Comprehensive Transportation Plan

GREENE COUNTY

A Place To Grow. The Way To Live.

DRAFT

Greene County

July, 2012

Comprehensive Transportation Plan

Greene County

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Transportation Planning Branch
N.C. Department of Transportation

In Cooperation with: Greene County
The Towns of Hookerton, Snow Hill and Walstonburg
Eastern Carolina Rural Planning Organization

July, 2012

Scott Walston, PE

Table of Contents

I. Analysis of the Existing and Future Transportation System I-1
Analysis Methodology and Data Requirements I-1
Roadway System Analysis I-1
Traffic Crash Analysis I-3
Bridge Deficiency Assessment I-11
Public Transportation and Rail I-11
Public Transportation I-11
Rail I-12
Bicycles and Pedestrians I-15
Land Use I-15
Consideration of the Natural and Human Environment I-21
Public Involvement I-27

II. Recommendations II-1
Unaddressed Deficiencies II-1
Implementation II-1
Problem Statements II-3
Highway II-3
Public Transportation and Rail II-14
Bicycle II-14
Pedestrian II-15

Appendices

Appendix A: Resources and Contacts A-1
Appendix B: Comprehensive Transportation Plan Definitions B-1
Appendix C: CTP Inventory and Recommendations C-1
Appendix D: Typical Cross-Sections D-1
Appendix E: Level of Service Definitions.....E-1
Appendix F: Traffic Crash Analysis F-1
Appendix G: Bridge Deficiency Assessment G-1
Appendix H: Public Involvement H-1
Appendix I: Existing Transportation Plans.....I-1
Appendix J: Snow Hill Hand Allocated Travel Demand Model J-1

List of Figures

Figure 1 Comprehensive Transportation Plan iii
Figure 2 Future Roadway Deficiency I-5
Figure 3 Crash Locations Map I-9
Figure 4 Deficient Bridges I-13
Figure 5 Existing Land Development Plan I-17
Figure 6 Future Land Development Plan I-19
Figure 7 Environmental Features I-23
Figure 8 Environmental Features I-25
Figure 9 Typical Cross Sections D-2
Figure 10 Level of Service Illustrations E-2
Figure 11 Greene County 1999 Thoroughfare Plan I-2
Figure 12 TAZ and External Station Map.....J-3

List of Tables

Table 1 Environmental Features I-21
Table 2 Restricted Environmental Features I-21
Table 3 CTP Inventory and Recommendations C-3
Table 4 Crash Locations F-1
Table 5 Deficient Bridges G-2
Table 6 Model Parameters J-1
Table 7 External Station Data J-2

Executive Summary

In January of 2011, the Transportation Planning Branch of the North Carolina Department of Transportation and Greene County initiated a study to cooperatively develop the Greene County Comprehensive Transportation Plan (CTP), which includes the Towns of Hookerton, Snow Hill and Walstonburg. This is a long range multi-modal transportation plan that covers transportation needs through 2035. Modes of transportation evaluated as part of this plan include: highway, public transportation and rail, bicycle, and pedestrian. This plan does not cover standard bridge replacements, 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. Refer to Figure 1 for the CTP maps, which were mutually endorsed/adopted in 2012. Implementation of the plan is the responsibility of Greene 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 Greene County CTP. The major recommendations for improvements are listed below. More detailed information about these and other recommendations can be found in Chapter 2.

- **NC 58 (Kingold Boulevard):** Widen to a consistent four-lane median-divided boulevard facility with accommodations for bicycle and pedestrian traffic from the US 13/NC 58 split east of Snow Hill to the proposed US 258 bypass (see Chapter 2, GREE0002-H).

- **US 258 Bypass:** Construct a four-lane, median divided expressway facility on new location connecting US 258 South of NC 58 (Kingold Boulevard) to Four Way Road (SR 1400) where it meets US 13/258 north of Snow Hill.

- **US 13/258 improvements:** Upgrade existing US 258 to a four-lane median divided expressway facility from the Lenoir County line to the proposed US 258 Bypass. Improve US 13/258 to a four-lane median-divided expressway facility from Four Way Road (SR 1400) north of Snow Hill to the US 13/258 split near the Pitt County line.

Figure 1 - Sheet 1 of 5

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Greene County

Comprehensive Transportation Plan

Plan date: January 25, 2012

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

Legend

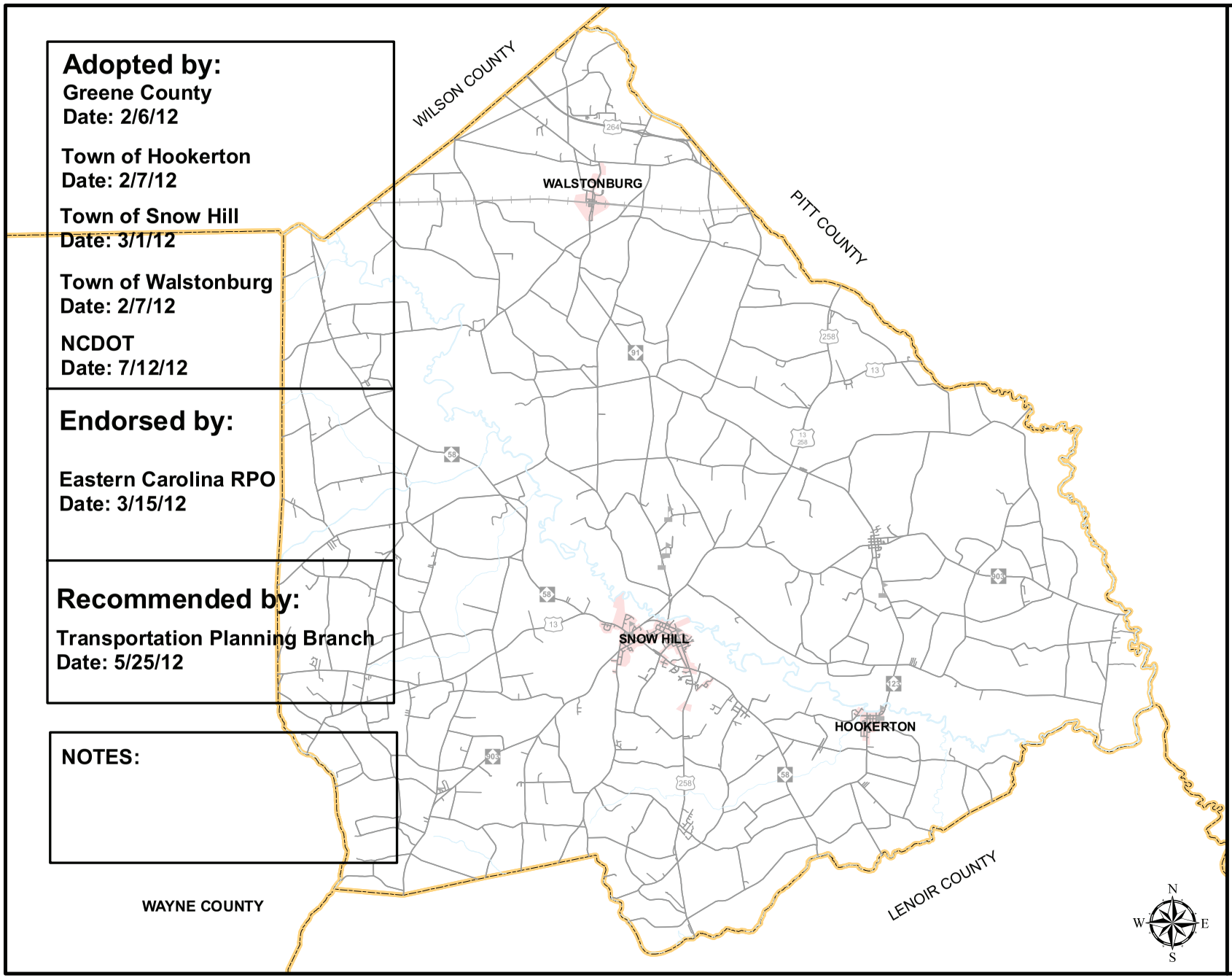
- Roads
- **Railroad**
- **Schools**
- **Rivers and Streams**
- **Municipal Boundaries**
- **County Boundaries**

0 0.5 1 2 3 Miles

Sheet 1 of 5

Base map date: October, 2010

Refer to CTP document for more details



Adopted by:
Greene County
Date: 2/6/12

Town of Hookerton
Date: 2/7/12

Town of Snow Hill
Date: 3/1/12

Town of Walstonburg
Date: 2/7/12

NCDOT
Date: 7/12/12

Endorsed by:

Eastern Carolina RPO
Date: 3/15/12

Recommended by:

Transportation Planning Branch
Date: 5/25/12

NOTES:

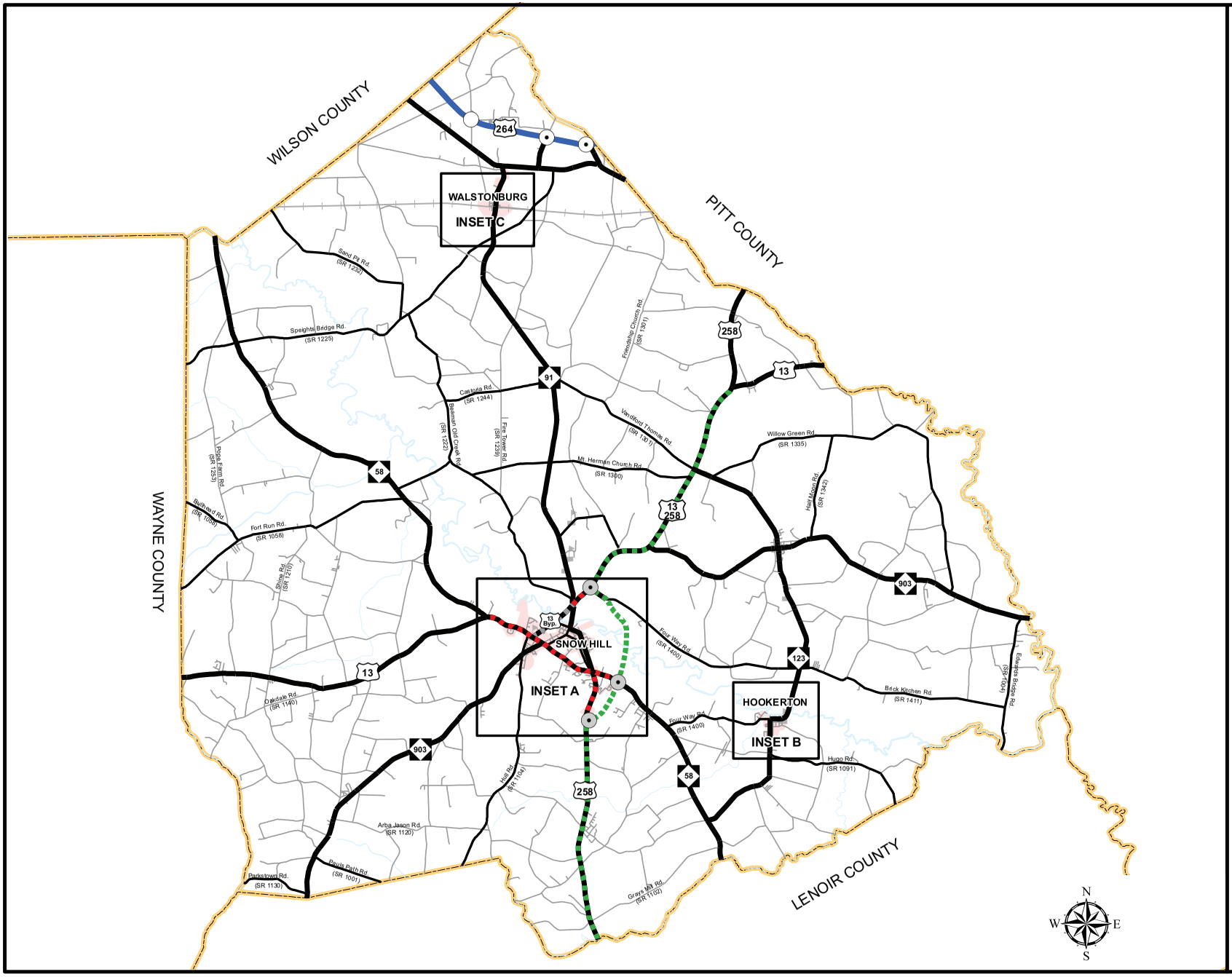


Figure 1 - Sheet 2 of 5

Highway Map

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Greene County

Comprehensive Transportation Plan

Plan date: January 25, 2012

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

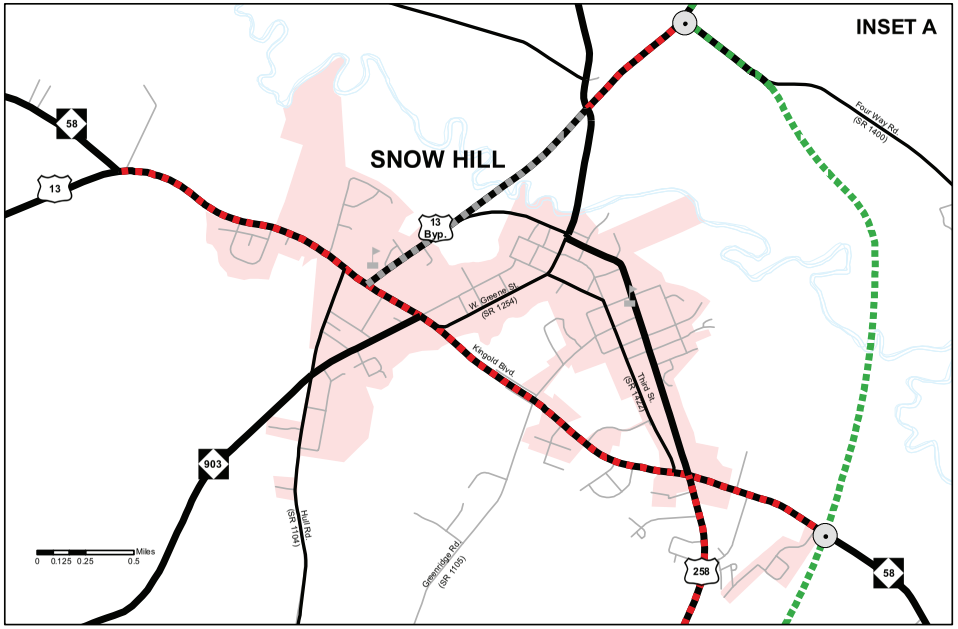
- Existing Interchange
- Proposed Interchange
- Existing Grade Separation
- Proposed Grade Separation

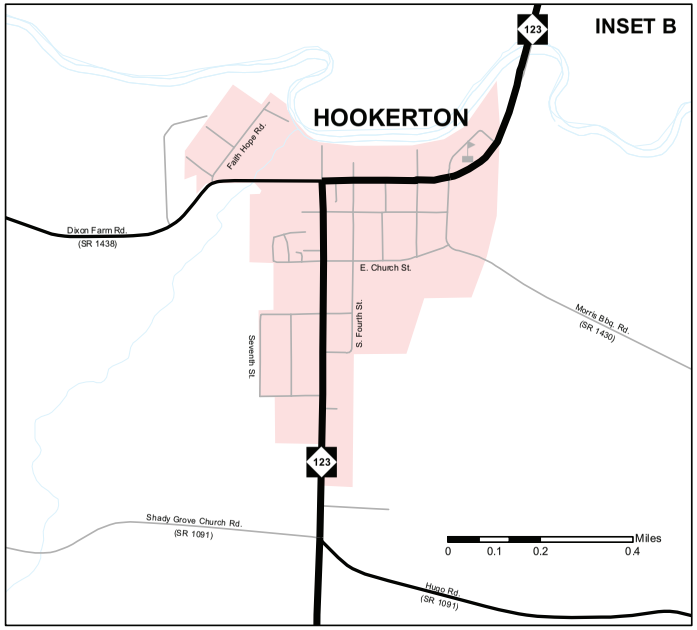
0 0.5 1 2 3 Miles

Sheet 2 of 5

Base map date: October, 2010

Refer to CTP document for more details





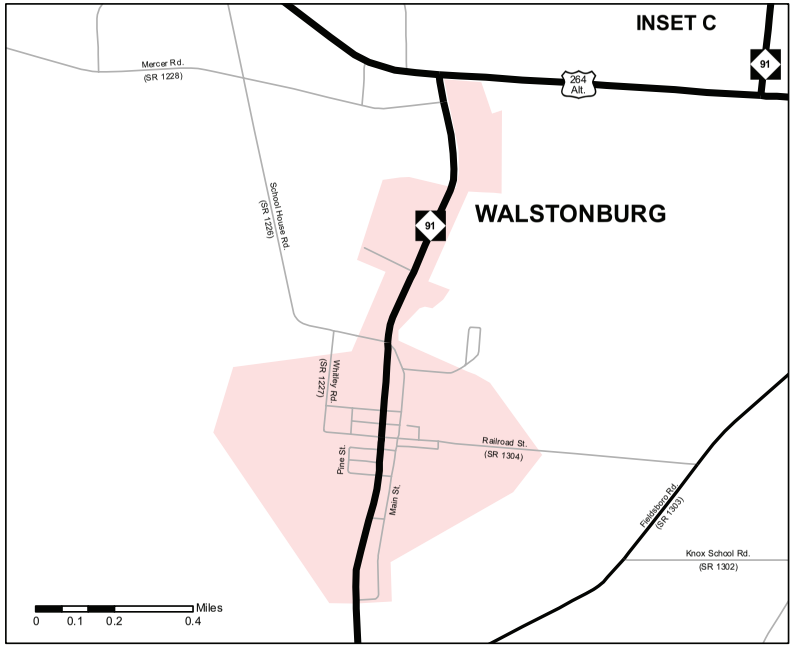


Figure 1 - Sheet 2A of 5

Highway Map Insets A, B, C

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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
- Existing Grade Separation
- Proposed Grade Separation

Base map date: October, 2010

Sheet 2A of 5

Refer to CTP document for more details

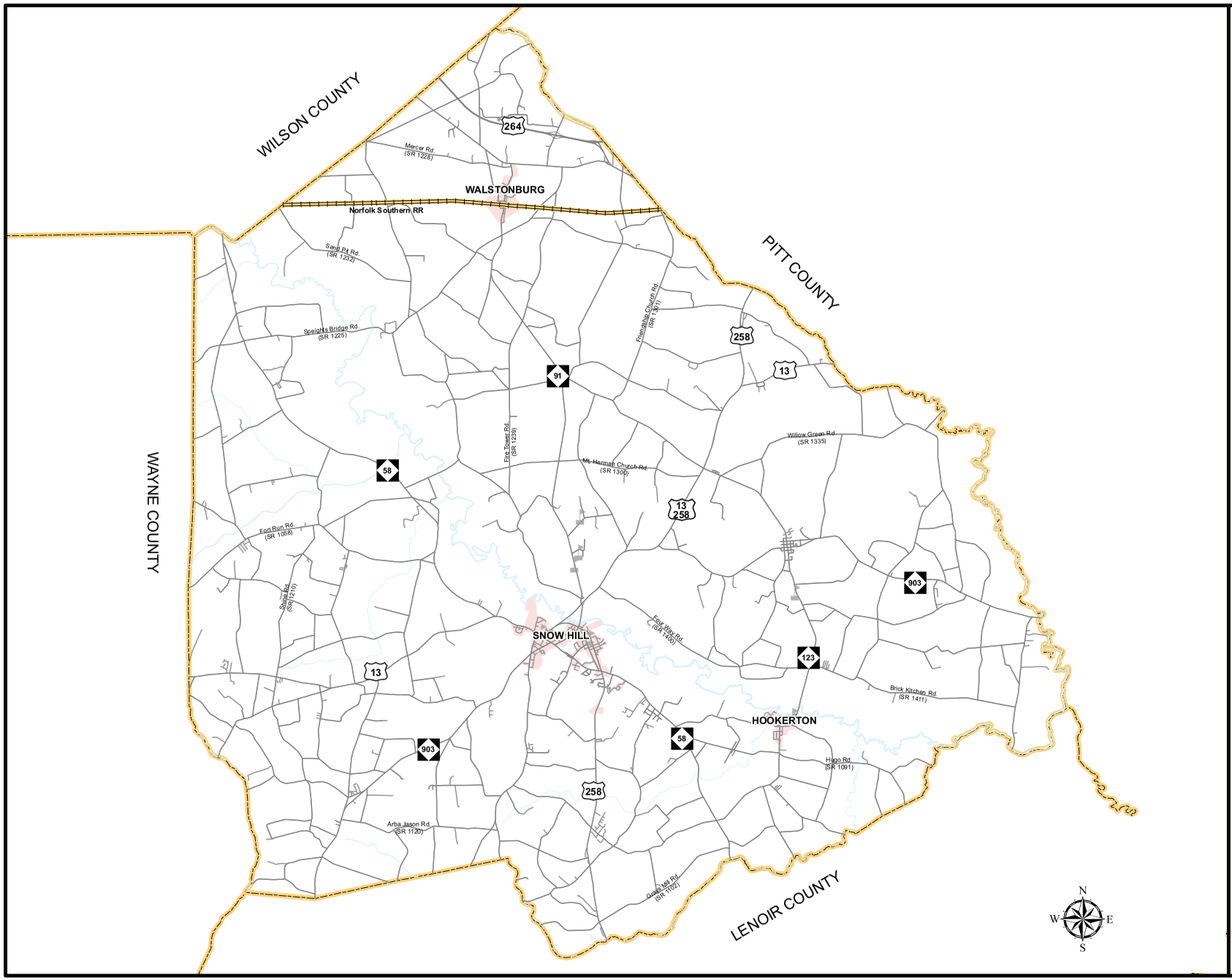

Figure 1 - Sheet 3 of 5

Public Transportation and Rail Map

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Greene County

Comprehensive Transportation Plan

Plan date: January 25, 2012

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

Rail Stops
- Existing
- Recommended

Intermodal Connector
- Existing
- Recommended

Park and Ride Lot
- Existing
- Recommended

0 0.5 1 2 3 Miles

Sheet 3 of 5

Base map date: October, 2010

Refer to CTP document for more details

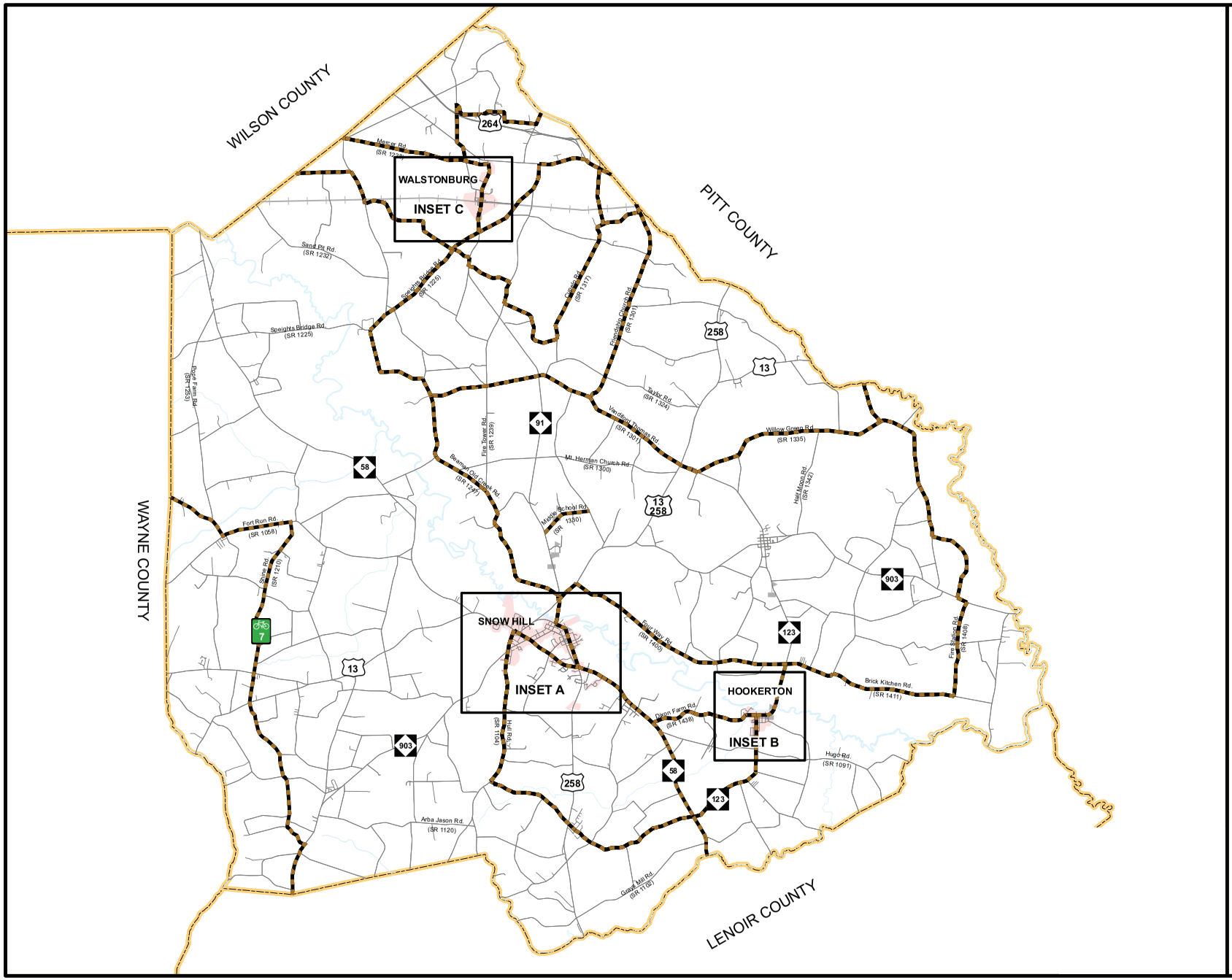

Figure 1 - Sheet 4 of 5

Bicycle Map

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Greene County

Comprehensive Transportation Plan

Plan date: January 25, 2012

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

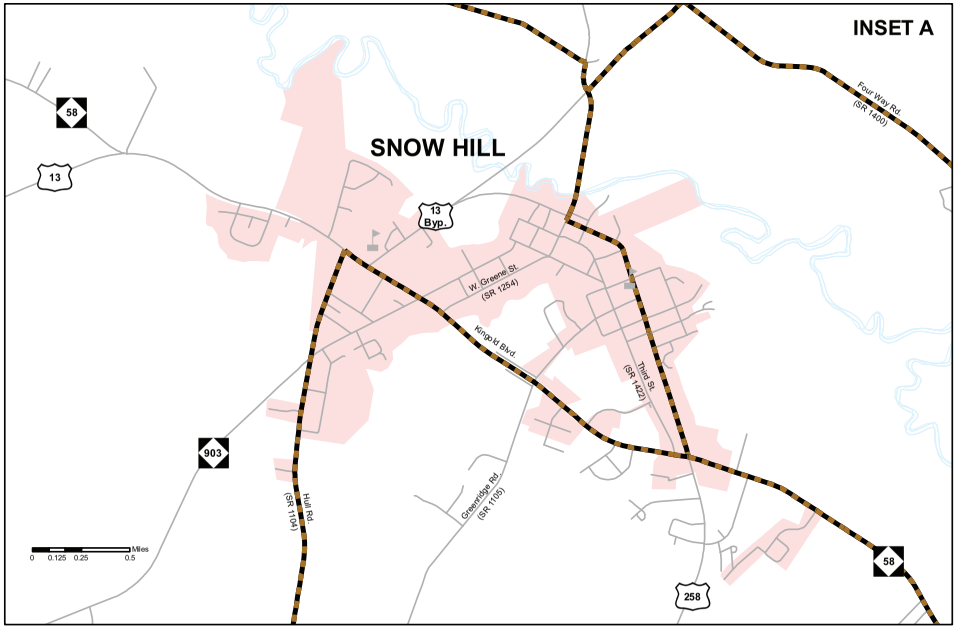
Base map date: October, 2010

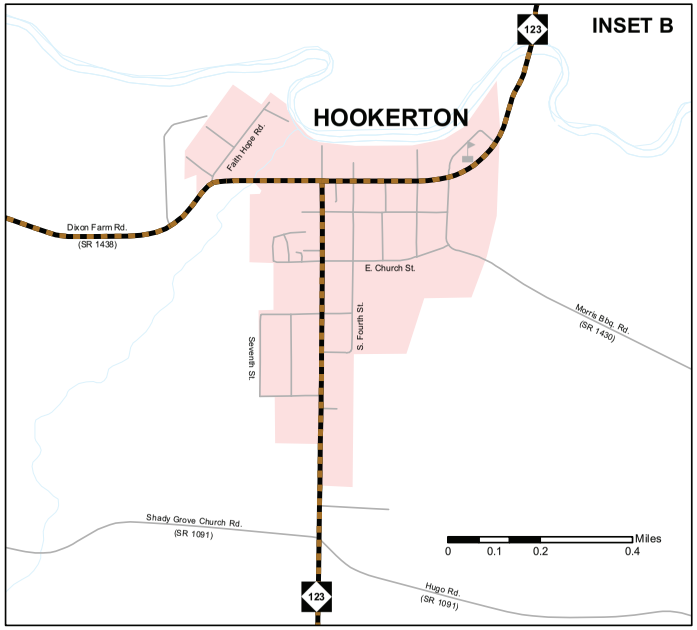
N W E S

0 0.5 1 2 3 Miles

Sheet 4 of 5

Refer to CTP document for more details





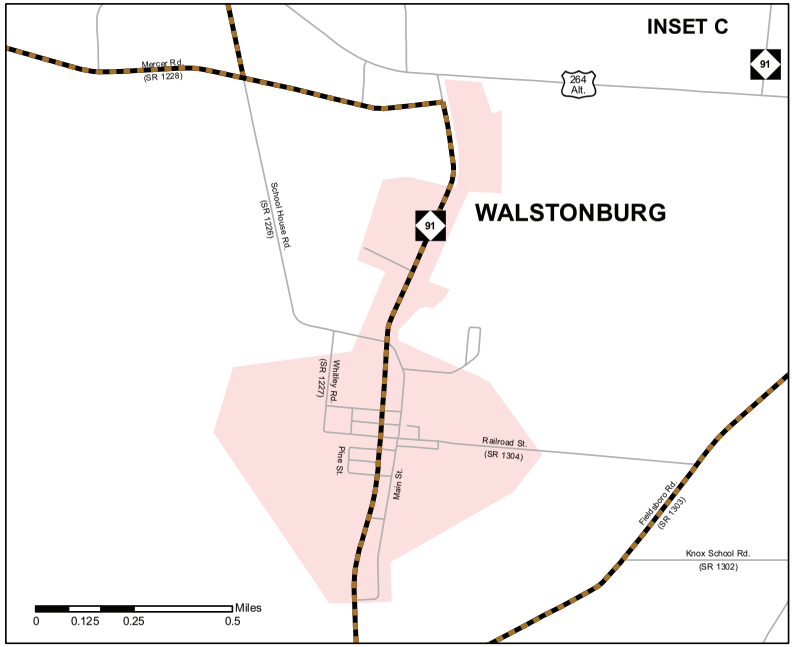


Figure 1 - Sheet 4A of 5

Bicycle Map Insets A, B, C

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Greene County

Comprehensive Transportation Plan

Plan date: January 25, 2012

Sidewalks
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

Base map date: October, 2010

N W E S

Sheet 4A of 5

Refer to CTP document for more details

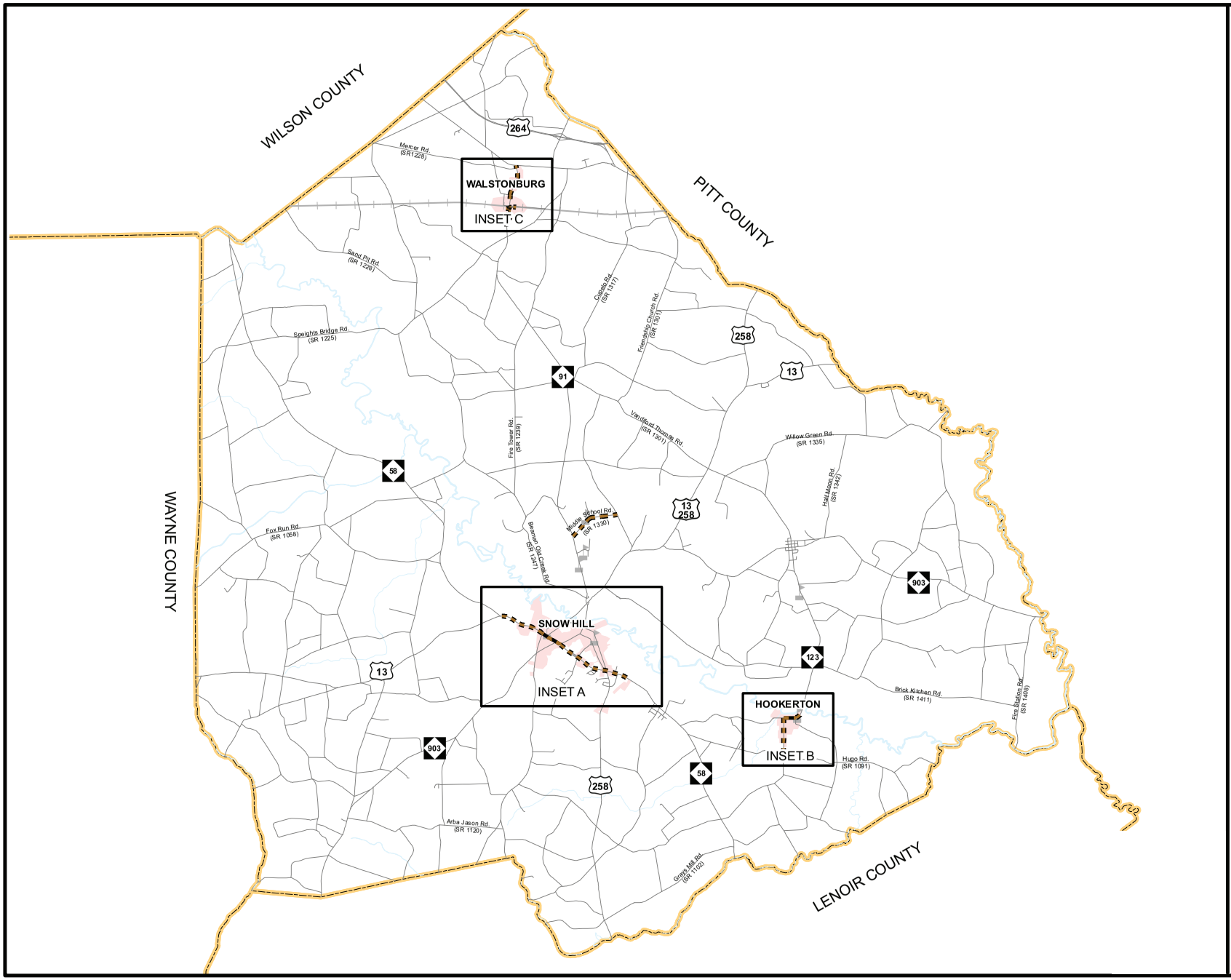

Figure 1 - Sheet 5 of 5

Pedestrian Map

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Greene County

Comprehensive Transportation Plan

Plan date: January 25, 2012

Sidewalks
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

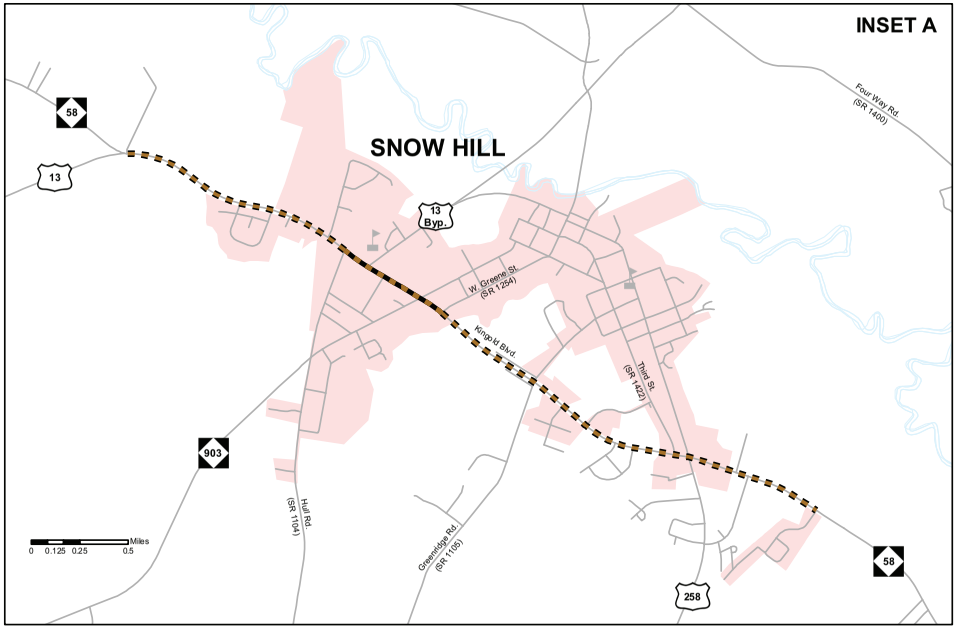
Base map date: October, 2010

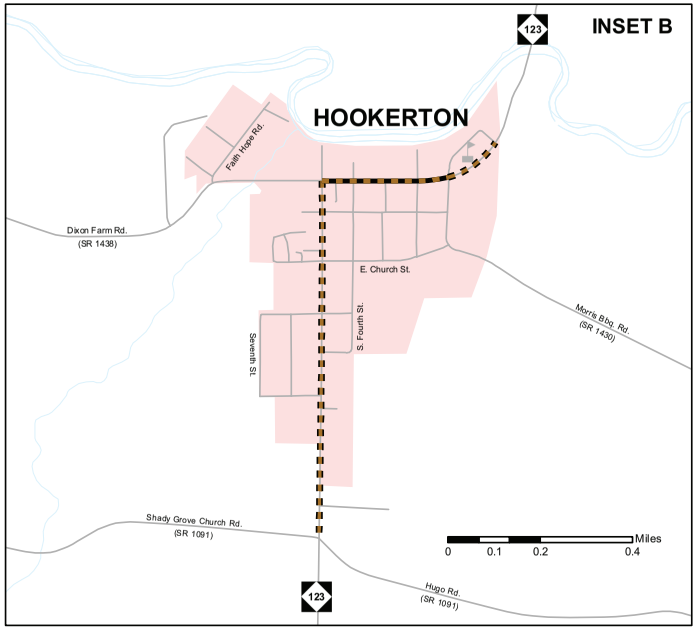
N W E S

0 0.5 1 2 3 Miles

Sheet 5 of 5

Refer to CTP document for more details





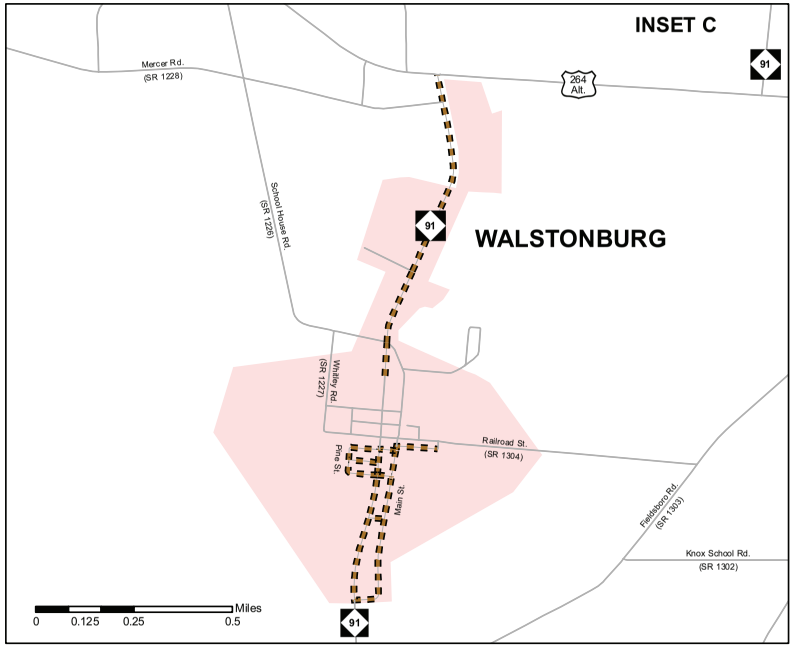


Figure 1 - Sheet 5A of 5

Pedestrian Map Insets A, B, C

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Greene County

Comprehensive Transportation Plan

Plan date: January 25, 2012

Sidewalks
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

Base map date: October, 2010

N W E S

Sheet 5A of 5

Refer to CTP document for more details

I. Analysis of the Existing and Future Transportation System

A Comprehensive Transportation Plan (CTP) is developed to ensure that the progressively developed 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 Comprehensive Transportation Plan (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.

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 desires. 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 such as pavement widths, intersection geometry, and intersection controls; or system problems, such as the need to construct missing travel links, bypass routes, loop facilities, additional radial routes or infrastructure improvements to meet statewide initiatives.

One of those statewide initiatives is the Strategic Highway Corridor (SHC) Vision Plan adopted by the Board of Transportation on September 2, 2004 and last revised on July 10, 2008. The SHC Vision Plan represents a timely initiative to protect and maximize the mobility and connectivity on a core set of highway corridors throughout North Carolina, while promoting environmental stewardship through maximizing the use of existing facilities to the extent possible, and fostering economic prosperity through the quick and efficient movement of people and goods.

The primary purpose of the SHC Vision Plan is to provide a network of high-speed, safe, reliable highways throughout North Carolina. The primary goal to support this purpose is to create a greater consensus towards the development of a genuine vision for each corridor – specifically towards the identification of a desired facility type (Freeway, Expressway, Boulevard, or Thoroughfare) for each corridor. Individual Comprehensive Transportation Plans shall incorporate the long-term vision of each corridor. Refer to Appendix A for contact information.

In the development of this plan, travel demand for areas other than Snow Hill was projected to 2035 using a trend line analysis based on Annual Average Daily Traffic (AADT) from 1990 to 2007. In addition, local land use plans and growth expectations were used to further refine future growth rates and patterns.

For the planning area of Snow Hill, travel demand was projected to 2035 using a hand allocated travel demand model. Travel demand models are developed to replicate travel patterns on the existing transportation system as well as to estimate travel patterns for 2035. In addition, local land use plans and growth expectations were used to develop future growth rates and patterns. The established future growth rates for both the travel demand model and trend line analysis mentioned above were endorsed by the Greene County CTP committee, as well as the County Commissioners and towns of Snow Hill, Hookerton, and Walstonburg in April and May of 2011.

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. Analysis of the current roadway system indicated that there were no current capacity deficiencies. Refer to Figure 2 for future capacity deficiencies.

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;

- 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 express dissatisfaction. The practical capacity for each roadway was developed based on the 2000 Highway Capacity Manual using the NCLOS guidelines. 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 Analysis

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. A crash analysis was performed for Greene County for crashes occurring in the planning area between January 1, 2007 and December 31, 2009. During this period, a total of seven intersections were identified as having ten or more crashes, as illustrated in Figure 3. Refer to Appendix F for a detailed crash analysis.

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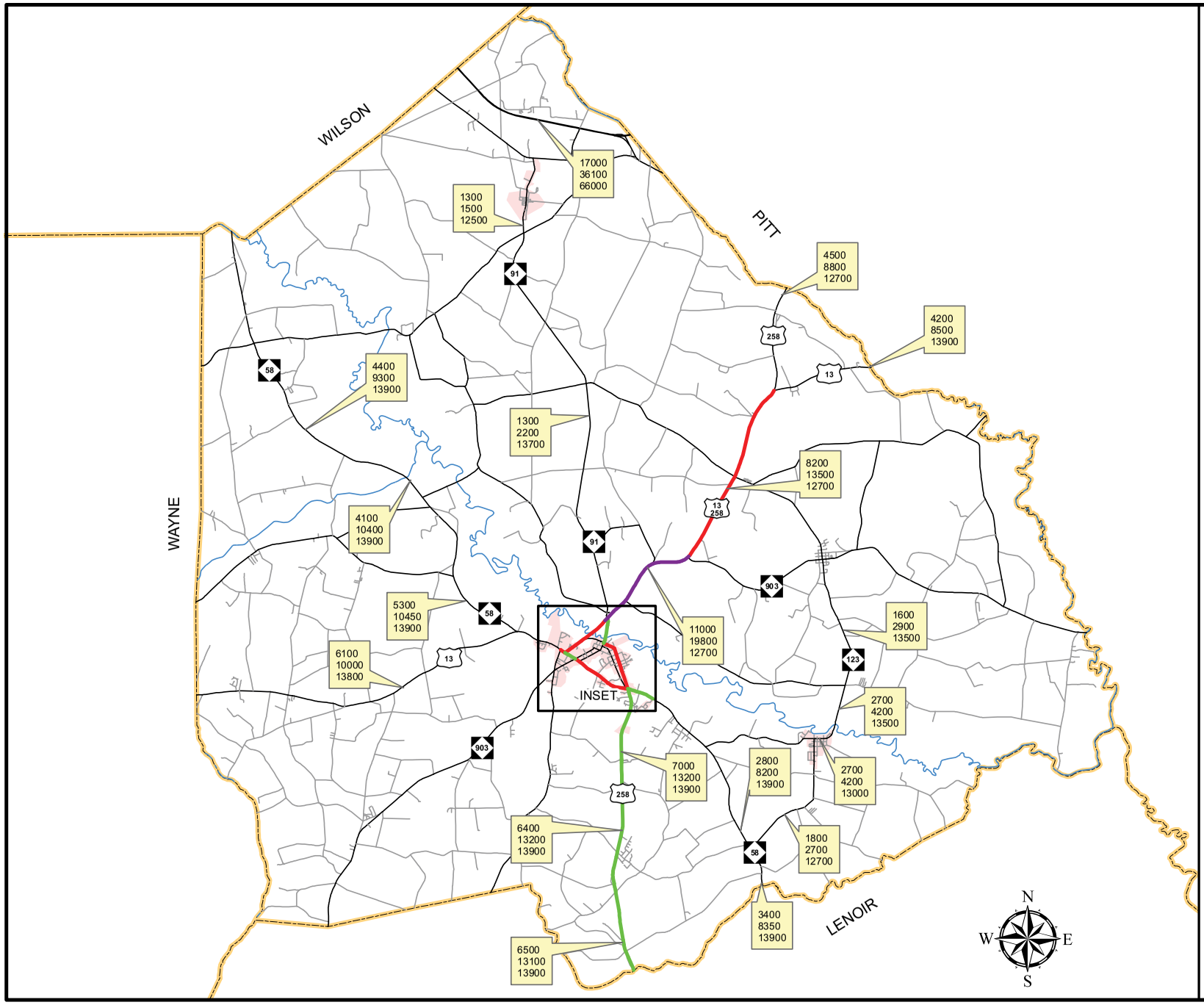

Figure 2

Deficiencies Projected to 2035

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2007 AADT
2035 AADT
Capacity

Below Capacity
V/C = 0.00 to 0.79

Approaching Capacity
V/C = 0.80 to 0.99

Over Capacity
V/C = 1.00 to 1.49

Significantly Over Capacity
V/C of 1.5 or Higher

Rivers and streams

Municipal Boundaries

County Boundaries

Miles
0 0.5 1 2 3

Base map date: October, 2010

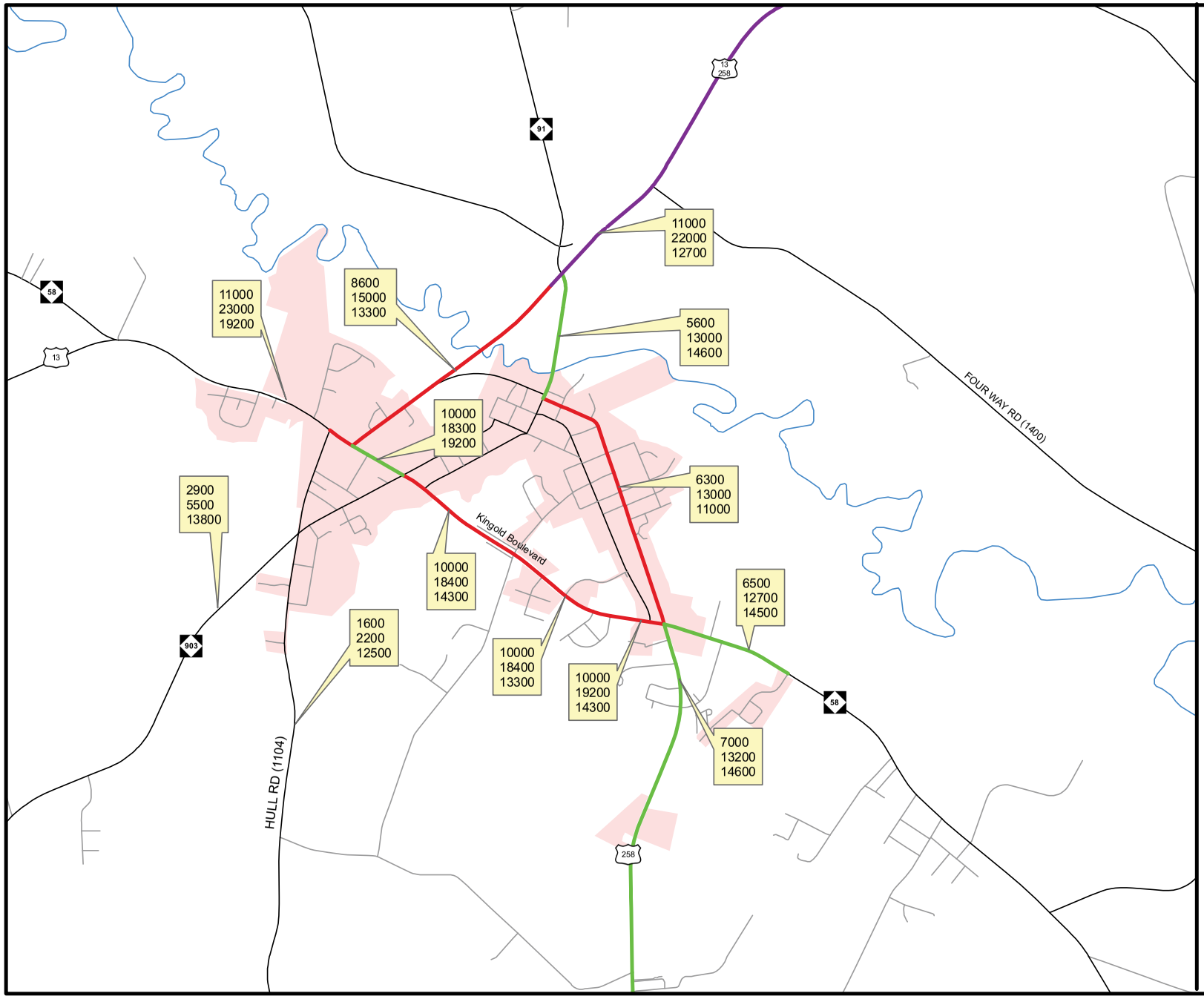

Figure 2
Inset

Deficiencies
Projected to 2035

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Comprehensive Transportation Plan

2007 AADT
2035 AADT
Capacity

Below Capacity
V/C = 0.00 to 0.79

Approaching Capacity
V/C = 0.80 to 0.99

Over Capacity
V/C = 1.00 to 1.49

Significantly Over Capacity
V/C of 1.5 or Higher

Rivers and streams

Municipal Boundaries

County Boundaries

0 0.25 0.5 1 Miles

N W E S

Base map date: October, 2010

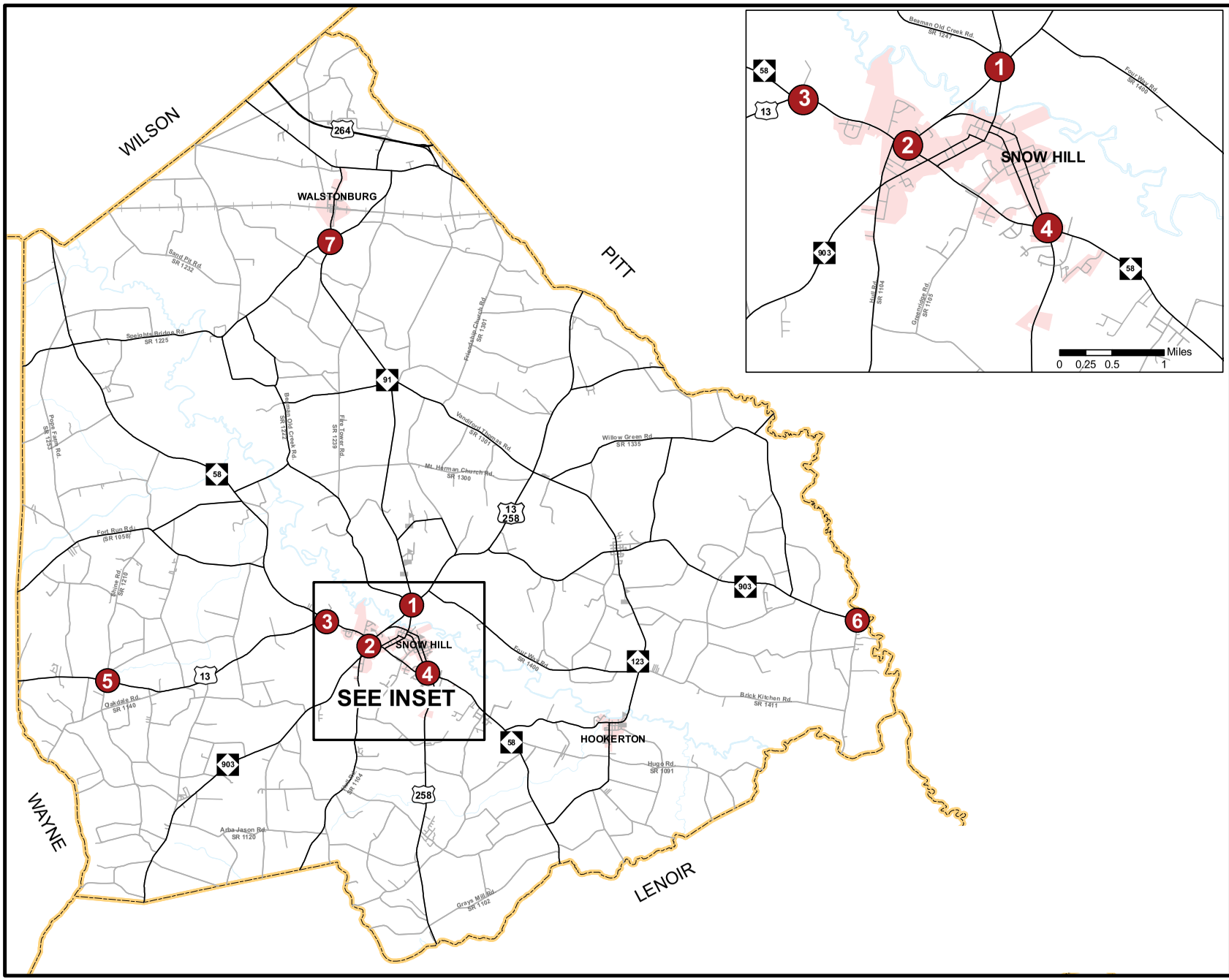

Figure 3
Crash Locations

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Greene County
Comprehensive Transportation Plan

Plan date: January 25, 2012

- # Crash Location
- Studied Roads
- Other Roads
- Schools
- Railroad lines
- Rivers and Streams
- Municipal Boundaries
- County Boundaries

Miles
0 0.5 1 2 3

N W E S

Base map date: October, 2010

Refer to CTP document for more details

Bridge Deficiency Assessment

Bridges are a vital and unique 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 within the planning area and are illustrated in Figure 4. Refer to Appendix G for more detailed information.

Public Transportation and Rail

Public transportation and rail are vital modes of transportation that give alternative options 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. In Greene County, this is a demand-response passenger bus and van system provided by Greene County Transportation.

- 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, the NCDOT Board of Transportation is encouraging single-county systems 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 are at work 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 and throughout the United States and Canada. Greyhound/Carolina Trailways operates in North Carolina. However, community, urban and regional transportation systems are providing increasing intercity service in North Carolina.

Public transportation in Greene County is provided by Greene County Transportation and consists of demand-response ("dial-a-ride") passenger van service. Service is provided primarily for medical appointments and job access, with limited out-of-county service for medical reasons to Greenville, Farmville and Kinston. Mike Lovett, the director of Greene County Transportation, was an active member of the Greene County CTP committee. At the time of this study, it was decided that there were no plans for public transportation service changes relevant to the scope of the CTP. Therefore, the Greene County public transportation map (Sheet 3 of Figure 1) contains no recommendations. Refer to Appendix A for NCDOT Public Transportation Division contact information.

Rail

Today, North Carolina has 3,684 miles of railroad tracks throughout the state. There are two types of trains that operate in the state, passenger trains and freight trains.

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 everyday. Combined, the Carolinian and Piedmont carry more than 200,000 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 20 smaller freight railroads, known as shortlines.

An inventory of existing rail facilities for the planning area is presented on Sheet 3 of Figure 1. Approximately 8.5 miles of rail line, used by Norfolk Southern Railroad, is located in the northern portion of the county and runs through Walstonburg. Currently, the line is used only for freight. At the time of this study, there were no plans to change the existing rail service affecting Greene County, so no recommendations were made. Refer to Appendix A for NCDOT Rail Division contact information.

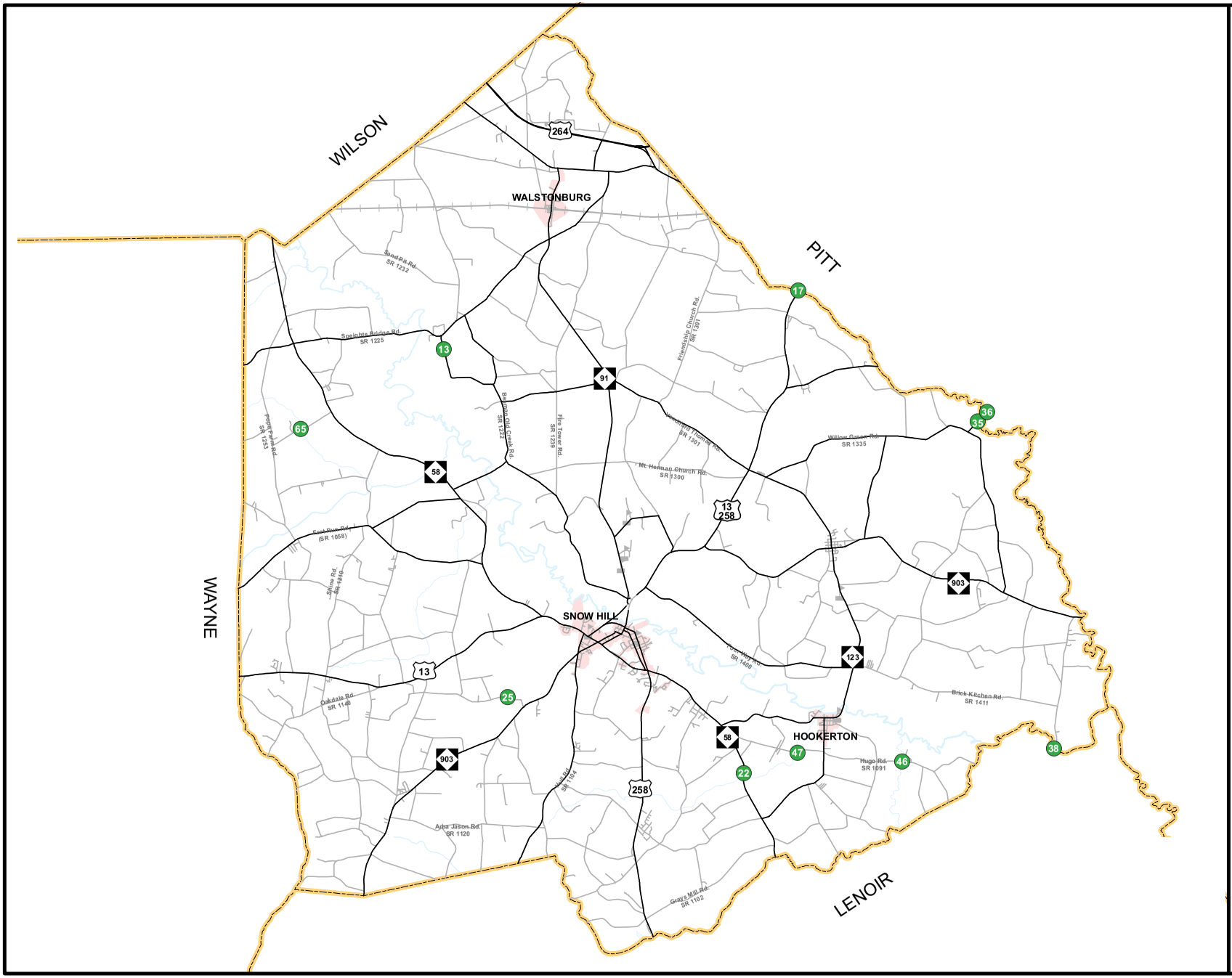

Figure 4
Deficient Bridges

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Greene County
Comprehensive Transportation Plan

Plan date: January 25, 2012

- # Bridge Number (See table 5, Appendix G)
- Schools
- Railroad lines
- Rivers and Streams
- Municipal Boundaries
- County Boundaries

Miles
0 0.5 1 2 3

N W E S

Base map date: October, 2010
Refer to CTP document for more details

Bicycles & Pedestrians

Bicyclists and pedestrians are a growing part of the transportation equation 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 upon and 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 the 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. Approximately 12 miles of NC Bicycle Route 7, also called the "Ocracoke Option," is located in Greene County. The complete route is 170 miles long and runs from near Wilson to Ocracoke.

All recommendations for bicycle and pedestrian facilities were coordinated with the local governments. Refer to Appendix A for NCDOT Division of Bicycle and Pedestrian Transportation contact information.

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, the 2011 Greene County Land-use Plan was used to meet this requirement and is illustrated in Figures 5 and 6.

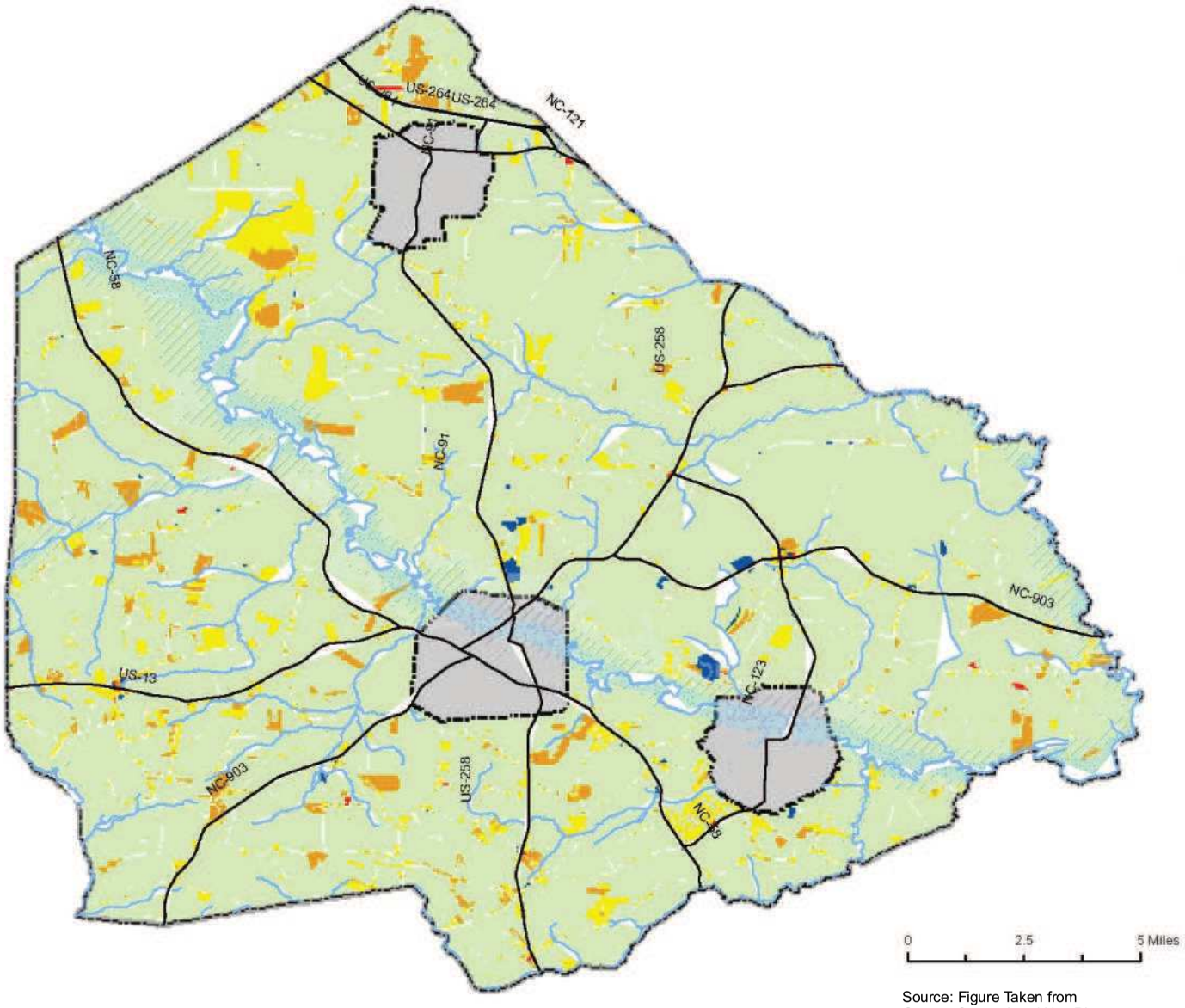
Land use refers to the physical patterns of activities and functions within an area. Traffic demand in a given area is, in part, attributed to adjacent land use. For example, a large shopping center typically generates higher traffic volumes than a residential area. The spatial distribution of different 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 Greene County CTP committee indicated that they expect residential growth in the east, south and west within the Snow Hill town limits, with some development coming from additions to current subdivisions and some new development projects. Commercial development is expected on NC 58 (Kingold Boulevard) and the portion of US 258 (SE 2nd Street) extending from NC 58 (Kingold Boulevard) to West Greene Street (SR 1254).



Source: Figure Taken from Greene County Land Use Plan 2011-2031, pg. 45

Figure 5
Existing Land Development Plan

GREENE COUNTY
A Place To Grow. The Way To Live.

Greene County

Comprehensive Transportation Plan

Legend

Roads

Flood Hazard

AE

AEFW

Shaded X

Municipalities

County Boundary

Land Use

Agricultural / Undeveloped

Commercial

Manufactured Home

Institutional

Single-Family Residential

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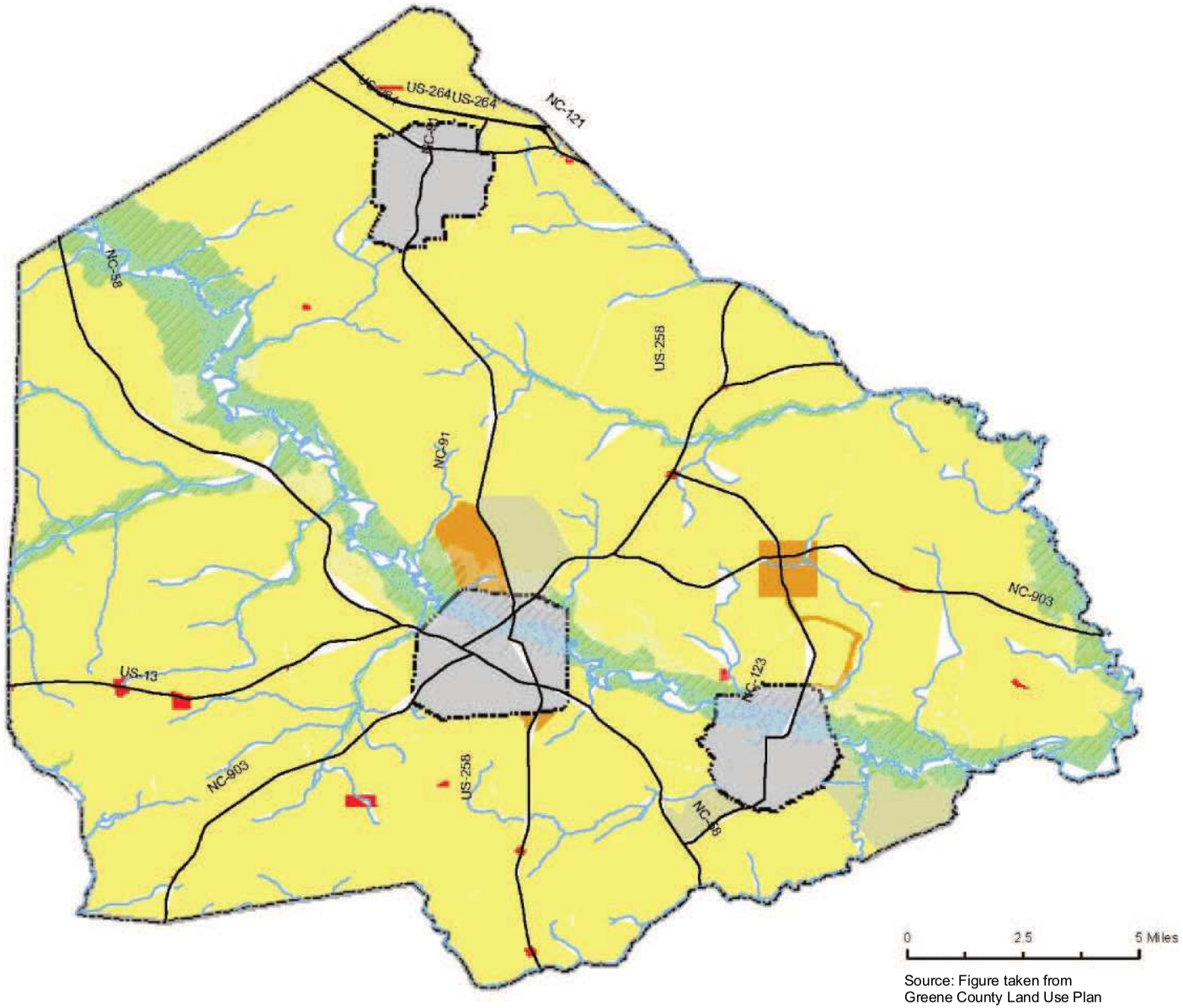

Source: Figure taken from Greene County Land Use Plan 2011-2031, pg. 48

Figure 6
Future Land Development Plan

GREENE COUNTY
A Place To Grow. The Way To Live.

Greene County

Comprehensive Transportation Plan

Legend

- Roads

Flood Hazard

- AE
- AEFW
- Shaded X
- Municipalities
- County Boundary

Future Land Use

- Agricultural-Residential
- Low Density Residential
- Medium Density Residential
- Rural Commercial
- Conservation

N
W E
S

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 (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, 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.

A full listing of environmental features that were examined as a part of this study is shown in the following tables utilizing the best available data. Environmental features occurring within Greene County are shown in Figures 7 and 8.

Table 1 – Environmental Features

- Anadromous Fish Spawning Areas
- Bike Routes (NCDOT)
- Colleges and Universities
- Emergency Operation Centers
- Federal Land Ownership
- Fisheries Nursery Areas
- Geology (including Dikes and Faults)
- Hazardous Substance Disposal Sites
- Hazardous Waste Facilities
- Hospital Locations
- Hydrography (1:24,000 scale)
- Land Trust Priority Areas
- National Heritage Element Occurrences
- National Wetlands Inventory
- Railroads (1:24,000 scale)
- Recreation Projects – Land and Water Conservation Fund
- Sanitary Sewer Treatment Plants
- Schools – Public and Non-Public
- State Parks
- Submersed Rooted Vasculars
- Trout Streams (DWQ)
- Trout Waters (WRC)

Additionally, the following environmental features were considered but are not mapped due to restrictions associated with the sensitivity of the data.

Table 2 – Restricted Environmental Features

- Archaeological Sites
- Historic National Register Districts
- Historic National Register Structures
- Macrosite Boundaries
- Managed Areas
- Megasite Boundaries

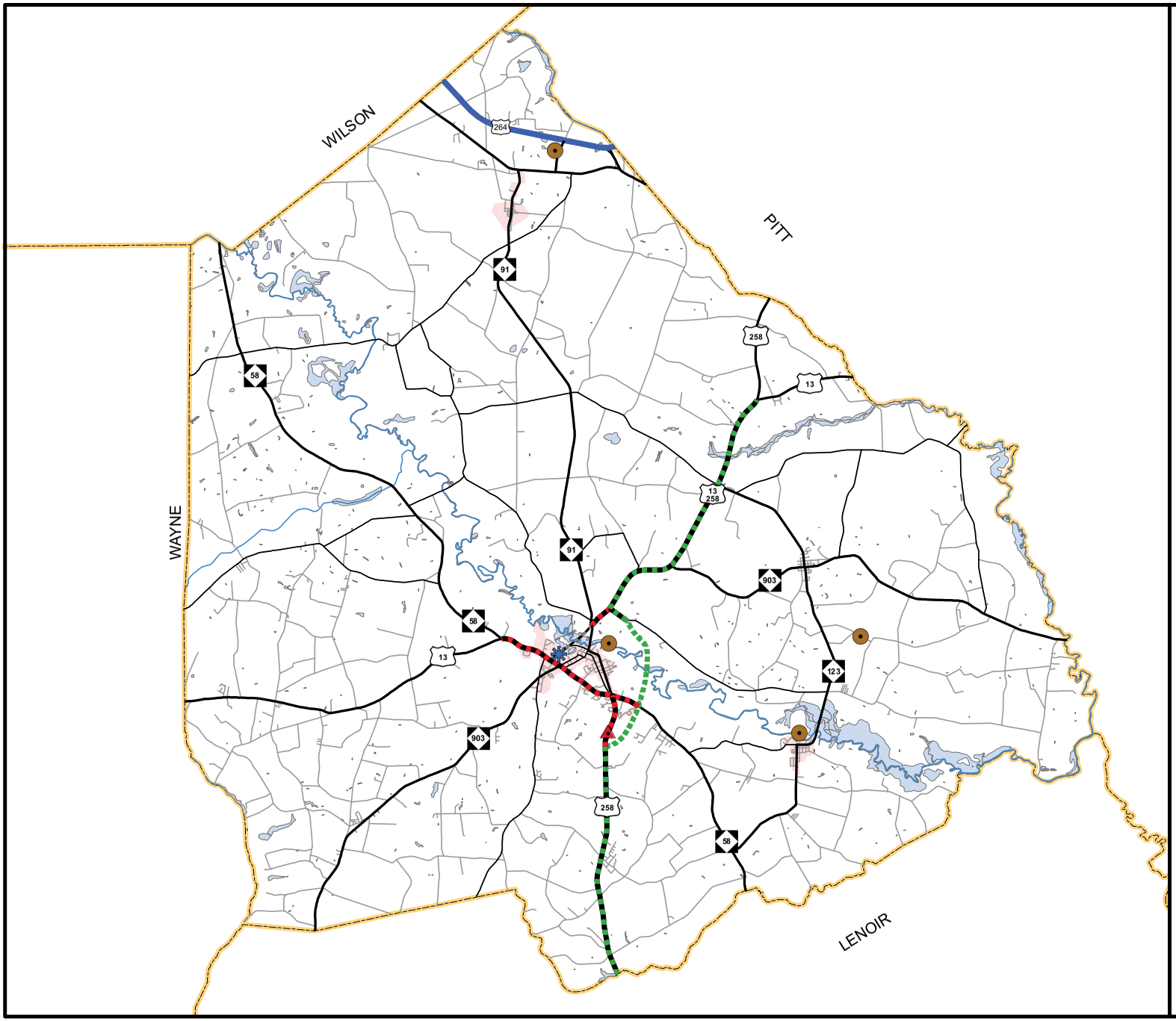

Figure 7

Environmental Features

GREENE COUNTY
A Place To Grow. The Way To Live.

Greene County

Comprehensive Transportation Plan

- Haz. Substance Disposal
- Emergency Op. Center
- Sanitary Sewer Treatment
- Hydrography
- Rivers and streams
- Municipal Boundaries
- County Boundaries
- Freeway, Existing
- Expressway, Recommended
- Expressway, Needs Improvement
- Boulevard, Needs Improvement
- Minor Thoroughfare, Needs Improvement
- Minor Thoroughfares, Existing

N
W E
S

Miles
0 0.5 1 2 3

Base map date: October, 2010

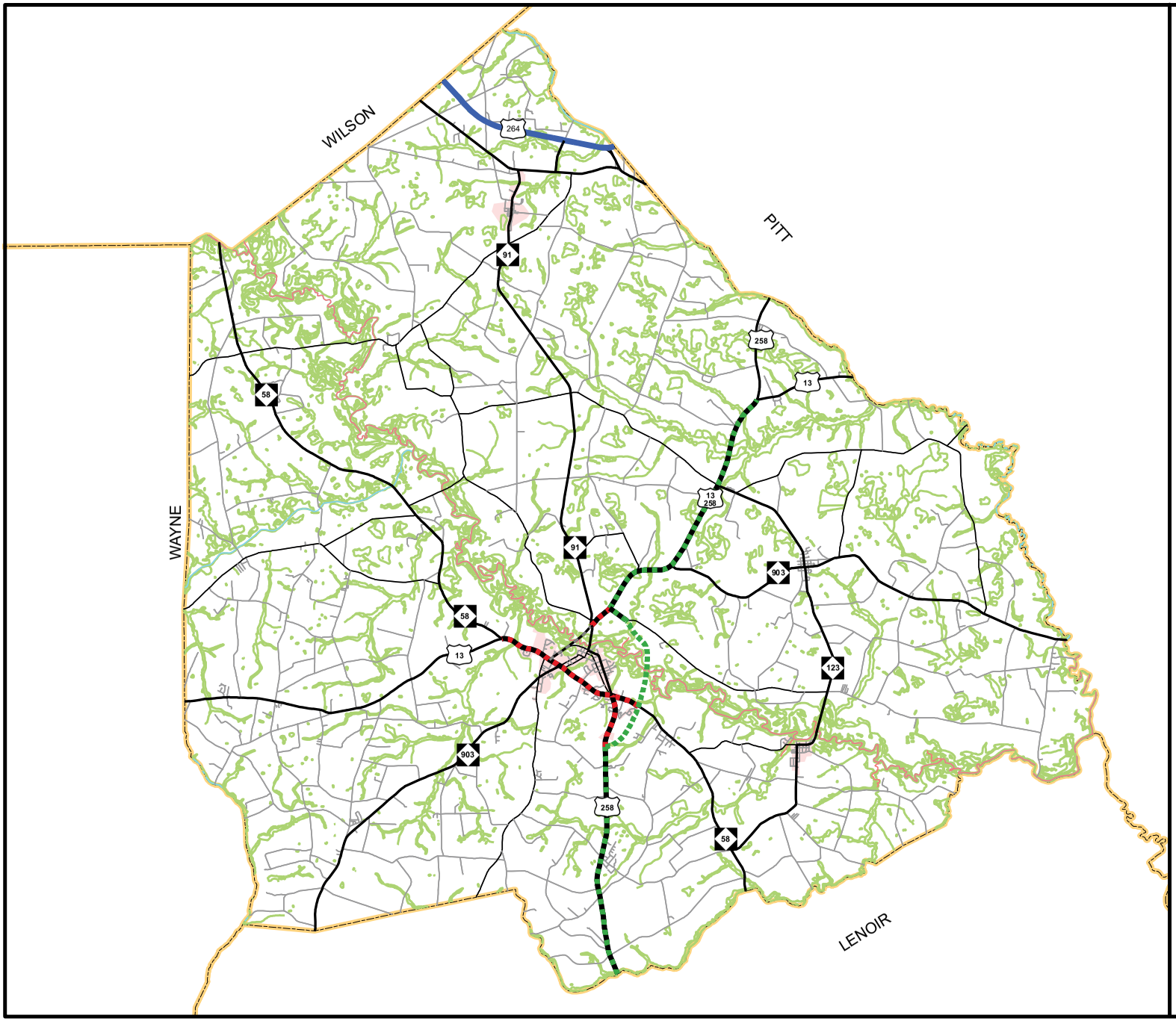

Figure 8

Environmental Features

GREENE COUNTY

A Place To Grow. The Way To Live.

Greene County

Comprehensive Transportation Plan

- Wetlands
- Anadromous Fish Spawning
- Rivers and streams
- Municipal Boundaries
- County Boundaries
- Freeway, Existing
- Expressway, Recommended
- Expressway, Needs Improvement
- Boulevard, Needs Improvement
- Minor Thoroughfare, Needs Improvement
- Minor Thoroughfares, Existing

N W E S

0 1 2 4 6 Miles

Base map date: October, 2010

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 Greene County staff members in August of 2010 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 Transportation Planning Branch cooperatively worked with the Greene County CTP committee, which included representatives from each municipality, county staff, the RPO and others, to provide information on current local plans, to develop transportation vision and goals, to discuss population and employment projections, and to develop 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.

Three public drop-in sessions were held throughout the county to present the proposed Comprehensive Transportation Plan to the public and solicit comments. The meetings were held in 2012 on January 10, 11 and 12 in Snow Hill, Walstonburg and Hookerton, respectively. The meetings were advertised on selected county and municipality web pages, as well as local publications. Each meeting was held from 4:00 p.m. to 7:00 p.m. The NCDOT project engineer and the ECRPO planner involved in the CTP process attended each session in order to answer questions. Large, poster-sized maps of the CTP recommendations were displayed and comment forms and a mailing list were provided for the public. No public comments were received at any of the drop-in sessions.

The CTP was adopted by each of the three municipalities and the County on the following dates:

- Greene County, February 6, 2012
- Hookerton, February 7, 2012
- Walstonburg, February 7, 2012
- Snow Hill, March 1, 2012

The Eastern Carolina RPO endorsed the CTP on March 15, 2012. The North Carolina Department of Transportation voted to mutually adopt the Greene County CTP on July 12, 2012.

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II. Recommendations

This report documents the development of the 2011 Greene County CTP as shown in Figure 1. This chapter presents recommendations for each mode of transportation in the County. Refer to Appendix K for documentation of project alternatives and scenarios that were studied, but are not included in the adopted CTP.

Unaddressed Deficiencies

There are no unaddressed deficiencies in this Comprehensive Transportation Plan.

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 Comprehensive Transportation Plan should be consistent with the other elements.

Initiative for implementing the CTP rests predominately with the policy boards and citizens of the 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 Eastern Carolina RPO (ECRPO) for regional prioritization and submittal to NCDOT. Refer to Appendix A for contact information on funding. Local governments may use the CTP to guide development and protect corridors for the recommended projects. It is critical that NCDOT and local government coordinate on relevant land development reviews and all transportation projects to ensure proper implementation of the CTP. Local governments and the North Carolina Department of Transportation share the responsibility for access management and the planning, design and construction of the recommended projects.

Prior to implementing projects from the CTP, additional analysis will be necessary to meet the National Environmental Policy Act (NEPA) or the North Carolina (or State) Environmental Policy Act (SEPA). This CTP may be used to provide information in the NEPA/SEPA process.

The following pages contain problem statements for each recommendation, organized by CTP modal element.

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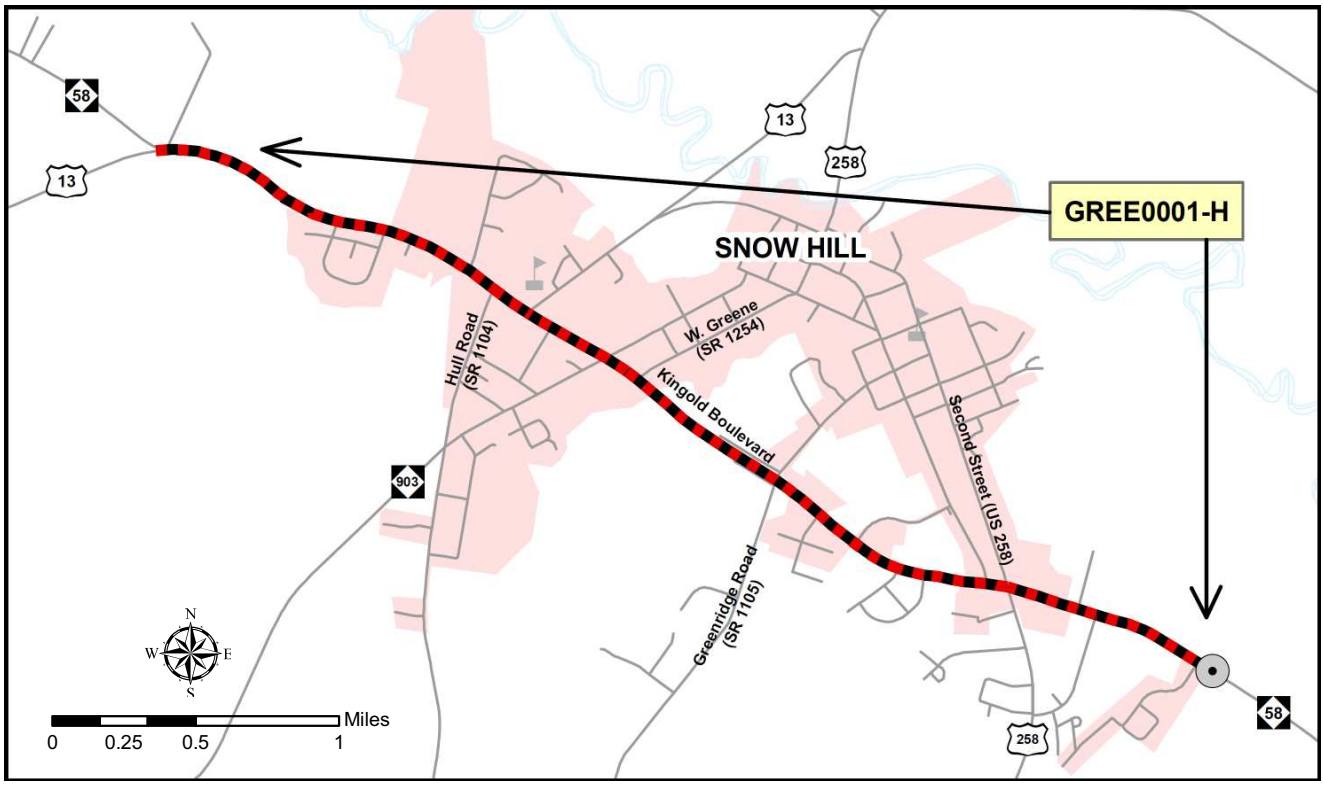
HIGHWAY

NC 58 (Kingold Boulevard) Improvements **Local ID: GREE0001-H**
from US 13/NC 58 split to proposed US 258 Bypass



Identified Problem

Portions of NC 58 (Kingold Boulevard) are projected to be over capacity by 2035 from the US 13/NC 58 split west of Snow Hill to the proposed US 258 bypass east of town. Improvements to NC 58 (Kingold Boulevard) would help address current and projected traffic congestion, allowing the facility to operate at a minimum Level of Service (LOS) D.

Justification of Need

NC 58 (Kingold Boulevard) is both regionally and locally significant. A portion of US 13 travels along it, and it is part of the route connecting Kinston and the Global TransPark to Interstate 95 and US 264. Locally, it provides access to some of the rapidly growing commercial areas of Snow Hill, as well as recreational facilities, residential areas, churches and West Greene Elementary School.

From the US 13/NC 58 split to the western Snow Hill municipal limits where US 13 and NC 58 coincide, the facility consists of two lanes with no median. At the municipal limits,

it takes on the local name, Kingold Boulevard, and continues as a two-lane facility for approximately 1.2 miles. The configuration expands to four lanes, with two west-bound lanes, a two-way left turn lane and one eastbound lane. US 13 splits off at the US 13 Bypass (at the Greene County office complex), and the four-lane configuration is carried to West Greene Street (SR 1254). At West Greene Street, it reduces to a two-lane facility for approximately 1.6 miles with a few short sections of center or left-turn lane storage areas at key intersections and driveways.

Projections indicate that by 2035 the facility will be over capacity from the US 13/NC 58 split to the US 13 Bypass. In this section, the traffic is expected to grow from approximately 11,000 vehicles per day (vpd) in 2007 to between 20,000 and 23,000 vpd in 2035. The section from West Greene Street (SR 1254) to US 258 is also projected to be over capacity, with traffic increasing from approximately 10,000 vpd in 2007 to 18,000 vpd in 2035.

Community Vision and Problem History

NC 58 (Kingold Boulevard) provides access to many of Snow Hill's key private businesses and services, such as grocery stores, automotive and medical services and banking institutions, as well as public services facilities, including county health services, a library, and an elementary school. Development trends in the area suggest that NC 58 (Kingold Boulevard) will continue to provide access to these facilities through 2035. Congestion is perceived to be particularly high during the drop-off and pick-up times for West Greene Elementary School, located on NC 58 (Kingold Boulevard) at the US 13 Bypass. However, many locals stated that traffic is a problem throughout the day as NC 58 (Kingold Boulevard) is used as a trucking route and for people traveling regionally to and from destinations such as Greenville, Goldsboro and Kinston.

NC 58 (Kingold Boulevard) also is used by people south of Contentnea Creek to get to the US 13 Bypass and US 258 crossings of the creek. The next crossings to the east and west of Snow Hill are approximately five miles in either direction. This means that traveling between the immediate areas north and south of Snow Hill often requires using at least some portion of NC 58 (Kingold Boulevard).

CTP Project Proposal

Project Description and Overview

The proposed project (Local ID GREE0001–H) recommends that NC 58 (Kingold Boulevard) be upgraded to a four-lane median-divided boulevard facility with partial access control from the US 13/NC 58 split west of Snow Hill to the proposed US 258 Bypass (Local ID GREE0002-H) east of Snow Hill. An interchange may be necessary where NC 58 (Kingold Boulevard) meets the proposed US 258 Bypass, as the proposed bypass is recommended to be an expressway.

Making the facility a consistent cross section and having two travel lanes in each direction will help alleviate projected capacity deficiencies. The improvements should help facilitate through traffic and local traffic that will be slowing at driveways and

intersecting streets. It is also recommended that left and u-turns only be allowed at key intersections and an effort should be taken to limit access where reasonable to help ensure more efficient mobility.

Natural & Human Environmental Context

Along most of the project area, the right-of-way (ROW) is 100 to 150 feet. This should allow ample room for a four-lane median-divided boulevard facility to be constructed within the existing ROW. There is a relatively short stretch (approximately 0.34 miles) where the ROW is approximately 60 feet. The narrow section of ROW includes some private residential units and County property. Some residential structures, mostly between Gregory Avenue and US 258, may be affected by the project.

The Snow Hill Cemetary is located at the southwest corner of NC 58 (Kingold Boulevard) and US 258. While there appears to be 100 feet of ROW available for road improvements, the proximity of any improvements to the cemetery will need to be considered.

Relationship to Land Use Plans

A residential development to the west of Snow Hill between the US 13 Bypass and the US 13/NC 58 split is projected to grow in the near future. Other housing developments are proposed to the east of Town on NC 58, including the Cutter Creek Golf course area. Also, commercial development is projected in the area where NC 58 (Kingold Boulevard) intersects US 258.

Linkages to Other Plans and Proposed Project History

The 1999 Greene County Thoroughfare Plan recommends upgrading the entire length of NC 58 in Greene County to a four-lane facility and does not specify whether or not this would include a median. However, nearly all of the portion of NC 58 (US 13 and Kingold Boulevard) in proposed project GREE0001–H is not included in the 1999 thoroughfare plan improvements due to a recommended bypass south of Snow Hill, which would carry NC 58 traffic from near the NC 58/US 13 split to a short distance past the proposed US 258 Bypass (Local ID GREE0002-H).

This project is not in the 2012-2018 State Transportation Improvement Program (STIP). The portion of NC 58 (Kingold Boulevard) addressed in this recommendation is functionally classified as a Major Collector.

Multi-modal Considerations

The pedestrian element of this CTP includes a recommendation to provide sidewalks along the entire length of the proposed NC 58 (Kingold Boulevard) roadway improvements. Bicycle accommodations are also recommended from the proposed US 258 Bypass to the intersection of NC 58 (Kingold Boulevard) and Hull Road (SR 1104). There are no rail crossings, rail lines or fixed route bus lines that are affected by this project proposal.

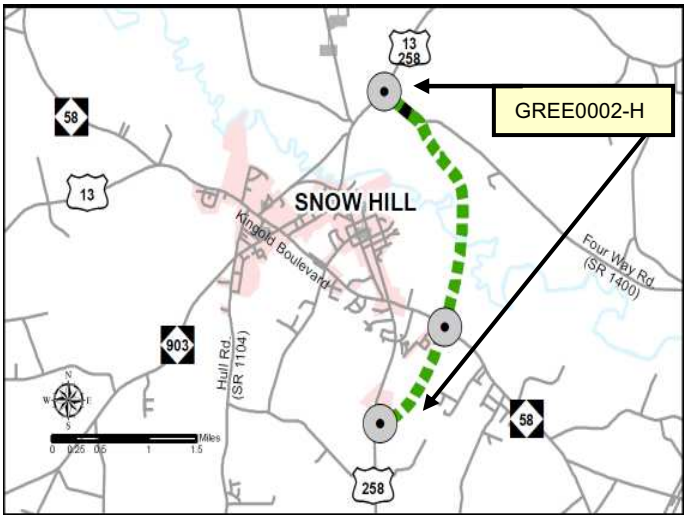
Public/ Stakeholder Involvement

Members of the CTP study committee indicated that reducing current and projected congestion on NC 58 (Kingold Boulevard) is high on their list of local priorities. Also, comments made in a public survey indicated that recurring congestion on NC 58 (Kingold Boulevard) is a problem that needs to be addressed. See Appendix H for more information on public involvement and the results of the Greene County CTP public survey.

US 258 Bypass from US 258 south of Kingold Boulevard to Four Way Road (SR 1400) and US 258	Local ID: GREE0002-H

Identified Problem

Traveling between US 13/US 258 north of Snow Hill and NC 58 or US 258 south of Snow Hill typically requires going through either the town's central business district on US 258 (SE 2nd Street) or on the US 13 Bypass and along NC 58 (Kingold Boulevard). Both NC 58 (Kingold Boulevard) and US 258 (SE 2nd Street) are projected to exceed capacity by 2035, based on providing a minimum Level of Service D (LOS D).



Justification of Need

US 258 and NC 58 south of Snow Hill connect Kinston and other parts of Lenoir County, including the Global TransPark (GTP), to Greene County and areas to the north, such as Greenville and beyond. Anticipated growth at the GTP and surrounding area will most likely increase truck and other traffic on US 13, US 258 and NC 58. As traffic increases, an alternative to going directly through the town of Snow Hill will be necessary.

The US 13 Bypass is projected to be over capacity (exceed level of service D) by 2035, with traffic expected to grow from 8,600 vehicles per day (vpd) in 2007 to 15,000 vpd by 2035. Portions of NC 58 (Kingold Boulevard) will be over capacity, growing from 10,000 vpd in 2007 to over 18,000 vpd by 2035. US 258 (SE 2nd Street) is also projected to be over capacity by 2035, with traffic increasing from 6,300 vpd in 2007 to 13,000 vpd in 2035.

Community Vision and Problem History

Both NC 58 (Kingold Boulevard) and US 258 through Town (SE 2nd Street) are experiencing commercial and residential development and are projected to continue doing so into the future. Both routes serve local traffic with access to commercial and residential areas, as well as government services.

While local citizens express a desire to keep the commercial developments accessible as a destination to those coming from throughout the region, there were concerns about the amount of large vehicles forced to travel through the area. Providing an alternative route for through trips can help alleviate the problem of congestion in the central business district making travel to the commercial sections of Town more appealing.

CTP Project Proposal

Project Description and Overview

It is recommended that a bypass connecting US 258 south of Snow Hill to US 13/258 north of Snow Hill at Four Way Road (SR 1400) be constructed on new location. The project (Local ID GREE0002–H) would be an expressway, and is envisioned to provide interchange facilities at US 258 south of Snow Hill, Kingold Boulevard and US 258/Four Way Road (SR 1400) north of Snow Hill. Four Way Road (SR 1400) will need to be improved to a four-lane, median-divided expressway from where the proposed bypass meets Four Way Road (SR 1400) to the proposed interchange at US 13/258 (approximately 0.46 miles).

Initially, the project could be implemented as a two-lane median-divided expressway on sufficient right-of-way (ROW) for a four-lane median-divided facility. As the need arises, the additional lanes and necessary changes can be constructed as the next phase of the project.

Natural & Human Environmental Context

The project will require crossing the Contentnea Creek and its associated flood plain and wetlands. It appears that the project may be constructed almost entirely on undeveloped land. The conceptual recommendation (See Figure 1, Sheet 2), attempts to minimize wetland impacts and utilizes only one crossing of Contentnea Creek. However, a full range of options will be studied as part of the project development process.

Linkages to Other Plans and Proposed Project History

The 1999 Greene County Thoroughfare Plan shows a US 258 Bypass that connects US 258 south of Snow Hill to the intersection of NC 903 and US 13/US 258 north of Snow Hill. Transportation Improvement Program (TIP) R-4423, which involves widening US 258 from Lenoir County to Pitt County and recommends bypassing Snow Hill is not funded in the 2012-2018 State Transportation Improvement Program (STIP) and is currently being examined as part of NCDOT's normal prioritization process. The recommended US 258 Bypass in this plan (GREE0002-H) is not funded in the 2012-2018 STIP.

For this recommendation, it was decided to bring the northern connection of the bypass south of the 1999 Thoroughfare Plan's recommended connection (see Figures 11 and 2, Sheet 2) in order to encourage through trips that might be heading to NC 91, and for more efficient access to the high school, early college, and middle and intermediate schools located north of Snow Hill. Also, the current concept attempts to reduce the number of river crossings from up to four in the 1999 Greene County Thoroughfare Plan to as few as one in the current plan. Improvements to NC 58 (Kingold Boulevard) (Local ID GREE0001-H) and the US 13 Bypass Improvements (Local ID GREE0004-H) are intended to alleviate the congestion previously addressed by the bypass recommendations to the west of Snow Hill in the 1999 plan.

Improvements to existing US 258 through Town were not seen as a viable option. Portions of US 258 (2nd Street) in Snow Hill consist of fairly dense commercial areas and include narrow sections of right-of-way that are approximately 60 feet wide in some locations. These conditions are not conducive to the goal of having US 258, which is part of the North Carolina Truck Network, be a higher speed facility (55 mph) used for through trips. US 258 is functionally classified as a Minor Arterial.

Multi-modal Considerations

Recommendations for improving bicycle access to portions of NC 58 (Kingold Boulevard) would cross the proposed US 258 Bypass. Also, bicycle improvements are recommended for Four Way Road (SR 1400) and a portion of that would coincide with the proposed bypass as it ties into US 13/US 258 north of Snow Hill.

There are no rail crossings, rail lines or fixed route bus lines that are affected by this project proposal.

Public/ Stakeholder Involvement

The CTP study committee indicated that alleviating some of the projected congestion in Snow Hill by providing an alternate route would be beneficial to the Town. However, a desire to promote and maintain a level of traffic through the central business district and other commercial centers was expressed.

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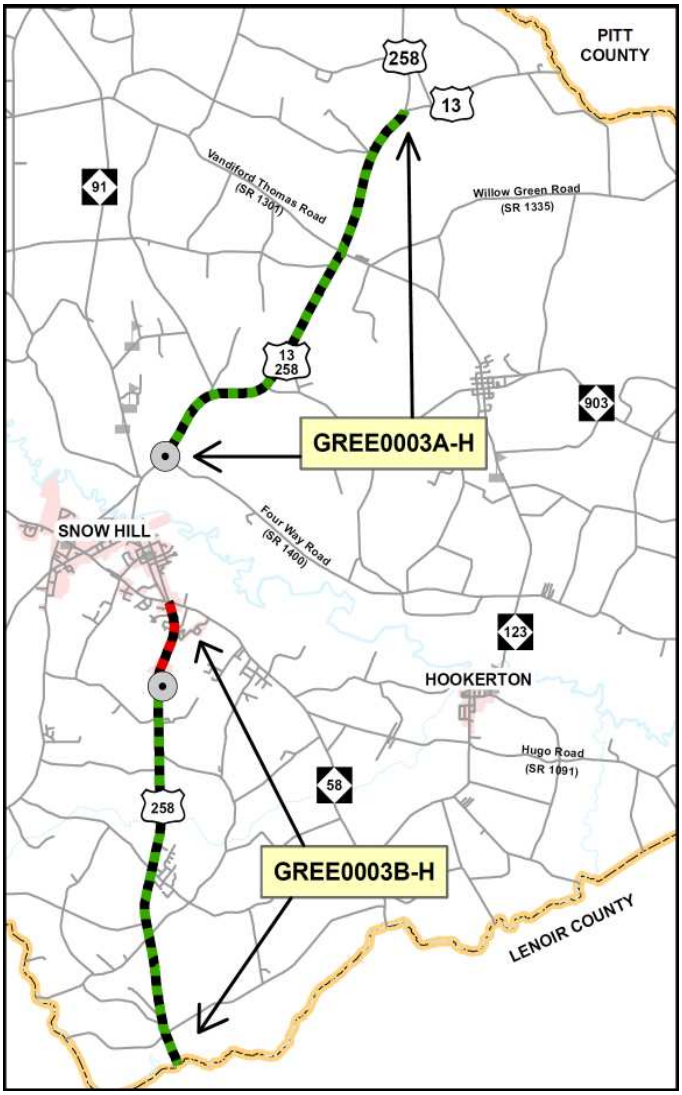
US 13/US 258 improvements **Local ID: GREE0003A-H and GREE0003B-H**

Lenoir County line to US 13/258 Split



Identified Problem

Portions of US 13/US 258 north of Snow Hill are projected to be significantly over capacity by 2035. US 258 to the south of Snow Hill may see increasing regional transportation demands, particularly with trucks and other large vehicles, as it connects Lenoir County to destinations in the north. Improvements should be made in order for the facility to continue providing a minimum Level of Service (LOS) D.

Justification of Need

US 258 south of Snow Hill and US 13/US 258 north of Snow Hill provide regional connectivity between Lenoir County, Greene County and amenities in Pitt County, primarily located in and around Greenville. Greenville is a major destination for residents in Greene, Lenoir and other nearby counties for medical facilities, employment and shopping. The need for safe, efficient access to and from Greenville for those living to the south is a vital need for the region.

Anticipated growth at the Global TransPark will elevate the need for an improved US 13/US 258 corridor through Greene County. Because the TransPark's focus is on manufacturing, US 258 would serve as a natural shipping route for truck traffic traveling to and from Kinston and US 264.

Relatively few commercial buildings and driveways exist along US 13/258 north of Snow Hill at this time, making improving the existing facility a viable strategy.

Currently, US 258 south of Snow Hill and US 13/258 north of Snow Hill are two-lane facilities that include left-turn storage at select intersections.

US 13/US 258 immediately north of Snow Hill is expected to be severely over capacity in the future with projected traffic growing from 11,000 vehicles per day (vpd) in 2007 to 22,000 vpd in 2035.

CTP Project Proposal

Project Description and Overview

GREE0003A-H
It is recommended that US 13/US 258 from the US 13 Bypass to the intersection of the proposed US 258 bypass (GREE0002-H) be upgraded to a four-lane divided boulevard. From the proposed US 258 Bypass to the US 13/US 258 split, US 13/US 258 is recommended to be improved to a four-lane median-divided expressway. This will add additional capacity to the facility in order to alleviate projected capacity deficiencies.

GREE0003B-H
US 258 from the Lenoir County line to the intersection of the proposed US 258 Bypass south of Snow Hill is recommended to be upgraded to a four-lane median-divided expressway. From the proposed US 258 Bypass to the intersection of NC 58 (Kingold Boulevard), US 258 is recommended to be upgraded to a four-lane median-divided boulevard. This will address anticipated future growth at the Global TransPark (GTP), making US 258 an efficient commercial route for the region.

Natural & Human Environmental Context

Several private residences and commercial businesses would be impacted by widening and restricting access to US 13/US 258. Also, US 258 south of Snow Hill crosses Rainbow Creek.

Linkages to Other Plans and Proposed Project History

The 1999 Green County Thoroughfare plan recommends upgrading US 13 and US 258 to a four-lane divided facility. Transportation Improvement Project (TIP) R-4423, which involves widening US 258 from Lenoir County to Pitt County is not funded in the 2012-2018 State Transportation Improvement Plan (STIP) and has been scheduled for reprioritization. The recommended US 13/258 improvements in this plan (GREE0003A-H and GREE0003B-H) are not funded in 2012-2018 STIP. The recommendations in this plan are consistent with the 1999 Lenoir County Thoroughfare plan, as it call for widening US 258 to a four-lane divided facility.

Multi-modal Considerations

There are proposed bicycle facility improvements to Jesse Hill Road/Glenfield Road (SR 1103), including where those roads cross US 258. A segment of US 13/US 258 includes bicycle facility improvements from the intersection of US 13/258 and NC 91 to the intersection of US 13/258 and Four Way Road (SR 1400). Vandiford Thomas Road (SR 1301), where it crosses US 13/258 includes recommendations for bicycle facility improvements.

There are no rail crossings, rail lines, fixed-route bus lines or pedestrian facility recommendations that are affected by this project proposal.

Public/Stakeholder Involvement

See appendix H for more information on public involvement in the CTP process.

US 13 Bypass Improvements, Local ID: GREE0004-H

The US 13 Bypass is an important local and regional facility as it keeps through trips that are traveling to and from southeast and north Greene County and beyond from going through Snow Hill's central business district. It connects US 258 and NC 91 north of Snow Hill to areas in the southwest.

Projections indicate that US 13 Bypass will be over capacity in the future with an increase in traffic going from 8,600 vehicles per day (vpd) in 2007 to 13,300 vpd in 2035.

To allow for additional capacity, it is recommended that US 13 Bypass be widened from two lanes to a three-lane facility with center turn lane from NC 58 (Kingold Boulevard) to Second Street. The center turn lane will facilitate turns into the Greene County office complex, various medical offices and other businesses.

These improvements should eliminate the need for bypass facilities on new location to the west of Snow Hill (as was recommended on the 1999 Greene County Thoroughfare Plan).

PUBLIC TRANSPORTATION & RAIL

There are no public transportation or rail recommendations in this plan.

Public transportation in Greene County is implemented by Greene County Transporation, a demand-response bus system.

An active freight rail line is present in the northern portion of the county. The line is owned by Norfolk Southern Railway and operations are leased to Carolina Coastal Railway. The NCDOT Rail Division indicates that there are no current projects scheduled that affect that line.

BICYCLE

The roads that carry NC Bicycle Route 7, also called "The Ocracoke Option", are recommended to have their shoulders widened to at least four feet in order to accommodate cyclists. The route enters western Greene County from Wayne County, and heads south to Lenoir County.

Roads that carry NC Bicycle Route 7 include portions of Bullhead Road (SR 1058), Fort Run Road (SR 1058), Shine Road (SR 1210), Free Gospel Road (SR 1132), Rag Road (SR 1132) and NC 903.

Recommended improvements to NC 58 (Kingold Boulevard), local project ID GREE0001-H, include bicycle accommodations from the proposed US 258 Bypass to the intersection of NC 58 (Kingold Boulevard) and Hull Road (SR 1104).

It is recommended that bicycle accommodations be added to Middle School Road (SR 1330). Greene County Middle School is currently located on Middle School Road, and Greene County Intermediate School is currently under construction. Bicycle accommodations would help students access the schools.

Other bicycle facility improvements (See map, Figure 1, Sheet 4) were suggested for various roads throughout the County in order to facilitate riders who tour Greene County and some of its local destinations such as farms and other businesses. The improvements would also enhance connectivity between the three Greene County municipalities for those who choose to travel by bicycle. The shoulders of these roads are recommended to be widened to a minimum of four feet.

PEDESTRIAN

When proposed improvements to Kingold Boulevard/US13/NC 58 are implemented (GREE0001-H), it is recommended that pedestrian facilities are constructed as well, from the US 13/NC 58 split west of Snow Hill to the intersection of Kingold Boulevard/NC 58 and the proposed US 258 Bypass (GREE0002-H). Currently, sidewalks along Kingold Boulevard only exist between Hull Road (SR 1104) and West Greene Street (SR 1254), a distance of approximately 0.6 miles.

Sidewalks are recommended along Middle School Road (SR 1330) to accommodate potential foot traffic to and from Greene County Middle School and Greene County Intermediate School.

Requests from the town of Hookerton and it's citizens indicated a need for improvements to existing sidewalks and the construction of new sidewalks where gaps in existing facilities exist (See Figure 1, Sheet 5). Portions of the existing sidewalks include uneven surfaces, varying curb heights and broken pavement.

Improvements to the sidewalks in Hookerton (or the construction of new facilities) include NC 123/Main Street from Shady Grove Church Road (SR 1091) through Hookerton to Taylor Heights Street.

Sidewalks are recommended in Walstonburg, primarily along the roads south of Railroad Street (SR 1304) within the municipal limits (See map, Figure 1, Sheet 5). Sidewalks are also recommended for along NC 91 starting approximately 0.08 miles south of School House Road (SR 1226) and continuing north the municipal limits (US 264 Alt.).

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APPENDICES

Appendix A
Resources and Contacts

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 homepage:

1-877-DOT-4YOU
(1-877-368-4968)
https://apps.dot.state.nc.us/dot/directory/authenticated/ToC.aspx

Secretary of Transportation

1501 Mail Service Center
Raleigh, NC 27699-1501
(919) 733-2520
http://www.ncdot.org/about/leadership/secretary.html

Board of Transportation Member

1501 Mail Service Center
Raleigh, NC 27699-1501
http://www.ncdot.gov/about/board/default.html

Highway Division Engineer

Contact the Division Engineer with general questions concerning NCDOT activities within each Division and for information on Small Urban Funds.

105 Pactolus Hwy. (NC 33)
PO Box 1587
Greenville, NC 27835
(252) 830-3490
http://www.ncdot.gov/doh/operations/division2/

Division Project Manager

Contact the Division Project Manager with questions concerning transportation projects within each Division.

105 Pactolus Hwy. (NC 33)
PO Box 1587
Greenville, NC 27835
(252) 830-3490

Division Construction Engineer

Contact the Division Construction Engineer for information concerning major roadway improvements under construction.

105 Pactolus Hwy. (NC 33)
PO Box 1587
Greenville, NC 27835
(252) 830-3490

Division Traffic Engineer

Contact the Division Traffic Engineer for information concerning traffic signals, highway signs, pavement markings and crash history.

1712 North Memorial Drive
PO Box 1587
Greenville, NC 27835
(252) 830-3490

Division Operations Engineer

Contact the Division Operations Engineer for information concerning facility operations.

105 Pactolus Hwy. (NC 33)
PO Box 1587
Greenville, NC 27835
(252) 830-3490

Division Maintenance Engineer (Acting)

Contact the Division Maintenance Engineer information regarding maintenance of all state roadways, improvement of secondary roads and other small improvement projects. The Division Maintenance Engineer also oversees the District Offices, the Bridge Maintenance Unit and the Equipment Unit.

105 Pactolus Hwy. (NC 33)
PO Box 1587
Greenville, NC 27835
(252) 830-3490

District Engineer

Contact the District Engineer for information on outdoor advertising, junkyard control, driveway permits, road additions, subdivision review and approval, Adopt A Highway program, encroachments on highway right of way, issuance of oversize/overwidth permits, paving priorities, secondary road construction program and road maintenance.

105 Pactolus Hwy. (NC 33)
PO Box 1587
Greenville, NC 27835
(252) 830-3490

Transportation Planning Branch (TPB)

Contact the Transportation Planning Branch for information on long-range multi-modal planning services, including Strategic Highway Corridors.

1554 Mail Service Center
Raleigh, NC 27699-1554
(919) 707-0900
http://www.ncdot.gov/doh/preconstruct/tpb/

Eastern Carolina Rural Planning Organization (RPO)

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

P.O. Box 1717
New Bern, NC 28563-1717
(252) 638-3185 Ext. 3001
http://www.eccog.org/document.asp?document_name=rpo/ecrpo

Strategic Planning Office

Contact the Strategic Planning Office for information concerning prioritization of transportation projects.

1501 Mail Service Center
Raleigh, NC 27699-1501
(919) 715-0951
https://apps.dot.state.nc.us/dot/directory/authenticated/UnitPage.aspx?id=11054

Project Development & Environmental Branch (PDEA)

Contact PDEA for information on environmental studies for projects that are included in the TIP.

1548 Mail Service Center
Raleigh, NC 27699-1548
(919) 707-6000
http://www.ncdot.gov/doh/preconstruct/pe/

Secondary Roads Office

Contact the Secondary Roads Office for 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.

1535 Mail Service Center
Raleigh, NC 27699-1535
(919) 733-3250
http://www.ncdot.gov/doh/operations/secondaryroads/

Program Development Branch

Contact the Program Development Branch for information concerning Roadway Official Corridor Maps, Feasibility Studies and the Transportation Improvement Program (TIP).

1534 Mail Service Center
Raleigh, NC 27699-1534
(919) 733-2039
http://www.ncdot.org/planning/development/

Public Transportation Division

Contact the Public Transportation Division for information public transit systems.

1550 Mail Service Center
Raleigh, NC 27699-1550
(919) 733-4713
http://www.ncdot.org/transit/nctransit/

Rail Division

Contact the Rail Division for rail information throughout the state.

1553 Mail Service Center
Raleigh, NC 27699-1553
(919) 733-7245
http://www.bytrain.org/

Division of Bicycle and Pedestrian Transportation

Contact this Division for bicycle and pedestrian transportation information throughout the state.

1552 Mail Service Center
Raleigh, NC 27699-1552
(919) 707-2600
http://www.ncdot.gov/transit/bicycle/

Structures Management Unit

Contact the Structures Management Unit for information on bridge management throughout the state.

1565 Mail Service Center
Raleigh, NC 27699-1565
(919) 733-4362
http://www.ncdot.gov/doh/operations/dp_chief_eng/maintenance/bridge/

Highway Design Branch

The Highway Design Branch consists of the Roadway Design, Structure Design, Photogrammetry, Location & Surveys, Geotechnical, and Hydraulics Units. Contact the Highway Design Branch for information regarding design plans and proposals for road and bridge projects throughout the state.

1584 Mail Service Center
Raleigh, NC 27699-1584
(919) 250-4001
http://www.ncdot.gov/doh/preconstruct/highway/

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/en/CommunityServices/

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Appendix B
Comprehensive Transportation Plan Definitions

Highway Map

For visual depiction of facility types for the following CTP classification, visit http://www.ncdot.gov/doh/preconstruct/tpb/SHC/facility/.

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**
  - 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
- 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, or system continuity. The improvement to the facility may be widening, other operational strategies, increasing the level of access control along the facility, or a combination of improvements and strategies. *"Needs improvement" does not refer to the maintenance needs of existing facilities.*
- **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.
- **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 high speed rail service is provided (there are currently no existing high speed corridor in North Carolina).
  - Recommended – Proposed corridor for high speed rail service.
- **Rail Stop** – A railroad station or stop along the railroad tracks.
- **Intermodal 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 or a bus station.
- **Park and Ride Lot** – A strategically located parking lot that is free of charge to anyone who parks a vehicle and commutes by transit or in a carpool.
- **Existing Grade Separation** – Locations where existing rail facilities and 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.
- **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.

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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 '(ft)' is the approximate width of the roadway from edge of pavement to edge of pavement. Listed under 'lanes' is the total number of lanes, with the letter 'D' if the facility is divided.

- **Existing ROW:** The estimated existing right-of-way is based on NCDOT Road Characteristics data and Greene County GIS data. 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 using NCLOS methods, as documented in Chapter I.

- **Existing and Proposed AADT** (Annual Average Daily Traffic) volumes, given in vehicles per day (vpd), are estimates only based on a systems-level analysis. The '2035 AADT E+C' is an estimate of the volume in 2035 with only existing plus committed projects assumed to be in place, where committed is defined as projects programmed for construction in the 2012 - 2019 Transportation Improvement Program (TIP). The '2035 AADT with CTP' is an estimate of the volume in 2035 with all proposed CTP improvements assumed to be in place. The '2035 AADT 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 I.

- **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 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 Mulitmodal Investment Network (NCMIN). Abbreviations are Sta= statewide tier, Reg= regional tier, Sub= subregional tier.

- **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, and P= pedestrian).

Table 3 - CTP INVENTORY AND RECOMMENDATIONS

HIGHWAY																		
					2007 Existing System						2035 Proposed System							
Local ID	Facility	Section (From - To)	Jurisdiction	Dist. (mi)	Cross-Section (ft)	Cross-Section lanes	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2007 AADT	2035 AADT E+C	2035 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classifi-cation	Tier	Other Modes
	Beaman Old Creek Rd. (SR 1247)	NC 91 to Washington Branch Church Rd. (SR 1245)	County	4	20	2	-	55	12,500	1,100	1,200	1,200	12,500	ADQ	-	Min	Sub	-
	Beaman Old Creek Rd. (SR 1247)	Washington Branch Church Rd. (SR 1245)	County	4.4	20	2	-	55	12,500	500	800	800	12,500	ADQ	-	Min	Sub	-
	Castoria Rd. (SR 1244)	Beaman Old Creek (SR 1222) to NC 91	County	2.5	18	2	60	55	10,900	600	1,000	1,000	10,900	ADQ	-	Min	Sub	-
	Dixon Farm Rd. (SR 1438)	NC 58 to W. Main St. (SR 1438)	County	2.3	18	2	60	55	10,900	1,200	1,600	1,600	10,900	ADQ	-	Min	Sub	-
	Fieldsboro Rd. (SR 1303)	NC 91 to US 264 Alt.	County	2.2	18	2	60	55	10,000	600	900	900	10,000	ADQ	-	Min	Sub	-
	Fort Run Rd. (SR 1201	Wayne Co. line to Nahunta Rd. (SR 1218)	County	3.4	18	2	60	55	10,500	1,500	3,100	3,100	10,500	ADQ	-	Min	Sub	-
	Fort Run Rd. (SR 1201	Nahunta Rd. (SR 1218) to NC 58	County	2.9	18	2	60	55	10,500	1,100	-	1,100	10,500	ADQ	-	Min	Sub	-
	Half Moon Rd. (SR 1342)	NC 903 to Willow Green Rd. (SR 1335)	County	2.4	18	2	60	55	10,900	700	1,100	1,100	10,900	ADQ	-	Min	Sub	-
	Hull Rd. (SR 1104)	Lenoir Co. line to Joshua Mewborn Rd. (SR 1128)	County	1.8	20	2	60	55	12,500	1,300	1,500	1,500	12,500	ADQ	-	Min	Sub	-
	Hull Rd. (SR 1104)	Joshua Mewborn Rd. to Jim Grant Rd. (SR 1108)	County	1	20	2	60	35	12,900	1,400	2,300	2,300	12,900	ADQ	-	Min	Sub	-
	Hull Rd. (SR 1104)	Jim Grant Rd. (SR 1108) to Possum Farm Rd. (SR 1107)	County	0.2	20	2	60	45	12,700	-	-	-	12,700	ADQ	-	Min	Sub	-
	Hull Rd. (SR 1104)	Possum Farm Rd. (SR 1107) to Snow Hill CL	County	1.9	20	2	60	55	12,500	1,600	2,200	2,200	12,500	ADQ	-	Min	Sub	-
	Hull Rd. (SR 1104)	Snow Hill CL to US 13/NC 58	Snow Hill	0.8	20	2	60	35	12,900	3,500	4,500	4,500	12,900	ADQ	-	Min	Sub	-
GREE0002-H	Four Way Rd. (SR 1400)	US 13/258 to Proposed US 258 Bypass	County	0.5	20	2	60	55	11,400	1,400	2,800	Common to US 258 Bypass				Min	Sub	-
	Four Way Rd. (SR 1400)	US 13/258 to NC 123	County	4.8	20	2	60	55	11,400	1,400	2,800	2,800	11,400	ADQ	-	Min	Sub	-

HIGHWAY																		
					2007 Existing System						2035 Proposed System							
Local ID	Facility	Section (From - To)	Jurisdiction	Dist. (mi)	Cross-Section (ft)	Cross-Section lanes	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2007 AADT	2035 AADT E+C	2035 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classifi-cation	Tier	Other Modes
	Middle School Rd. (SR 1330)	NC 91 to Newell Rd. (SR 1328)	County	1.2	22	2	60	55	13,800	-	-	-	13,800	ADQ	-	Min	Sub	B
	NC 58	Wilson Co. line to Speights Bridge Rd. (SR 1225)	County	2.5	24	2	60	55	13,900	4,400	9,200	9,200	13,900	ADQ	-	Maj	Reg	-
	NC 58	Speights Bridge Rd. (SR 1225) to Harper Rd. (SR 1217)	County	3.2	24	2	60	55	13,900	4,400	9,300	9,300	13,900	ADQ	-	Maj	Reg	-
	NC 58	Harper Rd. (SR 1217) to Fort Run Rd. (SR 1058)	County	4	24	2	60	55	13,900	4,100	9,200	9,200	13,900	ADQ	-	Maj	Reg	-
	NC 58	Fort Run Rd. (SR 1201) to US 13	County	1.9	24	2	90	55	13,900	5,300	10,500	10,500	13,900	ADQ	-	Maj	Reg	-
GREE0001-H	NC 58	US 13 to WCL	County	Common to US 13														
GREE0001-H	NC 58	WCL to US 13 Bypass	Snow Hill	Common to US 13														
GREE0001-H	NC 58	US 13 Bypass to NC 903	Snow Hill	0.3	40	4	60	35	19,200	10,000	18,300	21,000	38,000	4D	110	Maj	Reg	B,P
GREE0001-H	NC 58	NC 903 to SE Snow Hill City Limit	Snow Hll	0.6	36	3	150	45	14,300	10,000	18,400	21,000	38,000	4D	110	Maj	Reg	B,P
GREE0001-H	NC 58	SE Snow Hill City Limit to Lakeside Dr. (SR 1169)	County	0.5	24	2	150	45	13,300	10,000	18,400	23,000	38,000	4D	110	Maj	Reg	B,P
GREE0001-H	NC 58	Lakeside Dr. (SR 1169) to US 258	County	0.2	36	3	150	45	14,300	10,000	19,200	25,000	38,000	4D	110	Maj	Reg	B,P
GREE0001-H	NC 58	US 258 to Chelsea Dr.	County	0.6	24	2	100	45	14,500	6,500	12,700	13,000	38,000	4D	110	Maj	Reg	B,P
	NC 58	Chelsea Dr. to Shady Grove Church Rd. (SR 1091)	County	1.8	24	2	100	55	13,900	5,200	9,900	9,900	13,900	ADQ	-	Maj	Reg	-
	NC 58	Shady Grove Church Rd. (SR 1091) to NC 123	County	2.1	24	2	100	55	13,900	2,800	8,200	8,200	13,900	ADQ	-	Maj	Reg	-
	NC 58	NC 123 to Lenoir CL	County	1.0	24	2	100	55	13,900	-	-	-	13,900	ADQ	-	Maj	Reg	-
	NC 91	US 264 Alt. to NCL Walstonburg	County	0.3	20	2	60	55	12,500	1,100	1,200	1,200	12,500	ADQ	-	Min	Reg	-
	NC 91	NCL Walstonburg to Hoot Hollow St.	Walstonburg	0.3	20	2	60	35	10,000	1,300	1,500	1,500	10,000	ADQ	-	Min	Reg	P
	NC 91	Hoot Hollow St. to Railroad St. (SR 1304)	Walstonburg	0.3	33	2	50	25	9,200	1,300	1,500	1,500	9,200	ADQ	-	Min	Reg	P
	NC 91	Railroad St. (SR 1304) to SCL Walstonburg	Walstonburg	0.4	33	2	50	35	10,000	1,300	1,500	1,500	10,000	ADQ	-	Min	Reg	P
	NC 91	SCL Walstonburg to Speights Bridge Rd. (SR 1225)	County	0.3	20	2	80	55	12,500	1,300	1,500	1,500	12,500	ADQ	-	Min	Reg	

HIGHWAY																		
					2007 Existing System						2035 Proposed System							
Local ID	Facility	Section (From - To)	Jurisdiction	Dist. (mi)	Cross-Section (ft)	Cross-Section lanes	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2007 AADT	2035 AADT E+C	2035 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classifi-cation	Tier	Other Modes
	NC 91	Speights Bridge Rd. (SR 1225) to Vandiford Thomas Rd. (SR 1325)	County	3.7	22	2	80	55	13,700	900	1,400	1,400	13,700	ADQ	-	Min	Reg	
	NC 91	Vandiford Thomas Rd. (SR 1325) to US 258/13	County	5.2	22	2	80	55	13,700	1,300	2,200	2,200	13,700	ADQ	-	Min	Reg	
	NC 123	NC 58 to SCL Hookerton	County	2.4	22	2	60	45	12,700	1,800	2,700	2,700	12,700	ADQ	-	Min	Sub	
	NC 123	SCL Hookerton to Greene St.	Hookerton	0.3	22	2	60	35	13,000	2,200	2,900	2,900	13,000	ADQ	-	Min	Sub	P
	NC 123	Greene St. to Main St. (SR 1438)	Hookerton	0.3	40	2	60	35	13,500	2,200	2,900	2,900	13,500	ADQ	-	Min	Sub	P
	NC 123	Main St. to ECL Hookerton	Hookerton	0.4	54	2	100	25	13,000	2,700	4,200	4,200	13,000	ADQ	-	Min	Sub	P
	NC 123	ECL Hookerton to Ormondsville Rd. (SR 1400)	County	1.1	24	2	100	35	13,500	2,700	4,200	4,200	13,500	ADQ	-	Min	Sub	-
	NC 123	Ormondsville Rd. (SR 1400) to Hinnant St. (SR 1440)	County	2.5	20	2	60	35	12,700	1,600	2,900	2,900	12,700	ADQ	-	Min	Sub	-
	NC 123	Hinnant St. (SR 1440) to Rory Dr.	County	0.7	20	2	60	35	12,700	1,800	2,200	2,200	12,700	ADQ	-	Min	Sub	-
	NC 123	Rory Dr. to US 13/258	County	2.4	20	2	60	55	13,000	1,700	1,900	1,900	13,000	ADQ	-	Min	Sub	-
	NC 903	Lenoir County Boundary to SCL	County	7.8	22	2	60	55	13,800	2,900	5,500	5,500	13,800	ADQ	-	Min	Reg	-
	NC 903	SCL Snow Hill to NC 58	Snow Hill	0.5	40	2	60	35	13,500	3,000	3,100	3,100	13,500	ADQ	-	Min	Reg	-
	NC 903	NC 58 to US 13 Bypass	Snow Hill	Common to NC 58														
	NC 903	US 13 Bypass to NCL	Snow Hill	Common to US 13 Bypass														
	NC 903	NCL Snow Hill to NC 91	County	Common to US 13 Bypass														
	NC 903	NC 91 to US 13/NC 903 Split	County	Common to US 13														
	NC 903	US 13 to Whitley St. (SR 1353)	County	3.1	22	2	60	55	13,800	3,200	5,800	5,800	13,800	ADQ	-	Min	Reg	-
	NC 903	Whitley St. (SR 1353) to NC 123	County	0.1	20	2	60	35	12,700	4,000	6,500	6,500	12,700	ADQ	-	Min	Reg	-
	NC 903	NC 123 to Half Moon Rd. (SR 1342)	County	0.6	20	2	60	35	12,700	3,800	6,600	6,600	12,700	ADQ	-	Min	Reg	-
	NC 903	Half Moon Rd. (SR 1342) to Pitt CL	County	5.5	18	2	60	55	10,900	3,400	6,000	6,000	10,900	ADQ	-	Min	Reg	-
	Sheppard Ferry Rd. (SR 1222)	NC 58 to Beaman Old Creek Rd. (SR 1222)	County	1.4	20	2	60	55	12,500	800		800	12,500	ADQ	-	Min	Reg	-
	Speights Bridge Rd. (SR 1225)	NC 58 to Beaman Old Creek Rd. (SR 1222)	County	3.4	18	2	60	55	10,000	500	1,000	1,000	10,000	ADQ	-	Min	Sub	-

HIGHWAY																		
					2007 Existing System						2035 Proposed System							
Local ID	Facility	Section (From - To)	Jurisdiction	Dist. (mi)	Cross-Section (ft)	Cross-Section lanes	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2007 AADT	2035 AADT E+C	2035 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classifi-cation	Tier	Other Modes
	Speights Bridge Rd. (SR 1225)	Beaman Old Creek Rd. (SR 1222) to NC 91	County	3.3	18	2	60	55	9,700	600	400	400	9,700	ADQ	-	Min	Sub	-
	US 13	Wayne CL to NC 58 split	County	7.4	24	2	60	55	13,800	6,100	10,000	10,000	13,800	ADQ	-	Maj	Reg	-
	US 13	NC 58 split to Chase dr.	County	0.7	24	2	60	55	13,800	-	19,500	19,500	38,000	4D	110	Maj	Reg	-
	US 13	Chase Dr. to US 13 Bypass	Snow Hill	0.5	38	4	60	35	19,200	11,000	23,000	23,000	38,000	4D	110	Maj	Reg	-
	Us 13 (Bypass)	Kingold Blvd. to NC 91	Snow Hill	1.2	24	2	200	45	13,300	8,600	15,000	15,000	16,000	3B	80	Maj	Reg	-
	US 13	NC 91 to Four Way Rd. (SR 1400)	County	0.4	22	2	100	55	12,700	11,000	22,000	18,000	51,000	4B	150	Maj	Reg	-
	US 13	Four Way Rd. (SR 1400) to NC 903 split	County	1.8	22	2	100	55	12,700	11,000	19,800	19,800	51,000	4B	150	Maj	Reg	-
	US 13	NC 903 split to US 258 Split (northeastern portion of county)	County	4.1	22	2	100	55	12,700	8,200	13,500	13,500	51,000	4B	150	Maj	Reg	-
	US 13	US 258 Split (northeastern portion of county) to Pitt CL	County	2.2	24	2	100	55	13,900	4,200	8,500	8,500	13,900	ADQ	-	Maj	Reg	-
	US 258	Lenoir Co. line to Browntown Rd. (SR 1101)	County	1.7	24	2	100	55	13,900	6,500	13,100	13,100	51,000	4B	150	Maj	Reg	-
	US 258	Browntown Rd. (SR 1101) to Jim Grant Rd. (SR 1108)	County	2.2	24	2	100	55	13,900	6,400	13,600	13,600	51,000	4B	150	Maj	Reg	-
	US 258	Jim Grant Rd. (SR 1108) to Longshore Dr. (SR 1155)	County	2.1	24	2	100	55	13,900	7,000	13,200	13,200	51,000	4B	150	Maj	Reg	-
	US 258	Longshore Dr. (SR 1155) to Kingold Blvd./NC 58	County	0.2	24	2	100	45	14,600	7,000	19,000	13,000	38,000	4D	110	Maj	Reg	-
	US 258	Kingold Blvd./NC 58 to N. Greene St. (SR 1254)	Snow Hill	1.2	30	2	100	35	11,000	6,300	13,000	6,300	11,000	ADQ	-	Maj	Reg	-
	US 258	N. Greene St. (SR 1254) to US 13	Snow Hill	0.6	24	2	100	45	14,600	5,600	13,000	8,000	14,600	ADQ	-	Maj	Reg	-
	US 258	US 13 to NC 91	County	Common to US 13														
	US 258	NC 91 to Four Way Rd. (SR 1400)	County	Common to US 13														
	US 258	Four Way Rd. (SR 1400) to NC 903 split	County	Common to US 13														
	US 258	NC 903 split to US 258 split (northeastern portion of county)	County	Common to US 13														
	US 258	US 13 split to Pitt CL	County	2.3	22	2	100	55	12,700	4,500	8,800	8,800	12,700	ADQ	-	Maj	Reg	-

HIGHWAY																		
					2007 Existing System						2035 Proposed System							
Local ID	Facility	Section (From - To)	Jurisdiction	Dist. (mi)	Cross-Section (ft)	Cross-Section lanes	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2007 AADT	2035 AADT E+C	2035 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classifi-cation	Tier	Other Modes
GREE0002-H	US 258 Bypass	0.4 miles north of Thomas Sugg Rd. (SR 1106) to NC 58	County	1.2	-	-	-	-	-	-	-	5,500	51,000	4B	150	Maj	Reg	-
GREE0002-H	US 258 Bypass	NC 58 to existing US 13/258		2.5	-	-	-	-	-	-	-	7,000	51,000	4B	150	Maj	Reg	-
	US 264	Wayne Co. line to Pitt Co. line	County	4.2		4	300	65	66,000	17,000	36,100	36,100	66,000	ADQ	-	F	Sta	-
	Vandiford Thomas Rd. (SR 1301)	NC 91 to US 13/258	County	3.9	18	2	60	55	10,300	700	800	800	10,300	ADQ	-	Min	Sub	-
	Willow Green Rd. (SR 1335)	NC 123 to Darden Farm Rd. (SR 1335)	County	4.5	18	2	60	55	10,300	-	-	-	10,300	ADQ	-	Min	Sub	-
	Willow Green Rd. (SR 1335)	Darden Farm Rd. (SR 1335) to Ormondsville Rd. (SR 1335)	County	2	20	2	60	55	10,900	1,200	1,700	1,700	10,900	ADQ	-	Min	Sub	-
	Willow Green Rd. (SR 1335)	Ormondsville Rd. (SR 1335)	County	2.4	18	2	60	55	10,300	700	1,200	1,200	10,300	ADQ	-	Min	Sub	-

BICYCLE								
				Existing System		Proposed System		
				Cross-Section				
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	(ft)	lanes	Type	Cross-Section	Other Modes
	NC Bike Route 7	Wayne CL to Fort Run Rd. (SR 1058)	1.5	18	2	On Road	2A	
	NC Bike Route 7	Bull Head Rd. (SR 1058) to Shine Rd. (SR 1210)	1.6	18	2	On Road	2A	
	NC Bike Route 7	Fort Run Rd. (SR 1058) to US 13	3.7	20	2	On Road	2A	
	NC Bike Route 7	US 13 to Titus Mewborn Rd. (SR 1135)	2.6	20	2	On Road	2A	
	NC Bike Route 7	Titus Mewborn Rd. (SR 1135) to NC 903	1.8	20	2	On Road	2A	
	NC Bike Route 7	Rag Rd. (SR 1132) to Lenoir CL	1.2	20	2	On Road	2A	
GREE0001-H	NC 58 (Kingold Boulevard)	US 13 Split to Chase Dr.	0.7	24	2	On Road	4D	H,P
GREE0001-H	NC 58 (Kingold Boulevard)	Chase Dr. to US 13 Bypass	0.5	38	4	On Road	4D	H,P
GREE0001-H	NC 58 (Kingold Boulevard)	US 13 Bypass to NC 903	0.3	40	4	On Road	4D	H,P
GREE0001-H	NC 58 (Kingold Boulevard)	NC 903 to SE Snow Hill CL	0.6	36	3	On Road	4D	H,P
GREE0001-H	NC 58 (Kingold Boulevard)	SE Snow Hill CL to Lakeside Dr. (SR 1169)	0.5	24	2	On Road	4D	H,P
GREE0001-H	NC 58 (Kingold Boulevard)	Lakeside Dr. (SR 1169) to US 258	0.2	36	3	On Road	4D	H,P
GREE0001-H	NC 58 (Kingold Boulevard)	US 258 to Chelsea Dr.	0.6	24	2	On Road	4D	H,P
	Middle School Rd. (SR 1330)	NC 91 to Newell Rd. (SR 1328)	1.2	22	2	On Road	2E	P

PEDESTRIAN								
				Existing System		Proposed System		Other
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Type	Side of Street	Type	de of Stre	Modes
GREE0001-H	NC 58 (Kingold Boulevard)	US 13 Split to Chase Dr.	0.7	On Road	Both	On Road	Both	H, B
GREE0001-H	NC 58 (Kingold Boulevard)	Chase Dr. to US 13 Bypass	0.5	On Road	South	On Road	Both	H, B
GREE0001-H	NC 58 (Kingold Boulevard)	US 13 Bypass to NC 903	0.3	-	-	On Road	Both	H, B
GREE0001-H	NC 58 (Kingold Boulevard)	NC 903 to SE Snow Hill CL	0.6	-	-	On Road	Both	H, B

PEDESTRIAN								
GREE0001-H	NC 58 (Kingold Boulevard)	SE Snow Hill CL to Lakeside Dr. (SR 1169)	0.5	-	-	On Road	Both	H, B
GREE0001-H	NC 58 (Kingold Boulevard)	Lakeside Dr. (SR 1169) to US 258	0.2	-	-	On Road	Both	H, B
GREE0001-H	NC 58 (Kingold Boulevard)	US 258 to Chelsea Dr.	0.6	-	-	On Road	Both	H, B
	Middle School Rd. (SR 1330)	NC 91 to Newell Rd. (SR 1328)	1.2	-	-	On Road	Both	B
	NC 91	US 264 Alt. to N. Main Street Ext. (SR 1226)	0.8	-	-	On Road	Both	-
	NC 91	Railroad tracks to Southern Walstonburg CL	0.4	-	-	On Road	Both	-
	NC 123	Hugo Rd. (SR 1091) to Southern Hookerton CL	0.1	-	-	On Road	Both	-
	NC 123	Southern Hookerton CL to Greene St.	0.3	-	-	On Road	Both	-
	NC 123	Greene St. to Main St. (SR 1438)	0.3	-	-	On Road	Both	-
	NC 123	Main St. (SR 1438) to Eastern Hookerton CL	0.4	On Road	Both	On Road	Both	-
	East Railroad Ave.	NC 91 to South Main Street	< 0.1	-	-	On Road	Both	-
	East Railroad Ave.	South Main Street to Railroad Tracks	0.1	-	-	On Road	Both	-
	East Mill Street	NC 91 to S. Main Street	< 0.1	-	-	On Road	Both	-
	James Street	Pine Street to NC 91	0.1	-	-	On Road	Both	-
	Mule Street	NC 91 to South Main Street	< 0.1	-	-	On Road	Both	-
	Pine Street	West Railroad Ave. to West Mill Street	0.1	-	-	On Road	Both	-
	South Main Street	Railroad Tracks to NC 91	0.5	-	-	On Road	Both	-
	West Mill Street	Pine Street to NC 91	0.1	-	-	On Road	Both	-
	West Railroad Street	Pine Street to NC 91	0.1	-	-	On Road	Both	

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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 typical cross sections were updated on December 7, 2010 to support the Department's "Complete Streets" policy that was adopted in July 2009. This guidance established design elements that emphasize safety, mobility, and accessibility for multiple modes of travel. These "typical" cross sections should be used as preliminary 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 (NEPA) documentation and through final plan 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:

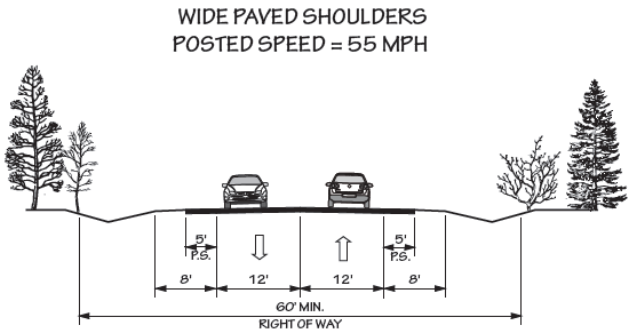
- roadways which may require widening after the current planning period,
- roadways which are borderline adequate and accelerated traffic growth could render them deficient, and
- roadways where an urban curb and gutter cross section may be locally desirable because of urban development or redevelopment.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

FIGURE 9

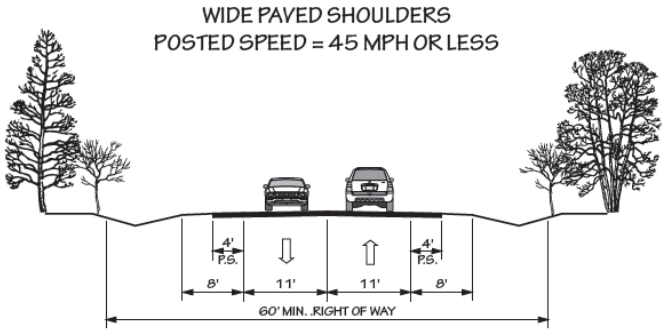
TYPICAL HIGHWAY CROSS SECTIONS

2 LANES

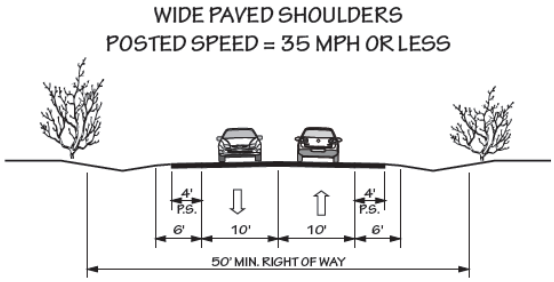
2 A



2 B



2 C

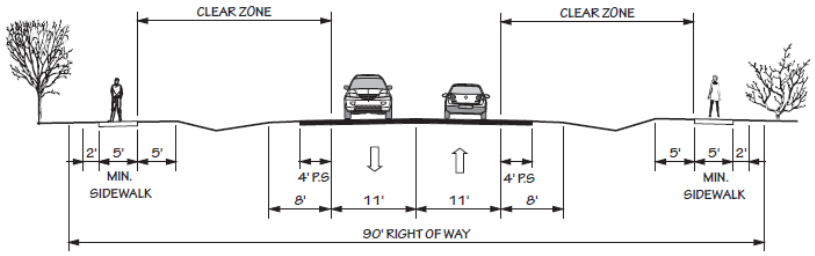


TYPICAL HIGHWAY CROSS SECTIONS

2 LANES

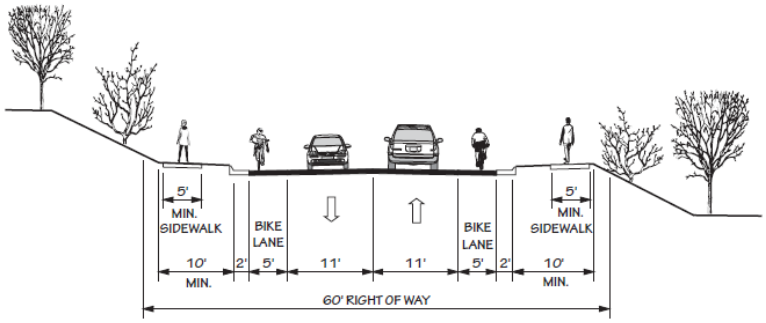
2 D

SIDEWALK PLACEMENT BEHIND A ROADWAY DITCH



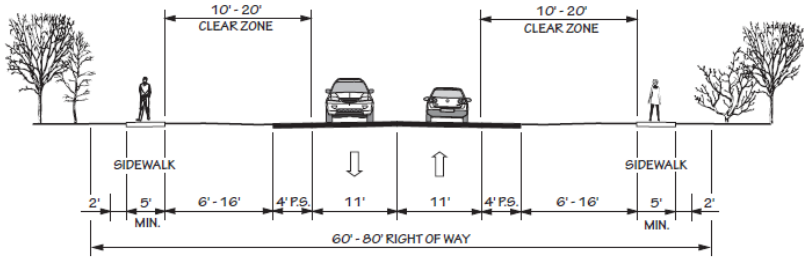
2 E

CURB AND GUTTER
WITH BIKE LANES AND SIDEWALKS



2 F

BUFFERS AND SIDEWALKS WITHOUT A ROADWAY DITCH
(20 MPH TO 45 MPH)
(TYPICALLY COASTAL AREA MANAGEMENT ACT COUNTIES)

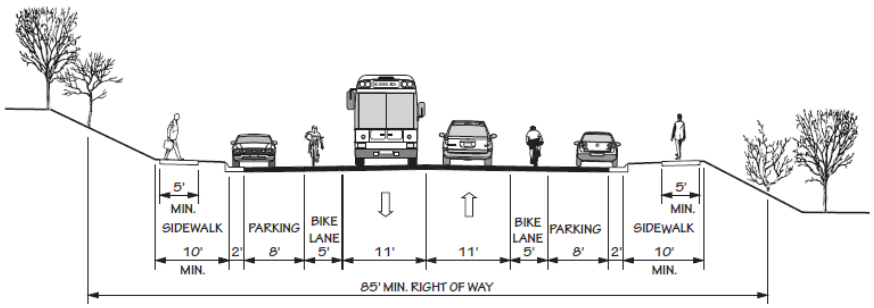


TYPICAL HIGHWAY CROSS SECTIONS

2 LANES

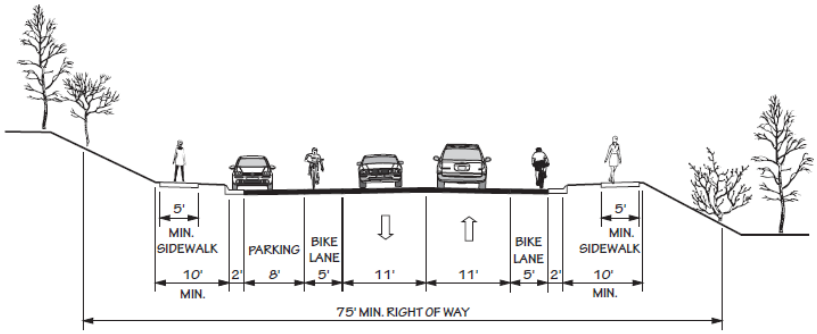
2 G

CURB & GUTTER - PARKING ON EACH SIDE



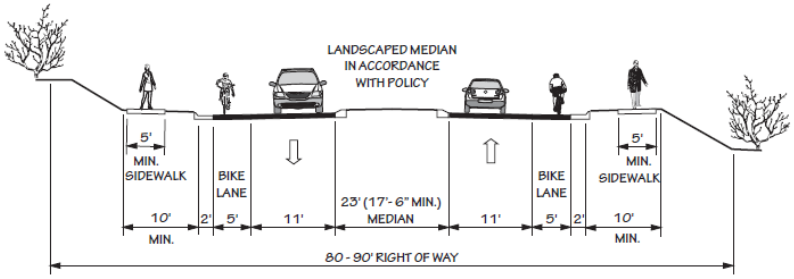
2 H

CURB & GUTTER - PARKING ON ONE SIDE



2 I

RAISED MEDIAN WITH CURB & GUTTER

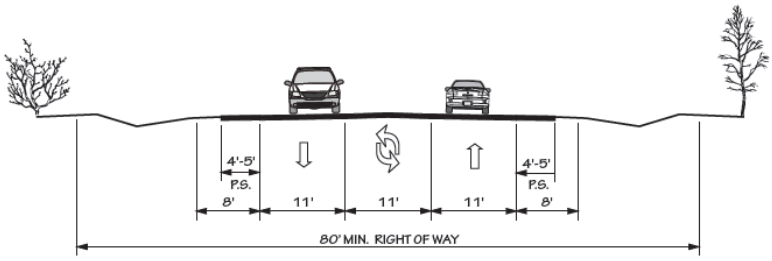


TYPICAL HIGHWAY CROSS SECTIONS

3 LANES

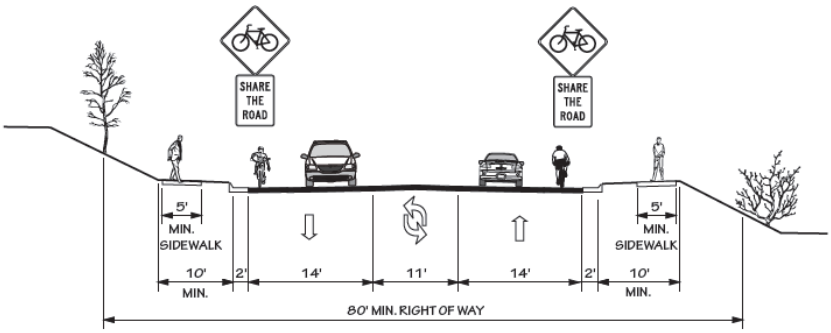
3 A

WIDE PAVED SHOULDERS



3 B

CURB & GUTTER WITH WIDE OUTSIDE LANES AND SIDEWALKS

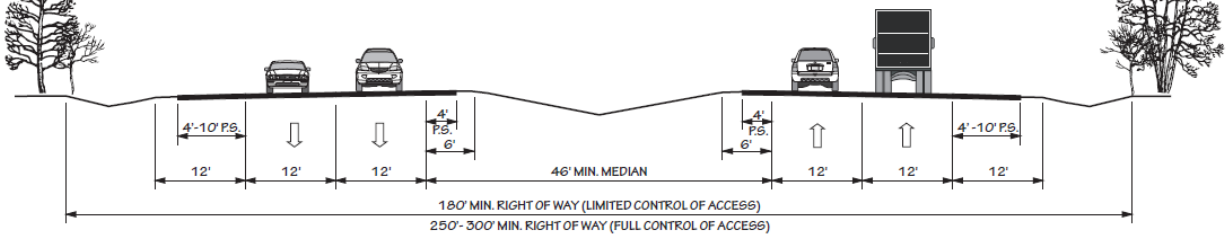


TYPICAL HIGHWAY CROSS SECTIONS

4 LANES

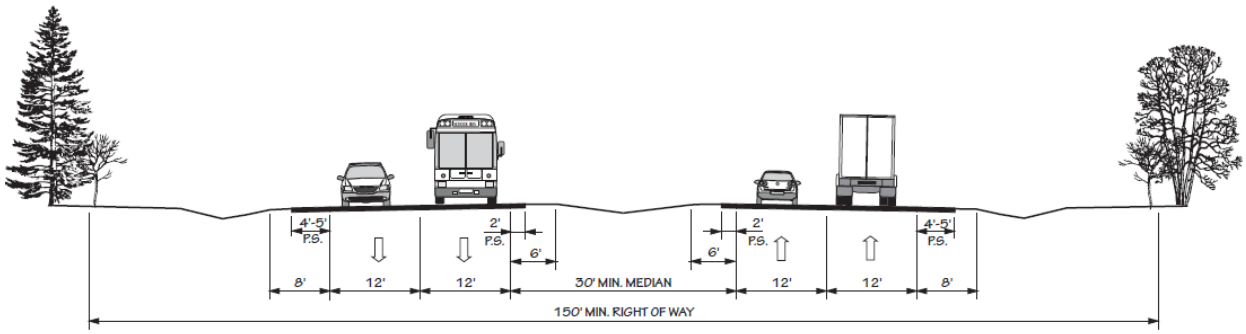
4 A

DIVIDED WITH MEDIAN
FULL OR LIMITED CONTROL OF ACCESS



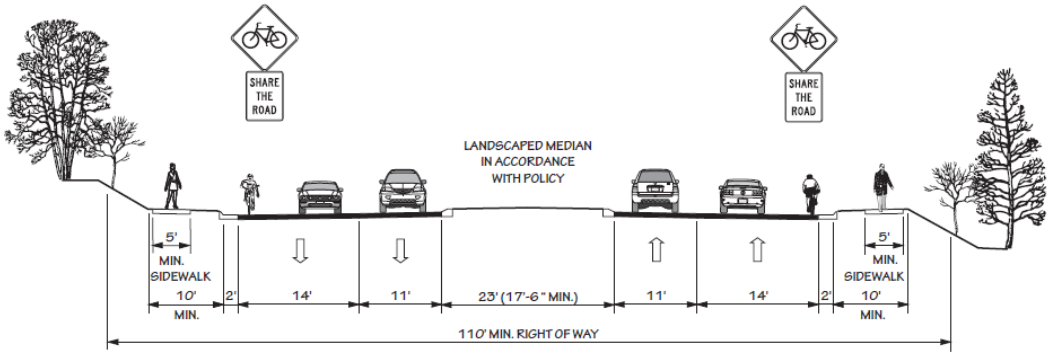
4 B

DIVIDED WITH MEDIAN - NO CURB & GUTTER
PARTIAL CONTROL OF ACCESS



4 C

RAISED MEDIAN WITH WIDE OUTSIDE LANES AND SIDEWALKS

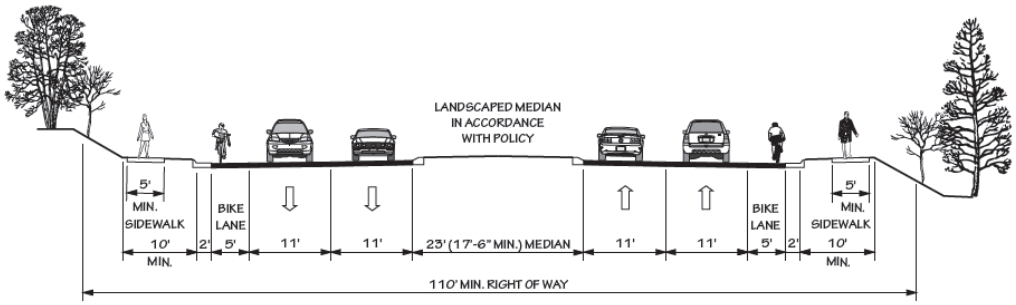


TYPICAL HIGHWAY CROSS SECTIONS

4 LANES

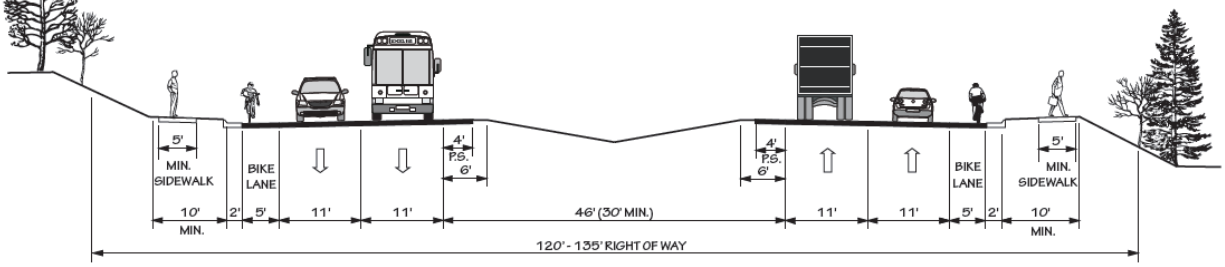
4 D

RAISED MEDIAN - CURB & GUTTER WITH BIKE LANES AND SIDEWALKS



4 E

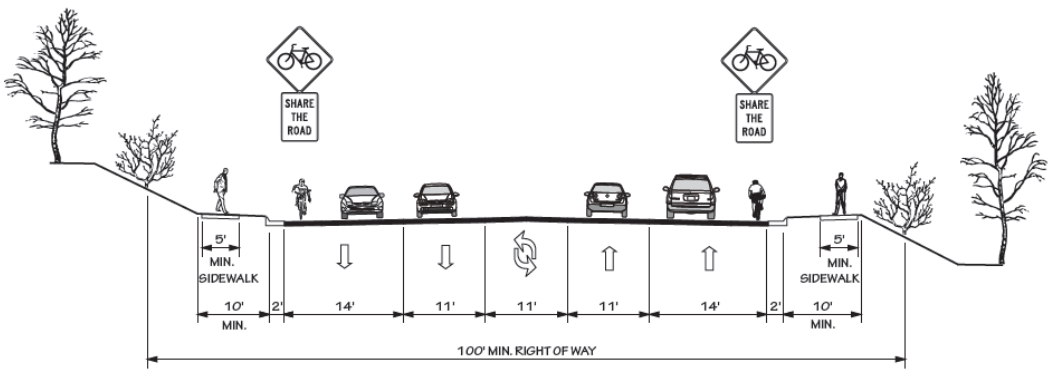
GRASS MEDIAN WITH BIKE LANES AND SIDEWALKS



5 LANES

5 A

WIDE OUTSIDE LANES

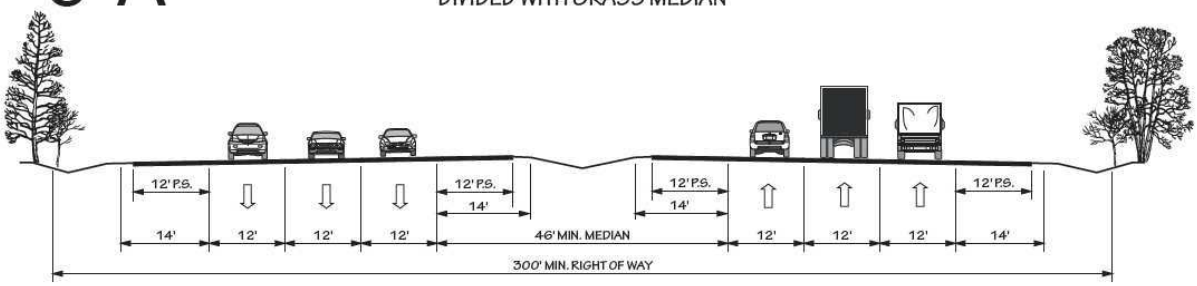


TYPICAL HIGHWAY CROSS SECTIONS

6 LANES

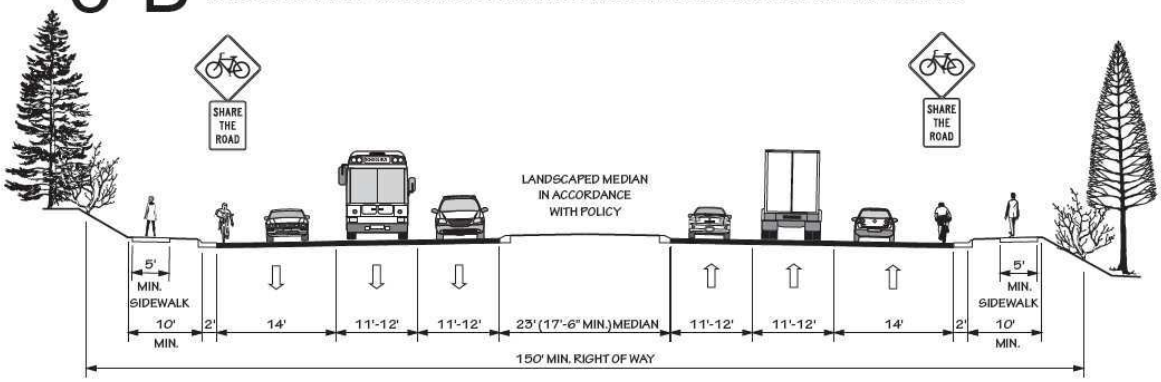
6 A

DIVIDED WITH GRASS MEDIAN



6 B

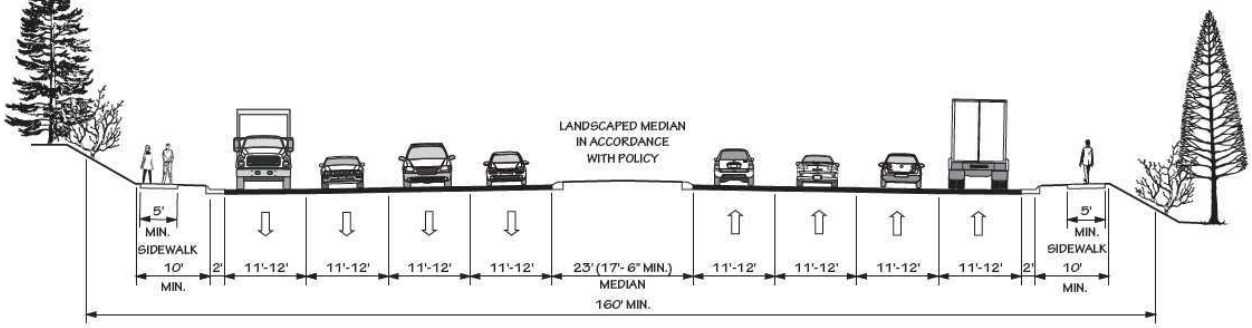
RAISED MEDIAN - CURB & GUTTER WITH WIDE OUTSIDE LANES AND SIDEWALKS



8 LANES

8 A

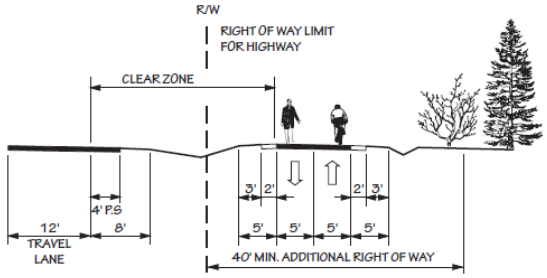
RAISED MEDIAN - CURB & GUTTER WITH SIDEWALKS



TYPICAL MULTI - USE PATH

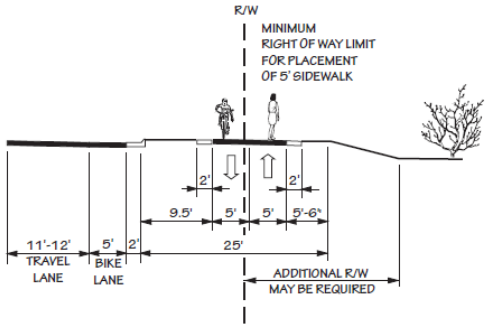
MULTI - USE PATH
ADJACENT TO RIGHT OF WAY OR SEPARATE PATHWAY

M A



MULTI - USE PATH ADJACENT TO CURB AND GUTTER

M B



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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 10.

- **LOS A**: Describes primarily free flow conditions. The motorist experiences a high level of physical and psychological comfort. The effects of minor incidents of breakdown are easily absorbed. Even at the maximum density, the average spacing between vehicles is about 528 ft, or 26 car lengths.
- **LOS B**: Represents reasonably free flow conditions. The ability to maneuver within the traffic stream is only slightly restricted. The lowest average spacing between vehicles is about 330 ft, or 18 car lengths.
- **LOS C**: Provides for stable operations, but flows approach the range in which small increases will cause substantial deterioration in service. Freedom to maneuver is noticeably restricted. Minor incidents may still be absorbed, but the local decline in service will be great. Queues may be expected to form behind any significant blockage. Minimum average spacing is in the range of 220 ft, or 11 car lengths.
- **LOS D**: Borders on unstable flow. Density begins to deteriorate somewhat more quickly with increasing flow. Small increases in flow can cause substantial deterioration in service. Freedom to maneuver is severely limited, and the driver experiences drastically reduced comfort levels. Minor incidents can be expected to create substantial queuing. At the limit, vehicles are spaced at about 165 ft, or 9 car lengths.
- **LOS E**: Describes operation at capacity. Operations at this level are extremely unstable, because there are virtually no usable gaps in the traffic stream. Any disruption to the traffic stream, such as a vehicle entering from a ramp, or changing lanes, requires the following vehicles to give way to admit the vehicle. This can establish a disruption wave that propagates through the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate any disruption. Any incident can be expected to produce a serious breakdown with extensive queuing. Vehicles are spaced at approximately 6 car lengths, leaving little room to maneuver.

- **<u>LOS F</u>**: Describes forced or breakdown flow. Such conditions generally exist within queues forming behind breakdown points.

Figure 10 - Level of Service Illustrations

Source: 2000 Highway Capacity Manual

Appendix F
Traffic Crash Analysis

A crash analysis performed for the Greene County CTP factored crash frequency, crash type, and crash severity. Crash frequency is the total number of reported crashes and contributes to the ranking of the most problematic intersections. Crash type provides a general description of the crash and allows the identification of any trends that may be correctable through roadway or intersection improvements. Crash severity is the crash rate based upon injuries and property damage incurred.

The severity of every crash is measured with a series of weighting factors developed by the NCDOT Division of Highways (DOH). These factors define a fatal or incapacitating crash as 47.7 times more severe than one involving only property damage and a crash resulting in minor injury is 11.8 times more severe than one with only property damage. In general, a higher severity index indicates more severe accidents. Listed below are levels of severity for various severity index ranges.

Severity	Severity Index
low	< 6.0
average	6.0 to 7.0
moderate	7.0 to 14.0
high	14.0 to 20.0
very high	> 20.0

Table 4 depicts a summary of the crashes occurring in the planning area between January 1, 2007 and December 31, 2009. The data represents locations with 10 or more crashes and/or a severity average greater than that of the state's index of 4.56 for the period from 2007 to 2009. The "Total" column indicates the total number of crashes reported within 150-ft of the intersection during the study period. The severity listed is the average crash severity for that location.

Table 4 - Crash Locations

Map Index	Intersection	Average Severity	Total Crashes
1	US 13 and NC 91	5.04	11
2	US 13 and US 258	4.70	12
3	US 13 and NC 58	3.47	15
4	NC 58 (Kingold Boulevard) and US 258	17.64	5
5	US 13 and SR 1210	5.44	5
6	NC 903 and SR 1004	5.11	9
7	NC 91 and SR 1225	4.7	6

The NCDOT is actively involved with investigating and improving many of these locations. To request a more detailed analysis for any of the locations listed in Table 4, or other intersections of concern, contact the Division Traffic Engineer. Contact information for the Division Traffic Engineer is included in Appendix A.

Appendix G
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 or functionally obsolete. 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 quality 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 within the planning area are listed in Table 5.

Table 5 - Deficient Bridges

Bridge Number	Facility	Feature	Condition
13	SR 1222	Beaman Run	Structurally Deficient
17	US 258	Middle Swamp	Functionally Obsolete
22	NC 58	Rainbow Creek	Structurally Deficient and Functionally Obsolete
25	SR 1149	Tyson Marsh	Structurally Deficient
35	SR 1343	L. Contentnea Creek Overflow	Structurally Deficient and Functionally Obsolete
36	SR 1343	Little Contentnea Creek	Structurally Deficient
38	SR 1004	Contentnea Creek	Structurally Deficient and Functionally Obsolete
46	SR 1091	Wheat Swamp Creek	Structurally Deficient
47	SR 1091	Rainbow Creek	Structurally Deficient
65	SR 1215	Appletree Swamp	Structurally Deficient

Appendix H
Public Involvement

The Greene County Comprehensive Transportation Plan study process included many opportunities for public comment and involvement. These opportunities included a public survey, CTP presentations and updates at multiple public county and town meetings, as well as public "drop-in" sessions around the County that encouraged public comment at the draft stage of the CTP.

County staff decided that the best way to represent the citizens of Greene County during the CTP process would be to assemble a committee made up of county and municipal staff and elected officials, and to advertise committee positions open to the public. No applications were received from the public. The committee would hold public meetings on a regular basis to work with the NCDOT and a representative from the Eastern Carolina RPO to develop the Greene County CTP.

The Greene County CTP committee members were:

- Don Davenport, Greene County Manager
- Chris Roberson, Greene County Assistant Manager, Economic Development
- Ronald Turner, Walstonburg Town Board
- Ronnie Rouse, Walstonburg Town Board (alternate)
- Mike Lovett, Director, Greene County Transportation
- Bennie Heath, Greene County Commissioner
- Bobby Taylor, Mayor, Hookerton
- April Baker, Town Clerk, Hookerton
- Dana Hill, Town Administrator, Snow Hill

Early in the CTP process, the committee came to consensus on a vision and goals statement to help guide the county's transportation planning process. The vision and goals statement is as follows:

Vision:

Develop a transportation system that is safe, reliable, efficient, and supports economic development compatible with land-use patterns and the environment.

The transportation system will help improve the quality of life for Greene County citizens by providing better connectivity throughout the county and region with affordable, convenient transportation options accessible to all.

Goals:

1) Provide efficient access to all major employment centers in Greene county
2) Provide efficient regional access to areas such as Kinston, Greenville, Goldsboro and Wilson
3) Address current congestion at schools and prepare for future traffic patterns associated with construction of new schools.
4) Preserve right of way for construction of future transportation facilities
5) Address mobility issues caused by truck traffic
6) Preserve rural character of Greene County while accommodating industrial and commercial growth in targeted areas
7) Maintain a transportation system that is accessible to all
8) Maintain or increase response time for emergency services such as law enforcement, fire, and medical transportation.
9) Promote non-motorized transportation for both recreational and non-recreational trips.

To collect information from the public regarding transportation in Greene County, a public survey was created in both English and Spanish versions and distributed throughout the County. There was an online version, accessible via links on the NCDOT Transportation Planning Branch website, and selected county and municipality web pages. The hard-copy survey was made available at county and municipal buildings and sent home to households by including survey copies in the take-home folders of each Greene County School system student.

The following pages summarize the survey results.

Greene County CTP Survey Results

Total Responses: 366
English: 325
Spanish: 41

Question 1: How many people live in your household?

People in Household	Responses	Percentage
1	7	1.9%
2	25	6.9%
3	66	18.2%
4	111	30.7%
5 or more	153	42.3%

Question 2: How many licensed drivers are in your household?

Licensed drivers	Responses	Percentage
0	28	7.7%
1	96	26.5%
2	160	44.2%
3	63	17.4%
4	12	3.3%
5 or more	3	0.8%

Question 3: How many licensed personal vehicles are in your household?

Licensed Vehicles	Responses	Percentage
0	20	5.7%
1	84	23.9%
2	125	35.5%
3	71	20.2%
4	32	9.1%
5 or more	20	5.7%

Question 4: Do any of the following apply to you or your household?

	Yes	Percentage	Number of Responses
Someone in my household is over the age of 65.	35	10.2%	342
Someone in my household is disabled.	43	12.4%	347
Someone in my household is unemployed and transportation is an obstacle to finding a job.	47	14.2%	331

Question 5: Do you have a student(s) in school in Greene County?

Answer	Responses	Percentage
Yes	219	88.7%
No	28	11.3%

Question 6: Which school or schools does your student(s) attend?

School	Responses	Percentage
Snow Hill primary	118	67.4%
West Greene Elementary	37	21.1%
Greene County Middle School	43	24.6%
Greene Central High School	54	30.9%
Mount Calvary Christian Academy	1	0.6%
Covenant of Faith Christian Academy	0	0.0%

Question 7: Does your student:

	Yes	Percentage	Total Responses
Ride a bus?	196	69%	284
Carpool?	68	30.2%	225
Drive a vehicle	56	24.6%	228

Question 8: Are there areas where you would like to see sidewalks constructed or improved?

	Responses*	Percentage
Yes	107	32.2%
No	225	67.8%

*Write-in responses included Hookerton, various areas in Snow Hill, around schools and parks and other locations.

Question 9: Would you use off-road trails or greenways walking, running and/or bicycling? If yes, where?

	Responses*	Percentage
Yes	142	41.8%
No	198	58.2%

*Write-in responses include Hookerton, Walstonburg, Snow Hill, around schools and various other locations.

Question 10: Would you use on-road bicycle lanes or wide shoulders on the side of the road for bicycling? If yes, where?

	Responses*	Percentage
Yes	103	30.7%
No	232	69.3%

*Write-in responses include Hookerton, Snow Hill, NC 123, US 258 and other locations

Question 11: Would you use bus routes or vanpools if provided? If yes, where?

	Responses*	Percentage
Yes	87	27%
No	235	73%

*Write-in responses included to and from locations in and out of Greene County, such as Snow Hill to Hookerton, Snow Hill to Kinston, to Greenville doctors, etc.

Question 12: Do you live in Greene County? What is your zip code?

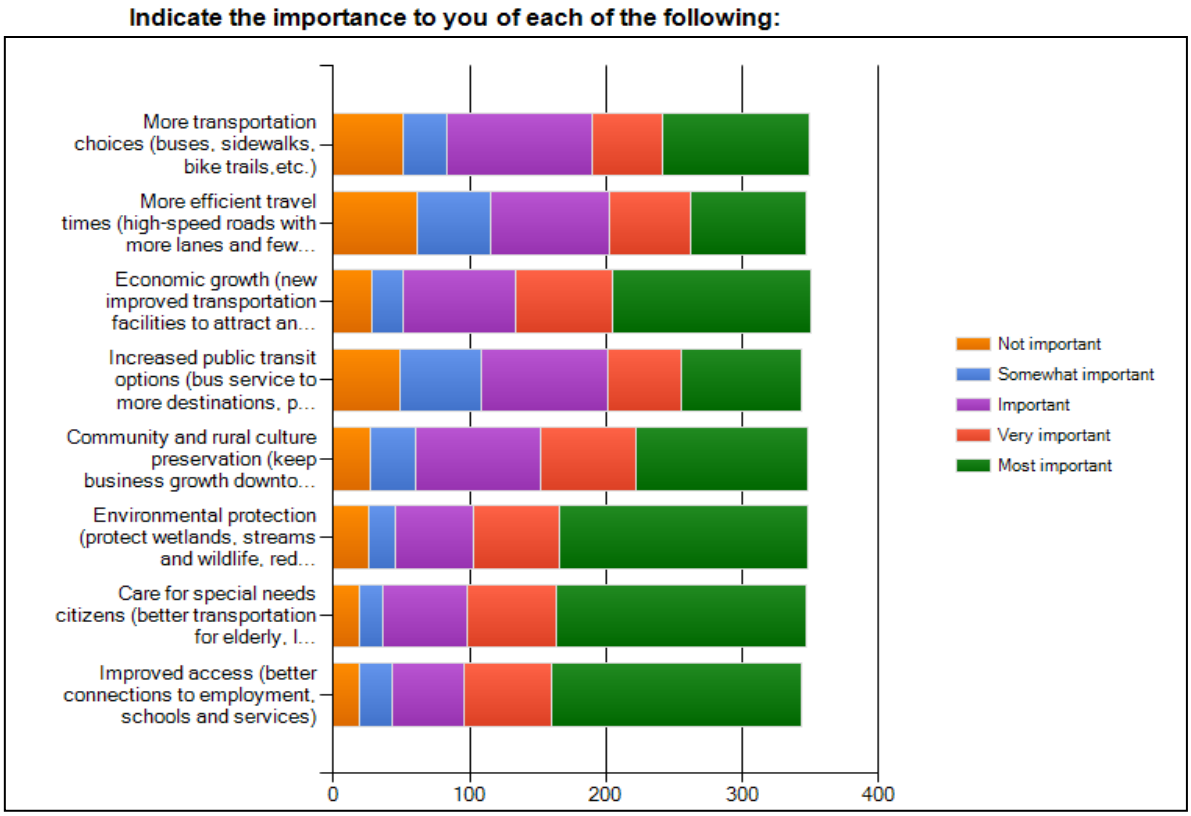
	Responses	Percentage
Yes	315	94.6%
No	18	5.4%

Submitted Zip Codes

Zip Code	Total
27127	1
27828	11
27834	2
27858	2
27863	2
27883	8
27888	29
28080	1
28504	1
28513	7

Zip Code	Total
28530	3
28538	21
28551	8
28554	4
28558	1
28580	79
28851	1
28880	1
90210	1

Question 13:



Question 14: Is truck traffic a problem in Greene County? If yes, what is the nature of the problem?

	Responses*	Percentage
Yes	61	17.6%
No	285	82.4%

*write-in responses regarding the nature of the problem include complaints about farm trucks, too many trucks, noise, the road is not big enough, slow tractors and truck traffic in specific locations throughout the county.

Question 15: What other problems do you consider to be major transportation issues in Greene County?

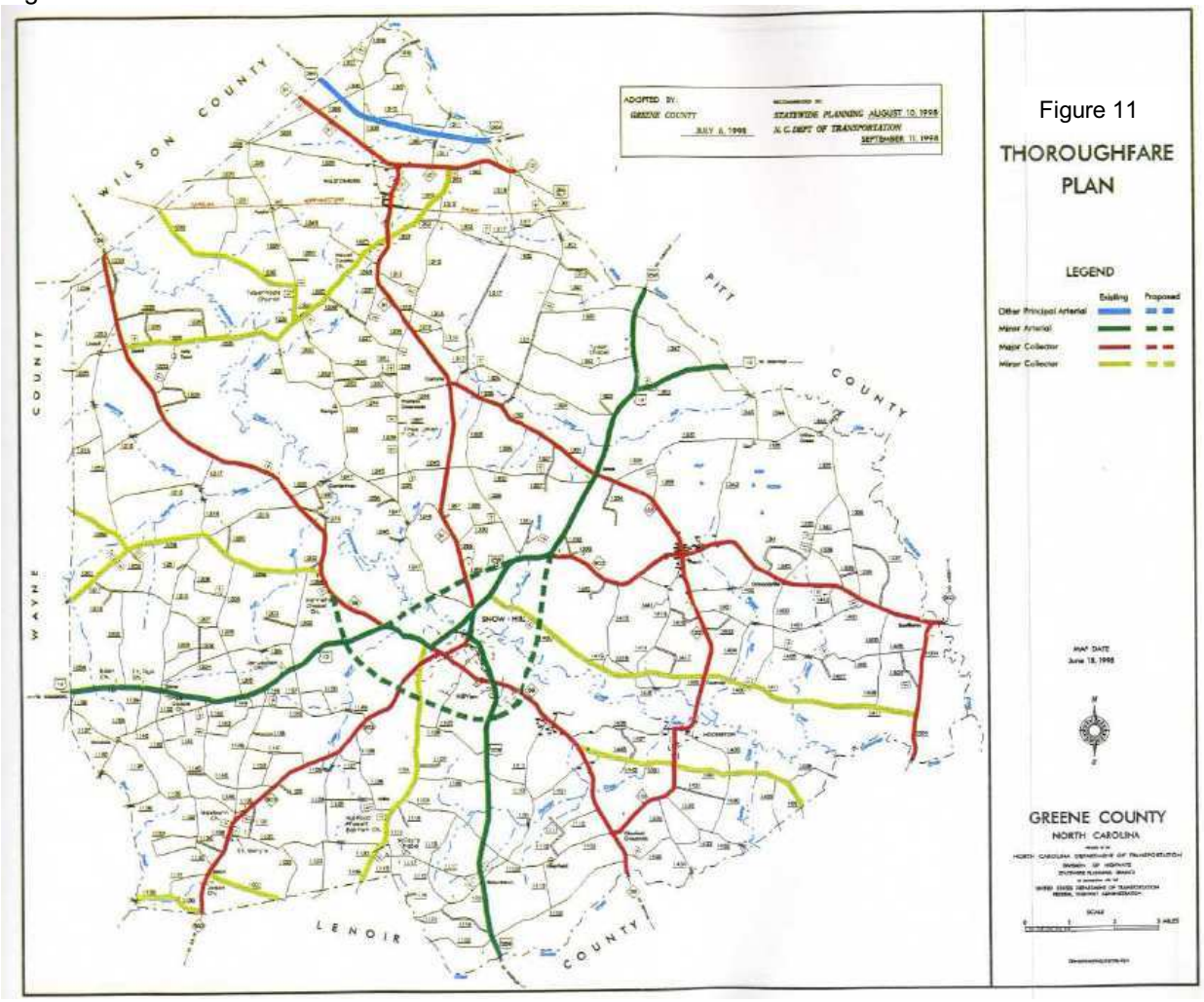
There were 115 write-in responses. Some of the issues mentioned were:

- Unpaved roads
- Overcrowding on school buses
- Roads need repaving
- Tractors block the road
- Bad traffic around the schools

Appendix I
Existing Transportation Plans

The most recent transportation plan for Greene County is the 1999 Greene County Thoroughfare Plan, depicted below.

Figure 11



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Appendix J
Snow Hill Hand Allocated Travel Demand Model

This appendix includes documentation of a Hand Allocated Travel Demand Model for the Snow Hill planning area. The Hand Allocation Method (also known as Travel Allocation Method, or Manual Allocation Model) is usually prepared in small urban areas generally under 5,000 in population. Also, this methodology is best for an area where growth is anticipated with new facilities.

A Travel Demand Model (TDM) may utilize data from many sources, such as the US census Bureau, NCDOT, local governments, and others, to create a tool that predicts travel demand in present and future years. Areas of homogeneous land use (i.e. an industrial park, central commercial district or large residential subdivision) are grouped into Transportation Analysis Zones (TAZ). TDMs estimate trips (traffic) produced and attracted by these TAZs and assigns them to a roadway network. Given a defined Planning Area Boundary (PAB), TAZs help predict traffic in a given study area. In addition to TAZs, external stations (which behave like TAZs outside of the planning area) allow the TDM to account for traffic coming, going, or passing through the study area. Figure 12 on the following page shows the TAZs and external station locations that were used for the 2012 Greene County CTP.

Table 6 shows basic parameters used in the base year of the TDM (2007) and the future year (2035). This data was approved by the Greene County CTP Committee in April of 2011.

Table 6 – Model Parameters

Parameter	2011	2035
Planning Area Population	2,570	3,350
Persons Per Dwelling Unit	2.2	2.2
Trip Rate (Trips/Day/Household	6	6
Percent Commercial Vehicles	12.5	12.5
Percent Internal-Internal Trips	60	60
Percent Non Home-based Trips	20	20

In March of 2011, NCDOT Transportation Planning Branch staff conducted a field study to estimate housing and employment in the Snow Hill model planning area. In cooperation with the Greene County CTP committee, a growth rate of 1.1% was used to estimate future growth in housing and employment. The 1.1% growth rate resulted in an estimated increase of 319 jobs and 355 dwelling units in the period from 2011 to 2035.

External station traffic volumes for the base year were estimated using Average Annual Daily Traffic (AADT) counts taken by the NCDOT Traffic Survey Unit. A straight-line appreciation formula was used in conjunction with past AADT trends to determine an AADT count estimation for the external stations in the year 2035. Table X shows the data related to base year and future year external station AADT counts.

Table 7 – Base Year and Future Year External Station Data

External Station	Route	2007 AADT	Growth Rate (%)	2035 AADT	Through Trips (%)
1	NC 91	3,200	2.8	6,900	40
2	US 13/258	11,000	2.2	20,200	71
3	NC 58	6,500	1.1	8,700	36
4	US 258	6,400	1.5	9,600	52
5	Hull Road (SR 1104)	1,500	1.5	2,300	20
6	NC 903	2,900	2.3	5,500	34
7	US 13/NC 58	11,400	1.5	17,500	68
8	Beaman Old Creek Road (SR 1247)	1,000	0.7	1,200	17

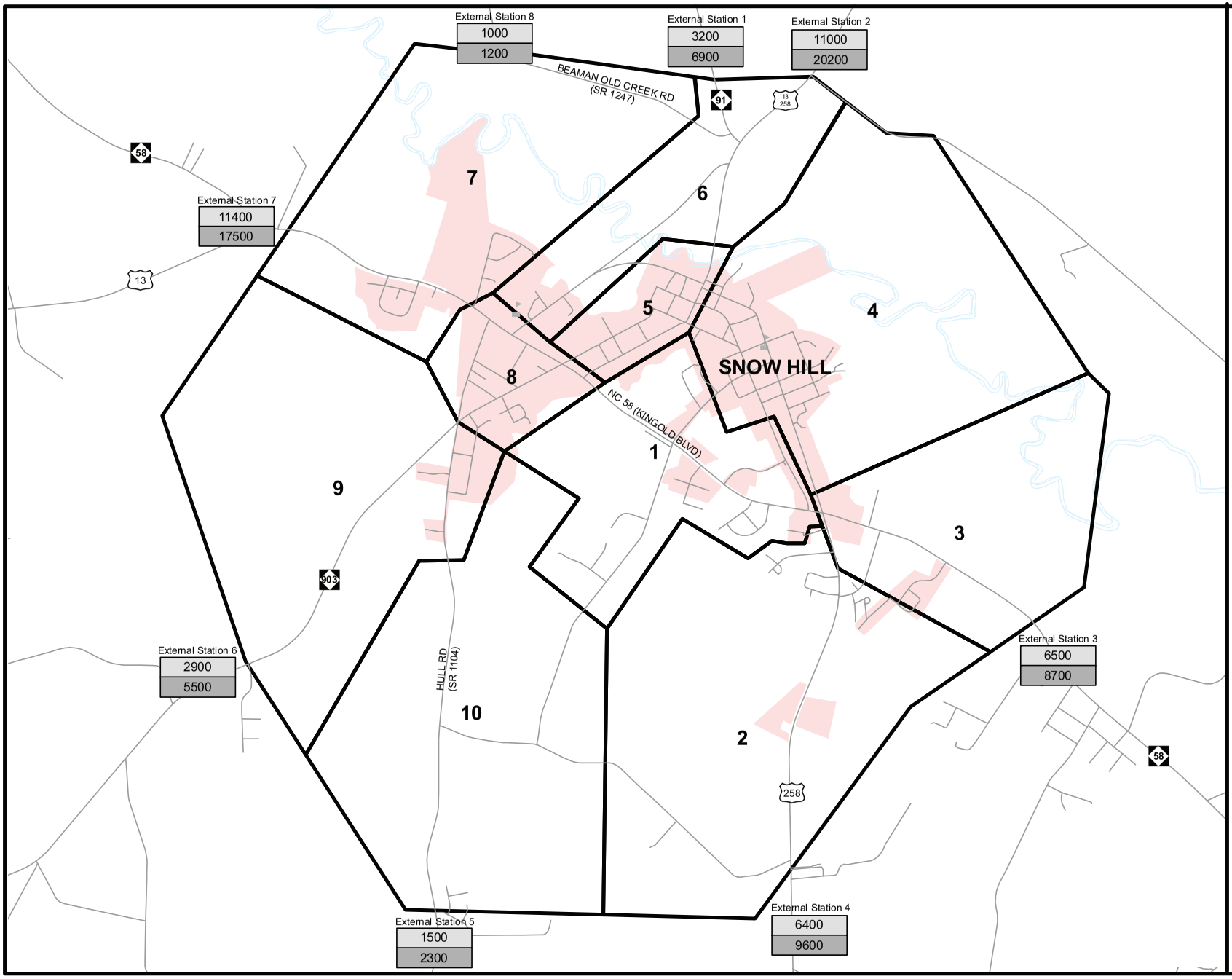

Figure 12
TAZ and External Stations Map

GREENE COUNTY
A Place To Grow. The Way To Live.

Greene County
Comprehensive Transportation Plan

DRAFT

Plan date: January 25, 2012

2007 AADT
2035 AADT

TAZ Number

TAZ Boundary

Roads

Schools

Rivers and Streams

Municipal Boundary

Miles
0 0.125 0.25 0.5 0.75

N
W E
S

Base map date: October, 2010

Refer to CTP document for more details