Region 2000 Bicycle Plan




Adopted October 21, 2010 by:
Virginia's Region 2000 Local Government Council
Central Virginia Metropolitan Planning Organization

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Table of Contents

Tables

Figures

Acknowledgments

The Region 2000 Bicycle Plan was prepared under the direction of the Region 2000 Bicycle Advisory Committee, an advisory group comprised of local government officials and staff from member localities, staff from the Virginia Department of Transportation, and area citizens.

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Executive Summary

This Region 2000 Bicycle Plan has been developed to guide the development of bicycle accommodations that encourages and facilitates the utilization of bicycles as a healthy and viable transportation mode to access community resources throughout the Region 2000, or Planning District, area. Region 2000 is located in the foothills of Virginia's Blue Ridge Mountains and includes an area comprised of the counties of Amherst, Appomattox, Bedford, and Campbell and the independent cities of Bedford and Lynchburg.

The plan was developed through a public input process that included area staff, local government officials, citizens, and cycling enthusiasts. The public involvement process included the formation of the Region 2000 Bicycle Advisory Committee (BAC), the primary advisory and oversight committee that guided plan development, and a series of public input opportunities which included cyclist focus group meetings, public outreach meetings, and a web-based community survey.

The Region 2000 Bicycle Plan provides an overview of the different bicycle accommodation types, summarizes strategies that can be used to accommodate bicycle facilities, presents a snapshot of the current conditions and opportunities for cyclists, provides an inventory of community resources and assets, and details a vision connection plan and implementation strategy to assist in creating an alternative transportation network that encourages and supports the bicycling as a safe and viable transportation option.

Ultimately, the Region 2000 Bicycle Plan has been developed to articulate a community vision that states:

> Residents, of all ages and skill levels, will be seen bicycling along area roads and multiuse trails going to work, to school, to shop and to engage in recreation throughout the Region 2000 area.

To achieve this long-term vision, four primary goals were established that summarize the driving force behind the activities and recommendations presented within this document and best articulate the nature of actions that must be undertaken to achieve the alternative transportation vision. The guiding principal goals developed are:

- Provide area citizens a network by which they can safely and efficiently use bicycles to meet their transportation, recreational, and health needs.
- Establish bicycle accommodation projects that will be strategically placed and developed to ensure connections to major destinations, trail networks, transit and other pedestrian transportation modes.
- Promote educational and outreach programs that increase awareness of cyclist rights and responsibilities, reduce motorist and cyclist conflict, and increase safety for road users.
- Facilitate institutional and programmatic support to implement facility design, development, and maintenance.

Implementation of this plan begins with the development of an oversight body to guide the creation of bicycle facilities and with the adoption of this plan by participating local governments. It is recommended that the existing Region 2000 Greenways Alliance be used as the basis for the oversight body within the Region 2000 Local Government Council. Other short-term steps necessary to facilitate the long-term bicycle network include development of facility design standards and accommodation manual for local engineers and staff, development of an interactive map that

accurately maintains network implementation that includes on-road and off-road multiuse facilities, and ancillary improvements, such as bike racks, and funding to implement a priority project(s).

A detailed description of the bicycle network map and program recommendations are presented in Chapter 4 – System Recommendations. The system recommendations were established through review of the road network, connection of the road to key community resources, and the road cycling knowledge of local cyclists. It should be noted, however, that roads not presented within this plan may still be used by local cyclists and that this plan presents recommendations but does not constitute detailed engineering analysis and construction feasibility. It should also be noted that the bicycle network presented within The Region 2000 Bicycle Plan is based on available data and serves as preliminary recommendations. More comprehensive road analysis that considers such features as sight distance and any other physical features that have bearing on on-road facility development are beyond the scope of this planning document.

Following the five chapters that make up the body of the planning document (Introduction, Bicycle Facility Types, Current Conditions, System Recommendations, and Implementation and Funding) are a set of appendices that include bicycle accommodation design standards, detailed road characteristics, and general reference material.

Development of a comprehensive alternative transportation network is anticipated to take many years and can only be achieved through coordinated support and leadership by community stakeholders. Leadership and support will need to include participating localities, VDOT, coordination with federal transportation, local business and community groups, and area citizens. The task will not be easy, however, the benefits to the Region 2000 though the increased physical health of our citizens, the increased vitality and connection of our neighborhoods to community resources, the reduction in vehicle roads miles traveled, and increased economic vitality, the benefits will be well worth the effort.

Chapter 1: Introduction

The area served by Region 2000, or Planning District 11, located in the foothills of Virginia's Blue Ridge Mountains, comprises the counties of Appomattox, Amherst, Bedford and Campbell and the independent cities of Bedford and Lynchburg. Characterized by rolling hills, beautiful open vistas, and plentiful water resources is commonly referred to as Central Virginia. Within the approximate 2,122 square mile region are an array of natural and cultural attractions and an urban core that serves as the primary employment, commerce, and educational hub located within its central core. The *Region 2000 Bicycle Plan*, has been developed to facilitate the development of a bicycle transportation network that encourages bicycling as an alternative transportation mode to access resources located throughout the greater Region 2000 area.

This *Region 2000 Bicycle Plan* articulates a vision to develop greater alternative transportation connectivity between jurisdictions, commercial and business centers, educational and recreational facilities, existing and planned trail systems, and cultural and historical resources though out the greater Region 2000 area. In doing so, the Plan reviews existing conditions and community resources, highlights current policy and the designation of bicycles as approved transportation vehicles along the road network; outlines on-road and off-road facility design options available to better accommodate bicycles along the road network; and provides a strategic approach to facilitate the development of a comprehensive bicycling network within Region 2000.

The *Region 2000 Bicycle Plan* has been developed through the coordination of the Virginia's Region 2000 Local Government Council, the Central Virginia Metropolitan Planning Organization (CVMPO), participating jurisdictions, and area citizens. Guidance for the development of this Plan was provided by the Region 2000 Bicycle Plan Steering Committee, comprised of locality staff, citizens, and policy makers and representatives from the Virginia Department of Transportation. The *Region 2000 Bicycle Plan* represents an update of the *Central Virginia Planning District Commission Regional Bicycle Plan* developed in 2000 and has been developed to better facilitate the planning, design and development of bicycle accommodations and is intended as a vital component of long-term transportation planning within the region. The *Region 2000 Bicycle Plan* is designed and intended to be incorporated within state, regional, and local planning documents. Specifically, this Plan should be included as integral component of the localities Comprehensive Plans, the Region 2000 Greenways and Blueways Plan, and the Central Virginia Long-Range Transportation Plan.

Funding for this alternative transportation planning project was provided by the Virginia Department of Transportation, the Central Virginia Metropolitan Planning Organization, the Virginia's Region 2000 Local Government Council and its membership localities.

Plan Vision and Goals

The *Region 2000 Bicycle Plan* has been developed to guide the development of bicycle accommodations and facilitate the utilization of bicycles as a healthy and viable transportation option to access resources within the greater Region 2000 planning district area. The following vision statement and corresponding goals have been crafted to articulate the long-term vision and desired outcome through implementation of this Plan.

Vision:
Residents, of all ages and skill level, will be seen bicycling along area roads and multiuse trails going to work, to school, to shop, and to engage in recreation throughout the Region 2000 area.

Goals:

- Provide area citizens a network by which they can safely and efficiently use bicycles to meet their transportation, recreational, and health needs.

- Establish bicycle accommodation projects that will be strategically placed and developed to ensure connections to major destinations, trail networks, transit and other pedestrian transportation modes.

- Promote educational and outreach programs that increase awareness of cyclist rights and responsibilities, reduce motorist and cyclist conflict, and increase safety for road users.

- Facilitate institutional and programmatic support to implement facility design, development, and maintenance.

Plan Development Approach

The *Region 2000 Bicycle Plan* represents an update to the *Central Virginia Planning District Commission Regional Bicycle Plan* developed in May, 2000. This Plan outlines a comprehensive alternative transportation plan for the entire four-county, two-city planning district area known collectivity as Region 2000.

This plan was developed through a public input process that included area staff, local government officials, citizens, and cycling enthusiasts. The public involvement process included the formation of the Region 2000 Bicycle Advisory Committee, (Region 2000 BAC) the primary advisory and oversight committee, cyclist focus group forums, public outreach meetings, and a web-based community survey.

The planning process included evaluation of existing local and regional planning documents and relevant data sources. Data from existing local and regional plans and studies, as well as existing GIS data was reviewed. GIS data reviewed included location of roadways, streams, railways, demographic information, and overview of community amenities such as primary employers, recreational facilities and tourism destinations.

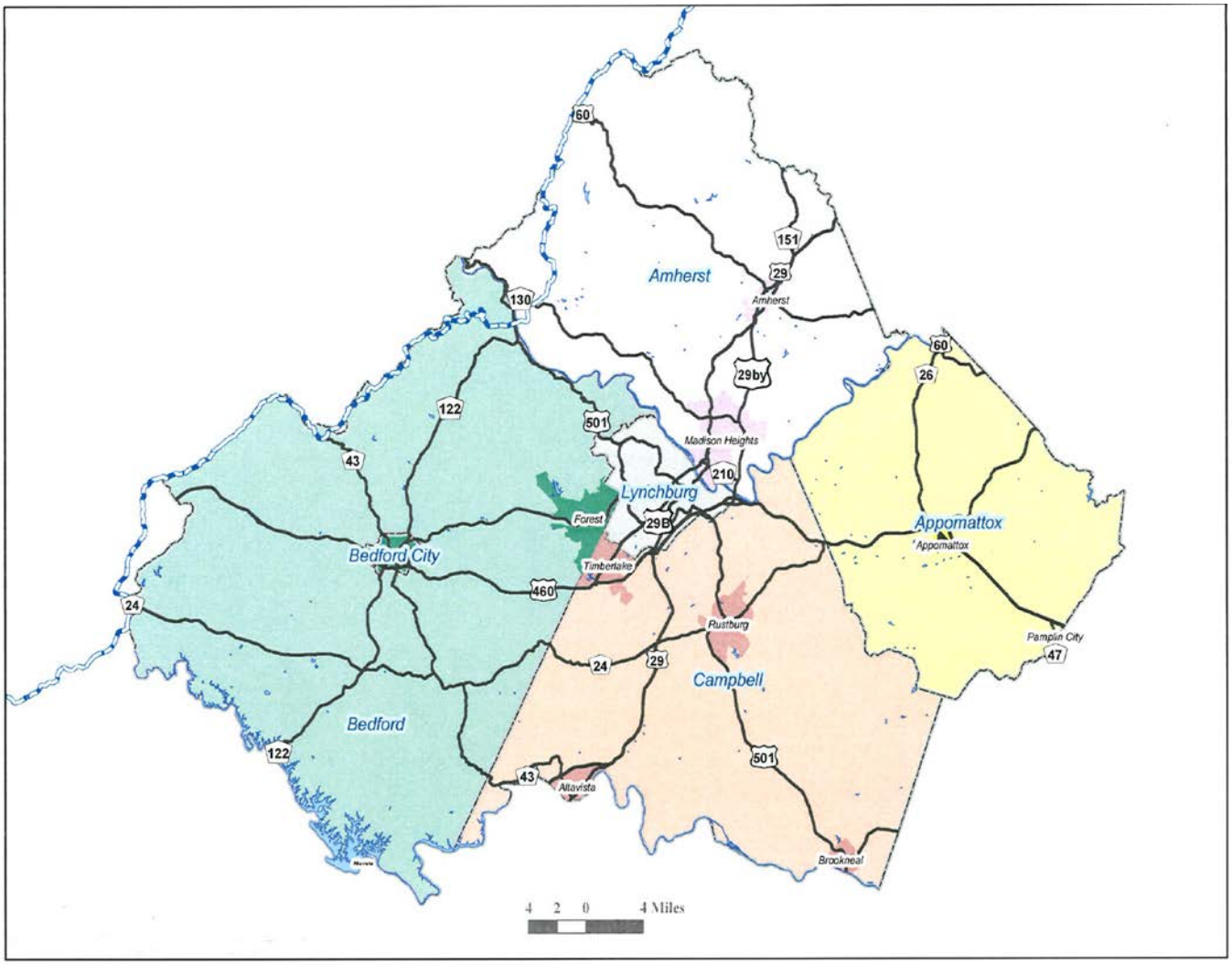
As a component of the plan, development of an electronic survey was made available to the entire region to solicit input into a range of bicycle related topics. Findings from this survey were integral to *Region 2000 Bicycle Plan* development.

Plan Study Area

This Plan has been developed for the entire Region 2000 or Planning District area which is comprised of Amherst, Appomattox, Bedford and Campbell counties and the cities of Lynchburg and Bedford. The planning area is in general rural in nature, characterized by agricultural, forested and rural residential. The majority of the commercial and dense population is centered within and surrounding the city and town centers located within the region. The region has, according to the 2000 Census, a total population of 228,643 and comprises an area of nearly 2,122 square miles, or approximately 2000 square miles that provides the origin of the Region 2000 title that collectively describes the four county, two city region. F**igure 1.1** provides a map the Region 2000 area with participating jurisdictions noted.

Within the greater Region 2000, or multi-jurisdictional planning area, there are two distinct planning areas that are designated according to population density. The areas are distinguished by classification of being either urban or rural areas. Population density, as an indicator of how rural or urban and area is, is a good indicator of transportation and service needs required within a community.

Figure 1.1
Region 2000 Planning District Area



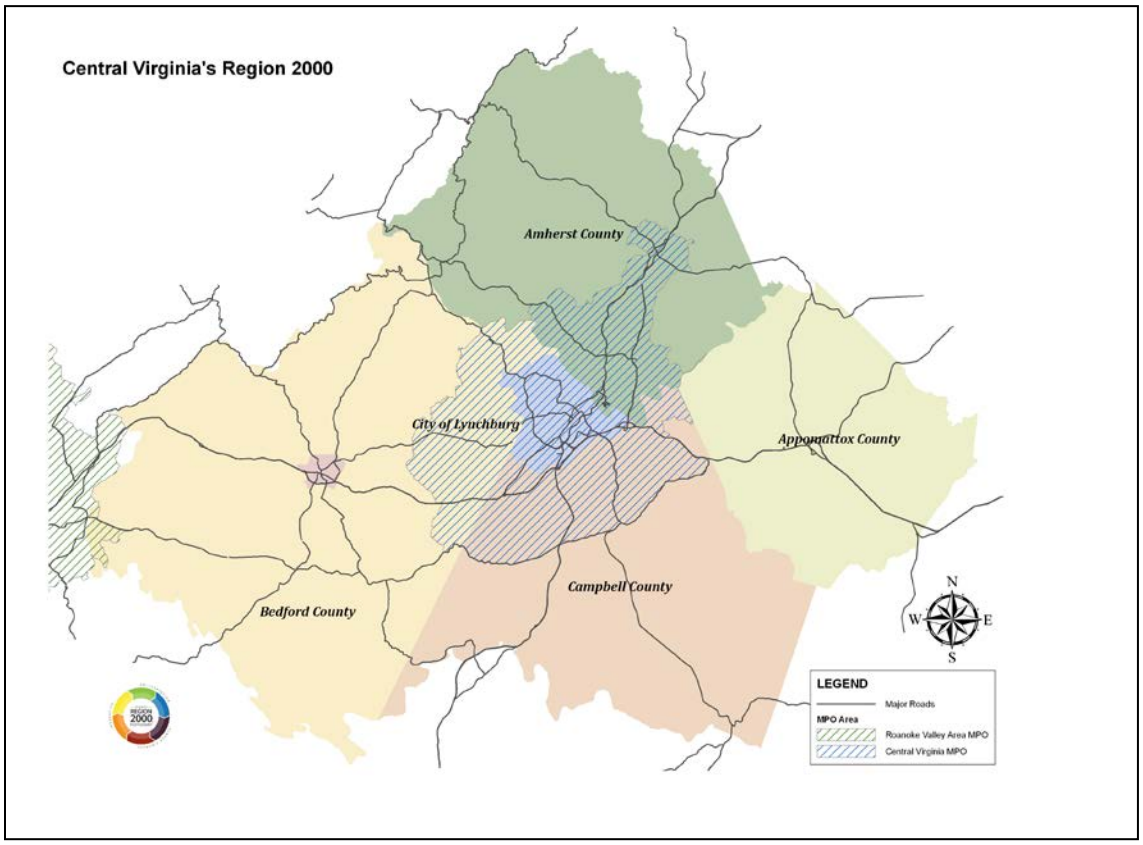
Source: Virginia's Region 2000 Local Government Council

Region 2000 Urban Areas

Within Region 2000 are located two designated urban portions. These designated urban portion transportation planning functions are coordinated by a metropolitan planning organization. A Metropolitan Planning Organization (MPO) is a federally mandated planning body for those areas of the United States that have a "core area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with the core" (http://www.census.gov/popluation/www/estimates/aboutmetro.html). MPO designations are determined by the U. S. Census and are based on total population and must include a core area with a population of at least 50,000 persons, and includes a contiguous area that has specific population density. The two MPOs within the Region 2000 area are the Central Virginia Metropolitan Planning Organization (CVMPO) and the Roanoke Valley Area Metropolitan Planning Organization (RVAMPO).

The Central Virginia Metropolitan Planning Organization (CVMPO) provides the transportation planning oversight for the urbanized or densely populated areas of Amherst, Bedford, and Campbell counties and the entire City of Lynchburg. As can been seen from **Figure 1.2** the CVMPO area includes the eastern portion of Bedford County, the far eastern portion of Amherst County along with the areas adjacent to U. S. 29 up to the Town of Amherst, the northern portion of Campbell County and the entire area of Lynchburg. The far western corner of Bedford County is contained with in the Roanoke Valley Area Metropolitan Planning Organization (RVAMPO) and receives additional transportation planning from this regional transportation planning body. The area of Region 2000 located within the RVAMPO area represents a very small portion of the Region 2000 area and, therefore, for the purposes of this study is not reflected in the demographic and statistical data presented in this Plan.

Figure 1.2
Region 2000 Metropolitan, or Urban, Planning Areas



Source: Virginia's Region 2000 Local Government Council

Within Region 2000 the CVMPO area represents the business, commercial, and highest residential population density in the Region 2000 area. The CVMPO area, according to the Central Virginia Regional Action Plan for Coordinated Land Use and Transportation Planning, while ranked only 361 out of the 396 urban areas in the Country according to population, ranks in the top 50 percent in terms of population located in a central place with 67% located within the CVMPO boundaries. Further, 60 percent of the primary commuter movement within the area is directed towards the City of Lynchburg, which represents the largest and central portion of the CVMPO.

Region 2000 Rural Area

The majority of the Region 2000 area is represented by low density development and would generally be described as rural in character. It is the rural area, characterized with rolling terrain, agricultural and forested land, small incorporated towns, and larger lot residential development that accounts for nearly 80 % of the greater Region 2000 land area. As can be seen from **Figure 1.2** all of Appomattox County is located within the rural portion of the region as well as the majority of Amherst, Bedford and Campbell counties.

For the purposes of transportation planning and the development of *The Region 2000 Bicycle Plan*, the rural area is defined as that area not contained within a metropolitan planning organization area.

Region 2000 Population Density

As can be seen from **Table 1.1**, while CVMPO little more than 20% of the land mass of the three CVMPO counties, and includes no portion of Appomattox County, the area includes almost 60% of the Region 2000 population. In addition, the density of CVMPO population can be seen as approximately 73% of the total Amherst County population is located in the CVMPO area which represents less than 20% of land. Similarly, Campbell County's 54% population within the CVMPO consists of just under 23% of land and Bedford County has just 12% of its total land area within the CVMPO but this area accounts for approximately 31% of the County population.

Table 1.1
Central Virginia MPO Study Area Population

	Lynchburg City	Bedford City	Amherst County	Bedford County	Campbell County	Appomattox County	Region 2000
CVMPO Area (acres)	31,842	0	60,066	59,586	73,734	0	225,228
% area in CVMPO	100%	0%	19.60%	12.10%	22.71%	0%	16.59%
Locality Population	65,296	6,299	31,894	60,371	51,078	13,705	228,643
Population in CVMPO	65,296	0	23,408	18,698	27,663	0	135,038
% Population in CVMPO	100%	0%	73.39%	30.97%	54.16%	0%	59.06%
Population in RVAMPO	0	0	0	2822	0	0	0
% Population in RVAMPO	0%	0%	0%	4.7%	0%	0%	0%

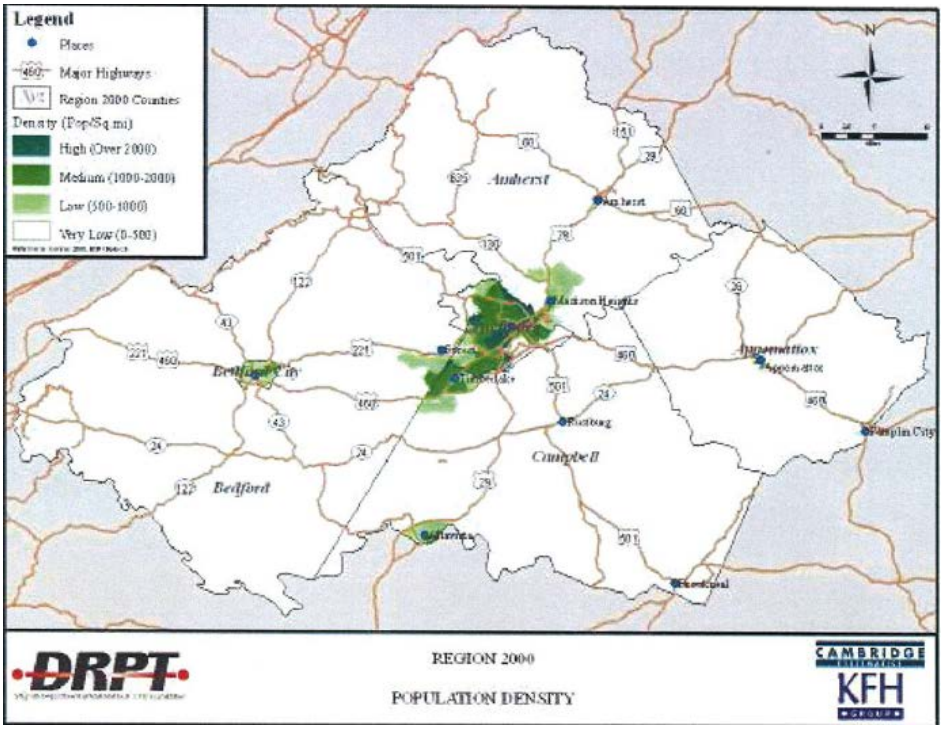
Source: CVMPO Traffic Analysis Zone Data, Virginia's Region 2000, 2009;
Draft 2035 Long Range Transportation Plan, Roanoke Valley Area Alleghany Regional Commission, 2009

A very small portion of Bedford County is located within the RVAMPO area. The portion of the County located within the RVAMPO is estimated to include less than 5% of the total County population. Based on population projections provided by the RVAMPO 2035 Long Range Transportation Plan, the overall percentage of total population within this area, while intended to grow, is not intended to increase in its overall percentage of total population.

While on a smaller scale than the CVMPO area, the incorporated Towns and village centers also represent population density centers. As can be seen from **Figure 1.3**, within the greater Region 2000 area, there is only a small portion of areas, including the CVMPO, the City of Lynchburg, and the incorporated Towns that provide any measurable level of high density areas.

The population and resource concentration within the CVMPO and Towns highlights the opportunity and appropriateness in expanding alternative transportation opportunities through on-road bicycle accommodations throughout the region with particular emphasis on the CVMPO and Town primary road corridors and mulit-use trail system.

Figure 1.3
Region 2000 Population Density



Source: Region 2000 (PDC 11) Coordinated Human Service Mobility Plan, DRPT; June 2007

Chapter 2: Components of a Bicycle Facility Network

A well designed and executed alternative transportation network is comprised of many elements that combine to ensure a safe, efficient, and pleasant bicycling experience for residents and visitors to reach desired destinations. A bicyclist must feel safe in order to utilize a cycling network and they must have clear direction and system information. A well-utilized bicycle facility must be free of too many physical barriers, provide as much separation from motorists as possible, present a clear understanding of bicycling options, and lastly, to the best extent possible, be comprised of fairly continuous and direct routes.

Bicycle facilities must be designed and constructed to meet different physical and site characteristics and must consider multiple user types and comfort levels. Much information on the design specifications for signage, bike lanes, wide shoulders, walkways, and intersection crossing and other components of an alternative transportation system is available. Specific bicycle facility design is determined by State and local standards, most of which are based on design and construction standards set by the American Association of State Highway and Transportation Officials, AASHTO, and the Manual on Uniform Traffic Control Devices, MUTCD.

An overview of the components necessary to create a safe and effective bicycle network are presented below. The localities and partners within Region 2000 should look for opportunities to utilize all of these elements in various locations throughout the region. These components, along with the other transportation system elements which include transit and sidewalks, in combination with encouragement and enforcement programs, highlighted further in Chapter 4, must be combined to create a comprehensive bicycle transportation network.

Bicyclist Skill Levels

Potential users of the bicycle network are represented by a diverse range of physical characteristics, age, riding comfort, and skill level. In recognition of these differences in user characteristics, a rating system has been developed by the American Association of State Highway and Transportation Officials (AASHTO). Within this system bicyclists are defined by a three-category rating system used to represent the overall comfort and ability level of the cyclist. The rating system, or each of the three user types, is defined as:

- Group A – Advanced bicyclists are those cyclists who are comfortable riding a bicycle under most traffic conditions. These cyclists have a high comfort and expertise level. They operate their bicycles as transportation vehicles, tend to ride for convenience and speed, desire convenient and direct routes to destinations, and are generally comfortable on most roads riding with courteous and alert vehicular traffic.

- Group B –Basic bicyclists who are casual riders, or young adults with limited experience, or teenage riders that do not have the same level of confidence or comfort to operate in all traffic conditions as Group A cyclist might. These cyclists tend to look for lower vehicular traffic volume and speed routes and specialized bicycle facilities.

- Group C – Children and young teen riders whose roadway and facility use is generally monitored by an adult comprise this group. This group often moves more slowly and less directly than other groups, requires attentive traffic conditions, and where possible, should use off-road, specialized facilities to ensure safety.

Bicycle Facility Types

The following presents a description of the primary on-road bicycle accommodations. The following information is based on facility descriptions and visual examples presented in the AASTO *Guide for the Development of Bicycle Facilities*, VDOT *Virginia Bicycle Facility Resource Guide*, and the FHWA *Manual of Uniform Traffic Control Devices for Streets and Highways – 2009 Edition* (MUTCD).

Each of the following accommodations requires specific design and road conditions to facilitate safe use. Facility installation and design adjustments are often necessary and should be evaluated on a case-by-case basis under the direction of a qualified engineer and consultation with local planners. More detailed information on design features of these facility types is found in **Appendix A**.

Bicycle Lane

A bicycle lane is a portion of the roadway that is designated through striping, signing, and pavement markings for the preferential or exclusive use of bicycles. Bicycle lanes are located on both sides of the road (except along one way streets) and carry cyclists in the same direction as car travel. Bike lanes are established along roads where there is anticipated significant bicycle demand and generally where the average daily traffic (ADT) is 3000 or more. The minimum width for a bicycle lane is 4 feet, however 5- and 6-foot lanes are suggested for collector and arterial roads. The Virginia Bicycle Facility Resource Guide recommends the following bike lane minimum widths to meet specific road conditions:

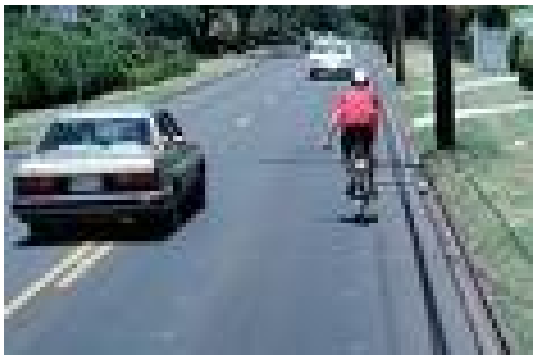
- 4 foot minimum on roadways with gutter pan and curb;
- 5 foot minimum where adjacent to barrier curb or other solid side obstruction;
- 5 foot minimum when adjacent to on-street parking; and
- 6 foot where substantial truck traffic is present or where motor speeds exceed 50 mph.

Shared Lane Markings or "Sharrows"

Shared lane markings or "Sharrows" provide an accommodation option along roadways where designated bicycle lanes are not an option due to design constraints. The use of Sharrows was approved within the 2009 MUTCD. Currently, within Virginia this practice has yet to be approved. Bicycle signage or Sharrows provide increased visibility and awareness for motorists to be aware of the likelihood of cyclists along the route. The use of signage or shared lane markings also serve to guide cyclist along designated bicycle routes. Design considerations:

- Generally for roads at 35 MPH or less;
- Should be marked approximately every 200' to 250'
- Along roads too narrow for bike lanes
- Used along roads with or without street parking

Wide Outside Lanes



Wide outside lanes refers to a share the road conditions along the through lane closest to the curb and gutter of a roadway that is a minimum of 14-feet wide thus providing width for motorist and bicyclists. This facility accommodation also provides motorist increased width and comfort to pass more safely. Some considerations, this accommodation does not provide motorist visual cue and the wider lane may encourage increased motorist speed.

Paved Shoulders

Improvement, through additional width, along the shoulder portion of the road can provide an effective share the road bicycle accommodation. In order to serve as a safe accommodation for cyclists however, they need to be smooth, well-maintained, and consist of a uniform surface. A shoulder width of 4 feet is recommended in most cases to provide cyclist comfort. There are however, certain instances where additional width may be advised:

- steep climbing slope – cyclists may need more width as they need additional width to move their bikes when traveling up hill;
- high bike usage is expected (along a primary route);
- motor vehicle speeds expected above 50 mph;
- where there is an anticipated high volume of trucks, buses, or other commercial vehicles.

It should be noted that while a 4 foot paved shoulder is recommended, a two foot minimum width paved shoulder is required in order for VDOT to consider the road as meeting minimum design paved shoulder bicycle accommodation criteria. Therefore, any additional width that can be provided will benefit a cyclist. Information provided through the *Bicycle and Pedestrian Information Center* notes that additional shoulder width has been shown to also benefit motorists on two-lane roads by reducing the incidence running off the paved surface and causing over-correcting and cross-over accidents. Further, increased width has also been shown to provide maintenance benefits due to increased road structure durability. Paved shoulders can often be accommodated through restriping of existing pavement or through addition during road maintenance schedules.

The paved shoulder bicycle accommodation is also a share the road accommodation type and should therefore include signage to alert motorists and guide bicyclists.

Wide outside lanes, paved shoulders and other on-road accommodations should include signage to alert motorist and guide bicyclists.

Multi-use Paths / Greenways

Multi-use paths, generally speaking, are off-road corridors separated from the road system by an open space or barrier. They are generally designed for multiple users which include pedestrians, cyclists, skaters, wheelchair users, joggers, and other non-motorist users. Multi-use paths should be designed for a minimum of 10 feet of width and constructed of a uniform and compactable surface that meets the specific surface needs of multiple users. Greenway refers to those multi-use trails that combine to create a longer distance continuous system, such as the James River Heritage Trail System.

Ancillary Facilities

In addition to specific on-road and off-road facilities such as sidewalks, there must be additional resources that expand the comfort and safety necessary to support the use of a bicycle as a transportation mode. Three of the most basic of these ancillary resources include signage, bicycle storage, and water availability.

Signage

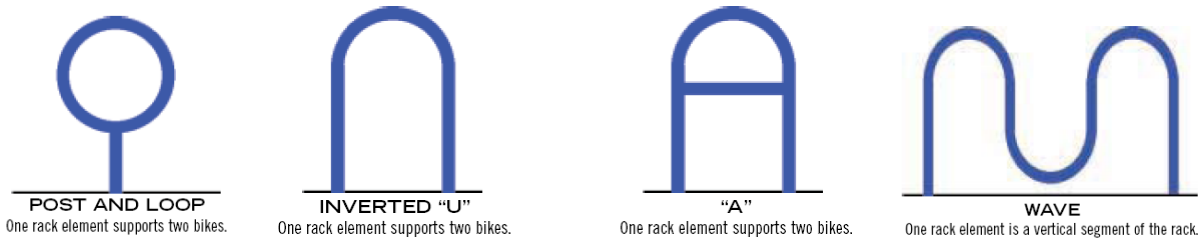
Signage is a vital component of a well designed and safe alternative transportation system. A comprehensive signage system ensures accurate information is provided to cyclist, pedestrians, and motorists regarding safe and proper use of facilities and directional and way finding information. As with all bicycle system components there are specific uses and design standards, provided through MUTCD, that dictate signage use. There are many bicycle signs and usage is determined by design considerations. More information on signage can be obtained through MUTCD.

Examples of warning and directional signage

Source: www.traffic**sign**.us/bike**sign**.html; a component of the FHWA's MUTCD webstite

Bicycle racks

In order to promote the use of bicycles as a viable transportation mode, bicyclists must be provided opportunities to store bicycles at community destination points, transit stops, and trail head locations. There are a number of bicycle rack designs available, simple designs that limit the possibility of bending of bicycle wheels and ease of use are preferred. Also, it is important to locate racks so they have space so as not hamper pedestrian flow, are located close to destination and/or building entrances, and are appropriately lighted and located with a clear view to ensure safety for the user. Below are examples of some commonly used bike rack systems.



Source: *Bicycle Parking Guidelines*, Association of Pedestrian and Bicycle Professionals, 2002, www.apbp.org.

Bicycle-Activated Detector Loops

Intersections along primary corridors can be adjusted to recognize bicycles, thus creating safer conditions for cyclist and motorist. Bicycle-activated loop detectors can be installed within the roadway allowing the weight of the bicycle to trigger a traffic signal change. Bicycle-loop intersections should include pavement marking to guide the cyclist to the location to trip the timed system.

Public water facilities

At primary system nodes, such as trail heads and primary recreation facilities, and common public facilities such as libraries and governmental offices, there should be clearly available and marked drinking fountains.

Other ancillary facilities that should be included within the overall system and should be expanded and built upon as the use and demand within a community increases include such items as bicycle lockers and air pumping facilities at key trail heads and transit stations.

Obstacles for Cyclist

Bicycle use on roads is an appropriate, expected, and legal transportation mode. The only exception is in specific locations where bicycle use is stated as illegal, these locations are in general along high-speed, limited-access highways. While almost any road may be used by cyclists for transportation purposes, there are a number of key obstacles that limit comfortable transportation use by most cyclists. Most of these obstacles are related to safety and cyclist vulnerability by traveling on the same grade surface as motorized vehicles.

Below is an overview of the more common obstacles faced by cyclists when traveling along the road system. Addressing solutions to elevate these conditions through design and education is crucial in creating an atmosphere that supports a safe and efficient bicycle transportation network. The most common obstacles faced by bicyclists include:

- Not enough separation from motorized vehicles/effective width available for bicyclists;
- Speed of traffic along road;
- Volume of vehicles along the road;
- Surface conditions of the pavement along the road;
- Existence of parking along the road; and
- Amount of large vehicles/trucks that travel along the road.
- Lack of motorist education on cyclist rights and practices

The difference in the physical characteristics and bicycle knowledge of potential cyclist, variation in facility condition, and cyclist obstacles highlight the need to implement the physical and programmatic solutions necessary to create a safe bicycle network.

Determining Facility Options

There are many parameters that must be factored when determining bicycle facility accommodation options available to create a safer and effective alternative transportation corridor.

Bicycle Level of Service and Bicycle Compatibility Index

Evaluation measures have been developed by transportation specialists to assist in determining cyclist comfort along specific conditions and methods to evaluate changes that would enhance comfort and safety. Two mathematical methods have been developed to assist in evaluating the Level of Service (LOS) of a particular road for its ability to accommodate on-road cycling along with current motorist use. These mathematical methods are the Bicycle Level of Service (BLOS) and Bicycle Compatibility Index (BCI). Both BCI and BLOS utilize a rating system from A to F , where A represents the highest level of bicycle accommodation and cyclist comfort descending to F, representing a high degree of cyclist discomfort.

Level of Service Evaluation Methods and Descriptions

Level of Service (LOS)	BLOS Score	Cyclist Comfort Description (BLOS)	Bicycle Compatibility Index (BCI) Range	BCI Level
A	< = 1.5	Excellent bicycle environment	< = 1.50	Extremely High
B	1.5 – 2.5	Good Bicycle Environment	1.51. – 2.30	Very High
C	2.5 – 3.5	Fair (acceptable to experienced cyclist and novice cyclist)	2.31 – 3.40	Moderately High
D	3.5 – 4.5	Poor environment (acceptable to experience bicyclists)	3.41 – 4.40	Moderately Low
E	4.5 – 5.5	Deficient environment (unacceptable to experienced and novice bicyclists)	4.4.1 – 5.30	Very Low
F	> 5.5	Unsafe environment (unsuitable for any bicycle travel)	> 5.30	Extremely Low

Source: City of Raleigh Bicycle Transportation Plan, 2009; Bikeway Plan for Roanoke Valley Area MPO, 2005

The Bicycle Level of Service (BLOS) Model represents an evaluation of physical features which are evaluated to establish a perceived comfort level and safety experience by a cyclist while taking into account the standard vehicular use of the road. As such, the BLOS considers the bicyclist experience quality given current road conditions. It is important to keep in mind that the BLOS evaluation method represents a perceived, therefore subjective, comfort level, and represented grades do not reflect safety, take into account accident data, include intersection evaluations along corridors, and are dependent on accuracy of data input. The BLOS model utilizes evaluation data which include:

- Motor vehicle traffic volume and speed
- Number of travel lanes
- Presence of on-street parking
- Presence and width of paved shoulder
- Pavement condition
- Percentage of heavy trucks.

The Bicycle Compatibility Index (BCI) Model is a mathematical equation that evaluates the capability of a road to accommodate both motorist and cyclist. This evaluation technique was developed by the Federal Highway Administration (FHWA) and includes evaluation parameters such as:

- Number of travel lanes
- Curb and shoulder width/availability

- Land use indicator (commercial/residential)
- Speed limit
- 85% of speed
- Average Annual Daily Travel and % of high volume/large trucks daily
- Parking information

Both the BCI and BLOS evaluation techniques are utilized by planners and engineers to assist in accommodation evaluations, planning, road and accommodation design evaluations, and route selection and suggestions. It is important to note, that while either a BLOS or BCI rating is a very valuable planning and evaluation tool, neither method is a guarantee of absolute on-road cyclist safety. However, these evaluation techniques are extremely valuable in their application to assist with accommodation planning.

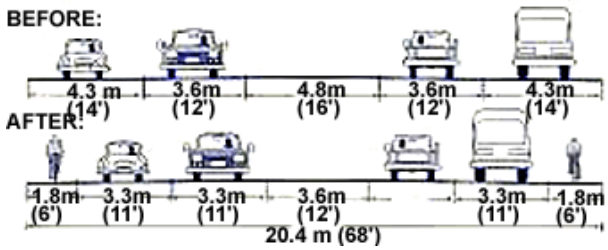
Strategies to Create Bicycle Facilities

There are a number of strategies that can be employed to create on-road accommodations. This section provides an overview of some of the more common road adjustments that can be made to create on-road facilities. It should be noted that with all accommodation methods, corresponding signage is required.

Road Restriping

Road restriping describes the process of adjusting current road travel width by restriping, or narrowing lane markings, without adjusting current road width to create a bicycle accommodation. Road restriping can be used to narrow the widths of travel lanes to create space for either a bicycle lane or wide outside lanes. AASHTO supports that travel lanes between 10 and 12 feet is adequate design standards for most urban collectors and urban arterials where there is good operating flow and low speed (45 MPH or less)(1). It should be noted that lane narrowing and reduction of lane width does require detailed design analysis by an engineer and is beyond this planning level. Further, along roads with higher traffic volumes and limited sight distance, wider lane width is warranted.

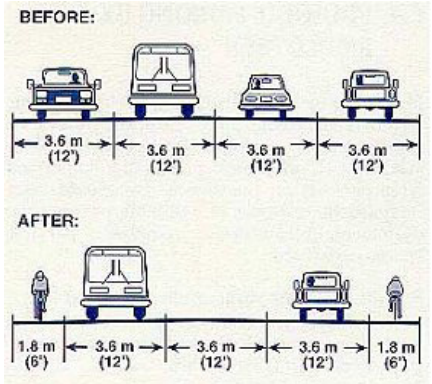
Source: FHWA



Reduced travel-lane width

Road restriping example - an existing five lane road with 12' lanes (total 60' of road width) could be adjusted to five 10' lanes and 5' bike lanes (total 60' of road width).

Source: FHWA



Travel lanes reduced from four to two, with center turn lane

Road Diet/Reduce Travel Lanes

A road diet refers to the process of reducing the number of travel lanes to create additional space for creation of road accommodation. The most common example is a reduction of a four-lane undivided to a one travel lane in each direction, with a center turn lane and two bike lanes. Road diets are good choices where the goal is to also create traffic calming along a roadway.

Considerations to road level of service are necessary for use of this accommodation.

Road Striping

Road striping refers to those roads that require only striping to create on-road accommodations. These accommodations may be either creation of a preferred bicycle lane or at a minimum, creation of additional shoulder space. No other adjustments are required along roads only requiring striping only.

Pavement Markings

Pavement marking with bicycle symbols placed within the roadway lane provides visual cues to both motorists and cyclists. Pavement markings indicate a share the lane condition and unlike bicycle lanes do not separate cyclists from motorists. Create an option where road condition does not allow for restriping or stripping accommodation strategies.

New Construction

This method for creating on-road accommodations refers to adding additional pavement width to a roadway to accommodate inclusion of a bicycle facility. Coordination during roadway design or reconstruction schedules provides accommodation options. Where space is available along primary roads, opportunities for sidepaths can also be considered within the new construction.

Region 2000 Road Examples

The following local roads have been adjusted to give an example of bicycle accommodation strategies.

Memorial Avenue, Lynchburg

Restriping of Memorial Avenue to narrow existing turning lane to accommodate bicycle lanes.

Rivermont Avenue, Lynchburg

Striping along Rivermont Avenue to create bicycle lanes.

Chapter 3: Existing Conditions

To create a comprehensive bicycle network within the Region 2000 area, the existing resources, physical environment, demographics, destination and resources centers, and supporting policy and community support must be examined. This evaluation includes looking at what current bicycle resources exist, examining key community destinations, which resources are visited most often, examining the area's population and development characteristics, reviewing current road and support resources in place to support a bicycle network, and lastly, what public demand exists to promote bicycle facilities.

The following information is provided to lay the context by which the proposed Region 2000 Bicycle Plan System Recommendations, presented in Chapter 4, are based.

Trails and Greenways

Within the Region 2000 jurisdictions lies a wealth of multi-use trails, park facilities, and single trail mountain bike trails. These resources range in difficulty, length, and surface treatment. Included within the biking trial options are multi-use (MU), consisting of hard surface, at a minimum 10 feet wide, and generally flat; combined hiking/biking (HB), comprised of earthen surfaces and generally have slightly steeper grades; and single track mountain biking (B), narrow, earthen surfaces with varying grades and difficulty levels. The following provides an overview of some of the resources within the region. More detailed information on all of these resources is available at locality websites.

Existing Multiuse Trails

The James River Heritage Trail (JRHT) and Blackwater Creek Bikeway represent a recreational oasis in the middle of the City of Lynchburg that expands to the Amherst County. The combination of these greenways, comprised of both hard surface and smaller packed surface trails, combine to provide approximately nine (9) miles of a fully accessible hard surfaces trails for bikers, walkers, roller skaters, stollers, and wheelchair users of all ages and physical capabilities along with over 15 miles of connected earthen trails that range from combination of hiking/biking to hiking only trails. It is the development and expansion of this trail network that has spawned citizen, business, and local government support for expanded bicycle and pedestrian resources throughout Region 2000.

Biking Trails within the JRHT/Blackwater Bikeway Include:

- Blackwater Creek Bikeway 3 miles, MU
- Riverwalk 2.3 miles, MU
- Kemper Street Trail 1 mile, MU
- Point of Honor Trail 1.7 miles, MU
- Creekside Trail 5 miles, HB
- Jefferson Park Trail .5 miles, HB
- Beaver Trail 1.6 miles, HB
- Elmwood Trail .4 miles, HB

A local cyclist prepares to enjoy the Blackwater Creek Bikeway at the Ed Page Entrance

Located in the heart of Lynchburg, the Kemper Station Trail connects to the greater greenway network

Blackwater Creek Bikeway; Ed Page Entrance

Additional opportunities within the CVMPO area for cycling along multi-use trails can be found at Peaks View Park, Sandusky Park, and Heritage High School. Within Peaks View Park the Ivy Creek Greenway and Ivy Creek Trail combine to offer 2.5 miles of family-friendly cycling.

Within the rural areas of Region 2000 is an array of multi-use trails offering bicycling opportunities. Most of these trails are recreational trails located within county recreational park facilities such as Falling Creek Park in Bedford, Timbrook Park in Campbell County, and Coolwell Park in Amherst County. While most of these internal park trails do not serve as transportation corridors, the parks serve as destination hubs for area residents and present the opportunity the expand these trails as components of transportation corridors.

The Virginia Blue Ridge Railway Trail, located along the northern Amherst County boarder is a crushed rock multi-use trail, which includes equestrian use, when complete will traverse seven miles through both Amherst and neighboring Nelson Counties along the Piney and Tye rivers. Currently 4 ½ miles of the trail is complete and a trail head, with parking room for horse trailers, is located in Piney River.

Source: BikeWalk VA


VA Blue Ridge Railway Trail

<u>Proposed Multiuse Facilities</u>

Each of the Region 2000 localities has dedicated land, developed master plans, and begun varying degrees of development towards public park facilities that will benefit residents of Region 2000. Within the master plans of each of these planned and/or currently under development parks, which include four regional parks in Bedford County, and five parks within Campbell County, and one county park in Appomattox, is the inclusion of a multiuse trail that meets the walking, bicycling, and recreational needs of multi users.


Area of the future Appomattox trail

Appomattox Heritage and Recreational Trial – Appomattox County, through an awarded VDOT Enhancement Grant and local match funds, is currently developing an approximate 1.6 mile multi-use trail that will connect the Town of Appomattox to the Appomattox County Community Park. This 1.6 mile trail represents a portion of the envisioned Appomattox Heritage and Recreational Trail loop that will connect the Town, Appomattox Community Park, and Appomattox Court House National Historical Park

Within the City of Lynchburg a number of multiuse trail expansions that will be vital transportation corridors and recreational resources are in the master planning phase. This includes an extension of the Blackwater Creek Trail system that when completed will provide a valuable transportation linkage between the Sandusky and Lynchburg College areas with downtown, midtown, and Boonsboro areas of Lynchburg.

Riversedge Park – Located in Madison Heights along the James River across from downtown Lynchburg, when completed, this park will include a public fishing pier and a multiuse trial that will connect to the existing James River Heritage Trail network. Currently located at the park and available for use is a public boat ramp.


Boat ramp at Riversedge Park

<u>Mountain and Single Track Trails</u>

Within and just outside the CVMPO area there are numerous off-road trails and single-track mountain biking trails. The most commonly known of these trails include the Peaks View Park Trails (approximately 10 miles), Blackwater Creek Nature Trails (13 miles of multiple trail loops), and the recently completed Falling Creek Park, located outside of the MPO area in the Town of Bedford, (approximately 8.5 miles). Each of these trail systems offer varying degrees of riding options from easy to advanced. Other trails include the Heritage Trail System (approximately 5 mile), the Liberty Mountain Trail System (approximately 20 miles) which consist of more advanced level trails, and the approximate 20 miles of trails located within the 3,250 acre Sweet Briar College.

While these single track recreational trails are not often considered as transportation routes, they serve as key destinations in their current configuration and present opportunities for creating corridor connections to additional resources or expansion of some portion of these systems into multiuse facilities.

Falling Creek Park - Located in Bedford County, this community park offers a wide range of recreational opportunities including hiking and biking along the approximate 8.5 miles of trails and an 18-hole disk golf course. Falling Creek is the location of the annual Fat Tire Frenzy and Bike Festival, a mountain bike race series that is a part of the Virginia Off Road Series.

Falling Creek Park Trail

Region 2000 On-Road Bicycle Conditions

As is being seen around the nation, road biking for recreational and transportation purposes is becoming increasingly popular within Region 2000. There are numerous bicycle groups, two thriving bicycle shops, regularly coordinated bicycle runs, and an ever increasing number of local citizens who utilize the area road system for both transportation and recreational purposes. With the increased interest in cycling, more local residents are taking to their bicycles as a means to access work, shopping, school and other daily commutes.

Unless explicitly prohibited by law, all roads can be used by cyclist for transportation purposes. Roads usually included within the "explicitly prohibited" list include interstates and other high volume, high speed, limited access roads. Within the entire Region 2000 area, there are only three roads that legally can not be used and should not be used by bicyclists, the Lynchburg Expressway (U. S. 501 Business), the U. S. 29 Bypass, and U. S. 460.

Currently within the Region 2000 area, there exist very few examples of specific on-road accommodations, such as signage, marking, or specific designated lanes, designed to alert motorist to anticipate cyclists or to provide cyclists specific riding guidance. As such, while the use of bicycles along the road network has increased greatly, the safety for area cyclists and motorist is compromised by a combination of lack of road accommodations and limited cycling education by motorist and some cyclist.

Bike route sign along Rivermont Ave.

Some of the limited bicycling road accommodation, or verification motorist should be on the look out for road cycling, within Region 2000 is this Bike Route sign located along Rivermont Avenue, near Randolph College, in the City of Lynchburg.

While there are virtually no specific signed or designated on-road bicycle accommodations within Region 2000, including both the CVMPO area and the rural areas, there exists numerous roads that present cycling corridor opportunities. These roads, with their current configuration, can and do provide a comfortable bicycle riding experience. These roads consist of neighborhood roads that have limited vehicular traffic or minor arterial roads that have adequate road width or shoulder width to facilitate share the road or possible bicycle lane development opportunities.

North Main Street, Town Amherst presents restriping potential

Indian Hill in Lynchburg represents a road with adequate width and limited vehicular traffic to accommodate cyclists

Picture by Designforum, Inc.

Old Courthouse Road, Appomattox

Court Street, Town of Appomattox presents share road

While these roads present bicycling corridor opportunities, there exists a crucial need to promote motorist and cycling education and install signage to improve cyclist safety.

Support Facilities

To facilitate broad use of bicycling as a transportation option, along with safe travel corridor, there must be support facilities, such as bicycle parking areas and bicycle rental facilities, available.

To facilitate the use of the biking resources to all residents and in recognition of the value of the Blackwater Creek Bikeway, the City of Lynchburg in 2006 was one of five localities in the country to participate in the Dasani Blue Bike Program. Dasani Water Corporation, a subsidiary of Coca Cola, in partnership with the Rails to Trails Conservancy, donated to the City 20 Trek Classic Cruisers and bike lockers so that all citizens could access the trail network. The Dasani Blue Bikes are located near the Kemper Station Trail and are available free to area residents during daylight hours.

Dasani Blue Bikes along Kemper Station Trail

This cigarette receptacle represents one of the better bicycle parking options at River Ridge Mall in Lynchburg

Within the region bicycle racks are found primarily at public facilities. A local examination revealed that bicycle racks are in general located at public spaces such as schools, libraries, and parks. However, with the exception of some local YMCAs, in general field study revealed there is virtually no bicycle racks located in private business or commercial facilities within the area. Commercial areas such as River Ridge Mall, Ward Crossing and Ward Crossing West along Wards Road, and the town centers of Altavista, Appomattox and Amherst, showed no bicycle racks. In each of these commercial locations there do exist poles, trees, or other structures that can be used to park a bike. However, by having no bicycle parking bicycling is basically excluded as a transportation option to most community locations.

The design, age, and condition of the racks viewed vary considerably. Most of the sites consisted of old, less desirable grid-style bicycle racks. These racks are designed to hold multiple bikes, provide limited security, and in general provide limited bicycle support that can cause bicycle/wheel damage.

Bicycle rack located at the Jones Memorial Library

Wave bike rack at the Altavista YMCA

The more desirable bike rack design options, such as the inverted U or wave design, are being installed within the area and represent the type utilized at the Kemper Street Station, the YMCA in Altavista, and newer instillations at local parks. These types of racks are preferred as they provide more stability for the bikes and more options to lock the bicycle frame.

Destinations and Points of Interest

Within the larger Region 2000 area there are many valuable cultural, historic, and natural resources. These resources are spread across the region with some located within the larger rural Region 2000 area and then there is the CVMPO area which provides more densely located service and resource centers.

Some of the more significant points of interest that serve to distinguish the region, and include regional, state, and nationally significant sites include:

Appomattox Court House National Historical Park
The Appomattox Court House National Historical Park, listed on the National Register of Historic Places, memorializes the April 9, 1865 surrender by General Robert E. Lee, commander of the Confederate Army of Northern Virginia, to Lieutenant General Ulysses S. Grant, commander of the Federal armies. This surrender marked the effective end of the Civil War. The events leading towards the surrender and the actual surrender grounds are preserved and depicted within the grounds of the National Historical Park.


Appomattox Court House NHP

Source: www.dday.org


D-Day Memorial

The National D-Day Memorial
This monument in Bedford City was built as the Nation's monument to those who invaded Normandy in 1944. The National monument is located in Bedford because more people per capita were lost in the D-Day battle from this area than any other in the United States.

George Washington and Jefferson National Forest
Located in the western portion of Amherst and Bedford Counties, this National Forest includes the nationally recognized Appalachian Trail and the Blue Ridge Parkway. This area is a primary destination point for outdoor enthusiasts. Included within the vast area are Otter Creek, Cliffs of Otter Campgrounds, and the approximate 7,500 acre section that comprises the Mount Pleasant National Scenic Area.

James River Canal-Restored Lock
This lock was built as part of the James River and Kanawha Canal System between 1848-1849. These canals served as main commerce arteries in the early 19th Century and were designed to control the river depth to guide barges as they moved up stream.

Smith Mountain Lake State Park
Located on the north edge of Smith Mountain Lake and the Staunton River, this approximate 1,500 acre State-owned park provides recreation almost year round for local, regional, and state residents. The park features 500 feet of public beach, a public boat ramp, and camping sites.


Avoca Museum

Avoca Museum
This Victorian house, listed on the National Register of Historic Places, built in 1901 is maintained as a historical museum. The property is used for educational and recreational purposes and accounts the historical and cultural character of the region.

Buffalo Creek Natural Area
This natural area, located approximately two miles west of Evington, in Campbell County, is a local destination for nature study and walking/hiking. This area presents a primary hub for a connection trail system within the region.

Source: www.tourappomattox.com

Holiday Lake located within the State Forest

Buckingham Appomattox State Forest/
Holiday Lake State Park
This 19,535 acre natural forested area includes Holiday Lake State Park, a component of the Virginia State Park system that includes camping, hiking and canoe, swimming and fishing opportunities within the 150 acre lake. Throughout the area are a multitude of trails available for hiking, biking, and horseback riding. Holiday Lake State Park includes an educational facility and host 4H programs.

James River Foot Bridge/Appalachian Trail
This 632-foot pedestrian bridge, the longest pedestrian-only bridge along the Appalachian Trail, is accessed in Amherst County just north of U.S. 501 and Virginia 130. The bridge serves as both a destination for day and overnight hikers along the AT.

Photo by Susan Pugh/The News & Advance

James River Foot Bridge

Region 2000 Towns
As noted in Chapter 1, Region 2000 has a number of incorporated towns and villages that serve as population hubs and community service centers. Located within these areas, beyond the commercial and governmental services, is often the location of schools, museums, and other cultural resources that assure these areas as primary trip and visitor generators for the area.

Main Street, Town of Appomattox

English Park, Town of Altavista

CVMPO Destinations

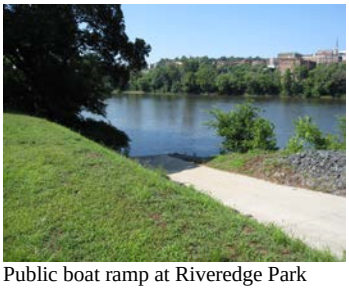
The CVMPO represents the urbanized area of the larger Region 2000 area. Within the urbanized population center numerous residential, cultural, business, commercial, educational, health, and natural resources are located. As a result the MPO represents the primary economic and cultural engine of the region. It is the location of these resources found within the region's urban core that have contributed to the following accolades having been bestowed on the area:

- *National Geographic Adventure*, 2007, ranked Lynchburg as one of the top 50 "Small Towns to Live and Play";
- *Forbes* ranks the Lynchburg Metropolitan Statistical Area (MSA) 24th of 200 metropolitan areas in 2008 in its, "Best Places for Business and Careers"; and
- The Milken Institute in its 2008 Best Performing Cities Index ranked the Lynchburg metro 71 of the 200 largest metro areas in the nation, up 39 positions from 2007 and second in Virginia behind the Washington-Arlington-Alexandria region.

Some of the primary activity centers, recreational destinations, and other points of interest that collectively create the unique atmosphere of the Region 2000 located in the CVMPO area are highlighted on **Figure 3.1**. Highlighted resources include Thomas Jefferson's Popular Forest, Blackwater Creek Natural Area, Riveredge Park, the Awareness Garden and City Stadium. Also included within the map is the location of primary shopping areas, hospitals, public schools, as well as Liberty University and Lynchburg College. Access to these resources form the foundation of many daily transportation trips by area residents and also serve as key destination points for visitors from outside the region.

Liberty University Football Stadium

Community Market



Public boat ramp at Riveredge Park

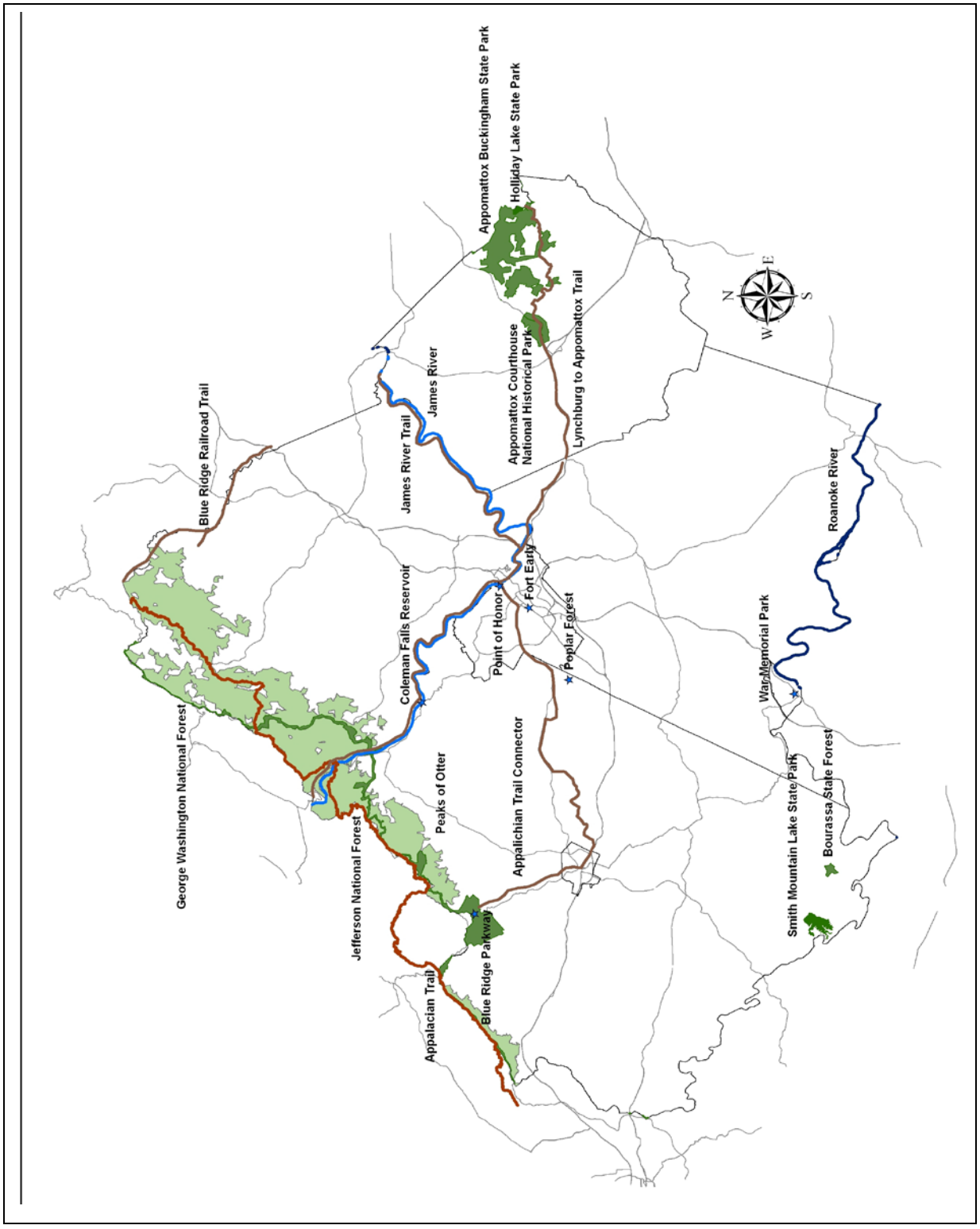
Wards Crossing West

Source: www.poplarforest.org

Poplar Forest

Awareness Garden

Figure 3.1
Region 2000 Points of Interest



Source: Virginia's Region 2000 Local Government Council, 2009

Demographics

As noted in Chapter 1, the entire planning region has a 2000 Census population of 228,616 (Weldon Cooper, 2009) and the urbanized, or MPO area, represents the primary population and business core of Region 2000 area. Of the approximate 230,000 residents, 135,038 residents or 59% of the population lives within MPO boundary.

Population Trends

The Region 2000 area has seen considerable population increase over the last decade. This has been particularly true for Bedford County, with an approximate 32 percent population increase, and to a lesser degree Amherst and Appomattox counties (11.6 and 11.4 percent respectively). **Table 3.1** provides an overview of growth within the entire Region 2000 area, of which the MPO is a portion.

Table 3.1
Region 2000 Locality Population Growth (1990 – 2007)

Region	1990	2000	2007	% Change 1990-2000	% Change 2000 – 2007	% Change 1990 - 2007
Amherst Co.	28,578	31,894	32,223	11.60	1.03	12.75
Appomattox Co.	12,298	13,705	14,199	11.44	3.60	15.46
Bedford Co.	45,656	60,371	66,750	32.23	10.57	46.20
Campbell Co.	47,572	51,078	52,840	7.37	3.45	11.07
Bedford City	6,073	6,299	6,286	3.72	-0.21	3.51
Lynchburg	66,049	65,296	71,282	-1.14	9.17	7.92
Region 2000	206,226	228,616	243,580	10.87	6.53	18.11

Source: U. S. Census Bureau

Population projections indicate that the region will see continued growth. The Virginia Employment Commission (VEC) population projections for the year 2010 and 2020 place the Planning District 11 area population around 243,276 and 258,139 persons respectively. The VEC growth projection data also suggests that the majority of growth will continue to be located within the urban area but to a larger degree within the areas outside the City of Lynchburg.

Development Patterns

With the majority of the land use within the Region 2000 being rural residential, agricultural and forested, the majority of current and future development is expected to be focused within the larger CVMPO area, the County town and village centers, and along primary transportation corridors.

Each of the participating localities though their Comprehensive Plans have identified primary growth areas that support this development pattern. Amherst anticipates growth along US 29, within the Madison Heights area, and within and around the Town of Amherst. Appomattox County anticipates and has developed designated growth areas to include the Town of Appomattox and Pamplin and key village centers within the County. Bedford County, anticipating the largest population increase of all the localities, anticipates growth to continue within the MPO areas of Forest and Vinton and the Smith Mountain Lake area. Lastly, Campbell County is expected to see the largest growth and development to continue within the CVMPO areas of Timberlake and Candlers Mountain roads. Campbell County also anticipates continued growth within the Leesville Lake area (*Rural Long Range Transportation Plan-Technical Report*, Region 2000).

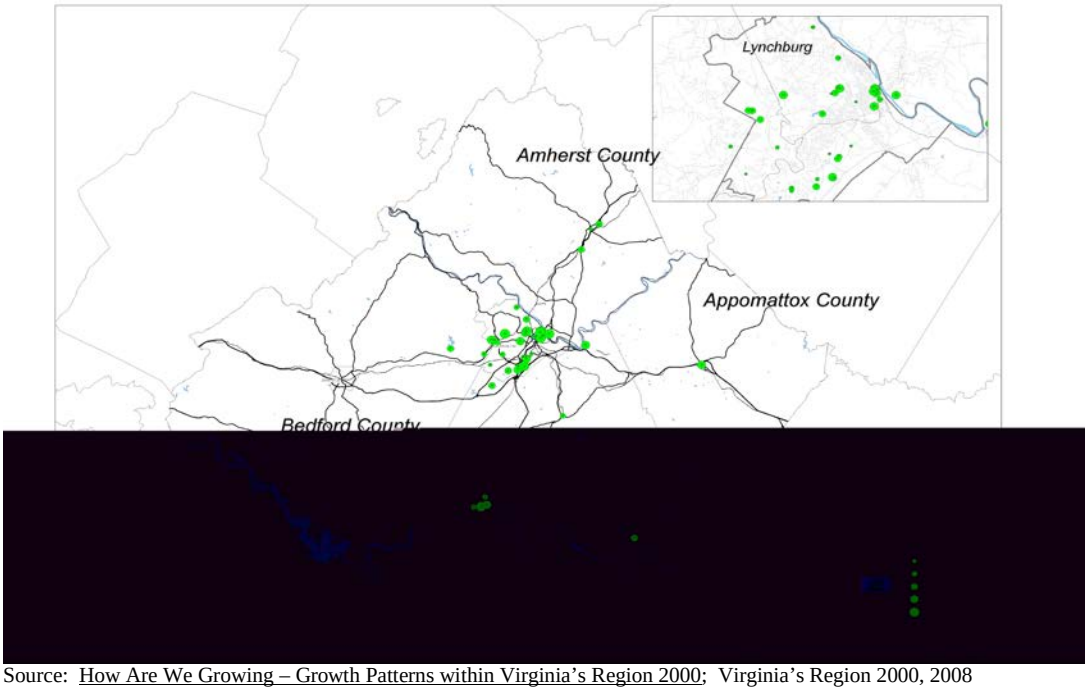
CVMPO Development Hub

The *Central Virginia Regional Action Plan for Coordinated Land Use and Transportation Planning* (Region 2000, 2007) noted that the City of Lynchburg, as the central core of the CVMPO region, represents approximately 60 percent of regions major traffic flow and ranks in the top 50 percent of the 396 MPOs in the Country in terms of the percentage of population located within its central core,

being 67%. Each of these statistics highlights the degree to which, in general, the region has been able to integrate land use and planning. The statistics do not however reflect the transportation challenges and the ability of residents and visitors to access the resources in any method other than a motor vehicle.

Development of both residential and shopping development is closely tied to the location of primary employment within a region. This rule of thumb is no exception within the greater Lynchburg area. Of the 19 businesses within Region 2000 that employ at least 500 persons 16 or 84% are located in the MPO region (*Rideshare*; Virginia's Region 2000, 2006). Within the MPO boundaries, as presented in **Figure 3.2**, is located the largest concentration of primary employers. Further, this same area also includes the largest concentration of industrial parks within the Region.

Figure 3.2
Concentration Region 2000 Major Employers



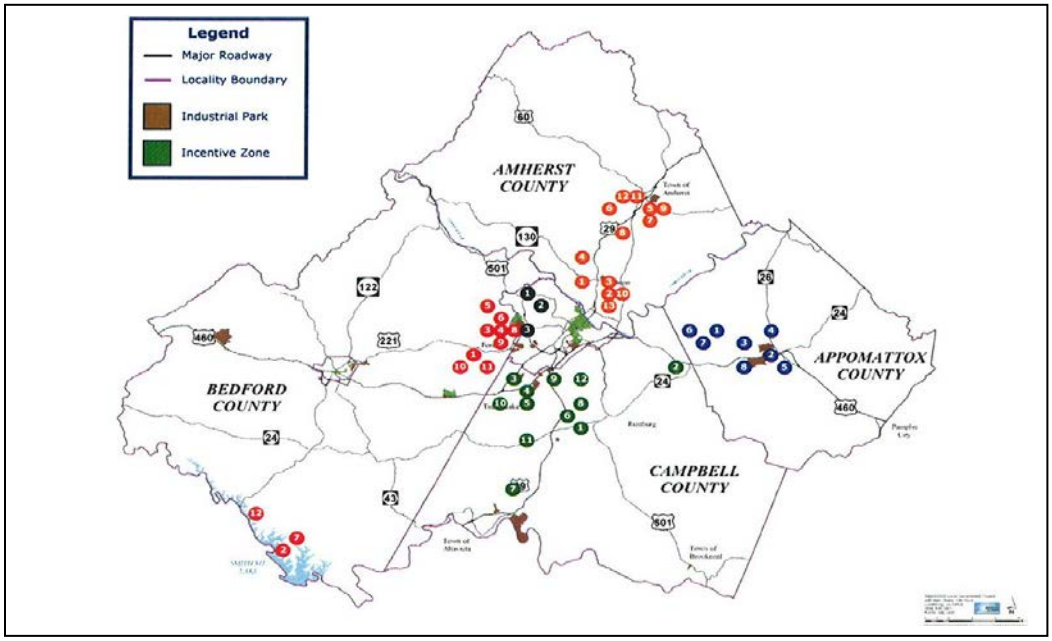
Source: How Are We Growing – Growth Patterns within Virginia's Region 2000; Virginia's Region 2000, 2008

Some of the major employers within the Region 2000 area include (those denoted with a * are located within the CVMPO area):

*Areva
*BFG Industries Inc.
*Buffulo Air Handling Co.
*Fleet Laboratories
*Liberty University
*Barr Laboratories
*BWX Technologies Inc.
*Central Virginia Training Center
Tri Tech Laboratories
*Frito-Lay, Inc
*R R Donneley
*Southern Air, Inc.
*Centra Health
Intermet Foundries Inc.
*Genworth Financial
*J-Crew
*Tyco Electronics

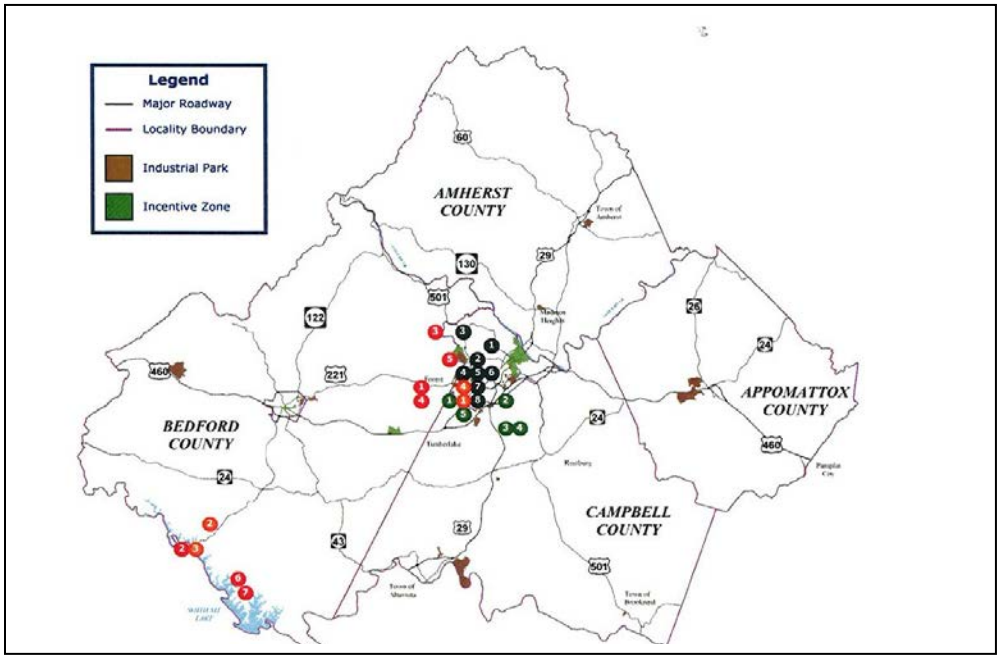
According to data presented in *How Are We Growing – Growth Patterns within Virginia's Region 2000* (Region 2000, 2008), the majority of subdivisions with 40 or more lots or multi-family dwellings either under development or proposed where located within the MPO area or outside or adjacent to town centers (**Figures 3.3& 3.4**).

Figure 3.3
Region 2000 Major Subdivisions (40+) – Under Construction or Proposed



Source: How Are We Growing – Growth Patterns within Virginia's Region 2000; Virginia's Region 2000, 2008

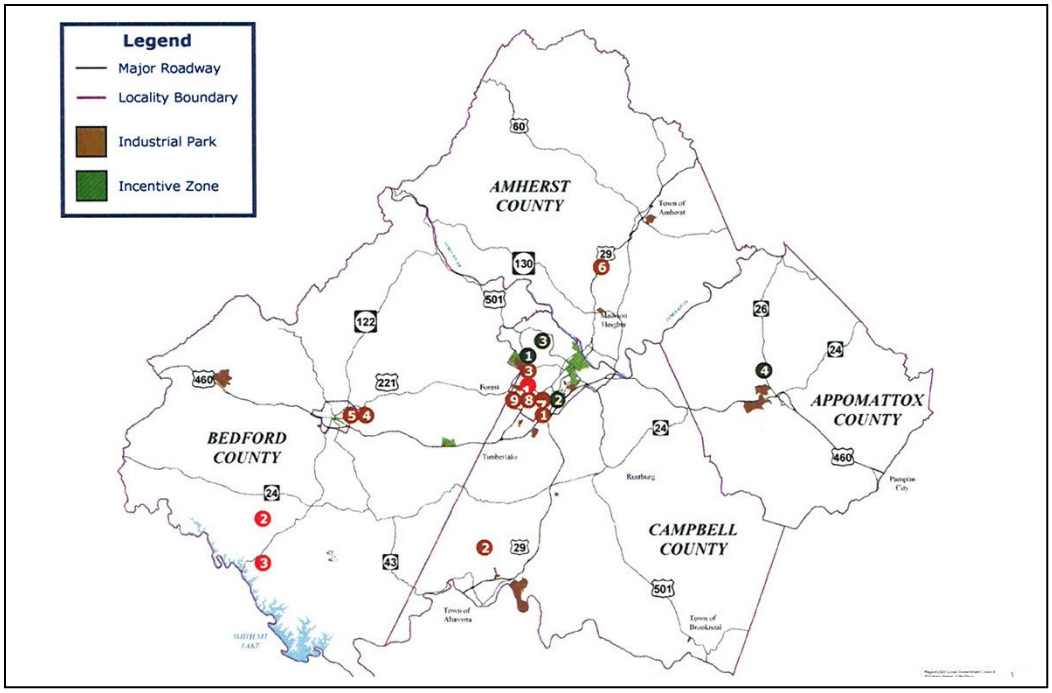
Figure 3.4
Multifamily Dwellings (40+ Units)



Source: How Are We Growing – Growth Patterns within Virginia's Region 2000; Virginia's Region 2000, 2008

The Region 2000 growth study also showed that the largest current or planned commercial shopping destinations are similarly located within the CVMPO region or town center.

Figure 3.5
Major Retail Centers Since 2000



Source: How Are We Growing – Growth Patterns within Virginia's Region 2000; Virginia's Region 2000, 2008

Each of these development, transportation and population growth patterns within the Region 2000 area highlights the increased need and opportunity to develop a comprehensive alternative transportation system that includes both on-road and off-road bicycle facilities.

Coordination with Transit

The Greater Lynchburg Transit Company (GLTC) provides public transportation within the Region 2000. Currently, GLTC service is limited to within the CVMPO region. The majority of the GLTC service area is located within the City of Lynchburg with limited service to the Madison Heights area of Amherst County and the Forest area of Bedford and Campbell counties. GLTC currently runs 14 routes and has an active fleet of 37 buses and trolley and 5 paratransit buses. These lines collectively provide active road service along 82 miles of roadway, representing 19 percent of the total roadway miles in the City (Region 2000, 2007). Information on GLTC routes and general services can be obtained at http://www.gltconline.com.

Bike rack Lynchburg City bus

GLTC supports the use of bicycles and alternative transportation to expand transportation opportunities within the region. Within the 37 bus fleet, 27 are equipped with bike racks. Known as GLTC's "Bikes on Buses" program riders can load their bikes on the available racks as a component of their regular fare. The ability to provide on-road bicycle facilities within the region will have great

impact of expanding rider access to GLTC and community resources. To that end, GLTC, in partnership with the City of Lynchburg, Region 2000, and the CVMPO is currently completing a comprehensive bus stop study to evaluate pedestrian access. The coordination of the transit system and the development of bicycle accommodations is a vital link in assuring a comprehensive alternative transportation network within the current GLTC service area.

Within the Region 2000 rural areas there is very limited public transportation options. There are a number of private and non-for-profit agencies that offer transportation solutions but, most of the services are demand service arrangements available to specific target populations. The lack of public transportation for Town and County residents represents another reason that development of safe alternative transportation system is so vital in meeting the needs of multiple transportation users.

Coordination with Pedestrian Facilities

In general, all transportation options, be it by car, bus, train, assistive mobility device, or bicycle, include a portion of the travel experience as a pedestrian. Access to sidewalks, cross-walks, signage and pedestrian signals that assure safe separation from pedestrians and motorist is an essential component of a comprehensive transportation network. Bicyclists, by the nature of their travel experience, as with those walking and utilizing wheelchairs and other devices, must often utilize the same pedestrian facilities for safe road crossing and destination access.


A user-friendly pedestrian street in Lynchburg

Through a combination of funding and partnerships, which include VDOT, the CVMPO, FHWA, and area localities, a number of planning documents which highlight the location of sidewalks has been developed. Specifically, the Towns of Amherst, Appomattox and Altavista and the Cities of Bedford and Lynchburg have detailed evaluation of the existing sidewalk network within these localities. More information on these documents is highlighted under Plans and Policies within this chapter. In addition, the CVMPO is currently completing the same level of sidewalk evaluation within the remainder of the CVMPO area.


Town of Amherst

Within the Region 2000 area the majority of sidewalks are located within the Town and City centers. The location of sidewalks within these population centers is a logical location for these necessary transportation facilities given the population density and location of community resources within area towns and cities. The sidewalk evaluations which have taken place show that, in general, there is a fairly comprehensive network of sidewalks within the Region 2000 community cores. However, the general condition and width of existing sidewalks and availability of support facilities, such as marked cross walks, timed signals, and curb cuts, combine to create the majority of pedestrian difficulties. The ability to target and prioritize facility improvements is the function of each locality alternative transportation planning document.

The available sidewalk information provides another valuable layer of data to assist in transportation facility development decisions. Coordinating the sidewalk inventory and sidewalk development visions in planning bicycle facility recommendations is vital in creating a comprehensive alternative transportation network.

Existing Plans and Policy

Bicycles are transportation vehicles and as such are eligible for use of the roadway system, except where prohibited by law such as along Interstates. As such, all roads are a component of the bicycling network. However, while all roads may be used by cyclist, not all roads present the safest and most comfortable cycling environment. By considering road conditions and destinations there exists the opportunity to establish specific road corridors that present the best options to meet the unique needs of all cyclist types.

There are numerous policies and planning initiatives on the Federal, State, and locally at the regional and jurisdiction level that support the use of bicycles as integral components of the transportation network. The following provides a general overview of these policies and plans that legitimize bicycles as a transportation mode and provides the foundation for implementation initiatives within Region 2000.

Federal Policies

The following highlights two federal policies that support the planning and development of alternative transportation, be it walking, biking, or transit, as integral and vital transportation network elements.

- Federal Highway Administration (FHWA) Virginia Division Office Bicycle and Pedestrian Policy:
  The Virginia Division Office of the FHWA in 2001 established a Bicycle and Pedestrian Policy. The policy supports within all new and reconstructed federal-aid transportation projects, except under specific circumstances, the inclusion of pedestrian and bicycle facilities. The policy notes that the agency will assist VDOT through sharing of technology, planning activities, and safety promotion. Further, the FHWA Division policy states: "Bicycle and pedestrian facilities should be funded at the same federal-state ratio as the typical highway improvement...".

- Americans with Disabilities Act:
  The Americans with Disabilities Act (ADA) was established in 1990 by the United States Government. This federal legislation is issued and regulated by the Department of Justice and stipulates that all new and altered facilities in the public right of way, such as sidewalks, street crossings, and transit facilities, be accessible to and usable by people with disabilities. Design and construction guidelines are provided by the American with Disabilities Act Accessibility Guidelines (ADAAG).

Commonwealth of Virginia Policies and Plans

The Commonwealth of Virginia through initiated policies, programs, and planning documents developed in the last five years, has highlighted and brought to the forefront the value and need to incorporate alternative transportation planning and implementation within local and regional initiatives. Some key supporting policies and plans include:

- VDOT Policy for Integrating Bicycle and Pedestrian Accommodation:
  In 2004 the Commonwealth Transportation Board adopted a new policy that guided the integration of pedestrian and bicycle accommodations within all elements of the roadway project network and acknowledges walking and biking as "fundamental travel modes". The new policy states "VDOT will initiate all highway construction projects with the presumption that the projects shall accommodate bicycling and walking." The alternative transportation policy is applicable to planning, construction, operations, and maintenance, including hazard elimination. The policy does allow exemptions of pedestrian facility inclusion where safety or feasibility warrants preclusion. A complete version the VDOT policy is provided in **Appendix - B**.

- VDOT Safe Route to School Program
  The Safe Routes to School Program, SRTS, is a national transportation program created to: enable and encourage children, including those with disabilities, to walk and bicycle to school; make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age; and facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. In Virginia SRTS funding is available for programmatic or construction opportunities designed to enhance the safety and participation of students in walking and/or biking. Programmatic grants are provided for the purpose of developing SRTS plans and programs within a school or school divisions that can be used to promote walking and biking, provide safety training, or other programmatic type activities. Construction grants provide funds to create physical structures, such as cross walks or sidewalks, to create a safe walking environment.

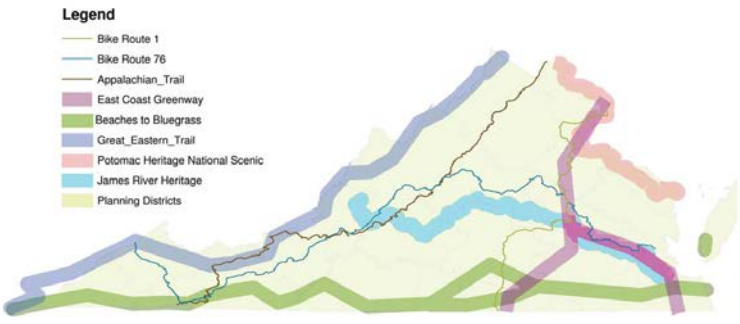
- Virginia's Outdoor Plan
  The *Virginia Outdoors Plan* (VOP) is the Commonwealth's official conservation, outdoor recreation, and open space plan. The plan provides guidance to all levels of government and the private sector, meeting the conservation, open space, outdoor recreation, and green infrastructure needs of the State. The VOP also provides specific recommendations for each planning district including Planning District 11, the Region 2000 area. The VOP is not a policy document. However, the document serves as a key planning resource for the State of Virginia and represents the guiding document for various conservation and trail-related funding sources.

  The 2007 VOP notes the following elements that support the development of bicycle facilities.
  - The need for additional public access to Virginia waters and trails for walking and biking were the two highest outdoor recreation needs indicated through public input.

  - Provides a recommendation for state and local partners to place "greater emphasis on providing alternatives to the use of private automobiles for daily activities".

  In response to the demand for increased trails and recreation, DCR established a Greenways and Trails Task Force to develop a statewide trail plan. The statewide trail system developed includes a long-term vision of a five trail network which spans across Virginia. These larger trail systems incorporate a combination of existing trail and planned facilities and include on and off-road connections.

  The James River Heritage Trail (JRHT) is the state trail that traverses through the Region 2000 area and includes the existing Lynchburg James River Heritage Trail as a primary system component. The development of the JRHT represents a key development partner for bicycle and trail resources within Region 20000.



Source: 2007 Virginia Outdoors Plan, DCR

Regional and Local Plans

There are multiple regional and locality specific plans that promote and support alternative transportation planning and development. The following is a list of some of the primary planning documents but does not constitute a comprehensive list of all planning activities or specific master plans developed to incorporate pedestrian and bicycle accommodations. Some of the local documents include:

- *Central Virginia Planning District Commission Regional Bicycle Plan*
  Developed in 2000 by the Local Government Council, known in 2000 as the Central Virginia Planning District Commission, the Regional Bicycle Plan highlights some preliminary routes for creating bicycle connections with the greater Planning District region. This Plan represented the early efforts of developing bicycling connections and represents the basis by which this updated planning effort is based.

- *Region 2000 Greenways and Blueways Plan*
  Developed in 2003 the regional plan presents a long-term conceptual plan for the creation of off and on-road connections to key resources throughout the Region 2000 area. The plan presents the benefits to the entire Region 2000 area in economic development and quality of life indicators for connecting through trails, on-road connections, and utilization of the James and Staunton Rivers. The Plan outlines a long-range, multi-year prioritization strategy that identifies within each jurisdiction a priority project to be implemented over a five year period. This regional trail, greenway, and blueways document serves as a primary guiding document for on-road bicycle facilities and the expansion and development of these envisioned multiuse facilities as transportation corridors.

- *Central Virginia Long-Range Transportation Plan – Year 2030*
  The Central Virginia Long Range Transportation Plan (LRTP) is a required planning document, updated every five years, developed to guide the metropolitan area in creating an efficient, responsive, and environmentally-sensitive transportation system over the next twenty to twenty-five years. The Plan examines transportation issues and trends and offers a list of specific projects for addressing the area's mobility needs. Providing alternative transportation access through development of on-road and off-road connections is highlighted as a planning goal.

- Town of Altavista 2035 Transportation Plan – This comprehensive transportation plan evaluates current and future transportation demands and presents transportation improvements, which includes pedestrian and bicycle accommodations, to meet future needs. The plan outlines a series of bicycle accommodations along the primary travel corridors within the Town.

- Town of Appomattox Pedestrian and Bicycle Plan – Adopted in 2009 and serving as the Town's alternative transportation plan, the document outlines existing conditions and future pedestrian and bicycle accommodations to create a pedestrian friendly community.

- Town of Amherst Pedestrian and Bicycle Plan - This comprehensive alternative transportation plan outlines a detailed long-term pedestrian and bicycle plan for the entire Town area. Highlighted within the Plan are prioritized sidewalk and bicycle facility opportunities.

- *Comprehensive Plans*
  Comprehensive Plans serve as guiding blueprints for a locality and highlight growth, development, transportation, recreation, education, health, and general quality of life visions which serve to guide community decisions, policies, and capital investments. Region 2000 jurisdictions have, through inclusion within their Comprehensive Plans, embraced and set in

motion activities to support and develop trail, bicycling, and public alternative transportation opportunities.

Amherst County
The County's 2008 Comprehensive Plan includes the following:

- "Prepare and implement a comprehensive plan for park and recreation facilities and programs, including a plan for greenways and blueways within the County."

- "Promote ecotourism – hiking, biking, visiting historic places, showcasing garden week, observing wildflowers, and bird watching. Promote trail development and use, through offering incentives to land owners to make their land accessible to these types of activities."

- "Continue work on James River Trial/Rivers Edge Park and Blue Ridge Railway Trail."

Appomattox County
The Comprehensive Plan includes the following goals that provide the support and justification for alternative transportation development within the Appomattox community.

- "Develop alternative transportation methods to better serve county residents and visitors to the County's attractions."

In addition to the Comprehensive Plan, Appomattox County, in partnership with the Town of Appomattox, developed and adopted two planning documents centered on alternative transportation development. *The Appomattox Greenways Masterplan – A Vision for the Future* and *The Appomattox Heritage and Recreational Trail Plan – A Vision of Connectivity* outline a vision format for developing both off and on-road connections within the community.

Bedford County
The Bedford County 2025 Comprehensive Plan, adopted in 2007, throughout the plan highlights the need and value of transportation and land use planning to facilitate protection of resources and increased quality of life for its residents. The following is noted regarding expanding trails and alternative transportation.

- "The non-traditional transportation corridors are important for recreational uses by both residents and tourists that visit the County for its beauty and access to natural and cultural areas. Providing for convenient access to trails that interconnect with County attractions and natural areas will enhance these resources and provide for alternative transportation corridors throughout the County."

- "Develop and adopt a County-wide Transportation Plan with regional links that can include rail and other alternative transportation options based on the densities reflected on the Future Land Use Map."

Campbell County
The recently completed Campbell County 2009 – 2024 Comprehensive Plan and subsequent activities in the County support off-road alternative transportation/trail development.

- Plan notes that the County should consider alternative methods that will assist in guiding land use and may include activities such as landscaping, sidewalks, trails, and other features to promote a visually appealing atmosphere.
- The Plan supports the continued development of County parks to facilitate community health, recreational opportunities, and general increased quality of life.

Lynchburg City
The City of Lynchburg 2002 – 2020 Comprehensive Plan, adopted in 2002, highlights the City's commitment to increasing alternative transportation and recreational opportunities. Some of the goals noted include:

- "Develop and encourage opportunities for the integration of alternative transportation modes, including public transit, bicycle, and pedestrian corridors."

- "Provide the citizens of Lynchburg with safe, efficient, effective, and well-planned transportation systems and facilities that enhance economic development…while preserving the integrity and character of the affected neighborhoods, historic districts, downtown, and natural areas."

- Promote the creation or re-creation of mixed use residential communities that incorporate a mix of housing types with pedestrian-oriented streets…."

Local Area and Site Plans
Within each locality is specific neighborhood, area or site-specific plans that have been or are currently in development that have incorporated pedestrian and bicycle accommodations as key design elements. Often these detailed site and small area plans represent unique opportunities to incorporate bicycle accommodations during the early planning stages and, as such, should be capitalized as vital implementation opportunities. The following list is by no means comprehensive but does highlight some local implementation efforts.

- Wards Road Master Plan – The City of Lynchburg, in partnership with Liberty University and property owners within the Ward Road area, have developed a comprehensive pedestrian plan for the area along Wards Road between Harvard Street and Wards Ferry Road. The comprehensive pedestrian plan, developed as a three-phase project, includes development of a pedestrian crosswalk, signage, safety features, transit stops, and multi-use trail to accommodate safe pedestrian and cyclist movement to the commercial and educational resources and residential areas within this area.

- Bedford County School System Forest Elementary and Forest Middle School Travel Plan - This School Travel Plan, developed as a Virginia Safe Routes to School initiative, has been developed to facilitate safe options for students from neighboring communities to these educational resources. The Plan includes development of new sidewalk from the Forest Middle School along Forest Road extending to Forest Elementary School and then expanding existing sidewalk along Perrowville Road to Farmington Drive. The plan has been developed to allow for students to cycle or walk along the proposed sidewalks between school resources and from the residential areas within the Farmington area.

- City of Lynchburg Parks and Recreation Sandusky Park Trail Extension – This trail master plan should be incorporated into greater trail planning and alternative trail network. This trail extension will be vital in expanding bicycle transportation opportunities.

- CVMPO Sidewalk Inventory – A comprehensive inventory of sidewalk resources is currently available within the City of Lynchburg, a similar inventory all of the existing sidewalks within the entire CVMPO area should be completed by end of 2010. This inventory will provide a clear evaluation of connection opportunities. As a number of counties, such as Bedford, permit the use of sidewalks for bicycles, the sidewalk inventory will highlight existing and future bicycle access routes to county resources.

Community Interest in Bicycling

The level of interest in bicycling can be witnessed on any given day at the parking lots of trail heads and public parks and along rural roads throughout the Region 2000 area. It is not uncommon for it to be difficult to find a parking space at the Ed Page Entrance of the Blackwater Creek Bikeway.

Further, in spite of limited on-road accommodations within the area, there are a number of bicycle clubs and two bicycle shops which thrive in the region. Each of the local bicycle shops serves and facilitates a network of local road cyclist through bike sales, hosting local riding events, and detailed information on local and regional trails. Cycling races, such as the Fat Tire Frenzy and Bike Festival and cycling touring events such at the James River Odyssey, hosted by Virginia Odysseys have become norms in our region.

Residents offer comments at community workshop

Residents provide suggestions for bicycle routes during community workshops

The citizens of Region 2000 further expressed their
interest and demand for the creation of safe on-road accommodations by attending a number of public events and participating in an on-line, web-based public survey. Interest by area citizens to increase safe on-road bicycle accommodations and interest in expanding the current multi-use trail network was expressed by the 55 participants at the first two community workshops.

During these workshops, participants used area maps to show where they wanted to ride, where primary roads of concern were located, and what key routes they felt should be included within a regional network. Participants noted the importance of including education and outreach on the rights of cyclist to be on the local road system and on proper road use by cyclists and motorists as a key component of any planning and successful biking effort.

Another source of gaining public input was through information received from an on-line survey. The 18 question survey, 14 bike related questions and 4 optional questions for demographic purposes only, was made available through the Virginia's Region 2000 website. The survey was available through March, 2009 and was advertised through newspaper articles, newsletters, web mailing, and a morning radio show.
During the survey input period, a total of 247 surveys were received. It should be noted that the provided survey was not intended to create scientific data and was not designed to provide uniformly objective results but rather gather information about general habits and opinions. The results from the 247 surveys showed that:

- 85% indicated lack of designated bike lanes/routes discouraged them from cycling more often;

- 78% rated the overall level of service for safety on local roads as poor; and 52% rated connectivity of roads for cyclists as poor;

- 67% indicated they rode on the Blackwater Creek Bikeway often;

- Over 90% indicated that providing more bike paths or wider shoulders would increase the likelihood of riding a bicycle more often; specifically 94% indicated more bike paths or wider shoulders; 84% indicated safer road conditions, and 68% noted improved driver behavior/attitude would increase likelihood.

- All 247 respondents indicated that funding should be sought to support bicycle accommodations, with the highest support indicated supporting state and federal grants (81%), dedicated percentage of local transportation funds (74%), private funding through foundations (68%), and funds from existing local city and county taxes (64%).

In addition to responses from specific questions, the survey provided an opportunity for respondents to provide an open-ended response to the question "As a cyclist or local citizen, what aspects of the existing recreation and roadway network do you like?". One hundred seventy-five (175) of the total 247 survey respondents provided a response to this question. In general the responses revolved around positive comments relating to the trail system and the need and desire to see it expanded; the lack of road accommodations in the area to safely use bicycles for transportation purposes; and the lack of understanding on the rights of cyclist and the need to expand education.

The following area some direct comments received.

"The local trails are great for recreation, but I would like to see more support for bike lanes for commuting purposes."

"I love to ride recreationally on Blackwater and James River Heritage trails...they don't serve any useful transportation purpose though."

"Blackwater Creek Trail is great. I would like to see it extended. I would also like to see much more attention given to safer bicycle and pedestrian facilities along roadways and in commercial districts. For example, there is no safe way to cross Forest Road in the Graves Mill Center area."

"There is no roadway network for bikes. I would love to ride to work more often, but it is too dangerous. I have to drive from Timberlake road to Blackwater Creek Trails to do any decent safe riding."

A summary of survey results and comments received are presented in **Appendix C**.

It should be noted that the public demand for bicycle accommodations within the region was even higher when one factors in the public input and comments received during the individual transportation plans developed for the Towns of Appomattox, Altavista, and Amherst and the City of Bedford. Within each of the detailed alternative transportation and long-range planning efforts, public comment and desire for increased pedestrian accommodations was commonly expressed. Details of the comment and outreach procedures for these documents can be found within these locality specific planning documents.

Region 2000 Roadway Characteristics

It is roadway conditions that constitute the comfort and safety of a cyclist utilizing the roadway system for transportation purposes. The roadway conditions that must be considered to evaluate the comfort and accessibility of a road to accommodate most cyclists include a number of parameters. These parameters include specific physical features of the road, such as pavement width, grade, curb and gutter, and asphalt condition, as well road use conditions such as speed, volume, and nature of vehicular traffic. Each of these features are quantified and utilized to provide unique characteristics along a road corridor to be evaluated and used to establish bicycle accommodation current

characteristics and to establish improvement recommendations. It is important to note that physical features and road use characteristics may change considerably from one portion of the same corridor to another.

Detailed road characteristics for bicycle corridor recommendations (see Chapter 4) are presented in **Appendix D –Region 2000 Bicycle Plan Road Characteristics**.

Developing a bicycle network that functions with both current and planned roadway conditions and establishes roadway system adjustments, in the most feasible and safe opportunities is the basis for the Region 2000 Bicycle Plan.

Roadway Deficiencies

While cycling has become a popular activity in Region 2000 and many of the local roads serve as recreational routes, overall, the road conditions within the greater Region 2000 area do not support comfortable riding conditions for most cycling levels. Current road conditions, with the lack of signage and other on-road bicycle accommodations, support road cycling by only the most experienced cyclists. The majority of area bicyclists are therefore limited to the use of the many multi-use trails and single-track dirt tracks for recreation and thusly do not have the adequate resources to fully use the trail network as a transportation option to access work and other daily activities. Further, along many of the winding, narrow, two-lane roads that predominate the area, even the more experienced, Group A cyclists express safety concerns, especially along the higher volume, higher speed corridors.

The following represent the primary roadway and area conditions which hinder bicycle transportation in the area.

- Lack of on-road bicycle facilities: As noted earlier, within the general Region 2000 area, the CVMPO area, or the individual towns there are virtually no existing roadways that are designed for or provide acknowledgement of bicycle use.

- Area geography: The entire Region 2000 is characterized by rolling and sometimes steep hills and terrain. It is this geography that adds to the beauty and unique features of the area. However, this geography poses a considerable challenge to many would be cyclists. While the geography of the region can not be changed, there exist an opportunity to guide cyclist along routes that limit the use of some of the more physically challenging roads and in creating alternative transportation network that takes advantage of the natural and infrastructure resources that are available.

- Narrow roads: The area is predominated by winding, narrow, and limited site distance roads. Further, many of these roads have very limited shoulder width and are often bordered by steep drainage ditches, or lined with mailboxes, woods, or curb and gutter. Additionally, a number of roads are lined with utility poles that are located on the edge of the road providing very little clearance space for cyclists. Each of these conditions presents potentially dangerous conditions for advanced bicyclist and combines to completely hinder comfortable road use by less experienced riders. Further, many of these physical barriers, such as utility poles and steep areas, cause considerable challenges to road widening or other physical road adjustments.

- Distance between community hubs: As defined in general as a rural area, there is considerable open space and distance between the commercial and community centers located within the City/CVMPO and area towns. While the area geography and travel distance to work and resources for residents can not be changed, this does not limit the need to expand the core alternative transportation resources within the community centers not the need to create bicycle facilities along the most relevant transportation corridors. Further, given the distance

of community centers, the need to expand alternative transportation options is vital to protect the rural character that defines the region.

- Automobile traffic: Automobile traffic is an obvious obstacle for persons riding a bicycle. The potential conflict is heightened along the roads with high traffic volume and higher speeds. Area traffic and speed combined with the narrow and winding nature of many of the roads create additional hazards.

- Cyclist and Motorist Education: A key obstacle is the lack of understanding by motorists that a bicycle is a legal roadway vehicle and the lack of proper road use knowledge by bicycle riders. Often there is a sense that there is a motorist versus cyclist local mentality. There exist a genuine need in the area to expand education and communication between motorist and cyclist, and a need to expand basic bicycle use education.

- Lack of connectivity to existing multi-use trail network: The existing greenway system represents a vital connection network that runs adjacent to and connects numerous residential, business, and recreational resources within the CVMPO area. Further, the grade and surface of the system provides the widest range of comfort to multiple user groups. The ability to safely access this system via the road network to expand the transportation value of these valuable multi-use trails to additional areas within the region is an expressed goal within area plans, citizens, and local governments.

Region 2000 Bicycle Level of Service (BLOS)

As noted within Chapter 2, the Bicycle Level of Service (BLOS) is a cycling rating system which represents an estimated comfort level for a cyclist on a particular road. The evaluation is based on an evaluation of physical features and road use, such as car speed and volume, to establish the rating. The rating is based on a rating system that ranges from A to F, where A represents the highest level of comfort and least perceived conflict for a cyclist. An off-road or adjacent road multiuse system would be the best example on an A rating.

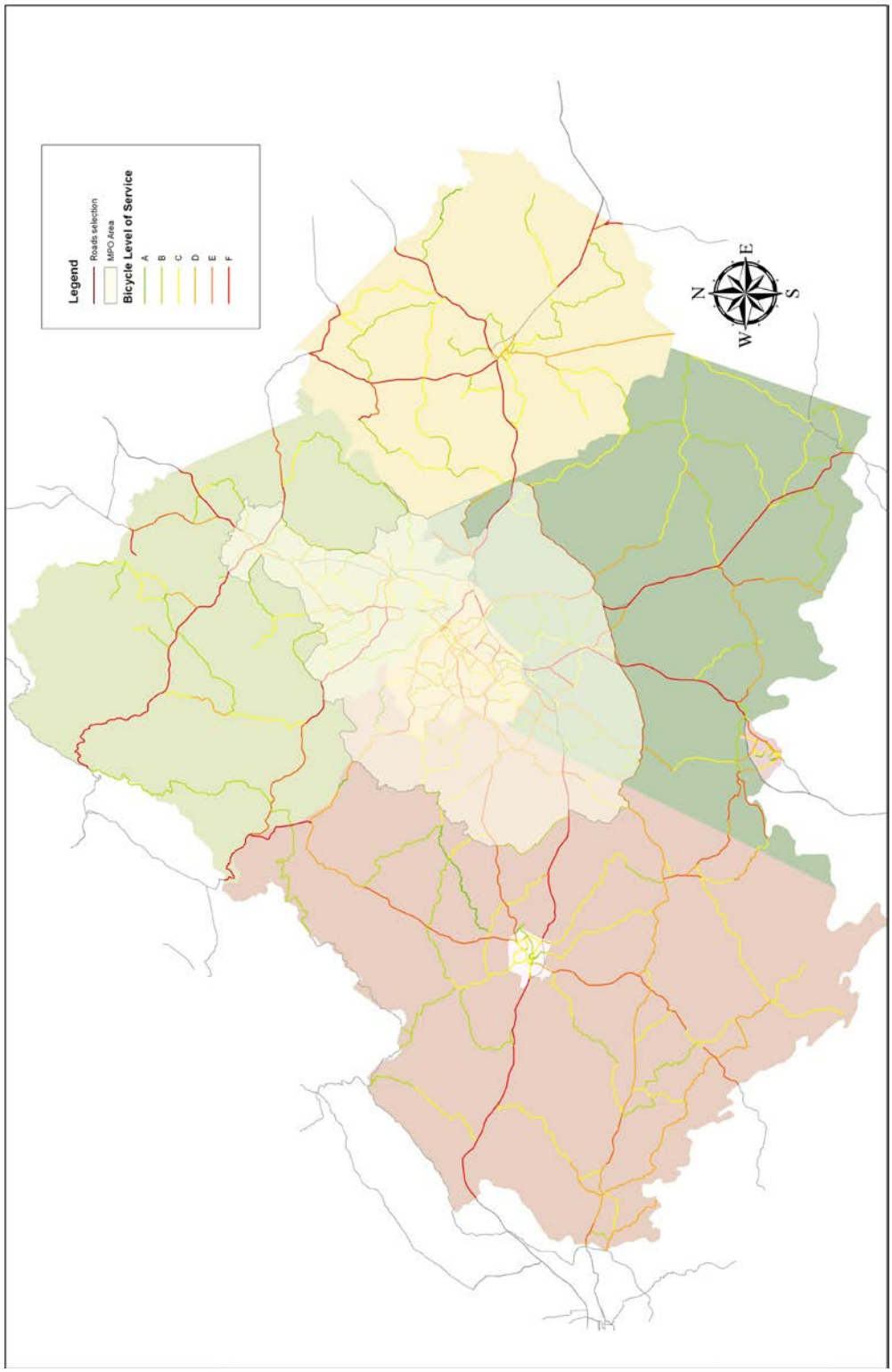
In Virginia the BLOS has been evaluated and mapped by VDOT. **Figure 3.6** depicts the current evaluated BLOS routes within the Region 2000 area. As can be seen when evaluating the map, there are a high degree of roads, especially within the MPO area and along primary transportation corridors that are rated C and below. The low rating of many of these roads is the combination of having no bicycle accommodations, the narrow and winding nature of many of the roads, and the increased vehicular traffic along the roads. The map does however, show that along a number of the rural, lower volume roads existing conditions that can facilitate fairly comfortable road travel. The map does clearly highlight, given the high number of warm, or low service level, colors, the need to provide necessary accommodations to facilitate the utilization of bicycles as a viable transportation option within the area.

Bicycle Accidents and Motorist Conflict

Ensuring user safety is the ultimate goal and primary design and facility development parameter for all transportation facilities. As such, information on accidents or known conflict areas presents key indicators of necessary improvements of an existing system or development of facilities to eliminate known dangers. To this end, the Virginia Department of Motor Vehicles (DMV) maintains accident data relating to vehicular, bicycle, and pedestrian incidents. This information is evaluated and serves as a vital decision tool for road, signage, signaling, sidewalk, and other transportation facility improvements.

With the increased participation in bicycling as a viable mode of transportation comes statistics that support the need to increase facilities to accommodate safe use. According to a recent study completed by BikeWalk Virginia titled Benchmark Study Report of Biking and Walking Resources in Virginia Part II – Relationship between Injuries, Deaths, and Locality Bicycle and Pedestrian

Figure 3.6
Region 2000 Bicycle Level of Service (BLOS) Map



Source: Virginia Department of Transportation, 2009

Resources (2009), DMV 2008 accident data noted that 716 bicyclists were injured and 14 killed and 1675 pedestrians were injured and 76 killed in vehicle/pedestrian crashes in Virginia respectively. Table 3.2 provides a summation of bicycle crash injury and fatality data from 2001 – 2008 for Region 2000 localities. While the accident numbers for this period may not appear high for the Region 2000 area, it is important to recognize that not all incidents are properly recorded and further near accident events are most likely never reported. Most importantly, only one injury or death as a result of bicycle and vehicular conflict is too many. It should be noted that the numbers noted in **Table 3.2** are for the entire jurisdiction and the data did not specify if the incidents were within the urban or rural portions of the locality

Table 3.2
Bicycle Injuries (I) and Fatalities (F) in Crashes by Jurisdiction
2001 - 2008

Jurisdiction	2001		2002		2003		2004		2005		2006		2007		2008	
	I	F	I	F	I	F	I	F	I	F	I	F	I	F	I	F
Amherst County	1				2		2		2							
Appomattox County					1				1		1					
Bedford County			1		1		1		1				2	1		
Campbell County					2		1		1		3				1	
Lynchburg City	6		13		11		3		10		6		12		7	

Source: Virginia Department Motor Vehicles; http://www.dmv.state.va.us

The greater Region 2000 area is not without unfortunate incidents in recent years which have brought to the forefront the need to expand bicycle facilities and education aimed at cyclist and motorist. The tragic death of the late John H. Bell, M.D., a Lynchburg cardiothoracic surgeon, due to a bicycle accident along U. S. Route 501 in May, 2007 served as a tragic reminder of the dangers and reality faced by cyclists along the road network. Many local residents ride bicycles along roads in Region 2000 on a daily basis. Thankfully similar tragedies are rare; however, almost every cyclist can provide a story of a close call accident or an incident where they received a negative cycling comment by a motorist. The following headline ran in the July 14, 2009 edition of the local newspaper, The News & Advance. The article focused on a specific motorist/cyclist incident that took place in our area and highlighted the general nature of the cyclist/motorist conflict, that being a misunderstanding of the use of the road network, an uncertainty of the safe and proper methods to share the roadway, and assurances by each road user they belong and are entitled to equal network use. The reduction of motorist/cyclist conflict, while promoting the healthy use of cycling for transportation and recreational purposes is the heart of the Region 2000 Bicycle Plan.

"Campbell County judge laments lack of civility on area roads"

Source: News & Advance, 2009; article by Chris Dumond

Chapter 4: Bicycle Plan Recommendations

System recommendations, policy actions, and strategies for the development of a comprehensive on-road bicycle network within Region 2000 area is presented in this Chapter. Included is a summation of specific roadways identified for bicycle accommodations, a further prioritization of the vision network to address first priority routes within the CVMPO area, and an overview of policy and program recommendations necessary to facilitate bicycle use education and ensure facility development.

A Method for Establishing a Network Design

The bicycle road network recommendations presented have been developed through review and consideration of community demographics, location of destination points, development information, and incorporation of existing planning initiatives. The goal of the effort is the development of a bicycle accommodation network that ensures access and connectivity between residential areas and community activity centers. Development of the *Region 2000 Bicycle Plan* network recommendations was overseen by the Region 2000 Bicycle Advisory Committee (BAC) and includes input received through a local bicyclist's forum, comments received through public meetings, and input from area planners and locality staff.

When reviewing the bicycle network recommendations presented, the following points should be noted:

- A road not included within this plan does not mean that road cannot be used by cyclists.
  Bicycles, as transportation devices are to be expected along all roads, except those expressly prohibited by law. Corridors presented in this plan are developed to present those roads, given the proximity to key destinations, most in need of bicycle facility development.

- Any road should be provided bicycle accommodation if funding, partnership or development opportunity arises.
  The bicycle system network presented represents a system recommendation plan; however, localities should not hesitate to capitalize on any opportunity that arises to implement on-road accommodations, no matter how small and even if the facility improvement does not currently connect to other facility improvements.

- No facility accommodation is too small.
  It is understood the development of a bicycle network will take time. Any opportunity for full or partial accommodation should be implemented even if a connection point is not in place.

- System recommendations are based on available data and do not constitute specific site evaluations.
  Facility type recommendations are developed from evaluation of available road data and general observation. However, for the purposes of the bicycle network development, detailed site evaluations will be required for the majority of accommodation solutions. All types of bicycle accommodations should be considered and evaluated and any facility accommodation along the identified routes will be seen as a benefit to both cyclist and motorist.

On-Road Network Recommendations

The following is a summary of the identified on-road facility road or corridor recommendations within Region 2000. The **Region 2000 Bicycle Network Map** provided as **Figure 4.1** represents bicycle facility recommendations for the entire Region 2000 area.

To provide clarity and context in viewing the envisioned bicycle network, the Region 2000 Bicycle System Network is also presented in a series of maps corresponding to Region 2000 jurisdictions and planning region. Amherst, Appomattox, Campbell and Bedford have individual locality maps; included within the county maps are more detailed maps of the Town of Appomattox, Town of Amherst, and the Town of Altavista. Lastly, in addition to the locality specific maps, a CVMPO area map is also provided, as this transportation planning region, which includes the City of Lynchburg, represents the highest concentration of recommended facility improvements. The locality specific Bicycle Network Map is provided in **Appendix E.**

The Region 2000 Bicycle Plan highlights those corridors which, given their proximity and role in directing access to primary destinations, should be provided some level of bicycle accommodation. Within the presented road corridors, while all types of bicycle accommodations are considered possible options to improve the bicycle level of service, facility type accommodation recommendations are presented. It should be noted all recommendations are provided on a planning level and are based on available road data; more detailed road analysis will often be necessary to assess specific accommodation design requirements. The Region 2000 Bicycle Network is presented in the following manner:

- Green Lines – These roads or road segments represent priority road corridors, or those roads that are considered vital facility development corridors to launch the greater bicycle network development and represent corridors that ensure access to key community resources or to existing multiuse trails, thus expanding the trail's transportation value.
- Yellow Lines – These road or road portions represent necessary connections in developing the long-term connection network.
- Blue Dashed Lines – These road recommendations developed in the 2000 Central Virginia Bicycle Plan
- Peach Dashed Line – Represent road connections identified within the Department of Conservation and Recreation's statewide James River Heritage Trail (see www.dcr.virginia.gov/recreational_planning/index.shtml).

Red line priority corridors were only established within the CVMPO area and the majority of the priority corridors are located within the City of Lynchburg. As the center of Region 2000 and the CVMPO area, the area with the highest population density, and the primary center of commercial, business, and recreational development, and the primary location of public transit, the City of Lynchburg logically represents the highest percentage of priority corridors within the bicycle plan network. In addition, as the geographic center of the region, many of the bicycle plan routes traverse through the City as they connect one jurisdiction to another.

While a prioritization of system corridors was only developed for the CVMPO area, this in no way implies that the other corridors outside the CVMPO area are less necessary or desirable in the implementation of the regional alternative transportation network. A comprehensive, cross jurisdictional network is necessary to the overall system and therefore any facility improvement should be accomplished as opportunity is presented. As the *Region 2000 Bicycle Plan* is a living document, it is intended for each county and town to develop priority corridors as a natural component of their planning and development efforts.

Figure 4.1
Region 2000 Bicycle Network Map

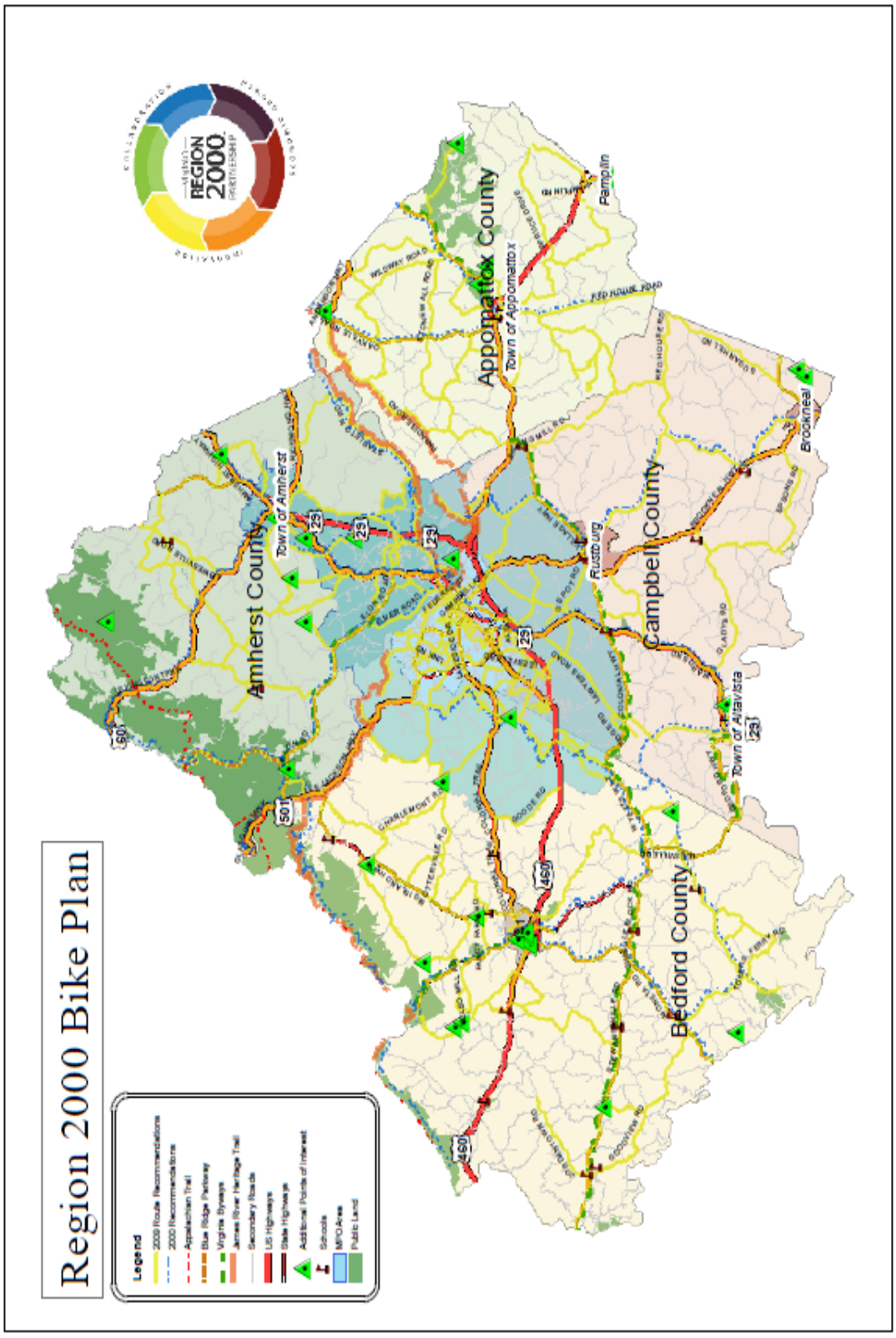
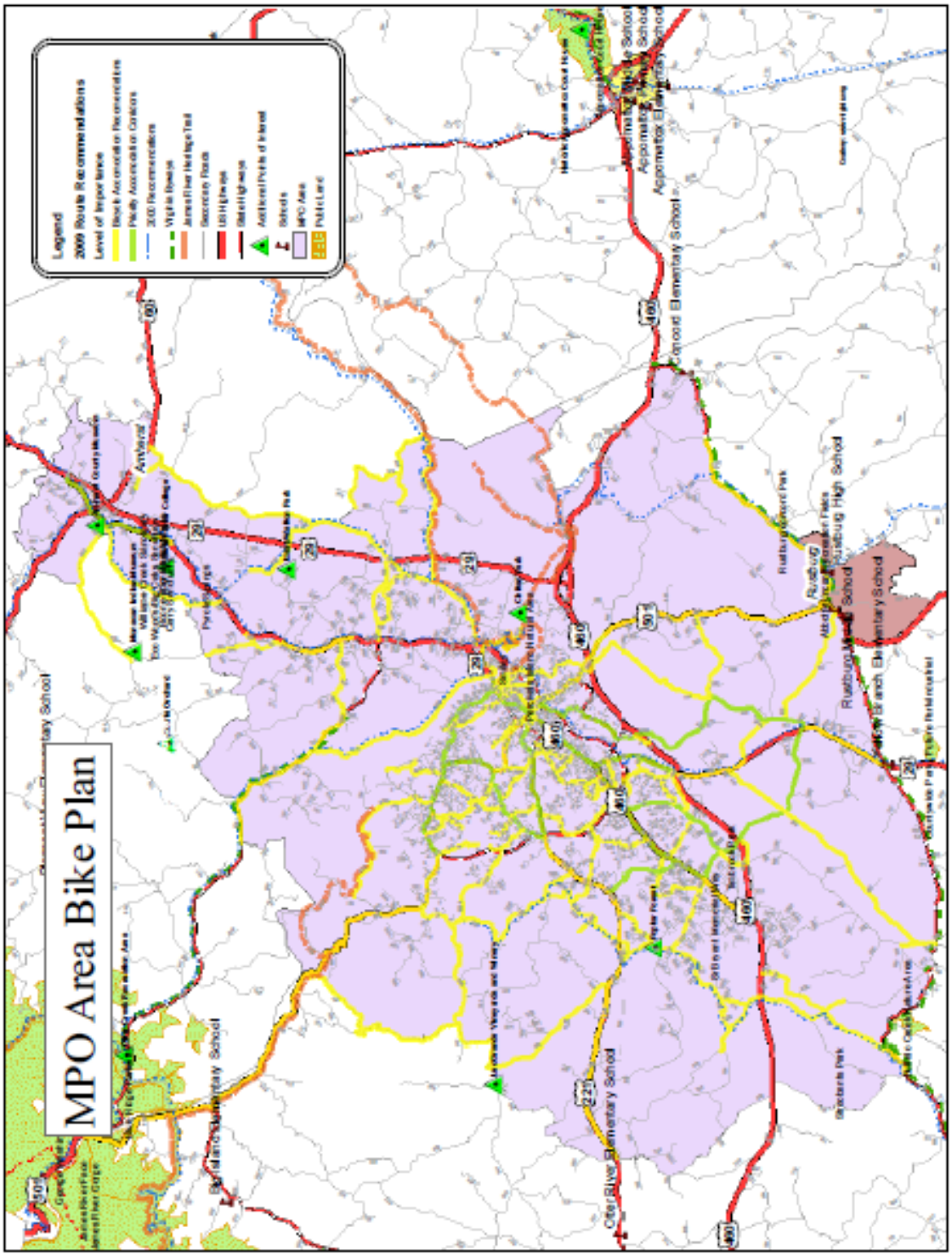


Figure 4.2
Region 2000 Bicycle Network - CVMPO Area



The road corridors highlighted within the **Region 2000 Bicycle Network** are further presented, according to jurisdiction or planning area, in **Tables 4.1** through **4.6**. Within each table road/corridor name, the start and end point, and the accommodation recommendation are presented within each table. More detailed road descriptions, such as road width, travel speed, number of through lanes, curb and gutter information, etc., used in system design considerations organized by locality or planning area are provided in **Appendix D.**

Region 2000 Bicycle System Recommendations – CVMPO Area

As stated previously, the CVMPO area is the population, business, shopping, and cultural center of the greater Region 2000 area. As such, this area represents the highest degree of bicycle accommodation facilities.

Bicycle Plan CVMPO Priority Accommodation List

Table 4.1 provides a summation of the system recommendations for the priority corridors as identified from within the greater CVMPO area only. These corridors are shown as red, priority lines, within **Figures 4.1** and **4.2**. As noted earlier, these corridors represent those, which given their proximity to key destinations and known use by cyclists, should be provided the first level of consideration in bicycle facility determination.

Table 4.1
CVMPO Priority Accommodation Corridors/Roads

Street Name	Segment From	Segment To	Recommendation	Strategy
Boonsboro Road	Lynchburg Expressway	Rivermont Avenue	Signed Share Road; Bike Lane	Signage; stripe pavement
Candlers Mountain Road	Route 501	Campbell Highway	Signed Share Road	Signage
Cranehill Drive	Link Road	Langhorne Road	Signed Share Road; Bike Lane	Signage; Stripe
English Tavern Road	Wards Road (loop)	Wards Road (loop)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Enterprise Drive	Route 221	Route 661 (Bateman Bridge)	Signed Share Road	Signage
Fifth Street	Main Street	River Road	Signed Share Road; Sharrow	Signage; pavement marking
Fort Ave	Park Avenue	Memorial Ave	Bike Lane	Restripe; stripe; parking one side
Fort Ave	Memorial Avenue	Lynchburg Expressway	Signed Share Road; Pave Shoulder	Signage
Kemper Street	Campbell Avenue	12th Street	Signed Share Road; Wide Outside Lane; Sharrow	Re-stripe, signage; pavement marking
Lakeside Drive	Park Avenue	Colonial Trail	Signed Share Road; Wide Outside Lane; Pave Shoulder	Signage; restripe; Pave 2' Shoulder
Langhorne Road	Campbell Avenue	Rivermont Terrace	Signed Share Road; Wide Outside Lane	Signage; restripe
Murrell Road	Lakeside Drive	Langhorne Road	Signed Share Road; Bike Lane	Signage; Stripe
Leesville Road	Timberlake Road	Greenview Drive	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Lynbrook Road	Route 29	Route 738 South	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Park Avenue	Lakeside Drive	5th Street	Signed Share Road; Bike Lane; Sharrow	Signage; stripe; pavement marking

Street Name	Segment From	Segment To	Recommendation	Strategy
Rivermont Avenue	Boonsboro Road	Fifth Street	Signed Share Road; Bike Lane	Signage; Stripe
South Main Street	Amherst Highway (North)	Amherst Highway (South)	Signed Share Road; Bike Lane, Sharrow	Signage; Stripe; Pavement Marking
Timberlake Road	Business 460	Lynchburg Expressway	Signed Share Road; Pave Shoulder	Signage; consider development of combined turn, bus, bike travel lane
Wards Road	Fort Avenue	South MPO Boundary (Colonial Highway)	Signed Share Road; Wide Outside Lane, Trail	Signage; Restripe; develop trail according to Lynchburg Wards Road Master Plan
Waterlick Road	Thomas Jefferson Drive	Wards Road	Sighed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder

Bicycle Plan CVMPO Accommodation List

The corridor list provided in **Table 4.2** identify those roads that, similar to the priority corridors, are roads that provide access to key destinations or connect with larger residential areas and, as such, represents important connector roads in development of a comprehensive alternative transportation network. These roads represent those CVMPO roads that are included in the long-term Bicycle Plan connection vision. It should be noted, while not within the Priority List, these roads and corridors are no less important and necessary to create a comprehensive bicycle network.

Table 4.2
CVMPO Accommodation Corridors/Roads

Street Name	Segment From	Segment To	Recommendation	Strategy
12th Street	Fort Avenue	Clay Street	Signed Share Road, Sharrow	Signage; pavement marking
5th Street	River Road	Main Street	Signed Share Road, Sharrow	Signage; pavement marking
Alta Lane	Wards Ferry Road	Delray Circle	Signed Share Road	Signage
Ambrose Rucker Road	Elon Road	Miller Creek	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Amelon Road	Elon Road	Rt 677(Dixie Airport Rd)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Amherst Highway	Dillard Road	Richmond Highway	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Bateman Bridge Drive	Rt811(Thomas Jefferson Dr)	Rt 1576s.(Jeff.Woods Dr)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Brookneal Hwy	Rte 24 West	Rte 622	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Burnbridge Rd	Rte 221	Rte 811	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Burnt Bridge Road	Boonsboro Road	Indian Hill Road	Bicycle Route	Signage
Camp Hydaway Road	Candlers Mountain Road	East Mpo Boundary	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Campbell Avenue	Park Avenue	Campbell Highway	Signed Share Road	Signage
Campbell Hwy	Campbell Avenue	South Mpo Boundary	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder

Street Name	Segment From	Segment To	Recommendation	Strategy
Church Street	Rivermont Ave	5th St	Signed Share Road; Sharrow	Signage; pavement marking;
Clay Street	5th Street	12th Street	Signed Share Road; Sharrow	Signage; pavement marking
Coffee Road	Route 501	West MPO Boundary	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Colonial Hwy	Rte 685	Rte 501 South	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Colonial Trail	Lakeside Drive	West MPO Boundary	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Colony Rd	Main St(Rte 1006)	Rte 29 Bus (So. Bnd Rmps)	Signed Share Road	Signage
Commerce Street	5th Street	Main Street	Sharrow; Bike Lane	Sharrow or Bike Lane with limiting parking one side
Concord Turnpike	Jefferson Street	Garnet St	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Cottontown Road	Rt 1204(Brookfield Rd)	Colonial Trail	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Cvt Rd (Rte.334)	Route 334	Route 210	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Delray Circle	Alta Lane	Leesville Road	Signed Share Road	Signage
Depot Rd	Rte 738 North	Rte 501	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Dixie Airport Road	Old Wright Shp Rd(Rt833e)	Amherst Highway	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Eldon Street	Langhorne Lane	Memorial Avenue	Bicycle Route	Signage
Elon Road	Madison Heights Bypass	North Mpo Boundary	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Evergreen Road	Indian Hill Road	Link Road	Bicycle Route	Signage
Father Judge Road	Father Judge Road	Fall Rock Creek Bridge	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Father Judge Road	Father Judge Road	Fall Rock Creek Bridge	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Federal Street	Hollins Mill Road	5th Street	Signed Share Road; Sharrow	Signage; pavement marking
Fenwick Drive	Fort Avenue	Sheffield Drive	Signed Share Road	Signage
Florida Avenue	Main Street	Campbell Avenue	Signed Share Road	Signage
Forest Brook Road	Old Forest Road	Lakeside Drive	Signed Share Road	Signage
Grace Street	12th Street	Florida Avenue	Signed Share Road	Signage
Graves Mill Road	Colonial Trail	Fort Avenue	Signed Share Road	Signage
Greenview Drive	Timberlake Road	Leesville Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Greenwood Drive	Sandusky Drive	Thomas Road	Signed Share Road	Signage
Harvard Street	Wards Ferry Road	Wards Road	Bike Lane	Re-stripe
Hawkins Mill Rd	Coffee Road	Cottontown Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
High Peak Road	Rte 671	Rte 656	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Hill Street	Old Forest Road	Langhorne Road	Bike Lane	Stripe
Hollins Mill Road	Bedford Avenue	Federal Street	Signed Share Road	Signage
Homestead Road	Rt 1576s.(Jeff.Woods Dr)	Rte 620(Bateman Bridge Dr)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Indian Hill Road	Burnt Bridge Road	Evergreen Road	Bicycle Route	Signage
Isaak Walton Rd	Coolwell Rd (Rte 604 S.)	Elon Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder

Street Name	Segment From	Segment To	Recommendation	Strategy
Jefferson Street	9th Street	Washington Street	Signed Share Road	Signage
Langhorne Lane	Richmond Street	Brevard Street	Signed Share Road	Signage
Lawyers Road	Waterlick Road	Wards Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Laxton Road	Kenwood Drive	Timberlake Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Lee-Jackson Highway	West MPO Boundary	Rocky Mountain Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Lexington Tpke	North MPO Boundary	Rte 29 Bypass	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Link Road	Rivermont Avenue	Old Forest Road	Signed Share Road	Signage
Linkhorne Drive	Old Forest Road	Cranehill Drive	Signed Share Road	Signage
Long Meadows Drive	Fort Avenue	Pawnee Drive	Bicycle Route	Signage
Main Street	Rivermont Avenue	Florida Avenue	Signed Share Road; Sharrow	Signage; pavement marking
Martin Street	Campbell Avenue	Camp Hydaway Road	Signed Share Road	Signage
Mayflower Drive	Candlers Mountain Road	Odd Fellows Road	Signed Share Road	Signage
Mcconville Road	Wyndale Drive	Graves Mill Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Mount Athos Road	Stage Road	Private Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
North Coolwell Road	Amherst Highway North	South Coolwell Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
North Five Forks Road	Amherst Highway South	High Peak Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Old Forest Road	Linkhorne Drive	Lakeside Drive	Signed Share Road	Signage
Old Forest Road	Linkhorne Drive	Lynchburg Expressway	Signed Share Road	Signage
Old Graves Mill Road	Graves Mill Road	Timberlake Road	Signed Share Road	Signage
Old Town Connector	Rte 29 Bus (So. Bnd Rmps)	Reloc. Rte 622	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Old Wright Shop Road	Colony Road	East Mpo Boundary	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Pawnee Drive	Long Meadows Drive	Sandusky Drive	Bike Route	Signage
Perrowville Road	Colonial Trail	North MPO Boundary	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Perrymont Avenue	Greenwood Drive	Fort Avenue	Signed Shared Road	Signage; consider road narrowing similar to Sheffield
Rainbow Forest Drive	Waterlick Road	Crossway Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Richmond Street	Langhorne Lane	Oakley Avenue	Signed Share Road	Signage
River Road	Elon Road	Fifth Street	Signed Share Road; Wide outside lane, paved shoulder	Signage; Pave 2' Shoulder
Rivermont Terrace	Langhorne Road	Rivermont Avenue	Signed Shared Road	Signage
Sandusky Drive	Fort Avenue	Greenwood Drive	Signed Shared Road	Signage; consider road narrowing similar to Sheffield
Sheffield Drive	Fenwick Drive	Wards Road	Signed Shared Road	Signage
South Coolwell Road	Isaak Walton Road	North Coolwell Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
South Five Forks Road	High Peak Road	Amherst Highway North	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Stage Road	Mount Athos Road	Cabin Field Rd	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Sunburst Road	Lessville Road	Waterlick Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder

Street Name	Segment From	Segment To	Recommendation	Strategy
Sunnymeade Road	English Tavern Road	Candlers Mountain Road (Rte 670 E)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Sussex Street	Perrymont Avenue	Thomas Road	Bicycle Route	Signage
Thomas Jefferson Drive	Colonial Trail	New London Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Thomas Road	Greenwood Drive	Brevard St	Signed Shared Road	Signage
Trents Ferry Road	Holcomb Rock Road	Boonsboro Road	Signed Share Road	Signage
University Boulevard	Candlers Mountain Road	Liberty Mountain Road	Signed Share Road; Wide outside lane	Signage; re-stripe
Va Ep School Road	Williams Road	Rivermont Avenue	Signed Share Road	Signage
Village Hwy	Plumb Branch Road (Rte 656)	Colonial Highway	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Wards Ferry Road	Timberlake Road	Wards Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Wiggington Road	Hawkins Mill Road	Old Forest Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Winesap Road	Winridge Drive	Amherst Highway	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Winridge Drive	Elon Road	Winesap Road	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
Wright Shop Road	Old Town Road (Rte 210)	Old Route 622	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder

Region 2000 Bicycle System Recommendations – Locality Recommendations

The following section provides a summation of the recommended roads or corridor segments identified within the **Figure 4.1** arranged by Region 2000 county jurisdiction. **Tables 4.3 – 4.6** provide the accommodation recommendation for Amherst, Appomattox, Bedford, and Campbell respectively. It should be noted, that for the individual county identified corridor recommendation, no priority corridors have been specifically identified. In addition, for those counties that have portions with the CVMPO area these corridors are noted within the county only lists as well.

Table 4.3
Amherst County Accommodation Corridors/Roads

Street Name	Segment From	Segment To	Recommendation	Strategy
AMBROSE RUCKER ROAD (653)	ELON ROAD (130)	HIGH PEAK ROAD (636)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
AMELON ROAD (669)	VIRGINIA BYWAY (130)	DIXIE AIRPORT ROAD (677)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
AMHERST HIGHWAY (RTE 29)	LYNCHBURG CITY BOUNDRY	NELSON COUNTY LINE	Share the Road	Signage
BOBWHITE ROAD	PARTRIDGE CREEK ROAD (670)	EBENEZER ROAD (624)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
BUFFALO SPRINGS TURNPIKE (635)	ELON ROAD (130)	LEXINGTON TURNPIKE (60)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
COLONY RD	MAIN ST(RTE 1006)	RTE 29 BUS (SO. BND RMPS)		
CVT RD (334)	ROUTE 334	ROUTE 210	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
COLONY RD	MAIN ST (1006)	RTE 29 BUS (SO. BND RMPS)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
DIXIE AIRPORT ROAD (677)	AMELON ROAD (130)	AMHERST HWY (RTE 29 BUS)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
EBENEZER ROAD (624)	BOBWHITE ROAD	UNION HILL ROAD (659)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
ELON ROAD (130)	WEST COUNTY BORDER	AMHERST HWY (RTE 29 BUS)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
FATHER JUDGE ROAD (655)	FATHER JUDGE ROAD	FALL ROCK CREEK BRIDGE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
FIBRE PLANT ROAD	RIVERVILLE ROAD (600)	STAPLETON ROAD (622)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
GALTS MILL RD (622)	NEW WRIGHT SHOP ROAD (622)	EARLY FARM ROAD (624 S)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
GLASGOW HWY	ROCKBRIDGE CL	RTE 501	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
HIGH PEAK ROAD (636)	MATOHE ROAD (636,643)	HICK'S FARM ROAD (671)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
INDIAN CREEK ROAD (625)	GIDSVILLE (625)	LOWESVILLE ROAD (778)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
IZAAK WALTON ROAD (670, 663)	GLADE ROAD (130)	S COOLWELL ROAD (604)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LEXINGTON TURNPIKE (60)	ROCKBRIDGE COUTNY BORDER	N AMHERST HIGHWAY (RTE 29)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LOWESVILLE ROAD (778)	LEXINGTON TURNPIKE (60)	NELSON COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LYNCHS FERRY ROAD (1004)	COLONY ROAD (210)	ROCKHY HILL ROAD (1015)	Share Road	Signage
NEW WRIGHT SHOP ROAD/WRIGHT SHOP (622)	COLONY ROAD (210)	GALTS MILL ROAD (622)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
NORTH COOLWELL ROAD (663)	IZAAK WALTON ROAD (663)	SOUTH AMHERST HIGHWAY (RTE 29)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder

Street Name	Segment From	Segment To	Recommendation	Strategy
NORTH FIVE FORKS ROAD (671)	SOUTH AMHERST HIGHWAY (RTE 29)	HIGH PEAK ROAD (671)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
NORTH MAIN STREET (29 BUS)	RICHMOND HIGHWAY (60)	NORTH AMHERST HIGHWAY (RTE 29)	Share Road; Wide Outside Lane	Restripe; Signage
OLD WRIGHT SHOP ROAD/WRIGHT SHOP (833)	NEW WRIGHT SHOP ROAD (622)	NEW WRIGHT SHOP ROAD (622)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PARTRIDGE CREEK RD (670)	IZAAK WALKTON ROAD (663)	BOBWHITE ROAD	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PATRICK HENRY HIGHWAY (151)	NORTH AMHERST HIGHWAY (29)	NELSON COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PIEDMONT/ALLEN CREEK ROAD (622)	STAPLETON ROAD (622)	NELSON COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
RICHMOND HIGHWAY (60)	NORTH AMHERST HIGHWAY (29)	NELSON COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
RIVER ROAD (685)	AMHERST HIGHWAY (BUS 29)	ELON ROAD (130)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
RIVERVILLE ROAD (600)	PIEDMONT/ALLEN CREEK ROAD (622)	RICHMOND HIGHWAY (60)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
ROCKY HILL ROAD (1015)	RIVER ROAD (685)	LYNCHS FERRY ROAD (1004)	Share Road	Signage
SOUTH MAIN STREET (29 BUS)	SOUTH AMHERST HIGHWAY (29)	RICHMOND HIGHWAY (60)	Stripe Bike Lane	Stripe; Signage
SOUTH COOLWELL ROAD (604)	SOUTH AMHERST HIGHWAY (RTE 29)	IZAAK WALTON ROAD (663)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
SOUTH FIVE FORKS ROAD (671)	HIGH PEAK ROAD	AMHERTS HIGHWAY NORTH	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
STAPLETON RD (622)	EARLEY FARM ROAD (S 624)	RT PIEDMONT/ALLEN CREEK ROAD (622)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
WINESAP ROAD (675)	WINRIDGE DRIVE (795)	SOUTH AMHERST HIGHWAY (RTE 29)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
WINRIDGE DRIVE (795)	ELON ROAD (130)	WINESAP ROAD (675)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder

Table 4.4
Appomattox County Accommodation Corridor/Roads

Street Name	Segment From	Segment To	Recommendation	Strategy
ABBIT BRANCH ROAD	RTE 683	RTE 26	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
ANDERSON HIGHWAY (60)	NELSON COUNTY LINE	BUCKINGHAM COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
CEDAR TREE ROAD (681)	(635)	OLD EVERGREEN ROAD (630)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
CHURCH STREET (727)	PATRICIA LANE (1009)	EVERGREEN (727)	Combination Share Road; Bike Lane	Restripe; parking one side; Signage
CONFEDERATE BLVD (460 BUS)	OAKVILLE ROAD (26)	RICHMOND HIGHWAY (460)	Combination Share Road and Bike Lane	Restripe; Signage
COURT STREET (727)	MAIN STREET (727)	CONFEDERATE BOULVARD (460 BUS)	Bike Lane	Stripe; Signage
DOUBLE BRIDGES ROAD (679)	PROMISE LAND ROAD (604)	CAMPBELL COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
DREAMING CREEK ROAD (605)	FALLING CREEK ROAD (667)	LIME PLAND ROAD (683)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
EVERGREEN AVE (1002)	CHURCH STREET (727)	RED HOUSE ROAD (727)	Share Road	Signage
FALLING CREEK ROAD (667)	STONEWALL ROAD (608)	DREAMING CREEK ROAD (605)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
FERGUSON STREET (1008)	N COURT STREET (131)	LEE GRANT AVENUE (1001)	Share Road	Signage
HIGHLAND AVEUNE (1039)	COURT STREET (131)	CHURCH STREET (727)	Share Road	Signage
HORSESHOE ROAD (656)	OLD COURTHOUSE ROAD (24)	OLD COURTHOUSE ROAD (24)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LEE GRANT AVE (1001)	PUMPING STATION ROAD (691)	RED FIELDS ROAD (635)	Share Road	Signage
LIBERTY CHAPEL ROAD (615)	OLD GRIST MILL ROAD (616)	WATT ABBITT ROAD (654)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LIME PLANT ROAD (683)	DREEMING CREEK ROAD (605)	OAKVILLE ROAD (616)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LITTLE CUB RD (629)	PINEY RIDGE ROAD (628)	OLD EVERGREEN ROAD (630)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
MAIN STREET (131)	N COURT STREET (131	CHURCH STREET (727)	Share Road	Signage
OAKLEIGH AVENUE (631)	CHURCH STREET (727)	(627)	Combination Share Road; Paved Shoulder	Signage; Pave 2' Shoulder
OAK RIDGE ROAD (616)	LIME PLANT ROAD (611)	WATT ABBITT ROAD (654)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
OAKVILLE ROAD	RTE 460 BYPASS	ANDERSON HIGHWAY (60)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
OLD COURTHOUSE ROAD (24)	CONFEDERATE BLVD (26)	BUCKINGHAM COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
OLD EVERGREEN ROAD (630)	CEDER TREE ROAD (681)	LITTLE CUB ROAD (629)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
OLD GRIST MILL ROAD (616)	RTE 24	RTE 608	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PAMPLIN RD	RTE 460 BYPASS	RTE 47	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PAMPLIN RD	RTE 131 WEST	RTE 460 BYPASS WEST	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PAMPLIN RD	RTE 131 WEST	RTE 131 EAST	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PARADISE HILL DRIVE (611)	VINERY ROAD (721)	FALLING CREEK ROAD (667)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PATRICIA ANN LANE (1004)	CONFEDERATE BLVD (460 BUS)	OAKLEIGH AVENUE (631)	Share Road	Signage

Street Name	Segment From	Segment To	Recommendation	Strategy
PATTERSON STREET (1009)	PATRICIA LANE (1004)	END	Share Road	Signage
RED FIELDS ROAD (635)	CONFEDERATE BLVD BUS 460)	CEDAR TREE ROAD (681)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PHELPS BRANCH ROAD (659)	POLICE TOWNER ROAD (613	OAKVILLE ROAD (26)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PINEY RIDGE ROAD (628)	LITTLE CUB ROAD (629)	RICHMOND HIGHWAY (460)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
POLICE TOWER ROAD (613)	RICHMOND HIGHWAY (460)	PHELPS BRANCH (659)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PROMISE LAND ROAD (604/603)	CAMPBELL COUNTY LINE	DOUBLE BRIDGES ROAD (679)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PUMPING STATION ROAD (691)	FERGUSON (1008)	SALEM ROAD (647)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
RED HOUSE ROAD (727)	EVERGREEN (1002)	APPOMATTOX COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
SALAM ROAD (647)	DOUBLE BRIDGES ROAD (679)	RICHMOND HIGHWAY (460)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
SPRING GROVE ROAD (613)	STONEWALL ROAD (608)		Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
STONEWALL ROAD (608)	RICHMOND HIGHWAY (24)	WILDWAY ROAD (616)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
SWAN ROAD (600)	PAMPLIN ROAD (460 BUS)	MERRIMAN SHOP ROAD(	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
WALLNUT HILL ROAD (615)	WILDWAY ROAD (616)	WATT ABBITT ROAD (654)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
WATT ABBITT ROAD (654)	ANDERSON HIGHWAY (60)	OLD COURTHOUSE ROAD (24)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
WILDWAY ROAD (616)	OLD COURTHOUSE ROAD (24)	WALLNUT HILL ROAD (615)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
VINERY ROAD (721)	STONEWALL ROAD (608)	PARADISE ROAD (	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
VIRGINIA AVENUE (1003)	FERGUSON AVENUE (1008)	COURT STREET (1310	Share Road	Signage

Table 4.5
Bedford County/Bedford City Accommodation Corridors/Roads

Street Name	Segment From	Segment To	Recommendation	Strategy
BATEMAN BRIDGE ROAD (661)	THOMAS JEFFERSON DR (811)	JEFFERSON FOREST ROAD (1576S)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
BEDFORD HIGHWAY (43)	CAMPBELL COUNTY LINE	RTE 728	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
BIG ISLAND HIGWAY (122)	LEE JACKSON HIGHWAY (501)	LONGWOOD AVENUE (122)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
BURNBRIDGE RD (854)	FOREST ROAD (221)	THOMAS JEFFERSON ROAD (811)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
CENTERVILLE RD (671)	FOREST ROAD (221)	LANKFORD MILL ROAD (644)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
CHARLEMONT RD (638)	OLD CIFAX ROAD (644)	BIG ISLAND HIGHWAY (122)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
COFFEE ROAD (644)	LYNCHBURG CITY BOUNDRY	ELK VALLEY ROAD (665)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
COLONIAL TRAIL (221)			Combination Wide Outside Lane; Paved Shoulder	Restripe; Signage; Pave 2' Shoulder
COTTONTOWN ROAD (621)	HAWKINS MILL ROAD (660)	COFFEE ROAD (644)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
DEARING FORD RD (712)	RTE 728	RTE 626	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
ENTERPRISE DR	LYNCHBURG CITY BOUNDRY	FOREST ROAD (221)	Signed Share Road	Signage
FALLING CREEK ROAD (714)	GLENWOOD DRIVE (24)	SMITH STREET	Wide Outside Lane	Restripe; Signage
FANCY FARM ROAD (644)	BIG ISLAND HIGHWAY (122)	PEAKS ROAD (43)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
GRAVES MILL ROAD (1425)	FOREST ROAD (221)	LYNCHBURG CITY BOUNDRY	Signed Share Road	Signage
HAWKINS MILL ROAD (660)	LYNCHBURG CITY BOUNDRY	COTTONTOWN ROAD (621)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
HOMESTEAD DRIVE (661)	JEFFERSON WOODS DRIVE (1576S)	BATEMAN BRIDGE DR (620)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LANKFORD MILL ROAD (644)	CENTERVILLE ROAD (671)	OLD CIFAX ROAD (644)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LEE JACKSON HIGHWAY (501)	AMHERST COUNTY LINE	LYNCHBURG CITY BOUNDRY	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LIZZARD RIDGE ROAD (675)	LANKFORD MILL RODA (644)	BIG INSLAND HIGHWAY (122)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LONE OAK CROSSING (707)	LEESVILLE ROAD (43)	WYATTS WAY (24)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
OLD CIFAX ROAD (644)	LANKFORD MILL ROAD (644)	PERRYVILLE ROAD (663)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
OLD COURTHOUSE ROAD	RTE 626	BUCKINGHAM CL	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
OTTERVILLE RD (643)	BIG ISLAND HIGHWAY (122)	OLD CIFAX ROAD (644)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PERROWVILLE ROAD (663)	FOREST ROAD (221)	COFFEE ROAD (644)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
SEDALIA SCHOOL RD (638)	BIG ISALND HIGHWAY (122)	SEDLIA CENTER	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
THOMAS JEFFERSON ROAD (811)	FOREST ROAD (221)	E LYNCHBURG SALEM TURNPIKE (460)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
TRENTS FERRY ROAD (645)	HOLCOMB ROCK ROAD (761)	CITY LYNCHBURG BOUNDRY	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
WATERLICK ROAD	THOMAS JEFFERSON DRIVE	CAMPBELL COUNTY BOUNDRY	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
WYATTS WAY (24)	LEESVILLE ROAD (43)	CAMPBELL COUNTY BOUNDRY	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder

Table 4.6
Campbell County Accommodation Corridors/Roads

Street Name	Segment From	Segment To	Recommendation	Strategy
AVONDALE DRIVE	LOLA AVENUE EXT.	OGDEN ROAD	Signage; Wide Outside Lane	Signage, Restripe
BEDFORD AVENUE	WARDS ROAD (29)	MAIN STREET (29 BUS)	Wide Outside Lane and Pave Shoulder	Signage, Restripe, and Pave 2' Shoulder
BEDFORD HIGHWAY (43)	BEDFORD COUNTY BOUNDRY	WARDS ROAD (29)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
BROOKNEAL HIGHWAY (501)	COLONIAL HIGHWAY (224)	LYNCHBURG AVENUE (501)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
CAMP HYDAWAY ROAD	LYNCHBURG CITY BOUNDRY	CANDLERS MOUNTAIN ROAD (RTE 670 W)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
CAMPBELL HIGHWAY (501)	VILLAGE HIGHWAY (24)	LYNCHBURG CITY BOUNDRY	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
CANDLERS MOUNTAIN ROAD	CITY LYNCHBURG BOUNDRY	SUNNYMEADE ROAD	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
COLONIAL HIGHWAY (24)	VILLAGE HIGHWAY (24)	BEDFORD COUNTY BOUNDRY	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
DEPOT ROAD (622)	VILLAGE HIGHWAY (24/501)	ENGLISH TAVERN ROAD (738)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
EASTBROOK ROAD (660)	CAMPBELL HIGHWAY (501)	OXFORD FURNACE ROAD (660)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
EIGHTH (8TH) STREET	BROAD STREET	CAMPBELL AVENUE	Signed Share Road	Signage
ELEVENTH (11TH) STREET	BEDFORD AVENUE	BROAD STREET	Signed Share Road	Signage
ENGLISIH TAVERN ROAD (738)	WARDS ROAD (29)	WARDS ROAD (29)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
EPSONS ROAD (633)	BROOKNEAL HIGHWAY (501)	LONG ISLAND ROAD (761)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
FRAZIER ROAD	AVONDALE	LYNCH MILL ROAD	Signed Share Road	Signage
GOODWIN CROSSING ROAD (626)	LEESVILLE ROAD (682)	LYNCH MILL ROAD (714)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
GLADYS RD (699)	LONG ISLAND ROAD (761)	WARDS ROAD (RTE 29) RIVERBEND ROAD (712)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
JUNIPER CLIFF RD (601)	LYNCHBURG AVENUE (501)	SWINGING BRIDGE ROAD (605)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LAWYERS ROAD (683)	LEESVILLE ROAD (682)	WARDS ROAD (RTE 29)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LAXTON ROAD (1520)	KENWOOD DRIVE (1551)	TIMBERLAKE ROAD	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LEESVILLE ROAD (682)	CITY LYNCHBURG BOUNDRY	SUNBURST ROAD (681)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LELAND ROAD (622)	ENGLISH TAVERN ROAD)738)	WARDS ROAD (29)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LOLA AVEUNE	MAIN STREET	FRAZIER ROAD	Combination Share Road and Wide Outside Lane	Restripe and Signage
LONG ISLAND ROAD (761)	BROOKNEAL HIGHWAY (501)	PITTSYLVANIA COUNTY BOUNDRY	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LUSARDI DRIVE (40/501)	LYNCHBRUG AVENUE (501/40)	HALIFAX COUNTY BOUNDRY	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LYNBROOK ROAD (622)	WARDS ROAD (29)	LAWYERS ROAD (683)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LYNCH MILL RD (714)	DEARING FORD (712)	GOODMAN CROSSING ROAD (626)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
LYNCH ROAD	DEARING FORD	BROAD STREET	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder

Street Name	Segment From	Segment To	Recommendation	Strategy
LYNCHBURG AVENUE (501/40)	BROOKNEAL HIGHWAY (501)	WICKLIFFE ROAD (40)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
MAIN STREET	7TH STREET	NCL ALTAVISTA	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
MAIN STREET	BEDFORD AVENUE	PITTSYLVANIA AVENUE	Signed Share Road	Signage
OGDEN	LYNCH MILL ROAD	AVONDALE DRIVE	Signed Share Road	Signage
OLD PLANTATION DRIVE (681)	LYNCHBURG HIGHWAY (460)	TIMBERLAKE DRIVE (624)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
OXFORD FURNACE ROAD (660)	EASTBROOK ROAD (660)	VILLAGE HIGHWAY (24)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
PITTSYLVANIA AVENUE	7th STREET	SCL ALTVISTA	Signed Share Road and Wideout Side Shoulder	Signage; Pave 2' Shoulder
PATRICK HENRY ROAD (619)	DOG CREEK ROAD (600)	CHARLOTTE COUNTY BOUNDRY	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
RAINBOW FOREST (1520)	WATERLICK ROAD (622)	LAXTON ROAD (1520)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
RED HOUSE RD (615)	VILLAGE HIGHWAY (24)	CHARLOTTE COUNTY BOUNDRY	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
SEVENTH (7TH) STREET	BEDFORD AVENUE	MAIN STREET	Signed Share Road; Wide Outside Lane	Signage, Restripe
SPRING MILL ROAD (646)	VILLAGE HIGHWAY (24)	RED HOUSE ROAD (615)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
STAGE ROAD (609)	MOUNT ATHOS ROAD (728)	RICHMOND HIGHWAY (24/460)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
STONEWALL ROAD (608)	APPPOMATOX COUNTY LINE	RICHMOND HIGHWAY (24/460)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
SUCK CREEK RD	RTE 652	RTE 615 SOUTH	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
SUGAR HILL RD (600)	WICKCLIFF AVE (40)	RED HOUSE ROAD/CHARLOTTE COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
SUNBURST ROAD (681)	WATERLICK ROAD (622)	LYNCHBURG HIGHWAY (460)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
SUNNYMEADE ROAD (677)	ENGLISH TAVERN (738)	CAMPBELL HIGHWAY (501)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
THREE CREEKS ROAD (648)	LEWIS FORD ROAD (643)	RED HOUSE ROAD (615)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
TIMBERLAKE ROAD (460 BUS)	LYNCHBURG CITY LINE	TIMBERLAKE DRIVE (624)/LYNCBHRUG HIGHWAY (460)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
VILLAGE HIGHWAY (24)	RICHMOND HIGHWAY (460/24)	CAMPBELL HIGHWAY (501)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
WARDS ROAD (29)	LYNCHBURG CITY LINE	PITTSYLVANIA COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
WATERLICK ROAD (622)	LAWYERS ROAD (683)	BEDFORD COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
WHIPPING CREEK ROAD (605)	BROOKNEAL HIGHWAY (501)	EPSONS ROAD (633)	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder
WICKLIFFE ROAD (40)	LYNCHBURG AVENUE (501/40)	CHARLOTTE COUNTY LINE	Signed Share Road; Pave Shoulder	Signage; Pave 2' Shoulder

General Policy Recommendations

This section presents policy actions that should be implemented and incorporated within local planning and transportation decision-making to bring to fruition the implementation of a bicycle network within Region 2000. To facilitate policy action and approval partnership and coordination with VDOT, the CVMPO, and area localities is crucial. In addition, support and partnering with multiple agencies, organizations, and civic groups will be required.

In Virginia, VDOT has been a leader in promoting and recognizing the development of pedestrian and bicycle facilities as vital elements within the greater transportation network. As a result VDOT has initiated a number of policies within planning, design, engineering, and education dedicated to promoting bicycle accommodation. As such, a number of the policy recommendations presented within this Plan can be accomplished through more comprehensive and diligent utilization of existing policies.

4.1 Ensure that the VDOT Policy for Integrating Bicycle and Pedestrian Accommodations is applied to all road planning and construction within the Region 2000 area.

The VDOT policy outlines the framework for how VDOT will incorporate pedestrian and bicycle accommodations as an integral component of the transportation network and includes accommodation activities within program planning, funding, design, construction, and maintenance. The policy is described in more detail in Chapter 3 of this Plan and presented in **Appendix B.**

To facilitate the utilization of this same policy within those roads developed and maintained by the City of Lynchburg, the City should adopt a similar policy as a matter of course for the City of Lynchburg road system.

4.2 Encourage the adoption and incorporation of the *Region 2000 Bicycle Plan* into local and regional planning documents by participating local governments.

After submittal and approval of this Plan by VDOT and FHWA, the CVMPO and Virginia's Region Local Government Council (LGC) should move for adoption of this regional planning document. With CVMPO and LGC adoption, LGC staff should present the Plan to the participating localities for the purpose of promoting approval or adoption of the Plan. With approval, the Plan should be incorporated into area Comprehensive Plans, the CVMPO Long Range Transportation Plan, the Region 2000 Greenways and Blueways Plan, and other recreational, neighborhood, developmental, and tourism plans.

4.3 Establish an oversight or advisory committee to guide planning and development of bicycle facilities.

In order to ensure that the opportunity to incorporate bicycle facilities is not overlooked and to ensure community, business, and partnership encouragement, an oversight committee should be established. The oversight committee should consist of representatives from each locality, VDOT, citizens and active cyclists. It is recommended the Regional Greenway Advisory Committee serve this role.

4.4 Ensure, where applicable, that bicycle facility accommodations identified within this Plan are constructed during planned road improvements and development projects.

Through partnership with VDOT and locality transportation and planning departments the Local Government Council should maintain a road improvement and development schedule. This schedule will be used to ensure that any time a roadway is being widened, resurfaced, or undergoing any other physical improvement, Plan facility recommendations are included within the planning and construction upgrades. By coordinating bicycle accommodations with

traditional road planning, paving, maintenance and construction schedules cost-effective implementation can be obtained and bicycle facilities be implemented over time.

Virginia's Region 2000 will facilitate the review of VDOT Road Environmental Review documents among the membership localities for their connection to corridor recommendations within the regional bicycle Plan and ensure, where appropriate, a response is submitted to VDOT to facilitate accommodation improvements during other planned road improvements.

4.5 Continually pursue grant sources and funding partnerships to implement bicycle facilities.

The Local Government Council, the established oversight committee, membership localities, and other business partners should constantly strive to formulate creative opportunities to capitalize on the state, federal, and private funding and partnership opportunities. Funding opportunities should be directed at all aspects of facilitating bicycle transportation to include planning, construction, education, outreach, and enforcement.

4.6 Ensure that all alternative transportation facilities are mapped and coordinated to facilitate an accurate account for all pedestrian resources and serve as a mechanism to facilitate planning and development decisions.

Through available resource data, GIS information related to all existing alternative transportation facilities and planned facilities should be inventoried and used to facilitate facility improvement and development decisions. Priority development should be focused on creating access to transit stops, schools, parks, public facilities, business centers and other primary destinations.

Creating Roadway Opportunities for Facility Considerations

To implement the Bicycle accommodation network presented in the *Region 2000 Bicycle Plan* adjustments to portions of the current road network will be required. The adjustments required range from minor activities such as installing signage or striping to more complex design activities such as reducing travel lanes or new construction. Still others, such as restriping, are fairly simple in their execution but often require policy level decisions related to road level of service or reduction in on-street parking options. Roadway design policy standards that can be employed, where roadway conditions are appropriate, to create facilities along existing roadways are presented below. Development of these types of recommendations will require the development of roadway standards as noted within recommendation 4. 15. As with all road projects, detailed road analysis must be employed prior to bicycle accommodation development.

4.7 Either through stripping or restriping establish bicycle accommodations, either bicycle lanes, sharrows, or wide-outside lanes, along recommended routes where the speed limit is ≤ 35 MPH, by reducing the travel lane width, along 2-way roads, or inside lane, along 4-way roads, to a minimum of 10 feet.

4.8 Establish turn lane widths to between 11' and 13' depending on sight distance, ADT, and percentage of truck traffic, along roadways with speed limit ≤ 35 MPH to create bicycle facility opportunities.

4.9 Where right-of-way exists, consider widening planned sidewalks to sidepaths especially along principal and minor arterials near residential areas within the suburban portions of the CVMPO or growth areas just outside Town limits.

4.10 Where appropriate consider reducing travel lanes or parking to accommodate for bike lanes. Reducing travel lanes from a four-way to two-way with turn lane is an option where traffic

volume and road level of service allow. In addition the removal of on-street parking, where parking options are available should be considered to provide bike lane accommodations.

Policy decisions related to incorporation of lane reduction or removal of parking to accommodate bicycle facilities should be incorporated within a future bicycle facility design standard manual, noted as recommendation item 4.15 below.

4.11 The Local Government Council and CVMPO should look for opportunities to partner with other Planning District Commissions and regional bicycle advocacy organizations to promote legislation that supports the development of bicycle facilities.

Throughout Virginia and the nation an increased desire to create alternative transportation is being recognized. Further, the need to provide bicycle accommodation within limited budgets and within existing road physical constraints is necessary. Currently, in Virginia municipalities are provided maintenance funding reimbursements based on the number of lane miles. Therefore, under this funding equation, municipalities could be financially disadvantaged by providing bicycle accommodation through a lane reduction method. To better facilitate bicycle accommodation through a lane reduction where road and traffic conditions would permit, a different approach for maintenance funding distribution should be developed in partnership with Virginia municipalities and metropolitan planning organizations.

Program Recommendations

To facilitate development and promote broad system use, education and encouragement programs that promote safe use and highlight the benefits of biking as a transportation mode will be necessary. Education should include information on how to properly and safely use the bicycle facilities. In addition, motorists should be educated to understand that road bicyclists and pedestrians are legitimate and expected users of the road system.

All transportation users, motorists, pedestrians and bicycle riders, must adhere to transportation regulations and are all subject to law enforcement should any portion of the transportation system be used in an illegal fashion. Education programs that highlight applicable pedestrian and motorist laws and proper transportation system use should be developed. Equally important is the need to develop encouragement and promotional programs that highlight the connection of cycling to increased physical health, potential positive impact on local air quality, and nationally recorded positive impact on quality of life and economic development benefits for areas that promote and develop alternative transportation facilities.

4.12 Establish educational programs and materials that focus on road rules, safe behaviors, and road responsibilities of cyclist, motorists, and pedestrians.

Considerable education and promotional materials has been developed through federal and state programs and national pedestrian and bicycle groups. Utilization of these materials should present the basis for a tailored material that identifies the Region 2000 area and ultimately the established bicycle oversight and advocacy group.

Through the Region 2000 website a general bicycle and alternative transportation section should be established. This site should serve as a reliable source for general education, outreach, and resource information and more detailed resource information unique to the Region 2000 area.

The local public television network should be utilized as an outlet to provide educational information on bicycle road rules and courtesy practices that should be used by both cyclist and motorist.

4.13 Increase the installation of bicycle and pedestrian signage that increases safety by providing awareness and directional guidance to motorist and cyclist.

4.14 Expand, through partnerships with local government and private stakeholders, off-road, trail/greenway connections to create additional alternative transportation opportunities that will broaden the ability of all user types to utilize bicycles as a viable means of transportation.

Local trail connections, often short spurs that connect neighborhoods to resources such as local schools, should be developed to expand transportation opportunities that can most appeal to all age and cyclist levels. *The Region 2000 Greenways and Blueways Plan* should be updated to expand the broad vision corridors to a more detailed neighborhood and locality specific corridor plan.

4.15 Develop Bicycle On-Road Facility Design Standard Manual for the Region 2000 area.

The Region 2000 Bicycle Plan outlines a comprehensive bicycle network and further provides specific accommodation recommendations. However, for each bicycle accommodation, numerous AASHTO options related to signage, pavement markings, and usage standards can be applied. Further, design decisions on when it may be appropriate to consider removing on-street parking, or detailed design consideration are beyond the scope of this Plan. However, in order to facilitate timely implementation of Plan recommendations, bicycle facility design standards that are uniform in their use and design must be developed to assist local staff and policy makers in facility decisions.

4.16 Facilitate a detailed design, road evaluation, and implementation training for area public works staff

Local public utilities and VDOT staff members will ultimately execute facility development within Region 2000. As such, these professionals should be trained in the policies associated with bicycle facility development and in the implementation of striping, restriping, pavement marking, and signage instillation. Further, in order to capitalize on unforeseen opportunities, the local staff that is responsible and/or involved with road maintenance execution should have firsthand knowledge of bicycle facilities options and design standards.

4.17 Partner with area employers or local business, in developing employee incentive programs or discount arrangements for participating patrons in cycling to business or public event activities.

4.18 Create a program that encourages the instillation of bicycle racks at key destinations within the community.

Apply for various grants or through general outreach with area businesses encourage instillation of bicycle racks, noting that new u-styles are fairly small and not terribly expensive. Through Region 2000 GIS capabilities, as bicycle racks are installed they should be tracked and mapped.

4.19 Conduct, in coordination with tourism and economic development activities, programs and events that highlight the bicycling opportunities located within the Region 2000 area.

The valuable resources located within Region 2000 are currently well highlighted through area localities and tourism agencies. Within these existing outlets, the trail and park resources are noted for their unquestionable recreational and quality of life benefits. However, the connection and use of these resources as transportation corridors and the ultimate connection to a larger envisioned on-road alternative transportation will need to be expanded though a

coordinated effort lead by Region 2000 Local Government Council, the CVMPO and area partners.

4.20 Participate in one or more of the national bicycle, trail, or earth day events designed to highlight bicycle travel and reduce car travel. Consider Bike-to-Work Day or National Bicycle Month, both in May; National Trail Day in June, or Earth Day in April. These events should be hosted through a primary organization, such as the Greenway Alliance with supporting sponsorship with area organizations and businesses.

4.21 Develop a bicycle rider and GLTC rider reward program through area businesses, such as the Lynchburg Hillcats, and local events that appeal to families and area citizens.

The development of public events or rewards for the use of any or combination of alternative transportation modes to reach a public event will provide visible context to both GLTC and the local trails and eventual on-road bicycle accommodations.

4.22 Initiate a Safe Routes to School Program(s) in partnership with area school systems.

The Safe Routes to School Program, SRTS, is a national transportation program created through Section 1404 of the 2005 Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users Act, better known as SAFETEA-LU. The SRTS program established a grant program, with administration through the state transportation programs, for providing communities opportunities to improve conditions by which students and residents could safely walk and bike to schools that included grades Kindergarten through Eighth grades. The program has three goals:

1. to enable and encourage children, including those with disabilities, to walk and bicycle to school;
2. to make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age; and
3. to facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools.

In Virginia the SRTS funding is available for programmatic or construction opportunities designed to enhance the safety and participation of students in walking and/or biking. Programmatic grants are provided for the purpose of developing SRTS plans and programs within a school or school divisions that can be used to promote walking and biking, provide safety training, of other programmatic type activities. Construction funds can be used to make physical improvements, such as sidewalk plans, instillation of curb ramps, signage, timed signals, or pedestrian inlands. In order to be eligible for either programmatic or construction funds a comprehensive plan that denotes needs and opportunities, known as a Safe Routes Travel Plan, developed in partnership with school stakeholders must be developed. A more detailed overview of the Virginia SRTS program and an outline on developing a program is provided in **Appendix F**.

4.23 Provide information on the Bicycle Commuter Act to some of the larger regional employer's.

On January 1, 2009 a bicycle commuting reimbursement was added to eligible transportation fringe benefits for business covered within Section 132 (f) of the Internal Revenue Service Code. Called the Bicycle Commuter Act, the provision made available through the Renewable Energy Tax Credit legislation, provides pre-tax transportation fringe benefits to employers that elect to establish the bicycle commuter benefit program. The federal tax program establishes an opportunity for companies to initiate the bicycling commute program that provides $20 a month in pre-tax dollars to employees that bicycle commute to work as primary means of

transportation over the accounting month. The provision allows for up to $240 per year (12 x $20/month) for employees that bicycle to work, as a primary means of transportation, at least three days per week, within any given month. The benefit to the employers is that the initiation of the commuting program allows for a deduction for the company in payroll taxes for participating employees.

The Bicycle Commuter Act is new and in its current configuration does not allow the $20 a month bicycle commuting benefit to be utilized in combination with other pre-taxed transportation benefits, such as transit use. Detailed information on the Bicycle Commuter Act that includes anticipated updated tax legislation, business implementation guidelines, and guidance to citizens on developing a bicycle commuter program in your place of business is available through League of American Bicyclists website www.bikeleague.org.

Chapter 5: Implementation and Funding

The Region 2000 serves as the residential home and provides the primary business, health service, education, commercial, cultural, and recreational services to approximately 240,000 (VEC, 2009) central Virginia residents. Within the geographic center of the larger approximate 2000 square mile district is the population and commercial CVMPO hub. The location of multiple resources within relative close proximity of the CVMPO area and the town and village center land use patterns within the rural areas presents a favorable environment to develop a comprehensive bicycle network that serves all the residents and visitors of Region 2000. This envisioned bicycle network, in partnership with the existing trail system, area sidewalks, and transit network, will combine to create a comprehensive alternative transportation network that meets the needs of transportation users of all ages, mobility needs, and economic status.

Implementing a Vision – An Action Agenda

The Region 2000 Bicycle Plan Steering Committee has worked collaboratively to develop an alternative transportation vision that enhances community resources through creation of a comprehensive bicycle network. Successful implementation of the system network, policy, and program recommendations will require time and coordination with area agencies and stakeholders. The resulting bicycle network will be positive community asset to area residents and visitors.

The following section provides an outline of the action strategies that should be undertaken over the next three years to ensure that the expressed vision, goal, and system recommendations presented with the CVMPO Bicycle Plan becomes a reality. The completion of the physical recommendations presented within this plan will take many years to implement but, it the formation of the foundation actions presented within the Action Plan that will ensure continued movement in realizing the long-term vision.

Adopt Plan

With approval from the primary funding agencies, VDOT and FHWA, this Plan should be presented and adopted by the Local Government Council and the CVMPO. With endorsement by these regional planning bodies, the CVMPO and Local Government Council should be certain recommendations presented within this plan are incorporated within all regional documents, most importantly, within the pending 2035 Long Range Transportation Plans.

The Region 2000 Bicycle Plan should also be presented to all the membership localities for the purpose of promoting approval or adoption. With approval, participating localities should incorporate the corridor visions and policy and program recommendations within Comprehensive Plans and other policy documents. Incorporation and approval of Plan recommendations is important in creating funding opportunities through most federal and state programs.

This Region 2000 Bicycle Plan has been developed to provide guidance for development of bicycle facility accommodations within the region. As such, this document has been developed as a resource to guide and facilitate specific corridor accommodations or bicycle planning at the locality planning level.

Establish Oversight Body

Establish the Region 2000 Greenway Advisory Committee as the oversight body or Bicycle Advisory Committee (BAC) within the Region 2000 area to promote and facilitate the development of bicycle accommodations and policies presented within this Plan.

The primary charge and goal of the bicycle oversight body will be:

- Serve as the bicycle technical advisory committee to the CVMPO and Virginia's Region 2000 Local Government Council;
- Serve as the regional body to generate local and community support for bicycle accommodation facilities within the Region 2000, CVMPO areas and participating localities;
- Establish educational and outreach activities that highlight the promotion of healthy communities and other outreach and educational opportunities associated with bicycling;
- Review progress of system, policy, and program recommendations on a yearly basis;
- Ensure that the system network is presented to area localities/internal departments and VDOT to ensure the ability to capitalize on any road improvements, resurfacing, or master plan developments;
- Establish a system to measure and record system progress;
- Update changes with the priority corridors should they arise; and
- Guide staff actions.

Develop a Bicycle Facility Design Standard and Accommodation Evaluation Manuel

Develop a manual that provides a summation of design best practices and decision-making summary and signage use guidelines. This document will provide a quick and reliable reference for area staff, including planning and public works, and assure system unity design and guidance to area cyclist and motorist. While a large portion of the guide will be a condensed and quick guide of 2009 Edition of the MUTCD and AASHTO standards , the document will establish uniformity is signage, marking and accommodation decision standards throughout the region.

Ensure accurate and up-to-date information on repaving schedules within region

As a component of the activities undertaken by the program oversight organization, ensure partnership and close contact is maintained with VDOT residence and locality transportation departments to know maintenance schedules. The LGC should establish a GIS-based map that highlights locality paving schedules. This will ensure that all facility improvement opportunities are capitalized.

Host series of organized rides along priority routes

With approval of Plan, the oversight organization should work in partnership with area stakeholders to host several local short cycling events along priority routes to some key community resources. Work to establish as a yearly event for the purpose of highlighting progress and benefit of facility accommodations. Events should be planned to meet multiple level needs and comfort level and to take advantage of the current trail system to advertise the ability of this existing network to reach community destinations.

Secure Funding for Priority Project(s)

The oversight organization, in partnership with the participating localities and stakeholders, should work to secure funding to develop bicycle accommodations along priority accommodation roads that offer high impact improvements at minimal cost. Example would be recommendations along Rivermont Ave in Lynchburg.

Develop Interactive Map

Produce a user-friendly map that highlights the bicycle network. The map should have some interactive capabilities and allow for up-to-date changes in facility development. This interactive map should be housed within the Region 2000 website network.

Establish an Educational Campaign

Under the leadership of the Region 2000 Bicycle Steering Committee and area partners, such as the medical community, law enforcement, area running and cyclist clubs, local VDOT, and media sources, develop a public outreach campaign that provides basic bicycle safety information, proper cycling

use, the ability of cyclist to be on roads, and proper motorist approach to road cyclist. Valuable information to assist in development of education and outreach information is available through the Pedestrian and Bicycle Information Center website: http://www.bicyclinginfo.org. This site and numerous other bicycle planning and program sources are presented in **Appendix G**. The outreach campaign should include series of workshops to share with area citizens' information on transportation network decisions, opportunities for input into the process, and information on goals established through the regional bicycle network.

Increase establishment of bicycle support facilities at key community destinations
Through partnership with area businesses and foundations, create a bicycle rack instillation program. As noted there are very few bicycle parking opportunities at shopping and business destinations within the area. By establishing a bicycle rack program with area businesses and commercial centers, there will be an increased number of bike racks in the area and thus an increased opportunity for citizens to use bicycles as transportation vehicles and increased recognition that bicycles are transportation vehicles. There are a number of successful programs in both Virginia and North Carolina. A good example is a program hosted through the Roanoke Valley-Alleghany Regional Commission (information at http://www.rvarc.org).

Funding

Successful implementation of all aspects, from planning, development, education, and program marketing, of creating a safe and efficient bicycle network will require supportive local partners and stakeholders and multiple funding opportunities. From simpler activities such as signage instillation and education forums to complex coordination and construction activities associated with road width additions or restriping, funding is necessary. In both cases the ability to execute improvements will require partnership and incorporation into the standard funding framework within current public safety, streets and maintenance, parks and recreation, community development, and tourism plans. Further, partnerships with local non-profits, civic groups, and businesses will need to be established. Lastly, for those projects of considerable costs, such as trails or considerable corridor adjustments, utilization of external funding sources through federal and state program, in partnership with local funds will be necessary.

Membership jurisdictions and area stakeholders will have to rely on multiple funding sources that will include local, state, federal, and private funds to create the bicycle network. To best harness the full extent of funding and partnership opportunities, it is important to expand the connection of creating a bicycle network beyond transportation exclusively. The connection to public health, business and employment retention, potential water quality and hazard mitigation, education, and economic development must be established to expand funding partners. These additional program benefits can open additional funding opportunities and establish strong leverage and companion benefits that are vital in the competitive federal and state programs.

There are a number of potential funding sources within the federal, state, and local levels that can be utilized to implement planning and construction of pedestrian and bicycle facilities. Below is a summary of some of the more recognized funding sources that can potentially be utilized to implement pedestrian improvements. To access transportation funding at the state and federal level requires endorsement of the proposed transportation improvements within the regional transportation plan.

In the case of most transportation improvements within the CVMPO area, incorporation within the Transportation Improvement Program (TIP), a four-year program that includes project priorities and funding for projects, is required. Once adopted within the TIP a project is scheduled for implementation. Coordination and integration of projects within the CVMPO area into the TIP in an integral part of on-road bicycle facility development.

For all areas within Virginia the ability to increase road shoulder width by two feet (2 ft) within standard road maintenance or resurfacing does not require inclusion within the TIP or other state transportation planning and project document. As such, where appropriate road accommodations via wide shoulder can be achieved during general maintenance scheduling. To support the ability to add shoulder width during maintenance, VDOT currently allocates 2% of the road maintenance material allocation is dedicated to shoulder wedging along roadways. This presents a valuable opportunity for localities to facilitate bicycle accommodations along bicycle plan routes in coordination with general maintenance.

There are a number of potential grant funding sources available through federal and state agencies. While these grant programs are very competitive and represent limited funding, they represent funding avenues by which other partners, local agencies, non-profits, and local funding, can be expanded to make pedestrian improvements a reality. Further, a number of these grant opportunities are specifically geared toward the expansion and development of alternative transportation modes, enhancing public health, improving access to public transit, supporting movement of elderly, disabled, or low-income residents, or in the removal of safety hazards. Each of the site recommendations within this study should be evaluated for the ability to meet some of these funding agencies and program priorities.

Below highlights some of the more common funding opportunities. A comprehensive evaluation of funding opportunities available to Virginia jurisdictions titled, *Alternative Transportation Funding Sources Available to Virginia Localities*, developed by the Virginia Transportation Research Council in 2006 is provided in **Appendix H**.

Overview of Primary Federal and State Funding Sources

Surface Transportation Program (STP) Funds – These funds can be used for non-construction pedestrian projects such as map development or program brochures or facility construction. These funds may be used to provide sidewalk modifications for compliance with ADA. Funding is allocated at an 80 percent federal and 20 percent local match rate, and any approved project must be included within the MPO's Long Range Transportation Plan and the TIP.

VDOT Revenue Sharing Program (VDOT Grant Program) – This VDOT program, available to most Virginia localities, can provide up to $ 1 million in matching funds, to construct, reconstruct, or improve roads within the approval VDOT roadway system. Localities request funds through a resolution and funds may used to implement the following activates:

- Deficits on completed construction, reconstruction, or improvement projects from the Six-Year Plan;
- Supplement funding from project listed on the Six-Year Plan;
- Construct, Reconstruct, or Improvements Projects not included with the Six-Year Plan but deemed worthy of submittal by an appropriate VDOT manager;
- Provide for improvements necessary for acceptance of specific subdivision street, such as widening or surface treatment;
- Provide paving for previously unpaved roadways in rural areas;
- Provide for new road facilities to be a part of the highway or road network in a locality that VDOT provides maintenance payments.

Revenue Sharing funds may not be used to supplement any work that is deemed to be general maintenance. Localities that do not maintain their own roads must submit a request through the county in which they are located.

Hazard Elimination Program Funds (Grant Program) – Provided as a portion of STP funds, this program provides funds for identifying and correcting hazardous locations and can include publicly owned bicycle or pedestrian pathways or trails and can be used to provide traffic calming measures and corrections at dangerous crossings.

Transportation Enhancement Program Funds (Grant Program) – Funds can be used to construct pedestrian facilities as well as develop educational and program activities related to transportation. These funds have been extremely beneficial throughout Virginia and represent the successful funding received by the Town to implement the sidewalk installation along South Main Street. These funds can be used to develop additional sidewalk improvements or on-road bicycle facilities noted within the Plan, the funds can also be used for off-road trails that provide alternative transportation to resources in the community.

Recreational Trail Program Funds (Grant Program) – These funds can be used to develop recreational trails. These grant funds might be an option for trail or pedestrian connections to future public spaces noted within the Downtown Economic Restructuring Plan & Physical Improvement Strategy or any future park or pubic space development envisioned by the Town.

Recreation Access Program (Grant Program) – The program provides pedestrian and bicycle access, via access road, sidewalk, or separate bicycle facility, to a public recreational facility or historic site operated by a governmental agency or locality or local authority. This program uses state funds only and has specific eligibility funding amounts depending on the type of access facility utilized. Again, as with the Recreational Trail Program Funds, the use of these funds would be dependent on the Town's future plans for recreational or public space development.

Safe Routes to School Program (Grant Program) – Funds can be used to provide non-construction funds to implement programs to get children walking or biking to school or walking in general or to provide construction improvements to schools that have implemented a Safe
Routes to School program. Construction improvements can include development of sidewalks, signage, or crossing improvements. Program requires participation with a local school or school system. This program could provide some good opportunities to create safe walking and life style education opportunities for children that attend Amherst Elementary School. The school already
has a well-constructed and functioning sidewalk system but lacks a current program to promote and foster use of the system. These funds could be used to implement the education and promotion activities.

Community Development Block Grant Program (Grant or Direct Allocation Program) – Funds are used to provide neighborhood revitalization, economic development, and facilities improvements to areas with a 51 percent incidence of low to moderate income individuals or a designed project eligible area. Several communities, including Greensboro, North Carolina, have used these funds to develop pedestrian travel to schools, shopping areas, and public transit stations. These funds would only be an option within the Town of Amherst on a small basis as the income and program limitations may preclude successful use.

Economic Development Grants for Public Works and Development of Facilities (Grant Program) – Administered through the US Department of Commerce, Economic Development Administration (EDA), funds can be used by designated localities for public works projects that can include trails and sidewalks facilities. Funds provided through the EDA are only available to localities and/or regional entities that have successfully completed a Comprehensive Economic Development Strategy (CEDS) that highlights the primary needs within a community and establishes a framework and prioritization of eliminating the identified needs. Program requires a 30 percent local match except in extremely distressed areas where the match can be reduced to 20 percent.

Bicycle Accommodation and Ancillary Facility Cost Estimates

The costs associated with the implementation of bicycle facilities, as can be expected, are dependant on a number of factors. Each of these factors can greatly impact the facility implementation costs. Some, but not all, of the factors impacting cost include:

- the accommodation type being utilized;
- the length of the corridor;

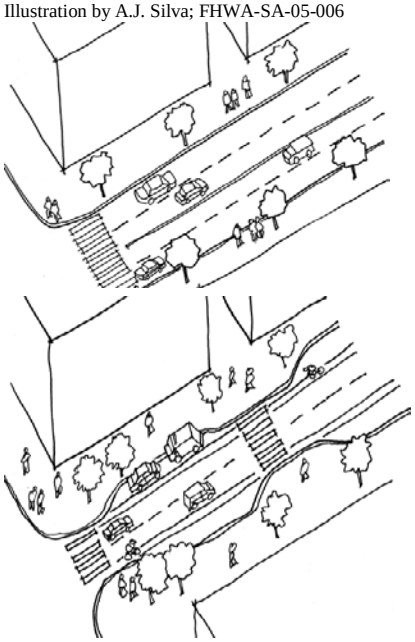
- the necessity for new construction or ability to utilize existing resource (such as restriping);
- the ability to utilize existing right-a-way or if additional acquisition is required;
- the ability to utilize existing locality staffing or is federal procurement and approvals; and
- the ability to utilize donated services or staff.

There are numerous documents that provide accommodation and ancillary resource cost estimates. In general, all accommodation types will require detailed engineering and cost estimates from a planner or engineer. However, there are numerous resources to assist in gaining preliminary costs estimates necessary for grant and partnership funding development. VDOT and the FHWA are just two of the many agencies that provide considerable information on facility costs. **Table 5.1** provides a summation of bicycle and pedestrian accommodation estimates provided from FHWA. Additional bicycle and pedestrian resource information is provided in **Appendix G**. It is important to note these are only estimates and that the resources of local planners and transportation staff will be extremely important in tailoring cost to unique local circumstances and opportunities.

Photo by Dan Burben; FHWA-SA-05-006

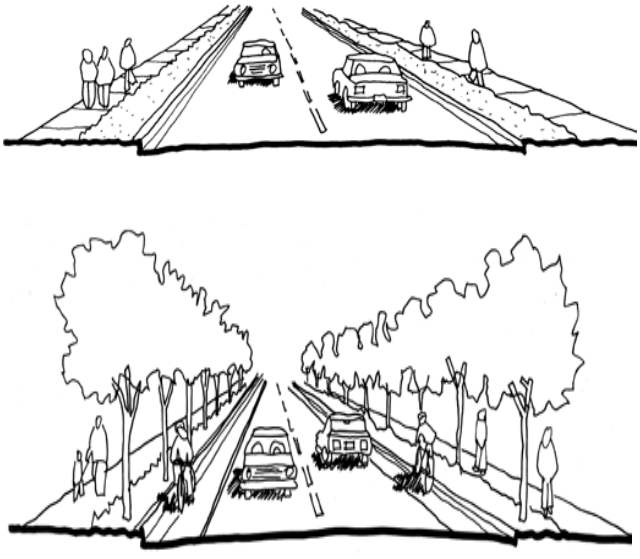
Lane reduction from two to one lane in each direction, bike lanes, and center turn lane.

Illustration by A.J. Silva; FHWA-SA-05-006



Before (top) and after (bottom) road diet.

Illustration by S. J. Silva; FHWA-SA-05-06



Before and after (bottom) width of lanes reduced.

Photo by Andy Clarke; FHWA-SA-05-006

Wide outside lane

Table 5.1
Bicycle Facility Cost Estimates

Accommodation Activity	Improvement Category	Estimated Costs	Cost Factors
Removal of Roadway Parking	Shared Roadway	Vary depending on restriping needs	Costs can vary depending on additions such as bulb outs or landscaping
Intersection Markings	Shared Roadway	$1,500 - $2,500 per intersection	Dependent on need to adjust traffic loops
Median/Crossing Island	Shared Roadway	$15,000 -$30,000 per 100 feet	Costs dependent on design, site conditions, and timing with other improvements
Reduce Number of Lanes – 4 lanes to one lane each way with center turn lane and bike lane	Shared Roadway	$5,000 - $20,000 per mile	Costs dependent on the amount of lanes that need to be repainted. Cost increase considerably if curb and gutter adjustments required (increase to $100,000 per mile)
Reduce Lane Width – reduce width to 10 or 11 ft	Shared Roadway	$1,000 per mile (no paint change; $5,000 - $10,000 per mile (restriping)	Cost dependent on what needs to be removed
Paved Shoulders	On-Road Facilities	$44,000 per mile for 4 feet pavement	Costs vary widely depending of subservice and surface conditions
Bike Lanes	On-Road Facilities	$5,000 - $50,000 per mile	Costs dependent on road condition, need to remove and repaint lane lines, signal adjustment needs, and other factors. Least cost during resurfacing and configuration.
Wide Curb Lanes	On-Road Facilities	Estimated restriping costs $3,470 per mile	Only costs associated with WCLs is for restriping the roadway.
Intersection Markings	Intersection Treatments	$1,500 - $2,500 per intersection	Dependent on need to adjust traffic loops
Signage	Intersection Treatments	$30 - $150 per sign; $200 installation	Costs increase with use of electronic signage
Curb Radii Revisions	Intersection Treatments	$5,000 - $40,000 per curb	Dependent on site conditions
Raised Crosswalks	Traffic Calming	$2,000 - $15,000	Depending on drainage and material used and base road surface
Mini Traffic Circles	Traffic Calming	$6,000 - $12,000	Cost dependent on street surface (asphalt or concrete)
Chicanes (used to slow traffic)	Traffic Calming	$10,000 - $30,000 (set of three chicanes)	Cost varies dependent on road surface(asphalt or concrete) cost higher if drainage or utility adjustment
Curb Extensions	Traffic Calming	$2,000 – $20,000 per corner	Costs dependent on design and site conditions. Drainage often a key design and cost factor.
Shared Use Path/Trail	Multi-use Facility	Average $250,000 per mile; costs have been up to $1,000,000 per mile	Cost vary considerably based on topography, surface treatment, access and easement needs, etc.
Traffic Signals/Timing Controls	Marking, Signs, and Signal	$30,000 - $140,000	Number, access to current electric system, and other design considerations
Bike-Activated Signal	Marking, Signs, and Signals	Comparable to standard traffic signals	Cost vary depending on size and complexity of intersection
Pavement Markings (such as Sharrow)	Markings, Signs, and Signals	$100 per application (includes labor and materials) for methyl methacrylate material	Costs of other materials will vary
Signage	Marking, Signs, and Signals	$30 - $150 per sign; $200 installation	Costs increase with use of electronic signage
Bike Racks	Support Facilities	$50 - $100 per bike	Costs can vary depending on visual esthetics
Bike Lockers	Support Facilities	$500 - $1,500	Valuable resource for transit and long-term destination points
Sidewalks	Pedestrian Facility	Concrete sidewalk and curbing: $15/linear foot curbing; $11/square foot for sidewalk	Costs vary depending on existing surface, grade, and right-a-way availability
Curb Ramps	Pedestrian Facility	$800 - $1,500/ramp	Costs dependent on new or retrofitted
Crosswalks	Pedestrian Facility	$100 - $3,000/crosswalk	Cost dependent on style and surface, $100 for regular; $300 for ladder style, $3,000 for stamped/patterned concrete
Speed-Monitoring Trailer	Encouragement, Education	$10,000 - $15,000 to purchase	Cost of moving also a factor, option to partner and use local agency device
Pedestrian & Driver Education	Encouragement, Education	Costs vary depending on methods	Lots of information and technical assistance
Police Enforcement	Encouragement, Education	Cost vary depending on methods	Opportunity to partner with existing programs

Source: *Bikesafe: Bicycle Countermeasure Selection System*; US Department of Transportation, Federal Highway Administration, 2006. FHWA-SA-05-006
Pedsafe: Pedestrian Safety Guide and Countermeasure Selection System; US Department of Transportation, Federal Highway Administration, 2004. FHWA-SA-04-003

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Appendices

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Appendix A

Bicycle Accommodation Design Guidelines

The following bicycle facility design guideline information is provided by the Virginia Department of Transportation and made available through the VDOT Bicycle Facility Guidelines. The information provided is based on AASHTO and FHWA design guidelines.

Average Motor Vehicle Operating Speed	Average Annual Daily Traffic (AADT) Volume											
	less than 2,000				2,000-10,000				over 10,000			
	Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance	
	Truck,Bus,Rv				Truck,Bus,Rv				Truck,Bus,Rv			
less than 30 mph	sl 12	sl 12	wc 14	wc 14	sl 12	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14
30-40 mph	wc 14	wc 14	wc 15	wc 15	wc 14	wc 15	wc 15	wc 15	wc 14	wc 15	wc 15	wc 15
41-50 mph	wc 15	wc 15	wc 15	wc 15	wc 15	wc 15	sh 6	sh 6	wc 15	wc 15	sh 6	sh 6
over 50 mph	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6

TABLE A-5-1

GROUP A BICYCLISTS, URBAN SECTION, NO PARKING

(widths are in feet)

For Table A-5-1: wc and sl widths represent "usable widths" of outer lanes, measured from lane stripe to edge of gutter pan, rather than to the face of curb. If no gutter pan is provided, add 1 ft. Minimum for shy distance from the face of curb.

Key: wc = wide curb lane; sh = shoulder; sl = shared lane; bl = bike lane; na = not applicable; truck, buses, and/or recreation vehicles (approximately 30 per hour or more)

Average Motor Vehicle Operating Speed	Average Annual Daily Traffic (AADT) Volume											
	less than 2,000				2,000-10,000				over 10,000			
	Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance	
	Truck,Bus,Rv				Truck,Bus,Rv				Truck,Bus,Rv			
less than 30 mph	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	wc 15	wc 15	wc 14
30-40 mph	wc 14	wc 14	wc 15	wc 15	wc 14	wc 15	wc 15	wc 15	wc 14	wc 15	wc 15	wc 15
41-50 mph	wc 15	wc 15	wc 15	wc 15	wc 15	wc 16	wc 16	wc 16	wc 15	wc 15	wc 16	wc 16
over 50 mph	na	na	na	na	na	na	na	na	na	na	na	na

TABLE A-5-2

GROUP A BICYCLISTS, URBAN SECTION, WITH PARKING

(widths are in feet)

For Table A-5-2: wc widths represent "usable widths" of outer travel lanes, measured from the left edge of the parking space (8 to 10 ft. minimum from the curb face) to the left stripe of the travel lane.

Source: FHWA's "Selecting Roadway Design Treatments to Accommodate Bicycles" dated 1994.

Average Motor Vehicle Operating Speed	Average Annual Daily Traffic (AADT) Volume											
	less than 2,000				2,000-10,000				over 10,000			
	Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance	
	Truck,Bus,Rv				Truck,Bus,Rv				Truck,Bus,Rv			
less than 30 mph	sl 12	sl 12	wc 14	wc 14	sl 12	wc 14	wc 14	wc 14	wc 14	wc 14	sh 4	sh 4
30-40 mph	wc 14	wc 14	sh 4	sh 4	wc 14	wc 15	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4
41-50 mph	sh 4	sh 4	sh 4	sh 4	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6
over 50 mph	sh 4	sh 6	sh 6	sh 4	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6

TABLE A-5-3

GROUP A BICYCLISTS, RURAL SECTION

(widths are in feet)

For Table A-5-3: wc and sl widths represent "usable widths" of outer lanes, measured from lane stripe to edge of the pavement if a smooth, firm, level shoulder is adjacent. If rough or dropped pavement edges or a soft shoulder exists, add 1 ft. minimum for shy distance from the edge of the pavement.

Key: wc = wide curb lane; sh = shoulder; sl = shared lane; bl = bike lane; na = not applicable; truck, buses, and/or recreation vehicles (approximately 30 per hour or more)

Average Motor Vehicle Operating Speed	Average Annual Daily Traffic (AADT) Volume											
	less than 2,000				2,000-10,000				over 10,000			
	Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance	
	Truck,Bus,Rv				Truck,Bus,Rv				Truck,Bus,Rv			
less than 30 mph	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	bl 5	bl 5	bl 5	bl 5
30-40 mph	bl 5	bl 5	bl 5	bl 5	bl 5	bl 6	bl 6	bl 5	bl 5	bl 6	bl 6	bl 5
41-50 mph	bl 5	bl 5	bl 5	bl 5	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6
over 50 mph	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6

TABLE A-5-4

GROUP B/C BICYCLISTS, URBAN SECTION, NO PARKING

(widths are in feet)

For Table A-5-4: wc widths represent "usable widths" of outer lanes, measured from lane stripe to edge of gutter pan, rather than to the face of curb. If no gutter pan is provided, add 1 ft. minimum for shy distance from the face of curb. bl widths represent the minimum width from the curb face. For VDOT projects, the bike lane stripe will lie 4 feet minimum from the edge of the gutter pan. The bike lane stripe will lie 5 feet minimum from the face of curb.

Source: FHWA's "Selecting Roadway Design Treatments to Accommodate Bicycles" dated 1994.

Average Motor Vehicle Operating Speed	Average Annual Daily Traffic (AADT) Volume											
	less than 2,000				2,000-10,000				over 10,000			
	Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance	
	Truck,Bus,Rv				Truck,Bus,Rv				Truck,Bus,Rv			
less than 30 mph	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	bl 5	bl 5	bl 5	bl 5
30-40 mph	bl 5	bl 5	bl 5	bl 5	bl 5	bl 6	bl 6	bl 5	bl 6	bl 6	bl 6	bl 6
41-50 mph	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6
over 50 mph	na	na	na	na	na	na	na	na	na	na	na	na

TABLE A-5-5

GROUP B/C BICYCLISTS, URBAN SECTION, WITH PARKING

(widths are in feet

For Table A-5-5: wc and sl widths represent "usable widths" of outer lanes, measured from the left edge of the parking space (8 to 10 ft. minimum from the curb face) to the left stripe of the travel lane.

Key: wc = wide curb lane; sh = shoulder; sl = shared lane; bl = bike lane; na = not applicable; truck, buses. And/or recreation vehicles (approximately 30 per hour or more)

Average Motor Vehicle Operating Speed	Average Annual Daily Traffic (AADT) Volume											
	less than 2,000				2,000-10,000				over 10,000			
	Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance		Adequate Sight Distance		Inadequate Sight Distance	
	Truck,Bus,Rv				Truck,Bus,Rv				Truck,Bus,Rv			
less than 30 mph	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4
30-40 mph	sh 4	sh 4	sh 4	sh 4	sh 4	sh 6	sh 6	sh 4	sh 6	sh 6	sh 6	sh 6
41-50 mph	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6
over 50 mph	sh 6	sh 6	sh 6	sh 6	sh 8	sh 8	sh 8	sh 8	sh 8	sh 8	sh 8	sh 8

TABLE A-5-6

GROUP B/C BICYCLISTS, RURAL SECTION

(widths are in feet)

Source: FHWA's "Selecting Roadway Design Treatments to Accommodate Bicycles" dated 1994

VDOT/AASHTO DESIGN GUIDELINES

The following design guidelines are to assist in the design of bicycle facilities and have been obtained from AASHTO's 1999 "Guide for the Development of Bicycle Facilities" and in combination with VDOT Policy. Only key information from AASHTO's Guide are contained in this VDOT publication. Individuals involved in the planning and design of bicycle facilities should be familiar with and refer to the latest AASHTO Guide for additional information. AASHTO criteria will be considered as "minimum criteria" by designers. These design guidelines consider four types of bicycle facilities: Shared Roadway (No Bikeway Designation), Signed Shared Roadway, Bike Lane or Bicycle Lane and Shared Use Path.

When bicycle facilities are proposed, the roadway conditions will be examined for potential problems specific to bicyclists. Safe drainage grates and railroad crossings, smooth pavements, and signals responsive to bicycles will be provided where warranted. Drainage grate inlets and utility covers in particular are potential problems to bicyclists and should be located in a manner which will minimize severe and/or frequent maneuvering by the bicyclist. When a new roadway is designed, all such grates and covers should be out of the bicyclists' expected path.

SHARED ROADWAYS

The most critical variable affecting the ability of a roadway to accommodate bicycle traffic is width. Adequate width may be achieved by providing paved shoulders or wide outside lanes.

- Paved Shoulders

  Paved shoulders should be at least 4 feet wide to accommodate bicycle travel. However, where 4 foot widths cannot be provided, any additional shoulder width is better than none at all. A shoulder width of 5 feet is recommended from the face of guardrail, curb or other roadside barriers. It is desirable to increase the width of shoulders where higher bicycle usage is expected. Additional shoulder width is also desirable if motor vehicle speeds exceed 50 mph, or the percentage of trucks, buses, and recreational vehicles is high, or if static obstructions exist at the right side of the roadway.

  On rural and urban collector and local roads and streets, provide minimum 4 foot wide paved shoulders when:

  a) Design Year ADT > 2000 VPD, with $\geq$ 5% total truck and bus usage

  or

  b) The route is an AASHTO Approved Interstate Bicycle Route or designated as a bicycle route on a Locality's Thoroughfare Plan and the graded shoulder width is 6 feet or greater.

  For the above situations, the remainder of the shoulder will be topsoil and seeded.

AASHTO's recommendations for shoulder width (as described in *A Policy on Geometric Design of Highways and Streets)* are the best guide for bicycles as well, since wider shoulders are recommended on heavily traveled and high-speed roads and those carrying large numbers of trucks. In order to be usable by bicyclists, the shoulder must be paved.

Rumble strips or raised pavement markers, where installed to discourage or warn motorists they are driving on the shoulder, are not recommended where shoulders are used by bicyclists unless there is a minimum clear path of 1 foot from the rumble strip to the traveled way, 4 feet from the rumble strip to the outside edge of paved shoulder, or 5 feet to adjacent guardrail, curb or other obstacle. If existing conditions preclude achieving the minimum desirable clearance, the width of the rumble strip may be decreased or other appropriate alternative solutions should be considered. VDOT's policy is to not install pavement markers along the outside edge line of a travelway.

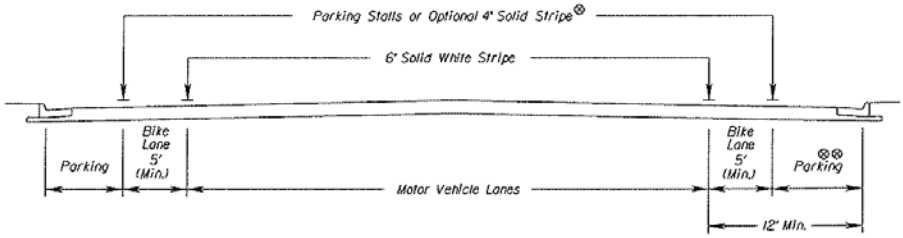
- Wide Outside Lanes

  Wide outside lanes for bicycle use are usually preferred where shoulders are not provided, such as in restrictive urban areas. On highway sections without designated bikeways, an outside or curb lane wider than 12 feet can better accommodate both bicycles and motor vehicles in the same lane and thus is beneficial to both bicyclists and motorists.

  In general 14 feet of usable lane width is the recommended width for shared use in a wide outside lane. Usable width normally would be from edge stripe to lane stripe or from the longitudinal joint of the gutter pan to lane stripe (the gutter pan should not be included as usable width). On stretches of roadway with steep grades where bicyclists need more maneuvering space, the wide outside lane should be slightly wider where practicable (15 feet is preferred). The 15 foot width may also be necessary in areas where drainage grates, raised reflectors on the right-hand side of the road, or on-street parking effectively reduce the usable width. With these exceptions in mind, widths greater than 14 feet that extend continuously along a stretch of roadway may encourage the undesirable operation of two motor vehicles in one lane, especially in urban areas, and therefore are not recommended. In situations where more than 15 feet of pavement width exists, consideration should be given to striping bike lanes or shoulders.

- On-Street Parking

  When there is on-street parking on urban roadways, the bicycle riding location is in the area between parked cars and moving motor vehicles. 12 feet of combined bicycle travel and parking width should be the minimum considered for this type of shared use. Striping should be provided to delineate the parking stalls. (See Figure A-5-1 Section 1).

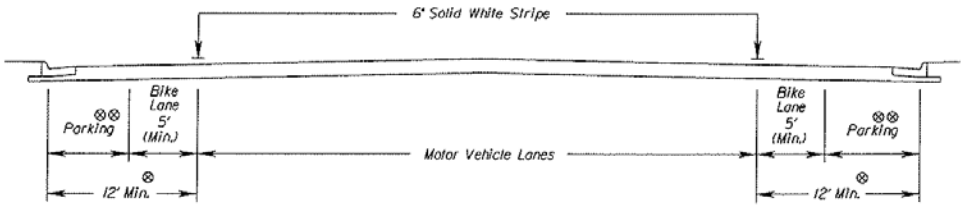


(1) BIKE LANES WITH ON-STREET PARKING

⊗The optional solid white stripe may be advisable where stalls are unnecessary (because parking is light) but there is concern that motorists may misconstrue the bike lane to be a traffic lane.

⊗⊗7' for Residential Street and 8' Commercial and mix use.*

* Rev. 7/07



⊗ 13 feet is recommended where there is substantial parking or turn over of parked cars is high (e.g. commercial areas).

⊗⊗ 7 feet for Residential Streets and 8 feet for Commercial and mix use Streets.*

FIGURE A-5-1

(2) PARKING PERMITTED WITHOUT PARKING STRIPE OR STALL

(Bike lane not designated or marked)

SIGNED SHARED ROADWAYS

The distinction between shared roadways and signed shared roadways is that signed are those that have been identified by signing as preferred bike routes.

BIKE LANES

Bike lanes are incorporated into a roadway design when it is desirable to delineate available road space for use by bicyclists and motorists. Delineating bike lanes is not recommended within a required paved shoulder area. Urban settings will typically use a bike lane to accommodate bicyclists (See Figure A-5-2, (1)). Rural areas will normally make use of a 4' minimum paved shoulder to accommodate bicyclists (See Figure A-5-2, (2)). Drainage grates, railroad crossings, traffic control devices, etc must be evaluated and modified if necessary for bicycle use.

Bike lanes should be one-way facilities and carry bike traffic in the same direction as adjacent motor vehicle traffic. Two-way bike lanes on one side of the roadway are not recommended when they result in bicycle riding against the flow of motor vehicle traffic. In general, on one-way streets, a bike lane should be placed only on the right side of the street.

* Rev. 7/07

A-90

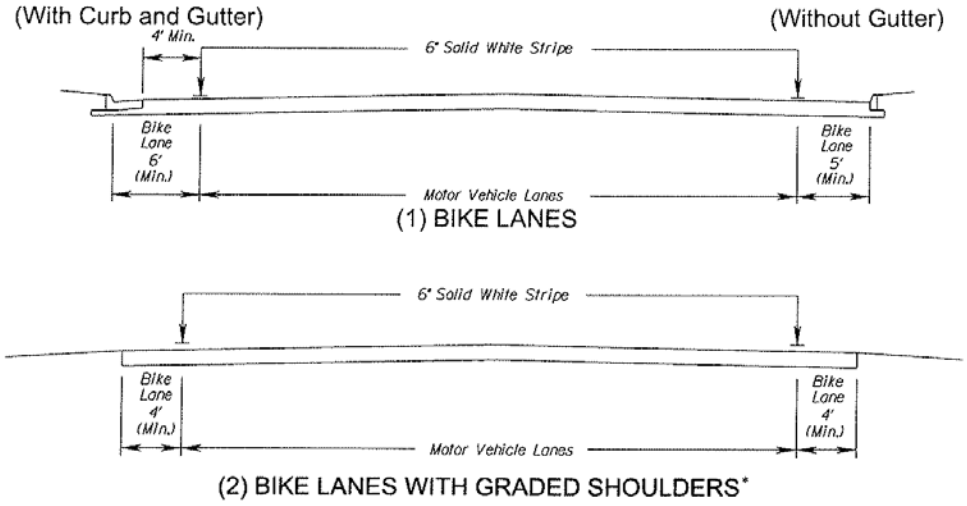


FIGURE A-5-2

TYPICAL BIKE LANE CROSS SECTIONS

- Bike Lane Widths

The recommended width of a bike lane is 5 feet from the face of a curb to the bike lane stripe on roadways without a gutter pan. The recommended width of a bike lane is 4 feet from the edge of pavement to the bike lane stripe on curb and gutter roadways. Greater bike lane widths are desirable where substantial truck traffic is present, or where motor vehicle speeds exceed 50 mph. Where vehicle traffic volume is high or substantial truck, bus or recreational vehicle traffic is present or speeds warrant, 6 feet minimum is appropriate to the bike lane stripe from the face of curb. Figure A-5-2, Section (1), depicts a bike lane along the outer portion of an urban curbed street where parking is prohibited.

Bicyclists tend to ride a distance of 32 to 40 inches from a curb face and it is important that the surface in this area be smooth and free of structures. Drain inlets and utility covers that extend into this area may cause bicyclists to swerve, and have the effect of reducing the usable width of the lane. Where these structures exist, the bike lane width may need to be adjusted accordingly.

If parking is permitted, as in Figure A-5-1, Section (1), the bike lane should be placed between the parking area and the travel lane and have a minimum width of 5 feet. Bike lanes should never be placed between the parking lane and curb line.

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* Rev. 7/07

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Appendix B

Virginia Department of Transportation
Policy for Integrating Bicycle and Pedestrian Accommodations

The Virginia Department of Transportation through its Bicycle and Pedestrian Program, and other program initiatives, promotes pedestrian access through walking and bicycling within Virginia. They have provided leadership in the state in creating pedestrian connections and promoting partnerships, technical assistance, funding, and program enforcement to ensure that pedestrian planning is an integral component of transportation planning as a whole.

The following is a copy VDOT's policy for incorporating pedestrian transportation accommodations within the transportation network. This information was provided through the Virginia Department of Transportation website at www.virginiadot.org. Further, within each district of the state a pedestrian coordinator is available to provide technical assistance and guidance in incorporating pedestrian improvements and facilities within a locality and region. The following is a list of some key resources for obtaining more detail on planning, designing, implementing, and funding pedestrian improvements.

Also provided, as support to the policy document, is a copy of the VDOT Designated Bicycle and Pedestrian Accommodation table. This table provides a summation of the accommodation activities that VDOT includes within the integration accommodation policy.

Virginia Department of Transportation
Policy for Integrating Bicycle and Pedestrian Accommodations

1. Introduction

Bicycling and walking are fundamental travel modes and integral components of an efficient transportation network. Appropriate bicycle and pedestrian accommodations provide the public, including the disabled community, with access to the transportation network; connectivity with other modes of transportation; and independent mobility regardless of age, physical constraints, or income. Effective bicycle and pedestrian accommodations enhance the quality of life and health, strengthen communities, increase safety for all highway users, reduce congestion, and can benefit the environment. Bicycling and walking are successfully accommodated when travel by these modes is efficient, safe, and comfortable for the public. A strategic approach will consistently incorporate the consideration and provision of bicycling and walking accommodations into the decision-making process for Virginia's transportation network.

2. Purpose

This policy provides the framework through which the Virginia Department of Transportation will accommodate bicyclists and pedestrians, including pedestrians with disabilities, along with motorized transportation modes in the planning, funding, design, construction, operation, and maintenance of Virginia's transportation network to achieve a safe, effective, and balanced multimodal transportation system.

For the purposes of this policy, an accommodation is defined as any facility, design feature, operational change, or maintenance activity that improves the environment in which bicyclists and pedestrians travel. Examples of such accommodations include the provision of bike lanes, sidewalks, and signs; the installation of curb extensions for traffic calming; and the addition of paved shoulders.

3. Project Development

The Virginia Department of Transportation (VDOT) will initiate all highway construction projects with the presumption that the projects shall accommodate bicycling and walking. Factors that support the need to provide bicycle and pedestrian accommodations include, but are not limited to, the following:

- project is identified in an adopted transportation or related plan
- project accommodates existing and future bicycle and pedestrian use
- project improves or maintains safety for all users
- project provides a connection to public transportation services and facilities
- project serves areas or population groups with limited transportation options
- project provides a connection to bicycling and walking trip generators such as employment, education, retail, recreation, and residential centers and public facilities
- project is identified in a Safe Routes to School program or provides a connection to a school
- project provides a regional connection or is of regional or state significance
- project provides a link to other bicycle and pedestrian accommodations

- project provides a connection to traverse natural or man-made barriers
- project provides a tourism or economic development opportunity

Project development for bicycle and pedestrian accommodations will follow VDOT's project programming and scheduling process and concurrent engineering process. VDOT will encourage the participation of localities in concurrent engineering activities that guide the project development.

3.1 Accommodations Built as Independent Construction Projects

Bicycle and pedestrian accommodations can be developed through projects that are independent of highway construction, either within the highway right-of-way or on an independent right-of-way. Independent construction projects can be utilized to retrofit accommodations along existing roadways, improve existing accommodations to better serve users, and install facilities to provide continuity and accessibility within the bicycle and pedestrian network. These projects will follow the same procedures as those for other construction projects for planning, funding, design, and construction. Localities and metropolitan planning organizations will be instrumental in identifying and prioritizing these independent construction projects.

3.2 Access-Controlled Corridors

Access-controlled corridors can create barriers to bicycle and pedestrian travel. Bicycling and walking may be accommodated within or adjacent to access-controlled corridors through the provision of facilities on parallel roadways or physically separated parallel facilities within the right-of-way. Crossings of such corridors must be provided to establish or maintain connectivity of bicycle and pedestrian accommodations.

3.3 Additional Improvement Opportunities

Bicycle and pedestrian accommodations will be considered in other types of projects. Non-construction activities can be used to improve accommodations for bicycling and walking. In addition, any project that affects or could affect the usability of an existing bicycle or pedestrian accommodation within the highway system must be consistent with state and federal laws.

3.3.1 Operation and Maintenance Activities

Bicycling and walking should be considered in operational improvements, including hazard elimination projects and signal installation. Independent operational improvements for bicycling and walking, such as the installation of pedestrian signals, should be coordinated with local transportation and safety offices. The maintenance program will consider bicycling and walking so that completed activities will not hinder the movement of those choosing to use these travel modes. The maintenance program may produce facility changes that will enhance the environment for bicycling and walking, such as the addition of paved shoulders.

3.3.2 Long Distance Bicycle Routes

Long distance bicycle routes facilitate travel for bicyclists through the use of shared lanes, bike lanes, and shared use paths, as well as signage. All projects along a long distance route meeting the criteria for an American Association of State Highway and Transportation Officials

(AASHTO) or *Manual on Uniform Traffic Control Devices* (MUTCD) approved numbered bicycle route system should provide the necessary design features to facilitate bicycle travel. Independent construction projects and other activities can be utilized to make improvements for existing numbered bicycle routes. Consideration should be given to facilitating the development of other types of long distance routes.

3.3.3 Tourism and Economic Development
Bicycling and walking accommodations can serve as unique transportation links between historic, cultural, scenic, and recreational sites, providing support to tourism activities and resulting economic development. Projects along existing or planned tourism and recreation corridors should include bicycle and pedestrian accommodations. In addition, the development of independent projects to serve this type of tourism and economic development function should be considered and coordinated with economic development organizations at local, regional, and state levels, as well as with other related agencies. Projects must also address the need to provide safety and connectivity for existing and planned recreational trails, such as the Appalachian Trail, that intersect with the state's highway system.

3.4 Exceptions to the Provision of Accommodations

Bicycle and pedestrian accommodations should be provided except where one or more of the following conditions exist:

- scarcity of population, travel, and attractors, both existing and future, indicate an absence of need for such accommodations
- environmental or social impacts outweigh the need for these accommodations
- safety would be compromised
- total cost of bicycle and pedestrian accommodations to the appropriate system (i.e., interstate, primary, secondary, or urban system) would be excessively disproportionate to the need for the facility
- purpose and scope of the specific project do not facilitate the provision of such accommodations (e.g., projects for the Rural Rustic Road Program)
- bicycle and pedestrian travel is prohibited by state or federal laws

3.5 Decision Process

The project manager and local representatives will, based on the factors listed previously in this section, develop a recommendation on how and whether to accommodate bicyclists and pedestrians in a construction project prior to the public hearing. The district administrator should confirm this recommendation prior to the public hearing. Public involvement comments will be reviewed and incorporated into project development prior to the preparation of the design approval recommendation. When a locality is not in agreement with VDOT's position on how bicyclists and pedestrians will or will not be accommodated in a construction project, the locality can introduce a formal appeal by means of a resolution adopted by the local governing body. The resolution must be submitted to the district administrator to be reviewed and considered prior to the submission of the design approval recommendation to the chief engineer for program development. Local resolutions must be forwarded to the chief engineer for program development for consideration during the project design approval or to the Commonwealth

Transportation Board for consideration during location and design approval, if needed for a project. The resolution and supporting information related to the recommendation must be included in the project documentation.

The decisions made by VDOT and localities for the provision of bicycle and pedestrian travel must be consistent with state and federal laws regarding accommodations and access for bicycling and walking.

4. Discipline Participation in Project Development

VDOT will provide the leadership to implement this policy. Those involved in the planning, funding, design, construction, operation, and maintenance of the state's highways are responsible for effecting the guidance set forth in this policy. VDOT recognizes the need for interdisciplinary coordination to efficiently develop, operate, and maintain bicycle and pedestrian accommodations.

Procedures, guidelines, and best practices will be developed or revised to implement the provisions set forth in this policy. For example, objective criteria will be prepared to guide decisions on the restriction of bicycle and pedestrian use of access-controlled facilities. VDOT will work with localities, regional planning agencies, advisory committees, and other stakeholders to facilitate implementation and will offer training or other resource tools on planning, designing, operating, and maintaining bicycle and pedestrian accommodations.

4.1 Planning

VDOT will promote the inclusion of bicycle and pedestrian accommodations in transportation planning activities at local, regional, and statewide levels. These planning activities include, but are not limited to, corridor studies, small urban studies, regional plans, and the statewide multimodal long-range transportation plan. To carry out this task, VDOT will coordinate with local government agencies, regional planning agencies, and community stakeholder groups. In addition, VDOT will coordinate with the Virginia Department of Rail and Public Transportation (VDRPT) and local and regional transit providers to identify needs for bicycle and pedestrian access to public transportation services and facilities.

4.2 Funding

Highway construction funds can be used to build bicycle and pedestrian accommodations either concurrently with highway construction projects or as independent transportation projects. Both types of bicycle and pedestrian accommodation projects will be funded in the same manner as other highway construction projects for each system (i.e., interstate, primary, secondary, or urban). VDOT's participation in the development and construction of an independent project that is not associated with the interstate, primary, secondary, or urban systems will be determined through a negotiated agreement with the locality or localities involved.

Other state and federal funding sources eligible for the development of bicycle and pedestrian accommodations may be used, following program requirements established for these sources.

These sources include, but are not limited to, programs for highway safety, enhancement, air quality, congestion relief, and special access.

VDOT may enter into agreements with localities or other entities in order to pursue alternate funding to develop bicycle and pedestrian accommodations, so long as the agreements are consistent with state and federal laws.

4.3 Design and Construction

VDOT will work with localities to select and design accommodations, taking into consideration community needs, safety, and unique environmental and aesthetic characteristics as they relate to specific projects. The selection of the specific accommodations to be used for a project will be based on the application of appropriate planning, design, and engineering principles. The accommodations will be designed and built, or installed, using guidance from VDOT and AASHTO publications, the MUTCD, and the *Americans with Disabilities Act Accessibility Guidelines (ADAAG).* Methods for providing flexibility within safe design parameters, such as context sensitive solutions and design, will be considered.

During the preparation of an environmental impact statement (EIS), VDOT will consider the current and anticipated future use of the affected facilities by bicyclists and pedestrians, the potential impacts of the alternatives on bicycle and pedestrian travel, and proposed measures, if any, to avoid or reduce adverse impacts to the use of these facilities by bicyclists and pedestrians.

During project design VDOT will coordinate with VDRPT to address bicyclist and pedestrian access to existing and planned transit connections.

Requests for exceptions to design criteria must be submitted in accordance with VDOT's design exception review process. The approval of exceptions will be decided by the Federal Highway Administration or VDOT's Chief Engineer for Program Development.

VDOT will ensure that accommodations for bicycling and walking are built in accordance with design plans and VDOT's construction standards and specifications.

4.4 Operations

VDOT will consider methods of accommodating bicycling and walking along existing roads through operational changes, such as traffic calming and crosswalk marking, where appropriate and feasible.

VDOT will work with VDRPT and local and regional transit providers to identify the need for ancillary facilities, such as shelters and bike racks on buses, that support bicycling and walking to transit connections.

VDOT will enforce the requirements for the continuance of bicycle and pedestrian traffic in work zones, especially in areas at or leading to transit stops, and in facility replacements in accordance with the MUTCD, *VDOT Work Area Protection Manual*, and *VDOT Land Use*

Permit Manual when construction, utility, or maintenance work, either by VDOT or other entities, affects bicycle and pedestrian accommodations.

VDOT will continue to research and implement technologies that could be used to improve the safety and mobility of bicyclists and pedestrians in Virginia's transportation network, such as signal detection systems for bicycles and in-pavement crosswalk lights.

4.5 Maintenance

VDOT will maintain bicycle and pedestrian accommodations as necessary to keep the accommodations usable and accessible in accordance with state and federal laws and VDOT's asset management policy. Maintenance of bike lanes and paved shoulders will include repair, replacement, and clearance of debris. As these facilities are an integral part of the pavement structure, snow and ice control will be performed on these facilities.

For sidewalks, shared use paths, and bicycle paths built within department right-of-way, built to department standards, and accepted for maintenance, VDOT will maintain these bicycle and pedestrian accommodations through replacement and repair. VDOT will not provide snow or ice removal for sidewalks and shared use paths. The execution of agreements between VDOT and localities for maintenance of such facilities shall not be precluded under this policy.

5. Effective Date

This policy becomes effect upon its adoption by the Commonwealth Transportation Board on March 18, 2004, and will apply to projects that reach the scoping phase after its adoption.

This policy shall supersede all current department policies and procedures related to bicycle and pedestrian accommodations. VDOT will develop or revise procedures, guidelines, and best practices to support and implement the provisions set forth in this policy, and future departmental policies and procedural documents shall comply with the provisions set forth in this policy.

VDOT DESIGNATED BICYCLE AND PEDESTRIAN ACCOMMODATIONS (AUGUST 2006)

BICYCLE ACCOMMODATIONS
FACILITIES
Paving unpaved roads
Paving shoulders that have been striped and are at least 2 feet in width, preferably 4 feet in width
Paving wide outside lanes, at least 14 feet in **width**
Designating bicycle lanes, at least 4 feet in width
Providing shared use paths at least 8 feet in width, preferably 10 feet
Providing striping for bicycle lanes and shoulders
Maintenance activities that include pavement rehabilitation
DESIGN FEATURES
Providing signage indicating bicycle facilities/ use (Share the Road, Bicycle Route, USBRs)
Bicycle racks (fixed and bus racks) and lockers
Installing bicycle height railings 54" high on structures
Providing lighting along bicycle facilities.
Replacement of drainage grates with bicycle friendly grates and **adjustment of grade for utility covers**.
Removal of obstructions from bicycle facilities
Providing fencing on structures
Maintenance activities that include debris and snow removal from shoulders and designated bicycle facilities (document by asset type)

PEDESTRIAN ACCOMMODATIONS
FACILITIES
Providing asphalt or concrete sidewalks at least 5 feet in width
Providing shared use paths at least 8 feet in width, preferably 10 feet
Providing curb cuts and ramps that meet ADA standards
Providing pedestrian islands at intersections and roundabouts
Providing median island cut-throughs
Providing appropriately striped crosswalks
Providing pedestrian signals- walk/ don't walk, countdown, and push buttons
Providing "bulb-outs" at intersections and other traffic calming methods
Providing warning flashers at crosswalks
DESIGN FEATURES
Providing signage (yield to pedestrian in crosswalk, pedestrian crossing warning signs, etc.)
Providing pedestrian railing 54" high on structures
Providing pedestrian shelters (at transit stops, park and ride lots)
Providing fencing on structures
Providing lighting along pedestrian facilities
Removal of obstructions in sidewalks
Replacement of drainage grates with ADA acceptable grates and **adjustment of grade for utility covers**.

Purpose

One result highlighted in the recent VDOT Inspector General's Office report on VDOT's implementation of the *CTB Policy for Integrating Bicycle and Pedestrian Accommodations*, was the lack of understanding throughout the state as to what can be considered an "accommodation." As per the VDOT Policy, "...an accommodation is defined as any facility, design feature, operational change, or maintenance activity that improves the environment in which bicyclists and pedestrians travel." The following listing constitutes VDOT's definition of accommodations for use by all VDOT District Offices and Project Managers. Note that the design of a facility (shared roadway, signed shared roadway, bike lane or shared use path) may require more than one accommodation. For a specific facility's design criteria, refer to VDOT's Road Design Manual Appendix A-5.

The construction of new facilities meeting these descriptions, as well as the upgrade of existing facilities meeting these descriptions, shall be considered accommodations. This list is not intended to exclude additional design features that may by available in the future, such as improved bicycle detection for signals, or detectable tiles for crossing intersections.

Appendix C

Region 2000 Bicycle Survey & Bicycle Survey Results

A copy of the Region 2000 Bicycle Survey and a summation of the survey results are presented in this Appendix.

The eighteen question survey was made available in both hard copy and electronic format through the Survey Monkey Website. Residents were able to participate in the on line survey instrument through the month of March, 2009. The survey, and corresponding public meetings, were advertised through the local newspapers, local radio, the Region 2000 Partnership website, local and regional newsletter, and general email notices.

Survey results area presented based on the two hundred forty-seven (247) surveys received during the on-line survey and public meeting time period. The results from the survey indicate that there is genuine support and need for additional bicycle facilities in the CVMPO region. Further, the survey results highlight the community support and value of the trail network and the need to expand this network to serve as a key link in expanding bicycle and pedestrian alternative transportation options.

Region 2000
Regional Bicycle Plan Project

CYCLING SURVEY

Plans are being made to help promote bicycling in the central Virginia area. The Virginia's Region 2000 Local Government Council (LGC)and the Central Virginia Metropolitan Planning Organization (CVMPO)are working together to facilitate the development of a regional bicycle plan within the Region 2000 area (the area that comprises the counties of Amherst, Appomattox, Campbell, and Bedford and the cities of Bedford and Lynchburg). A Bicycle Plan Advisory Committee (BPAC) comprised of public and private leaders and citizens will be guiding plan development.

As a citizen and/or cyclist from the Region 2000 area, you are in a unique position to assist in the development of the bicycle plan by providing information related to your cycling experience, interests, and observations.

We need your feedback. Please complete the following 3-minute survey. Your thoughts are very important.

Visit the Region 2000 website (www.region2000.org) often for plan development and public meeting information. If you would like more information, please contact Kelly Hitchcock at 434-845-3491 or at khitchcock@region2000.org

1. How often do you cycle for the following purposes?

	Almost Daily (4-5 days per week)	Often (1-3 days per week)	Rarely (1-2 days per month)	Never
commuting to work				
commuting to school				
personal trips (e.g. store, visit friend)				
fitness/recreation				
commuting to public transit				
other _____				

2. How many miles do you ride your bicycle in an average week?

0 – 2 miles ☐ 3 – 10 miles

11 – 20 miles more than 20 miles

3. What type of cyclist would you primarily describe yourself?

A road cyclist (prefer longer distance, on road cycling experience) __

A trail cyclist (prefer to bike on an off-road paved, or similar surface, shared-use path designated for biking/walking) __

A mountain bike cyclist (prefer off-road, un-paved single track biking experience) __

4. How far do you live from your place of work?

0 -2 miles 3 – 5 miles

6 – 8 miles more than 8 miles

5. How far do you live from the nearest multi-use trail (see list in question 6)?

0 – 2 miles 3 – 5 miles

6 -8 miles more than 8 miles

1

6. **How often do you use the following Greenways/Trails for cycling?**

	Almost Daily	Often	Rarely	Never
Blackwater Creek Bikeway	___	___	___	___
Candlers Mtn. Bike Trails	___	___	___	___
Heritage Mtn Bike Trails	___	___	___	___
James River Heritage Trail	___	___	___	___
Falling Creek Park Trails	___	___	___	___
Peaksview Park Trails	___	___	___	___
other _____	___	___	___	___
other _____	___	___	___	___

7. **How would you rate the attitude/behavior of motorist toward cyclists in the Region 2000 area?**

positive neutral negative

8. **How would you rate the overall level of service provided to cyclist along local roads in terms of safety, comfort and connectivity (ability to serve cyclist as a transportation mode to destinations in the area)?**

	Poor	Average	sufficient	good	excellent
Safety	___	___	___	___	___
Comfort	___	___	___	___	___
Connectivity	___	___	___	___	___

9. **What discourages you from cycling more often (check all that apply)?**

driver behavior __	lack of designated bike lanes/routes __	distance to destinations __
amount/speed of traffic __	bicycle theft __	not enough time __
lack of transit connections __	weather __	lack of bicycle facilities at destination(s)__
too many hills __	other_____	

11. **What factors could increase the likelihood of your using a bicycle more often (check all that apply)?**

Safer road conditions __	better physical health __	more free time __
More/better bicycle facilities at destinations __	more bike paths or wider shoulders __	improved driver behavior/ attitude toward cyclists __
Destinations closer to home __	less traffic __	other __

12. **Would you prefer special on-road bicycle provisions? If yes, please rank the following on-road provisions in order of preference from 1 to 4, where 1 is prefer most and 4 is prefer least.**

Major streets with wide lanes or shoulders _____

Bike lanes on major streets _____

Bike routes on side streets (i.e., signage only, no bike lanes) _____

Separated bicycle paths (i.e., separated paved path at side of roadway) _____

13. **As a cyclist, what aspects of the existing recreation and roadway network do you like?**

14. What facilities would you like to have available at your most common cycling destination? (e.g., bike racks, secured storage, change rooms, etc.)

15. What type of funding mechanism would you support for the development of bicycle accommodations along roadways in the Region 2000 area (check all that apply)?

Local Bicycle Permit Fee ___
State and Federal grants ___
Private funding through foundations ___
Direct donations ___
Funds from existing local city and county taxes ___
Fees applied to future growth and development ___
Dedicated percentage of local transportation funds ___

The following questions are **COMPLETELY OPTIONAL** and are requested to assist the Local Government Counci in developing a spatial database of survey respondents.

16. Please indicate you age group and gender:

under 16	45 – 54	Female
16 – 24	55 – 64	Male
25 – 34	65 – 75	
35 – 44	75+	

17. Please indicate the area of Region 2000 that you reside

Street of Residency	City/County/Town	5 –digit Zip Code

THANKS for completing this important survey!

If you would like to be informed of future activities pertaining to bicycle planning in the area please provide contact information:

Name: _____
Address: _____
E-mail: _____

Survey Results

1. How often do you cycle for the following purposes?

	Almost Daily (4-5 days per week)	Often (1-3 days per week)	Rarely (1-2 days per month)	Never	Response Count
commuting to work	6.6% (13)	15.7% (31)	19.2% (38)	**59.1% (117)**	198
commuting to school	1.7% (3)	4.1% (7)	5.2% (9)	**89.0% (153)**	172
personal trips (e.g. store, visit friend)	3.7% (7)	24.9% (47)	33.3% (63)	**38.1% (72)**	189
fitness/recreation	28.3% (69)	**56.1% (137)**	13.1% (32)	3.7% (9)	244
commuting to public transit	0.6% (1)	1.7% (3)	1.2% (2)	**96.5% (166)**	172
				Other (please specify)	26
				answered question	**247**
				skipped question	**0**

2. How many miles do you ride your bicycle in an average week?

	Response Percent	Response Count
0-2 miles	13.0%	32
3-10 miles	13.8%	34
11-20 miles	15.0%	37
more than 20 miles	**58.3%**	**144**
answered question		**247**
skipped question		**0**

3. What type of cyclist would you primarily describe yourself?

	Response Percent	Response Count
A road cyclist (prefer longer distance, on road experience)	**50.2%**	**124**
A trail cyclist (prefer to bike on an off-road, or similar surface, shared use)	32.4%	80
A mountain bike cyclist (prefer off-road, unpaved, single track)	17.4%	43
answered question		**247**
skipped question		**0**

4. How far do you live from your place of work?

	Response Percent	Response Count
0-2 miles	21.1%	52
3-5 miles	22.7%	56
6-8 miles	18.2%	45
more than 8 miles	**38.1%**	**94**
answered question		**247**
skipped question		**0**

5. How often do you use the following Greenways/Trails for cycling?

	Almost Daily	Often	Rarely	Never	Response Count
Blackwater Creek Bikeway	7.0% (17)	**61.1% (149)**	24.6% (60)	7.4% (18)	244
Candlers Mtn. Bike Trails	1.9% (4)	27.8% (59)	21.7% (46)	**48.6% (103)**	212
Heritage Mtn. Bike Trails	0.0% (0)	4.7% (9)	18.1% (35)	**77.2% (149)**	193
James River Heritage Trails	1.5% (3)	21.4% (43)	19.4% (39)	**58.2% (117)**	201
Falling Creek Park Trails	1.0% (2)	18.0% (36)	15.5% (31)	**65.5% (131)**	200
				Other (please specify)	64
				answered question	**247**
				skipped question	**0**

6. How far do you live from the nearest multi-use trail(see question 5)?

	Response Percent	Response Count
0-2 miles	19.4%	48
3-5 miles	25.9%	64
6-8 miles	18.6%	46
more than 8 miles	**34.0%**	**84**
uncertain	2.0%	5
answered question		**247**
skipped question		**0**

7. How would you rate the attitude/behavior of motorist toward cyclist in the Region 2000 area?

	Response Percent	Response Count
positive	10.9%	27
neutral	40.9%	101
negative	**48.2%**	**119**
answered question		**247**
skipped question		**0**

8. How would you rate the overall level of service provided to cyclist along local roads in terms of safety, comfort, and connectivity (ability to serve cyclist as a transportation mode to destinations in the area)?

	poor	average	sufficient	good	excellent	Response Count
Safety	**77.7% (192)**	19.0% (47)	3.6% (9)	0.4% (1)	0.0% (0)	247
Comfort	**51.4% (127)**	34.0% (84)	13.0% (32)	2.0% (5)	0.0% (0)	247
Connectivity	**52.0% (127)**	30.7% (75)	14.3% (35)	3.3% (8)	0.4% (1)	244
answered question						**247**
skipped question						**0**

9. What discourages you from cycling more often (check all that apply)?

	Response Percent	Response Count
driver behavior	65.6%	162
amount/speed of traffic	60.7%	150
lack of transit connections	22.3%	55
too many hills	10.1%	25
lack of designated bike lanes/routes	**85.4%**	**211**
bicycle theft	3.2%	8
weather	26.7%	66
distance to destinations	18.2%	45
not enough time	18.2%	45
lack of bicycle facilities at destination (s)(ie - bike racks,showers, etc.)	29.1%	72
Other (please specify)	10.1%	25
answered question		**247**
skipped question		**0**

10. What factors could increase the likelihood of your using a bicycle more often (check all that apply)?

	Response Percent	Response Count
Safer road conditions	84.2%	208
More/better facilities at destinations	31.6%	78
Destinations closer to home	19.0%	47
Better physical health	6.9%	17
More bike paths or wider shoulders	**94.3%**	**233**
Less traffic	32.4%	80
More free time	21.9%	54
Improved driver behavior/attitue towards cyclist	68.4%	169
Other (please specify)	10.9%	27
	answered question	**247**
	skipped question	**0**

11. Please rank the following on-road bicycle accommodations in order of preference from 1 to 4, where 1 is prefer most and 4 is prefer least.

	Prefer most	Prefer	Neutral	Prefer least	Response Count
Major streets with marked bike lanes.	**57.1% (140)**	33.9% (83)	5.7% (14)	3.7% (9)	245
Major street with wide lanes or shoulders.	17.0% (41)	**40.2% (97)**	29.9% (72)	14.1% (34)	241
Bike routes on side streets (i.e., signage only, no bike lanes).	9.4% (22)	18.7% (44)	**38.3% (90)**	33.6% (79)	235
Separated bicycle paths (i.e., separated, paved path).	**45.8% (110)**	21.3% (51)	16.3% (39)	17.1% (41)	240
				answered question	**247**
				skipped question	**0**

13. What facilities would you like to have available at your most common cycling destination (check all that apply)?

	Response Percent	Response Count
Bike racks	65.6%	162
Secured storage or lockers	19.4%	48
Changing room	25.5%	63
Wash room	34.8%	86
Drinking water source	**69.2%**	**171**
Other (please specify)		17
answered question		**247**
skipped question		**0**

14. What type of funding mechanism would you support for the development of bicycle accommodations along roadways in the Region 2000 area (check all that apply)?

	Response Percent	Response Count
Local bicycle permit fee	36.8%	91
State and Federal grants	**81.4%**	**201**
Private funding thorugh foundations	68.4%	169
Direct donations	63.2%	156
Funds from existing local city and county taxes	64.0%	158
Fees applied to future growth and development	47.0%	116
Dedicated percentage of local transportation funds	73.7%	182
Other (please specify)		19
answered question		**247**
skipped question		**0**

15. Please indicate your age group (response is optional).

	Response Percent	Response Count
under 16	0.0%	0
16-24	4.1%	10
25-34	16.5%	40
35-44	18.9%	46
45-54	**37.4%**	**91**
55-64	16.5%	40
65-75	6.2%	15
over 75	0.4%	1
answered question		243
skipped question		4

16. Please indicate your gender (response is optional).

	Response Percent	Response Count
Male	**71.7%**	**172**
Female	28.3%	68
answered question		240
skipped question		7

17. Please indicate the area of Region 2000 that you reside (response is optional).

	Response Percent	Response Count
Street of Residency	71.5%	158
City/County/Town	89.6%	198
5-digit Zip Code	**96.8%**	**214**
answered question		221
skipped question		26

18. If you would like to be informed of future activities pertaining to bicycle planning in the area please provide contact information.

	Response Percent	Response Count
Name	89.6%	120
Address	76.1%	102
E-mail	**97.8%**	**131**
answered question		134
skipped question		113

Results from Question 12

The following provides a sample of the some 175 comments received from survey question 12. A total of 175 provided information to the question: "As a cyclist or local citizen, what aspects of the existing recreation and roadway network do you like?" Overall the comments revolved around some basic themes: 1) Area residents enjoy, support, and would like to see an expansion of the local trial network; 2) The area has a lot of nice resources and local beauty; 3) in general the road network does not support cycling for most residents; 3) With on road bicycle facilities bicycling to local resources would be an option; and 4) Many nice rural roads to support on-road recreational cycling.

our roads have many hills. which is good for fitness.
The beauty of the area is remarkable. The streets in amherst, Campbell, and Bedford are wonderful to ride, absent the drivers.
Area offers proximate mountain bike opportunities; however, the area needs improved road bike networks.
I love to ride recreationally on Blackwater and James River Heritage trails...they don't serve any useful transportation purpose though.
Blackwater creek is a great network of trails, i would like to see it expanded
The local trails are great for recreation, but I would like to see more support for bike lanes for commuting purposes.
Variety of terrain and scenery on roads and off-road trails
Blackwater creek trail is great. I would like to see it extended. I would also like to see much more attention given to safer bicycle and pedestrian facilities along roadways and in commercial districts. For example, there is no safe way to cross Forest Road in the Graves Mill Center area.
We love the off road trails! I feel safe there with my family and we all get good exercise.
I like the connectivity of the existing roads and the ability to have many different choices of routes.
I enjoy Blackwater. However, I would love to see bike lanes for commuter travel. I have actually been hit by a impatient driver in 1983. Not a good experience, so bike trails are a must for me.
destinations exist within city limits
Varied terrain.
There is no roadway network for bikes. I would love to ride to work more often, but it is too dangerous. I have to drive from Timberlake road to Blackwater Creek Trails to do any decent safe riding.
I love the Blackwater Creek and James River Heritage trails for the family opportunities, scenery, peacefulness and sense of comradely they provide. I love the challenge of the city's hills for my endurance, cardiovascular health and strength.
Blackwater Creek Bike Path and the James River trail
The recreation routes are great for family cycling. Practical cycling (i.e. to work, school, light shopping, etc.)is sometimes really scary.
I love the bike trails, I just wish there were more in the boonsboro area, so that I can get downtown on my bike without riding on Rivermont (too dangerous).
I ride my bike in the Forest area and do not use main roads. I am terrified of riding on a main road because of driver behavior and speed.
Road biker only so not interested in trail riding. County roads offer great routes, as well as the Blue Ridge Parkway.
Feeling of safety on the shared trail system at BWC. Occasional roads with wide shoulders
the blackwater trail system is nice. I would prefer a separate trail system for biker/walkers. one that would extend around town and surrounding counties.
Excellent trail network compared to the city size. GLTC offers racks in buses, even though cyclists don't take advantage of this great service.
I really don't view Lynchburg as having any safety consideration for road biking. Look at Cary NC and you find a community that takes health and safety seriously.
Paved paths in public parks specifically created for bikes is appreciated. However, with fuel costs escalating, and the economy failing, alternate transportation needs are paramount if we are to survive. Electric cars are NOT the answer. Our region's roads are NOT bike-friendly. I would ride my bike, modified, the few miles for groceries were it not for the fear of being run over by vehicles. On the other hand, it is not reasonable for slower-moving bicycles to hold up vehicle traffic because there are no bike lanes or wide-enough shoulders on the roads. I desire to ride more, but it is simply not safe to do so. Until the roads are improved, I will keep my bike off them. Future development MUST consider non-vehicular needs.
I think the existing trails are great, but I don't use them because they are too far from my Campbell County home.
As an avid distance cyclist and runner, I love the scenic beauty of the region. However, most of the roads and drivers are dangerous. Moreover, the area culture and attitude toward cyclists and runners is poor.

our views are breathtaking and for the most part drivers are aware of cyclist, yet a constant reminder to watch out for cyclist would be nice. I think you could ask groups to sponsor SHARE THE ROAD signs to help the cost of this type of signage.
Rail trails, paved bike trails or crushed stone, bike lanes on roads
the fact that awareness does exist...let's expand on it for safe bike trails, be they on existing roads or through various developments.
I love the trails in both Blackwater Creek and Peaks View parks. I wish they could be connected.
There are many scenic rural roads with a low volume of traffic and decent road surfaces on which to ride with relative safety.
enjoy biking Blackwater Creek/Percivals Is. trail. Wish it was longer.
On the Blue Ridge parkway, people expect to see bikes and accept them. I also don't have to worry about dogs coming out at me. Blackwater Creek Trail is great, but it's getting very crowded. Bikers are not warning people when they pass.
We have great Mt. bike trails to choose from, plus, there are some great back roads for road riding, but, having to ride on busy roads to get to. I'm also interested in long distance touring. I've been on the Blue Ridge Parkway, into North Carolina, Tennesse, West Va, ect. There are a lot of back roads that I felt safe on. I would like to commute to work, but I don't feel safe on the roads I would have to pedal on. If they had a bike lane, I think, would motivate others to do the same. To have safe access to most roadways, would be a dream to a lot of us bicycle riders Changing the attitudes of auto drivers, would be a monumental task. Everybody is always in a hurry.
Love being able to ride for at least an hour or so on separate paths, great to have restruants along bike paths that cater to bikers.
Trails, dedicated bike lanes
Lynchburg is doing a good job, considering the financial picture. Better marked lanes needed.
Blackwater Creek Trail fairly well maintained year round.
bike trails
blackwater creek...it can provide vital links to other vehicular roads throughout lynchburg
That Blackwater Creek Trail is along the creek - it is cool and lovely - and that it connects me to downtown.
I like that Lynchburg city has access to Candlers mountain as well as PVP - I ride my both to both locations to ride - usually over the surface streets. Pretty comfortable in traffic, and for the most part I think other drivers are pretty cool about sharing the road, although it bums me out when I hear stories from other cyclists about some drivers having bad attitudes.
Black Water Creek Trail and Blue Ridge Parkway. Also, I bike many miles in and around Lynchburg area and for most part have no problems with drivers. I'm alert 360 degrees when on roadways.
i like the connectivity of the trails
Blackwater path is AWESOME, but so many walkers/joggers makes it dangerous to ride a bike - I only go there during the week because of the foot traffic in the evenings and on weekends.
This does not apply to question #12. I currently reside about 20+ miles from work. If I had a safe way of commuting by bike (bike lane or path), I would likely commute by bike 2-3 days a week.
I love running on the Blackwater Creek Trail but it's hard to bike there because of the large number of trail users. Many old people and families with pets walking slowly, so it's dangerous to ride bike on. Therefore, I try and do most biking on the back roads where traffic is the least. Safety is my major concern when biking.
I enjoy the parkway because it is relatively safe. Also enjoy a serveral MTB trails in the area. Road riding in low traffic areas is okay but the roads are narrow and can be dangerous.
The off-trail and recreation trail systems are fantastic. We just need more accommodations to allow and support bike commuters. Right now the only "safe" commuting area is the Rivermont corridor.
I'm pleased that we have a bike path that allows access to the downtown area.
VA has very smooth road surfaces, and for the most part, little traffic. This area is great for recreational cycling -- one major problem is the lack of driver education on how to drive safely around cyclists.. ie 2 foot clearance, and no passing when there is oncoming traffic -- no turning right in front of a cyclist, or not yielding the right of way... etc...
Nothing, the roads for the most part were never designed to accommodate bicycle traffic in our area. Motorist think we don't belong on the roads. It's a shame because we have some of the most scenic roads in the state.
Lynchburg's general layout enables ready access to quiet paved or wooded areas. The primary reason I do not ride on the roads and/or commute more by bike is out of concern for safety.
As far as the road cycling, I see a huge need to help with awareness and creating Bike lanes. On the Trail riding side I am very pleased that we have so many locations to ride in our area.
Overall the roads are pretty wide on the main arteries like Rivermont.
I like the bikepath but find it ludicrous that a bike-friendly environment does not exist to facilitate transporting one's bike to the trail system (should one feel compelled to drive to the paths; there's no direct access from Linkhorne village to the Ed Page entrance).

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Appendix D

Region 2000 Bicycle Plan
Road Characteristics

The following is a complete list of the Region 2000 Bicycle Plan road recommendation corridors according to locality. Locality information corresponds to the City of Lynchburg and each of the four counties. The incorporated Towns and the City of Bedford are included within the county that these jurisdictions are located.

Within the spread sheet is detailed road characteristics that are the determining factors to the current Bicycle Level of Service (BLOS), explained in Chapter 3, and the factors that influence bicycle accommodations options along the recommended routes. The road data provided is based on information provided by the Virginia Department of Transportation (VDOT) and represents average known road information; variations of actual measurements may be different.

Within each table are some roads where no road characteristics are provided. In these instances, road characteristics were not available from the VDOT road data.

Amherst County Road Characteristics

Route Name	Street Name	Locality	Length	2008 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																		Group A	Group B	Group A	Group B	
SC 655	AMBROSE RUCKER ROAD	Amherst	1529.56	B	ELON ROAD	MILLER CREEK	Rural Two-Way	Rural	2	14	7	Earth	1	55	D	B	151	SR	SR	SR, BL	SR, BL	Signage; pave 2' shoulder
SC 669	AMELON ROAD	Amherst	2595.65	B	AMELON PLACE	RT 677(DIXIE AIRPORT RD)	Rural Two-Way	Suburban High	2	20	10	Gravel	1	55	C	C	1771	SR	SR	SR, BL	SR, BL	Signage; pave 2' shoulder
SC 669	AMELON ROAD	Amherst	1041.54	C	RTE 669/670(IZAAK WALTON RD)	0.65MI. EAST OF RTE 670	Rural Two-Way	Rural	2	20	10	Earth	1	45	D	A	416	SR	SR	SR, BL	SR, BL	Signage; pave 2' shoulder
SC 669	AMELON ROAD	Amherst	216.52	C	AMELON EXPRESSWAY	AMELON PLACE	Rural Two-Way	Rural	2	20	10	Earth	3	55	C	C	2549	SR	SR	SR, BL	SR, BL	Signage; pave 2' shoulder
US 29	AMHERST HIGHWAY	Amherst	1522.52	A	CEDAR GATE ROAD	BRUNER ROAD	Rural Multilane	Rural	4	48	12	Gravel	6	65	D	D	12651	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	5584.55	A	NORTH COOLWELL ROAD	SWEET BRIAR DRIVE	Rural Multilane	Rural	4	48	12	Gravel	6	65	D	D	10958	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	526.46	A	SWEET BRIAR DRIVE	RTE 29 BUS / MADISON HTS BYPASS	Rural Multilane	Rural	4	48	12	Gravel	6	65			10958	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	569.07	C	DILLARD ROAD	ELON ROAD	Urban Arterial	Suburban High	4	62	12	curb/gutter	0	65	F	E	24797	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	5565.24	A	RTE 610	NELSON CL	Rural Multilane	Rural	4	48	12	Gravel	6	65	E	F	12620	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	964.75	B	ELON ROAD	DIXIE AIRPORT ROAD	Urban Arterial	Suburban High	4	62	12	curb/gutter	0	65	E	F	12178	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	1965.02	B	DIXIE AIRPORT ROAD	CEDAR GATE ROAD	Urban Arterial	Suburban High	4	62	12	curb/gutter	0	65	E	F	12178	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	2117.51	A	NEW AMHERST NCL	RTE 151	Rural Multilane	Rural	4	48	12	Gravel	6	65	E	F	16567	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	47.54	C	RTE 29 BUS OFF RAMPS	DILLARD ROAD	Urban Arterial	Suburban High	4	62	12	curb/gutter	0	65	F	E	24797	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	609.20	C	DILLARD ROAD	ELON ROAD	Urban Arterial	Suburban High	4	62	12	curb/gutter	0	65	F	E	24797	SR	N/A	SR, BL	SR, BL	Signed SR
BUS. US 29	AMHERST HIGHWAY	Amherst	156.66	A	COLONY ROAD (RTE 210)	LYNCHBURG EXP. NORTH	Rural Two-Way	Suburban High	2	50	10	Pavement	10	55	C	B	10594	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	5525.52	A	BRUNER ROAD	NORTH COOLWELL ROAD	Rural Multilane	Rural	4	48	12	Gravel	6	65	D	D	10075	SR	N/A	SR, BL	SR, BL	Signed SR
BUS. US 29	AMHERST HIGHWAY	Amherst	654.72	A	COLONY ROAD (RTE 210)	LYNCHBURG EXP. NORTH	Rural Two-Way	Suburban High	2	50	10	Pavement	10	55	C	B	10594	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	561.20	B	ELON ROAD	DIXIE AIRPORT ROAD	Urban Arterial	Suburban High	4	62	12	curb/gutter	0	65	E	F	12178	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	1015.95	A	RTE 29 BUS NORTH	NEW AMHERST NCL	Rural Multilane	Rural	4	48	12	Gravel	6	60	E	F	16567	SR	N/A	SR, BL	SR, BL	Signed SR
BUS. US 29	AMHERST HIGHWAY	Amherst	66.55	A	COLONY ROAD (RTE 210)	LYNCHBURG EXP. NORTH	Rural Two-Way	Suburban High	2	50	10	Pavement	10	55	C	B	10594	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	2965.55	A	RTE 151	RTE 610	Rural Multilane	Rural	4	48	12	Gravel	6	65	E	F	12620	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	29.22	C	DILLARD ROAD	ELON ROAD	Urban Arterial	Suburban High	4	62	12	curb/gutter	0	65	F	E	24797	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	2151.29	A	RTE 29 BUS / MADISON HTS BYPASS	NEW AMHERST SCL	Rural Multilane	Rural	4	48	12	Gravel	6	55			15419	SR	N/A	SR, BL	SR, BL	Signed SR
US 29	AMHERST HIGHWAY	Amherst	545.67	A	NEW AMHERST SCL	ROUTE 60	Rural Multilane	Rural	4	48	12	Gravel	6	65			20551	SR	N/A	SR, BL	SR, BL	Signed SR
Blue Ridge Pkwy	BLUE RIDGE PKWY	Amherst	92.10	C	BEDFORD CL	RTE 130	Rural Two-Way	Rural	2	20	10	Gravel	4	0	D	B	1150	SR	SR	SR, BL	SR, BL	Signage; pave 2' shoulder
Blue Ridge Pkwy	BLUE RIDGE PKWY	Amherst	#######	C	RTE 130	ROCKBRIDGE CL	Rural Two-Way	Rural	2	20	10	Gravel	4	0	D	B	1150	SR	SR	SR, BL	SR, BL	Signage; pave 2' shoulder

Amherst County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition Group A	Current Condition Group B	Standard Recommendation Group A	Standard Recommendation Group B	Recommendation
Blue Ridge Pkwy	BLUE RIDGE PKWY	Amherst	5259.95	C	BEDFORD CL	RTE 130	Rural Two-Way	Rural	2	20	10	Gravel	4	0	D	B	1150	SR	SR	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 635	BUFFALO SPRINGS TURNPIKE	Amherst	2609.62	B	RTE 130	RTE 643 EAST	Rural Two-Way	Rural	2	18	9	Earth	1	55	D	C	965	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 635	BUFFALO SPRINGS TURNPIKE	Amherst	5215.38	A	RTE 610 NORTH	RTE 636 NORTH	Rural Two-Way	Rural	2	20	10	Gravel	2	55	D	D	456	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 635	BUFFALO SPRINGS TURNPIKE	Amherst	6257.81	B	RTE 643 EAST	RTE 610 NORTH	Rural Two-Way	Rural	2	20	10	Gravel	2	55	D	C	795	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 635	BUFFALO SPRINGS TURNPIKE	Amherst	5140.84	B	RTE 636 NORTH	RTE 60 EAST	Rural Two-Way	Rural	2	18	8	None	0	55	E	C	454	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
PR 210	COLONY RD	Amherst	245.68	E	MAIN ST(RTE 1006)	RTE 29 BUS (SO. END RMPS)	Rural Two-Way	Suburban Low Density	5	48	12	curb/gutter	0	55	D	D	4489	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 622	COLONY ROAD	Amherst	975.20	C	ROUTE 354	ROUTE 210	Rural Two-Way	Residential	2	40	12	curb/gutter	0	55	C	D	4545	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 766	DILLARD ROAD	Amherst	1616.95	C	AMHERST HIGHWAY	ELON ROAD	Rural Two-Way	Outlying Business	2	20	10	Earth	1	55	E	D	5442	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 766	DILLARD ROAD	Amherst	901.81	C	AMHERST HIGHWAY	ELON ROAD	Rural Two-Way	Outlying Business	2	20	10	Earth	1	55	E	D	5442	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 677	DIXIE AIRPORT ROAD	Amherst	5767.10	A	ROUTE 130	AMHERST HIGHWAY	Rural Two-Way	Residential	2	18	9	Earth	2	55	C	D	5701	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 677	DIXIE AIRPORT ROAD	Amherst	2045.41	E	WRIGHT SHOP ROAD	AMELON ROAD (669)	Rural Two-Way	Rural	2	22	11	Earth	5	55	C	D	5854	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 677	DIXIE AIRPORT ROAD	Amherst	407.78	E	AMELON ROAD (669)	ROUTE 130	Rural Two-Way	Rural	2	18	9	Earth	1	55	D	D	5701	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
PR 130	ELON RD	Amherst	9024.17	B	RTE 727 WEST	RTE 655	Rural Two-Way	Rural	2	22	11	Gravel	2	55	D	E	1551	SR	SR	Sh, B	Sh, B	Signage; pave 2' shoulder
PR 130	ELON ROAD	Amherst	1205.26	C	WINRIDGE DRIVE	SOUTHERN RAILROAD	Rural Two-Way	Rural	2	22	11	Gravel	2	55	E	F	5275	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
PR 130	ELON RD	Amherst	5172.57	C	RTE 655	STUDY AREA BOUNDARY	Rural Two-Way	Rural	2	20	10	Gravel	2	55	D	F	5244	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 669	ELON ROAD	Amherst	52.58	A	DILLARD ROAD	RT 29BUS(AMHERST HWY 3D)	Rural Two-Way	Rural	2	22	11	Gravel	2	45	E	F	6574	SR	SR	Sh, B	Sh, B	Signage; pave 2' shoulder
PR 130	ELON RD	Amherst	4421.52	B	RTE 501	RTE 727 WEST	Rural Two-Way	Rural	2	22	11	Gravel	2	55	D	E	1551	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
PR 130	ELON RD	Amherst	1975.82	C	STUDY AREA BOUNDARY	AMBROSE RUCKER ROAD	Rural Two-Way	Rural	2	20	10	Gravel	2	55	D	F	5244	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
PR 130	ELON ROAD	Amherst	1215.52	A	DILLARD ROAD	RT 29BUS(AMHERST HWY 3D)	Rural Two-Way	Rural	2	22	11	Gravel	2	45	E	F	6574	SR	SR	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 670	ELON ROAD	Amherst	217.55	A	RTE 669(AMELON RD)	RTE 677(DIXIE AIRPORT RD)	Rural Multilane	Rural	4	48	12	Pavement	8	45	C	B	7555	SR	SR	Sh, B	Sh, B	Signage; pave 2' shoulder
PR 130	ELON ROAD	Amherst	1467.05	E	AMBROSE RUCKER ROAD	MONOCAN PARK ROAD	Rural Two-Way	Rural	2	20	10	Gravel	2	40	D	F	5244	SR	SR	Sh, B	Sh, B	Signage; pave 2' shoulder
PR 130	ELON ROAD	Amherst	1775.79	E	SOUTHERN RAILROAD	DILLARD ROAD	Rural Two-Way	Rural	2	22	11	Gravel	2	45	E	F	6574	SR	SR	Sh, B	Sh, B	Signage; pave 2' shoulder
PR 130	ELON ROAD	Amherst	2946.29	C	MONOCAN PARK ROAD	RIVER ROAD	Rural Two-Way	Rural	2	22	11	Gravel	2	55	E	F	5275	SR	N/A	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 669	ELON ROAD	Amherst	591.89	A	RT 29BUS(AMHERST HWY 3D)	RTE 669(AMELON RD)	Rural Multilane	Rural	4	60	12	Gravel	2	45	D	D	7555	SR	SR	Sh, B	Sh, B	Signage; pave 2' shoulder
	ELON ROAD	Amherst	5465.05	A	RT 29BUS(AMHERST HWY 3D)	RTE 669(AMELON RD)	Rural Multilane	Rural	4	60	12	Gravel	2	45	D	D	7555	SR	SR	Sh, B	Sh, B	Signage; pave 2' shoulder
PR 130	ELON ROAD	Amherst	2515.83	C	RIVER ROAD	WINRIDGE DRIVE	Rural Two-Way	Rural	2	22	11	Gravel	2	55	E	F	5275	SR	SR	Sh, B	Sh, B	Signage; pave 2' shoulder
SC 635	FATHER JUDGE ROAD	Amherst	2579.51	A	FATHER JUDGE ROAD	FALL ROCK CREEK BRIDGE	Rural Two-Way	Rural	2	20	10	Earth	1	45	D	B	966	SR	SR	Sh, B	Sh, B	Signage; pave 2' shoulder

Amherst County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition Group A	Current Condition Group B	Standard Recommendation Group A	Standard Recommendation Group B	Recommendation
SC 625	FIBRE PLANT ROAD	Amherst	555.70	B	RTE 600	RTE 622	Rural Two-Way	Rural	2	20	10	Earth	1	55	D	E	558	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
SC 622	GALTS MILL RD	Amherst	3694.38	B	RTE 648	RTE 624 SOUTH	Rural Two-Way	Rural	2	14	7	None	0	55	E	E	280	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
US 501	GLASGOW HWY	Amherst	7415.29	A	ROCKBRIDGE CL	RTE 501	Rural Multilane	Suburban Low Density	4	48	12	Pavement	4	55	C	F	1772	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
SC 658	HIGH PEAK ROAD	Amherst	1008.41	A	RTE 671	RTE 658	Rural Two-Way	Rural	2	18	9	Earth	1	55	D	C	1152	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
SC 658	HIGH PEAK ROAD	Amherst	2745.90	B	RTE 657	RTE 655	Rural Two-Way	Rural	2	18	9	Earth	1	55	D	E	458	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
SC 658	HIGH PEAK ROAD	Amherst	1818.78	C	RTE 656	RTE 657	Rural Two-Way	Rural	2	18	9	Earth	1	55	D	C	1152	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
SC 621	INDIAN CREEK RD	Amherst	4588.69	A	RTE 625	RTE 778	Rural Two-Way	Rural	2	18	9	Earth	2	55	D	E	148	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
SC 663	ISAAK WALTON RD	Amherst	3608.67	E	COOLWELL RD (RTE 604 S.)	PARTRIDGE CREEK RD (RTE 670 N)	Rural Two-Way	Suburban Low Density	2	18	9	None	0	45	D	E	586	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
SC 670	ISAAK WALTON RD	Amherst	1068.78	E	COOLWELL RD (RTE 604 S.)	PARTRIDGE CREEK RD (RTE 670 N)	Rural Two-Way	Suburban Low Density	2	18	9	None	0	45	D	E	586	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
SC 670	ISAAK WALTON ROAD	Amherst	891.60	B	GLADE ROAD / RTE 130	DOGWOOD DRIVE	Rural Two-Way	Rural	2	20	10	Gravel	2	45	D	D	3051	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
SC 670	ISAAK WALTON ROAD	Amherst	2261.95	E	DOGWOOD DRIVE	RTE 665 -KENTMOOR FARM ROAD	Rural Two-Way	Rural	2	18	9	Gravel	2	45	D	D	2880	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	1179.70	B	RTE 654	RTE 655 EAST	Rural Two-Way	Rural	2	20	10	Gravel	1	55	D	F	555	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	815.08	A	RTE 29 BUS	RTE 29 BYPASS	Rural Multilane	Outlying Business	4	52	12	Gravel	8	55	C	F	7049	SR	SR	sh,4	sh,4	Share Road; Signage
US 60	LEXINGTON TPKE	Amherst	759.52	E	AMHERST WCL	RTE 29 BUS	Rural Two-Way	Rural	2	20	10	Gravel	5	45	D	F	2515	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	1490.41	B	ROCKBRIDGE CL	RTE 654	Rural Two-Way	Rural	2	22	11	Gravel	1	55	D	F	555	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	6722.56	B	RTE 654	RTE 655 EAST	Rural Two-Way	Rural	2	20	10	Gravel	1	55	D	F	555	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	1779.28	C	RTE 651	RTE 610	Rural Two-Way	Rural	2	20	10	Gravel	1	55	D	F	1545	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	4627.10	C	RTE 655 EAST	RTE 651	Rural Two-Way	Rural	2	20	10	Gravel	1	55	D	F	1545	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	1271.99	B	RTE 654	RTE 655 EAST	Rural Two-Way	Rural	2	20	10	Gravel	1	55	D	F	555	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	4595.80	C	RTE 778	RTE 617	Rural Two-Way	Rural	2	20	10	Gravel	2	55	D	F	2515	SR	N/A	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	5545.56	C	RTE 617	AMHERST WCL	Rural Two-Way	Rural	2	20	10	Gravel	5	55	D	F	2515	SR	N/A	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	5428.61	C	RTE 610	RTE 778	Rural Two-Way	Rural	2	20	10	Gravel	1	55	D	F	1545	SR	N/A	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	251.58	B	ROCKBRIDGE CL	RTE 654	Rural Two-Way	Rural	2	22	11	Gravel	1	55	D	F	555	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
US 60	LEXINGTON TPKE	Amherst	5050.85	B	ROCKBRIDGE CL	RTE 654	Rural Two-Way	Rural	2	22	11	Gravel	1	55	D	F	555	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
60	LEXINGTON TPKE	Amherst	90.00	B	ROCKBRIDGE CL	RTE 654	Rural Two-Way	Rural	2	22	11	Gravel	1	55	D	F	555	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
SC 778	LOWESVILLE ROAD	Amherst	1659.67	B	RTE 621	NELSON CL	Rural Two-Way	Rural	2	20	10	Earth	1	55	D	C	521	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder
SC 778	LOWESVILLE ROAD	Amherst	1702.51	B	RTE 627	RTE 621	Rural Two-Way	Rural	2	20	10	Earth	1	55	D	C	925	SR	SR	sh,6	sh,5	Signage; pave 2' shoulder

Amherst County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																		Group A	Group B	Group A	Group B	
SC 776	LOWESVILLE ROAD	Amherst	4064.44	B	RTE 610 NORTH	RTE 627	Rural Two-Way	Rural	2	20	10	Earth	1	55	D	C	977	SM	SM	wb 6	wb 6	Signage; pave 2' shoulder
SC 776	LOWESVILLE ROAD	Amherst	3557.52	B	RTE 60	RTE 610 NORTH	Rural Two-Way	Rural	2	20	10	Earth	1	55	D	D	1065	SM	SM	wb 6	wb 6	Signage; pave 2' shoulder
SC 665	NORTH COOLWELL ROAD	Amherst	157.69	B	OLD STAGE ROAD	N.S RR/UAB	Rural Two-Way	Rural	2	20	10	Earth	1	45	D	C	1306	SM	SM	wb 6	wb 6	Signage; pave 2' shoulder
SC 604	NORTH COOLWELL ROAD	Amherst	1060.72	B	N.S RR/UAB	SOS WHITE ROAD (RTE 604 N.)	Rural Two-Way	Rural	2	20	10	Earth	1	45	D	C	1306	SM	SM	wb 6	wb 6	Signage; pave 2' shoulder
SC 665	NORTH COOLWELL ROAD	Amherst	765.67	B	AMHERST HIGHWAY NORTH	OLD STAGE ROAD	Rural Two-Way	Rural	2	20	10	Earth	1	45	D	C	1666	SM	SM	wb 6	wb 6	Signage; pave 2' shoulder
SC 671	NORTH FIVE FORKS ROAD	Amherst	521.28	A	AMHERST HIGHWAY SOUTH	HIGH PEAK ROAD	Rural Two-Way	Rural	2	30	10	Earth	1	45	D	D	2246	SM	SM	wb 6	wb 6	Signage; pave 2' shoulder
PM 210	OLD TOWN CONNECTOR	Amherst	186.42	A	RTE 29 SB(SO. END RAMPS)	RSLOC. RTE 622	Rural Multilane	Residential	4	48	12	curb/gutter	0	35	D	D	13000	SM	SM	wg 15	wb 4	Restripe; Wide Outside Shoulder
SC 677	OLD WRIGHT SHOP ROAD	Amherst	510.65	B	OLD WRIGHT SHP RD(RTE555)	DIXIE AIRPORT RD(RT 677)	Rural Two-Way	Rural	2	20	10	Earth	3	55	D	D	4579	SM	SM	wg 14	wb 4	Signage; pave 2' shoulder
SC 555	OLD WRIGHT SHOP ROAD	Amherst	1448.61	B	SEMINOLE DRIVE	WRIGHT SHOP ROAD	Rural Two-Way	Suburban Low Density	2	20	10	Earth	1	35	C	C	2754	SM	SM	wg 14	wb 4	Signage; pave 2' shoulder
SC 622	OLD WRIGHT SHOP ROAD	Amherst	115.60	B	OLD WRIGHT SHP RD(RTE555)	DIXIE AIRPORT RD(RT 677)	Rural Two-Way	Rural	2	20	10	Earth	3	55	D	D	4579	SM	SM	wg 14	wb 4	Signage; pave 2' shoulder
SC 555	OLD WRIGHT SHOP ROAD	Amherst	696.65	B	WRIGHT SHOP ROAD	SEMINOLE DRIVE	Rural Two-Way	Suburban Low Density	2	18	9	Earth	1	35	D	C	1979	SM	SM	wg 14	wb 4	Signage; pave 2' shoulder
SC 622	OLD WRIGHT SHOP ROAD	Amherst	5233.60	A	DIXIE AIRPORT RD(RT 677)	BRIGHTWELLS MILL ROAD	Rural Two-Way	Rural	2	18	9	Earth	1	55	D	C	1459	SM	SM	wg 14	wb 4	Signage; pave 2' shoulder
SC 622	OLD WRIGHT SHOP ROAD	Amherst	4712.61	B	BRIGHTWELLS MILL ROAD	BECK CREEK ROAD	Rural Two-Way	Rural	2	16	8	Earth	1	55	D	B	226	SM	SM	wg 14	wb 4	Signage; pave 2' shoulder
SC 670	PARTRIDGE CREEK RD	Amherst	5217.40	A	ROUTE 665 N	ROUTE 604	Rural Two-Way	Rural	2	18	9	Gravel	2	45	D	B	795	SM	SM	wb 4	wb 6	Signage; pave 2' shoulder
PM 151	PATRICK HENRY HWY	Amherst	2666.94	B	RTE 29	RTE 610	Rural Two-Way	Rural	2	20	10	Gravel	2	40	D	D	2247	SM	SM	wb 4	wb 6	Signage; pave 2' shoulder
PM 151	PATRICK HENRY HWY	Amherst	7458.05	C	RTE 610	NELSON CL	Rural Two-Way	Rural	2	20	10	Gravel	2	55	D	B	2247	SM	N/A	wb 6	wb 8	Signage; pave 2' shoulder
US 60	RICHMOND HWY	Amherst	2051.64	C	AMHERST SCL / RTE 606 WEST	EAST RTE. 606	Rural Two-Way	Rural	2	20	10	Gravel	3	55	E	F	5066	SM	N/A	wb 6	wb 8	Signage; pave 2' shoulder
US 60	RICHMOND HWY	Amherst	6458.67	B	RTE 600	NELSON CL	Rural Two-Way	Rural	2	20	10	Gravel	3	55	D	B	1607	SM	N/A	wb 6	wb 8	Signage; pave 2' shoulder
US 60	RICHMOND HWY	Amherst	5213.61	C	ROUTE 604	RTE 600	Rural Two-Way	Rural	2	20	10	Gravel	3	55	E	F	4550	SM	N/A	wb 6	wb 8	Signage; pave 2' shoulder
SC 665	RIVER ROAD	Amherst	2050.62	A	SOUTHERN RAILROAD	KINGS ROAD	Rural Two-Way	Rural	2	16	8	Earth	1	55	D	B	525	SM	SM	wb 6	wb 8	Signage; pave 2' shoulder
SC 665	RIVER ROAD	Amherst	2058.49	C	KINGS ROAD	RTE 29 SUS	Rural Two-Way	Rural	2	16	8	Earth	1	55	E	C	1205	SM	SM	wb 6	wb 8	Signage; pave 2' shoulder
SC 665	RIVER ROAD	Amherst	6162.18	B	ELON ROAD	SOUTHERN RAILROAD	Rural Two-Way	Rural	2	16	8	Earth	1	55	D	B	516	SM	SM	wb 6	wb 8	Signage; pave 2' shoulder
SUS. US 29	S. MAIN ST	Amherst	1109.76	A	AMHERST SCL	RTE 60	Urban Arterial	Residential	2	46	12	curb/gutter	0	25	C	D	5692	SM	SM	wg 14	wg 14	Restripe; Bike Lane and Signal Share
SUS. US 29	S. MAIN ST	Amherst	169.11	B	AMHERST NCL	RTE 29 NORTH	Rural Two-Way	Residential	2	22	11	Gravel	2	45	C	C	2774	SM	SM	wb 4	wb 6	Restripe; Bike Lane and Signal Share
SUS. US 29	S. MAIN ST	Amherst	2566.10	B	RTE 29 SOUTH	AMHERST SCL	Rural Two-Way	Rural	2	30	10	Gravel	10	45	C	D	5692	SM	SM	wb 4	wb 6	Restripe; Bike Lane and Signal Share
SUS. US 29	S. MAIN ST	Amherst	1664.25	B	RTE 60	AMHERST NCL	Rural Two-Way	Residential	2	46	12	curb/gutter	0	35	C	D	2774	SM	SM	wb 4	wb 6	Restripe; Bike Lane and Signal Share

Amherst County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition Group A	Current Condition Group B	Standard Recommendation Group A	Standard Recommendation Group B	Recommendation
SC 759	S. MAIN ST	Amherst	168.81	B	AMHERST NCL	RTE 29 NORTH	Rural Two-Way	Residential	2	22	11	Gravel	2	45	C	C	2774	SR	SR	SL 4	SL 5	Restripe; Bike Lane and Signed Share
SC 604	SOUTH COOLWELL ROAD	Amherst	897.98	B	ISAAK WALTON ROAD	BOB WHITE ROAD	Rural Two-Way	Rural	2	22	11	Earth	1	45	D	C	1682	SR	SR	SL 4	SL 5	Signage; pave 2' shoulder
SC 671	SOUTH FIVE FORKS ROAD	Amherst	886.08	A	HIGH PEAK ROAD	AMHERST HIGHWAY NORTH	Rural Two-Way	Rural	2	20	10	Earth	1	45	D	D	1548	SR	SR	SL 4	SL 5	Signage; pave 2' shoulder
SC 622	STAPLETON RD	Amherst	9926.65	B	RTE 624 SOUTH	RTE 625	Rural Two-Way	Rural	2	14	7	None	0	55	E	E	65	SR	SR	SL 5	SL 5	Signage; pave 2' shoulder
SC 643	WAGON TRAIL RD	Amherst	4844.19	B	RTE 656 NORTH	RTE 655	Rural Two-Way	Rural	2	14	7	None	0	55	E	C	291	SR	SR	SL 5	SL 5	Signage; pave 2' shoulder
SC 694	WARRICK BARN ROAD	Amherst	1322.81	B	RTE 665	RTE 621	Rural Two-Way	Rural	2	18	9	Earth	1	55	D		421	SR	SR	SL 5	SL 5	Signage; pave 2' shoulder
SC 665	WARRICK BARN ROAD	Amherst	2784.58	B	RTE 694	RTE 151	Rural Two-Way	Rural	2	20	10	Earth	1	55	D	F	784	SR	SR	SL 5	SL 5	Signage; pave 2' shoulder
SC 675	WINESAP ROAD	Amherst	2870.96	B	WINRIDGE DRIVE	AMHERST HIGHWAY	Rural Two-Way	Rural	2	16	8	Earth	1	55	D	D	2784	SR	SR	SL 5	SL 5	Signage; pave 2' shoulder
SC 795	WINRIDGE DRIVE	Amherst	1178.59	C	ELON ROAD	WINESAP ROAD	Rural Two-Way	Rural	2	15	7	Gravel	1	55	E	C	656	SR	SR	SL 5	SL 5	Signage; pave 2' shoulder
SC 622	WRIGHT SHOP ROAD	Amherst	815.95	B	OLD TOWN ROAD (RTE 210)	OLD ROUTE 622	Rural Two-Way	Rural	2	24	12	Pavement	1	45	E	D	11000	SR	SR	SL 5	SL 5	Signage; pave 2' shoulder

Appomattox County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Side Park	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																			Group A	Group B	Group A	Group B	
SC 611	ABBIT BRANCH ROAD	Appomattox	1648.41	A	RTE 688	RTE 26	Rural 2-Way	Rural	2	20	10	N	Gravel	1	55	D	E	359	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
US 60	ANDERSON HWY	Appomattox	6598.98	B	RTE 26	BUCKINGHAM CL	Rural 2-Way	Rural	2	20	10	N	Gravel	1	55	D	F	1006	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
SC 630	CEDAR TREE RD	Appomattox	132.41	A	RTE 635	RTE 630	Rural 2-Way	Rural	2	16	8	N	Earth	1	55	D	B	105	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
T- 727	CHURCH ST	Appomattox	177.33	E	RTE T-1001	RTE 131 WEST	Rural 2-Way	Central Business	2	30	15	B	curb/gutter	0	25	C	C	5456	SR	SR	WC 14	WC 14	Bike Lane with parking one side; Signage
T- 641	CHURCH ST	Appomattox	288.52	E	RTE 131 EAST	RTE 460 BUS	Rural 2-Way	Central Business	2	35	11	B	curb/gutter	0	25	C	D	4877	SR	SR	WC 14	WC 14	Share Road; Signage
SC 679	DOUBLE BRIDGES ROAD	Appomattox	6384.97	A	RTE 648 WEST	RTE 604	Rural 2-Way	Rural	2	16	8	N	Earth	1	45	D	C	351	SR	SR	4ft 6	6ft 6	Signage; 2' pave shoulder
SC 605	DREAMING CREEK ROAD	Appomattox	4682.62	A	RTE 667	RTE 683	Rural 2-Way	Rural	2	16	8	N	Earth	2	55	D	B	202	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
SC 1002	EVERGREEN AVE	Appomattox	289.78	E	RTE T-727	APPOMATTOX ECL	Rural 2-Way	Residential	2	26	13	N	Earth	1	25	B	B	1260	SC	SR	WC 14	WC 14	Share Road; Signage
SC 667	FALLING CREEK ROAD	Appomattox	1484.98	A	RTE 611 EAST	RTE 605	Rural 2-Way	Rural	2	16	8	N	Earth	2	55	D	B	308	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
T- 1008	FERGUSON ST	Appomattox	435.50	E	RTE T-691	RTE 131	Rural 2-Way	Residential	2	20	10	N	Earth	1	25	C	D	3266	SR	SR	WC 14	WC 14	Signage; Share Road
SC 626	HOLIDAY LAKE RD	Appomattox	5388.39	B	RTE 24	RTE 640	Rural 2-Way	Rural	2	16	8	N	None	0	55	D	B	136	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
SC 656	HORSESHOE RD	Appomattox	5823.98	A	RTE 24 WEST	RTE 657	Rural 2-Way	Rural	2	22	11	N	Gravel	6	55	D	B	395	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
SC 1001	LEE GRANT AVE	Appomattox	234.61	E	RTE T-727	RTE 685	Rural 2-Way	Residential	2	18	9	N	None	0	25	C	B	1056	SR	SR	WC 14	WC 14	Share Road; Signage
SC 615	LIBERTY CHAPEL ROAD	Appomattox	3219.13	A	RTE 616 SOUTH	RTE 654 NORTH	Rural 2-Way	Rural	2	16	8	N	Earth	1	55	D	C	103	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
SC 688	LIME PLANT RD	Appomattox	2519.58	A	RTE 611	RTE 690	Rural 2-Way	Rural	2	20	10	N	Gravel	1	55	D	E	261	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
SC 688	LIME PLANT ROAD	Appomattox	1600.69	A	RTE 690	RTE 605	Rural 2-Way	Rural	2	16	8	N	None	0	55	D	F	174	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
SC 611	LIME PLANT ROAD	Appomattox	2446.20	A	RTE 26	RTE 663	Rural 2-Way	Rural	2	14	7	N	Earth	1	55	D	B	51	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
SC 629	LITTLE CUB RD	Appomattox	4059.59	A	RTE 628	RTE 630	Rural 2-Way	Rural	2	16	8	N	Earth	1	55	D	B	81	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
SC 663	OAK RIDGE ROAD	Appomattox	3494.01	A	RTE 611	RTE 616	Rural 2-Way	Rural	2	16	8	N	Earth	1	55	D	B	35	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
T- 691	OAKLEIGH AVENUE	Appomattox	749.73	E	ECL APPOMATOX	RTE 460 BUS	Rural 2-Way	Residential	2	18	9	N	None	0	25	C	C	1192	SR	SR	WC 14	WC 14	Signage; 2' pave shoulder
PR 26	OAKVILLE ROAD	Appomattox	6936.08	C	RTE 611	RTE 60	Rural 2-Way	Rural	2	20	10	N	Gravel	1	55	D	F	2160	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
PR 26	OAKVILLE RD	Appomattox	8023.43	C	RTE 460 BYPASS	RTE 608	Rural 2-Way	Rural	2	20	10	N	Earth	2	55	E	F	2985	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
PR 26	OAKVILLE ROAD	Appomattox	5542.92	B	RTE 608	RTE 611	Rural 2-Way	Rural	2	20	10	N	Earth	2	55	D	F	2160	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
PR 24	OLD COURTHOUSE ROAD	Appomattox	3429.45	B	RTE 626	BUCKINGHAM CL	Rural 2-Way	Rural	2	20	10	N	Gravel	2	55	D	F	1964	SR	N/A	4ft 6	6ft 6	Signage; 2' pave shoulder
PR 131	OLD COURTHOUSE ROAD	Appomattox	707.91	E	RTE T-691	RTE T-1008	Rural 2-Way	Central Business	2	40	18	N	curb/gutter	0	25	C	C	7661	SR	SR	WC 14	WC 14	Signage; 2' pave shoulder
PR 131	OLD COURTHOUSE RD	Appomattox	957.19	B	RTE 460 BUS WEST	RTE 24	Urban Arterial	Outlying Business	2	24	12	N	curb/gutter	0	35	D	D	4837	SR	SR	WC 14	WC 14	Signage; 2' pave shoulder

Appomattox County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Side Park	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																			Group A	Group B	Group A	Group B	
FR 24	OLD COURTHOUSE ROAD	Appomattox	1142.76	D	RTE 616	RTE 654	Rural 2-Way	Rural	1	20	10	N	Gravel	2	45	D	F	1964	SR	SR	WS-14	WS-14	Signage: 2 paved shoulder
FR 131	OLD COURTHOUSE RD	Appomattox	361.64	E	RTE 460 BUS EAST	RTE 7-727 NORTH	Rural 2-Way	Residential	1	28	11	R	curb/gutter	0	25	C	D	7661	SR	SR	WS-14	WS-14	Combination Share Road restrictive for wide outside lane, limit parking for bike lane on portion
FR 131	OLD COURTHOUSE ROAD	Appomattox	245.73	E	RTE 7-727 SOUTH	RTE 7-691	Rural 2-Way	Central Business	1	30	11	B	curb/gutter	0	25	D	D	7661	SR	SR	WS-14	WS-14	
FR 131	OLD COURTHOUSE ROAD	Appomattox	184.26	B	RTE 7-4008	RTE 460 BUS EAST	Urban Arterial	Central Business	1	40	18	N	curb/gutter	0	25	C	C	7661	SR	SR	WS-14	WS-14	
FR 131	OLD COURTHOUSE ROAD	Appomattox	137.19	E	RTE 7-727 NORTH	RTE 7-727 SOUTH	Rural 2-Way	Central Business	1	30	15	N	curb/gutter	0	25	C	C	7661	SR	SR	WS-14	WS-14	
FR 24	OLD COURTHOUSE RD	Appomattox	5224.49	C	RTE 131	RTE 656 NORTH	Rural 2-Way	Rural	1	20	10	N	Gravel	1	55	E	F	4124	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
FR 24	OLD COURTHOUSE ROAD	Appomattox	3443.86	B	RTE 654	RTE 616	Rural 2-Way	Rural	1	20	10	N	Gravel	2	55	D	F	1964	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
FR 24	OLD COURTHOUSE ROAD	Appomattox	1918.81	C	RTE 656 NORTH	RTE 616	Rural 2-Way	Rural	1	20	10	N	Gravel	2	55	E	F	3498	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 630	OLD EVERGREEN ROAD	Appomattox	3616.85	B	RTE 616	RTE 681	Rural 2-Way	Rural	1	18	9	N	None	0	55	D	B	365	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 630	OLD EVERGREEN ROAD	Appomattox	4574.08	A	RTE 619	RTE 616	Rural 2-Way	Rural	1	16	8	N	Earth	2	55	D	B	140	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 616	OLD GRIST MILL ROAD	Appomattox	1418.36	E	RTE 24	RTE 608	Rural 2-Way	Rural	1	16	8	N	Gravel	1	35	D	C	608	SR	SR	R-4	R-6	Signage: 2 paved shoulder
BUS. US 460	PAMPLIN RD	Appomattox	1327.05	E	RTE 460 BYPASS WEST	RTE 47	Rural 2-Way	Rural	1	20	10	N	Gravel	1	45	D	E	2166	SR	SR	R-4	R-6	Signage: 2 paved shoulder
BUS. US 460	PAMPLIN RD	Appomattox	3173.4	B	RTE 7-727	RTE 7-691	Central Business	Central Business	1	40	18	N	curb/gutter	0	35	C	D	8647	SR	SR	R-4	R-6	Signage: 2 paved shoulder
BUS. US 460	PAMPLIN RD	Appomattox	288.11	C	RTE 131 WEST	RTE 460 BYPASS WEST	Urban Arterial	Outlying Business	3	50	11	N	Pavement	6	35	C	B	11831	SR	SR	R-8	R-8	Condition meets need: signage
BUS. US 460	PAMPLIN RD	Appomattox	216.19	C	RTE 131 WEST	RTE 131 EAST	Urban Arterial	Central Business	1	31	16	N	curb/gutter	0	35	D	D	11831	SR	SR	R-8	R-8	Signage: 2 paved shoulder
SC 611	PARADISE ROAD	Appomattox	3448.41	A	RTE 721	RTE 657 NORTH	Rural 2-Way	Rural	1	16	8	N	Earth	1	55	D	C	197	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 659	PHELPS BRANCH RD	Appomattox	4447	B	RTE 613	RTE 26	Rural 2-Way	Rural	1	16	8	N	Earth	1	55	D	B	147	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 659	PHELPS BRANCH RD	Appomattox	1303.93	B	RTE 613	RTE 26	Rural 2-Way	Rural	1	16	8	N	Earth	1	55	D	B	147	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 618	PINEY RIDGE ROAD	Appomattox	2766.13	A	RTE 619 NORTH	RTE 460	Rural 2-Way	Rural	1	16	8	N	Earth	1	55	D	B	161	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 606	PROMISE LAND ROAD	Appomattox	3117.5	B	RTE 646	RTE 650	Rural 2-Way	Rural	1	16	8	N	Earth	1	55	D	B	126	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 604	PROMISE LAND ROAD	Appomattox	6038.74	B	RTE 650	RTE 679	Rural 2-Way	Rural	1	18	9	N	None	0	55	D	C	844	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 604	PROMISE LAND ROAD	Appomattox	5498.98	B	RTE 646	RTE 650	Rural 2-Way	Rural	1	16	8	N	Earth	1	55	D	B	126	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 604	PROMISE LAND ROAD	Appomattox	2177.47	B	RTE 679	RTE 727	Rural 2-Way	Rural	1	18	9	N	None	0	55	D	D	1099	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 691	PUMPING STATION ROAD	Appomattox	4277.13	E	RTE 643	RTE 4008	Rural 2-Way	Rural	1	20	10	N	Earth	1	35	D	C	1761	SR	SR	R-4	R-6	Signage: 2 paved shoulder
T-691	PUMPING STATION ROAD	Appomattox	914.31	E	RTE 7-4008	RTE 131	Rural 2-Way	Residential	1	18	9	N	None	0	25	C	C	1402	SR	SR	WS-14	WS-14	Share Road: Signage
SC 691	PUMPING STATION ROAD	Appomattox	2873.84	C	RTE 647	RTE 643	Rural 2-Way	Rural	1	18	9	N	Gravel	1	35	D	C	1513	SR	N/A	R-6	R-6	Signage: 2 paved shoulder
SC 727	RED HOUSE ROAD	Appomattox	6048.75	C	CHARLOTTE CL	RTE 644 SOUTH	Rural 2-Way	Rural	1	20	10	N	Earth	1	55	D	D	1473	SR	N/A	R-6	R-6	Signage: 2 paved shoulder

Appomattox County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Side Park	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																			Group A	Group B	Group A	Group B	
SC 727	RED HOUSE ROAD	Appomattox	3291.14	C	RTE 644 NORTH	RTE 604	Rural 2-Way	Rural	2	20	10	N	Earth	1	55	D	D	2180	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
T- 727	RED HOUSE ROAD	Appomattox	417.17	E	RTE T-1002 SOUTH	RTE T-641	Rural 2-Way	Residential	2	20	10	N	None	0	25	C	D	4854	SR	SR	wd 14	wd 14	Share Road; Signage
T- 727	RED HOUSE ROAD	Appomattox	476.12	C	RTE 604	RTE 1002 SOUTH	Rural 2-Way	Rural	2	20	10	N	Gravel	1	55	D	D	3291	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
SC 727	RED HOUSE ROAD	Appomattox	2541.56	C	RTE 604	RTE 1002 SOUTH	Rural 2-Way	Rural	2	20	10	N	Gravel	1	55	D	D	3291	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
T- 727	RED HOUSE ROAD	Appomattox	293.15	E	RTE T-641	RTE T-1001	Rural 2-Way	Residential	2	26	13	N	None	0	25	C	D	5260	SR	SR	wd 14	wd 14	Share Road; Signage
SC 727	RED HOUSE ROAD	Appomattox	4028.29	C	RTE 644 SOUTH	RTE 644 NORTH	Rural 2-Way	Rural	2	20	10	N	Earth	1	55	D	D	1614	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
SC 635	REDFIELDS ROAD	Appomattox	523.76	E	RTE 1002	RTE 1001	Rural 2-Way	Residential	2	22	11	N	None	0	35	C	C	1796	SR	SR	wd 14	sh 4	Signage; 2' pave shoulder
SC 635	REDFIELDS ROAD	Appomattox	2849.25	E	RTE 681	RTE 695	Rural 2-Way	Rural	2	16	8	N	Earth	1	35	D	B	234	SR	SR	wd 14	sh 4	Signage; 2' pave shoulder
SC 635	REDFIELDS ROAD	Appomattox	2265.62	E	RTE 695	RTE 1002	Rural 2-Way	Rural	2	16	8	N	Earth	1	35	D	C	623	SR	SR	wd 14	sh 4	Signage; 2' pave shoulder
US 460	RICHMOND HIGHWAY	Appomattox	960.08	A	RTE 628	RTE 460 BUS WEST	Rural Multilane	Rural	4	48	12	N	Gravel	6	55	D	F	9115	SR	N/A	sh 6	bi 6	Signage; 6' pave shoulder
US 460	RICHMOND HIGHWAY	Appomattox	6523.63	A	CAMPBELL CL	RTE 647 WEST	Rural Multilane	Rural	4	48	12	N	Gravel	6	55	E	F	17501	SR	N/A	sh 6	bi 6	Signage; 6' pave shoulder
US 460	RICHMOND HIGHWAY	Appomattox	2921.23	A	RTE 647 WEST	RTE 613	Rural Multilane	Rural	4	48	12	N	Gravel	6	55	E	F	18602	SR	N/A	sh 6	bi 6	Signage; 6' pave shoulder
US 460	RICHMOND HIGHWAY	Appomattox	322.34	A	RTE 647 WEST	RTE 613	Rural Multilane	Rural	4	48	12	N	Gravel	6	55	E	F	18602	SR	N/A	sh 6	bi 6	Signage; 6' pave shoulder
US 460	RICHMOND HIGHWAY	Appomattox	2982.73	A	RTE 613	RTE 460 BUS WEST	Rural Multilane	Rural	4	48	12	N	Gravel	6	60	E	F	18602	SR	N/A	sh 6	bi 6	Signage; 6' pave shoulder
SC 627	RIVER RIDGE ROAD	Appomattox	1001.00	B	RTE 24	RTE 631	Rural 2-Way	Rural	2	18	9	N	Earth	1	55	D	B	382	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
SC 627	RIVER RIDGE ROAD	Appomattox	4145.47	B	RTE 633	RTE 601 EAST	Rural 2-Way	Rural	2	16	8	N	Earth	2	55	D	B	244	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
SC 647	SALEM ROAD	Appomattox	672.70	E	RTE 689	RTE 460 EAST	Rural 2-Way	Rural	2	18	9	N	Gravel	1	35	D	B	707	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
SC 647	SALEM ROAD	Appomattox	339.64	E	RTE 691	RTE 689	Rural 2-Way	Rural	2	22	11	N	Gravel	1	35	D	C	2481	SR	SR	sh 4	sh 6	Signage; 2' pave shoulder
SC 613	SPRING GROVE ROAD	Appomattox	165.36	B	RTE 660	RTE 659	Rural 2-Way	Rural	2	16	8	N	Gravel	1	55	D	C	610	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
SC 613	SPRING GROVE ROAD	Appomattox	1194.80	B	RTE 660	RTE 659	Rural 2-Way	Rural	2	16	8	N	Gravel	1	55	D	C	610	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
SC 613	SPRING GROVE ROAD	Appomattox	3466.77	B	RTE 659	RTE 460	Rural 2-Way	Rural	2	16	8	N	Gravel	1	55	D	C	610	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
SC 633	SPRUCE DRIVE	Appomattox	6742.45	B	RTE 460	RTE 627	Rural 2-Way	Rural	2	16	8	N	Earth	2	55	D	C	444	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
SC 692	STATE PARK RD	Appomattox	4358.59	E	RTE 640	DEAD END	Rural 2-Way	Rural	2	16	8	N	Earth	1	25	C	A	64	SR	SR	wd 14	wd 14	Signage; 2' pave shoulder
SC 608	STONEWALL ROAD	Appomattox	7351.83	B	RTE 667 NORTH	RTE 26	Rural 2-Way	Rural	2	16	8	N	None	0	55	E	C	428	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
SC 608	STONEWALL ROAD	Appomattox	4998.97	B	RTE 721	RTE 667 NORTH	Rural 2-Way	Rural	2	16	8	N	Earth	2	55	D	B	457	SR	N/A	sh 6	bi 6	Signage; 2' pave shoulder
SC 608	STONEWALL ROAD	Appomattox	515.07	D	CAMPBELL CL	RTE 609	Rural 2-Way	Rural	2	22	11	N	Earth	6	45	C	C	2171	SR	SR	sh 6	sh 8	Signage; 2' pave shoulder
SC 608	STONEWALL ROAD	Appomattox	2873.11	E	RTE 609	RTE 669 WEST	Rural 2-Way	Rural	2	16	8	N	Earth	2	35	D	C	1296	SR	SR	wd 13	sh 6	Signage; 2' pave shoulder

Appomattox County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Side Park	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BD LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition Group A	Current Condition Group B	Standard Recommendation Group A	Standard Recommendation Group B	Recommendation
SC 608	STONEWALL ROAD	Appomattox	3883.15	B	RTE 669 WEST	RTE 721	Rural 2-Way	Rural	2	16	8	N	None	0	55	E	B	474	SR	N/A	8.5	8.5	Signage: 2 pedestrian
SC 608	STONEWALL ROAD	Appomattox	8070.38	B	RTE 26	RTE 645	Rural 2-Way	Rural	2	16	8	N	Earth	1	55	D	C	244	SR	N/A	8.5	8.5	Signage: 2 pedestrian
PR 47	THOMAS JEFFERSON HWY	Appomattox	677.30	E	PAMPLIN CITY SCL	RTE 460 BUS	Rural 2-Way	Residential	2	20	10	N	Earth	1	35	C	F	2189	SR	SR	8.4	8.6	Signage: 2 pedestrian
PR 47	THOMAS JEFFERSON HWY	Appomattox	1198.27	C	CHARLOTTE CL	PAMPLIN CITY SCL	Rural 2-Way	Rural	2	20	10	N	Gravel	1	55	D	F	2189	SR	SR	8.5	8.8	Signage: 2 pedestrian
SC 631	TRENTS MILL ROAD	Appomattox	3802.11	E	RTE 627	APPOMATTOX SCL	Rural 2-Way	Residential	2	16	8	N	Earth	1	25	C	B	611	SR	SR	8.14	8.14	Share Road Signage
SC 721	VINEYARD RD	Appomattox	2489.74	A	RTE 608	RTE 611	Rural 2-Way	Rural	2	16	8	N	Earth	1	55	D	C	186	SR	N/A	8.5	8.6	Signage: 2 pedestrian
SC 654	WATT ABBITT ROAD	Appomattox	8101.01	B	RTE 736	RTE 615 NORTH	Rural 2-Way	Rural	2	18	9	N	Earth	1	55	D	C	345	SR	N/A	8.5	8.6	Signage: 2 pedestrian
SC 654	WATT ABBITT ROAD	Appomattox	261.06	B	RTE 615 NORTH	RTE 60	Rural 2-Way	Rural	2	18	9	N	Earth	2	55	D	C	186	SR	N/A	8.5	8.6	Signage: 2 pedestrian
SC 654	WATT ABBITT ROAD	Appomattox	3852.57	B	RTE 24	RTE 736	Rural 2-Way	Rural	2	18	9	N	Earth	1	55	D	C	472	SR	N/A	8.5	8.6	Signage: 2 pedestrian
SC 616	WILDWAY ROAD	Appomattox	8178.96	A	RTE 608	RTE 615 SOUTH	Rural 2-Way	Rural	2	16	8	N	Gravel	1	45	D	B	185	SR	SR	8.5	8.8	Signage: 2 pedestrian
SC 616	WILDWAY ROAD	Appomattox	1185.43	A	RTE 615 SOUTH	RTE 663	Rural 2-Way	Rural	2	16	8	N	Earth	1	45	D	B	142	SR	SR	8.5	8.8	Signage: 2 pedestrian
SC 640	WOODRIDGE RD	Appomattox	378.51	B	RTE 626	RTE 692	Rural 2-Way	Rural	2	16	8	N	Earth	2	55	D	A	38	SR	N/A	8.5	8.6	Signage: 2 pedestrian

Bedford County & Bedford City Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																		Group A	Group B	Group A	Group B	
	4TH ST	Bedford City	116.01	B	WEST MAIN STREET	MACON STREET	Urban Arterial	Outlying Business	2	38	18	curb/gutter	0	25	C	C	7253	SR	SR	wc 14	wc 14	Stripe Bike Lane
	4TH ST	Bedford City	79.03	C	MACON STREET	BEDFORD AVENUE	Rural Two-Way	Central Business	2	20	10	curb/gutter	0	25	D	D	7253	SR	SR	wc 14	wc 14	Signed Share Road
SC 661	BATEMAN BRIDGE DRIVE	Bedford County	1830.09	C	RTE11(THOMAS JEFFERSON DR)	RT 1576S (JEFF WOODS	Rural 2-Way	Residential	2	24	11	Earth	1	35	D	D	4803	SR	N/A	sh 4	sh 6	Signage: 2' pave shoulder
	BEDFORD AVE	Bedford City	138.71	C	4TH STREET	2ND STREET	Rural Two-Way	Residential	2	24	12	curb/gutter	0	25	C	C	6199	SR	SR	wc 14	wc 14	Signed Share Road
	BEDFORD AVE	Bedford City	338.75	B	2ND STREET	NORTH BRIDGE STREET	Urban Arterial	Residential	2	30	11	None	0	25	C	C	5130	SR	SR	wc 14	wc 14	Bike Lane: Share Road
PR 43	BEDFORD HIGHWAY	Bedford County	4366.27	B	CAMPBELL CL	RTE 728	Rural 2-Way	Rural	2	16	8	Earth	1	55	D	D	267	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
PR 122	BIG ISLAND HWY	Bedford County	7758.97	C	RTE 643 SOUTH	RTE 638	Rural 2-Way	Rural	2	20	10	Gravel	2	55	D	E	3605	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
PR 122	BIG ISLAND HWY	Bedford County	5395.93	C	RTE 602 SOUTH	RTE 501	Rural 2-Way	Rural	2	20	10	Gravel	2	55	D	D	1828	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
PR 122	BIG ISLAND HWY	Bedford County	6899.63	C	RTE 644	RTE 643 SOUTH	Rural 2-Way	Rural	2	20	10	Gravel	2	55	D	E	3605	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
US 460	BLUE RIDGE AVENUE	Bedford City	992.54	B	WCL BEDFORD	RTE 460 BYPASS	Rural Multilane	Outlying Business	4	48	12	Gravel	6	50	D	F	22502	SR	SR	sh 6	sh 6	Signed Share Road
122	BURKS HILL ROAD	Bedford City	968.93	A	SCL BEDFORD	RTE 460 BYPASS	Rural Multilane	Residential	4	52	13	curb/gutter	0	35	D	D	13658	SR	SR	wc 13	sh 5	Lane Reduction: Bike Lane
SC 854	BURNBRIDGE RD	Bedford County	540.07	C	RTE 221	RTE 811	Urban Arterial	Suburban High	2	22	11	Earth	1	30	C	B	1221	SR	SR	wc 14	sh 4	Signage: 2' pave shoulder
SC 644	CENTERVILLE RD	Bedford County	671.95	E	RTE 122	RTE 671	Rural 2-Way	Rural	2	20	10	None	0	45	D	C	1970	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
SC 638	CHARLEMONT RD	Bedford County	1525.23	B	RTE 638 SOUTH	RTE 638 NORTH	Rural 2-Way	Rural	2	16	8	None	0	55	D	B	256	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
SC 638	CHARLEMONT RD	Bedford County	6226.75	B	RTE 615	RTE 644	Rural 2-Way	Rural	2	16	8	Earth	1	55	D	B	351	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
SC 638	CHARLEMONT RD	Bedford County	1073.26	B	RTE 637 SOUTH	RTE 615	Rural 2-Way	Rural	2	16	8	None	0	55	D	B	239	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
644	COFFEE RD	Bedford County	2782.90	B	RTE 621(COTTONTWN	WCL LYNCHBURG	Rural 2-Way	Rural	2	16	8	Gravel	1	55	D	C	746	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
SC 644	COFFEE ROAD	Bedford County	3884.05	B	RTE 663(PERROWVIL	RTE 657(ROCKY MTN RD)	Rural 2-Way	Rural	2	16	8	Earth	1	55	D	B	806	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
SC 644	COFFEE ROAD	Bedford County	1608.69	B	RTE 657(ROCKY MTN RD)	RTE 621(COTTONTWN	Rural 2-Way	Rural	2	16	8	Gravel	1	55	D	C	317	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
US 221	COLONIAL TRAIL	Bedford County	3320.94	C	NCL BEDFORD	RTE 671	Rural 2-Way	Rural	2	20	10	Gravel	3	55	E	E	5395	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
US 221	COLONIAL TRAIL	Bedford County	1568.52	A	ELK CREEK BRIDGE	ASHWOOD DRIVE	Rural 2-Way	Rural	2	24	12	Gravel	3	55	D	E	5954	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
US 221	COLONIAL TRAIL	Bedford County	1484.42	C	PERROWVILLE ROAD	VENTURE DRIVE	Urban Arterial	Outlying Business	4	60	12	Earth	5	45	D	D	18510	SR	SR	sh 6	sh 8	Signage: 2' pave shoulder
US 221	COLONIAL TRAIL	Bedford County	1130.03	C	RTE 620	ENTERPRISE DRIVE	Rural 2-Way	Outlying Business	3	40	12	Gravel	2	45	E	D	18510	SR	SR	sh 6	sh 8	Signage: 2' pave shoulder
US 221	COLONIAL TRAIL	Bedford County	2618.95	C	RTE 671	RTE 668	Rural 2-Way	Rural	2	24	12	Gravel	2	55	E	E	5954	SR	N/A	sh 6	sh 8	Signage: 2' pave shoulder
US 221	COLONIAL TRAIL	Bedford County	30.94	C	ENTERPRISE DRIVE	COTTONTOWN ROAD	Urban Arterial	Outlying Business	4	60	12	curb/gutter	0	45	E	D	26106	SR	SR	sh 6	sh 8	Restripe: wide outside lane
US 221	COLONIAL TRAIL	Bedford County	1140.01	C	COTTONTOWN ROAD	WCL LYNCHBURG	Urban Arterial	Outlying Business	4	60	12	curb/gutter	0	45	E	D	26106	SR	SR	sh 6	sh 8	Restripe: wide outside lane

Bedford County & Bedford City Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition Group A	Current Condition Group B	Standard Recommendation Group A	Standard Recommendation Group B	Recommendation
221	COLONIAL TRAIL	Bedford County	197.34	C	NCL BEDFORD	RTE 671	Rural 2-Way	Rural	1	20	10	Gravel	3	55	E	E	5395	SR	N/A	6.6	6.8	Signage; 2 paved shoulder
221	COLONIAL TRAIL	Bedford County	1200.18	C	RTE 668	RTE 643	Rural 2-Way	Rural	1	24	12	Gravel	2	55	E	E	5954	SR	N/A	6.6	6.8	Signage; 2 paved shoulder
221	COLONIAL TRAIL	Bedford County	1271.68	C	RTE 646 EAST	ELK CREEK BRIDGE	Rural 2-Way	Rural	1	24	12	Gravel	3	55	D	E	5954	SR	N/A	6.6	6.8	Signage; 2 paved shoulder
221	COLONIAL TRAIL	Bedford County	1144.73	C	THOMAS JEFFERSON DRIVE	RTE 820	Rural 2-Way	Outlying Business	1	24	12	Gravel	2	45	E	D	18310	SR	SR	6.6	6.8	Signage; 2 paved shoulder
221	COLONIAL TRAIL	Bedford County	168.55	C	COTTONTOWN ROAD	WOLLYNG-BURG	Urban Arterial	Outlying Business	4	60	12	curb/gutter	0	45	E	D	26108	SR	SR	6.6	6.8	Restripe wide outside lane
221	COLONIAL TRAIL	Bedford County	4561.70	C	RTE 643	RTE 646 EAST	Rural 2-Way	Rural	1	24	12	Gravel	2	55	E	E	5954	SR	N/A	6.6	6.8	Signage; 2 paved shoulder
221	COTTONTOWN ROAD	Bedford County	870.61	B	RT 1004/BROOKFIELD	RTE 221/FOREST RD)	Rural 2-Way	Residential	1	24	12	Earth	1	55	C	D	6235	SR	SR	WK-14	6.4	Signage; 2 paved shoulder
221	COTTONTOWN ROAD	Bedford County	149.92	B	RT 1040/LAKE VISTA DR)	RTE 860/HAWKINS MILL RD)	Rural 2-Way	Residential	1	18	9	Earth	1	35	C	C	1994	SR	SR	WK-14	6.4	Signage; 2 paved shoulder
460	COTTONTOWN ROAD	Bedford County	815.13	C	RTE 860/HAWKINS MILL RD)	RTE 1004/BROOKFIELD	Rural 2-Way	Residential	1	18	9	Earth	1	55	D	D	5395	SR	SR	WK-14	6.4	Signage; 2 paved shoulder
221	COTTONTOWN ROAD	Bedford County	197.43	C	RTE 860/HAWKINS MILL RD)	RTE 1004/BROOKFIELD	Rural 2-Way	Residential	1	18	9	Earth	1	35	D	D	5395	SR	SR	WK-14	6.4	Signage; 2 paved shoulder
122	CRENSHAW ST	Bedford City	368.22	B	FRANKLIN STREET	WEST MAIN STREET	Urban Arterial	Residential	1	22	11	None	0	25	D	C	5675	SR	SR	WK-14	WK-14	Signed Share Road
122	CRENSHAW STREET	Bedford City	746.96	E	RTE 460 BYPASS	FRANKLIN STREET	Rural Two-Way	Residential	2	20	10	None	0	25	C	D	5675	SR	SR	WK-14	WK-14	Signed Share Road
43	DEARING FORD RD	Bedford County	3429.14	A	RTE 728	RTE 616	Rural 2-Way	Rural	1	22	11	Earth	2	55	D	C	267	SR	SR	6.6	6.8	Restripe wide outside lane
855	DIAMOND HILL RD	Bedford County	6050.64	C	RTE 616 NORTH	RTE 122 NORTH	Rural 2-Way	Rural	1	20	10	Earth	1	55	D	D	3049	SR	SR	6.6	6.8	Restripe wide outside lane
748	DICKERSON MILL RD	Bedford County	5184.73	B	RTE 749	RTE 691 WEST	Rural 2-Way	Outlying Business	1	16	8	Earth	1	55	D	B	687	SR	SR	6.6	6.8	Restripe wide outside lane
460	EAST MAIN STREET	Bedford City	18.16	B	SOUTH STREET	ORANGE STREET	Urban Arterial	Outlying Business	1	34	18	curb/gutter	0	25	D	C	7701	SR	SR	WK-14	WK-14	Lane Reduction; Bike Lane
460	EAST MAIN STREET	Bedford City	117.88	E	PIEDMONT STREET	INDEPENDENCE BOULEVARD	Rural Multilane	Outlying Business	4	48	11	Gravel	4	35	C	C	11116	SR	SR	WK-15	6.5	Lane Reduction; Bike Lane
1415	ENTERPRISE DR	Bedford County	283.61	C	ROUTE 221	RTE 661 (BATEMAN BRIDGE DR)	Rural 2-Way	Residential	1	24	11	Gravel	1	25	D	D	10030	SR	SR	6.6	6.4	Signed Share Road
714	FALLING CREEK RD	Bedford County	4884.10	B	RTE 808 EAST	RTE 24	Rural 2-Way	Rural	1	16	8	Earth	1	55	D	B	164	SR	SR	6.6	6.8	Restripe wide outside lane
714	FALLING CREEK RD	Bedford County	8480.88	B	RTE 715 WEST	RTE 808 EAST	Rural 2-Way	Rural	1	16	8	Earth	1	55	D	C	341	SR	SR	6.6	6.8	Restripe wide outside lane
714	FALLING CREEK RD	Bedford County	2726.84	B	RTE 784	RTE 715 WEST	Rural 2-Way	Rural	1	16	8	Earth	1	55	D	C	836	SR	SR	6.6	6.8	Restripe wide outside lane
714	FALLING CREEK RD	Bedford County	2169.67	B	SCL BEDFORD	Rte 715	Rural 2-Way	Rural	1	22	11	Earth	8	55	C	C	1135	SR	N/A	6.6	6.8	Restripe wide outside lane
644	FANCY FARM RD	Bedford County	4144.97	B	RTE 43	RTE 122	Rural 2-Way	Rural	1	16	8	Earth	1	55	D	C	856	SR	SR	6.6	6.8	Restripe wide outside lane
221	FOREST DR	Bedford City	816.80	E	LONGWOOD AVENUE	SCL BEDFORD	Rural Two-Way	Residential	2	20	10	Gravel	2	35	C	D	8816	SR	SR	WK-15	6.5	Signage; 2 paved shoulder
43	GLENWOOD DR	Bedford County	4271.04	C	RTE 43 WEST	RTE 43 EAST	Rural 2-Way	Rural	2	22	11	Earth	1	55	D	D	2698	SR	N/A	6.6	6.8	Restripe wide outside lane
668	GOOSE RD	Bedford County	1048.90	B	RTE 709	RTE 761 NORTH	Rural 2-Way	Rural	1	14	7	Gravel	1	55	E	C	729	SR	SR	6.6	6.8	Restripe wide outside lane

Bedford County & Bedford City Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition Group A	Current Condition Group B	Standard Recommendation Group A	Standard Recommendation Group B	Recommendation
SC 668	GOODE RD	Bedford County	948.23	C	RTE 762 NORTH	RTE 221	Rural 2-Way	Rural	2	16	8	Earth	1	55	E	C	1194	SR	SR	sh 6	sh 8	Restripe; wide outside lane
SC 668	GOODE RD	Bedford County	6493.50	B	RTE 460 WEST	RTE 703	Rural 2-Way	Rural	2	16	8	Earth	1	55	D	C	828	SR	SR	sh 6	sh 8	Restripe; wide outside lane
SC 757	GOODVIEW RD	Bedford County	5611.25	E	RTE 619	RTE 758	Rural 2-Way	Rural	2	22	11	Earth	1	35	D	D	4165	SR	SR	wc 14	sh 4	Signage; 2' pave shoulder
SC 757	GOODVIEW RD	Bedford County	2383.64	E	RTE 1535 (HEMLOCK SHORES	RTE 653 E.(GOODVIEW TWN	Rural 2-Way	Rural	2	18	9	Earth	1	35	D	D	2800	SR	SR	wc 14	sh 4	Signage; 2' pave shoulder
SC 757	GOODVIEW RD	Bedford County	389.25	E	RTE 24	RTE 619	Rural 2-Way	Residential	2	22	11	Earth	1	35	C	D	4844	SR	SR	wc 14	sh 4	Signage; 2' pave shoulder
SC 653	GOODVIEW RD	Bedford County	2251.63	E	RTE 655 EAST	RTE 757 EAST	Rural 2-Way	Rural	2	16	8	None	0	40	D	D	1867	SR	SR	wc 14	sh 4	Signage; 2' pave shoulder
SC 757	GOODVIEW RD	Bedford County	3089.76	E	RTE 758 (THOMASSON MILL	RTE 1535 (HEMLOCK SHORES	Rural 2-Way	Rural	2	18	9	Earth	1	35	D	D	3002	SR	SR	wc 14	sh 4	Signage; 2' pave shoulder
SC 1425	GRAVES MILL ROAD	Bedford County	412.26	C	FOREST ROAD	WCL LYNCHBURG	Urban Arterial	Central Business	4	48	12	curb/gutter	0	35	E	D	19364	SR	SR	wc 14	sh 4	Signed Share Road
SC 659	HAWKINS MILL RD	Bedford County	533.27	B	RTE 660	WCL LYNCHBURG	Rural 2-Way	Residential	2	24	12	Earth	1	35	C	B	1356	SR	SR	wc 14	sh 4	Signage; 2' pave shoulder
SC 660	HAWKINS MILL RD	Bedford County	2707.72	A	ROUTE 621	RTE 1220	Rural 2-Way	Residential	2	24	12	Earth	1	40	C	C	3418	SR	SR	wc 14	sh 4	Signage; 2' pave shoulder
SC 660	HAWKINS MILL RD	Bedford County	904.16	B	RTE 1220	ROUTE 659	Rural 2-Way	Residential	2	24	12	Earth	1	40	C	C	2222	SR	SR	wc 14	sh 4	Signage; 2' pave shoulder
SC 661	HOMESTEAD ROAD	Bedford County	116.11	D	RT 15763.(JEFF.WOODS	RTE 620(BATEMAN BRIDGE DR)	Rural 2-Way	Residential	2	24	11	Gravel	1	35	D	D	5192	SR	SR	wc 14	sh 4	Signage; 2' pave shoulder
122	INDEPENDENCE BLVD	Bedford City	813.31	B	DAWN DRIVE	LONGWOOD AVENUE	Urban Arterial	Outlying Business	2	24	12	Pavement	12	40	B	C	16512	SR	SR	sh 6	bl 6	Lane Reduction; Bike Lane
122	INDEPENDENCE BOULEVARD	Bedford City	1524.25	E	WEST MAIN STREET	ORANGE STREET	Rural Two-Way	Outlying Business	2	24	12	Pavement	12	40	B	C	14509	SR	SR	sh 6	bl 6	Lane Reduction; Bike Lane
122	INDEPENDENCE BVD	Bedford City	464.50	B	ORANGE STREET	DAWN DRIVE	Rural Two-Way	Outlying Business	3	48	12	curb/gutter	0	25	D	D	21817	SR	SR	wc 14	wc 14	Lane Reduction; Bike Lane
SC 643	JOPLING RD	Bedford County	1199.55	B	RTE 43 NORTH	RTE 640 EAST	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	C	952	SR	SR	sh 4	sh 6	Signage; 2' pave shoulder
SC 619	JORDANTOWN RD	Bedford County	3295.81	C	RTE 699	Rte 616N	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	C	1711	SR	SR	sh 4	sh 6	Signage; 2' pave shoulder
SC 619	JORDANTOWN RD	Bedford County	3285.03	C	RTE 24	RTE 635 EAST	Rural 2-Way	Rural	2	20	10	Earth	1	55	E	D	3495	SR	N/A	sh 6	sh 8	Signage; 2' pave shoulder
SC 619	JORDANTOWN RD	Bedford County	2692.71	C	RTE 839	RTE 699	Rural 2-Way	Rural	2	20	10	Earth	2	55	D	C	2105	SR	N/A	sh 6	sh 8	Signage; 2' pave shoulder
SC 619	JORDANTOWN RD	Bedford County	1966.50	C	RTE 635 EAST	RTE 839	Rural 2-Way	Rural	2	20	10	Earth	1	55	D	D	3197	SR	N/A	sh 6	sh 8	Signage; 2' pave shoulder
SC 682	KELSO MILL RD	Bedford County	5588.79	B	RTE 680	RTE 43 NORTH	Rural 2-Way	Rural	2	18	9	Earth	2	55	D	B	591	SR	SR	sh 6	sh 8	Signage; 2' pave shoulder
SC 644	LANKFORD MILL RD	Bedford County	810.43	D	RTE 671	Rte 674	Rural 2-Way	Rural	2	20	10	None	0	45	D	A	148	SR	SR	sh 6	sh 8	Signage; 2' pave shoulder
SC 672	LEE JACKSON HWY	Bedford County	206.55	C	RTE 672	RTE 905	Rural 2-Way	Rural	2	22	11	Pavement	8	55	C	A	2485	SR	N/A	sh 6	sh 8	Signage; 2' pave shoulder
US 501	LEE JACKSON HWY	Bedford County	2846.92	E	RTE 612	RTE 122	Rural 2-Way	Rural	2	18	9	Gravel	1	35	D	D	2485	SR	SR	wc 14	sh 4	Signage; 2' pave shoulder
US 501	LEE JACKSON HWY	Bedford County	2075.22	C	RTE 657	RTE 672	Rural 2-Way	Rural	2	22	11	Gravel	1	55	D	D	2485	SR	N/A	sh 6	sh 8	Signage; 2' pave shoulder
US 501	LEE JACKSON HWY	Bedford County	1934.35	C	RTE 905	RTE 612	Rural 2-Way	Rural	2	18	9	Gravel	2	55	D	D	2485	SR	N/A	sh 6	sh 8	Signage; 2' pave shoulder

Bedford County & Bedford City Road Characteristics

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US 501	LEE JACKSON HWY	Bedford County	4839	C	BLUE RIDGE PARKWAY	AMHERST CL	Rural 2-Way	Rural	2	18	9	Gravel	1	55	D	F	1860	SR	N/A	6&8	6&8	Signage 2 pave shoulder
US 501	LEE JACKSON HWY	Bedford County	11194.40	E	RTE 122	BLUE RIDGE PARKWAY	Rural 2-Way	Rural	2	18	9	Gravel	1	45	D	F	1860	SR	SR	6&8	6&8	Signage 2 pave shoulder
US 501	LEE JACKSON HIGHWAY	Bedford County	21116.76	D	WOLFINGBURG	HOLCOMB ROCK ROAD	Rural 2-Way	Rural	3	30	10	Earth	4	45	D	E	2882	SR	SR	6&8	6&8	Signage 2 pave shoulder
US 501	LEE JACKSON HIGHWAY	Bedford County	5851.82	C	HOLCOMB ROCK ROAD	ROCKY MOUNTAIN ROAD	Rural 2-Way	Rural	2	22	11	Gravel	1	55	D	D	2882	SR	SR	6&8	6&8	Signage 2 pave shoulder
FR 43	LEESVILLE RD	Bedford County	1410.73	C	RTE 618	RTE 707	Rural 2-Way	Rural	1	20	10	Earth	1	55	D	E	1843	SR	SR	6&8	6&8	Signage 2 pave shoulder
FR 43	LEESVILLE RD	Bedford County	1356.67	C	RTE 626	RTE 618	Rural 2-Way	Rural	2	20	10	Earth	2	55	D	E	2843	SR	SR	6&8	6&8	Signage 2 pave shoulder
US 460	LINK STREET	Bedford City	97.38	B	RTE 460 BYPASS	SCL BEDFORD	Rural Two-Way	Residential	2	20	10	None	0	25	C	D	8784	SR	SR	6&14	6&14	Signed Share Road
SC 707	LONE OAK CROSSING	Bedford County	1699.74	B	RTE 24	RTE 43	Rural 2-Way	Rural	2	16	8	Gravel	2	55	D	C	1101	SR	SR	6&8	6&8	Signage 2 pave shoulder
FR 122	LONGWOOD AVENUE	Bedford County	2107.68	E	SCL BEDFORD	RTE 644	Rural 2-Way	Rural	2	20	10	Gravel	2	45	D	E	3605	SR	SR	6&8	6&8	Signage 2 pave shoulder
122	LONGWOOD AVE	Bedford City	180.09	A	OAKWOOD STREET	WALNUT STREET	Rural Multilane	Residential	4	44	11	curb/gutter	0	35	D	D	10270	SR	SR	6&15	6&15	Lane Reduction Bike Lane
122	LONGWOOD AVE	Bedford City	1070.50	E	PEAKS STREET	OAKWOOD STREET	Rural Two-Way	Residential	2	28	12	curb/gutter	0	25	C	C	8400	SR	SR	6&14	6&14	Lane Reduction Bike Lane
122	LONGWOOD AVE EXT	Bedford City	3147	E	WALNUT STREET	FOREST ROAD	Rural Two-Way	Rural	2	30	15	curb/gutter	0	35	D	C	13980	SR	SR	6&15	6&15	Lane Reduction Bike Lane
122	LONGWOOD AVENUE	Bedford City	944.71	A	INDEPENDENCE BOULEVARD	SCL BEDFORD	Rural Two-Way	Residential	2	30	15	curb/gutter	0	35	C	D	4761	SR	SR	6&15	6&15	Lane Reduction Bike Lane
US 460	MAIN ST E	Bedford City	884.89	E	PIEDMONT STREET	INDEPENDENCE BOULEVARD	Rural Multilane	Outlying Business	4	48	12	Gravel	4	35	C	C	11216	SR	SR	6&15	6&15	Lane Reduction Bike Lane
US 460	MAIN ST E	Bedford City	108.38	C	NORTH BRIDGE STREET	SOUTH STREET	Urban Arterial	Central Business	2	37	10	curb/gutter	0	25	D	D	7761	SR	SR	6&14	6&14	Restripe Bike Lane
US 460	MAIN ST E	Bedford City	184.71	B	SOUTH STREET	ORANGE STREET	Urban Arterial	Outlying Business	2	34	13	curb/gutter	0	25	D	C	7701	SR	SR	6&14	6&14	Restripe Bike Lane
US 460	MAIN ST E	Bedford City	878.50	A	ORANGE STREET	PIEDMONT STREET	Rural Multilane	Outlying Business	4	48	12	curb/gutter	0	35	D	C	7074	SR	SR	6&15	6&15	Restripe Bike Lane
US 460	MAIN ST W	Bedford City	185.10	E	4TH STREET	CRENSHAW STREET	Rural Two-Way	Outlying Business	2	28	14	curb/gutter	0	25	C	C	6908	SR	SR	6&14	6&14	Signed Share Road
US 460	MAIN ST W	Bedford City	301.45	D	CRENSHAW STREET	NORTH BRIDGE STREET	Urban Arterial	Central Business	2	32	16	curb/gutter	0	25	C	C	7228	SR	SR	6&14	6&14	Signed Share Road
US 460	MAIN ST W	Bedford City	139.87	B	CHURCH STREET	4TH STREET	Rural Two-Way	Outlying Business	2	30	15	curb/gutter	0	25	C	C	9884	SR	SR	6&14	6&14	Signed Share Road
SC 618	MENTON RD	Bedford County	1348.06	B	RTE 616	RTE 43	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	D	849	SR	N/A	6&8	6&8	Signage 2 pave shoulder
FR 122	MONETA RD	Bedford County	3383.05	C	RTE 801	G.M.S. OF RTE 24	Rural 2-Way	Rural	2	20	10	Gravel	3	55	D	E	5903	SR	N/A	6&8	6&8	Signage 2 pave shoulder
FR 122	MONETA RD	Bedford County	148.70	E	RTE 746	SCL BEDFORD	Rural 2-Way	Outlying Business	2	22	11	Gravel	2	45	D	E	7440	SR	SR	6&8	6&8	Signage 2 pave shoulder
FR 122	MONETA RD	Bedford County	1856.40	C	RTE 805	RTE 801	Rural 2-Way	Rural	2	20	10	Gravel	3	55	E	E	6665	SR	SR	6&8	6&8	Signage 2 pave shoulder
FR 122	MONETA RD	Bedford County	1962.91	C	RTE 24	RTE 867	Rural 2-Way	Rural	2	22	11	Gravel	4	45	D	E	5789	SR	SR	6&8	6&8	Signage 2 pave shoulder
FR 122	MONETA RD	Bedford County	1296.83	E	ROUTE 608	RTE 805	Rural 2-Way	Rural	2	24	12	Pavement	8	55	C	C	6665	SR	SR	6&8	6&8	condition meets requirements Signage

Bedford County & Bedford City Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																		Group A	Group B	Group A	Group B	
PR 122	MONETA RD	Bedford County	4067.05	E	FRANKLIN CL	RTE 655 SOUTH	Rural 2-Way	Suburban Low	2	22	11	Earth	2	45	D	E	7130	SR	SR	4,6	4,8	Signage; 2' pave shoulder
PR 122	MONETA RD	Bedford County	1547.45	E	RTE 655 SOUTH	ROUTE 903	Rural 2-Way	Suburban Low	2	20	10	Gravel	3	45	D	E	7130	SR	SR	4,6	4,8	Signage; 2' pave shoulder
PR 122	MONETA RD	Bedford County	9550.37	C	RTE 735	RTE 747	Rural 2-Way	Rural	2	22	11	Earth	3	55	D	E	5789	SR	N/A	4,6	4,8	Signage; 2' pave shoulder
SC 618	MOUNTAIN VIEW RD	Bedford County	46.02	B	RTE 24	ROANOKE CL	Rural 2-Way	Rural	2	20	10	Earth	1	55	D	C	2210	SR	N/A	4,6	4,8	Signage; 2' pave shoulder
SC 709	NEW LONDON RD	Bedford County	5841.27	E	RTE 24	RTE 811	Rural 2-Way	Rural	2	18	9	Earth	1	45	D	C	1767	SR	SR	4,6	4,8	Signage; 2' pave shoulder
3061	OAKWOOD ST	Bedford City	465.27	A	WHITFIELD DRIVE	LONGWOOD AVENUE	Urban Arterial	Residential	2	24	12	None	0	25	C	C	3967	SR	SR	4,14	4,14	Signed Share Road
SC 644	OLD CIFAX RD	Bedford County	2322.48	B	RTE 638	RTE 663/PERROWVIL	Rural 2-Way	Rural	2	16	8	Gravel	1	55	D	C	676	SR	SR	4,6	4,8	Signage; 2' pave shoulder
SC 644	OLD CIFAX RD	Bedford County	4078.94	D	RTE 670	RTE 638	Rural 2-Way	Rural	2	20	10	None	0	45	D	A	152	SR	SR	4,6	4,8	Signage; 2' pave shoulder
SC 643	OTTERVILLE RD	Bedford County	5124.30	B	RTE 674	RTE 644	Rural 2-Way	Rural	2	16	8	Earth	1	55	D	B	267	SR	SR	4,6	4,8	Signage; 2' pave shoulder
SC 643	OTTERVILLE RD	Bedford County	3271.18	B	RTE 122 NORTH	RTE 674	Rural 2-Way	Rural	2	16	8	Earth	1	55	D	B	267	SR	SR	4,6	4,8	Signage; 2' pave shoulder
PR 43	PEAKS RD	Bedford County	7981.05	B	RTE 643 EAST	BLUE RIDGE PARKWAY	Rural 2-Way	Rural	2	20	10	Gravel	2	55	D	B	814	SR	SR	4,6	4,8	Signage; 2' pave shoulder
PR 43	PEAKS RD	Bedford County	3099.07	C	RTE 644	RTE 682 NORTH	Rural 2-Way	Rural	2	20	10	Earth	2	55	D	C	2303	SR	N/A	4,6	4,8	Signage; 2' pave shoulder
PR 43	PEAKS STREET	Bedford County	2198.77	D	NCL BEDFORD	RTE 644	Rural 2-Way	Rural	2	20	10	Earth	2	45	D	C	2303	SR	N/A	4,6	4,8	Signage; 2' pave shoulder
43	PEAKS ST	Bedford City	350.76	E	NORTH BRIDGE STREET	WHITFIELD DRIVE	Rural Two-Way	Residential	2	26	13	None	0	25	C	C	3345	SR	SR	4,14	4,14	Signed Share Road
43	PEAKS STREET	Bedford City	1048.96	E	WHITFIELD DRIVE	NCL BEDFORD	Rural Two-Way	Rural	2	22	11	None	0	45	D	C	1948	SR	SR	4,6	4,8	Signage; 2' pave shoulder
SC 663	PERROWVILLE ROAD	Bedford County	1476.52	C	RTE 221(FOREST RD)	RTE 622 N.(HOOPER RD)	Rural 2-Way	Suburban Low	2	24	12	Earth	1	35	D	D	6716	SR	SR	4,4	4,6	Signage; 2' pave shoulder
SC 663	PERROWVILLE ROAD	Bedford County	2236.29	E	RTE 622 N.(HOOPER RD)	QUAIL RIDGE ROAD	Rural 2-Way	Rural	2	24	12	Earth	1	45	D	D	5134	SR	SR	4,6	4,8	Signage; 2' pave shoulder
SC 663	PERROWVILLE ROAD	Bedford County	3362.92	E	QUAIL RIDGE ROAD	RTE 644(COFFEE RD)	Rural 2-Way	Rural	2	18	9	Earth	1	45	D	C	1110	SR	SR	4,6	4,8	Signage; 2' pave shoulder
SC 655	ROCK SPRING RD	Bedford County	1870.54	C	RTE 653 EAST	RTE 616 SOUTH	Rural 2-Way	Rural	2	16	8	Earth	1	55	E	D	1890	SR	N/A	4,6	4,8	Signage; 2' pave shoulder
SC 638	SEDALIA SCHOOL RD	Bedford County	3792.27	B	RTE 122	RTE 637 NORTH	Rural 2-Way	Rural	2	16	8	None	0	55	D	B	300	SR	SR	4,6	4,8	Signage; 2' pave shoulder
SC 680	SHEEP CREEK RD	Bedford County	63.47	B	RTE 682	RTE 684	Rural 2-Way	Rural	2	16	8	Earth	1	55	D	C	743	SR	N/A	4,6	4,8	Signage; 2' pave shoulder
PR 24	SHINGLE BLOCK RD	Bedford County	6770.50	B	RTE 735	RTE 43 WEST	Rural 2-Way	Rural	2	22	11	Gravel	2	55	D	D	2919	SR	N/A	4,6	4,8	Signage; 2' pave shoulder
PR 24	SHINGLE BLOCK RD	Bedford County	2166.81	B	RTE 122	0.3M E. OF RTE 122	Rural 2-Way	Rural	2	22	11	Gravel	2	45	D	C	2221	SR	SR	4,6	4,8	Signage; 2' pave shoulder
SC 626	SMITH MOUNTAIN LAKE PKWY	Bedford County	5610.69	B	RTE 805	RTE 833 SOUTH	Rural 2-Way	Rural	2	22	11	Gravel	2	55	D	C	1587	SR	N/A	4,6	4,8	Signage; 2' pave shoulder
SC 626	SMITH MOUNTAIN LAKE PKWY	Bedford County	4848.70	C	RTE 833 SOUTH	RTE 43	Rural 2-Way	Rural	2	22	11	Earth	1	55	D	C	1597	SR	SR	4,6	4,8	Signage; 2' pave shoulder
SC 626	SMITH MOUNTAIN LAKE PKWY	Bedford County	5061.20	B	RTE 626	RTE 608 NORTH	Rural 2-Way	Rural	2	24	12	Earth	4	55	D	C	2082	SR	N/A	4,6	4,8	Signage; 2' pave shoulder

Bedford County & Bedford City Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition Group A	Current Condition Group B	Standard Recommendation Group A	Standard Recommendation Group B	Recommendation
SC 626	SMITH MOUNTAIN LAKE PKWY	Bedford County	1376.22	B	RTE 43	RTE 618	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	C	645	SR	N/A	8.6	8.8	Signage & pave shoulder
SC 626	SMITH MOUNTAIN LAKE PKWY	Bedford County	2191.73	B	RTE 608 NORTH	RTE 809	Rural 2-Way	Rural	2	22	11	Earth	2	55	D	C	1288	SR	N/A	8.6	8.8	Signage & pave shoulder
43	SOUTH ST	Bedford City	256.44	C	TALBOTT STREET	WASHINGTON STREET	Rural Two-Way	Residential	2	24	12	curb/gutter	0	25	C	A	1103	SR	SR	WK-14	WK-14	Signed Share Road
43	SOUTH ST	Bedford City	104.66	B	WASHINGTON STREET	MAIN STREET	Rural Two-Way	Central Business	2	34	12	curb/gutter	0	25	C	A	1000	SR	SR	WK-14	WK-14	Signed Share Road
43	SOUTH ST	Bedford City	301.56	B	OTEY STREET EXTENSION	TALBOTT STREET	Rural Two-Way	Residential	2	20	10	curb/gutter	0	25	C	B	1270	SR	SR	WK-14	WK-14	Signed Share Road
43	SOUTH STREET	Bedford City	1255.25	B	SOL BEDFORD	OTEY STREET EXTENSION	Rural Two-Way	Residential	2	24	12	None	0	25	C	B	1270	SR	SR	WK-14	WK-14	Signed Share Road
PR 24	STEWARTSVILLE RD	Bedford County	5906.64	C	RTE 801	0.84 MI W. OF RTE 122	Rural 2-Way	Rural	2	20	10	Earth	2	55	D	D	2519	SR	N/A	8.6	8.8	Signage & pave shoulder
PR 24	STEWARTSVILLE RD	Bedford County	3491.07	B	RTE 886 WEST	RTE 888 EAST	Rural Multilane	Rural	4	48	12	Gravel	2	55	E	D	15797	SR	N/A	8.6	8.8	Signage & pave shoulder
PR 24	STEWARTSVILLE RD	Bedford County	3138.66	D	RTE 655 EAST	RTE 759 SOUTH	Rural 2-Way	Rural	2	20	10	Gravel	1	55	F	E	9077	SR	N/A	8.6	8.8	Signage & pave shoulder
PR 24	STEWARTSVILLE RD	Bedford County	3350.18	E	RTES 757/619	RTE 791	Rural Multilane	Rural	4	48	12	Gravel	2	45	E	D	15797	SR	SR	8.6	8.8	Signage & pave shoulder
PR 24	STEWARTSVILLE RD	Bedford County	498.39	E	RTE 646 EAST	RTE 748	Rural 2-Way	Rural	2	20	10	Earth	1	55	E	E	8824	SR	N/A	8.6	8.8	Signage & pave shoulder
PR 24	STEWARTSVILLE RD	Bedford County	4906.64	C	RTE 608	RTE 801	Rural 2-Way	Rural	2	20	10	Earth	3	55	D	D	5072	SR	N/A	8.6	8.8	Signage & pave shoulder
PR 24	STEWARTSVILLE RD	Bedford County	1167.37	A	RTE 683 WEST	RTE 886 WEST	Freeway/Expressway	Rural	4	44	11	Gravel	2	55	F	E	15797	SR	N/A	8.6	8.8	Signage & pave shoulder
PR 24	STEWARTSVILLE RD	Bedford County	2440.89	C	RTE 748	RTE 608	Rural 2-Way	Rural	2	20	10	Earth	2	55	D	D	5072	SR	N/A	8.6	8.8	Signage & pave shoulder
43	TALBOTT ST	Bedford City	88.15	A	OTEY STREET	SOUTH STREET	Rural Two-Way	Residential	2	22	11	curb/gutter	0	25	C	A	1500	SR	SR	WK-14	WK-14	Signed Share Road
SC 811	THOMAS JEFFERSON DRIVE	Bedford County	1778.10	B	RTE 661	RTE 22(FOREST RD)	Urban Arterial	Suburban High	2	22	11	Earth	1	40	E	D	10058	SR	SR	8.6	8.8	Signage & pave shoulder
SC 811	THOMAS JEFFERSON DRIVE	Bedford County	1037.38	B	RTE 811 (WATERLICK RD)	RTE 661	Urban Arterial	Suburban High	2	22	11	Earth	1	40	E	D	11401	SR	SR	8.6	8.8	Signage & pave shoulder
SC 811	THOMAS JEFFERSON DRIVE	Bedford County	1898.01	B	CAMPBELL CL	RTE 709 (NEW LONDON RD)	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	C	903	SR	N/A	8.6	8.8	Signage & pave shoulder
SC 811	THOMAS JEFFERSON DRIVE	Bedford County	264.99	C	0.15 MI SW. MILL SPRING BR/LAB	RTE 1810 (MILL SPR. DR)	Rural 2-Way	Rural	2	22	9	Earth	1	40	D	D	4811	SR	SR	8.6	8.8	Signage & pave shoulder
SC 811	THOMAS JEFFERSON DRIVE	Bedford County	3325.27	C	RTE 1810 (MILL SPR. DR)	RTE 811 (WATERLICK RD)	Rural 2-Way	Rural	2	22	9	Earth	1	40	D	D	4811	SR	SR	8.6	8.8	Signage & pave shoulder
SC 811	THOMAS JEFFERSON DRIVE	Bedford County	1541.38	E	RTE 709 (NEW LONDON RD)	ROUTE 460	Rural 2-Way	Rural	2	22	9	Gravel	1	45	E	E	4407	SR	SR	8.6	8.8	Signage & pave shoulder
SC 811	THOMAS JEFFERSON DRIVE	Bedford County	2228.40	E	ROUTE 460	0.15 MI SW. MILL SPRING BR/LAB	Rural 2-Way	Rural	2	22	9	Earth	1	40	D	D	4811	SR	SR	8.6	8.8	Signage & pave shoulder
SC 808	TOLERS FERRY RD	Bedford County	1755.31	B	RTE 734 SOUTH	RTE 740	Rural 2-Way	Rural	2	22	11	Earth	4	55	D	C	1548	SR	N/A	8.6	8.8	Signage & pave shoulder
SC 808	TOLERS FERRY RD	Bedford County	4540.91	B	RTE 740	RTE 656 SOUTH	Rural 2-Way	Rural	2	22	11	Earth	4	55	D	C	1891	SR	N/A	8.6	8.8	Signage & pave shoulder
SC 849	TRENTS FERRY ROAD	Bedford County	3139.24	B	HOLCOMB ROCK ROAD	WOLLYNCHBURG	Rural 2-Way	Rural	2	22	11	Earth	1	55	D	A	446	SR	SR	8.6	8.8	Signage & pave shoulder
43	VIRGINIA BYWAY	Bedford County	1845.48	C	RTE 713 NORTH	DEER LANE	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	C	1899	SR	N/A	8.6	8.8	Signage & pave shoulder

Bedford County & Bedford City Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																		Group A	Group B	Group A	Group B	
43	VIRGINIA BYWAY	Bedford County	304.44	B	DEER LANE	SCL BEDFORD	Rural 2-Way	Residential	2	18	9	Earth	1	55	D	C	1659	SR	N/A	6, 6	6, 8	Signage: 2' pave shoulder
US 460	W LYNCHBURG SALEM TNPK	Bedford County	2396.41	A	1.23MI E OF RTE 831 E.	WCL BEDFORD	Rural Multilane	Rural	4	44	10	Gravel	8	55	D	F	17106	SR	SR	6, 6	6, 8	condition meets requirements: Signage
US 460	W LYNCHBURG SALEM TNPK	Bedford County	2019.65	A	RTE 831 EAST	1.23 MI E OF RTE 831 E.	Rural Multilane	Rural	4	44	10	Gravel	8	55	D	F	17106	SR	SR	6, 6	6, 8	condition meets requirements: Signage
PR 24	WASHINGTON AVENUE	Bedford County	1201.32	B	ROANOKE CL	RTE 635 WEST	Freeway/Expressway	Suburban Low	4	44	11	Gravel	8	55	E	E	15797	SR	SR	6, 6	6, 8	condition meets requirements: Signage
SC 622	WATERLICK ROAD	Bedford County	1487.06	E	THOMAS JEFFERSON DRIVE	CAMPBELL CL	Rural 2-Way	Residential	2	24	12	Gravel	1	45	D	D	8360	SR	N/A	6, 6	6, 8	Signage: 2' pave shoulder
US 460	WEST MAIN STREET	Bedford City	537.49	A	RTE 460 BYPASS	OAKCREST STREET	Rural Multilane	Outlying Business	4	44	11	curb/gutter	0	30	D	D	9884	SR	SR	6, 6	6, 6	Signed Share Road
US 460	WEST MAIN STREET	Bedford City	848.73	B	OAKCREST STREET	4TH STREET	Rural Two-Way	Outlying Business	2	30	15	curb/gutter	0	25	C	C	9884	SR	SR	10, 14	10, 14	Signed Share Road
SC 608	WHITE HOUSE RD	Bedford County	4806.69	B	RTE 654	RTE 122	Rural 2-Way	Rural	2	22	11	Gravel	2	55	D	C	1835	SR	N/A	6, 6	6, 8	Signage: 2' pave shoulder
SC 608	WHITE HOUSE RD	Bedford County	4586.91	C	RTE 626 NORTH	RTE 654	Rural 2-Way	Rural	2	22	11	Earth	2	55	D	D	3729	SR	N/A	6, 6	6, 8	Signage: 2' pave shoulder
6	WHITFIELD DR	Bedford City	988.33	B	PEAKS STREET	OAKWOOD STREET	Rural Two-Way	Residential	2	20	10	None	0	35	C	C	2061	SR	SR	10, 15	6, 6	Signage: 2' pave shoulder
PR 24	WYATTS WAY	Bedford County	1779.85	C	RTE 43 EAST	RTE 707	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	D	2278	SR	N/A	6, 6	6, 8	Signage: 2' pave shoulder
PR 24	WYATTS WAY	Bedford County	1818.55	C	RTE 709	CAMPBELL CL	Rural 2-Way	Rural	2	18	9	Gravel	2	55	D	D	2278	SR	N/A	6, 6	6, 8	Signage: 2' pave shoulder
PR 24	WYATTS WAY	Bedford County	7228.41	C	RTE 707	RTE 709	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	D	2278	SR	N/A	6, 6	6, 8	Signage: 2' pave shoulde

Campbell County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																		Group A	Group B	Group A	Group B	
1	7TH ST	CAMPBELL	697.34	C	FRANKLIN AVENUE	LOLA AVENUE	Urban Arterial	Residential	1	24	12	None	0	25	C	D	2788	SR	SR	WK14	WK14	Signage Share Road
7th	7TH ST	CAMPBELL	182.37	C	BEDFORD AVENUE	FRANKLIN AVENUE	Urban Arterial	Central Business	1	36	11	Curb/gutter	0	25	C	C	3851	SR	SR	WK14	WK14	Restrict Wide Outside Lane
7th	7TH ST	CAMPBELL	760.99	C	LOLA AVENUE	OLD NO. ALTAVISTA	Rural 2-Way	Residential	1	20	10	None	0	25	C	B	1889	SR	SR	WK14	WK14	Signage Share Road
Avondale Dr.	AVONDALE DR	CAMPBELL	117.91	A	FRAZIER ROAD	OGDEN ROAD	Urban Arterial	Residential	1	20	10	Curb/gutter	0	25	C	A	388	SR	SR	WK14	WK14	Signage Share Road
Avondale Dr.	AVONDALE DR	CAMPBELL	388.08	B	LOLA AVENUE EXT	FRAZIER ROAD	Urban Arterial	Residential	1	24	11	Curb/gutter	0	25	C	B	2083	SR	SR	WK14	WK14	Signage Share Road
43	BEDFORD AVENUE	CAMPBELL	742.27	B	MYRTLE LANE	7TH STREET	Urban Arterial	Residential	1	40	12	Curb/gutter	0	35	D	D	4845	SR	SR	WK15	WK15	Restrict Wide Outside Lane
43	BEDFORD AVENUE	CAMPBELL	909.40	B	WOLFTAVISTA	BROAD STREET	Rural 2-Way	Residential	1	24	12	Earth	1	35	C	C	3888	SR	SR	WK15	WK15	Signage 2 pave shoulder
43	BEDFORD AVENUE	CAMPBELL	53.14	A	7TH STREET	MAIN STREET	Urban Arterial	Outlying Business	1	40	11	Curb/gutter	0	35	D	D	4845	SR	SR	WK15	WK15	Restrict Wide Outside Lane
43	BEDFORD AVENUE	CAMPBELL	800.81	A	BROAD STREET	MYRTLE LANE	Urban Arterial	Residential	1	36	18	Curb/gutter	0	35	C	C	4210	SR	SR	WK15	WK15	Restrict Wide Outside Lane
FR 43	BEDFORD HWY	Campbell	150.14	E	WOLFTAVISTA	RTE 29 BYPASS	Rural 2-Way	Rural	1	24	12	Gravel	2	45	D	D	2673	SR	SR	WK6	WK6	Signage 2 pave shoulder
FR 43	BEDFORD HWY	Campbell	1021.85	B	RTE 692	BEDFORD CL	Rural 2-Way	Rural	1	20	10	Earth	3	55	D	C	155	SR	SR	WK6	WK8	Signage 2 pave shoulder
FR 43	BEDFORD HWY	Campbell	1822.96	E	RTE 29 BYPASS	RTE 712	Rural 2-Way	Suburban Low Density	1	24	12	Gravel	2	45	D	D	2673	SR	SR	WK6	WK6	Signage 2 pave shoulder
FR 43	BEDFORD HWY	Campbell	7510.48	B	RTE 668	RTE 692	Rural 2-Way	Rural	1	18	9	Earth	2	55	E	E	2728	SR	N/A	WK6	WK8	Signage 2 pave shoulder
FR 43	BEDFORD HWY	Campbell	872.85	C	RTE 712	RTE 668	Rural 2-Way	Rural	1	20	10	Earth	2	55	D	E	2673	SR	N/A	WK6	WK8	Signage 2 pave shoulder
5	BROAD STREET	CAMPBELL	209.87	A	LYNCH MILL ROAD	11TH STREET	Urban Arterial	Residential	1	20	10	Earth	1	25	C	A	104	SR	SR	WK14	WK14	Signage
FR 40	BROOKNEAL	Campbell	170.18	B	RTE 501	RTE T-1111	Rural 2-Way	Central Business	1	36	10	Curb/gutter	0	45	D		2385	SR	SR	WK6	WK8	Signage 2 pave shoulder
FR 40	BROOKNEAL	Campbell	1140.18	E	RTE T-1111	EQ BROOKNEAL	Rural 2-Way	Residential	1	20	10	Earth	3	45	C	C	2385	SR	SR	WK6	WK8	Signage 2 pave shoulder
US 501	BROOKNEAL HWY	Campbell	7698.88	C	RTE 617 NORTH	RTE 652	Rural 2-Way	Rural	1	22	11	Earth	3	55	D	F	3316	SR	N/A	WK6	WK8	Signage 2 pave shoulder
US 501	BROOKNEAL HWY	Campbell	1811.93	E	RTE 24 WEST	RTE 652	Rural 2-Way	Suburban Low Density	1	24	12	Earth	2	45	E	E	9648	SR	SR	WK6	WK8	Signage 2 pave shoulder
US 501	BROOKNEAL HWY	Campbell	2138.10	C	RTE 652	RTE 617 NORTH	Rural 2-Way	Rural	1	24	11	Earth	6	55	D	F	4425	SR	N/A	WK6	WK8	Signage 2 pave shoulder
US 501	BROOKNEAL HWY	Campbell	6620.25	C	RTE 607 SOUTH	RTE 24 WEST	Rural 2-Way	Rural	2	22	11	Earth	2	55	E	F	3882	SR	N/A	WK6	WK8	Signage 2 pave shoulder
US 501	BROOKNEAL HWY	Campbell	8464.38	C	RTE 652	RTE 607 SOUTH	Rural 2-Way	Rural	1	22	11	Earth	2	55	E	F	3882	SR	N/A	WK6	WK8	Signage 2 pave shoulder
US 501	BROOKNEAL HWY	Campbell	2146.72	C	RTE 617 SOUTH	RTE 652	Rural 2-Way	Rural	1	24	11	Earth	6	55	D	F	4425	SR	N/A	WK6	WK8	Signage 6 pave shoulder
677	CAMP HIGHWAY	Campbell	1881.13	A	OLD RUSTBURG ROAD	EQ LYNCHBURG	Rural 2-Way	Rural	2	16	8	Earth	1	25	C	B	518	SR	SR	WK14	WK4	Signage 2 pave shoulder
SC 677	CAMP HIGHWAY	Campbell	4859.48	A	CANDLERS MOUNTAIN ROAD	OLD RUSTBURG ROAD	Rural 2-Way	Rural	1	16	8	Gravel	1	35	D	B	381	SR	SR	WK14	WK4	Signage 2 pave shoulder
US 501	CAMPBELL HIGHWAY	Campbell	1167.98	A	OLD RUSTBURG ROAD	EQ LYNCHBURG	Rural Multilane	Rural	4	48	11	Gravel	6	55	D	D	9935	SR	N/A	WK8	WK8	Signage 6 pave shoulder

Campbell County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																		Group A	Group B	Group A	Group B	
US 501	CAMPBELL HIGHWAY	Campbell	1827.33	A	STEVENS ROAD	OLD RUSTBURG ROAD	Rural Multilane	Rural	4	48	12	Gravel	6	55	D	D	9935	SR	N/A	sp 6	sp 8	Signage: 6' pave shoulder
US 501	CAMPBELL HIGHWAY	Campbell	1447.02	A	RT 670(SUNNYMEADE	STEVENS ROAD	Rural Multilane	Rural	4	48	12	Gravel	4	55	E	D	9935	SR	N/A	sp 6	sp 8	Signage: 4' pave shoulder
US 501	CAMPBELL HWY	Campbell	3007.74	A	RTE 894 SOUTH	RTE 680 NORTH	Sub 2-Way	Suburban Low Density	2	20	10	Earth	2	55	F	E	9105	SR	N/A	sp 6	sp 8	Signage: 2' pave shoulder
US 501	CAMPBELL HWY	Campbell	567.15	A	RTE 24 EAST	RTE 894 SOUTH	Sub 2-Way	Suburban Low Density	2	20	10	Earth	2	55	F	E	9105	SR	N/A	sp 6	sp 8	Signage: 2' pave shoulder
US 501	CAMPBELL HWY	Campbell	85.22	B	RTE 622	RTE 24 EAST	Urban Arterial	Outlying Business	2	36	12	curb/gutter	0	25	D	D	9648	SR	SR	wc 14	sp 4	Signage:
US 501	CAMPBELL HWY	Campbell	3076.09	A	RTE 680 NORTH	RTE 670(SUNNYEEADE	Rural Multilane	Rural	4	48	12	Gravel	4	55	E	D	9105	SR	N/A	sp 6	sp 8	Signage: 4' pave shoulder
US 501	CAMPBELL HWY	Campbell	460.80	B	RTE 622	RTE 24 EAST	Urban Arterial	Outlying Business	2	36	12	curb/gutter	0	25	D	D	9648	SR	SR	wc 14	sp 4	Signage:
SC 670	CANDLERS MOUNTAIN	Campbell	3220.25	C	SCL LYNCHBURG	SUNNYMEADE ROAD	Sub 2-Way	Rural	2	20	10	Earth	2	55	D	C	2587	SR	N/A	sp 6	sp 8	Signage: 2' pave shoulder
SC 670	CANDLERS MOUNTAIN	Campbell	4544.38	E	SUNNYMEADE ROAD	ROUTE 501	Sub 2-Way	Rural	2	20	10	Earth	2	35	C	B	1233	SR	SR	wc 15	wc 15	Signage: 2' pave shoulder
PR 24	COLONIAL HWY	Campbell	2570.17	A	RTE 685	RTE 501 SOUTH	Sub 2-Way	Rural	2	20	10	Earth	1	55	D	E	3062	SR	N/A	sp 6	sp 8	Signage: 2' pave shoulder
PR 24	COLONIAL HWY	Campbell	9021.66	C	RTE 682	RTE 29	Sub 2-Way	Rural	2	20	10	Earth	1	55	D	E	1207	SR	N/A	sp 6	sp 8	Signage: 2' pave shoulder
PR 24	COLONIAL HWY	Campbell	1728.92	A	RTE 687	RTE 685	Sub 2-Way	Rural	2	20	10	Earth	2	55	D	E	3062	SR	N/A	sp 6	sp 8	Signage: 2' pave shoulder
PR 24	COLONIAL HWY	Campbell	2052.41	B	RTE 29	RTE 687	Sub 2-Way	Rural	2	24	12	Earth	3	55	D	E	3062	SR	N/A	sp 6	sp 8	Signage: 2' pave shoulder
PR 24	COLONIAL HWY	Campbell	500.64	C	RTE 811	RTE 682	Sub 2-Way	Rural	2	20	10	Earth	1	55	D	E	1207	SR	N/A	sp 6	sp 8	Signage: 2' pave shoulder
PR 24	COLONIAL HWY	Campbell	554.58	C	RTE 811	RTE 682	Sub 2-Way	Rural	2	20	10	Earth	1	55	D	E	1207	SR	N/A	sp 6	sp 8	Signage: 2' pave shoulder
SC 683	COLONIAL HWY	Campbell	535.54	C	RTE 811	RTE 682	Sub 2-Way	Rural	2	20	10	Earth	1	55	D	E	1207	SR	N/A	sp 6	sp 8	Signage: 2' pave shoulder
PR 24	COLONIAL HWY	Campbell	3311.60	A	BEDFORD CL	RTE 811	Sub 2-Way	Rural	2	20	10	Earth	2	55	D	D	363	SR	SR	sp 6	sp 8	Signage: 2' pave shoulder
SC 622	DEPOT RD	Campbell	6092.30	D	RTE 738 NORTH	RTE 501	Sub 2-Way	Rural	2	16	8	Earth	1	45	D	B	735	SR	SR	sp 6	sp 6	Signage: 2' pave shoulder
SC 738	ENGLISH TAVERN ROAD	Campbell	736.23	E	DEPOT LANE ROAD	SUBURBAN ROAD	Sub 2-Way	Rural	2	18	9	Earth	1	45	D	D	2822	SR	SR	sp 6	sp 6	Signage: 2' pave shoulder
SC 738	ENGLISH TAVERN ROAD	Campbell	2606.01	B	SUBURBAN ROAD	RTE 29 NORTH	Sub 2-Way	Rural	2	18	9	Earth	1	45	D	D	2462	SR	SR	sp 6	sp 6	Signage: 2' pave shoulder
SC 738	ENGLISH TAVERN ROAD	Campbell	1240.66	E	RTE 29 MID	RTE 622 NORTH	Sub 2-Way	Rural	2	18	9	Earth	1	45	D	C	2144	SR	SR	sp 6	sp 6	Signage: 2' pave shoulder
SC 633	EPSONS RD	Campbell	5282.44	A	RTE 761 SOUTH	RTE 635 WEST	Sub 2-Way	Rural	2	16	8	Earth	2	55	D	B	107	SR	SR	sp 6	sp 8	Signage: 2' pave shoulder
SC 633	EPSONS RD	Campbell	4536.45	A	RTE 635 WEST	RTE 614 EAST	Sub 2-Way	Rural	2	16	8	Earth	2	55	D	B	121	SR	SR	sp 6	sp 8	Signage: 2' pave shoulder
SC 633	EPSONS RD	Campbell	3079.67	A	RTE 614 EAST	RTE 501	Sub 2-Way	Rural	2	16	8	Earth	1	55	D	B	287	SR	SR	sp 6	sp 8	Signage: 2' pave shoulder
Franklin Ave.	FRANKLIN AVE	Altavista	113.10	B	MAIN STREET	7TH STREET	Urban Arterial	Central Business	2	36	12	None	0	25	C	A	1100	SR	SR	wc 14	wc 14	Signage: Share Road
Frazier Rd.	FRAZIER RD	Altavista	258.94	B	LOLA AVENUE EXT	LYNCH MILL ROAD	Urban Arterial	Residential	2	22	11	None	0	35	C	C	2640	SR	SR	wc 15	bi 5	Signage: Share Road
Frazier Rd	FRAZIER RD	Altavista	146.79	B	AVONDALE DRIVE	LOLA AVENUE EXT	Urban Arterial	Residential	2	20	10	None	0	35	D	C	1716	SR	SR	wc 15	bi 5	Signage: Share Road

Campbell County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BC LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition Group A	Current Condition Group B	Standard Recommendation Group A	Standard Recommendation Group B	Recommendation
SC 699	GLADYS RD	Campbell	2884.45	B	RTE 686	RTE 619	Rural 2-Way	Rural	2	22	11	Earth	2	55	D	D	1460	SR	N/A	W6.6	W6.8	Signage, 2 pave shoulder
SC 699	GLADYS RD	Campbell	2094.66	C	RTE 29	RTE 701	Rural 2-Way	Rural	2	22	11	Earth	1	55	D	E	1368	SR	N/A	W6.6	W6.8	Signage, 2 pave shoulder
SC 699	GLADYS RD	Campbell	2483.84	B	RTE 701	RTE 686	Rural 2-Way	Rural	2	22	11	Earth	2	55	D	D	1918	SR	N/A	W6.6	W6.8	Signage, 2 pave shoulder
SC 699	GLADYS RD	Campbell	4056.01	B	RTE 619	RTE 761	Rural 2-Way	Rural	2	24	12	Earth	2	55	D	D	1475	SR	N/A	W6.6	W6.8	Signage, 2 pave shoulder
SC 739	GREENVIEW DRIVE	Campbell	27.39	D	LYNCHBURG HIGHWAY	WCL LYNCHBURG	Urban Arterial	Outlying Business	2	24	12	Earth	3	45	E	D	11795	SR	SR	W6.6	W6.6	Signage, 2 pave shoulder
SC 601	JUNIPER CLIFF RD	Campbell	1729.01	B	NCL BROOKNEAL	RTE 605 WEST	Rural 2-Way	Rural	2	16	8	Earth	1	55	D	B	281	SR	SR	W6.6	W6.6	Signage, 2 pave shoulder
T- 601	JUNIPER CLIFF RD	Campbell	929.16	E	RTE 501	NCL BROOKNEAL	Residential 2-Way	Residential	2	16	8	Earth	2	25	C	B	281	SR	SR	W6.6	W6.4	Signage, 2 pave shoulder
SC 683	LAWYERS ROAD	Campbell	3287.79	B	WATERLICK ROAD	WARDS ROAD	Rural 2-Way	Rural	2	22	11	Earth	1	55	D	F	3333	SR	N/A	W6.6	W6.8	Signage, 2 pave shoulder
SC 1520	LAXTON ROAD	Campbell	1184.86	B	KENWOOD DRIVE	TIMBERLAKE ROAD	Rural Multilane	Residential	4	44	11	curb/gutter	0	45	D	D	14002	SR	SR	W6.6	W6.6	Signage, 2 pave shoulder
SC 882	LEESVILLE ROAD	Campbell	47.56	A	GREYSTONE DRIVE	SCL LYNCHBURG	Rural Multilane	Rural	4	48	12	curb/gutter	0	45	E	D	11358	SR	SR	W6.6	W6.6	Signage, 2 pave shoulder
SC 882	LEESVILLE ROAD	Campbell	3842.57	E	SUNBURST ROAD	GREYSTONE DRIVE	Rural 2-Way	Rural	2	24	12	Earth	1	45	E	E	8022	SR	SR	W6.6	W6.6	Signage, 2 pave shoulder
B	LOLA AVE	Campbell	39.44	B	7TH STREET	11TH STREET	Urban Arterial	Residential	2	30	12	curb/gutter	0	25	C	C	2842	SR	SR	W6.15	W6.6	Signage, Wide Outside Lane
Lola Ave	LOLA AVE	Campbell	118.17	C	MAIN STREET	7TH STREET	Urban Arterial	Outlying Business	2	24	12	None	0	25	C	C	2873	SR	SR	W6.15	W6.6	Signage, Wide Outside Lane
Lola Ave	LOLA AVE	Campbell	211.23	B	11TH STREET	LOLA AVENUE EXT	Urban Arterial	Residential	2	30	12	curb/gutter	0	25	C	C	3078	SR	SR	W6.15	W6.6	Signage, Wide Outside Lane
SC 761	LONG ISLAND RD	Campbell	5084.74	B	RTE 688 SOUTH	RTE 703	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	D	646	SR	SR	W6.6	W6.6	Signage, 2 pave shoulder
SC 761	LONG ISLAND RD	Campbell	169.91	B	PITTSYLVANIA CL	RTE 688 SOUTH	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	D	715	SR	SR	W6.6	W6.6	Signage, 2 pave shoulder
SC 761	LONG ISLAND RD	Campbell	852.39	B	PITTSYLVANIA CL	RTE 688 SOUTH	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	D	715	SR	SR	W6.6	W6.6	Signage, 2 pave shoulder
SC 761	LONG ISLAND RD	Campbell	3191.16	B	RTE 705	RTE 699	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	E	988	SR	SR	W6.6	W6.6	Signage, 2 pave shoulder
SC 761	LONG ISLAND RD	Campbell	2884.37	C	RTE 699	RTE 501	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	E	2158	SR	N/A	W6.6	W6.8	Signage, 2 pave shoulder
US 501	LUSABO DR	Campbell	1186.78	E	HALIFAX CL	RTE 40 NORTH	Rural 2-Way	Suburban High	2	22	11	Earth	2	35	D	E	4845	SR	SR	W6.14	W6.4	Signage, 2 pave shoulder
SC 622	LYNBROOK RD	Campbell	312.73	E	RTE 29	RTE 788 SOUTH	Rural 2-Way	Residential	2	16	8	Earth	1	25	C	C	1033	SR	SR	W6.6	W6.4	Signage, 2 pave shoulder
SC 744	LYNCH MILL RD	Campbell	1097.39	E	RTE 711	RTE 616	Rural 2-Way	Rural	2	16	8	Earth	1	45	D	C	1811	SR	SR	W6.6	W6.6	Signage, 2 pave shoulder
Lynch Mill Rd	LYNCH MILL RD	Campbell	477.01	C	MAIN STREET	CLARION ROAD	Urban Arterial	Suburban High	2	22	11	Earth	1	35	D	D	3016	SR	SR	W6.15	W6.5	Signage, 2 pave shoulder
1466	LYNCH MILL RD	Campbell	785.86	B	CLARION ROAD	FRAZIER ROAD	Urban Arterial	Rural	2	22	11	Earth	1	35	D	D	3288	SR	SR	W6.15	W6.5	Signage, 2 pave shoulder
Lynch Rd	LYNCH ROAD	Campbell	280.15	A	11TH STREET EXT	BROAD STREET	Urban Arterial	Suburban Low Density	2	20	10	Earth	1	25	C	A	301	SR	SR	W6.14	W6.14	Signage, 2 pave shoulder
US 501	LYNCHBURG AVE	Campbell	1373.19	E	RTE 40 NORTH	NCL BROOKNEAL	Rural 2-Way	Outlying Business	2	22	11	Earth	1	45	D	F	6342	SR	SR	W6.6	W6.6	Signage, 2 pave shoulder
US 501	LYNCHBURG AVE	Campbell	3901.71	C	NCL BROOKNEAL	RTE 947 SOUTH	Rural 2-Way	Rural	2	24	12	Earth	6	55	D	F	6342	SR	N/A	W6.6	W6.8	Signage, 2 pave shoulder

Campbell County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																		Group A	Group B	Group A	Group B	
SC 712	MAIN STREET	Campbell	268.22	D	NCL ALTAVISTA	RTE 29 BYPASS	Sgl. 2-Way	Rural	2	24	12	Earth	2	55	E	E	8317	SR	NA	ps,6	ps,8	Signage; 2' pave shoulder
29	MAIN STREET	Altavista	372.95	B	LOLA AVENUE	WOOD LANE	Urban Arterial	Outlying Business	2	40	10	curb/gutter	0	25	D	D	11614	SR	SR	wc,14	pl,5	Signage; Share Road
29	MAIN STREET	Altavista	2196.88	A	LYNCH MILL ROAD	NCL ALTAVISTA	Sgl. 2-Way	Suburban High	2	24	12	Earth	2	45	D	E	8317	SR	SR	wc,15	pl,6	Signage; Share Road
29	MAIN STREET	Altavista	553.20	C	BEDFORD AVENUE	PITTSYLVANIA AVENUE	Urban Arterial	Central Business	2	40	12	curb/gutter	0	25	D	C	7920	SR	SR	wc,14	pl,5	Signage; Share Road
29	MAIN STREET	Altavista	1052.66	B	WOOD LANE	LYNCH MILL ROAD	Urban Arterial	Outlying Business	2	24	12	Earth	2	45	E	E	11532	SR	SR	wc,15	pl,6	Signage; Share Road
29	MAIN STREET	Altavista	428.02	D	SCL ALTAVISTA	BEDFORD AVENUE	Sgl. 2-Way	Outlying Business	2	20	10	None	0	25	D	D	5786	SR	SR	wc,14	pl,5	Signage; Share Road
29	MAIN STREET	Altavista	402.08	C	AMHERST AVENUE	LOLA AVENUE	Urban Arterial	Central Business	4	40	10	curb/gutter	0	25	D	D	11614	SR	SR	wc,14	pl,5	Lane Reduction; Bike Lane
SC 646	MORRIS CHURCH RD	Campbell	6130.59	B	RTE 615	RTE 604	Sgl. 2-Way	Rural	2	16	8	Earth	1	55	D	B	471	SR	SR	ps,6	ps,6	Signage; 2' pave shoulder
SC 726	MOUNT ATHOS ROAD	Campbell	489.52	D	RICHMOND HIGHWAY	STAGE ROAD	Sgl. 2-Way	Rural	2	24	12	Earth	2	55	E	E	7658	SR	N/A	ps,6	ps,8	Signage; 2' pave shoulder
SC 726	MOUNT ATHOS ROAD	Campbell	4627.93	D	STAGE ROAD	PRIVATE ROAD	Sgl. 2-Way	Rural	2	20	10	Earth	2	55	F	E	5562	SR	N/A	ps,6	ps,8	Signage; 2' pave shoulder
SC 712	MT HERMAN RD	Campbell	1079.75	E	RTE 43 EAST	RTE 714	Sgl. 2-Way	Rural	2	18	9	Earth	1	25	C	B	1418	SR	SR	wc,14	ps,4	Signage; 2' pave shoulder
SC 619	PATRICK HENRY DR	Campbell	794.40	A	RTE 600	CHARLOTTE CL	Sgl. 2-Way	Rural	2	16	8	Earth	1	55	D	D	412	SR	SR	ps,6	ps,6	Signage; 2' pave shoulder
Pittsylvania Ave.	PITTSYLVANIA AVE	Altavista	303.02	B	MAIN STREET	SCL ALTIVISTA	Urban Arterial	Outlying Business	2	24	12	curb/gutter	0	25	D	D	7516	SR	SR	wc,14	pl,5	Signage; Share Road
SC 1520	RAINBOW FOREST DRIVE	Campbell	3279.94	A	WATERLICK ROAD	CROSSWAY ROAD	Sgl. 2-Way	Residential	2	20	10	Earth	1	25	C	B	818	SR	SR	ps,6	ps,6	Signage; 2' pave shoulder
SC 615	RED HOUSE RD	Campbell	3484.50	C	RTE 607	RTE 651	Sgl. 2-Way	Rural	2	18	9	Earth	2	55	D	C	1290	SR	SR	ps,6	ps,6	Signage; 2' pave shoulder
SC 615	RED HOUSE RD	Campbell	5256.57	B	RTE 834	CHARLOTTE CL	Sgl. 2-Way	Rural	2	16	8	Earth	1	55	D	B	415	SR	SR	ps,6	ps,6	Signage; 2' pave shoulder
SC 615	RED HOUSE RD	Campbell	5481.06	C	RTE 24	RTE 606	Sgl. 2-Way	Rural	2	18	9	Earth	2	55	E	D	3644	SR	N/A	ps,6	ps,8	Signage; 2' pave shoulder
SC 615	RED HOUSE RD	Campbell	4307.42	B	RTE 651	RTE 648 EAST	Sgl. 2-Way	Rural	2	16	8	Earth	2	55	D	C	854	SR	SR	ps,6	ps,6	Signage; 2' pave shoulder
SC 615	RED HOUSE RD	Campbell	8051.15	B	RTE 648 EAST	RTE 834	Sgl. 2-Way	Rural	2	16	8	Earth	1	55	D	C	884	SR	SR	ps,6	ps,6	Signage; 2' pave shoulder
SC 615	RED HOUSE RD	Campbell	2937.89	C	RTE 606	RTE 607	Sgl. 2-Way	Rural	2	18	9	Earth	2	55	E	D	2561	SR	N/A	ps,6	ps,8	Signage; 2' pave shoulder
US 460	RICHMOND HIGHWAY	Campbell	3848.29	A	MOUNT ATHOS ROAD	ROUTE 732	Rural Multilane	Rural	4	48	12	Earth	3	60	F	F	20819	SR	N/A	ps,6	ps,8	Signage; 2' pave shoulder
SC 725	RIDGE RD	Campbell	1676.83	E	RTE 811	RTE 682	Sgl. 2-Way	Rural	2	16	8	Earth	1	35	D	B	403	SR	SR	wc,14	ps,4	Signage; 2' pave shoulder
SC 712	RIVERBEND RD	Campbell	169.35	B	RTE 29 BUS SOUTH	RTE 699	Sgl. 2-Way	Rural	2	18	9	Earth	1	55	D	B	666	SR	SR	ps,6	ps,6	Signage; 2' pave shoulder
SC 606	SPRING MILL RD	Campbell	670.76	B	RTE 604	RTE 606 NORTH	Sgl. 2-Way	Rural	2	16	8	Earth	1	55	D	C	1029	SR	SR	ps,6	ps,6	Signage; 2' pave shoulder
SC 646	SPRING MILL RD	Campbell	6830.73	B	RTE 606 NORTH	RTE 24	Sgl. 2-Way	Rural	2	18	9	Earth	1	55	D	C	1029	SR	SR	ps,6	ps,6	Signage; 2' pave shoulder
SC 609	STAGE ROAD	Campbell	1886.67	E	MOUNT ATHOS ROAD	CABIN FIELD RD	Sgl. 2-Way	Suburban Low Density	2	18	9	Earth	1	45	D	D	1478	SR	SR	ps,6	ps,6	Signage; 2' pave shoulder
SC 608	STONEWALL ROAD	Campbell	820.78	E	RTE 460/24	APPOMATTOX C.L.	Sgl. 2-Way	Rural	2	22	11	Earth	6	35	C	B	2171	SR	SR	wc,14	ps,4	Signage; 4' pave shoulder

Campbell County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																		Group A	Group B	Group A	Group B	
SC 648	SUCK CREEK RD	Campbell	1321.27	B	RTE 652	RTE 615 SOUTH	Rural 2-Way	Rural	2	16	8	Earth	1	55	D	D	237	SR	SR	sh 6	sh 6	Signage; 2' pave shoulder
SC 600	SUGAR HILL RD	Campbell	3299.95	B	RTE 618 SOUTH	RTE 756	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	C	534	SR	SR	sh 6	sh 6	Signage; 2' pave shoulder
SC 600	SUGAR HILL RD	Campbell	5442.81	B	RTE 756	RTE 601	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	C	479	SR	SR	sh 6	sh 6	Signage; 2' pave shoulder
SC 600	SUGAR HILL RD	Campbell	2663.12	B	RTE 601	CHARLOTTE CL	Rural 2-Way	Rural	2	16	8	Earth	1	55	D	C	522	SR	SR	sh 6	sh 6	Signage; 2' pave shoulder
SC 600	SUGAR HILL RD	Campbell	3037.68	B	RTE 40 WEST	RTE 618 SOUTH	Rural 2-Way	Rural	2	18	9	Earth	1	55	D	C	834	SR	SR	sh 6	sh 6	Signage; 2' pave shoulder
SC 681	SUNBURST ROAD	Campbell	1328.44	C	LESSVILLE ROAD	WATERLICK ROAD	Rural 2-Way	Rural	2	18	9	Earth	1	45	D	C	2308	SR	SR	sh 6	sh 6	Signage; 2' pave shoulder
SC 677	SUNNYMEADE ROAD	Campbell	3068.50	B	ENGLISH TAVERN ROAD	CANDLERS MOUNTAIN ROAD	Rural 2-Way	Suburban Low Density	2	18	9	Earth	1	45	D	C	2006	SR	SR	sh 6	sh 6	Signage; 2' pave shoulder
BUS. US 460	TIMBERLAKE ROAD	Campbell	123.49	B	RICHMOND HIGHWAY	WATERLICK ROAD	Urban Arterial	Suburban Low Density	4	48	12	Gravel	3	45	E	D	16044	SR	SR	sh 6	sh 6	Signage; 2' pave shoulder
BUS. US 460	TIMBERLAKE ROAD	Campbell	1711.19	C	WATERLICK ROAD	GREENVIEW DRIVE	Urban Arterial	Outlying Business	4	48	12	Gravel	2	45	E	D	28646	SR	SR	sh 6	sh 6	Signage; 2' pave shoulder
BUS. US 460	TIMBERLAKE ROAD	Campbell	66.60	D	GREENVIEW DRIVE	WCL LYNCHBURG	Urban Arterial	Outlying Business	4	48	12	Gravel	2	45	E	D	30983	SR	SR	sh 6	sh 6	Signage; 2' pave shoulder
PR 24	VILLAGE HWY	Campbell	510.74	E	RTE 646	RTE 1701	Rural 2-Way	Suburban Low Density	2	20	10	Earth	3	35	C	E	3110	SR	SR	wc 14	sh 4	Signage; 2' pave shoulder
PR 24	VILLAGE HWY	Campbell	3472.93	C	RTE 615	RTE 651	Rural 2-Way	Rural	2	20	10	Earth	2	55	D	E	3582	SR	N/A	sh 6	sh 8	Signage; 2' pave shoulder
PR 24	VILLAGE HWY	Campbell	870.49	A	RTE 501 NORTH	RTE 615	Rural 2-Way	Suburban Low Density	2	36	12	curb/gutter	0	35	D	E	3582	SR	SR	sh 6	sh 4	Sign Share Road
PR 24	VILLAGE HWY	Campbell	3141.85	C	RTE 656	RTE 646	Rural 2-Way	Rural	2	20	10	Earth	3	55	D	E	3110	SR	N/A	sh 6	sh 8	Signage; 2' pave shoulder
PR 24	VILLAGE HWY	Campbell	1426.05	A	RTE 1701	RTE 460	Rural 2-Way	Suburban Low Density	2	40	18	curb/gutter	0	35	C	C	3110	SR	SR	wc 14	sh 6	Restripe; wide shoulder
PR 24	VILLAGE HWY	Campbell	5873.52	C	RTE 651	RTE 656	Rural 2-Way	Rural	2	20	10	Earth	2	55	D	E	3582	SR	N/A	sh 6	sh 8	Signage; 2' pave shoulder
US 29	WARDS RD	Campbell	902.80	A	RTE 43	RTE 626	Freeway/Expressway	Rural	4	48	12	Gravel	8	65			12385	SR	N/A	sh 6	sh 8	Signage; 4' pave shoulder
US 29	WARDS RD	Campbell	4486.42	A	RTE 686	RTE 24	Rural Multilane	Rural	4	48	12	Gravel	6	60	E	F	18777	SR	N/A	sh 6	sh 8	Signage; 4' pave shoulder
US 29	WARDS RD	Campbell	3405.78	A	RTE 24	RTE 685	Rural Multilane	Rural	4	48	12	Gravel	6	60	E	F	20106	SR	N/A	sh 6	sh 8	Signage; 4' pave shoulder
US 29	WARDS RD	Campbell	264.18	C	RTE 460	SCL LYNCHBURG	Urban Arterial	Suburban Low Density	4	48	12	curb/gutter	0	65	F	E	30545	SR	N/A	sh 6	sh 8	Signage; 4' pave shoulder
US 29	WARDS RD	Campbell	4498.61	A	RTE 626	RTE 29 BUS	Freeway/Expressway	Rural	4	48	12	Gravel	8	65			12385	SR	N/A	sh 6	sh 8	Signage; 4' pave shoulder
US 29	WARDS RD	Campbell	1518.28	A	PITTSYLVANIA CL	RTE 43	Freeway/Expressway	Rural	4	48	12	Gravel	8	65			11919	SR	N/A	sh 6	sh 8	Signage; 4' pave shoulder
US 29	WARDS RD	Campbell	4886.36	A	RTE 699	RTE 696 SOUTH	Rural Multilane	Rural	4	48	12	Gravel	6	60	E	F	19456	SR	N/A	sh 6	sh 8	Signage; 4' pave shoulder
US 29	WARDS RD	Campbell	2022.20	D	LAWYERS ROAD	AIRPORT ENTRANCE	Urban Arterial	Suburban Low Density	4	48	12	Gravel	4	45	F	F	30471	SR	N/A	sh 6	sh 8	Signage; 4' pave shoulder
US 29	WARDS RD	Campbell	925.25	A	ROUTE 685	RTE 622 N(LYNBROOD RD)	Rural Multilane	Suburban Low Density	4	48	12	Gravel	6	60	E	F	20106	SR	N/A	sh 6	sh 8	Signage; 4' pave shoulder
US 29	WARDS RD	Campbell	780.40	C	ENGLISH TAVERN ROAD	LAWYERS ROAD	Urban Arterial	Suburban High	4	48	12	Gravel	6	45	F	F	30471	SR	N/A	sh 6	sh 8	Signage; 4' pave shoulder
US 29	WARDS RD	Campbell	447.21	D	AIRPORT ENTRANCE	RTE 460	Urban Arterial	Suburban Low Density	4	48	12	curb/gutter	0	45	F	F	30471	SR	N/A	sh 6	sh 8	Signage; 2' pave shoulder

Campbell County Road Characteristics

Route Name	Street Name	Locality	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																		Group A	Group B	Group A	Group B	
US 29	WARDS RD	Campbell	2000.04	A	RTE 29 BUS	RTE 699	Rural Multilane	Rural	4	48	12	Gravel	6	60	E	F	18456	SR	N/A	##.#	##.#	Signage & pave shoulder
US 29	WARDS RD	Campbell	3667.25	A	RTE 696 SOUTH	RTE 696	Rural Multilane	Rural	4	48	12	Gravel	6	60	E	F	18777	SR	N/A	##.#	##.#	Signage & pave shoulder
US 29	WARDS RD	Campbell	3869.92	A	RT 633 (NEWBROOK RD)	ENGLISH TAVERN ROAD	Rural Multilane	Suburban Low Density	4	48	12	Gravel	6	60	E	F	20106	SR	N/A	##.#	##.#	Signage & pave shoulder
SC 622	WATERLICK ROAD	Campbell	1823.66	C	TIMBERLAKE ROAD	LEESVILLE ROAD	Sub 2-Way	Residential	2	24	12	Earth	3	45	D	D	10788	SR	SR	##.#	##.#	Signage & pave shoulder
SC 622	WATERLICK ROAD	Campbell	438.77	B	RAINBOW TROUT DRIVE	TIMBERLAKE ROAD	Urban Arterial	Residential	2	44	11	curb/gutter	0	45	E	E	11639	SR	SR	##.#	##.#	Bike Lane Signage
SC 622	WATERLICK ROAD	Campbell	4177.41	E	LAWYERS ROAD	WARDS ROAD	Sub 2-Way	Rural	2	18	9	Earth	1	55	D	C	1331	SR	SR	##.#	##.#	Signage & pave shoulder
SC 622	WATERLICK ROAD	Campbell	1730.18	B	EQ BEDFORD	RAINBOW TROUT DRIVE	Urban Arterial	Suburban Low Density	2	24	12	Gravel	2	45	E	D	11438	SR	SR	##.#	##.#	Signage & pave shoulder
SC 622	WATERLICK ROAD	Campbell	3797.69	C	LEESVILLE ROAD	LAWYERS ROAD	Sub 2-Way	Rural	2	20	10	Gravel	1	55	D	D	4856	SR	SR	##.#	##.#	Signage & pave shoulder
SC 663	WHIPPING CREEK RD	Campbell	4380.97	B	RTE 501	RTE 501 WEST	Sub 2-Way	Rural	2	18	9	Earth	1	55	D	C	1095	SR	N/A	##.#	##.#	Signage & pave shoulder
PR 40	WICKLIFFE AVE	Campbell	3372.04	C	EQ BROOKNEAL	RTE 605	Sub 2-Way	Rural	2	20	10	Earth	2	55	D		2385	SR	N/A	##.#	##.#	Signage & pave shoulder
PR 40	WICKLIFFE AVE	Campbell	1648.65	B	RTE 605	RTE 600 NORTH	Sub 2-Way	Rural	2	20	10	Earth	2	55	D		1723	SR	N/A	##.#	##.#	Signage & pave shoulder
PR 40	WICKLIFFE AVE	Campbell	1781.29	B	RTE 600 NORTH	CHARLOTTE CL	Sub 2-Way	Rural	2	20	10	Earth	2	55	D		1723	SR	N/A	##.#	##.#	Signage & pave shoulder

City of Lynchburg Road Characteristics

Street Name	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Peak Hour Side Park	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current Bicycle LOS	Current Pedestrian LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																	Group A	Group B	Group A	Group B	
5TH STREET	15.16	C	LANGHORNE ROAD	PARK AVENUE	Urban Arterial	Outlying Business	2	24	12	N	curb/gutter	0	30	E	D	13611	SR	SR	WL15	BL5	Signed SR
ALTA LA	1884.91	B	WARDS FERRY ROAD	DELRAY CIRCLE	Rural 2-Way	Residential	2	22	11	N	None	0	25	C	C	1894	SR	N/A			Signed SR
ARDMORE DR	1481.89		OLD FOREST ROAD	DAMBRIDGE ROAD			0	0	0			0	0			0	SR	SR			Signed SR
ATHERHOLT RD	787.85		END	TATE SPRINGS			0	0	0			0	0			0	SR	SR			Signed SR
BALTIMORE ST	198.30		HOOD STREET	ROCKBRIDGE AVENUE			0	0	0			0	0			0	SR	SR			Signed SR
BELL ST	1468.92		RICHMOND STREET	COLLEGE DRIVE			0	0	0			0	0			0	SR	SR			Signed SR
BOONSBORO RD	781.83	A	BURNT BRIDGE ROAD	LYNCHBURG EXPRESSWAY	Rural 2-Way	Outlying Business	2	30	10	N	Earth	1	35	E	D	13180	SR	SR	WL15	BL5	Signed SR
BOONSBORO RD	150.46	D	RIVERMONT TERRACE	LINK ROAD	Urban Arterial	Residential	2	48	12	B	curb/gutter	0	30	E	D	15087	SR	SR	WL15	BL5	combination Signed SR and Stripe Bike Lane
BOONSBORO ROAD	1685.83	E	TRENTS FERRY ROAD	BURNT BRIDGE ROAD	Rural 2-Way	Residential	2	30	10	N	Earth	4	30	D	D	13490	SR	SR	WL15	BL5	Signed SR
BOONSBORO ROAD	1901.84	A	LYNCHBURG EXPRESSWAY	WOLLYNCHBURG	Rural 2-Way	Rural	2	30	10	N	Earth	2	45	E	E	8085	SR	N/A	WL15	BL6	Signed SR; pave 2 shoulder
BOONSBORO ROAD	1218.87	B	LINK ROAD	TRENTS FERRY ROAD	Urban Arterial	Residential	2	31	11	N	curb/gutter	0	30	E	D	13940	SR	SR	WL15	BL5	Signed SR
BURNT BRIDGE RD	1308.10	B	BOONSBORO ROAD	INDIAN HILL ROAD	Rural 2-Way	Residential	2	36	11	B	curb/gutter	0	25	C	B	1744	SR	SR	WL14	WL14	Signed SR
CAMPBELL AVE	689.97	E	LYNCHBURG EXPRESSWAY	KEMPER STREET	Rural 2-Way	Residential	2	30	15	N	curb/gutter	0	35	C	D	8134	SR	SR	WL15	BL5	Stripe Bike Lane
CAMPBELL AVE	780.48	D	FLORIDA AVENUE	MAYFLOWER DRIVE	Urban Arterial	Residential	4	50	12	N	curb/gutter	0	35	E	D	16208	SR	SR	WL14	BL5	Signed SR option for Lane Reduction and Stripe Bike Lane
CAMPBELL AVE	112.82	C	12TH STREET	PARK AVENUE	Urban Arterial	Outlying Business	2	45	11	N	curb/gutter	0	30	D	D	9038	SR	SR	WL14	BL5	Restripe Bike Lane with no parking
CAMPBELL AVE	340.93	A	16TH STREET	LYNCHBURG EXPRESSWAY	Urban Arterial	Residential	2	33	10	L	curb/gutter	0	25	D	D	8298	SR	SR	WL14	WL14	Signed Share Road
CAMPBELL AVENUE	82.29	C	MAYFLOWER DRIVE	KEMPER STREET	Urban Arterial	Residential	4	50	12	N	curb/gutter	0	35	E	D	17245	SR	SR	WL14	BL5	Signed SR option for Lane Reduction and Stripe Bike Lane
CAMPBELL AVENUE	384.08	D	RTE 460 NORTH	FLORIDA AVENUE	Urban Arterial	Outlying Business	4	48	12	N	Pavement	8	45			17580	SR	SR	WL15	BL6	Signed Share Road
CAMPBELL AVENUE	1130.84	A	BOCOCK ROAD EXT	RTE 460 NORTH	Rural Multilane	Suburban Low	4	48	12	N	Gravel	8	55	D	E	11234	SR	N/A	WL6	BL6	Signed SR; pave 2 shoulder
CAMPBELL AVENUE	685.34	A	SCL LYNCHBURG	BOCOCK ROAD EXT	Rural Multilane	Rural	4	48	12	N	Pavement	3	55	D	D	11234	SR	N/A	WL6	BL6	Signed SR; pave 2 shoulder
CANDLERS MOUNTAIN ROAD	310.08	B	MAYFLOWER DRIVE	RTE 460 BYPASS	Urban Arterial	Outlying Business	2	30	10	N	Earth	1	35	E	D	10127	SR	SR	WL15	BL5	Signed SR; pave 2 shoulder
CANDLERS MOUNTAIN ROAD	1746.86	B	RTE 460 BYPASS	SCL LYNCHBURG	Rural 2-Way	Rural	2	20	10	N	Earth	1	35	D	C	3109	SR	SR	WL15	BL5	Signed SR; pave 2 shoulder
CARROLL AVE	719.87		CAMPBELL AVENUE	MAYFLOWER DRIVE			0	0	0			0	0			0					Signed SR
CHURCH ST	1179.32	B	RIVERMONT AVE	5TH ST	Urban Arterial	Central Business	2	32	10	R	curb/gutter	0	25	E	D	14851	SR	SR	WL14	BL5	Restripe Bike Lane or WL/BL
CLAY ST	788.10	A	5TH STREET	12TH STREET	Urban Arterial	Outlying Business	2	30	10	L	curb/gutter	0	35	D	C	2191	SR	SR	WL14	BL5	Signed SR
COFFEE RD	1672.48	B	HAWKINS MILL RD @ WCL	WALNUT HOLLOW RD	Rural 2-Way	Residential	2	18	9	N	Earth	4	35	C	C	1272	SR	N/A	WL15	BL6	Signed SR; pave 2 shoulder

City of Lynchburg Road Characteristics

Street Name	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Peak Hour Side Park	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																	Group A	Group B	Group A	Group B	
COLLEGE DR	584.10		BELL STREET	BRECKENRIDGE			0	0	0			0	0			0					Signed SR
COMMERCE ST	182.34	C	5TH STREET	MAIN STREET	Urban Arterial	Central Business	2	40	11	B	curb/gutter	0	30	D	D	4884	SR	SR	wc 14	bl 5	Signed SR/ Sharrow
CONCORD TURNPIKE	2407.53	E	JEFFERSON STREET	GARNET ST	Rural 2-Way	Outlying Business	2	22	11	N	Earth	1	35	C	F	1791	SR	N/A	wc 15	bl 6	Signed SR
CRANEHILL DR	655.25	A	LINK ROAD	LANGHORNE ROAD	Rural 2-Way	Residential	2	24	12	N	curb/gutter	0	30	C	C	2246	SR	SR	wc 15	bl 5	Combination Signed SR and Stripe Bike Lane
DEL RAY CIR	250.27	B	ALTA LANE	LEESVILLE ROAD	Rural 2-Way	Residential	2	22	11	N	None	0	25	C	C	3007	SR	SR	wc 14	wc 14	Signed SR
EDGEWOOD AVE	13.21	A	FORT AVENUE	WARDS ROAD	Urban Arterial	Residential	2	30	10	R	curb/gutter	0	25	C	C	2346					
ERSKINE AVE	173.87						0	0	0			0	0			0					Signed SR
EVERGREEN ROAD	253.03	B	INDIAN HILL ROAD	HURDLE HILL ROAD	Rural 2-Way	Residential	2	22	11	N	Earth	1	25	C	C	2287	SR	SR	wc 14	wc 14	Signed SR
FEDERAL ST	613.85	A	HOLLINS MILL ROAD	5TH STREET	Urban Arterial	Residential	2	33	11	R	curb/gutter	0	30	C	D	3994	SR	SR	wc 14	bl 5	Signed SR/ Sharrow
FENWICK DR	374.51	A	FORT AVENUE	SHEFFIELD DRIVE	Urban Arterial	Residential	2	26	13	N	curb/gutter	0	25	C	C	4288	SR	SR	wc 14	wc 14	Signed SR
FIFTH ST	877.78	C	PARK AVENUE	MAIN STREET	Urban Arterial	Outlying Business	3	36	12	N	curb/gutter	0	30	D	D	14648					
FIFTH ST	668.89	C	LANGHORNE ROAD	PARK AVENUE	Urban Arterial	Outlying Business	2	24	12	N	curb/gutter	0	30	E	D	13912					
FIFTH ST	647.94	C	MAIN STREET	AMHERST CL	Urban Arterial	Outlying Business	4	72	12	N	Pavement	10	35	B	B	15476					
FLORIDA AVE	499.19	E	MAIN STREET	GRACE STREET	Rural 2-Way	Residential	2	30	12	L	curb/gutter	0	25	C	C	3818	SR	SR	wc 15	bl 5	Signed SR
FLORIDA AVENUE	2789.98	A	GRACE STREET	CAMPBELL AVENUE	Rural 2-Way	Residential	2	20	10	N	None	0	25	C	D	4565	SR	SR	wc 15	bl 5	Signed SR
FLOYD ST	224.47						0	0	0			0	0			0					Signed SR
FOREST BROOK RD	1473.04	A	OLD FOREST ROAD	LAKESIDE DRIVE	Urban Arterial	Residential	2	18	9	N	None	0	30	D	D	3596	SR	N/A	wc 15	bl 6	Signed SR
FORT AVE	703.17	B	WYTHE ROAD	12TH STREET	Urban Arterial	Outlying Business	2	30	15	N	curb/gutter	0	30	D	D	10421	SR	SR	wc 15	bl 5	Stripe Bike Lane
FORT AVE	1765.30	D	LYNCHBURG EXPRESSWAY	WARDS ROAD	Urban Arterial	Outlying Business	4	48	11	N	curb/gutter	0	35	E	D	17285	SR	N/A	wc 15	bl 5	Signed SR
FORT AVE	1004.14	D	WARDS ROAD	PERRYMONT AVENUE	Urban Arterial	Residential	4	44	11	N	curb/gutter	0	35	E	D	22511	SR	N/A	wc 15	bl 5	Signed SR
FORT AVE	216.80	C	12TH STREET	CAMPBELL AVENUE	Urban Arterial	Outlying Business	2	40	12	B	curb/gutter	0	30	D	D	5579	SR	SR	wc 15	bl 5	Stripe Bike Lane
FORT AVE	139.36	C	LYNCHBURG EXPRESSWAY	FORT AVENUE	Urban Arterial	Outlying Business	4	64	12	N	curb/gutter	0	35	D	D	18529	SR	N/A	wc 15	bl 5	Signed SR
FORT AVE	843.19	D	PERRYMONT AVENUE	MEMORIAL AVENUE	Urban Arterial	Residential	4	44	11	N	curb/gutter	0	30	D	D	22511	SR	N/A	wc 15	bl 5	Signed SR
FORT AVE	837.43	F	MEMORIAL AVENUE	WYTHE ROAD	Urban Arterial	Residential	2	30	10	R	curb/gutter	0	35	F	E	24236	SR	N/A	wc 15	bl 5	Signed SR
FORT AVENUE	278.41	C	CAMPBELL AVENUE	PARK AVENUE	Urban Arterial	Outlying Business	2	40	10	R	curb/gutter	0	30	D	D	5579	SR	SR	wc 15	bl 5	Stripe Bike Lane
FOURTH ST	883.37						0	0	0			0	0			0					Signed SR
GRACE ST	418.67	A	12TH STREET	MILLER ST	Urban Arterial	Residential	2	30	12	N	curb/gutter	0	25	C	C	3419	SR	SR	wc 15	bl 5	Signed SR

City of Lynchburg Road Characteristics

Street Name	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Peak Hour Side Park	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BC LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																	Group A	Group B	Group A	Group B	
GRACE STREET	1250.30	E	MILLER ST	FLORIDA AVENUE	Rural 2-Way	Residential	2	28	11	L	curb/gutter	0	25	C	C	3419	SR	SR	WS:15	B:5	Signed SR
GRAVES MILL RD	2091.33	B	MCCONVILLE ROAD	RT460 BUSPORT AVEI	Rural 2-Way	Outlying Business	2	22	11	N	Earth	1	35	C	D	3285	SR	SR	WS:15	B:5	Signed SR
GRAVES MILL RD	1855.69	C	WCL LYNCHBURG	OLD GRAVES MILL ROAD	Rural Multilane	Outlying Business	4	48	12	N	curb/gutter	0	45	E	E	11917	SR	SR	WS:15	B:5	Signed SR
GRAVES MILL ROAD	3158.84	C	OLD GRAVES MILL ROAD	LYNCHBURG EXPRESSWAY	Rural Multilane	Outlying Business	4	48	12	N	curb/gutter	0	45	E	E	25072	SR	SR	WS:15	B:5	Signed SR
GRAVES MILL ROAD	2852.39	A	LYNCHBURG EXPRESSWAY	MCCONVILLE ROAD	Rural Multilane	Outlying Business	4	48	12	N	curb/gutter	0	45	E	D	11697	SR	SR	WS:15	B:5	Signed SR
GREENVIEW DR	2070.77	A	CAMPBELL CL	BCL LYNCHBURG	Rural 2-Way	Suburban Low	2	24	12	N	Gravel	4	45	E	D	16333	SR	N/A	WS:15	B:5	Signed SR; paved 2' shoulder
GREENWOOD DR	1397.47	B	SANDUSKY DRIVE	THOMAS ROAD	Urban Arterial	Residential	2	30	11	L	curb/gutter	0	30	D	D	3924	SR	SR	WS:14	B:5	Signed SR
HARVARD ST	6165.34	B	WARDS FERRY ROAD	WARDS ROAD	Urban Arterial	Outlying Business	2	28	14	N	Earth	0	35	C	D	4400	SR	SR	WS:14	B:5	Stripe Bike Lane
HAWKINS MILL RD	3921.64	B	COFFEE ROAD	WASHINGTON ROAD @ WCL	Rural 2-Way	Rural	2	16	8	N	Earth	1	35	D	C	1715	SR	N/A	WS:15	B:6	Signed SR; paved 2' shoulder
HILL ST	938.24	E	OLD FOREST ROAD	LANGHORNE ROAD	Rural 2-Way	Residential	2	30	15	N	curb/gutter	0	30	C	C	4835	SR	SR	WS:14	B:5	Stripe Bike Lane
HILLSDALE RD	409.48		TATE SPRING ROAD	END			0	0	0			0	0			0					Signed SR
HOLLINS MILL RD	1883.46	A	BEDFORD AVENUE	FEDERAL STREET	Urban Arterial	Residential	2	22	11	N	None	0	30	C	C	3149	SR	SR	WS:14	B:5	Signed SR
HURDLE MILL RD	28.13	B	INDIAN MILL ROAD	LINK ROAD	Rural 2-Way	Residential	2	22	11	N	Earth	1	25	C	C	2187	SR	SR	WS:14	WS:14	Stripe Bike Lane
IGLOE DR	580.11	B					0	0	0			0	0			0					Signed SR
INDIAN HILL RD	1822.11	B	BURNT BRIDGE ROAD	EVERGREEN ROAD	Rural 2-Way	Residential	2	36	11	B	curb/gutter	0	25	C	B	1808	SR	SR	WS:14	WS:14	Signed SR; Shared Use Roadway
IRVINGTON SFR RD	2066.18		BOONSBORO ROAD	END			0	0	0			0	0			0					Signed SR
JEFFERSON STREET	833.39	B	9TH STREET	WASHINGTON STREET	Rural 2-Way	Central Business	2	38	18	N	curb/gutter	0	25	B		1017	SR	SR	WS:14	WS:14	Signed SR; Sidewalk
KEMPER ST	1387.27	C	LYNCHBURG EXPRESSWAY	11TH STREET	Urban Arterial	Outlying Business	2	28	18	N	curb/gutter	0	35	E	D	11239	SR	SR	WS:15	B:6	Restripe; Signed WS:14
KEMPER ST	67.04	B	CAMPBELL AVENUE	LYNCHBURG EXPRESSWAY	Rural Multilane	Outlying Business	4	52	12	N	curb/gutter	0	35	D	D	10303	SR	SR	WS:15	B:6	Restripe; Signed WS:14
LAKESIDE DR	1509.59	D	LYNCHBURG EXPRESSWAY	FOREST BROOK ROAD	Urban Arterial	Outlying Business	2	30	10	N	Earth	1	45	F	E	15788	SR	SR	WS:15	B:6	Restripe; Signed WS:14
LAKESIDE DR	814.17	B	OLD FOREST ROAD EAST	OAKLEY AVENUE	Urban Arterial	Outlying Business	4	44	11	N	curb/gutter	0	35	E	D	18573	SR	SR	WS:15	B:6	Restripe; Signed WS:14
LAKESIDE DR	867.10	C	WCL LYNCHBURG	LYNCHBURG EXPRESSWAY	Urban Arterial	Outlying Business	4	60	12	N	curb/gutter	0	45	F	D	24809	SR	SR	WS:15	B:6	Restripe; Signed WS:14
LAKESIDE DR	1153.89	C	FOREST BROOK ROAD	OLD FOREST ROAD EAST	Urban Arterial	Residential	2	30	10	N	Earth	1	45	E	E	13187	SR	SR	WS:15	B:6	Restripe; Signed WS:14
LAKESIDE DR	958.52	E	OAKLEY AVENUE	MEMORIAL AVENUE	Rural 2-Way	Outlying Business	2	22	11	N	curb/gutter	0	35	E	D	11627	SR	SR	WS:15	B:6	Restripe; Signed WS:14
LANDOVER PL	374.91						0	0	0			0	0			0					Signed SR
LANGHORNE LA	351.33	C	RICHMOND ST	ELDON STREET	Rural 2-Way	Residential	2	30	10	L	curb/gutter	0	25	C	D	3182	SR	SR	WS:14	WS:14	Signed SR
LANGHORNE LANE	118.70	C	BREVARD ST	RICHMOND ST	Rural 2-Way	Residential	2	30	10	L	curb/gutter	0	25	C	D	3554	SR	SR	WS:14	WS:14	Signed SR

City of Lynchburg Road Characteristics

Street Name	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Peak Hour Side Park	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																	Group A	Group B	Group A	Group B	
LANGHORNE RD	461.71	B	MEMORIAL AVENUE	TATE SPRINGS ROAD	Urban Arterial	Outlying Business	4	60	11	N	curb/gutter	0	30	D	D	13487	SR	N/A	WC 14	BL 5	Restripe: Signed WC 14
LANGHORNE RD	585.01	B	HILL STREET	CRANEHILL DRIVE	Urban Arterial	Outlying Business	2	32	11	N	Earth	0	30	E	D	12858	SR	N/A	WC 15	BL 5	Signed SR
LANGHORNE ROAD	930.45	B	CRANEHILL DRIVE	RIVERMONT TERRACE	Urban Arterial	Residential	2	22	11	N	Earth	1	30	D	D	8167	SR	N/A	WC 15	BL 6	Signed SR
LANGHORNE ROAD	1117.47	B	TATE SPRINGS ROAD	HILL STREET	Urban Arterial	Outlying Business	2	32	11	N	Earth	1	30	E	D	13487	SR	N/A	WC 15	BL 5	Signed SR
LANGHORNE ROAD	433.34	E	PARK AVENUE	MEMORIAL AVENUE	Rural 2-Way	Residential	2	30	10	N	curb/gutter	0	30	D	D	9520	SR	N/A	WC 15	BL 6	Signed SR
LEESVILLE RD	3533.42		TIMBERLAKE ROAD	SCL LYNCHBURG	Rural Multilane	Residential	4	44	11	N	curb/gutter	0	45	D	D	11342	SR	N/A	WC 15	BL 6	Signed SR
LINK RD	732.23	E	RIVERMONT AVENUE	CRANEHILL DRIVE	Rural 2-Way	Residential	2	24	12	N	None	0	30	C	D	6684	SR	N/A	WC 14	BL 5	Signed SR
LINK RD	1252.52	A	CRANEHILL DRIVE	OLD FOREST ROAD	Rural 2-Way	Residential	2	22	11	N	curb/gutter	0	30	D	D	7851	SR	N/A	WC 14	BL 5	Signed SR
LINKHORNE DRIVE	944.13	A	OLD FOREST ROAD	CRANEHILL DRIVE	Urban Arterial	Residential	2	28	10	N	curb/gutter	0	25	D	D	5470	SR	SR	WC 14	BL 5	Signed SR
LONG MEADOWS DR	548.89	A	FORT AVENUE	PAWNEE DRIVE	Urban Arterial	Residential	2	32	10	B	curb/gutter	0	25	C	C	2096	SR	SR	WC 14	WC 14	Signed SR
MAIN ST	296.27	D	12TH STREET	LYNCHBURG EXPRESSWAY	Urban Arterial	Central Business	3	44	11	B	curb/gutter	0	25	D	D	6368	SR	SR	WC 14	WC 15	Signed SR; Sharrow
MAIN ST	88.47	E	LYNCHBURG EXPRESSWAY	FLORIDA AVENUE	Rural 2-Way	Outlying Business	2	40	10	N	curb/gutter	0	35	D	C	2547	SR	SR	WC 14	WC 15	Signed SR; Sharrow
MAIN ST	778.42	D	12TH STREET	5TH STREET	Urban Arterial	Central Business	2	44	11	B	curb/gutter	0	25	D	D	6375	SR	SR	WC 14	WC 15	Signed SR; Sharrow
MARTIN ST	111.47	A	CAMPBELL AVENUE	ECL LYNCHBURG	Urban Arterial	Residential	2	16	8	N	Earth	1	25	C	B	1131	SR	SR	WC 14	WC 14	Signed SR; Sharrow
MAYFLOWER DR	2054.43	A	CANDLERS MOUNTAIN ROAD	ODD FELLOWS ROAD	Urban Arterial	Outlying Business	2	24	12	N	Earth	1	35	D	E	8006	SR	N/A	WC 15	BL 6	Signed SR
MAYFLOWER DR	1768.32	A	ODD FELLOWS ROAD	CAMPBELL AVENUE	Urban Arterial	Residential	2	20	10	N	None	0	30	C	C	2067	SR	N/A	WC 15	BL 6	Signed SR
MAYFLOWER DR	27.09	B	MAYFLOWER DRIVE	RTE 460 BYPASS	Urban Arterial	Outlying Business	2	30	10	N	Earth	1	35	E	D	12127	SR	N/A	WC 15	BL 6	Signed SR
MCCONVILLE RD	2873.54	B	WYNDALE DRIVE	GRAVES MILL ROAD	Rural 2-Way	Residential	2	20	10	N	Earth	1	35	C	D	4857	SR	SR	WC 15	BL 6	Signed SR; 2' paved shoulder
MEMORIAL AVE	424.63	C	LANGHORNE ROAD	PARK AVENUE	Urban Arterial	Outlying Business	2	24	12	N	curb/gutter	0	30	E	D	13912	SR	N/A	WC 15	BL 6	Combination Restripe Signed WC 14 and Stripe Bike Lan
MEMORIAL AVE	176.30	D	FORT AVENUE	OAKLEY AVENUE	Urban Arterial	Residential	2	24	12	N	curb/gutter	0	30	D	D	10073	SR	N/A	WC 15	BL 6	Combination Restripe Signed WC 14 and Stripe Bike Lan
OAKLEY AVE	205.85	C	MEMORIAL AVENUE	WYTHE ROAD	Urban Arterial	Residential	4	44	11	N	curb/gutter	0	30	D	D	10971	SR	SR	WC 15	BL 5	Reduce Lane; Stripe Bike Lane
OAKLEY AVE	937.57	B	LAKESIDE DRIVE	MEMORIAL AVENUE	Urban Arterial	Outlying Business	2	32	11	R	curb/gutter	0	30	D	D	9421	SR	SR	WC 15	BL 5	Bike Lane, remove street parking
OAKRIDGE BVD	779.40		MEMORIAL AVENUE	SUSSEX AVENUE			0	0	0			0	0			0					Signed SR
OLD FOREST RD	1846.85	B	LINKHORNE DRIVE	HILL STREET	Urban Arterial	Residential	2	22	11	N	Earth	0	35	D	D	9627	SR	N/A	WC 15	BL 5	Signed SR
OLD FOREST RD	1485.85	C	LAKESIDE DRIVE WEST	FOREST BROOK ROAD	Urban Arterial	Outlying Business	4	44	11	N	curb/gutter	0	35	E	D	19858	SR	N/A	WC 15	BL 5	Signed SR
OLD FOREST RD	740.86	B	HILL STREET	LAKESIDE DRIVE EAST	Urban Arterial	Residential	2	28	14	N	Earth	1	35	D	D	9627	SR	N/A	WC 15	BL 5	Signed SR
OLD FOREST RD	327.87	B	LINK ROAD	LINKHORNE DRIVE	Urban Arterial	Outlying Business	4	44	11	N	curb/gutter	0	35	D	D	14651	SR	N/A	WC 15	BL 5	Signed SR

City of Lynchburg Road Characteristics

Street Name	Length	2005 LOS	Segment From	Segment To	Analysis Type	Land Use	Number Through Lanes	Pavement Width	Average Lane Width	Peak Hour Side Park	Right Shoulder Type	Right Shoulder Width	Posted Speed Limit	Current BCI LOS	Current BLOS LOS	Average Annual Daily Travel	Current Condition		Standard Recommendation		Recommendation
																	Group A	Group B	Group A	Group B	
OLD FOREST RD	460.13	A	LAKESIDE DRIVE	WIGGINGTON ROAD	Rural 2-Way	Outlying Business	2	24	12	N	Pavement	10	55			13515	SR	N/A	WC 15	BL 5	Signed SR
OLD FOREST RD	732.80	C	FOREST BROOK ROAD	LINK ROAD	Urban Arterial	Outlying Business	4	44	11	N	curb/gutter	0	35	E	D	18898	SR	N/A	WC 15	BL 5	Signed SR
OLD GRAVES MILL ROAD	1621.75	B	GRAVES MILL ROAD	TIMBERLAKE ROAD	Urban Arterial	Residential	2	24	12	N	curb/gutter	0	35	D	D	9874	SR	SR	WC 15	BL 6	Signed SR
PARK AVE	984.49	C	KEMPER STREET	5TH STREET	Urban Arterial	Residential	2	34	14	R	curb/gutter	0	30	C	C	6644	SR	SR	WC 15	BL 5	Stripe Bike Lane; no parking
PARK AVE	360.10	C	MEMORIAL AVENUE	LANGHORNE ROAD	Urban Arterial	Residential	2	30	15	N	curb/gutter	0	30	C	C	7030	SR	SR	WC 15	BL 5	Stripe Bike Lane; no parking
PAWNEE DR	559.59	A	LONG MEADOWS DRIVE	SANDUSKY DRIVE	Rural 2-Way	Residential	2	32	10	B	curb/gutter	0	25	C	C	2189	SR	SR	WC 14	WC 14	Signed SR
PEAKLAND PL	1264.76		TRENTSFERRY ROAD	PEAKLAND PL			0	0	0			0	0			0	SR	SR	WC 14	WC 14	Signed SR
PERRYMONT AVENUE	1341.18	B	GREENWOOD DRIVE	FORT AVENUE	Urban Arterial	Residential	2	28	10	R	curb/gutter	0	25	D	D	4716	SR	SR	WC 15	BL 5	Signed SR; stripe like Sheffield
RICHMOND STREET	588.76	B	LANGHORNE LANE	OAKLEY AVENUE	Urban Arterial	Residential	2	22	11	L	None	0	25	C	B	2359	SR	SR	WC 14	WC 14	Signed SR; ~~Stripe~~
RIVERMONT AVE	1794.65	A	BEDFORD AVENUE WEST	BEDFORD AVENUE EAST	Rural 2-Way	Residential	2	44	12	B	curb/gutter	0	30	D	D	8934	SR	SR	WC 15	BL 5	Stripe Bike Lane
RIVERMONT AVE	985.64	D	BEDFORD AVENUE EAST	5TH STREET	Urban Arterial	Residential	2	44	14	B	curb/gutter	0	30	D	D	14852	SR	SR	WC 15	BL 5	Stripe Bike Lane
RIVERMONT AVE	84.93	C	RIVERMONT TERRACE	BEDFORD AVENUE WEST	Urban Arterial	Residential	2	46	15	B	curb/gutter	0	30	D	D	14727	SR	SR	WC 15	BL 5	Stripe Bike Lane
RIVERMONT AVE	99.14	D	RIVERMONT TERRACE	LINK ROAD	Urban Arterial	Residential	2	46	12	B	curb/gutter	0	30	E	D	13087	SR	SR	WC 15	BL 5	Stripe Bike Lane
RIVERMONT AVENUE	464.80	D	BEDFORD AVENUE EAST	5TH STREET	Urban Arterial	Residential	2	44	14	B	curb/gutter	0	30	D	D	14852	SR	SR	WC 15	BL 5	Stripe Bike Lane
RIVERMONT TERRACE	378.42	B	LANGHORNE ROAD	RIVERMONT AVENUE	Urban Arterial	Residential	2	22	11	N	curb/gutter	0	25	C	C	5637	SR	SR	WC 15	BL 5	Signe SR
SANDUSKY DR	772.42	A	FORT AVENUE	PAWNEE DRIVE	Rural 2-Way	Outlying Business	2	34	11	B	curb/gutter	0	30	D	C	4897	SR	SR	WC 15	BL 5	Signed SR; stripe like Sheffield
SANDUSKY DR	622.60	C	PAWNEE DRIVE	GREENWOOD DRIVE	Rural 2-Way	Residential	2	34	11	B	curb/gutter	0	30	C	C	3698	SR	SR	WC 15	BL 5	Signed SR; stripe like Sheffield
SHEFFIELD DR	12.79	C	WARDS ROAD	WOODALL ROAD	Urban Arterial	Outlying Business	4	55	11	N	curb/gutter	0	35	E	E	19421	SR	SR	WC 14	WC 14	Signed SR; has speed line
SHEFFIELD DR	1184.10	B	FENWICK DRIVE	WARDS ROAD	Urban Arterial	Outlying Business	2	34	10	B	curb/gutter	0	25	D	D	4288	SR	SR	WC 14	WC 14	Signed SR; has speed line
SIXTH ST	1289.02		CHURCH STREET	FILLMORE STREET			0	0	0			0	0			0					Signed SR
SUSSEX ST	1268.24	A	PERRYMONT AVENUE	THOMAS ROAD	Urban Arterial	Residential	2	24	12	N	None	0	25	C	C	2468	SR	SR	WC 14	WC 14	Signed SR
TATE SPRINGS RD	1014.77		LANGHORNE ROAD	HILLSDALE			0	0	0			0	0			0					Signed SR
THOMAS ROAD	1006.25	A	GREENWOOD DRIVE	BREVARD ST	Urban Arterial	Residential	2	20	10	N	None	0	25	D	D	5524	SR	SR	WC 15	BL 5	Signed SR
THOMSON DR	879.18		TATE SPRINGS	END			0	0	0			0	0			0	SR	SR	WC 15	WC 14	Stripe Bike Lane, remove parking
TIMBERLAKE RD	342.90	E	LEESVILLE ROAD	WARDS FERRY ROAD	Urban Arterial	Outlying Business	4	48	12	N	Pavement	4	45	D	C	30375	SR	N/A	WC 16	BL 6	create turn/bus/bike lane
TIMBERLAKE RD	1778.48	C	OLD GRAVES MILL ROAD	LEESVILLE ROAD	Urban Arterial	Outlying Business	4	48	12	N	Pavement	4	45	D	C	24337	SR	N/A	WC 16	BL 6	create turn/bus/bike lane
TIMBERLAKE ROAD	1020.79	D	SCL LYNCHBURG	OLD GRAVES MILL ROAD	Urban Arterial	Outlying Business	4	48	12	N	Pavement	4	45	D	C	30709	SR	N/A	WC 16	BL 6	create turn/bus/bike lane

City of Lynchburg Road Characteristics

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																	Group A	Group B	Group A	Group B	
TIMBERLAKE ROAD	318.74	E	WARDS FERRY ROAD	LYNCHBURG EXPRESSWAY	Urban Arterial	Outlying Business	4	48	12	N	Pavement	6	45	D	B	30375	SR	N/A	wc 16	bl 6	create turn/bus/bike lane
TRENTS FERRY RD	3001.55	A	BEDFORD CL	BOONSBORO ROAD	Rural 2-Way	Residential	2	18	9	N	None	0	30	C	C	1404	SR	N/A	wc 15	bl 6	Signed SR; pave 2' shoulder
TWELFTH ST	381.27	B	FORT AVENUE	CAMPBELL AVENUE	Urban Arterial	Outlying Business	2	30	10	R	curb/gutter	0	30	E	D	10421	SR	SR	wc 15	bl 5	Signed SR
TWELFTH ST	1271.90	B	KEMPER STREET	CLAY STREET	Urban Arterial	Outlying Business	2	24	10	N	curb/gutter	0	30	D	D	6634	SR	SR	wc 15	bl 5	Signed SR
TWELFTH ST	299.92	C	KEMPER STREET	CAMPBELL AVENUE	Urban Arterial	Outlying Business	2	30	12	N	curb/gutter	0	30	D	D	7342	SR	SR	wc 15	bl 5	Signed SR
UNIVERSITY BLVD	838.30	C	CANDLERS MOUNTAIN ROAD	LIBERTY MOUNTAIN ROAD	Urban Arterial	Outlying Business	4	48	12	N	curb/gutter	0	35	D	E	10125	SR	N/A	wc 14	bl 5	Restripe; Stripe Bike Lane
VES RD	1461.99	A	WILLIAMS ROAD	RIVERMONT AVENUE	Urban Arterial	Residential	2	20	10	N	None	0	30	D	D	2858	SR	SR	wc 14	bl 5	Signed SR
WARDS FERRY RD	1693.22	C	HARVARD STREET	WARDS ROAD	Rural 2-Way	Suburban High	2	20	10	N	Gravel	1	35	D	D	10196	SR	N/A	wc 15	bl 5	Signed SR; 2' pave shoulder
WARDS FERRY RD	2079.35	C	TIMBERLAKE ROAD	HARVARD STREET	Rural 2-Way	Residential	2	20	10	N	Gravel	1	35	D	D	10486	SR	N/A	wc 15	bl 5	Signed SR; 2' pave shoulder
WARDS RD	1220.81	C	LYNCHBURG EXPRESSWAY	FORT AVENUE	Urban Arterial	Outlying Business	4	64	12	N	curb/gutter	0	35	D	D	18529	SR	N/A	wc 16	bl 6	Restripe; Signed Wide Outside Lane
WARDS RD	1977.34	D	SCL LYNCHBURG	LYNCHBURG EXPRESSWAY	Urban Arterial	Outlying Business	4	48	12	N	Pavement	6	45	D	B	36525	SR	N/A	wc 16	bl 6	Signed SR; side path (City master plan)
WASHINGTON ST	44.76	E	JEFFERSON STREET	GARNET ST	Rural 2-Way	Outlying Business	2	22	11	N	Earth	1	35	C	F	1791	SR	SR	wc 14	wc 14	Signed SR; Sharrow
WIGGINGTON RD	832.16	C	CRAIGMONT DRIVE	LYNCHBURG EXPRESSWAY	Rural 2-Way	Residential	2	18	9	N	Earth	1	35	D	D	4007	SR	N/A	wc 16	bl 6	Signed SR; pave 2' shoulder
WIGGINGTON RD	4186.99	C	LYNCHBURG EXPRESSWAY	CHADWICK DRIVE	Rural 2-Way	Residential	2	18	9	N	Earth	1	35	C	D	3493	SR	N/A	wc 16	bl 6	Signed SR; pave 2' shoulder
WIGGINGTON RD	723.36	A	OLD FOREST ROAD	CRAIGMONT DRIVE	Rural 2-Way	Residential	2	20	10	N	Earth	1	35	D	D	4007	SR	N/A	wc 16	bl 6	Signed SR; pave 2' shoulder
WYTHE RD	203.95	C	OAKLEY AVENUE	FORT AVENUE	Urban Arterial	Residential	4	44	11	N	curb/gutter	0	30	D	D	10971	SR	SR	wc 15	bl 5	Reduce Lane; Stripe Bike Lane

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Appendix E

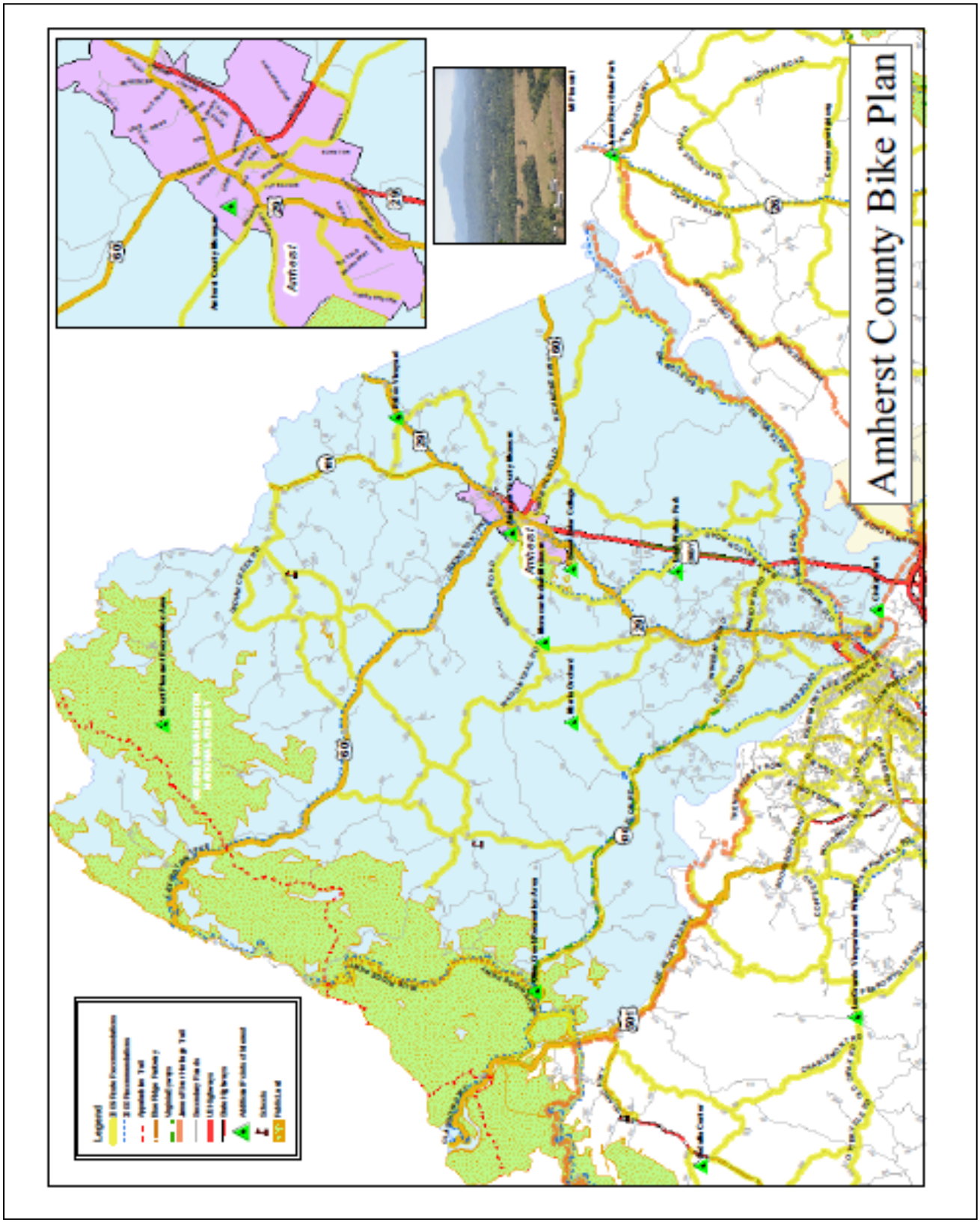
Jurisdiction
Region 2000 Bicycle Plan Recommendation Maps

The following maps are provided to show the Region 2000 Bicycle Plan corridors according to locality and planning region. Maps are provided for:

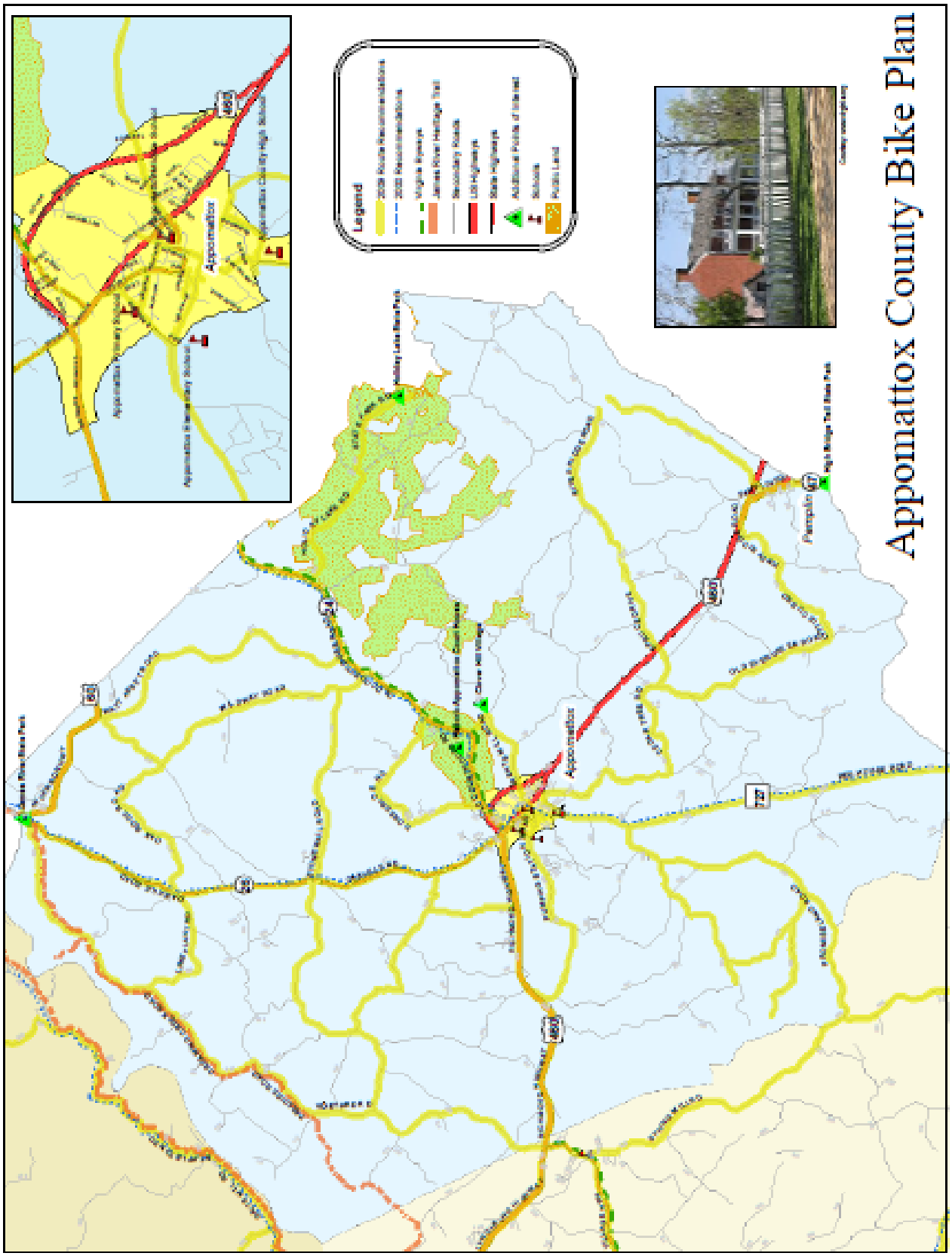
Amherst County
Appomattox County
Bedford County
Campbell County
City of Lynchburg
CVMPO Region 2000

Maps detailing the Towns of Amherst, Appomattox, and Altavista and the City of Bedford are incorporated within the County maps with a blown up area depicting the specific corridor recommendations within these jurisdictions.

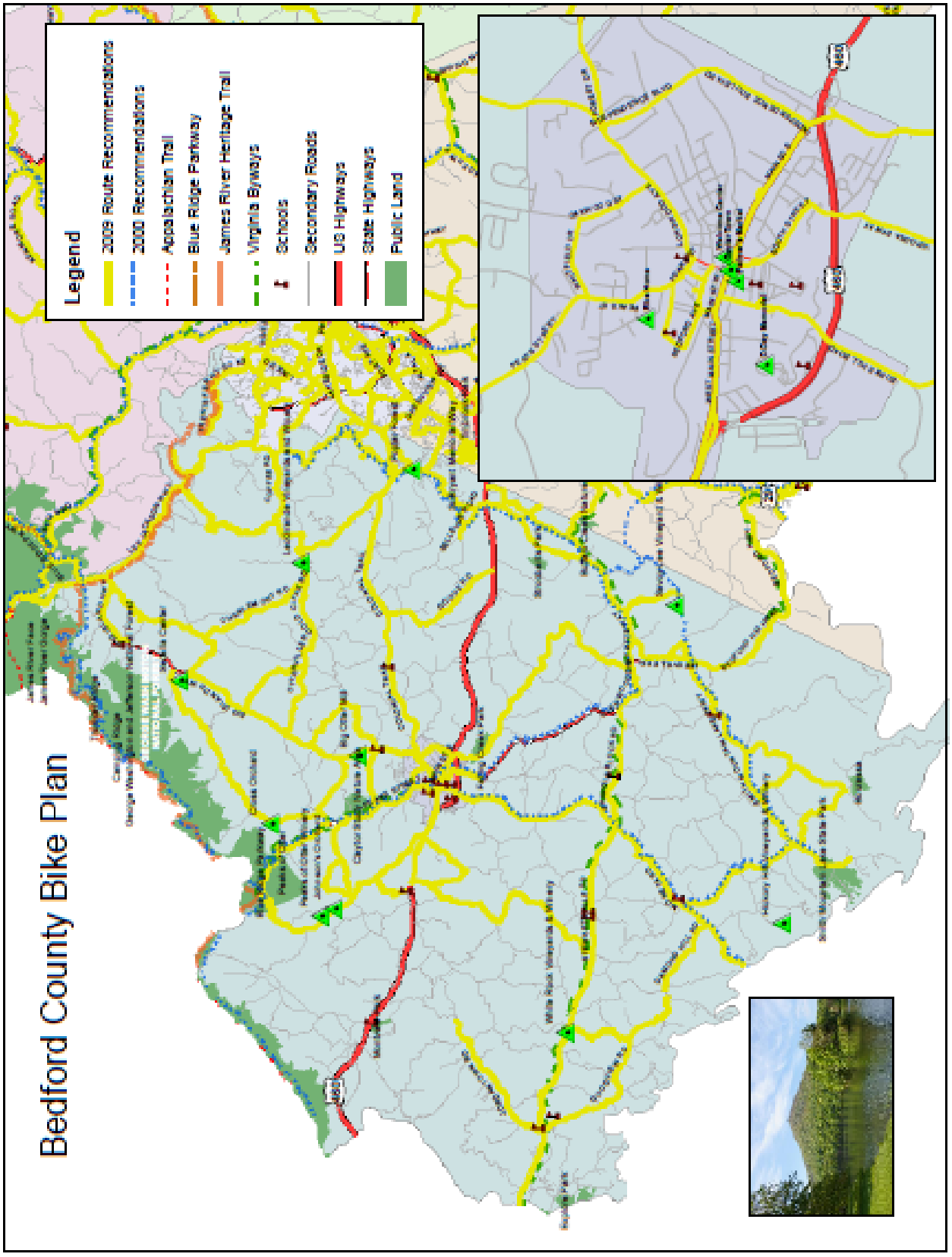
Amherst County



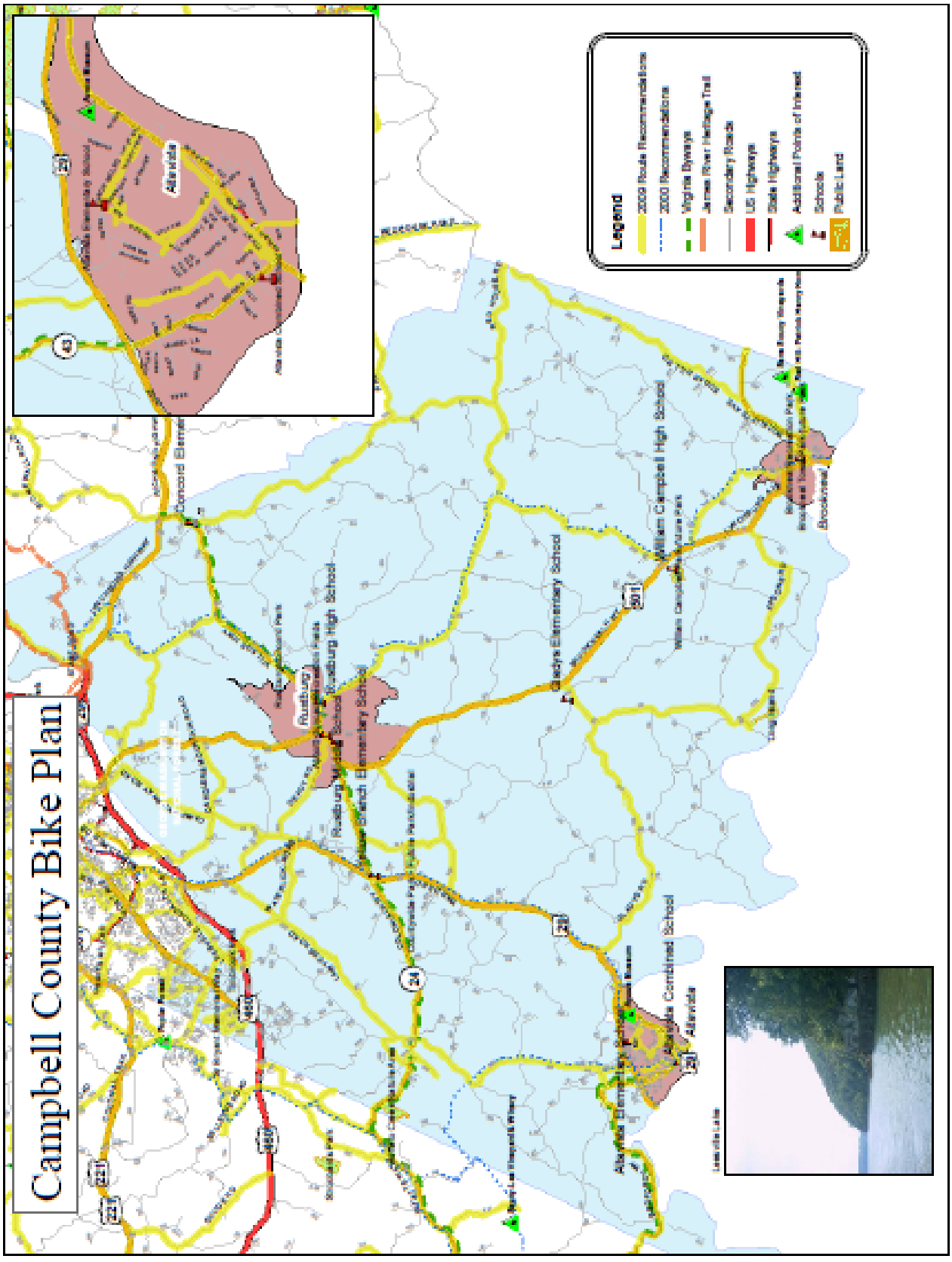
Appomattox County



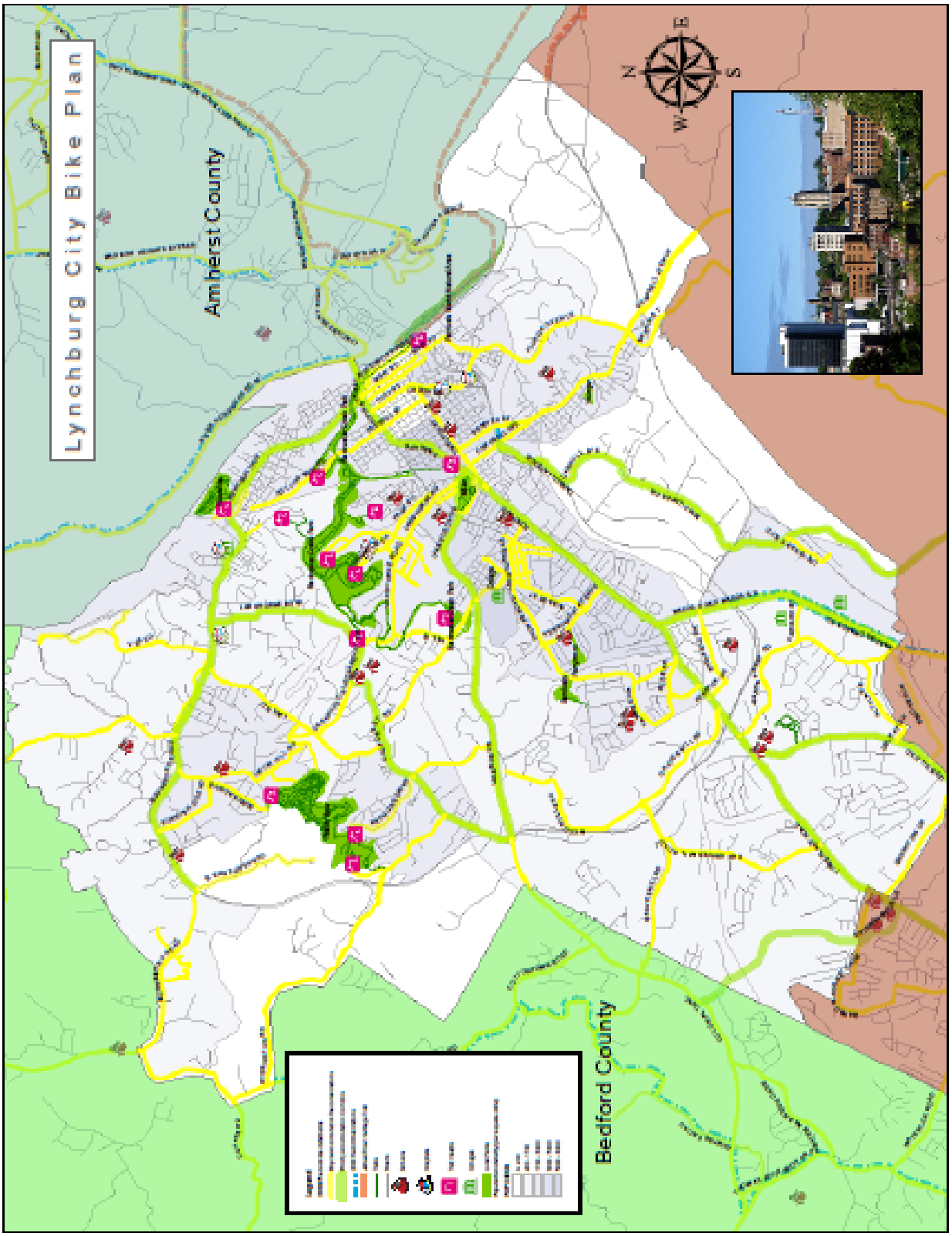
Bedford County



Campbell County



Lynchburg City



Appendix F

Virginia's Safe Routes to School Program

The Safe Routes to School Program, SRTS, is a national transportation program created through Section 1404 of the 2005 Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users Act, better known as SAFETEA-LU. The SRTS program established a grant program, with administration through the state transportation programs, for providing communities opportunities to improve conditions by which students and residents could safely walk and bike to schools that included grades Kindergarten through Eighth grades. The program has three goals:

4. to enable and encourage children, including those with disabilities, to walk and bicycle to school;
5. to make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age; and
6. to facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools.

Within Virginia the SRTS funding is available for programmatic development or for construction of physical improvement. Programmatic grants are provided for the purpose of developing SRTS plans and programs within a school or school divisions. These plans must be developed in partnership with a local school, school system, and residents and patrons of the school. The other grant program that is available provides funding to make physical improvements, such as sidewalk plans, instillation of curb ramps, signage, timed signals, or pedestrian inlands. In order to be eligible for the construction funds available to make physical improvements, there must first be the development of a document, or SRTS Travel Plan, that has been developed in partnership with school stakeholders.

Developing a Safe Routes to School Travel Plan

A school or school system Safe Routes to School Travel Plan is the guiding document that summarizes the needs and solutions to create a safe walking and biking environment to access area schools. Specifically a SRTS plan:

- defines the primary issues, needs, and impediments within a specific school or school system that prevents area students from being able to safely walk or bicycle to the school; and
- establishes action-oriented solutions through education, outreach, and system improvements, to encourage walking and biking encouragement and participation by students and residents.

Elements to Include With a Safe Routes Plan

The following provides detailed information on each element that must be included, per VDOT's Safe Routes to School Program Guidelines, to be included within an approved Travel Plan. Details can be obtained at http://www.virginiadot.org/saferoutes.

Plan Motivation – Summation of interest and motivation for creating a plan.

Project Team – Must include a core team of school, community, and locality representatives and communicate a core project leader.

Public Input Process – Must show activity that involved public input in determining needs, program gaps, and proposed solutions. The pubic input process should include administering of a parent and community survey and/or public forums to gather input and comment on possible system improvements recommendations.

Description of School – School description should include location information that will in relation to locality as a whole and to the neighborhoods that are within an are up to two miles from the school. There will also be information on the school district as a whole to include school population.

School demographics –The plan will include information on percentages of students for various ethnic groups, percentage of students receiving free or reduced lunch, surrounding area demographics, etc.

Current school travel environment –School travel information should include information on the number of students riding buses, walking, traveling by car. This section will also provide information on the estimated number of students who could walk or are potentially within walking distance of the school. Also information on school travel policies and supporting activities, such as PE classes or other school activities should be provided.

Hazards and Barriers to Active Transportation – This portion of the plan will present the current conditions that hinder safe walking and bicycling of students to the school facility. This can include details on lights, crosswalks, gaps in sidewalks, traffic volumes and speed.

Creating Solutions – This portion provides a summation of activities identified by the school plan team and community to eliminate the barriers to safe walking and bicycling and to increase safety educational knowledge. This section should include each of the five "E's", Education, Enforcement, Encouragement, Evaluation, and Engineering, activities that have been identified to improve the school walking and cycling environment.

Maps – Detail map of the school, surrounding areas and developed travel routes.

Action Plan – A detailed overview of how the five E's will be implemented over time and who are the responsible parties, and how will success be measured.

Project Endorsements – Provide evidence of community support. Include letters, articles, and meeting summaries

Supporting Documents – Resolution of Support from locality

Appendix G

Bicycle and Pedestrian Planning & Development Resources

The following is a list of some key resources for obtaining more detail on planning, designing, implementing, and funding pedestrian improvements.

Federal Highway Administration (FHWA) – Bicycle & Pedestrian Program
http://www.fhwa.dot.gov/environment/bikeped/

Virginia Department of Transportation (VDOT) – Bicycling and Walking in Virginia
http://www.virginiadot.org/programs/bk-default.asp

National Center for Bicycle and Walking
http://www.bikewalk.org/

Pedestrian and Bicycle Information Center
http://www.bicyclinginfo.org/

University of North Carolina Highway Safety Research Center
http://www.hsrc.unc.edu/index.cfm

Manual on Uniform Traffic Control Devices
http://mutch.fhwa.dot.gov/kno-millennium_12.28.01.htm

Association of Pedestrian and Bicycle Professionals
http://www.apbp.org/website/

National Center for Safe Routes to School
http://www.saferoutesinfo.org/

Walkable Communities
www.walkable.org

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Appendix H

Alternative Transportation Funding Sources Available to Virginia Localities

Virginia Transportation Research Council
Authors: Matthew C. Grimes, Kimberly M. Mattingly, and John S. Miller
March, 2006
FHWA/VTRC 06-R17

FINAL REPORT

ALTERNATIVE TRANSPORTATION FUNDING SOURCES AVAILABLE TO VIRGINIA LOCALITIES

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Virginia Transportation Research Council
(A partnership of the Virginia Department of Transportation
and the University of Virginia since 1948)

In Cooperation with the U.S. Department of Transportation
Federal Highway Administration

Charlottesville, Virginia

March 2006
VTRC 06-R17

DISCLAIMER

The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Virginia Department of Transportation, the Commonwealth Transportation Board, or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

ABSTRACT

In 2003, the Virginia Department of Transportation developed a list of alternative transportation funding sources available to localities in Virginia. Alternative funding sources are defined as those that are not included in the annual interstate, primary, secondary, and urban allocations available through VDOT's Six-Year Improvement Program. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, passed by the U.S. Congress in 2005, eliminated some of these programs and created new opportunities. Accordingly, the list of funding sources was updated based on information available as of December 2005.

State and federal funding sources and programs, and their potential uses, are detailed in this report. In some cases, the program described does not provide money above the normal annual allocations but rather allows the allocations for the primary, secondary, or urban system to be used for bicycle and pedestrian projects, following the standard VDOT project development process, or road improvement projects that use a simplified design and construction process.

FINAL REPORT

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INTRODUCTION

The traditional source of funds for transportation improvements in Virginia is the Virginia Six-Year Improvement Program, where projects are allocated by district and roadway system (interstate, primary, secondary, or urban). The *Code of Virginia* (the *Code*) prescribes or implies steps that must be taken by the 16-member Commonwealth Transportation Board (CTB) to ratify the Six-Year Improvement Program when it is submitted to them by the Virginia Department of Transportation (VDOT) (§ 33.1-23.1-3 of the *Code*). These steps include public hearings for projects involving the primary system, coordination with city governments for urban system projects, and approval by county boards of supervisors for secondary system projects. These projects, distributed by district, are generally listed in the first volume of the Six-Year Improvement Program.

Numerous alternative sources of funding are available in Virginia for transportation improvements. These alternatives are usually special programs with a unique emphasis, such as conservation, alternative modes, hazard elimination, and economic development. Generally, these funds are awarded on a competitive basis and have accompanying restrictions on their use.

PURPOSE AND SCOPE

The purpose of this report was to provide Virginia's localities with a convenient reference of the potential funding sources that can be used for transportation-related projects. This document describes state and federal programs and provides detailed information about local programs such as transportation districts and community development authorities. VDOT requires that a local/state project administration agreement be executed for any locally administered project partially or fully funded by programs managed by VDOT. More

information on these agreements, including necessary forms, can be found at http://www.virginiadot.org/business/local-assistance-programs.asp.

The information provided in this document was originally published in the report by Miller et al. entitled *Options for Improving the Coordination of Transportation and Land Use Planning in Virginia.*[1] The list was updated after the passage of the 2006 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which includes funding programs for local transportation projects. It is expected that some of the programs described herein will change as the Virginia General Assembly makes changes during its 2006 session. However, this document serves as a benchmark for documenting what was known about alternative funding sources as of December 2005.

METHODS

The federal and state funding programs were generally adequately documented on various government websites, which were found in some cases with an Internet search engine. The researchers examined this information and summarized it. In some cases, additional clarification was obtained through personal communication with the federal and state program administrative staff.

The *Code* is also published on the Internet; however, more information about the Virginia statutes, including case law, is available from commercial legal publishers. The information about a Virginia locality's authority to acquire transportation funds or improvement projects was found using the *Westlaw* online legal research tool.

The various funding alternatives identified were divided into six categories, according to the agency that administers them:

1. alternative use of highway allocations, administered by VDOT
2. programs administered by VDOT
3. programs administered by localities in Virginia
4. programs administered by the Department of Rail and Public Transportation (DRPT)
5. programs administered by the U.S. Department of Transportation
6. programs administered by the Virginia Department of Conservation and Recreation (VDCR).

RESULTS AND DISCUSSION

Localities seeking to take advantage of one or more of these sources should carefully consult the pertinent statute or program for detailed implementation procedures and restrictions. More information about many of the funding programs can be obtained by consulting the web links provided at the end of each section and the citations in the Reference section. The amount

of funds available for these programs and the details of the programs themselves may change with each new state legislative session or with each federal reauthorization.

Alternative Use of Highway Allocations, Administered by VDOT

A few transportation improvement opportunities under VDOT's purview are outside the interstate/primary/urban and secondary system projects outlined in the Six-Year Improvement Program, but some of the opportunities allow the alternative use of these allocations, rather than providing a net funding increase. These alternative sources include the following.

VDOT Bicycle and Pedestrian Accommodation Policy, for Using Secondary System Funds for Constructing Bicycle Facilities

In 2004, VDOT adopted a new bicycle policy that dramatically improved the availability for a county to use its secondary roads allocation to plan, design, and construct bicycle facilities. These facilities are no longer restricted to bicycle lanes on roads, and the locality is not required to have an adopted bicycle plan that includes the desired bicycle facility. Bicycle lanes, widened shoulders, or off-road bicycle trails can be constructed, and VDOT will assume some of the maintenance responsibilities. Bicycle and pedestrian facilities are planned, designed, and constructed similarly to roads.[2] Bicycle and pedestrian facilities may also be constructed with primary and urban system funds, in the same manner that primary highways and urban streets are constructed. More information can be found at http://www.virginiadot.org/infoservice/bk-default.asp.

Rural Addition Program for Upgrading Roads Not Maintained by the State for the Purposes of Adding Them to the State Secondary System

Privately maintained streets can be incorporated into the state system provided several eligibility criteria are met, such as being open to the public at all times, serving at least three occupied residences, having been in use prior to 1992, and including sufficient right of way for maintenance and safety purposes. However, in order to upgrade roads with secondary funds, the county subdivision ordinance must be approved by VDOT to ensure that future substandard roads may not be built in that county.[3] A county may use up to 5 percent of their secondary road construction funds (termed *rural addition funds*) to upgrade the substandard private road for the purposes of incorporating it into the state system. (Residents may want relief from the expense of maintaining streets, such as some subdivision streets, privately.) More information can be found at http://virginiadot.org/infoservice/faq-2ndaryroads.asp.

Rural Rustic Roads Program

Although not a separate source of funds per se, the Rural Rustic Roads Program may be of interest to counties that want particular projects to go into the secondary portion of the Six-Year Improvement Program. The county has the option of designating a particular low-volume unpaved road with low-density development as a "rural rustic road" where the county agrees to limit growth along the road through zoning and planning.[4] In addition to having between 50 and

500 vehicles per day, the road should be in the VDOT secondary system, be a priority in the Six-Year Improvement Program, and be designated as a Rural Rustic Road by resolution of the local governing body (in coordination with VDOT). In return, VDOT can pave the roadway with minimum additional improvements (thereby requiring only 30 feet of right of way) without adhering to the normal design standards.[5] In short, the idea behind the program is that for certain low-volume, locally traveled roads, costs and impacts to the environment may be significantly reduced; the tradeoff is that some improvements that would be necessary for higher volume roads (or roads with higher density abutting them) are not made. For example, six pilot sites in Augusta County were paved for 10 percent of the cost that would have been incurred if those sites been constructed and engineered according to conventional standards. The pilot projects were also completed in 4 months rather than the typical 2 to 6 years.[6] Cost savings are usually significant but vary based on actual road conditions. More information can be found at http://www.virginiadot.org/business/local-assistance-programs.asp#Rural%20Rustic.

Public-Private Transportation Act of 1995 (PPTA)

Although administered by VDOT, the PPTA allows private sector organizations to design, construct, build, and maintain transportation systems. Examples of projects being undertaken through the PPTA are construction of Route 28 HOT lanes in Northern Virginia, design work for one of the segments for Route 58, and the maintenance of portions of I-81. PPTA guidelines indicate that the project must be "one or a combination of the following: a road, bridge, tunnel, overpass, ferry, airport, mass transit facility, vehicle parking facility, port facility or similar commercial facility used for the transportation of persons or goods."[7] More information can be found at http://www.virginiadot.org/business/resources/PPTAGuidelines.pdf.

Funding Source Programs Administered by VDOT

Transportation Enhancement Funds

This program can provide funds for "sidewalks, bike lanes, and the conversion of abandoned railroad corridors into trails" as well as cultural enhancements, such as renovations of historic buildings or the establishment of "transportation museums and visitor centers."[8] Although this program has a federal funding source, its administration is the responsibility of VDOT. Grant applications are submitted annually by November 1st and require a 20 percent match from non-federal sources. Projects are initially scored and ranked by a scoring committee composed of staff from VDOT's districts and central office, the DRPT, and the VDCR. Final selection of projects and funding is the responsibility of the CTB.[8] Examples of successful projects are the boardwalk trails and pedestrian paths at the Jamestown Settlement; river walk and waterfront improvements in York County; restorations to a 100-year-old train station in Bristol; new sidewalks in Gloucester Courthouse Village; a new visitor center in Bedford; and the Blue Ridge Railway Trail, a rail-trail conversion in Amherst and Nelson counties.[9] More information can be found at http://www.virginiadot.org/projects/pr-enhancegrants.asp.

Recreational Access Program

This program provides funds for recreational access roads or bikeways that make a "publicly developed recreational area or historic site" accessible, provided such a site is not private or federally maintained. The main purpose of the project is to make these recreational or historic sites accessible as opposed solely to creating a new transportation facility. Therefore, a loop trail in a park would not be eligible, but a bikeway funded under this program might connect an area having heavy bicycle traffic to a park that presently is not accessible to cyclists.[10] This program is authorized under Section 33.1-223 of the *Code*. More information can be found at http://www.virginiadot.org/business/local-assistance-access-programs.asp#Recreational%20Access.

Industrial, Airport, and Rail Access Fund

Section 33.1-221 of the *Code* authorizes this program, which provides access to employment centers, publicly accessible airports, and rail facilities.[11] However, rail funding is administered by the DRPT, although these applications are funded from the same fund as industrial and airport grant applications (B. Dandridge, personal communication, December 19, 2005). This access may entail providing improvements to an existing facility or providing a new facility, although in both cases the emphasis is on providing access to a new or an expanding industrial site. Access funds may be used only for engineering and construction, not for right-of-way acquisition, utility relocation, or environmental permitting. For road access projects, each locality is limited to $300,000 per year unless the town, city, or county provides matching funds; under that scenario, VDOT can provide up to an additional $150,000 provided the amount is matched by the city, county, or town. Airport access projects are subject to similar financial limits, with a maximum of $450,000 ($300,000 unmatched and $150,000 matched) awarded to an individual airport per year.[12] More information can be found at http://www.virginiadot.org/business/local-assistance-access-programs.asp#Industrial%20Access.

Route 58 Corridor Development Program

This program was established by the Virginia General Assembly in 1989, with the express purpose being to "enhance economic development potential" in southern Virginia.[13] The projects all involve Route 58, which stretches from Virginia Beach to Lee County. More information can be found at http://www.virginiadot.org/projects/Rt58-overview.asp.

Highway Safety Improvement Program (HSIP)

Formerly referred to as the Hazard Elimination and Safety (HES) program, SAFETEA-LU includes funds for projects that eliminate roadside hazards and reduce risk at highway rail grade crossings. VDOT's Traffic Engineering Division manages the HSIP and accepts applications from localities, rail companies, and VDOT districts and residencies, which are prioritized on a statewide basis. The federal program stipulates a 10 percent funding match from the applicant, be it a state or locality.[14] In addition, the HSIP includes a set-aside for highway-railroad crossing safety projects and high-risk rural roads. An example project is the installation of a new traffic signal in Halifax County, at the intersection of U.S. 501 and Halifax Shopping

Center, where studies had shown such a signal was needed.[15] More information and project applications can be found at http://www.virginiadot.org/business/trafficeng-default.asp.

Safe Routes to School

Safe Routes to School is an international movement with the goal of making it safer and easier for children to walk or cycle from home to school, rather than ride in buses or cars.[16] Each state must appoint a safe routes to school coordinator, and 10 to 30 percent of the state's SAFETEA-LU authorization must be spent on the program.[17] Eligible projects include infrastructure improvements such as sidewalks, bike lanes, traffic calming, and public involvement, such as education and outreach. The VDOT safe routes to school coordinator works in the VDOT's Transportation & Mobility Planning Division (TMPD), and the contact information for the district coordinators is posted on http://www.virginiadot.org/infoservice/bk-directory.asp#VDOT.

Special Transportation Districts Created by State Law

Virginia allows for the creation of local transportation improvement districts in a single city or county or in two or more contiguous cities or counties (§§ 33.1-409 and 33.1-410 of the *Code*). For example, in 1987, the Virginia General Assembly formed the Route 28 Transportation District 2, in which $138.5 million was authorized to improve Route 28. Restrictions were that 51 percent of landowners (whose land was zoned commercial or industrial) must support the tax district, with a maximum of $0.20 per $100 of assessed value.[18]

Revenue Sharing Program

Section 33.1-75.1 of the *Code* authorizes this program, which establishes a 50/50 cost sharing program with counties for the maintenance, improvement, construction, or reconstruction of the primary or secondary road system. The *Code* establishes this as a $20 million program ($10 million state funds/$10 million local funds); however, the annual appropriations act has provided for a $30 million program since 1999. If requests exceed the amount of funding available, actual allocations are prorated.

Initially, the program was open only to counties, with a maximum allocation of $500,000 per county; however, the 2005 Appropriations Act provided an expansion for FY 2006 for the program to include cities and towns in the urban system. The funding limit was also increased to $50 million in state funds (to be matched with $50 million in local funds), with a maximum allocation of $1 million of state funds per eligible locality.[19]

This program enables localities to contribute matching funds for the following purposes:

1. finance a deficit on a completed project
2. supplement funding on a construction project
3. supplement funding for future projects in the six-year improvement program
4. construct or improve a road not in the six-year improvement program
5. improve subdivision streets to attain state street standards

6. Supplement VDOT maintenance (e.g., guardrail replacement).[20]

More information can be found at http://www.virginiadot.org/business/resources/localassistance-revenuesharingguide.pdf.

Congestion Mitigation and Air Quality (CMAQ) Improvement Program

This program seeks to improve air quality and is restricted to projects that are expected to reduce transportation-related emissions in areas that do not meet National Ambient Air Quality Standards.[21] As of 2004, these areas formally included Richmond, Northern Virginia, Hampton Roads, Fredericksburg, Roanoke, and Winchester.[22] CMAQ projects are diverse and include, but are not limited to, (1) encouraging motorists to use alternative forms of transportation (e.g., transit improvements such as new express bus service or bicycle/pedestrian improvements), (2) encouraging motorists to share existing vehicles (e.g., carsharing programs or guaranteed ride home programs), (3) improving traffic flow for motorists (e.g., traffic operations centers to disseminate information or the synchronization of traffic signals), and (4) encouraging vehicle emissions reduction measures, such as inspection and maintenance programs. Virginia projects funded under CMAQ have included rehabilitation and expansion of bus shelters, bike lanes, turning lanes, guaranteed ride home programs, bicycle racks, employer-sponsored ridesharing, and access improvements to commuter rail.[23] More information can be obtained by contacting the VDOT district planner for the locality and is posted on http://www.fhwa.dot.gov/environment/cmaqpgs/.

Transportation Partnership Opportunity Fund

This fund was created by the 2005 General Assembly, which amended the *Code* by adding Section 33.1-221.1:9. Funds are credited to the Transportation Partnership Opportunity Fund by the general appropriations act and revenue from other sources, both public and private. The fund allows the Governor to use these funds to encourage the use of the design-build provisions of Section 33.1-12(2)(b), to encourage the use of the PPTA, and to make transportation improvements that will support economic development. The Governor may award money from the fund as grants, interest-free loans, or other financial arrangements to cities, counties, and the private sector. The funds may be used for roads, rail, and mass transportation and are administered by the CTB after the award.[24] More information can be found at http://www.virginiadot.org/projects/tpof.asp.

Rural Transportation Planning Assistance Program

In 1993, VDOT initiated the state's first rural transportation planning program through the Transportation Planning Division (now the TMPD). The total amount of SPR funds allocated to the PDCs is $48,000. When matched with $12,000 in local funds, this provides a total of $60,000. Through this program, the TMPD provides funding and guidance to rural planning district commissions (PDCs) in accomplishing rural planning tasks requested by the localities. Annually, the TMPD receives reviews, amends them as needed, and approves the scope of work for each fiscal year. The PDCs perform transportation planning work and submit quarterly billings, quarterly reports, and the end products to the TMPD.[25] More information on

these programs can be obtained by contacting the VDOT Regional Planning Manager using the contact information listed at http://www.virginiadot.org/business/tpd-phone.asp

Rural Transportation Planning Grant Program

VDOT and the TMPD initiated the Rural Transportation Planning (RTP) Program in 1997 to supplement the RTP Assistance Program. It provides additional funding through a competitive grant program for worthwhile rural transportation planning proposals. VDOT and the TMPD have set aside a minimum of $200,000 per fiscal year for this competitive program. A minimum of 20 percent of the total grant is to be funded by the PDC through a local match, with administrative charges not exceeding 10 percent of the total cost. Proposals are intended to benefit jurisdictions within a PDC and to develop innovated studies and approaches for use by other jurisdictions in the state.[25] More information on these programs can be obtained by contacting the VDOT Regional Planning Manager using the contact information listed at http://www.virginiadot.org/business/tpd-phone.asp.

Programs Administered by Localities

As pointed out by the Virginia Chapter of the American Planning Association, a county can acquire funds for transportation improvements through six general mechanisms:

1. local transportation districts
2. pro-rata reimbursement provisions in the subdivision ordinance
3. community development authorities
4. impact fees
5. proffers
6. local bonding authority.[26]

None of these practices is a panacea, and all have limitations and possibly adverse consequences, but they are options in some situations.

Local Transportation Districts

Creation of Local Transportation Districts

Virginia allows for the creation of local transportation improvement districts in a single city or county or in two or more contiguous cities or counties. To create a district, the owners of at least 51 percent of either the land area or the assessed value of land, in each locality, that (1) is within the boundaries of the proposed district and (2) has been zoned for commercial or industrial use or is used for such purposes must petition the local governing body of each locality in which the proposed district is to be located (qualifying individuals taking part in this process are hereinafter referred to as "petitioners"). Once they have done so, the local governing body of each locality in which the proposed district is to be located may consider a resolution creating the district (§ 33.1-410 of the *Code*).

The District Advisory Board

Within 30 days after the establishment of a district, the local governing body from each locality within which any portion of the district is located must appoint six members to a district advisory board. Three of the six members from each locality must be chosen by the local governing body from nominations submitted to the local governing body by the petitioners. All members must own or represent commercially or industrially zoned land within the district. Each member must be appointed for a term of 4 years, except the initial appointment of board members must provide that the terms of three of the members shall be for 2 years. If a vacancy occurs with respect to a member initially appointed by a local governing body, or any successor of such a member, the local governing body must appoint a new member who is a representative or owner of commercially or industrially zoned property within the local district. If a vacancy occurs with respect to an advisory board member initially nominated by the petitioners, or any successor thereof, the remaining advisory board members initially nominated by the petitioners, or their successors, shall nominate a new member for selection by the local governing body (§ 33.1-413 of the *Code*).

The advisory board must present an annual report to the commission on the transportation needs of the district and on the activities of the board and must present special reports on transportation matters as requested by the commission or the local governing body of the locality concerning taxes to be levied pursuant to the provisions of Title 33.1, Chapter 13, of the *Code*.

Although board members serve without pay, the local governing body must provide the board with facilities for the holding of meetings, and the commission must appropriate funds needed to defray the reasonable expenses and fees of the board (not to exceed $20,000 annually), including without limitation expenses and fees arising out of the preparation of the annual report. Such appropriations must be based on an annual budget submitted by the board, and approved by the Commission, and be sufficient to carry out its responsibilities. The board is required to elect a chair and a secretary and such other officers as it deems necessary (§ 33.1-413 of the *Code)*.

The board is required to fix the time for holding regular meetings and must meet at least once every year. Special meetings of the advisory board must be called by the chair or by two members of the advisory board upon written request to the secretary of the advisory board. A majority of the members constitutes a quorum (§ 33.1-413 of the *Code)*.

The Commission

A district, once created, is governed by a commission composed of (1) four members of the governing body of each locality in which the district is located, appointed by their respective local governing bodies, and (2) the chair of the CTB or his or her designee (§ 33.1-411 of the *Code*). The commission is required to elect one of its member's as chair and must, with the advice of the district advisory board, elect a secretary and a treasurer (though it may combine the offices into one position)*)*. The majority of the commission members, not counting vacancies, constitutes a quorum, and a majority vote is necessary for any action taken by the commission).

Powers and Duties of the Commission

The powers and duties of the commission encompass the following (§ 33.1-414 of the *Code*):

1. Construct, reconstruct, alter, improve, expand, make loans, or otherwise provide financial assistance to, and operate transportation improvements in, the district for the use and benefit of the public.

2. Acquire by gift, purchase, lease, in-kind contribution to construction costs, or otherwise any transportation improvements in the district and sell, lease as lessor, transfer, or dispose of any part of any transportation improvements in such manner and upon such terms as the commission may determine to be in the best interests of the district. However, prior to disposing of any such property or interest therein, the commission shall conduct a public hearing with respect to such disposition. At the hearing, the residents and owner of property within the district shall have an opportunity to be heard. At least 10 days' notice of the time and place of such hearing shall be published in a newspaper of general circulation in the district, as prescribed by the commission. Such public hearing may be adjourned from time to time.

3. Negotiate and contract with any person with regard to any matter necessary and proper to provide any transportation improvements, including, but not limited to, the financing, acquisition, construction, reconstruction, alteration, improvement, expansion, or maintenance of any transportation improvements in the district.

4. Enter into a continuing service contract for a purpose authorized by Title 33.1, Chapter 13, of the *Code* and make payments of the proceeds received from the special taxes levied pursuant to the *Code* together with any other revenues, for installments due under that service contract. The district may apply such payments annually during the term of that service contract in an amount sufficient to make the installment payments due under that contract, subject to the limitation imposed by this chapter. However, payments for any such service contract must be conditioned upon the receipt of services pursuant to the contract. Such a contract must not obligate a locality to make payments for services of the district.

5. Accept the allocations, contributions, or funds of, or to reimburse from, any available source, including, but not limited to, any person for either the whole or any part of the costs, expenses, and charges incident to the acquisition, construction, reconstruction, maintenance, alteration, improvement, and expansion of any transportation improvements in the district.

6. Contract for the extension and use of any public mass transit system or highway into territory outside the district on such terms and conditions as the commission determines.

7. Employ and fix the compensation of personnel which may be deemed necessary for the construction, operation, or maintenance of any transportation improvements in the district.

8. Have prepared an annual audit of the district's financial obligations and revenues, and, upon review of such audit, request a tax rate adequate to provide tax revenues which, together with all other revenues, are required by the district to fulfill its annual obligations.

In addition, the district may contract with the CTB for the board to perform any of the purposes of the district, and it may agree by contract to pay all or a portion of the special improvements tax to the CTB (§ 33.1-416 of the *Code)*. Prior to executing any such contract, the district must seek the agreement of each local governing body creating the district that the locality's officer charged with the responsibility for preparing the locality's annual budget shall submit in the budget for each fiscal year in which any Commonwealth of Virginia Transportation Contract Revenue Bonds issued for such district are outstanding all amounts to be paid to the CTB under such contract during such fiscal year (§ 33.1-416 of the *Code)*.

Annual Special Improvements Tax

Upon the request of the commission and consent of the local governing bodies, each local government body may impose an annual special improvements tax on taxable real estate zoned for commercial or industrial use or used for such purposes and taxable leasehold interests in that portion of the improvement district within its jurisdiction (§ 33.1-415 of the *Code)*. Absent the unanimous consent of the owners in the affected district, the annual special improvements tax enacted by the district's commission may not exceed $0.20 per $100 of the assessed fair market value of the taxable real property*)*. However, in the case of counties with populations exceeding 500,000, the limit is increased to $0.40 per $100, (§ 33.1-435 of the *Code)* and in the special case of the City of Charlottesville and County of Albemarle, it is increased to $0.25 per $100 (§ 33.1-453 of the *Code)*. Such special improvements taxes must be collected at the same time and in the same manner as the locality's taxes are collected, and the proceeds must be kept in a separate account (§ 33.1-415 of the *Code)*. In addition, the effective date of the initial assessment must be January 1 of the year following adoption of the resolution creating the district*)*. All revenues received by each locality pursuant to such taxes must be paid to or at the direction of the commission for its use pursuant to the provisions of Title 33.1, Chapter 13, of the *Code* (§ 33.1-415 of the *Code)*.

Pro-Rata Reimbursement Provisions in Subdivision Ordinances

Every locality (through its governing body) is empowered and required to adopt an ordinance governing the subdivision and development of its land (§ 15.2-2240 of the *Code)*. In addition, particular localities are empowered to enact provisions in their subdivision ordinances for payment by a subdivider or developer of land of a pro rata share of the cost of reasonable and necessary road improvements, located outside the property limits of the land owned or controlled by him of her but serving an area having related traffic needs to which his or her subdivision or

development will contribute, to reimburse an initial subdivider or developer who has advanced such costs or constructed such road improvements (§ 15.2-2242 of the *Code)*.

The following localities are empowered to enact subdivision ordinances with a pro-rata reimbursement provision: a county having the urban county executive form of government, any city located within or adjacent thereto, or any county adjacent thereto or a town located within such county, any county with a population between 57,000 and 57,450, any county with a population between 60,000 and 63,000, and any city with a population between 140,000 and 160,000 (§ 15.2-2242 of the *Code)*.

Mandatory Components of Pro-Rata Reimbursement Provisions

Any such provision must provide for the adoption of a pro-rata reimbursement plan to include reasonable standards to identify the area having related traffic needs, to determine the total estimated or actual cost of road improvements required to serve the area adequately when fully developed in accordance with the comprehensive plan or as required by proffered conditions, and to determine the proportionate share of such costs to be reimbursed by each subsequent subdivider or developer within the area, with interest at the legal rate or at an inflation rate prescribed by a generally accepted index of road construction costs, whichever is less (§ 15.2-2242 of the *Code)*.

In addition, any such provision must specify that such costs are to be collected at the time of the issuance of a temporary or final certificate of occupancy or functional use and occupancy within the development, whichever comes first (§ 15.2-2242 of the *Code*). .

Optional Components of Pro-Rata Reimbursement Provisions

The subdivision ordinance may provide that no certificate of occupancy may be issued to a subsequent developer or subdivider until (1) the initial developer certifies to the locality that the subsequent developer has made the required reimbursement directly to him as provided above or (2) the subsequent developer has deposited the reimbursement amount with the locality for transfer forthwith to the initial developer (§ 15.2-2242 of the *Code)*.

The ordinance may provide that the required reimbursement may be paid (1) in lump sum; (2) by agreement of the parties on installment at a reasonable rate of interest or rate of inflation, whichever is less, for a fixed number of years; or (3) on such terms as otherwise agreed to by the initial and subsequent subdividers and developers (§ 15.2-2242 of the *Code)*.

Community Development Authorities

Community development authorities (CDAs), formed under Article 6 of the Virginia Water and Waste Authority Act (§ 15.2-5100 of the *Code*), constitute an additional source of transportation funding mechanism available to localities.

Creation of CDAs

Localities such as cities, towns, and counties may consider petitions for the creation of CDAs, defined as "a public body politic and corporate and political subdivision of the Commonwealth." (§ 15.2-5152 of the *Code)* Cities have this power automatically under the *Code*, as do counties with a population of at least 75,000 and/or through which an interstate highway passes. Towns (as well as counties that do not meet the criteria just listed) may elect to assume this power by ordinance adopted following a public hearing (§ 15.2-5152 of the *Code).*

Petitions for the creation of a CDA may be submitted to a locality by the owners of at least 51 percent of the land area or assessed value of a given tract. (The criteria under which a given tract of land qualifies are different for cities, towns, and counties and are governed by code (§ 15.2-5153 of the *Code).*) Such petitions must, among other things: (1) set forth the name and describe the boundaries of the proposed district; (2) describe the services and facilities proposed to be undertaken by the CDA within the district; (3) describe a proposed plan for providing and financing such services and facilities within the district; and (4) describe the benefits that can be expected from the provision of such services and facilities by the CDA (§ 15.2-5154 of the *Code).* A resolution creating a CDA cannot be approved until a public hearing (with proper notice) has been held by the local governing body (§ 15.2-5156 of the *Code*).

If the district for which a CDA is proposed overlaps with two or more localities, the CDA may be formed by concurrent ordinances of each locality, and such localities may contract with each other for the administration of the CDA (§ 15.2-5155 of the *Code*).

Powers of CDAs

CDAs have numerous powers (§ 15.2-5110 of the *Code*). Most relevant here are their powers to "finance, fund, plan, establish, acquire, construct or reconstruct, enlarge, extend, equip, operate, and maintain" the infrastructure improvements described in the resolution which established the district, as necessary to meet the increased demands placed upon the locality as a result of development within the district (§ 15.2-5158 of the *Code*). Such infrastructures may include "roads, bridges, parking facilities, curbs, gutters, sidewalks, traffic signals, storm water management and retention systems, gas and electric lines and street lights."

Funding Available to CDAs

The *Code* outlines three mechanisms available to community development authorities for raising funds to finance its activities (including the infrastructure improvements described above): revenue bonds, special taxes, and special assessments on abutting properties.

1. *Revenue bonds.* A CDA has the power to issue revenue bonds. They are payable solely from the revenues received by the CDA and do not constitute a debt, liability, or obligation of any political subdivision other than the CDA. Consent of the locality is typically not required for the bonds issued by a CDA (unless such consent is specifically required by the authorizing resolution) (§§ 15.2-5158 and 15.2-5125 of the *Code*).

2. *Special taxes.* A CDA can request annually that the locality levy and collect a special tax on taxable real property within the CDA's jurisdiction. Unless requested by every property owner within the proposed district, the rate of the special tax can not exceed $0.25 per $100 of the properties' assessed fair market value. The special taxes are collected at the same time and in same manner as are the locality's taxes but are held in a special account and paid over to the CDA subject to annual appropriation. Taxes collected under this provision can be used only for purposes within the enumerated powers of the CDA (§ 15.2-5158 of the *Code*).

3. *Special assessments on abutting properties.* If the CDA provides services and/or facilities to abutting properties, it can finance these by a special assessment on these properties. Such assessments are imposed by the locality at the request of the CDA. All revenues received by the locality pursuant to such special assessments will be paid over to the CDA subject to annual appropriation. Assessments collected under this provision may be used for no other purpose other than to finance the services and/or facilities to abutting properties; moreover, the assessments shall not exceed the full cost of the improvements (which can include the legal, financial, and other directly attributable costs of creating the district, as well as the planning, designing, operating, and financing of the improvements). Such special assessments may be made effective as a lien upon a specified date and can be made subject to installment payments and other provisions allowed for local assessments generally (§§ 15.2-5158 and 15.2-2404 of the *Code*).

Road Impact Fees for New Development

Road impact fees for new development are an option for counties with a population of 500,000 or more and adjacent localities, which in Virginia restricts such practices to Fairfax County and the Northern Virginia jurisdictions. These localities, however, are not using impact fees but instead are using proffers because proffers are easier to administer. (All counties, regardless of population, however, may use connection fees for water and sewer systems.) Impact fees cannot be accepted, however, unless the county has a capital improvement program as specified in Section 15.2-2321 of the *Code*.

Proffers

Proffers are monetary payments from developers to localities and can be delineated into two categories: fees for improvement (or cash proffers) and conditional zoning (or non-cash proffers).[26] With the first category, if a county has a population growth of at least 10 percent according to the 2000 census, it can accept fees for road improvements or other public facilities when the developer submits a rezoning request. For example, in 1990, Botetourt County had a population of 24,492 and by 2000 had grown to 30,496; since this figure exceeds 10 percent, the county had a high rate of growth and thus can accept cash proffers.[27,28] The situation in Caroline County was similar: it grew from 19,217 in 1990 to 22,121 in 2000. Additional restrictions are placed on the cash proffer; e.g., a locality cannot accept such a proffer unless it has a conditional improvement program in place (§ 15.2-2404 of the *Code*). Conditional zoning is appropriate for improvements such as turn lanes, reconstruction or widening turn lanes, etc. (§ 15.2-2297 of the

Code). Localities should consult with VDOT to determine what road improvements will be required as a condition of the entrance permit (e.g., turn lanes, traffic signals, and widening) process. Since these improvements will be required by VDOT, the locality may be able to obtain different or additional improvements with conditional zoning proffers.

General Funds

Sections 33.1-75.1, 75.2, and 75.3 of the *Code* indicate that counties have the ability to use their own general funds to contribute to transportation improvements. Section 75.2 specifically points out that counties may make contributions to facilitate primary and secondary road construction, whereas Section 75.3 notes that counties may use these general funds for other activities related to the primary and secondary system, such as "curbs, gutters, drainage ways, sound barriers, sidewalks, and all other features or appurtenances conducive to the public safety and convenience" (§ 15.2-2404 of the *Code*).

Tax Increment Financing

Tax increment financing is an option for blighted areas. Under this plan, a jurisdiction sells bonds or receives loans and uses the revenue to make public improvements to an area, where such improvements may include "roads, water, sewer, safety services, parks, and schools."[26] To the extent that the improvements increase property values and encourage development in the designated area, the increase in real estate taxes is used to pay back the interest and principal on the loan.[26]

Local Bonding Authority

Section 33.1-75.3 of the *Code* also provides explicit bonding authority for counties to make such improvements; however, such bonds must be approved by voters (T. Blazer, personal communication, August 20, 2003). The Transportation Coordinating Council points out that the Prince William County Parkway was funded partly from local bond sales.[29]

Coal and Gas Severance Tax

Section 58.1-3713 of the *Code* authorizes local governments to tax businesses that extract coal or gas from the ground and to use a portion of the revenue from this tax to improve roads. The distribution of this money is controlled by a local Coal and Gas Road Improvement Advisory Committee. This committee is made up of four members: a member from the local governing body (board of supervisors), the VDOT residency administrator, and two citizens of the locality connected with the coal or gas industry. Each locality's committee prepares an annual plan for use of the fund, a copy of which should be sent to VDOT.

Local Gas Tax

It is highly probable that counties do not have the authority to impose a local gasoline tax without enabling legislation. The phrase "highly probable" is used because Section 15.2-1104 of the *Code* does, in fact, permit municipal corporations to raise funds in manners not prohibited by

law. However, the *Code* also has special legislation pertaining to the Northern Virginia and the Potomac Rappahannock District in Section 58.1-1720. This legislation states that a 2 percent sales tax on fuels for transportation improvements is permissible for areas that meet one of two criteria: (1) an area where "a rapid heavy rail and bus commuter mass transportation system is owned, operated, and or controlled by an agency or commission" where such an entity is a transportation district, or (2) the area is "contiguous to the Northern Virginia Transportation District" (including that district, as denoted in § 15.2-4515) (§ 15.2-2404 of the *Code)*.[30] The fact that this legislation exists in the *Code* suggests that despite Section 15.2-1104, localities do not have this power to exercise a local gasoline tax unless such a power is explicitly granted by the Virginia General Assembly, as it has been for the Northern Virginia area.

Programs Administered by the Department of Rail and Public Transportation

Industrial Access Railroad Tracks Program

The DRPT administers the Industrial Access Railroad Tracks Program, which "fosters rail development for new or expanding industries."[31,32] As is the case with the roadway portion of the Industrial, Airport, and Rail Access Program, the program is authorized by Section 33.1-221 of the *Code*.[32] Eligible work under the program includes track construction, reconstruction, improvement, engineering, environmental mitigation, and grading or drainage at the site.[32] (Funding limitations are the same as with the Industrial, Airport, and Rail Access Program: each project is limited to $300,000 unless the town, city, or county provides matching funds; under that scenario, VDOT can provide up to an additional $150,000 provided the amount is matched by the city, county, or town.[32]) Grant application and other additional information can be found at http://www.drpt.state.va.us/downloads/default.aspx.

Rail Enhancement Fund

This program is authorized by Section 33.1-221.1:1.1 of the *Code* and can be used by the director of the DRPT for "acquiring, leasing, and/or improving railways or railroad equipment, rolling stock, rights-of-way or facilities, or assisting other appropriate entities to acquire, lease, or improve railways or railroad equipment, rolling stock, rights-of-way or facilities, for freight and/or passenger rail transportation purposes." The CTB must determine that improvements will result in a public good of higher value than the investment. This program also requires a 30 percent cash or in-kind match from a private source or local government (§ 33.1-221.1:1.1 of the *Code*). More information is available at http://www.drpt.virginia.gov/news/details.aspx?id=22.

Programs Administered by the U.S. Department of Transportation

The Federal Highway Administration (FHWA) has several programs available for transportation improvements under federal surface transportation legislation. These programs illustrate some of the different funding mechanisms for transportation improvements eligible for federal funds.[33] The programs differ in eligibility, scope, and funding availability: e.g., for 2003, the scenic byways program was limited to $25 million for all projects nationally, whereas the

enhancement program had $18.5 million available for Virginia projects alone[8] (B. Terrell, personal communication, July 2, 2003). Complete documentation for each program is available from websites maintained by VDOT and/or FHWA.

Transportation and Community System Preservation Program (TCSP)

The TCSP is a "comprehensive program to assist in planning, developing, and implementing strategies to integrate transportation, community, and system preservation plans and practices" available under Section 1117 of SAFETEA-LU. The grants require a 20 percent non-federal match. Planning studies and projects that improve transportation efficiency, environmental impacts, and accessibility are eligible.[34] The 2002 Virginia awards show that most projects have a strong environmental component; recipients included implementing a park and ride facility, developing a master plan for Route 17 that included "environmental conservation," extending a trail system, and purchasing easements for the purposes of watershed preservation.[35] Eligibility under this program is not restricted to states; metropolitan planning organizations (MPOs) and local governments are also able to compete for these grants. More information can be found at http://www.fhwa.dot.gov/tcsp/.

Scenic Byways Program

This program provides funds for "eligible scenic byway projects along All-American Roads or designated scenic byways and for the planning, design, and development of State scenic byway programs," where such programs might include scenic roads or bicycle or pedestrian trails.[36] SAFETEA-LU authorizes $175 million, significantly more than the $25 million in the Transportation Equity Act of the 21st Century (TEA-21). In order for a project to be eligible, it must be an existing byway or scenic road, although passing lanes are no longer acceptable uses.[37] Successful Virginia projects have included a scenic overlook in Bath County, constructing the Virginia Capital Trail bikeway between Williamsburg and Richmond, revising current VDOT scenic byways maps, and improvements to the bridge entrance at Montpelier. This program will also fund development of Corridor Management Plans which assist in preserving the scenic, cultural and historical qualities of the byway. More information can be found at http://www.fhwa.dot.gov/safetealu/factsheets/scenic.htm.

Public Lands Highways Program

This program consists of two types of funds: (1) public lands discretionary funds and (2) forest highway funds (S. Eagle, personal communication, September 5, 2003). The purpose of the public lands discretionary funds is to "improve access to and within the Federal lands of the nation."[38] Examples of improved access are planning for recreational travel, acquiring easements, and providing physical amenities such as visitor centers, rest areas, vehicle parking, and "interpretative signage."[38] Successful Virginia projects have included intersection improvements at Route 29 and State Route 234 providing safer vehicular and pedestrian access to and within the Manassas National Battlefield Park in Prince William County; the construction of buildings, parking lots, pedestrian and bicycle trails, and access roads to support access to an educational center at the Chincoteague National Wildlife Refuge; and improvements to Route 600 in Smyth County to support the Jefferson National Forest.[39]

The purpose of the forest highway program is to enhance access to and within national forests by improving forest highways.[40] Forest highways are public roads owned by state or local agencies that serve the national forest system and are designated as such by FHWA's Federal Lands Highway Division. Successful Virginia projects have included improvements to Route 600 in Smyth County and improvements to Route 614 in Highland County, both to support the Jefferson National Forest (S. Eagle, personal communication, September 5, 2003). More information is available at http://www.fhwa.dot.gov/flh/.

Value Pricing

FHWA defines value pricing as "congestion pricing or peak-period pricing [that] entails fees or tolls for road use which vary by level of congestion."[41] SAFETEA-LU authorizes approximately $12 million per year until 2009 for peak period pricing and high-occupancy toll (HOT) pilot projects. Up to 15 states may establish pilot programs; and Virginia is currently using the PPTA to implement a 2003 TEA-21 grant. Value pricing projects from other states include feasibility studies and implementation of HOT lanes, variable pricing of heavy vehicles, and parking cash-out practices.[41] More information can be found at http://www.fhwa.dot.gov/policy/otps/valuepricing.htm.

Appalachian Regional Commission

The Appalachian Regional Commission (ARC) is a federal and state partnership devoted to economic development, community infrastructure, and a reduction in the region's isolation from the rest of the United States and world. Since 1965, the ARC has been working on the Appalachian Development Highway System, which is intended to provide safe and efficient transportation infrastructure for a region that generally lacks interstate highway corridors. At the time of this writing, approximately 85 percent of the planned highway system had been completed or was under construction.[42] The following Virginia localities are in the Appalachian region: Alleghany, Bath, Bland, Botetourt, Buchanan, Carroll, Craig, Dickenson, Floyd, Giles, Grayson, Highland, Lee, Montgomery, Pulaski, Rockbridge, Russell, Scott, Smyth, Tazewell, Washington, Wise/Norton, Wythe Bristol, Buena Vista, Covington, Galax, Lexington, Norton, and Radford. More information can be found at http://www.arc.gov/index.do.

Other Federal Programs

A variety of additional federal programs are available (not described here because of the highly detailed nature of these programs). For example, the Transportation Infrastructure Finance and Innovation Act allows loans or credit lines for major surface transportation projects (e.g., on the order of $100 million or greater).[43]

Program Administered by the Virginia Department of Conservation and Recreation (the Recreational Trails Program)

The Recreational Trails Program provides funds for developing and maintaining trails, which may serve "hiking, bicycling, in-line skating, equestrian use, cross-country skiing,

snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving [or] other off-road motorized vehicles . . . ."[44] A wide variety of uses is permitted under the program, such as purchasing easements, constructing new trails, restoring existing trails, and improving signage. FHWA also lists three prohibited uses: property condemnation, the construction of new trails for motorized use on national forest or Bureau of Land Management lands (unless consistent with management plans), and projects that entail permitting motorized use of trails that are currently off limits to motorized vehicles.[44] Virginia's contact person for this program notes that successful projects have often involved trails within park systems, such as the W&OD trail in Northern Virginia, the "Creeper" Abingdon-Damascus trail, and the New River State Park Trail in Pulaski and Grayson counties (J. Cassidy, personal communication, July 2, 2003). More information is available at http://www.dcr.virginia.gov/prr/trailfnd.htm.

SUMMARY OF PROGRAMS

Table 1 summarizes the funding programs found in this study that are available to Virginia localities, in addition to the VDOT Six-Year Improvement Program and Secondary Six-Year program. Most of the sources are awarded on a competitive basis, and an award may be used for a single project. The table does not provide a complete list of potential funding sources but rather presents a number of sources and program types. Planning, local economic development, recreation, bicycle/pedestrian, and mega-projects all have various alternative funding methods available.

RECOMMENDATIONS

1. *Localities that wish to secure funding through the programs identified in this document should consider the links and reference list for additional information.* While this document may be helpful with brainstorming for both project type and funding source, it does not present all details, restrictions, and administrative difficulties for each funding source or program.

2. *Localities that wish to secure additional funding through these programs should explore opportunities for partnerships with public and private organizations.* Participation in several of the programs identified herein is strengthened by multi-entity involvement. For example, the establishment of a CDA requires coordination between the local government and affected commercial/industrial landowners.

3. *If localities view this document as helpful, then VTRC or VDOT should take steps to update the information it contains periodically* . The funds available for each program or the details of the programs themselves may change with each new state legislative session or each new federal reauthorization.

Table 1. Summary of Funding Sources and Programs

Alternative Use of Highway Allocations, Administered by VDOT	
Bicycle and Pedestrian Accommodation Policy	Allows bike lanes to be built with funds otherwise used for road construction (not additional fund source)
Rural Addition Program	Used to upgrade substandard subdivision streets to state standards (not additional fund source)
Rural Rustic Roads Program	Flexible cost-effective alternative for paving unpaved roads (not additional fund source)
PPTA of 1995	Allows private sector to design, construct, and operate transportation systems, including toll facilities (other than TPOF funds, not additional fund source except what private sector offers)
Funding Source or Program Administered by VDOT	
Transportation Enhancement Funds	Used for bicycle/pedestrian facilities, historic preservation, and aesthetic improvements
Access Programs	Includes recreational, industrial, and airport access road funds to provide access to qualifying facilities
Route 58 Corridor Development Program	Used for enhancing economic development potential of corridor
Highway Safety Improvement Program (HSIP)	Used for improving highway safety
Safe Routes to School	Eligible projects include infrastructure improvements such as sidewalks, bike lanes, and traffic calming, and public involvement, such as education and outreach.
Special Transportation Districts	Regional entities created by state law
Revenue Sharing	Matching funds available to localities
Congestion Mitigation and Air Quality (CMAQ) Program	Used to reduce emissions and promote clean air, available only in MPO areas that do not meet EPA's National Ambient Air Quality Standards
Transportation Partnership Opportunity Fund	Grants that Governor can award to facilitate economic development and use of PPTA (see above)
Rural Transportation Planning Assistance Program	Provides funding and guidance to rural PDCs in accomplishing rural planning tasks requested by localities
Rural Transportation Planning Grants.	Provides funding through competitive grant program for worthwhile rural transportation planning proposals.
Programs Administered by Localities in Virginia	
Local transportation districts	Used for special taxing of land and funding transportation improvements.
Pro-Rata Reimbursement Provisions in Subdivision Ordinance	Provides for reimbursement of road improvement costs between initial and subsequent developer
Community Development Authorities	Additional transportation funding mechanism
Road Impact Fees	Fee that particular localities can charge developers
Proffers	Cash and improvements offered by developers to persuade acceptance of rezoning application
General Funds	Can be used for transportation, including contributions to VDOT for project or improvement
Tax Increment Financing	Used to enhance economic potential of blighted areas
Local Bonding Authority	Bonds have been used by some localities to construct roads
Coal and Gas Severance Tax	Local government taxes on extraction of gas and coal, used for road improvements
Local Gas Tax	Authorized for levy by some localities
Programs Administered by Department of Rail and Public Transportation	
Industrial Access Railroad Tracks	Similar to access programs administered by VDOT
Rail Enhancement Fund	Used for retention, maintenance, improvement, and development of railways
Programs administered by U.S. Department of Transportation	
Transportation and Community System Preservation Program	Used to assist with planning and implementation of transportation improvements with environmental and community benefits
Scenic Byways Program	Used to fund recognition, preservation, and improvement of designated scenic byways
Public Lands Highway Program	Used to provide and improve access to and within federal lands.
Appalachian Regional Commission	Federally funded local and state partnership for economic development and transportation network improvements in Appalachian regions
Programs administered by Virginia Department of Conservation and Recreation	
Recreational Trails Program	Used to develop and maintain trails for motorized and non-motorized recreation

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16. Abstract

In 2003, the Virginia Department of Transportation developed a list of alternative transportation funding sources available to localities in Virginia. Alternative funding sources are defined as those that are not included in the annual interstate, primary, secondary, and urban allocations available through VDOT's Six-Year Improvement Program. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, passed by the U.S. Congress in 2005, eliminated some of these programs and created new opportunities. Accordingly, the list of funding sources was updated based on information available as of December 2005.

State and federal funding sources and programs, and their potential uses, are detailed in this report. In some cases, the program described does not provide money above the normal annual allocations but rather allows the allocations for the primary, secondary, or urban system to be used for bicycle and pedestrian projects, following the standard VDOT project development process, or road improvement projects that use a simplified design and construction process.

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