COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219-2000

David S. Ekern, P.E.
COMMISSIONER

November 30, 2007

The Honorable Timothy M. Kaine
Members of the Commonwealth General Assembly
Members of the Commonwealth Transportation Board

Dear Ladies and Gentlemen:

The Virginia Department of Transportation (VDOT) was directed through Items 444.B.1-4 of the 2007 Appropriation Act to report on the condition of the existing transportation infrastructure and proposed measures to improve the operations of the transportation system and the interstate, primary and secondary maintenance services.

The legislation requests that the report include information in the following areas:

- Condition of infrastructure and initiatives to improve operations;
- Actions and accomplishments in the previous fiscal year involving outsourcing, privatization, and downsizing;
- Enumeration of the status of major bridge maintenance and replacement projects and federal highway bridge rehabilitation and replacement apportionments; and
- Number of rail crossings in the metropolitan areas of Hampton Roads, Richmond, and Northern Virginia.

In November 2006, VDOT submitted Report Document No. 334 addressing each of the items listed above. As part of Chapters 335 and 355 of the 2007 Acts of Assembly, VDOT reported in September 2007 on the performance measures, condition of and needs to maintain the existing infrastructure. In addition, a separate report will be submitted, by November 30th, on the actions and accomplishments involving outsourcing, privatization and downsizing, as requested by Chapter 7 of the 2006 Special Session Acts of Assembly.

The attached performance report provides updated information from the 2006 report on bridge projects and bridge funds, and rail crossings. Information is also included on the asset management methodology. If you have questions or need additional information, please let me know.

Sincerely,

David S. Ekern

Attachment

cc: The Honorable Pierce R. Homer

Preface

Items 444.B.1-4 of the 2007 Appropriation Act require the Virginia Department of Transportation (VDOT) to submit to the Governor, General Assembly, and Commonwealth Transportation Board a report on the condition of existing transportation infrastructure and proposed measures to improve the operations of the transportation system and services areas listed in paragraph A, by November 30th each year (see Appendix A for full text of the legislation). Chapters 335 and 355 of the 2007 Acts of Assembly and Chapter 7 from the 2006 Special Session Acts of Assembly require the same or very similar information as requested in the Appropriation Act as summarized below:

- Item 444.B – B1 - Condition of the Existing Infrastructure.
  Requests VDOT to report on the condition of existing infrastructure and proposed measures to improve the operations of the transportation system and the interstate, primary and secondary maintenance service areas. This information was previously submitted on September 15th to meet the requirements of Chapters 335 and 355 of the 2007 Acts of Assembly. This legislation requires VDOT to submit to the Governor, JLARC and CTB by September 15th of each odd numbered year, a report on the condition of and needs to maintain and operate the existing infrastructure in the Commonwealth based on an asset management methodology.

- Item 444.B2 - Assessment of Outsourcing, Privatizing, and Downsizing.
  Requires VDOT to report on all actions, accomplishments, achievements, and initiatives of VDOT in the preceding fiscal year that involved outsourcing, privatization, and downsizing, as required pursuant to Chapter 420, 2006 Acts of Assembly. This information will be submitted in a separate report to meet the requirements of Chapter 7 of the 2006 Special Session I. The report will also address the information requested from Chapter 420 of the 2006 Acts of Assembly.

- Item 444B.3 – Major Bridge and Replacement Projects.
  Requires VDOT to provide an enumeration of the status of major bridge maintenance and replacement projects and the availability of federal highway bridge rehabilitation and replacement apportionments.

- Item 444.B-4 – Rail Crossings.
  Requires VDOT in conjunction with the Department of Rail and Public Transportation (DRPT), to report on the number of rail crossings in the metropolitan areas of Hampton Roads, Richmond and Northern Virginia. The report shall take into consideration the impediments to safety, mobility and economic development caused by the rail crossings as measured by the number of trains and frequency of train traffic; the vehicular traffic volumes at the crossings; and the lack of nearby rail and road alternatives. The report shall include an estimate of the costs to remove, relocate or remediate those rail crossings that have the greatest impacts on communities, including environmental.

Table of Contents

Preface iii
Item 444 B (1) –Asset Management Methodology 1
Background 1
Asset Management Methodology 1
Implementing the Vision for Asset Management 2
Appendix A – Condition of Assets 5
Pavement 6
Bridges – In Need of Repair or Rehabilitation 8
Bridges – 25 Years or Older 10
Bridges – 50 Years or Older 12
Bridges – Posted for Load 14
Cross Pipe 16
Guardrail 18
Guardrail Terminals 22
Paved Ditches 26
Pavement Markings 28
Signs 30
Unpaved Ditches 32
Unpaved Shoulders 34
Item 444 (B) 3 –Bridge Status, Projects, and Funding 37
Executive Summary – Bridge 37
Status of Bridges and Culverts (Structures) 38
Bridge Maintenance and Improvement Needs and Funding 39
Appendix A – Bridge Related Definitions 43
Appendix B – Federally Funded Bridge Improvement Projects in the VDOT SYIP 45
Appendix C – Federally Funded Bridge Maintenance and Rehabilitation Projects 57
Appendix D – State Funded Bridge Maintenance and Rehabilitaion Projects 61
Item 444 (B) 4 – Metropolitan Railroad Crossings 67
Executive Summary – Rail 67
Methodology 67
Studies within the Target Areas 68
Near-Term Funding of Improvements 70
Highway-Rail Grade Crossing Improvement, Funding and Procedures 71
Crash History and FAP Target Crossings 72
Appendix A – High Final Accident Crossings 74

Item 444 B (1) –Asset Management Methodology

Background

VDOT's Asset Management Methodology and Asset Management Systematic Mechanisms report (House Document No. 88 – 2006- http://leg2.state.va.us/dls/h&sdocs.nsf/4d54200d7e28716385256ec1004f3130/8ca7789365090b1b8525718f00627d18?OpenDocument) explains the current methods used and ongoing efforts to further improve VDOT's approach to asset management. The report also describes incremental improvements being made including moving from a "needs based" to a "performance based" budgeting process in which "needs" are based on the gap between current performance and targeted performance.

VDOT's Biennial Report on the Condition and Performance of the Surface Infrastructure in the Commonwealth of Virginia (Report Document No. 180 – 2007- http://leg2.state.va.us/dls/h&sdocs.nsf/4d54200d7e28716385256ec1004f3130/dc9cc82065f6dbf7852572b10068bee4?OpenDocument) submitted in September represents the first performance based needs assessment. The report presents VDOT's measures, targets, and current performance for the major assets (pavements, bridges, unpaved shoulders, paved and unpaved ditches, cross pipes, pavement marking, signs, guardrail and guardrail terminals), which collectively account for roughly 80% of VDOT's asset maintenance expenditures on Interstate, Primary, and Secondary systems. Appendix A provides information on the condition of these assets.

Asset Management Methodology

Pavement performance is based on evaluating pavement conditions and determining the appropriate treatments needed, if any. Pavement condition and attribute data are collected annually for 100% of the Interstate and Primary pavements and approximately 20% of Secondary pavements using digital imaging and detection technology mounted on a specially equipped vehicle as it moves down the roadway. The data are used to assess the condition of each segment of pavement measured. The Critical Condition Index (CCI), which ranges from 0 to 100, where 100 is the best possible condition, is used to define pavement performance. Pavements with a CCI performance rating below 60 are considered to be in deficient condition and require resurfacing, restorative maintenance, or rehabilitation.

Data are fed into the pavement management system that uses incremental benefit cost analysis and VDOT provided performance/deterioration models to determine the least cost set of treatments needed on each segment of pavement in order to achieve VDOT specified performance measures and targets. Currently, the goal is to allow no more than 18% of Interstate and Primary system pavements to be performing poorly (in deficient condition) statewide. Figures A-1 through A-4 in Appendix A present total, and percent of total district lane miles of pavement needing work for Interstate, Primary, and Secondary systems, broken out by each type of maintenance activity. Figure A-4 shows the same information aggregated statewide by system.

Bridge performance is based on assessing bridge conditions against the federal inspection standards. VDOT inventories and inspects all bridges in accordance with the National Bridge Inspection Standards (NBIS). VDOT is in full compliance with the NBIS and in some cases

exceeds these requirements. All bridges regardless of their lengths are inventoried and inspected on a regular basis. Culverts having an opening of 36 square feet or greater are also inventoried and inspected on a regular basis. Inspections provide information used to rate the condition of each structure. The Bridge Management System is used to find the optimal set of maintenance activities that will maximize a given performance metric for a specified funding level and planning horizon. Table 1 in the section of this report addressing bridges shows the inventory and condition of structures as of August 21, 2007, and table 2 shows trends for the number of bridges replaced and or rehabilitated between 2001 and 2006.

All bridges and culverts require some level of maintenance regardless of their condition. For example, a bridge classified in good condition will need some type of routine maintenance such as cleaning, and spot painting. Currently, eight percent (1,739) of VDOT's inventory is rated as structurally deficient primarily based on a general condition rating of four or less. The general condition rating scale varies from zero (worst condition) to nine (excellent condition). Additionally, 30% of the structures are classified as candidates for repair and or rehabilitation based on a general condition rating of five or less. Of the 30%, approximately 22% are at risk of becoming structurally deficient if their maintenance and rehabilitation needs are not addressed in timely manner. Charts A-5 through A-20 in Appendix A present condition information on bridges.

Condition of cross pipes, unpaved shoulders, paved and unpaved ditches, signs, pavement marking, guardrail and guardrail end treatments is assessed through random sampling. Data are collected for a sample (over 10,800 tenth-mile roadway sections) that is statistically representative of each asset in each district. The sampling is designed to achieve an acceptable level of accuracy for estimating the performance of these assets and the maintenance work required to achieve an acceptable performance by district and system (Interstate, Primary, Secondary).

The sampling identifies the type and extent of damage or deterioration to assets that are related to the need for maintenance action. The data are fed through repair decision trees developed by VDOT for each asset which identify the type of maintenance action needed, as well as resource requirements and cost for each activity. The results are then extrapolated based on directional mileage and number of samples in each district to estimate the quantity of assets that require different types of maintenance by system and district. Figures A-21 through A-59 in Appendix present information on the condition and maintenance needs for these additional eight assets.

Implementing the Vision for Asset Management

As described in Report Document No. 180, VDOT's asset management methodology is moving from a simple repair based needs assessment to a performance based assessment of maintenance and operations with measures, targets and gap analysis to meet targets. The methodology and process steps are used to develop annual budget requests and to guide the allocation of available resources across assets, systems, services and districts.

- VDOT is managing a cohesive business strategy and long term plan for development and improvement of System Operations technologies and business processes they support, and aligning the strategy for business technologies with the vision and strategic plan for System Operations. Management teams within VDOT act to ensure organization;

business processes, data, systems, and technology are coordinated, integrated, prioritized, and managed with respect to VDOT's strategic goals.

- Several information technology system improvements were made to AMS modules to simplify the 2007 needs assessment (for the FY2009-2010 biennium). For example, new methods were developed that allowed data from the Random Condition Assessment to be validated quickly. This saved time and enabled the team to identify areas where business rules could be streamlined. Modifications were also made to the Budget Program to streamline data entry and budget development.

- VDOT is in the process of implementing a new pavement management system and equipment management system. These will include the ability to conduct life-cycle cost analysis and optimization of investments over a given planning horizon. The new pavement management system will also improve the planning for work at the district level by providing more detailed information at the network level.

- The development and implementation of more dynamic information technology tools and system capability include a statewide inventory management for all assets, maintenance work completed tracking, work order management, and decision support tools.

Other Initiatives to support Asset Management principles of managing the performance of roadway assets are under development. Also, initiatives to actively manage how well those assets operate to their highest and best capacity use are underway. Below are highlights of those efforts:

- Data is another critical asset for VDOT and other organizations. It is critical to have the right data for making decisions about not only asset preservation but also for the management of the roadway capacity to its fullest, safe use. Traffic and safety data are integral to VDOT. VDOT shares this data with many other agencies to assist them with their work, including the Virginia State Police, Department of Aviation, and Department of Rail and Public Transportation. Work is underway to complete a Data Business Plan that will support improved performance based planning, budgeting and program management for maintenance and operations programs. The data business plan will provide the framework for development of business requirements for the Asset Management System and for all operations program technologies, and business processes, including active traffic management initiatives, ITS, traffic management, safety and security, for the next three years.

- Congestion measures including HOV travel speed and travel time performance for certain corridors are now available on VDOT's Dashboard. Work is ongoing to improve the quality of data from existing detectors and expand the range of detector coverage to enable more performance reporting. Private sector partnerships are in place to support these efforts by providing communications infrastructure sharing agreements as well as data sharing agreements. Significant improvements in VDOT's ability to report travel speeds and travel time performance on more corridors are underway.

- A new Automated Traffic Management System is under development in Northern Virginia that will improve the reliability and stability of the information technology platform that is used to manage overhead message signs, cameras and other ITS equipment. This will provide a level of interoperability between this Traffic

Management Center and three others who are using the same platform today. The relocation later this year of this facility into a Public Safety and Transportation Operations Center in Fairfax will greatly expand it capability in working more closely with it other emergency response partners.

Appendix A – Condition of Assets

Legend for all charts to follow in Appendix A:

1/BR – District 1 – Bristol

2/SA – District 2 – Salem

3/LY – District 3 – Lynchburg

4/RI – District 4 – Richmond

5/HR – District 5 – Hampton Roads

6/FR – District 6 – Fredericksburg

7/CU – District 7 – Culpeper

8/ST – District 8 – Staunton

9/NO – District 9 – Northern Virginia

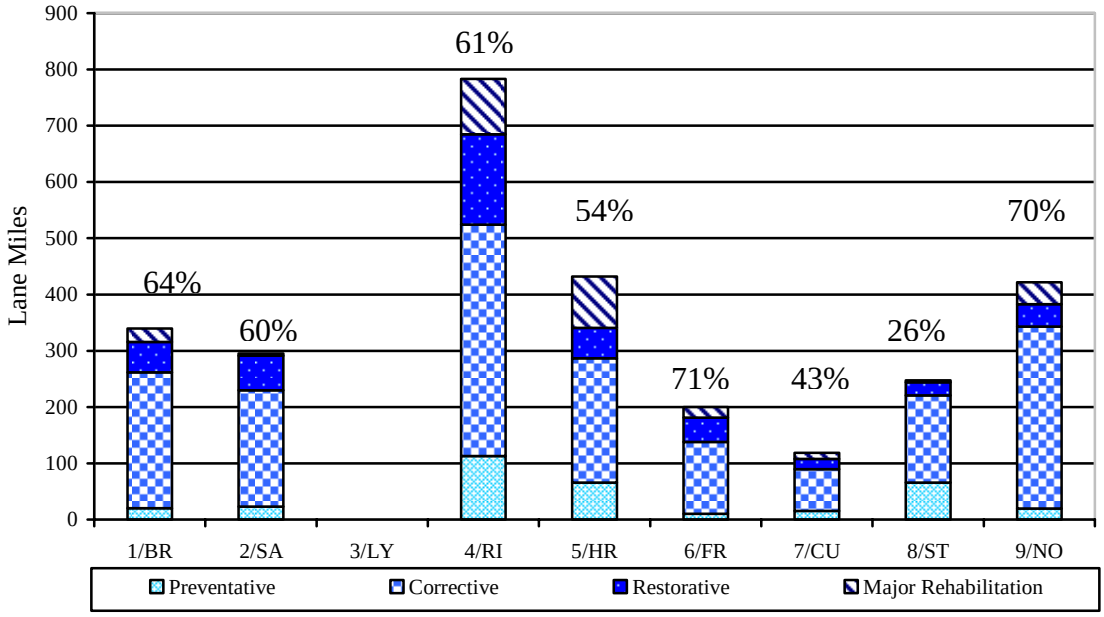


Figure A-1: Number of lane miles and Percent (top of each bar) of VDOT maintained pavement needing work by maintenance activity – *Interstate System* (Note: Lynchburg district has no Interstate)

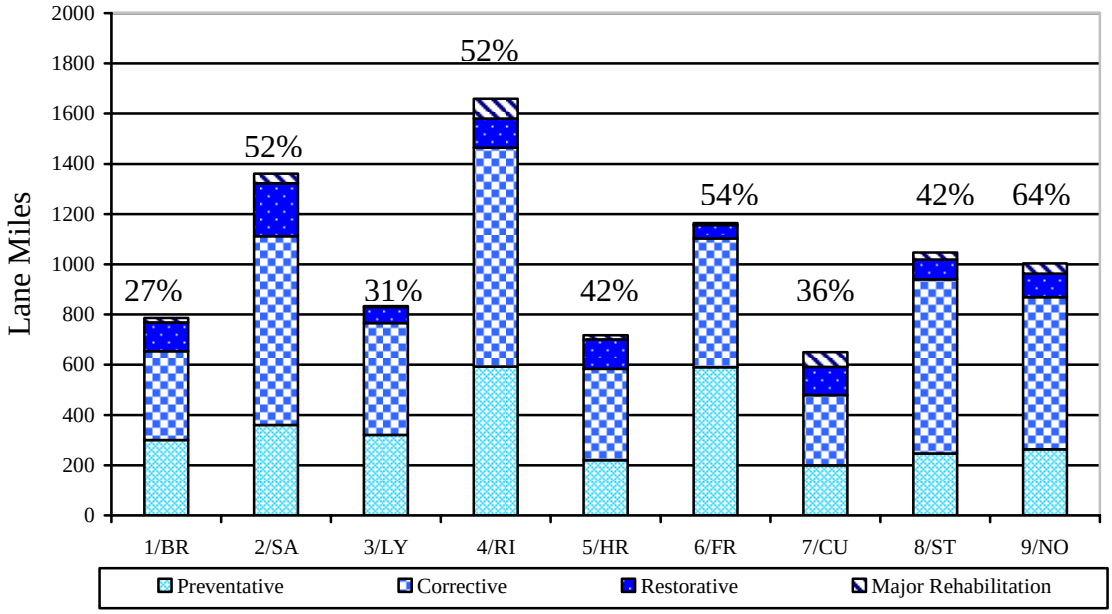


Figure A-2: Number of lane miles and Percent (top of each bar) of VDOT maintained pavement needing work by maintenance activity – *Primary System*

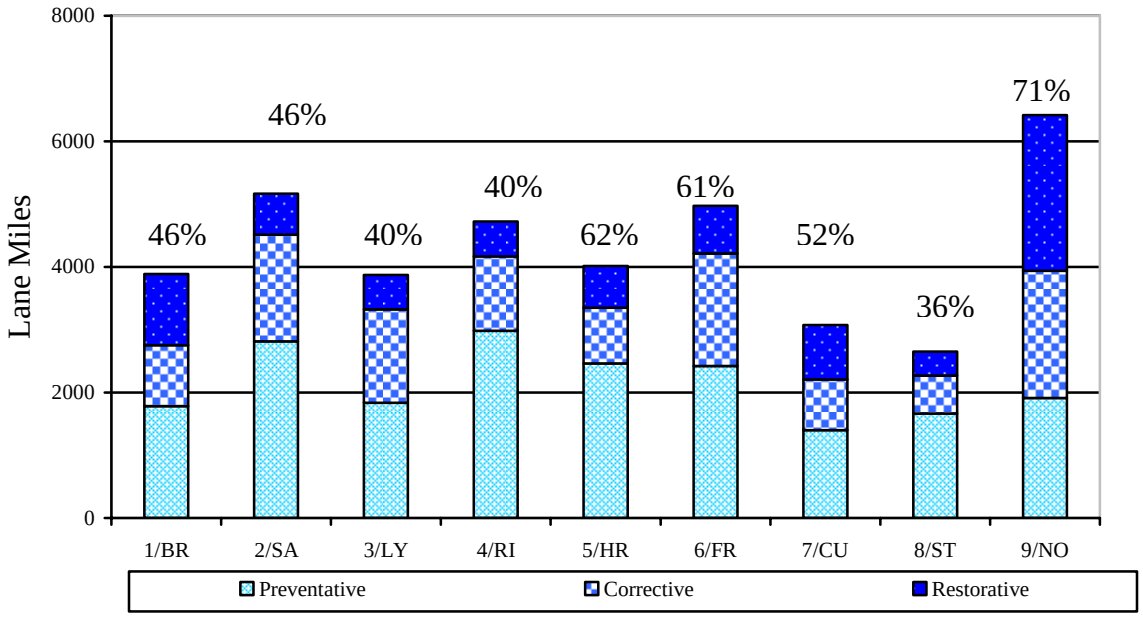


Figure A-3: Number of lane miles and Percent (top of each bar) of VDOT maintained pavement needing work by maintenance activity – *Secondary System*

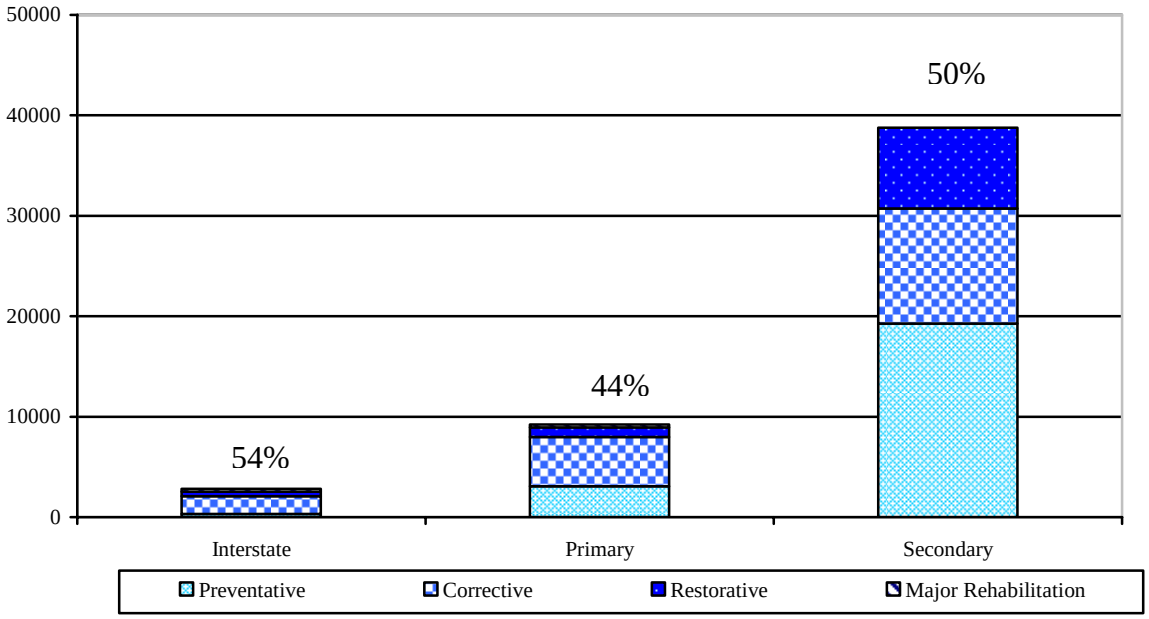


Figure A-4: Number of lane miles and Percent (top of each bar) of VDOT maintained pavement needing work by maintenance activity, by system

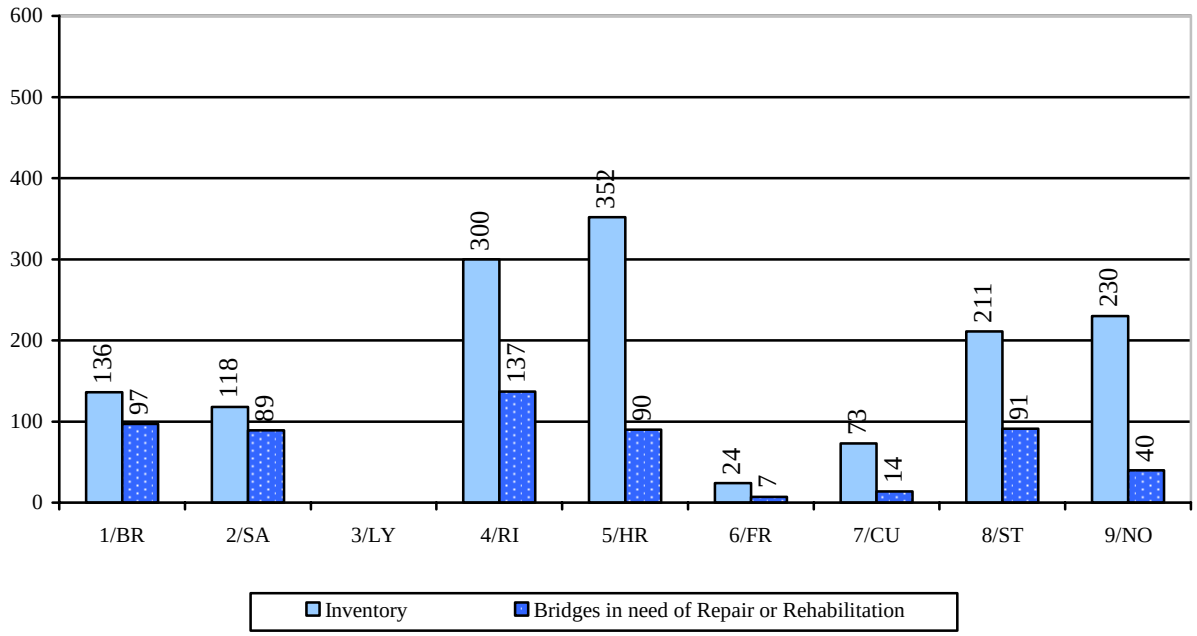


Figure A-5: Number of VDOT maintained bridges in need of repair or rehabilitation by district – *Interstate System* (Note: Lynchburg district has no Interstate)

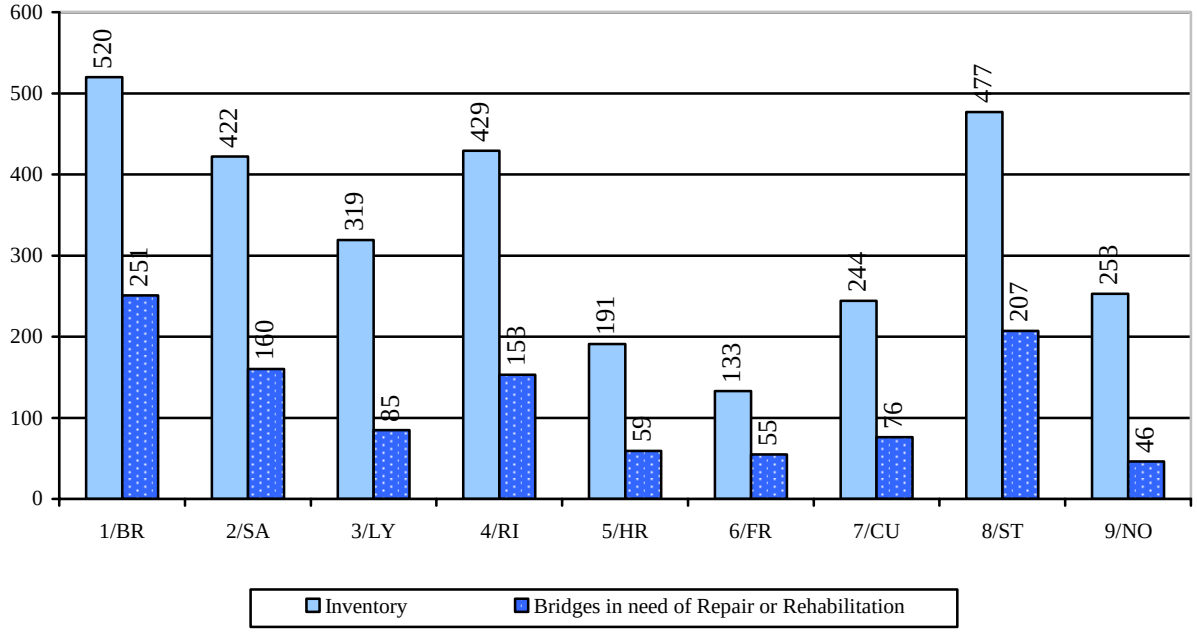


Figure A-6: Number of VDOT maintained bridges in need of repair or rehabilitation by district – *Primary System*

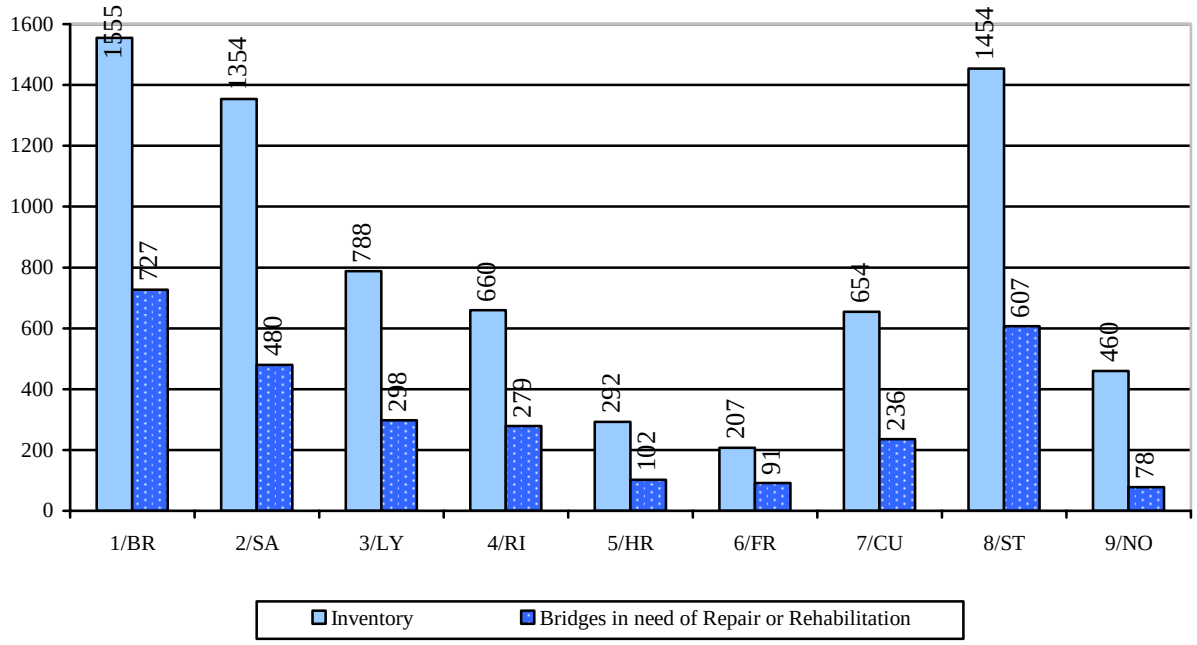


Figure A-7: Number of VDOT maintained bridges in need of repair or rehabilitation by district – *Secondary System*

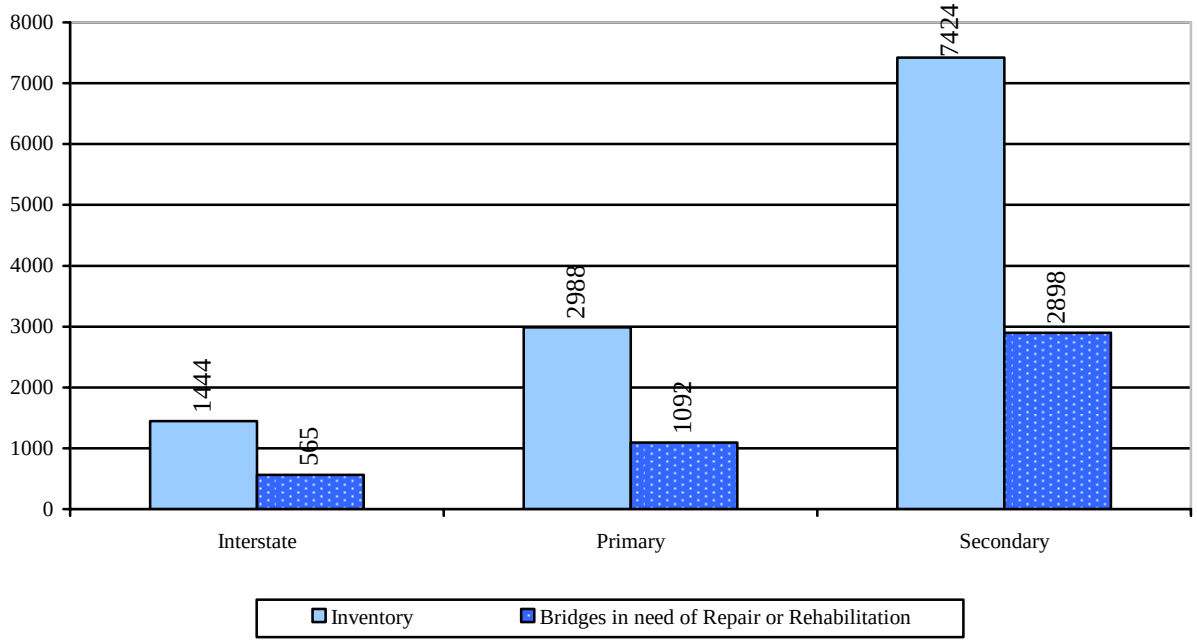


Figure A-8: Statewide number of VDOT maintained bridges in need of repair or rehabilitation - by system

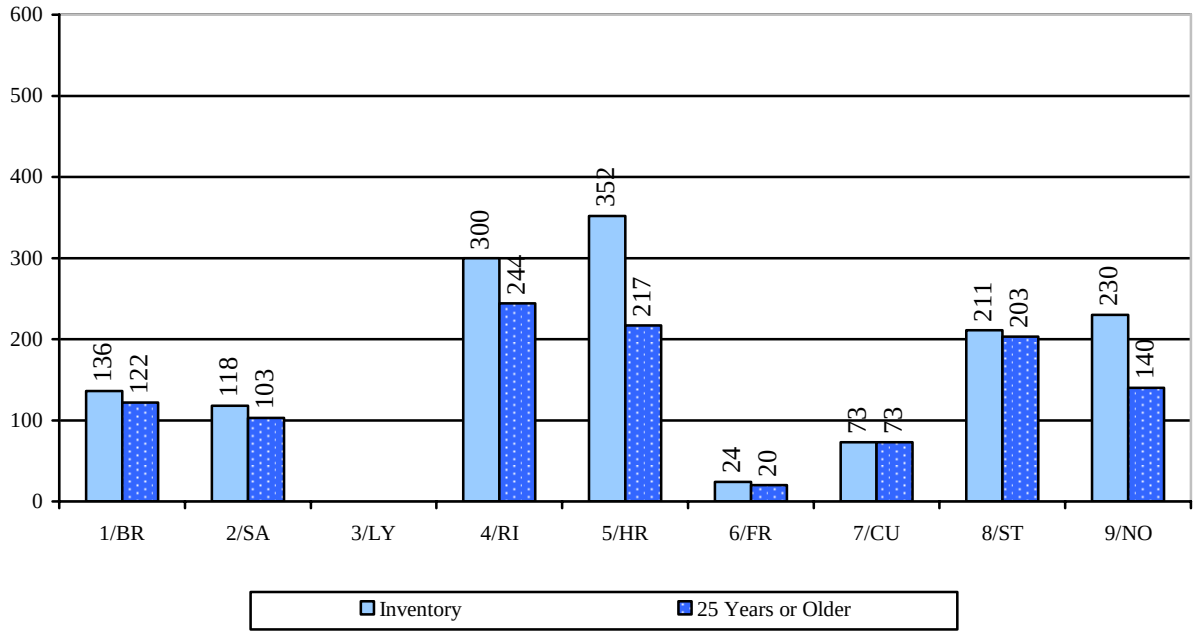


Figure A-9: Number of VDOT maintained bridges *25 years or older* by district - *Interstate System (*Note: Lynchburg district has no Interstate

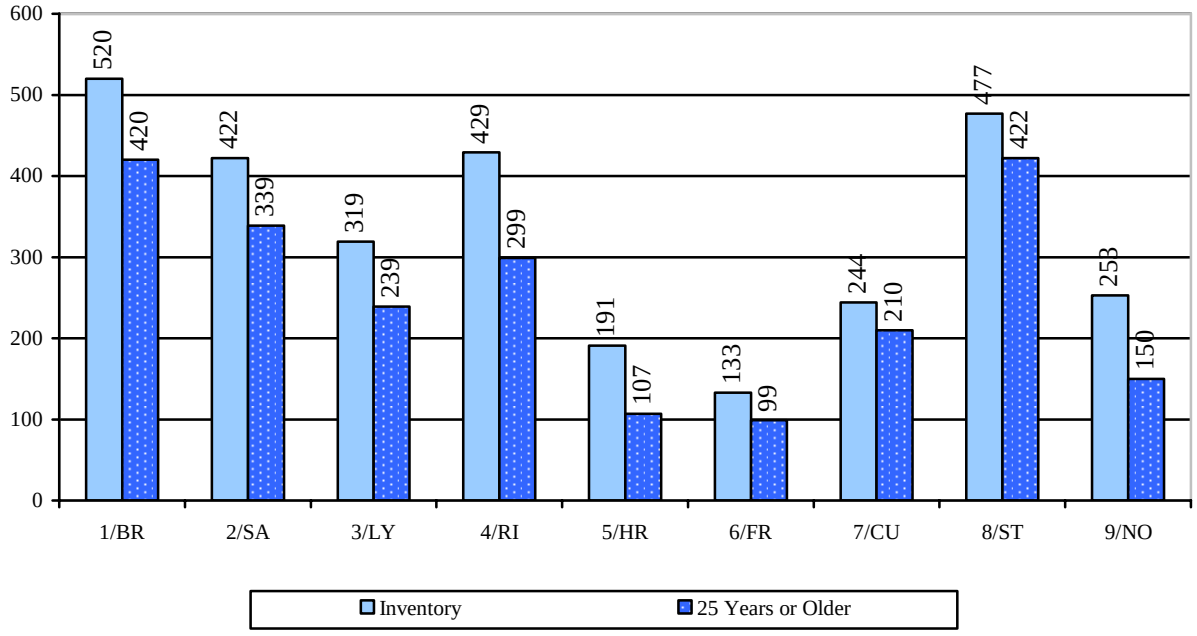


Figure A-10: Number of VDOT maintained bridges *25 years or older* by district - *Primary System*

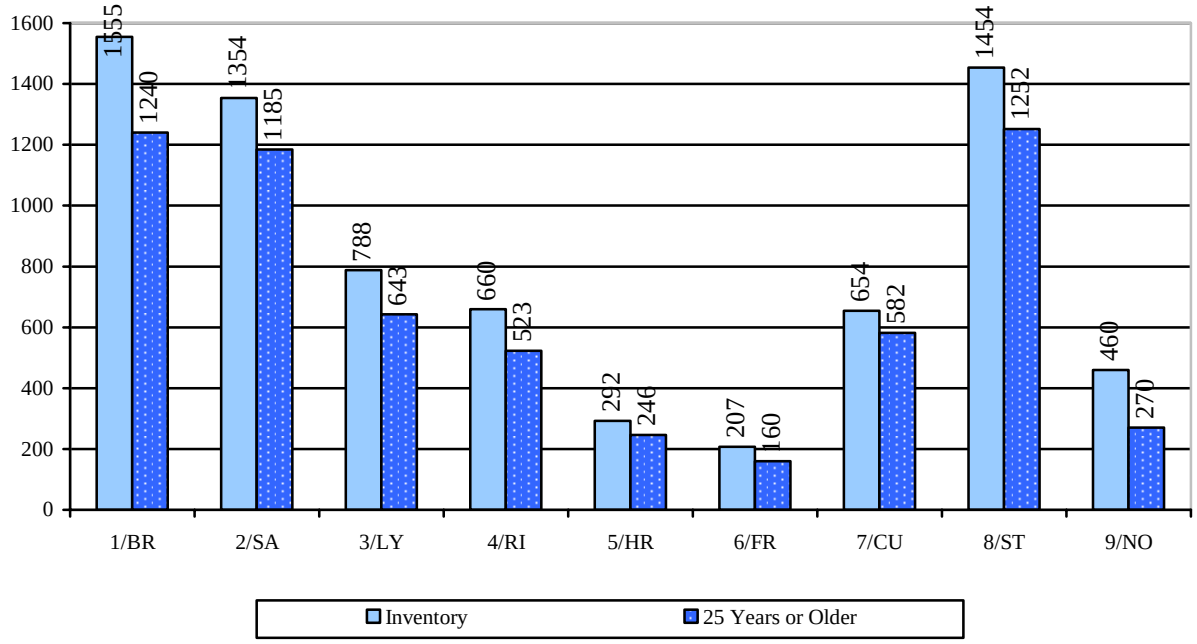


Figure A-11: Number of VDOT maintained bridges *25 years or older* by district – *Secondary System*

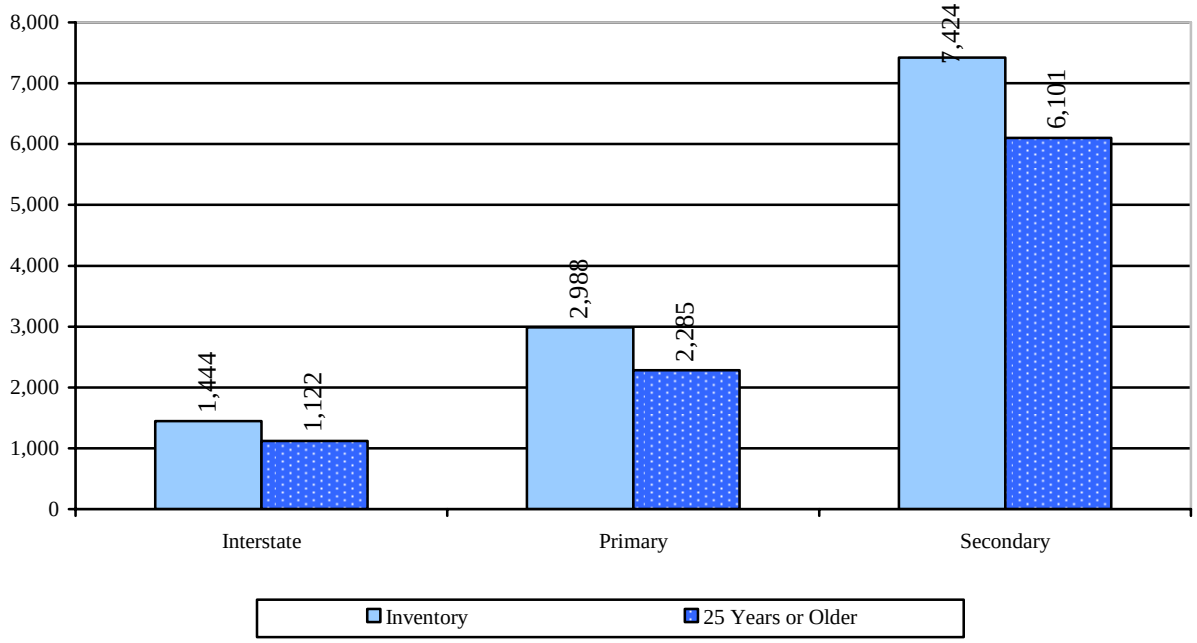


Figure A-12: Statewide number of VDOT maintained bridges *25 years or older – by System*

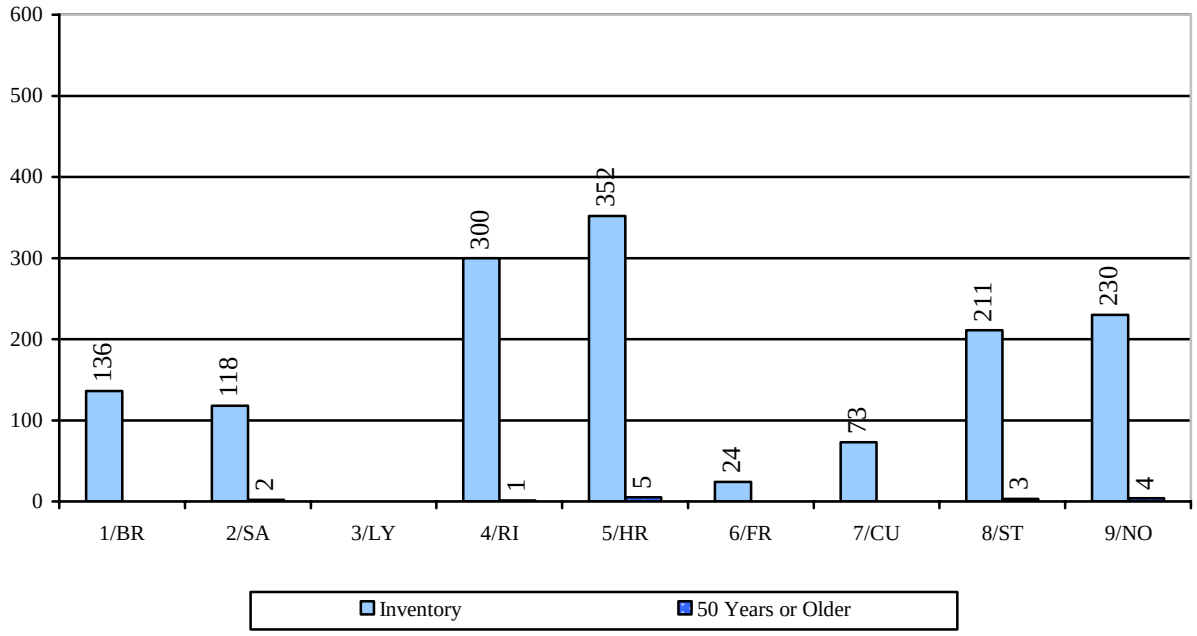


Figure A-13: Number of VDOT maintained bridges *50 years or older* by district - *Interstate System (*Note: Lynchburg district has no Interstate

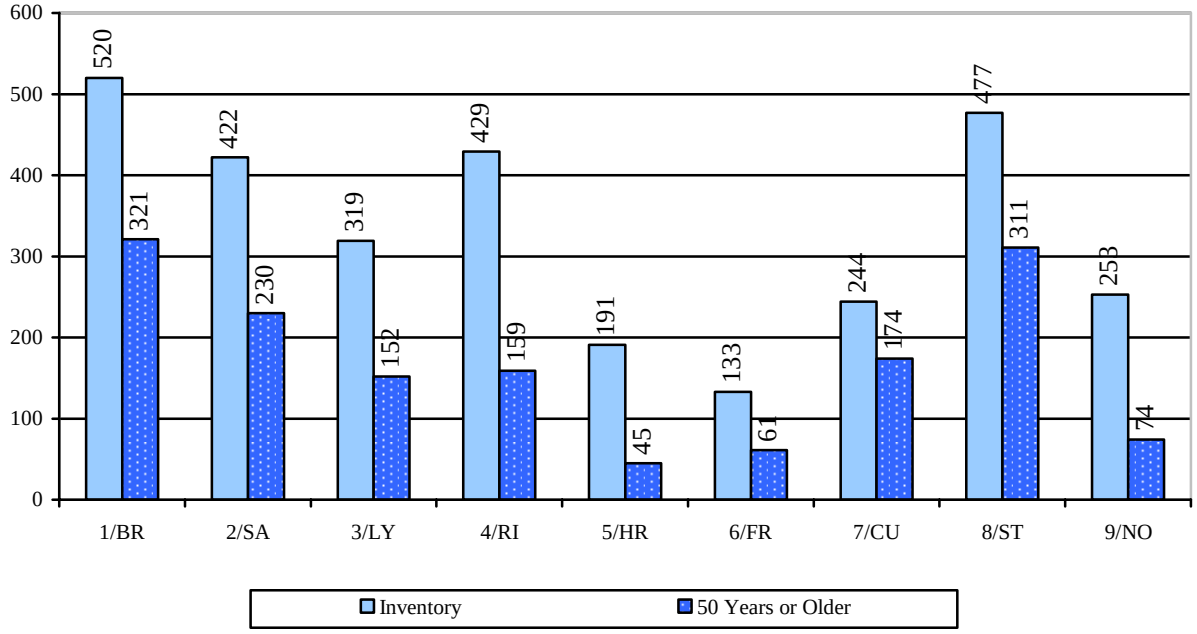


Figure A-14: Number of VDOT maintained bridges *50 years or older* by district - *Primary System*

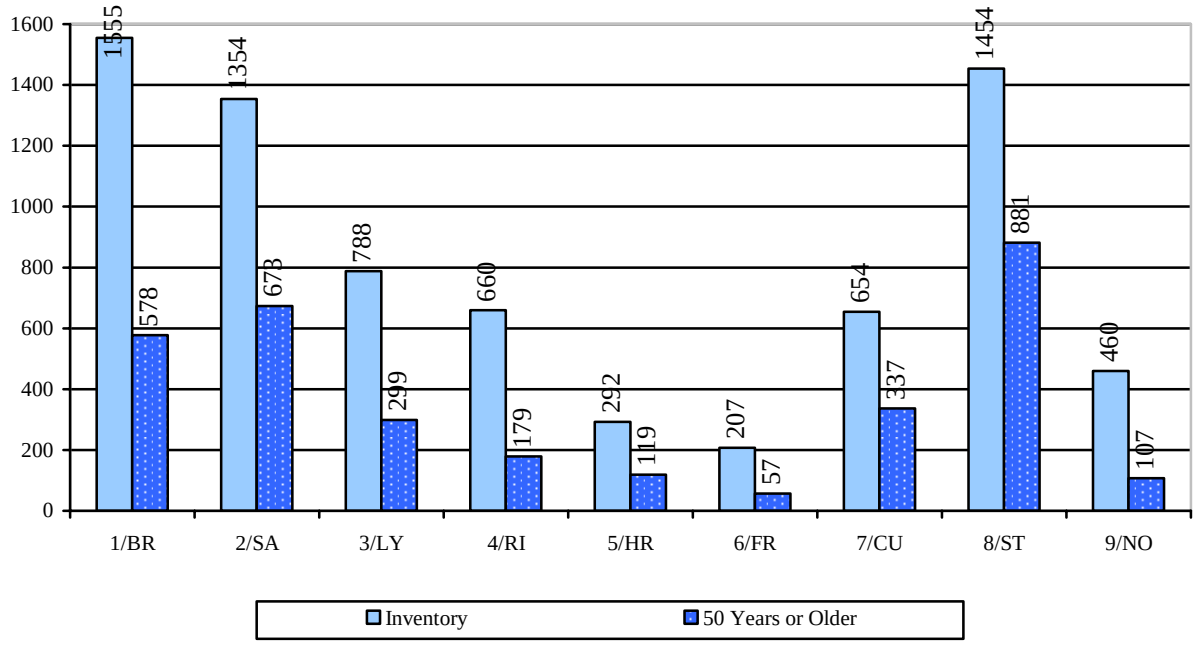


Figure A-15: Number of VDOT maintained bridges *50 years or older* by district - *Secondary System*

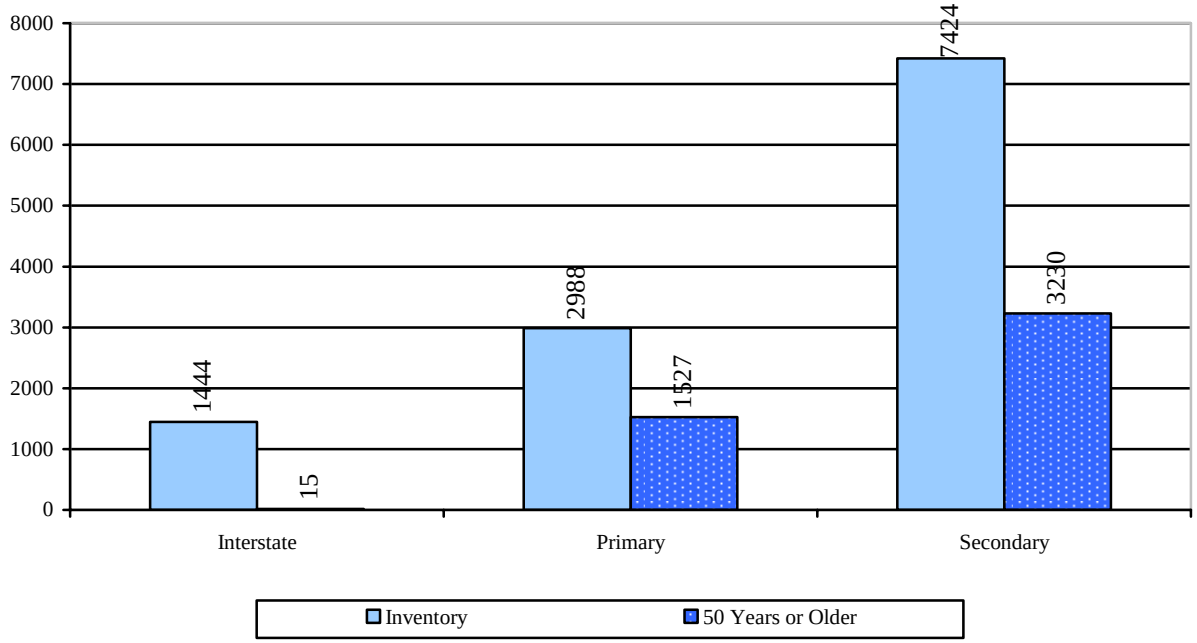


Figure A-16: Statewide number of VDOT maintained bridges 50 *years or older – by System*

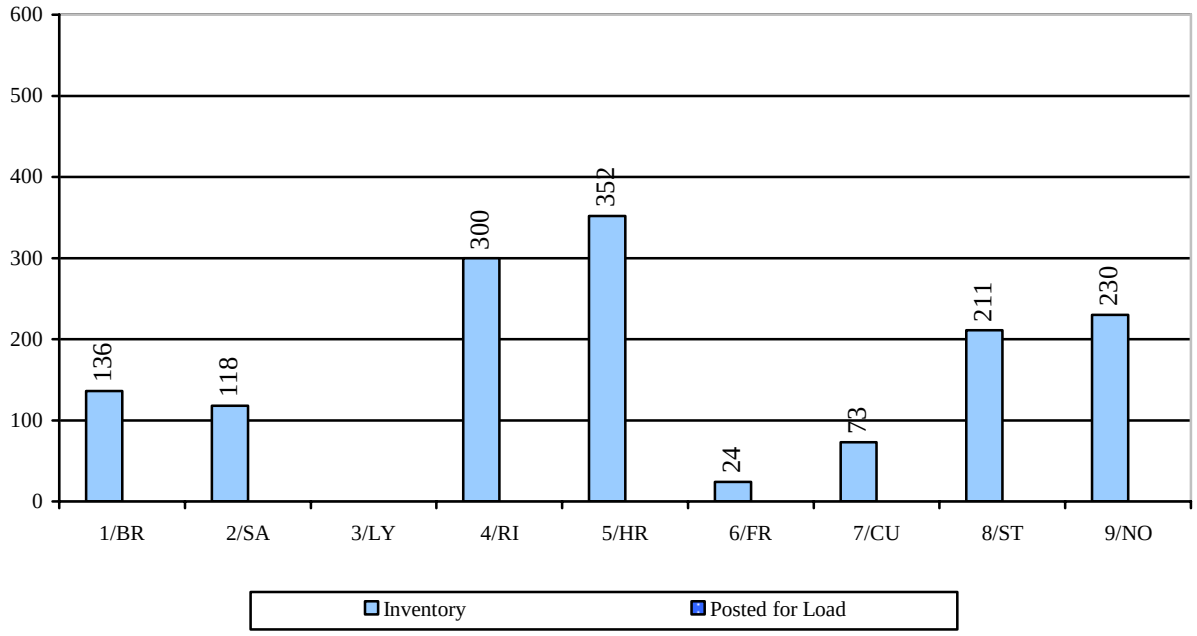


Figure A-17: Number of VDOT maintained bridges *posted for load* by district - *Interstate System* (Note: Lynchburg district has no Interstate

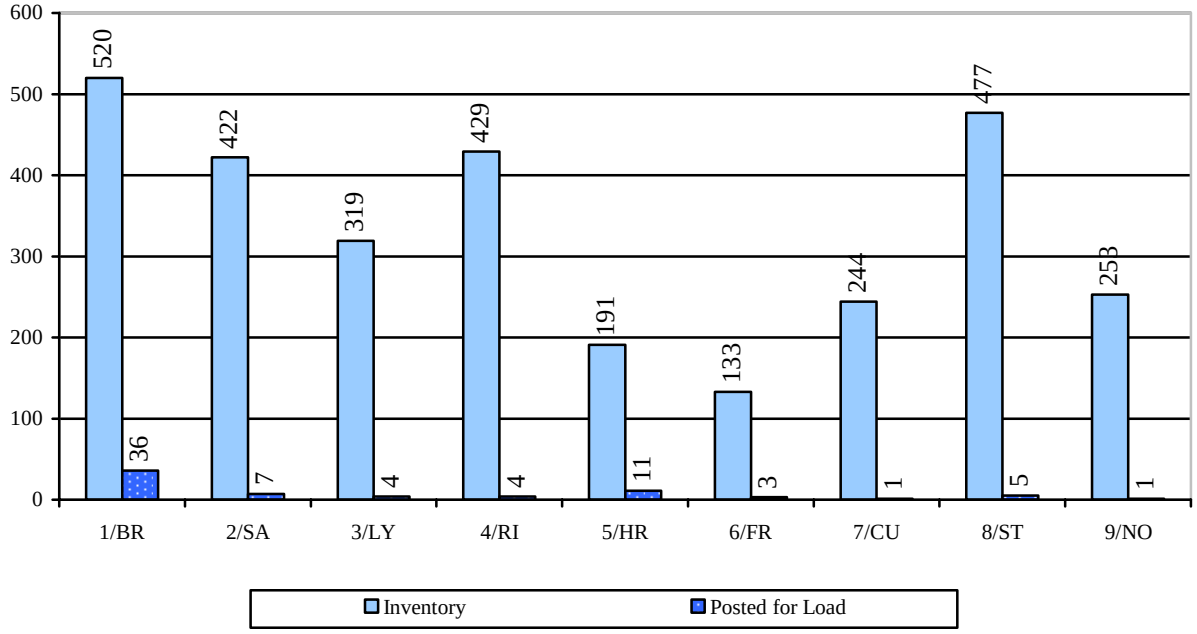


Figure A-18: Number of VDOT maintained bridges *posted for load* by district - *Primary System*

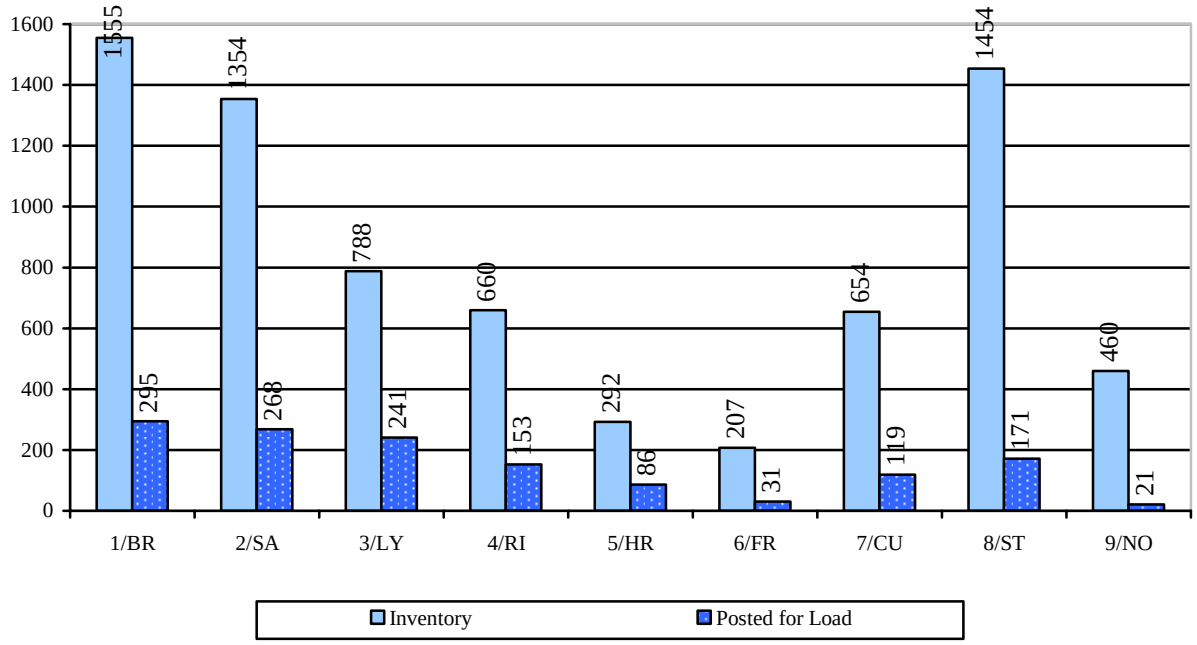


Figure A-19: Number of VDOT maintained bridges *posted for load* by district - *Secondary System*

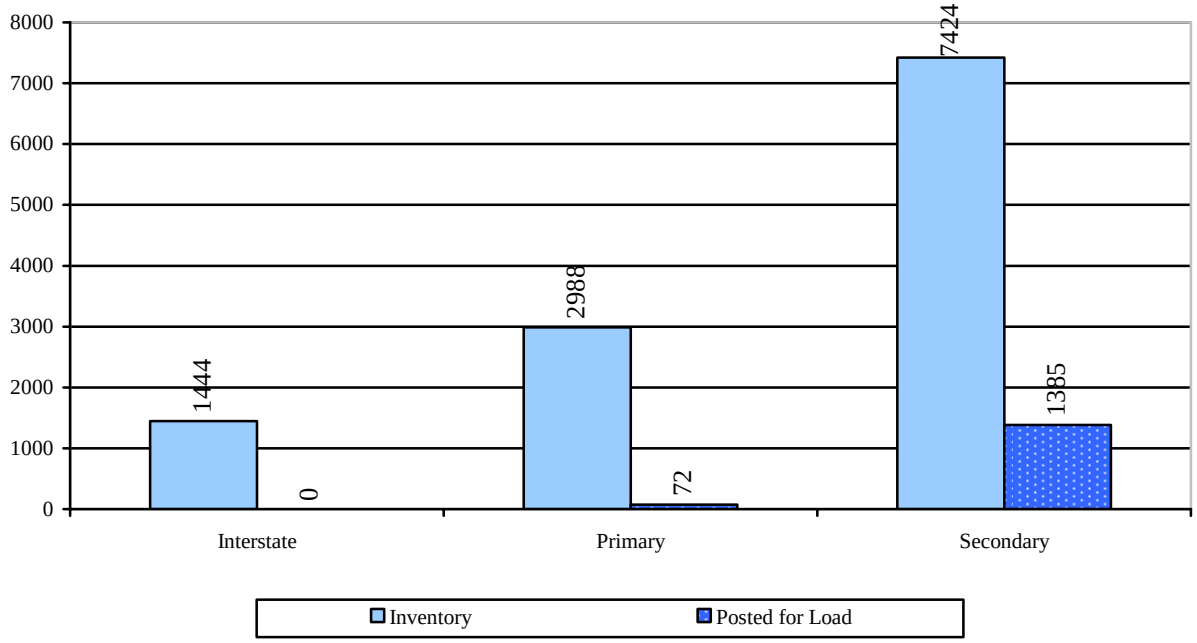


Figure A-20: Statewide number of VDOT maintained bridges *posted for load – by System*

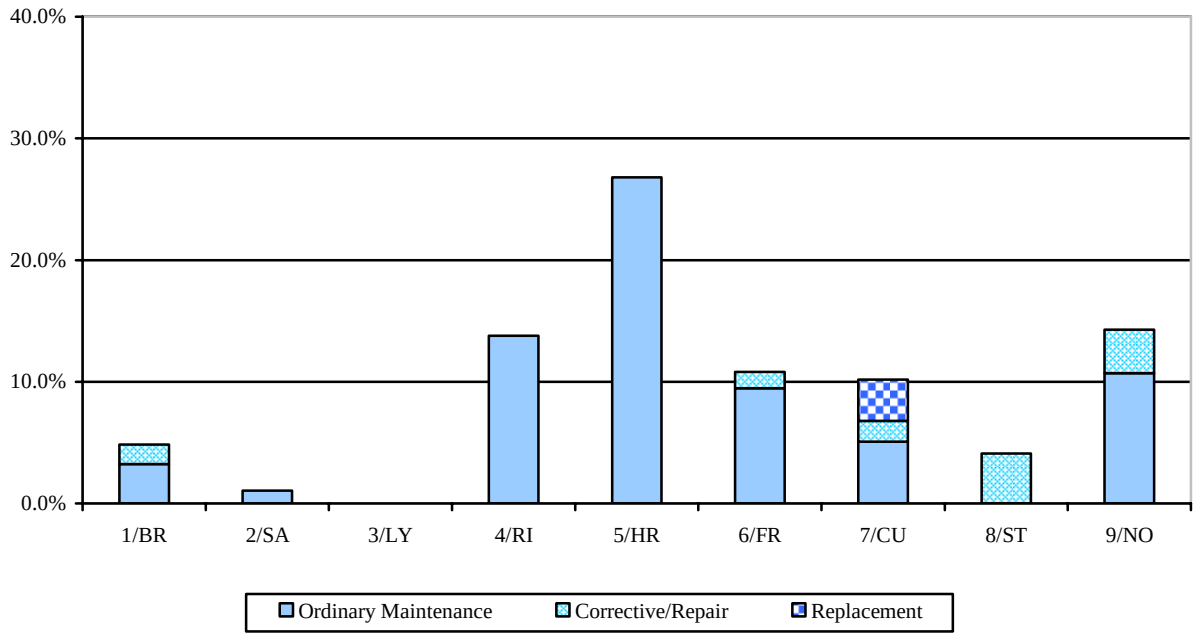


Figure A-21: Percent of cross pipe needing work on VDOT maintained highways by district – Interstate System (Note: Lynchburg district has no Interstate

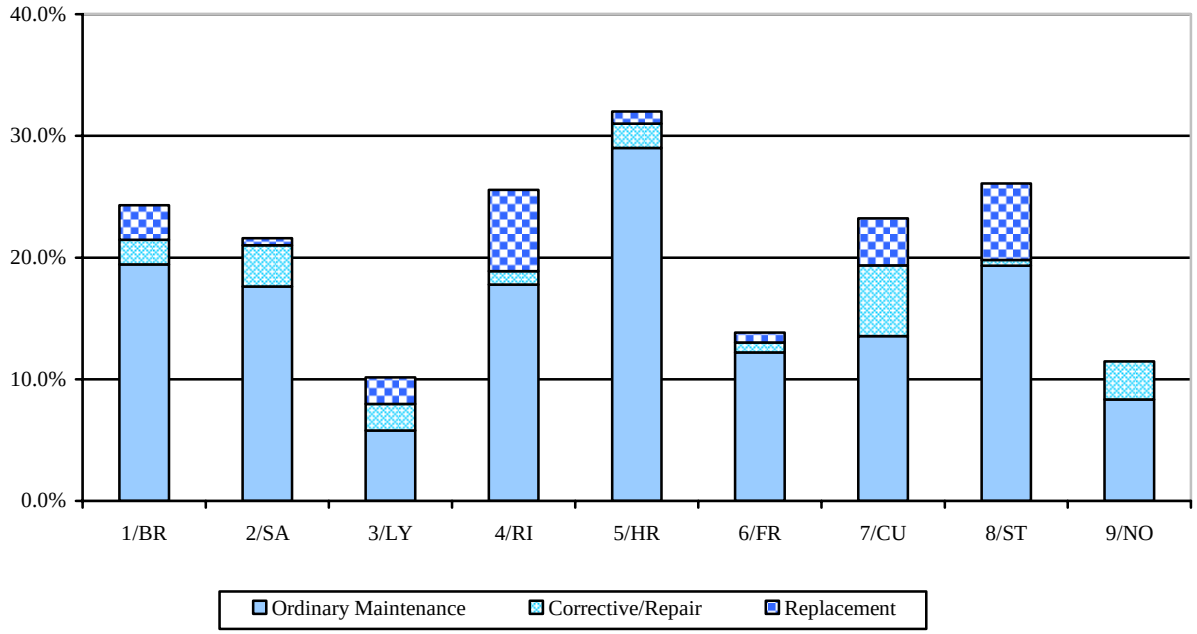


Figure A-22: Percent of cross pipe needing work on VDOT maintained highways by district – Primary System

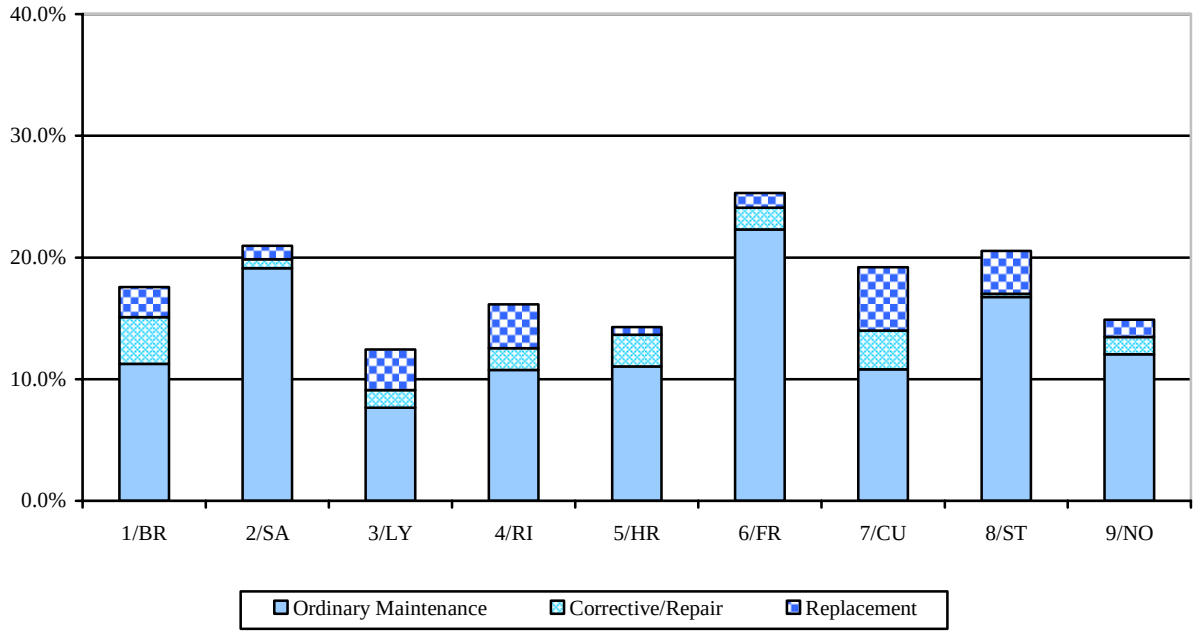


Figure A-23: Percent of cross pipe needing work on VDOT maintained highways by district – Secondary System

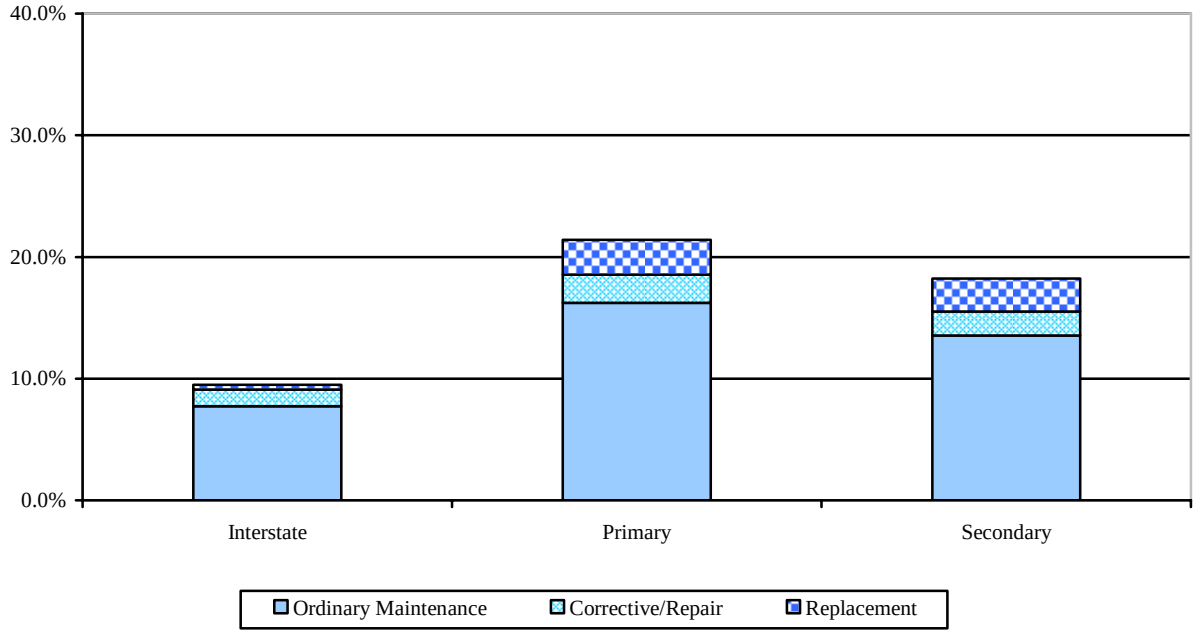


Figure A-24: Percent of cross pipe needing work on VDOT maintained highways - by System

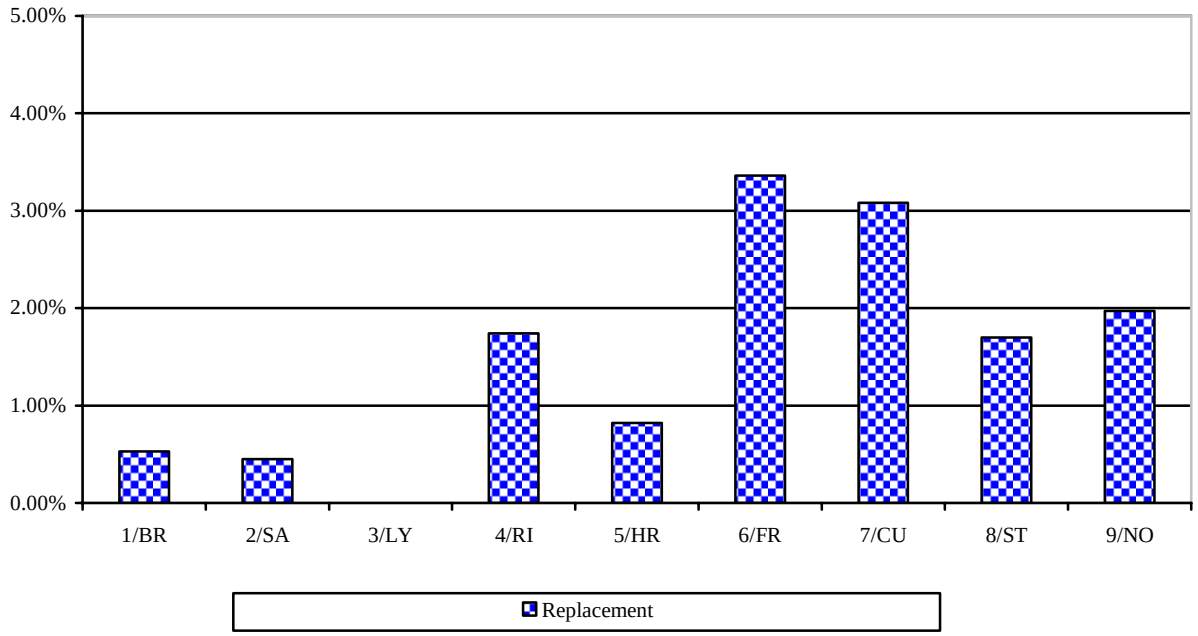


Figure A-25: Percent of guardrail needing work on VDOT maintained highways by district – Interstate System (Note: Lynchburg district has no Interstate

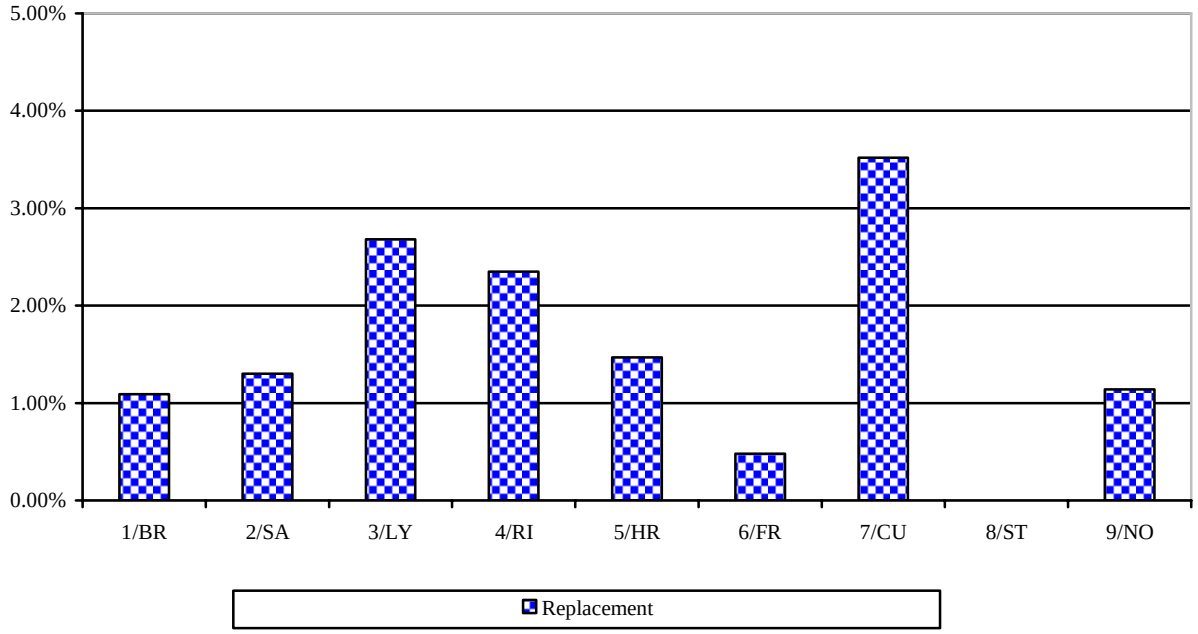


Figure A-26: Percent of guardrail needing work on VDOT maintained highways by district – Primary System

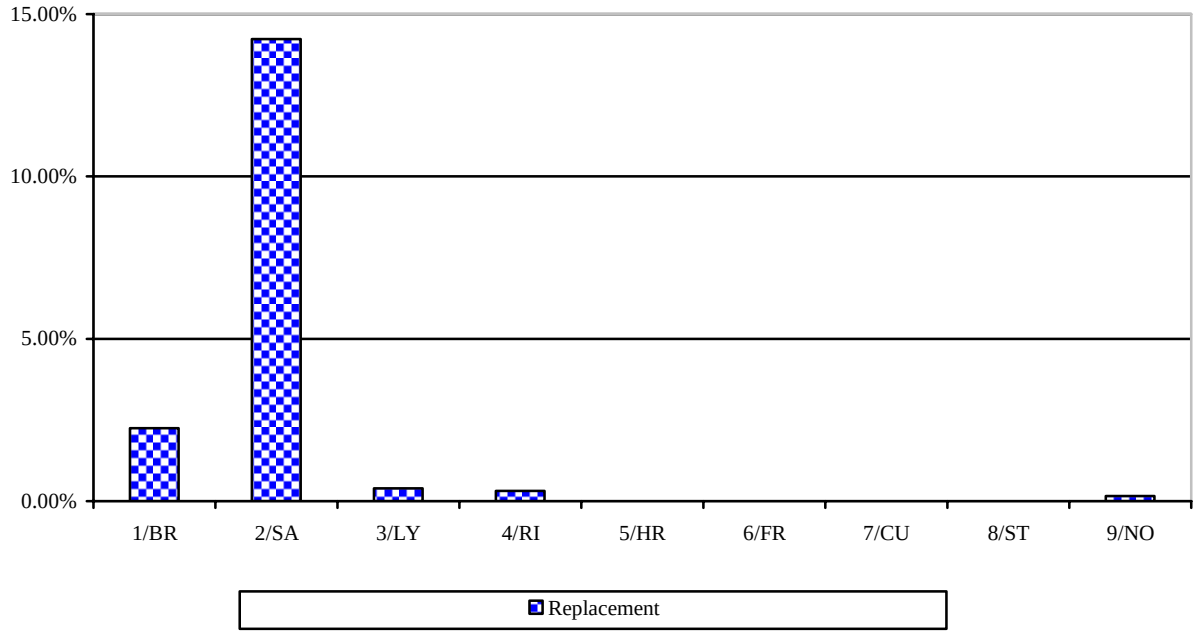


Figure A-27: Percent of guardrail needing work on VDOT maintained highways by district – Secondary System

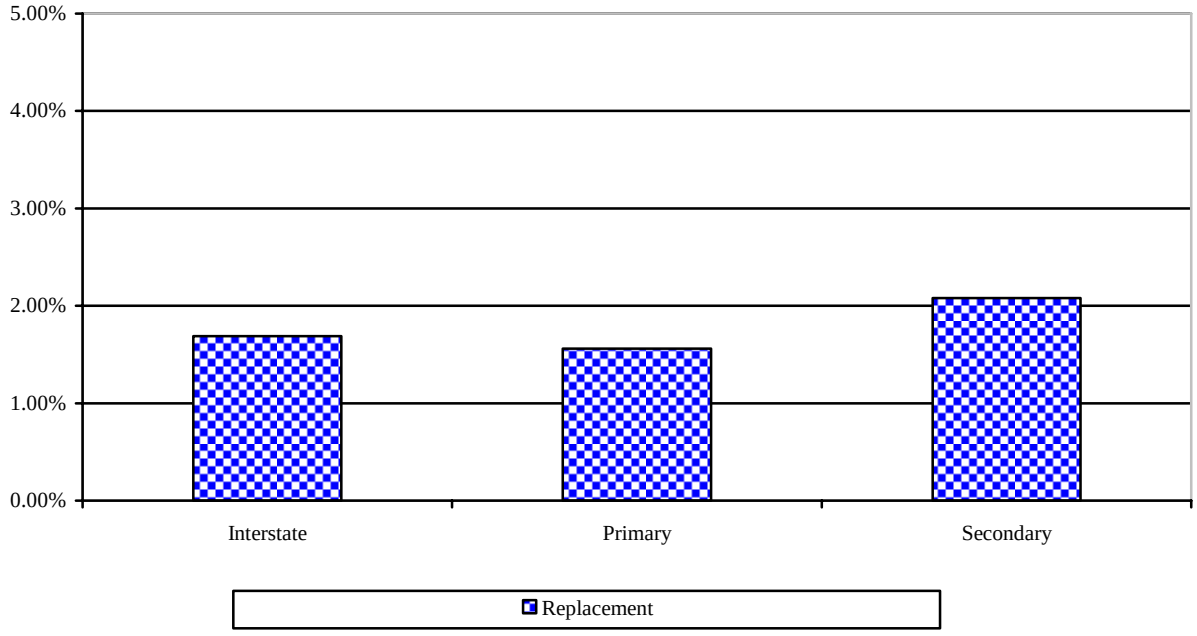


Figure A-28: Percent of guardrail needing work on VDOT maintained highways - by System

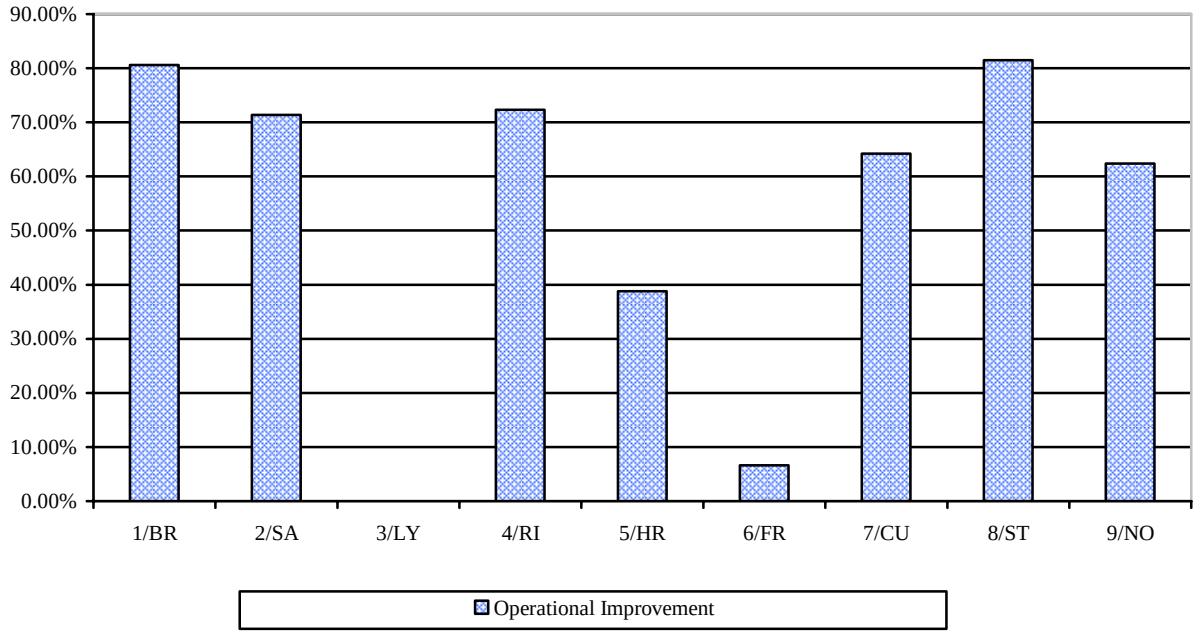


Figure A-29: Percent of guardrail needing upgrade on VDOT maintained highways by district – Interstate System (Note: Lynchburg district has no Interstate

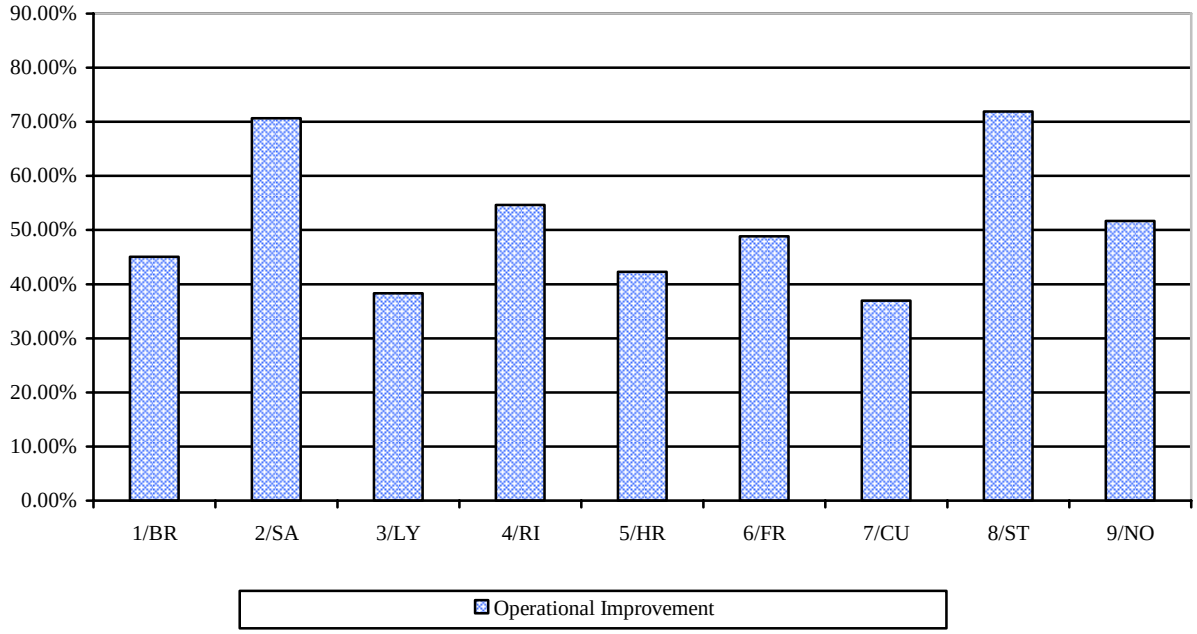


Figure A-30: Percent of guardrail needing upgrade on VDOT maintained highways by district – Primary System

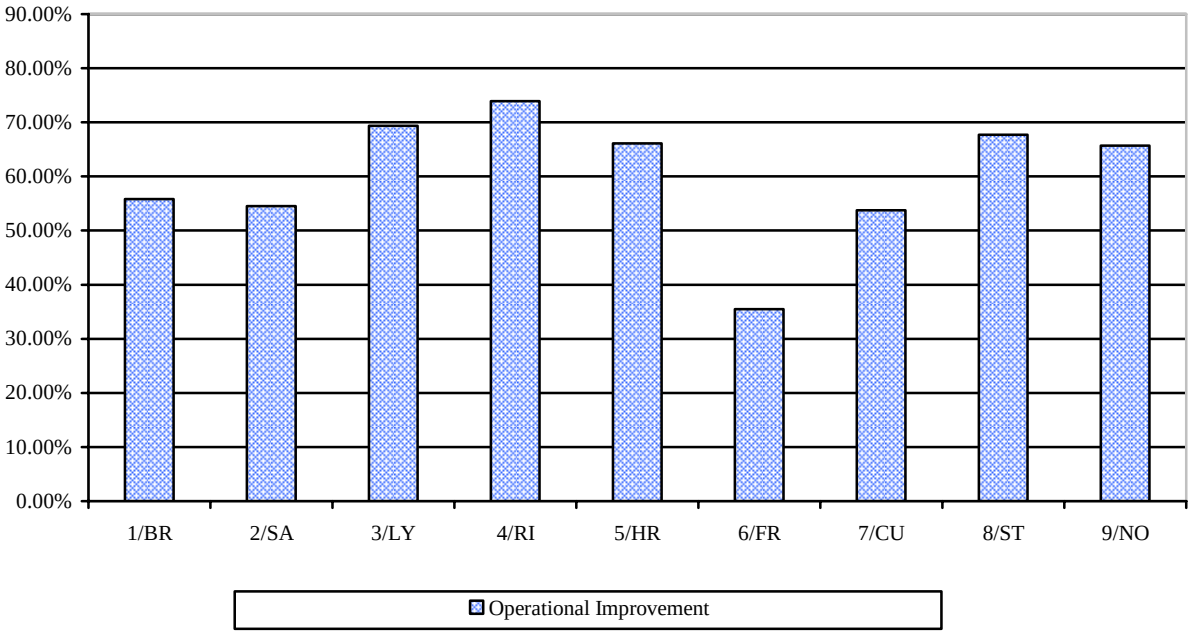


Figure A-31: Percent of guardrail needing upgrade on VDOT maintained highways by district – Secondary System

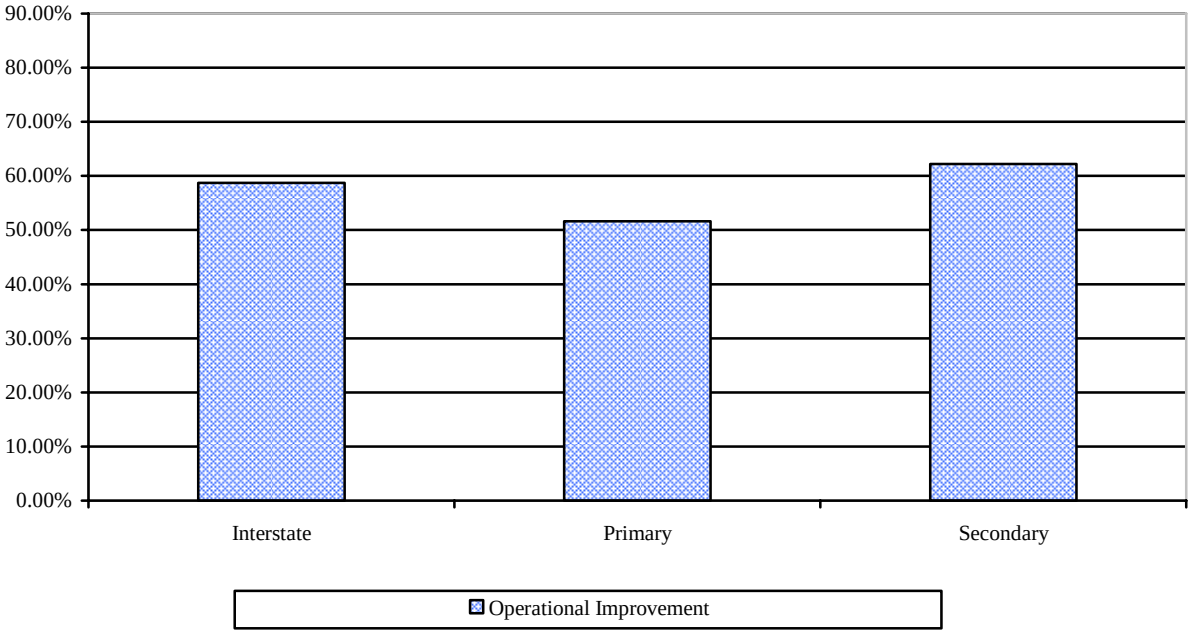


Figure A-32: Percent of guardrail needing upgrade on VDOT maintained highways - by System

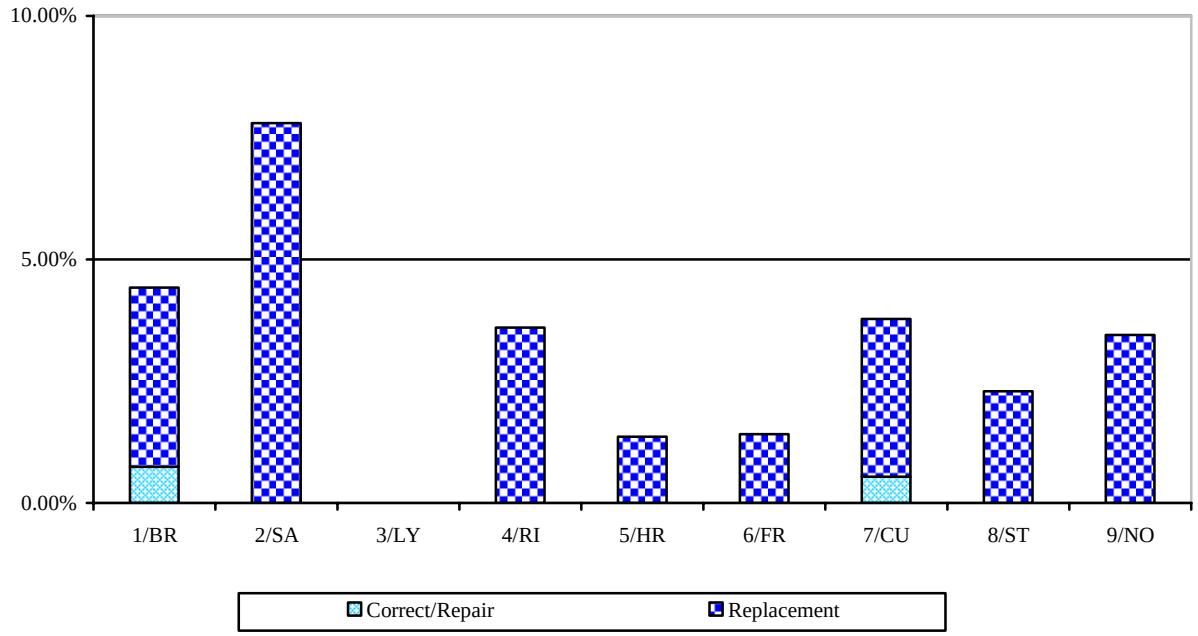


Figure A-33: Percent of guardrail terminals needing work on VDOT maintained highways by district – Interstate System (Note: Lynchburg district has no Interstate

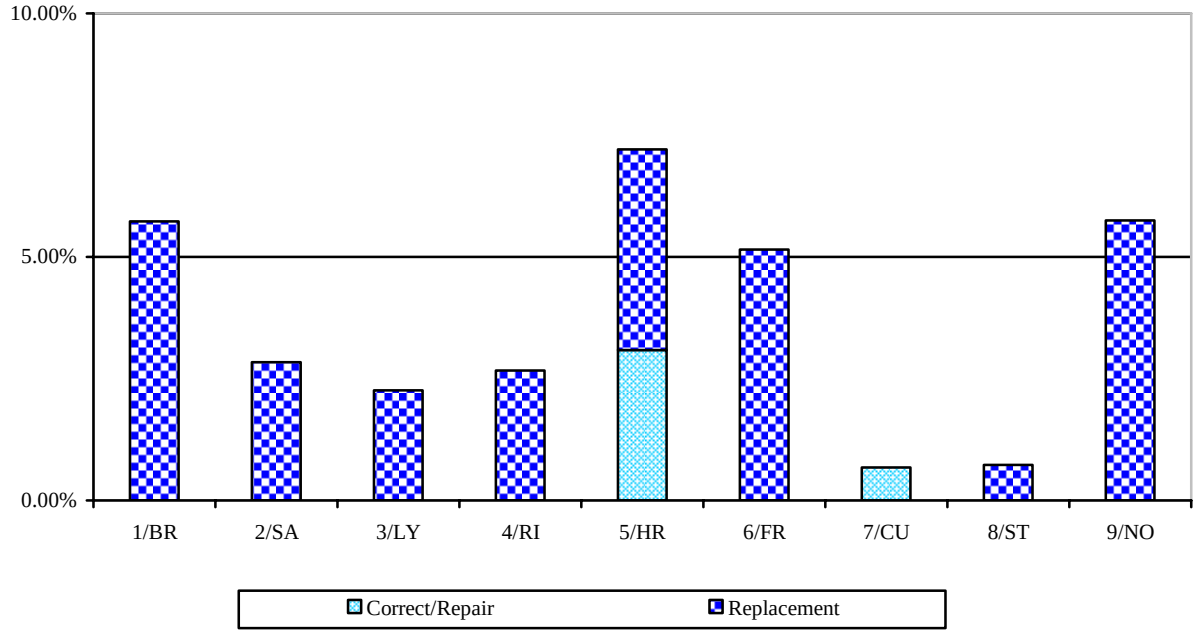


Figure A-34: Percent of guardrail terminals needing work on VDOT maintained highways by district – Primary System

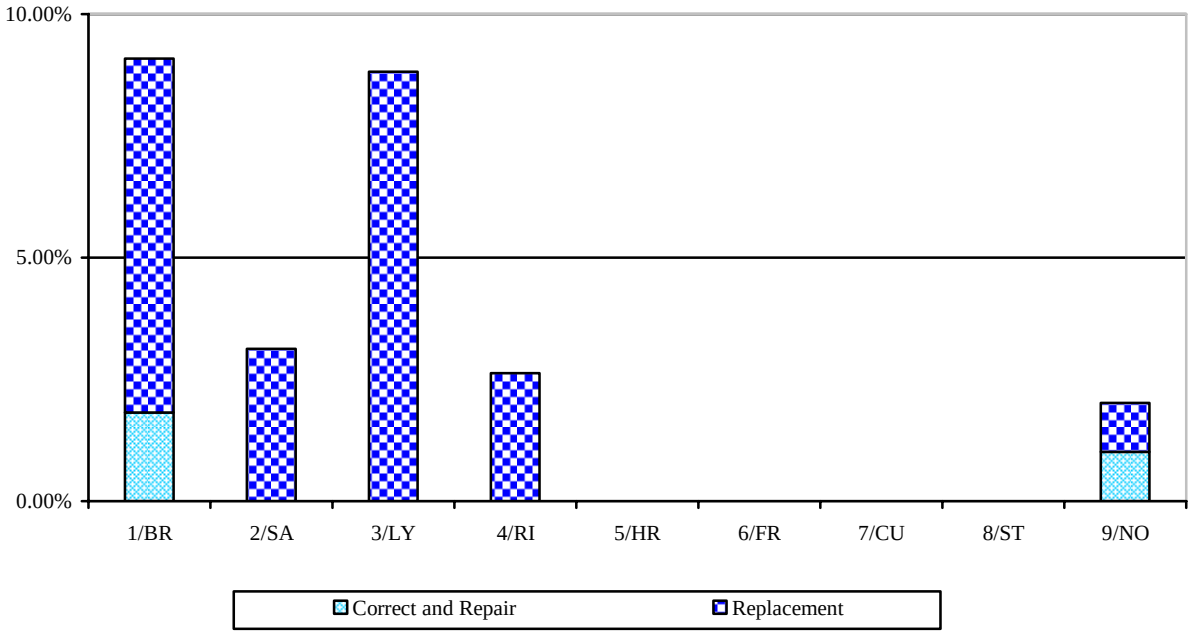


Figure A-35: Percent of guardrail terminals needing work on VDOT maintained highways by district – Secondary System

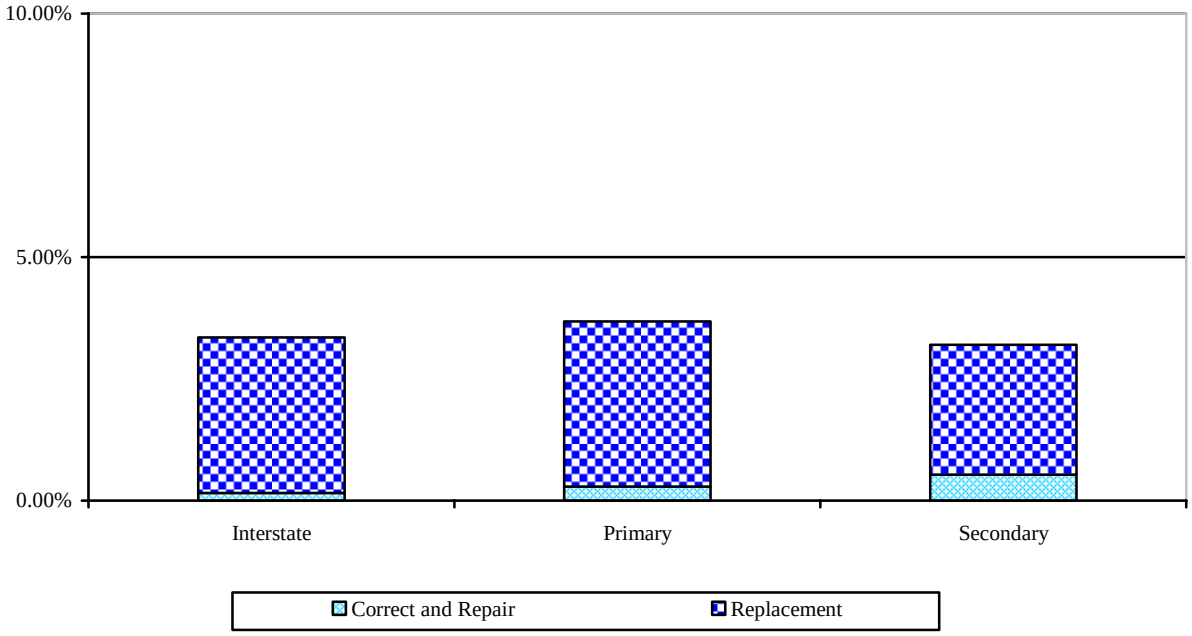


Figure A-36: Percent of guardrail terminals needing work on VDOT maintained highways - by System

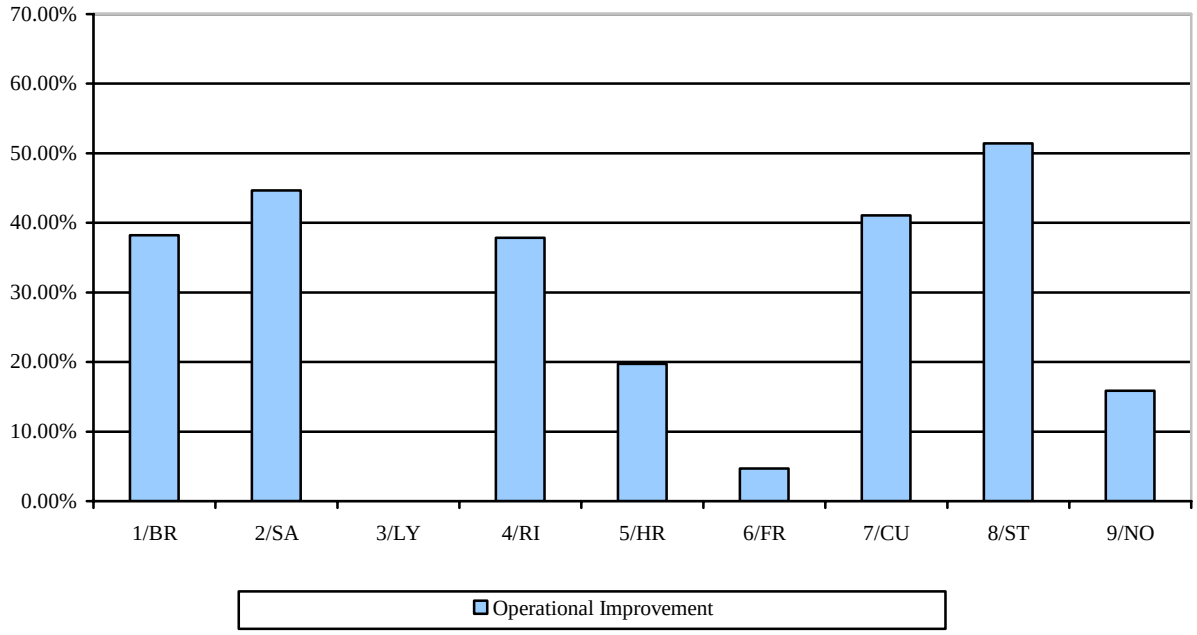


Figure A-37: Percent of guardrail terminals needing upgrade on VDOT maintained highways by district – Interstate System (Note: Lynchburg district has no Interstate

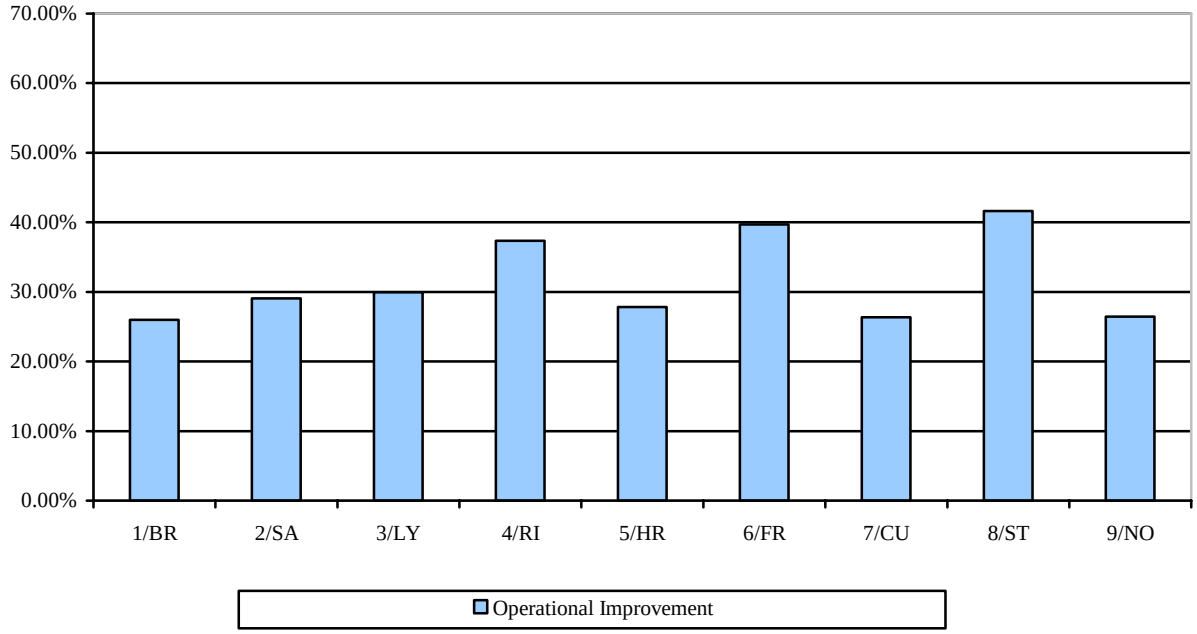


Figure A-38: Percent of guardrail terminals needing upgrade on VDOT maintained highways by district – Primary System

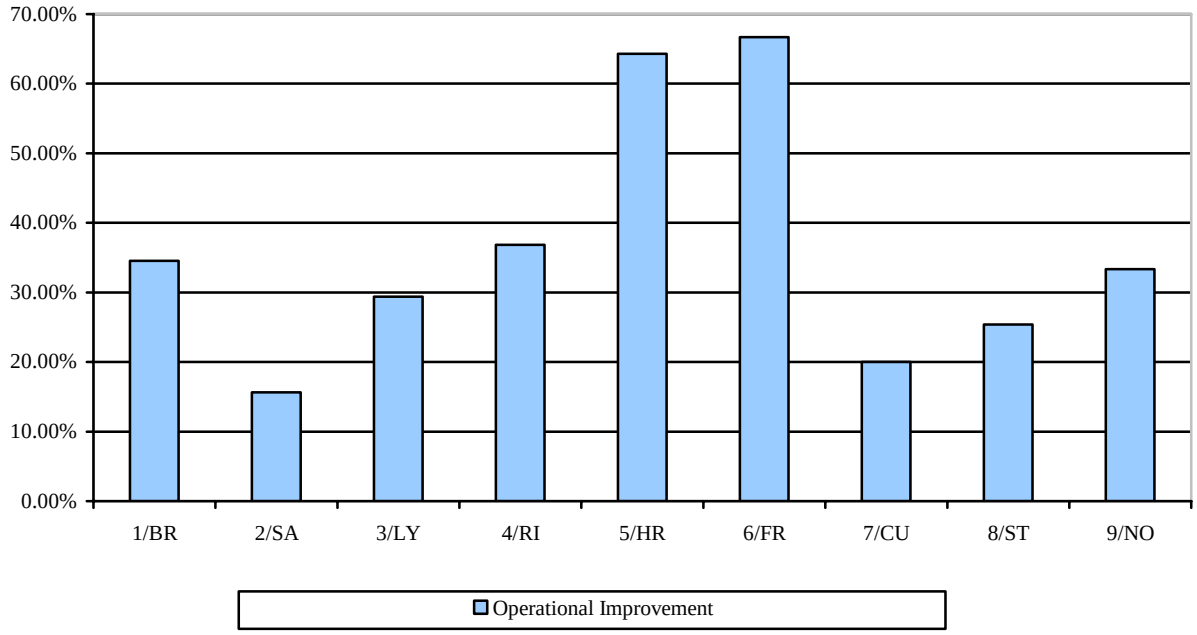


Figure A-39: Percent of guardrail terminals needing upgrade on VDOT maintained highways by district – Secondary System

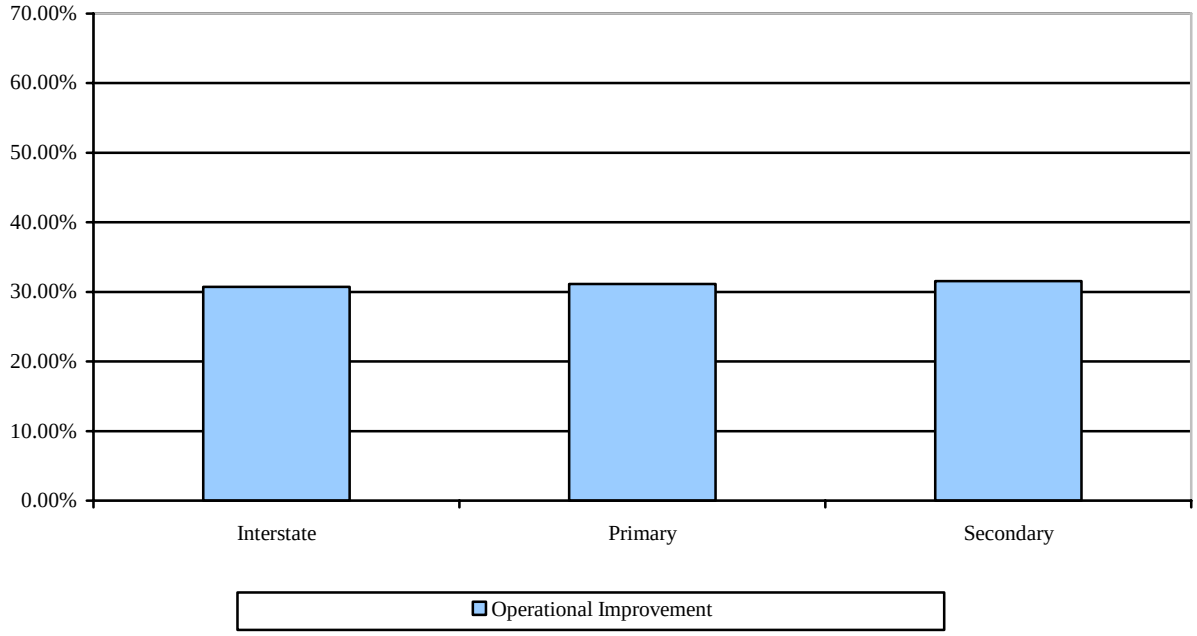


Figure A-40: Percent of guardrail terminals needing upgrade on VDOT maintained highways - by System

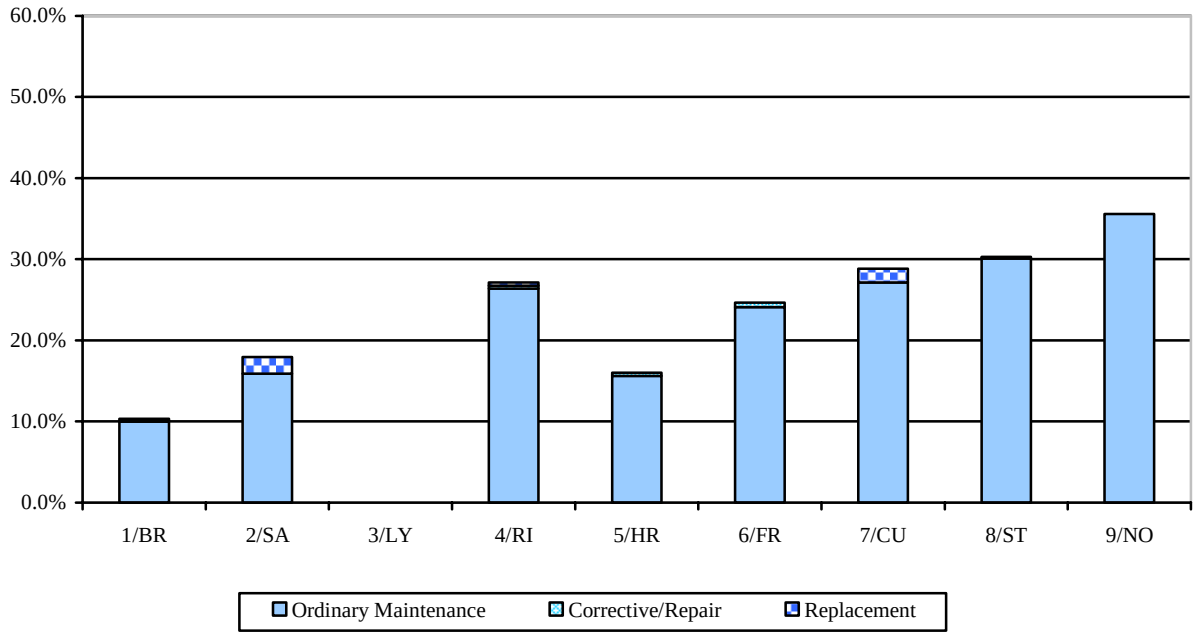


Figure A-41: Percent of paved ditches needing work on VDOT maintained highways by district – Interstate System (Note: Lynchburg district has no Interstate

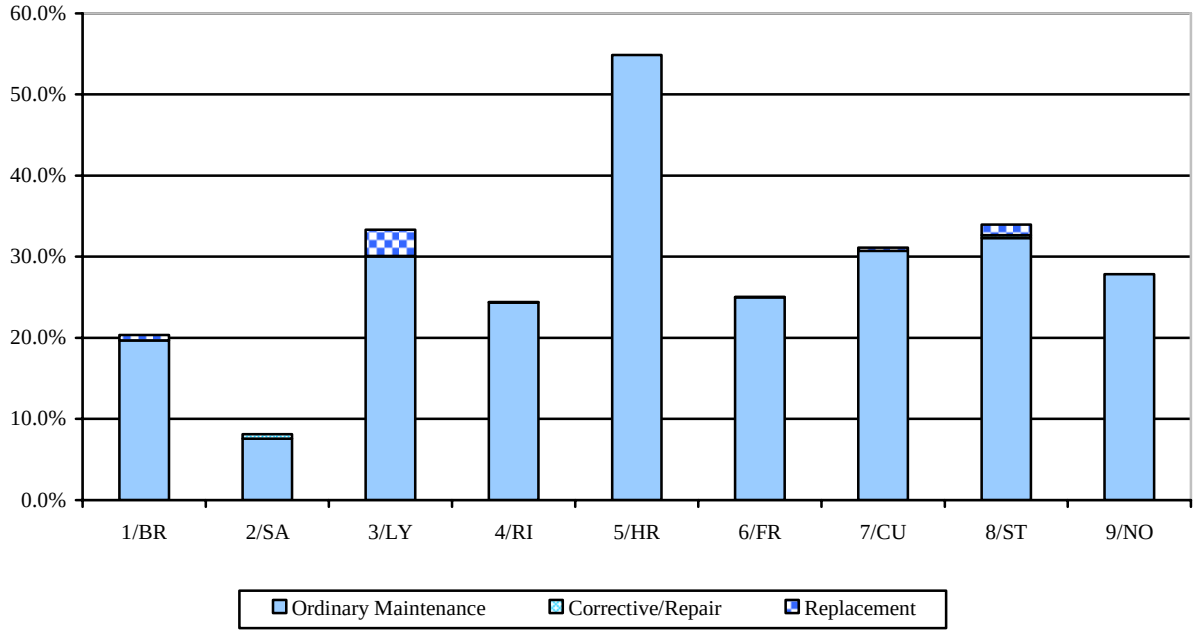


Figure A-42: Percent of paved ditches needing work on VDOT maintained highways by district – Primary System

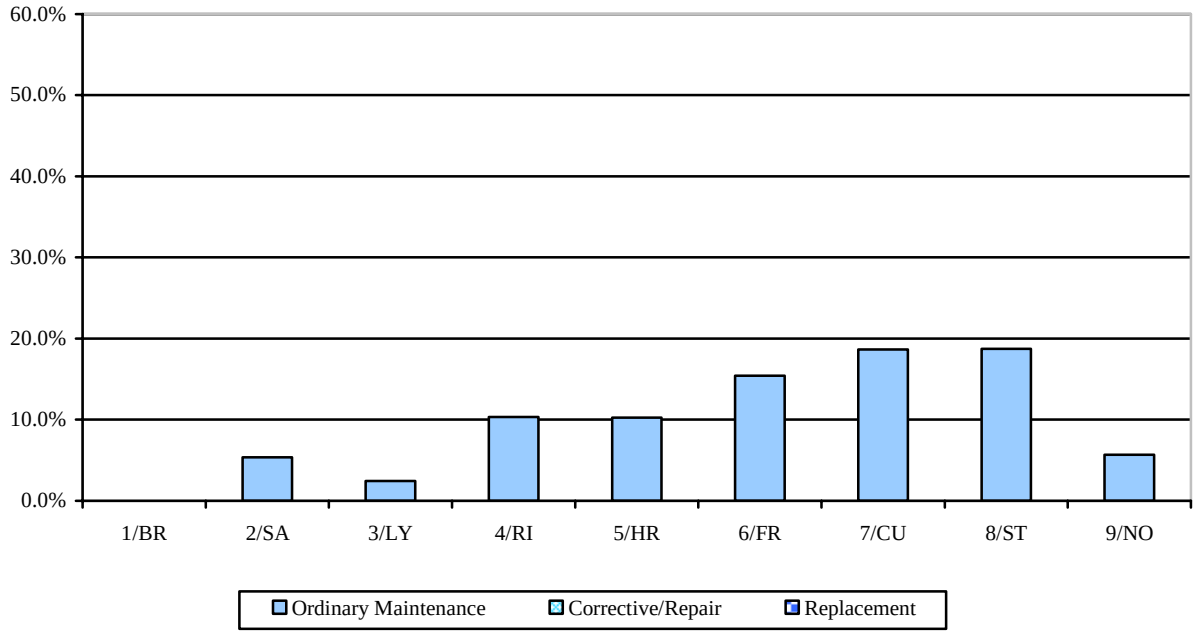


Figure A-43: Percent of paved ditches needing work on VDOT maintained highways by district – Secondary System

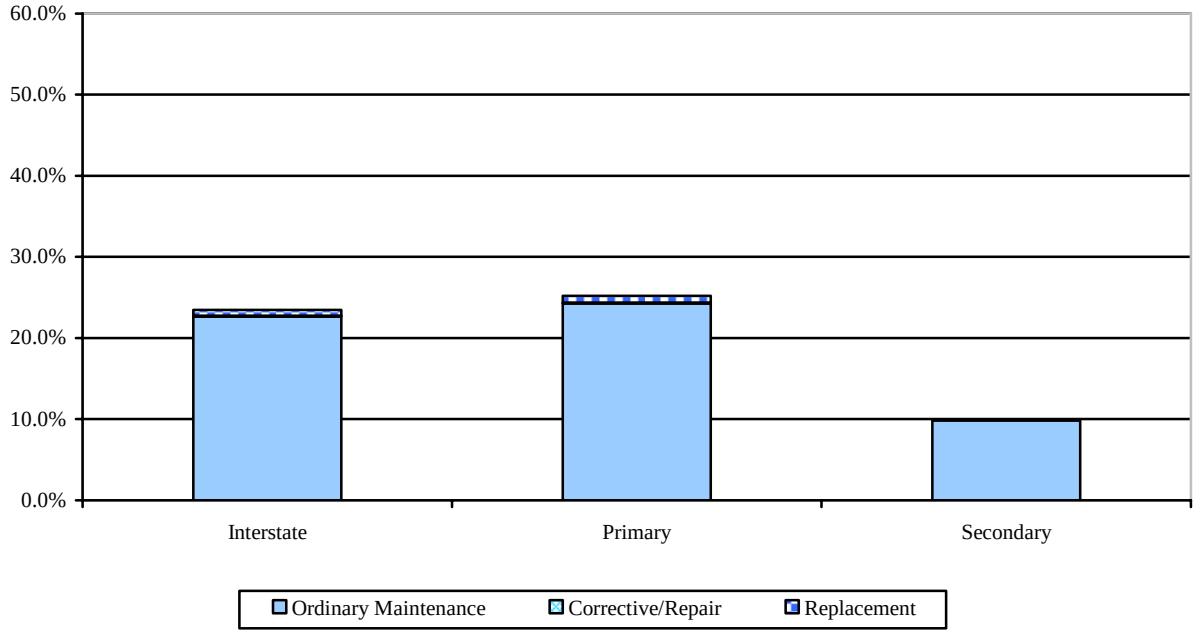


Figure A-44: Percent of paved ditches needing work on VDOT maintained highways - by System

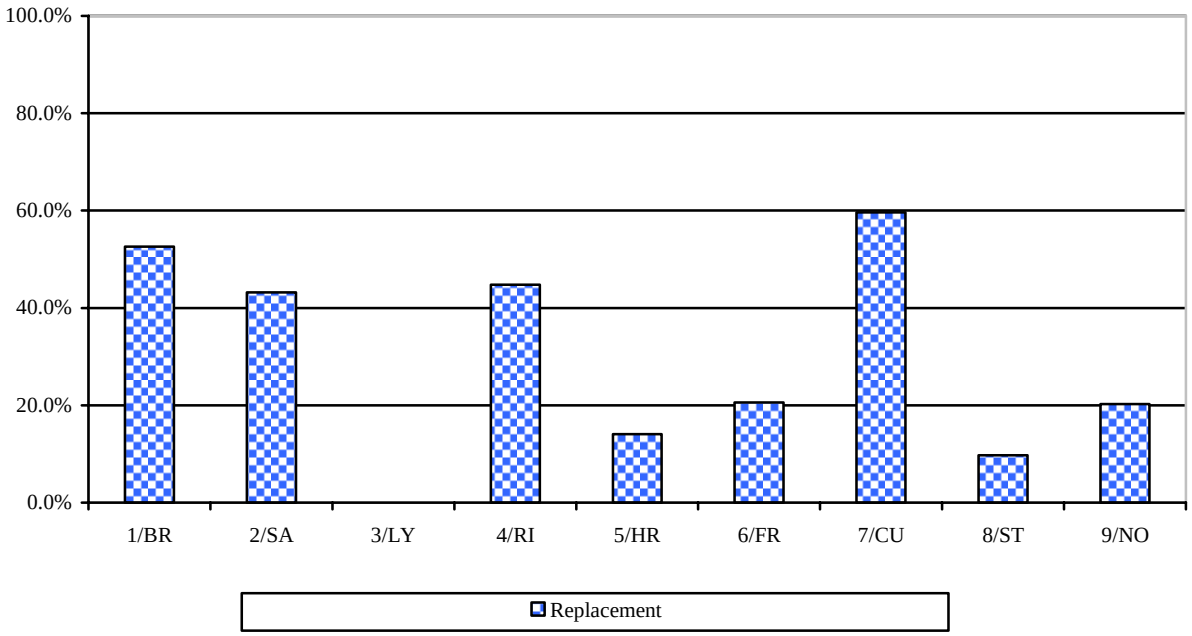


Figure A-45: Percent of pavement markings needing work on VDOT maintained highways by district – Interstate System (Note: Lynchburg district has no Interstate

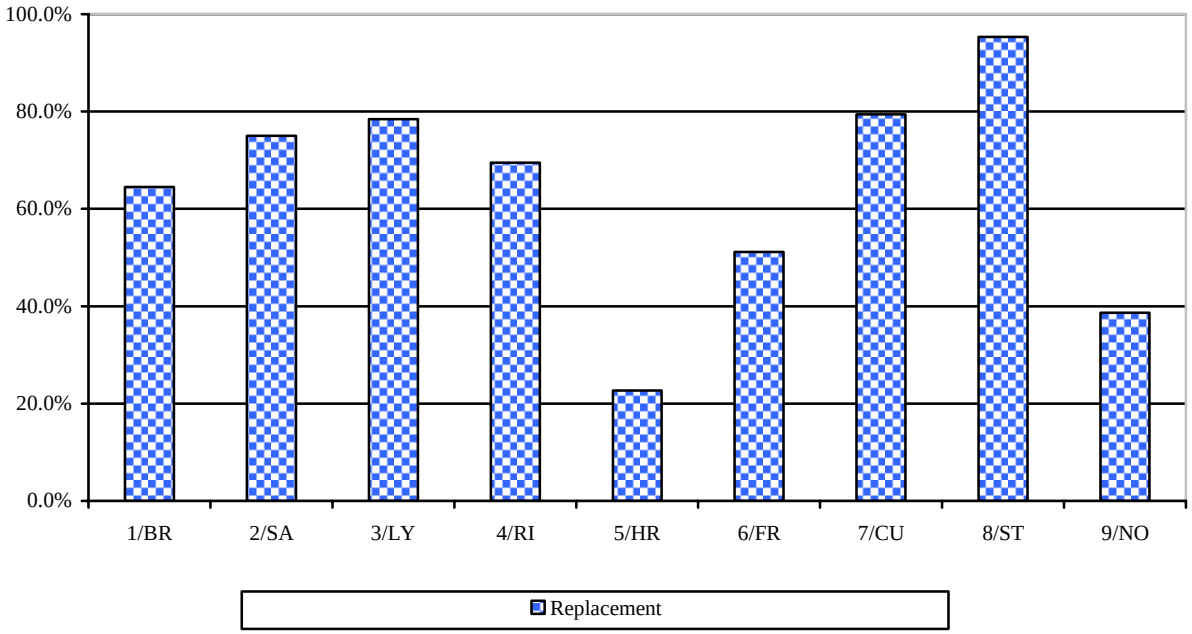


Figure A-46: Percent of pavement markings needing work on VDOT maintained highways by district – Primary System

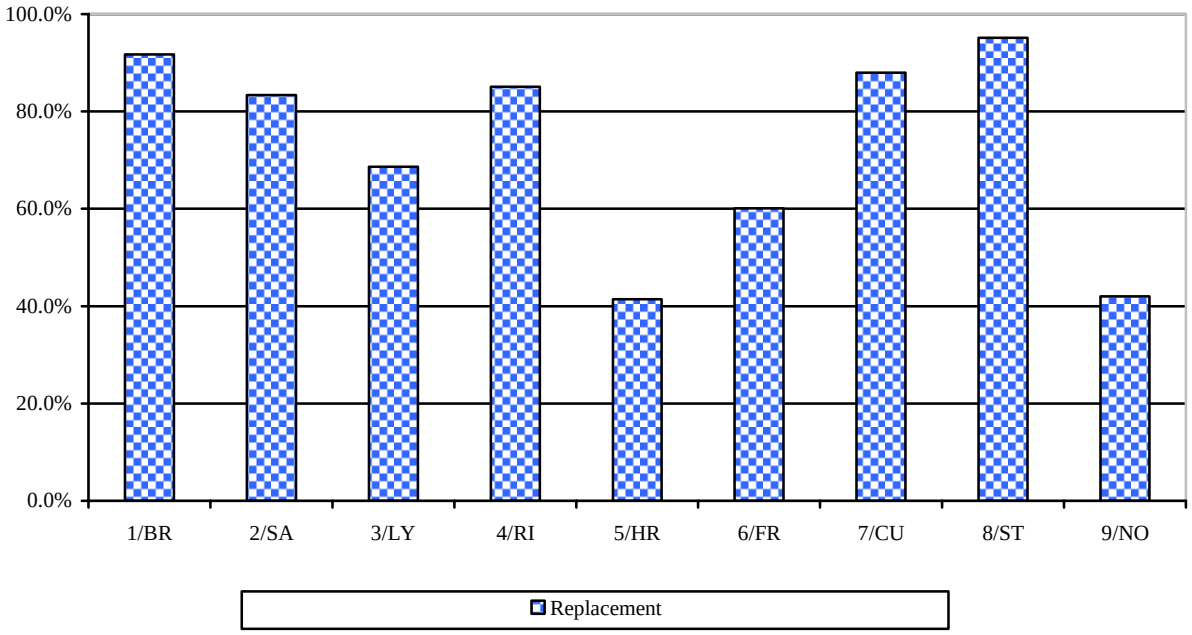


Figure A-47: Percent of pavement markings needing work on VDOT maintained highways by district – Secondary System

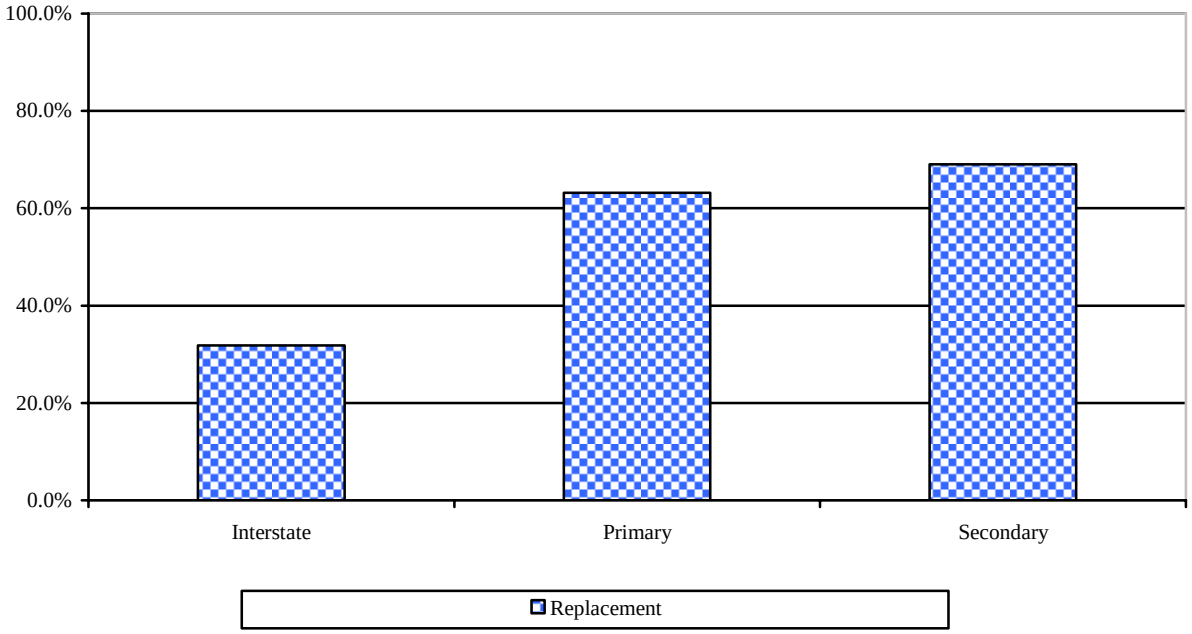


Figure A-48: Percent of pavement markings needing work on VDOT maintained highways - by System

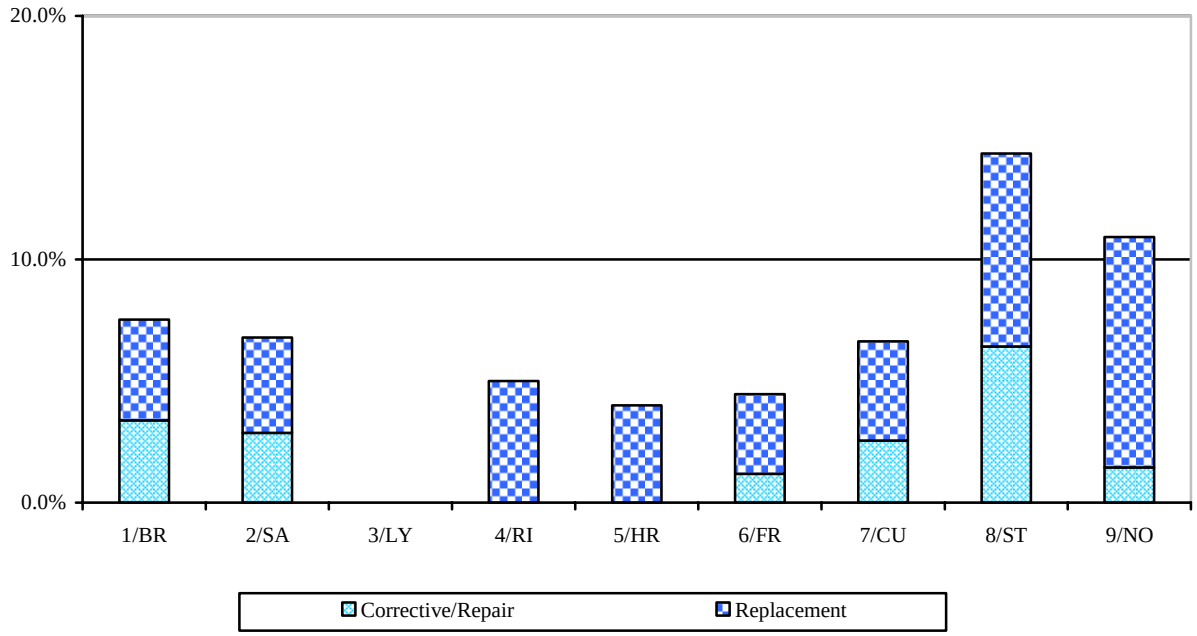


Figure A-49: Percent of signs needing work on VDOT maintained highways by district – Interstate System (Note: Lynchburg district has no Interstate

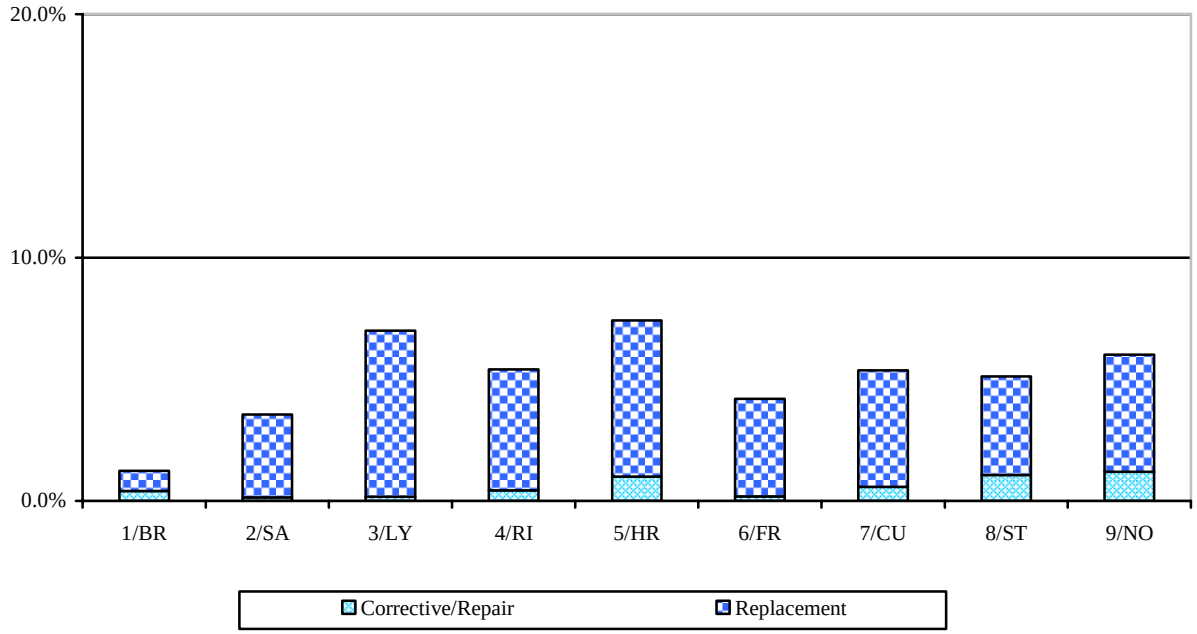


Figure A-50: Percent of signs needing work on VDOT maintained highways by district – Primary System

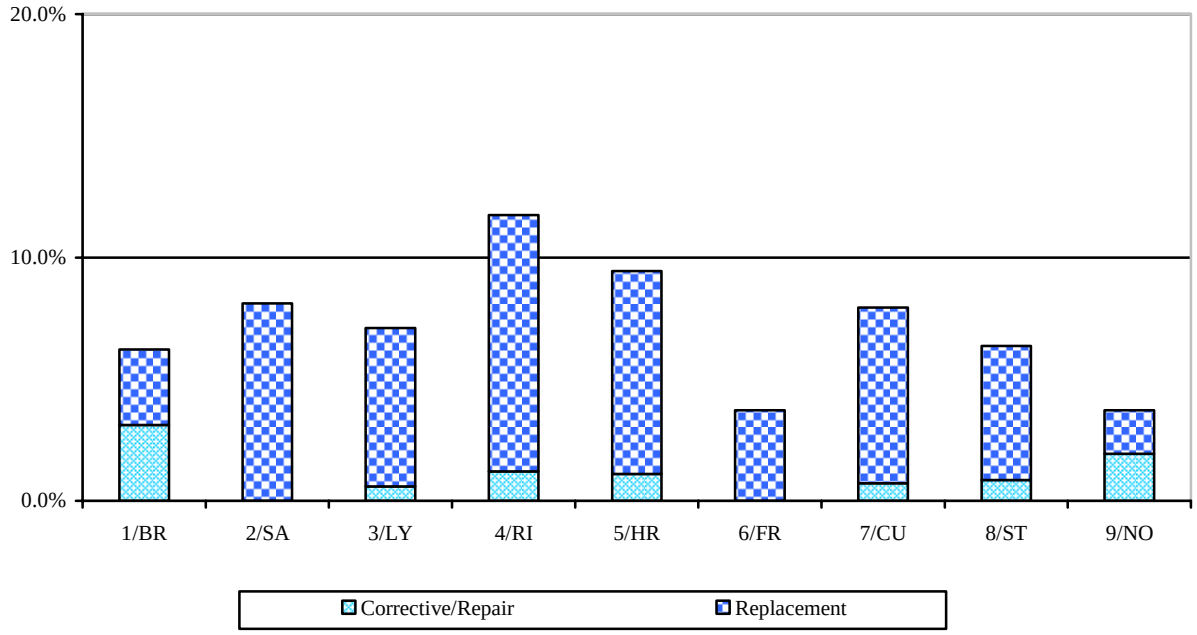


Figure A-51: Percent of signs needing work on VDOT maintained highways by district – Secondary System

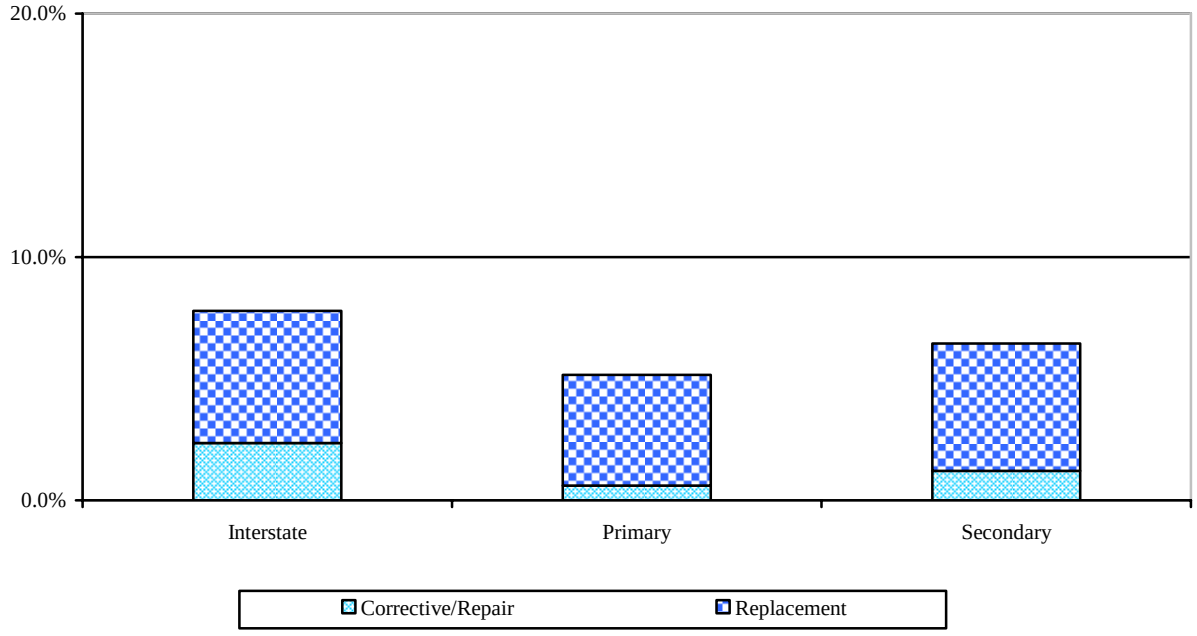


Figure A-52: Percent of signs needing work on VDOT maintained highways - by System

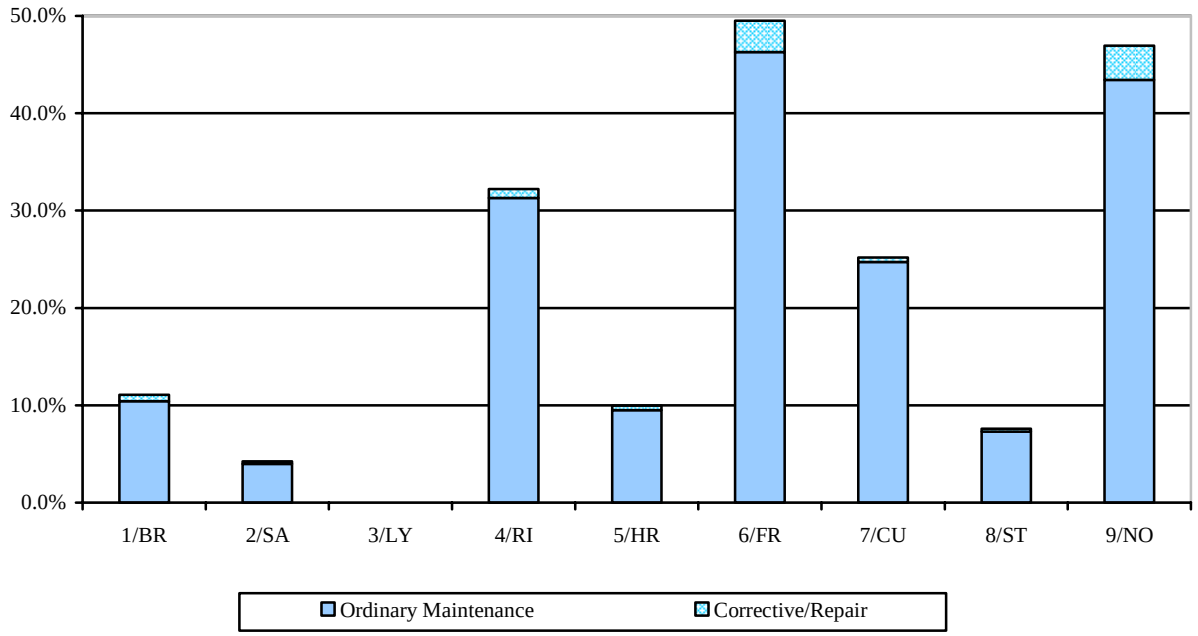


Figure A-53: Percent of unpaved ditches needing work on VDOT maintained highways by district – Interstate System (Note: Lynchburg district has no Interstate

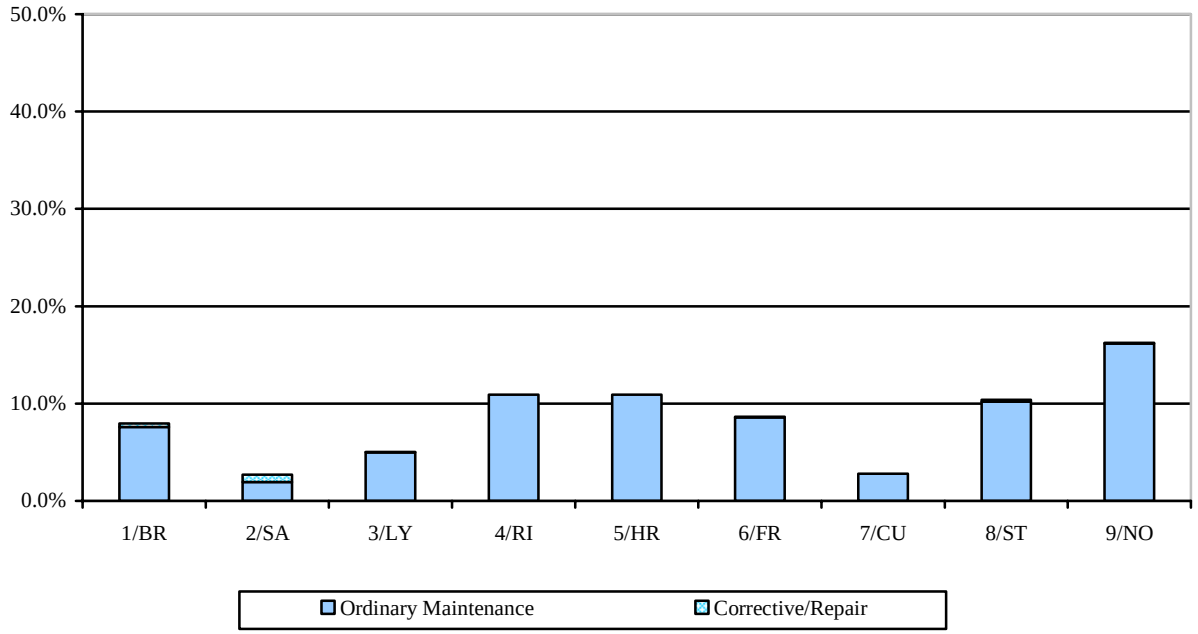


Figure A-54: Percent of unpaved ditches needing work on VDOT maintained highways by district – Primary System

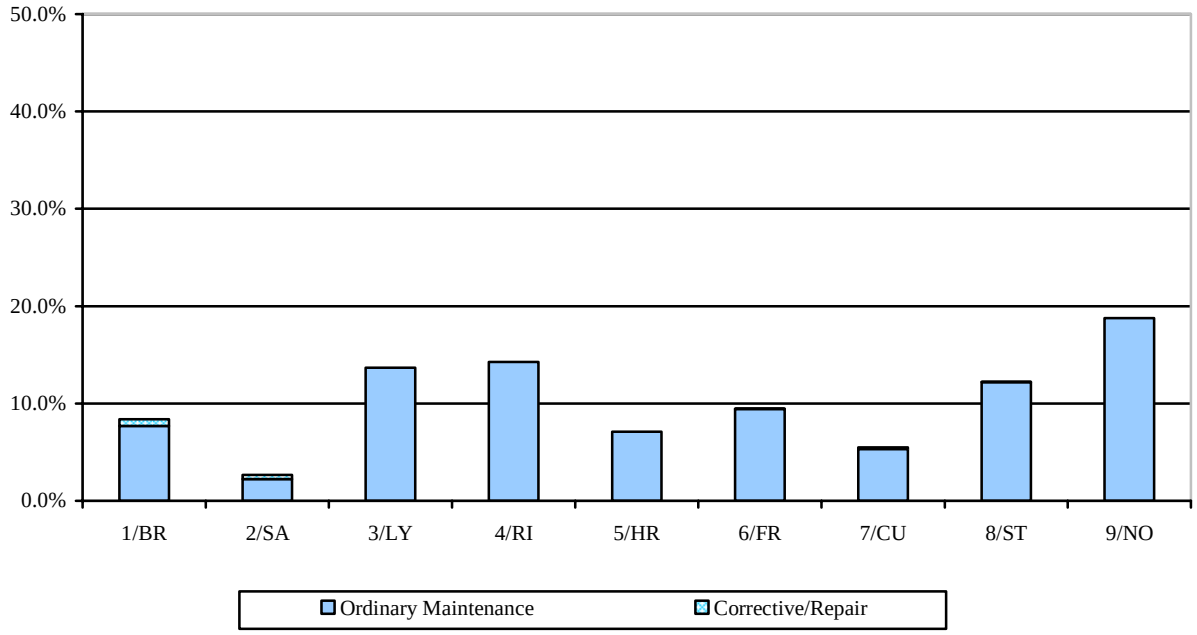


Figure A-55: Percent of unpaved ditches needing work on VDOT maintained highways by district – Secondary System

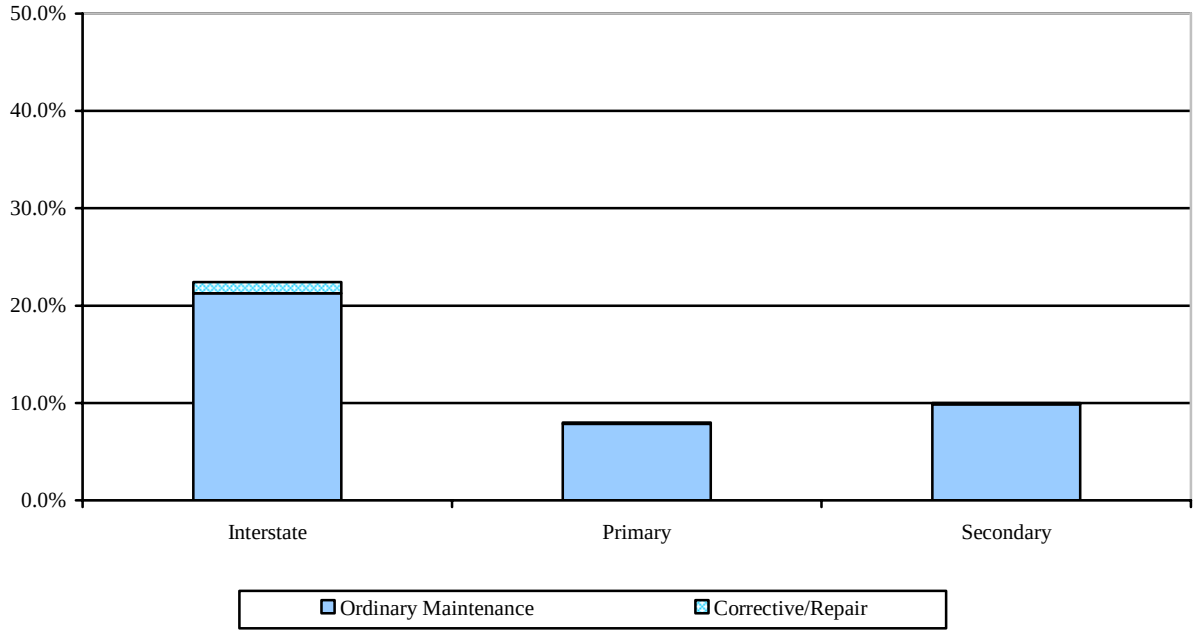


Figure A-56: Percent of unpaved ditches needing work on VDOT maintained highways - by System

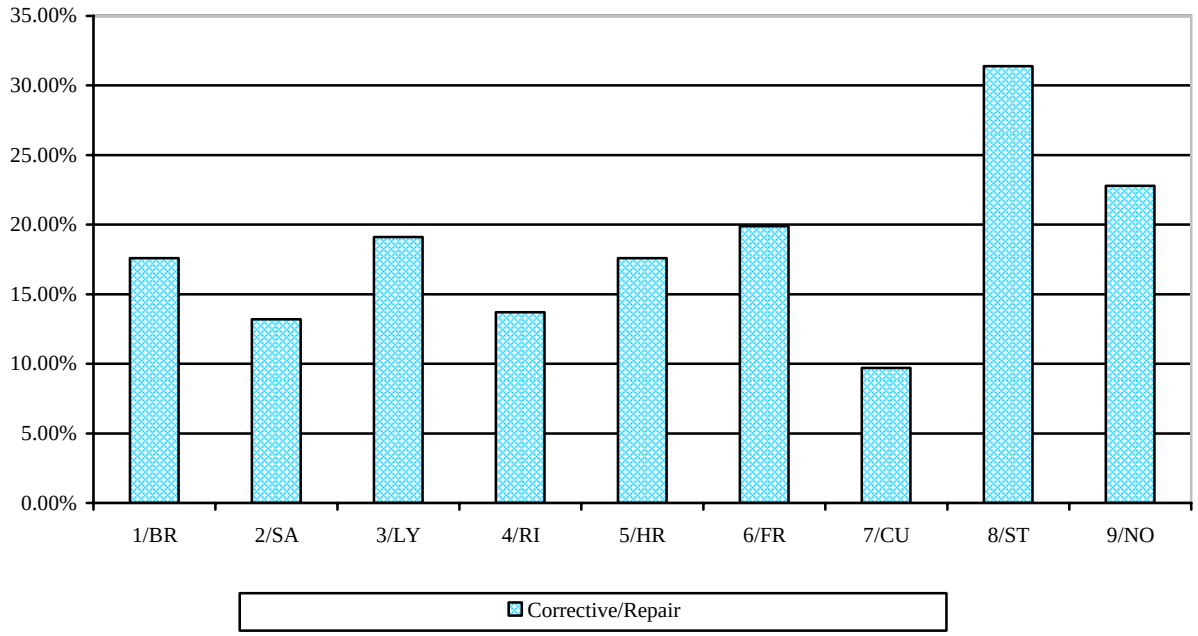


Figure A-57: Percent of unpaved shoulders needing work on VDOT maintained highways by district – Primary System

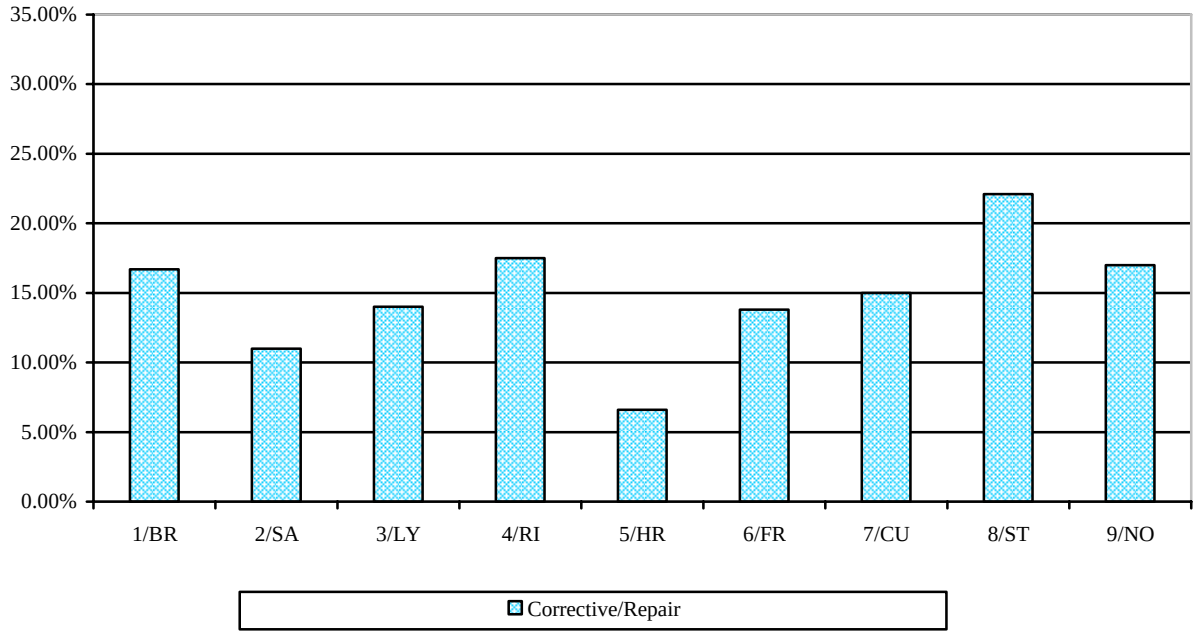


Figure A-58: Percent of unpaved shoulders needing work on VDOT maintained highways by district – Secondary System

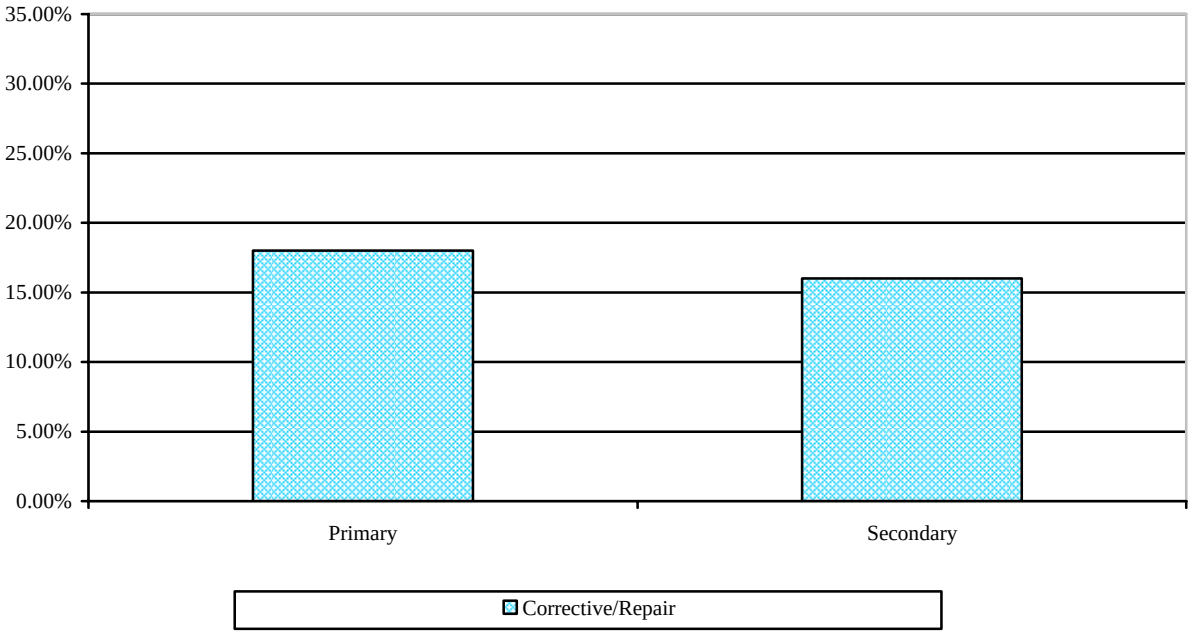


Figure A-59: Percent of unpaved shoulders needing work on VDOT maintained highways - by System

Item 444 (B) 3 –Bridge Status, Projects, and Funding

Executive Summary – Bridge

Item 444 B.3 of the Appropriation Act requests VDOT to provide information on the status of major bridge maintenance and replacement projects and the availability of federal highway bridge rehabilitation and replacement apportionments. There are 20,823 structures (bridges and culverts) in VDOT's inventory, of which 19,293 are maintained by VDOT. The other 1,530 are maintained by localities and private owners. Over 56% of the Commonwealth's structure inventory is currently 40 years old or older.

This report provides information on the condition of these structures, maintenance and improvement needs, and funding available. Currently, eight percent (1,739) of VDOT's inventory is rated as structurally deficient primarily based on a general condition rating of four or less. The general condition rating scale varies from zero (worst condition) to nine (excellent condition). Additionally, 30% of the structures are classified as candidates for repair and or rehabilitation based on a general condition rating of five or less. Of the 30%, approximately 22% are at risk of becoming structurally deficient if their maintenance and rehabilitation needs are not addressed in timely manner.

Based on the general condition of the structurally deficient inventory, VDOT believes that in most cases the most cost effective treatment is replacement. VDOT has estimated the cost to replace all 1,739 structurally deficient structures to be approximately $3.5 billion.

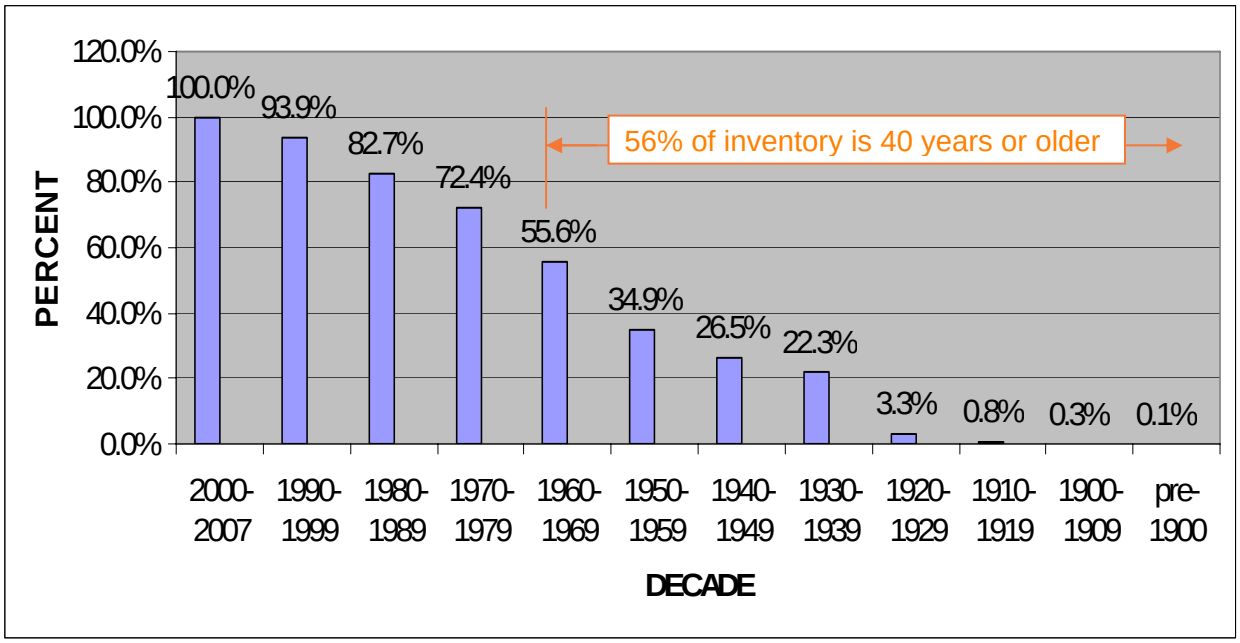
In addition to the cost to replace all the structurally deficient structures, there exists an approximate $1.2 billion need to maintain and rehabilitate the remaining structures in the inventory in order to deter further deterioration.

Based on available funding, VDOT continues to make significant investment in the bridge program. Both federal and state funds are used in addressing VDOT's bridge needs. Over the next six years more than $800 million dollars in Federal Bridge Funds are programmed in VDOT's Six Year Improvement Program (SYIP). In addition to the Federal Bridge Funds, funding is being dedicated to bridge projects utilizing State and other federal funding sources for a grand total of $2.1 billion dollars dedicated to bridge projects in the SYIP.

Status of Bridges and Culverts (Structures)

There are 20,823 structures in VDOT's inventory of which 19,293 structures are maintained by VDOT and the other 1,530 are maintained by localities and private owners. Over 56% of the Commonwealth's structure inventory is currently 40 years old or older.

Chart 1 shows the cumulative age distribution of structures in the Commonwealth.



VDOT inventories and inspects all bridges in accordance with the National Bridge Inspection Standards (NBIS). VDOT is in full compliance with the NBIS and in some cases exceeds these requirements. All bridges regardless of their lengths are inventoried and inspected on a regular basis. Culverts having an opening of 36 square feet or greater are also inventoried and inspected on a regular basis. Inspections provide information used to rate the condition of each structure. Table 1 shows the inventory and condition of structures as of August 21, 2007, and table 2 shows trends for the number of bridges replaced and or rehabilitated between 2001 and 2006.

Table 1 – Number and Condition of Structures by Construction District

DISTRICT	Number of Structures	Number of Structurally Deficient (SD[1])	Number of Functionally Obsolete (FO[1])	Total of SD and FO	Number of Weight Posted Structures	Repair and/or Rehab Candidate
Bristol	3,276	443	410	853	346	1,113
Salem	3,048	314	629	943	308	778
Lynchburg	2,131	204	329	533	257	413
Richmond	2,645	194	296	490	168	596
Hampton Roads	1,711	64	302	366	128	368
Fredericksburg	805	67	82	149	36	158
Culpeper	1,693	114	252	366	134	344
Staunton	3,481	305	503	808	184	932
NOVA	2,033	34	300	334	23	167
Total	20,823	1,739	3,103	4,842	1,584	4,869

1 – See Appendix A for definitions of SD and FO

Table 2 – Bridges Replaced or Rehabilitated (2001-2006)							
Structure Construction Activities	Year Built, Replaced or Rehabilitated						
	2001	2002	2003	2004	2005	2006	Total
New or Replaced Bridges	119	129	115	97	98	94	652
New or Replaced Culverts	78	69	67	83	81	64	442
Bridge and Culvert Rehabilitations	88	95	90	83	73	70	499
Total =	285	293	272	263	252	228	1593

Bridge Maintenance and Improvement Needs and Funding

All bridges and culverts require some level of maintenance regardless of their condition. For example, a bridge classified in good condition will need some type of routine maintenance such as cleaning, and spot painting. Currently, eight percent (1,739) of VDOT's inventory is rated as structurally deficient primarily based on a general condition rating of four or less. The general condition rating scale varies from zero (worst condition) to nine (excellent condition). Additionally, 30% of the structures are classified as candidates for repair and or rehabilitation based on a general condition rating of five or less. Of the 30%, approximately 22% are at risk of becoming structurally deficient if their maintenance and rehabilitation needs are not addressed in timely manner.

Based on the general condition of the structurally deficient inventory, VDOT believes that in most cases the most cost effective treatment is replacement. VDOT has estimated the cost to replace all 1,739 structurally deficient structures to be approximately $3.5 billion.

In addition to the cost to replace all the structurally deficient structures, there exists an approximate $1.2 billion need to maintain and rehabilitate the remaining structures in the inventory in order to deter further deterioration.

The 2008-2013 Six Year Improvement Program (SYIP) includes 595 bridge projects, 228 will address structurally deficient bridges, and 72 will address functionally obsolete bridges representing a total investment of $2.2 billion dollars.

VDOT's fiscal year 2008 bridge maintenance budget is $147,085,906. Projected bridge maintenance funding for the fiscal year 2009-2010 biennium is $141 million and $143 million respectively.

VDOT uses both federal and state funds in the maintenance and replacement of bridges. The eligibility criteria for using federal bridge funds also know as the Highway Bridge Program (HBP) are established by the Federal Highway Administration (FHWA) as follows:

A bridge must be classified as

1. An NBI structure;
2. Structurally deficient or functionally obsolete;
3. Have a sufficiency rating equal or less than 80% for maintenance and rehabilitation projects;
4. Have a sufficiency rating less than 50% for complete replacement projects; and
5. Have no major rehabilitation work done in the last 10 years.
6. Additionally, the HBP can be used to fund system preservation activities regardless of sufficiency rating. Additional requirements apply and can be found on FHWA's website.

The availability of federal bridge funds for the next six years is provided in Table 3 below.

Table 3 – Availability of Federal Bridge Funds for FY 2008-FY2013

Year	Federal Bridge Allocation
As of Sep 30th, 2007	$195,228,803
2008	$94,270,908
2009	$98,279,679
2010	$100,291,680
2011	$102,344,871
2012	$104,440,095
2013	$106,578,213
Total	$801,434,249

Table 4 shows funding levels for bridge improvement projects in the SYIP funded with federal bridge funds, state and other types of federal funds (non bridge funds) by construction district and roadway system. Table 5 shows historical expenditures for bridge maintenance from FY 2002 to FY 2007. Table 6 provides the current FY 2008 bridge maintenance budget. Table 7 lists the FY 2009 and FY 2010 predicted bridge maintenance needs. See Appendix A for bridge related definitions. See Appendix B for a complete listing of federally funded bridge projects in the SYIP. See Appendix C and D for a complete listing of federally funded and state funded bridge maintenance projects.

Table 4 - Total Funding for Bridge Projects in the Six Year Improvement Program (FY2008-2013)							
		Roadway System					
District	Data	Interstate	Miscellaneous	Primary	Secondary	Urban	Grand Total
Bristol	FY08-13	$6,200,668	$0	$99,556,795	$54,774,584	$12,939,423	$173,471,470
	Count of projects	3	0	28	58	8	97
Culpeper	FY08-13	$0	$0	$62,917,040	$26,519,668	$12,844,160	$102,280,868
	Count of projects	0	1	12	27	6	46
Fredericksburg	FY08-13	$0	$0	$116,289,747	$36,102,085	$1,414,940	$153,806,772
	Count of projects	1	0	12	31	1	45
Hampton Roads	FY08-13	$19,409,996	$0	$129,536,908	$4,727,701	$194,058,277	$347,732,882
	Count of projects	3	1	9	14	18	45
Lynchburg	FY08-13	$0	$0	$62,304,384	$38,835,607	$34,355,935	$135,495,926
	Count of projects	0	0	14	43	7	64
Northern Virginia	FY08-13	$9,139,750	$0	$199,777,306	$18,951,280	$1,044,000	$228,912,336
	Count of projects	8	0	13	24	3	48
Richmond	FY08-13	$72,891,069	$0	$157,674,859	$31,278,627	$14,028,434	$275,872,989
	Count of projects	7	0	11	31	6	55
Salem	FY08-13	$32,181,862	$0	$152,722,292	$57,767,978	$29,002,621	$271,674,753
	Count of projects	3	0	30	72	8	113
Statewide	FY08-13	$0	$332,005,044	$0	$0	$0	$332,005,044
	Count of projects	0	1	0	0	0	1
Staunton	FY08-13	$47,833,513	$0	$92,602,530	$83,871,699	$19,931,836	$244,239,578
	Count of projects	8	0	17	51	5	81
Total Funding =		$187,656,858	$332,005,044	$1,073,381,861	$352,829,229	$319,619,626	$2,265,492,618
Total Count of Projects =		33	3	146	351	62	595

Table 5 – VDOT's Historical Expenditures on Bridge Maintenance			
Fiscal Year	**Expenditures (million)**		
	Bridge Inspection	**Bridge Maintenance[1]**	**Total**
2002	$9.2	$73.1	$82.3
2003	8.7	51.4	60.1
2004	9.6	64.2	73.8
2005	12.4	66.3	78.7
2006	13.2	76.0	89.2
2007	13.5	78.2	91.7
6-Year Total	**$66.6**	**$409.2**	**$475.8**

[1] Includes operating movable bridges

Table 6 – VDOT's Current (2008) Bridge Maintenance Budget ($ million)			
Fiscal Year	**Bridge Inspection**	**Bridge Maintenance[1]**	**Total**
2008	$15.7	$131.4	**$147.1**

[1] Includes operating movable bridges

Table 7 – VDOT's Projected Bridge Maintenance Needs ($ million)			
Fiscal Year	**Bridge Inspection**	**Bridge Maintenance[1]**	**Total**
2009	$14.5	$126.9	**$141.4**
2010	$14.9	$128.0	**$142.9**

[1] Includes operating movable bridges

Appendix A – Bridge Related Definitions

National Bridge Inspection Standards (NBIS)
The Code of Federal Regulations mandates the inventory and inspection of structures and requires data be reported annually to FHWA in accordance with the (NBIS). VDOT is in full compliance with the NBIS and in some cases exceeds these requirements.

Structurally Deficient (SD) and Functionally Obsolete (FO)

According to FHWA a deficient structure can be either Structurally Deficient (SD) or Functionally Obsolete (FO). Both SD and FO are used for determining federal funding eligibility purposes.

SD - A Structurally Deficient bridge is one that 1) has been restricted to light vehicles only, 2) Is closed to traffic, or 3) requires rehabilitation. A bridge is rated structurally deficient if any general condition rating (see definition below) is four or less, or one of two appraisal ratings (structural condition or waterway adequacy) is two or less. In other words, this classification means that the bridge may need further analysis that may result in load posting, maintenance, rehabilitation, replacement, or closure.

FO - A functionally obsolete bridge is one that was built to standards that are not used today. These bridges are not automatically rated as structurally deficient, nor are they inherently unsafe. Functionally obsolete bridges are those that do not have adequate lane widths, shoulder widths, or vertical clearances to serve current traffic demand or those that may be occasionally flooded. A bridge is rated functionally obsolete if any appraisal rating (structural condition, deck geometry, under-clearances, waterway adequacy or approach roadway alignment) is three or less.

General Condition Ratings (GCR's):
According to the National Bridge Inventory (NBI), condition ratings are used to describe the existing, in-place bridge or culvert, as compared to the as-built condition. Evaluation is for the physical condition of the deck, superstructure and substructure components of a bridge. GCR's is a numerical system that ranges from zero (worst condition) to nine (excellent condition).

Repair or Rehabilitation Candidate: VDOT uses the National Bridge Inventory (NBI) General Condition Rating (GCR) criteria as an index to identify bridges and culverts that may need some type of repair or rehabilitation. An index value of less than "six" qualifies a structure as a candidate for repair and or rehabilitation.

NBI Structure:
Any bridge or culvert that carries traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet.

Non-NBI Structure:
Any bridge or culvert that carries traffic or other moving loads, and having an opening measured along the center of the roadway of equal to or less than 20 feet.

Sufficiency Rating:
This rating is calculated by a formula developed by FHWA to allocate funds, and to serve as a prioritization rating tool for the bridges across the United States. The sufficiency rating of a bridge varies from 0% (very poor) to 100% (very good). The formula considers the structural adequacy; functional obsolescence and level of service; and essentiality for public use.
The sufficiency rating formula includes four components (S1+S2+S3-S4)

- S1 = Structural Adequacy and Safety (55%)
- S2 = Serviceability and Functional Obsolescence (30%)
- S3 = Essentiality for Public Use (15%)
- S4 = Special Reductions for items such as detour length and traffic safety features (13% Max)

VDOT inventories and inspects all bridges regardless of their lengths and all culverts having an opening greater than 36 square feet. For example, a culvert having an opening greater than 36 square feet and a length measured along the centerline of the roadway of less than 20 feet, this culvert will be inventoried as a Non-NBI culvert.

Appendix B – Federally Funded Bridge Improvement Projects in the VDOT SYIP

District	Route	Road System	Project Code	Description	Estimate	Previous Funding	FY08 Funding	FY09-13 Funding
Bristol	0077	Interstate	52282	RTE 77 - BRIDGE REHABILITATION NORTHBOUND & SOUTHBOUND	$48,200,000	$45,838,475	$2,361,526	$0
Bristol	0081	Interstate	82337	REPLACE STRUCTURE #2026 ON I-81	$1,940,971	$21,400	$0	$1,919,571
Bristol	0081	Interstate	82341	REPLACE STRUCTURE #2027 ON I-81	$1,940,971	$21,400	$0	$1,919,571
Hampton Roads	0095	Interstate	83164	REPLACE BRIDGE	$9,740,998	$36,000	$0	$9,704,998
Hampton Roads	0095	Interstate	83165	REPLACE BRIDGE	$9,740,998	$36,000	$0	$9,704,998
Northern Virginia	0095	Interstate	62736	ROUTE 95 - URBAN DECK	$18,017,933	$17,536,212	$481,721	$0
Northern Virginia	0095	Interstate	64524	RTE 95 - TELEGRAPH RD & RAMP IMPROV - (PHASE I-CONTRACT VB2)	$50,762,640	$42,104,611	$0	$8,658,029
Richmond	0095	Interstate	18944	RTE 95 - BRIDGE REHABILITATION- PE & RW ONLY	$77,257,934	$4,366,865	$2,792,503	$70,098,566
Salem	0081	Interstate	56899	RTE 81 - BRIDGE REPLACEMENT	$32,247,501	$31,961	$0	$16,081,460
Salem	0081	Interstate	56900	RTE 81 - BRIDGE REPLACEMENT	$32,247,501	$13,019	$0	$16,100,402
Staunton	0081	Interstate	56382	RTE 81 - BRDG WIDNING (4-LANE) & REPLCMNT - SAFETY IMPRVMNT	$9,860,776	$760,641	$440,430	$8,659,705
Staunton	0081	Interstate	56388	RTE 81- CONSTRUCT NBL RAMP BR & INTERCHANGE IMPR @ ABRAMS CR	$10,209,186	$5,397,759	$5,172,380	$0
Staunton	0064	Interstate	75877	RTE 64 - BRIDGE WIDENING - SAFETY IMPROVEMENT	$34,042,168	$481,170	$225,566	$33,335,432
Bristol		Primary	3994	DISTRICTWIDE BRIDGE STRENGTHENING AND WIDENING	$1,607,185	$0	$0	$0
Bristol	0058	Primary	18930	RTE 58 - BRIDGE REPLACEMENT	$2,090,000	$1,629,510	$460,490	$0
Bristol	0094	Primary	18932	RTE 94 - BRIDGE REPLACEMENT	$9,866,681	$2,622,367	$199,938	$7,044,376
Bristol		Primary	50533	VIRGINIA CREEPER TRAIL - REPAIR OF HISTORIC BRIDGES	$910,000	$756,000	$0	$0
Bristol	0058	Primary	77323	RTE 58 - BRIDGE REPLACEMENT & APPROACHES	$2,256,501	$0	$0	$2,256,600
Bristol	0091	Primary	82349	DEDICATED BRIDGE FUND - REPLACE STRUCTURE #1054 ON RTE 83	$1,440,861	$37,400	$292,000	$1,110,000
Bristol	0058	Primary	82350	DEDICATED BRIDGE FUND - REPLACE STRUCTURE #1020 ON RTE 58	$753,882	$23,200	$0	$730,682
Bristol	0100	Primary	82336	DEDICATED BRIDGE FUND - REPLACE STRUCTURE #1008 ON RT 100	$2,848,355	$29,400	$0	$0
Bristol	0083	Primary	82352	DEDICATED BRIDGE FUND - REPLACE STRUCTURE #1015 ON RTE 83	$2,355,566	$37,400	$0	$1,865,000
Bristol	0072	Primary	70080	RTE 72 - WIDENING - PHASE II	$25,389,977	$5,999,912	$592,909	$18,797,156
Bristol	0058	Primary	61436	BRIDGE REPLACEMENT OVER RUSSELL CREEK	$3,825,830	$2,608,737	$1,217,093	$0
Bristol	0072	Primary	57492	RTE 72 - BRIDGE OVER TOM'S CREEK	$1,607,185	$1,564,838	$0	$0
Bristol	0080	Primary	86286	Route 80 over Prater Creek @ Haysi Va struc 1040	$2,222,929	$0	$0	$2,222,966
Bristol	0023	Primary	86288	Kent Junction Rd over Railroad Va struc 1015	$1,673,521	$0	$0	$1,673,524
Bristol	0063	Primary	86291	Route 63 over Roaring Fork @ Trammel Va struc 1039	$1,285,660	$0	$0	$1,285,659
Bristol	0011	Primary	86296	Lee Highway over NS Railway @ Groceclose Va struct 1002	$2,899,097	$0	$0	$2,899,000
Bristol	0011	Primary	86298	Lee Highway over Norfolk Southern RR Va struct number 1011	$3,455,636	$0	$312,000	$3,143,000
Bristol	0011	Primary	86299	Lee Highway over NS Railway Va struct number 1009	$2,439,510	$0	$0	$2,439,000
Bristol	0063	Primary	86302	Route 63 over Big Branch @ Fremont Va struc 1001	$900,401	$0	$189,000	$712,000
Bristol	0058	Primary	86305	Route 58 over Big Wilson CK @ Volney Va struc 1037	$1,300,836	$0	$239,000	$1,062,000
Bristol	0058	Primary	86306	Route 58 over Roberts Creek	$1,046,503	$0	$0	$1,046,225
Bristol	0023	Primary	86598	SBL 23 over N Fork Holston River Va struc 1003	$4,430,346	$0	$0	$1,724,000
Bristol	0460	Primary	86599	WBL 460over Dismal river & NS RWY Va struc 1074	$4,069,046	$0	$0	$1,800,000

District	Route	Road System	Project Code	Description	Estimate	Previous Funding	FY08 Funding	FY09-13 Funding
Bristol	0058	Primary	86601	58 over Powell River Va struc 1045	$3,262,852	$0	$0	$1,210,764
Culpeper	0028	Primary	56130	RTE 28 - REPLACE BRIDGE OVER CEDAR RUN	$4,696,854	$4,007,519	$0	$0
Culpeper	0522	Primary	64455	RTE 522-BRIDGE S&W REPLACE SLAB SPAN BRIDGE WITH BOX CULVERT	$693,483	$639,996	$0	$0
Culpeper	0522	Primary	71942	RTE 522 - BRIDGE REPLACEMENT	$2,302,438	$831,054	$179,327	$1,292,056
Culpeper	0231	Primary	82329	ROUTE 231 - BRIDGE REHAB OVER MULATTO RUN - STRUC #1007	$2,650,000	$0	$261,679	$2,388,321
Culpeper	0006	Primary	77321	RTE 6 - BRIDGE REPLACEMENT OVER RIVANNA RIVER	$9,800,000	$40,400	$1,432,419	$6,975,285
Culpeper	0006	Primary	76712	RTE 6 - BRIDGE REPLACEMENT OVER HARDWARE RIVER	$3,480,993	$1,075,813	$679,479	$1,725,701
Culpeper	0015	Primary	15984	RTE 15 - CONSTRUCT INTERCHANGE AT ROUTE 17	$42,868,115	$15,439,217	$6,938,414	$20,490,484
Culpeper	0015	Primary	12769	RTE 15 - BRIDGE REPLACEMENT	$9,404,295	$9,054,416	$349,879	$0
Fredericksburg	0033	Primary	18205	RTE 33 - APPROACHES & BRIDGE OVER PAMUNKEY RIVER	$113,491,321	$101,888,048	$11,346,592	$256,681
Fredericksburg	0205	Primary	76266	RTE 205 - BRIDGE REPLACEMENT AT MATTOX CREEK	$26,936,799	$2,139,188	$1,518,495	$23,279,116
Fredericksburg	0001	Primary	76515	RTE 1 - BRIDGE REPLACEMENT & APPROACHES OVER AQUIA CREEK	$1,880,609	$0	$0	$1,880,609
Fredericksburg	0014	Primary	76516	RTE 14 - BRIDGE REPLACEMENT & APPROACHES OVR PORPOTANK CREEK	$1,095,881	$0	$0	$1,095,881
Fredericksburg	0207	Primary	81497	RTE 207 - WBL BRIDGE REPLACEMENT	$3,452,854	$147,200	$0	$3,710,800
Fredericksburg	0017	Primary	55039	RTE 17 - BRIDGE REPLACEMENT OVER FOX MILL RUN	$2,319,600	$0	$0	$3,882,002
Fredericksburg	0205	Primary	61028	RTE 205 - BRIDGE REPLACEMENT	$5,362,704	$1,616,000	$1,120,246	$2,626,458
Hampton Roads	0017	Primary	56187	RTE 17 - REPLACE BRIDGE OVER SO. BRANCH ELIZABETH RIVER	$162,473,884	$16,472,781	$3,711,230	$19,099,193
Hampton Roads	0005	Primary	71883	RTE 5 - BRIDGE REPLACEMENT	$3,477,896	$3,360,705	$117,191	$0
Hampton Roads	0301	Primary	77359	RTE 301 - BRIDGE REPLACEMENT OVER CSX RAILROAD	$1,339,725	$86,400	$0	$4,197,600
Hampton Roads	0058	Primary	85949	Camp Parkway over Blackwater River Va struc 1972	$5,500,000	$0	$0	$3,950,000
Hampton Roads	0040	Primary	18974	RTE 40 - BRIDGE REPLACEMENT	$4,178,797	$3,783,717	$395,080	$0
Hampton Roads	0058	Primary	17142	RTE 58 - BRIDGE & APPROACH OVER BLACKWATER RIVER	$5,519,472	$2,602,640	$2,916,832	$0
Hampton Roads	0040	Primary	14702	RTE 40 - APPROACHES & NEW BRIDGE - TOWN OF WAVERLY	$11,527,812	$1,140,000	$0	$0
Hampton Roads	0175	Primary	1896	RTE 175 - REPLACE 1 BRIDGE ON NEW LOCATION	$96,879,667	$54,130,733	$8,570,985	$34,177,949
Lynchburg	0360	Primary	984	RTE 360 - WIDEN TO 4 LANES, DAN RIVER BRIDGE, VAUGHAN ST O P	$30,001,930	$30,001,930	$0	$0
Lynchburg	0029	Primary	11813	RTE 29 - LYNCHBURG-MADISON HEIGHTS BYPASS - 4 LANES NEW LOC	$61,787,591	$58,259,606	$3,527,985	$0
Lynchburg	0360	Primary	18878	RTE 360 - BRIDGE REPLACEMENT-BANISTER RIVER(STR# 1024)	$6,633,540	$786,199	$90,961	$5,756,380
Lynchburg	0360	Primary	85212	Construct Temp. Detour for Rte. 360 over Banister River	$4,592,313	$1,526,179	$597,751	$2,468,383
Lynchburg	0049	Primary	82519	ROUTE 49 - BRIDGE REPL & APPR OVER AARON'S CREEK	$4,058,444	$0	$0	$4,058,444
Lynchburg	0029	Primary	77301	RTE 29 - NBL BRIDGE REPLACEMENT & APPROACHES OVER BUFFALO RV	$4,649,989	$0	$0	$4,649,989
Lynchburg	0060	Primary	77303	RTE 60 - BRIDGE REPLACEMENT & APPROACHES OVER BUFFALO RIVER	$3,484,577	$0	$0	$3,484,577
Northern Virginia	0015	Primary	55581	RTE 15 - BRIDGE STRENGTHENING & WIDENING	$3,761,455	$2,681,563	$1,079,892	$0
Northern Virginia	0029	Primary	77322	RTE 29 - BRIDGE REPLACEMENT OVER LITTLE ROCKY RUN	$12,728,044	$575,278	$979,187	$7,269,372
Northern Virginia	0027	Primary	82131	MAJOR BRIDGE REHABILITATION	$11,362,651	$399,800	$0	$10,962,851
Northern Virginia	0236	Primary	82132	MAJOR BRIDGE REHABILITATION	$9,118,170	$300,000	$0	$0
Northern Virginia	0007	Primary	82135	MAJOR BRIDGE REHABILITATION	$15,609,903	$300,000	$154,976	$0
Northern Virginia	0120	Primary	18860	RTE 120 - BRIDGE REPLACEMENT	$14,407,090	$2,007,122	$3,166,961	$9,233,007

District	Route	Road System	Project Code	Description	Estimate	Previous Funding	FY08 Funding	FY09-13 Funding
Northern Virginia	0123	Primary	14693	RTE 123 - CONSTRUCT INTERCHANGE	$110,221,544	$63,619,508	$0	$46,602,036
Northern Virginia	0001	Primary	16422	RTE 1 - BRIDGE REPLACEMENT & APPROACHES-6 LANES	$36,257,626	$27,090,428	$5,072,435	$4,094,763
Northern Virginia	0027	Primary	13528	RTE 27 - INTERCHANGE MODIFICATIONS	$39,415,443	$9,209,199	$2,573,868	$27,632,376
Richmond	0147	Primary	16519	RTE 147 - HUGUENOT BRIDGE - PRELIMINARY REPLACEMENT	$50,544,473	$11,271,821	$2,662,359	$36,610,293
Richmond	0001	Primary	15988	RTE 1 - BR REPLACEMENT & MOD LTL @ DSCR	$7,041,516	$2,499,070	$0	$4,542,446
Richmond	0360	Primary	17959	ROUTE 360 - BRIDGE REPLACEMENT	$5,651,605	$635,625	$894,380	$17,721,600
Richmond	0046	Primary	18949	RTE 46 - MAJOR BRIDGE REHABILITATION (PE ONLY)	$6,695,901	$731,168	$1,146,108	$4,818,625
Richmond	7460	Primary	18964	RTE 460 - BRIDGE REPLACEMENT	$5,527,138	$1,328,533	$2,222,137	$1,976,468
Richmond	0005	Primary	67953	RTE 5 - APPROACHES & BRIDGE OVER CHICKAHOMINY RIVER	$43,547,357	$16,681,409	$8,056,436	$18,809,512
Salem	0219	Primary	68572	RTE 219 - OVER RICH CREEK - BRIDGE REPLACEMENT	$1,329,600	$5,782	$0	$1,323,818
Salem	0100	Primary	63710	RTE 100 - SAFETY IMPROVEMENTS	$12,332,951	$962,000	$413,350	$10,957,601
Salem	0008	Primary	61395	BRIDGE OVER DODDS'CREEK REPLACE & WIDEN SUPERSTRUCTURE	$516,717	$449,211	$0	$0
Salem	0221	Primary	61397	RTE 221 - BRIDGE OVER BIG - RUN WIDENING & REPLACEMENT	$991,000	$826,319	$0	$0
Salem	0122	Primary	82189	ROUTE 122 - BRIDGE OVER GILLS CREEK - STRUCTURE #1034	$2,928,926	$45,200	$0	$2,883,726
Salem	0100	Primary	82191	ROUTE 100 - BRIDGE OVER CLEBOURNE BLVD. STRUCTURE #1041	$1,695,152	$0	$0	$1,695,152
Salem	0100	Primary	82192	ROUTE 100 - BRIDGE OVER CLEBOURNE BLVD - STRUCTURE #1022	$1,332,987	$82,600	$0	$1,250,387
Salem	0220	Primary	82193	ROUTE 220 - BRIDGE OVER BACK CREEK - STRUCTURE #1039	$3,621,542	$48,200	$0	$3,573,342
Salem	0011	Primary	82226	REPLACE STRUCTURE #1006 OVER BECKNER BRANCH	$714,090	$0	$0	$714,090
Salem	0011	Primary	82362	RT. 11 BRIDGE REHABILITATION OVER A BRANCH OF MILL CREEK	$2,657,692	$0	$0	$2,657,692
Salem	0011	Primary	78329	BRIDGE REPLACE. OVER FIRESTONE CREEK (STR.#1007)	$2,569,399	$829,056	$0	$0
Salem	0116	Primary	77305	RTE 116 - BRIDGE REPLACEMENT OVER BACK CREEK	$2,920,234	$0	$325,361	$2,594,873
Salem	0011	Primary	77302	RTE 11 - REPLACE STRUCTURE OVER TINKER CREEK (STR# 1013)	$844,783	$0	$0	$844,783
Salem	0221	Primary	77296	RTE 221 - BRIDGE REPLACEMENT & APPROACHES OVER MIRA FORK	$2,079,328	$0	$0	$2,079,328
Salem	0221	Primary	77298	RTE 221 - BRIDGE REPLACEMENT & APPROACHES OVER PINE CREEK	$2,601,050	$0	$0	$2,601,050
Salem	0011	Primary	77300	RTE 11 - REPLACE STRUCTURE OVER TINKER CREEK (STR#1012)	$4,286,011	$0	$0	$4,286,011
Salem	0221	Primary	50006	RTE 221 - RECONSTRUCT TO 4 LANES - RW & CN	$28,806,245	$2,838,360	$2,237,585	$23,730,300
Salem	0114	Primary	50030	RTE 114 - WBL BRIDGE REPLACEMENT OVER THE NEW RIVER	$11,147,268	$4,927,570	$1,513,495	$1,164,534
Salem	0114	Primary	50561	RTE 114 - BRIDGE OVER THE NEW RIVER WBL	$1,547,656	$3,635,451	$1,756,907	$221,546
Salem	0011	Primary	18422	RTE 11 - BRIDGE REPLACEMENT	$3,223,146	$3,179,890	$0	$0
Salem	0114	Primary	18866	RTE 114 - BRIDGE REPLACEMENT ON WBLOVER NS RAILWAY	$2,972,385	$1,604,393	$921,413	$0
Salem	0220	Primary	17313	RTE 220 - 4 LANES	$12,830,180	$1,172,321	$1,280,530	$10,377,329
Salem	0220	Primary	17315	RTE 220 - 4 LANES	$7,970,656	$24,078	$1,074,724	$6,871,854
Salem	0058	Primary	17537	RTE 58 - CORRIDOR DEVELOPMENT PROG - 4 LANES - PE & RW ONLY	$63,989,000	$6,988,503	$0	$0
Salem	0011	Primary	17698	RTE 11/460 - Widen to 4-LN w/curb, gutter, and raised median	$42,719,218	$15,060,365	$3,294,341	$24,364,512
Salem	0122	Primary	673	RTE 122 - RELOCATE AND REPLACE BRIDGE OVER GOOSE CREEK	$7,453,800	$0	$0	$2,249,811
Staunton	0250	Primary	-4293	Rte 250	$550,000	$0	$0	$256,666
Staunton	0340	Primary	12825	RTE 340 - WIDEN TO 5 LN STRUCTURE AT N FORK SHENANDOAH RVR	$31,060,248	$24,695,763	$4,096,302	$2,268,183
Staunton	0340	Primary	11090	RTE 340 - BRIDGE REPLACEMENT AT COMPTON CREEK	$12,469,505	$2,838,137	$300,000	$9,331,368
Staunton	0340	Primary	11091	RTE 340 - BRIDGE REPLACEMENT AT JEREMY'S RUN	$14,000,873	$5,526,538	$2,331,467	$6,142,868

District	Route	Road System	Project Code	Description	Estimate	Previous Funding	FY08 Funding	FY09-13 Funding
Staunton	0340	Primary	11093	RTE 340 - NORTH APPROACH TO BRIDGE REPLACEMENT AT OVERALL CK	$8,210,522	$8,172,497	$0	$0
Staunton	0130	Primary	16017	RTE 130 - GLASGOW - BRDG REPLCMNT OVR MAURY RIVER	$12,925,816	$2,766,256	$3,267,105	$6,892,455
Staunton	0340	Primary	76469	RTE 340 -BRIDGE REPLMNT & APPR OVR SOUTH FORK SHENANDOAH RVR	$53,188,677	$0	$0	$2,500,000
Staunton	0042	Primary	79742	RTE 42 - REALIGNMENT	$1,757,152	$634,541	$414,596	$725,940
Staunton	0060	Primary	64472	RTE 60 - MAJOR BRIDGE REHABILITATION	$2,690,705	$1,156,705	$0	$0
Staunton	0250	Primary	86315	Route 250 over Cowpasture River Va struc 1036	$1,650,000	$0	$0	$770,000
Bristol	0680	Secondary	313	RTE 680 - RECONSTRUCTION	$9,748,510	$8,732,065	$977,106	$829,377
Bristol	0616	Secondary	-4622	Bridge Replacement	$380,000	$0	$146,095	$125,063
Bristol	0652	Secondary	10266	RTE 652 - APPROACHES & BRIDGE REPLACEMENT OVER CLINCH RIVER	$2,831,225	$1,540,870	$1,085,627	$364,569
Bristol	0619	Secondary	51454	RTE 619 - APPROACHES & DRAINAGE STRUCTURE OVER DRY RUN CREEK	$927,000	$20,170	$0	$906,830
Bristol	0612	Secondary	51477	RTE 612 - APPROACHES & BRIDGE OVER FORK OF KIMBERLING CREEK	$500,000	$0	$131,546	$366,465
Bristol	0613	Secondary	51558	RTE 613 - BRIDGE REPLACEMENT	$888,974	$475,600	$0	$0
Bristol	0606	Secondary	18044	RTE 606 - REPLACE PIPE CROSSING W/BRIDGE & IMPROVE APPROACHS	$569,227	$561,178	$0	$0
Bristol	0714	Secondary	18604	RTE 714 - REPLACE BRIDGE OVER OPPOSSUM CREEK	$616,203	$330,704	$197,384	$83,145
Bristol	0607	Secondary	18634	RTE 607 - BRIDGE REPLACEMENT	$756,718	$42,700	$37,421	$32,114
Bristol	0805	Secondary	18670	RTE 805 - RECONSTRUCT & SURFACE TREAT ROADWAY	$1,520,795	$81,358	$587,494	$851,943
Bristol	0852	Secondary	13897	RTE 852 - REPLACE EXISTING BRIDGE WITH STANDARD BRIDGE	$634,000	$624,399	$9,601	$0
Bristol	0812	Secondary	17242	RTE 812 - REPLACE STRUCTURE WITH BRIDGEOVER STOCK CK	$570,000	$119,979	$298,936	$145,200
Bristol	0690	Secondary	16994	RTE 690 - RECONSTRUCTION	$1,188,379	$742,798	$445,581	$0
Bristol	0622	Secondary	71603	RTE 622 - BRIDGE REPLACEMENT	$465,000	$417,270	$0	$0
Bristol	0790	Secondary	72214	RTE 790 - APPROACHES & BRIDGE REPLACEMENT AT SBD RAILROAD	$860,001	$0	$0	$1,120,931
Bristol	0610	Secondary	56734	RTE 610 - APPROACHES & BRIDGE REPLACEMENT OVER LITTLE RIVER	$1,182,296	$52,419	$117,238	$1,044,999
Bristol	0613	Secondary	56750	RTE 613 - BRIDGE REPLACEMENT	$1,052,499	$133,685	$90,925	$707,625
Bristol	0666	Secondary	56765	RTE 666 - BRIDGE REPLACEMENT	$604,165	$0	$104,695	$701,624
Bristol	0608	Secondary	60608	RTE 608 - BRIDGE REPLACEMENT (PE & RW ONLY IN SYP)	$590,000	$0	$0	$86,289
Bristol	0600	Secondary	58098	RTE 600 - APPROACHES & BRIDGE REPLACEMENT	$421,141	$137,500	$0	$283,641
Bristol	0653	Secondary	59075	RTE 653 - BRIDGE & APPROACHES TO BRANCH OF STOCK CREEK	$353,000	$3,000	$0	$0
Bristol	0653	Secondary	59076	RTE 653 - BRIDGE & APPROACHES TO STAUNTON CREEK	$357,000	$3,000	$0	$0
Bristol	0657	Secondary	59077	RTE 657 - BRIDGE & APPROACHES TO STONY CREEK	$835,000	$3,000	$0	$832,000
Bristol	0670	Secondary	82360	DEDICATED BRIDGE FUND -REPLACE STRUC #6108 ON RTE 670	$13,404,722	$1,439,396	$0	$11,965,326
Bristol	0833	Secondary	82361	DEDICATED BRIDGE FUND - REPLACE STRUC #6498 ON RTE 833	$2,085,735	$337,000	$0	$1,776,287
Bristol	0610	Secondary	82082	RR BRIDGE ON PEPPERS FERRY RD RTE 610	$1,391,025	$0	$507,352	$703,673
Bristol	0606	Secondary	81548	RTE 606 - GRADE, DRAIN, PAVE	$1,215,948	$120,763	$206,532	$874,652
Bristol	0631	Secondary	81586	RTE 631 SPOT WIDENING	$1,158,471	$282,930	$363,204	$384,587
Bristol	0670	Secondary	86301	Route 670 over S Fork Holston River Va stuc 6108	$1,040,788	$0	$0	$1,040,000
Bristol	0747	Secondary	86293	RTE 747 over Tumbling Creek Va struc 6308	$798,280	$0	$0	$798,278
Bristol	0811	Secondary	86294	Route 811 over Indian Creek Va struc 6507	$1,020,947	$0	$0	$197,560

District	Route	Road System	Project Code	Description	Estimate	Previous Funding	FY08 Funding	FY09-13 Funding
Bristol	0619	Secondary	86295	Dotson Ridge Rd over N Fork Holston River Va struc 6023	$1,400,280	$0	$0	$255,353
Bristol	0749	Secondary	86289	Cedar Springs Rd over Cripple Creek Va struc 6074	$1,453,059	$0	$0	$1,451,999
Bristol	0611	Secondary	86479	Route 611 over Tumbling Creek Va struc 6011	$1,187,481	$0	$0	$500,000
Bristol	0744	Secondary	86593	Triangle Road over Bluestone River Va struc 6129	$938,552	$0	$0	$500,000
Bristol	0687	Secondary	86594	Gate Road over Big Moccasin Creek Va struc 6102	$1,069,148	$0	$0	$500,000
Bristol	1212	Secondary	86595	Rte 1212 over Laurel Creek Va struc 6110	$1,463,232	$0	$0	$500,000
Bristol	0601	Secondary	86596	Ruby's Rd over Little Walker Creek #6 Va struc 6004	$992,587	$0	$0	$500,000
Bristol	0610	Secondary	86810	Peppers Ferry Rd over Millers Creek Va struc 6010	$860,407	$0	$0	$148,359
Culpeper	0606	Secondary	82123	BRIDGE REPLACE DICKERSON RD OVER NORTH FORK RIVANNA RIVE	$5,069,461	$550,000	$0	$343,448
Culpeper	0606	Secondary	82128	BRIDGE REPLACEMENT DICKERSON ROAD OVER JACOBS RUN	$2,174,217	$591,407	$0	$343,448
Culpeper	0688	Secondary	82327	ROUTE 688 - BRIDGE OVER THUMB RUN - STRUCTURE #6087	$1,309,520	$0	$137,225	$1,435,170
Culpeper	0600	Secondary	76184	RTE 600 - BRIDGE & APPROACHES OVER EAST FORK BEAVERDAM CK	$437,353	$20,000	$0	$0
Culpeper	0657	Secondary	76185	RTE 657 - BRIDGE REPLACEMENT & APPROACHES OVER CUB CREEK	$506,194	$66,921	$491,569	$97,153
Culpeper	0743	Secondary	77273	RTE 743 - BRIDGE & APPROACHES OVER NORTH FORK RIVANNA	$4,017,516	$100,000	$137,414	$3,612,587
Culpeper	0708	Secondary	77274	RTE 708 - BRIDGE & APPROACHES OVER CSX RAILROAD	$2,717,029	$0	$135,091	$2,386,496
Culpeper	0649	Secondary	77276	RTE 649 - BRIDGE & APPROACHES OVER NORFOLK SOUTHERN RR	$2,250,000	$11,600	$0	$0
Culpeper	0655	Secondary	58123	RTE 655 - APPROACHES & BRIDGE REPLACEMENT OVER TINPOT RUN	$1,834,300	$938,159	$468,555	$1,373,615
Culpeper	0644	Secondary	71908	RTE 644 - APPROACHES & REPLACE BRIDGE OVER NORTHEAST CREEK	$1,010,000	$922,601	$99,676	$232,586
Culpeper	0637	Secondary	71923	RTE 637 - BRIDGE REPLACEMENT	$942,440	$70,000	$40,426	$797,323
Culpeper	0620	Secondary	17059	RTE 620 - BRIDGE REPLACEMENT	$2,194,442	$494,404	$792,992	$687,653
Culpeper	0810	Secondary	15312	RTE 810 - APPROACHES & BRIDGE OVER HANEYTOWN CREEK	$3,377,900	$731,845	$0	$0
Culpeper	0632	Secondary	18097	RTE 632 - APPROACHES & DR STRUCTURE AT BALLINGER CREEK	$796,517	$769,755	$26,762	$0
Culpeper	0799	Secondary	51923	RTE 799 - BRIDGE REPLACEMENT OVER BEAVERDAM CREEK	$391,070	$472,612	$0	$0
Culpeper	0656	Secondary	51926	RTE 656 - BRIDGE REPLACEMENT	$1,207,349	$43,219	$255,174	$760,138
Culpeper	0601	Secondary	52177	RTE 601 - APPROACHES & BRIDGE REPLACEMENT AT CUB CREEK	$443,360	$5,000	$0	$0
Culpeper	0688	Secondary	8122	RTE 688 - APPROACHES & BRIDGE OVER CARTERS RUN	$1,737,874	$1,737,874	$0	$0
Culpeper	0651	Secondary	11153	RTE 651 - APPROACHES & BRIDGE OVER SUMMERDUCK RUN	$1,057,927	$55,000	$426,414	$1,214,287
Culpeper	0678	Secondary	11159	RTE 678 - APPROACHES & BRIDGE OVER CEDAR RUN	$583,495	$65,000	$0	$0
Culpeper	0729	Secondary	11210	RTE 729 - APPROACHES AND BRIDGE OVER BATTLE CREEK	$1,428,094	$793,403	$205,300	$449,615
Culpeper	0620	Secondary	2340	RTE 620 - BRIDGE REPLACEMENT	$1,949,821	$1,374,927	$0	$0
Fredericksburg	0633	Secondary	2239	RTE 633 - BRIDGE REPLACEMENT	$1,619,454	$1,316,754	$405,656	$213,693
Fredericksburg	0630	Secondary	2257	RTE 630 - RECONSTRUCTION	$2,965,672	$1,493,178	$406,306	$1,114,498
Fredericksburg	0624	Secondary	7923	RTE 624 - BRIDGE REPLACEMENT	$9,533,689	$8,445,856	$1,005,087	$233,215
Fredericksburg	0630	Secondary	11671	RTE 630 - WIDEN TO 4 LANES	$9,701,484	$128,331	$0	$2,277,540
Fredericksburg	0629	Secondary	11735	RTE 629 - BRIDGE REPLACEMENT	$3,047,085	$2,256,383	$0	$0
Fredericksburg	0629	Secondary	11736	RTE 629 - BRIDGE REPLACEMENT	$1,395,400	$1,050,050	$0	$0
Fredericksburg	0629	Secondary	11737	RTE 629 - BRIDGE REPLACEMENT	$1,523,543	$22,061	$0	$0
Fredericksburg	0629	Secondary	11738	RTE 629 - BRIDGE REPLACEMENT	$958,605	$883,219	$75,386	$0
Fredericksburg	0614	Secondary	10616	RTE 614 - RECONSTRUCTION & BRIDGE OVER BROWNS CREEK	$2,662,300	$0	$284,851	$1,424,327

District	Route	Road System	Project Code	Description	Estimate	Previous Funding	FY08 Funding	FY09-13 Funding
Fredericksburg	0609	Secondary	18443	RTE 609 - BRIDGE REPLACEMENT	$2,012,585	$2,156,946	$0	$0
Fredericksburg	0630	Secondary	15458	RTE 630 - BRIDGE OVER CSX RAILROAD (STRUCTURE #6040)	$6,823,625	$3,277,393	$300,344	$1,757,108
Fredericksburg	0637	Secondary	15256	RTE 637 - RECONSTRUCT & REPLACE BRIDGE OVER OCCUPACIA CK.	$3,310,718	$2,727,482	$328,935	$254,302
Fredericksburg	0601	Secondary	15266	RTE 601 - BRIDGE REPLACEMENT	$1,708,249	$1,625,788	$0	$0
Fredericksburg	0722	Secondary	13918	RTE 722 - RELOCATE WITH NEW BRIDGE OVER CSX RR	$3,937,656	$3,937,656	$0	$0
Fredericksburg	0617	Secondary	67091	RTE 617 - RECONSTRUCTION	$2,605,877	$162,167	$291,119	$2,132,062
Fredericksburg	0614	Secondary	75911	RTE 614 - RECONSTRUCTION OF ROADWAY	$3,440,844	$2,267,970	$1,449,171	$2,414,342
Fredericksburg	0600	Secondary	81498	RTE 600 - BRIDGE REPLACEMENT	$1,143,792	$0	$0	$924,002
Fredericksburg	0601	Secondary	81499	RTE 601 - BRIDGE REPLACEMENT	$1,010,729	$166,200	$0	$0
Fredericksburg	0621	Secondary	81500	RTE 621 - BRIDGE REPLACEMENT	$2,851,000	$59,200	$495,232	$4,159,475
Fredericksburg	0658	Secondary	81501	RTE 658 - BRIDGE REPLACEMENT	$859,081	$0	$0	$1,587,600
Fredericksburg	1003	Secondary	81502	RTE 1003 - BRIDGE REPLACEMENT	$1,411,171	$0	$0	$0
Fredericksburg	0633	Secondary	77327	RTE 633 - BRIDGE REPLACEMENT & APPR. OVER SOUTH RIVER	$748,009	$31,554	$95,750	$81,967
Fredericksburg	0600	Secondary	77328	RTE 600 - BRIDGE & APPROACHES OVER FOX MILL RUN	$1,270,009	$165,580	$0	$1,156,123
Fredericksburg	0644	Secondary	77329	RTE 644 - BRIDGE REPLACEMENT & APPR OVER MARACOSSIC CREEK	$596,654	$14,400	$0	$0
Fredericksburg	0639	Secondary	85753	Build New 2-Lane Bridge and Approaches over Massaponax Creek	$8,810,000	$0	$308,106	$263,753
Hampton Roads	0630	Secondary	85947	Loafers Oak Rd over Cypress Swamp Va struc 6018	$448,000	$0	$0	$448,002
Hampton Roads	9999	Secondary	84834	Bridge - SSYP 08	$342,328	$0	$149,170	$127,696
Hampton Roads	8888	Secondary	84983	Bridge Line Item - SSYP FY 2008-2013	$370,003	$0	$152,500	$130,547
Hampton Roads	0635	Secondary	85018	REPLACE BRIDGE AT MAGANUS MILLPOND	$300,000	$0	$69,735	$373,364
Hampton Roads	0630	Secondary	85020	BRIDGE REPLACEMENT	$325,000	$0	$38,903	$33,303
Hampton Roads	0602	Secondary	85024	BRIDGE AND APPROACHES OVER PAGAN CREEK	$1,300,000	$0	$86,651	$74,178
Hampton Roads	0646	Secondary	57327	RTE 646 - RECONSTRUCTION	$2,389,945	$0	$91,678	$1,175,530
Hampton Roads	0704	Secondary	8322	RTE 704 - APPROACHES & BRIDGE REPLACEMENT OVER JONES CREEK	$7,135,766	$6,581,500	$0	$0
Hampton Roads	0614	Secondary	12993	RTE 614 - BRIDGE REPLACEMENT	$1,682,995	$333,953	$53,897	$46,137
Hampton Roads	7777	Secondary	-4690	Budget Line for Bridge Funds FY 2008-2013	$350,000	$0	$44,250	$37,880
Hampton Roads	9999	Secondary	-4689	Bridge Project	$350,000	$0	$109,920	$94,096
Hampton Roads	0612	Secondary	86283	Freeman Dr (Rte 612) over stream Va struc 6015	$640,000	$0	$0	$133,334
Lynchburg	0659	Secondary	1028	RTE 659 - RECONSTRUCTION AND BRIDGE OVER RUTLEDGE CREEK	$4,213,907	$911,620	$107,764	$3,194,523
Lynchburg	0724	Secondary	-4926	Drybridge Rd over NS RR Va struc 6136	$1,224,787	$0	$0	$345,500
Lynchburg	0679	Secondary	-4624	Approaches to Bridge	$400,000	$0	$61,497	$39,111
Lynchburg	0679	Secondary	-4623	Replace Existing Bridge	$280,000	$0	$25,200	$35,106
Lynchburg	0619	Secondary	-4561	Approaches to Bridge	$400,000	$0	$0	$12,500
Lynchburg	0619	Secondary	-4560	Replace Existing Bridge	$285,000	$0	$62,779	$41,241
Lynchburg	0853	Secondary	-4506	BRIDGE REPL. & APPR. OVER SUGARTREE CREEK	$805,964	$0	$229,164	$576,801
Lynchburg	0600	Secondary	-4505	Replace Existing Bridge	$285,000	$0	$44,695	$38,261
Lynchburg	0620	Secondary	10748	RTE 620 - BRIDGE REPLACEMENT	$80,000	$1,916	$0	$0
Lynchburg	0652	Secondary	6555	RTE 652 - RECONSTRUCTION & BRIDGE OVER GRAHAM CR (#6048)	$4,833,175	$2,992,442	$1,105,502	$735,231
Lynchburg	0623	Secondary	5544	RTE 623 - BRIDGE REPLACEMENT	$1,026,494	$992,514	$0	$0

District	Route	Road System	Project Code	Description	Estimate	Previous Funding	FY08 Funding	FY09-13 Funding
Lynchburg	0642	Secondary	15215	RTE 642 - RECONSTRUCTION & BRIDGE OVER BANISTER RIVER(#6152)	$9,664,685	$3,090,198	$1,420,870	$5,482,338
Lynchburg	0827	Secondary	15232	RTE 827 - BRIDGE REPLACEMENT AT COUNTY LINE	$222,794	$41,300	$0	$0
Lynchburg	0622	Secondary	17302	RTE 622 - BRIDGE OVER NORFOLK SOUTHERN RAILWAY	$669,846	$180,000	$0	$0
Lynchburg	0604	Secondary	18629	RTE 604 - RECONSTRUCTION & BRIDGE OVER ROANOKE CREEK	$2,495,230	$2,447,657	$0	$0
Lynchburg	0643	Secondary	51353	RTE 643 - BRIDGE REPLACEMENT	$2,175,103	$100,000	$207,114	$1,867,989
Lynchburg	0716	Secondary	72385	RTE 716 - RECONSTRUCT ROADWAY & REPLACE BRIDGES	$438,000	$0	$0	$1,995,215
Lynchburg	0636	Secondary	84382	RTE 636 - BRIDGE REPLACEMENT - STR. #6036 OVER BIG CUB CREEK	$979,383	$0	$60,033	$51,390
Lynchburg	0711	Secondary	82510	RTE. 711 - BRIDGE REPL. & APPR. OVER NS RAILWAY	$2,800,900	$0	$156,706	$2,644,194
Lynchburg	0622	Secondary	82513	RTE. 622 - BRIDGE REPL & APPR OVER NS RAILWAY	$1,923,642	$0	$0	$1,130,843
Lynchburg	0633	Secondary	82514	RTE. 633 - BRIDGE REPL & APPR OVER BUSH RIVER	$1,691,299	$0	$0	$487,279
Lynchburg	0676	Secondary	82516	RTE 676 - BRIDGE REPL & APPR OVER WHITEHORN CREEK	$2,995,234	$0	$0	$2,516,000
Lynchburg	0643	Secondary	80566	RTE 643 - BRIDGE REPLACEMENT	$10,000	$10,000	$150,000	$150,000
Lynchburg	0675	Secondary	76170	RTE 675 - BRIDGE & APPROACHES OVER CUB CREEK	$2,142,990	$0	$106,059	$2,387,526
Lynchburg	0623	Secondary	77308	RTE 623 - BRIDGE & APPROACHES OVER NS RAILWAY (STR #6019)	$1,981,573	$0	$0	$1,981,573
Lynchburg	0623	Secondary	77311	RTE 623 - BRIDGE & APPROACHES OVER VA SOUTHERN RR(STR #6020)	$1,573,602	$0	$0	$1,573,603
Northern Virginia	0676	Secondary	76247	RTE 676 - BRIDGE REPLACEMENT OVER ROCKY RUN	$1,353,608	$144,000	$922,586	$287,023
Northern Virginia	0702	Secondary	82213	RT. 702 BEULAH RD. BRIDGE REHABILITATION OVER WOLF TRAP RUN.	$1,550,624	$0	$759,297	$791,326
Northern Virginia	0657	Secondary	82214	RTE 657 WALNEY RD BRIDGE REHAB OVER FLATLICK BRANCH	$1,425,909	$0	$626,244	$799,665
Northern Virginia	0658	Secondary	82215	RT.658 COMPTON RD.BRIDGE REHAB. OVER LITTLE ROCKY RUN	$1,389,251	$0	$275,720	$1,113,531
Northern Virginia	0000	Secondary	82180	BRIDGE REHAB, DECK REPLACE, SUPER & SUBSTRUCTURE REPAIR	$3,260,366	$74,200	$0	$0
Northern Virginia	0681	Secondary	84383	REPLACE BRIDGE OVER PINEY RUN	$1,800,000	$0	$0	$1,800,000
Northern Virginia	0650	Secondary	85428	Reconstr. & widen existing bridge and approaches (Str.#6041)	$1,233,978	$0	$740,246	$493,732
Northern Virginia	0651	Secondary	15132	RTE 651 -APPROACHES & BRIDGE OVER NORFOLK-SOUTHERN RR	$18,568,895	$15,041,349	$0	$0
Northern Virginia	0734	Secondary	5238	RTE 734 - REHABILITATION OF EXISTING BRIDGE	$3,238,098	$1,962,260	$0	$0
Northern Virginia	3546	Secondary	-4276	Rte 3546	$1,555,000	$0	$0	$1,555,000
Northern Virginia	2025	Secondary	87028	Rte 610	$1,611,000	$0	$875,048	$749,078
Richmond	0711	Secondary	86442	Widen Rte. 711 and replace bridge over Bernard's Creek.	$13,144,000	$0	$84,687	$72,496
Richmond	0712	Secondary	1491	RTE 712 - BRIDGE REPLACEMENT	$2,478,133	$404,255	$510,835	$1,569,254
Richmond	0619	Secondary	1537	RTE 619 - APPROACHES & BRIDGE REPLACEMENT OVER STONY CREEK	$683,007	$614,102	$0	$0
Richmond	0609	Secondary	-4275	Rte 609	$6,075,000	$0	$0	$4,028,558
Richmond	0670	Secondary	-4431	Replace Bridge Duncan Road Rt. 670	$615,000	$0	$102,614	$87,842
Richmond	0641	Secondary	-4416	BRIDGE REPLACEMENT - RTE 641 (MOODY ROAD)	$420,000	$0	$106,048	$313,952
Richmond	0708	Secondary	8474	RTE 708 - APPROACHES & DRAINAGE STR AT WINTICOMACK CREEK	$697,660	$606,646	$0	$0
Richmond	0601	Secondary	8547	RTE 601 - COUNTY LINE BRIDGE OVER AARON'S CREEK	$938,600	$733,671	$206,281	$0
Richmond	0604	Secondary	8552	RTE 604 - APPROACHES AND BRIDGE OVER AARON'S CREEK	$383,720	$0	$0	$858,074
Richmond	0626	Secondary	16123	RTE 626 - BRIDGE REPLACEMENT	$127,500	$29,492	$0	$0
Richmond	0618	Secondary	16835	RTE 618 - BRIDGE REPLACEMENT	$352,669	$352,669	$0	$0
Richmond	0617	Secondary	17863	RTE 617 - BRIDGE REPLACEMENT	$1,987,690	$55,950	$0	$1,931,740
Richmond	0651	Secondary	51261	RTE 651 - BRIDGE REPLACEMENT	$2,688,657	$244,351	$248,432	$2,195,875

District	Route	Road System	Project Code	Description	Estimate	Previous Funding	FY08 Funding	FY09-13 Funding
Richmond	0628	Secondary	18589	RTE 628 - APPROACHES & REPLACE BRIDGE AT ELLIS FORK CREEK	$2,321,024	$808,601	$504,993	$1,007,431
Richmond	0712	Secondary	85441	Rte 712	$2,730,000	$0	$0	$385,000
Richmond	0617	Secondary	84738	Rte 617	$1,074,040	$0	$205,556	$865,351
Richmond	0629	Secondary	81068	RTE 629 - CONSTRUCT NEW RAILROAD BRIDGE (DOT# 467-480F)	$1,500,000	$500,000	$500,000	$500,000
Richmond	0689	Secondary	82378	TAYLORSVILLE RD. BRIDGE REPLACEMENT OVER LITTLE RIVER	$1,486,991	$0	$0	$1,598,598
Richmond	0625	Secondary	82399	GREENWOOD RD. BRIDGE REPLACEMENT OVER CHICKAHOMINY RIVER	$1,970,988	$0	$0	$917,086
Richmond	0712	Secondary	77053	RTE 712 - APPROACHES & BRIDGE REPLACEMENT OVER WAQUA CREEK	$1,213,593	$0	$91,471	$1,476,181
Richmond	0607	Secondary	58148	RTE 607 - BRIDGE REPLACEMENT	$1,081,746	$305,058	$0	$0
Salem	0743	Secondary	58280	RTE 743 - APPROACHES & BRIDGE REPLACEMENT OVER CARVIN CREEK	$1,587,507	$237,510	$50,000	$1,050,357
Salem	0693	Secondary	58284	RTE 693 - BRIDGE REPLACEMENT	$1,139,462	$1,357,000	$0	$0
Salem	0634	Secondary	58885	RTE 634 - BEDFORD COUNTY APPROACHES TO BRIDGE REPLACEMENT	$2,283,781	$0	$0	$2,283,782
Salem	0634	Secondary	58890	RTE 634 - FRANKLIN COUNTY APPROACHES TO BRIDGE REPLACEMENT	$1,477,560	$0	$0	$1,787,853
Salem	0779	Secondary	52803	RTE 779 - INT IMPROVEMENTS & BRIDGE OVER TINKER CREEK	$6,290,594	$2,572,764	$396,565	$2,501,671
Salem	0718	Secondary	55471	RTE 718 - BRIDGE REPLACEMENT	$1,024,901	$174,000	$181,987	$1,001,292
Salem	0725	Secondary	64047	RTE 725 - REPLACE BRIDGE OVER MACHINE CREEK	$279,555	$55,468	$121,390	$34,629
Salem	0808	Secondary	64048	RTE 808 - BRIDGE REPLACEMENT	$258,351	$34,747	$0	$196,392
Salem	0723	Secondary	71610	RTE 723 - BRIDGE OVER NININGER CREEK	$837,611	$520,738	$150,000	$166,873
Salem	0773	Secondary	71836	RTE 773 - APPROACHES AND BRIDGE REPLACEMENT OVER CLARK'S CK	$4,272,956	$0	$446,136	$3,826,819
Salem	0614	Secondary	80757	RTE 614 - REPLACE SWINGING & LOW WATER BRDG W STANDARD BRDG	$919,769	$0	$1,171	$692,920
Salem	0713	Secondary	78964	RTE 713-BRIDGE REPLACEMENT OVER WALKER CREEK-STRUC #6045	$1,527,885	$1,048,912	$372,617	$106,356
Salem	0693	Secondary	75933	RTE 693 - BRIDGE & APPOACHES OVER BIG REED ISLAND CREEK	$1,858,793	$377,000	$80,936	$1,914,286
Salem	0705	Secondary	73627	RTE 705 - APPROACHES & BRIDGE REPLACEMENTS	$1,564,953	$41	$0	$0
Salem	0687	Secondary	84934	Replace existing one-lane bridge with a new structure.	$787,136	$97,210	$0	$2,194,422
Salem	0738	Secondary	17993	RTE 738 - BRIDGE REPLACEMENT	$1,563,213	$726,308	$108,946	$495,939
Salem	0644	Secondary	17994	RTE 644 - BRIDGE REPLACEMENT OVER ELK CREEK	$2,580,671	$224,022	$551,970	$1,804,678
Salem	0724	Secondary	17996	RTE 724 - BRIDGE REHABILITATION	$668,870	$623,543	$0	$0
Salem	0635	Secondary	18349	RTE 635 - APPROACHES & REPLACE DR STR AT MOLLIE BRANCH	$612,146	$8,801	$0	$0
Salem	0620	Secondary	18717	RTE 620 - APPROACHES & NEW STRUCTURE OVER TROUT CREEK	$805,991	$120,277	$73,383	$463,027
Salem	0630	Secondary	18720	RTE 630 - APPROACHES & BRIDGE OVER VALLEY BRANCH	$1,275,386	$195,000	$0	$672,724
Salem	0682	Secondary	18419	RTE 682 - BRIDGE REPLACEMENT OVER JORDAN CREEK	$1,631,295	$4,602	$0	$0
Salem	0668	Secondary	51916	RTE 668 - APPROACHES & BRIDGE OVER NORFOLK SOUTHERN RAILROAD	$1,841,810	$0	$0	$1,583,839
Salem	0629	Secondary	17135	RTE 629 - APPROACHES & BRIDGE OVER SINKING CREEK	$968,173	$928,424	$170,069	$0
Salem	0779	Secondary	17221	RTE 779 - APPROACHES & BRIDGE OVER BRANCH OF CATAWBA CREEK	$1,835,775	$472,411	$113,650	$1,249,713
Salem	0614	Secondary	15286	RTE 614 - BRIDGE REPLACEMENT	$864,518	$15,000	$0	$0
Salem	0614	Secondary	15287	RTE 614 - BRIDGE REPLACEMENT	$877,264	$15,000	$0	$0
Salem	0614	Secondary	15288	RTE 614 - BRIDGE REPLACEMENT	$692,413	$15,000	$0	$0

District	Route	Road System	Project Code	Description	Estimate	Previous Funding	FY08 Funding	FY09-13 Funding
Salem	0614	Secondary	15289	RTE 614 - BRIDGE REPLACEMENT	$707,308	$15,000	$0	$0
Salem	1662	Secondary	15187	RTE 1662 - RECONSTRUCTION & REPLACE BRIDGE OVER MUD LICK CK	$5,710,255	$2,886,000	$89,833	$2,681,421
Salem	0660	Secondary	15036	RTE 660 - WIDEN & REALIGN W/BR REPLACE. OVER IVY CREEK	$4,032,308	$3,875,405	$417,834	$0
Salem	0622	Secondary	5406	RTE 622 - APPROACHES AND BRIDGE OVER SMITH RIVER (PE & RW)	$3,302,362	$58,933	$0	$100,000
Salem	0630	Secondary	5408	RTE 630 - APPROACHES AND BRIDGE OVER NORTH MAYO RIVER	$1,823,719	$0	$0	$100,000
Salem	0701	Secondary	5420	RTE 701 - APPROACHES AND BRIDGE OVER SMITH RIVER	$1,912,770	$165,129	$192,071	$2,624,948
Salem	0639	Secondary	4540	RTE 639 - RECONSTRUCT & SURFACE TREAT	$4,057,792	$3,401,766	$570,047	$85,979
Salem	0614	Secondary	12757	RTE 614 - BRIDGE REPLACEMENT	$1,036,963	$879,285	$101,800	$116,504
Salem	0654	Secondary	12891	RTE 654 - APPROACHES & BRIDGE OVER TINKER CREEK	$532,455	$459,955	$0	$0
Salem	0722	Secondary	12436	RTE 722 - BRIDGE REPLACEMENT	$622,297	$622,297	$0	$0
Salem	0639	Secondary	-4925	Mt. Pleasant Rd over Elliott Creek Va struc 6054	$935,424	$0	$0	$935,424
Salem	0643	Secondary	-4924	Coles Creek Rd over Blackwater River Va struc 6057	$761,178	$0	$0	$761,179
Salem	0623	Secondary	-4478	Replace Bridge	$1,000,000	$0	$0	$1,000,000
Salem	0615	Secondary	3406	RTE 615 - BRIDGE REPLACEMENT	$450,142	$405,342	$0	$0
Salem	0630	Secondary	3457	RTE 630 - BRIDGE REPLACEMENT OVER SINKING CREEK	$424,328	$408,328	$0	$0
Salem	0601	Secondary	3672	RTE 601 - RECONSTRUCTION & BRIDGE OVER TINKER CREEK	$11,971,181	$12,349,401	$572,000	$0
Staunton	0633	Secondary	3428	RTE 633 - APPROACHES & BRIDGE REPLACEMENT AT COWPASTURE RVR	$3,103,044	$317,135	$246,134	$3,730,070
Staunton	0631	Secondary	8765	RTE 631 - RECONSTRUCTION	$10,293,114	$2,686,881	$859,376	$4,914,562
Staunton	0794	Secondary	8741	RTE 794 - BRIDGE & APPROACHES OVER CHRISTIANS CREEK	$1,504,028	$1,039,320	$267,355	$170,628
Staunton	0646	Secondary	10960	RTE 646 - APPROACHES & REPLACE BRIDGE OVER LONG GLADE CREEK	$2,718,600	$2,242,415	$0	$0
Staunton	0635	Secondary	10732	RTE 635 - BRIDGE REPLACEMENT	$1,272,030	$1,042,158	$165,107	$66,943
Staunton	0696	Secondary	18055	RTE 696 - APPROACHES & BRIDGE OVER CSX AT SELMA	$5,917,251	$3,225,443	$192,214	$3,278,075
Staunton	0640	Secondary	85114	Rte 640 - Str 6031 Bridge Replacement	$41,000	$0	$41,000	$0
Staunton	0801	Secondary	82759	BRIDGE & APPROACHES OVER JENNINGS BRANCH	$1,514,810	$0	$0	$1,335,535
Staunton	0603	Secondary	82760	RTE 603 - BRIDGE & APPROACHES OVER NAKED CREEK	$2,131,500	$0	$62,478	$1,936,403
Staunton	0602	Secondary	82764	RTE 602 - BRIDGE & APPROACHES OVER WALKER CREEK	$736,672	$0	$0	$321,500
Staunton	0663	Secondary	82769	RTE 663 - BRIDGE & APPR OVER N. FORK SHENANDOAH RIVER	$4,037,529	$0	$0	$1,490,140
Staunton	0675	Secondary	82770	RTE 675 BRIDGE & APPR OVER STONY CREEK	$1,912,449	$0	$0	$270,935
Staunton	0636	Secondary	76043	RTE 636 - CONSTRUCT NEW BRIDGE & APPROACHES	$6,625,214	$420,150	$57,368	$1,209,937
Staunton	0624	Secondary	77272	RTE 624 - BRIDGE & APPROACHES OVER SHENANDOAH RIVER	$8,942,457	$1,258,200	$100,000	$7,441,800
Staunton	0744	Secondary	77275	RTE 744 - BRIDGE & APPROACHES OVER N FORK SHENANDOAH RIVER	$2,788,566	$235,232	$0	$1,903,471
Staunton	0727	Secondary	77421	RTE 727 - BRIDGE REPLACEMENT OVER NORTH RIVER	$3,238,091	$291,711	$193,514	$2,513,933
Staunton	1421	Secondary	77422	RTE 1421 - BRIDGE REPLACEMENT OVER LINVILLE CREEK	$2,586,997	$165,087	$106,912	$2,255,182
Staunton	0685	Secondary	77423	RTE 685 - BRIDGE REPLACEMENT OVER LITTLE CALFPASTURE RIVER	$1,047,613	$142,962	$0	$904,651
Staunton	0648	Secondary	72907	RTE 648 - APPROACHES & REPLACE BRIDGE OVER FOLLY MILL CREEK	$2,751,330	$211,992	$0	$2,539,338
Staunton	0727	Secondary	73249	RTE 727 - BRIDGE OVER THE JACKSON RIVER	$3,023,428	$400,000	$1,000,000	$2,023,429
Staunton	0640	Secondary	65567	RTE 640 - APPROACHES & BRIDGE AT SOUTH BRANCH POTOMAC RIVER	$1,181,200	$326,471	$143,646	$711,083
Staunton	0729	Secondary	65543	RTE 729 - APPROACHES & BRIDGE REPLACEMENT OVER MILL CREEK	$1,453,542	$1,318,744	$0	$0

District	Route	Road System	Project Code	Description	Estimate	Previous Funding	FY08 Funding	FY09-13 Funding
Staunton	0723	Secondary	64818	RTE 723 - BRIDGE REPLACEMENT	$358,000	$0	$47,915	$310,086
Staunton	0617	Secondary	56152	RTE 617 - RECONSTRUCTION & BRIDGE REPLACEMENT	$953,215	$90,081	$0	$0
Staunton	0774	Secondary	57602	RTE 774 - BRIDGE REPLACEMENT	$1,505,245	$300,000	$160,025	$1,002,170
Staunton	0727	Secondary	57721	RTE 727 - APPROACHES & BRIDGE OVER TRIB THORNY BRANCH	$790,896	$787,570	$0	$0
Staunton	0611	Secondary	58556	RTE 611-REPLACE BR STRUCTURE #6013 OVER LITTLE HAWKSBILL CK	$439,827	$438,437	$0	$0
Staunton	0631	Secondary	58557	RTE 631 - APPROACHES AND BRIDGE REPLACEMENT	$391,038	$381,055	$0	$0
Staunton	0655	Secondary	59259	RTE 655 - RECONSTRUCTION (PE & RW IN SSYP)	$8,609,552	$468,956	$1,732,187	$7,077,160
Staunton	0723	Secondary	86316	Route 723 over Opequon Creek Va struc 6904	$1,045,000	$0	$0	$458,334
Staunton	0704	Secondary	86317	Route 704 over Cooks Creek Va struc 6068	$1,383,400	$0	$0	$597,800
Bristol	0061	Urban	86292	E Riverside Drive @ Clinch River Va struc 1805	$1,538,997	$0	$0	$1,308,512
Bristol	0000	Urban	86597	Proctor Street over SF Powell River Va struc 8001	$897,007	$0	$0	$491,000
Bristol		Urban	71874	SHAWNEE STREET - BRIDGE REPAIR/REPLACEMENT	$1,236,900	$938,351	$172,248	$126,301
Bristol	0460	Urban	82755	BUS RT 460 FRONT ST BRIDGE & APPROACHES OVER CLINCH RIVER	$3,513,039	$1,627,490	$908,991	$894,111
Bristol		Urban	17508	BLUEFIELD - HOCKMAN PIKE - BRIDGE REPLACEMENT	$4,218,300	$1,579,873	$1,111,048	$1,527,379
Bristol	0460	Urban	17639	RTE 460 - FRONT STREET - BRIDGE REPLACEMENT	$580,435	$579,800	$635	$0
Culpeper		Urban	14645	JEFFERSON PARK AVENUE - BRIDGE REPLACEMENT	$7,990,591	$6,220,853	$1,357,208	$412,530
Culpeper	0020	Urban	75878	RTE 20 - BRIDGE REPLACEMENT	$9,195,319	$3,208,607	$110,807	$5,293,420
Culpeper		Urban	55633	CITY OF CHARLOTTESVILLE - NEW BRIDGE	$1,286,055	$1,286,055	$0	$0
Fredericksburg	0001	Urban	85956	Jeff Davis Bypass over Rte 3 Va struc 1803	$5,492,000	$0	$0	$786,078
Hampton Roads	0125	Urban	60560	RTE 125 - LOCATION STUDY (KINGS HIGHWAY BRIDGE)	$57,293,022	$6,285,128	$0	$0
Hampton Roads	0125	Urban	77566	RTE 125 - DEMO OF EXISTING BRIDGE	$3,003,239	$2,982,081	$0	$0
Hampton Roads	7017	Urban	83509	BRIDGE REPLACEMENT	$4,356,321	$850,000	$2,528,037	$0
Hampton Roads	0060	Urban	85942	Warwick Blvd over Lake Maury Va struc 1806	$2,500,000	$0	$0	$625,000
Hampton Roads	0166	Urban	85945	22nd Street over Seaboard Av Va struc 1820	$14,700,000	$0	$0	$625,000
Hampton Roads	0000	Urban	85954	Fentress Airfld Rd over Pocaty Creek Va struc 8017	$1,010,000	$0	$0	$1,009,998
Hampton Roads	0000	Urban	85955	Washington Ave over NNS and DD RWY Va struc 8009	$1,225,000	$0	$0	$1,199,998
Hampton Roads	0165	Urban	52058	RTE 165 - NIMMO PARKWAY - 4 LANE ON 6 LANE RW (RW & CN ONLY)	$67,359,332	$21,048,773	$2,000,000	$39,916,298
Hampton Roads	0134	Urban	52074	RTE 134 - 4 LANE	$6,251,487	$6,245,526	$0	$0
Hampton Roads		Urban	17544	SUNNYSIDE ROAD - APPROACHES & BRIDGE REPLACEMENT AT CSX RR	$3,668,910	$3,514,273	$0	$0
Hampton Roads	0351	Urban	13431	RTE 351 - 4 LANES & BRIDGE REPLACEMENT	$10,129,963	$10,201,795	$0	$0
Hampton Roads	0013	Urban	1904	RTE 13 - BRIDGE REPLACEMENT	$142,709,543	$58,674,396	$8,539,425	$75,495,722
Lynchburg		Urban	17740	PIEDMONT DRIVE - INCLUDING PARALLEL ROBERTSON BRIDGE	$55,067,852	$8,764,000	$2,224,434	$18,874,367
Lynchburg	0501	Urban	78594	RTE 501 - BRIDGE REHABILITATION	$5,229,967	$4,350,323	$420,119	$490,896
Lynchburg	0015	Urban	78750	RTE 15 - BRIDGE REPLACEMENT	$3,659,599	$2,622,606	$909,075	$127,918
Lynchburg		Urban	68086	BERRY HILL ROAD - APPROACHES AND BRIDGE OVER POPLAR CREEK	$1,549,539	$1,161,058	$219,976	$168,505
Northern Virginia	0236	Urban	63364	RTE 236 - DUKE STREET PEDESTRIAN ACCESS IMPROVEMENTS	$500,000	$500,000	$300,000	$0
Northern Virginia		Urban	3952	LIBERIA AVENUE - 4 LANE & BRIDGE OVER SOUTHERN RAILWAY	$10,322,598	$12,261,777	$335,000	$409,000
Richmond		Urban	17777	JENNIE SCHER ROAD - APPROACHES AND BRIDGE OVER GILLIES CREEK	$2,742,189	$2,465,300	$276,889	$0

District	Route	Road System	Project Code	Description	Estimate	Previous Funding	FY08 Funding	FY09-13 Funding
Richmond		Urban	15831	RIVER ROAD - 2 LANES	$9,120,912	$8,869,662	$251,250	$0
Richmond		Urban	68730	HINTON STREET - CULVERT REPLACEMENT BY CITY	$750,403	$684,720	$0	$0
Richmond	0301	Urban	68731	RTE 301 - CULVERT REPLACEMENT BY CITY	$551,825	$289,931	$261,894	$0
Salem	0011	Urban	78751	RTE 11 (Colorado St.) Bridge Replacement over Roanoke River	$4,300,000	$2,499,878	$334,186	$390,486
Salem	0061	Urban	76679	RTE 61 - BRIDGE REPLACEMENT	$11,986,000	$1,358,263	$127,497	$7,336,585
Salem	0099	Urban	15838	RTE 99 - WIDEN FROM 2 TO 4 LANES	$18,149,023	$2,503,344	$554,074	$3,018,659
Salem	0220	Urban	17692	RTE 220 - SOUTH MAIN STREET - VARIES FROM 2 TO 4 LANES	$7,802,253	$2,284,936	$265,254	$1,448,310
Salem	0011	Urban	52076	RTE 11 - APPERSON DR - INTERSECTION IMPROVEMENTS	$31,677,459	$3,461,948	$1,485,757	$4,937,549
Staunton	0060	Urban	17831	RTE 60 - MAIN STREET BRIDGE REPLACEMENT	$7,039,635	$2,379,888	$1,133,310	$4,272,000
Staunton	0060	Urban	85354	Replace Bridge on East Nelson Street (Route 60)	$500,000	$0	$428,049	$1,399,123

Appendix C – Federally Funded Bridge Maintenance and Rehabilitation Projects

District	County	Structure	Project Code	Project Description	Estimate	Funding FY08-FY13
Bristol	Tazewell	18457	82062	Bridge Rehabilitation, Rte. 19, State Structure 1125	$2,098,000	$945,269
Bristol	Wythe		86168	Deck Replacement & Substructure Repairs 0081-086-2008	$2,100,000	$2,100,000
Bristol	Wythe		86171	Deck Replacement & Substructure Repairs 0081-086-2009	$2,100,000	$2,100,000
Bristol	Wythe		86170	Superstructure Replacement & Substructure Repairs 0100-098-1008	$2,278,500	$2,278,500
Bristol	Wise		86169	Superstructure Replacement & Substructure Repairs 0078-097-1053	$1,685,375	$1,685,375
Bristol	Lee		86172	Superstructure Replacement & Substructure Repairs 0058(A)-052-1031	$2,022,750	$2,022,750
Salem	District-wide		77199	Bridge Painting	$2,070,845	$1,572,754
Salem	80	14932	83708	Bridge Deck Rehabilitation - minor bridge rehab	$466,056	$570,060
Salem	44	10066	83707	Bridge Deck Rehabilitation - minor bridge rehab	$442,967	$438,483
Salem	44	10088	83706	Bridge Deck Rehabilitation - minor bridge rehab	$264,441	$321,307
Salem	44	10172	79588	Rte. 701 Bridge Replacement	$2,660,440	$2,457,591
Salem	80	15119	84032	New - Rte. 115	$759,321	$1,228,807
Salem	11	3182	84033	New - Rte. 11	$752,972	$626,931
Salem			86779	FY08 Paint Contract	$2,500,000	$2,500,000
Salem			TBD	Replace Structure Rte #220	$1,512,640	$1,512,640
Lynchburg	Amherst	01341	78843	Minor Bridge Rehabilitation - Rt 29 over James River (VA no. 1950)	$2,196,031	$2,157,967
Lynchburg	Halifax	09176	78846	Minor Bridge Rehabilitation - Rt 96 over Mayo Creek (VA no. 1014)	$651,170	$651,170
Lynchburg	Charlotte	04850	79391	Minor Bridge Rehabilitation - Rt 92 over Bluestone Creek (VA no. 1017)	$567,131	$567,131
Lynchburg	15	04168	79949	Rte. 43 Campbell Co. (VA no. 1909)	$647,705	$647,705
Lynchburg	Pittsylvania	13444	80396	NBL 29 Bus. Over 29	$1,265,594	$1,265,594
Lynchburg	Various	various	80402	Districtwide Bridge Rehabilitation	$1,251,350	$1,251,350
Lynchburg	Various	various	80911	Districtwide Bridge Painting	$1,508,383	$1,508,383
Lynchburg	Charlotte	04971	80977	Bridge Rehabilitation - Rte 712 over Rte 15&360 - Charlotte Co - Str 019-0712-6173	$943,271	$943,271
Lynchburg		13911	83950	Minor Bridge Rehab WBL Rte 460 over Bush River Prince Edward Co	$650,500	$805,500

District	County	Structure	Project Code	Project Description	Estimate	Funding FY08-FY13
Lynchburg		13914	84030	Bridge Preventive Maintenance and System Preservation Rte. 460 WBL over Rte. 460 EBL	$574,000	$729,000
Lynchburg		04165	84524	Bridge Rehabilitation Rte 43 over Plumtree Branch	$990,000	$673,200
Lynchburg	Prince Edward	13898	84223	Bridge Rehabilitation WBL Rte 360 over NS Railway	$702,000	$862,508
Lynchburg		1032	84954	Route 15 over Routes 15 Bypass and 360,Charlotte County; Bridge Rehabilitation	$2,055,631	$2,158,631
Richmond	Prince George	14069	80978	Rte 156 Bridge over James River - Painting	$9,100,000	$9,400,000
Richmond	074		83970	Superstructure Replacement Rte 301 over Warwick Swamp	$650,000	$758,552
Richmond	123		83971	Deck Replacement Sycamore St over Interstate 85	$3,150,270	$3,150,270
Richmond	012		83972	Deck overlay and repairs Rte 1 over Waqua Creek	$1,176,960	$1,176,960
Hampton Roads	Virginia Beach	22230	80423	Clean and Repaint Bridges Rrte. 264 - 2 Structures, Virginia Beach	$637,640	$915,001
Hampton Roads	Norfolk	21030	80424	Clean and Repaint Bridge Rte 464 Norfolk	$704,496	$720,961
Hampton Roads	Chesapeake	21868	80686	Clean and Repaint High Rise Bridge- Rte. 64 over E. br. Eliz. River, Chesapeake	$8,053,868	$8,020,768
Hampton Roads	Newport News	20752	80687	Waterproof Concrete Beams 2 Structures, Rte 664 , Newport News	$2,168,433	$2,168,433
Hampton Roads	James City	10472	80688	Clean and Repaint Bridges 2 Structures Rte. 64,James City Co.	$669,200	$669,196
Fredericksburg	Middlesex	12083	81961	Bridge Overlay Rte 3 over Rappahannock 0003-059-1959	$12,619,774	$9,545,222
Fredericksburg	Stafford	18113 & 18114	83163	Bridge Painting Contract for I-95 over Rappahannock (2)	$4,000,000	$4,000,000
Fredericksburg	Middlesex	12083	82613	Bridge Painting Contract for Norris Bridge	$35,000,000	$14,000,000
Fredericksburg	Various	6077	78315	Bridge Rehabilitation Rt 608 over Rt 95, BR06-088-117,M400	$3,402,226	$3,402,226
Culpeper			84943	Bridge Latex overly Rte 64 over Stockton Creek	$750,000	$750,000
Culpeper			84945	Bridge Latex overly Rte 66 over Rte 731	$450,000	$450,000
Culpeper			84946	Bridge Latex overly Rte 29 over Robinson River	$500,300	$500,300
Staunton	Alleghany	00932	64472	Bridge Major Rehab over C & O Railroad	$1,532,000	$1,532,000
Staunton			82353	Bridge Re-Painting	$1,579,560	$2,400,931
Staunton			82355	Bridge Re-Painting	$1,385,627	$1,942,051
Staunton			TBD	Bridge Re-Painting	$2,064,524	$2,064,524
NOVA	Alexandria	2800	81330	Bridge Rehabilitation on I-395 over I-395/Rte 236	$3,192,000	$2,357,340
NOVA	Fairfax	2257	85161	American Legion Bridge - VDOT portion of MD SHA contract to clean and paint	$1,462,032	$1,462,032

District	County	Structure	Project Code	Project Description	Estimate	Funding FY08-FY13
NOVA			TBD	Major Rehab, Rte 60 over Pimmit Run	$984,000	$1,084,000
NOVA			TBD	Major Rehab, I95 over Souther RR	$1,230,000	$1,230,000

Appendix D – State Funded Bridge Maintenance and Rehabilitaion Projects

District	County Code	Route No.	VA Struc. No.	Project Description	Estimate	Funding FY08 - FY13
Bristol	13	604	6119	Overlay and Repairs	$442,000	$331,840
Bristol	98	619	6192	Overlay and Repairs	$292,489	$152,500
Bristol	97	790	6204	Superstructure Replacement	$385,000	$469,700
Bristol	98	749	6069	Superstructure Replacement	$515,645	$515,645
Bristol	10	77	2022	Overlay and Repairs	$478,550	$478,550
Bristol	97	23	1010	Deck Replacement	$1,220,000	$1,220,000
Bristol	84	613	6012	Superstructure Replacement	$840,000	$840,000
Bristol	98	642	6243	Superstructure Replacement	$495,930	$495,930
Bristol	84	72	1048	Overlay and Repairs	$265,000	$323,300
Bristol	97	23	1098	Overlay and Repairs	$1,200,000	$1,464,000
Bristol	95	75	1063	Deck Replacement	$875,000	$875,000
Bristol	84	65	1047	Superstructure Replacement	$500,000	$500,000
Bristol	92	625	6174	Superstructure Replacement	$150,000	$150,000
Bristol	84	613	6012	Superstructure Replacement	$420,000	$840,000
Bristol	98	671	6045	Replace	$90,000	$90,000
Bristol	13	628	6165	Superstructure Replacement	$598,950	$598,950
Bristol	25	605	6096	Superstructure Replacement	$77,000	$77,000
Bristol	25	644	6111	Superstructure Replacement	$289,900	$289,900
Bristol	25	600	6131	Superstructure Replacement	$247,000	$247,000
Bristol	25	625	6144	Superstructure Replacement	$328,050	$328,050
Bristol	38	697	6062	Superstructure Replacement	$134,400	$134,400
Bristol	38	601	6126	Superstructure Replacement	$1,166,400	$1,166,400
Bristol	38	759	6266	Superstructure Replacement	$126,525	$126,525
Bristol	38	797	6326	Superstructure Replacement	$76,000	$76,000
Bristol	52	684	6068	Superstructure Replacement	$156,000	$156,000
Bristol	92	782	6067	Superstructure Replacement	$450,000	$450,000
Bristol	98	680	6279	Superstructure Replacement	$350,000	$350,000
Bristol	52	687	6070	Superstructure Replacement	$173,000	$173,000
Bristol	52	724	6077	Superstructure Replacement	$132,250	$132,250
Bristol	52	612	6098	Superstructure Replacement	$110,250	$110,250
Bristol	52	612	6111	Superstructure Replacement	$137,700	$137,700
Bristol	52	602	6359	Superstructure Replacement	$78,325	$78,325
Bristol	52	611	6389	Deck Replacement	$81,940	$81,940
Bristol	52	740	6401	Replace	$148,712	$148,712
Bristol	52	708	6424	Superstructure Replacement	$96,400	$96,400
Bristol	52	611	6455	Superstructure Replacement	$135,625	$135,625
Bristol	52	738	6461	Superstructure Replacement	$130,000	$130,000
Bristol	52	612	6467	Superstructure Replacement	$78,000	$78,000
Bristol	52	643	6468	Superstructure Replacement	$141,600	$141,600
Bristol	52	610	6478	Superstructure Replacement	$78,000	$78,000
Bristol	52	656	6503	Superstructure Replacement	$126,000	$126,000
Bristol	52	672	6504	Superstructure Replacement	$84,000	$84,000
Bristol	52	680	6505	Superstructure Replacement	$84,000	$84,000

District	County Code	Route No.	VA Struc. No.	Project Description	Estimate	Funding FY08 - FY13
Bristol	83	642	6062	Superstructure Replacement	$504,700	$504,700
Bristol	83	678	6246	Superstructure Replacement	$234,300	$234,300
Bristol	84	603	6007	Superstructure Replacement	$194,400	$194,400
Bristol	84	624	6039	Replace	$209,248	$209,248
Bristol	84	649	6066	Superstructure Replacement	$293,250	$293,250
Bristol	84	669	6091	Superstructure Replacement	$264,475	$264,475
Bristol	84	680	6097	Superstructure Replacement	$159,375	$159,375
Bristol	84	689	6103	Replace	$189,875	$189,875
Bristol	84	696	6133	Replace	$117,600	$117,600
Bristol	84	778	6261	Superstructure Replacement	$96,400	$96,400
Bristol	84	704	6300	Superstructure Replacement	$105,925	$105,925
Bristol	84	759	6325	Superstructure Replacement	$74,200	$74,200
Bristol	84	700	6387	Superstructure Replacement	$106,575	$106,575
Bristol	84	902	6417	Superstructure Replacement	$70,725	$70,725
Bristol	84	671	6455	Superstructure Replacement	$230,850	$230,850
Bristol	84	682	6462	Replace	$100,000	$100,000
Bristol	84	622	6480	Superstructure Replacement	$97,750	$97,750
Bristol	84	671	6491	Superstructure Replacement	$117,500	$117,500
Bristol	84	685	6522	Superstructure Replacement	$132,550	$132,550
Bristol	84	659	6530	Superstructure Replacement	$162,000	$162,000
Bristol	84	636	6544	Replace	$116,000	$116,000
Bristol	86	348	1072	Superstructure Replacement	$71,500	$71,500
Bristol	86	617	6019	Superstructure Replacement	$172,550	$172,550
Bristol	86	622	6024	Superstructure Replacement	$163,350	$163,350
Bristol	86	620	6026	Superstructure Replacement	$179,100	$179,100
Bristol	86	622	6028	Superstructure Replacement	$252,000	$252,000
Bristol	86	672	6078	Replace	$126,750	$126,750
Bristol	86	742	6292	Superstructure Replacement	$72,000	$72,000
Bristol	92	91	1104	Superstructure Replacement	$120,750	$120,750
Bristol	92	625	6025	Superstructure Replacement	$268,720	$268,720
Bristol	92	643	6069	Superstructure Replacement	$131,250	$131,250
Bristol	92	650	6199	Substructure Repair	$50,000	$50,000
Bristol	95	80	1047	Superstructure Replacement	$312,375	$312,375
Bristol	95	616	6025	Superstructure Replacement	$250,275	$250,275
Bristol	95	634	6195	Superstructure Replacement	$57,000	$57,000
Bristol	95	684	6410	Superstructure Replacement	$65,450	$65,450
Bristol	97	686	6004	Superstructure Replacement	$153,900	$153,900
Salem	9	122	1013	Deck overlay; super/sub repairs	$431,640	$431,640
Salem	9	634	6371	Deck overlay; paint	$397,720	$397,720
Salem	9	689	6019	Replace w/ culvert	$236,972	$236,972
Salem	9	725	6128	Replace Bridge	$279,555	$121,000
Salem	9	808	6179	Replace Bridge	$258,351	$196,000
Salem	11	11	1032	Deck overlay; sub repairs	$645,120	$645,120
Salem	11	43	1015	Superstructure replacement	$1,037,030	$988,030

District	County Code	Route No.	VA Struc. No.	Project Description	Estimate	Funding FY08 - FY13
Salem	11	81	2004	Deck overlay; sub. repairs; paint	$483,318	$483,318
Salem	11	81	2005	Deck overlay; sub. repairs; paint	$386,265	$386,265
Salem	11	81	2008	Deck overlay; sub repairs	$462,000	$462,000
Salem	11	81	2009	Deck overlay; sub repairs	$512,160	$512,160
Salem	11	81	2026	Deck super & sub repairs; polymer overlay	$396,000	$396,000
Salem	11	81	2027	Deck super & sub repairs; polymer overlay	$396,000	$396,000
Salem	11	81	2028	Deck super & sub repairs; polymer overlay	$396,000	$396,000
Salem	11	81	2029	Deck super & sub repairs; polymer overlay	$396,000	$396,000
Salem	17	94	1010	Deck rehab; joints; super & sub repairs	$467,946	$262,752
Salem	22	311	1022	Superstructure replacement	$692,460	$692,460
Salem	22	311	1036	Superstructure replacement	$832,556	$733,146
Salem	22	615	6116	Deck overlay; super/sub repairs	$341,227	$108,738
Salem	31	221	1020	Deck overlay	$532,874	$445,371
Salem	33	40	1009	Repaint; struct. steel repairs; scour repair	$1,021,362	$1,021,362
Salem	33	613	6481	Replace timber deck; paint	$254,903	$254,903
Salem	33	641	6051	Replace timber deck; paint	$157,824	$157,824
Salem	33	890	6214	Deck overlay; super/sub repairs	$319,038	$309,653
Salem	33	919	6211	Superstructure replacement	$826,880	$826,880
Salem	33	927	6358	Superstructure replacement	$270,182	$270,182
Salem	35	61	1080	Deck overlay	$452,118	$293,352
Salem	35	730	6057	Deck overlay	$330,000	$330,000
Salem	35	1404	6187	Deck overlay; super/sub repairs; paint	$301,110	$301,110
Salem	44	629	6180	Paint	$462,000	$462,000
Salem	44	57A	1070	Total rehab	$431,689	$272,513
Salem	44	57A	6241	Deck overlay; super repairs	$1,359,670	$1,359,670
Salem	60	11	1008	Superstructure replacement	$1,087,150	$1,027,150
Salem	60	81	2004	Paint; bearing repairs; joints; deck overlay	$304,292	$304,292
Salem	60	81	2005	Paint; bearing repairs; joints; deck overlay	$369,378	$369,378
Salem	60	679	6050	Replace timber deck; paint	$155,744	$155,744
Salem	60	773	6132	Repair truss members; paint truss	$362,979	$362,979
Salem	70	40	1035	Superstructure replacement	$452,287	$452,287
Salem	70	40	1041	Superstructure replacement	$671,558	$456,040
Salem	70	103	1027	Total rehab	$511,157	$289,728
Salem	70	649	6154	Replace timber deck; paint	$142,465	$142,465
Salem	70	701	6123	Replace deck; paint; super. repairs	$264,890	$264,890

District	County Code	Route No.	VA Struc. No.	Project Description	Estimate	Funding FY08 - FY13
Salem	77	81	2028	Repair overlay; paint; joints; repair lighting	$337,292	$337,292
Salem	77	81	2029	Deck overlay; paint; super/sub repairs	$1,159,295	$1,159,295
Salem	77	100	1041	Deck overlay; super/sub repairs	$363,797	$338,797
Salem	77	611	6166	Deck overlay; super/sub repairs	$725,848	$619,532
Salem	77	658	6032	Superstructure replacement	$143,299	$143,299
Salem	80	81	2004	Deck overlay; paint; super/sub repairs	$1,150,392	$1,150,392
Salem	80	81	2005	Deck overlay; paint; super/sub repairs	$1,359,076	$1,359,076
Salem	80	613	6262	Deck overlay	$343,812	$109,940
Salem	80	1662	6165	Replace Bridge over Mudlick Creek	$5,710,255	$2,676,000
Salem	128	581	2818	Joints; drains; paint; sub. repairs; deck overlay	$1,706,127	$360,973
Salem	128	Brandon Av.	8031	Joints; drains; paint; sub. repairs; deck overlay	$420,122	$420,122
Salem	154	81	2000	Deck overlay; super repairs	$604,658	$604,658
Salem	154	81	2001	Deck overlay; super repairs	$506,697	$506,697
Salem	Various	Various	Various	Districtwide PPM Contract	$9,000,000	$9,010,314
Richmond	74	156	1930	Fender Repair	$600,000	$600,000
Richmond	127	195	2856	Deck Replacement & Rehab.	$1,000,000	$1,000,000
Richmond	43	295	2907	Misc. Approach & Abut. Repairs	$850,000	$850,000
Richmond	42	295	2027 / 2028	Fatigue Repair & Retrofit	$500,000	$500,000
Richmond	43	Various	2039 2003	Repair and Paint	$2,000,000	$2,000,000 $0
Richmond	127	Various	1058 8020 8023	Paint	$1,500,000	$1,500,000 $0 $0
Richmond	12	46	1040	Beam and Pier Repairs	$800,000	$800,000
Hampton Roads	109	95	2800	Replace Superstructure	$5,300,000	$5,300,000
Hampton Roads	87	35	1017	Replace Superstructure	$1,100,000	$1,100,000
Hampton Roads	114	64	2900	Concrete Beam Repairs	$1,000,000	$1,000,000
Hampton Roads	122	264	1804	Fender System Repair	$311,000	$311,000
Hampton Roads	124	164	8002	Fender System Repair	$525,000	$525,000
Hampton Roads	87	58	1005	Scour Countermeasures	$270,000	$270,000
Hampton Roads	122	264	2859	Clean & Repaint	$279,800	$279,800
Hampton Roads	114	64	2816	Waterproof Decks (4 Bridges)	$1,441,000	$1,441,000
Hampton Roads	90	626	6012	Replace Box Culvert	$500,000	$500,000
Hampton Roads	46	17	1901	Concrete Beam Repairs	$1,000,000	$1,000,000
Hampton Roads	99	64	2222	Clean & Repaint	$390,000	$390,000
Hampton Roads	99	64	2007	Conc. Pile Repairs	$310,000	$310,000
Hampton Roads	124	264	2409	Clean & Repaint	$1,520,000	$1,520,000
Hampton Roads	114	64	2816	Clean & Repaint	$1,117,000	$1,117,000

District	County Code	Route No.	VA Struc. No.	Project Description	Estimate	Funding FY08 - FY13
Hampton Roads	114	64	2827	Conc. Pile Repairs	$800,000	$800,000
Hampton Roads	46	17	1901	Waterproof Bridge Deck	$2,800,000	$2,800,000
Hampton Roads	87	611	6235	Repl. 4 Bridges with Culverts	$1,200,000	$1,200,000
Fredericksburg	16	95	2000	Beam & Substr. repairs	$925,000	$925,000
Fredericksburg	16	95	2001	Beam & Substr. repairs	$925,000	$925,000
Fredericksburg	89	95	2000	Superstructure Replacement	$1,100,000	$1,100,000
Fredericksburg	89	95	2001	Superstructure Replacement	$1,000,000	$1,000,000
Fredericksburg	89	95	2000	Beam repair (Accts. Rec.)	$355,000	$355,000
Fredericksburg	89	95	2001	Beam repair (Accts. Rec.)	$355,000	$355,000
Fredericksburg	89	95	2031	Beam repair (Accts. Rec.)	$356,000	$356,000
Fredericksburg	16	605	6091	Deck Repair and Overlay	$550,000	$550,000
Fredericksburg	88	606	6080	Deck Repair and Overlay	$410,000	$410,000
Fredericksburg	57	3	1948	Replace fender system	$975,000	$975,000
Fredericksburg	59	17	1961	Deck Repair and Overlay	$325,000	$325,000
Fredericksburg	36	198	1005	Superstructure Replacement	$900,000	$900,000
Fredericksburg	51	200	1011	Deck Repair and Overlay	$410,000	$410,000
Fredericksburg	66	201	1013	Pipe replacement	$510,000	$510,000
Fredericksburg	66	201	1014	Pipe replacement	$610,000	$610,000
Fredericksburg	16	207	1024	Super. & Substr. Rehab.	$460,000	$460,000
Fredericksburg	16	207	1026	Deck Repair and Overlay	$400,000	$400,000
Fredericksburg	88	208	1945	Super. & Substr. Rehab.	$1,651,896	$1,651,896
Fredericksburg	48	218	1019	Deck Repair and Overlay	$950,000	$950,000
Fredericksburg	16	301	1946	Super. & Substr. Rehab.	$2,300,000	$2,300,000
Fredericksburg	50	360	1006	Deck Replacement	$1,050,000	$1,050,000
Fredericksburg	50	360	1008	Scour Repairs	$400,000	$400,000
Fredericksburg	79	360	1945	Super. & Substr. Rehab.	$4,220,000	$4,220,000
Fredericksburg	79	360	1945	Replace fender system	$975,000	$975,000
Fredericksburg	16	605	6062	Superstructure Replacement	$700,000	$700,000
Fredericksburg	66	605	6023	Pipe replacement	$700,000	$700,000
Fredericksburg	88	608	6071	Deck Repair and Overlay	$280,000	$280,000
Fredericksburg	89	610	6038	Overlay & Substr. Rehab.	$280,000	$280,000
Fredericksburg	88	738	6070	Deck Repair and Overlay	$275,500	$275,000
Culpeper	2	618	6018	Super Structure Replacement	$850,000	$850,000
Culpeper	30	681	6320	Super Structure Replacement	$400,000	$400,000
Culpeper	23	672	6108	Super Structure Replacement	$550,000	$550,000
Culpeper	30	17	1044	Emergency Beam Repair	$250,000	$250,000
Culpeper	2	665	6055	Super Structure Replacement	$750,000	$750,000
Culpeper	various	various	various	State Force Rehab.	$3,500,000	$3,500,000
Culpeper	68	231	1900	Substructure Rehab.	$250,000	$250,000
Culpeper	32	15	1014	Deck Rehab.	$350,000	$350,000
Culpeper	32	15	1015	Deck Rehab.	$350,000	$350,000
Culpeper	23	15	1907	Major Rehab.	$600,000	$600,000
Culpeper	2	250	1900	Deck Rehab. / Polymer Overlay	$750,000	$750,000
Staunton	Various	Various	Various	Regional Bridge Repair Contract	$2,521,052	$11,400,000

District	County Code	Route No.	VA Struc. No.	Project Description	Estimate	Funding FY08 - FY13
Staunton	Various	Various	Various	Regional Gunite Contract	$490,067	$3,150,000
Staunton	Various	Various	Various	Overlay Project (2 bridges)	$520,000	$520,000
Staunton	Various	Various	Various	Overlay Project (1 bridge)	$1,400,000	$1,400,000
Staunton	Various	Various	Various	State Force Bridge Crews & Small Bridge Program	n/a	$24,060,000
NOVA	29	0095	2033	Beam Straightening	$351,000	$347,000
NOVA	29	0095	NA	Wall Panel Replacement & Repair	$400,000	$322,000
NOVA	29	0683	6081	Superstructure Replacement & Sub Repairs	$769,000	$623,000
NOVA	53	0735	6219	Minor Bridge/Structure Rehab & Repairs	$290,000	$289,000
NOVA	53	0686	6057	Minor Bridge/Structure Rehab & Repairs	$277,000	$276,000
NOVA	53	0725	6079	Minor Bridge/Structure Rehab & Repairs	$290,000	$289,000
NOVA	76	1108	6052	Minor Bridge/Structure Rehab & Repairs	$568,000	$567,000
NOVA	0	0244	1025	Minor Bridge/Structure Rehab & Repairs	$351,000	$350,000
NOVA	29	0611	6008	Minor Bridge/Structure Rehab & Repairs	$445,000	$445,000
NOVA	53	0698	6413	Minor Bridge/Structure Rehab & Repairs	$277,000	$278,000
NOVA	53	0632	6137	Minor Bridge/Structure Rehab & Repairs	$445,000	$447,000
NOVA	29	0617	6187	Minor Bridge/Structure Rehab & Repairs	$445,000	$272,000
NOVA	53	0007	1027	Minor Bridge/Structure Rehab & Repairs	$351,000	$106,000
NOVA	29	0029	1070	Minor Bridge/Structure Rehab & Repairs	$2,235,000	$227,000
NOVA	53	0611	6343	Minor Bridge/Structure Rehab & Repairs	$456,000	$49,000
NOVA	29	0029	1075	Minor Bridge/Structure Rehab & Repairs	$807,000	$53,000
NOVA	29	0677	6122	Minor Bridge/Structure Rehab & Repairs	$578,000	$53,000

Item 444 (B) 4 – Metropolitan Railroad Crossings

Executive Summary – Rail

Within the three defined areas of Northern Virginia, Richmond, and Hampton Roads, increased rail and motor vehicle traffic will have a major impact on local land use development and economic development.

Each highway-rail at-grade crossing presents the possibility of conflict and traffic delay. Mitigation of train-vehicle crash potentials will continue to be an issue of concern for transportation agencies. To date, the only methods of reducing this potential to near-zero are grade separation and grade crossing closure.

In 1993, Senate Joint Resolution 321 (SJR 321) requested VDOT to examine traffic congestion and safety-related problems at railroad grade crossings, with emphasis on grade crossings in Virginia's coastal plain. The entire inventory of 2,018 public grade crossings in the Commonwealth was analyzed using a benefit-cost approach to identify potential locations for grade separation projects. Sixteen potential projects in the state were identified as feasible at a total project cost of $73.7 million. All 16 railroad grade crossings identified in the 1993 SJR 321 report for potential improvements were in the same three metropolitan areas identified in Item 444 B.4 of the 2007 Appropriation Act: Hampton Roads (11), Richmond (4), and Northern Virginia (1).

Methodology

Grade crossings are defined as intersections where a potential conflict exists between railroad traffic and road vehicle traffic. There are two ways to completely eliminate this conflict:

- Separate the railroad and highway traffic through an improvement project that involves the construction of a bridge or underpass.
- Eliminate the railroad line or highway through abandonment, closure, or relocation.

In some instances, the problem can be relieved through actions that involve a less-than-grade separation project. In particular, accidents can be greatly reduced through a targeted program of safety improvements involving vehicle warning devices. No ready solution to traffic delay problems exists short of grade separation.

Benefit-cost analyses, as defined in SJR 321, were used to prioritize the various grade crossing projects. In addition, a five-year accident history of all grade crossings, including traffic delays, was reviewed to identify the locations where improvements could reduce accidents. A combination of the two factors, accidents and delays, can provide the basis for the improvement or a high value of either can indicate the need for making the improvement.

The overall scope and conclusions of the grade crossing report for the 2007 Appropriations Act requirement are analogous to the 1993 SJR 321 Report.

As of July 2007, there were 2,018 public at-grade crossings in the Commonwealth with 453 of these crossings in the three target metropolitan areas. Using the threshold of 1,500 annual average daily traffic movements (AADT), there are 314 crossings that should be assessed. Within the 314 crossings for the target areas, 23 are on primary routes. There are also an estimated additional 15 possible non-primary 'landlocked' one way in/out rail grade crossings. A more comprehensive review and evaluation will have to be conducted to verify the number of landlocked crossings. Further field inventory of all 314 crossings is required to establish the inclusion/exclusion of appropriate crossings in the final assessment. The estimate of the number of these crossings and locations is identified in Table 1. The names of the affected railroad companies for these 314 crossings are identified in Table 2.

Table 1 – An estimate of the number of crossings that will be assessed

	Richmond District	**Hampton Roads District**	**Northern Virginia District**	***Total***
Total Public Crossings	152	260	41	*453*
AADT over 1,500	91	190	33	*314*
State Primary Routes	8	12	3	*23*
'Landlocked' crossings (est.)	*4*	*9*	*2*	*15*

Table 2 - Affected railroads in the targeted areas

Target Area	**Class 1**	**Shortline**	**Passenger Operations**
Northern Virginia	Norfolk Southern CSX	—	Amtrak Virginia Railway Express
Richmond Metro	Norfolk Southern CSX	Buckingham Branch	Amtrak
Hampton Roads	Norfolk Southern CSX	Norfolk Portsmouth Beltline Commonwealth Railway Chesapeake and Albemarle Bay Coast Railroad	Amtrak

Studies within the Target Areas

Three studies within the target areas are either completed or underway to identify and recommend grade crossing improvements in the Richmond and Hampton Roads metropolitan areas. Northern Virginia grade crossings on the CSX/I-95 corridor have been reviewed as part of the Washington, D.C. to Richmond High Speed Rail Corridor Improvements and the MAROPS (Mid-Atlantic Rail Operations Study) and MAROPS II studies. Study activities are highlighted by target area below.

Richmond Area

The Virginia Department of Rail and Public Transportation (DRPT) is finalizing the analysis of the Richmond area conflicts and identifying needed improvements with estimated completion during the second quarter of 2008. The findings will be incorporated as part of

the Statewide Passenger Rail Plan which will be published in July 2008. After identifying these needs DRPT will move on to refine the conceptual designs and prepare preliminary engineering designs and cost estimates. This modeling effort includes the identification of train operations and rail capacity conflicts from Washington, D.C. to Petersburg. The process for balancing freight and passenger demands will be in place during the Fall of 2008.

Hampton Roads Area

In the Suffolk Rail Impact Study (May 2007) completed by the Hampton Roads Planning District Commission, grade crossings were identified with regard to the impact of increased rail traffic due to new intermodal rail shipments generated from the construction of new port facilities and measures identified to mitigate those impacts.[1]

Grade crossings on Norfolk Southern, CSX and Commonwealth Railway lines were evaluated under mobility and safety impact areas. The study proposed near-term and long-term improvements per identified crossings. The top 12 crossing locations identified are listed in Table 3.

Table 3 – Near-Term and Long-Term Options presented in the Suffolk Rail Impact Study

Locality	Crossing	Priority	Near-Term Solution	Est. Cost	Long-Term Solution	Est. Cost
Suffolk	E. Washington St	M/S	4 Quad Gates Medians	$170,000	Finney Ave. Flyover	$30M
Suffolk	Liberty St.	M/S	Signing and Overhead Lights	$130,000	Finney Ave. Flyover	$30M
Suffolk	S. Saratoga St.	M/S	4 Quad Gates Medians	$170,000	*	
Suffolk	Nansemond Prkwy 1	M/S	Long Arm Gates	$130,000	Bypass Rd or Underpass	$20M $50M
Suffolk	S Main St.	M	*		*	
Suffolk	Wellons St	M/S	Signing and Long Arm Gates	$135,000	*	
Suffolk	N Main St.	M/S	Long Arm and Pedestrian Gates	$200,000	Connection to Pinner St.	$15M
Suffolk	Shoulders Hill Rd.	M/S	4 Quad Gates Medians	$170,000	Bypass Rd.	$20M
Suffolk	Nansemond Prkwy 2	M/S	Long Arm Gate (1)	$70,000	Overpass	$60M
Suffolk	Commerce St.	M	*		*	
Suffolk	Liberty St./Moore Ave	S	Long Arm Gates	$130,000		
Suffolk	Sportsman Blvd	S	Long Arm Gates	$130,000	Underpass	$35M

*no recommendation made in HRPDC Suffolk Rail Impact Study
Priority: M = Mobility / S = Safety

The Suffolk Rail Impact Study further identified an intermediate-term option as a safety improvement that would occur between the near-term and long-term options. The intermediate-term option was presented to include the implementation of a Rail Monitoring

[1] Suffolk Rail Impact Study completed by the Hampton Roads Planning District Commission in May 2007.

System with Variable Message Boards at all 12 grade crossings at an approximate total cost of $36 million. This system would alert drivers to the presence of trains at a crossing and suggest alternate routes.

In response to the study, the Commonwealth Transportation Board allocated $14.57 million to rail crossing improvements in Suffolk. Included in this allocation is sufficient funding to complete the Finney Avenue project which includes improvements to the rail crossing.

Northern Virginia Area

Since 1993, VDOT and DRPT have reviewed grade crossings as part of the annual FHWA/FRA Section 1103 High Speed Rail funding application. With the enactment of the SAFETEA-LU in 2002, this program has been replaced with an earmark to be submitted by the Commonwealth's Congressional Delegation. To date, no earmarks have been submitted through the delegation from VDOT.

One grade separation, Milford in Caroline County, was constructed using a combination of Section 1103 and Section 130 Highway-Rail Grade Crossing Safety funds.

The Route 651 crossing in Fairfax County was completed in 2002 using a combination of STP Safety Funds and Section 130 funds. The final cost for the project was $11.9 million with Section 130 funds capped at $969,700.

There are three significant rail projects underway in the Prince William County/Manassas area. The rail movements in this area also impact the movement of freight in the I-81 corridor. The first project is the I-66/Route 29 Gainesville Interchange. The Commonwealth Transportation Board has fully funded this project at an estimated cost of $181,374,279. During the Fall of 2007, agreement was reached with the Federal Highway Administration to allow advance right of way acquisition to occur so the project could be accelerated.

The second project within the city of Manassas is the Liberia Avenue overpass over the Norfolk Southern Railroad. Construction is underway. The third project is Nokesville Road/Route 28 overpass at Wellington Road over the Norfolk Southern Railroad. While right of way acquisition is underway, construction is not fully funded. The total project cost is $45,981,000.

Near-Term Funding of Improvements

Included in the SYIP for fiscal years 2008 and 2009 is $500,000 in Rail Preservation program funds to support the near-term improvements on Nansemond Parkway, Shoulders Hill Road and Sportsman Boulevard. These projects are identified in Table 4.

Table 4 – Near Term Grade Crossing Improvements on Commonwealth Railway

Crossing	Priority Type	Possible Solution	Planned Cost
Nansemond Prkwy 1	M/S	Long-arm Gates	$130,000
Shoulders Hill Rd	M/S	Four-quadrant Gates w/median	$170,000
Nansemond Prkwy 2	M/S	Long-arm Gate (1)	$70,000
Sportsman Blvd	S	Long-arm Gates	$130,000

Priority: M = Mobility / S = Safety

Highway-Rail Grade Crossing Improvement, Funding and Procedures

In 2006, Virginia created a dedicated Rail Enhancement Fund which receives a portion of the statewide car rental tax. Funding is approximately $23 million a year. The Commonwealth also has a dedicated Shortline Railway Preservation and Development Fund which totals $3 million each year. Projects which address rail crossings may be funded from these two sources. A complete listing of on-going projects can be viewed at

http://syip.virginiadot.org/docs/11-FY08-FINAL-DRPT-1.pdf

Of particular note from these funding sources is the 164 Rail Relocation Project in Portsmouth. This relocation project will eliminate 14 at-grade public crossings between the current I-664 and Commonwealth Railway grade separation in Chesapeake and the new APM/Maersk Terminal in Portsmouth.

In addition, House Bill 3202 of the 2007 General Assembly Session (Chapter 896) raised new dedicated statewide sources of revenue for transportation and authorizes $300 million a year for 10 years in new bonds for transportation projects. Of the bond proceeds, a minimum of 4.3% must for used for rail projects throughout the Commonwealth.

Traditionally, the federal Highway Safety Improvement Program (HSIP) [Section 130 Program] is also available to states. Under the federal guidelines, up to 50 percent of this annual allocation is available for elimination of hazards, including grade separation, crossing closure, highway or railroad relocation. Fifty percent must be used for the installation of active devices such as flashing lights and gates. Table 5 identifies the project funding amounts allocated by the Commonwealth Transportation Board since 2000.

Table 5 - Project funding amounts under Section 130 since 2000

VA Fiscal Year	$ Programmed	Funding Source	Notes
2001-02	$6,023,130	TEA-21	$1.5 million identified for Grade Separation Project in Manassas
2002-03	$5,620,000	TEA-21	$1.5 million identified for Grade Separation Project in Manassas
2003-04	$5,955,000	TEA-21	$1.5 million identified for Grade Separation Project in Manassas
2004-05	$6,855,000	TEA-21	—
2005-06	$7,350,000	TEA-21	Footnote [2]
2006-07	$4,420,000	SAFETEA-LU	—
2007-08	$4,420,000	SAFETEA-LU	$88,400 allowed for data collection[3]
2008-09	$4,420,000	SAFETEA-LU	$88,400 allowed for data collection

Applications for monies allocated under the HSIP are solicited annually. All localities and railroads have the opportunity to apply for funding to offset the cost of grade crossing improvements, including grade crossing surfaces, signals and interconnections. The applications are then reviewed and scored based on the Federal Railroad Administration (FRA) Final Accident Prediction (FAP) formula for inclusion in the program on a statewide

[2]Includes six crossing signal upgrade projects on Commonwealth Railway line in Portsmouth and five projects for High Speed Rail (CSX) corridor in Richmond.

[3]Beginning in FY2007-08, the FRA will allow VDOT to spend up to 2% of the Section 130 allocated funds on grade crossing data collection.

competitive basis. The FAP formula includes various factors including highway and train traffic, number of main tracks, paved versus unpaved highway, and functional class.

Table 6 – Projects completed in Target Areas since November 2006 report					
Target Area	**City/County**	**Route/Street Name**	**Project**	**Completed Date**	**Cost**
Northern Virginia	Fairfax Co.	Main St./Rt. 645	Upgrade Flashing Lights and Gates	3/6/2007	$192,870
	Prince William Co.	Gallagher Rd./Rt. 707	Upgrade Flashing Lights and Gates with Motion Detectors	2/15/2007	$139,600
	Prince William Co.	Featherstone Rd./Rt. 636	Install 4 Quadrant Gates and Concrete Crossing Surface	11/1/2006	$300,000
Richmond Metro	Hanover Co.	Beaverdam Rd./Rt. 715	Add Gates to Existing Flashing Lights	1/31/2007	$142,038
Hampton Roads	Suffolk	E. Washington St./Rt 337	Upgrade to 12" Lens Flashing Lights	10/4/2006	$19,487
	Suffolk	W. Constance Rd./Rt. 58	Upgrade to 12" Lens Flashing Lights	10/5/2006	$21,285
	Portsmouth	Lee Ave.	Install Flashing Lights and Gates/Interconnect	10/24/2006	$115,383
	Chesapeake	Keaton Way	Add Gates to Existing Flashing Lights	6/6/2007	$122,473

Through earmarks under the Section 1103 High Speed Rail program, funds for grade separations are also available on FRA designated High Speed Rail Corridors. These earmarks may be introduced into the federal budget by the Virginia Congressional Delegation.

Crash History and FAP Target Crossings

As identified in Appendix A, an analysis of a FAP factor of 0.060 and above has shown that 36 crossings are in the Hampton Roads (21), Richmond (8), and Northern Virginia (7) metropolitan areas. This figure is based on the number of train movements, train and highway speed, daily traffic on the highway, and vehicle-train crash history at the crossing.

These figures are calculated over a five-year span and do not reflect improvements completed at the location during that period. Active grade crossing projects are also not reflected in these calculations. Further evaluation and continued review of these crossings will be needed to properly identify appropriate grade crossing projects and improvement strategies.

Appendix A – High Final Accident Crossings

Area	City/County	Street Name	Location	AADT (2005)	Hwy Speed	Max Train Speed	Total Trains Per Day	Total Crashes (5 yr)	Total Fatalities (5 yr)	FAP
Northern Virginia	Alexandria	Slaters Lane	237’ W Abingdon	13160	25	10	1	3	0	0.14287
	Alexandria	Washington St	241’ S Slaters Ln	39362	45	10	1	1	0	0.06745
	Manassas Park	Manassas Ln	.45Mi E Euclid	14891	35	79	32	1	0	0.12218
	Manassas	Main St	244’ S Center St	3450	25	25	32	1	0	0.09137
	Prince William	Balls Ford Rd	.02Mi S Rt 781	17616	45	25	18	1	1	0.09346
	Prince William	Lee Hwy	.02Mi W Rt 55	41239	45	25	18	3	0	0.23277
	Quantico	Potomac Ave	239’ E Barnett	10353	25	79	51	0	0	0.04917
Richmond Metro	Richmond	Valley Rd	.04Mi E 2nd St	2438	25	20	15	1	0	0.06968
	Richmond	Hospital St	Int 7th St	5876	25	20	15	1	0	0.07906
	Richmond	Bells Rd	.05Mi E Meridian	9950	35	25	14	1	0	0.09984
	Richmond	Broad Rock Rd	0.8Mi W Rt 161	18813	35	79	18	3	0	0.25049
	Richmond	Hull St	Int 2nd St	16568	25	10	3	1	0	0.07226
	Richmond	Forest Hill Ave	.04Mi S Powhite	19650	40	10	2	1	0	0.08236
	Chesterfield Co	Kingsland Rd	.40Mi E Rt 637	2084	40	60	18	1	0	0.07235
	Chesterfield Co.	Curtis St	23’ E Rt 1509	2715	25	79	26	3	0	0.19122
Hampton Roads	Chesapeake	Providence Rd	.17Mi E Rt 168	17493	35	20	10	0	0	0.03282
	Chesapeake	Military Hwy	53’ S of W Military	6762	25	10	6	2	0	0.10440
	Chesapeake	Old Atlantic Ave	.29Mi E Liberty	4613	25	15	16	4	0	0.22307
	Chesapeake	Portlock Rd	.39Mi E Franklin	4487	35	5	36	1	0	0.09496
	Hampton	LaSalle Ave	67’ N Pembroke	17413	35	15	2	1	0	0.09361

Area	City/County	Street Name	Location	AADT (2005)	Hwy Speed	Max Train Speed	Total Trains Per Day	Total Crashes	Total Fatalities	FAP
	Hampton	Old Aberdeen Rd	38’ N Pembroke	1689	35	15	2	3	0	0.12255
	Hampton	Aberdeen Rd	52’ N Pembroke	10689	40	15	2	1	0	0.07791
	Newport News	Harpersville Rd	.45Mi W Rt 143	12129	25	79	25	1	0	0.09873
	Newport News	Yorktown Rd	63’ NE Rt 60	5246	25	79	25	1	0	0.09496
	Newport News	Jefferson Ave	321’ N 36th St	13144	25	15	4	0	0	0.04029
	Norfolk	Granby St	39’ S 23rd St	9616	25	25	50	0	0	0.04467
	Norfolk	Granby St	.10Mi N Little Creek	26190	25	50	12	2	0	0.17930
	Norfolk	Little Creek Rd	10Mi E Rt 460	35346	25	50	12	1	0	0.09919
	Norfolk	Hampton Blvd	Int International Terminal	30763	35	10	8	1	0	0.14218
	Portsmouth	Western Branch Blvd	.16Mi N Tyreneck	22048	45	10	2	1	0	0.08979
	Portsmouth	Frederick Blvd	.15Mi S Turnpike	39272	45	20	6	1	0	0.12894
	Portsmouth	Turnpike Rd	.65Mi E Frederick	9804	30	8	6	1	0	0.07996
	Suffolk	E Washington	22’ S Hall Ave	8270	25	40	42	1	0	0.10648
	Suffolk	Saratoga St	25’ S Hall Ave	3982	25	40	42	0	0	0.03829
	Suffolk	Wellons St	.06Mi S Wilson	1835	25	40	42	0	0	0.03328
	Suffolk	Moore St	.04Mi S Pinner	2656	25	49	5	1	0	0.05505

Source: Based on a Final Accident Prediction factor of 0.060 and above.