



# 2017 Stokes County Comprehensive Transportation Plan





# 2017 Stokes County Comprehensive Transportation Plan

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N.C. Department of Transportation

**In Cooperation with:** Stokes County  
Town of Danbury  
Town of Walnut Cove  
Piedmont Triad Rural Planning Organization

*Published: July 2017*



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Travis Marshall, PE  
Unit Head



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## Executive Summary

In December of 2015, the Transportation Planning Branch of the North Carolina Department of Transportation (NCDOT) and Stokes County initiated a study to cooperatively develop the Stokes County Comprehensive Transportation Plan (CTP), which includes Danbury and Walnut Cove. This is a long range multi-modal transportation plan that covers transportation needs through 2045. Modes of transportation evaluated as part of this plan include: highway, public transportation and rail, bicycle, and pedestrian. This plan does not cover routine maintenance or minor operations issues. Refer to Appendix A for contact information on these types of issues.

Findings of this CTP study were based on an analysis of the transportation system, environmental screening and public input, which are detailed in Chapter 1. Figure 1 shows the CTP maps, which were mutually adopted by NCDOT in 2017. Descriptive information and definitions for designations depicted on the CTP maps can be found in Appendix B. Implementation of the plan is the responsibility of the county, its municipalities, and NCDOT. Refer to Chapter 2 for information on the implementation process.

This report documents the recommendations for improvements that are included in the Stokes County CTP. The major recommendations for improvements are listed below. More detailed information about these and other recommendations can be found in Chapter 2.

- **First Street/ Oldtown Road (SR 1918):** upgrade First Street/ Oldtown Road (SR 1918) to two 12 foot lanes with paved shoulders to accommodate truck traffic.

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VIRGINIA STATE LINE



# Stokes County Comprehensive Transportation Plan

Plan date: March 10, 2017

## Adopted by:

Town of Danbury  
Date: May 3, 2017

Town of Walnut Cove  
Date: April 11, 2017

Stokes County  
Date: April 24, 2017

NCDOT  
Date: June 1, 2017

## Endorsed by:

Northwest Piedmont RPO  
Date: April 19, 2017

Recommended by:  
Transportation Planning Branch  
Date: May 4, 2017

## NOTES:

See Winston Salem  
Comprehensive Transportation Plan

ROCKINGHAM COUNTY

SURRY COUNTY

FORSYTH COUNTY

- Sheet 1 Adoption Sheet
- Sheet 2 Highway Map
- Sheet 3 Public Transportation and Rail Map
- Sheet 4 Bicycle Map
- Sheet 5 Pedestrian Map

### Legend

- Airport
- Schools
- Rail
- Roads
- Rivers\_Streams
- Municipal Boundaries
- Water Bodies
- State Park
- MPO Boundary
- County Boundaries

0 0.5 1 2 3 Miles



Sheet 1 of 5

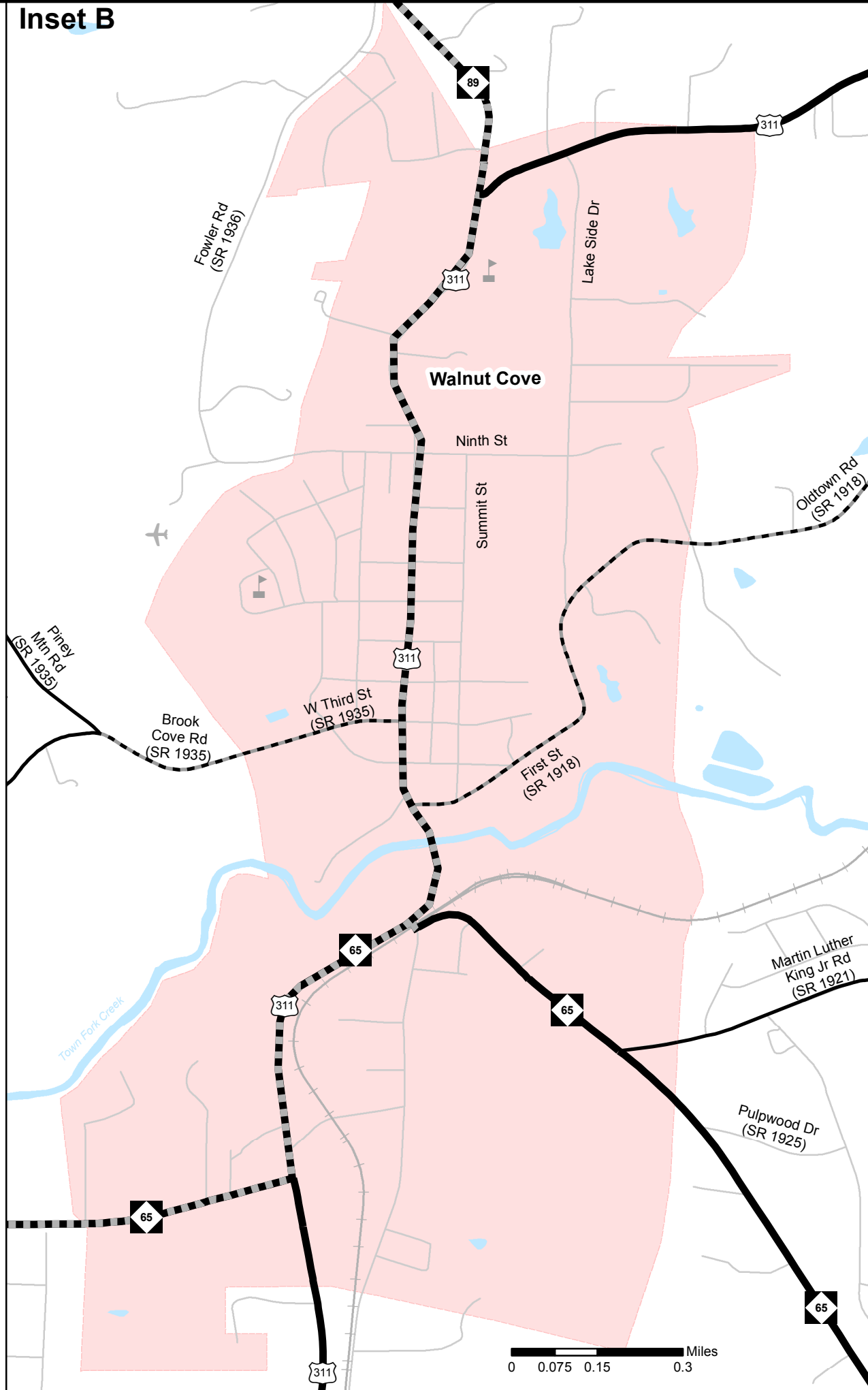
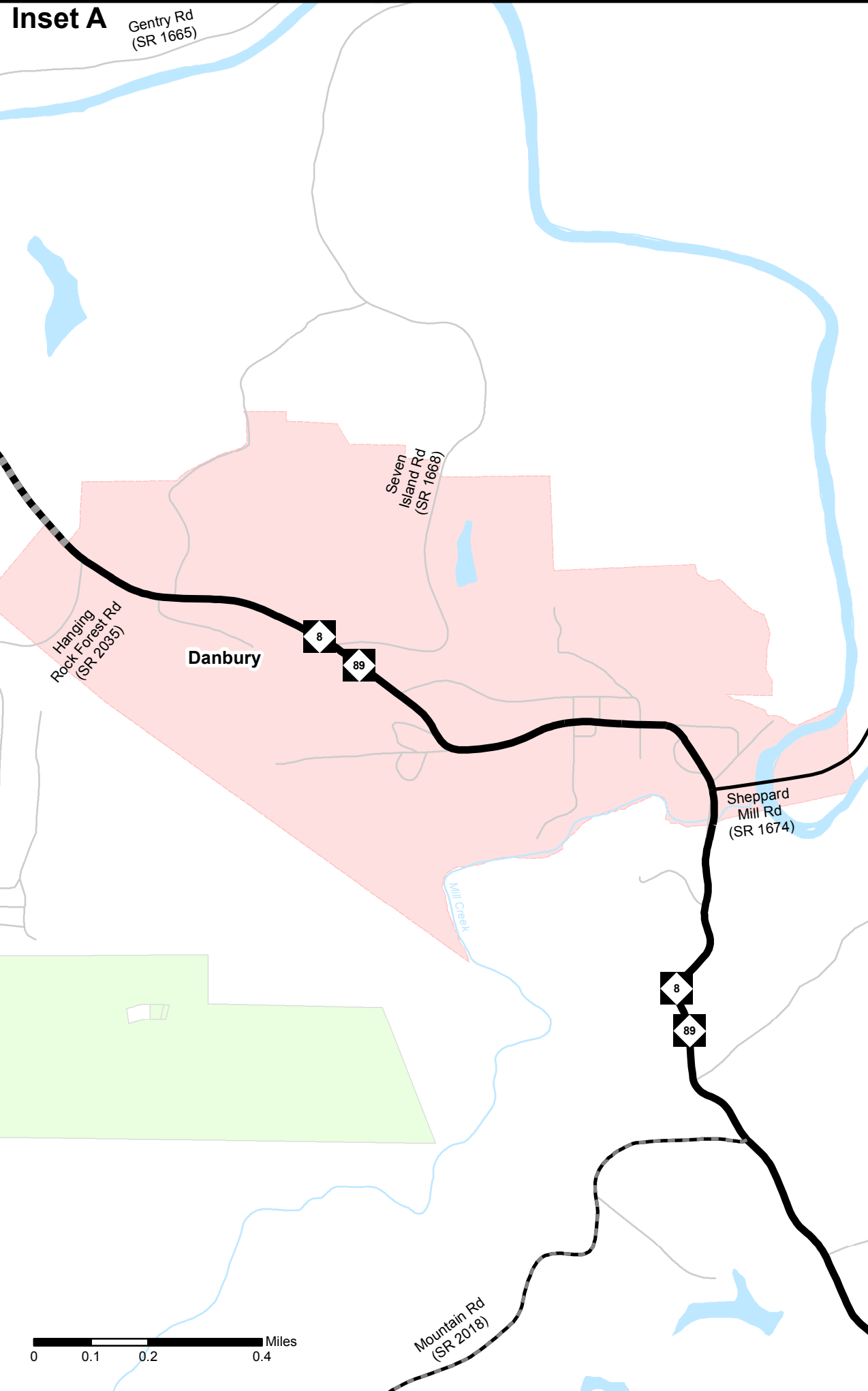
Base map date: June 1, 2016

Refer to CTP document for more details









# Highway Map (Insets A and B)



## Stokes County Comprehensive Transportation Plan

Plan date: March 10, 2017

- Freeways**
  - Existing
  - Needs Improvement
  - Recommended
- Expressways**
  - Existing
  - Needs Improvement
  - Recommended
- Boulevards**
  - Existing
  - Needs Improvement
  - Recommended
- Other Major Thoroughfares**
  - Existing
  - Needs Improvement
  - Recommended
- Minor Thoroughfares**
  - Existing
  - Needs Improvement
  - Recommended
- Existing Interchange
- Proposed Interchange
- Interchange Needs Improvement
- Existing Grade Separation
- Proposed Grade Separation





VIRGINIA STATE LINE

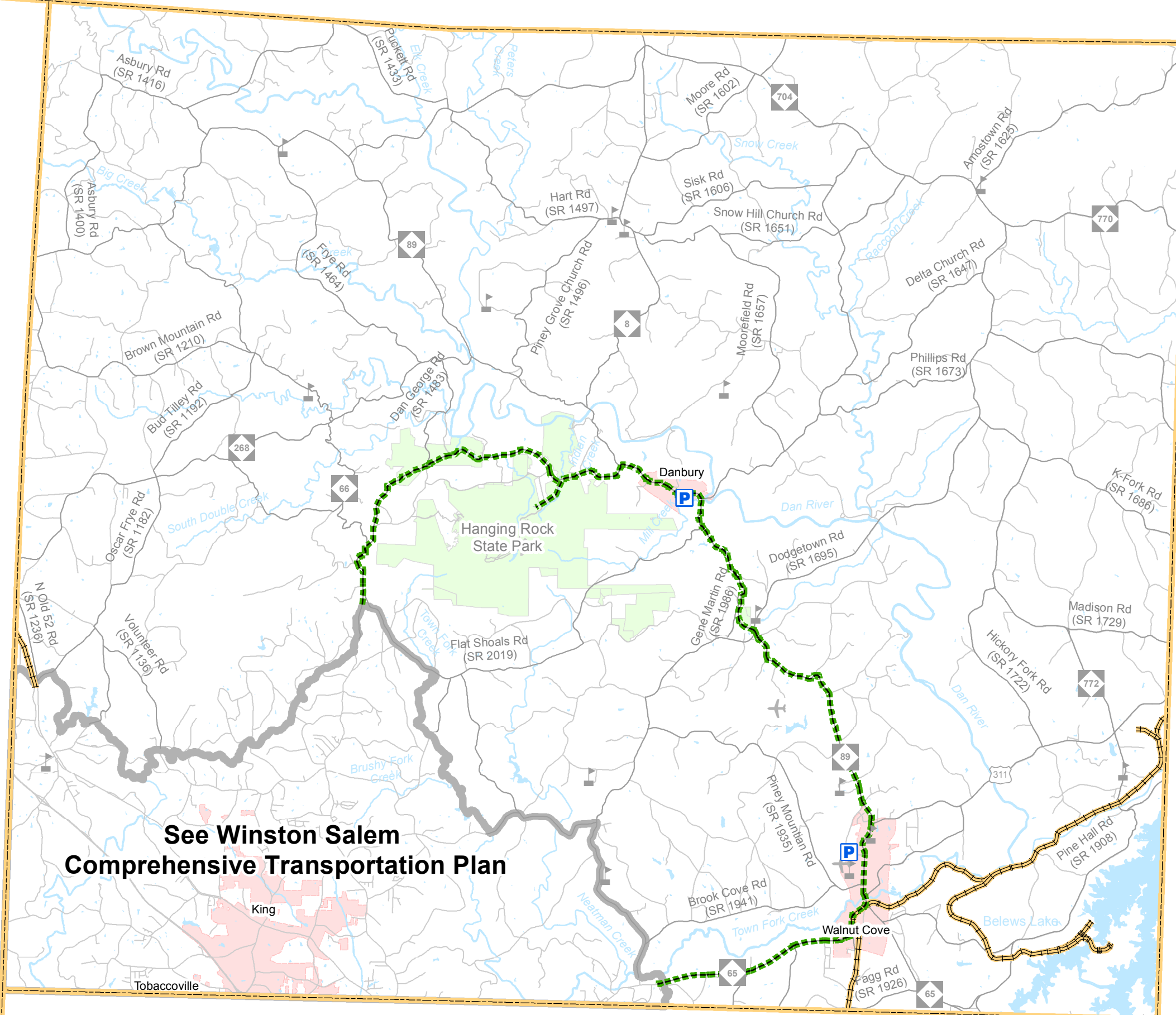
Public Transportation and Rail Map



**Stokes County  
Comprehensive  
Transportation Plan**

Plan date: March 10, 2017

ROCKINGHAM COUNTY



**See Winston Salem  
Comprehensive Transportation Plan**

- Bus Routes**
  - Existing
  - Needs Improvement
  - Recommended
- Fixed Guideway**
  - Existing
  - Needs Improvement
  - Recommended
- Operational Strategies**
  - Existing
  - Needs Improvement
  - Recommended
- Rail Corridor**
  - Active
  - Inactive
  - Recommended
- High Speed Rail Corridor**
  - Existing
  - Recommended
- Multimodal Connector**
  - Existing
  - Recommended
- Park and Ride Lot**
  - Existing
  - Recommended
- Grade Separation**
  - Existing Grade Separation
  - Proposed Grade Separation

SURRY COUNTY

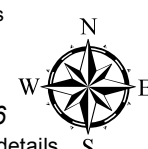
FORSYTH COUNTY



Sheet 3 of 5

Base map date: June 1, 2016

Refer to CTP document for more details







# Stokes County Comprehensive Transportation Plan

Plan date: March 10, 2017

- On-road**
  - Existing (Solid brown line)
  - Needs Improvement (Dashed brown line)
  - Recommended (Dotted brown line)
- Off-road**
  - Existing (Solid green line)
  - Needs Improvement (Dashed green line)
  - Recommended (Dotted green line)
- Multi-Use Paths**
  - Existing (Solid yellow line)
  - Needs Improvement (Dashed yellow line)
  - Recommended (Dotted yellow line)
- Existing Grade Separation (White circle)
- Proposed Grade Separation (Grey circle)



Sheet 4 of 5

Base map date: June 1, 2016

Refer to CTP document for more details

VIRGINIA STATE LINE

FORSYTH COUNTY

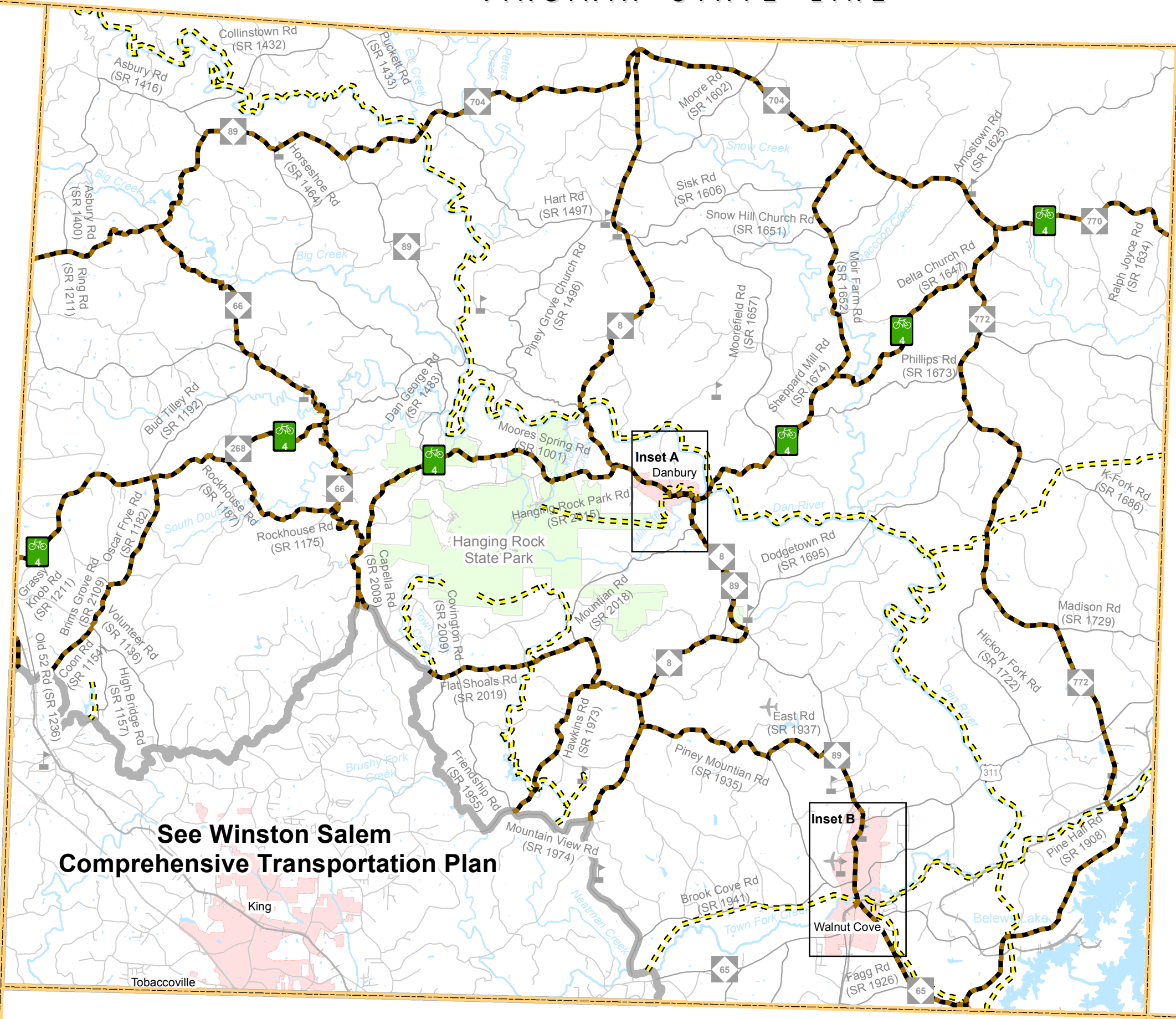
ROCKINGHAM COUNTY

SURRY COUNTY

See Winston Salem  
Comprehensive Transportation Plan

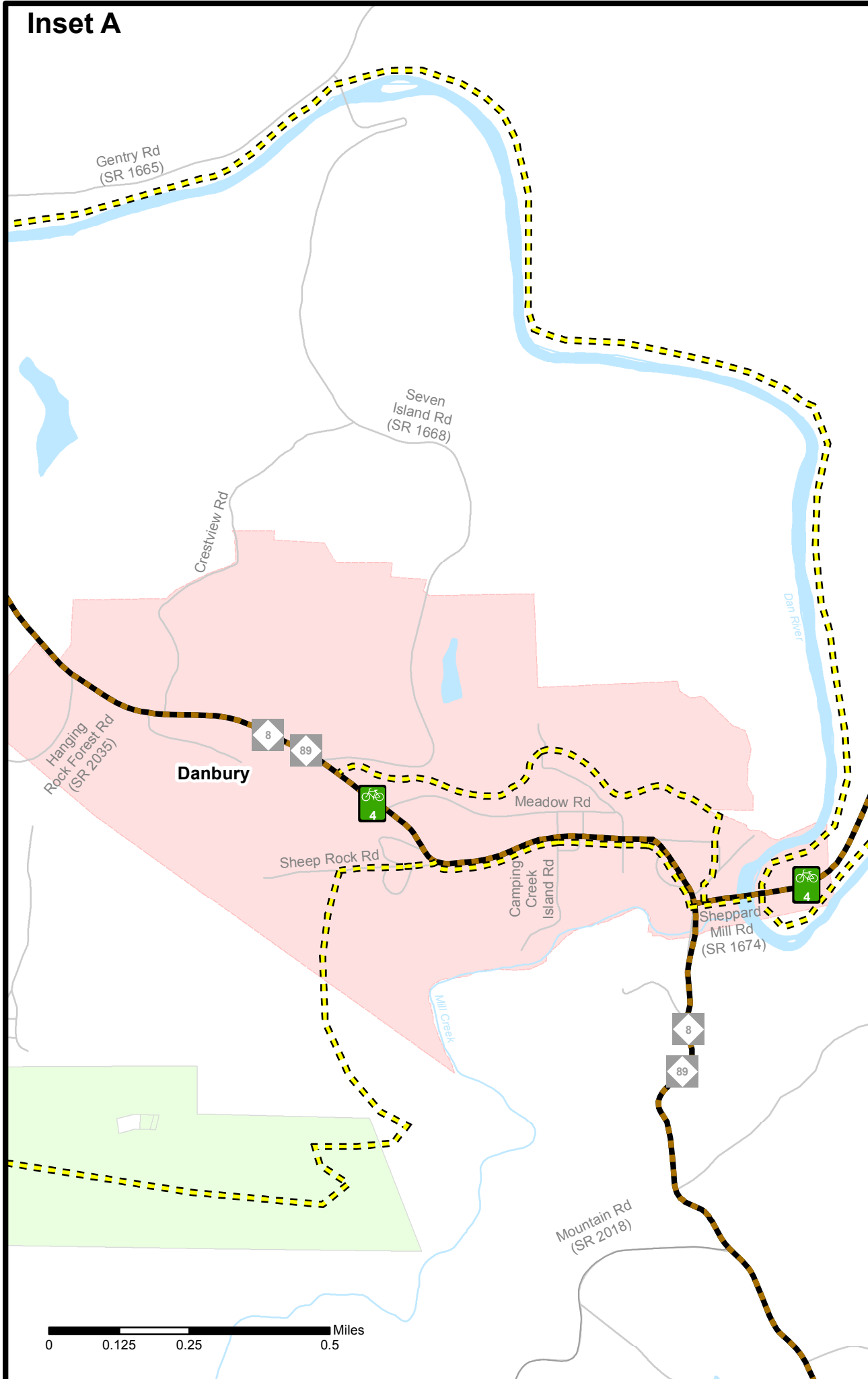
**Inset A**  
Danbury

**Inset B**  
Walnut Cove

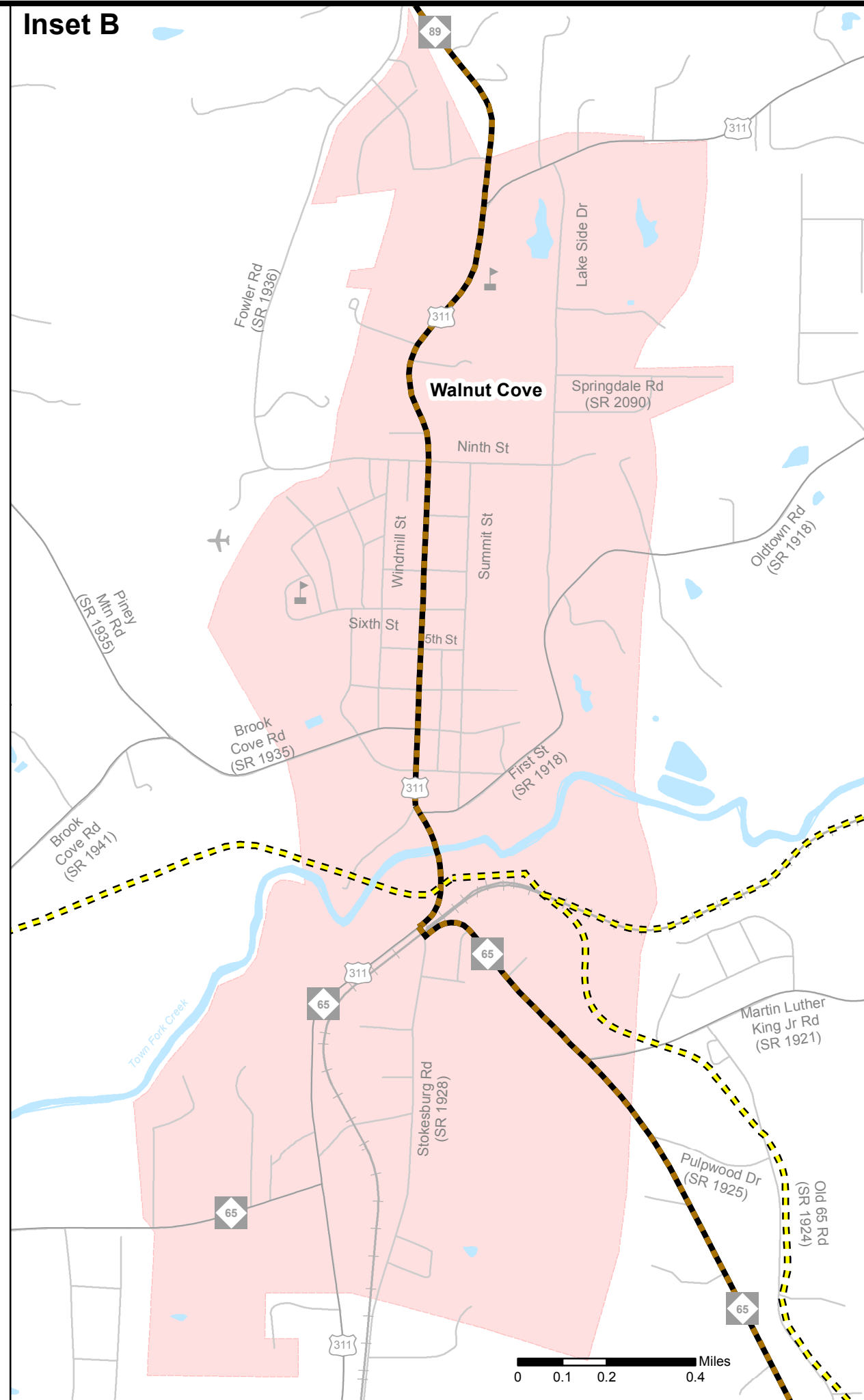




**Inset A**



**Inset B**



**Bicycle Map  
(Insets A and B)**

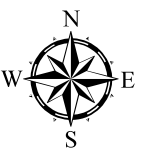


**Stokes County  
Comprehensive  
Transportation Plan**

Plan date: March 10, 2017

- On-road**
  - Existing
  - Needs Improvement
  - Recommended
- Off-road**
  - Existing
  - Needs Improvement
  - Recommended
- Multi-Use Paths**
  - Existing
  - Needs Improvement
  - Recommended
- Existing Grade Separation
- Proposed Grade Separation

Sheet 4A of 5



Base map date: June 1, 2016

Refer to CTP document for more details



VIRGINIA STATE LINE

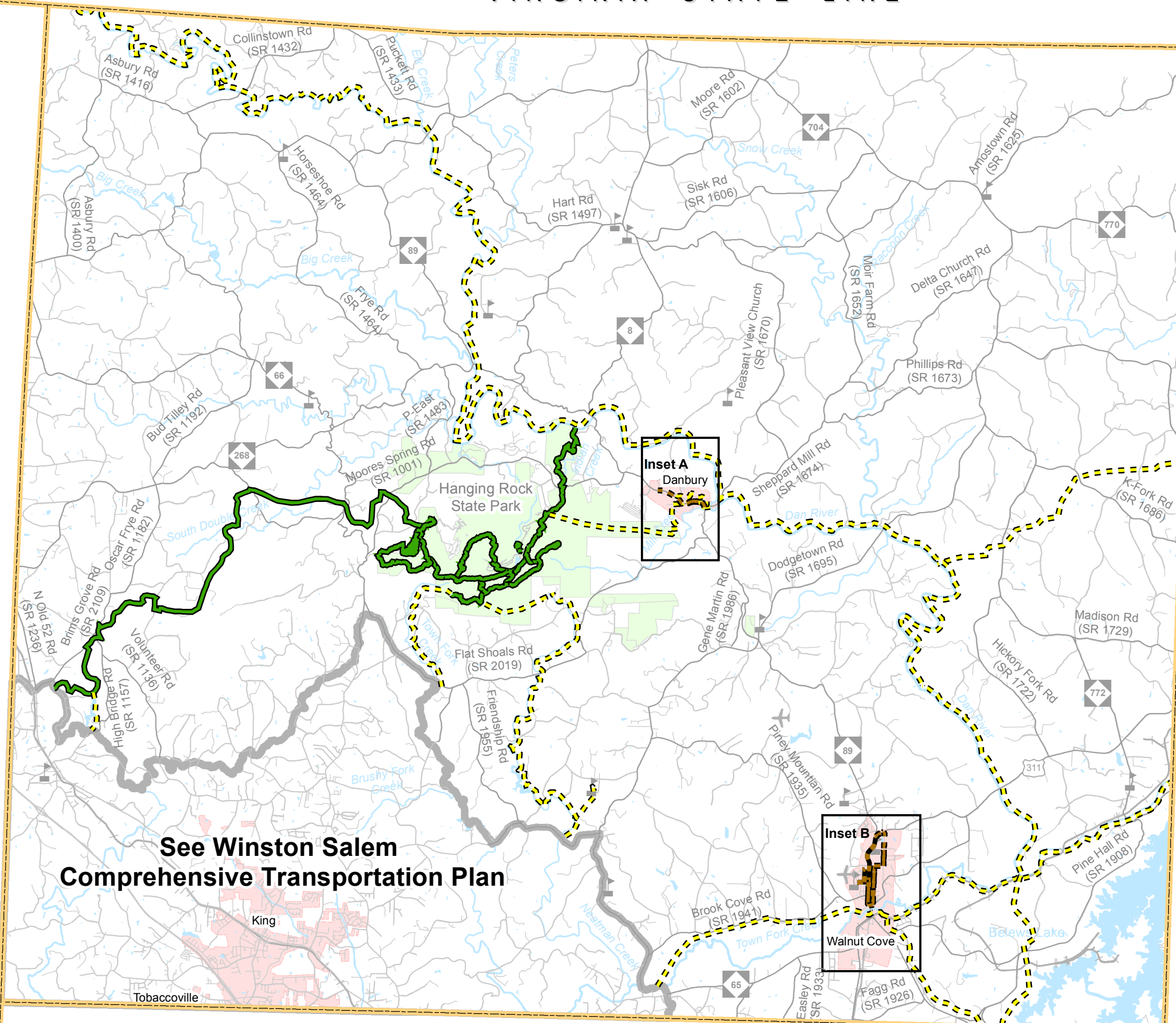
Pedestrian Map



Stokes County Comprehensive Transportation Plan

Plan date: March 10, 2017

ROCKINGHAM COUNTY



Inset A Danbury

Inset B Walnut Cove

See Winston Salem Comprehensive Transportation Plan

SURRY COUNTY

FORSYTH COUNTY

- Sidewalks**
  - Existing
  - Needs Improvement
  - Recommended
- Off-road**
  - Existing
  - Needs Improvement
  - Recommended
- Multi-Use Paths**
  - Existing
  - Needs Improvement
  - Recommended
- Existing Grade Separation
- Proposed Grade Separation



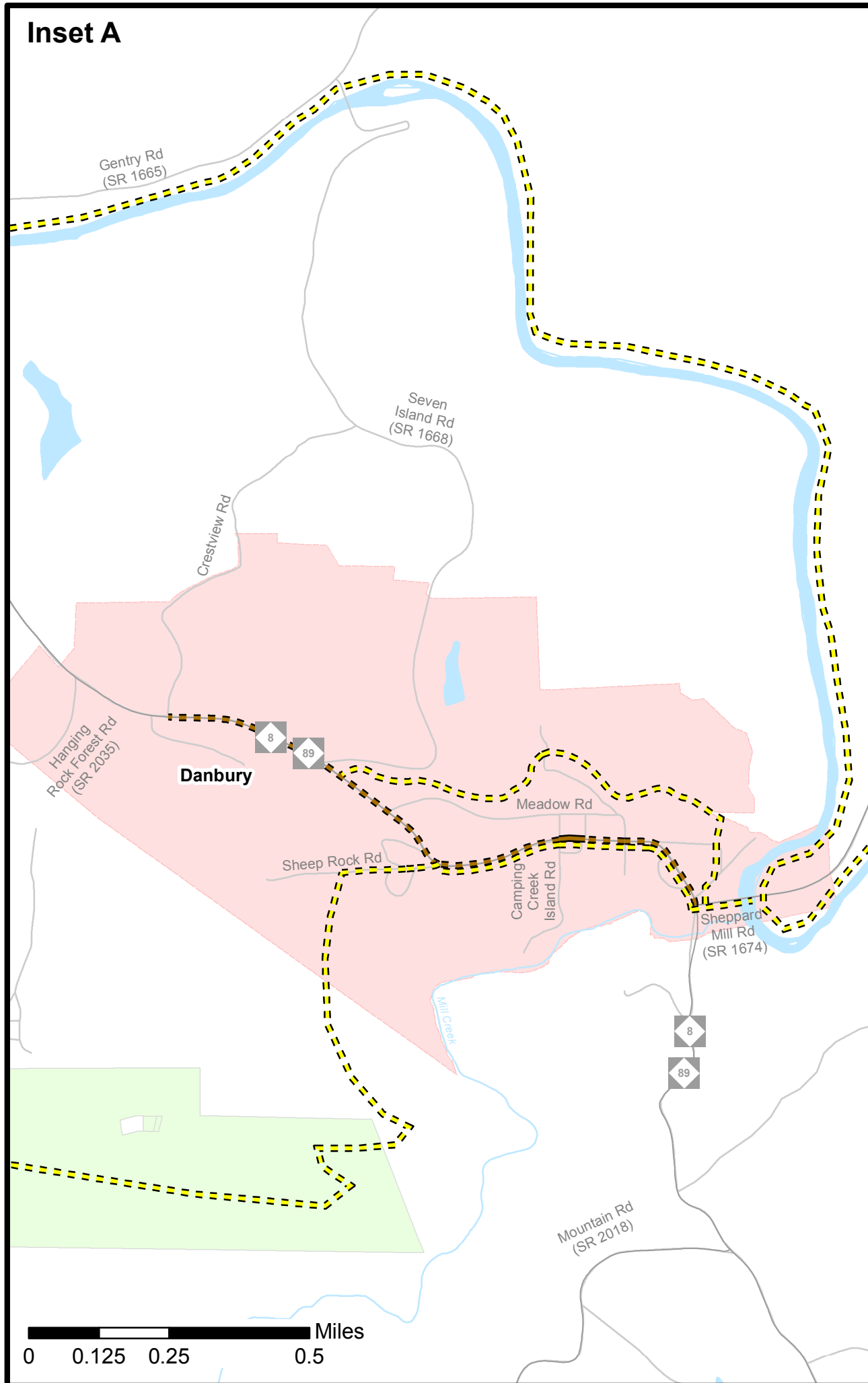
Sheet 5 of 5

Base map date: June 1, 2016

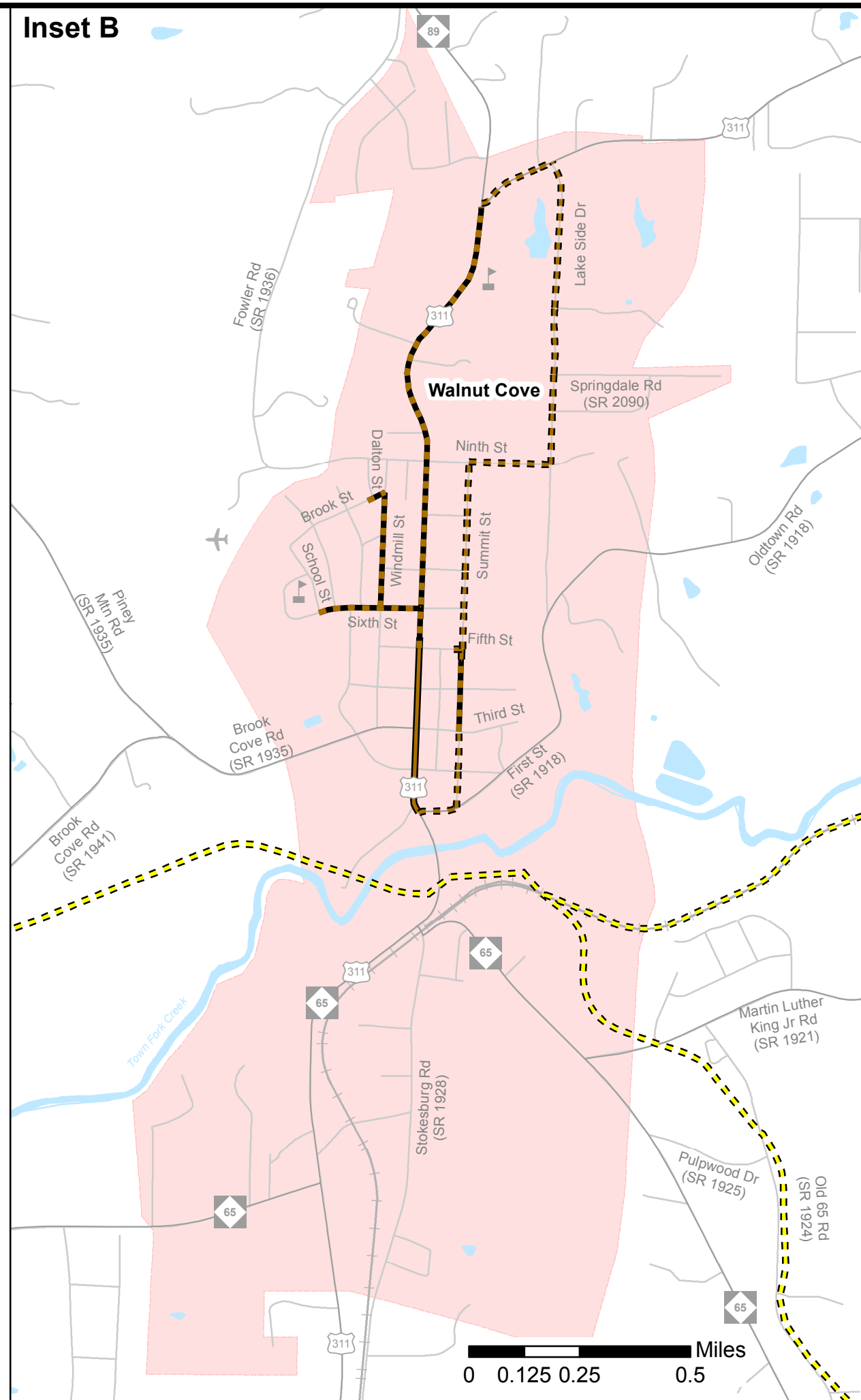
Refer to CTP document for more details



**Inset A**



**Inset B**



**Pedestrian Map  
(Insets A and B)**



**Stokes County  
Comprehensive  
Transportation Plan**

Plan date: March 10, 2017

- Sidewalks**
  - Existing
  - Needs Improvement
  - Recommended
- Off-road**
  - Existing
  - Needs Improvement
  - Recommended
- Multi-Use Paths**
  - Existing
  - Needs Improvement
  - Recommended
- Existing Grade Separation
- Proposed Grade Separation

Sheet 5A of 5



Base map date: June 1, 2016

Refer to CTP document for more details



# 1. Analysis of the Existing and Future Transportation System

A Comprehensive Transportation Plan (CTP) is developed to ensure that the transportation system will meet the needs of the region for the planning period. The CTP serves as an official guide to providing a well-coordinated, efficient, and economical transportation system for the future of the region. This document should be utilized by the local officials to ensure that planned transportation facilities reflect the needs of the public, while minimizing the disruption to local residents, businesses and environmental resources.

In order to develop a CTP, the following are considered:

- ❖ Analysis of the transportation system, including any local and statewide initiatives;
- ❖ Impacts to the natural and human environment, including natural resources, historic resources, homes, and businesses;
- ❖ Public input, including community vision and goals and objectives.

## 1.1 Analysis Methodology and Data Requirements

Reliable forecasts of future travel patterns must be estimated in order to analyze the ability of the transportation system to meet future travel demand. These forecasts depend on careful analysis of the character and intensity of existing and future land use and travel patterns.

An analysis of the transportation system looks at both current and future travel patterns and identifies existing and anticipated deficiencies. This is usually accomplished through a capacity deficiency analysis, a traffic crash analysis, and a system deficiency analysis. This information, along with population growth, economic development potential, and land use trends, is used to determine the potential impacts on the future transportation system.

### **Roadway System Analysis**

An important stage in the development of a CTP is the analysis of the existing transportation system and its ability to serve the area's travel demand. Emphasis is placed not only on detecting the existing deficiencies, but also on understanding the causes of these deficiencies. Roadway deficiencies may result from inadequacies in pavement widths, intersection geometry, or intersection controls. System deficiencies may result from missing travel links, bypass routes, loop facilities, or radial routes; or improvements needed to meet statewide initiatives.

One of those statewide initiatives is the Strategic Transportation Corridors (STC)<sup>1</sup> adopted by the Board of Transportation on March 4, 2015.

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<sup>1</sup> For more information on the STC, go to:

<https://connect.ncdot.gov/projects/planning/Pages/NCTransportationNetwork.aspx>

The STC identify a network of critical multimodal transportation corridors considered the backbone of the state's transportation system. These 25 corridors move most of our freight and people, link critical centers of economic activity to international air and sea ports, and support interstate commerce. They must operate well to help North Carolina attract new businesses, grow jobs and catalyze economic development.

The primary purpose of the STC is to provide North Carolina with a network of high-priority, multimodal transportation corridors and facilities that connect statewide and regional activity centers to enhance economic development, promote highly-reliable, efficient mobility and connectivity, and support good decision-making. The primary goal to support this purpose is to create a greater consensus towards the development of a genuine vision for each corridor that establishes the statewide or regional importance of facilities and the need for maintaining high capacity and travel speed. During the development of CTPs, the STC network should be cross-referenced to ensure plan consistency. Incorporating the statewide and regional mobility goals set forth in the STC network should be done in a manner that fits with the character and vision for the county. If this cannot be achieved through the use of existing facilities, an alternative solution should be sought.

In the development of this plan, travel demand was projected from 2015 to 2045 using a trend line analysis based on Annual Average Daily Traffic (AADT) from 1990 to 2014. In addition, local land use plans and growth expectations were used to further refine future growth rates and patterns. The established future growth rates were approved by the Stokes County CTP Committee (March 24, 2016). Refer to Appendix G for more detailed information on growth expectations and the socio-economic data forecasting methodology.

Existing and future travel demand is compared to existing roadway capacities. Capacity deficiencies occur when the traffic volume of a roadway exceeds the roadway's capacity. Roadways are considered near capacity when the traffic volume is at least eighty percent of the capacity. Refer to Figures 2 and 3 for existing and future capacity deficiencies. The 2045 traffic volumes in Figure 3 are an estimate of the traffic volume in 2045 with only existing plus committed projects assumed to be in place, where committed is defined as projects programmed for construction in the 2016 – 2025 Transportation Improvement Program<sup>2</sup> (TIP).

Capacity is the maximum number of vehicles which have a "reasonable expectation" of passing over a given section of roadway, during a given time period under prevailing roadway and traffic conditions. Many factors contribute to the capacity of a roadway including the following:

- ❖ Geometry of the road (including number of lanes), horizontal and vertical alignment, and proximity of perceived obstructions to safe travel along the road;
- ❖ Typical users of the road, such as commuters, recreational travelers, and truck traffic;

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<sup>2</sup> For more information on the TIP, go to: <https://connect.ncdot.gov/projects/planning/Pages/default.aspx>

- ❖ Access control, including streets and driveways, or lack thereof, along the roadway;
- ❖ Development along the road, including residential, commercial, agricultural, and industrial developments;
- ❖ Number of traffic signals along the route;
- ❖ Peaking characteristics of the traffic on the road;
- ❖ Characteristics of side-roads feeding into the road; and
- ❖ Directional split of traffic or the percentages of vehicles traveling in each direction along a road at any given time.

The relationship of travel demand compared to the roadway capacity determines the level of service (LOS) of a roadway. Six levels of service identify the range of possible conditions. Designations range from LOS A, which represents the best operating conditions, to LOS F, which represents the worst operating conditions.

LOS D indicates “practical capacity” of a roadway, or the capacity at which the public begins to experience delay. The practical capacity for each roadway was developed based on the 2000 Highway Capacity Manual using the Transportation Planning Branch’s *LOS D Standards for Systems Level Planning*. Recommended improvements and overall design of the transportation plan were based upon achieving a minimum LOS D on existing facilities and a LOS C for new facilities. Refer to Appendix E for detailed information on LOS.

#### Traffic Crash Assessment

Traffic crashes are often used as an indicator for locating congestion and roadway problems. Crash patterns obtained from an analysis of crash data can lead to the identification of improvements that will reduce the number of crashes. The Traffic Safety Unit of NCDOT’s Transportation Mobility and Safety Division identifies high frequency crashes at intersections and along roadway sections during a five year period. The high frequency crash locations examined during the development of the Stokes County CTP occurred between January 1, 2011 and December 31, 2015. During this period, a total of thirteen intersections and two hundred fifty eight roadway sections were identified as having a high frequency of crashes as illustrated in Figure 4. Contact information for the Transportation Mobility and Safety Division can be found in Appendix A.

The NCDOT is actively involved with investigating and improving many of these locations. To request a more detailed analysis for any of these locations, or other intersections of concern, contact the Division Traffic Engineer (see Appendix A).

#### Bridge Deficiency Assessment

Bridges are a vital element of a highway system. First, they represent the highest unit investment of all elements of the system. Second, any inadequacy or deficiency in a

bridge reduces the value of the total investment. Third, a bridge presents the greatest opportunity of all potential highway failures for disruption of community welfare. Finally, and most importantly, a bridge represents the greatest opportunity of all highway failures for loss of life. For these reasons, it is imperative that bridges be constructed to the same design standards as the system of which they are a part.

The NCDOT Structures Management Unit inspects all bridges in North Carolina at least once every two years. Bridges having the highest priority are replaced as federal and state funds become available. Ten deficient bridges were identified on roads evaluated as part of the CTP and are illustrated in Figure 5. Of these, one is scheduled for replacement in the 2016 – 2025 TIP. Additionally, three others occur along roadways recommended for improvement in the CTP. As deficient bridges are replaced, every consideration should be given to proposed CTP recommendation and cross section associated with the recommendation. Table 3 in Appendix F gives a listing of the deficient bridges identified in the CTP and the ID number associated with CTP project proposal. Refer to Appendix F for more detailed bridge deficiency information.

VIRGINIA STATE LINE

FIGURE 2

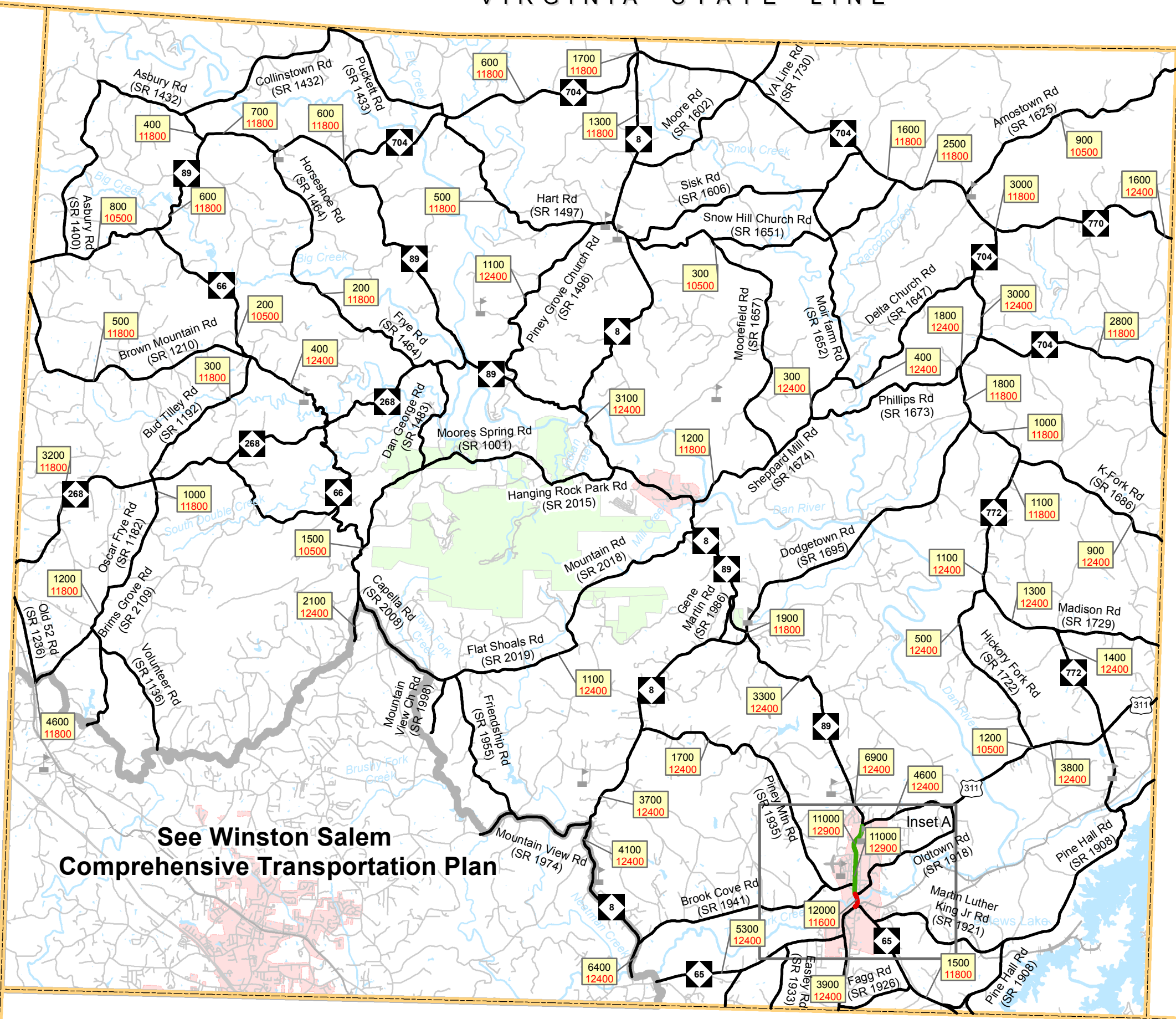
2015  
Volume and Capacity  
Deficiencies



Stokes County  
Comprehensive  
Transportation Plan

SURRY COUNTY

ROCKINGHAM COUNTY



See Winston Salem  
Comprehensive Transportation Plan

- Airports
- Schools
- Over Capacity
- Near Capacity
- Study Roads
- County Boundaries
- WSMPO\_Stokes
- Rail
- Rivers and Streams
- Water Bodies
- Municipal Boundaries
- State Parks
- 2015 Volumes (AADT)
- 2015 Capacity

0 0.5 1 2 3 Miles

Sheet 1 of 2

Base map date: June 1, 2016

Refer to CTP document for more details

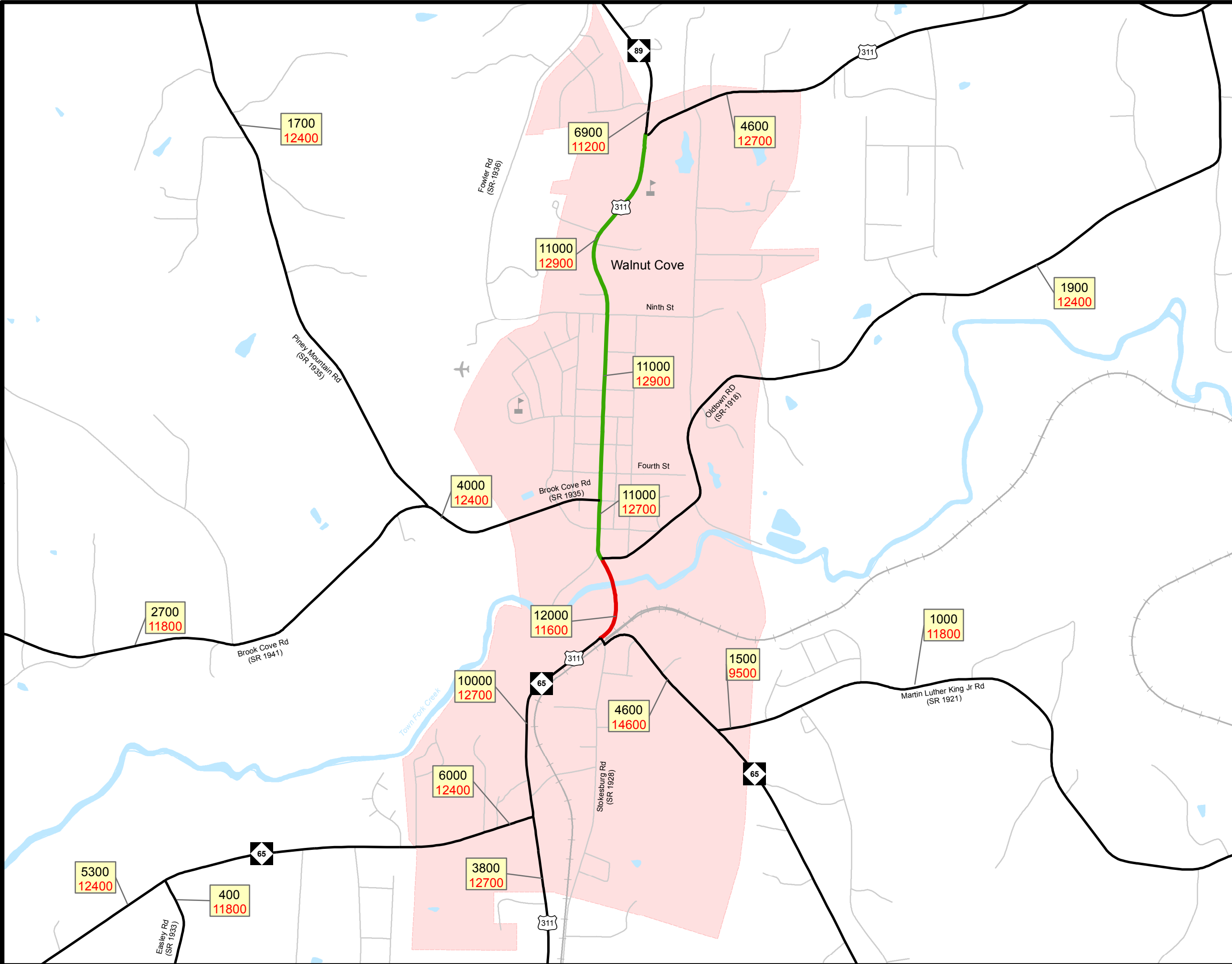
FORSYTH COUNTY



**FIGURE 2**  
**2015**  
**Volume and Capacity**  
**Deficiencies**  
**(Inset A)**



**Stokes County**  
**Comprehensive**  
**Transportation Plan**



- Airports
- Schools
- Study Roads
- Near Capacity
- Over Capacity
- Rail
- Rivers and Streams
- Water Bodies
- County Boundaries
- Municipal Boundaries
- Winston Salem MPO
- State Parks
- 2015 Volumes (AADT)
- 2015 Capacity





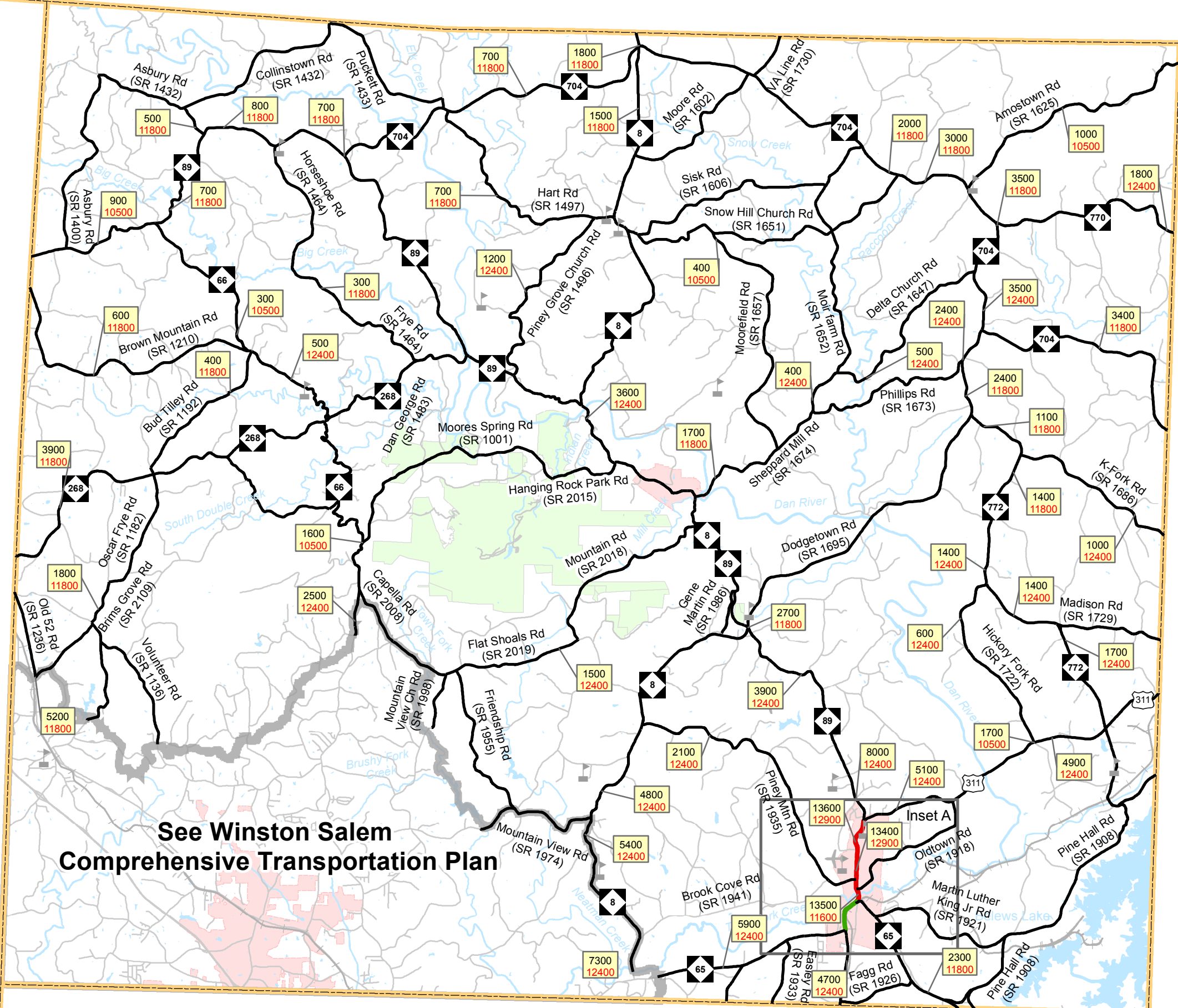
VIRGINIA STATE LINE

**FIGURE 3**  
**2045**  
**Volume and Capacity**  
**Deficiencies**



**Stokes County**  
**Comprehensive**  
**Transportation Plan**

ROCKINGHAM COUNTY



**See Winston Salem**  
**Comprehensive Transportation Plan**

- Airports
- Schools
- Stokes\_Interchanges\_GS
- Study Roads
- Near Capacity
- Over Capacity
- County Boundaries
- Winston Salem MPO
- Rail
- Roads
- Rivers and Streams
- Water Bodies
- Municipal Boundaries
- State Parks
- 2045 Volumes (AADT)
- 2015 Capacity

SURRY COUNTY

FORSYTH COUNTY

0 0.5 1 2 3 Miles

Sheet 1 of 2

Base map date: June 1, 2016

Refer to CTP document for more details



**FIGURE 3**  
**2045**  
**Volume and Capacity**  
**Deficiencies**  
**(Inset A)**



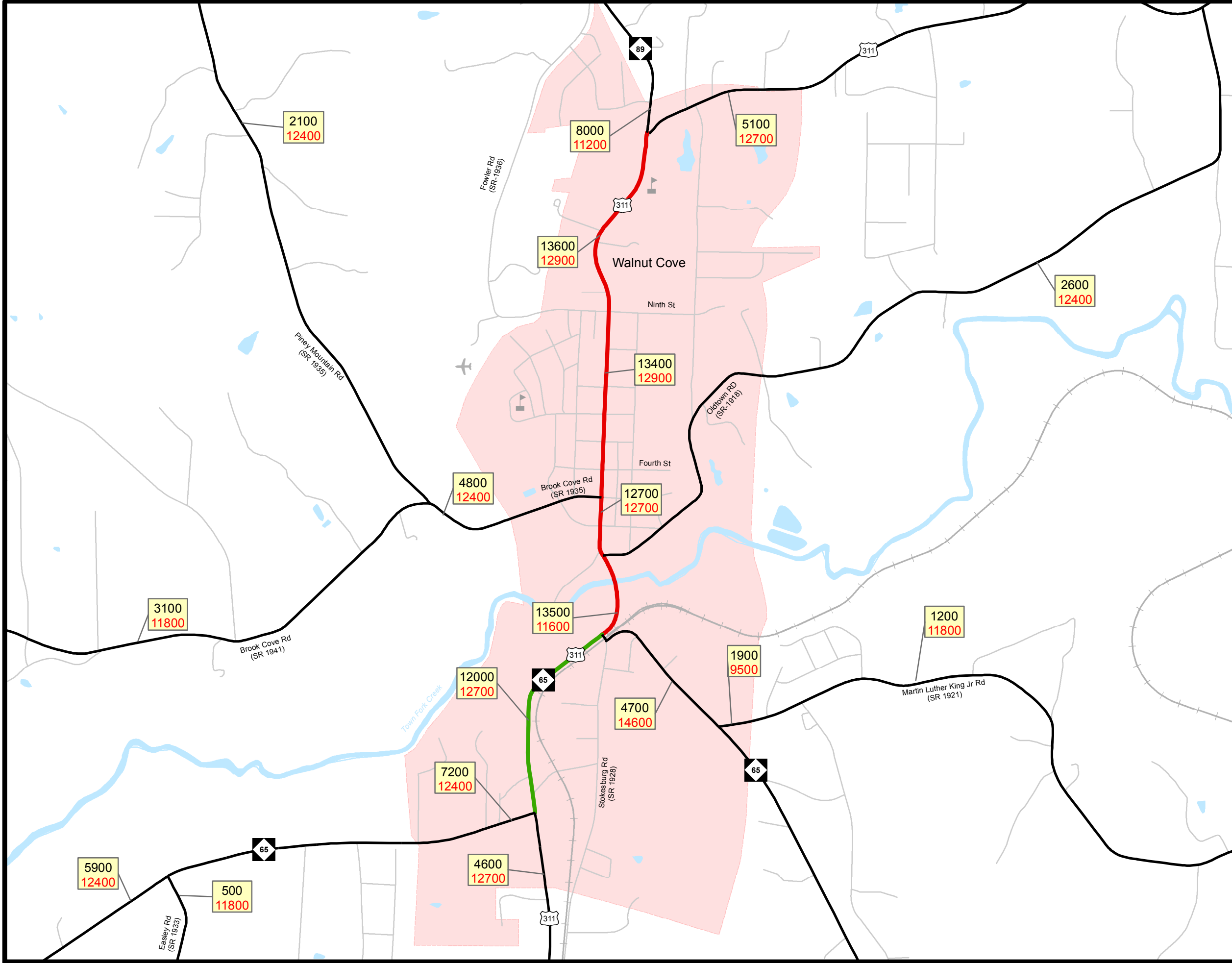
**Stokes County**  
**Comprehensive**  
**Transportation Plan**

- Airports
- Schools
- Study Roads; 0.0847; 0.2627
- Near Capacity
- Over Capacity
- Rail
- Rivers and Streams
- County Boundaries
- Water Bodies
- Municipal Boundaries
- Winston Salem MPO
- State Parks
- 2045 Volumes (AADT)
- 2015 Capacity

0 0.125 0.25 0.5 Miles

Sheet 2 of 2

Base map date: June 1, 2016  
Refer to CTP document for more details









VIRGINIA STATE LINE

**FIGURE 5**  
**Deficient Bridges**

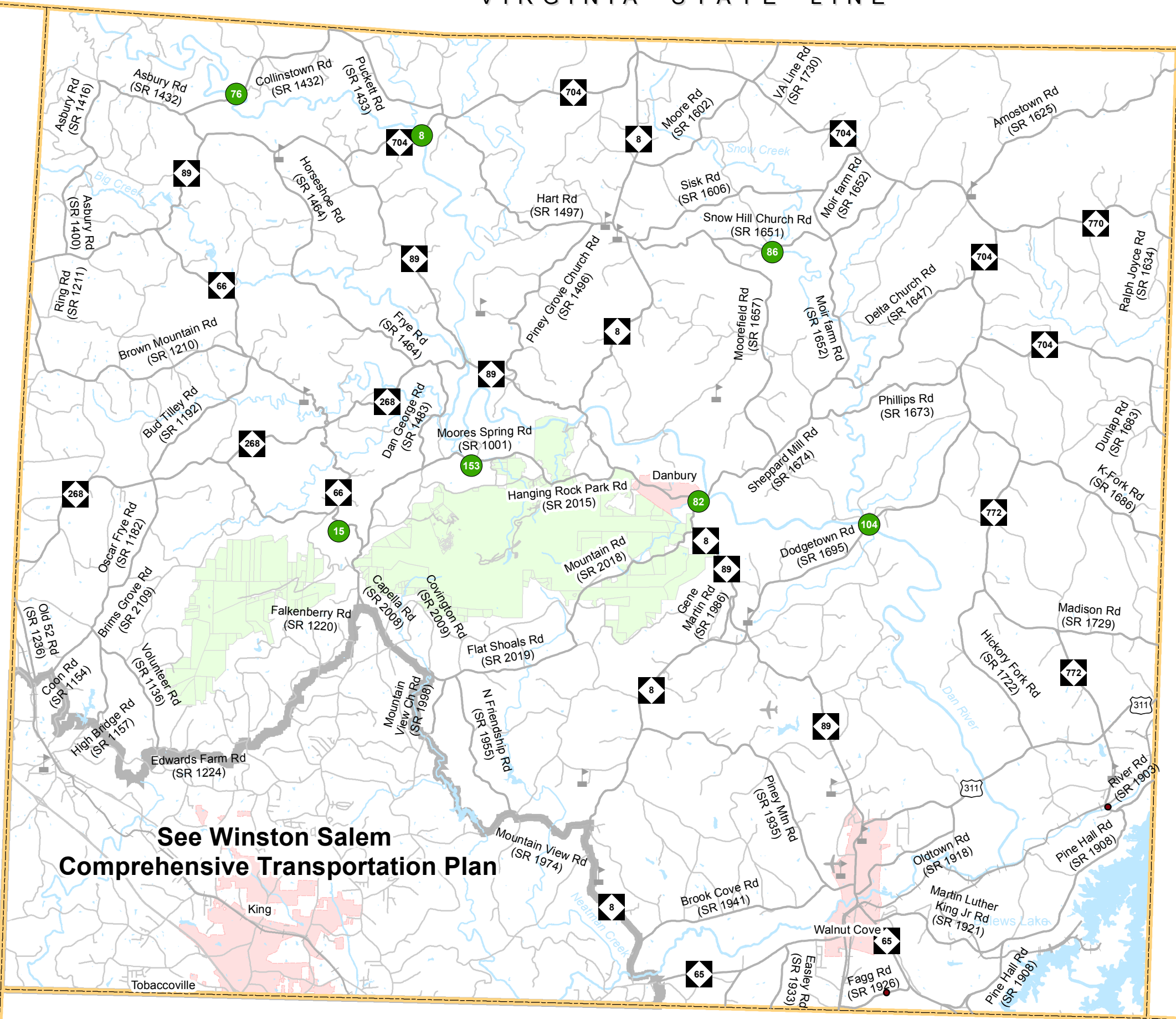


**Stokes County**  
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SURRY COUNTY

ROCKINGHAM COUNTY

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**See Winston Salem**  
**Comprehensive Transportation Plan**

# Deficient Bridges  
(# Bridge Number)

✈ Airport

🏫 Schools

— Study Roads

— Roads

— Rail

— Rivers\_Streams

Water Bodies

County Boundaries

Municipal Boundaries

State Park

0 0.5 1 2 3 Miles



Base map date: June 1, 2016

Refer to CTP document for more details



## ***Public Transportation and Rail***

Public transportation and rail are vital modes of transportation that give alternatives for transporting people and goods from one place to another.

### Public Transportation

North Carolina's public transportation systems serve more than 50 million passengers each year. Five categories define North Carolina's public transportation system: community, regional community, urban, regional urban and intercity.

- ❖ Community Transportation - Local transportation efforts formerly centered on assisting clients of human service agencies. Today, the vast majority of rural systems serve the general public as well as those clients.
- ❖ Regional Community Transportation - Regional community transportation systems are composed of two or more contiguous counties providing coordinated / consolidated service. Although such systems are not new, single-county systems are encouraged to consider mergers to form more regional systems.
- ❖ Urban Transportation – There are currently nineteen urban transit systems operating in North Carolina, from locations such as Asheville and Hendersonville in the west to Jacksonville and Wilmington in the east. In addition, small urban systems provide service in three areas of the state. Consolidated urban-community transportation exists in five areas of the state. In those systems, one transportation system provides both urban and rural transportation within the county.
- ❖ Regional Urban Transportation - Regional urban transit systems currently operate in three areas of the state. These systems connect multiple municipalities and counties.
- ❖ Intercity Transportation - Intercity bus service is one of a few remaining examples of privately owned and operated public transportation in North Carolina. Intercity buses serve many cities and towns throughout the state and provide connections to locations in neighboring states, Amtrak passenger station and throughout the United States and Canada. Greyhound and Amtrak Thruway service operate in North Carolina. However, community, urban and regional transportation systems are providing increasing intercity service in North Carolina.

An inventory of existing and planned fixed public transportation routes for the planning area is presented on Sheet 3 of Figure 1. Yadkin Valley Public Transportation is a regional transportation system operated by Yadkin Valley Economic Development District, Inc. (YVEDDI). They provide on demand community and public transportation services in Davie, Stokes, Surry and Yadkin counties. All recommendations for public transportation were coordinated with the local governments and the Public Transportation Division of NCDOT. Refer to Appendix A for contact information for the Public Transportation Division.

## Rail

Today North Carolina has 3,245 miles of railroad tracks throughout the state. There are two types of trains that operate in the state, passenger trains and freight trains.

Intercity passenger service is provided by Amtrak which currently operates six passenger services daily in or through North Carolina serving 16 cities across the state. Five of the services are interstate (Crescent, Palmetto, Silver Meteor, Silver Star, and Carolinian passenger trains) and one service (Piedmont passenger train) operates exclusively within North Carolina. In addition to the six passenger services mentioned, Amtrak also operates its Auto Train service which passes through North Carolina but does not make any stops. Amtrak ridership demand has been on a rise in the state. In 2010 ridership was 840,000 and increased to 975,645 passengers in 2013.

The North Carolina Department of Transportation sponsors two passenger trains, the Carolinian and Piedmont. The Carolinian runs between Charlotte and New York City, while the Piedmont train carries passengers from Raleigh to Charlotte and back every day. Combined, the Carolinian and Piedmont carry more than 300,000 passengers each year.

There are two major freight railroad companies that operate in North Carolina, CSX Transportation and Norfolk Southern Corporation. Also, there are more than 17 smaller freight railroads, known as shortlines.

An inventory of existing and planned rail facilities for the planning area is presented on Sheet 3 of Figure 1. Stokes County contains two railroads, both active lines. One operates in western Stokes from Forsyth County to Surry County. The other operates in eastern Stokes from Forsyth County to Rockingham County. The two lines serve up to 11 freight trains per day. There is no passenger service on either line. All recommendations for rail were coordinated with the local governments and the Rail Division of NCDOT. Refer to Appendix A for contact information for the Rail Division.

## ***Bicycles & Pedestrians***

Bicyclists and pedestrians are a growing part of the transportation system in North Carolina. Many communities are working to improve mobility for both cyclists and pedestrians.

NCDOT's Bicycle Policy, updated in 1991, clarifies responsibilities regarding the provision of bicycle facilities along the 77,000-mile state-maintained highway system. The policy details guidelines for planning, design, construction, maintenance, and operations pertaining to bicycle facilities and accommodations. All bicycle improvements undertaken by NCDOT are based upon this policy.

The 2000 NCDOT Pedestrian Policy Guidelines specifies that NCDOT will participate with localities in the construction of sidewalks as incidental features of highway improvement projects. At the request of a locality, state funds for a sidewalk are made available if matched by the requesting locality, using a sliding scale based on population.

NCDOT's administrative guidelines, adopted in 1994, ensure that greenways and greenway crossings are considered during the highway planning process. This policy was incorporated so that critical corridors which have been adopted by localities for future greenways will not be severed by highway construction.

Inventories of existing and planned bicycle and pedestrian facilities for the planning area are presented on Sheets 4 and 5 of Figure 1. The Piedmont Triad Regional Council created local trail plans and also maintains a current database of existing trails and planned improvements. These facilities are shown on the Bicycle and Pedestrian maps on Sheets 4 and 5 of Figure 1. All recommendations for bicycle and pedestrian facilities were coordinated with the local governments and the NCDOT Division of Bicycle and Pedestrian Transportation. Refer to Appendix A for contact information for the Division of Bicycle and Pedestrian Transportation.

### ***Land Use***

G.S. §136-66.2 requires that local areas have a current (less than five years old) land development plan prior to adoption of the CTP. For this CTP, Stokes County 2035 Moving Together (refer to Appendix H) was used to meet this requirement.

Land use refers to the physical patterns of activities and functions within an area. Traffic demand in a given area is, in part, attributed to adjacent land use. For example, a large shopping center typically generates higher traffic volumes than a residential area. The spatial distribution of different types of land uses is a predominant determinant of when, where, and to what extent traffic congestion occurs. The travel demand between different land uses and the resulting impact on traffic conditions varies depending on the size, type, intensity, and spatial separation of development. Additionally, traffic volumes have different peaks based on the time of day and the day of the week. For transportation planning purposes, land use is divided into the following categories:

- ❖ **Residential**: Land devoted to the housing of people, with the exception of hotels and motels which are considered commercial.
- ❖ **Commercial**: Land devoted to retail trade including consumer and business services and their offices; this may be further stratified into retail and special retail classifications. Special retail would include high-traffic establishments, such as fast food restaurants and service stations; all other commercial establishments would be considered retail.
- ❖ **Industrial**: Land devoted to the manufacturing, storage, warehousing, and transportation of products.

- ❖ Public: Land devoted to social, religious, educational, cultural, and political activities; this would include the office and service employment establishments.
- ❖ Agricultural: Land devoted to the use of buildings or structures for the raising of non-domestic animals and/or growing of plants for food and other production.
- ❖ Mixed Use: Land devoted to a combination of any of the categories above.

Anticipated future land development is, in general, a logical extension of the present spatial land use distribution. Locations and types of expected growth within the planning area help to determine the location and type of proposed transportation improvements.

The Stokes County 2035 Moving Together plan identifies the main land use in the county as very low to low density residential. The plan identifies 12 Rural Neighborhood Commercial Zones that are 1 mile buffers around major road intersections in unincorporated areas of the county. These zones focus neighborhood commercial growth into the buffers surrounding the intersections. In addition to the 12 zones, the town of Walnut Cove, the town of Danbury and Hanging Rock State Park are all economic drivers. Danbury, as the county seat, is home to the Stokes County government campus. Plans for future growth focus on “protecting natural resources; developing vibrant downtowns; encouraging pedestrian-friendly, mixed-use development; facilitating infill/redevelopment; and providing a broad range of housing opportunities.” For example, in the town of Walnut Cove, downtown redevelopment includes streetscape improvements such as pedestrian infrastructure and street furniture.

For detailed information on how land use and growth projections were developed for and applied in the CTP, refer to Appendix G.

## ***1.2 Consideration of Natural and Human Environment***

Environmental features are a key consideration in the transportation planning process. Section 102 of the National Environmental Policy Act<sup>3</sup> (NEPA) requires consideration of impacts on wetlands, wildlife, water quality, historic properties, and public lands. While a full NEPA evaluation was not conducted as part of the CTP, every effort was made to minimize potential impacts to these features utilizing the best available data. Any potential impacts to these resources were identified as a part of the project recommendations in Chapter 2 of this report. Prior to implementing transportation recommendations of the CTP, a more detailed environmental study would need to be completed in cooperation with the appropriate environmental resource agencies.

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<sup>3</sup> For more information on NEPA, go to: <https://ceq.doe.gov/>.

A full listing of environmental features that are typically examined as a part of a CTP study is shown in the following tables. Environmental features occurring within Stokes County are shown in Figures 6 and are shown in bold text in Table 1.

**Table 1 – Environmental Features**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• <b>24k Hydro Lines</b></li> <li>• <b>303D Streams</b></li> <li>• <b>Airport Boundaries</b></li> <li>• Anadromous Fish Spawning Areas</li> <li>• APNEP - Submerged Aquatic Vegetation</li> <li>• Beach and Waterfront Access</li> <li>• Benthic Habitat</li> <li>• <b>Bicycle Routes</b></li> <li>• <b>Boating Access</b></li> <li>• <b>Churches and Cemeteries</b></li> <li>• Colleges and Universities (Points)</li> <li>• <b>Conservation Tax Credit Properties</b></li> <li>• Critical Habitat for Threatened and Endangered Species</li> <li>• <b>Emergency Operation Centers</b></li> <li>• Fish Nursery Areas</li> <li>• <b>Hazard Substance Disposal Sites (points &amp; polygons)</b></li> <li>• <b>Hazardous Waste Facilities</b></li> <li>• <b>High Quality Waters and Outstanding Resource Water Management</b></li> <li>• <b>Historic Resources – National Register and Determined Eligible (points and polygons)</b></li> <li>• <b>Hospitals</b></li> </ul> | <ul style="list-style-type: none"> <li>• <b>Hydrography - 1:24,000-scale (polygons)</b></li> <li>• <b>Landscape Habitat Indicator Guilds (LHIGs)Managed Areas</b></li> <li>• <b>National Wetlands Inventory (polygons)</b></li> <li>• <b>Natural Heritage Element Occurrences</b></li> <li>• NC-CREWS: N.C. Coastal Region Evaluation of Wetland Significance</li> <li>• <b>NCDOT Maintained Mitigation Sites</b></li> <li>• <b>Railroads (1:24,000)</b></li> <li>• <b>Recreation Projects - Land and Water Conservation Fund</b></li> <li>• <b>Regional Trails</b></li> <li>• <b>Sanitary Sewer Systems - Treatment Plants</b></li> <li>• <b>Schools (Public &amp; Non-Public)</b></li> <li>• <b>Significant Natural Heritage Areas</b></li> <li>• State Natural and Scenic Rivers</li> <li>• <b>State Parks</b></li> <li>• <b>Target Local Watersheds - EEP</b></li> <li>• <b>Trout Streams (DWQ)</b></li> <li>• <b>Trout Waters WRC (arcs &amp; polygons)</b></li> <li>• <b>Unique Wetlands</b></li> <li>• <b>Water Distribution Systems – Tanks &amp; Treatment Plants</b></li> <li>• <b>Water Supply Watersheds</b></li> </ul> |
|---|---|

Archaeological sites were also considered but are not mapped due to restrictions associated with the sensitivity of the data.

### **1.3 Public Involvement**

Public involvement is a key element in the transportation planning process. Adequate documentation of this process is essential for a seamless transfer of information from systems planning to project planning and design.

A meeting was held with the Stokes County CTP Steering Committee in February 2016 to formally initiate the study, provide an overview of the transportation planning process, and to gather input on area transportation needs.

Throughout the course of the study, the NCDOT Transportation Planning Branch cooperatively worked with the CTP Steering Committee, which included a representative from each municipality, county staff, the RPO and others. The committee provided information on current local plans, developed transportation vision and goals, discussed population and employment projections, and developed proposed CTP recommendations. Refer to Appendix H for detailed information on the vision statement, the goals and objectives survey and a listing of committee members.

The public involvement process included holding two public drop-in sessions in Stokes County to present the proposed CTP to the public and solicit comments. The first meeting was held on July 25, 2016 at Ronald Wilson Reagan Memorial Administration Building from 4:00pm to 6:00pm; the second meeting was held on February 7, 2017 at Walnut Cove public Library. Each session was publicized in the local newspaper.

A presentation was made on April 10, 2017 during the Stokes County Commissioners meeting. The purpose of this meeting was to discuss the plan recommendations and to solicit further input from the public. The CTP was adopted on April 24, 2017.

The Northwest Piedmont RPO endorsed the CTP on April 19, 2017. The North Carolina Department of Transportation mutually adopted the Stokes County CTP on June 1, 2017.

VIRGINIA STATE LINE

FIGURE 6  
Environmental Map



### Stokes County Comprehensive Transportation Plan

- Churches And Cemetery
- Schools
- Hospitals
- Railroads
- Airport Boundary
- Hydrography Areas
- Landscape Habitat Indicator Guilds
- Managed Areas
- Municipal Boundaries
- County Boundary

SURRY COUNTY

ROCKINGHAM COUNTY

See Winston Salem  
Comprehensive Transportation Plan

FORSYTH COUNTY





VIRGINIA STATE LINE

FIGURE 6  
Environmental Map



### Stokes County Comprehensive Transportation Plan

SURRY COUNTY

ROCKINGHAM COUNTY

FORSYTH COUNTY

See Winston Salem  
Comprehensive Transportation Plan

- Historic Resources Sites
- 24k Hydro Lines
- Railroads
- Conservation Tax Credit Prop.
- Historic Resources Areas
- Land & Water Conservation Funds
- National Wetland Inventory
- NCDOT Maintained Mitigation Sites
- Significant Natural Heritage Areas
- State Parks
- Target Local Watersheds - EEP
- Unique Wetlands
- Municipal Boundaries
- County Boundary

0 0.5 1 2 3 Miles









VIRGINIA STATE LINE

FIGURE 6  
Environmental Map

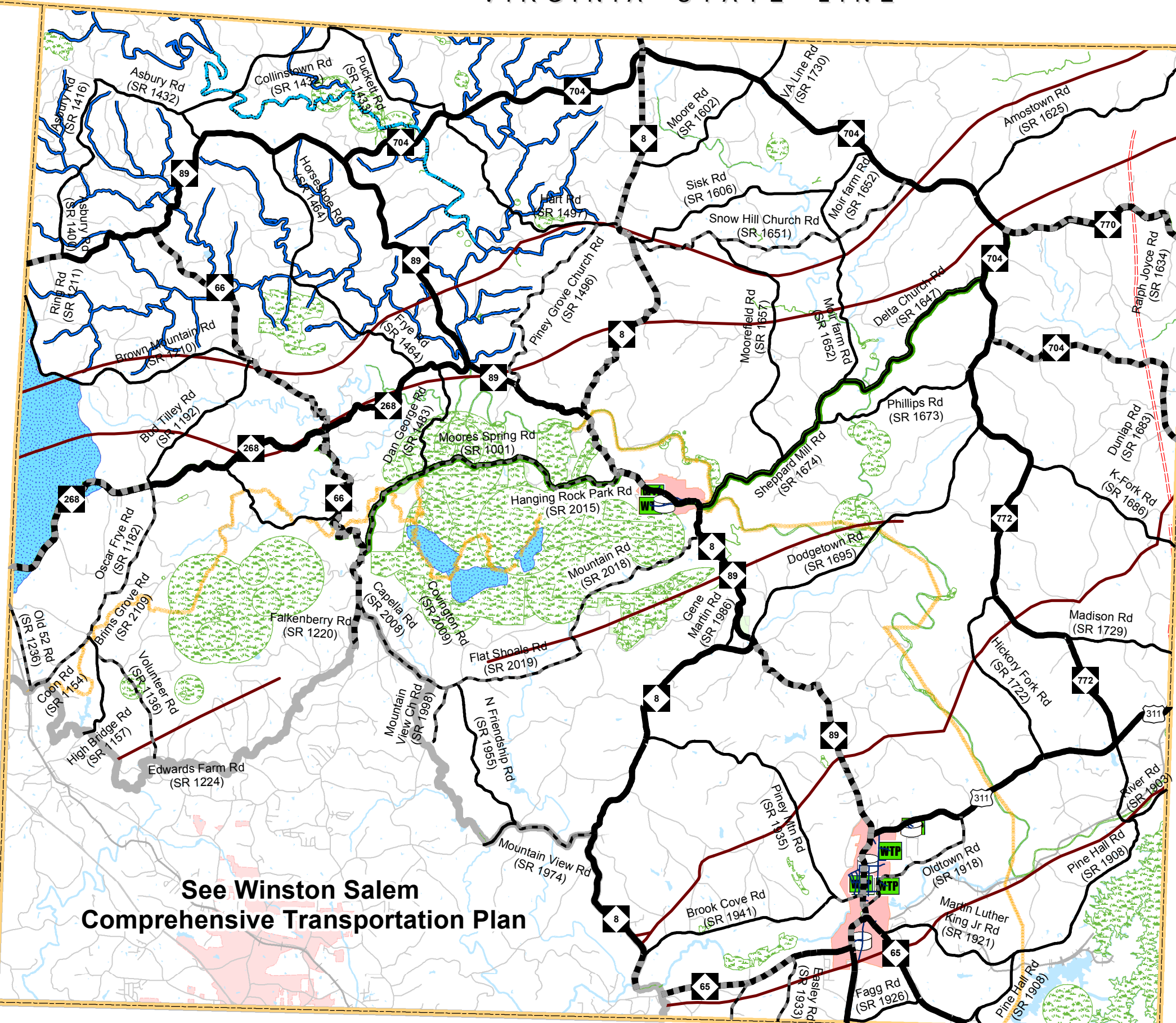


# Stokes County Comprehensive Transportation Plan

SURRY COUNTY

ROCKINGHAM COUNTY

FORSYTH COUNTY



See Winston Salem  
Comprehensive Transportation Plan

- Water Distribution Tanks
- Water Distribution Treatment Plants
- Geologic Dikes
- Geologic Faults
- Water Pipes
- Bicycle Routes
- Regional Trails
- Trout Streams DWQ
- High Quality Waters
- Natural Heritage Element Occurrence
- Municipal Boundaries
- County Boundary

0 0.5 1 2 3 Miles



## 2. Recommendations

This chapter presents recommendations for each mode of transportation in the 2017 Stokes County CTP as shown in Figure 1. More detailed information on each recommendation is tabulated in Appendix C.

NCDOT adopted a "Complete Streets<sup>1</sup>" policy in July 2009. The policy directs the Department to consider and incorporate several modes of transportation when building new projects or making improvements to existing infrastructure. Under this policy, the Department will collaborate with cities, towns and communities during the planning and design phases of projects. Together, they will decide how to provide the transportation options needed to serve the community and complement the context of the area. The benefits of this approach include:

- Making it easier for travelers to get where they need to go;
- Encouraging the use of alternative forms of transportation;
- Building more sustainable communities;
- Increasing connectivity between neighborhoods, streets, and transit systems;
- Improving safety for pedestrians, cyclists, and motorists.

Complete streets are streets designed to be safe and comfortable for all users, including pedestrians, bicyclists, transit riders, motorists and individuals of all ages and capabilities. These streets generally include sidewalks, appropriate bicycle facilities, transit stops, right-sized street widths, context-based traffic speeds, and are well-integrated with surrounding land uses. The complete street policy and concepts were utilized in the development of the CTP. The CTP proposes projects that include multi-modal project recommendations as documented in the problem statements within this chapter. Refer to Appendix C for recommended cross sections for all project proposals and Appendix D for more detailed information on the typical cross sections.

### 2.1 Unaddressed Deficiencies

The following deficiency was identified during the development of the CTP, but remains unaddressed:

#### **US 311 (Main Street), STOK0001-H: from NC 65 to NC 89**

US 311 (Main Street) is currently near or over capacity from NC 65 to Oldtown Road (SR 1918). By 2045, the section between NC 65 and NC 89 is projected to remain near or over capacity. Improvements are needed to relieve congestion on the existing facility such that a minimum of Level of Service (LOS) D can be achieved.

US 311 (Main Street) runs north-south through Walnut Cove and provides access to downtown Walnut Cove from Winston-Salem and other points south. This facility is a three-lane major thoroughfare with 12-foot lanes, a center turn lane, and on street

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<sup>1</sup> For more information on Complete Streets, go to: <http://www.completestreetsnc.org/>

parking from Oldtown Street (SR 1918) to Seventh Street (SR 1950), and a three-lane major thoroughfare with 12 foot lanes and a center turn lane from Seventh Street (SR 1950) to NC 89. Annual Average Daily Traffic (AADT) on US 311 between NC 65 and Oldtown Street (SR 1918) is projected to increase from 12,000 vehicles per day (vpd) in 2015 to 13,500 vpd in 2045, compared to a LOS D capacity of 11,600 vpd. The AADT on US 311 between Eighth Street and NC 89 is projected to increase from 11,000 vpd in 2015 to 13,600 vpd in 2045, compared to a LOS D capacity of 12,900 vpd.

These sections of US 311 (Main Street) are mostly strip development with little to no access control. It is lined with numerous driveways and roadway access points. A crash assessment performed during the development of the CTP identified numerous intersections and roadway sections along this corridor that experienced a high number of crashes between January 1, 2011 and December 31, 2015. The proposed improvements may reduce the amount and severity of crashes at these locations by removing the left turn conflicts. Refer to Chapter 1 of the CTP report for more detailed information on these locations.

The CTP project proposal (STOK0001-H) is to study and implement transportation demand management strategies along this corridor. This includes improving First Street/ Oldtown Road (SR 1918) (STOK0026-H) as an alternate US 311 truck route and the intersection of US 311 and Oldtown Road (SR 1918) to accommodate truck traffic. Signing First Street/ Oldtown Road (SR 1918) as an alternate US 311 truck route may reduce through truck traffic in downtown Walnut Cove.

Transportation demand management strategies that promote other modes of transportation such as pedestrian, bicycle, transit and ridesharing are recommended for further study. Sidewalks and bicycle accommodations are recommended along the entire length of the proposed project. Other strategies to be considered include access management, modifying signal timing, intersection improvements, driveway connections for businesses, service routes to the business for alternate access, and any other strategies to reduce turning conflicts and improve safety. During the Stokes County CTP development process, the stakeholders and Yadkin Valley Economic Development District, Inc. (YVEDDI), proposed a fixed deviated route transportation service connecting King, Hanging Rock State Park, Danbury and Walnut Cove. A potential location for a park-and-ride lot was also identified in Walnut Cove.

The 2016-2025 STIP includes project R-5828 that is intended to improve the intersection of US 311 (North Main Street) and First Street (SR 1918). The 2016-2025 STIP also includes R-5768 that is intended to upgrade the intersection of US 311 and NC 65 along with improvements to the railroad crossing,

Additionally, during the development of the CTP, the town of Walnut Cove expressed the desire to keep the existing on-street parking along US 311 (Main Street). Based on the planning level environmental assessment using available GIS data, water and sewer pipes are located along this facility.

## **2.2 Implementation**

The CTP is based on the projected growth for the planning area. It is possible that actual growth patterns will differ from those logically anticipated. As a result, it may be necessary to accelerate or delay the implementation of some recommendations found within this plan. Some portions of the plan may require revisions in order to accommodate unexpected changes in development. Therefore, any changes made to one element of the CTP should be consistent with the other elements.

Initiative for implementing the CTP rests predominately with the policy boards and citizens of Stokes County and its municipalities. As transportation needs throughout the state exceed available funding, it is imperative that the local planning area aggressively pursue funding for priority projects. Projects should be prioritized locally and submitted to the Northwest Piedmont RPO for regional prioritization and submittal to NCDOT. Refer to Appendix A for contact information on regional prioritization and funding. Local governments may use the CTP to guide development and protect corridors for the recommended projects. It is critical that NCDOT and local governments coordinate on relevant land development reviews and all transportation projects to ensure proper implementation of the CTP. Local governments and NCDOT share the responsibility for access management and the planning, design and construction of the recommended projects.

Recommended improvements shown on the CTP map represent an agreement of identified transportation deficiencies and potential solutions to address the deficiencies. While the CTP does propose recommended solutions, it may not represent the final location or cross section associated with the improvement. All CTP recommendations are based on high level systems analyses that seek to minimize impacts to the natural and human environment. Prior to implementing projects from the CTP, additional analysis will be necessary to meet the National Environmental Policy Act (NEPA) or the State Environmental Policy Act<sup>2</sup> (SEPA). During the NEPA/SEPA process, the specific project location and cross section will be determined based on environmental analysis and public input. This CTP may be used to support transportation decision making and provide transportation planning data in the NEPA/SEPA process.

## **2.3 Problem Statements**

The following pages contain problem statements for each recommendation, organized by CTP modal element. The information provided in the problem statement is intended to help support decisions made in the NEPA/SEPA process. A full, minimum or reference problem statement is presented for each recommendation, with full problem statements occurring first in each section. Full problem statements are denoted by a gray shaded box containing project information. Minimum problem statements are more concise and less detailed than full problem statements, but include all known or readily

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<sup>2</sup>For more information on SEPA, go to: <http://www.doa.nc.gov/clearing/faq.aspx>.

available information. Reference problem statements are developed for TIP projects where the purpose and need for the project has already been established.

## **HIGHWAY**

### **First Street/ Oldtown Road (SR 1918), STOK0026-H**

US 311 (Main Street) is a primary route in downtown Walnut Cove. By 2045, US 311 (Main Street) is projected to be near or over capacity based on providing LOS D capacity. Currently First Street/ Oldtown Road (SR 1918) serves as an alternative route to US 311 (Main Street). Improvements are needed to help relieve congestion on US 311 (Main Street) and improve mobility within downtown Walnut Cove.

The CTP project proposal (STOK0026-H) is to upgrade First Street/ Oldtown Road (SR 1918) to 12 foot lanes with paved shoulders to accommodate truck traffic. Improvements to the intersection of US 311 and Oldtown Road (SR 1918) are recommended to accommodate truck traffic. It is also recommended that First Street/ Oldtown Road (SR 1918) be signed as an alternate US 311 truck route. This may reduce the through truck traffic from the downtown Walnut Cove.

Based on a planning level environmental assessment using available GIS data, the proposed project is within water supply and watershed areas. This project directly connects to the US 311 (Main Street) transportation demand management strategies/ improvements (STOK0001-H) proposal.

### **Minor Widening Improvements:**

The following routes are not expected to exceed capacity, but were identified as candidates for upgrading to NCDOT design standards. All facilities listed are recommended to have a minimum of 12 foot lanes with paved shoulders in order to improve mobility, safety and/or to accommodate bicycles. Additionally, some facilities may require improvements to the vertical and/or horizontal alignment. Implementation of the proposed projects should be coordinated through NCDOT's Highway Division 9 office (reference Appendix A for contact information).

- **NC 8, STOK0002-H:** from 0.1 miles north of NC 65 to Brook Cove Road (SR 1941)
- **NC 8 & NC 89, STOK0003-H:** from 0.5 miles east of Hanging Rock Park Road (SR 2015) to NC 8
- **NC 8, STOK0004-H:** from NC 89 to 0.3 miles north of NC 704
- **NC 65 , STOK0005-H:** from Winston Salem Metropolitan Planning Area Boundary/ Kiger Road (SR 1952) to Easley Road (SR 1933)
- **NC 66, STOK0006-H:** from Winston Salem Metropolitan Planning Area Boundary / Falkenberry Road (SR 1220) to NC 89
- **NC 89 , STOK0007-H:** from 0.46 miles west of Ring Road (SR 1211) to Asbury Road (SR 1400)

- **NC 89, STOK0008-H:** from US 311 (Main Street) to Dodgetown Road (SR 1695)
- **NC 268, STOK0009-H:** from Surry County Boundary/ 0.5 miles west of Grassy Knob Road (SR 1179) to Bud Tilley Road (SR 1192)
- **NC 704, STOK0010-H:** from NC 772 to 0.5 miles east of Dunlap Road (SR 1683)
- **NC 770, STOK0011-H:** from NC 704 to 0.25 miles east of Ralph Joyce Road (SR 1634)
- **Baux Mountain Road (SR 1949), STOK0012-H:** from 0.15 miles south of Manuel Road (SR 2111) to NC 65
- **Brims Grove Road (SR 2109), STOK0013-H:** from Volunteer Road (SR 1136) to Oscar Frye Road (SR 1182)
- **Brook Cove Road (SR 1935), STOK0014-H:** from Piney Mountain Road (SR 1935) to US 311 (Main Street)
- **Capella Road (SR 2008), STOK0015-H:** from NC 66 to Covington Road (SR 2009)
- **Coon Road (SR 1154), STOK0016-H:** from Old 52 Road (SR 1236) to Volunteer Road (SR 1136)
- **Covington Road (SR 2009), STOK0017-H:** from Capella Road (SR 2008) to Flat Shoals Road (SR 2019)
- **Easley Road (SR 1933), STOK0018-H:** from Forsyth County Boundary/ 1.29 miles south of NC 65 to NC 65
- **Flat Shoals Road (SR 2019), STOK0019-H:** from Covington Road (SR 2009) to Mountain Road (SR 2018)
- **Hanging Rock Park Road (SR 2015), STOK0020-H:** from Moores Spring Road (SR 1001) to NC 8 & NC 89
- **Moores Spring Road (SR 1001), STOK0021-H:** from NC 66 to Hanging Rock Park Road (SR 2015)
- **Mountain Road (SR 2018), STOK0022-H:** from Flat Shoals Road (SR 2019) to NC 8 & NC 89
- **Mountain View Road (SR 1974), STOK0023-H:** from Friendship Road (SR 1955) to NC 8
- **Mountain View Church Road (SR 1998), STOK0024-H:** from Winston Salem MPO Boundary/ 0.45 miles north of Robertson Ridge Road (SR 2006) to Flat Shoals Road (SR 2019)

- **Old 52 Road (SR 1236), STOK0025-H:** from Coon Road (SR 1154) to Volunteer Road (SR 1136)
- **Old Lynchburg Road (SR 1516), STOK0031-H:** from NC 268 to NC 66
- **Oscar Frye Road (SR 1182), STOK0027-H:** from Brims Grove Road (SR 2109) to NC 268
- **Piney Grove Church Road (SR 1496), STOK0028-H:** from NC 89 to Hart Road (SR 1497)
- **Snow Hill Church Road (SR 1651), STOK0029-H:** from Sisk Road (SR 1657) to NC 704
- **Volunteer Road (SR 1136), STOK0030-H:** from Winston Salem MPO Boundary/ Edwards Farm Road (SR 1224) to High Bridge Road (SR 1157)

## **PUBLIC TRANSPORTATION & RAIL**

A public transportation and rail assessment was completed during the development of the CTP. There are no recommended improvements associated with rail. During the Stokes County CTP development process, the stakeholders and Yadkin Valley Economic Development District, Inc. (YVEDDI), proposed a fixed deviated route transportation service connecting King, Hanging Rock State Park, Danbury, and Walnut Cove. Potential locations for park-and-ride lots were identified in Danbury and Walnut Cove. Final locations would be subject to agreements with towns, property owners, etc.

These facilities are shown on the Public Transportation and Rail Map, Sheet 3 of Figure 1.

- **STOK0001-T: Fixed Deviated Route (King – Hanging Rock State Park – Danbury – Walnut Cove)**
- **Park-and-Ride locations:**
  - **STOK0002-T:** Downtown Danbury
  - **STOK0003-T:** Downtown Walnut Cove

## **BICYCLE**

During the development of the CTP, the following segments were identified as needing bicycle facility improvements. In accordance with American Association of State Highway and Transportation Officials (AASHTO), roadways identified as bicycle routes should incorporate the following standards as roadway improvements are made and funding is available:

- Curb & gutter sections require, at minimum, 5 foot bike lanes or 14 foot wide shoulder lanes.
- Shoulder sections require a minimum paved width of 4 feet.

- All bridges, along the roadways where bike facilities are recommended, shall be equipped with 54 inch high railings.

The following bicycle improvements were recommended during the development of the CTP:

- **US 311 (Main Street), STOK0001-H:** from NC 65 to NC 89
- **NC 8, STOK0004-H:** from NC 89 to NC 704
- **NC 8, STOK0001-B:** from Mountain View Road (SR 1974) to Dodgetown Road (SR 1695)
- **NC 8 & NC 89, STOK0002-B:** from Dodgetown Road (SR 1695) to 0.5 miles east of Hanging Rock Park Road (SR 2015)
- **NC 8 & NC 89, STOK0003-H:** from 0.5 miles east of Hanging Rock Park Road (SR 2015) to NC 8
- **NC 65, STOK0003-B:** from 0.2 miles north of Forsyth County Boundary/ Fisherman Road (SR 1923) to US 311 (Main Street)
- **NC 89, STOK0004-B:** from Asbury Road (SR 1400) to NC 704
- **NC 66, STOK0006-H:** from 0.3 miles south of Capella Road (SR 2008) to NC 89
- **NC 89, STOK0007-H:** from 0.5 miles west of Ring Road (SR 1211) to Asbury Road (SR 1400)
- **NC 89, STOK0008-H:** from US 311 (Main Street) to East Road (SR 1937)
- **NC 268, STOK0009-H:** from 0.4 miles west of Grassy Knob Road (SR 1179) to Bud Tilley Road (SR 1192)
- **NC 268, STOK0005-B:** from Bud Tilley Road (SR 1192) to NC 66
- **NC 704, STOK0006-B:** from NC 89 to NC 772
- **NC 770, STOK0011-H:** from NC 704 to 0.2 miles west of Ralph Joyce Road (SR 1634)
- **NC 772, STOK0007-B:** from US 311 to NC 704
- **Brimms Grove Road (SR 2109), STOK0013-H:** from Volunteer Road (SR 1136) to Oscar Frye Road (SR 1182)
- **Capella Road (SR 2008), STOK0008-B:** from 0.4 miles south NC 66 to NC 66
- **Coon Road (SR 1154), STOK0016-H:** from Old 52 Road (SR 1236) to Volunteer Road (SR 1136)
- **Delta Church Road (SR 1647), STOK0009-B:** from Sheppard Mill Road (SR 1674) to NC 704
- **East Road (SR 1937) STOK0010-B:** from Piney Mountain Road (SR 1935) to NC 89
- **Fisherman Road (SR 1923), STOK0011-B:** from NC 65 (East) to Pine Hall Road (SR 1908)

- **Flat Shoals Road (SR 2019), STOK0018-H:** from Covington Road (SR 2009) to Mountain Road (SR 2018)
- **Flat Shoals Road (SR 2019), STOK0012-B:** from Mountain Road (SR 2018) to NC 8
- **Hanging Rock Park Road (SR 2015), STOK0020-H:** from Moores Spring Road (SR 1001) to NC 8 & NC 89
- **Hawkins Road (SR 1973), STOK0013-B:** from Friendship Road (SR 1955) to Flat Shoals Road (SR 2019)
- **Moir Farm Road (SR 1652), STOK0014-B:** from Delta Church Road (SR 1647) to NC 704
- **Moores Spring Road (SR 1001), STOK0021-H:** from NC 66 to Hanging Rock Park Road (SR 2015)
- **Old Winston Road (SR 1152), STOK0015-B:** from Patterson Farm Road (SR 1153) to 0.6 miles north of Patterson Farm Road (SR 1153)
- **Oscar Frye Road (SR 1182), STOK0027-H:** from Brims Grove Road (SR 2109) to NC 268
- **Pine Hall Road (SR 1908), STOK0016-B:** from 0.2 miles south of Fisherman Road (SR 1923) to US 311
- **Piney Mountain Road (SR 1935), STOK0017-B:** from NC 8 to East Road (SR 1937)
- **Rock House Road (SR 1187), STOK0018-B:** from NC 268 to Colonel Martin Road (SR 1186)
- **Rock House Road (SR 1175), STOK0019-B:** from Colonel Martin Road (SR 1186) to Taylor Road (SR 1188)
- **Sheppard Mill Road (SR 1674), STOK0020-B:** from NC 8 & NC 89 (Main Street) to Delta Church Road (SR 1647)
- **Taylor Road (SR 1188), STOK0021-B:** from Rock House Road (SR 1175) to NC 66

## **MULTI-USE**

The Piedmont Triad Regional Council created local trail plans and also maintains a current database of existing trails and planned improvements. These facilities are shown on the Bicycle and Pedestrian maps on Sheets 4 and 5 of Figure 1.

Additionally, during the development of the CTP, the following facilities were recommended to have multi-use trail accommodations:

- **Scott Branch Creek, STOK0001-M:** alignment along Scott Branch Creek from Seven Island Road in Danbury to Sheppard Mill Road in Danbury

- **Sauratown Trail, STOK0002-M:** proposed trail alignment modified from 2006 Stokes County CTP to follow Sheep Rock Road and NC 8 & NC 89 through Danbury

## **PEDESTRIAN**

The Piedmont Triad Regional Council maintains a sidewalk inventory of existing pedestrian facilities and planned improvements. These facilities are shown on the Pedestrian map on Sheet 5 of Figure 1.

Additionally, during the development of the CTP, the following facilities were recommended to have pedestrian accommodations:

### **Sidewalks – Recommended (Sidewalks needed on both sides of the facility)**

#### ***Town of Danbury***

- **NC 8 & NC 89, STOK0001-P:** from Crestview Road to Camping Creek Island Road
- **NC 8 & NC 89, STOK0013-P** from Bank Street to Shepperd Mill Road (SR 1674)

#### ***Town of Walnut Cove***

- **US 311 (Main Street), STOK0002-P:** from NC 89 to Lakeside Drive
- **Lakeside Drive, STOK0003-P:** from Ninth Street to US 311 (Main Street)
- **Ninth Street, STOK0004-P:** from Summit Street to Lakeside Drive
- **Oldtown Road (First Street), STOK0005-P:** from US 311 (Main Street) to Summit Street
- **Summit Street, STOK0006-P:** from First Street to Third Street
- **Summit Street, STOK0007-P:** from Fifth Street to Ninth Street

### **Sidewalks – Needs Improvement (Sidewalks needed on one side of the facility)**

#### ***Town of Walnut Cove***

- **US 311 (Main Street), STOK0008-P:** from Fifth Street to NC 89
- **Brook Street, STOK0009-P:** from Dalton Street to Windmill Street
- **Sixth Street, STOK0010-P:** from School Street to US 311 (Main Street)
- **Summit Street, STOK0011-P:** from Third Street to Fifth Street
- **Windmill Street, STOK0012-P:** from Sixth Street to Brook Street

# APPENDICES



## Appendix A Resources and Contacts

### **Local Planning Organization**

Northwest Piedmont Rural Planning Organization ([www.ptrc.org](http://www.ptrc.org))

Contact the RPO for information on long-range multi-modal planning services.

1398 Carrollton Crossing Drive    Kernersville, NC 27284                      (336) 904-0300

### **North Carolina Department of Transportation**

#### Customer Service Office

Contact information for other units within the NCDOT that are not listed in this appendix is available by calling the Customer Service Office or by visiting the NCDOT directory:

1-877-DOT-4YOU (1-877-368-4968)    <http://www.ncdot.gov/contact/>

Secretary of Transportation                      (<http://www.ncdot.org/about/leadership/secretary.html>)

1501 Mail Service Center                      Raleigh, NC 27699-1501                      (919) 707-2800

Board of Transportation    (<http://www.ncdot.gov/about/board/>)

1501 Mail Service Center                      Raleigh, NC 27699-1501                      (919) 707-2820

Highway Division 9 (<https://apps.dot.state.nc.us/dot/directory/authenticated/ToC.aspx>)

375 Silas Creek Parkway                      Winston Salem, NC 27127                      (336) 747-7800

Contact the Highway Division with questions concerning NCDOT activities within each Division.

Contact the following NCDOT divisions and units<sup>1</sup> for:

<a href="#"><u>Transportation Planning Branch (TPB)</u></a>	<i>Information on long-range multi-modal planning services.</i> 1554 Mail Service Center    Raleigh, NC 27699    (919) 707-0900
<a href="#"><u>Strategic Planning Office</u></a>	<i>Information concerning prioritization of transportation projects.</i> 1501 Mail Service Center    Raleigh, NC 27699    (919) 707-4740
<a href="#"><u>Project Development &amp; Environmental Analysis (PDEA)</u></a>	<i>Information on environmental studies for projects that are included in the TIP.</i> 1548 Mail Service Center    Raleigh, NC 27699    (919) 707-6000
<a href="#"><u>State Asset Management Unit</u></a>	<i>Information regarding the status for unpaved roads to be paved, additions and deletions of roads to the State maintained system and the Industrial Access Funds program.</i> 1535 Mail Service Center    Raleigh, NC 27699    (919) 707-2500

<sup>1</sup> Unit websites are hyperlinked and can also be accessed at <https://connect.ncdot.gov/Pages/default.aspx>.

<a href="#"><u>Program Development Branch</u></a>	<i>Information concerning Roadway Official Corridor Maps, Feasibility Studies and the Transportation Improvement Program (TIP).</i> 1542 Mail Service Center Raleigh, NC 27699 (919) 707-4610
<a href="#"><u>Public Transportation Division</u></a>	<i>Information on public transit systems.</i> 1550 Mail Service Center Raleigh, NC 27699 (919) 707-4670
<a href="#"><u>Rail Division</u></a>	<i>Rail information throughout the state.</i> 1553 Mail Service Center Raleigh, NC 27699 (919) 707-4700
<a href="#"><u>Division of Bicycle and Pedestrian Transportation</u></a>	<i>Bicycle and pedestrian transportation information throughout the state.</i> 1552 Mail Service Center Raleigh, NC 27699 (919) 707-2600
<a href="#"><u>Structures Management Unit</u></a>	<i>Information on bridge management throughout the state.</i> 1581 Mail Service Center Raleigh, NC 27699 (919) 707-6400
<a href="#"><u>Roadway Design Unit</u></a>	<i>Information regarding design plans and proposals for road and bridge projects throughout the state.</i> 1582 Mail Service Center Raleigh, NC 27699 (919) 707-6200
<a href="#"><u>Transportation Mobility and Safety Division</u></a>	<i>Information regarding crash data throughout the state.</i> 1561 Mail Service Center Raleigh, NC 27699 (919) 773-2800

**Other State Government Offices**

Department of Commerce – Division of Community Assistance

Contact the Department of Commerce for resources and services to help realize economic prosperity, plan for new growth and address community needs.

<http://www.nccommerce.com/cd>

## **Appendix B**

# **Comprehensive Transportation Plan Definitions**

This appendix contains descriptive information and definitions for the designations depicted on the CTP maps shown in Figure 1.

### ***Highway Map***

The "[\*NC DOT Facility Type –Control of Access Definitions\*](#)" document provides a visual depiction of facility types for the following CTP classification.

#### Facility Type Definitions

##### **❖ Freeways**

- Functional purpose – high mobility, high volume, high speed
- Posted speed – 55 mph or greater
- Cross section – minimum four lanes with continuous median
- Multi-modal elements – High Occupancy Vehicles (HOV)/High Occupancy Transit (HOT) lanes, busways, truck lanes, park-and-ride facilities at/near interchanges, adjacent shared use paths (separate from roadway and outside ROW)
- Type of access control – full control of access
- Access management – interchange spacing (urban – one mile; non-urban – three miles); at interchanges on the intersecting roadway, full control of access for 1,000ft or for 350ft plus 650ft island or median; use of frontage roads, rear service roads
- Intersecting facilities – interchange or grade separation (no signals or at-grade intersections)
- Driveways – not allowed

##### **❖ Expressways**

- Functional purpose – high mobility, high volume, medium-high speed
- Posted speed – 45 to 60 mph
- Cross section – minimum four lanes with median
- Multi-modal elements – HOV lanes, busways, very wide paved shoulders (rural), shared use paths (separate from roadway but within ROW)
- Type of access control – limited or partial control of access;
- Access management – minimum interchange/intersection spacing 2,000ft; median breaks only at intersections with minor roadways or to permit U-turns; use of frontage roads, rear service roads; driveways limited in location and number; use of acceleration/deceleration or right turning lanes
- Intersecting facilities – interchange; at-grade intersection for minor roadways; right-in/right-out and/or left-over or grade separation (no signalization for through traffic)
- Driveways – right-in/right-out only; direct driveway access via service roads or other alternate connections

##### **❖ Boulevards**

**Revised: April 20, 2015**

- Functional purpose – moderate mobility; moderate access, moderate volume, medium speed
- Posted speed – 30 to 55 mph
- Cross section – two or more lanes with median (median breaks allowed for U-turns per current NCDOT *Driveway Manual*)
- Multi-modal elements – bus stops, bike lanes (urban) or wide paved shoulders (rural), sidewalks (urban - local government option)
- Type of access control – limited control of access, partial control of access, or no control of access
- Access management – two lane facilities may have medians with crossovers, medians with turning pockets or turning lanes; use of acceleration/deceleration or right turning lanes is optional; for abutting properties, use of shared driveways, internal out parcel access and cross-connectivity between adjacent properties is strongly encouraged
- Intersecting facilities – at grade intersections and driveways; interchanges at special locations with high volumes
- Driveways – primarily right-in/right-out, some right-in/right-out in combination with median leftovers; major driveways may be full movement when access is not possible using an alternate roadway

#### ❖ **Other Major Thoroughfares**

- Functional purpose – balanced mobility and access, moderate volume, low to medium speed
- Posted speed – 25 to 55 mph
- Cross section – four or more lanes without median (*US and NC routes may have less than four lanes*)
- Multi-modal elements – bus stops, bike lanes/wide outer lane (urban) or wide paved shoulder (rural), sidewalks (urban)
- Type of access control – no control of access
- Access management – continuous left turn lanes; for abutting properties, use of shared driveways, internal out parcel access and cross-connectivity between adjacent properties is strongly encouraged
- Intersecting facilities – intersections and driveways
- Driveways – full movement on two lane roadway with center turn lane as permitted by the current NCDOT *Driveway Manual*

#### ❖ **Minor Thoroughfares**

- Functional purpose – balanced mobility and access, moderate volume, low to medium speed
- Posted speed – 25 to 55 mph
- Cross section – ultimately three lanes (no more than one lane per direction) or less without median
- Multi-modal elements – bus stops, bike lanes/wide outer lane (urban) or wide paved shoulder (rural), sidewalks (urban)
- ROW – no control of access
- Access management – continuous left turn lanes; for abutting properties, use of shared driveways, internal out parcel access and cross-connectivity between adjacent properties is strongly encouraged

Revised: April 20, 2015

- Intersecting facilities – intersections and driveways
- Driveways – full movement on two lane with center turn lane as permitted by the current NCDOT *Driveway Manual*

### Other Highway Map Definitions

- ❖ **Existing** – Roadway facilities that are not recommended to be improved.
- ❖ **Needs Improvement** – Roadway facilities that need to be improved for capacity, safety, operations, or system continuity. The improvement to the facility may be widening, increasing the level of access control along the facility, operational strategies (including but not limited to traffic control and enforcement, incident and emergency management, and deployment of Intelligent Transportation Systems (ITS) technologies), or a combination of improvements and strategies. “Needs improvement” does not refer to the maintenance needs of existing facilities or the replacement or rehab of structures.
- ❖ **Recommended** – Roadway facilities on new location that are needed in the future.
- ❖ **Interchange** – Through movement on intersecting roads is separated by a structure. Turning movement area accommodated by on/off ramps and loops.
- ❖ **Grade Separation** – Through movement on intersecting roads is separated by a structure. There is no direct access between the facilities.
- ❖ **Full Control of Access** – Connections to a facility provided only via ramps at interchanges. No private driveway connections allowed.
- ❖ **Limited Control of Access** – Connections to a facility provided only via ramps at interchanges (major crossings) and at-grade intersections (minor crossings and service roads). No private driveway connections allowed.
- ❖ **Partial Control of Access** – Connections to a facility provided via ramps at interchanges, at-grade intersections, and private driveways. Private driveway connections shall be defined as a maximum of one connection per parcel. One connection is defined as one ingress and one egress point. These may be combined to form a two-way driveway (most common) or separated to allow for better traffic flow through the parcel. The use of shared or consolidated connections is highly encouraged.
- ❖ **No Control of Access** – Connections to a facility provided via ramps at interchanges, at-grade intersections, and private driveways.

### **Public Transportation and Rail Map**

- ❖ **Bus Routes** – The primary fixed route bus system for the area. Does not include demand response systems.
- ❖ **Fixed Guideway** – Any transit service that uses exclusive or controlled rights-of-way or rails, entirely or in part. The term includes heavy rail, commuter rail, light rail, monorail, trolleybus, aerial tramway, included plane, cable car, automated guideway transit, and ferryboats.
- ❖ **Operational Strategies** – Plans geared toward the non-single occupant vehicle. This includes but is not limited to HOV lanes or express bus service.

Revised: April 20, 2015

- ❖ **Rail Corridor** – Locations of railroad tracks that are either active or inactive tracks. These tracks were used for either freight or passenger service.
  - Active – rail service is currently provided in the corridor; may include freight and/or passenger service
  - Inactive – right of way exists; however, there is no service currently provided; tracks may or may not exist
  - Recommended – It is desirable for future rail to be considered to serve an area.
- ❖ **High Speed Rail Corridor** – Corridor designated by the U.S. Department of Transportation as a potential high speed rail corridor.
  - Existing – Corridor where higher-speed rail service (over 79 mph) is provided or a corridor that is officially designated by FRA to run higher speed trains in the future. There is currently one federally designated high-speed rail corridor in North Carolina - The Southeast High Speed Rail Corridor.
  - Recommended – Proposed corridor for higher speed rail service.
- ❖ **Rail Stop** – A railroad station or stop along the railroad tracks.
- ❖ **Multimodal Connector** - A location where more than one mode of transportation meet such as where light rail and a bus route come together in one location. (NOTE- intermodal refers to two or more modes that transfer the same cargo unit- like 40' shipping container from ship to train or truck); multimodal is the transfer of people/cargo between two or more modes and in NC is used in public transit settings i.e. Charlotte Multimodal Station)
- ❖ **Park and Ride Lot** – A strategically located parking lot that provides commuters connections to transit or carpools.
- ❖ **Existing Grade Separation** – Locations where existing rail facilities are physically separated from existing highways or other transportation facilities. These may be bridges, culverts, or other structures.
- ❖ **Proposed Grade Separation** – Locations where rail facilities are recommended to be physically separated from existing or recommended highways or other transportation facilities. These may be bridges, culverts, or other structures.

## ***Bicycle Map***

- ❖ **On Road-Existing** – Conditions for bicycling on the highway facility are adequate to safely accommodate cyclists.
- ❖ **On Road-Needs Improvement** – At the systems level, it is desirable for **an existing** highway facility to accommodate bicycle transportation; however, highway improvements are necessary to create safe travel conditions for the cyclists.
- ❖ **On Road-Recommended** – At the systems level, it is desirable for **a recommended** highway facility to accommodate bicycle transportation. The highway should be designed and built to safely accommodate cyclists.
- ❖ **Off Road-Existing** – A facility that accommodates only bicycle transportation and is physically separated from a highway facility either within the right-of-way or within an independent right-of-way.

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- ❖ **Off Road-Needs Improvement** – A facility that accommodates only bicycle transportation and is physically separated from a highway facility either within the right-of-way or within an independent right-of-way that will not adequately serve future bicycle needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), and improved horizontal or vertical alignment.
- ❖ **Off Road-Recommended** – A facility needed to accommodate only bicycle transportation and is physically separated from a highway facility either within the right-of-way or within an independent right-of-way.
- ❖ **Multi-use Path-Existing** – An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.
- ❖ **Multi-use Path-Needs Improvement** – An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic that will not adequately serve future needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), and improved horizontal or vertical alignment. Sidewalks should not be designated as a multi-use path.
- ❖ **Multi-use Path-Recommended** – A facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that is needed to serve bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.
- ❖ **Existing Grade Separation** – Locations where existing “Off Road” facilities and “Multi-use Paths” are physically separated from existing highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.
- ❖ **Proposed Grade Separation** – Locations where “Off Road” facilities and “Multi-use Paths” are recommended to be physically separated from existing or recommended highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.

### ***Pedestrian Map***

- ❖ **Sidewalk-Existing** – Paved paths (including but not limited to concrete, asphalt, brick, stone, or wood) on both sides of a highway facility and within the highway right-of-way that are adequate to safely accommodate pedestrian traffic.
- ❖ **Sidewalk-Needs Improvement** – Improvements are needed to provide paved paths on both sides of a highway facility. The highway facility may or may not need improvements. Improvements do not include re-paving or other maintenance activities but may include: filling in gaps, widening sidewalks, or meeting ADA (Americans with Disabilities Act) requirements.

- ❖ **Sidewalk-Recommended** – At the systems level, it is desirable for a recommended highway facility to accommodate pedestrian transportation **or** to add sidewalks on an existing facility where no sidewalks currently exist. The highway should be designed and built to safely accommodate pedestrian traffic.
- ❖ **Off Road-Existing** – A facility that accommodates only pedestrian traffic and is physically separated from a highway facility usually within an independent right-of-way.
- ❖ **Off Road-Needs Improvement** – A facility that accommodates only pedestrian traffic and is physically separated from a highway facility usually within an independent right-of-way that will not adequately serve future pedestrian needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), improved horizontal or vertical alignment, and meeting ADA requirements.
- ❖ **Off Road-Recommended** – A facility needed to accommodate only pedestrian traffic and is physically separated from a highway facility usually within an independent right-of-way.
- ❖ **Multi-use Path-Existing** – An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.
- ❖ **Multi-use Path-Needs Improvement** – An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic that will not adequately serve future needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), and improved horizontal or vertical alignment. Sidewalks should not be designated as a multi-use path.
- ❖ **Multi-use Path-Recommended** – A facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that is needed to serve bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.
- ❖ **Existing Grade Separation** – Locations where existing “Off Road” facilities and “Multi-use Paths” are physically separated from existing highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.
- ❖ **Proposed Grade Separation** – Locations where “Off Road” facilities and “Multi-use Paths” are recommended to be physically separated from existing or recommended highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.

## Appendix C

### CTP Inventory and Recommendations

#### Assumptions/ Notes:

- ❖ **Local ID:** This Local ID is the same as the one used for the Prioritization Project Submittal Tool. If a TIP project number exists it is listed as the ID. Otherwise, the following system is used to create a code for each recommended improvement: the first 4 letters of the county name is combined with a 4 digit unique numerical code followed by '-H' for highway, '-T' for public transportation, '-R' for rail, '-B' for bicycle, '-M' for multi-use paths, or '-P' for pedestrian modes. If a different code is used along a route it indicates separate projects will probably be requested. Also, upper case alphabetic characters (i.e. 'A', 'B', or 'C') are included after the numeric portion of the code if it is anticipated that project segmentation or phasing will be recommended.
- ❖ **Jurisdiction:** Jurisdictions listed are based on municipal limits, county boundaries, and MPO Metropolitan Planning Area Boundaries (MAB), as applicable.
- ❖ **Existing Cross-Section:** Listed under 'Total Width (ft)' is the approximate width of the roadway from edge of pavement to edge of pavement and under 'Lane Width (ft)' is the approximate width of a single lane based on centerline/ edge line markings. Listed under 'Lanes' is the total number of lanes, with 'D' if the facility is divided, and 'OW' if it is a one-way facility.
- ❖ **Existing ROW:** The estimated existing right-of-way is based on NCDOT's roadway characteristics shape file. These right-of-way amounts are approximate and may vary.
- ❖ **Existing and Proposed Capacity:** The estimated capacities are given in vehicles per day (vpd) based on LOS D for existing facilities and LOS C for new facilities. These capacity estimates were developed based on the 2000 Highway Capacity Manual using the Transportation Planning Branch's LOS D Standards for Systems Level Planning, as documented in Chapter 1.
- ❖ **Existing and Proposed Volumes,** given in vehicles per day (vpd), are estimates only based on a systems-level analysis. The '2045 Volume E+C' is an estimate of the volume in 2045 with only existing plus committed projects assumed to be in place, where committed is defined as projects programmed for construction in the 2016 - 2025 Transportation Improvement Program (TIP). The '2045 Volume with CTP' is an estimate of the volume in 2045 with all proposed CTP improvements assumed to be in place. The '2045 Volume with CTP' is shown in bold if it exceeds the proposed capacity, indicating an unmet need. For additional information about the assumptions and techniques used to develop the AADT volume estimates, refer to Chapter 1.
- ❖ **Proposed Cross-section:** The CTP recommended cross-sections are listed by code; for depiction of the cross-section, refer to Appendix D. An entry of 'ADQ' indicates the existing facility is adequate and there are no improvements recommended for the given mode as part of the CTP.
- ❖ **CTP Classification:** The CTP classification is listed, as shown on the adopted CTP Maps (see Figure 1). Abbreviations are F= freeway, E= expressway, B= boulevard, Maj= other major thoroughfare, Min= minor thoroughfare.

- ❖ **Tier:** Tiers are defined as part of the North Carolina Multimodal Investment Network (NCMIN). Abbreviations are Sta= statewide tier, Reg= regional tier, Sub= subregional tier.
- ❖ **Proposals for Other Modes:** If there is an improvement recommended for another mode of transportation that relates to the given recommendation, it is indicated by an alphabetic code (H= highway, T= public transportation, R= rail, B= bicycle, P= pedestrian, and M= multi-use path).

## CTP INVENTORY AND RECOMMENDATIONS

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	US 311	0.05 miles south of Pack Rd (SR 1931)	Fagg Rd (SR 1926)	Stokes County	0.09	24	2	12	100	55	12400	3900	4700	4700	12400	ADQ	ADQ	Maj	
	US 311	Fagg Rd (SR 1926)	0.5 miles south of NC 65	Stokes County	0.97	24	2	12	100	55	12400	3900	4700	4700	12400	ADQ	ADQ	Maj	
	US 311 (Main St)	0.5 miles south of NC 65	0.1 miles south of NC 65	Walnut Cove	0.38	24	2	12	100	45	12700	3800	4600	4600	12700	ADQ	ADQ	Maj	
	US 311 (Main St)	0.1 miles south of NC 65	NC 65	Walnut Cove	0.11	24	2	12	60	45	12700	3800	4600	4600	12700	ADQ	ADQ	Maj	
STOK0001-H	US 311 (Main St) & NC 65	NC 65	NC 65	Walnut Cove	0.69	24	2	12	60	45	12700	10000	12000	<b>12000</b>	-	-	-	Maj	B
STOK0001-H	US 311 (Main St)	NC 65	0.1 miles south of First St	Walnut Cove	0.16	24	2	12	60	35	11600	12000	13500	<b>13500</b>	-	-	-	Maj	B
STOK0001-H	US 311 (Main St)	0.1 miles south of First St	First St	Walnut Cove	0.13	22	2	11	60	35	11600	12000	13500	<b>13500</b>	-	-	-	Maj	B
STOK0001-H	US 311 (Main St)	First St	Second St	Walnut Cove	0.1	50	3	12	60	25	11600	11000	12600	<b>12600</b>	-	-	-	Maj	B
STOK0001-H	US 311 (Main St)	Second St	Third St	Walnut Cove	0.09	50	3	12	100	25	12700	11000	12700	<b>12700</b>	-	-	-	Maj	B
STOK0001-H	US 311 (Main St)	Third St	Fourth St	Walnut Cove	0.08	40-50	3	12	100	25	12900	11000	13400	<b>13400</b>	-	-	-	Maj	B
STOK0001-H	US 311 (Main St)	Fourth St	0.05 miles north of Fifth St	Walnut Cove	0.14	40-50	3	12	60-100	35	12900	11000	13400	<b>13400</b>	-	-	-	Maj	B
STOK0001-H	US 311 (Main St)	0.05 miles north of Fifth St	0.03 miles south of Eighth St	Walnut Cove	0.23	40	3	12	60	35	12900	11000	13400	<b>13400</b>	-	-	-	Maj	B,P
STOK0001-H	US 311 (Main St)	0.03 miles south of Eighth St	NC 89	Walnut Cove	0.79	24	3	8	60	35	12900	11000	13600	13600	-	-	-	Maj	B,P
	US 311 (Main St)	NC 89	0.4 miles east of NC 89	Walnut Cove	0.4	24	2	12	60-100	45	12700	4600	5100	5100	12700	ADQ	ADQ	Maj	
	US 311	0.4 miles east of NC 89	Oldtown Rd (SR 1918)	Stokes County	1.56	24	2	12	60-100	45	12400	4600	5100	5100	12400	ADQ	ADQ	Maj	
	US 311	Oldtown Rd (SR 1918)	Hickory Fork Rd (SR 1722)	Stokes County	2.06	24	2	12	100	55	12400	4200	5000	5000	12400	ADQ	ADQ	Maj	
	US 311	Hickory Fork Rd (SR 1722)	NC 772	Stokes County	1.54	24	2	12	100	55	12400	3800	4900	4900	12400	ADQ	ADQ	Maj	

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	US 311	NC 772	0.25 miles west of Ridge Rd (SR 1728)	Stokes County	1.01	24	2	12	100	55	12400	3800	4900	4900	12400	ADQ	ADQ	Maj	
	US 311	0.25 miles west of Ridge Rd (SR 1728)	Ridge Rd (SR 1728)	Stokes County	0.37	24	2	12	100	45	12400	3800	4900	4900	12400	ADQ	ADQ	Maj	
STOK0002-H	NC 8	0.14 miles north of NC 65	Brook Cove Rd (SR 1935)	Stokes County	0.72	24-32	2	12	60-100	55	12400	6400	7300	7300	12400	2A	60	Maj	
	NC 8	Brook Cove Rd (SR 1935)	Mountian View Rd (SR 1974)	Stokes County	2.99	24	2	12	60	55	12400	4100	5400	5400	12400	ADQ	ADQ	Maj	
	NC 8	Mountian View Rd (SR 1974)	0.08 miles south of Piney Mountian Rd (SR 1935)	Stokes County	2.2	24	2	12	60	55	12400	3700	4800	4800	12400	ADQ	ADQ	Maj	B
	NC 8	0.08 miles south of Piney Mountian Rd (SR 1935)	Piney Mountian Rd (SR 1935)	Stokes County	0.09	24	2	12	60	45	12400	3700	4800	4800	12400	ADQ	ADQ	Maj	B
	NC 8	Piney Mountian Rd (SR 1935)	Flat Shoals Rd (SR 2019)	Stokes County	0.66	24	2	12	60	45	12400	3700	4900	4900	12400	ADQ	ADQ	Maj	B
	NC 8	Flat Shoals Rd (SR 2019)	Dodgetown Rd (SR 1695)	Stokes County	2.84	24	2	12	60	55	12400	3600	4900	4900	12400	ADQ	ADQ	Maj	B
STOK0004-H	NC 8	NC 89	0.11 miles south of Watt Stevens Rd (SR 1495)	Stokes County	4.2	19	2	10	70	55	11800	2000	2100	2100	12400	2A	60	Maj	B
STOK0004-H	NC 8	0.11 miles south of Watt Stevens Rd (SR 1495)	Snow Hill Church Rd (SR 1651)	Stokes County	0.26	19	2	10	70	45	11800	2000	2100	2100	12400	2A	60	Maj	B
STOK0004-H	NC 8	Snow Hill Church Rd (SR 1651)	0.1 miles north of Snow Hill Church Rd	Stokes County	0.09	19	2	10	70	45	11800	2000	2100	2100	12400	2A	60	Maj	B
STOK0004-H	NC 8	0.1 miles north of Snow Hill Church RD	Piney Grove Church Rd (SR 1496)	Stokes County	0.28	19	2	10	70	35	11800	2000	2100	2100	12400	2A	60	Maj	B
STOK0004-H	NC 8	Piney Grove Church Rd (SR 1496)	0.15 miles north of Piney Grove Church Rd (SR 1496)	Stokes County	0.15	19	2	10	70	35	11800	2000	2500	2500	12400	2A	60	Maj	B

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	2015 Existing System								2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To		Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
STOK0004-H	NC 8	0.15 miles north of Piney Grove Church Rd (SR 1496)	Moore Rd (SR 1602)	Stokes County	1.2	19	2	10	70	55	11800	2000	2500	2500	12400	2A	60	Maj	B
STOK0004-H	NC 8	Moore RD (SR 1602)	NC 704	Stokes County	2.24	19	2	10	70	55	11800	1300	1500	1500	12400	2A	60	Maj	B
STOK0004-H	NC 8	NC 704	NC 704	Stokes County	0.02	19	2	10	70	55	11800	1300	1500	1500	12400	2A	60	Maj	B
STOK0004-H	NC 8	NC 704	VA State Line	Stokes County	0.27	19	2	10	70	55	11800	1700	1800	1800	12400	2A	60	Maj	B
	NC 8 & 89	Dodgetown RD (SR 1695)	0.08 miles west of Dodgetown Rd (SR 1695)	Stokes County	0.08	24	2	12	60	55	12400	2300	2400	2400	12400	ADQ	ADQ	Maj	B
	NC 8 & 89	0.08 miles west of Dodgetown Rd (SR 1695)	0.07 miles north of County Home Rd (SR 1706)	Stokes County	1.36	23	2	12	70	55	12400	3300	3900	3900	12400	ADQ	ADQ	Maj	B
	NC 8 & 89	0.07 miles north of County Home Rd (SR 1706)	0.1 miles south of Scott Farm Rd	Stokes County	0.18	24	2	12	50	55	12400	3500	4000	4000	12400	ADQ	ADQ	Maj	B
	NC 8 & 89	0.1 miles south of Scott Farm Rd	Mountian Rd (SR 2018)	Stokes County	0.96	23	2	12	70	55	12400	3500	4000	4000	12400	ADQ	ADQ	Maj	B
	NC 8 & 89	Mountian Rd (SR 2018)	0.06 miles south of Sheppard Mill Rd (SR 1674)	Stokes County	0.62	23	2	12	70	55	12400	3500	4000	4000	12400	ADQ	ADQ	Maj	B
	NC 8 & 89 (Main St)	0.06 miles south of Sheppard Mill Rd (SR 1674)	Sheppard Mill Rd (SR 1674)	Danbury	0.06	28	2	14	70	35	11600	3500	4000	4000	11600	ADQ	ADQ	Maj	B
	NC 8 & 89 (Main St)	Sheppard Mill Rd (SR 1674)	Old Church Rd	Danbury	0.14	28	2	14	70	35	11600	4300	4600	4600	11600	ADQ	ADQ	Maj	B
	NC 8 & 89 (Main St)	Old Church Rd	0.04 miles east of Courthouse Circle	Danbury	0.08	23	2	12	70	35	11200	4300	4600	4600	11200	ADQ	ADQ	Maj	B
	NC 8 & 89 (Main St)	0.04 miles east of Courthouse Circle	Camping Creek Island Rd	Danbury	0.1	23	2	12	70	25	11200	4300	4600	4600	11200	ADQ	ADQ	Maj	B
	NC 8 & 89 (Main St)	Camping Creek Island Rd	0.04 miles west of Seven Island Rd (SR 1668)	Danbury	0.53	23	2	12	70	35	11200	3600	4300	4300	11200	ADQ	ADQ	Maj	B,P

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	NC 8 & 89 (Main St)	0.04 miles west of Seven Island Rd (SR 1668)	0.04 miles west of Hanging Rock Forest Rd	Danbury	0.47	23	2	12	70	45	12300	3600	4300	4300	12300	ADQ	ADQ	Maj	B,P
STOK0003-H	NC 8 & 89	0.04 miles west of Hanging Rock Forest Rd	Hanging Rock Park Rd (SR 2015)	Stokes County	0.6	23	2	12	70	55	12400	3100	3600	3600	12400	2A	60	Maj	B
STOK0003-H	NC 8 & 89	Hanging Rock Park Rd (SR 2015)	0.07 miles north of Flinchum Rd (SR 1487)	Stokes County	1.24	23	2	12	70	55	12400	3100	3600	3600	12400	2A	60	Maj	B
STOK0003-H	NC 8 & 89	0.07 miles north of Flinchum Rd (SR 1487)	NC 8	Stokes County	0.24	24-32	2	12	60-110	55	12400	2500	2900	2900	12400	2A	60	Maj	B
STOK0005-H	NC 65	Kiger Rd (SR 1952)	Easley Rd (SR 1933)	Stokes County	2.77	20-24	2	12	100	55	12400	5300	5900	5900	12400	2A	60	Maj	B
STOK0005-H	NC 65	Easley Rd (SR 1933)	US 311 (Main St)	Stokes County	1.3	22-24	2	12	100	55	12400	6000	7200	7200	12400	2A	60	Maj	B
	NC 65	US 311 (Main St)	0.29 miles east of US 311 (Main St)	Stokes County	0.31	24	2	12	0-100	45	12700	4600	4700	4700	12700	ADQ	ADQ	Maj	
	NC 65	0.29 miles E Main St	Martin Luther King Jr Rd (SR 1921)	Stokes County	0.2	24	2	12	100	55	14600	4600	4700	4700	14600	ADQ	ADQ	Maj	
	NC 65	Martin Luther King Jr Rd (SR 1921)	Fagg Rd (SR 1926)	Stokes County	1.5	24	2	12	100	55	12400	3300	3400	3400	12400	ADQ	ADQ	Maj	
	NC 65	Fagg Rd (SR 1926)	Fisherman Rd (SR 1923)	Stokes County	0.78	24	2	12	100	55	12400	3300	3900	3900	12400	ADQ	ADQ	Maj	
	NC 65	Fisherman Rd (SR 1923)	Busch Ln	Stokes County	0.34	24	2	12	100	55	12400	3300	3900	3900	12400	ADQ	ADQ	Maj	
STOK0006-H	NC 66	Falkenberry Rd (SR 1220)	0.19 miles north of Falkenberry Rd (SR 1220)	Stokes County	0.19	22	2	11	60	45	12400	2100	2500	2500	12400	2A	60	Maj	B
STOK0006-H	NC 66	0.19 miles north of Falkenberry Rd (SR 1220)	Capella Rd (SR 2008)	Stokes County	0.75	22	2	11	60	55	12400	2100	2500	2500	12400	2A	60	Maj	B
STOK0006-H	NC 66	Capella Rd (SR 2008)	Moore's Spring Rd (SR 1001)	Stokes County	1.11	22	2	11	60	55	12400	2000	2100	2100	12400	2A	60	Maj	B
STOK0006-H	NC 66	Moore's Spring Rd (SR 1001)	NC 268	Stokes County	3.98	18	2	9	60	55	10500	200	300	300	12400	2A	60	Maj	B
	NC 66	NC 268	NC 268	Stokes County	0.1	20	2	10	60	55	11800	900	1200	1200	11800	ADQ	ADQ	Maj	

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	NC 66	NC 268	0.06 miles north of NC 268	Stokes County	0.07	20	2	10	60	55	11800	400	500	500	11800	ADQ	ADQ	Maj	
	NC 66	0.06 miles north of NC 268	Old Lynchburg Rd (SR 1516)	Stokes County	0.1	18	2	9	60	55	10500	400	500	500	10500	ADQ	ADQ	Maj	
STOK0006-H	NC 66	Old Lynchburg Rd (SR 1516)	Brown Mountian Church Rd (SR 1190)	Stokes County	2.36	20	2	10	-	55	12400	400	500	500	12400	2A	60	Maj	B
STOK0006-H	NC 66	Brown Mountian Church Rd (SR 1190)	Brown Mountian Rd (SR 1210)	Stokes County	0.07	18	2	9	60	55	10500	500	600	600	12400	2A	60	Maj	B
STOK0006-H	NC 66	Brown Mountian Rd (SR 1210)	Smith Rd (SR 1467)	Stokes County	1.52	18-22	2	9-11	60-190	55	10500	200	300	300	12400	2A	60	Maj	B
STOK0006-H	NC 66	Smith Rd (SR 1467)	NC 89	Stokes County	2.2	18	2	9	60	55	10500	200	300	300	12400	2A	60	Maj	B
STOK0008-H	NC 89	US 311 (Main St)	Kingswood Place (SR 2071)	Stokes County	0.07	22	2	11	70	35	11200	6900	8000	8000	11200	2E	60	Maj	B
STOK0008-H	NC 89	Kingswood Place (SR 2071)	Fulp Rd	Stokes County	0.95	22	2	11	70-100	45	12400	6900	8000	8000	12400	2E	60	Maj	B
STOK0008-H	NC 89	Fulp Rd	Dodgetown Rd (SR 1695)	Stokes County	4.07	22	2	11	100	55	12400	3300	3900	3900	12400	2E	60	Maj	B
	NC 89	NC 8	Piney Grove Chrucl Rd (SR 1496)	Stokes County	1.7	20	2	10	100	55	11800	1000	1100	1100	11800	ADQ	ADQ	Maj	
	NC 89	Piney Grove Chrucl Rd (SR 1496)	0.39 miles east of NC 268	Stokes County	0.64	20	2	10	100	55	11800	1000	1100	1100	11800	ADQ	ADQ	Maj	
	NC 89	0.39 miles east of NC 268	0.05 miles east of NC 268	Stokes County	0.34	22	2	11	100	55	12400	1000	1100	1100	12400	ADQ	ADQ	Maj	
	NC 89	0.05 miles east of NC 268	NC 268	Stokes County	0.05	20	2	10	100	55	11800	1000	1100	1100	11800	ADQ	ADQ	Maj	
	NC 89	NC 268	NC 704	Stokes County	5.37	20	2	10	100	55	11800	600	700	700	11800	ADQ	ADQ	Maj	
	NC 89	NC 704	Horseshoe Rd (SR 1464)	Stokes County	1.64	20	2	10	100	55	11800	700	800	800	11800	ADQ	ADQ	Maj	B
	NC 89	Horseshoe Rd (SR 1464)	Asbury Rd (SR 1413)	Stokes County	1.64	20	2	10	60	55	11800	700	800	800	11800	ADQ	ADQ	Maj	B
	NC 89	Asbury Rd	Horseshoe Rd (SR 1471)	Stokes County	0.6	20	2	10	60	55	11800	600	700	700	11800	ADQ	ADQ	Maj	B

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	NC 89	Horseshoe Rd (SR 1471)	NC 66	Stokes County	1.83	20	2	10	60	55	11800	600	700	700	11800	ADQ	ADQ	Maj	B
	NC 89	NC 66	Asbury Rd (SR 1400)	Stokes County	2.18	18	2	9	60	55	10500	800	900	900	10500	ADQ	ADQ	Maj	B
STOK0007-H	NC 89	Asbury Rd (SR 1400)	0.46 miles west of Ring Road (SR 1211)	Stokes County	0.72	18	2	9	60	55	10500	800	900	900	12400	2A	60	Maj	B
STOK0009-H	NC 268 (Lynchburg Rd)	0.5 miles east of Grassy Knob Road (SR 1179)	Bud Tilley Rd (SR 1192)	Stokes County	3.96	20	2	10	60	45	11800	3200	3900	3900	12400	2A	60	Maj	B
	NC 268 (Lynchburg Rd)	Bud Tilley Rd (SR 1192)	NC 66	Stokes County	4.01	18	2	9	60	55	10500	700	800	800	10500	ADQ	ADQ	Maj	B
	NC 268 (Lynchburg Rd)	NC 66	Old Lynchburg Rd (SR 1516)	Stokes County	3.76	22	2	11	60	55	12400	1300	1600	1600	12400	ADQ	ADQ	Maj	
	NC 268 (Lynchburg Rd)	Old Lynchburg Rd (SR 1516)	NC 89	Stokes County	0.09	22	2	11	60	55	12400	900	1200	1200	12400	ADQ	ADQ	Maj	
	NC 704	NC 89	Hart Rd (SR 1497)	Stokes County	2.62	20	2	10	100	55	11800	500	600	600	11800	ADQ	ADQ	Maj	B
	NC 704	Hart Rd (SR 1497)	NC 8	Stokes County	4.63	20	2	10	100	55	11800	600	700	700	11800	ADQ	ADQ	Maj	B
	NC 704	NC 8	Snow Hill Church Rd (SR 1651)	Stokes County	6.21	20	2	10	60	55	11800	1600	2000	2000	11800	ADQ	ADQ	Maj	B
	NC 704	Snow Hill Church Rd (SR 1651)	0.2 miles west of O'Conner Rd	Stokes County	1.09	20	2	10	60	55	11800	2500	3000	3000	11800	ADQ	ADQ	Maj	B
	NC 704	0.2 miles west of O'Conner Rd	0.05 miles north of Amostown Rd (SR 1625)	Stokes County	0.5	20	2	10	60	45	11800	2500	3000	3000	11800	ADQ	ADQ	Maj	B
	NC 704	0.05 miles north of Amostown Rd (SR 1625)	Amostown Rd (SR 1625)	Stokes County	0.05	20	2	10	60	35	11800	2500	3000	3000	11800	ADQ	ADQ	Maj	B
	NC 704	Amostown Rd (SR 1625)	0.06 miles south of Doug Stanley Rd (SR 1648)	Stokes County	0.15	20	2	10	60	35	11800	2500	3000	3000	11800	ADQ	ADQ	Maj	B
	NC 704	0.06 miles south of Doug Stanley Rd (SR 1648)	NC 770	Stokes County	0.72	20	2	10	60	45	11800	2500	3000	3000	11800	ADQ	ADQ	Maj	B
	NC 704	NC 770	0.1 miles south of NC 770	Stokes County	0.08	20	2	10	60	45	11800	3000	3500	3500	11800	ADQ	ADQ	Maj	B

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	NC 704	0.1 miles south of NC 770	Delta Church Rd (SR 1647)	Stokes County	1.11	24	2	12	60	55	12400	3000	3500	3500	12400	ADQ	ADQ	Maj	B
	NC 704	Delta Church Rd (SR 1647)	NC 772	Stokes County	1.28	24	2	12	60	55	12400	3000	3500	3500	12400	ADQ	ADQ	Maj	B
STOK0010-H	NC 704	NC 772	0.5 miles east of Dunlap Road	Stokes County	5.39	20	2	10	100	55	11800	2800	3400	3400	12400	2A	60	Maj	
STOK0011-H	NC 770	NC 704	0.25 miles east of Ralph Joyce Rd (SR 1634)	Stokes County	4.31	24	2	12	60	55	12400	1600	1800	1800	12400	2A	60	Maj	B
	NC 772	US 311	Bethesda Church Rd (SR 1759)	Stokes County	2.22	24	2	12	60	55	12400	1400	1700	1700	12400	ADQ	ADQ	Maj	B
	NC 772	Bethesda Church Rd (SR 1759)	Madison Rd (SR 1729)	Stokes County	0.16	24	2	12	60	55	12400	1400	1700	1700	12400	ADQ	ADQ	Maj	B
	NC 772	Madison Rd (SR 1729)	Hickory Fork Rd (SR 1722)	Stokes County	1.78	24	2	12	60	55	12400	1300	1400	1400	12400	ADQ	ADQ	Maj	B
	NC 772	Hickory Fork Rd (SR 1722)	Montgomery Ln	Stokes County	1.28	24	2	12	60	55	12400	1100	1400	1400	12400	ADQ	ADQ	Maj	B
	NC 772	Montgomery Ln	K-Fork Rd (SR 1686)	Stokes County	1.52	20	2	10	60	55	11800	1100	1400	1400	11800	ADQ	ADQ	Maj	B
	NC 772	K-Fork Rd (SR 1686)	Dodgetown Rd (SR 1695)	Stokes County	1.44	20	2	10	60	55	11800	1000	1100	1100	11800	ADQ	ADQ	Maj	B
	NC 772	Dodgetown RD (SR 1695)	Phillips Rd (1673)	Stokes County	1.13	20	2	10	60	55	11800	1800	2400	2400	11800	ADQ	ADQ	Maj	B
	NC 772	Phillips Rd (SR 1673)	NC 704	Stokes County	0.76	24	2	12	-	50	12400	1800	2400	2400	12400	ADQ	ADQ	Maj	B
	Aarons Corner Chrucl Rd (SR 1434)	NC 704	Puckett Rd (SR 1433)	Stokes County	0.21	20	2	10	-	55	11800	500	800	800	11800	ADQ	ADQ	Min	
	Amostown Rd (SR 1625)	NC 704	0.4 miles north of NC 704	Stokes County	0.4	24	2	12	-	35	12400	900	1000	1000	12400	ADQ	ADQ	Min	
	Amostown Rd (SR 1625)	0.4 miles north of NC 704	Beasley School Rd (SR 1622)	Stokes County	0.87	24	2	12	-	55	12400	900	1000	1000	12400	ADQ	ADQ	Min	
	Amostown Rd (SR 1625)	Beasley School Rd (SR 1622)	Anglin Mill Rd (SR 1625)	Stokes County	3.93	18	2	9	-	55	10500	900	1000	1000	10500	ADQ	ADQ	Min	
	Anglin Mill Rd (SR 1625)	Amostown Rd (SR 1625)	0.4 miles east of Amostown Rd (SR 1625)	Stokes County	0.4	18	2	9	-	55	10500	900	1000	1000	10500	ADQ	ADQ	Min	

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	2015 Existing System								2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To		Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	Asbury Rd (SR 1400)	NC 89	0.19 miles south of Old Ashbury Rd (SR 1402)	Stokes County	1.71	18	2	9	-	55	10500	600	700	700	10500	ADQ	ADQ	Min	
	Asbury Rd (SR 1400)	0.19 miles south of Old Ashbury Rd (SR 1402)	0.14 miles south of Jessup Rd (SR 2108)	Stokes County	0.46	24	2	12	50-160	55	12400	600	700	700	12400	ADQ	ADQ	Min	
	Asbury Rd (SR 1416)	0.14 miles south of Jessup Rd (SR 2108)	Rodgers Rd	Stokes County	1.92	18	2	9	-	55	10500	600	700	700	10500	ADQ	ADQ	Min	
	Asbury Rd (SR 1432)	Rodgers Rd	Collinstown Rd (SR 1432)	Stokes County	1.93	20	2	10	-	55	11800	400	500	500	11800	ADQ	ADQ	Min	
	Asbury Rd (SR 1413)	Collinstown Rd (SR 1413)	NC 89	Stokes County	0.7	20	2	10	-	55	11800	400	500	500	11800	ADQ	ADQ	Min	
STOK0012-H	Baux Mountian Rd (SR 1949)	0.15 miles south of Manuel Road (SR 2111)	NC 65	Stokes County	0.1	20	2	10	-	55	11800	700	800	800	12400	2A	60	Min	
	Bethesda Church Rd (SR 1759)	NC 772	Madison Rd (SR 1729)	Stokes County	0.11	20	2	10	-	55	11800	500	600	600	11800	ADQ	ADQ	Min	
STOK0013-H	Brims Grove Rd (SR 2109)	Volunteer Rd (SR 1157)	Oscar Frye Rd (SR 1182)	Stokes County	0.94	20	2	10	60	55	11800	1200	1800	1800	12400	2A	60	Min	B
	Brook Cove Rd (SR 1941)	NC 8	0.22 miles west of Piney Mountian Rd (SR 1935)	Stokes County	3.98	20	2	10	-	55	11800	2700	3100	3100	11800	ADQ	ADQ	Min	
	Brook Cove Rd (SR 1941)	0.22 miles west of Piney Mountian Rd (SR 1935)	Piney Mtn Rd (SR 1935)	Stokes County	0.25	20	2	10	-	45	11800	2700	3100	3100	11800	ADQ	ADQ	Min	
STOK0014-H	Brook Cove Rd (SR 1935)	Piney Mtn Rd (SR 1935)	0.06 miles west of Mitchell St	Stokes County	0.4	22	2	11	50	45	12400	4000	4800	4800	12400	2A	60	Min	
STOK0014-H	Brook Cove Rd (SR 1935)	0.06 miles west of Mitchell St	US 311 (Main St)	Stokes County	0.2	22	2	11	50	35	9900	4000	4800	4800	9900	2A	60	Min	
	Brown Mountain Church Rd (SR 1190)	King Rd (SR 1191)	NC 66	Stokes County	1.07	20	2	10	60	55	11800	300	400	400	11800	ADQ	ADQ	Min	
	Brown Mountain Rd (SR 1210)	0.63 mi north of Pell Rd (SR 1215)	0.05 miles west of Jack Joyce Rd (SR 1198)	Stokes County	2.67	18	2	9	-	55	10500	500	600	600	10500	ADQ	ADQ	Min	

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	Brown Mountain Rd (SR 1210)	0.05 miles west of Jack Joyce Rd (SR 1198)	0.08 miles west of Gibsons Farm Rd	Stokes County	0.74	20	2	10	-	55	11800	500	600	600	11800	ADQ	ADQ	Min	
	Brown Mountain Rd (SR 1210)	0.08 miles west of Gibsons Farm Rd	NC 66	Stokes County	2.85	18	2	9	-	55	10500	500	600	600	10500	ADQ	ADQ	Min	
	Bud Tilley Rd (SR 1192)	Osborne Joyce Rd (SR 1195)	King Rd (SR 1191)	Stokes County	2.28	20	2	10	60	55	11800	400	600	600	11800	ADQ	ADQ	Min	
STOK0015-H	Capella Rd (SR 2008)	NC 66	Covington Rd (SR 2009)	Stokes County	0.83	20	2	10	60	55	11800	200	300	300	12400	2A	60	Min	
	Collinstown Rd (SR 1432)	Asbury Rd (SR 1413)	Puckett Rd (SR 1433)	Stokes County	3.83	20	2	10	-	55	11800	400	500	500	11800	ADQ	ADQ	Min	
STOK0016-H	Coon Rd (SR 1154)	Old 52 Rd (SR 1236)	Volunteer Rd (SR 1157)	Stokes County	1.61	20	2	10	60	55	11800	1200	2000	2000	12400	2A	60	Min	B
STOK0017-H	Covington Rd (SR 2009)	Capella Rd (SR 2008)	Flat Shoals Rd (SR 2019)	Stokes County	0.48	20	2	10	60	55	11800	200	300	300	12400	2A	60	Min	
	Dan George Rd (SR 1484)	P-East Rd (SR 1483)	NC 268	Stokes County	1.18	20	2	10	60	55	11800	900	1000	1000	11800	ADQ	ADQ	Min	
	Delta Church Rd (SR 1647)	Sheppard Mill Rd (SR 1674)	Tom Shelton Rd (SR 1647)	Stokes County	2.47	22	2	11	-	55	12400	400	500	500	12400	ADQ	ADQ	Min	B
	Delta Church Rd (SR 1647)	Tom Shelton Rd (SR 1647)	NC 704	Stokes County	1.7	22	2	11	-	55	12400	600	700	700	12400	ADQ	ADQ	Min	B
	Dodgetown Rd (SR 1695)	NC 8	NC 772	Stokes County	6.94	20	2	10	-	55	11800	1900	2700	2700	11800	ADQ	ADQ	Min	
STOK0018-H	Easley Rd (SR 1933)	1.29 miles south of NC 65	NC 65	Stokes County	1.38	20	2	10	-	55	11800	400	500	500	12400	2A	60	Min	
	Fagg Rd (SR 1926)	US 311	NC 65	Stokes County	1.59	20	2	10	60	55	11800	400	500	500	11800	ADQ	ADQ	Min	
	Fisherman Rd (SR 1923)	NC 65	Hawkins Farm Rd (SR 2085)	Stokes County	0.36	20	2	10	-	55	11800	1500	2300	2300	11800	ADQ	ADQ	Min	B
STOK0019-H	Flat Shoals Rd (SR 2019)	Covington Rd (SR 2009)	Mountian View Church Rd (SR 1998)	Stokes County	1.3	22	2	11	-	55	12400	1100	1500	1500	12400	2A	60	Min	
STOK0019-H	Flat Shoals Rd (SR 2019)	Mountian View Church Rd (SR 1998)	Friendship Rd (SR 1955)	Stokes County	0.22	22	2	11	-	55	12400	1100	1500	1500	12400	2A	60	Min	
STOK0019-H	Flat Shoals Rd (SR 2019)	Friendship Rd (SR 1955)	Mountain Rd (SR 2018)	Stokes County	2.64	22	2	11	0-60	55	12400	1100	1500	1500	12400	2A	60	Min	

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	Frye Rd (SR 1464)	NC 268	Kings Valley Rd	Stokes County	2.18	20	2	10	60	55	11800	200	300	300	11800	ADQ	ADQ	Min	
	Frye Rd (SR 1464)	Kings Valley Rd	0.51 miles east of Simmons Chapel Church Rd	Stokes County	0.29	18	2	9	-	55	10500	200	300	300	10500	ADQ	ADQ	Min	
	Frye Rd (SR 1464)	0.51 miles east of Simmons Chapel Church Rd	0.3 miles east of Simmons Chapel Church Rd	Stokes County	0.24	20	2	10	60	55	11800	200	300	300	11800	ADQ	ADQ	Min	
	Frye Rd (SR 1464)	0.3 miles east of Simmons Chapel Church Rd	0.1 miles north of Horseshoe Rd (SR 1464)	Stokes County	1.08	18	2	9	-	55	10500	200	300	300	10500	ADQ	ADQ	Min	
	Gene Martin Rd (SR 1986)	NC 8	NC 8 & 89	Stokes County	0.96	24	2	12	-	55	12400	2300	2400	2400	12400	ADQ	ADQ	Min	
STOK0020-H	Hanging Rock Park Rd (SR 2015)	Moore's Spring Rd (SR 1001)	NC 8 & 89	Stokes County	1.51	20	2	10	-	55	11800	700	900	900	12400	2A	60	Min	B
	Hart Rd (SR 1497)	NC 704	Piney Grove Church Rd (SR 1496)	Stokes County	4.62	20	2	10	-	55	11800	500	700	700	11800	ADQ	ADQ	Min	
	Hawkins Farm Rd (SR 2085)	Fisherman Rd (SR 1923)	Pine Hall Rd (SR 1908)	Stokes County	0.34	20	2	10	-	55	11800	1500	2300	2300	11800	ADQ	ADQ	Min	
	Hickory Fork Rd (SR 1722)	US 311	Lemmons Rd (SR 1721)	Stokes County	2.4	18	2	9	-	55	10500	1200	1700	1700	10500	ADQ	ADQ	Min	
	Hickory Fork Rd (SR 1722)	Lemmons Rd (SR 1721)	NC 772	Stokes County	1.63	22	2	11	-	55	12400	500	600	600	12400	ADQ	ADQ	Min	
	High Bridge Rd (SR 1157)	.35 miles north of Clayton Rd (SR 1340)	Volunteer Rd (SR 1136)	Stokes County	1.91	20	2	10	60	55	11800	400	500	500	11800	ADQ	ADQ	Min	
	Horseshoe Rd (SR 1464)	0.1 miles north of Frye Rd (SR 1464)	NC 89	Stokes County	2.67	20	2	10	60	55	11800	200	300	300	11800	ADQ	ADQ	Min	
	K-Fork Rd (SR 1686)	NC 772	Osley Rd	Stokes County	3.63	22	2	11	60	55	12400	900	1000	1000	12400	ADQ	ADQ	Min	
	King Rd (SR 1191)	Brown Mountain Church Rd (SR 1190)	Bud Tilley Rd (SR 1192)	Stokes County	0.1	18	2	9	-	55	10500	400	600	600	10500	ADQ	ADQ	Min	
	Madison Rd (SR 1729)	NC 772	Bethesda Church Rd (SR 1683)	Stokes County	0.08	18	2	9	-	55	10500	800	900	900	10500	ADQ	ADQ	Min	

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	Madison Rd (SR 1729)	Bethesda Church Rd (SR 1683)	0.5 miles east of Reynolds Rd (SR 1688)	Stokes County	2.13	18	2	9	-	55	10500	800	900	900	10500	ADQ	ADQ	Min	
	Martin Luther King Jr Rd (SR 1921)	NC 65	0.1 miles east of NC 65	Stokes County	0.11	20	2	10	-	35	9500	1500	1900	1900	9500	ADQ	ADQ	Min	
	Martin Luther King Jr Rd (SR 1921)	0.1 miles east of NC 65	0.15 east of Crestview Rd (SR 2052)	Stokes County	0.54	20	2	10	-	35	11800	1000	1200	1200	11800	ADQ	ADQ	Min	
	Martin Luther King Jr Rd	0.15 miles east of Crestview Rd (SR 2052)	Pine Hall Rd (SR 1908)	Stokes County	2.57	20	2	10	-	55	11800	1000	1200	1200	11800	ADQ	ADQ	Min	
	Moir Farm Rd (SR 1652)	Delta Church Rd (SR 1647)	Sisk Rd (SR 1606)	Stokes County	4.28	20	2	10	0-60	55	11800	200	400	400	11800	ADQ	ADQ	Min	B
	Moir Farm Rd (SR 1652)	Sisk Rd (SR 1606)	NC 704	Stokes County	1.14	20	2	10	0-60	55	11800	400	500	500	11800	ADQ	ADQ	Min	B
	Moore Rd (SR 1602)	NC 8	NC 704	Stokes County	3.31	20	2	10	0-60	55	11800	600	800	800	11800	ADQ	ADQ	Min	
	Moorefield Rd (SR 1657)	Northview Church Rd (SR 1655)	0.15 miles south of Little Snow Creek Rd	Stokes County	0.75	20	2	10	60	55	11800	200	300	300	11800	ADQ	ADQ	Min	
	Moorefield Rd (SR 1657)	0.15 miles south of Little Snow Creek Rd	Little Snow Creek Rd	Stokes County	0.18	22	2	11	60	55	12400	200	300	300	12400	ADQ	ADQ	Min	
	Moorefield Rd (SR 1657)	Little Snow Creek Rd	Snow Hill Church Rd (SR 1651)	Stokes County	1.99	18	2	9	60	55	10500	300	400	400	10500	ADQ	ADQ	Min	
STOK0021-H	Moores Spring Rd (SR 1001)	NC 66	Ed Booth Rd (SR 1485)	Stokes County	3.6	18	2	9	30	55	10500	1500	1600	1600	12400	2A	60	Min	B
STOK0021-H	Moores Spring Rd (SR 1001)	Ed Booth Rd (SR 1485)	0.41 miles east of Ed Booth Rd (SR 1485)	Stokes County	0.41	22	2	11	60	55	12400	700	900	900	12400	2A	60	Min	B
STOK0021-H	Moores Spring Rd (SR 1001)	0.41 miles east of Ed Booth Rd (SR 1485)	Hanging Rock Park Rd (SR 2015)	Stokes County	1.4	18	2	9	30	55	10500	700	900	900	12400	2A	60	Min	B
STOK0022-H	Mountain Rd (SR 2018)	Flat Shoals Rd (SR 2019)	NC 8 & 89	Stokes County	4.11	20	2	10	60	55	11800	500	700	700	12400	2A	60	Min	
STOK0024-H	Mountain View Ch Rd (SR 1998)	0.45 miles north of Robertson Ridge Rd	Flat Shoals Rd (SR 2019)	Stokes County	1.18	20	2	10	60	55	11800	600	700	700	12400	2A	60	Min	

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	Mountain View Rd (SR 1973)	0.17 miles west of Running Creek Rd	Friendship Rd (SR 1955)	Stokes County	0.86	24	2	12	0-60	55	12400	2200	2600	2600	12400	ADQ	ADQ	Min	
STOK0023-H	Mountain View Rd (SR 1974)	Friendship Rd (SR 1955)	NC 8	Stokes County	1.89	18	2	9	-	55	10500	600	700	700	12400	2A	60	Min	
	N Friendship Rd (SR 1955)	Mountain View Rd (SR 1974)	Flat Shoals Rd (SR 2019)	Stokes County	3.38	18-22	2	9-11	-	55	10500	200	300	300	10500	ADQ	ADQ	Min	
STOK0025-H	N Old 52 Rd (SR 1236)	Coon Rd (SR 1154)	High Bridge Rd (SR 1157)	Stokes County	1.78	20	2	10	-	55	11800	4600	5200	5200	12400	2A	60	Min	
STOK0031-H	Old Lynchburg Rd (SR 1516)	NC 268	NC 66	Stokes County	0.08	20	2	10	60	55	11800	400	500	500	11800	2A	60	Min	
STOK0026-H	Oldtown Rd (SR 1918)	US 311 (Main St)	Country Meadows Rd	Stokes County	0.93	24	2	12	60	35	10200	1900	2600	3000	12400	2A	60	Min	
STOK0026-H	Oldtown Rd (SR 1918)	Country Meadows Rd	US 311	Stokes County	2.2	24	2	12	60	55	12400	1900	2600	3000	12400	2A	60	Min	
	Osborne Joyce Rd (SR 1195)	NC 268	Bud Tilley Rd (SR 1192)	Stokes County	0.15	22	2	11	60	55	12400	500	600	600	12400	ADQ	ADQ	Min	
STOK0027-H	Oscar Frye Rd (SR 1182)	Brims Grove Rd (SR 2109)	NC 268	Stokes County	2.63	20	2	10	60	55	11800	1000	1400	1400	12400	2A	60	Min	
	P-East (SR 1483)	Moore's Spring Rd (SR 1001)	Dan George Rd (SR 1484)	Stokes County	1.44	20	2	10	-	55	11800	900	1000	1000	11800	ADQ	ADQ	Min	
	Phillips Rd (SR 1673)	Sheppard Mill Rd (SR 1674)	NC 772	Stokes County	3.77	20	2	10	0-90	55	11800	400	500	500	11800	ADQ	ADQ	Min	
	Pine Hall Rd (SR 1908)	0.2 miles south of Fisherman Rd (SR 1923)	Hawkins Farm Rd (SR 2085)	Stokes County	0.44	24	2	12	-	55	12400	1500	2300	2300	12400	ADQ	ADQ	Min	B
	Pine Hall Rd (SR 1908)	Hawkins Farm Rd (SR 2085)	Martin Luther King Jr Rd (SR 1921)	Stokes County	1.44	24	2	12	-	55	12400	1500	2300	2300	12400	ADQ	ADQ	Min	B
	Pine Hall Rd (SR 1908)	Martin Luther King Jr Rd (SR 1921)	Setterfield Rd	Stokes County	3.01	24	2	12	-	55	12400	1600	1900	1900	12400	ADQ	ADQ	Min	B
	Pine Hall Rd (SR 1908)	Setterfield Rd	River Rd (SR 1903)	Stokes County	1.18	24	2	12	-	45	12400	1300	1400	1400	12400	ADQ	ADQ	Min	B
	Pine Hall Rd (SR 1908)	River Rd (SR 1903)	0.1 miles south of Knight Rd (SR 1900)	Stokes County	1.35	24	2	12	-	45	12400	1400	1500	1500	12400	ADQ	ADQ	Min	B

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	Pine Hall Rd (SR 1908)	0.1 miles south of Knight Rd (SR 1900)	US 311	Stokes County	0.41	24	2	12	60	55	12400	2300	2400	2400	12400	ADQ	ADQ	Min	B
STOK0028-H	Piney Grove Church Rd (SR 1496)	NC 89	Hart Rd	Stokes County	4.58	22	2	11	-	55	12400	1100	1200	1200	12400	2A	60	Min	
	Piney Grove Church Rd (SR 1496)	Hart Rd (SR 1497)	NC 8	Stokes County	0.4	22	2	11	-	55	12400	1800	1900	1900	12400	ADQ	ADQ	Min	
	Piney Mountain Rd (SR 1935)	NC 8	Cherry Rd (SR 2056)	Stokes County	1.54	23	2	12	60	55	12400	1700	2100	2100	12400	ADQ	ADQ	Min	B
	Piney Mountain Rd (SR 1935)	Cherry Rd (SR 2056)	0.2 miles south of Andrew Acres Rd	Stokes County	3.68	22	2	11	50-60	55	12400	1700	2100	2100	12400	ADQ	ADQ	Min	
	Piney Mountain Rd (SR 1935)	0.2 miles south of Andrew Acres Rd	Brook Cove Rd (SR 1941)	Stokes County	0.7	22	2	11	50	45	12400	1700	2100	2100	12400	ADQ	ADQ	Min	
	Pleasant View Church Rd (SR 1670)	Sheppard Mill Rd (SR 1674)	Northview Church Rd (SR 1655)	Stokes County	2.73	18	2	9	-	55	10500	500	600	600	10500	ADQ	ADQ	Min	
	Puckett Rd (SR 1433)	Collinstown Rd (SR 1432)	Aarons Corner Church Rd (SR 1434)	Stokes County	3.13	20	2	10	60	55	11800	400	500	500	11800	ADQ	ADQ	Min	
	River Rd (SR 1903)	Pine Hall Rd (SR 1908)	0.96 miles east of Pine Hall Rd (SR 1908)	Stokes County	1.03	24	2	12	60	55	12400	1100	1200	1200	12400	ADQ	ADQ	Min	
	Rock House Rd (SR 1187)	NC 268	Sawbriar Rd	Stokes County	0.12	20	2	10	-	55	11800	200	300	300	11800	ADQ	ADQ	Min	B
	Rock House Rd (SR 1187)	Sawbriar Rd	Thore Rd (SR 1185)	Stokes County	0.48	20	2	10	-	55	11800	200	300	300	11800	ADQ	ADQ	Min	B
	Rock House Rd (SR 1187)	Thore Rd (SR 1185)	Marshall Ridge Rd	Stokes County	0.1	20	2	10	-	55	11800	200	300	300	11800	ADQ	ADQ	Min	B
	Rock House Rd (SR 1187)	Marshall Ridge Rd	Col Martin Rd (SR 1186)	Stokes County	0.48	20	2	10	-	55	11800	200	300	300	11800	ADQ	ADQ	Min	B
	Rock House Rd	Col Martin Rd (SR 1186)	Flat Rock Rd (SR 1175)	Stokes County	0.18	20	2	10	-	55	11800	200	300	300	11800	ADQ	ADQ	Min	B
	Rock House Rd (SR 1187)	Flat Rock Rd (SR 1175)	Old Rock Ln	Stokes County	0.61	20	2	10	-	55	11800	200	300	300	11800	ADQ	ADQ	Min	B

HIGHWAY																			
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2015 Existing System							2045 Proposed System					CTP Classification	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2045 Volume	2045 Volume E+C	2045 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	Rock House Rd (SR 1175)	Old Rock Ln	Taylor Rd (SR 1188)	Stokes County	1.01	20	2	10	-	55	11800	200	300	300	11800	ADQ	ADQ	Min	B
	Sheppard Mill Rd (SR 1674)	NC 8 & 89	0.25 miles east of NC 8 & 89	Stokes County	0.25	20	2	10	40	35	9500	1200	1700	1700	9500	ADQ	ADQ	Min	B
	Sheppard Mill Rd (SR 1674)	0.25 miles east of NC 8 & 89	Moorefield Rd (SR 1657)	Stokes County	1.99	20	2	10	40	55	11800	1200	1700	1700	11800	ADQ	ADQ	Min	B
	Sheppard Mill Rd (SR 1674)	Moorefield Rd (SR 1657)	Phillips Rd (SR 1673)	Stokes County	1.07	22	2	11	40	55	12400	700	1100	1100	12400	ADQ	ADQ	Min	B
	Sheppard Mill Rd (SR 1674)	Phillips Rd (SR 1673)	Delta Church Rd (SR 1647)	Stokes County	1.03	22	2	11	40	55	12400	300	400	400	12400	ADQ	ADQ	Min	B
	Sisk Rd (SR 1606)	Snow Hill Church Rd (SR 1651)	Moir Farm Rd (SR 1652)	Stokes County	4.41	20	2	10	60	55	11800	400	600	600	11800	ADQ	ADQ	Min	
	Snow Hill Church Rd (SR 1651)	NC 8	Sisk Rd (SR 1606)	Stokes County	0.23	18	2	9	60	55	10500	400	600	600	10500	ADQ	ADQ	Min	
STOK0029-H	Snow Hill Church Rd (SR 1651)	Sisk Rd (SR 1606)	NC 704	Stokes County	6.42	18	2	9	-	55	10500	400	500	500	12400	2A	60	Min	
	Taylor Rd (SR 1188)	Rock House Rd (SR 1175)	NC 66	Stokes County	0.25	20	2	10	-	55	11800	200	300	300	11800	ADQ	ADQ	Min	B
	VA Line Rd (SR 1730)	NC 704	0.6 miles north of Stoval Rd (SR 1612)	Stokes County	0.98	18	2	9	-	55	10500	400	500	500	10500	ADQ	ADQ	Min	
STOK0030-H	Volunteer Rd (SR 1136)	Edwards Farm Rd (SR 1224)	High Bridge Rd (SR 1157)	Stokes County	2.62	20	2	10	60	55	11800	1000	1500	1500	12400	2A	60	Min	
	Volunteer Rd (SR 1157)	High Bridge Rd (SR 1157)	Coon Rd (SR 1154)	Stokes County	0.4	20	2	10	60	55	11800	1000	1500	1500	11800	ADQ	ADQ	Min	
	Volunteer Rd (SR 1157)	Coon Rd (SR 1154)	Brims Grove Rd (SR 2109)	Stokes County	0.1	20	2	10	60	55	11800	1200	2000	2000	11800	ADQ	ADQ	Min	

## PUBLIC TRANSPORTATION AND RAIL

PUBLIC TRANSPORTATION <sup>1</sup>							
Local ID	Facility/ Route	Section (From - To)	Speed Limit (mph)	Distance (mi)	Existing System	Proposed System	Other Modes
					Type	Type	
STOK0001-T	Stokes County Circulator	King - Hanging Rock State Park - Danbury - Walnut Cove	25-55	12	-	Bus	H,B,P
STOK0002-T	Park-and-Ride	Downtown Danbury/Arts Museum	-	-	-	Park-and-Ride	
STOK0003-T	Park-and-Ride	Downtown Walnut Cove	-	-		Park-and-Ride	

<sup>1</sup> Only major public transportation routes and proposals are shown here. For further documentation of the public transportation system, refer to 2010 PART Regional Transit Development Plan.

RAIL												
Local ID	Facility/ Route	Section (From - To)	Class	Speed Limit (mph)	Distance (mi)	Existing System			Proposed System			Other Modes
						Type	ROW (ft)	Trains per day	Type	ROW (ft)	Trains per day	
	Norfolk Southern	Winston Salem - Roanoke, VA	I	-	10	freight	-	0-11	-	-	-	-
	Yadkin Valley	Rural Hall - Mount Airy	-	-	11	freight	-	0-11	-	-	-	-

## BICYCLE AND PEDESTRIAN

BICYCLE								
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Existing System		Proposed System		
				Cross-Section		Type	Cross-Section	Other Modes
				(ft)	lanes			
STOK0001-H	US 311 (Main Street)	NC 65 to Fifth Street	0.7	Concurrent with US 311 (Main St) - see Highway Table				
STOK0001-H	US 311 (Main Street)	Fifth Street to NC 89	1.0	Concurrent with US 311 (Main St) - see Highway Table				
STOK0004-H	NC 8	NC 89-NC 704	8.4	Concurrent with NC 8 - see Highway table				
STOK0001-B	NC 8	Mountain View Road (SR 1974)- Dodgetown Road (SR 1695)	5.2	24	2	Bicycle	2A	
STOK0002-B	NC 8 & 89	Dodgetown Road (SR 1695)-Sheppard Mill Road (SR 1674)	3.3	23-28	2	Bicycle	2A	
STOK0002-B	NC 8 & 89	Sheppard Mill Road (SR 1674)-Sheep Rock Road	0.5	23-28	2	Bicycle	2E	M
STOK0002-B	NC 8 & 89	Sheep Rock Road-Crestview Road	0.2	23	2	Bicycle	2E	P
STOK0002-B	NC 8 & 89	Crestview Road-0.5 miles east of Hanging Rock Park Road (SR 2015)	0.5	23	2	Bicycle	2A	
STOK0003-H	NC 8 & 89	0.5 miles east of Hanging Rock Park Road (SR 2015)-NC 8	0.6	Concurrent with NC 8 & 89 - see Highway Table				
STOK0003-B	NC 65	0.2 miles north of Forsyth County Boundary/ Fisherman Road (SR 1923)- US 311 (Main Street)	2.0	24	2	Bicycle	2A	
STOK0004-B	NC 89	Asbury Road (SR 1400)-NC 704	7.9	18-20	2	Bicycle	2A	
STOK0006-H	NC 66	0.3 miles south of Capella Road (SR 2008)-NC 89	11.7	Concurrent with NC 66 - see Highway Table				
STOK0007-H	NC 89	0.46 miles west of Ring Road (SR 1211)- Asbury Road (SR 1400)	0.7	Concurrent with NC 89 - see Highway Table				
STOK0008-H	NC 89	US 311 (Main Street)-East Road (SR 1937)	1.7	Concurrent with NC 89 - see Highway Table				
STOK0009-H	NC 268	0.37 miles west of Grassy Knob Road (SR 1179)-Bud Tilley Road (SR 1192)	4.0	Concurrent with NC 268 - see Highway table				
STOK0005-B	NC 268	Bud Tilley Road (SR 1192)-NC 66	4.0	18	2	Bicycle	2A	
STOK0006-B	NC 704	NC 89-NC 772	18.4	20-24	2	Bicycle	2A	
STOK0011-H	NC 770	NC 704-0.2 miles west of Ralph Joyce Road (SR 1634)	4.3	Concurrent NC 770 - see Highway Table				
STOK0007-B	NC 772	US 311-NC 704	10.3	20-24	2	Bicycle	2A	
STOK0013-H	Brims Grove Road (SR 2109)	Volunteer Road (SR 1136)-Oscar Frye Road (SR 1182)	0.9	Concurrent with Brims Grove Road (SR 2109) - See Highway Table				
STOK0008-B	Capella Road (SR 2008)	0.4 miles south NC 66-NC 66	0.4	20	2	Bicycle	2A	

BICYCLE								
Local ID	Facility/ Route	Section (From - To)	Existing System		Proposed System			
			Distance	Cross-Section		Type	Cross-Section	Other Modes
			(mi)	(ft)	lanes			
STOK0016-H	Coon Road (SR 1154)	Old 52 Road (SR 1236)-Volunteer Road (SR 1136)	1.4	Concurrent with Coon Road (SR 1154) - See Highway Table				
STOK0009-B	Delta Church Road (SR 1647)	Sheppard Mill Road (SR 1674)-NC 704	4.2	20	2	Bicycle	2A	
STOK0010-B	East Road (SR 1937)	Piney Mountain Road (SR 1935)-NC 89	1.5	18	2	Bicycle	2A	
STOK0011-B	Fisherman Road (SR 1923)	NC 65 (East)-Pine Hall Road (SR 1908)	0.5	20-22	2	Bicycle	2A	
STOK0018-H	Flat Shoals Road (SR 2019)	Covington Road (SR 2009)-Mountain Road (SR 2018)	3.2	Concurrent with Flat Shoals Road (SR 2019) - see Highway Table				
STOK0012-B	Flat Shoals Road (SR 2019)	Mountain Road (SR 2009)-NC 8	2.2	22	2	Bicycle	2A	
STOK0020-H	Hanging Rock Park Road (SR 2015)	Moore's Spring Road (SR 1001)-NC 8 & NC 89	1.5	Concurrent with Hanging Rock Park Road (SR 2015) - See Highway Table				
STOK0013-B	Hawkins Road (SR 1973)	Friendship Road (SR 1955)-Flat Shoals Road (SR 2019)	3.4	24	2	Bicycle	2A	
STOK0014-B	Moir Farm Road (SR 1652)	Delta Church Road (SR 1647)-NC 704	5.4	20	2	Bicycle	2A	
STOK0021-H	Moore's Spring Road (SR 1001)	NC 66-Hanging Rock Park Road (SR 2015)	6.1	Concurrent with Moore's Spring Road (SR 1001) - See Highway Table				
STOK0015-B	Old Winston Road (SR 1152)	Patterson Farm Road (SR 1153)-0.62 miles north of Patterson Farm Road (SR 1153)	0.7	18	2	Bicycle	2A	
STOK0027-H	Oscar Frye Road (SR 1182)	Brims Grove Road (SR 2109)-NC 268	2.6	Concurrent with Oscar Frye Road (SR 1182) - See Highway Table				
STOK0016-B	Pine Hall Road (SR 1908)	0.2 miles south of Fisherman Road (SR 1923)-US 311	7.7	24	2	Bicycle	2A	
STOK0017-B	Piney Mountain Road (SR 1935)	NC 8-East Road (SR 1937)	3.1	23	2	Bicycle	2A	
STOK0018-B	Rock House Road (SR 1187)	NC 268-Colonel Martin Road (SR 1186)	1.1	20	2	Bicycle	2A	
STOK0019-B	Rock House Road (SR 1175)	Colonel Martin Road (SR 1186)-Taylor Road (SR 1188)	1.8	20	2	Bicycle	2A	
STOK0020-B	Sheppard Mill Road (SR 1674)	NC 8 & NC 89 (Main Street)-Delta Church Road (SR 1647)	4.3	20-22	2	Bicycle	2A	
STOK0021-B	Taylor Road (SR 1188)	Rock House Road (SR 1175)-NC 66	0.3	20	2	Bicycle	2A	

PEDESTRIAN								
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Existing System		Proposed System		Other
				Type	Side of Street	Type	Side of Street	Modes
<b>Danbury</b>								
STOK0001-P	NC 8 & 89	From Crestview to Camping Creek Island Rd	0.7	-	-	Sidewalk	Both	B,M
	NC 8 & 89	From Camping Creek Island Rd to Bank St	0.1	Sidewalk	Both	-	-	M
STOK0013-P	NC 8 & 89	From Bank St to Sheppardmill Road (SR 1674	0.7	-	-	Sidewalk	Both	B,M
<b>Walnut Cove</b>								
	US 311 (Main Street)	From First St to Fifth St	0.4	Sidewalk	Both	-	-	
STOK0008-P	US 311 (Main Street)	From Fifth St to NC 89	1	Sidewalk	East	Sidewalk	West	H, B
STOK0002-P	US 311 (Main Street)	From NC 89 to Lakeside Dr	0.1				Both	
STOK0009-P	Brook St	From Dalton St to Windmill St	0.1	Sidewalk	North	Sidewalk	South	
	Fifth St	From 0.03 miles west of Summit St to Summit St	0.1	Sidewalk	Both	-	-	
STOK0003-P	Lakeside Dr	From Ninth St to US 311 (Main St)	0.7	-	-	Sidewalk	Both	
STOK0004-P	Ninth St	From Summit St to Lakeside Dr	0.2	-	-	Sidewalk	Both	
STOK0005-P	Oldtown Rd (First St) (SR 1918)	From US 311 (Main St) to Summit St	0.1	-	-	Sidewalk	Both	H
STOK0010-P	Sixth St	From School St to US 311 (Main St)	0.2	Sidewalk	South	Sidewalk	North	
STOK0006-P	Summit St	From First St to Third St	0.2			Sidewalk	Both	
STOK0011-P	Summit St	From Third St to Fifth St	0.2	Sidewalk	East	Sidewalk	West	
STOK0007-P	Summit St	From Fifth St to Ninth St	0.5			Sidewalk	Both	
STOK0012-P	Windmill St	From Sixth St to Brook St	0.3	Sidewalk	West	Sidewalk	East	

MULTI-USE PATH								
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Existing System		Proposed System		Other
				Side of Street	Cross-Section	Side of Street	Cross-Section	Modes
STOK0001-M	Scott Branch Creek	North of Meadow Road to Sheppard Mill Road	0.9	-	-	North	MA	-
STOK0002-M	Sauratown	along Sheep Rock Road and NC 8 & 89	1.6	-	-	South	MB	-

## Appendix D Typical Cross Sections

Cross section requirements for roadways vary according to the capacity and level of service to be provided. Universal standards in the design of roadways are not practical. Each roadway section must be individually analyzed and its cross section determined based on the volume and type of projected traffic, existing capacity, desired level of service, and available right-of-way. These cross sections are typical for facilities on new location and where right-of-way constraints are not critical. For widening projects and urban projects with limited right-of-way, special cross sections should be developed that meet the needs of the project.

The comprehensive planning and design "typical" highway cross sections, as depicted on the following pages, were updated on May 5, 2014 in response to the Strategic Transportation Investments<sup>1</sup> (STI) law (House Bill 817) and are also consistent with SPOTOnline (used for project prioritization<sup>2</sup>), NCDOT's GIS-based web application for providing automated, near real-time prioritization scores and project costs. This guidance establishes design elements that emphasize safety, mobility, complete streets<sup>3</sup>, and accessibility for multiple modes of travel. These "typical" highway cross sections should be used as guidelines for comprehensive transportation planning, project planning and project design activities. The specific and final cross section details and right of way limits for projects will be established through the preparation of the National Environmental Policy Act<sup>4</sup> (NEPA) documentation and through final design preparation.

On all existing and proposed roadways delineated on the CTP, adequate right-of-way should be protected or acquired for the recommended cross sections. In addition to cross section and right-of-way recommendations for improvements, Appendix C may recommend ultimate needed right-of-way for the following situations:

- ❖ roadways which may require widening after the current planning period,
- ❖ roadways which are borderline adequate and accelerated traffic growth could render them deficient,
- ❖ roadways where an urban curb and gutter cross section may be locally desirable because of urban development or redevelopment, and
- ❖ roadways which may need to accommodate an additional transportation mode.

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<sup>1</sup> For more information on STI, go to: <http://www.ncdot.gov/strategictransportationinvestments/>.

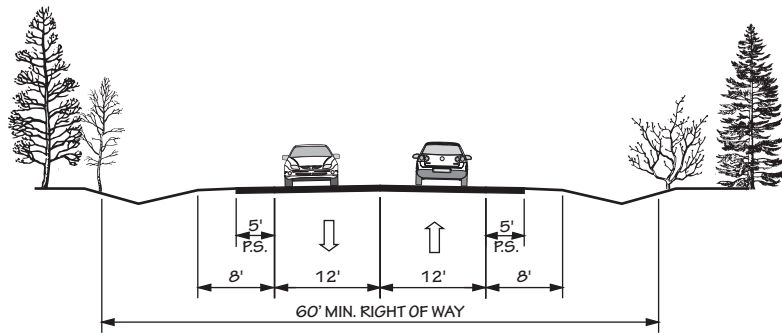
<sup>2</sup> For more information on prioritization, go to: <https://connect.ncdot.gov/projects/planning/Pages/StrategicPrioritization.aspx>.

<sup>3</sup> For more information on Complete Streets, go to: <http://www.completestreetsnc.org/>.

<sup>4</sup> For more information on NEPA, go to: <http://ceq.hss.doe.gov/>.

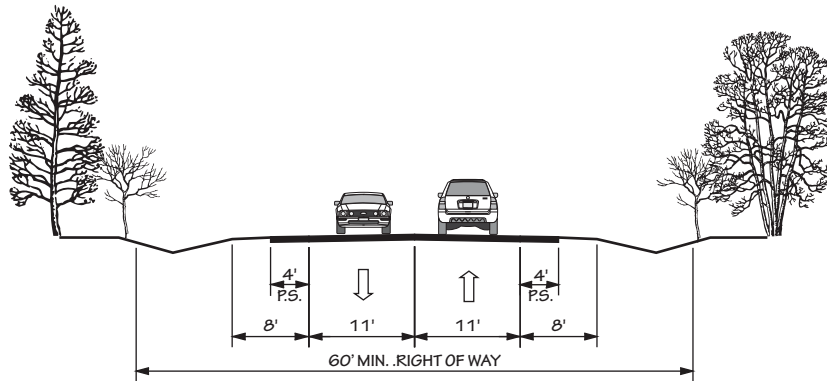
# FIGURE 7 "TYPICAL" HIGHWAY CROSS SECTIONS

2A



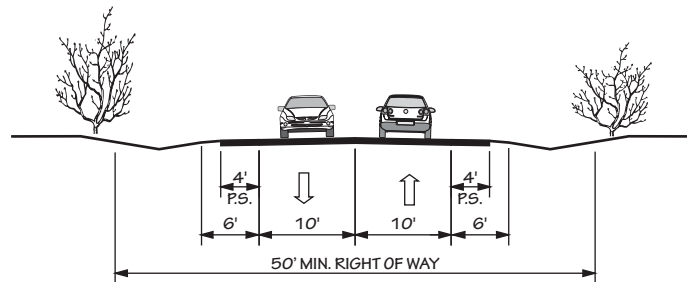
**2 LANE UNDIVIDED WITH PAVED SHOULDERS  
POSTED SPEED 55 MPH**

2B



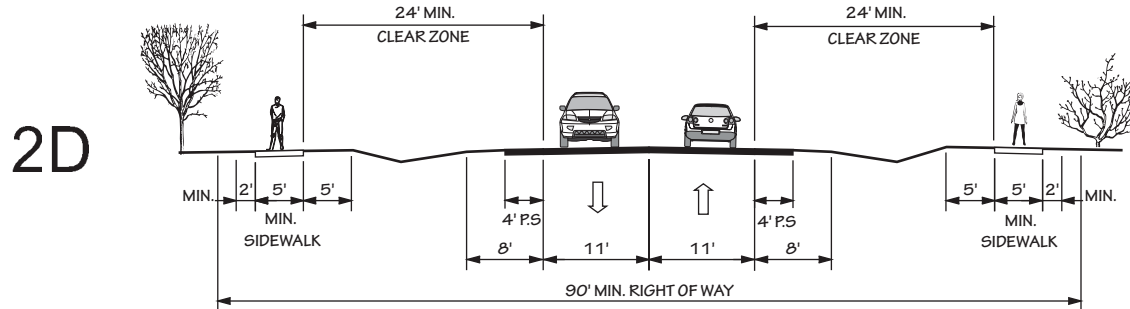
**2 LANES UNDIVIDED  
POSTED SPEED 45 MPH OR LESS**

2C

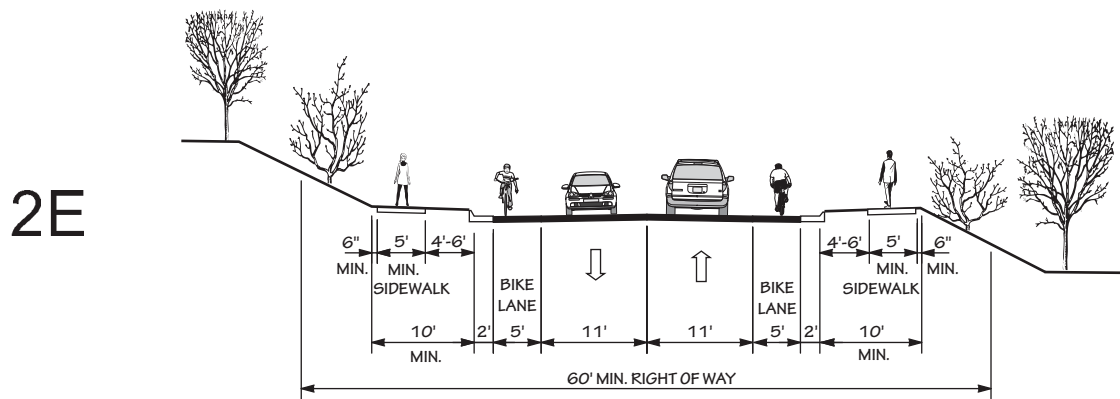


**2 LANE UNDIVIDED WITH PAVED SHOULDERS  
POSTED SPEED 25 - 35 MPH**

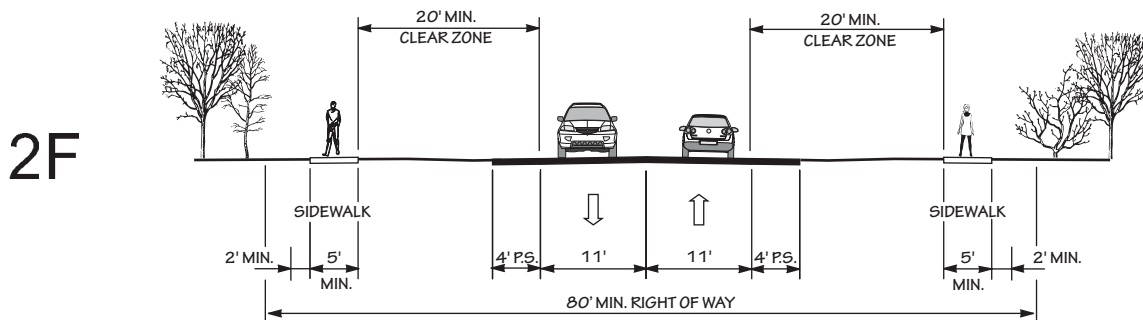
# "TYPICAL" HIGHWAY CROSS SECTIONS



2 LANE UNDIVIDED WITH PAVED SHOULDERS AND SIDEWALKS  
POSTED SPEED 25-45 MPH

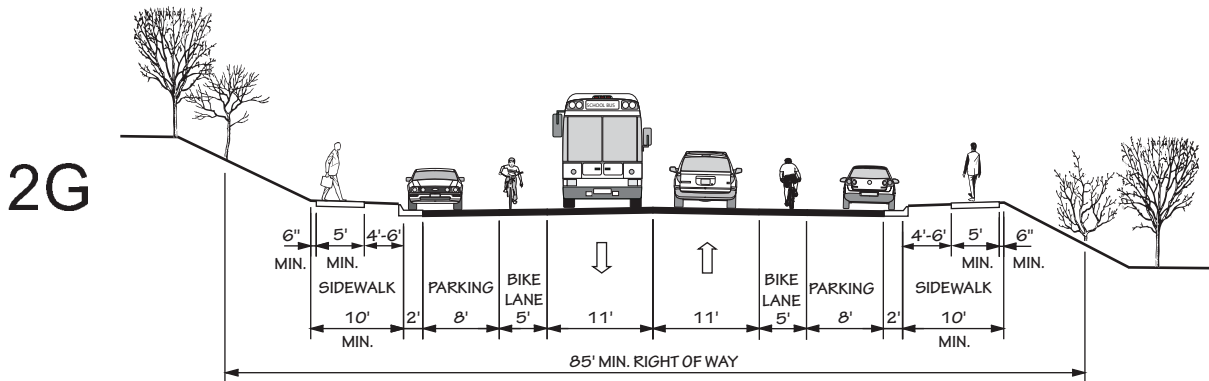


2 LANE UNDIVIDED WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS  
POSTED SPEED 25-45 MPH

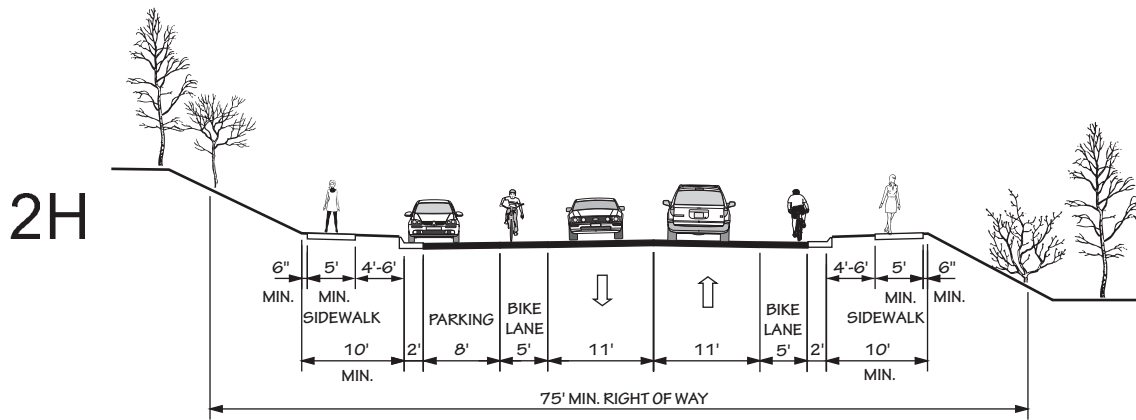


2 LANE UNDIVIDED WITH PAVED SHOULDERS AND SIDEWALKS  
IN CAMA COUNTIES  
POSTED SPEED 25-45 MPH

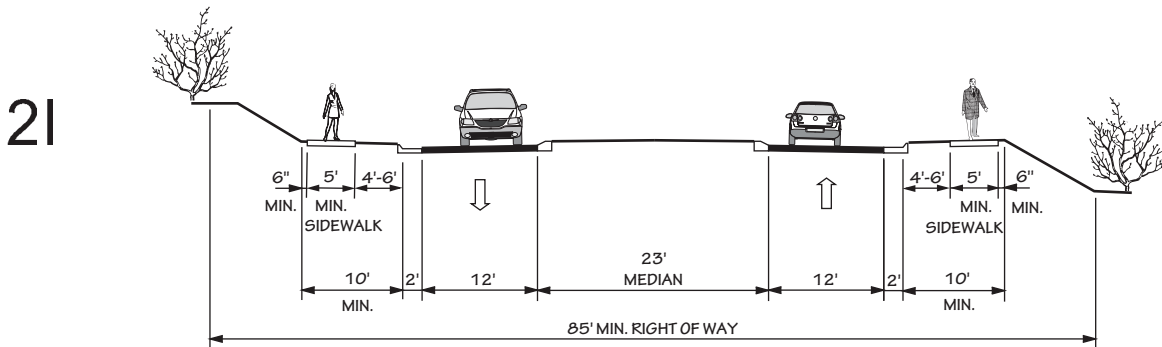
# "TYPICAL" HIGHWAY CROSS SECTIONS



2 LANE UNDIVIDED WITH CURB & GUTTER, PARKING BOTH SIDES, BIKE LANES, AND SIDEWALKS  
POSTED SPEED 25-45 MPH



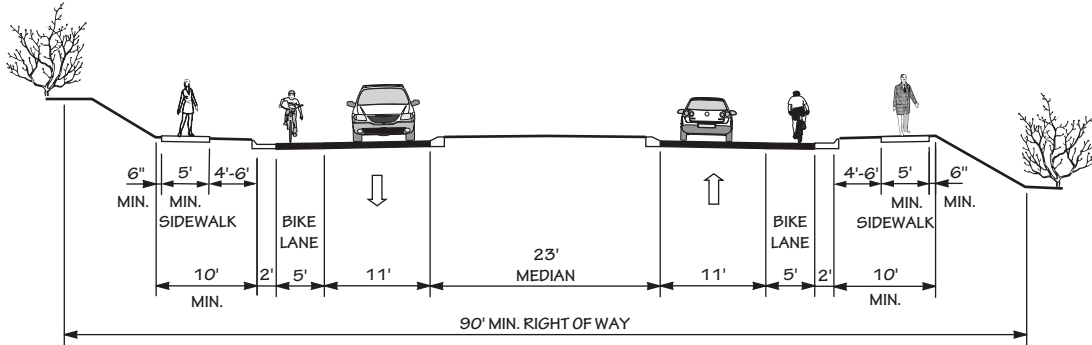
2 LANE UNDIVIDED WITH CURB & GUTTER, PARKING ONE SIDE, BIKE LANES, AND SIDEWALKS  
POSTED SPEED 25-45 MPH



2 LANE DIVIDED (23' RAISED MEDIAN)  
WITH CURB & GUTTER AND SIDEWALKS  
POSTED SPEED 25-45 MPH

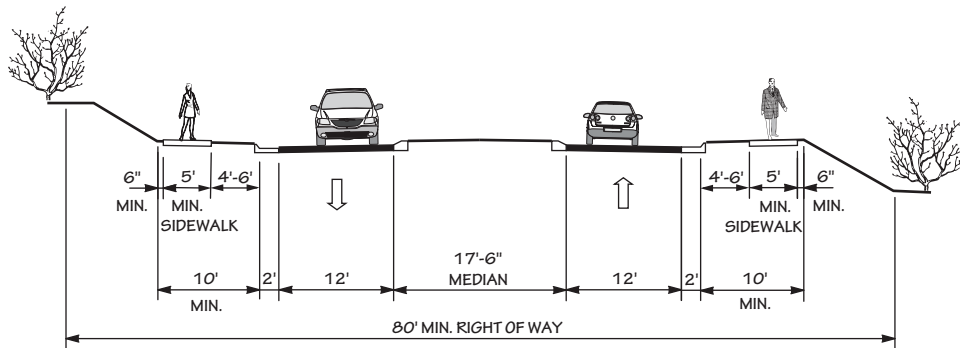
# "TYPICAL" HIGHWAY CROSS SECTIONS

2J



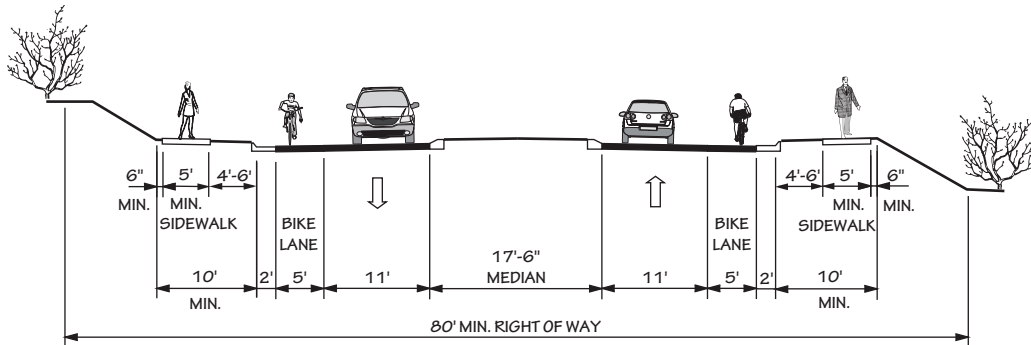
2 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER,  
BIKE LANES, AND SIDEWALKS  
POSTED SPEED 25-45 MPH

2K



2 LANE DIVIDED (17'-6" RAISED MEDIAN)  
WITH CURB & GUTTER AND SIDEWALKS  
POSTED SPEED 25-45 MPH

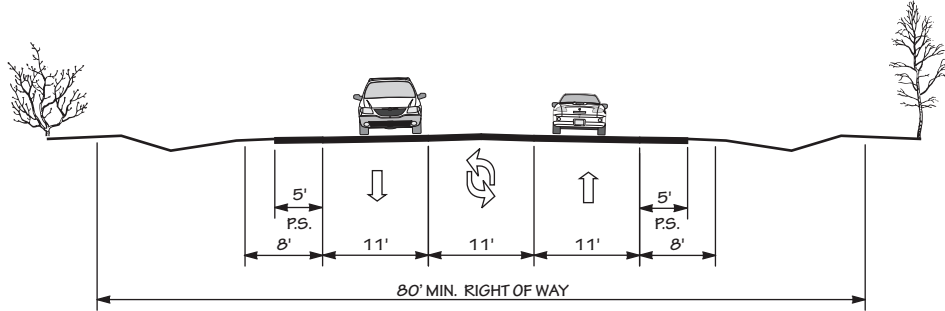
2L



2 LANE DIVIDED (17'-6" RAISED MEDIAN)  
WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS  
POSTED SPEED 25-45 MPH

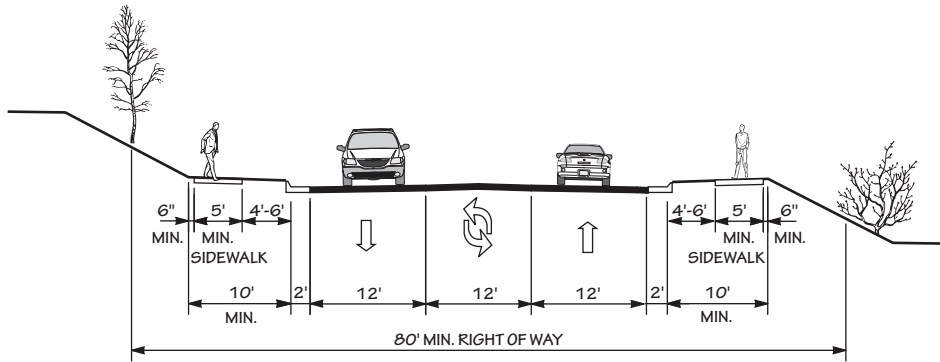
# "TYPICAL" HIGHWAY CROSS SECTIONS

3A



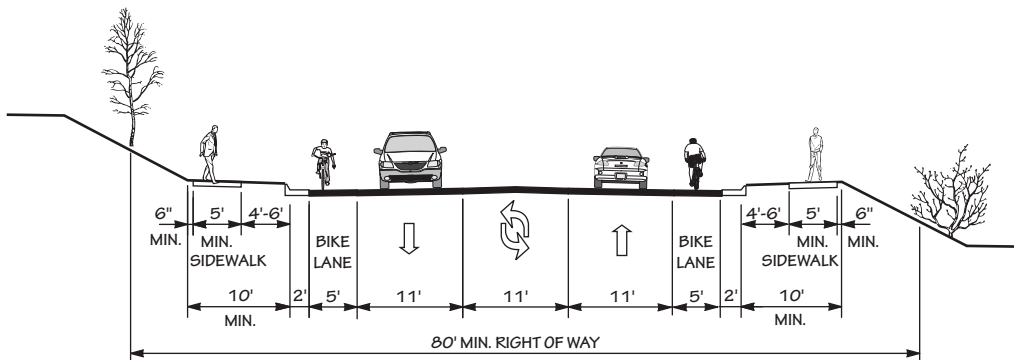
2 LANE WITH TWO WAY LEFT TURN LANE, AND PAVED SHOULDERS  
POSTED SPEED 25-55 MPH

3B



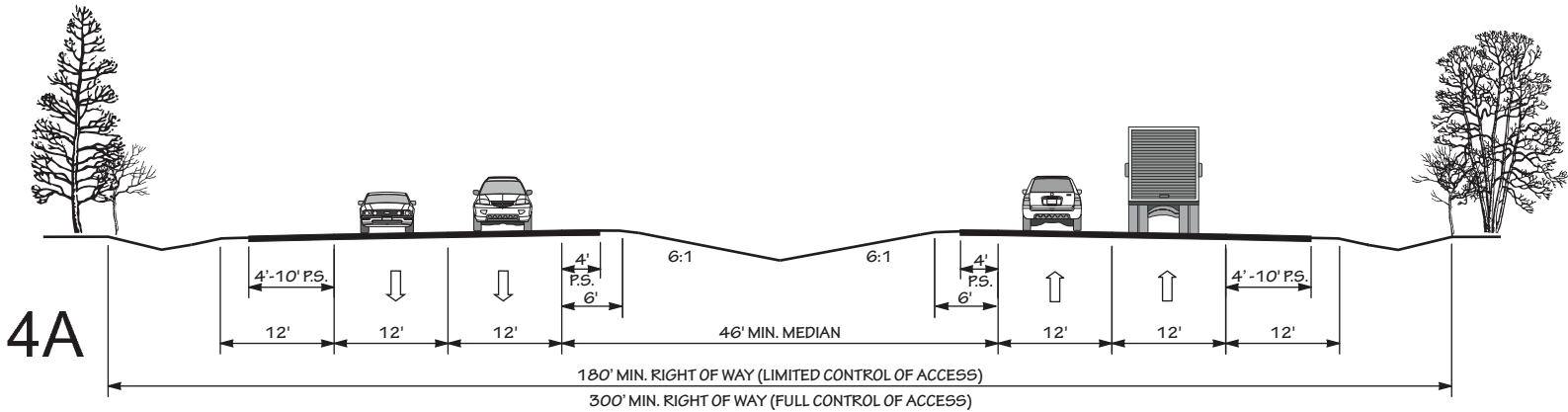
2 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER,  
AND SIDEWALKS  
POSTED SPEED 25-45 MPH

3C

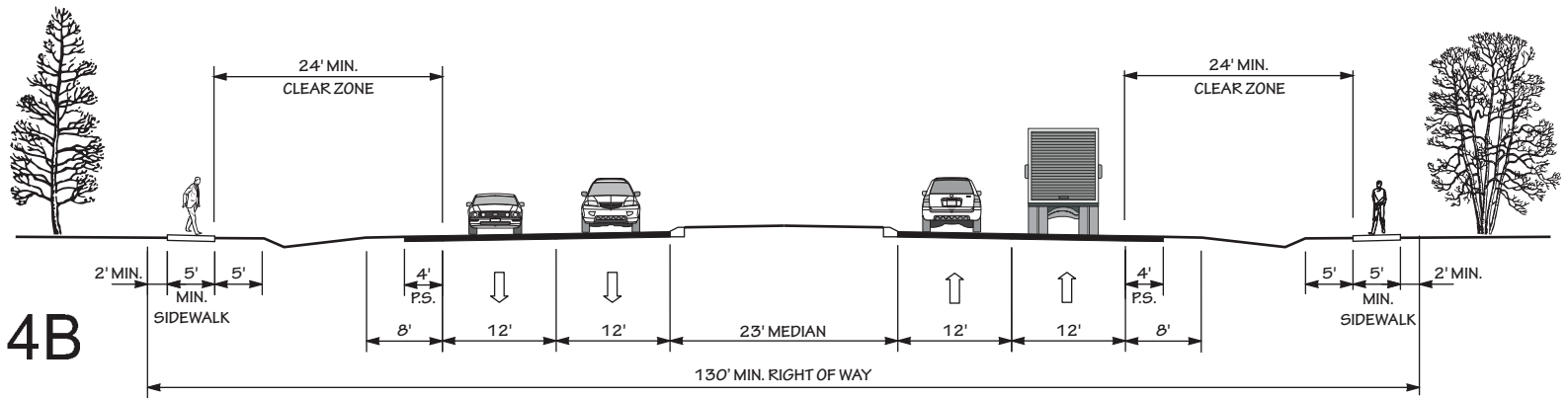


2 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER,  
BIKE LANES, AND SIDEWALKS  
POSTED SPEED 25-45 MPH

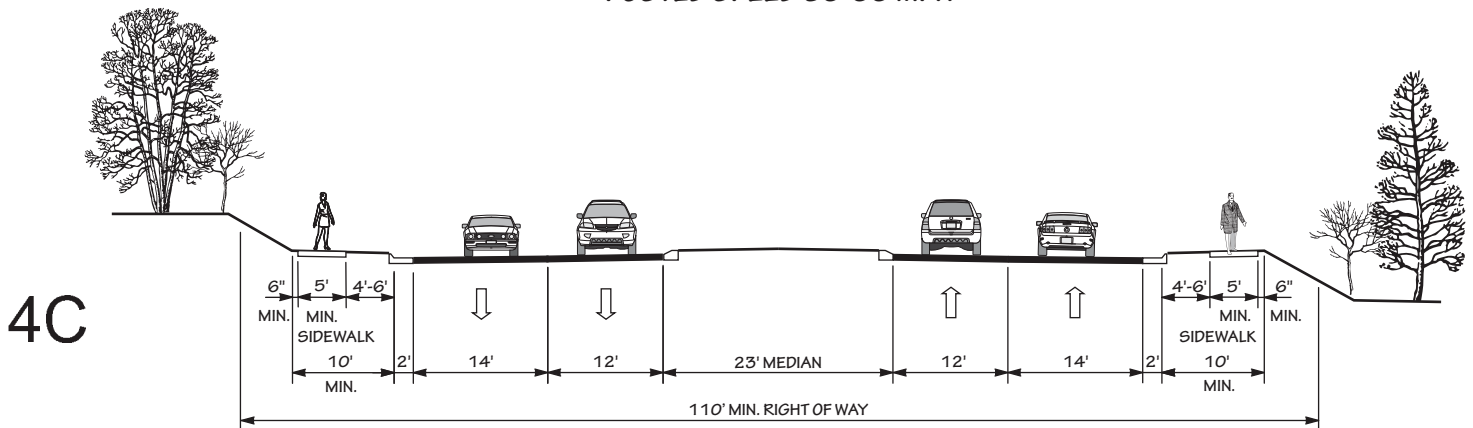
# "TYPICAL" HIGHWAY CROSS SECTIONS



4 LANE DIVIDED (46' DEPRESSED MEDIAN) WITH PAVED SHOULDERS  
POSTED SPEED 45-70 MPH

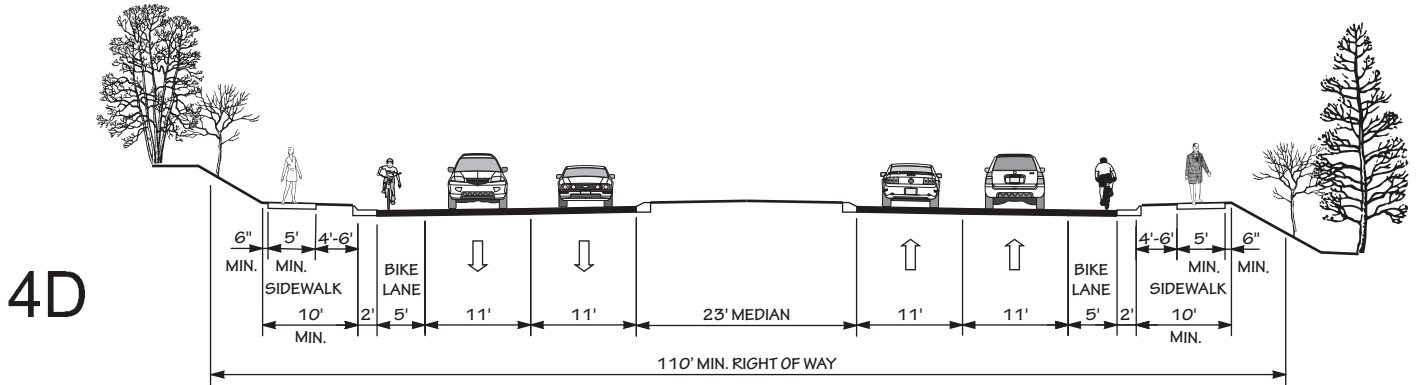


4 LANE DIVIDED (23' RAISED MEDIAN) WITH PAVED SHOULDERS  
AND SIDEWALKS  
POSTED SPEED 35-55 MPH

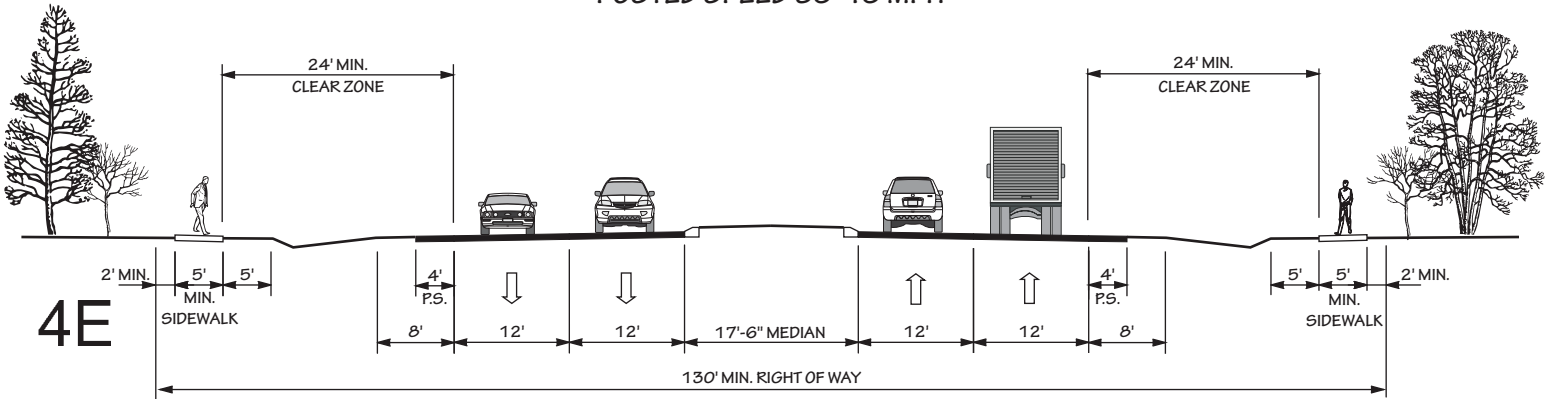


4 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER,  
WIDE OUTSIDE LANES, AND SIDEWALKS  
POSTED SPEED 35-45 MPH

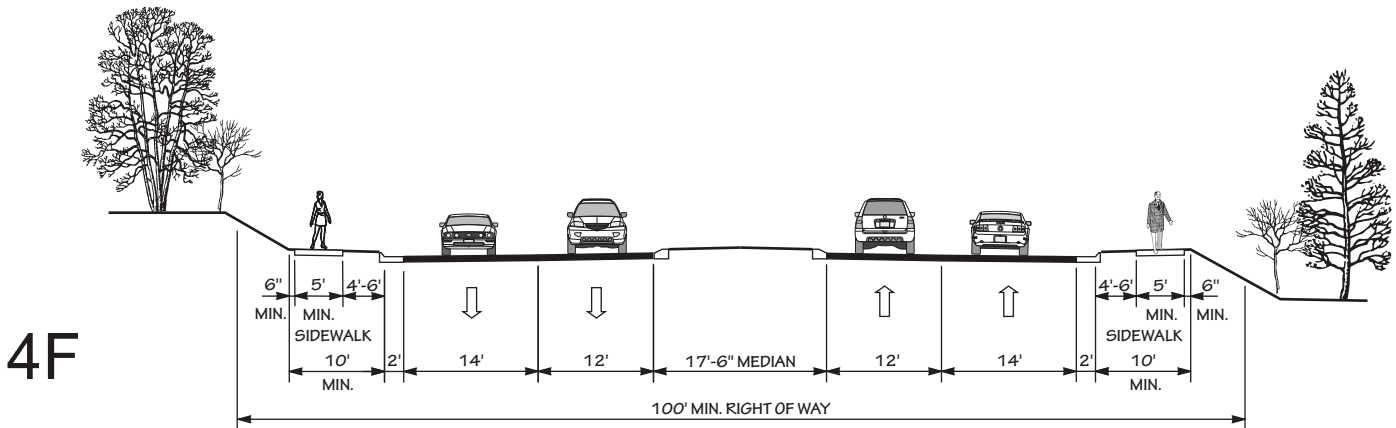
# "TYPICAL" HIGHWAY CROSS SECTIONS



**4 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER, BIKE LANES AND SIDEWALKS**  
 POSTED SPEED 35-45 MPH

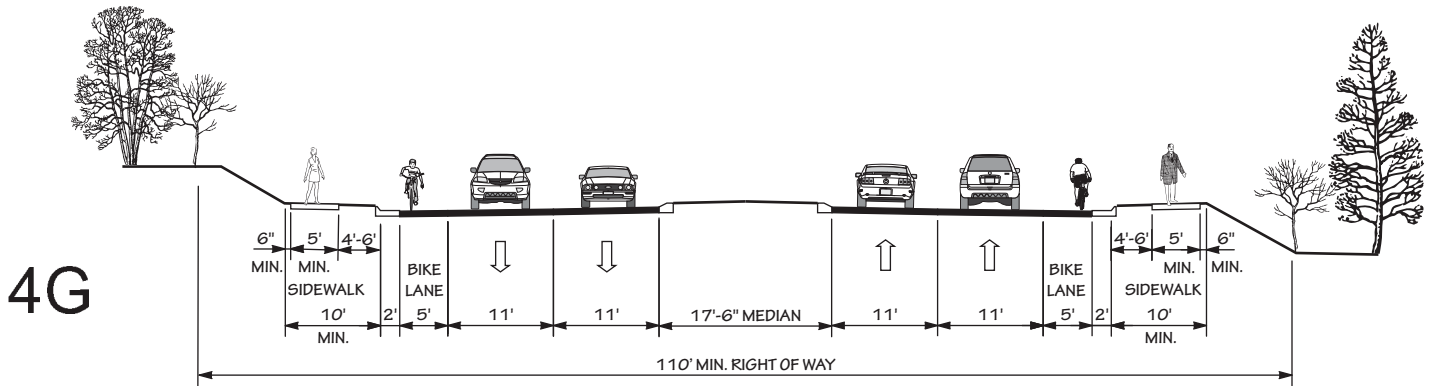


**4 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH PAVED SHOULDERS AND SIDEWALKS**  
 POSTED SPEED 35-55 MPH

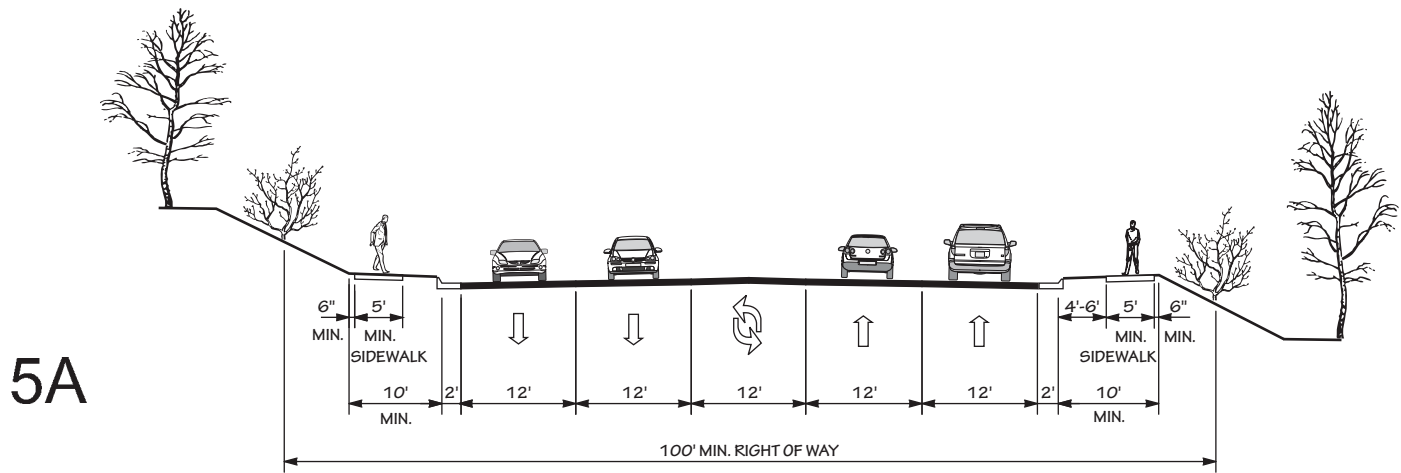


**4 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES AND SIDEWALKS**  
 POSTED SPEED 35-45 MPH

# "TYPICAL" HIGHWAY CROSS SECTIONS

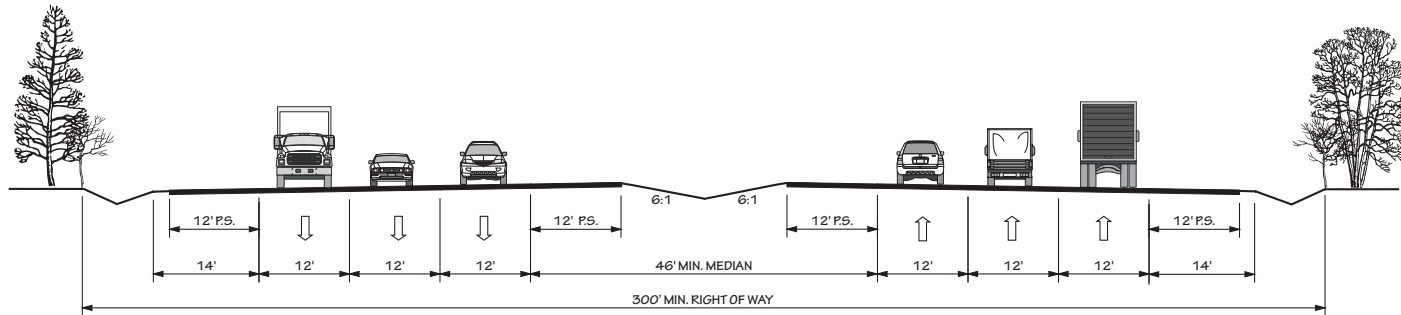


4 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS  
POSTED SPEED 35-45 MPH

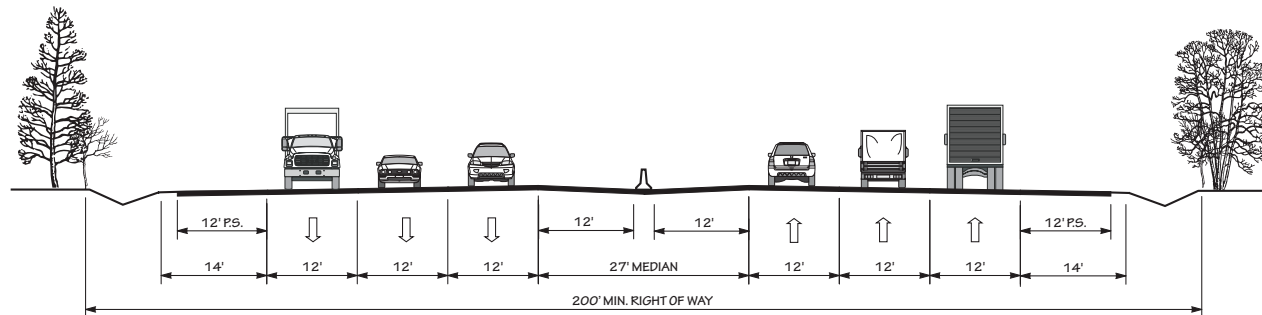


4 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, AND SIDEWALKS  
POSTED SPEED 35-45 MPH

## “TYPICAL” HIGHWAY CROSS SECTIONS

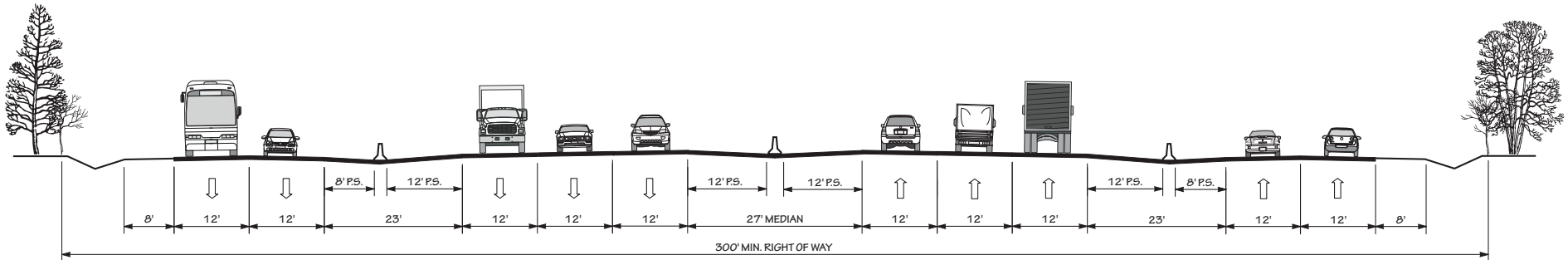


**6A** 6 LANE DIVIDED (46' DEPRESSED MEDIAN) WITH PAVED SHOULDERS  
POSTED SPEED 45-70 MPH



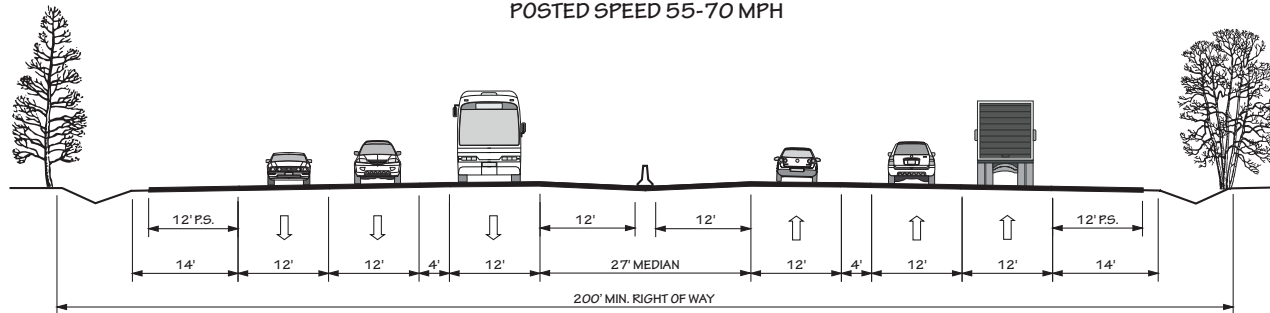
**6B** 6 LANE DIVIDED (27' MEDIAN WITH JERSEY BARRIER)  
WITH PAVED SHOULDERS  
POSTED SPEED 55-70 MPH

## “TYPICAL” HIGHWAY CROSS SECTIONS



**6C**

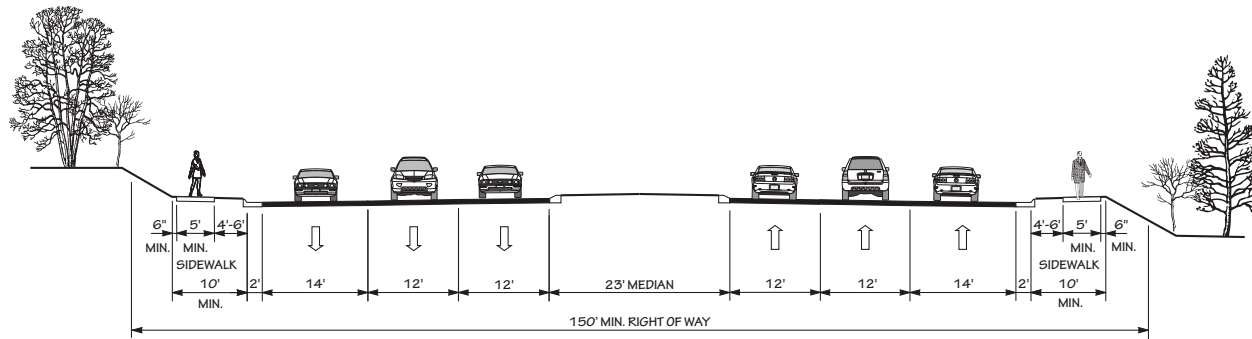
**6 LANE FREEWAY (27' MEDIAN WITH JERSEY BARRIER) WITH PAVED SHOULDERS  
AND 2 LANE ONE-WAY SERVICE ROADS EACH SIDE  
POSTED SPEED 55-70 MPH**



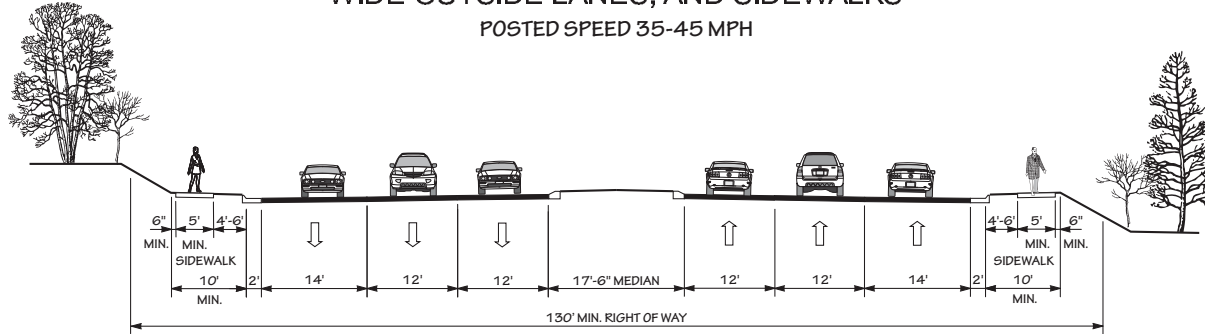
**6D**

**6 LANE FREEWAY (4 GENERAL PURPOSE LANES, 2 MANAGED LANES, AND 27' MEDIAN  
WITH JERSEY BARRIER) WITH PAVED SHOULDERS  
POSTED SPEED 55-70 MPH**

## “TYPICAL” HIGHWAY CROSS SECTIONS

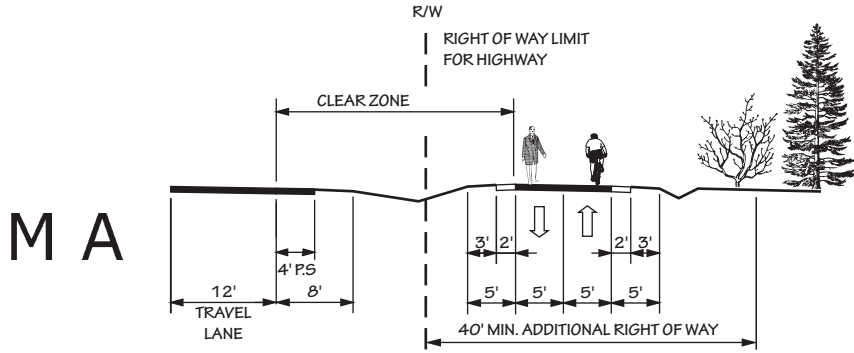


**6E** 6 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER,  
WIDE OUTSIDE LANES, AND SIDEWALKS  
POSTED SPEED 35-45 MPH

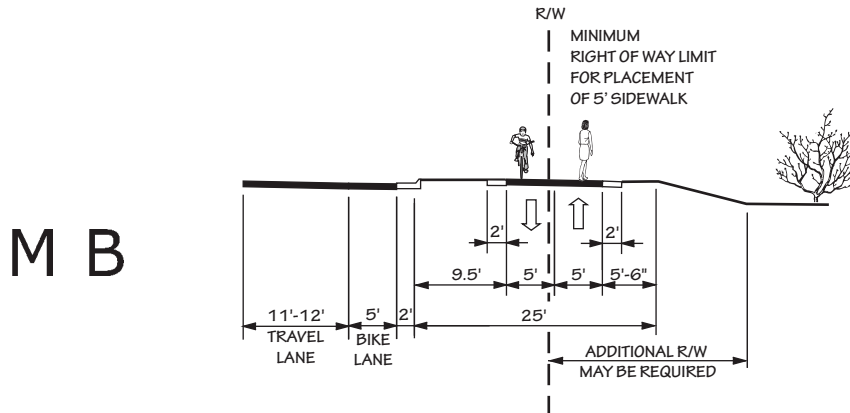


**6F** 6 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER,  
WIDE OUTSIDE LANES, AND SIDEWALKS  
POSTED SPEED 35-45 MPH

# "TYPICAL" HIGHWAY CROSS SECTIONS



**MULTI - USE PATH  
ADJACENT TO RIGHT OF WAY OR SEPARATE PATHWAY**



**MULTI - USE PATH ADJACENT TO CURB AND GUTTER**



## Appendix E

### Level of Service Definitions

The relationship of travel demand compared to the roadway capacity determines the level of service (LOS) of a roadway. Six levels of service identify the range of possible conditions. Designations range from LOS A, which represents the best operating conditions, to LOS F, which represents the worst operating conditions.

Design requirements for roadways vary according to the desired capacity and level of service. LOS D indicates “practical capacity” of a roadway, or the capacity at which the public begins to express dissatisfaction. Recommended improvements and overall design of the transportation plan were based upon achieving a minimum LOS D on existing facilities and a LOS C on new facilities. The six levels of service are described below and illustrated in Figure 8.

- ❖ **LOS A:** Describes free-flow operations. Free Flow Speed (FFS) prevails and vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The effects of incidents or point breakdowns are easily absorbed.
- ❖ **LOS B:** Represents reasonably free-flow operations, and FFS is maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. The effects of minor incidents and point breakdowns are still easily absorbed.
- ❖ **LOS C:** Provides for flow with speeds near the FFS. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver. Minor incidents may still be absorbed, but the local deterioration in service quality will be significant. Queues may be expected to form behind any significant blockages.
- ❖ **LOS D:** The level at which speeds begin to decline with increasing flows, with density increasing more quickly. Freedom to maneuver within the traffic stream is seriously limited and drivers experience reduced physical and psychological comfort levels. Even minor incidents can be expected to create queuing, because the traffic stream has little space to absorb disruptions.
- ❖ **LOS E:** Describes operation at capacity. Operations at this level are highly volatile because there are virtually no usable gaps within the traffic stream, leaving little room to maneuver within the traffic stream. Any disruption to the traffic stream, such as vehicles entering from a ramp or a vehicle changing lanes, can establish a disruption wave that propagates throughout the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate even the most minor disruption, and any incident can be expected to produce a serious breakdown and substantial queuing. The physical and psychological comfort afforded to drivers is poor.
- ❖ **LOS F:** Describes breakdown, or unstable flow. Such conditions exist within queues forming behind bottlenecks.

---

Figure 8 - Level of Service Illustrations

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LOS A



LOS B



LOS C



LOS D



LOS E



LOS F

Source: 2010 Highway Capacity Manual, Exhibit 11-4

## **Appendix F**

### **Bridge Deficiency Assessment**

The Transportation Improvement Program (TIP) development process for bridge projects involves consideration of several evaluation methods in order to prioritize needed improvements. A sufficiency index is used to determine whether a bridge is sufficient to remain in service, or to what extent it is deficient. The index is a percentage in which 100 percent represents an entirely sufficient bridge and zero represents an entirely insufficient or deficient bridge. Factors evaluated in calculating the index are listed below.

- ❖ structural adequacy and safety
- ❖ serviceability and functional obsolescence
- ❖ essentiality for public use
- ❖ type of structure
- ❖ traffic safety features

The NCDOT Structures Management Unit inspects all bridges in North Carolina at least once every two years. A sufficiency rating for each bridge is calculated and establishes the eligibility and priority for replacement. Bridges having the highest priority are replaced as federal and state funds become available.

A bridge is considered deficient if it is either structurally deficient (SD) or functionally obsolete (FO). Structurally deficient means there are elements of the bridge that need to be monitored and/or repaired. The fact that a bridge is "structurally deficient" does not imply that it is likely to collapse or that it is unsafe. It means the bridge must be monitored, inspected and repaired/replaced at an appropriate time to maintain its structural integrity. A functionally obsolete bridge is one that was built to standards that are not used today. These bridges are not automatically rated as structurally deficient, nor are they inherently unsafe. Functionally obsolete bridges are those that do not have adequate lane widths, shoulder widths, or vertical clearances to serve current traffic demand or to meet the current geometric standards, or those that may be occasionally flooded.

A bridge must be classified as deficient in order to qualify for federal replacement funds. Additionally, the sufficiency rating must be less than 50% to qualify for replacement or less than 80% to qualify for rehabilitation under federal funding. Deficient bridges located on roads evaluated as a part of the CTP are listed in Table 3. For more details on deficient bridges within the planning area, contact the Structures Management Unit using the information in Appendix A.

---

**Table 3 - Deficient Bridges**

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Bridge Number	Facility	Feature	Condition	Local ID
58	US 311	Rickers Branch	FO	
15	NC 66	Vade Mecum Creek	FO	
8	NC 704	Dan River	SD	
153	Moore's Spring Road (SR1001)	Cascade Creek	FO	
76	Collinstown Road (SR1432)	Dan River	FO	
86	Snow Hill Church Road (SR1651)	Snow Creek	SD & FO	
82	Delta Church Road (SR1674)	Dan River	SD & FO	B-5766
104	Dodgetown Road (SR1695)	Dan River	SD	
115	Pine Hall Road (SR1908)	Dan River	SD & FO	
176	Fagg Road (SR1926)	Lick Creek	SD	

## Appendix G

### Socio-Economic Data Forecasting Methodology

The Stokes County CTP Committee worked with NCDOT to estimate population growth, economic development potential, and land use trends to determine the potential impacts on the future transportation system in 2045. This data was endorsed by the CTP Committee on March 24, 2016.

Below is a description of the methodology used in the analysis.

#### **Population Projections:**

Population trends were estimated using historic population data from the North Carolina Office of State Budget and Management and from the LINC (Log In to North Carolina) report for Stokes County and its surrounding counties. Much like determining an interest rate, a population growth rate was determined using simple linear growth. Past trends and projections through the year 2035 were looked at along with the growth in population. This data is listed in the Table 4 below with the future information projected by the **North Carolina Office of State Budget and Management**.

**Table 4: Population Data**

Location	2000	2010	2014	2015	2020	2030	2035
North Carolina	8,046,813	9,535,483	9,953,687	10,054,722	10,573,611	11,609,883	12,122,640
<b>Stokes County</b>	<b>44,711</b>	<b>47,401</b>	<b>46,786</b>	<b>46,787</b>	<b>46,788</b>	<b>46,786</b>	<b>46,785</b>
Forsyth County	306,063	350,670	364,248	367,853	387,714	429,017	449,743
Rockingham County	91,928	93,643	92,543	92,543	92,556	92,543	92,543
Surry County	71,209	73,673	73,834	73,834	73,842	73,835	73,835
Yadkin County	36,351	38,406	37,842	37,655	36,843	35,981	35,778

The data presented in Table 4 indicates a steady state in overall growth for Stokes County, while surrounding counties fluctuate between a slight decline and a slight increase in population.

Based on **2035 Stokes County Land Use Plan**, Stokes County's population is projected to lag the state's overall growth; Stokes County's Population is projected to grow by 27.03 percent between 2013 and 2038, while the state's population growth is projected to increase by 37.05 percent during the same period.

Using these rates, population projections utilized in the development of the CTP are given below in Table 5.

**Table 5: Stokes County Projected Population**

	<b>2015</b>	<b>2045</b>
Population	46,787	61,500

**Employment Projections:**

Total employment for 2013 in the Stokes County was 7,067 jobs (based on ACCESSNC report). One percent annual growth rate was assumed to determine to 2015 employment.

$$2015 \text{ Employment} = 7,240$$

$$2015 \text{ Population} = 46787$$

To determine the number of future jobs in Stokes County, a ratio of 2015 employment to 2015 population was calculated.

$$2015 \text{ Employment to Population ratio (emp/pop)} = 0.15474$$

The employment to population ratio is projected to be slightly higher for 2045 assuming the continued positive growth in the future and the potential for additional employment opportunities.

$$2045 \text{ Population} = 61,500$$

$$2045 \text{ Projected Employment to Population ratio (emp/pop)} = 0.15800$$

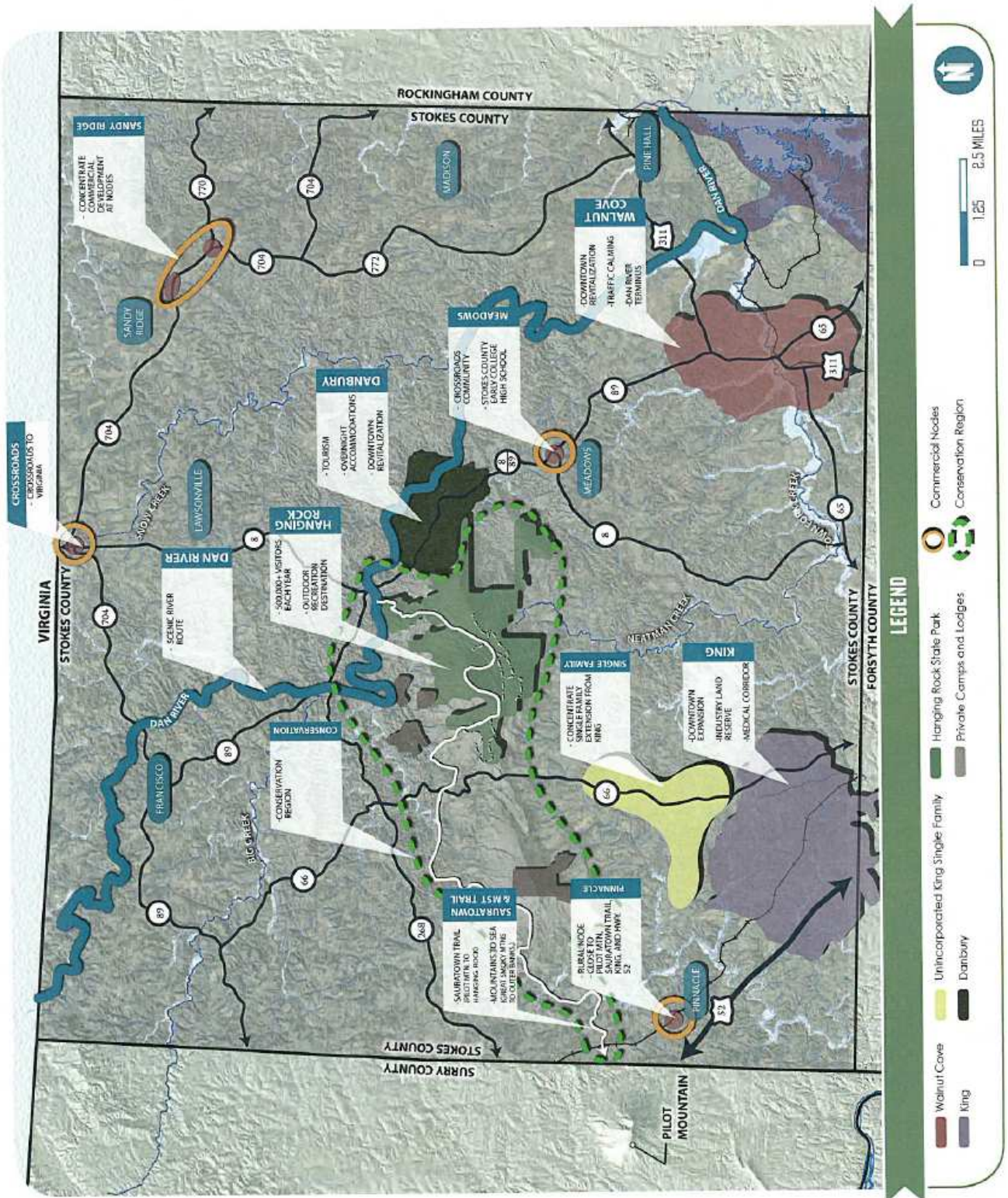
$$2045 \text{ Employment projections: } 61500 \times 0.1515 = 9,717 \text{ jobs.}$$

**Table 6: Stokes County Projected Population and Employment**

	<b>2015</b>	<b>2045</b>
Population	46,787	61,500
Employment	7,240	9,717

Figure 9

Existing Land Development Plan Map



## Back of Figure



## Back of Figure

## Appendix H Public Involvement

This appendix documents the public involvement process and includes a listing of steering committee members, the goals and objectives survey results, and public meetings held throughout the development of the CTP.

### List of CTP Steering Committee Members

At the start of a CTP study, a committee is formed that is comprised of individuals who represent the various needs, issues and populations of the community. These representatives are responsible for capturing the transportation needs of the community relative to all modes of transportation and for guiding the development of the CTP. A listing of steering committee members for the Stokes County CTP is given below.

<b>Core Committee Member</b>	<b>Core Committee Member Representative</b>
Rick Morris	Stokes County Manager
Rhonda Jones	Stokes County Commissioner
Steve Shelton	Town of Danbury Council Person
Elwood Mabe	Town of Walnut Cove Council Person
Bobby Miller	Town of Walnut Cove Town Manager
David Sudderth	Stokes County Planning & Economic Development
Brad Lankford	Stokes County School System Fleet Manager
James Dalton	Stokes County Business Owner
Greg Collins	Stokes County EMS Director
Mike Marshall	Stokes County Sherriff Office
Beth Fornadley Johnson	Active Routes to School Coordinator
Robin Riddlebarger	Hanging Rock State Park Superintendent
Mike Barsness	Town of Danbury Administrator
Scott Lenhart	Stokes County Health Department Director
Diane Hampton, PE	NCDOT Division 9

### CTP Vision, Goals, Objectives and MOEs

The CTP vision, goals and objectives are developed as part of the public involvement process and help identify how the people within an area would like to develop the transportation system (all modes). The CTP committee develops the draft vision, goals, objectives, and MOEs which are further refined with input from citizens via the CTP Goals & Objectives (G&O) survey. These products become the official guide for the CTP being developed.

The vision statement, goals and objectives reflect what is important for the area and defines any local preferences concerning the transportation system and community assets. The vision statement is the framework for the area's strategic planning. Goals and objectives document how the area plans to fulfill its vision. The goals break down the vision statement into themes, while the objectives document how the area plans to make progress towards achieving each goal. MOEs are established to enable the area to track the progress of each objective.

#### Vision:

Enhance the connectivity of Stokes County through the development of a transportation network which promotes and supports economic development compatible with the existing and future environmental and land use patterns.

Provide safe, reliable, affordable, and convenient transportation choices to the residents of Stokes County as well as public awareness of those choices. Develop a regional transportation network that improves Stokes County residents' quality of life and surrounding environment.

#### Goals:

- Improve transportation infrastructure to support the creation of targeted industrial growth areas.
- Increase the safety and functionality of major arteries.
- Work with NCDOT to create pedestrian-oriented transportation and streetscape improvements at targeted downtown areas and small business growth nodes.
- Pursue transportation initiatives that support efficient use of infrastructure, promote environmental health, and provide affordable transportation options for Stokes county residents.
- Enhance quality of life and health by promoting multi modal options.

## **Goals and Objectives Survey**

A G&O survey is a public involvement technique used to help identify an area's perception of transportation-related issues, identify concerns that should be addressed during the development of a CTP, and to help develop a vision for the community. The G&O survey is most appropriately implemented at the beginning of the transportation planning study. In addition to determining up front what is important to the citizens of the planning area, initiating the G&O survey early in the planning process allows the survey to serve as an introduction to the transportation planning process. The survey usually includes a brief introduction explaining what a transportation plan is and how the area can benefit from having one. The survey also includes a wide variety of questions that is tailored to each area as appropriate. A summary of the Stokes County G & O survey is given below.

**1. How important are the following Transportation Goals?**

Answer Options	Not Important	Important	Very Important	Response Count
Preserve Community and Rural Character	25	133	73	231
Protect the Environment	11	117	102	230
Support Economic Growth	12	121	98	231
Public Transportation Options	24	118	89	231
More Opportunities for safe biking and walking to destinations instead of driving	36	110	83	229

Answered: 236, Skipped: 21

**2. Please select which of the following methods you agree with for increasing a road's efficiency.**

Answer Options	Agree	Disagree	Response Count
Building additional travel lanes	154	73	227
Making improvements to intersections such as better signal timing, adding guard rails, creating roundabouts	197	32	229
Controlling the frequency and locations of driveways	162	61	223

Answered: 235, Skipped: 22

**3. Are you concerned with vehicle accident problems at any specific locations?**

Answer Options	Response Percent	Response Count
Yes	24.8%	59
No	75.2%	179
If yes, please list locations		51
<b>Top Response (Specific roads and locations)</b>		
NC 8 & 89		

Answered: 238; Skipped: 19

**4. Is commercial truck traffic negatively affecting your area?**

Answer Options	Response Percent	Response Count
Yes	9.1%	22
No	90.9%	219
<b>Top 3 Responses (Specific roads and locations)</b>		
NC 8		
NC 89		
NC 66		

Answered: 241, Skipped: 16

**5. To what areas would you like to have improved access (please check all that apply)**

<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Winston Salem, NC	83.1%	143
Greensboro, NC	31.4%	54
Virginia	23.8%	41
Other (please specify)	8.1%	14

*Answered: 172, Skipped: 85*

**6. What roads would you like to have improved access to (please check all that apply)**

<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
I-40	41.4%	75
NC 66	27.1%	49
US 52	64.6%	117
US 311	22.7%	41
NC 8	34.8%	63
Other (Please Specify)	6.6%	12

*Answered: 181, Skipped: 76*

**7. Would you use park-and-ride lots? (A park-and-ride lot is a parking area where you can leave your car and take public transportation or carpool to your destination).**

<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Yes	41.7%	100
No	58.3%	140
<b>Preferred Location</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Walnut Cove	21.4%	22
King	35.0%	36
Danbury	26.2%	27
Other (Please specify)	17.5%	18

*Answered: 240, Skipped: 17*

**8. Would you use bus service listed below?**

<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Bus Service to Winston Salem, NC	26.6%	33
Bus service to Greensboro, NC	1.6%	2
Danbury	13.7%	17
Other (please specify)	58.1%	72

*Answered: 124, Skipped 133*

**9. Are you concerned with bicycle and pedestrian safety at any specific locations?**

Answer Options	Response Percent	Response Count
Yes	34.6%	81
No	65.4%	153
<b>Top 3 Responses (Specific roads and locations)</b>		
NC 66		
NC 8 & 89		
Hanging Rock Park		

Answered: 234, Skipped: 23

**10. Are there areas where you would like to see sidewalks or multi-use paths (for bicycling and walking) constructed or improved?**

Answer Options	Response Percent	Response Count
Yes	39.4%	91
No	60.6%	140
<b>Top 3 Responses (Specific roads and locations)</b>		
NC 66		
NC 8 & 89		
Danbury		

Answered: 231, Skipped: 26

**11. Would you use on-road bicycle facilities such as bicycle lanes and wider road shoulders?**

Answer Options	Response Percent	Response Count
Yes	31.8%	74
No	68.2%	159
<b>Top 3 Responses (Specific roads and locations)</b>		
NC 66		
NC 8 & 89		
Walnut Cove/Danbury		

Answered: 233, Skipped: 24

**12. Would you like more information about bicycling and pedestrian safety such as a brochure about safe bicycling practices?**

Answer Options	Response Percent	Response Count
Yes	10.7%	25
No	89.3%	209

Answered: 234, Skipped: 23

**What is your age?**

Answer Options	Response Percent	Response Count
Under 18	0.0%	0
18-24	13.3%	32
25-34	19.9%	48
35-44	21.2%	51

45-54	13.7%	33
55-64	21.2%	51
Over 65	10.8%	26

Answered: 241, Skipped: 16

**13. How would you classify your race?**

Answer Options	Response Percent	Response Count
White	92.6%	225
Black	3.7%	9
Native American	0.8%	2
Hispanic	2.5%	6
Asian	0.0%	0
Other (please specify)	0.4%	1

Answered: 243, Skipped: 14

**14. How many people, including yourself, live in your household?**

Answer Options	Response Percent	Response Count
1	9.1%	22
2	30.3%	73
3	22.8%	55
4	19.9%	48
5	10.4%	25
6	5.0%	12
7	2.1%	5
8 or more	0.4%	1

Answered: 241, Skipped: 16

**15. Where do you live? (Please check only one box)**

Answer Options	Response Percent	Response Count
Danbury	9.7%	22
King	26.4%	60
Walnut Cove	17.6%	40
Stokes County	46.3%	105

Answered: 227, Skipped: 30

**16. Where do you work? (Please check only one box)**

Answer Options	Response Percent	Response Count
Danbury	22.2%	51
King	12.6%	29
Walnut Cove	5.7%	13
Stokes County	9.6%	22
Outside of Stokes County	18.3%	42
Unemployed	31.7%	73

Answered: 230, Skipped: 27

## **Public Meetings**

Brief summaries of public meetings held within the planning area are given below.

### **Public Workshop # 1**

The first meeting was held on July 25, 2016 at Ronald Wilson Reagan Memorial Administration Building from 4:00pm to 6:00pm. No comment forms were submitted during the session. 10 citizens were in attendance; however, no major issue was identified.

### **Public Workshop # 2**

The second meeting was held on February 7, 2017 at Walnut Cove Public from 4:00pm to 6:00pm. No comment forms were submitted during the session. 11 citizens were in attendance; however, no major issue was identified.



## Appendix I Existing Transportation Plans

The following CTP for areas within the county that is not included as a part of this plan is listed below and can be viewed on the web.

- ❖ 2012 Winston-Salem MPO CTP:  
[https://connect.ncdot.gov/projects/planning/Pages/CTP-Details.aspx?study\\_id=Winston%20Salem](https://connect.ncdot.gov/projects/planning/Pages/CTP-Details.aspx?study_id=Winston%20Salem)

