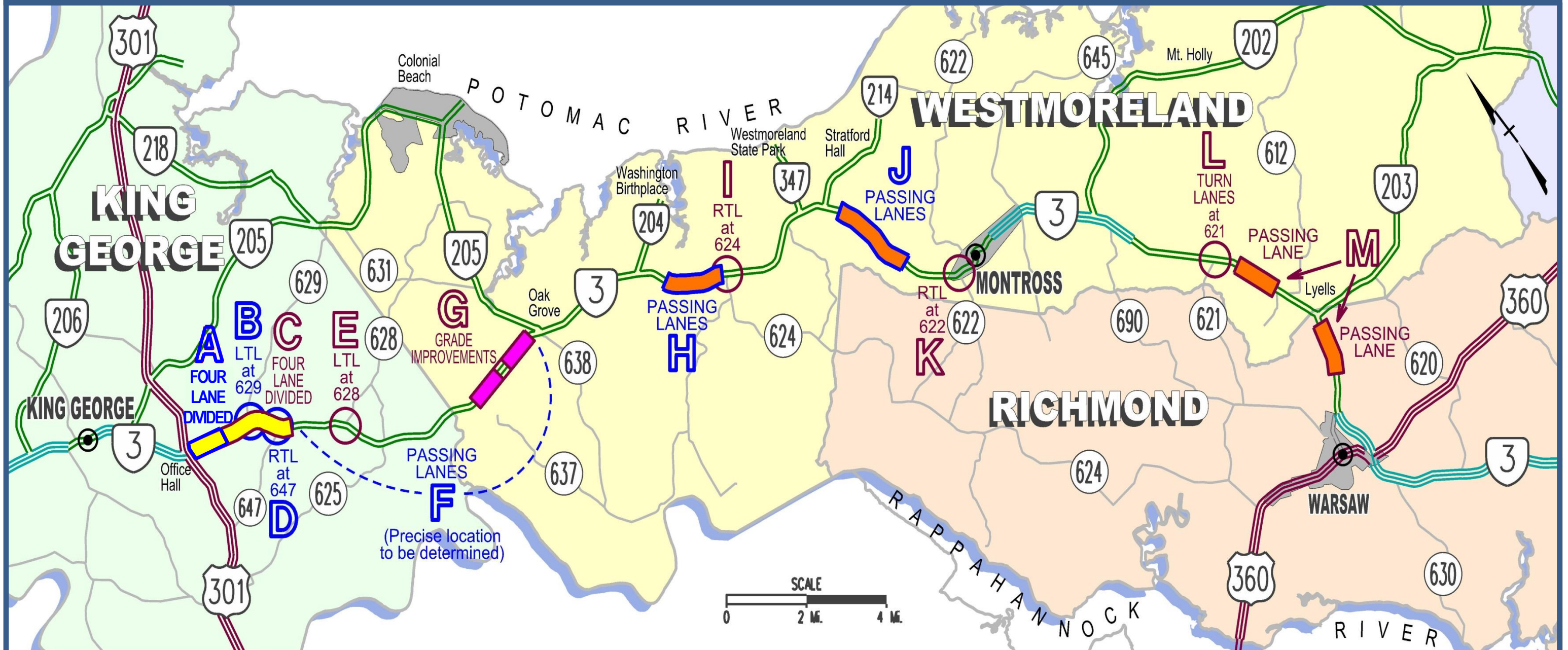
Based on existing commuter patterns, it is recommended to investigate the potential of adding park and ride facilities near the Route 3 / Route 301 intersection in the western portion of the study area and near Warsaw, along the bypass where excess Right-of-Way may exist.

It is also recommended that a discussion be initiated with Bay Transit regarding the potential expansion of transit service in the Northern Neck region to connect with the recently established Fredericksburg-King George route, which is outside the study corridor. This measure would provide transit access to Fredericksburg for the Northern Neck region.

Additional bike/ped improvements should be considered with the scoping of any project along the study corridor, consistent with the VDOT policy on bike/ped accommodations. As supported by VDOT Traffic Engineering, a paved shoulder of at least 4 feet in width, along with bike signage, is recommended for accommodation in areas outside the towns and village centers that meet the criteria of the policy. Route 3 shoulder improvements for King George County are also supported by the George Washington Region Bicycle and Pedestrian Plan. Supplemental bike/ped accommodations associated streetscape improvements are recommended within the town and village areas. These improvements should include sidewalks at least 5 feet in width, bike lanes at least 4 feet in width and/or multi-use paths at a minimum width of 10' per VDOT standards.

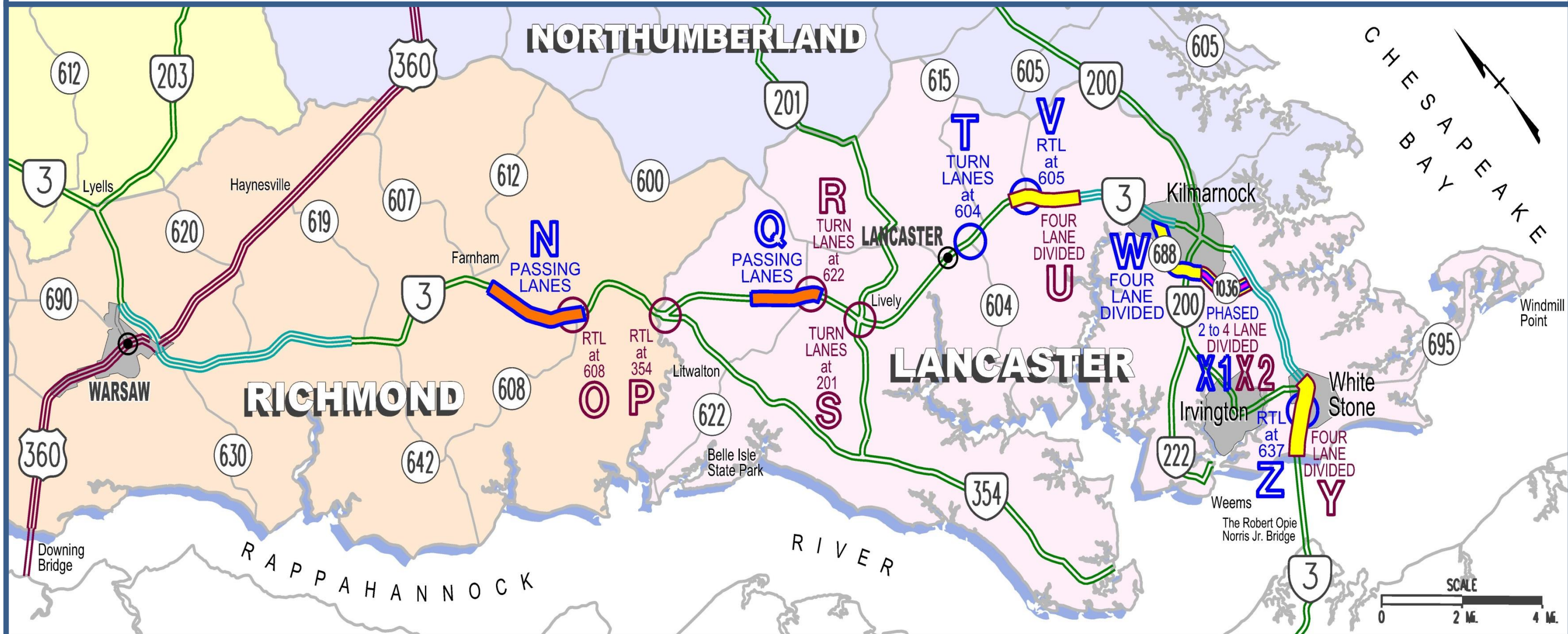
These multimodal recommendations are consistent with the George Washington and Northern Neck Regional Long Range Plans (RLRP), which cover the corridor study area. These plans support TDM strategies that include bike/ped accommodations, increased transit service, and additional commuter parking that further enables carpool/vanpool activities.

RECOMMENDED IMPROVEMENTS – WESTERN SECTION



A	Four-Lane (Divided) Widening of Rte 3 from Rte 301 to Rte 622 **	Short-Term	G	Grade/Vertical Sight Distance Improvements - Possible Passing Lanes	Long-term
B	Left-Turn-Lane @ Intersection of Rte 629 **	Short-term	H	Rte 3 Passing Lanes Western Westmoreland County ***	Short-term
C	Four-Lane (Divided) Widening of Rte 3 from Rte 622 through Rte 647	Long-term	I	Right-Turn-Lane @ Intersection of Rte 624-S	Long-term
D	Right-Turn-Lane @ Intersection of Rte 647 *	Short-term	J	Rte 3 Passing Lanes between Lerty and Montross ***	Short-term
E	Left-Turn-Lane @ Intersection of Rte 628	Long-term	K	Right-Turn-Lane @ Intersection of Rte 622	Long-term
F	Rte 3 Passing Lanes Eastern King George County or Western Westmoreland County (Location TBD)**	Short-term	L	Left and Right-Turn-Lanes @ Intersection of Rte 621	Long-term
	Short-term Project Priority Ranking: ***Highest **Medium *Lower		M	Rte 3 Passing Lanes @ Westmoreland / Richmond Co. Line	Long-term

RECOMMENDED IMPROVEMENTS – EASTERN SECTION



N	Rte 3 Passing Lanes Eastern Richmond County **	Short-term	U	Four-Lane (Divided) Widening of Rte 3 from Rte 605 to Existing Four-Lane	Long-term
O	Right-Turn-Lane @ Rte 608	Long-term	V	Right-Turn-Lane @ Intersection of Rte 605 **	Short-term
P	Right-Turn-Lane @ Rte 354	Long-term	W	Four-Lane (Divided) Widening of Rte 688 (N. Kilmarnock Bypass) ***	Short-term
Q	Rte 3 Passing Lanes Western Lancaster County **	Short-term	X1	Two-Lane Improvements to Rte 1036 (S. Kilmarnock Bypass) *	Short-term
R	Left and Right-Turn-Lanes @ Intersection of Rte 622	Long-term	X2	Four-Lane (Divided) Widening of Rte 1036 (S. Kilmarnock Bypass)	Long-term
S	Left and Right-Turn-Lanes @ Intersection of Rte 201	Long-term	Y	Four-Lane (Divided) Widening (or Bypass) of Rte 3 in White Stone	Long-term
T	Left and Right-Turn-Lanes @ Intersection of Rte 604 / High School ***	Short-term	Z	Right-Turn-Lane @ Intersection of Rte 637 *	Short-term

Short-term Project Priority Ranking: *Highest **Medium *Lower**



Citizen Information Meeting
Route 3 – Northern Neck Corridor Improvement Study
 King George, Westmoreland, Richmond and Lancaster Counties

Tuesday, June 16, 2015
 5:00-7:00 p.m.
 English Building
 (Former General District Courtroom)
 111 Polk Street, Montross, VA 22520

Wednesday, June 24, 2015
 5:00-7:00 p.m.
 Lancaster Community Library
 235 School Street
 Kilmarnock, VA 22482

Public Information Meeting

Welcome to the Virginia Department of Transportation (VDOT) Citizen Information Meeting on the Route 3 Northern Neck Corridor Improvement Study.



This Citizen Information Meeting is being held to provide information regarding the Route 3 Corridor in the Northern Neck to any person, acting on his or her behalf or representing a group or governing body and to seek input from those persons regarding the future of Route 3 throughout the Study Area.

VDOT representatives are present to discuss the proposed study and answer your questions.

Study Purpose

The purpose of the Route 3 Northern Neck Corridor Improvement Study is to analyze issues and suggest recommendations for improved efficiency on Route 3 that offer a consistent approach along the entire length of the corridor which can be incorporated into the individual County Comprehensive Plans. This study will update the 1988 Route 3 Corridor Study while expanding upon that study. This new analysis will include such items as trends and forecasts, highway capacities and levels of service, safety, recommendations and priorities, cost estimates and funding sources for multiple alternatives.

The first phase of the study involves the compilation of historic data and existing conditions to identify problem areas. Phase one will conclude upon the completion of these informational public meetings. This will provide citizens an opportunity to make known any concerns they may have, based upon their unique, local knowledge and experiences.

The final phase of the study will involve a thorough analysis of the data compiled in phase one, including all comments and concerns provided by citizens, at these meetings. The study will conclude with a list of proposed construction projects to be developed and considered for programming into the VDOT Six-Year-Improvement-Plan (SYIP) and the House Bill 2 (HB2) prioritization process, with the support of the Counties and the Northern Neck PDC.

What's Next?

The final phase of the study will commence upon receipt of all public comments. It is anticipated the study will be completed by the end of August, 2015.



Citizen Information Meeting
Route 3 – Northern Neck Corridor Improvement Study
 King George, Westmoreland, Richmond and Lancaster Counties

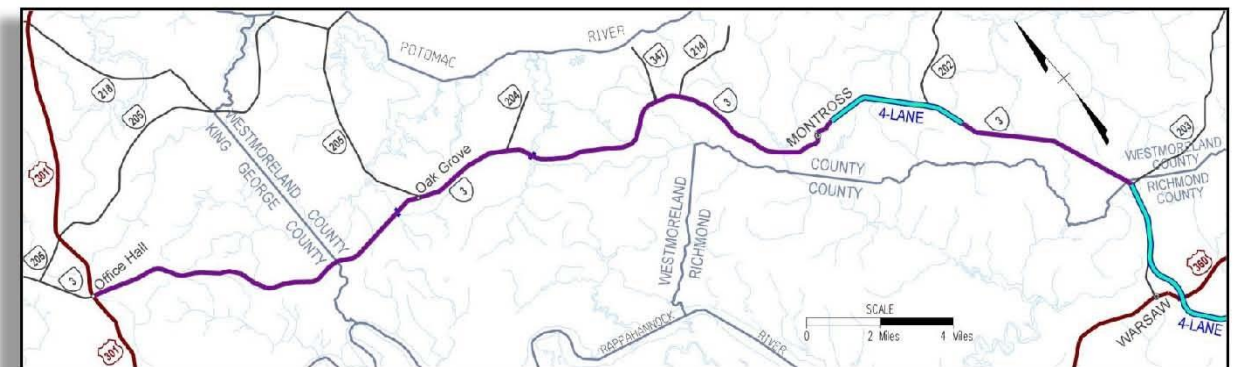
Tuesday, June 16, 2015
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Study Area Location Maps

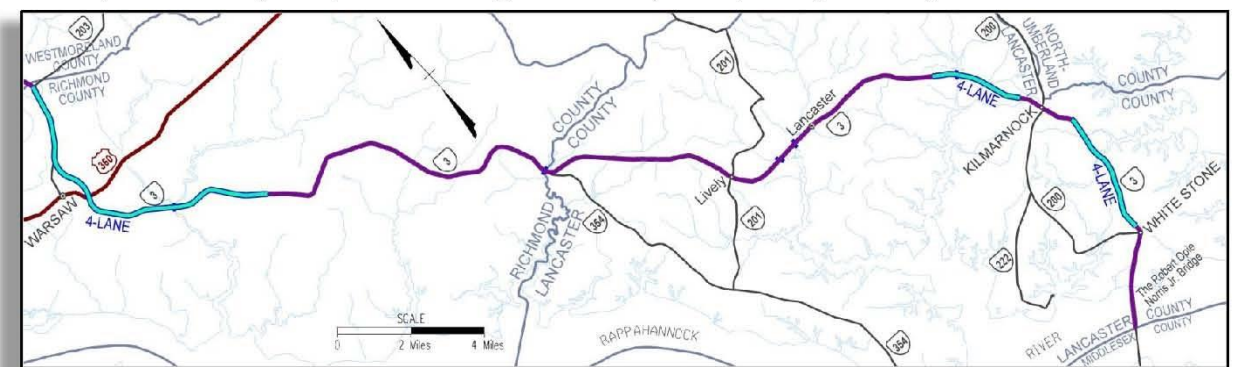
Study Area - Western Section

Route 3, from Route 301 (Office Hall, King George County) to Route 360 (Warsaw, Richmond County) Total length = 36.0 miles



Study Area - Eastern Section

Route 3, from Route 360 (Warsaw, Richmond County) to the Robert Opie Norris, Jr. Bridge Total length = 35.6 miles



Contact Information

Craig Van Dussen
 Fredericksburg District Planning Manager
 VDOT
 86 Deacon Road
 Fredericksburg, VA, 22405
 540-899-4260 (O)

Dave Brown
 Northern Neck Resident Engineer
 VDOT
 34 Barnfield Road
 Warsaw, VA 22572
 804-333-7941 (O)

540-899-4704 (FAX)
craig.vandussen@vdot.virginia.gov

804-333-4645 (FAX)
dave.brown@vdot.virginia.gov

VDOT Virginia Department of Transportation		Sign-in sheet	
Citizen Information Meeting – Route 3 Northern Neck Corridor Improvement Study		Date: June 16, 2015	Montross, VA
Name	Affiliation (Optional)	Address / Email	
1	Morgan Gireh Richmond Co	PmQuiche co. Richmond.vt.us	
2	Bob Pemberton Richmond Co		
3	Jake Salmons Del. Margaret Ransone	morgardt@magdetransone.com	
4	Richard & E. Thomas Richmond Co	678 Sharps Rd Warsaw VA	
5	Jeremy W Davis WFSP	Watters mark POL jbdavis@wpdr.com state.virginia.us familyandbusiness@yahoo.com	
6	Frank Johnson WFSP		
7	Carol Kamen COR Contractor	husband Carlgamend@hotmail.com 596 Forest Green Rd. Reedville VA 22539	
8	William Gee	10400 Kings Hwy. Montross, Va. 22520	
9	Roy W. Tate	1000 Pule St Montross, VA. 22520	
10	Danny Fisher West Co. BUS		

VDOT Virginia Department of Transportation		Sign-in sheet	
Citizen Information Meeting – Route 3 Northern Neck Corridor Improvement Study		Date: June 16, 2015	Montross, VA
Name	Affiliation (Optional)	Address / Email	
11	Alvin Balderson Richmond Co	alheava@gmail.com	
12	JEFF DAVIS Westmead Co	NSBoy1Goung-R@YAHOO.COM	
13			
14			
15			
16			
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18			
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Sign-in sheet	
Citizen Information Meeting – Route 3 Northern Neck Corridor Improvement Study	
Date: June 16, 2015	Montross, VA
21	Dorothy Dickerson Tate, Board of Supervisor, District #3 dorothydtate@yahoo.com
22	PAUL PETER STAFFORD HALL
23	Anita Johnson Colonial Beach, Va., Suffolk Hzf
24	A. ODELL JOHNSON " " " AJOHNSOE@VA.METROCAST.NET
25	Felya Wise Montross, Va. 22520 wise_e1@yahoo.com
26	
27	
28	
29	
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**Route 3 NN Corridor Study – Citizen Information Meeting – Western Section – June 16, 2015 –
Montross, VA**

Written Comments Sheet:

Based on your experiences on Route 3 in the Northern Neck Corridor Study Area (from Route 301 to the Norris Bridge), please answer the following questions:

1. What do you consider to be the most significant problem(s) on Route 3 and/or what would you most like to change about Route 3 to make it a better facility, in the future?
 - Clearly showing cost-benefit analysis and showing specifics
 - Not really creating a vision for how transportation impacts economics.

2. What do you consider to be the most positive aspect(s) of Route 3 and/or what do you believe should be left unchanged?
 - Well-maintained roads

3. Please list additional information you believe would assist us in better understanding any aspect of the Route 3 Corridor, in the Northern Neck of Virginia.
 - <N/A>

4. Please state any other suggestions you have regarding the future of Route 3, in the Northern Neck.
 - <N/A>

5. Did this meeting help you understand the study better?
 - Yes!


6. Is there any other information would you like to see?
 - Very great interactive session.

- VDOT team performed well!

Verbal Comments:

- Does the truck volume decrease relate to improvements made to Route 17? Response: Although a possibility, the Route 17 improvements were completed in the mid-90s where the truck volume decrease started after year 2000. In turn, the timeframe does not match up for this to necessarily be the cause. Could this be a delayed reaction? Response: It probably relates to the state of the economy mostly during that time instead of the improvements to Route 17.
- What is considered a truck? Response: Generally, a vehicle with more than 2 axles.
- Discussion was held on how companies reorganize and use warehouses, use Route 17 to go faster, etc. to do whatever meets the “immediate need” and how these could be factors contributing to changes in truck volumes.
- Can a cost/benefit analysis be performed for the public on possible effects of the improvements to show the citizens the economic aspect of this?
- Is the Westmoreland County Board of Supervisors looking at what can be done for economic development?
- Discussion was held on congestion issues of taking Route 3 versus Route 17.
- Issue of ambulances going slow to avoid overturning was mentioned.
- Comment was made stating level-of-service (LOS) is a daily average, not directly reflecting peaks.
- VDOT is conducting Summer traffic counts for comparison purposes.
- What is the timeframe? What will the right-of-way impacts be? Response: It depends on the particular location of the proposed improvement.
- What about utility relocations? Response: These have to be determined on case-by-case basis at a later stage.
- Suggestion was made as follows: Put language in place for future economic development—“one shoe doesn’t fit all.”
- How can existing water assets create a benefit?
- An existing ferry study was mentioned.
- Comment was made that the region needs broadband opportunities and to share this concern with Commonwealth Transportation Board member.

VDOT Virginia Department of Transportation		Sign-in sheet	
Route 3/Northern Neck Corridor Study		Public Information Meeting	
Tuesday, June 23, 2015		Fredericksburg District	
Name	Affiliation	Address / Email	
1 DAVID DONATIELLO			
2 Ben Burton	Bay Design Group	bburton@baydesigngroup.com	
3 JOE PENWID	Lee Hy Spaving	jpenwid@leehyaving.com	
4 Audrey Thomasson	Kap Record		
5 Tom Saunders	Town of Kilmarnock	tsaunders@kilmarnockva.com	
6 Terry W. Doin	Northern Neck PMA		
7 Lindsay Gardner	Leicester Library	lgardner@leicesterlibrary.org	
8 Jake Salmas	Del. Margaret Ransone	delmas@house.virginia.gov	
9			
10			

		Sign-in sheet Route 3/Northern Neck Corridor Study Public Information Meeting Tuesday, June 24, 2015 Fredericksburg District	
Name	Affiliation	Address / Email	
1 Randy Reeves	MAYOR Town of White Stone	142 Sawmill Rd - Freeves@rapcrte.com	
2 Maria Cameron	Resident	160 Ragworth Ave Kilmarnock	
3 Frank Pleva	Lancaster Co. Business Man Town of CVS	Fpleva@lancova.com 91 Summit Rd MW, rdavis@recreation.com	
4 MAC DAVIS			
5 Lloyd B. Hubbard Jr	Town of White Stone	rspprrtt@kuballas.com	
6 Paul Jenkins	LANCASTER CO	244 LEVEE FIELDS LA. cmullin@potomacsupply.com	
7 J. Clifford Mullin	Emmerton VA	8351 Historyland Hwy Warsaw VA 22572	
8 Sozin Nelson	"	"	NORNECK YAKEN@GMAIL
9 Wallace + Ann Carter	Kilmarnock	9820 Jessie Bad Defont Mem Hwy 22187	
10 Pat Sanders	Bay District	psanders@baydistr.org	

Route 3 NN Corridor Study – Citizen Information Meeting – Eastern Section – June 24, 2015 – Kilmarnock, VA

Verbal Comments:

- Q. Why was surveying done at White Stone done about two months ago?
- A. (Dave B.) That was to provide survey data needed for a traffic signal design.
- C. We need the CTB member to come down to Richmond and Lancaster Counties.
- C. I would like to see a truck route around White Stone like Kilmarnock has.
- Q. What happened to the bike path that was going to be built along Route 200?
- A. (Dave B.) That was Project UPC 18714, The Lancaster Trail. It was a County project that was determined to require the acquisition of right-of-way which was deemed to be too expensive for the budget available, so the project was cancelled.
- C. We need to build four lanes from (Rte) 301 to the Norris Bridge
- C. (Improved) Bike and Pedestrian accommodations would help with economic development.

Note: Several comments unrelated to the study were offered, mostly about the Norris Bridge painting and future plans for the bridge. (Allison R. responded.)



Citizen Information Meeting
Route 3 – Northern Neck Corridor Improvement Study
 King George, Westmoreland, Richmond and Lancaster Counties

<p>Tuesday, December 1, 2015 5:00-7:00 p.m. Presentation at 5:30 p.m. George D. English, Sr. Building (Public Meeting Room at Front Entrance) 111 Polk Street, Montross, VA 22520</p>	<p>Wednesday, December 9, 2015 5:00-7:00 p.m. Presentation at 5:30 p.m. Upper Lancaster Volunteer Fire Department 5170 Mary Ball Road Lancaster, VA 22503</p>
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Public Information Meeting

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What's Next?

Upon receipt and evaluation of all public comments, it is anticipated the study will be completed by the end of January, 2016.



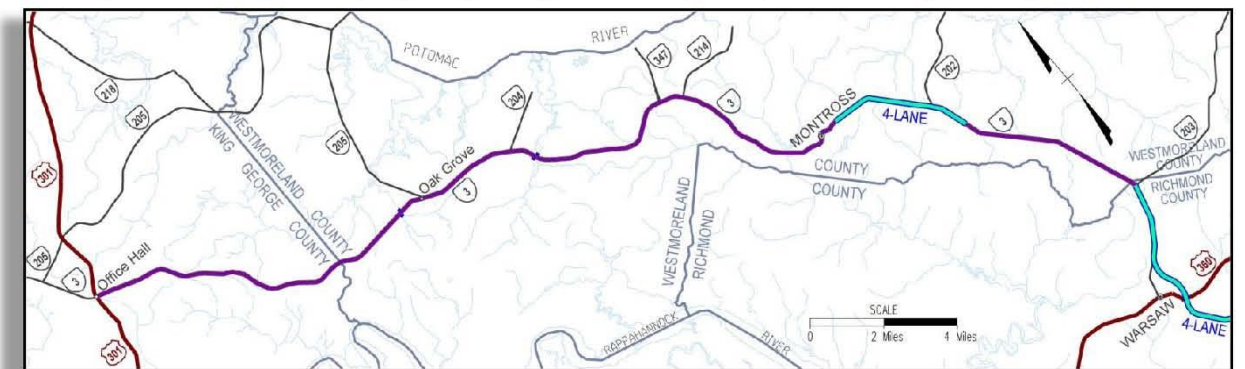
Citizen Information Meeting
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Study Area Location Maps

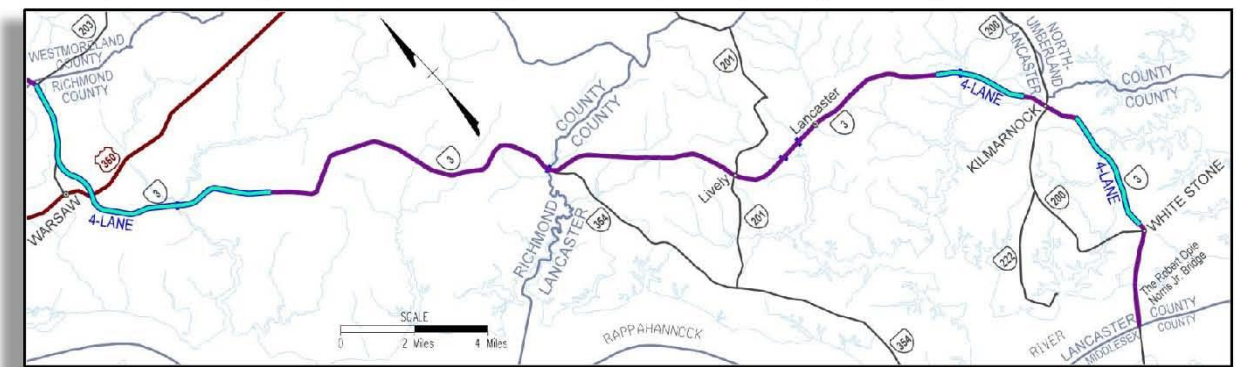
Study Area - Western Section

Route 3, from Route 301 (Office Hall, King George County) to Route 360 (Warsaw, Richmond County) Total length = 36.0 miles



Study Area - Eastern Section

Route 3, from Route 360 (Warsaw, Richmond County) to the Robert Opie Norris, Jr. Bridge Total length = 35.6 miles



Contact Information


Craig Van Dussen
 Fredericksburg District Planning Manager
 VDOT
 86 Deacon Road
 Fredericksburg, VA, 22405
 540-899-4260 (O)
 540-899-4704 (FAX)
craig.vandussen@vdot.virginia.gov

Dave Brown
 Northern Neck Resident Engineer
 VDOT
 34 Barnfield Road
 Warsaw, VA 22572
 804-333-7941 (O)
 804-333-4645 (FAX)
dave.brown@vdot.virginia.gov

VDOT Virginia Department of Transportation		Sign-in sheet	
Citizen Information Meeting – Route 3 Northern Neck Corridor Improvement Study		Citizen Information Meeting – Route 3 Northern Neck Corridor Improvement Study	
Date: December 1, 2015		Montross, VA	
Name	Affiliation (Optional)	Address / Email	
1 RICHARD LEGGITT	JOURNAL	Richard Leggitt 1156 GMAIL.COM	
2 WAYNE SHIELDS	—	2916 N Independence Montross VA 22520	
3 CHARO D'ANGELICO	DIRECTOR OF STAFF & DIRECTOR OF HARBOR POL	DARLO @GMAIL.COM	
4 JEREMY DAIN	Northern Neck POL	jdaire@nycbar175505.us.us.us	
5 SAMES & WISE		jacobrywise@hotmail.com	
6 Jake Schmans	Del. Ransone's Office	familyandbusiness@yahoo.com	
7 Frank Johnson		familyandbusiness@yahoo.com	
8 GAIL KUTTESCH	WRA	gkutttesch@wralp.com	
9 Richard E Wilkiri		350 Cedar Hill Rd Col. Beach VA 22448 10400 Kings Hwy. Montross, VA 22520	
10 Roy Tate			

VDOT Virginia Department of Transportation		Sign-in sheet	
Citizen Information Meeting – Route 3 Northern Neck Corridor Improvement Study		Citizen Information Meeting – Route 3 Northern Neck Corridor Improvement Study	
Date: December 1, 2015		Montross, VA	
Name	Affiliation (Optional)	Address / Email	
11 HOLLY HARMAN	W.C. Wetlands BOARD	artwinstheheart@yahoo.com	
12 KAREN LEWIS	W.C. Asst City Admin.	kewis@westmoreland-county.org	
13 Karen Auepp	NN Free Press		
14 Angel Staff	NN Free Press		
15			
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Sign-in sheet		Citizen Information Meeting – Route 3 Northern Neck Corridor Improvement Study	
		Montross, VA	
		Date: December 1, 2015	
21	Terry Cosgrove	Town of Montross	tacsharphoto@hotmail.com
22	Dorothy D. TATE	WESTHOBRELAND Board of SUPERVISORS	dorothydtate@yahoo.com
23	Alvin Balderson	Citizen	alheava@gmail.com
24			
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CITIZEN INFORMATION MEETING

Route 3 Northern Neck Corridor Improvement Study

December 1, 2015, Montross, VA 5:00 – 7:00 PM
December 9, 2015, Lancaster, VA 5:00 – 7:00 PM

COMMENT SHEET

All comments submitted will become a part of the transcript package and will be given full consideration in the completion of the study.

Your Name and address or e-mail (optional):

Based on your experiences on Route 3 in the Northern Neck Corridor Study Area (from Route 301 to the Norris Bridge), please answer the following questions:

1. After reviewing the literature provided at this information meeting and/or taking part in the discussion, do you feel that this study has identified the major operational and safety issues on Route 3 in the Northern Neck? (If not, please list any operations/safety issues you believe have been overlooked.)
2. Do you believe that the recommendations made by this study will result in Route 3 becoming a safer and more efficient transportation facility? (Please state any additional ideas you have that you believe should be included in the recommendations.)
3. 3 As it is not fiscally practical to widen Route 3 in its entirety, do you believe that the recommendations of this study will have a positive impact on economic development in the Northern Neck? (Please list any additional actions you believe would have such an impact.) *I disagree, respectfully!*
If we are becoming a tourism economy, then we need to facilitate it to the maximum.
4. Please state additional information you believe would assist us in better understanding any aspect of the Route 3 Corridor, in the Northern Neck of Virginia.
5. Please state any other suggestions you have regarding the future of Route 3, in the Northern Neck.
My concern is the continued mindset of "what we can't afford." Did we ~~also~~ perform a robust cost-benefit analysis? For example, "cost-wise" or "good management" What about a vision?

Please leave this comment sheet at the designated location or mail your comments by December 21, 2015 to the addressee on the reverse side.

Notes from December 1, 2015, Montross, VA

- Q: Montross to Rte 3 bypass—Why is this 6.8 mi section not the priority?
 A: Those lanes were originally intended to carry on—they were not due to low traffic volumes and high cost.
- Q: Rte 202 & 3 are both routes from Warsaw to Montross—citizens say both are dangerous. No place to pull over. This causes problems when rescue or police vehicles come through. Do we have the RW to widen the shoulders?
 A: We could look at that as a possibility for using “spot safety improvement” funds. Need to look at accident history, etc.
- C: Traffic in this area decreases property sales. We need economic development. A lot of the aging population is leaving due to the long commute to a hospital. The safety problem is key.
- C: “Your proposals are wonderful, but we need more short-term solutions.”
- C: Cost/benefit analysis needed—NN region is pursuing tourism. Can we go forward with a highway vision to facilitate tourism?
- C: Need to plan for those who commute to NOVA, Fredericksburg and Richmond
- C: Montross to 301 needs to be widened.
 A: Traffic volumes, even those forecasted in 2040, do not support a four lane highway. The cost is too high. We are trying to find an economical, efficient solution that maximizes utility at lower cost.
- Q: How much can we get from the federal transportation bill that’s going through Congress?
 A: Status quo
- Q: Boats, campers and large trucks prevent passing even where there are passing lanes. Will the new locations be long enough to accommodate that?
 A: We looked at other states’ standards since we really don’t have one for this situation. Found that the lanes need to be at least 0.75 miles. At this time we have planned to meet that criteria with new project proposals.
- Q: Looking at traffic forecasts, was there an increase in traffic previously where we already have passing lanes?
 A: Sometimes, but not always.
- Citizen noted that the bypass road was originally built for a 400-employee plant that has been closed. Economic crash has deterred development, causing the lower traffic volumes we see today.
- Q: Are there any federal funds that could be used if we designated Rte 3 as an evacuation route?
 A: This would be a duplication because Rte 17 is already so designated. The choices on that issue were made through functional class, which we have recently reviewed and made minor changes. For example, the NHS section of 3/301 now goes out further.
- This plan is one that needs to be regularly reviewed and updated. Perhaps every five years when comp plans are updated, would be a good frequency.
- Citizen thanked us for adding options other than just passing lanes, referring to the grade improvement suggestion at the Oak Row area.

Sign-in sheet	
Citizen Information Meeting – Route 3 Northern Neck Corridor Improvement Study	
Date: December 9, 2015	
Lancaster, VA	
Name	Address / Email
Affiliation (Optional)	
1 Terrance McGregor	Lancaster County tmcgregor@lancova.com
2 EWA L. DAVIS	12078 Mary Ball Rd. Lancaster County ellad37@gmail.com
3 Tom Saunders	Town of Kilmarnock tsaunders@kilmarnockva.com
4 W.S. Clements	partytents@verizon.net
5 Jake Salmons	Del. Ranston's Office delranston@house.virginia.gov
6	
7	
8	
9	
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Notes from December 9, 2015, Lancaster, VA

Q: What is [Rt] 605?

A: Pinckardsville Rd

Q: Where's Regina [Rd]?

A: Rt 604, it's also Merry Point Road

Q: Assuming traffic increases at the rate, [VDOT] will build two lanes initially, [then obtain] ROW to complete the four lane project later...] What do you mean by later, how long?

A: It would be based upon on how much traffic increases and at what rate. If development occurs, then we may have the opportunity to work with developers to help build that section, as well.

Q: So you are saying the four lanes will go from Walgreens to the hospital, then it will be into a two lane?

A: Yes.

Q: Is it the hospital or the technology center?

A: It could be either one pending on how we scope the project but it will be in that general area.

Q: [There was a] turning lane at one time at Walgreens and then it was eventually closed, what was the purpose of that? [Was it] because of the trailer making a wide turn?

A: It was because of the tractor trailers. We had reviewed the turning requirements for the tractor trailers and because they had to swing out to make the turn, they were going into the left turn lane. As a result, you had a potential for the impact. To accommodate that, we had to move the right turn lane so that people did not squeeze by. So that right turn lane was removed.

Q: The projects you had listed up there [from the presentation]. The projects in blue, the second one is listed as [Rt] 688 and that one is \$21 million of the \$51 million, is that traffic getting over to Rt 200 from Rt 3? I never found it to be heavily travelled when I'm on it. I realize the hospital is there.

A: It is a truck route, detouring trucks out of town. There is a factor of bigger vehicles, which would need a greater width of roadway. Based upon projected traffic, you will see a drop off on Route 3, we don't know how much, but we are hoping traffic will drop due to a greater volume of traffic taking [Rt] 688 and [Rt] 1036 back around.

Q: So it isn't so much the demand on the road? It's more to lessen traffic through Kilmarnock?

A: Yes that's true. There are things like the hospital and we may see increased commercial development within the town, as well. There is an industrial park at [Rt] 1036, which is beyond [Rt] 688, past the hospital.

Q: These are anticipated to be how far out?

A: We don't know that right now. We have not programmed these projects – they haven't been budgeted. Finances will be a controlling factor. We would certainly try to get the projects programed as they become needed. This [study] is a starting point. The study should evolve over time.

Q: What is the earliest [timeframe] do you think for the high school?

A: We don't know this. [For example] the project Craig mentioned in Westmoreland County for HB2. Funding could be short term as part of the six year plan. For next year, if the locality wanted to apply for HB2 funding for the Rte 604 intersection [Rt] 604, that could perhaps make the list.

Q: When you go to the hospital road, and enter through White Stone, do you have a lane merge so when trucks come in more?

A: Improvements are made to handle large trucks to make sure they don't swing into other lanes. In fact if we looked at the list, if we build this this project, we look at ROW and we may have difficulty in doing so, we may do our best to improve Rt 3.

(Continued)

Q: By cutting out the right turn lane, it makes it slower for traffic going through there.

A: This is due to trucks being referred to the truck route.

Q: Going back to the cost [of the \$21 million of the \$51 million], the segment was 40% of the total cost?

A: Yes that's a large project. It will have four lanes. The cost may be optimistic because the road is already there and we have some ROW. It's an estimate at this point.

Q: Trucks still go through town... because they carry the beams.

A: [They go through town for] the local businesses. If they are local deliveries, or they have to go through Rt 200, because that's their primary needs; they are permitted to do that.

Q: Can they be ticketed through going White Stone?

A: [White Stone] is a recommended truck route. Yes, the town of Kilmarnock is responsible [for ticketing]. The one in Kilmarnock is mandatory. It went through the CTB (Commonwealth Transportation Board) for approval. The CTB is the entity that approves projects to receive funding, set requirements for VDOT must follow, etc. [In order for it to be mandatory], it had to go through a process as a designated truck route.

Q: You mentioned [Rt] 200, trucks making a left turn coming in front of Rt 3, turn left on [Rt] 200... is Goodluck Rd almost an alternative like a truck route around Kilmarnock to get to [Rt] 200? Goodluck Rd is by the propane storage tank before you drop down and come back up in Kilmarnock.

A: I think from that perspective you look at people who know that route; thus they don't want to go into the town.

Q: Is there further discussion about increasing the length of the turn lanes going into the Devils Bottom Road? When there are peak hours, there is a tremendous amount of traffic – this leads to some back up. There have been a number of accidents as a result of that. I think I know that there has been previous conversations about speed limit changes – however, is there a way to lengthen those turn lanes (right turn lane going into the former attorney center), the left turn lane coming in from the four lanes? It's only a problem for like 1 hour a day, but when it's a problem, it's a problem.

A: We can look at alternatives.

Q: [You mentioned HB2 process...] What is the high priority project in Westmoreland?

A: The priority in Westmoreland is the Potomac Mills passing lanes. The reason we did that is because it is needed, and we have an 110 feet of right of way. We also looked at current conditions.

Q: Some years back, my mom was living in a house right before you approach Lancaster, I remember VDOT was prepared to pay us for the front part of the yard. I understood people down the road got paid. So what happened to that land you purchased six years ago? What are they going to use that land for?

A: Most likely, it was a project identified as part of the ROW acquisition process. We had budget cuts therefore projects stopped because the funding wasn't there. Projects identified include passing lanes or widening. It was a result of ROW, and we will retain that for a future project.

Q: Do you have [handout] from last week's presentation [Western Portion of Rt 3 Corridor Study]?

A: {referred to website to download information}



Northern Neck PDC

The Regional Center
457 Main Street
P.O. Box 1600
Warsaw VA 22572
(804) 333-1900
(804) 333-5274 Fax
www.nnpdc17.state.va.us

"Serving the counties of Lancaster, Northumberland, Richmond, and Westmoreland"

**Resolution in Support of the Westmoreland County
Route 3 Road Improvement Project Application to the
Commonwealth Transportation Board**

Whereas, road transportation is vitally important to the Northern Neck Region, and specifically Route 3 corridor improvements are essential, and

Whereas, Route 3 serves as the access road to current businesses and industries, to all of the industrial sites and buildings, and to tourist attractions, and

Whereas, for many, Route 3 is the transportation link to jobs outside the region, and

Whereas, the Northern Neck Counties have a long standing general objective to work toward making Route 3 four lanes from Route 301 in King George County to Route 33 in Middlesex County, and

Whereas, VDOT has conducted a Route 3 Corridor Study, and

Whereas, one of the top-priority road improvement projects that will be recommended in that study is the construction of passing lanes in Westmoreland County from Potomac Mills to Flat Iron, and

Whereas, Westmoreland County will be submitting an application to the Commonwealth Transportation Board to have that project included in the Virginia Department of Transportation FY 2017 Six-Year Improvement Program,

Therefore be it resolved, that the Northern Neck Planning District Commission hereby fully endorses and supports this application and urges the Commonwealth Transportation Board to include this project in the Virginia Department of Transportation FY 2017 Six-Year Improvement Program.


James Long, Chairman

Northern Neck-Chesapeake Bay Region Partnership
www.northernneck.us



Frank A. Pleva
County Administrator

COUNTY OF LANCASTER

FOUNDED 1651 IN VIRGINIA
LANCASTER COURTHOUSE
8311 MARY BALL ROAD
LANCASTER, VIRGINIA 22503

804-462-5129
804-462-0031 (FAX)
www.lancova.com

BOARD OF SUPERVISORS
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October 1, 2015

The Honorable Aubrey L. Layne, Jr.,
Secretary of Transportation and Chairman
Commonwealth Transportation Board
Commonwealth of Virginia
1111 B. Broad Street
Richmond, VA 23219


Dear Secretary Layne:

On behalf of the Lancaster County Board of Supervisors, we re-affirm and urge the Commonwealth Transportation Board and the Virginia Department of Transportation to consider the transportation needs of this rural region. Road transportation is vitally important to the region, and specifically Route 3 corridor improvements are essential. Route 3 serves as the access road to current businesses and industries, to all of the industrial sites and buildings, and to tourist attractions. For many, Route 3 is the transportation link to jobs outside the region.

The Northern Neck Counties have a long standing general objective to work toward making Route 3 four lanes from Route 301 in King George County to Route 33 in Middlesex County. We appreciate the recent and ongoing discussions with VDOT to address Route 3 improvements during the Route 3 Corridor Study effort. It is our understanding that one of the top-priority road improvement projects that will be recommended in that study is the construction of passing lanes in Westmoreland County from Potomac Mills to Flat Iron.

Please know that the Lancaster County Board of Supervisors supports this request and urges the Commonwealth Transportation Board to include that project in the Virginia Department of Transportation FY 2017 Six-Year Improvement Program.

We appreciate your consideration. Thank you for this opportunity to give input into the planning process.

Respectfully,

Frank A. Pleva,
County Administrator

SUPERVISORS

Ronald L. Jett, Chairman
Heathsville, VA 22473
District V
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Heathsville, VA 22473
District II
A. Joseph Self, Sr.
Callao, VA 22435
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Wicomico Church, VA 22579
District III
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Wicomico Church, VA 22579
District IV



Northumberland County, Virginia

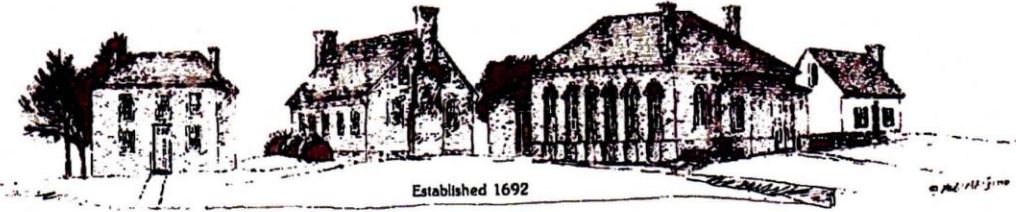
Board of Supervisors
P. O. Box 129 • 72 Monument Place
Heathsville, Virginia 22473

COUNTY ADMINISTRATOR

Kenneth D. Eades
Heathsville, VA 22473
804-580-7666 (Voice)
804-580-7053 (Fax)
keades@co.northumberland.va.us

COUNTY ATTORNEY

W. Leslie Kilduff, Jr.
804-435-0851 (Voice)
804-435-0551 (Fax)



Richmond County Board of Supervisors

101 Court Circle P.O. Box 1000 Warsaw, Virginia 22572 (804) 333-3415 FAX (804) 333-3408 www.co.richmond.va.us

October 1, 2015

The Honorable Aubrey L. Layne, Jr.,
Secretary of Transportation and Chairman
Commonwealth Transportation Board
Commonwealth of Virginia
1111 E. Broad Street
Richmond, VA 23219

Dear Secretary Layne:

On behalf of Northumberland County, we re-affirm and urge the Commonwealth Transportation Board and the Virginia Department of Transportation to consider the transportation needs of this rural region. Road transportation is vitally important to the region, and specifically Route 3 corridor improvements are essential. Route 3 serves as the access road to current businesses and industries, to all of the industrial sites and buildings, and to tourist attractions. For many, Route 3 is the transportation link to jobs outside the region.

The Northern Neck Counties have a long standing general objective to work toward making the traffic flow in the Northern Neck move easily. We appreciate the recent and ongoing discussions with VDOT to address Route 3 improvements during the Route 3 Corridor Study effort. It is our understanding that one of the top-priority road improvement projects that will be recommended in that study is the construction of passing lanes in Westmoreland County from Potomac Mills to Flat Iron.

Please know that Northumberland County supports this request and urges the Commonwealth Transportation Board to include that project in the Virginia Department of Transportation FY 2017 Six-Year Improvement Program.

We appreciate your consideration. Thank you for this opportunity to give input into the planning process.

Respectfully,

Kenneth D. Eades
County Administrator

October 1, 2015

The Honorable Aubrey L. Layne, Jr.,
Secretary of Transportation and Chairman
Commonwealth Transportation Board
Commonwealth of Virginia
1111 E. Broad Street
Richmond, VA 23219

Dear Secretary Layne:

On behalf of Richmond County, we re-affirm and urge the Commonwealth Transportation Board and the Virginia Department of Transportation to consider the transportation needs of this rural region. Road transportation is vitally important to the region, and specifically Route 3 corridor improvements are essential. Route 3 serves as the access road to current businesses and industries, to all of the industrial sites and buildings, and to tourist attractions. For many, Route 3 is the transportation link to jobs outside the region.

The Northern Neck Counties have a long standing general objective to work toward making Route 3 four lanes from Route 301 in King George County to Route 33 in Middlesex County. We appreciate the recent and ongoing discussions with VDOT to address Route 3 improvements during the Route 3 Corridor Study effort. It is our understanding that one of the top-priority road improvement projects that will be recommended in that study is the construction of passing lanes in Westmoreland County from Potomac Mills to Flat Iron.

Please know that Richmond County supports this request and urges the Commonwealth Transportation Board to include that project in the Virginia Department of Transportation FY 2017 Six-Year Improvement Program.

We appreciate your consideration. Thank you for this opportunity to give input into the planning process.

Respectfully,

R. Morgan Quicke
County Administrator

Richard E. Thomas
Election District 1

Jean C. Harper
Election District 2

John L. Haynes, Jr.
Election District 3

Robert B. Pemberton
Election District 4

Lee Sanders
Election District 5

R. Morgan Quicke
County Administrator

DARRYL E. FISHER, CHAIRMAN
ELECTION DISTRICT NO. 1
HAGUE, VIRGINIA 22469

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ELECTION DISTRICT NO. 3
MONTROSS, VIRGINIA 22520

LARRY ROBERSON
ELECTION DISTRICT NO. 5
COLONIAL BEACH, VIRGINIA 22443



WESTMORELAND COUNTY, VIRGINIA

Board of Supervisors
MONTROSS, VIRGINIA 22520-1000

NORM RISAVI
County Administrator
P. O. BOX 1000
MONTROSS, VIRGINIA 22520-1000
PHONE: 804/493-0130
FAX: 804/493-0134
E-mail: nrisavi@westmoreland-county.org
Web Page: www.westmoreland-county.org

October 1, 2015

The Honorable Aubrey L. Layne, Jr.
Secretary of Transportation and Chairman
Commonwealth Transportation Board
Commonwealth of Virginia
1111 E. Broad Street
Richmond, VA 23219

Dear Secretary Layne:

On behalf of Westmoreland County, we reaffirm and urge the Commonwealth Transportation Board and the Virginia Department of Transportation to consider the transportation needs of this rural region. Road transportation is vitally important to the region, and specifically Route 3 corridor improvements are essential. Route 3 serves as the access road to current businesses and industries, to all of the industrial sites and buildings, and to tourist attractions. For many, Route 3 is the transportation link to jobs outside the region.

The Northern Neck counties have a long standing general objective to work toward making Route 3 four lanes from Route 301 in King George County to Route 33 in Middlesex County. We appreciate the recent and ongoing discussions with VDOT to address Route 3 improvements during the Route 3 Corridor Study effort. It is our understanding that one of the top-priority road improvement projects that will be recommended in that study is the construction of passing lanes in Westmoreland County from Potomac Mills to Flat Iron.

Please know that Westmoreland County supports this request and urges the Commonwealth Transportation Board to include that project in the Virginia Department of Transportation FY 2017 Six-Year Improvement Program.

We appreciate your consideration. Thank you for this opportunity to give input into the planning process.

Respectfully,

Darryl E. Fisher, Chairman
Board of Supervisors
Westmoreland County

DEF:lbt