

# Table of Contents

## **Chapter 1: The 2035 Virginia Surface Transportation Plan** **1-1**

Challenges and Opportunities	1-1
The VSTP, VTrans2035 and Modal Elements	1-1
How is the VSTP Organized?	1-2
What Data was Used?	1-2
How was the Public Involved?	1-4
VTrans2035	1-5
Public Transportation Element	1-7
Rail Element	1-8
Freight Element	1-9
Bicycle and Pedestrian Element	1-10
Highway Element	1-11
VSTP Document Layout	1-12

## **Chapter 2: Changes in Population, Employment and Travel in Virginia** **2-1**

Population	2-1
Employment	2-3
Jobs to Housing Ratio	2-5
Daily Vehicle Miles Traveled and Transit Trips	2-7
What Does This Tell Us?	2-8

## **Chapter 3: Transportation in Virginia (Existing Conditions Overview)** **3-1**

Public Transportation	3-3
Rail	3-10
Bicycle and Pedestrian	3-14
Highways	3-17
Maritime Highways	3-29

## **Chapter 4: Where Are We Headed?**

**4-1**

Public Transportation Recommendations	4-1
Rail Recommendations	4-4
Freight Recommendations	4-5
Bicycle and Pedestrian Recommendations	4-5
Highway Recommendations	4-6

## **Chapter 5: How Do We Get There?**

**5-1**

How is Transportation Funded?	5-2
Funding Rail in Virginia	5-5
Funding Public Transportation	5-6

## **Chapter 6: Moving Toward 2035**

**6-1**

## **Chapter 7: VSTP Recommendations**

**7-1**

<b>Region 1: Valley and Ridge</b>	<b>7-2</b>
Public Transportation Recommendations	7-7
Rail Recommendations	7-10
Highway Recommendations	7-11
<b>Region 2: Northern</b>	<b>7-25</b>
Public Transportation Recommendations	7-31
Rail Recommendations	7-34
Highway Recommendations	7-36
<b>Region 3: Blue Ridge</b>	<b>7-45</b>
Public Transportation Recommendations	7-50
Rail Recommendations	7-53
Highway Recommendations	7-54
<b>Region 4: Piedmont</b>	<b>7-65</b>
Public Transportation Recommendations	7-70
Rail Recommendations	7-73
Highway Recommendations	7-74
<b>Region 5: Eastern</b>	<b>7-86</b>
Public Transportation Recommendations	7-92
Highway Recommendations	7-95

## List of Figures

- Figure 1: What's on the Horizon?  
Figure 2: PDC and VSTP Regions Boundaries  
Figure 3: Plan Element Flow Chart  
Figure 4: Virginia Population Forecast  
Figure 5: Population Density in 2035  
Figure 6: 2035 Projected Population by PDC  
Figure 7: Projected Population Change by PDC (2010 – 2035)  
Figure 8: 2035 Employment  
Figure 9: Projected 2035 Employment by PDC  
Figure 10: Employment Change by PDC (2010 – 2035)  
Figure 11: Jobs to Housing Ration – 2010 and 2035  
Figure 12: Projected 2035 Jobs to Housing Ratio by PDC  
Figure 13: 2035 DVMT  
Figure 14: Projected 2035 Daily Vehicle Miles Traveled by PDC  
Figure 15: Growth Areas  
Figure 16: Virginia's Public Transportation Assets Map  
Figure 17: Virginia Freight Tonnage by Mode and Direction  
Figure 18: Virginia Freight Projections by Mode (2035)  
Figure 19: Existing State Rail Assets Map  
Figure 20: Virginia's Bicycle and Pedestrian Assets Map  
Figure 21: Percent Increase in Population, Licensed Drivers, Registered Vehicles, VMT, and Lane-Miles, 1987-2007  
Figure 22: Statewide Mobility System 2007 Level of Service  
Figure 23: Statewide Mobility System 2035 Level of Service  
Figure 24: Percent Deficient Pavement  
Figure 25: Percent Structures by Age (2010)  
Figure 26: Virginia Crash Facilities and Injuries (2001-2008)  
Figure 27: Public Private Transportation Act Projects Map  
Figure 28: Statewide Freight Plan Stakeholder Input  
Figure 29: Virginia's Highway Assets (SMS) Map  
Figure 30: Change in Population and Road Capacity since 1987  
Figure 31: Transportation Funding in Virginia  
Figure 32: Major Taxes for Transportation Funding  
Figure 33: Virginia Drivers Pay 9<sup>th</sup>-Lowest Fuel Tax  
Figure 34: Valley and Ridge Regional Characteristics – Percent Change 2010 to 2035  
Figure 35: Valley and Ridge Region Recommendations Map  
Figure 36: Highway Recommendation Table Reference Guide  
Figure 37: Northern Regional Characteristics – Percent Change 2010 to 2035  
Figure 38: Northern Region Recommendations Map  
Figure 39: Highway Recommendation Table Reference Guide  
Figure 40: Blue Ridge Regional Characteristics – Percent Change 2010 to 2035  
Table 41: Blue Ridge Region Recommendations Map  
Figure 42: Highway Recommendation Table Reference Guide  
Figure 43: Piedmont Regional Characteristics – Percent Change 2010 to 2035  
Figure 44: Piedmont Region Recommendations Map  
Figure 45: Highway Recommendation Table Reference Guide  
Figure 46: Eastern Regional Characteristics – Percent Change 2010 to 2035  
Figure 47: Eastern Region Recommendations Map  
Figure 48: Highway Recommendation Table Reference Guide

## List of Tables

- Table 1: VTrans2035 Investment Priorities
- Table 2: Virginia Transportation at a Glance
- Table 3: Motor Vehicle Statistics
- Table 4: Percent Decrease in Average Speed on Select Facilities
- Table 5: Public Transit Investments Compared to VTrans2035 Goals
- Table 6: FY2010 Statewide Transit Operating Funds
- Table 7: Projected Growth in Operating Expenses (\$ millions)
- Table 8: Vehicle Assets of Transit Providers
- Table 9: State of Good Repair Need 2010-2035 (\$ billions)
- Table 10: Projected Capital Funding 2010-2035 (\$billions)
- Table 11: Valley and Ridge Regional Characteristics by PDC
- Table 12: TDM Strategies for the Valley and Ridge Region
- Table 13: ITS Investments for the Valley and Ridge Region
- Table 14: Rail Recommendations for the Valley and Ridge Region
- Table 15: Valley and Ridge Recommendations to Existing Facilities
- Table 16: Valley and Ridge Recommendations to Existing Facilities Identified for Further Study
- Table 17: Valley and Ridge Recommendations to New Locations
- Table 18: Valley and Ridge Other Recommendations
- Table 19: Valley and Ridge Highway ITS Recommendations
- Table 20: Northern Regional Characteristics by PDC
- Table 21: TDM Strategies for the Northern Region
- Table 22: ITS Investments for the Northern Region
- Table 23: Rail Recommendations for the Northern Region
- Table 24: Northern Recommendations to Existing Facilities
- Table 25: Northern Recommendations to New Locations
- Table 26: Northern Other Recommendations
- Table 27: Northern Virginia ITS Recommendations
- Table 28: Blue Ridge Regional Characteristics by PDC
- Table 29: TDM Strategies for the Blue Ridge Region
- Table 30: ITS Investments for the Blue Ridge Region
- Table 31: Blue Ridge Region Rail Recommendations
- Table 32: Blue Ridge Recommendations to Existing Facilities
- Table 33: Blue Ridge Recommendations to New Locations
- Table 34: Blue Ridge Recommendations to New Locations Identified for Further Study
- Table 35: Blue Ridge Other Recommendations
- Table 36: Blue Ridge ITS Recommendations
- Table 37: Piedmont Regional Characteristics by PDC
- Table 38: TDM Strategies for the Piedmont Region
- Table 39: ITS Investments for the Piedmont Region
- Table 40: Piedmont Region Rail Recommendations
- Table 41: Piedmont Recommendations to Existing Facilities
- Table 42: Piedmont Recommendations to New Locations
- Table 43: Piedmont Recommendations to New Locations Identified for Further Study
- Table 44: Piedmont Other Recommendations
- Table 45: Piedmont ITS Recommendations
- Table 46: Eastern Regional Characteristics by PDC
- Table 47: TDM Strategies for the Eastern Region
- Table 48: ITS Investments for the Eastern Region
- Table 49: Eastern Recommendations to Existing Facilities
- Table 50: Eastern Recommendations to New Locations
- Table 51: Eastern Other Recommendations
- Table 52: Eastern Highway ITS Recommendations