



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF TRANSPORTATION

1401 EAST BROAD STREET  
RICHMOND, VIRGINIA 23219-2000

November 30, 2011

The Honorable Robert F. McDonnell  
Members of the General Assembly

Dear Ladies and Gentlemen:

Chapters 36 and 152 of the 2011 Acts of Assembly direct the Commissioner of Highways to submit an annual report to the Governor and General Assembly by November 30<sup>th</sup>. The legislation specifically asks for information to be provided on the following:

- The condition and performance of the existing transportation infrastructure, using an asset management methodology and generally accepted engineering principles and business practices to identify performance standards to be used to determine those needs, and funding required to meet those needs;
- The Department's strategies for improving safety and security, increasing efficiency in agency programs and projects, and collaborating with the private sector and local government in the delivery of services;
- The operating and financial activities of the Department; and
- Other such matters of importance to transportation in the Commonwealth.

To meet the requirements of the legislation, the attached report provides separate chapters on each of the topics mentioned above. If you have any questions or need additional information, please let me know.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gregory A. Whirley, Sr.", written in dark ink.

Gregory A. Whirley, Sr.

Attachment





## **ANNUAL REPORT**

**Pursuant to:**

**Chapters 36 and 152 of the  
2011 Acts of Assembly of the Virginia General Assembly**

Virginia Department of Transportation  
1401 East Broad Street  
Richmond, Virginia 23219  
November 30, 2011



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# Executive Summary

Chapters 36 and 152 of the 2011 Acts of Assembly amended the *Code of Virginia* by adding § 33.1-13.03, which directs that by November 30 of each year the Commissioner of Highways is to deliver a report summarizing the condition and needs of the Commonwealth's highway system and the Virginia Department of Transportation's (VDOT's) strategies to improve safety and security, and increase efficiency in delivery of its programs. The new statute also instructs VDOT to report on efforts to work with the private sector and local government in the delivery of services, and to report on the operating and financial activities of the Department.

Chapter I highlights the current condition and the FY 2013 and FY 2014 biennial needs of Virginia's highway system. A more detailed comprehensive discussion is provided at [www.virginiadot.org](http://www.virginiadot.org).

Chapter II summarizes VDOT's efforts to improve the safety of both the motoring and non-motoring public, provides an overview of VDOT's security programs and protocols and discusses VDOT's efforts in working with the private sector and local governments.

Chapter III provides budget performance data on the operating and financial activities of VDOT for the reporting period FY 2011 (July 1, 2010 – June 30, 2011.)

VDOT believes that agency activities, as they relate or contribute to multimodal systems warrant mention in this report. Chapter IV summarizes VDOT's role in support of the development of effective multimodal systems.





# I.

## Condition and Performance of the Existing Transportation Infrastructure

Chapter I provides a summary update on the condition and performance of the VDOT maintained portion of the Commonwealth's transportation infrastructure. VDOT has completed a detailed report providing this information that is available at [www.virginiadot.org](http://www.virginiadot.org).

### **Overview of Methods**

Ninety-three percent of the needs reported here are based on actual or extrapolated asset inventories, unit cost of work, and repair decision trees that generate recommendations based on the physical condition of assets or frequency of work standards and expected service life of assets. The remaining 7% based on expenditure information from previous fiscal years.

### **Total Maintenance and Operations Needs**

- Maintenance and operations needs are identified in two major categories – investments and services. Generally, investments are those activities that extend the life or replace assets. Services are those activities that include emergency and incident response, pothole patching, ditch cleaning, operating the rest areas, ferries, tunnels and traffic operations centers.
- For the FY 2013-2014 biennium, total maintenance and operations needs, exclusive of major reconstruction of pavements and bridges which should be considered in the Six Year Improvement Program (SYIP), are \$3.80 billion, as shown in Table I.1. In terms of FY 2013 dollars, this is a 1% decrease compared to the 2009 assessment.
- Pavement and bridge reconstruction needs total \$1.09 billion (\$177 million for pavement reconstruction and \$916.4 million for bridge replacement) for the biennium. When these needs are included, the total maintenance and reconstruction needs for the biennium are \$4.89 billion.
- Funding for the work needed to maintain and operate the existing system in FYs 2013 and 2014, including major reconstruction of pavements and bridges, comes from both the Highway Maintenance and Operations Program and the SYIP. Approximately \$302 million in pavement projects and \$469 million in bridge replacement and rehabilitation projects in the SYIP are scheduled to be completed during the FY 2013-2014 biennium. Although each of these projects is not necessarily designed to address specific pavement and bridge deficiencies (the sum of funding on these projects in the SYIP does not offset an equivalent amount of maintenance and operations need), they will contribute to reaching the performance targets for bridges and pavements.

**Table I.1 FY 2013 and 2014 VDOT Needs by Category and Service Area**

(Dollars Millions)

		FY 13-14 M&O Needs	FY 13-14 SYIP Funds Needed for Pavement & Bridge Reconstruction	FY 13-14 Six Year M & O Program Budget	Pavement & Bridge Replacement/ Rehabilitation Projects in the FY 13-14 SYIP
<b>Investment</b>					
Road Surface	Interstate	\$132.2	\$86.1		
	Primary	403.4	90.9		
	Secondary	431.6	0.0		
	<b>Sub-Total</b>	<b>\$967.2</b>	<b>\$177.0</b>		<b>\$301.6</b>
Bridges	Interstate	116.1	344.4		
	Primary	134.8	355.6		
	Secondary	73.2	216.4		
	<b>Sub-Total</b>	<b>\$324.1</b>	<b>\$916.4</b>		<b>\$468.9</b>
Tunnels		56.2	0.0		
Traffic and Safety		561.7	0.0		
Emergency and Incident Management		73.1	0.0		
	<b>Investment Total</b>	<b>\$1,982.3</b>	<b>\$1,093.4</b>		<b>\$770.5</b>
<b>Services</b>					
Facility and Other		416.0	0.0		
Roadway		390.7	0.0		
Roadside		356.4	0.0		
Emergency and Incident Management		437.4	0.0		
Traffic and Safety		212.9	0.0		
	<b>Services Total</b>	<b>\$1,813.4</b>	<b>\$0.0</b>		
	<b>Grand Total</b>	<b>\$3,795.7</b>	<b>\$1,093.4</b>	<b>\$2,936.0</b>	<b>\$770.5</b>

Totals may not match sum of parts due to rounding.

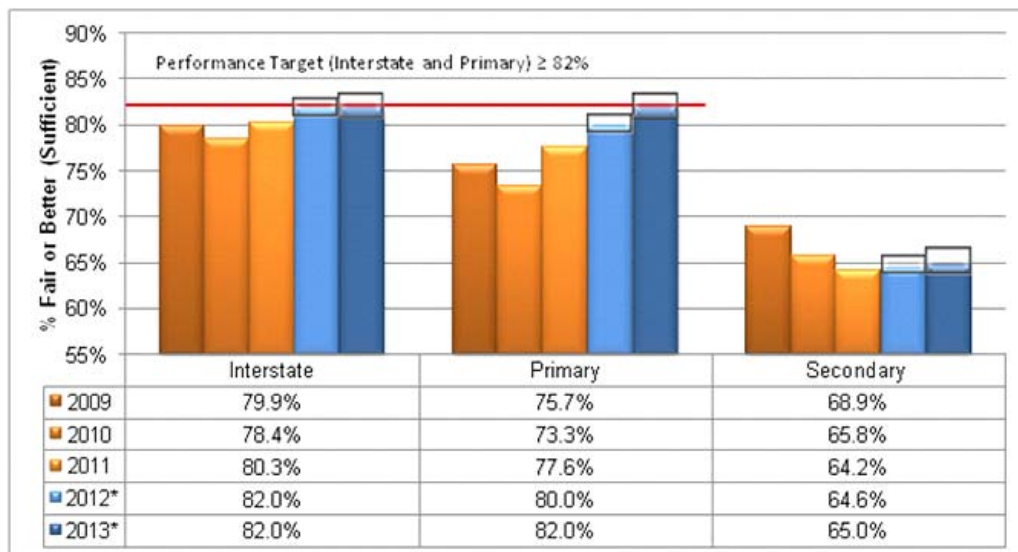
### Projected Funding Gap for Maintenance and Operations

- The Six Year Maintenance and Operations Plan allocates \$1.44 billion in FY 2013 and \$1.50 billion in FY 2014. This is \$467 million (in FY 2013) and \$393 million (in FY 2014) less than the \$1.91 billion and \$1.89 billion needed (once pavement and bridge reconstruction is removed from the needs) to meet performance targets and deliver services.

### Pavement and Bridge Condition and Investment Needs

- Bridge conditions have been improving slightly over the last three years. The statewide performance measure of 92% of bridges not structurally deficient is based on sub-targets of 97% of the interstate structure, 94% of the primary structure and 89% of the secondary structures. Current conditions for bridges and large culverts are as follows:

- Statewide – 91.8% not structurally deficient
  - Interstate – 96.6% not structurally deficient
  - Primary – 94.3% not structurally deficient
  - Secondary – 89.6% not structurally deficient
- The assessment used a target of 92% of bridges and large culverts not structurally deficient. Current conditions are 91.7%. An assessment of ongoing work scheduled to be completed by the end of FY 2012 indicates bridges should reach the performance target of 92% not structurally deficient by the end of FY 2012. The extent to which bridge replacement projects are identified and funded in the SYIP will determine whether VDOT is able to maintain this target.
  - Bridge investment needs are \$324.1 million for the FY 2013-2014 biennium.
  - Figure I.1 summarizes pavement conditions for the interstate, primary and secondary road systems and shows the targets for FYs 2012 and 2013. Interstate and primary system pavement conditions have improved slightly from 78.4% of interstate and 73.3% of primary system pavements in fair or better condition in 2010, to 80.3% of interstate and 77.6% of primary system pavements in fair or better condition in 2011. Secondary system pavement conditions deteriorated from 65.8% in fair or better condition in 2010 to 64.2% in 2011.



**Figure I.1 Statewide Percent Sufficient Pavements by System**

- The next pavement condition assessment (scheduled for early 2012) is expected to show that interstate pavement will have reached the target of 82% in fair or better condition as a result of work completed during the 2011 paving season. With ongoing and future

paving work scheduled to be complete by the end of 2012, the condition assessment scheduled for early 2013 is expected to show that 82% of primary system pavements are in fair or better condition. Secondary pavements are currently at 64.2% sufficiency and the needs are set at 65% sufficiency statewide.

- The recently acquired pavement management system, which is used to model pavement performance and generate treatment recommendations, is generating substantial benefits. Over time, applying the right treatment at the right time reduces the rate of pavement deterioration and reduces the future cost of maintaining performance targets. The improvements in pavements over the last two cycles are showing good results.
- Pavement investment needs are \$967.2 million for the FY 2013-2014 biennium.

## **Tunnel Needs**

- Tunnel investment needs are \$56.2 million for FY 2013 and 2014, which include critical replacement projects addressing major risk areas such as fire safety, accident mitigation, systems, structural, and severe weather areas.
- Major replacement projects include Hampton Roads Bridge Tunnel (HRBT) electrical switchgear replacement, HRBT traffic control system repairs, Monitor Merrimac Memorial Bridge Tunnel (MMMBT) fire system repairs, MMMBT PVC replacement, HRBT Changeable Message Sign and structural replacement, and replacement of the Big Walker Mountain Tunnel and East River Mountain Tunnel closure and traffic control system.
- VDOT is transferring responsibility for the maintenance and operation of the Elizabeth River tunnels in Hampton Roads to the Elizabeth River Consortium in FY 2013. Thus, tunnel needs were reduced to take this transfer of responsibility into account. However, the agreement requires VDOT to provide \$9 million per year over the next five years toward the cost of the project. This \$9 million per year is included in tunnel needs.

## **Traffic and Safety Needs, Roadway Services and Transportation Technology**

- Investment needs for traffic and safety assets, including signs, signals, guardrail, pavement marking, and lighting total \$561.7 million for the biennium.
- Investment needs for transportation technology, which includes maintenance and replacement needs for traffic sensors, cameras, TOC operating systems, overhead and portable message boards, total \$73.1 million.
- Funds needed to provide emergency and incident management services total \$437.4 million. Emergency response for snow and ice response is \$314.8 million. This includes Safety Service Patrol, incident response, TOC operations, snow and ice removal, and management of technology assets.

- Funds needed to provide roadway services, including pot hole patching, bridge deck cleaning, tunnel tile cleaning, and other ordinary maintenance, total \$390.7 million.
- Funds needed to provide roadside services, including drainage management, vegetation management, and sound barrier management total \$356.4 million.
- Funds needed to provide traffic and safety services, including guardrail, signal, sign, lighting, and pavement marking management, as well as traffic engineering services total \$212.9 million.
- Funds needed to provide facility and other services, including equipment management, ferry management, rest area and wayside management, sidewalk and trail management, permitting, and management and direction total \$416.0 million.

### **Maintenance Payments to Localities**

- Maintenance payments to localities for FY 2011 totaled \$338.8 million. In FY 2012, the total allocation for these payments is \$352.3 million. The assessment conducted for this report does not include needs for locally maintained roads.

### **Summary**

In summary, the biennial investment to maintain and operate the existing surface transportation infrastructure for FY 2013 and 2014 is estimated to be \$3.80 billion. The needs assessment shows that needs have declined from the previous assessment by 1%. The improving conditions for Interstate and Primary pavements demonstrate that the asset management approach to maintenance is having a positive effect on pavement conditions with both Interstate and Primary pavements reaching their targets or staying at their 82% sufficiency rate over the upcoming biennium.

The needs for critical emergency response to weather conditions such as snow and ice and to incident clearance continue to be priorities as a part of VDOT's public safety mission. The detailed needs report found at [www.virginiadot.org](http://www.virginiadot.org) also identifies the need for the complex industrial facilities in our tunnels to keep them safe and secure, to maintain and improve key safety and traffic management assets, and to provide improved traffic information to assist motorists in congested areas.

## II. Safety, Security and Collaborating with the Private Sector and Local Government

Chapter II summarizes VDOT's efforts to improve the safety of both the motoring and non-motoring public, provides an overview of VDOT's security programs and protocols and discusses VDOT's efforts in working with the private sector and local governments.

Goal 7 of the *Virginia Department of Transportation Business Plan, FY12 – FY14* (Business Plan) addresses transportation safety. Section II.1, Safety, summarizes VDOT's progress in pursuit of that goal. For example, VDOT has made substantial progress towards implementing the VDOT Safety Action Items in the Business Plan. In addition, VDOT utilizes the latest in data driven analysis and benefit-cost project evaluation techniques to develop projects that provide the greatest safety benefits for users of the highway system. At the same time, the Department recognizes that there are highway system users for whom accident incident data do not meet the needed thresholds to be recognized by those techniques, yet whose safety issues are no less important. Bike and pedestrian travelers are one example. To overcome the bias in the analysis techniques VDOT has developed protocols and programs to ensure that bike and pedestrian safety issues are sufficiently recognized and addressed.

Section II.2 of this chapter presents an overview of the Transportation Critical Infrastructure program area, VDOT's programming area responsible for developing and implementing policies and procedures to ensure the security of its personnel and the Commonwealth's transportation assets. Implementing a comprehensive strategy to protect against a wide range of natural disasters and constantly evolving man-made security threats requires constant review and training. This program area operates in a multimodal, inter-agency environment with federal and state public safety entities. For security reasons, the Annual Report is restricted in what it can report in a public document, but the report strives to show the diverse range of VDOT security programs, protocols and projects.

Another goal of VDOT's Business Plan is to "Establish sustainable and stable financial support" through the pursuit of objectives such as maximizing the use of private financial resources. In FY 2011, 65% of VDOT's spending was with private sector vendors. Section II.3 reviews VDOT's ongoing efforts to more effectively work with the private sector. In its efforts to make more effective use of the public's funds, VDOT continues to utilize innovative financing arrangements. The Department has several projects in development with private partners, and, in FY 2011, established a separate public private partnership office.

The final section in this chapter reviews VDOT's wide range of local government programs. VDOT works closely with its local partners on project development and funding. Additionally, VDOT established several educational and training programs to assist local governments in assuming greater responsibility for their transportation programs and accessing state and federal funding.

## *II.1 Safety*

### **Safety - Overview**

Safety is VDOT's highest priority when developing and implementing any transportation project or program. This section of the Annual Report describes VDOT's efforts to reduce deaths and injuries from crashes on the Commonwealth's highways and streets.

The VDOT Business Plan affirms safety as one of VDOT's overarching Department goals.

Goal 7: Improve safety across all modes of transportation by reducing transportation related injuries, fatalities, and crashes.<sup>1</sup>

The Safety section discusses VDOT's progress in fulfilling action items associated with this goal.

VDOT's core safety strategies are implemented through two main programs: the Strategic Highway Safety Plan (SHSP) and the Highway Safety Improvement Program (HSIP). Description of VDOT's initiatives and accomplishments under those programs complete the Safety section.

### **Status of the VDOT Safety Action Items identified in the Business Plan**

VDOT's Business Plan establishes the following safety goal objective: to improve highway facility safety features.<sup>2</sup> The Business Plan also establishes three Action Items to address this objective. The following summary presents those Action Items and their current status.

**Action Item 1.** Develop and implement a new Strategic Highway Safety Plan by December 31, 2011.

**Status:** The new SHSP is being developed. The revised completion date is March 2012.

**Action Item 2.** Develop a plan to improve signs in Corridors of Statewide Significance using clear fonts and new reflective materials, while reducing lighting on signs where it is feasible to do so by July 1, 2013.

**Status:** This effort is underway, beginning with I-295, then moving to I-95, I-64 and others. Unnecessary lighting will be removed.

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<sup>1</sup> *Virginia Department of Transportation Business Plan, FY12 – FY14*, p19.

<sup>2</sup> *Ibid.*

**Action Item 3.** Direct HSIP funds to invest in pavement marking, markers and other safety features by September 30, 2011.

**Status:** HSIP funds have been committed to this effort and projects are being implemented.

## **The Strategic Highway Safety Plan**

### Engineering, Education, Enforcement and Emergency Response, the 4-E Approach

Virginia has created a Surface Transportation Safety Executive Committee to initiate and coordinate a multi-agency and inter-disciplinary, engineering, education, enforcement and emergency response (4-E) approach to improving highway safety. The Virginia 2006-2010 SHSP, developed under VDOT's leadership, has been used to drive investment decisions to improve safety and reduce deaths and injuries. It details all safety partner efforts to improve traffic safety in Virginia. The 2006-2010 plan is presently being updated.

The strategic focus of the SHSP has been on correcting poor driver behavior and providing information about unexpected roadway and traffic conditions. The SHSP established the goal of reducing deaths by 100 and injuries by 4,000 from motor vehicle crashes, statewide, within the five year horizon, identifying strategies defined across three emphasis areas:

1. Human Factors Emphasis Area - strategies developed to impact driver behavior and special users such as young drivers and senior drivers.
2. Environmental Emphasis Area - strategies developed to impact intersection safety, roadway departure and work zone safety.
3. Fundamental Emphasis Area - strategies to identify Virginia's safety needs and focus on defining VDOT's safety performance. Timely and accurate traffic records are needed for better analysis, problem identification, and planning.

Work zone safety serves as an example of these efforts. The SHSP recommends the following work zone safety strategy.

Develop mandatory work zone safety training for work zone designers, installers, and reviewers. Trained personnel will enhance the implementation of temporary traffic control plans. Work crew leader accreditation will ensure compliance in construction, maintenance, utility, and permit work zones.

In furtherance of this recommendation, VDOT has undertaken several key initiatives. Since 2007, the Work Zone Traffic Control training program has trained over 24,800 VDOT staff and external customers through its one or two-day training course. In FY 2011, the Work Zone Safety Program focused on developing a revised Virginia Work Area Protection Manual, which presents standards and guidelines for designing and installing temporary traffic control devices in work zones. The revised manual becomes effective on January 1, 2012.



## The Highway Safety Improvement Program

While all maintenance and construction projects improve the safety of our transportation systems, the use of Federal Highway Administration (FHWA) funds for the Commonwealth's HSIP facilitates implementation of specific strategies to reduce crashes and their consequences.

VDOT's HSIP is comprised of the following subprograms utilizing the federal funding sources:

- Highway Safety Projects (HSP): 23 USC Section 148
- Bicycle and Pedestrian Safety (BPS) Projects: 23 USC Section 148
- Penalty Transfer-Open Container (OC) Projects: 23 USC Section 154
- High Risk Rural Roads (HRRR) Projects: 23 USC Section 148
- Highway-Rail Grade Crossing (H-RGC) Projects: 23 USC Section 130

HSP, BPS and OC are programs which address safety issues on all roads. As their titles suggest, projects under HRRR and H-RGC are much more targeted.

The resulting distribution of HSIP funding for FY 2007 to FY 2012 is shown in Table II.1.

**Table II.1 Virginia's HSIP SAFETEA-LU Allocation of Funds**

(Dollars Thousands)

Year	HSIP-Highway			Penalty Transfer - HSIP		HSIP-Rail	Total
	HSP	HRRR	BPS	HSP	BPS	H-RGC	
FY 2006-07	\$43,901	\$2,000	\$5,100	\$1,638	\$5,556	\$5,029	\$63,224
FY 2007-08	\$30,290	\$2,000	\$3,582	\$336	\$8,306	\$4,526	\$49,040
FY 2008-09	\$29,420	\$2,000	\$3,269	\$0	\$8,837	\$4,526	\$48,052
FY 2009-10	\$29,295	\$2,000	\$3,255	\$0	\$8,800	\$4,487	\$47,837
FY 2010-11	\$45,465	\$2,000	\$2,746	\$8,080	\$1,500	\$4,487	\$64,278
FY 2011-12	\$32,312	\$2,000	\$3,590	\$9,800	(1)	\$4,249	\$51,951
Total	\$210,683	\$12,000	\$21,542	\$19,854	\$32,999	\$27,304	\$324,382

Notes:

1) FY 2012 OC Penalty Transfer funds have not been allocated to projects.

HSP = Highway Safety Projects

HRRR = High Risk Rural Road

BPS = Bicycle and Pedestrian Safety Projects

H-RGC = Highway-Rail Grade Crossing Projects

## Highway Safety Projects

VDOT has developed a safety project economic evaluation methodology to assess the benefits of proposed safety improvements. All guidelines, project submittal forms, and benefit-cost spreadsheets are provided at [www.virginiadot.org](http://www.virginiadot.org).

In FY 2012, intersection improvements and traffic control devices for intersections received 63% of the HSP funding with the remainder being utilized for roadway departure treatments.

To aid in safety planning and project development, VDOT has deployed two concurrent initiatives:

- Conducting crash analysis and Roadway Safety Assessments (RSA) at identified high crash locations and corridors, and
- Partnering with a Transportation Planning program called Strategically Targeted Affordable Roadway Solutions (STARS) to conduct RSAs on corridors identified with safety, congestion and pavement condition issues.

RSA guidelines are posted on VDOT's HSIP web page with continued outreach and training of VDOT, locality, and MPO engineering and planning staff. In addition, a new screening method and new RSA process were developed for reviewing maintenance projects that are federally funded. Some urban jurisdictions have used HSIP funds to identify high crash locations, prioritize those locations for study and conduct RSAs of projects proposed for funding.

To aid in assessing effectiveness, VDOT conducts a before and after crash reduction evaluation of each completed highway safety project. The crash analysis period for these projects covers the 36 months prior to submission for funding and the same period after the completion year of the safety improvement.

## Bicycle and Pedestrian Safety Projects

VDOT is one of the few state agencies in the nation with a non-motorized safety program that improves conditions for vulnerable users, especially around schools.

The VDOT program preceded the Safe Routes to School program, established in 2005 as part of SAFETEA-LU.

Using the traditional benefit-cost crash reduction based procedures, bike and pedestrian safety improvements are typically not prioritized and programmed due to the lack of multiple crashes at a specific location. In addition, the effectiveness (crash reduction) of related countermeasures for individual locations is presently unknown.

Despite these difficulties VDOT recognizes that a high potential for risk exists for non-motorized travelers and that some people may not bike or walk because of safety concerns. Consequently, starting in FY 2004 VDOT began to set aside 10% of HSIP funds for the non-motorized safety program.

VDOT uses a ranking system for evaluating BPS project proposals. The system ranks the proposals by assigning scores to a series of questions that cover 4 main areas:

1. How clearly does the proposal identify the problem?
2. How well does the proposal identify the solution?
3. The project cost.
4. Local support for the project.

Typically, between 40 and 60 project proposals, valued between \$10 and \$15 million, are submitted each year. For FY 2012 thirty-eight BPS proposals were submitted, valued at approximately \$13 million. VDOT funded and programmed 18 (47%) of these submittals, accounting for \$6.2 million programmed over FYs 2012 and 2013.

Finally, the following three bicycle safety recommendations were included in the State Bicycle Policy Plan released on October 24th, 2011:

- VDOT should participate in RSAs for schools that are located on the State highway system, as requested. Where possible, school zone safety assessments should address bicycle access to schools, including street crossings and paved shoulders.
- VDOT should encourage biking and walking to school and provide opportunities for students to have access to bicycle safety education.
- VDOT should encourage college and universities to provide safety education classes similar to League of American Bicyclist education classes.

#### Open Container Penalty Transfer Projects

Under Section 154 of SAFETEA-LU, Virginia is penalized for its existing OC law by having 3% of Virginia's apportioned highway funds transferred from FHWA to the National Highway Traffic Safety Administration. These funds are redirected to Virginia's Office of Highway Safety at DMV. About 53% of the total penalty amount is transferred to HSIP eligible improvements as grants.

VDOT has received eleven OC grants totaling approximately \$75 million between FY 2001 and FY 2012. With the development of the BPS program, the 10% set-aside of Virginia's HSIP funding and more than 75% of the federal Penalty Transfer safety funding has been used for bike and pedestrian improvements.

A portion of the \$9.58 million FY 2011 Penalty Transfer allocation was programmed for existing projects needing additional funds.

- Virginia Capital Trail received \$1.5 million.
- Approximately \$2.9 million was placed on other existing projects.
- Approximately \$5.2 million remains unallocated on projects. Additional preliminary engineering is being conducted to better scope the plans to use these funds.

The FY 2012 \$9.8 million grant allocation has not been allocated to projects at this time, but several systemic signing and ITS improvements are being scoped and estimated.

### High Risk Rural Road Program

The HRRR Program is a set-aside provision that was introduced in SAFETEA-LU. It was established to reduce the frequency and severity of collisions on roads classified either as rural major collectors, rural minor collectors or rural local roads.

VDOT administers the HRRR program centrally with input and concurrence on recommended projects from district traffic engineering staff and funding allocated to each construction district based on the proportion of fatal and incapacitating injuries.

The set-aside for HRRR projects has been \$2 million each year since 2006. There is a required 10% state match for projects utilizing this funding. Based upon this funding, \$13.3 million has been made available for eligible projects since 2006.

Since VDOT maintains all rural roads (except for Federal Lands facilities), data are available to conduct comprehensive safety planning for the HRRR program. VDOT has developed a procedure for using this data to locate sites with potential for safety improvement. To maximize benefits from the limited HRRR funds, VDOT has focused on identification of the HRRR intersections and segments which had highly concentrated fatal and incapacitating injury crashes.

Based upon analysis of the available data, VDOT identified 71 intersections for detailed crash analysis and RSA reviews. After additional benefit-cost analysis, the decision was made to fund projects which could be completed over an intermediate time frame rather than short or long-term projects. Short-term projects are essentially maintenance treatments, and the long-term, more costly projects were provided to regional staff for funding from other sources. Upon completion of this analysis, VDOT programmed nine projects, obligating approximately \$1.5 million. For the remaining intersections, however, VDOT has allocated state funds because of their relatively low-cost and high impact, and the need for more immediate action.

For FY 2012, VDOT has focused on developing segment improvements, especially for high road departure crash locations.

To minimize preliminary engineering and unit costs, VDOT developed district-wide improvements for guardrail and delineators, skid resistance, pavement and edge drop off, sight distance, and sign and marking improvements.

### Highway Rail-Grade Crossing Program

SAFETEA-LU provides funding for safety improvements at highway/rail intersections through the H-RGC Program. A 10% match is required. The H-RGC program was implemented to reduce risk at public highway-rail grade crossings. Improvements have been initiated across several areas.

### *More Efficient Data Collection*

VDOT has developed a platform for electronic data collection and collected inventory data at highway/rail intersections that have not been surveyed within the last three years.

This platform improves the efficiency, timeliness and accuracy of H-RGC program data collection. Additionally, the inventory effort addressed requirements of the Rail Safety Improvement Act of 2008 while the inventory is used to prepare annual reports to the Federal Railroad Administration (FRA) and FHWA.

### *Greater Use of Rail Crossing Safety Equipment*

There are two Class I railroad companies operating in Virginia, with more than 3,500 miles of track and over 1,883 public at grade highway/railroad crossings.

Since the inception of the H-RGC program, VDOT has evaluated and upgraded 1,492 of these crossings (79%) with active warning devices. The remaining 389 crossings (21%) remain passive.

All crossings are continuously evaluated for possible upgrades, permanent closure or grade separation.

### *Using Information in order to More Effectively Use Scarce Resources*

VDOT uses the FRA crash risk prediction methodology as a mathematical procedure to develop a prioritized ranking of grade crossing locations statewide. Each year the priority listing based on predicted risk is generated to provide localities and railroads the following information for each highway/rail crossing:

1. Physical location;
2. Current warning device type;
3. Roadway Average Annual Daily Traffic;
4. Number of tracks, train movements and speed;
5. School bus movements;
6. Expected number of crashes.

Although crash risk is used to prioritize crossings, VDOT monitors crash severity to evaluate the program.

### *Proactive Upgrades to Improve Safety and Operations*

In an effort to make the roadways (and railways) as safe as possible, the Department has also completed projects at crossings with no previous crash history after conducting engineering reviews, receiving input from safety partners concerning “near misses” and evaluating the existing geometric and traffic control conditions.

### *H-RGC Project Funding*

Since SAFETEA-LU's implementation VDOT has received about \$4.5 million each year for rail grade crossing improvements and has funded between 20-40 H-RGC projects each year.

VDOT received 205 project proposals for FY 2012, for a total of \$32.9 million dollars. VDOT programmed 24 projects, valued at \$6.27 million for FY 2012. Projects valued at \$2.52 million were programmed for VDOT maintained roads, and projects valued at \$3.75 million were programmed for urban roads.

Ten projects added gates and flashing lights to provide active warning devices and six projects upgraded existing lights.

Other projects improved the surface and signal preemption, providing better warning and improved safety for motorists utilizing these crossings.

## *II.2. Security*

### **Security - Overview**

VDOT's Transportation Critical Infrastructure (TCI) is generally defined as systems and assets, whether physical or virtual, so vital to VDOT's mission that the incapacity or destruction of any such system or asset would have a debilitating impact on mobility, security, economic security, public health or safety, or any combination of those matters.

Security strategies and initiatives are supported within the Department by the Operations and Security Division's (OSD) Transportation Critical Infrastructure (TCI) program area. This program area oversees VDOT's security missions, and other Commonwealth initiatives and plans related to securing the transportation sector. It is a comprehensive program, guided both by the federal National Infrastructure Protection Plan and the Commonwealth's Virginia Critical Infrastructure Protection and Resiliency Strategic Plan. VDOT's OSD/TCI program area and staff are the Department's security point of contact.

The next subsection discusses several of the OSD/TCI programs and demonstrates the breadth of personnel and infrastructure security issues covered within this program area. This is followed by a summary of two future initiatives planned to improve VDOT's security efforts.

### **TCI Program Areas and Initiatives**

#### Continuity of Operations (COOP) and Related Programs

VDOT's OSD/TCI section is responsible for ensuring compliance with Commonwealth of Virginia, Office of the Governor, Executive Order 69 (2004), which requires all agencies to have a Continuity of Operations Plan. The COOP program area involves the COOP, the Pandemic

Flu Annex, Agency Business Impact Analysis (BIA), and associated Risk Assessment documents.

#### Transportation Critical Infrastructure Training Program

VDOT's OSD/TCI Section routinely coordinates and facilitates training for VDOT's CI staff in an effort to maintain awareness of the latest security topics and practices. Courses include topics such as Terrorism Security Awareness Orientation, Incident Response to Terrorist Bombing, and Surveillance Detection.

#### Critical Infrastructure Protection (CIP) Plan Program

VDOT's OSD/TCI Section developed and annually updates CIP plans for the four underwater tunnels located in Hampton Roads and is in the final stages of developing CIP plans for the two mountain tunnels located in Bristol. A CIP plan is a comprehensive document that focuses on preparing critical infrastructure facilities for potential hazards resulting from natural and man-made emergency events.

#### VDOT Personnel Security Program

Effective January 1, 2009, VDOT implemented a revised Criminal History Record Checking Policy, Department Policy Memorandum (DPM) 1-25 to ensure that all new employees, contractors and others assigned to CI sites or that have access to Critical Infrastructure Information/Sensitive Security Information have passed a criminal history records check. While not an OSD managed program area (DPM 1-25 is managed by the Human Resources Division), the TCI section routinely provides comments and suggestions towards proper implementation.

#### Land Use Permit Reviews for CI Sites

VDOT's OSD/TCI staff conducts Land Use Permit reviews to evaluate impacts that the requestor's project may have on the physical or operational security of the structure or facility.

#### VDOT Information Security Officer (ISO) Physical Security Assessment Audit

To meet VDOT ISO security requirements, the OSD/TCI section assists in the physical security assessment process for VDOT's IT server rooms. This process is guided by VDOT's Information Technology Security Program Manual and is completed within each District.

#### Foreign Visitor Clearance Coordination

In accordance with FHWA guidance, VDOT's OSD/TCI section confirms the suitability of foreign visitors and delegations which are visiting VDOT assets to ensure the visit does not contravene US restrictions on interaction with officials from a particular country.

## **Ongoing Initiatives for the Future**

### The Transportation Sector Specific Plan (TSSP)

The TSSP is part of the Governor's Office of Veterans Affairs and Homeland Security's mandate to implement the Virginia Critical Infrastructure Protection and Resiliency Strategic Plan. The TSSP is designed to provide the overall strategy for the protection and resiliency of critical infrastructure. It will detail how the transportation sector will coordinate, develop, and implement the strategy within all governmental agencies and private sector partners. VDOT has been identified as the lead agency responsible for working with transportation sector stakeholders, including those in the private sector, to develop, implement and maintain the TSSP.

### VDOT Critical Infrastructure Identification Project (Future initiative under development)

The Critical Infrastructure Identification Project will identify, prioritize and assess VDOT assets which serve a critical operational function but do not rise to the level of being federally designated as Critical Infrastructure. A major goal of both the CI Identification and the CI Baseline projects is to establish a uniform and systematic mitigation program.

## *II.3. Collaborating with the Private Sector*

### **Collaborating with the Private Sector – Overview**

VDOT continues to expand outsourcing, privatizing, or downsizing where supported by good business practices. The Department's efforts in this area also support the Business Plan goal to "Establish sustainable and stable financial support" by maximizing the use of private financial resources.<sup>3</sup> In fact, 65% of VDOT's FY 2011 spending was with private sector vendors.

This section discusses VDOT's spending with the private sector and its ongoing efforts to be more efficient by working with the private sector while maintaining management oversight to help ensure effective delivery of services. This section also provides a summary of revenue generated from asset sales and leases.

### **VDOT Spending with the Private Sector**

In FY 2011 VDOT spent \$2.33 billion of its \$3.58 billion in expenditures with private sector vendors. This represents 65% of VDOT's FY 2011 expenditures.

Included in the \$2.33 billion of private sector spending was the outsourcing of \$300 million in interstate maintenance.

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<sup>3</sup> *Virginia Department of Transportation Business Plan, FY12 – FY14, p5.*



## **Ongoing Efforts to be More Efficient and Work with the Private Sector**

### Turnkey Asset Management Services (TAMS)

TAMS contracts provide for ordinary and preventive maintenance services, including activities such as repair and replacement of right-of-way assets, and services such as emergency response, severe weather operations and management, and disposal of hazardous materials.

In FY 2011 VDOT outsourced the management and maintenance of a new Culpeper TAMS contract for \$16 million. In FY 2012 VDOT will initiate new TAMS contracts valued in excess of \$27 million as well as develop a new TAMS contract in the Richmond and Bristol Districts to replace contracts which are scheduled to end in June 2012.

VDOT also awarded contracts for the staffing, maintenance, and repair of 39 Safety Rest Areas and Welcome Centers.

### Project Delivery Utilizing Public Private Partnerships

VDOT has identified advancing public private partnerships as an important component in pursuing the Department's Business Plan Goal 2: Ensure the transportation system promotes and supports economic opportunity.<sup>4</sup> In FY 2011 VDOT established the new Office of Transportation Public-Private Partnerships (OTP3) to oversee the Commonwealth's PPTA program. OTP3 is currently working with our private sector partners to advance several on-going and proposed PPTA projects, including:

- I-495 HOT Lanes - Working with Capital Beltway Express LLC, this project is currently under construction with an anticipated December 2012 completion.
- Route 895 - Concession agreement with Transurban. Concession began in 2006. An airport connector extension was begun in 2008 and completed in 2011.
- U.S. Route 460 - Development and/or operation of the new U.S. Route 460 from Petersburg to Suffolk.
- Implemented Interim Agreement Phase 2 Deliverables in support of Comprehensive Agreement with Elizabeth River Crossings. Anticipate execution of Comprehensive Agreement in the 4<sup>th</sup> quarter 2011; financial close 4<sup>th</sup> quarter 2011/early 2012.

## **Revenue Generation from VDOT Assets**

VDOT generates revenue from the Department's assets where prudent, and where consistent with the VDOT mission.

Table II.2 summarizes FY 2011 revenues generated from VDOT assets. In FY 2011 revenues generated from VDOT assets totaled \$7.86 million.

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<sup>4</sup> *Ibid.*, p9.

**Table II.2: Summary of FY 2011 Revenues from VDOT Assets**

(Dollars Millions)

<b>Source</b>	<b>FY 2011 Revenue</b>
Right of Way Land Sales	\$1.15
Tenant Revenues on Right of Way Property	\$1.13
Cell Tower Leases at VDOT Sites	\$4.70
Interstate Rest Area Vending Machines	\$0.80
Land Development Impact Studies	\$0.08
<b>Total</b>	<b>\$7.86</b>

Right-of-Way Land Sales

VDOT offers highway right-of-way properties for sale that were previously purchased but are no longer needed. VDOT offers any properties suitable for independent development to the public via the VDOT Web site and by advertising locally. Properties not suitable for independent development are offered for sale to owners of adjoining land. In FY 2011, VDOT conveyed 48 deeds comprising 75.6 acres and received \$1.15 million in revenues.

Tenant Revenues on Right-of-Way Property

When VDOT determines that property purchased for highway right-of-way will be needed in the future, but not the near future, VDOT leases such land and improvements. For example, if funding for a highway construction project is delayed, VDOT will seek tenants for any houses on the associated right-of-way properties. In FY 2011, VDOT collected \$1.13 million from the lease of right-of-way land and improvements.

Cell Tower Leases at VDOT Sites

VDOT leases sites for cell towers at the request of telecommunications companies where alternatives are not commercially available. Cell tower revenue in FY 2011 was \$4.7 million; the FY 2012 projection is \$4.9 million.

Interstate Rest Area Vending Machines

Vending revenues are collected at those Interstate Rest Areas with vending shelters. This is accomplished through a contract with Business Opportunities for the Blind (BOB) and the VDOT Maintenance Division. VDOT and BOB generally share the commissions equally. For new vending shelters where VDOT has not yet recovered its costs, the revenue shares are modified; in that case, VDOT receives approximately 75% of the commissions until VDOT costs are recouped. VDOT's vending machine revenue at Interstate Rest Areas amounted to \$0.7 million in FY 2010. In FY 2011, VDOT's vending revenue amounted to \$0.8 million.

## Land Development Impact Studies

VDOT also recoups partial costs incurred in providing services to local governments and land developers. As authorized by Chapter 527 of the 2006 Acts of Assembly, VDOT can charge up to a \$1,000 fee to recoup costs associated with reviewing land development impact studies. In FY 2011, VDOT collected \$0.08 million in these fees.

## *II.4. Collaborating with Local Government*

### **Role of the Local Assistance Division**

VDOT's Local Assistance Division (LAD) develops and interprets policy dealing with local roads and serves as liaison with local government organizations. LAD also manages several special funding programs, manages urban system changes, prepares local assistance payments, provides oversight for locally administered projects and facilitates the delivery of the statewide urban program.

### **Communications, Partnering and Performance**

LAD maintains regular communications with local government and citizens of the Commonwealth in order to provide general information, updates, and changes about locally administered projects and other items affecting local programs.

In FY 2010, LAD produced two web-based modules to provide local government decision-makers and project managers a basic understanding of locally administered projects.

In addition to producing special publications and seminars to educate the Commonwealth about various transportation programs, LAD also maintains an external website that is regularly updated.

LAD also produces a biennial report on localities' performance in meeting VDOT's performance targets for bridges and pavements. This report was completed in 2009 and will be prepared again in 2011.

As of July 2011, 97.7% of the bridges in the county maintained system and 91.2% of the bridges in the city/town maintained system were rated in "fair or better" condition. LAD continues to report local bridge condition on a quarterly basis through Virginia Performs.

## **Targeted Funding to Achieve Safety and Efficiency in the Local Road System and to Assist in Local Economic Development**

VDOT administers several programs, both federal and state, to assist localities with funding for their road programs. The goal is to help localities implement projects that are safe, enhance community quality of life and to encourage local economic development. Projects approved under each of these programs must meet VDOT and federal standards.

### The Transportation Enhancement (TE) Program

The TE Program provides federal funding for non-motorized transportation facilities, including trails and sidewalks, rehabilitation of historic transportation facilities, landscaping, and other similar activities.

In December 2011, LAD staff completed worked with the Commonwealth Transportation Board (CTB) that established new policy to address several initiatives of the new Administration. Chief among these results were:

- An expansion of the TE eligible activities;
- Provision of a \$4 million set aside from TE program funds for high priority statewide initiatives;
- Approval of a process to identify projects that are inactive or not progressing and re-allocating funds from those projects to other approved TE projects within the district or the locality.

The CTB allocated approximately \$30 million to Enhancement projects in FY 2011. This included the approval of \$3.5 million in tourism initiatives to commemorate the Civil War's sesquicentennial (150th Anniversary).

For FY 2012, VDOT's applicant outreach efforts resulted in the submittal of 99 applications from localities or other sponsors, from which the CTB selected 82 projects for funding.

### The National Scenic Byways (NSB) Program

The NSB grant program is administered by the FHWA and provides funding for projects that benefit travelers on designated National Scenic Byways, All-American Roads, and Virginia Byways. This program allows designation of distinctive routes having relatively high aesthetic or cultural value, leading to or within areas of historical, natural or recreational significance. LAD provides ongoing technical assistance to organizations across the Commonwealth who are considering applying for NSB designation.

In FY 2010, the FHWA announced the award of an NSB grant to Brunswick County in the amount of \$638,000. The grant will be used to construct a Virginia Byways Visitor Center. In FY 2011, LAD assisted in submitting four applications, requesting approximately \$2.6 million, total.

## Revenue Sharing

The Revenue Sharing program provides for a dollar-for-dollar state match to primary, secondary or urban improvement, reconstruction, or construction projects being funded by counties, cities or towns. Application for program funding must be made by local jurisdiction resolution.

During its 2011 session, the General Assembly passed legislation that made significant changes to the revenue sharing program. The main changes are summarized in the following table.

<b>Prior to 2011 Changes</b>	<b>After 2011 Changes</b>
- There were several tiers establishing priority for project selection.	- Only one tier: Project Acceleration
- Subject to appropriation, total program funding limit was \$50 million.	- Subject to appropriation, total funding limit increased to \$200 million.
- Maximum state match was \$1 million.	- Maximum state match increased to \$10 million.

In FY 2011, the Revenue Sharing program was appropriated \$15 million. Of 120 Revenue Sharing requests for more than \$37.2 million, the CTB allocated the entire \$15 million to 68 locally administered projects.

## Access Programs

VDOT administers four local Access programs.

1. The Airport Access Roads Program provides for the construction, improvement, or maintenance of roads serving new or expanding airports.
2. The Economic Development Access Roads program provides for roads serving new or expanding economic development sites.
3. The Industrial Access Rail program provides funding of rail improvements associated with new or expanding industries.
4. The Recreational Access program provides funding for roads and bicycle facilities to new or expanding non-federal public parks.

In FY 2010, VDOT allocated \$1.1 million to assist localities with projects to access four recreational areas and \$3.8 million for projects to access seven economic development sites.

## The Rural Rustic Roads Program

The concept for the Rural Rustic Roads Program began with legislation passed during the 2002 General Assembly. The program attempts to ensure responsible environmental and financial stewardship while providing basic paved access to more of the Commonwealth's rural countryside.

Since the program was established VDOT has completed 666 rural rustic road projects at an estimated cost savings of approximately \$212 million when compared to the estimated cost of traditional construction methods.

In 2011, the program was revised to allow greater flexibility in applying environmental or stormwater requirements, and a new Rural Rustic Roads Program Manual was completed and posted on LAD's website.

The program continues to be very popular with rural counties though its use has been impacted by a loss of funding for the unpaved road program.

## **VDOT's Efforts to Assist Localities in Administering their Local Road Program**

### Devolution

With the exception of Arlington and Henrico counties, VDOT administers the road program on all secondary roads in the Commonwealth's counties. In 2001, the General Assembly enacted legislation providing boards of supervisors in any county the option to assume responsibility for any portion of the state secondary system of highways within that county's boundaries. This is known as "devolution."

Over the past two years, there has been a renewed interest in devolution options. LAD staff assisted Fairfax County with their Road Takeover Study, which was completed in the fall of 2011.

VDOT also finalized the Memorandum of Agreement to accommodate Arlington County's request to transfer Columbia Pike to the County's local system and, with CTB approval, Columbia Pike became a part of Arlington County's local road network.

### The Urban Construction Initiative (UCI)

The UCI program provides that a municipality may decide to assume the responsibility for their construction program by notifying the CTB. Municipalities express their intent to join the initiative by resolution.

This year, the City of Chesapeake and the Town of Purcellville each executed the programmatic agreement effective July 1, 2011 and now have joined the cities of Virginia Beach, Hampton, Richmond, Charlottesville, Harrisonburg, Lynchburg, Colonial Heights and Newport News and the towns of Blacksburg, Bridgewater and Dumfries in the program. This represents a total of 13 localities that under UCI agreement administer their entire construction program.

The City of Danville submitted a resolution of intent to join the initiative this year.

## Certification – A New Effort to Improve Local Efficiency and Control

UCI Certification is an opportunity for qualified UCI participating localities to proceed with delegated authority by VDOT for project administration and development with streamlined VDOT oversight on federal and state funded projects. The program was developed using the FHWA/VDOT relationship as a model, where different oversight levels and delegations are outlined for different types of projects

In FY 2010, the FHWA approved the implementation of Virginia's first local certification program for UCI. In November of 2011, Virginia Beach became the first Virginia city to qualify under the certification process.

## **Locally Administered Projects (LAPs)**

A total of 309 LAP Agreements were executed this year, up from 256 last year. In addition, 20 supplemental agreements were completed.

At the end of FY 2011, 11% of VDOT's construction program dollars were dedicated to LAPs. Further, 38% of all active VDOT projects are locally administered.

## National Federal Audit rates VDOT LAP as a Best Practice

The National Review Team Audit of locally administered projects was funded through the American Reinvestment and Revitalization Act (ARRA).

The audit rated VDOT's Locally Administered Projects Manual, coupled with the existing communication network between the Local Project Administrators (LPAs) and their VDOT District staff, as a Best Practice.

## Performance Tracking – A new Effort to Improve Efficiency and Effectiveness

This year VDOT has begun to compile and analyze a variety of data on the performance of LAPs. The purpose of the review is to establish measures, track progress, and provide consistent and meaningful tools to District and local staff.

## **VDOT's Efforts to Assist in Local Compliance**

LAD understands that self-evaluation is a key aspect of program improvement. Accordingly, a compliance assessment program for LAPs is scheduled for implementation later this year. Details of the compliance assessment program are being included in the Locally Administered Projects Manual. Results will be used to identify and prioritize guidance, training, and other outreach programs to improve LAP compliance with federal and state requirements. Implementation of this program will also help satisfy several outstanding external and internal audit findings of VDOT's LAP Program.

## **Urban Construction and Maintenance Program**

LAD provides assistance to District staff and local governments in establishing priorities for potential funding under the Urban Six Year Improvement Program. LAD also provides the Districts with assessments of the urban program on a biannual basis – comparing allocations to project estimates and current expenditures. LAD continues to work with the VDOT Steering and Technical Committees for the development and implementation of the new Roadway Network System (RNS).



### III.

## Operating and Financial Activities

The information included in this chapter provides budget performance data on the operating and financial activities of the Virginia Department of Transportation for the reporting period FY 2011 (July 1, 2010 – June 30, 2011).

This chapter begins with a summary of the state revenue collections to the Commonwealth Transportation Fund (CTF). The Highway Maintenance & Operating Fund and the Transportation Trust Fund are two of the main subfunds under the CTF. This is followed by a discussion of VDOT federal revenue. Federal revenues increased by \$225 million from FY 2010 to FY 2011, largely due to ARRA funding.

The chapter also reports on VDOT allocations and expenditures. VDOT spent \$3.6 billion in FY 2011. Administration and support represented about \$202 million of that spending. Highway maintenance, which, by code, is the Department's highest spending priority accounted for the largest single spending category, accounting for \$1.4 billion.

Construction spending totaled \$1.25 billion in FY 2011. That figure includes \$200 million in ARRA funds, up from \$65 million in ARRA construction spending in FY 2010.

Section III.3 presents fiscal year end cash balances for the major fund categories.

### III.1 State and Federal Revenue Collections

#### Commonwealth Transportation Fund State Revenue Collections

Table III.1 displays Commonwealth Transportation Fund revenue for FY 2011 and FY 2010. FY 2011 CTF revenues grew by 2.8% and finished the year slightly short of the forecasted growth rate (% Annual Growth Required by Estimate) of 3.0%.

- Motor Vehicle Sales and Use tax collections were significantly better in FY 2011 than in FY 2010, growing by 12.3%, which also exceeded the 6.9% forecasted growth rate for FY 2011.
- Motor vehicle license fees also exceeded the forecasted growth for FY 2011.
- Motor Fuels Tax collections grew by 1.7%, which was below the expected annual growth of 3.1%.
- State Sales and Use tax collections also fell short of the forecast.

**Table III.1 Commonwealth Transportation Fund  
(Highway Maintenance & Operating Fund and Transportation Trust Fund Revenues)**

(Dollars in Thousands)

Revenue	FY 2011 Estimate	Year to Date - June		% Change	% Annual Growth Required by Estimate
		FY 2011	FY 2010		
Motor Fuel Taxes	\$ 855,500	\$ 844,377	\$ 830,112	1.7	3.1
Priority Transportation Fund (PTF)	150,300	150,327	149,102	0.8	0.8
Motor Vehicle Sales and Use Tax	506,500	532,178	473,707	12.3	6.9
State Sales and Use Tax	480,800	477,329	490,714	(2.7)	(2.0)
Motor Vehicle License Fees	234,800	237,860	230,200	3.3	2.0
International Registration Plan	61,300	61,053	59,770	2.1	2.6
Recordation Tax	32,200	34,984	35,186	(0.6)	(8.5)
Interest Earnings	38,600	18,268	22,956	(20.4)	68.1
Misc. Taxes, Fees and Revenues	12,700	12,892	12,752	1.1	(0.4)
<b>Total State Taxes and Fees</b>	<b>\$ 2,372,700</b>	<b>\$ 2,369,268</b>	<b>\$ 2,304,499</b>	<b>2.8</b>	<b>3.0</b>

Source: Commonwealth of Virginia/Department of Accounts, HMOF and TTF Revenues, Summary Statement of Selected Revenue Estimates & Collections, Fiscal Years 2011 and 2010.

## VDOT Federal Revenue

Table III.2 provides a summary of federal revenue collections by VDOT Program, revealing considerable increases from FY 2010, especially for ARRA projects. “Other Programs” includes Financial Assistance to Localities (Metro Planning) and Administrative and Support Services (Training and Civil Rights Grants).

- VDOT’s federal revenue collections through June 2011 were \$224.6 million greater than in FY 2010.
- The increase was largely driven by ARRA project activity.

**Table III.2 Federal Revenue Collections**

(Dollars Thousands)

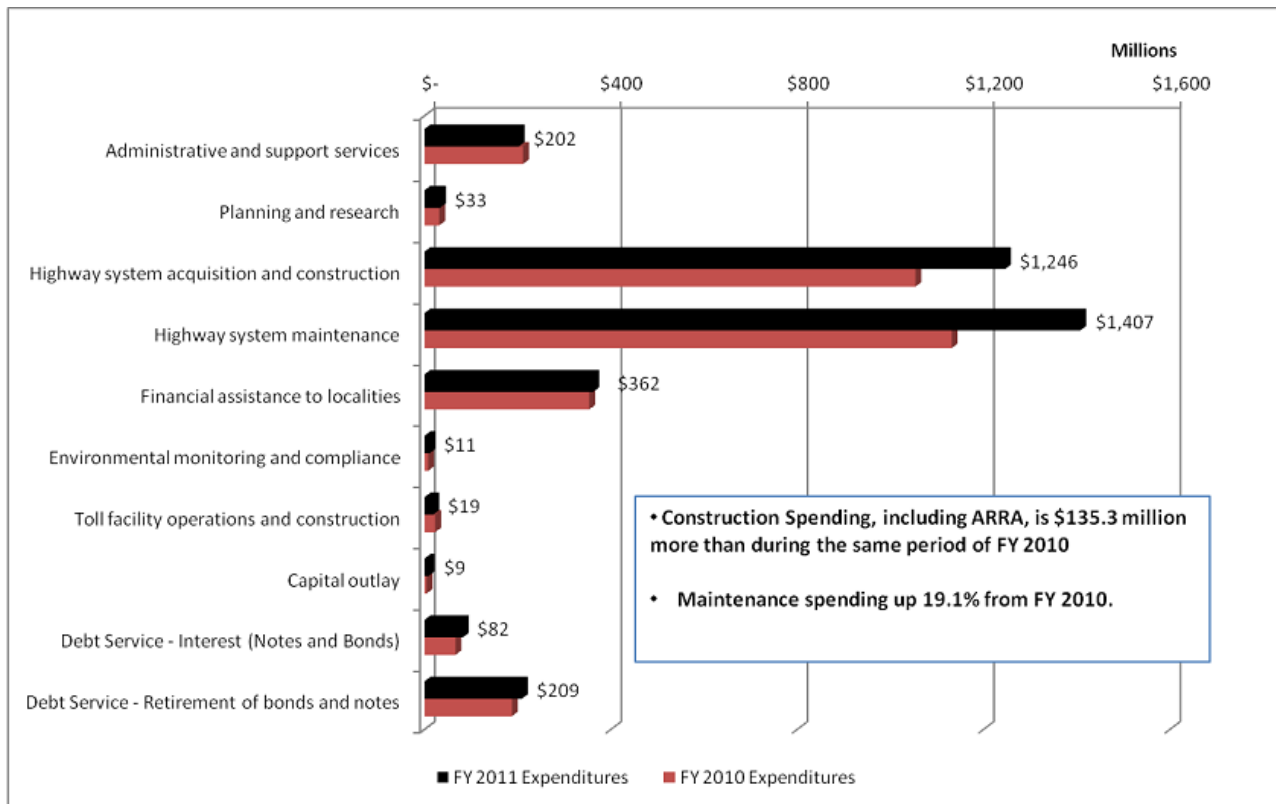
Program	FY 2011		FY 2010		Difference
	Revenue	% of Total Revenue	Revenue	% of Total Revenue	
Construction	\$ 645,903.3	57.9%	\$ 616,594.9	69.2%	\$ 29,308.4
Maintenance	235,274.7	21.1%	183,118.8	20.6%	52,155.9
ARRA	200,497.7	18.0%	64,795.8	7.3%	135,701.9
Planning & Research	14,429.4	1.3%	15,147.4	1.7%	(718.0)
Debt Service	8,062.4	0.7%	613.9	0.1%	7,448.6
Other Programs	10,812.9	1.0%	10,127.8	1.1%	685.1
<b>Total VDOT Programs</b>	<b>\$ 1,114,980.4</b>	<b>100.0%</b>	<b>\$ 890,398.5</b>	<b>100.0%</b>	<b>\$ 224,581.9</b>

## III.2 Allocations and Expenditures

### FY 2011 Spending

Figure III.1 displays expenditures by program for FYs 2010 and 2011. Maintenance spending continues to dominate overall performance. The Construction spending figure includes expenditures from ARRA projects.

- Across all programs, VDOT expended \$3.6 billion in FY 2011, \$508.5 million more than last year.
- Approximately 39% of VDOT spending was related to maintenance. This percentage jumps to 49% when maintenance payments to localities are included.
- Construction spending, including ARRA projects, accounted for approximately 34.8% of expenditures.



**Figure III.1 Expenditures by Program through June**

(Dollars Million)

## Maintenance Program

Table III.3 displays a comparison of allocations and expenditures within the Maintenance Program for FYs 2010 and 2011. While total Maintenance Program expenditures were higher than in the previous fiscal year, only 74.3% of allocations were spent. It is important to note that, at year-end close, contract paving work was in full production and has continued through the summer months. The year-end balance was lower than the previous year and, as demonstrated in the data in Figure III.2, outstanding contract balances exceeded the year-end balance.

- Maintenance program expenditures (Highway System Maintenance, only) were 24.4% greater than FY 2010. (Figure III.1 displays maintenance expenditures for VDOT Highway System and Financial Assistance to Localities.)
- Total FY 2011 spending was \$1.41 billion compared to \$1.13 billion in FY 2010.
- The largest year over year increase was in Primary Maintenance, 36.7% over FY 2010.

**Table III.3 Maintenance Program Comparison by Service Area**

(Dollars Millions)

Service Area	FY 2011			FY 2010			Difference
	Allocations	Expenditures to Date	% Expended	Allocations	Expenditures to Date	% Expended	
Interstate Maintenance	\$ 560.8	\$ 295.3	52.7%	\$ 444.7	\$ 223.4	50.2%	\$ 71.9
Primary Maintenance	689.4	476.4	69.1%	600.8	348.6	58.0%	127.8
Secondary Maintenance	423.4	422.5	99.8%	402.3	382.4	95.0%	40.1
Transportation Operations Services	144.1	142.6	99.0%	130.6	95.4	73.0%	47.2
Program Management & Direction	76.0	70.6	92.9%	83.2	81.9	98.4%	(11.3)
<b>TOTAL</b>	<b>\$ 1,893.8</b>	<b>\$ 1,407.5</b>	<b>74.3%</b>	<b>\$ 1,661.7</b>	<b>\$ 1,131.7</b>	<b>68.1%</b>	<b>\$ 275.7</b>

## **FY 2011 Allocations and Expenditures by Investment and Services**

Maintenance program spending can also be evaluated using the two major categories of investments and services.

Pavements, bridges, tunnels, guardrail, lights, pavement markings and markers, signals, signs, and technology assets are considered to be of such critical safety and operational importance that activities such as replacement, rehabilitation, major repairs, and preventive maintenance impacting their physical condition and ensuring consistent, reliable operation are classified as “asset investments.”

Maintenance and operations “services” include all activities not considered asset investment. This includes:

- Ordinary maintenance of pavements, bridges, tunnels, signs, guardrail and traffic barriers, pavement marking, signals, lighting, and traffic operation center and technology assets, such as asphalt patching, cleaning, debris and litter pick up, flushing, inspection, electrical/mechanical repair, and utility payments;
- All maintenance work on other assets;
- All operational and administrative services such as snow and ice removal, safety service patrol and other emergency and safety response services, 511 and other traveler information services, ferry service, traffic operations, facility operations, signal timing optimization, traffic engineering studies, planning and preliminary engineering for maintenance and operations, traffic count program, land use permits, and program management and direction.

Table III.4 shows a comparison of spending to budget based on investment versus services. The majority of the unspent balance is related to contracted investment work. Under Service, the large expenditure in excess of allocation in Emergency & Incident Management includes significant activity related to snow removal.

**Table III.4 FY 2011 Maintenance Program Investment versus Services Comparison**

(Dollars Millions)

		<b>Allocation</b>	<b>Expenditures</b>	<b>Percent Expended</b>
<b>Investment</b>	Roadway			
	Pavement	\$612	\$397	64.9%
	Bridges	301	127	42.2%
	Tunnels	49	13	26.5%
	Traffic & Safety*	147	69	46.9%
	Emergency & Incident Management	35	10	28.6%
<b><i>Investment Total</i></b>		<b><i>1,144</i></b>	<b><i>616</i></b>	<b><i>53.8%</i></b>
<b>Service</b>	Emergency & Incident Management	139	259	186.3%
	Traffic & Safety	85	60	70.6%
	Roadway	166	183	110.2%
	Roadside	148	148	100.0%
	Facility & Other	211	142	67.3%
<b><i>Service Total</i></b>		<b><i>749</i></b>	<b><i>792</i></b>	<b><i>105.7%</i></b>
<b>Total</b>		<b>\$1,893</b>	<b>\$1,408</b>	<b>74.4%</b>

\*Expenditures for pavement markings and guardrails on paving contracts are included in pavement expenditures.

## Comparison of Unspent Maintenance Allocation Balances to Unspent Maintenance Contract Balances

Figure III.2 displays both unspent maintenance allocation balances and unspent maintenance contract balances over the period from FY 2002 to FY 2011.

- At \$626 million, the current maintenance contract balance is 97% greater than the prior year.
- The preliminary year-end balance of \$485 million for allocation balances is lower than the previous year.

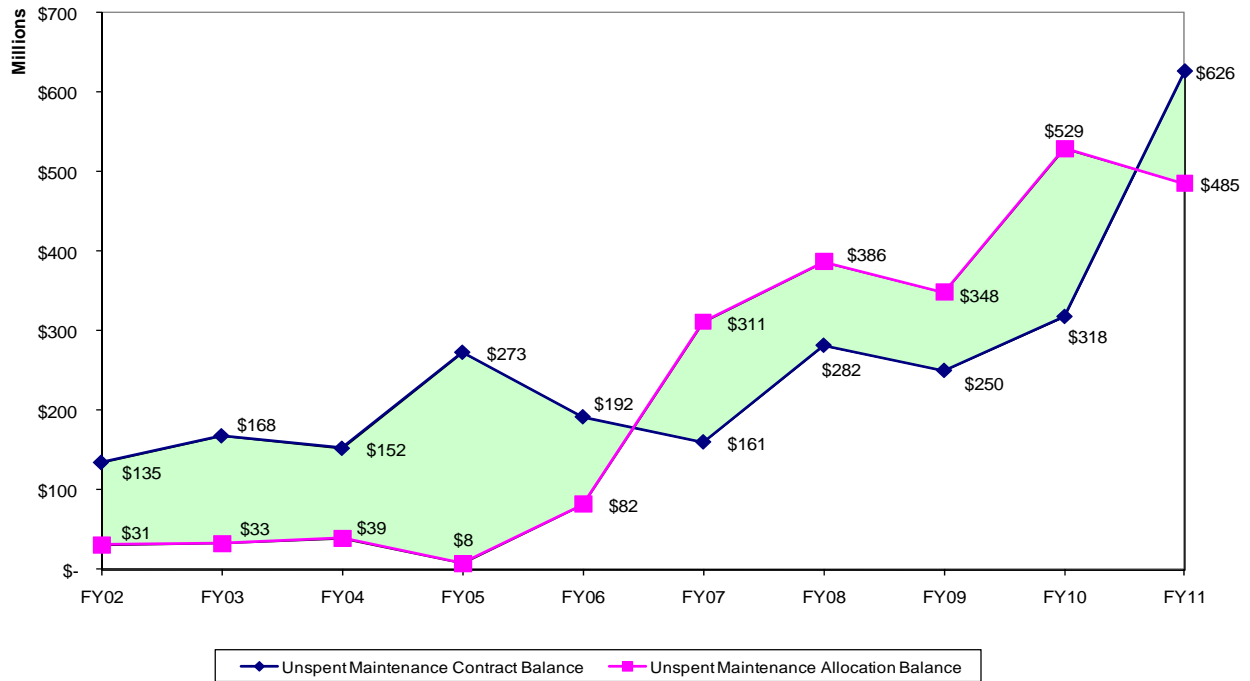


Figure III.2 Unspent Maintenance Allocation Balances to Unspent Maintenance Contract Balances



## Construction Program Spending

Table III.5 shows construction spending by Construction Program Service Area. Total construction spending was \$1.25 billion, including \$32.3 million in Construction Management.

- Spending on ARRA projects was \$200.5 million, three times the FY 2010 amount.<sup>5</sup>
- Excluding ARRA, the largest year-over-year increase was in Interstate Construction.

**Table III.5 Construction Program Comparison by Service Area**

(Dollars Millions)

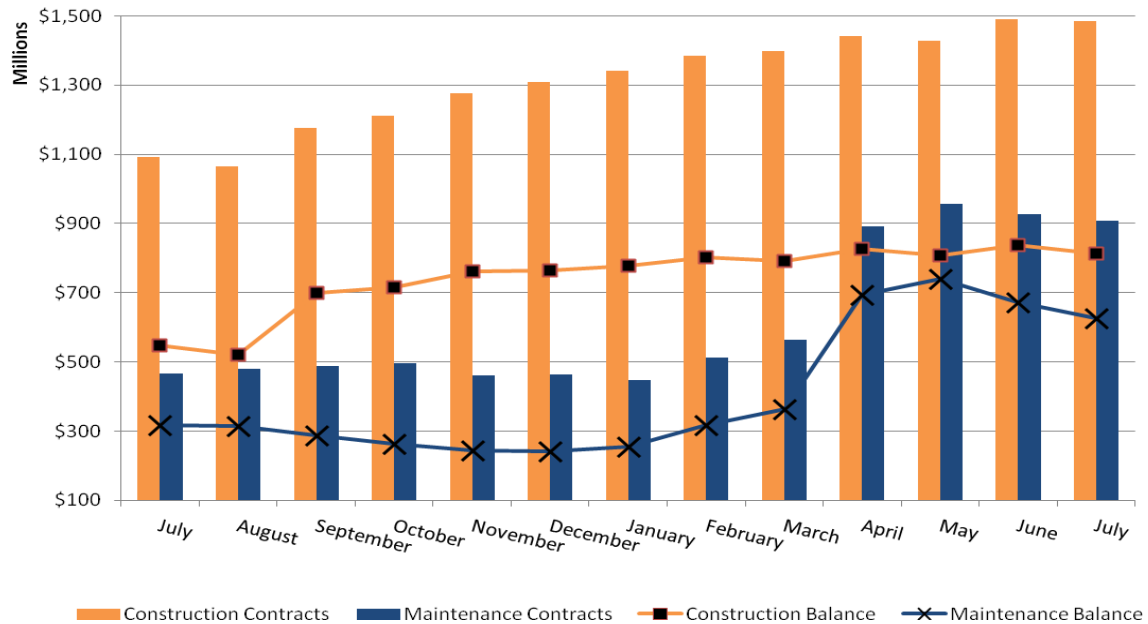
Service Area	FY 2011	FY 2010	Difference	
	Expenditures to Date	Expenditures to Date	Amount	Percentage
<b>ARRA</b>	\$ 200.5	\$ 64.8	\$ 135.7	209.4%
<b>Dedicated &amp; Statewide Construction</b>	214.5	199.6	14.9	7.5%
<b>Interstate Construction</b>	372.7	305.9	66.8	21.8%
<b>Primary Construction</b>	168.3	163.7	4.6	2.8%
<b>Secondary Construction</b>	103.0	116.8	(13.8)	-11.8%
<b>Urban Construction</b>	154.7	171.8	(17.1)	-10.0%
<b>Total Systems Construction</b>	<b>1,213.7</b>	<b>1,022.6</b>	<b>191.1</b>	<b>18.7%</b>
<b>Program Management &amp; Direction</b>	32.3	31.2	1.1	3.6%
<b>Total</b>	<b>\$ 1,246.0</b>	<b>\$ 1,053.8</b>	<b>\$ 192.2</b>	<b>18.2%</b>

<sup>5</sup> ARRA allocations of \$695.2 million were included in an addendum to VDOT's budget in April 2009 (FY 2009). Initial FHWA guidance indicated that these funds must be spent by federal fiscal year 2015; however, OMB has issued subsequent guidance that may expedite this deadline.

## Contract Work Underway: Construction and Maintenance on July 1, 2011

Figure III.3 displays awarded construction and maintenance projects for FY 2011. Total contract values were \$2.4 billion with \$1.5 billion outstanding. Construction contracts were valued at \$1.5 billion with \$837 million outstanding. Maintenance contracts were valued at \$927 million with \$671 million outstanding.

- Total contract value was \$2.4 billion, \$830 million more than last year.
- Total contract balances were 67% greater.



**Figure III.3 Construction and Maintenance Contract Work Comparison**

## Contract Work Status

Figure III.4 displays current contract work. As of July 1, 2011, the total value of all contracted work was \$5.82 billion with \$1.97 billion outstanding. A breakdown by contract type allows comparison of overall activity among Construction, Maintenance, Consultant, and PPTA/Design-Build contracts.

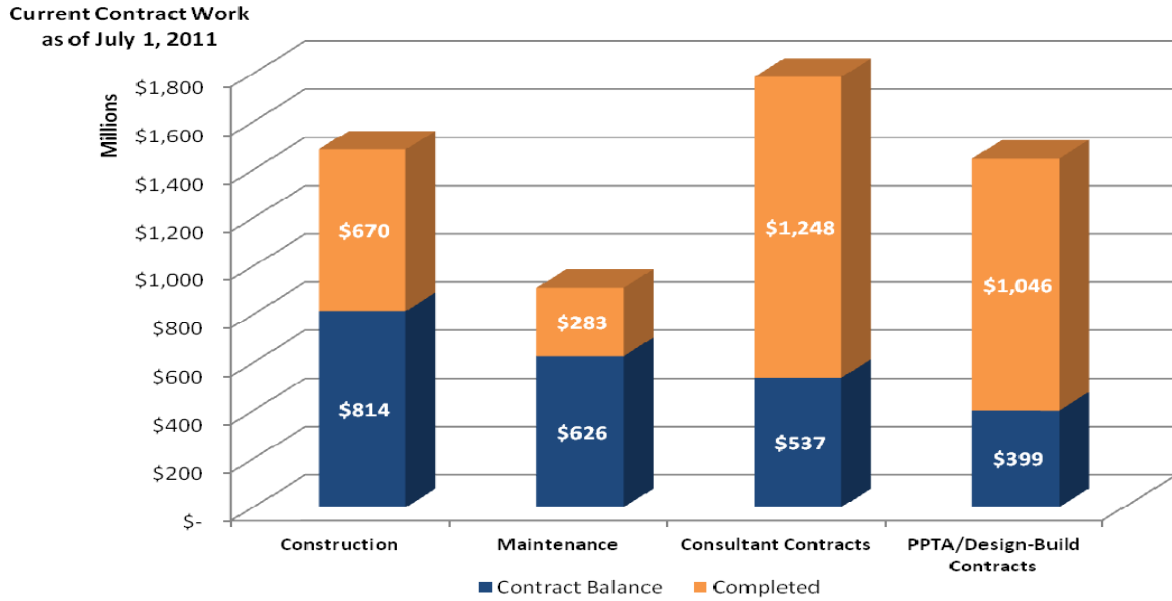


Figure III.4 Current Contract Work

### III.3 Major Fund Cash Balances - June 30, 2011 (Final)

At the end of FY 2011, the increase in the overall cash balance from FY 2010 was primarily due to bond sales and the \$32.7 million General Fund deposit to the Virginia Transportation Infrastructure Bank.

**Table III.6 Major Fund Cash Balances**

<b>Fund</b>	<b>FY 2011 - FINAL</b> (Dollars in millions)		<b>Difference</b>
	<b>FY2011</b>	<b>FY2010 Year End Balance</b>	
Highway Maintenance and Operating*	\$ 462.1	\$ 440.7	\$ 21.4
Tran Partnership Opportunity Fund	19.2	39.5	(20.3)
Concession Fund	35.7	56.6	(20.9)
Transportation Trust Funds			
Construction	\$ 601.0	\$ 478.2	\$ 122.8
Priority Transportation	89.2	73.9	15.3
Federal Reimb. Anticipation Notes	0.1	0.1	0.0
Toll Facility Revolving	145.1	131.2	13.9
Virginia Transportation Infrastructure Bank (VTIB)	32.7	-	32.7
Total Transportation Trust Fund	868.1	683.4	184.7
ARRA	11.6	5.2	6.4
CPR Bonds Fund (Cash and Securities Held by Outside Trustee)	449.6	162.7	286.9
<b>Grand Total</b>	<b>\$ 1,846.3</b>	<b>\$ 1,388.1</b>	<b>\$ 458.2</b>

\* Current contract spending activity has reduced the HMOF cash balance significantly.

## IV. Other Matters of Importance to Transportation in the Commonwealth

Section 33.1-13.03 provides, among other things, in subdivision iv, that the Commissioner of Highways shall annually report in writing to the Governor and General Assembly, no later than November 30 each year, on other matters of importance to transportation in the Commonwealth. Although not specifically identified as reportable in the legislation, VDOT believes that agency activities, as they relate or contribute to multimodal systems warrant mention in this report.

### **Multimodal Systems**

A multimodal approach is critical to modern day transportation systems. The importance of a multimodal approach to transportation in the Commonwealth is reflected in the VDOT Business Plan, which provides:

Goal 1: Establish a seamless multimodal system that moves people and freight.<sup>6</sup>

In furtherance of this Goal, VDOT strives to develop a SYIP that supports a multimodal network to move people and freight efficiently and effectively and to accelerate project delivery for construction projects. In developing the SYIP, VDOT has focused and will continue to focus on programming 10 to 15 percent of the annual construction program for new preliminary engineering phase starts each fiscal year, based on candidate projects identified through the planning process and on identifying projects that align with the CTB guidelines and the 2035 Surface Transportation Plan (STP)<sup>7</sup> for inclusion in the SYIP.

VDOT, pursuant to its business plan, is also coordinating with the OTP3 and the Multimodal planning staff to identify multimodal candidate projects, with funding, no later than December of each year.

Finally, VDOT attended the Fall 2011 Multimodal Transportation Meetings sponsored by the CTB. Representatives from VDOT, along with representatives from the departments of Rail and Public Transportation, Aviation, Motor Vehicles, the Port Authority, metropolitan planning organizations and planning district commissions attended these meetings for the purpose of highlighting their transportation programs. Public comments relating to highway projects and the 2013 -2018 SYIP are being accepted until December 12, 2011. Further details and information concerning the Multimodal Transportation meetings are available at [http://www.ctb.virginia.gov/multimodal\\_transportation\\_meetings.asp](http://www.ctb.virginia.gov/multimodal_transportation_meetings.asp).

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<sup>6</sup> *Virginia Department of Transportation Business Plan, FY12 – FY14, p7.*

<sup>7</sup> VDOT worked with DRPT to develop the 2035 Surface Transportation Plan which represents the first time VDOT and DRPT organized multimodal proposals into a single plan.



## Appendix

### Chapters 36 and 152 (2011)

This report is submitted in response to Chapters 36 and 152 of the 2011 Acts of Assembly, which among other things, amended the *Code of Virginia* by adding § 33.1-13.03, requiring the Commissioner of Highways to submit a written annual report to the Governor and General Assembly. The code section reads:

#### § 33.1-13.03 Code of Virginia

*The Commissioner of Highways shall annually report in writing to the Governor and General Assembly, no later than November 30 each year, on (i) the condition and performance of the existing transportation infrastructure, using an asset management methodology and generally accepted engineering principles and business practices to identify and prioritize maintenance and operations needs and to identify performance standards to be used to determine those needs, and funding required to meet those needs, (ii) the Department's strategies for improving safety and security, increasing efficiency in agency programs and projects, and collaborating with the private sector and local government in the delivery of services, (iii) the operating and financial activities of the Department including, but not limited to, the construction and maintenance programs, transportation costs and revenue, and federal allocations, and (iv) other such matters of importance to transportation in the Commonwealth.*