



Farmville 2020 Transportation Plan

Developed by the
Transportation Planning Division

of the

Virginia Department of Transportation

in cooperation with the

U.S. Department of Transportation, Federal Highway Administration

and the

Town of Farmville

September 2002

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INTRODUCTION

The *Farmville 2020 Transportation Plan* (the Plan) was developed as a cooperative effort between the Federal Highway Administration, the Virginia Department of Transportation (VDOT) and the Town of Farmville. The transportation plan is the product of a study that evaluated the transportation system in Farmville and recommended a set of transportation improvements to best satisfy existing and future transportation needs. The study identified needs based on the engineering analysis, capacity, and safety of the transportation system.

Effective transportation systems are essential to continued economic growth and development in the Farmville region as well as Virginia as a whole. Providing for the safe, effective and efficient movement of people and goods is a basic goal of all transportation programs in Virginia. It is with this basic goal in mind, and with further consideration of environmental issues and local government transportation objectives, that this Plan was developed.

VDOT will use this Plan when evaluating requests from the Farmville local government for specific transportation projects, and when implementing projects on the VDOT-maintained roadway system. The recommendations in this *Farmville 2020 Transportation Plan* will also be used as part of the VDOT statewide transportation planning process to ensure that local transportation projects are compatible with and support transportation improvements both statewide and in neighboring localities.

STUDY AREA AND THOROUGHFARE SYSTEM

Farmville is located in the Piedmont region of Virginia at the north-central edge of Prince Edward County. The town serves as the seat of government for Prince Edward County. Farmville is located at the junction of U.S. Route 460 (east-west) and U.S. Route 15 (north-south), and covers an area of approximately 7.2 square miles.

Farmville is home to Longwood College, which was founded in 1839. The town has also historically served as a hub for the surrounding agricultural community. Today, the college and several manufacturing businesses form the core of the local economy.

A subset of the town's roadway network is designated as the urban thoroughfare system. The thoroughfare system includes roads that are functionally classified as collectors or arterials. Arterial roads serve as the major traffic-carrying facilities in the area. Collector roads carry a lesser volume of traffic and feed traffic to the arterial roadways. The focus of the *Farmville 2020 Transportation Plan* is the thoroughfare system. In addition to roadways, improvements to the following other modes of transportation have been evaluated as part of this study: parking; bicycle and pedestrian facilities; intercity rail, bus, and air travel; transit and paratransit; taxi; and the movement of goods.

DEMOGRAPHIC OVERVIEW

Farmville's population in 2000 was 6,845. Between 1990 and 2000, the town's population grew by slightly over 12 percent. Based on a review of the interim year population estimates since 1990 as well as input from local officials, the Town's population is expected to grow slowly through the 20-year horizon of this study, with a projected growth of approximately 0.6% per year.

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The primary industries in Farmville relate to education and manufacturing. In addition to Longwood College, the Farmville area is home to Green Front Furniture, SMI Steel Products of Virginia, Lindsay Hardwoods, and Farmville Wholesale Electric Supply. Spokesmen for each company expect the number of jobs with each of these local employers to remain steady for the foreseeable future.

SUMMARY OF APPROACH AND ANALYSIS METHODS

This transportation plan was developed using a process that included:

- Data Collection
- Forecasting of Future Traffic Demands
- Development of Recommendations to Meet Existing and Future Transportation Needs
- Coordination with Farmville Government Officials and the Public
- Environmental Overview and Plan Documentation

Recommendations for the *Farmville 2020 Transportation Plan* are based on a comprehensive review of the capacity, safety, and geometry of the existing roadway system, as well as other issues that affect the area's transportation system (such as parking, other modes of transportation, and goods movement).

The recommendations were divided into three phases. Phase One recommendations relate to existing deficiencies and the most immediate transportation needs of the area. Phase Two recommendations apply to an interim year of 2010, and Phase Three recommendations are long-term projects (year 2020). Projects in all three phases are intended to accommodate travel demands to the horizon year of 2020.

PHASE ONE: BASE YEAR (2001) RECOMMENDATIONS

This study identified current deficiencies in the Farmville transportation system. Aspects of potential deficiencies in the existing transportation system included traffic flow and safety concerns, parking, and goods movement by truck. Four projects were identified as short-term, immediate improvements and are described below.

Main Street (Route 15 Business) and Belmont Circle and Peery Drive

Based on the accident history at this intersection, it is recommended that right turns on red be prohibited for both the Belmont Circle and Peery Drive approaches. The cost for this improvement would be limited to the installation of signage.

Main Street and Putney Street and Redford Street

Similar to the intersection above, the recommendation to improve safety at this intersection is to prohibit right turns on red on both the Redford Street and Putney Street approaches.

Third Street (Route 460 Business) and North Street

This intersection has experienced a steady increase in the number of accidents, with the vast majority of the accidents being right angle collisions. Right turns on red are currently not allowed. The recommendation at this location is to increase driver awareness by installing warning signage. The Town of Farmville also continually monitors the safety of intersections and will implement other needed changes as appropriate.

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Third Street (Route 460 Business) and Oak Street

The recommendation at this location is to alert drivers of the approaching signal by installing warning signage.

PHASE TWO: INTERIM YEAR (2010) RECOMMENDATIONS

The interim year recommendations for the *Farmville 2020 Transportation Plan* include projects that are intended to address existing deficiencies but, based on projected costs and potential impacts, would require a number of years to plan and fund. Three projects were identified as interim improvements and are described below.

Main Street (Route 15 Business) at Milnwood Road

Based on the accident history at this intersection, the recommendation is to add left-turn lanes for both the northbound and southbound traffic on Main Street. Safety would also be enhanced by prohibiting right turns on red on the eastbound and westbound approaches as well as closing or relocating the bank driveway that is closest to the intersection in the southwest quadrant (there are other driveways to this bank).

Oak Street at High Street and Griffin Boulevard

The recommendation to improve vehicular and pedestrian safety at this location is to reconstruct the intersection to better align Oak Street with Griffin Boulevard and to close the current one-way connection of Appomattox Street at the intersection (Appomattox Street access to High Street would be via Buffalo Street).

Third Street at Buffalo Creek

The recommendation is to reconstruct this bridge to current standards. This improvement would result in four travel lanes, full shoulders and sidewalks.

PHASE THREE: FUTURE YEAR (2020) RECOMMENDATIONS

The Phase III 2020 recommendations in the *Farmville 2020 Transportation Plan* are intended to support the economic and business needs of the community while enhancing both the appeal and traffic operations of Farmville's downtown area. Two projects fit in this category and are discussed below.

Main Street (Route 15 Business) and Griffin Boulevard

Based on the accident history at this intersection, it is recommended that a separate northbound turn lane be constructed at this intersection and the signal configuration be changed to allow northbound left turns only with a left turn arrow (protected movement only). This improvement would be coordinated with the East Side River Crossing recommendation (below), which has its southern terminus at this intersection.

East Side River Crossing

To satisfy the need for additional north-south roadway capacity across the Appomattox River, a new bridge that would extend over the Appomattox River, the railroad tracks, and the floodplain is recommended east of existing Main Street. Connecting Main Street at Griffin Boulevard with Main Street at Osborn Road, this two-lane East Side River Crossing would use portions of Virginia Street, Vernon Street, and Parkview Drive. The new river crossing would be designed to withstand 100-year floods, providing Farmville with a river crossing that could remain open during floods that may overflow the Main Street Bridge.

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OTHER MODES

In developing the *Farmville 2020 Transportation Plan*, all modes of travel were considered. This included an assessment of the availability of modes of transportation other than private automobiles.

Due in part to its nature as a college town, Farmville has a wide variety of travel options for its residents and visitors, especially for a town of its small size. The town is served by fixed-route bus, intercity bus, paratransit service, and taxi service. Intercity rail and commercial air service is not available locally. However, both of these services are available in the region, either in Lynchburg or Richmond.

This Plan recommends that the Town support the proposed TransDominion Rail Service between Richmond and Lynchburg with a stop at Farmville. The service would also provide a link to commercial air service in Lynchburg and Richmond.

Regarding bicycle travel, it recommended that Farmville adopt the recommendations of the *Piedmont Regional Bicycle Plan*, which was prepared in June 2000. This plan would enhance bicycling options for students attending Longwood College and neighboring Hampden-Sydney College who may not have cars. It would also enhance the natural quality of the area as an attractive route for cycling, with its scenic, gently rolling terrain, and generally low traffic volumes.

Most goods movement in and through Farmville is accomplished by truck. While truck flow through the town is generally adequate, several of the proposed roadway recommendations will improve truck access for shippers by reducing congestion and making turning movements easier. One company in the Farmville area, SMI, reported using a freight rail line owned by Norfolk Southern that runs through the town. This line runs approximately parallel to Route 15/460 Business to the west of the Town and Route 460 Business to the east of the town. Given the importance of these companies to the region, this report recommends that local officials work to ensure the continued availability of freight rail service in the Farmville area.

LOCAL PROJECTS

The Town of Farmville identifies, plans, and implements transportation projects as part of its capital improvement process. One local project was identified by Town officials for inclusion in this Plan.

Milwood Road from Main Street to 3rd Street

In order to accommodate increasing traffic demands and increasing commercialization from both the Main Street and Third Street ends, this road is recommended to be widened to four lanes.

ENVIRONMENTAL OVERVIEW

An environmental overview was conducted for the projects in the *Farmville 2020 Transportation Plan*. No environmental features were identified in Farmville that would preclude the implementation of any of the included recommendations. Construction of the East Side River Crossing would require environmental analysis due to construction of a new bridge over the Appomattox River.

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LOCAL COORDINATION AND CITIZEN PARTICIPATION

The development of the *Farmville 2020 Transportation Plan* included coordination meetings with local Town officials and a public meeting held with citizens, Town officials, and VDOT representatives.

Four coordination meetings were held for this study: 1) a kick-off meeting, (2) an existing conditions meeting, and (3) a draft recommendations meeting, and (4) a follow-up meeting to refine the recommendations. The kick-off meeting, held in February 2001, enabled the project team to discuss the purpose and scope of the study, the schedule for data collection and plan preparation, and the coordination process. At the second meeting, held in July 2001, the project team presented the results of the base year and horizon year traffic analysis and discussed potential projects to meet projected transportation needs. During the third and fourth meetings (held in December 2001 and January 2002), draft improvements were developed and refined by the project team, Town officials, and VDOT representatives.

A public meeting was held on April 9 and 10, 2002, to present the draft transportation plan to Town officials, citizens, and other interested parties. Meeting participants were invited to provide comments that were considered in the development of the *Farmville 2020 Transportation Plan*.

PLAN ADOPTION

The Farmville Town Council voted to adopt the *Farmville 2020 Transportation Plan* on May 8, 2002.

ADDITIONAL INFORMATION

Detailed information on the development of the *Farmville 2020 Transportation Plan* and the study recommendations will be included in the *Farmville 2020 Transportation Plan Technical Report*. This document will be available for review at the Farmville Town Hall and the local library. The technical report will also be available in Richmond at the central office of VDOT's Transportation Planning Division, the VDOT District office in Lynchburg, and the VDOT Residency office in Dillwyn.

Projects included in the Virginia Transportation Six-Year Program (FY 2003-2008) are not part of the *Farmville 2020 Transportation Plan*. The Six-Year Program can be reviewed online at www.virginiadot.org.

Information on Six-Year Program projects for the Town of Farmville can also be found by contacting the VDOT Resident Engineer at the Dillwyn Residency Office (804-983-2017).

Route	Facility Name	From	To	Road Segment Length	Recommendation	Estimated Cost [1]	Existing Typical Section	Recommended Typical Section	Average Daily Traffic			
									Year 2001	Year 2010	Year 2020	
15 Bus	Main Street	Peery Drive and Belmont Circle	N/A	N/A	Prohibit right-on-red for eastbound and westbound approaches.	\$6,000	[2]	N/A	N/A	N/A	N/A	N/A
15 Bus	Main Street	Putney Street and Redford Street	N/A	N/A	Prohibit right-on-red from Putney and Redford Streets.	\$6,000	[2]	N/A	N/A	N/A	N/A	N/A
460 Bus	3rd Street	North Street	N/A	N/A	Install signal warning signs.	\$6,000	[2]	N/A	N/A	N/A	N/A	N/A
460 Bus	3rd Street	Oak Street	N/A	N/A	Install signal warning signs.	\$6,000	[2]	N/A	N/A	N/A	N/A	N/A

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Route	Facility Name	From	To	Road Segment Length	Recommendation	Estimated Cost [1]	Existing Typical Section	Recommended Typical Section	Average Daily Traffic		
									Year 2001	Year 2010	Year 2020
15 Bus	Main Street	Milwood Road	N/A	N/A	Reconstruct intersection to add left-turn bays for northbound and southbound traffic on Main Street. Prohibit right-on-red from Milwood Road and the shopping center on the west side of Main Street. Close the bank driveway closest to intersection in southwest quadrant.	\$270,000 [3]	N/A	N/A	N/A	N/A	N/A
15 Bus	Main Street	Griffin Boulevard	N/A	N/A	Reconstruct intersection to add a turn bay for northbound left turns. This northbound left-turn movement should be allowed as a protected movement only (turn could be made only with a green arrow). This improvement should be coordinated with the East Side River Crossing Route (see below) which has its southern terminus at this intersection.	\$135,000 [3]	N/A	N/A	N/A	N/A	N/A
15/45	East Side River Crossing Route	Main Street at Griffin Boulevard	Main Street at Osborn Road	1.6	Construct new roadway running parallel to and east of Main Street. Uses portions of Virginia Street, Vernon Street, and Parkview Drive. Includes new two-lane bridge over Appomattox River and railroad tracks.	\$8,064,000 [4]	N/A	U2	N/A	N/A	5,000
15 Bus	Oak Street	High Street and Griffin Boulevard	N/A	N/A	Reconstruct intersection. Improve alignment of Oak Street and Griffin Boulevard; construct cul-de-sac at the end of Appomattox Street; install new traffic signal.	\$540,000 [5] [6]	N/A	N/A	N/A	N/A	N/A
15/460 Bus	3rd Street	Buffalo Creek	N/A	N/A	Reconstruct bridge to current standards (4 travel lanes plus shoulders and sidewalks).	\$1,575,000 [7]	N/A	N/A	11,800	15,000	18,000
	Milwood Road	Main Street	3rd Street	1.5	Widen to 4 lanes.	\$10,800,000 [8] [9]	U2	U4	4,300	5,400	6,500
ESTIMATED TOTAL THOROUGHFARE SYSTEM COST						\$10,608,000 [9]					

[1] Cost estimates included in this table are planning-level costs in year 2000 dollars. These cost estimates are based on statewide unit cost averages and should be used for planning purposes only. Actual construction and right-of-way costs may vary based on local conditions.

[2] Assumes a unit cost for signs of \$3,000.

[3] Assumes a unit cost for constructing left-turn lanes of \$90,000, with an additional 50 percent for right-of-way and utilities.

[4] The unit cost for an urban 2-lane roadway is assumed to be \$2.1 million per mile, with an additional 50 percent for right-of-way and utilities. New bridge over Appomattox River and railroad track: 800' in length, 36' wide deck, at \$105 per square foot.

[5] Assumes the unit cost for installation of a signal is \$180,000.

[6] Assumes reconstruction of 300' of approach at \$4.0 million per mile, with an additional 50 percent for right-of-way and utilities.

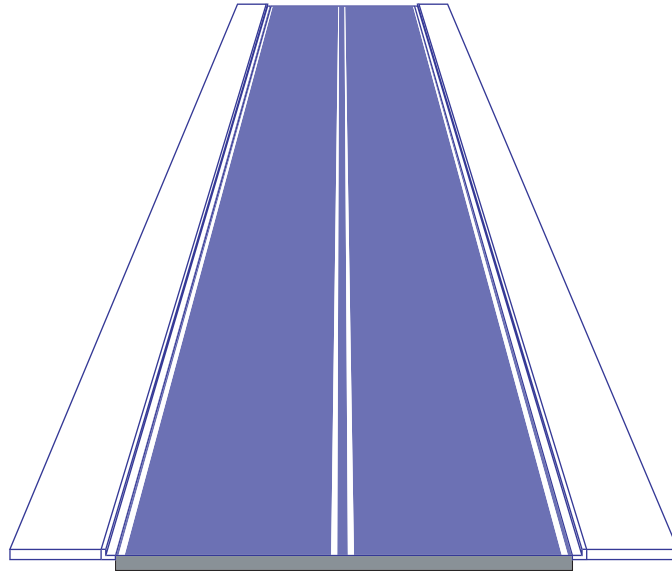
[7] Assumes 250' in length, 60' wide deck (4 lanes), at \$105 per square foot.

[8] The unit cost for an urban 4-lane roadway is assumed to be \$4.8 million per mile, with an additional 50 percent for right-of-way and utilities.

[9] Local projects are not included in total cost.

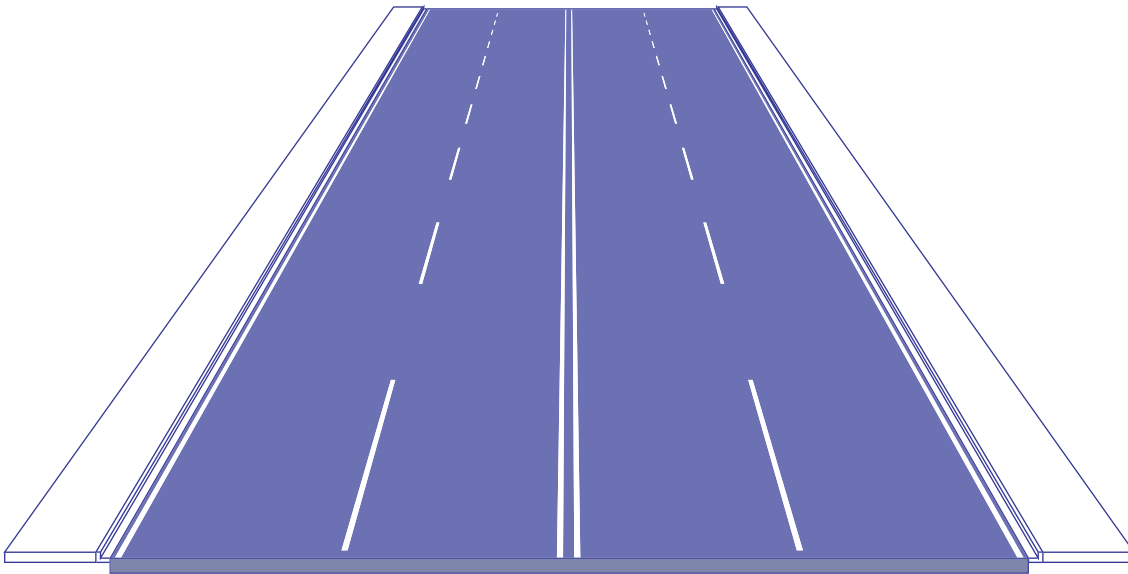
N/A - Not applicable

TYPICAL SECTIONS



U2

Urban two-lane roadway with curb and gutter.



U4

Urban four-lane roadway with curb and gutter.

Unless right-of-way considerations preclude their inclusion, sidewalks are recommended on both sides of these urban roadways.