BOWLING GREEN

SMALL AREA PLAN

April 2020

GEORGE
WASHINGTON
REGIONAL
COMMISSION
Planning
District 16

The Bowling Green Small Area Plan Document is part of the George Washington Regional Commission Fiscal Year 2020 Rural Work Plan, Section 3.2, which directs staff:

Small Area Plan Study for Bowling Green and Port Royal (Caroline County) – To complete the transportation element of small area plans for Bowling Green and Port Royal which would also include linkages to economic development opportunities and opportunity zone tax incentives and a study of potential bicycle/pedestrian improvements. Per VDOT request, the Port Royal plan can not start until the VDOT US 301 study for Port Royal is completed in early FY-20. This activity scheduled to carry over to the FY-21 Rural Work Program.

Work done by:

Kari Barber

Matthew Lehane

Jordan Chandler

Matthew Decatur

Photo on title page by Mandi Lawrence,

used with permission

Table of Contents

Introduction **3**

Highway Network **3**

Traffic Counts **3**

Highway Functional Classifications **6**

Roadway Safety **8**

Recommendations **10**

Bicycle and Pedestrian **13**

Commuter Options **17**

Rail/Bus/Air **17**

Appendix: Aerial Photos **18**

List of Tables

Table 6.1 Average Annual Daily Traffic 3

Table 6.2 Caroline County Traffic Counts 6

Table 6.3 Recommended Right of Way 8

List of Maps

Map 1 Highway Network 4

Map 2 Traffic Counts 5

Map 3 Functional Classification 7

Map 4 Potential for Safety Improvement (PSI) Intersections 9

Map 5 Recommended Roadway Improvements 11

Map 6 Sidewalk Inventory 14

Map 7 Bicycle and Pedestrian Needs 16

Introduction

Bowling Green is intent on improving its economic vitality and quality of life. Flanked by U.S. 301 and Rt. 207 and bisected by Route 2, Bowling Green's environment is greatly impacted by these thoroughfares and as they grow and change, the Town will both benefit from that growth and will need to adapt to it.

This Plan will review the existing transportation system in the Town of Bowling Green, including defining each highway's functional classification system and giving an explanation of its significance; providing traffic counts and projections to 2040 for major highways, and providing an inventory of roadways and sidewalks. Further, this chapter will recommend a number of improvements to the transportation system including bicycle, pedestrian and roadway improvements.

The Highway Network

Bowling Green is located approximately 10 miles to the east of Interstate 95 and 19 miles south of the City of Fredericksburg. Major access roadways include Route 301, Route 207 and Route 2 (See Map 1, Highway Network). The Route 301/Route 207 bypass provides access to Bowling Green from the east, south and west while Route 2 provides access from the north. The Town has approximately 5.0 miles of primary highways and 5.6 miles of secondary highways.

Primary Highways in the area include Route 301, Route 207 and Route 2. All other highways are designated as secondary highways. The Virginia Department of Transportation (VDOT) maintains the majority of streets and highways in Bowling Green, including Courthouse Lane which was recently accepted into the state system. Trewalla Lane is the only Town-maintained street.

Traffic Counts

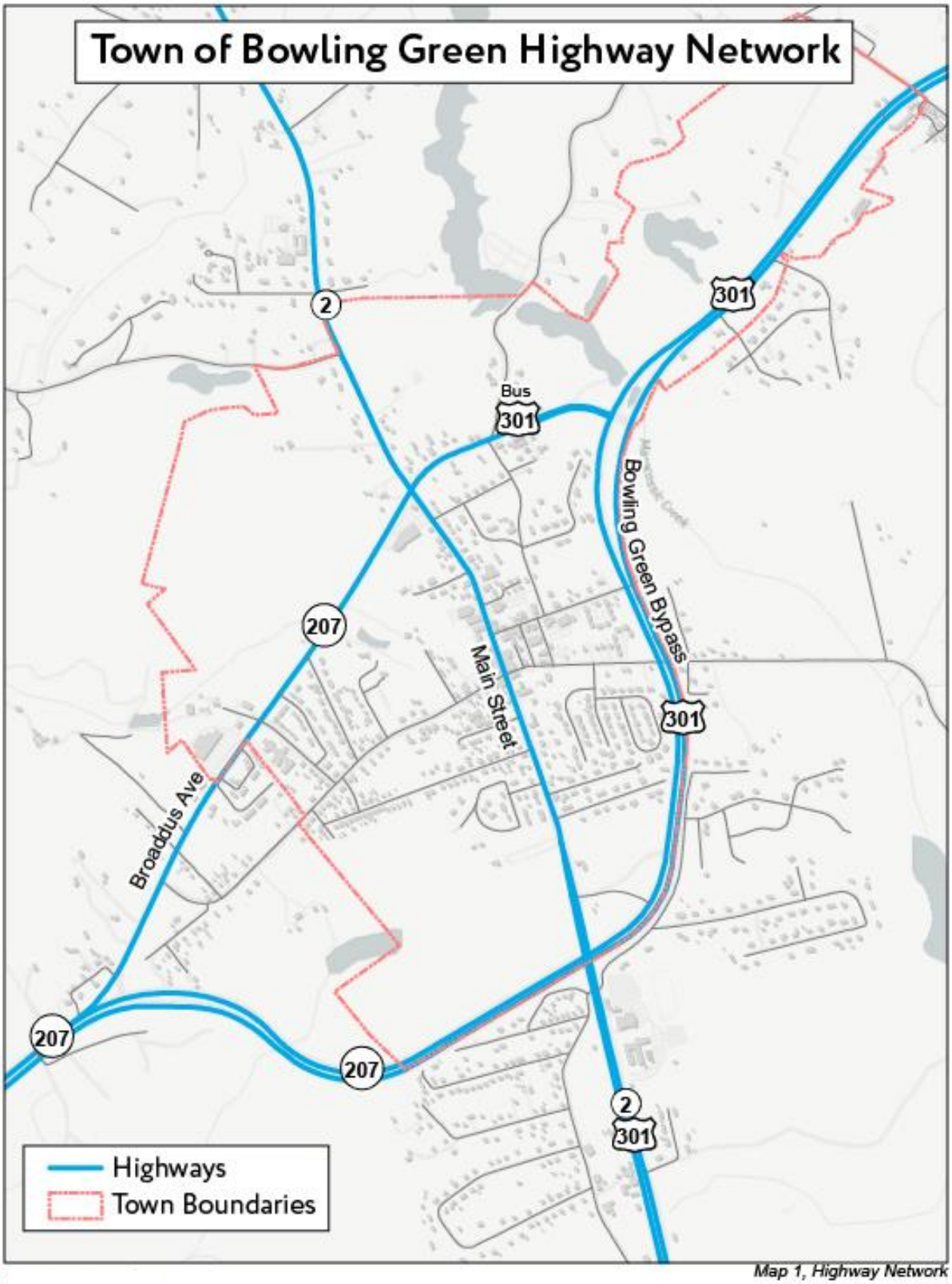
Traffic counts in Bowling Green encompass the major roadways falling under VDOT's functional classification system.

From 2007 to 2018, average annual daily traffic stayed relatively steady on primary and secondary roadways around Bowling Green (Table 6-1). The Governor Harry "Nice" Bridge replacement, which is slated to open in 2023, will significantly increase traffic in the area and by 2040 traffic is projected to double on Bowling Green's major roadways (Table 6-2). For more, see Map 2.

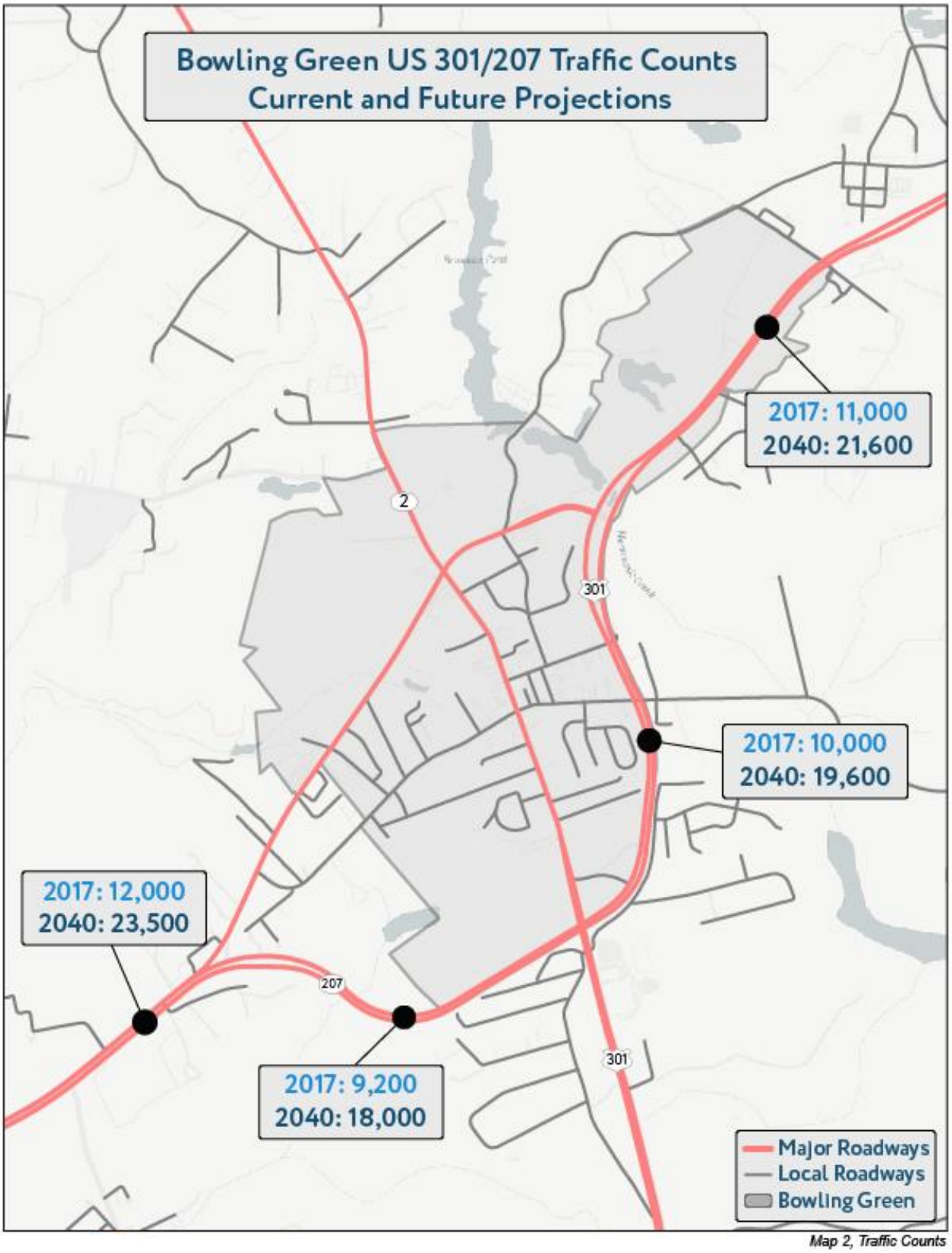
Table 6-1: Average Annual Daily Traffic (AADT)

	Route	From	To	AADT	Year	AADT	Year	AADT	Year
	Primary Highways								
1	Rt 2	Rt 301 Bus.	NCL Bowling Green	6300	2007	5700	2013	6400	2018
2	Rt 207	Rt 207 Bus.	Re 301	8400	2007	8600	2013	9100	2018
3	Rt 207 Bus.	WCL Bowling Green	Rt 2/ Rt 301 Bus.	4900	2007	4300	2013	5100	2018
4	Rt 301/ Rt 2	SCL Bowling Green	Rt 2	5400	2007	5300	2013	6500	2018
5	Rt 301 Bus.	Rt 2	SCL Bowling Green	5200	2007	4600	2013	5400	2018

Table 6-1 cont'd page 6



Map 1, Highway Network



Map 2, Traffic Counts

6	Rt 301	Rt 301 Bus. N	Rt 608	12000	2007	11000	2013	11000	2018
	Secondary Highways								
7	Milford St.	Rt 207	WCL Bowling Green	530	2007	520	2013	450	2018
8	Milford St.	WCL Bowling Green	Rt 301 Bus. S	1500	2007	1400	2013	1200	2018
9	Chase St.	Rt 301 Bus.	Ennis St.	1300	2007	1100	2013	1300	2018
10	Chase St.	Ennis St.	Rt 301	800	2007	660	2013	670	2018
11	Maury Ave.	Rt 216	Rt 301	440	2007	500	2013	500	2018
12	Anderson Ave.	Milford St.	Rt 207	1100	2007	1300	2013	1300	2018
13	Davis Ct.	N. Main St	Dead End	590	2007	570	2013	570	2018
14	Courthouse Ln	Ennis St.	Rt 1229	1100	2007	920	2013	920	2018

Source: Virginia Department of Transportation (VDOT) – AADT and VMT Publications

Table 6-2: Route 301 and Route 207 Arterial Preservation Study

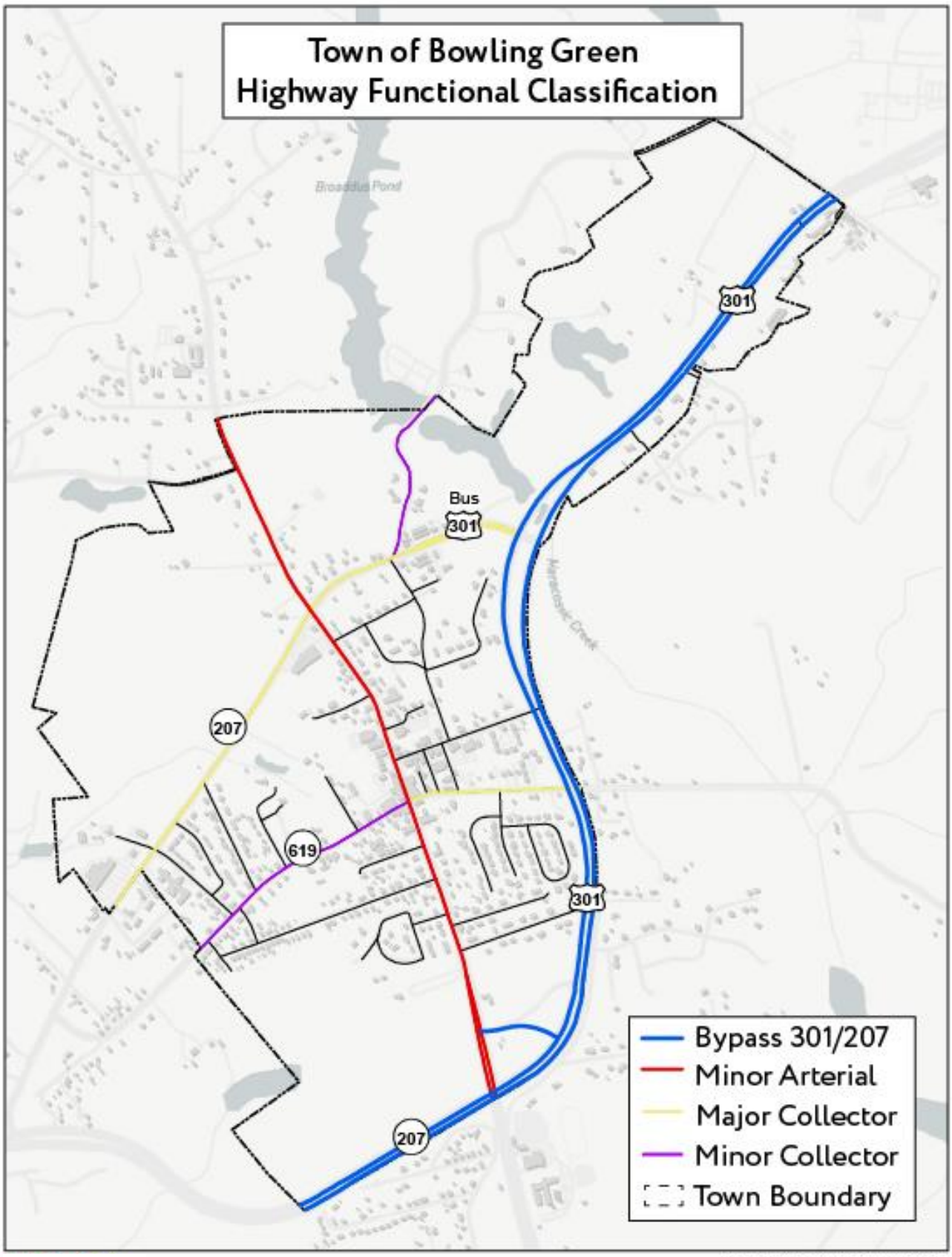
Caroline County Traffic Counts 2007-2040									
Segment	**From**	**To**	**2007**	**2009**	**2011**	**2013**	**2015**	**2017**	**2040**
VA 207	Route 722 Milford	Bus SR 207	12,000	11,000	11,000	12,000	12,000	12,000	23,500
	Bus SR 207	US 301 Richmond Tpke	8,400	8,000	8,400	8,900	9,100	9,000	18,000
US 301	SR 207	Bus US 301, Bus SR 207 Broaddus Ave	11,000	10,000	11,000	11,000	11,000	10,000	19,600
	Bus US 301, Bus SR 207 Broaddus Ave	NCL Bowling Green; 16-608 Lakewood Rd	12,000	11,000	8,500	11,000	12,000	11,000	21,600

Functional Classifications

Rural highways in Virginia are classified by Virginia Department of Transportation (VDOT) according to function based upon a system developed by the American Association of State Highway and Transportation Officials (AASHTO). The following is a short description of each of the classifications. These classifications are also shown on the Highway Classification map (Map 3).

Principal Arterial highways provide an integrated network of roads that connect principal metropolitan areas and serve virtually all urban areas with a population greater than 25,000. They serve long distance travel demands such as state-wide and interstate travel. The only principal arterial route directly serving Bowling Green follows Route 207 to the Route 301 bypass, includes the bypass, and then continues northeast along Route 301.

Minor Arterial highways link cities and large towns and provide an integrated network for intrastate and intercounty service. They supplement the principal arterial system so that all demographic areas are



Map 3, Functional Classifications

within a reasonable distance of an arterial highway and are intended as routes that have minimum interference to through movement. Route 301/Route 2 to the south of Bowling Green, Route 301 Business from the bypass to Route 2, and Route 2 north are classified as minor arterial highways.

Direct access to properties from arterials is discouraged. Access to adjacent properties should occur through the utilization of access management techniques such as internal, frontage, or service roads; shared entrances; and limitations on the number, location, and spacing of entrances.

Major Collector highways provide service to any county seat, large towns, or other major traffic generators not served by the arterial system. They provide links to the higher classified routes and serve as important intra-county travel corridors. Major collectors include Route 301 Business from the intersection of Route 2 to the bypass, Route 207 Business, and Route 619 (Chase Street) between the Route 301 Bypass and Main Street.

Minor Collector highways collect traffic from local streets and bring all developed areas within a reasonable distance of a collector road. They provide service to small communities and link important local traffic generators with the rural areas. The closest roadways to minor collectors in Bowling Green are Lakewood Drive (Route 608) and Milford Street.

Local Streets provide access to adjacent land and serve travel of short distances as compared to the higher systems, and typically collect traffic from local subdivision roads and carry these vehicles to adjacent neighborhoods and arterial roads. The design of the roadway and adjacent development should minimize potential conflicts between vehicles and pedestrians. All of the remaining streets in Bowling Green are classified as local.

The intended functional classification of a road plays a role in the determination of recommended right-of-way widths. Recommended right-of-way widths based upon VDOT standards are shown in the adjacent table, table 6-3.

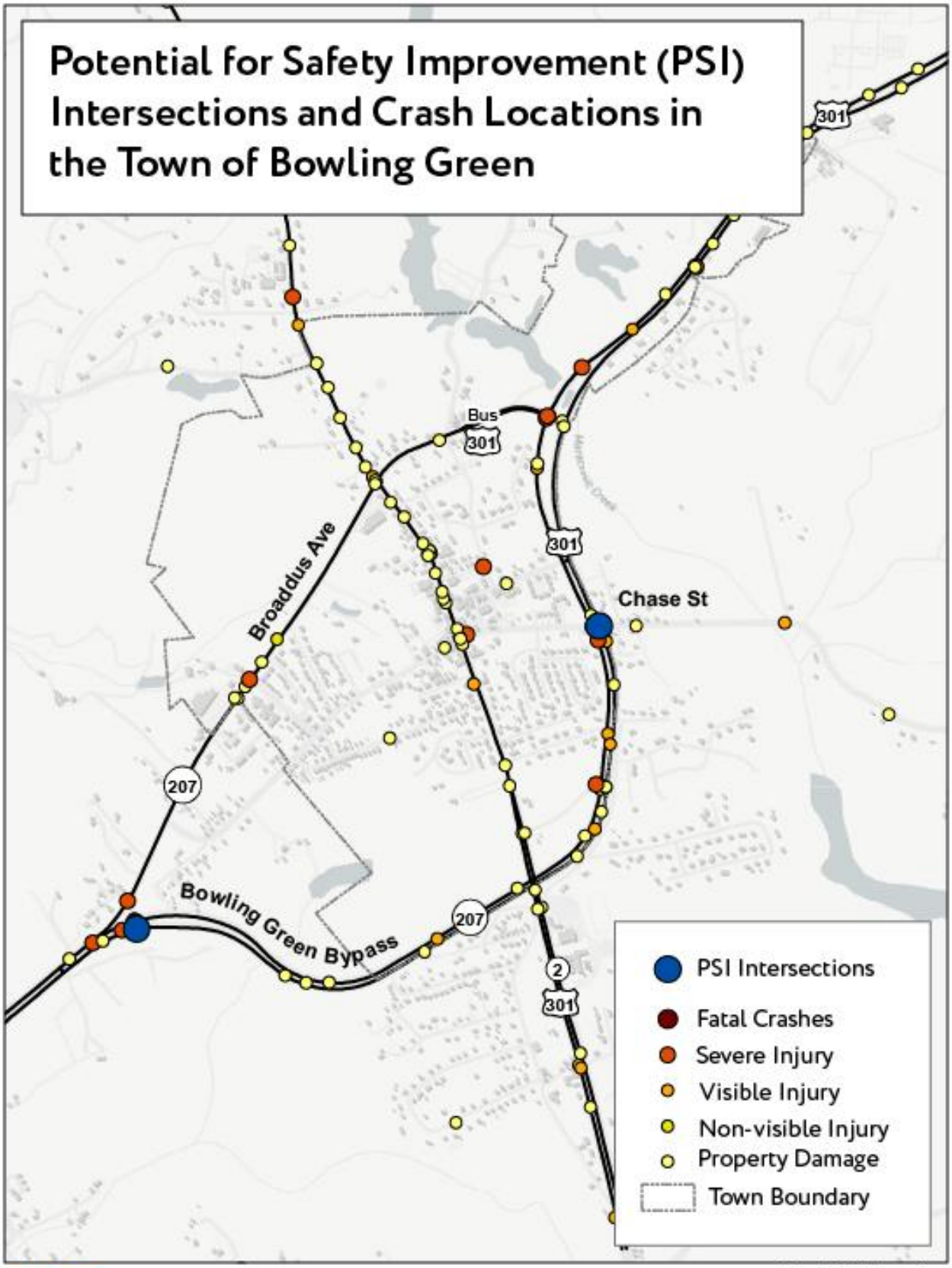
Table 6-3: Recommended Rights of Way

Functional Classification	Recommended Right of Way Widths
Principal Arterials	120 to 200 feet
Minor Arterials	90 to 120 feet
Major Collectors	70 to 90 feet
Minor Collectors	70 to 90 feet
Local Streets	40 to 80 feet

Source: VDOT Geometric Design Standards

Roadway Safety

Statewide, safety needs are assessed by identifying a roadway's Potential for Safety Improvement (PSI). The top intersections and roadway segments from each VDOT construction district are ranked. Scores are determined by number of actual crashes minus the number of predicted crashes for that type of intersection or roadway and the traffic volumes. See Map 4, PSI Intersections, for more details.



Map 4, PSI Intersections

Recommendations

There are a number of specific trouble spots and deficiencies on the Town's road network and system of sidewalks which will likely necessitate improvements over the next several years. The potential improvements discussed below range from changes in lane striping to the installation of curb and gutter along several well-traveled Town roads. The following is a short summary of each recommended improvement.

1. New Town Block - To open new areas for commercial development downtown and to improve traffic circulation, it is recommended that the Town investigate the feasibility of constructing a new street(s) between Main Street and Milford Street. An investigation of public and private funding sources to construct the new street(s) should be studied.

2. Maury Avenue - The combination of roadway width and pavement conditions along Maury Avenue often pose significant safety problems, especially when vehicles are parked alongside the street. There are several potential options for Maury Avenue, including installing a curb and gutter, lowering the speed limit, conversion to a private street, or even a residential shared street (see description of residential shared streets in the Annex). A discussion needs to be held with the residents of Maury Ave to determine the best solution.

3. White Street - With the construction of the Bowling Green Plaza Shopping Center, traffic on White Street has increased significantly. Vehicles traveling westbound on Milford Street are using Maury Avenue to White Street to Anderson Ave to avoid stopping at the light at Milford Street and Main Street.

4. Chase Street - Due to a great deal of pedestrian traffic, the installation of new sidewalks along Chase Street which connect to the street's existing sidewalks are recommended. This pedestrian traffic is due in part to the apartments located along the easternmost section of the street. In addition, curb and gutter are also recommended for the easternmost section of this street between Butler Street and Route 301.

5. Courthouse Lane - To facilitate drainage and preserve the edge of the existing road surface, the installation of curb and gutter are recommended for Courthouse Lane between Butler Street and Route 301.

6. Travis Street - Sight distance problems along Travis Street will likely necessitate the clearing of brush and other vegetation along several stretches of the street. Travis Street experiences a great deal of cut-through traffic to Courthouse Lane.

7. Sidewalk Extensions – The Town should pursue the addition of sidewalks on North and South Main Street into the annexed areas.

8. Sidewalk Maintenance – The Virginia Department of Transportation (VDOT) completed a general upgrade of sidewalks in 2017 and brought downtown sidewalks into ADA compliance in 2019. Further upgrades are slated for later in 2020.

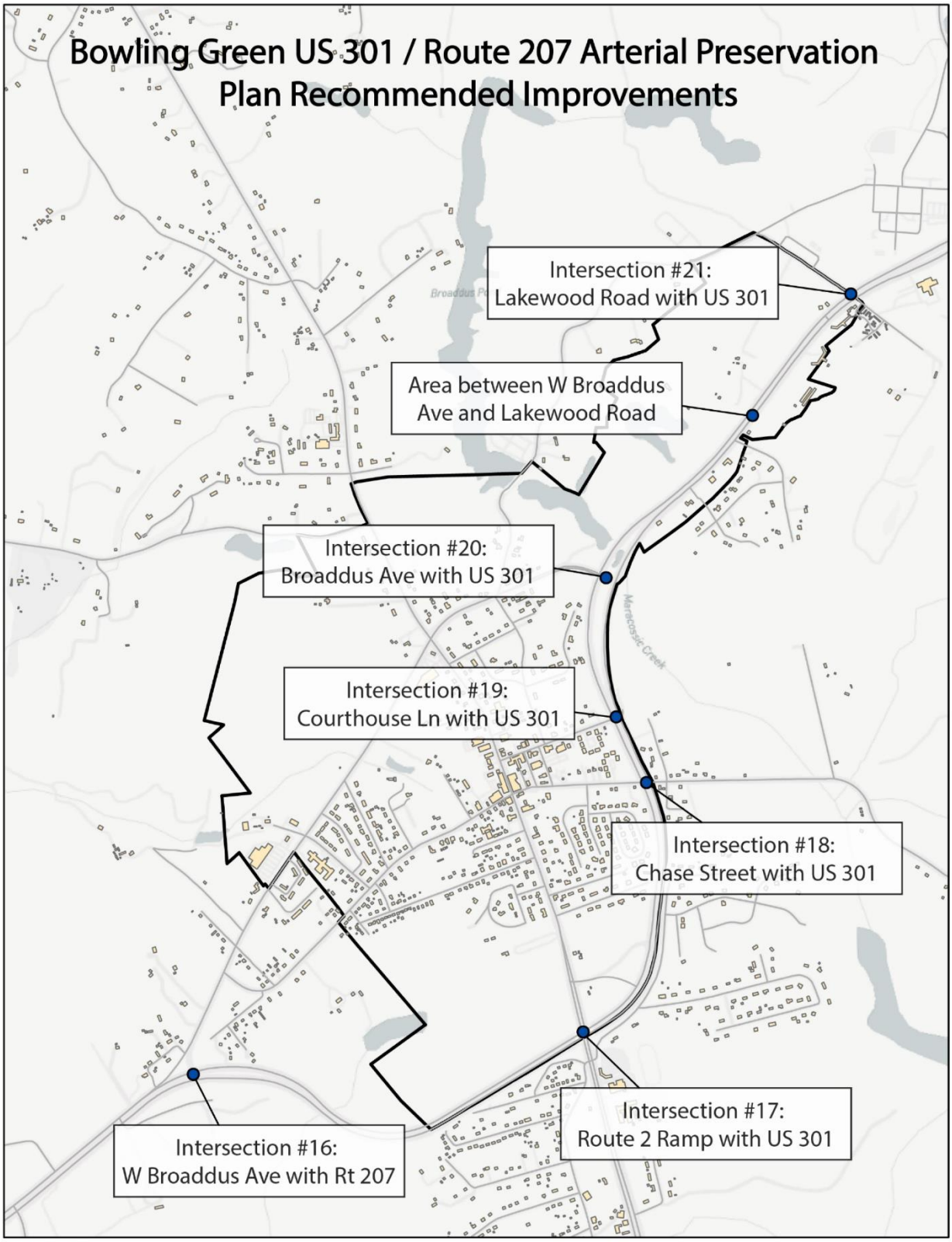
The following recommendations were prepared by VDOT in 2018 as part of a larger study of the US 301/Route 207 Corridor in Caroline and King George County. See Recommended Improvements, Map 5, and 301/207 Aerial photos in the Appendix for more information.

Intersection #16: W Broaddus Avenue with Route 207

- The intersection should be evaluated further as development occurs within the Town of Bowling Green and the surrounding area.

Intersection #17: Route 2 Ramp with US 301

- Reconfigure the intersection to a Continuous Green-T (CGT) intersection to accommodate left-turning vehicles from eastbound Route 2 Ramp



Map 5 Recommended Roadway Improvements

- The Town of Bowling Green has two intersections directly on US 301, Chase Street and Courthouse Lane, that do not meet spacing standards and has a significant history of crashes
- The CGT provides safe and efficient movements, thus encouraging traffic to utilize Route 2 ramp due to reconfigure intersections at Chase Street and Courthouse Lane

Intersection #18: Chase Street with US 301 (Round 4 SMART SCALE application)

- Chase Street and Courthouse Lane do not meet VDOT Road Design Manual spacing standards and have a significant history of crashes. Westbound Chase Street does not have immediate access (<20 min) to southbound US 301; therefore, keeping as much access for westbound Chase Street is preferred

  Option 1: *Reconfigure the intersection to a Continuous Green-T (CGT) to accommodate left-turning vehicles from westbound Chase Street. Reconfigure the eastbound approach to right-in/right-out only.*
  Option 2: *Reconfigure the intersection to a Partial Restrict Crossing U-Turn (RCUT) to accommodate left-turning and through vehicles from westbound Chase Street. Reconfigure the eastbound approach to right-in/right-out only. Reconfigure the intersection of Courthouse Lane to permit lefts-in and U-turns.*

Intersection #19: Courthouse Lane with US 301

- Chase Street and Courthouse Lane do not meet VDOT Road Design Manual spacing standards and have a significant history of crashes. The existing turn lanes does not meet the VDOT Road Design Manual's minimum standard for turn lane storage and taper lengths

  Option 1: *Eliminate the existing crossover and convert to traversable median for emergency vehicles only. Reconfigure the intersection to right-in/right-only. Lengthen the existing southbound US 301 right-turn lane.*
  Option 2: *Reconfigure the intersection of Courthouse Ln to permit lefts-in and U-turns from northbound US 301 and right-in/right-outs onto and from southbound US 301. Lengthen the existing southbound US 301 right-turn lane.*

Intersection #20: W Broaddus Avenue with US 301

- Eliminate the southbound US 301 left-turn lane and extend the median stop bar towards US 301 mainline to improve sight distance.
- Inadequate sight-distance from the westbound approach, looking northbound, creates difficult movement through the intersection.

Area between W Broaddus Avenue and Lakewood Road

- Consolidate and eliminate crossovers and convert area to a Restricted Crossing U-Turn (RCUT) superstreet as development occurs
- Multiple crossovers do not meet the VDOT Road Design Manual spacing standards.
- The area has been designated as a development area by the Town of Bowling Green. Consolidating accesses and utilizing the superstreet concept will comply with VDOT standards and promote safe and efficient traffic operations.

Intersection #21: Lakewood Road with US 301

- Extend the existing US 301 turn lanes. Evaluate the US 301 northbound right-turn lane based on future expansion of Fort A.P. Hill. Lengthen all existing turn lanes on Route 207. Evaluate the intersection as development occurs and reconfigure to Restricted Crossing U-Turn (RCUT).
- Existing turn lanes do not meet the VDOT Road Design Manual's minimum standard for turn lane storage and taper lengths.
- The Town of Bowling Green designated this area as a development area. Consolidating accesses and utilizing the superstreet concept will comply with VDOT standards and promote safe and efficient traffic operations.

Bicycle and Pedestrian

Creating a safe and inviting community to walk and bike makes Bowling Green a healthier and more enjoyable place for the people who live there and is a boon to economic development as well. As Bowling Green seeks to revitalize its downtown, it will need to take proactive steps to retain and improve its friendly, walkable character as traffic increases.

The Town has a relatively extensive sidewalk system in place, most of which is maintained by VDOT (See Map 6, Existing Sidewalks). Bowling Green is working with VDOT to complete gaps and to extend the network to create a more walkable environment downtown and in residential districts and to ensure the remaining sidewalks are kept in a serviceable and safe condition.

For bicyclists, the town will be working with VDOT to create safer conditions with signage and pavement markings, as well as completing the bike lane on Broaddus Ave when feasible.

Recommendations

Increased traffic on US 301 from widening Governor Harry Nice Bridge will challenge Bowling Green's Main Street walkable character. To help mitigate those impacts, safety improvements are recommended for a number of downtown streets and intersections, detailed below. See Bicycle and Pedestrian Needs, Map 7, for more information.

Crossing Recommendations:

Broaddus Ave and Anderson:

- Add a ladder-style/continental crosswalk on Anderson and Pedestrian-activated Signal on Broaddus (Rectangular Rapid Flash Beacon- RRFB)

Broaddus Ave and Main St:

- Five continental crosswalks and an appropriate pedestrian signal phase TBD (see accompanying documentation), no turn on red during ped signal phase for slip lane. Adequate night-time lighting levels.

Broaddus Ave and Travis St:

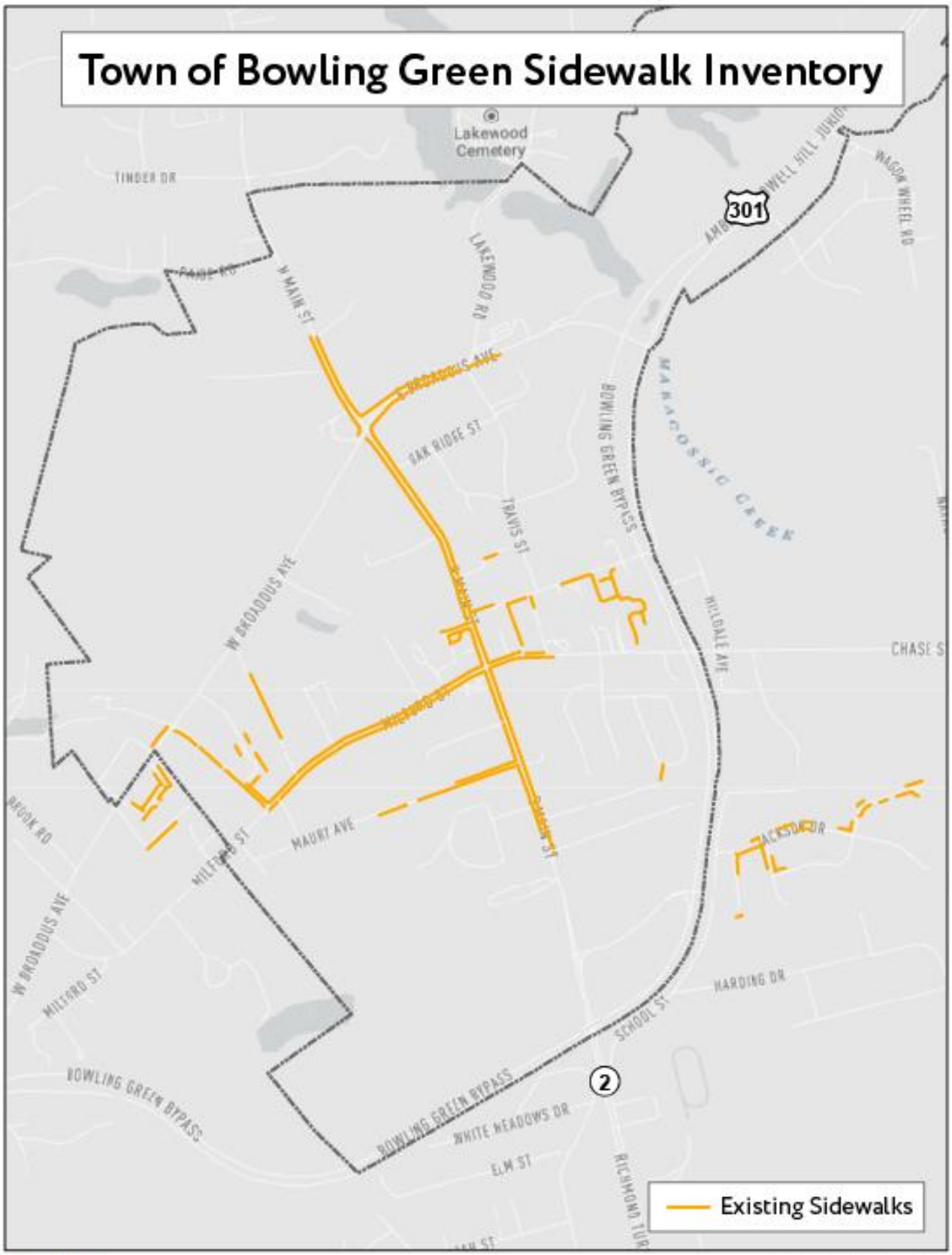
- Crosswalk and pedestrian-activated signal (RRFB). Adequate night-time lighting levels.

Main St/ Milford St/Chase St:

- Four continental crosswalks, an appropriate pedestrian signal phase, nighttime lighting.

Main and Oak Ridge St:

- Continental crosswalk/raised crosswalk and Advance Yield Here To (Stop Here For) Pedestrians Sign and yield (stop) Line, in street pedestrian crossing sign, adequate night-time lighting levels.



Map 6, Existing Sidewalks

Main St and Maury Ave:

- Continental crosswalk/raised crosswalk and Advance Yield Here To (Stop Here For) Pedestrians Sign and yield (stop) Line, in street pedestrian crossing sign, adequate night-time lighting levels

Courthouse Ln and Travis St:

- Continental Crosswalk, Pedestrian crossing sign

Chase St and Ennis St:

- Continental Crosswalk, Pedestrian crossing sign, adequate night-time lighting levels

Main St and Courthouse Ln:

- Continental Crosswalk, Advance Yield Here To (Stop Here For) Pedestrians Sign, adequate night-time lighting levels

Roadway Improvements

Broaddus Ave:

- Complete bike lane on Broaddus to intersection of Main Street. [1] Add section of sidewalk at intersection east of Main.

Anderson Ave:

- Shared Roadway Signage and Sharrows

Milford St:

- Complete the sidewalks west of Anderson connecting to Elliot Drive. Shared road signage and Sharrows west of Main St.

Maury Ave:

- Complete the sidewalk. Alternatively, consider a residential shared street, dropping speed limit

Elliot Dr:

- Sidewalk on one side

White St:

- Sidewalk on one side

Main St:

- Shared Road Signage and Sharrows from Broaddus to Lafayette Ave. Shoulder improvements south of that to 301. Bring all existing sidewalks and crossings into ADA compliance.

Courthouse Ln:

- Complete sidewalks to apartment complex

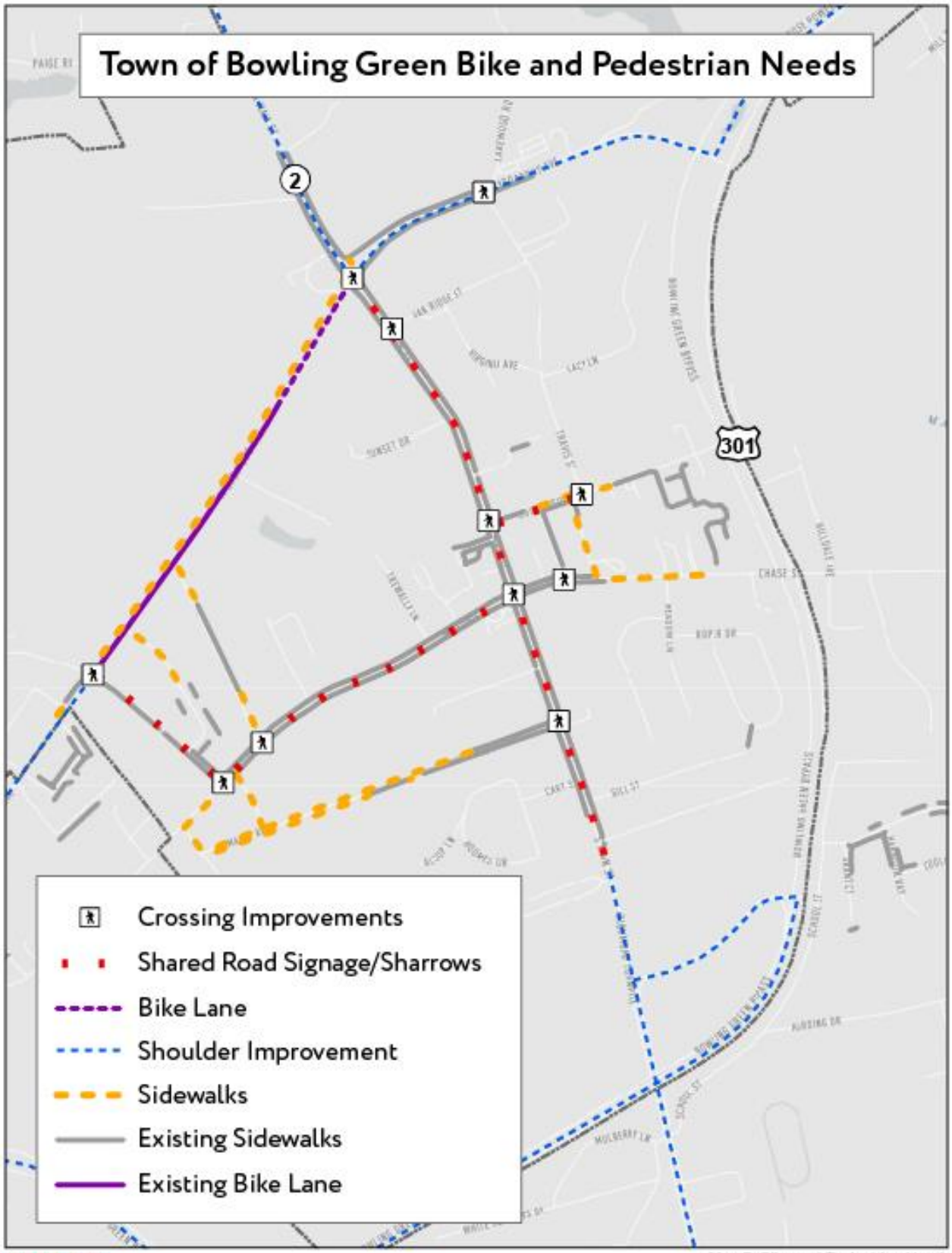
Ennis St, Butler St, Lee St, Martin St:

- Complete the sidewalk

Chase St:

- Complete the sidewalk east of Butler Street to the apartment complex.

[1] VDOT Complete Streets: Bicycle and Pedestrian Facility Guidelines, Bus Stop Design and Parking Guidelines, p A(1)-13, Right turn lane design p A(1)-21 (Annex)



Map 7, Bike and Pedestrian Needs

Commuter Options

GWRideConnect is a program designed to promote ridesharing and provide commuting information for all non-single occupancy vehicle modes of transportation to residents of Planning District 16 which includes Caroline, King George, Spotsylvania and Stafford Counties as well as the City of Fredericksburg. GWRideConnect assists people who are seeking transportation from the George Washington Regional Commission (GWRC) area to employment locations, including the Washington (DC-MD-VA) and Richmond metropolitan areas. GWRideConnect also assists residents in commuting to employment centers within the GWRC area.

It is the primary goal of the program to place commuters in various modes of mass transportation to eliminate their single occupancy vehicles from the highways. To foster this goal, the program assists in the creation of new commuter pools (cars, vans and buses) and works to keep these pools successfully operating. The closest VDOT maintained commuter parking lot to Bowling Green is located at the intersection of Route 1 and Route 207 in Carmel Church. The lot has 50 spaces. Leased commuter lots are located at 8051 Prosperity Way in Ladysmith and at 3411 Shannon Park Drive next to Shannon Airport in Spotsylvania. These lots have 25 spaces and 35 spaces respectively. Free parking passes are required to utilize the leased spaces and are obtained by contacting GWRideConnect. One private commuter bus line offers daily service to Washington from commuter lots in Spotsylvania County on Route 208 and Route 3.

Rail/Bus/Air Service

Although Virginia Railway Express (VRE) and Amtrak do not serve any stations in Caroline County, stops are made just over the line at the stations in Spotsylvania, to the north, and Ashland in Hanover County, to the south. Eight VRE passenger trains travel between Union Station in Washington and Spotsylvania Station in Spotsylvania County each day. Additionally, five Amtrak trains travel between the Fredericksburg Station and Union Station in Washington DC, stopping only at Quantico, Woodbridge, and Alexandria in between.

Bus service to Richmond and Washington from the area is provided by Greyhound Bus Lines. The closest station is located in Fredericksburg. Locally, Fredericksburg Regional Transit (FRED) provides bus services throughout the region. Caroline County has paid into FRED and been part of its service route in the past and may choose to again.

The closest major airport to the Town is Richmond International Airport. General aviation airports in the area include Shannon Airport in Fredericksburg, Stafford Regional Airport in Stafford County, and the Hanover Airpark in Hanover County.

Appendix:

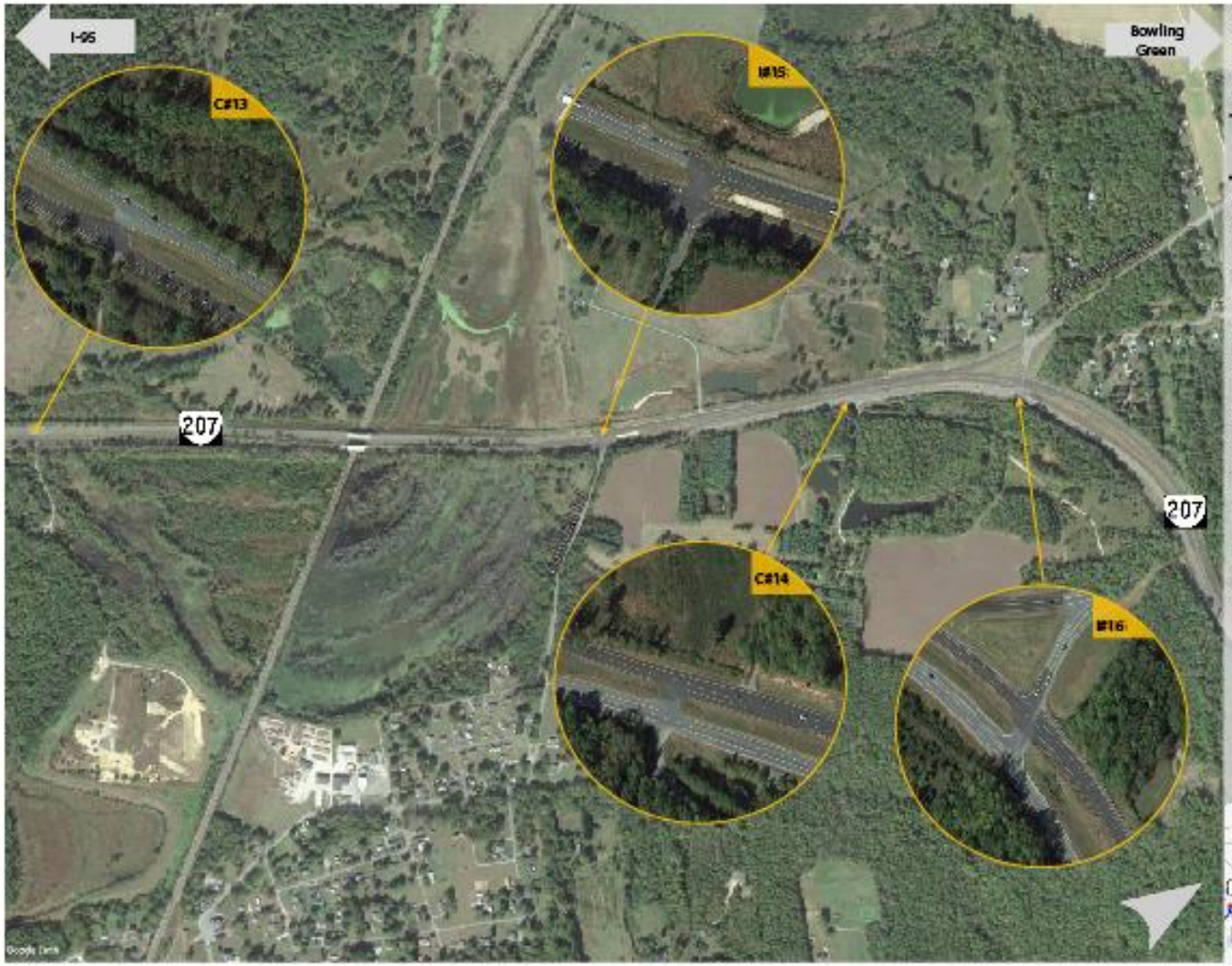
Aerial Photos from the

VDOT 301/207 Arterial Preservation Study

highlighting intersection recommendations for the

Town of Bowling Green

(all following images from VDOT)



US 301/Rte 207 Arterial Preservation Plan
Figure 8
Intersections & Median Crossovers
Caroline County

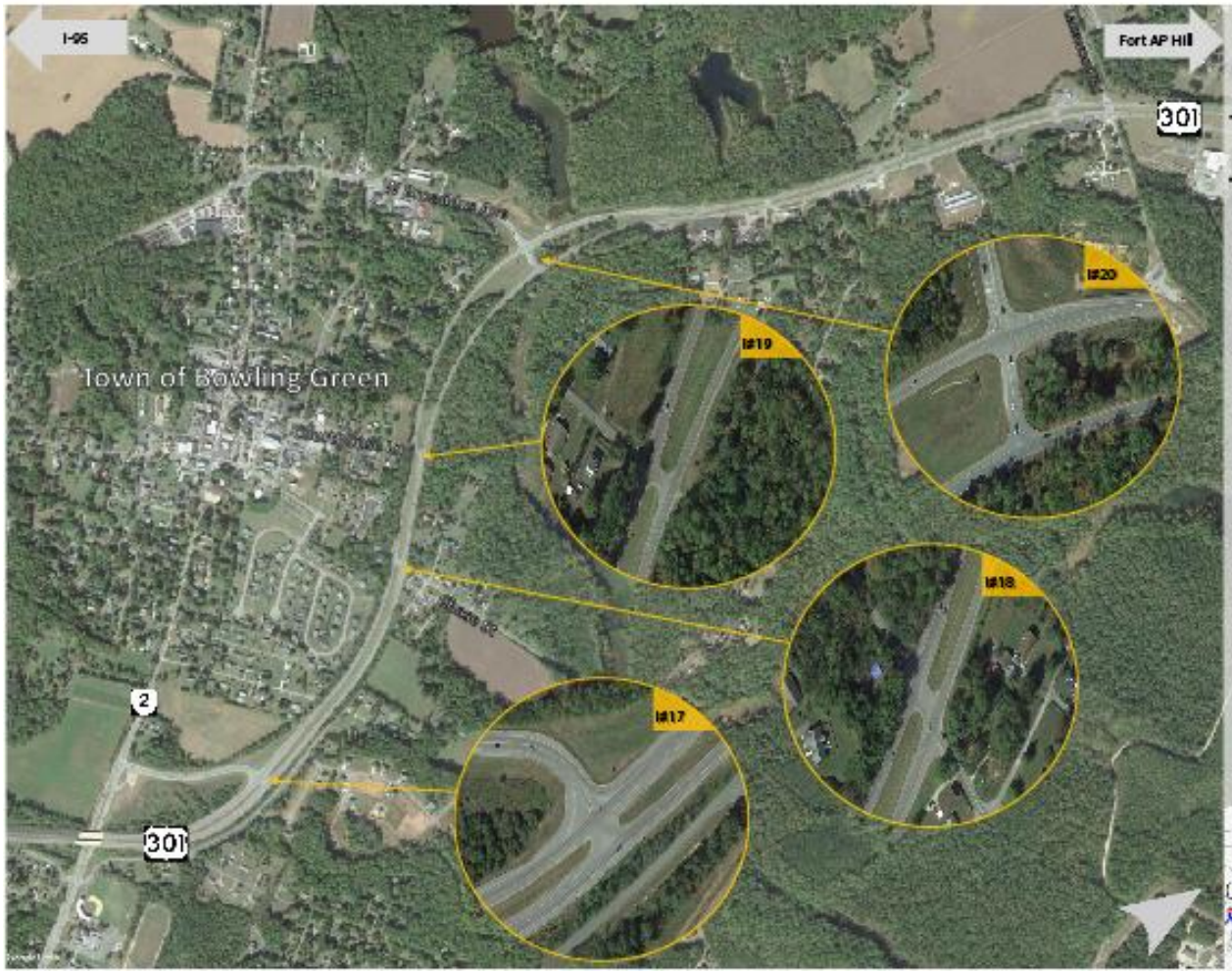
I## - Intersection #
C## - Crossover #

Crossover #13:
Recommendation: Lengthen existing leftturn lanes on Rte 207
Cost: $0.4M to $0.5M

Intersection #15: Colonial Rd with Rte 207
Recommendation: Lengthen existing left and rightturn lanes on northbound Rte 207
Cost: $0.5M to $0.6M

Crossover #14:
Recommendation: Modify crossover at intersection of Christmas Tree Ln and Rte 207 to a directional median to allow only lefts from southbound Rte 207
Cost: $0.4M to $0.5M

Intersection #16: W Broaddus Ave with Rte 207
Recommendation: Intersection should be evaluated further as development occurs



US 301/Rte 207 Arterial Preservation Plan
Figure 9
Intersections & Median Crossovers
Caroline County

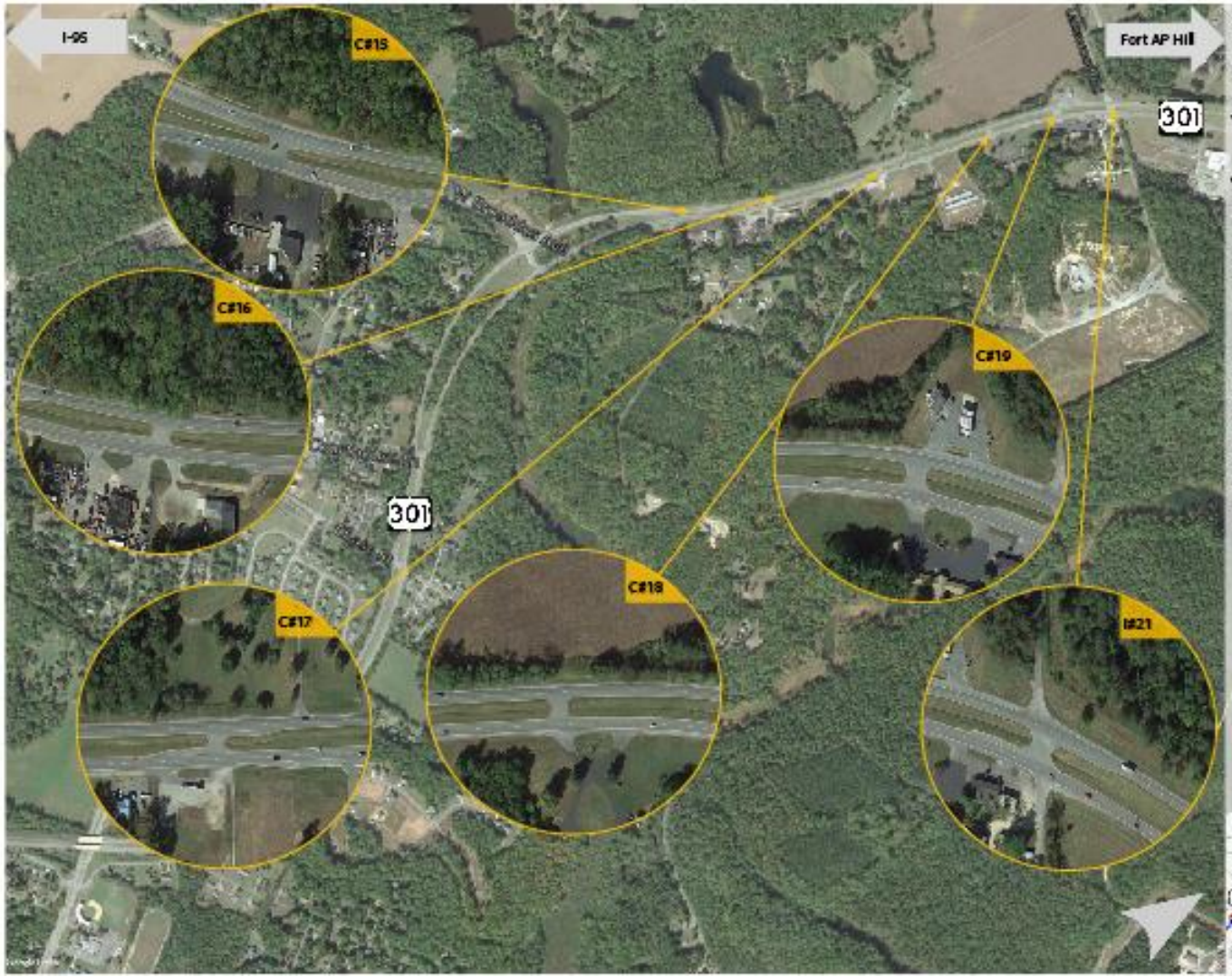
I## - Intersection #
C## - Crossover #

Intersection #17: Rte 2Ramp with US 301:
Recommendation: Construct northbound acceleration lane for vehicles turning left from ramp onto US 301
Cost: $0.5M to $0.6M

Intersection #18: Chase St with US 301
Recommendation: See Figures 11 & 12
Cost: $0.8M to $1.1M

Intersection #19: Courthouse Ln with US 301
Recommendation: Reconfigure Courthouse Lane to Right-In/Right-out only and close existing crossover- See Figures 11 & 12
Cost: $0.3M to $0.4M (Included in Intersection #18 Cost)

Intersection #20: W Broaddus Ave with US 301:
Recommendation: Eliminate southbound US 301 left turn lane and extend median stop bars towards US 301 mainline to improve sight distance
Cost: $0.1M to $0.2M



US 301/Rte 207 Arterial Preservation Plan
Figure 10
Intersections & Median Crossovers
Caroline County

I## - Intersection #
C## - Crossover #

Crossovers #15-19:
Recommendation: Due to area designated for development, consolidate/remove crossovers and convert area to Restricted Crossing U-Turn Superstreet
Cost: To Be Determined as Development Occurs

Intersection #21: Lakewood Rd with US 301
Recommendation:
Short-term: Extend US 301 existing turnlanes. Evaluate US 301 northbound rightturn lane for future Army expansion
Long-term: Evaluate ongoing development and need to reconfigure to Restricted Crossing U-Turn
Cost: To Be Determined as Development Occurs

US 301/Rte 207 Arterial Preservation Plan
Figure 11
Intersection #19 & #20:
US 301 with Chase St
US 301 with Courthouse Ln
Continuous Green-T (CGT)
Improvement Type: Economic Development, Safety

Recommendation: Reconfigure intersection at Chase St with Rte 207 to unsignalized continuous green-T. Construct acceleration lane for westbound left-turn movements onto southbound Rte 207. Existing Courthouse Lane (intersection #20) will be closed and reconfigured to transversable median for emergency vehicles. Existing right-turn lanes at Courthouse Ln and Chase St on Rte 207 will be extended.

ROW Impacts: Acceleration lane and island are with existing ROW. Right-turn lane extensions will have minimal ROW impacts.

Traffic Operations & Safety:

Traffic Operations	Reduced delay times for vehicles traveling westbound onto Rte 207 southbound
Safety	Channelization of left-turn vehicles from the side street reduces the potential for angle crashes

Cost: $0.8M to $1.1M

Standard Movements

US 301/Rte 207 Arterial Preservation Plan

Figure 12

Intersection #19 & #20:
US 301 with Chase St
US 301 with Courthouse Ln

Improvement Type: Economic Development, Safety

Recommendation: Reconfigure intersection at Chase St with Rte 207 to only permit southbound left turn movements. Reconfigure Courthouse Lane intersection (intersection #20) to permit lefts and u-turns from northbound US 301. Existing right turn lanes at Courthouse Ln and Chase St on Rte 207 will be extended.

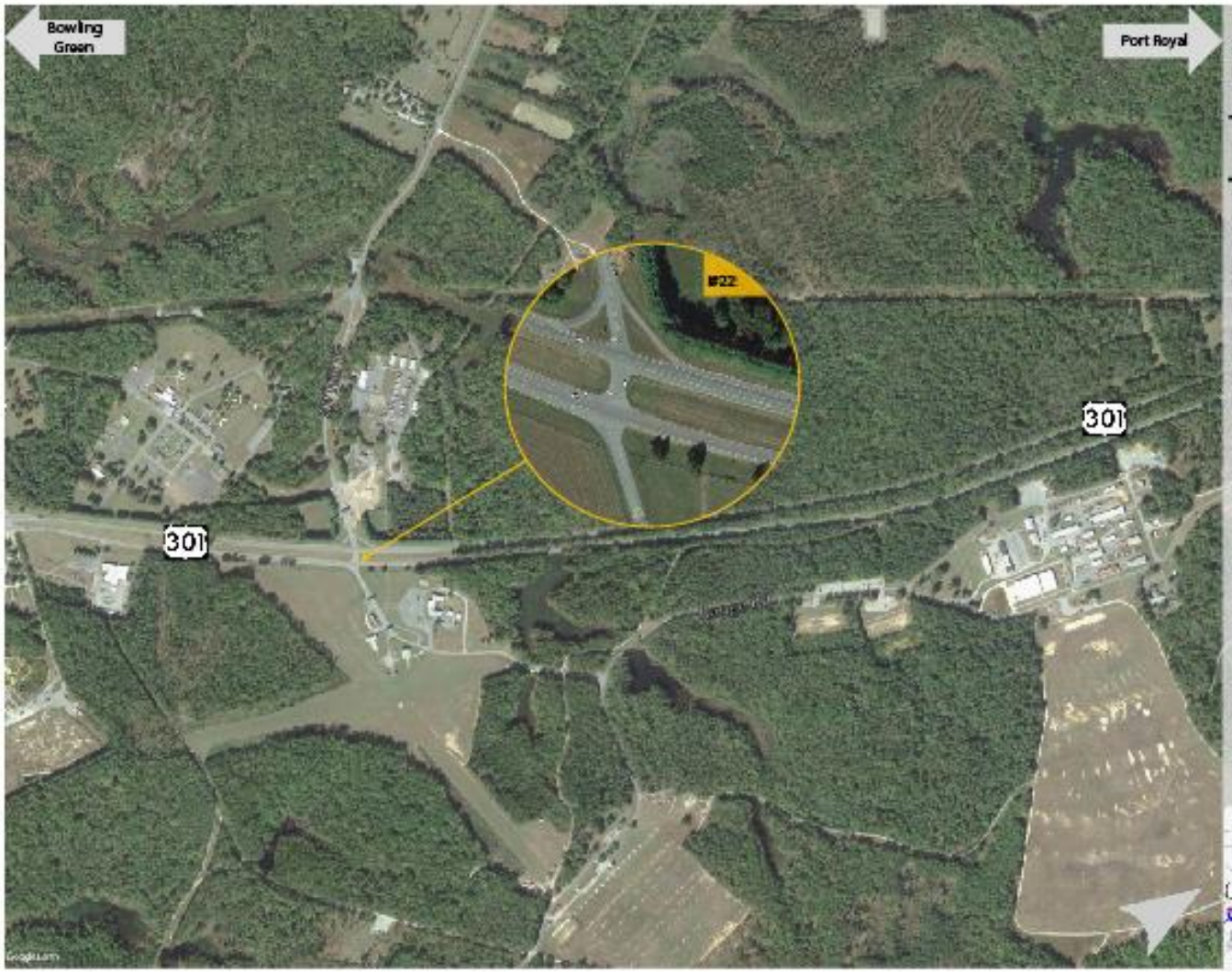
ROW Impacts: Right-turn lane extensions will have minimal ROW impacts.

Traffic Operations & Safety:

Traffic Operations	Minimal improvements
Safety	Reduction of turn-movements reduce the number of conflict points at an intersection, thus reducing the risk of a crash

Cost: $0.8M to $1.1M

Standard Movements
Re-routed left turn movements



US 301/Rte 207 Arterial Preservation Plan
Figure 13
Intersections & Median Crossovers
Caroline County

I## - Intersection #
C## - Crossover #

Intersection #22: AP Hill Dr with US 301
Recommendation:
Short-term: Further coordination between VDOT and Fort AP Hill will be necessary to assure safe and efficient function of the entrances. Intersection should be monitored closely as volume increases on the corridor.
Long-term: Coordination between VDOT, Fort AP Hill and Localities focus on supporting future safe crossing methods such as overpasses and alternative intersections.