Comprehensive Transportation Plan

Montgomery County

MARCH 2012

Comprehensive Transportation Plan

Montgomery County

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Transportation Planning Branch
N.C. Department of Transportation

In Cooperation with:
Montgomery County
Town of Biscoe
Town of Candor
Town of Mount Gilead
Town of Star
Town of Troy
Piedmont Triad Rural Planning Organization

MARCH 2012

Wayne C. Davis, PhD, PE
Triad Planning Group Supervisor

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Executive Summary

In July of 2010, the Transportation Planning Branch of the North Carolina Department of Transportation and Montgomery County initiated a study to cooperatively develop the Montgomery County Comprehensive Transportation Plan (CTP), which includes the towns of Biscoe, Candor, Mount Gilead, Star, and Troy. This is a long range multi-modal transportation plan that covers transportation needs through 2040. Modes of transportation evaluated as part of this plan include: highway, public transportation and rail, bicycle, and pedestrian. This plan does not cover routine maintenance or minor operations issues. Refer to Appendix A for contact information on these types of issues.

Findings of this CTP study were based on an analysis of the transportation system, environmental screening, and public input. Refer to Figure 1 for the CTP maps, which were mutually adopted in 2012. Implementation of the plan is the responsibility of Montgomery 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 Montgomery County CTP. The major recommendations for improvements are listed below. More detailed information about these and other recommendations can be found in Chapter 2.

HIGHWAY

- **US 220 – Future I-73/74 (TIP No. I-4406):** Upgrade to interstate standards from Randolph County to Richmond County.

- **US 220A (Local ID: MONT0001-H):** Widen to a three-lane other major thoroughfare from 0.1 miles south of Cotton Creek Road (SR 1369) in Star to 0.1 miles north of Pine Street in Biscoe.

- **NC 24-27 (TIP No. R-2527):** Widen to a four-lane divided expressway from Stanly County to the proposed Troy Bypass (TIP No. R-0623).

- **NC 24-27 (TIP No. R-0623 – Troy Bypass):** Construct a four-lane divided expressway on new location from 0.1 miles west of Dogwood Avenue (SR 1615) to 0.1 miles east of Glenn Road (SR 1324).

- **NC 24-27 (Local ID: MONT0002-H):** Convert existing five-lane facility to a four-lane divided expressway from 0.1 miles west of Austin Drive to US 220A in Biscoe.

- **NC 24-27 (TIP No. R-2107B):** Widen to a four-lane divided expressway from US 220A to US 220 in Biscoe.

- **NC 24-27 (TIP No. R-2528):** Widen to a four-lane divided expressway from US 220 to Moore County.

- **NC 211 (TIP No. R-2591):** Widen to a four-lane divided expressway from US 220 to Moore County.

PUBLIC TRANSPORTATION

During the development of the CTP, a need was identified for the Montgomery County Regional Coordinated Area Transportation System (RCATS), a non-profit group operating under the Montgomery County Council of Aging, Inc., to pursue development of a flexible fixed route service throughout the county. This flexible fixed route service would connect with the proposed Park-and-Ride lots in Biscoe, Candor, Mount Gilead, and Troy.

The CTP study has also identified potential locations for Park-and-Ride lots:

- Near the US 220A/Shady Oak Drive intersection in Biscoe
- Near the US 220A/NC 211 intersection in Candor
- Near the NC 73/NC 731 intersection in Mount Gilead
- Near the NC 24-27/NC 109 Business intersection in Troy

BICYCLE

During the development of the CTP, bicycle routes were identified throughout Montgomery County. State Bicycle Route #6 passes through the northwestern part of the county and was identified for improvements. Additionally, the 2005 Regional Bicycle Study, published by the Piedmont Triad Rural Planning Organization, identified five county bicycle routes throughout Montgomery County as well as connector routes.

PEDESTRIAN

During the development of the CTP, the towns of Biscoe, Candor, Mount Gilead, Star, and Troy developed sidewalk recommendations which were incorporated into the CTP.

DAVIDSON COUNTY

RANDOLPH COUNTY

MOORE COUNTY

STANLY COUNTY

ANSON COUNTY

RICHMOND COUNTY

Adopted by:

Town of Biscoe
Date: November 14, 2011

Town of Star
Date: November 14, 2011

Town of Candor
Date: November 7, 2011

Town of Troy
Date: November 7, 2011

Town of Mount Gilead
Date: December 13, 2011

Montgomery County
Date: December 20, 2011

NCDOT
Date: March 8, 2012

Endorsed by:

Piedmont Triad RPO
Date: February 15, 2012

Recommended by:

Transportation Planning Branch
Date: February 16, 2012

NOTES:

Badin Lake

Uwharrie River

Little River

Star

Biscoe

Troy

Candor

Mount Gilead

Legend

- County Boundary
- Roads
- Railroads
- Schools
- Water Bodies
- Rivers and Streams
- Municipal Boundary
- National Forest/Gamelands

Miles
0 1 2 4 6

N W E S

Figure 1, Sheet 1 of 5

Base map date: January 25, 2011

Refer to CTP document for more details

Montgomery County

North Carolina

Comprehensive Transportation Plan

Plan date: October 31, 2011

DAVIDSON COUNTY

RANDOLPH COUNTY

STANLY COUNTY

MOORE COUNTY

RICHMOND COUNTY

ANSON COUNTY

Badin Lake

Yadkin River

Uwharrie River

Little River

Blaine Rd (SR 1156)

Coggins Mine Rd (SR 1301)

Ophir Rd (SR 1134)

Flint Hill Rd (SR 1306)

Abner Rd (SR 1311)

Bandy Rd (SR 1311)

Ether Rd (SR 1349)

Black Ankle Rd (SR 1354)

Lovejoy Rd (SR 1310)

Beaman Rd (SR 1317)

Okeewemee-Star Rd (SR 1340)

River Rd (SR 1150)

Mt Carmel Ch Rd (SR 1134)

Vestal Rd (SR 1139)

Betsy Dr (SR 1005)

Capelsie Rd (SR 1519)

Candor-Troy Rd (SR 1519)

Pekin Rd (SR 1005)

McCallum Rd (SR 1516)

Pee Dee Rd (SR 1174)

Lovin Hill Rd (SR 1563)

Tabernacle Ch Rd (SR 1524)

Belford Ch Rd (SR 1524)

Windblow Rd (SR 1003)

Spies Rd (SR 1002)

Inset A

Inset B

Inset C

Inset D

Star

Biscoe

Troy

Candor

Mount Gilead

109 73 74 134 220 220A 211 731 24 27

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

Miles
0 1 2 4 6

N W E S

Figure 1, Sheet 2 of 5

Base map date: January 25, 2011

Refer to CTP document for more details

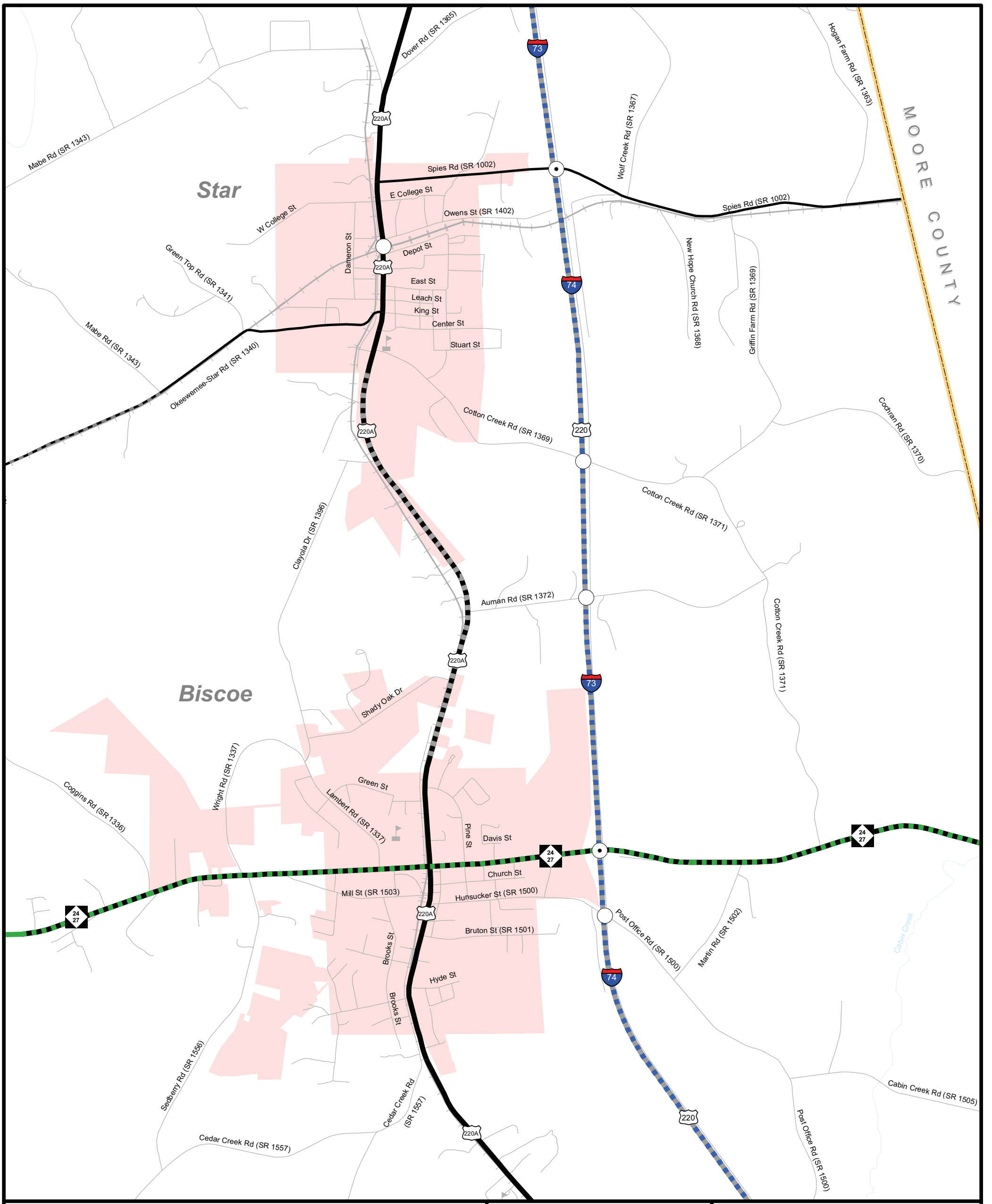
Highway Map

Montgomery County

North Carolina

Comprehensive Transportation Plan

Plan date: October 31, 2011



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 0.125 0.25 0.5 0.75 Miles

N W E S

Figure 1, Sheet 2A of 5

Base map date: January 25, 2011

Refer to CTP document for more details

Highway Map Inset A

Montgomery County

North Carolina

Comprehensive Transportation Plan

Plan date: October 31, 2011

Inset B

Troy

Shiloh Church Rd (SR 1318)
Corbett Rd (SR 1319)
Lovejoy Rd (SR 1310)
Williamson St (SR 1320)
Okeewemee Rd (SR 1323)
Glenn Rd (SR 1324)
Shiloh Rd (SR 1138)
Ophir Ave (SR 1310)
L. Drywall Rd (SR 1141)
Page St (SR 1332)
Wood St (SR 1383)
Bruton St (SR 1333)
Triumph St
Russell St (SR 1403)
Dairy Rd (SR 1138)
Vestal Rd (SR 1139)
Poole Rd (SR 1140)
Warner Rd (SR 1139)
Taft St (SR 1554)
Troy Bypass
Troy-Candor Rd (SR 1554)
S Main St (SR 1005)
Roslyn Rd (SR 1553)
Pekin Rd (SR 1005)
Dogwood Ave (SR 1615)
Little River

109 134 24 27 109B

Miles
0 0.3 0.6 1.2

Inset C

Candor

MOORE COUNTY

220A 73 74 211 220

Gold Mine Rd (SR 1561)
Small Rd (SR 1560)
Ball Park Rd (SR 1500)
Cabin Creek
Cole Rd (SR 1509)
Privette Rd (SR 1572)
Candor-Troy Rd (SR 1519)
Vivian St (SR 1511)
Currie Rd (SR 1518)
S Whiskey Rd (SR 1608)
Dowd Rd (SR 1514)
McCallum Rd (SR 1516)
Center Baptist Ch Rd (SR 1520)
Lovin Hill Rd (SR 1563)
Big Mountain Creek
Drowning Creek

Miles
0 0.5 1

Inset D

Mount Gilead

73 109 731

Washington Park Rd
Williams St (SR 1121)
Marshall St
Northview Rd (SR 1107)
Pleasant Valley Rd
E Second Ave
Hydro Rd (SR 1188)
E Ingram St
Park Ave
Haywood Ln
Maske Rd (SR 1104)

Miles
0 0.375 0.75

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

N W E S

Figure 1, Sheet 2B of 5

Base map date: January 25, 2011

Refer to CTP document for more details

Highway Map
Insets B, C, and D

Montgomery County
North Carolina

Comprehensive Transportation Plan

Plan date: October 31, 2011

DAVIDSON COUNTY

RANDOLPH COUNTY

STANLY COUNTY

MOORE COUNTY

RICHMOND COUNTY

ANSON COUNTY

Badin Lake

Uwharrie River

Yadkin River

River Rd (SR 1150)

Coggins Mine Rd (SR 1301)

Ophir Rd (SR 1164)

Flint Hill Rd (SR 1306)

Lovejoy Rd (SR 1310)

Okeewemee-Star Rd (SR 1340)

Little River

Spies Rd (SR 1002)

Star

Troy

Biscoe

Betsy Dr (SR 1005)

Capelsie Rd (SR 1519)

Canddr-Troy Rd (SR 1519)

Candor

McCallum Rd (SR 1516)

Perkin Rd (SR 1005)

Mount Gilead

Tabernacle Ch Rd (SR 1524)

Windblow Rd (SR 1003)

109 134 73 220A 74 24 27 P 211 731 220

Bus Routes
- Existing
- Needs Improvement
- Recommended

Rail Corridor
- Active
- Inactive
- Recommended

Existing Grade Separation

Proposed Grade Separation

Fixed Guideway
- Existing
- Needs Improvement
- Recommended

High Speed Rail Corridor
- Existing
- Recommended

Intermodal Connector
- Existing
- Recommended

Operational Strategies
- Existing
- Needs Improvement
- Recommended

Park and Ride Lot
- Existing
- Recommended

Rail Stops
- Existing
- Recommended

0 1 2 4 6 Miles

N W E S

Figure 1, Sheet 3 of 5

Base map date: January 25, 2011

Refer to CTP document for more details

Public Transportation and Rail Map

Montgomery County

North Carolina

Comprehensive Transportation Plan

Plan date: October 31, 2011

DAVIDSON COUNTY

RANDOLPH COUNTY

STANLY COUNTY

MOORE COUNTY

ANSON COUNTY

RICHMOND COUNTY

Badin Lake

Yadkin River

Uwharrie River

Little River

Coggins Mine Rd (SR 1301)

Ophir Rd (SR 1164)

Flint Hill Rd (SR 1306)

Lovejoy Rd (SR 1310)

Okeewemee-Star Rd (SR 1340)

Spies Rd (SR 1002)

River Rd (SR 1150)

Betsy Dr (SR 1005)

Capelsie Rd (SR 1519)

Canddr-Troy Rd (SR 1519)

McCallum Rd (SR 1516)

Perkin Rd (SR 1005)

Tabernacle Ch Rd (SR 1524)

Windblow Rd (SR 1008)

Star

Troy

Biscoe

Candor

Mount Gilead

109 73 731 134 220 220A 211 74 24 27 6

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

Miles

0 1 2 4 6

N W E S

Figure 1, Sheet 4 of 5

Base map date: January 25, 2011

Refer to CTP document for more details

Bicycle Map

Montgomery County

North Carolina

Comprehensive Transportation Plan

Plan date: October 31, 2011

DAVIDSON COUNTY

RANDOLPH COUNTY

STANLY COUNTY

MOORE COUNTY

RICHMOND COUNTY

ANSON COUNTY

Badin Lake

Uwharrie River

Yadkin River

River Rd (SR 1150)

Coggins Mine Rd (SR 1301)

Ophir Rd (SR 1164)

Flint Hill Rd (SR 1306)

Lovejoy Rd (SR 1310)

Okeewemee-Star Rd (SR 1340)

Spies Rd (SR 1002)

Betsy Dr (SR 1005)

Capelsie Rd (SR 1519)

Candor-Troy Rd (SR 1519)

McCallum Rd (SR 1516)

Perkin Rd (SR 1005)

Tabernacle Ch Rd (SR 1524)

Windblow Rd (SR 1003)

Little River

Inset A

Star

Inset B

Biscoe

Inset C

Troy

Inset D

Candor

Inset E

Mount Gilead

109 134 73 220A 74 24 27 220 211 731

Sidewalks

- Existing
- Needs Improvement
- Recommended

Off-Road

- Existing
- Needs Improvement
- Recommended

Multi-Use Paths

- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

Miles

0 1 2 4 6

N W E S

Figure 1, Sheet 5 of 5

Base map date: January 25, 2011

Refer to CTP document for more details

Pedestrian Map

Montgomery County

North Carolina

Comprehensive Transportation Plan

Plan date: October 31, 2011

Inset A

Star

Russell St
Spies Rd (SR 1002)
W College St
E College St
Pine Grv
Kanoy St
Dover St
Dover St (SR 1002)
Carriage Dr
Owens St (SR 1402)
Dameron St
Owens St
Cemetery St
McIntosh St
Depot St
Hussey Holw
Railyard Rd (SR 1397)
Vance St
Vern St
Blake St
W Bank St
E Bank St
Park Ave
Monroe St
Hotel St
East St
Harper St
Leach St
Brewer St
First St
Second St
Wright St
Smith St
King St
Spring St
Center St
Okeewemee-Star Rd (SR 1340)
Freeman St
Oak Knoll St
Williams St
Stuart St
Cotton Creek Rd (SR 1369)
Craven St
220A
73
74
220

Miles
0 0.15 0.3

Inset B

Biscoe

Coggins Rd (SR1336)
Green St
Arrow St
Lambert Rd (SR1337)
Pine St
Oak St
Cedar St
Church St
Mill St (SR1503)
Hunsucker St (SR1500)
Brooks St
Factory St
Bruton St (SR1501)
Stewart St
Aileen Ave
Leach St (SR1628)
Post Office Rd (SR1500)
Martin Rd (SR1502)
Cabin Creek Rd (SR1505)
Sedberry Rd (SR1556)
Cedar Creek Rd (SR1557)
McCaskill Rd (SR1558)
Ball Park Rd (SR1500)
Drye Rd (SR1619)
Cabin Creek
24
27
220A
73
74
220

Miles
0 0.5 1

Sidewalks
- Existing
- Needs Improvement
- Recommended

Off-Road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

N W E S

Figure 1, Sheet 5A of 5

Base map date: January 25, 2011

Refer to CTP document for more details

Pedestrian Map
Insets A & B

Montgomery County
North Carolina

Comprehensive Transportation Plan

Plan date: October 31, 2011

Inset C

Troy

Miles
0 0.125 0.25 0.5

Inset D

Candor

Miles
0 0.2 0.4

Inset E

Mount Gilead

Miles
0 0.2 0.4

Sidewalks
- Existing
- Needs Improvement
- Recommended

Off-Road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

N W E S

Figure 1, Sheet 5B of 5

Base map date: January 25, 2011

Refer to CTP document for more details

Pedestrian Map
Insets C, D, & E

Montgomery County
North Carolina

Comprehensive Transportation Plan
Plan date: October 31, 2011

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 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 purpose of the SHC Vision Plan is 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 was projected from 2010 to 2040 using a trend line analysis based on Annual Average Daily Traffic (AADT) from 1991 to 2009. In addition, local land use plans and growth expectations were used to further refine future growth rates and patterns. The established future growth rates were endorsed by the Montgomery County CTP Committee on January 25, 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. Refer to Figures 2 and 3 for existing and 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 program. 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 the Montgomery County CTP for crashes occurring in the planning area between January 1, 2008 and December 31, 2010. During this period, a total of 5 intersections were identified as having a high number of crashes as illustrated in Figure 4. Refer to Appendix F for a detailed crash analysis.

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 Bridge Maintenance 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. Thirty seven deficient bridges were identified within the planning area and are illustrated in Figure 5. Refer to Appendix G for more detailed information.

DAVIDSON COUNTY

RANDOLPH COUNTY

STANLY COUNTY

MOORE COUNTY

RICHMOND COUNTY

ANSON COUNTY

Inset A

Inset B

Inset C

Inset D

Star

Troy

Biscoe

Candor

Mount Gilead

Flint Hill Rd (SR 1306)

Abner Rd (SR 1311)

Bandy Rd (SR 1349)

Spies Rd (SR 1002)

Ophir Rd (SR 1134)

Coggins Mine Rd (SR 1301)

Lovejoy Rd (SR 1310)

Okeewemee-Star Rd (SR 1340)

Vestal Rd (SR 1139)

Betsy Dr (SR 1005)

Capelsie Rd (SR 1519)

Candor-Troy Rd (SR 1519)

Pekin Rd (SR 1005)

McCallum Rd (SR 1516)

Pee Dee Rd (SR 1174)

Lovin Hill Rd (SR 1563)

Tabernacle Ch Rd (SR 1524)

Windblow Rd (SR 1009)

River Rd (SR 1150)

Blaine Rd (SR 1156)

Yadkin River

Uwharrie River

Little River

Badin Lake

3100 15100
800 14100
1900 14100
300 14100
2000 14100
2200 14100
2700 14100
6700 15100
6500 15100
700 14100
2100 15100
2700 15100
2900 14100
2500 15100
300 14100
500 14600
200 13100
400 14100
500 13600
1100 14100
800 14100
400 14100
500 13100
800 14100
11000 15100
500 14100
1500 14100
6400 15100
200 14100
300 14100
3300 15100
400 13600
2500 15100
1000 15100
300 14100
12600 58000
11500 58000
300 13600
12500 56100
400 13600
1300 14600
1500 13600
300 13600
1100 15100
600 14600
1400 15100
1500 14100
1300 14600
400 13600
300 13600
200 13600
9200 58000
1000 15100
1600 14600
1400 13600

8100 2010 Volumes (AADT)
12400 2010 Capacity

Near Capacity
Over Capacity
Schools
Airports
Study Roads
Roads
Railroads
Water Bodies
Rivers and Streams
Municipal Boundary
Planning Boundary
County Boundary
National Forest/Gamelands

Miles
0 1 2 4 6

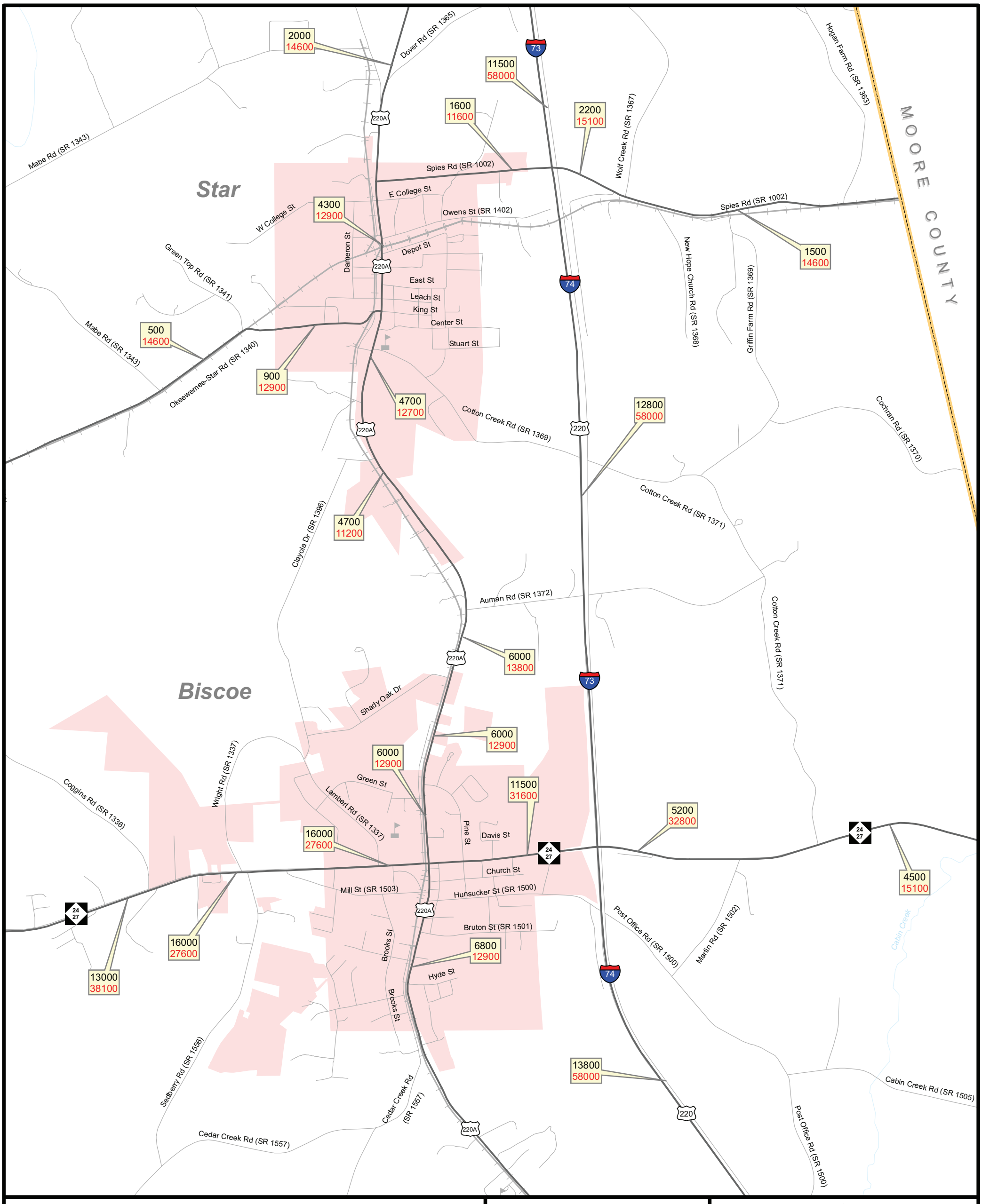
N W E S

Sheet 1 of 3

Base map date: January 25, 2011

Figure 2
2010 Volumes and Capacity Deficiencies

Montgomery County
Comprehensive Transportation Plan



8100 2010 Volumes (AADT)
12400 2010 Capacity

- Railroads
- Near Capacity
- Water Bodies
- Over Capacity
- Rivers and Streams
- Schools
- Municipal Boundary
- Airports
- Planning Boundary
- Study Roads
- County Boundary
- Roads
- National Forest/Gamelands

Miles
0 0.2 0.4 0.8

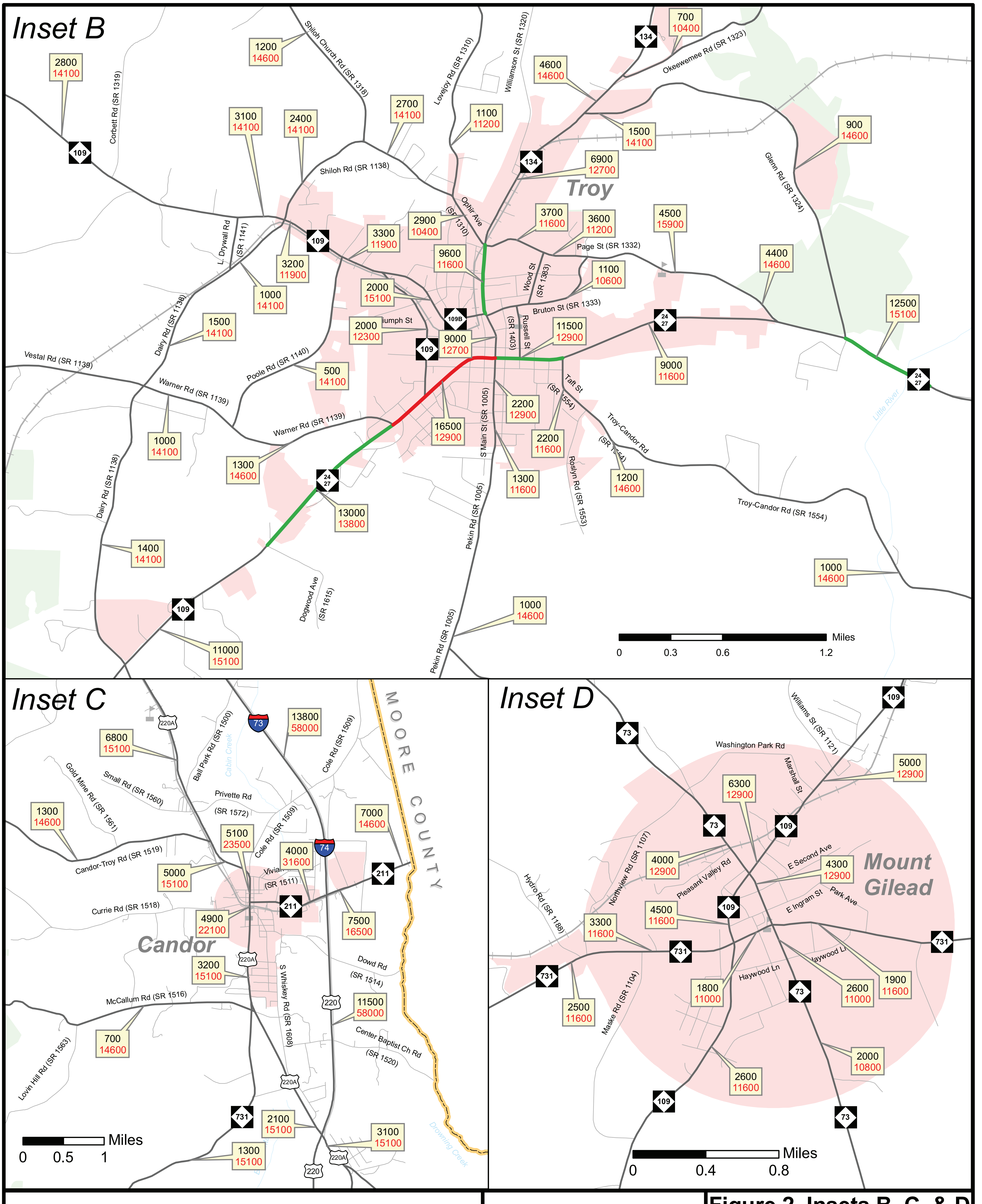
N W E S

Sheet 2 of 3

Base map date: January 25, 2011

Figure 2, Inset A
2010 Volumes and Capacity Deficiencies

Montgomery County
Comprehensive Transportation Plan



8100 12400	2010 Volumes (AADT) 2010 Capacity

- Railroads
- Near Capacity
- Water Bodies
- Over Capacity
- Rivers and Streams
- Schools
- Municipal Boundary
- Airports
- Planning Boundary
- Study Roads
- County Boundary
- Roads
- National Forest/Gamelands

N
W E
S

Sheet 3 of 3

Base map date: January 25, 2011

Figure 2, Insets B, C, & D
2010 Volumes and Capacity Deficiencies

Montgomery County
Comprehensive Transportation Plan

DAVIDSON COUNTY

RANDOLPH COUNTY

STANLY COUNTY

MOORE COUNTY

RICHMOND COUNTY

ANSON COUNTY

Inset A

Inset B

Inset C

Inset D

Star

Troy

Biscoe

Candor

Mount Gilead

Badin Lake

Yadkin River

Uwharrie River

Little River

Flint Hill Rd (SR 1306)

Abner Rd (SR 1311)

Bandy Rd (SR 1349)

Coggins Mine Rd (SR 1301)

Ophir Rd (SR 1134)

Lovejoy Rd (SR 1310)

Lovejoy Rd (SR 1317)

Okeewemee-Star Rd (SR 1340)

Spies Rd (SR 1002)

River Rd (SR 1150)

Vestal Rd (SR 1139)

Betsy Dr (SR 1005)

Capelsie Rd (SR 1519)

Candor-Troy Rd (SR 1519)

Pekin Rd (SR 1005)

McCallum Rd (SR 1516)

Lovin Hill Rd (SR 1563)

Tabernacle Ch Rd (SR 1524)

Windblow Rd (SR 1009)

Blaine Rd (SR 1156)

Pee Dee Rd (SR 1174)

4200 15100
1200 14100
2700 14100
400 14100
2800 14100
3300 14100
4300 14100
1600 14100
800 13100
13000 15100
13300 15100
1000 14100
3900 15100
4500 15100
3600 15100
1900 14100
400 14100
500 14100
400 13100
12000 15100
2300 15100
600 13600
1400 14100
700 14600
800 14100
2000 14100
24400 15100
300 14100
400 14100
1000 14100
600 14100
1100 14600
600 13600
3900 15100
500 14100
5000 15100
600 13600
1800 14600
2000 13600
400 13600
1800 15100
600 13600
26000 56100
600 13600
1300 15100
24500 58000
24000 58000
400 13600
500 13600
1300 15100
18000 58000
2600 14600
1700 13600

8100 2010 Volumes (AADT)
12400 2010 Capacity

Near Capacity
Over Capacity
Schools
Airports
Study Roads
Roads
Railroads
Water Bodies
Rivers and Streams
Municipal Boundary
Planning Boundary
County Boundary
National Forest/Gamelands

Miles
0 1 2 4 6

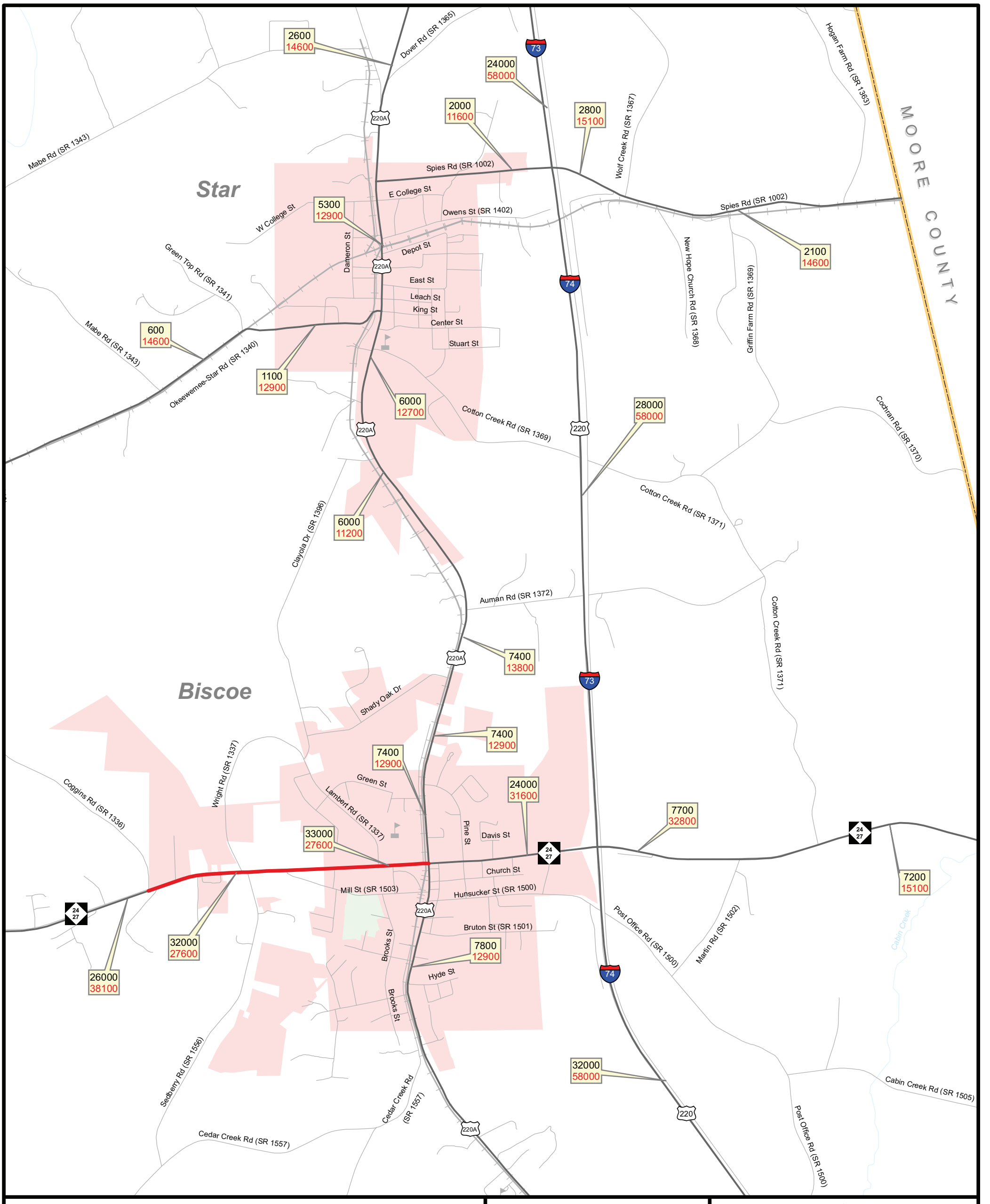
N W E S

Sheet 1 of 3

Base map date: January 25, 2011

Figure 3
2040 Volumes and Capacity Deficiencies

Montgomery County
Comprehensive Transportation Plan



8100 2010 Volumes (AADT)
12400 2010 Capacity

- Railroads
- Near Capacity
- Water Bodies
- Over Capacity
- Rivers and Streams
- Schools
- Municipal Boundary
- Airports
- Planning Boundary
- Study Roads
- County Boundary
- Roads
- National Forest/Gamelands

0 0.2 0.4 0.8 Miles

N W E S

Sheet 2 of 3

Base map date: January 25, 2011

Figure 3, Inset A
2040 Volumes and Capacity Deficiencies

Montgomery County
Comprehensive Transportation Plan

Inset B

Troy

Shiloh Church Rd (SR 1318)
Lovejoy Rd (SR 1310)
Williamson St (SR 1320)
Okeewemee Rd (SR 1323)
Corbett Rd (SR 1319)
Shiloh Rd (SR 1138)
Glenn Rd (SR 1324)
L. Drywall Rd (SR 1141)
Optimist Ave (SR 1310)
Page St (SR 1332)
Wood St (SR 1383)
Bruton St (SR 1333)
Russell St (SR 1403)
Taft St (SR 1554)
Dairy Rd (SR 1138)
Vestal Rd (SR 1139)
Poole Rd (SR 1140)
Warner Rd (SR 1139)
S Main St (SR 1005)
Troy-Candor Rd (SR 1554)
Roslyn Rd (SR 1553)
Pekin Rd (SR 1005)
Dogwood Ave (SR 1615)
Little River

4500 14100
1900 14600
4600 14100
3600 14100
3800 14100
1300 11200
900 10400
7100 14600
2300 14100
1600 14600
10200 12700
4000 10400
5300 11600
5000 11200
5300 15900
6000 14600
4400 11900
13000 11600
1700 10600
4300 11900
1300 14100
3000 15100
2500 12300
12000 12700
24000 12900
26000 15100
18000 11600
2000 14100
600 14100
2800 12900
29000 12900
2400 11600
1800 14100
2200 14600
1600 11600
1400 14600
28000 13800
2300 14100
1500 14600
24500 15100
1400 14600

Miles
0 0.3 0.6 1.2

Inset C

Candor

MOORE COUNTY

Ball Park Rd (SR 1500)
Cole Rd (SR 1509)
Small Rd (SR 1560)
Gold Mine Rd (SR 1561)
Privette Rd (SR 1572)
Candor-Troy Rd (SR 1519)
Currie Rd (SR 1518)
McCallum Rd (SR 1516)
Dowd Rd (SR 1514)
S Whiskey Rd (SR 1608)
Center Baptist Ch Rd (SR 1520)
Lovin Hill Rd (SR 1563)
Drowning Creek

7800 15100
32000 58000
1800 14600
6000 23500
12600 14600
5400 31600
5900 15100
5800 22100
13800 16500
3900 15100
800 14600
24500 58000
2600 15100
3600 15100
1900 15100

Miles
0 0.5 1

Inset D

Mount Gilead

Washington Park Rd
Williams St (SR 1121)
Marshall St
Northview Rd (SR 1107)
Pleasant Valley Rd
E Second Ave
E Ingram St
Park Ave
Hydro Rd (SR 1188)
Maske Rd (SR 1104)
Haywood Ln

8900 12900
8800 12900
4800 12900
5000 12900
7100 11600
4100 11600
2400 11600
3400 11000
2300 11000
3600 11600
2600 10800
3500 11600

Miles
0 0.4 0.8

8100 2010 Volumes (AADT)
12400 2010 Capacity

- Near Capacity
- Over Capacity
- Schools
- Airports
- Study Roads
- Roads
- Railroads
- Water Bodies
- Rivers and Streams
- Municipal Boundary
- Planning Boundary
- County Boundary
- National Forest/Gamelands

N W E S

Sheet 3 of 3

Base map date: January 25, 2011

Figure 3, Inset B, C, & D
2040 Volumes and Capacity Deficiencies

Montgomery County
Comprehensive Transportation Plan

DAVIDSON COUNTY

RANDOLPH COUNTY

STANLY COUNTY

MOORE COUNTY

RICHMOND COUNTY

Badin Lake

Uwharrie River

Yadkin River

Little River

River Rd (SR 1150)

Coggins Mine Rd (SR 1301)

Ophir Rd (SR 1164)

Flint Hill Rd (SR 1306)

Love Joy Rd (SR 1310)

Okeewemee-Star Rd (SR 1340)

Spies Rd (SR 1002)

Star

Troy

Biscoe

Inset A

Inset B

Betsy Dr (SR 1005)

Capelsie Rd (SR 1519)

Candor-Troy Rd (SR 1519)

Candor

Perkin Rd (SR 1005)

McCallum Rd (SR 1516)

Mount Gilead

Tabernacle Ch Rd (SR 1524)

Windblow Rd (SR 1003)

Inset A

Biscoe

Coggins Rd (SR 1336)

Wright Rd (SR 1337)

Quintons Dr

M & M Dr

Mill St

Sedberry Rd (SR 1556)

Miles

0 0.15 0.3

Inset B

Troy

Byrd St

Bruton St (SR 1333)

W Chestnut St

E Chestnut St

W Main St

W Spring St

E Spring St

Rush Ave

Cox St

S Pearl St

S Main St (SR 1005)

W Fairground Ave

Taft St (SR 1554)

Miles

0 0.15 0.3

Crash Locations (# Map Index)

Schools

Roads

Railroads

County Boundary

Water Bodies

Rivers and Streams

Municipal Boundary

National Forest/Gamelands

Miles

0 1 2 4 6

N

W E

S

Base map date: January 25, 2011

Refer to Appendix F for more details

Figure 4
Crash Locations
January 1, 2008 to December 31, 2010

Montgomery County
Comprehensive Transportation Plan

DAVIDSON COUNTY

RANDOLPH COUNTY

STANLY COUNTY

MOORE COUNTY

RICHMOND COUNTY

ANSON COUNTY

Badin Lake

Yadkin River

Uwharrie River

Little River

Okeewemee-Star Rd (SR 1340)

Spies Rd (SR 1002)

River Rd (SR 1150)

Coggins Mine Rd (SR 1301)

Ophir Rd (SR 1164)

Flint Hill Rd (SR 1306)

Love Joy Rd (SR 1310)

Betsy Dr (SR 1005)

Capelsie Rd (SR 1519)

Candor-Troy Rd (SR 1519)

Perkin Rd (SR 1005)

McCallum Rd (SR 1516)

Tabernacle Ch Rd (SR 1524)

Windblow Rd (SR 1009)

Star

Troy

Biscoe

Candor

Mount Gilead

11 5 109 170 146 145 144 149 134 248 73 220A 157 128 123 74 131 130 13 121 228 44 106 28 24 27 175 211 99 731 30 29 22 24 79 81 80 82 232 40 190 215 59 58 53

Deficient Bridge (# Bridge Number)

Schools

Roads

Railroads

County Boundary

Water Bodies

Rivers and Streams

Municipal Boundary

National Forest/Gamelands

Miles

0 1 2 4 6

N W E S

Base map date: January 25, 2011

Refer to Appendix G for more details

Figure 5
Deficient Bridges

Montgomery County
Comprehensive Transportation Plan

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.

- 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.

An inventory of existing and planned fixed public transportation routes for the planning area is presented on Sheet 3 of Figure 1. Currently, no fixed route system exists in Montgomery County.

The Montgomery County Regional Coordinated Area Transportation System (RCATS), a non-profit group operating under the Montgomery County Council of Aging, Inc., currently operates a demand response transportation service. During the development of the CTP, a need was identified for RCATS to pursue development of a flexible fixed route service throughout the county to connect with the proposed Park-and-Ride lots in

Biscoe, Candor, Mount Gilead, and Troy. All recommendations for public transportation were coordinated with the local governments and the Public Transportation Division of NCDOT. Refer to Appendix A for contact information.

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 and planned rail facilities for the planning area is presented on Sheet 3 of Figure 1. The Aberdeen Carolina & Western Railway operates approximately 34.5 miles of railroad from Aberdeen to Star and Candor. This Class III Railroad connects to the CSX Railroad in Aberdeen. The railroad serves approximately 18 industries, dealing in mainly forestry and agricultural products. All recommendations for rail were coordinated with the local governments and the Rail Division of NCDOT. Refer to Appendix A for contact information.

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. The 2005 Piedmont Triad RPO Regional Bicycle Study and the 2007 Piedmont Triad RPO Sidewalk Inventory were utilized in the development of these elements of the CTP. State Bicycle Route #6 passes through the northwestern part of the county from Stanly to Randolph County. All recommendations for bicycle and pedestrian facilities were coordinated with the local governments and the NCDOT Division of Bicycle and Pedestrian Transportation. Refer to Appendix A for contact information.

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 2010 Montgomery County Land Use Plan was used to meet this requirement and is illustrated in Figures 6 and 7, respectively.

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.

Montgomery County primarily anticipates growth in areas designated as “Primary Growth” or “Secondary Growth” areas. Primary or secondary growth areas, as depicted in Figure 7, encompass residential, commercial, industrial, and public land uses. These areas tend to be established populated areas and are located throughout the County, typically along major routes which include US 220, US 220A, NC 24-27, and NC 109. Significant industrial growth is planned at the Montgomery/Moore Economic Development Site, located in the eastern part of the county near the towns of Star and Biscoe.

DAVIDSON COUNTY

RANDOLPH COUNTY

STANLY COUNTY

MOORE COUNTY

RICHMOND COUNTY

ANSON COUNTY

Blaine Rd (SR 1156)
Coggins Mine Rd (SR 1301)
Ophir Rd (SR 1134)
Flint Hill Rd (SR 1306)
Abner Rd (SR 1311)
Bandy Rd (SR 1311)
Ether Rd (SR 1349)
Black Ankle Rd (SR 1354)
Lovejoy Rd (SR 1310)
Beaman Rd (SR 1317)
Okeewemee-Star Rd (SR 1340)
Spies Rd (SR 1002)
River Rd (SR 1150)
Mt Carmel Ch Rd (SR 1134)
Vestal Rd (SR 1139)
Betsy Dr (SR 1005)
Capelsie Rd (SR 1519)
Candor-Troy Rd (SR 1519)
Pee Dee Rd (SR 1174)
Pekin Rd (SR 1005)
McCallum Rd (SR 1516)
Lovin Hill Rd (SR 1563)
Tabernacle Ch Rd (SR 1524)
Belford Ch Rd (SR 1524)
Windblow Rd (SR 1009)

Star
Troy
Biscoe
Candor
Mount Gilead

109 73 134 74 731 211 24 27 220A 220

Legend

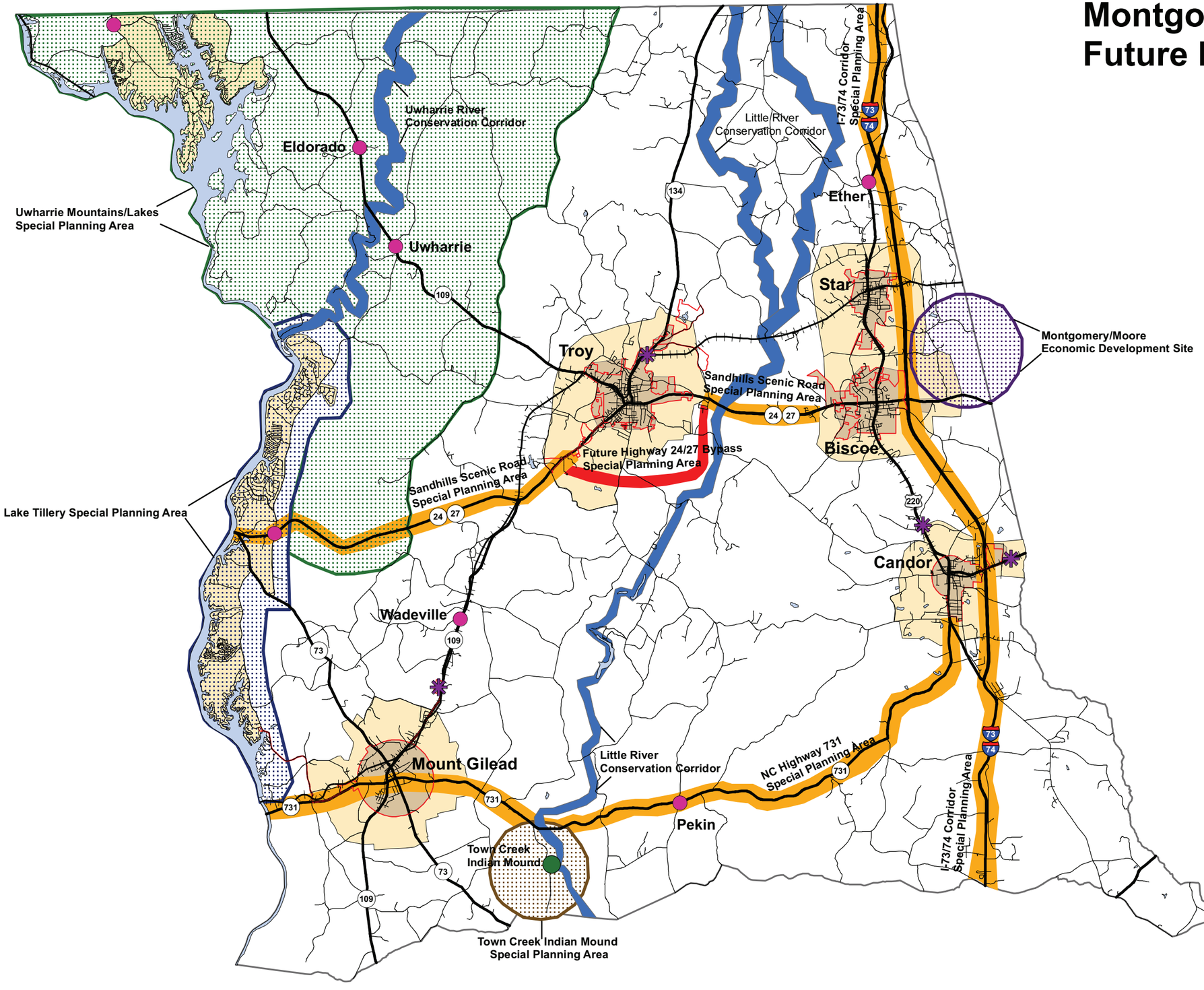
- Residential
- Manufactured Housing
- Commercial
- Industrial
- Instructional
- Parks & Recreation
- Agriculture
- Timber
- Other Roads
- Schools
- County Boundary
- Municipal Boundary
- Rivers and Streams
- Lakes

Miles
0 1 2 4 6

N W E S

Figure 6 Montgomery County Existing Land Use

Figure 7
Montgomery County
Future Land Use Map



Consideration of Natural and Human Environment

Environmental features are key considerations 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 Montgomery County are shown in Figure 8.

Table 1 – Environmental Features

- Airport Boundaries
- Anadromous Fish Spawning Areas
- Beach Access Sites
- Bike Routes (NCDOT)
- Coastal Marinas
- Colleges and Universities
- Conservation Tax Credit Properties
- Emergency Operation Centers
- Federal Land Ownership
- Fisheries Nursery Areas
- Geology (including Dikes and Faults)
- Hazardous Substance Disposal Sites
- Hazardous Waste Facilities
- High Quality Water and Outstanding Resource Water Management Zones
- Hospital Locations
- Hydrography (1:24,000 scale)
- Land Trust Priority Areas
- National Heritage Element Occurrences
- National Wetlands Inventory
- North Carolina Coastal Region Evaluation of Wetland Significance (NC-CREWS)
- Paddle Trails – Coastal Plain
- Railroads (1:24,000 scale)
- Recreation Projects – Land and Water Conservation Fund
- Sanitary Sewer Systems – Discharges, Land Application Areas, Pipes, Pumps and Treatment Plants
- Schools – Public and Non-Public
- Shellfish Strata
- Significant Natural Heritage Areas
- State Parks
- Submersed Rooted Vasculars
- Target Local Watersheds - EEP
- Trout Streams (DWQ)
- Trout Waters (WRC)
- Water Distribution Systems – Pipes, Pumps, Tanks, Treatment Plants, and Wells
- Water Supply Watersheds
- Wild and Scenic Rivers

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

DAVIDSON COUNTY

RANDOLPH COUNTY

STANLY COUNTY

MOORE COUNTY

ANSON COUNTY

RICHMOND COUNTY

Badin Lake

Uwharrie River

Little River

Flint Hill Rd (SR 1306)

Love Joy Rd (SR 1340)

Coggins Mine Rd (SR 1301)

Ophir Rd (SR 1004)

River Rd (SR 1150)

Okeekemee-Star Rd (SR 1340)

Spies Rd (SR 1002)

Betsy Dr (SR 1005)

Capelsie Rd (SR 1519)

Candor-Troy Rd (SR 1519)

McCallum Rd (SR 1516)

Perkin Rd (SR 1005)

Tabernacle Ch Rd (SR 1524)

Windblow Rd (SR 1003)

Star

Troy

Biscoe

Candor

Mount Gilead

109 134 73 74 220A 24 27 211 731 220

State Bike Route
Schools
Sanitation Sewer Systems - Discharge
Hospitals
County Boundary
Roads
Railroads
Water Bodies
Rivers and Streams
Municipalities
National Wetlands Inventory
Significant Natural Heritage Areas
Land Trust Priority Areas
Water Supply Watershed
Targeted Local Watershed

0 1 2 4 6 Miles

N W E S

Base map date: January 25, 2011

Figure 8
Environmental Features

Montgomery County

North Carolina

Comprehensive Transportation Plan

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 in Montgomery County in August 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 Montgomery County CTP Committee, which included a representative from each municipality, a county commissioner and planning board member, county staff, and the RPO, 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.

The public involvement process included two public drop-in sessions in Montgomery County to present the proposed CTP to the public and solicit comments. The first meeting was held on January 25, 2011 from 6:00-8:00 pm at the Star Municipal Building; and the second meeting was held on September 1, 2011 from 5:30-7:00 pm at Montgomery County Commissioners work room. Each session was publicized in the local newspaper. Ten comment forms were submitted during the first session and four comment forms were submitted during the second session.

Public hearings were held throughout Montgomery County on the following dates:

- November 7, 2011 at 5:00 pm during the Troy Town Council Meeting
- November 7, 2011 at 7:00 pm during the Candor Town Council Meeting
- November 14, 2011 at 5:00 pm during the Star Town Council Meeting
- November 14, 2011 at 7:30 pm during the Biscoe Town Council Meeting
- December 13, 2011 at 7:00 pm during the Mount Gilead Town Council Meeting
- December 20, 2011 at 6:00 pm during the Montgomery County Commissioners Meeting

The purpose of these meetings was to discuss the plan recommendations and to solicit further input from the public. The CTP was adopted at each of these meetings.

The Piedmont Triad RPO endorsed the Montgomery County CTP on February 15, 2012. The North Carolina Board of Transportation voted to mutually adopt the Montgomery County CTP on March 8, 2012.

II. Recommendations

The Montgomery County CTP is shown in Figure 1. This chapter presents recommendations for each mode of transportation in the county.

Implementation

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

Initiative for implementing the CTP rests predominately with the policy boards and citizens of Montgomery 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 Piedmont Triad RPO 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.

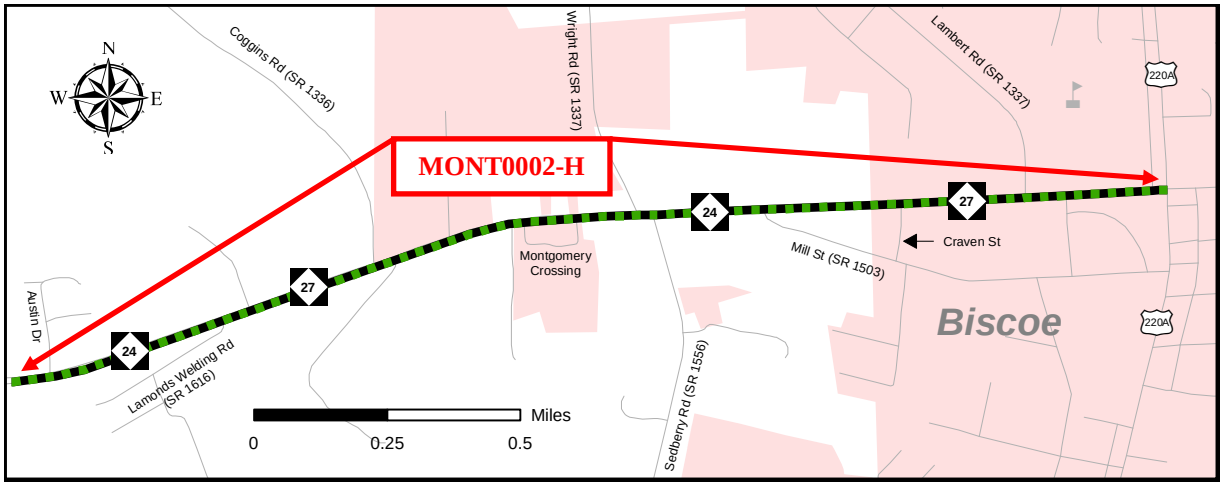
Prior to implementing projects from the CTP, additional analysis will be necessary to meet the National Environmental Policy Act (NEPA) or the North Carolina (or State) Environmental Policy Act (SEPA). This CTP may be used to provide information in the NEPA/SEPA process.

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

Problem Statements

HIGHWAY

NC 24-27 Proposed improvements from 0.1 miles west of Austin Drive to US 220A	**Local ID: MONT0002-H** **Last Updated: 9/9/2011**



Identified Problem

Existing NC 24-27 is projected to be over capacity by 2040 from Coggins Road (SR 1336) to US 220A. The primary purpose of this project is to relieve congestion on the existing facility such that a minimum of LOS D can be achieved.

Justification of Need

NC 24-27 is a major east-west corridor in central Montgomery County, connecting Biscoe with Troy and other rural parts of the county. The facility is a vital artery in moving people and goods through North Carolina, connecting Charlotte, Fayetteville, Jacksonville, and Morehead City.

NC 24-27 is currently a 5-lane facility with 12-foot lanes and a center left-turn lane from 0.1 miles west of Austin Drive to US 220A in Biscoe. West of Austin Drive, NC 24-27 is a four-lane divided facility. It is part of the statewide tier of the NC Multimodal Investment Network (NCMIN) and is a Strategic Highway Network (STRAHNET) route. STRAHNET routes are important to the United States' strategic defense policy and provide defense access, continuity, and emergency capabilities for defense purposes.

By 2040 the facility is projected to be over capacity from Coggins Road (SR 1336) to US 220A based on providing a LOS D. Traffic from Coggins Road (SR 1336) to Mill Street (SR 1503) is projected to increase from 16,000 vehicles per day (vpd) in 2010 to 32,000 vpd in 2040, compared to a LOS D capacity of 27,600 vpd. Traffic from Mill Street (SR 1503) to US 220A is projected to increase from 16,000 vpd in 2010 to 33,000 vpd in 2040, compared to a LOS D capacity of 27,600 vpd.

Community Vision and Problem History

NC 24-27 is the only major east-west route that connects Montgomery County with Stanly County to the west and Moore County to the east. This section of roadway passes through the town of Biscoe. Through traffic from Stanly County to Moore County mixes with local traffic, causing delays. Most of Biscoe's commercial and strip development is along this section of NC 24-27. Providing access to these developments while maintaining a high level of mobility on this facility is a challenge, especially during peak hours.

Amenities and services that are not available in Montgomery County are found in Albemarle in Stanly County and Carthage in Moore County. NC 24-27 is the direct connection between these two areas.

The 2008 Comprehensive Regional Growth Plan Report produced by the Base Relocation and Closure (BRAC) Task Force profiles eleven counties surrounding Fort Bragg, including Montgomery County. While the BRAC report does not document NC 24-27 in detail, it identifies the need for surrounding transportation improvements to better access Fort Bragg and its surrounding amenities.

This is the first time this deficiency has been identified on a transportation plan.

CTP Project Proposal

Project Description

The proposed project (Local ID No. MONT0002-H) is to convert the existing 5-lane facility from 0.1 miles west of Austin Drive to US 220A to a four-lane divided expressway. This project also includes sidewalks along this facility from west of Sedberry Road (SR 1556) to US 220A.

The proposed improvements to NC 24-27 will help to reduce congestion and improve mobility in this area of Montgomery County.

Relationship to Land Use Plans

The 2010 Montgomery County Land Use Plan indicates this currently developed area is planned as an economic development focus area and primary growth area. This area currently consists of both small and large commercial developments, including a Wal-Mart Supercenter, fast-food restaurants, gas stations, and other service-based establishments. There are also several smaller industrial businesses in this area. Primarily commercial and industrial development is expected to occur along this corridor.

Linkages to Other Plans and Proposed Project History

The improvement proposal for NC 24-27 directly connects to the US 220A minor widening improvements. NCDOT's Strategic Highway Corridor (SHC) Vision Plan designates this facility as an expressway through Montgomery County.

The 2008 BRAC Comprehensive Regional Growth Plan Report details the improvement of transportation facilities in an eleven-county area surrounding Fort Bragg, including Montgomery County. Improvement in this eleven-county area will more adequately handle military development at Fort Bragg, as well as amenities and services created as a result of this development. The 2008 BRAC Comprehensive Regional Growth Plan Report can be viewed at the following website: http://bracrtf.com/community_impact.php

Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, none of the natural and human environmental features examined as a part of this study were identified in the immediate vicinity of the project.

Multi-modal Considerations

Sidewalks currently exist along NC 24-27 from the Montgomery Crossing Shopping Center to US 220A. Sidewalks exist on the south side of this facility from US 220A to the Montgomery Crossing Shopping Center. Sidewalks exist on the north side of this facility from US 220A to just west of Craven Street. As part of this recommendation, sidewalks on the north side are recommended to be extended from just west of Craven Street to the Montgomery Crossing Shopping Center.

Public/ Stakeholder Involvement

Respondents to the goals and objectives survey indicated that NC 24-27 through Biscoe was one of the three most congested routes in Montgomery County. They also indicated that there were specific safety concerns on NC 24-27 in Biscoe at the intersections with US 220A and Wal-Mart. Additionally, there is a strong desire to be able to continue to effectively access amenities and services in this area via this facility.

US 220 (Future I-73/74), TIP No. I-4406

Based on North Carolina's vision for mobility and connectivity, US 220 (Future I-73/74) from US 220A north of Star to US 220A south of Candor does not meet the future mobility and connectivity needs in Montgomery County and central North Carolina. This facility is intended to provide mobility in central North Carolina and, ultimately, connectivity between Virginia and South Carolina. US 220 (Future I-74/74) is part of the Strategic Highway Corridor (SHC) Vision Plan adopted by NCDOT on September 2, 2004 and last updated on July 10, 2008.

US 220 (Future I-73/74) is currently a four-lane divided freeway with 12-foot lanes. The proposed project (I-4406) is to upgrade the existing facility to interstate standards from US 220A north of Star to US 220A south of Candor.

US 220A, Local ID No. MONT0001-H

US 220A is currently a 2 to 3 lane facility from Cotton Creek Road (SR 1369) in Star to 0.1 miles north of Pine Street in Biscoe. Mobility along this facility is hampered by the discontinuity of the existing cross section.

US 220A is currently a 3-lane facility from Cotton Creek Road (SR 1369) to 0.2 miles south of Cotton Creek Road (SR 1369), a 2-lane facility from 0.2 miles south of Cotton Creek Road to 0.1 miles north of Airport Road (SR 1376), a 3-lane facility from 0.1 miles north of Airport Road to 0.2 miles south of Airport Road (SR 1376), a 2-lane facility from 0.2 miles south of Airport Road to 0.2 miles north of Shady Oak Drive, and a 3-lane facility from 0.1 miles north of Shady Oak Drive to 0.1 miles north of Pine Street.

The proposed project (MONT0001-H) is to widen US 220A from 0.2 miles south of Cotton Creek Road (SR 1369) in Star to 0.1 miles north of Pine Street in Biscoe, to two 14-foot lanes with an 11-foot center left-turn lane.

NC 24-27, TIP No. R-2527

NC 24-27 is currently a two-lane major thoroughfare from Stanly County to the proposed Troy Bypass (R-0603) west of Dogwood Avenue (SR 1615) and is projected to be near or over capacity in 2040. The 2012-2018 TIP includes project R-2527 that is intended to address this problem. The project consists of widening the existing facility from a two-lane major thoroughfare to a four-lane expressway. This project is currently in the project development phase. For additional information about this project, including the Purpose and Need, contact NCDOT's Project Development and Environmental Analysis Branch.

NC 24-27 Bypass (Troy), TIP No. R-0623

NC 24-27 is currently a two-to-three lane major thoroughfare from west of Dogwood Avenue (SR 1615) to east of Glen Road (SR 1324) and is projected to be over capacity by 2040. The 2012-2018 TIP includes project R-0623 that is intended to address this problem. The project consists of constructing a four-lane expressway on new location from west of Dogwood Avenue (SR 1615) to east of Glen Road (SR 1324), including short connections between the proposed bypass and: existing NC 24-27 west of Dogwood Avenue, Glen Road (SR 1324), and NC 24-27 near Page Street (SR 1332). The latter connection also includes the realignment of the existing NC 24-27/Page Street (SR 1332) intersection. This project is currently in the project

development phase. For additional information about this project, including the Purpose and Need, contact NCDOT's Project Development and Environmental Analysis Branch.

NC 24-27, TIP No. R-2107B

NC 24-27 is currently as two-lane major thoroughfare from US 220A to US 220 in Biscoe and is projected to be over capacity by 2040. The 2012-2018 TIP includes project R-2107B that is intended to address this problem. The project consists of constructing a four-lane divided expressway from US 220A to US 220 in Biscoe. This project is currently under construction. For additional information about this project, including Purpose and Need, contact NCDOT's Project Development and Environmental Analysis Branch.

NC 24-27, TIP No. R-2528

Based on North Carolina's vision for mobility and connectivity, NC 24-27 from US 220 to the Carthage Bypass in Moore County does not meet the future mobility and connectivity needs in Montgomery County and central North Carolina. This facility is intended to provide mobility in Montgomery County and, ultimately, connectivity between Morehead City and Charlotte. NC 24-27 is part of the Strategic Highway Corridor (SHC) Vision Plan adopted by NCDOT on September 2, 2004 and last updated on July 10, 2008.

NC 24-27 is currently a 2-lane facility with 12-foot lanes from US 220 to Moore County. The proposed project (R-2528) is to widen the existing facility to a four-lane expressway from US 220 to the Carthage Bypass in Moore County. As development occurs along this corridor, every effort should be made to limit access in order to maintain mobility and connectivity.

NC 211, TIP No. R-2591

Existing NC 211 is projected to be near capacity by 2040 from US 220 to Moore County. The primary purpose of this project is to relieve congestion on the existing facility such that a minimum of LOS D can be achieved.

Traffic from US 220 to McAuley Farm Road (SR 1508) is projected to increase from 7,500 vehicles per day (vpd) in 2010 to 13,800 vpd in 2040, compared to a LOS D capacity of 16,500 vpd. Traffic from McAuley Farm Road (SR 1508) to Moore County is projected to increase from 7,000 vpd in 2010 to 12,600 vpd in 2040, compared to a LOS D capacity of 14,600 vpd.

The proposed project (TIP No. R-2591) is to widen NC 211 from two lanes to a four-lane divided expressway from US 220 to US 15-501 in Moore County, with a bypass of Pinehurst.

Minor Widening Improvements

The following routes do not have capacity issues, but are recommended to be upgraded to improve narrow lane widths and/or to accommodate bicycles.

- **MONT0003-H:** NC 73 – From Pee Dee Rd (SR 1174) to 0.1 miles north of Pleasant Valley Road in Mount Gilead, widen from two 10-foot lanes to two 12-foot lanes with five-foot paved shoulders
- **MONT0004-H:** NC 73 – From 0.3 miles south of NC 731 in Mount Gilead to Richmond County, widen from two 10-to-11 foot lanes to two 12-foot lanes with five-foot paved shoulders
- **MONT0005-H:** NC 73 – Richmond County to Moore County, widen from two 10-foot lanes to two 12-foot lanes with five-foot paved shoulder
- **MONT0006-H:** NC 109 – From Randolph County to NC 24-27 in Troy, widen from two 10-foot lanes to two 12-foot lanes with 5-foot paved shoulders
- **MONT0007-H:** NC 109 – From NC 731 in Mount Gilead to Richmond County, widen from two 10-foot lanes to two 12-foot lanes with 5-foot paved shoulders
- **MONT0008-H:** NC 109B – From NC 109 to NC 134 in Troy, widen from two 11-foot lanes to two 12-foot lanes with 5-foot paved shoulders
- **MONT0009-H:** NC 731 – From Park Avenue in Mount Gilead to US 220A in Candor, widen from two 11-foot lanes to two 12-foot lanes with 5-foot paved shoulders
- **MONT0010-H:** Bandy Road (SR 1311) – From NC 134 to Ether Road (SR 1349), widen from two 10-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0011-H:** Belford Church Road (SR 1524) – From US 220A to Windblow Road (SR 1103), widen from 9 to 12-foot lanes with 5-foot paved shoulders
- **MONT0012-H:** Black Ankle Road (SR 1354) – From Ether Road (SR 1349) to I-73/74-US 220, widen from two 9-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0013-H:** Blaine Road (SR 1156) – From Davidson County to NC 109, widen from two 10-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0014-H:** Candor-Troy Road (SR 1519) – From Troy-Candor Road (SR 1554) to US 220A near Candor, widen from 11-foot lanes to 12-foot lanes with 5-foot paved shoulders
- **MONT0015-H:** Coggins Mine Road (SR 1301) – From Randolph County to Center Methodist Church Road (SR 1134), widen from two 8-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0016-H:** Dairy Road (SR 1138) – From NC 109 in Troy to NC 24-27-109 in Troy, widen from two 10-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0017-H:** Ether Road (SR 1349) – From Black Ankle Road (SR 1354) to Bandy Road (SR 1311), widen from two 10-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0018-H:** Flint Hill Road (SR 1306) – From Ophir Road (SR 1134) to Abner Road (SR 1311), widen from two 8 to 10-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0019-H:** Glenn Road (SR 1324) – From NC 134 in Troy to NC 24-27, widen from two 10-foot lanes to two 12-foot lanes with 5-foot paved shoulders

- **MONT0020-H:** Lovejoy Road (SR 1310) – From Flint Hill Road (SR 1310) to Shiloh Road (SR 1138) in Troy, widen from two 9 to 10-foot lanes to 11-foot lanes with 4-foot paved shoulders
- **MONT0021-H:** McCallum Road (SR 1516) – From Pekin Road (SR 1005) to Lovin Hill Road (SR 1563), widen from two 9-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0022-H:** Mount Carmel Church Road (SR 1134) – From NC 109 to Vestal Road (SR 1139), widen from two 8-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0023-H:** Okeewemee Road (SR 1323) – From Okeewemee-Star Road (SR 1340) to NC 134 in Troy, widen from two 9-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0024-H:** Okeewemee-Star Road (SR 1340) – From Okeewemee Road (SR 1323) to Mabe Road (SR 1343), widen from two 9-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0025-H:** Ophir Avenue (SR 1310) – From Lovejoy Road (SR 1310) in Troy to 0.1 miles west of NC 134 in Troy, widen from two 9-foot lanes to two 11-foot lanes with 5-foot paved shoulders
- **MONT0026-H:** Ophir Road (SR 1134) – From Flint Hill Road (SR 1306) to NC 109, widen from two 10-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0027-H:** Page Street (SR 1332) – From Wood Street (SR 1383) in Troy to 0.1 miles east of Bruton Street (SR 1333) in Troy, widen from two 11-foot lanes to two 12-foot lanes with 5-foot paved shoulders
- **R-2314:** Pekin Road (SR 1005) – From Troy town limits to Richmond County, widen from two 9 to 10-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0028-H:** River Road (SR 1150) – From NC 109 to NC 73, widen from two 10-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0029-H:** Shiloh Road (SR 1138) – From Lovejoy Road (SR 1310) in Troy to NC 109 in Troy, widen from two 10-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0030-H:** Tabernacle Church Road (SR 1524) – From NC 731 to I-73/74-US 220, widen from two 9-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0031-H:** Vestal Road (SR 1139) – From Mt Carmel Church Road (SR 1134) to Dairy Road (SR 1138), widen from two 10-foot lanes to two 11-foot lanes with 4-foot paved shoulders
- **MONT0032-H:** Warner Road (SR 1139) – From Dairy Road (SR 1138) to Poole Road (SR 1140) near Troy, widen from two 10-foot lanes to two 11-foot lanes with 4-foot paved shoulders

PUBLIC TRANSPORTATION & RAIL

The Aberdeen Carolina and Western Railway Company operates approximately 34.5 miles of railroad from Aberdeen to Star and Candor. This Class III Railroad connects to the CSX Railroad in Aberdeen. The railroad serves approximately 18 industries, dealing mainly in forestry and agricultural products. There are no rail improvements proposed in this CTP.

There are currently no fixed route public transportation services within Montgomery County. During the development of the CTP, a need was identified for the Regional Coordinated Area Transportation System (RCATS), a non-profit group operating under the Montgomery County Council of Aging, Inc., to pursue development of a flexible fixed route service throughout the county to connect with the proposed Park-and-Ride lots in Biscoe, Candor, Mount Gilead, and Troy.

The CTP process identified potential locations for Park-and-Ride lots throughout the county as listed below:

- Near the US 220A/Shady Oak Drive intersection in Biscoe
- Near the US 220A/NC 211 intersection in Candor
- Near the NC 73/NC 731 intersection in Mount Gilead
- Near the NC 24-27/NC 109 Business intersection in Troy

These proposed park-and-ride lots could be used for carpooling to destinations in and out of Montgomery County. The final locations of these proposed park-and-ride lots would be subject to agreements with property owners and be in accordance with all local ordinances.

BICYCLE

State Bicycle Route #6 passes through the northwestern part of the county. Additionally, the Piedmont Triad Rural Planning Organization identified five bicycle routes as well as connector routes in the 2005 Regional Bicycle Study, which were incorporated into the CTP.

On-road bicycle facilities that have been identified as needing improvement are shown in the Bicycle Map.

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

- Curb & gutter sections require at minimum 4-ft bike lanes or 14-ft wide outside lanes.
- Shoulder sections require a minimum 4-ft paved shoulder.
- All bridges along roadways where bike facilities are recommended shall be equipped with 54” railings.

PEDESTRIAN

The Piedmont Triad Rural Planning Organization completed the 2007 Regional Sidewalk Inventory for the municipalities of Montgomery County. These features are shown on the Pedestrian Map as existing sidewalks or sidewalks that need improvement.

During the development of the Montgomery County CTP, several facilities were identified as needing new sidewalks. These needs are identified below.

Biscoe:

Sidewalks – Needs Improvement (Sidewalks needed on one side of a facility)

- **MONT0001-P:** US 220A, from Pine Street to Factory Street and from Bruton Street (SR 1501) to 0.1 miles south of Stewart Street
- **MONT0002-H:** NC 24-27, from 0.1 miles west of Sedberry Road (SR 1556) to 0.1 miles east of Mill Street (SR 1503)
- **MONT0002-P:** Aileen Avenue, from Capel Street to Leach Street
- **MONT0003-P:** Arrow Street, from Pine Street to end of facility
- **MONT0004-P:** Brooks Street, from Mill Street to 0.1 miles north of Stewart Street
- **MONT0008-P:** College Street, from Anchor School to Page Street
- **MONT0010-P:** Lambert Road (SR 1337), from 0.1 miles north of Green Street to NC 24-27
- **MONT0011-P:** Leach Street (SR 1628), from US 220A to Jupiter Drive
- **MONT0012-P:** Mill Street (SR 1503), from 0.1 miles west of Brooks Street to Railroad Street

Sidewalks – Recommended (Sidewalks needed on both sides of a facility)

- **MONT0001-H:** US 220A, from Shady Oak Drive to Pine Street
- **MONT0001-P:** US 220A, from Factory Street to Bruton Street (SR 1501) and from 0.1 miles south of Stewart Street to Leach Street (SR 1628)
- **MONT0004-P:** Brooks Street, from 0.1 miles north of Stewart Street to Leach Street (SR 1628)
- **MONT0005-P:** Bruton Street (SR 1501), from US 220A to Biscoe Town Limits
- **MONT0006-P:** Cedar Street, from NC 24-27 to Church Street
- **MONT0007-P:** Church Street, from US 220A to Cedar Street
- **MONT0009-P:** Green Street, from Lambert Road (SR 1337) to US 220A
- **MONT0012-P:** Mill Street (SR 1503), from NC 24-27 to 0.1 miles west of Brooks Street and from 0.1 miles west of US 220A to US 220A
- **MONT0013-P:** Oak Street, from NC 24-27 to Church Street
- **MONT0014-P:** Pine Street, from US 220A to Church Street
- **MONT0015-P:** Stewart Street, from Brooks Street to US 220A

Multi-use path – Recommended

- **MONT0001-M:** West side of US 220A, from Leach Street (SR 1628) to East Montgomery Middle School

Candor:

Sidewalks – Needs Improvement (Sidewalks needed on one side of a facility)

- **MONT0016-P:** US 220A, from 0.1 miles south of South Whiskey Road (SR 1608) to 0.3 miles south of East Randolph Street
- **MONT0017-P:** NC 211, from US 220A to 0.1 miles west of Industrial Road (SR 1614)

Sidewalks – Recommended (Sidewalks needed on both sides of a facility)

- **MONT0016-P:** US 220A, from Vivian Street (SR 1511) to 0.1 miles south of Vivian Street (SR 1511) and from 0.3 miles south of Randolph Street to McCaskill Road (SR 1515)
- **MONT0017-P:** NC 211, from 0.1 miles west of Industrial Road (SR 1614) to I-73/74-US 220
- **R-2591:** NC 211, from I-73/74-US 220 to Farmers Market Road (SR 1573)
- **MONT0018-P:** Currie Road (SR 1518), from Morgan Street to West Railroad Street (SR 1517)
- **MONT0019-P:** McCaskill Drive (SR 1515), from US 220A to South Whiskey Road (SR 1608)
- **MONT0020-P:** West Railroad Street (SR 1517), from Currie Road (SR 1518) to US 220A
- **MONT0021-P:** Vivian Street (SR 1511), from US 220A to East Candor Town Limits
- **MONT0022-P:** South Whiskey Road (SR 1608), from US 220A to South Candor Town Limits

Mount Gilead:

Sidewalks – Needs Improvement (Sidewalks needed on one side of a facility)

- **MONT0003-H:** NC 73, from NC 109 to 0.1 miles south of NC 109, from 2nd Avenue to Ingram Street, and from NC 731 to Haywood Lane
- **MONT0023-P:** NC 109, from Williams Street (SR 1121) to 0.1 miles north of NC 73
- **MONT0024-P:** NC 731, from 0.2 miles west of NC 109 to NC 109 and from NC 73 to 0.1 miles east of Haywood Lane
- **MONT0025-P:** East 2nd Avenue, from NC 73 to 0.1 miles east of NC 73
- **MONT0031-P:** South School Street, from NC 731 to 0.1 miles south of NC 731 and from 0.1 miles north of West Haywood Lane to West Haywood Lane

Sidewalks – Recommended (Sidewalks needed on both sides of a facility)

- **MONT0003-H:** NC 73, from Parkertown Road (SR 1108) to Pleasant Valley Road
- **MONT0023-P:** NC 109, from 0.1 miles north of NC 73 to 0.2 miles south of Haywood Lane
- **MONT0024-P:** NC 731, from 0.1 miles west of Haywood Lane to Park Avenue
- **MONT0025-P:** East 2nd Avenue, from 0.1 miles east of NC 73 to Sunrise Avenue
- **MONT0025-P:** West 2nd Avenue, from NC 109 to NC 73
- **MONT0026-P:** East Haywood Lane, from NC 73 to NC 731
- **MONT0026-P:** West Haywood Lane, from NC 109 to South School Street
- **MONT0027-P:** East Ingram Street, from NC 73 to Park Avenue
- **MONT0027-P:** West Ingram Street, from NC 109 to NC 73

- **MONT0028-P:** Marshall Street, from Washington Park Road to NC 109
- **MONT0029-P:** Park Avenue, from East Ingram Street to NC 731
- **MONT0030-P:** Parkertown Road (SR 1108), from Washington Park Road to NC 73
- **MONT0031-P:** South School Street, from 0.1 miles south of NC 731 to 0.1 miles north of Haywood Lane
- **MONT0032-P:** Sunrise Avenue, from NC 109 to East Ingram Street
- **MONT0033-P:** Washington Park Road, from Parkertown Road (SR 1108) to Marshall Street

Star:

Sidewalks – Needs Improvement (Sidewalks needed on one side of a facility)

- **MONT0034-P:** Center Street, from 0.1 miles west of Smith Street to Smith Street
- **MONT0035-P:** Depot Street, from US 220A to 0.1 miles east of US 220A

Sidewalks – Recommended (Sidewalks needed on both sides of a facility)

- **MONT0001-H:** US 220A, from 0.1 miles south of Cotton Creek Road (SR 1369) to Shady Oak Drive
- **MONT0034-P:** Center Street, from US 220A to 0.1 miles west of Smith Street
- **MONT0036-P:** East Street from US 220A to Smith Street
- **MONT0037-P:** Smith Street, from East Street to Center Street

Multi-use path – Recommended

- **MONT0002-M:** South side of Spies Road (SR 1002), from US 220A to Railyard Road (SR 1397)

Troy:

Sidewalks – Needs Improvement (Sidewalks needed on one side of a facility)

- **MONT0035-P:** NC 24-27-109, from 0.1 miles west of Wade Avenue to Reynolds Street
- **MONT0008-H:** NC 109 Business, from NC 109 to NC 134
- **MONT0039-P:** NC 134, from Brown Street to 0.1 miles north of Johnson Road and from Ophir Avenue (SR 1310) to Guilford Street
- **MONT0040-P:** Blue Street, from West Fairground Avenue to West Clairmont Street
- **MONT0041-P:** Broughton Street, from NC 134 to Allen Street
- **MONT0042-P:** Crouch Street, from West Roswell Street to NC 109 Business
- **MONT0044-P:** West Fairground Avenue, from Queen Street to South Main Street (SR 1005)
- **MONT0046-P:** Guilford Street, from 0.1 miles west of Tremont Street to Tremont Street
- **MONT0048-P:** Johnson Road, from 0.1 miles west of NC 134 to NC 134
- **MONT0049-P:** South Main Street (SR 1005), from 0.1 miles south of Spring Street to Barnhill Street
- **MONT0050-P:** West Main Street, from NC 109 to Eldorado Street
- **MONT0051-P:** Nance Street, from Triumph Street to end of facility
- **MONT0052-P:** Ophir Avenue, from Tremont Street to 0.1 miles east of Tremont Street and from 0.1 miles west of NC 134 to NC 134

- **MONT0053-P:** Page Street (SR 1332), from NC 134 to 0.1 miles east of NC 134
- **MONT0054-P:** South Pearl Street, from 0.1 miles south of Spring Street to Barnhill Street
- **MONT0055-P:** Princess Street, from Queen Street to Rush Avenue
- **MONT0056-P:** Queen Street, from Wooley Street to West Fairground Avenue
- **MONT0058-P:** West Roswell Street, from NC 109 Business to 0.1 miles east of Tremont Street
- **MONT0061-P:** Tremont Street, from West Roswell Street to Guilford Street
- **MONT0063-P:** Wood Street (SR 1383), from Bruton Street (SR 1333) to Page Street (SR 1332)

Sidewalks – Recommended (Sidewalks needed on both sides of a facility)

- **MONT0006-H:** NC 109, from Triumph Street to NC 24-27
- **MONT0039-P:** NC 134, from Okeewemee Road (SR 1323) to Brown Street and from 0.1 miles north of Johnson Road to Ophir Avenue (SR 1310)
- **MONT0041-P:** Broughton Street, from Allen Street to Wood Street (SR 1383)
- **MONT0042-P:** Eldorado Street, from NC 109B to West Main Street
- **MONT0045-P:** Greensboro Street, from Staley Street to NC 109B
- **MONT0046-P:** Guilford Street, from Tremont Street to NC 134
- **MONT0047-P:** Hanover Street, from NC 24-27-109B to Wooley Street
- **MONT0048-P:** Johnson Road, from Lovejoy Road (SR 1310) to 0.1 miles west of NC 134
- **MONT0025-H:** Ophir Avenue (SR 1310), from Lovejoy Road (SR 1310) to Tremont Street
- **MONT0053-P:** Page Street (SR 1332), from 0.1 miles east of NC 134 to Wood Street (SR 1383) and from 0.1 miles east of Bruton Street (SR 1333) to 0.3 miles west of NC 24-27
- **MONT0027-H:** Page Street (SR 1332), from Wood Street (SR 1383) to 0.1 miles east of Bruton Street (SR 1333)
- **MONT0054-P:** South Pearl Street, from East Spring Street to 0.1 miles south of East Spring Street
- **MONT0055-P:** Princess Street, from Hanover Street to Queen Street
- **MONT0056-P:** Queen Street, from NC 24-27-109B to Rush Avenue
- **MONT0057-P:** Reynolds Street, from NC 24-27-109 to Wooley Street
- **MONT0059-P:** West Spring Street from NC 109 to NC 24-27-109B
- **MONT0059-P:** West Spring Street from South Main Street (SR 1005) to South Pearl Street
- **MONT0060-P:** Stanley Street, from 0.1 miles north of West Fairground Avenue to West Fairground Avenue
- **MONT0061-P:** Tremont Street, from West Roswell Street to NC 109B
- **MONT0062-P:** Watkins Street, from NC 24-27-109 to Wooley Street
- **MONT0064-P:** Wooley Street, from Hanover Street to Reynolds Street

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

Eugene A. Conti, Jr., Ph.D.
1501 Mail Service Center
Raleigh, NC 27699-1501
(919) 733-2520
gconti@ncdot.gov
http://www.ncdot.org/about/leadership/secretary.htmll

Board of Transportation Member

Mr. David L. Burns Division 8
1204 Shepherd Ave.
Laurinburg, NC 28352
(910) 462-2122
Email: david@zvpate.com
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.

Mr. Richard Hancock, PE
902 N Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 944-2344
Email: rwhancock@ncdot.gov
http://www.ncdot.gov/doh/operations/division8/

Division Project Manager

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

Ms. L. Alison Whitesell, PE
902 N Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 944-2344
awhitesell@ncdot.gov

Division Construction Engineer

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

Mr. John R.G. Olinger, PE
902 N Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 944-2344
jolinger@ncdot.gov

Division Traffic Engineer

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

Mr. David B. Willett
902 N Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 947-3930
dbwillett@ncdot.gov

Division Operations Engineer

Contact the Division Operations Engineer for information concerning facility operations.

Mr. Robert W. Stone II, PE
902 N Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 944-2344
robstone@ncdot.gov

Division Maintenance Engineer

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.

Mr. Jeff Picklesimer, PE, PLS
902 N Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 944-2344
jpicklesimer@ncdot.gov

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.

Mr. Kevin R. Hedrick, PE
219 Clemmer Road
Rockingham, NC 28379
(910) 582-7075
krhendrick@ncdot.gov

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/

Piedmont Triad Rural Planning Organization (RPO)

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

Mr. Jesse Day, AICP
2216 West Meadowview Rd., Suite 201
Greensboro, NC 27407-3480
(336) 294-4950
hcockburn@ptcog.org
http://www.ptcog.org/planning_services/transportation/RPO/index.php

Strategic Planning Office

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

Mr. Don Voelker
1501 Mail Service Center
Raleigh, NC 27699-1501
(919) 715-0951
djvoelker@ncdot.gov
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/

Bridge Maintenance Unit

Contact the Bridge Maintenance 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/

Roadway Design Unit

Contact the Highway Design Branch for information regarding design plans and proposals for road and bridge projects throughout the state.

1582 Mail Service Center
Raleigh, NC 27699-1582
(919) 707-6200
http://www.ncdot.gov/doh/preconstruct/highway/roadway/

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/

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.

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 Road Characteristics shapefile. 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 the NCLOS Program, 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 '2040 AADT E+C' is an estimate of the volume in 2040 with only existing plus committed projects assumed to be in place, where committed is defined as projects programmed for construction in the 2012 – 2018 Transportation Improvement Program (TIP). The '2040 AADT with CTP' is an estimate of the volume in 2040 with all proposed CTP improvements assumed to be in place. The '2040 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 II.

- **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																		
					2010 Existing System						2040 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)	2010 AADT	2040 AADT E+C	2040 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Tier	Other Modes
I-4406	**I-73/74-US 220**	Randolph County - Black Ankle Rd (SR 1354)	Montgomery Co.	1.5	48	4D	300	65	58000	12500	24000	24000	58000	ADQ	ADQ	F	Sta	
I-4406	**I-73/74-US 220**	Black Ankle Rd (SR 1354) - US 220A	Montgomery Co.	2.7	48	4D	300	65	58000	12600	24500	24500	58000	ADQ	ADQ	F	Sta	
I-4406	**I-73/74-US 220**	US 220A - Spies Rd (SR 1002)	Montgomery Co.	2.8	48	4D	390	65	58000	11500	24000	24000	58000	ADQ	ADQ	F	Sta	
I-4406	**I-73/74-US 220**	Spies Rd (SR 1002) - NC 24-27	Montgomery Co.	3.3	48	4D	390	65	58000	12800	28000	28000	58000	ADQ	ADQ	F	Sta	
I-4406	**I-73/74-US 220**	NC 24-27 - NC 211	Montgomery Co.	5.1	48	4D	390	65	58000	13800	32000	32000	58000	ADQ	ADQ	F	Sta	
I-4406	**I-73/74-US 220**	NC 211 - US 220A	Montgomery Co.	3.0	48	4D	390	65	58000	11500	24500	24500	58000	ADQ	ADQ	F	Sta	
I-4406	**I-73/74-US 220**	US 220A - Tabernacle Ch Rd (SR 1524)	Montgomery Co.	1.9	48	4D	390	65	58000	10000	21000	21000	58000	ADQ	ADQ	F	Sta	
I-4406	**I-73/74-US 220**	Tabernacle Ch Rd (SR 1524) - Richmond County	Montgomery Co.	4.0	48	4D	390	65	58000	9200	18000	18000	58000	ADQ	ADQ	F	Sta	
	US 220A	Randolph County - Black Ankle Rd (SR 1354)	Montgomery Co.	1.6	24	2	150	55	15100	900	1200	1200	15100	ADQ	ADQ	Maj	Reg	
	US 220A	Black Ankle Rd (SR 1354) - I-73/74-US 220	Montgomery Co.	2.6	24	2	150	55	15100	1000	1300	1300	15100	ADQ	ADQ	Maj	Reg	
	US 220A	I-73/74-US 220 - Hogan Farm Rd (SR 1363)	Montgomery Co.	0.8	24	2	150	55	15100	2000	2600	2600	15100	ADQ	ADQ	Maj	Reg	
	US 220A	Hogan Farm Rd (SR 1363) - Spies Rd (SR 1002)	Montgomery Co.	2.3	22	2	100	55	14600	2000	2600	2600	15100	ADQ	ADQ	Maj	Reg	
	US 220A	Spies Rd (SR 1002) - Owens St	Star	0.3	44	3	60	35	12900	4300	5300	5300	12900	ADQ	ADQ	Maj	Reg	B P
	US 220A	Owens St - Okeewemee-Star Rd (SR 1340)	Star	0.2	44	2	60	35	12900	4300	5300	5300	12900	ADQ	ADQ	Maj	Reg	B P
	US 220A	Okeewemee-Star Rd (SR 1340) - Center St	Star	0.1	44	2	60	35	12700	4700	6000	6000	12700	ADQ	ADQ	Maj	Reg	B P
	US 220A	Center St - 0.1 miles south of Cotton Creek Rd (SR 1369)	Star	0.3	44	3	60	20	12700	4700	6000	6000	12700	ADQ	ADQ	Maj	Reg	B P
MONT0001-H	**US 220A**	Cotton Creek Rd (SR 1369) - 0.3 miles north of Auman Rd (SR 1372)	Montgomery Co.	1.0	22	2	100	35	11200	4700	6000	6000	11200	3-B	ADQ	Maj	Reg	B P
MONT0001-H	**US 220A**	0.3 miles north of Auman Rd (SR 1372) - 0.5 miles south of Auman Rd (SR 1372)	Montgomery Co.	0.8	32	3	100	45	13800	6000	7400	7400	13800	3-A	ADQ	Maj	Reg	B P
MONT0001-H	**US 220A**	0.5 miles south of Auman Rd (SR 1372) - 0.5 miles north of NC 24-27	Montgomery Co.	0.2	32	3	100	35	12900	6000	7400	7400	12900	3-A	ADQ	Maj	Reg	B P
	US 220A	0.5 miles north of NC 24-47 - NC 24-27	Biscoe	0.5	44	3	60	35	12900	6000	7400	7400	12900	3-B	80	Maj	Reg	B P
	US 220A	NC 24-27 - Cedar Creek Rd (SR 1557)	Biscoe	0.9	34	3	60	35	12900	6800	7800	7800	12900	3-B	80	Maj	Reg	B P
	US 220A	Cedar Creek Rd (SR 1557) - Candor-Troy Rd (SR 1519)	Montgomery Co.	3.2	24	2	90	55	15100	6800	7800	7800	15100	2-A	ADQ	Maj	Reg	B P
	US 220A	Candor-Troy Rd (SR 1519) - 0.1 miles south of Vivian St (SR 1511)	Candor	0.7	24	2	90	55	15100	5000	5900	5900	15100	2-A	ADQ	Maj	Reg	B P
	US 220A	0.1 miles south of Vivian St (SR 1511) - NC 211	Candor	0.3	48	4	-	35	23500	5100	6000	6000	23500	4-C	110	Maj	Reg	B P
	US 220A	NC 211 - Whiskey Rd (SR 1608)	Candor	0.1	48	4	-	20	22100	4900	5800	5800	25400	4-C	110	Maj	Reg	B P
	US 220A	Whiskey Rd (SR 1608) - 0.2 miles north of NC 731	Candor	1.0	24	2	90	35	12900	3200	3900	3900	12900	2-A	ADQ	Maj	Reg	B P
	US 220A	0.2 miles north of NC 731 - NC 731	Montgomery Co.	0.2	24	2	90	55	15100	3200	3900	3900	15100	2-A	ADQ	Maj	Reg	B
	US 220A	NC 731 - McCallum Rd (SR 1516)	Montgomery Co.	0.1	24	2	90	55	15100	2000	2500	2500	15100	ADQ	ADQ	Maj	Reg	
	US 220A	McCallum Rd (SR 1516) - I-73/74/US 220	Montgomery Co.	1.7	24	2	90	55	15100	2100	2600	2600	15100	ADQ	ADQ	Maj	Reg	
	US 220A	I-73/74-US 220 - Windblow Rd (SR 1003)	Montgomery Co.	0.5	24	2	100	55	15100	3100	3600	3600	15100	ADQ	ADQ	Maj	Reg	

HIGHWAY																			
					2010 Existing System						2040 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)	2010 AADT	2040 AADT E+C	2040 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Tier	Other Modes
	US 220A	Windblow Rd (SR 1003) - Belford Ch Rd (SR 1524)	Montgomery Co.	1.5	24	2	100	55	15100	1800	2200	2200	15100	ADQ	ADQ	Maj	Reg	
	US 220A	Belford Ch Rd (SR 1524) - Richmond County	Montgomery Co.	3.7	24	2	100	55	15100	1000	1300	1300	15100	ADQ	ADQ	Maj	Reg	
	NC 24-27-73	Stanly County - NC 73	Montgomery Co.	0.2	48	4	180	55	56100	9600	17000	17000	56100	ADQ	ADQ	E	Sta	B
	NC 24-27	NC 73 - 0.1 miles east of NC 73	Montgomery Co.	0.1	48	4	180	55	56100	6700	13000	13000	56100	ADQ	ADQ	E	Sta	B
R-2527	**NC 24-27**	0.1 miles east of NC 73 - River Rd (SR 1150)	Montgomery Co.	0.9	24	2	150	55	15100	6700	13000	13000	56100	4-B	ADQ	E	Sta	B
R-2527	**NC 24-27**	River Rd (SR 1150) - NC 109	Montgomery Co.	7.0	24	2	150	55	15100	6500	13300	13300	56100	4-B	ADQ	E	Sta	
R-2527	**NC 24-27-109**	NC 109 - Saunders Rd (SR 1550)	Montgomery Co.	1.1	24	2	80	55	15100	11000	24400	24400	56100	4-B	150	E	Sta	
R-2527	**NC 24-27-109**	Saunders Rd (SR 1550) - Troy Bypass (R-0623)	Montgomery Co.	0.9	24	2	60	55	15100	11000	24500	24500	56100	4-B	150	E	Sta	
R-0623	**NC 24-27 Connector**	Troy Bypass - NC 24-27	Montgomery Co.	0.1							28000	11200	13800	2-B	60	Maj	Reg	
	NC 24-27-109	Troy Bypass (R-0623) - Dogwood Ave (SR 1615)	Troy	0.2	24	2	60	55	15100	11000	24500	6800	15100	ADQ	ADQ	Maj	Reg	
	NC 24-27-109	Dogwood Ave (SR 1615) - Warner Rd (SR 1139)	Troy	1.0	44	3	60	45	13800	13000	28000	11200	13800	3-B	80	Maj	Reg	P
	NC 24-27-109	Warner Rd (SR 1139) - NC 109	Troy	0.2	44	3	60	35	12900	15500	30000	11200	12900	3-B	80	Maj	Reg	P
	NC 24-27-109B	NC 109 - NC 109B/NC 134	Troy	0.5	44	3	60	35	12900	16500	29000	10200	12900	3-B	80	Maj	Reg	P
	NC 24-27	NC 109B/NC 134 - N Russell St (SR 1403)	Troy	0.1	50	3	60	35	12900	11500	24000	11500	12900	3-B	80	Maj	Reg	B P
	NC 24-27	N Russell St (SR 1403) - Taft St (SR 1554)	Troy	0.3	50	3	60	35	12900	11000	22000	11400	12900	3-B	80	Maj	Reg	B P
	NC 24-27	Taft St (SR 1554) - Page St (SR 1332)	Troy	1.3	24	2	60	35	11600	9000	18000	8000	11600	11600	ADQ	Maj	Reg	
	NC 24-27	Page St (SR 1332) - Glen Rd (SR 1324)	Montgomery Co.	0.4	24	2	60	55	15100	12000	25000	11200	15100	15100	ADQ	Maj	Reg	
	NC 24-27	Glen Rd (SR 1324) - Troy Bypass (R-0623)	Montgomery Co.	0.6	24	2	100	55	15100	12500	26000	12500	15100	15100	ADQ	Maj	Reg	
	NC 24-27	Troy Bypass (R -0623) - 0.6 miles east of Chicken Farm Rd (SR 1381)	Montgomery Co.	2.0	48	4	150	55	56100	12500	26000	26000	56100	ADQ	ADQ	E	Sta	
MONT0002-H	**NC 24-27**	0.6 miles west of Coggins Rd (SR 1336) - Coggins Rd (SR 1336)	Montgomery Co.	0.6	60	5	150	55	31800	13000	26000	26000	56100	4-B	ADQ	E	Sta	
MONT0002-H	**NC 24-27**	Coggins Rd (SR 1336) - Lambert Rd (SR 1337)	Montgomery Co.	1.1	60	5	90	45	27600	16000	32000	32000	56100	4-C	110	E	Sta	P
MONT0002-H	**NC 24-27**	Lambert Rd (SR 1337) - US 220A	Montgomery Co.	0.2	60	5	60	35	26000	16000	33000	33000	56100	4-C	110	E	Sta	P
R-2107B	**NC 24-27**	US 220A - US 220	Montgomery Co.	0.8	48	4	60	35	31600	11500	24000	24000	56100	4-C	110	E	Sta	P
R-2528	**NC 24-27**	US 220 to 0.4 miles east of US 220	Montgomery Co.	0.4	48	4	200	55	32800	5200	7700	7700	56100	4-B	ADQ	E	Sta	P
R-2528	**NC 24-27**	0.4 miles east of US 220 - Moore County	Montgomery Co.	1.8	24	2	100	55	15100	4500	7200	7200	56100	4-B	150	E	Sta	
R-0623	**NC 24-27 Bypass**	NC 24-27 - Pekin Rd (SR 1005)	Montgomery Co.	1.4	-	-	-	-	-	-	-	18800	56100	4-B	150	E	Sta	
R-0623	**NC 24-27 Bypass**	Pekin Rd (SR 1005) - Troy-Candor Rd (SR 1554)	Montgomery Co.	1.4	-	-	-	-	-	-	-	12600	56100	4-B	150	E	Sta	
R-0623	**NC 24-27 Bypass**	Troy-Candor Rd (SR 1554) - NC 24-27	Montgomery Co.	1.9	-	-	-	-	-	-	-	13500	56100	4-B	150	E	Sta	
	NC 73	NC 24-27 - River Rd (SR 1150)	Montgomery Co.	2.0	24	2	60	55	15100	2100	3900	3900	15100	2-A	ADQ	Maj	Reg	B
	NC 73	River Rd (SR 1150) - Pee Dee Rd (SR 1174)	Montgomery Co.	2.4	24	2	60	55	15100	2700	4500	4500	15100	2-A	ADQ	Maj	Reg	B
MONT0003-H	**NC 73**	Pee Dee Rd (SR 1174) - Parkertown Rd (SR 1108)	Montgomery Co.	2.8	20	2	60	55	14100	2900	4300	4300	15100	2-A	ADQ	Maj	Reg	

HIGHWAY																		
					2010 Existing System						2040 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)	2010 AADT	2040 AADT E+C	2040 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Tier	Other Modes
MONT0003-H	**NC 73**	Parkertown Rd (SR 1108) - 0.1 miles north of Pleasant Valley Rd	Mount Gilead	0.3	20	2	60	55	14100	2900	4300	4300	15100	2-E	60	Maj	Reg	P
	NC 73	0.1 miles north of Pleasant Valley Rd - Pleasant Valley Rd	Mount Gilead	0.1	38	3	-	35	12900	4000	4800	4800	12900	3-B	80	Maj	Reg	P
	NC 73	Pleasant Valley Rd - NC 109	Mount Gilead	0.2	38	3	-	35	12900	4000	4800	4800	12900	3-B	80	Maj	Reg	P
	NC 73	NC 109 - 0.1 miles east of NC 109	Mount Gilead	0.1	38	3	-	35	12900	4300	5000	5000	12900	3-B	80	Maj	Reg	P
	NC 73	0.1 miles east of NC 109 - NC 731	Mount Gilead	0.2	38	3	-	20	12700	4300	5000	5000	12700	3-B	80	Maj	Reg	P
	NC 73	NC 731 - 0.3 miles east of NC 731	Mount Gilead	0.3	37	2	-	20	11000	2600	3400	3400	11100	2-A	60	Maj	Reg	P
MONT0004-H	**NC 73**	0.3 miles east of NC 731 - 1.3 miles west of Gaddy Farm Rd (SR 1115)	Montgomery Co.	0.8	20	2	-	35	10800	2000	2600	2600	11600	2-A	60	Maj	Reg	
MONT0004-H	**NC 73**	1.3 miles west of Gaddy Farm Rd - Richmond County	Montgomery Co.	4.0	22	2	60	55	14600	1300	1900	1900	15100	2-A	ADQ	Maj	Reg	
MONT0005-H	**NC 73**	Richmond County - Moore County	Montgomery Co.	1.5	20	2	60	55	13600	1400	1700	1700	15100	2-A	ADQ	Maj	Reg	
MONT0006-H	**NC 109**	Randolph County - Badin Lake Rd (SR 1156)	Montgomery Co.	1.1	20	2	100	55	14100	1800	2600	2600	15100	2-A	ADQ	Maj	Reg	
MONT0006-H	**NC 109**	Badin Lake Rd (SR 1156) - Coggins Mine Rd (SR 1302)	Montgomery Co.	2.5	20	2	100	55	14100	1900	2700	2700	15100	2-A	ADQ	Maj	Reg	B
MONT0006-H	**NC 109**	Coggins Mine Rd (SR 1302) - Ophir Rd (SR 1303)	Montgomery Co.	3.8	20	2	100	55	14100	2000	2800	2800	15100	2-A	ADQ	Maj	Reg	B
MONT0006-H	**NC 109**	Ophir Rd (SR 1303) - River Rd (SR 1150)	Montgomery Co.	0.2	20	2	100	55	14100	2300	3300	3300	15100	2-A	ADQ	Maj	Reg	B
MONT0006-H	**NC 109**	River Rd (SR 1150) - Mt Carmel Ch Rd (SR 1134)	Montgomery Co.	3.6	20	2	100	55	14100	2200	3300	3300	15100	2-A	ADQ	Maj	Reg	
MONT0006-H	**NC 109**	Mt Carmel Church Rd (SR 1134) - Lemonds Drywall Rd (1141)	Montgomery Co.	2.3	20	2	100	55	14100	2800	4500	4500	15100	2-A	ADQ	Maj	Reg	
MONT0006-H	**NC 109**	Lemonds Drywall Rd (SR 1141) - Dairy Rd (SR 1138)	Montgomery Co.	0.3	20	2	100	55	14100	3100	4600	4600	15100	2-A	ADQ	Maj	Reg	
MONT0006-H	**NC 109**	Dairy Rd (SR 1138) - Poole Rd (SR 1140)	Montgomery Co.	0.3	20	2	100	45	11900	3200	4300	4300	12700	2-A	ADQ	Maj	Reg	
MONT0006-H	**NC 109**	Poole Rd (SR 1140) - NC 109B	Montgomery Co.	0.3	20	2	100	45	11900	3300	4400	4400	12700	2-A	ADQ	Maj	Reg	
MONT0006-H	**NC 109**	NC 109B - Triumph St	Troy	0.5	22	2	-	45	12300	2000	2500	2500	12700	2-A	60	Maj	Reg	
MONT0006-H	**NC 109**	Triumph St - NC 24-27-109B	Troy	0.3	22	2	-	45	12300	2000	2500	2500	12700	2-E	60	M	Reg	P
	NC 109	NC 24-27 - 0.1 miles north of Williams St (SR 1121)	Montgomery Co.	7.2	24	2	60	55	15100	6400	12000	12000	15100	2-A	ADQ	Maj	Reg	B
	NC 109	0.1 miles north of Williams St (SR 1121) - 0.4 miles south of Williams St (SR 1121)	Mount Gilead	0.5	37	3	60	45	12900	5000	8900	8900	12900	3-B	80	Maj	Reg	P
	NC 109	0.4 miles south of Williams St (SR 1121) - NC 73	Mount Gilead	0.4	37	3	60	35	12900	6300	8800	8800	12900	3-B	80	Maj	Reg	P
	NC 109	NC 73 - NC 731	Mount Gilead	0.4	24	2	60	35	11600	4500	7100	7100	11600	2-E	ADQ	Maj	Reg	P
MONT0007-H	**NC 109**	NC 731 - 0.4 miles north of Mask Rd (SR 1104)	Mount Gilead	0.9	20	2	60	35	11600	2600	3500	3500	11600	2-E	ADQ	Maj	Reg	P
MONT0007-H	**NC 109**	0.4 miles north of Mask Rd (SR 1104) - Richmond County	Montgomery Co.	4.1	20	2	60	55	14100	1500	1900	1900	15100	2-A	ADQ	Maj	Reg	B
MONT0008-H	**NC 109B**	NC 109 - NC 134	Troy	0.7	22	2	-	55	14600	2000	3000	3000	15100	2-A	60	Maj	Reg	P
	NC 109B/NC 134	NC 134 - Bruton St (SR 1333)	Troy	0.1	50	2	-	20	11000	9000	12000	12000	12700	2-G	75	Maj	Reg	B P

HIGHWAY																			
					2010 Existing System						2040 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)	2010 AADT	2040 AADT E+C	2040 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Tier	Other Modes
	NC 109B/NC 134	Bruton St (SR 1333) - NC 24-27	Troy	0.3	50	2	-	20	11000	9000	12000	12000	12700	2-G	75	Maj	Reg	B P
	NC 134	Randolph County - Abner Rd/Bandy Rd (SR 1311)	Montgomery Co.	1.6	24	2	100	55	15100	2500	3900	3900	15100	ADQ	ADQ	Maj	Reg	
	NC 134	Abner/Bandy Rd (SR 1311) - Okeewemee Rd (SR 1323)	Montgomery Co.	7.6	24	2	100	55	15100	3300	5000	5000	15100	ADQ	ADQ	Maj	Reg	
	NC 134	Okeewemee Rd (SR 1323) - Glen Rd (SR 1324)	Troy	0.3	24	2	100	45	14600	4600	7100	7100	15100	2-E	ADQ	Maj	Reg	B P
	NC 134	Glen Rd (SR 1324) - Ophir Ave (SR 1310)	Troy	1.0	24	2	100	45	12700	6900	10200	10200	12700	2-E	ADQ	Maj	Reg	B P
	NC 134	Ophir Ave (SR 1310) - 0.2 miles south of Ophir Ave (SR 1310)	Troy	0.2	50	3	100	35	11600	9600	13000	13000	12900	3-B	ADQ	Maj	Reg	B P
	NC 134	0.2 miles south of Ophir Ave (SR 1310) - NC 109B	Troy	0.2	50	3	100	20	11000	9600	13000	13000	12700	3-B	ADQ	Maj	Reg	B P
	NC 211	US 220A - 0.3 miles east of US 220A	Candor	0.3	40	2	90	35	11600	3200	4300	4300	11600	2-E	ADQ	Maj	Reg	P
	NC 211	0.3 miles east of US 220A - US 220	Candor	0.7	48	4	150	35	23500	4000	5400	5400	31600	4-D	ADQ	Maj	Reg	P
R-2591	**NC 211**	US 220 - Farmers Market Rd (SR 1573)	Montgomery Co.	0.3	48	3	150	55	16500	7500	13800	13800	45200	4-C	ADQ	Maj	Reg	P
R-2591	**NC 211**	Farmers Market Rd (SR 1573) - McAuley Farm Rd (SR 1508)	Montgomery Co.	0.2	36	3	90	55	16500	7200	13200	13200	45200	4-B	150	Maj	Reg	
R-2591	**NC 211**	McAuley Farm Rd (SR 1508) - Moore County	Montgomery Co.	0.7	22	2	90	55	14600	7000	12600	12600	45000	4-B	150	Maj	Reg	
	NC 731	Stanly County - 0.1 miles west of Hydro Rd (SR 1188)	Montgomery Co.	2.4	24	2	150	55	15100	2500	3600	3600	15100	2-A	ADQ	Maj	Reg	B
	NC 731	0.1 miles west of Hydro Rd (SR 1188) - 0.1 miles east of Northview Rd (SR 1107)	Montgomery Co.	0.2	24	2	150	35	11600	2500	3800	3800	11600	2-A	ADQ	Maj	Reg	B
	NC 731	0.1 miles east of Northview Rd (SR 1107) - 0.4 miles west of NC 109	Mount Gilead	0.4	37	2	60	35	11600	3300	4100	4100	11600	2-E	90	Maj	Reg	B P
	NC 731	0.4 miles west of NC 109 - NC 109	Mount Gilead	0.4	24	2	60	35	11600	3300	4100	4100	11600	2-E	90	Maj	Reg	B P
	NC 731	NC 109 - 0.1 miles east of NC 109	Mount Gilead	0.1	24	2	-	35	11600	1800	2300	2300	11600	2-E	90	Maj	Reg	B P
	NC 731	0.1 miles east of NC 109 - NC 73	Mount Gilead	0.1	36	2	-	20	11000	1800	2300	2300	11000	2-E	90	Maj	Reg	B P
	NC 731	NC 73 - 0.1 miles east of NC 73	Mount Gilead	0.1	36	2	-	20	11000	1900	2400	2400	11000	2-E	90	Maj	Reg	B P
	NC 731	0.1 miles east of NC 73 - Park Ave	Mount Gilead	0.6	24	2	-	35	11600	1900	2400	2400	11600	2-E	60	Maj	Reg	B P
MONT0009-H	**NC 731**	Park Ave - Pekin Rd (SR 1005)	Montgomery Co.	7.3	22	2	60	55	14600	1400	2300	2300	15100	2-A	ADQ	Maj	Reg	B
MONT0009-H	**NC 731**	Pekin Rd (SR 1005) - Tabernacle Ch Rd (SR 1524)	Montgomery Co.	6.1	22	2	60	55	14600	1100	1800	1800	15100	2-A	ADQ	Maj	Reg	B
MONT0009-H	**NC 731**	Tabernacle Ch Rd (SR 1524) - McCallum Rd (SR 1516)	Montgomery Co.	3.9	22	2	60	55	14600	1300	1900	1900	15100	2-A	ADQ	Maj	Reg	B
MONT0009-H	**NC 731**	McCallum Rd (SR 1516) - US 220A	Montgomery Co.	0.1	22	2	60	55	14600	1400	1800	1800	15100	2-A	ADQ	Maj	Reg	B
	Abner Rd (SR 1311)	Flint Hill Rd (SR 1306) - NC 134	Montgomery Co.	1.5	22	2	-	55	14600	500	700	700	14600	2-B	60	Min	Sub	B
MONT0010-H	**Bandy Rd (SR 1311)**	NC 134 - Ether Rd (SR 1349)	Montgomery Co.	2.1	20	2	-	55	14100	300	500	500	14600	2-B	60	Min	Sub	B
	Beaman Rd (SR 1317)	Lovejoy Rd (SR 1310) - Shiloh Ch Rd (SR 1318)	Montgomery Co.	1.7	20	2	60	55	14100	1100	1400	1400	14100	ADQ	ADQ	Min	Sub	

HIGHWAY																			
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Local ID	Facility	Section (From - To)	Jurisdiction	Dist. (mi)	Cross-Section (ft)	Cross-Section lanes	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2010 AADT	2040 AADT E+C	2040 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Tier	Other Modes
MONT0011-H	**Belford Ch Rd (SR 1524)**	US 220A - Windblow Rd (SR 1003)	Montgomery Co.	1.7	18	2	-	55	13600	200	400	400	15100	2-A	60	Min	Sub	B
MONT0012-H	**Black Ankle Rd (SR 1354)**	Ether Rd (SR 1349) - 0.5 miles east of Williamson Rd (SR 1355)	Montgomery Co.	1.3	18	2	60	55	13600	400	600	600	14600	2-B	60	Min	Sub	
MONT0012-H	**Black Ankle Rd (SR 1354)**	0.5 miles east of Williamson Rd (SR 1355) - I-73/74-US 220	Montgomery Co.	1.9	20	2	60	55	14100	400	700	700	14600	2-B	60	Min	Sub	
	Black Ankle Rd (SR 1354)	I-73/74-US 220 - US 220A	Montgomery Co.	0.3	24	2	60	55	15100	600	1000	1000	15100	ADQ	ADQ	Min	Sub	
	Blaine Rd (SR 1162)	Davidson County - Uwharrie Point Pkwy (SR 1162)	Montgomery Co.	0.3	24	2	-	55	15100	3100	4200	4200	14600	2-B	60	Min	Sub	B
MONT0013-H	**Blaine Rd (SR 1161)**	Uwharrie Point Pkwy (SR 1162) - Davidson County	Montgomery Co.	1.0	20	2	-	55	14100	1900	2800	2800	14600	2-B	60	Min	Sub	B
MONT0013-H	**Blaine Rd (SR 1156)**	Davidson County - NC 109	Montgomery Co.	3.1	20	2	-	55	14100	800	1200	1200	14600	2-B	60	Min	Sub	B
	Burton St (SR 1333)	NC 109B - N Russell St (SR 1403)	Troy	0.2	22	2	-	25	10600	1300	1900	1900	10600	ADQ	ADQ	Min	Sub	P
	Burton St (SR 1333)	N Russell St (SR 1403) - Wood St (SR 1383)	Troy	0.1	22	2	-	25	10600	1300	1900	1900	10600	ADQ	ADQ	Min	Sub	P
	Burton St (SR 1333)	Wood St (SR 1383) - 0.2 miles east of Wood St (SR 1383)	Troy	0.2	22	2	-	25	10600	1100	1700	1700	10600	ADQ	ADQ	Min	Sub	P
	Burton St (SR 1333)	0.2 miles east of Wood St (SR 1383) - Page St (SR 1332)	Troy	0.3	30	2	-	25	11000	1100	1700	1700	10600	2-E	60	Min	Sub	P
MONT0014-H	**Candor-Troy Rd (SR 1519)**	Troy-Candor Rd (SR 1554) - US 220A	Montgomery Co.	5.8	22	2	-	55	14600	1300	1800	1800	15100	2-A	60	Min	Sub	B
	Capelsie Rd (SR 1519)	Pekin Rd (SR 1005) - Troy-Candor Rd (SR 1554)	Montgomery Co.	5.2	18	2	-	55	13600	400	600	600	14600	ADQ	ADQ	Min	Sub	
MONT0015-H	**Coggins Mine Rd (SR 1301)**	Randolph County - Center Methodist Ch Rd (SR 1134)	Montgomery Co.	0.7	16	2	-	55	13100	200	300	300	14600	2-B	60	Min	Sub	
	Coggins Mine Rd (SR 1301)	Center Methodist Ch Rd (SR 1134) - Low Water Bridge Rd (SR 1301)	Montgomery Co.	0.6	20	2	-	55	14100	300	400	400	14100	ADQ	ADQ	Min	Sub	
	Coggins Mine Rd (SR 1302)	Low Water Bridge Rd (SR 1301) - NC 109	Montgomery Co.	1.6	20	2	-	55	14100	300	400	400	14100	ADQ	ADQ	Min	Sub	
MONT0016-H	**Dairy Rd (SR 1138)**	NC 109 - Lamonds Drywall Rd (SR 1141)	Montgomery Co.	0.4	20	2	60	55	14100	1000	1300	1300	14600	2-B	ADQ	Min	Sub	
MONT0016-H	**Dairy Rd (SR 1138)**	Lemonds Drywall Rd (SR 1141) - Vestal/Warner Rd (SR 1139)	Montgomery Co.	0.9	20	2	60	55	14100	1500	2000	2000	14600	2-B	ADQ	Min	Sub	
MONT0016-H	**Dairy Rd (SR 1138)**	Vestal/Warner Rd (SR 1139) - NC 24-47-109	Montgomery Co.	1.7	20	2	60	55	14100	1400	2300	2300	14600	2-B	ADQ	Min	Sub	
MONT0017-H	**Ether Rd (SR 1349)**	Black Ankle Rd (SR 1354) - Bandy Rd (SR 1311)	Montgomery Co.	1.9	20	2	-	55	14100	400	600	600	14600	2-B	60	Min	Sub	B
MONT0018-H	**Flint Hill Rd (SR 1306)**	Ophir Rd (SR 1134) - Lovejoy Rd (SR 1310)	Montgomery Co.	4.4	16	2	-	55	13100	200	400	400	14600	2-B	60	Min	Sub	B
MONT0018-H	**Flint Hill Rd (SR 1306)**	Lovejoy Rd (SR 1310) - Abner Rd (SR 1311)	Montgomery Co.	2.2	20	2	-	55	14100	200	300	300	14600	2-B	60	Min	Sub	B

HIGHWAY																			
					2010 Existing System						2040 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)	2010 AADT	2040 AADT E+C	2040 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Tier	Other Modes
MONT0019-H	**Glenn Rd (SR 1324)**	NC 134 - 0.42 miles east of NC 134	Montgomery Co.	0.4	20	2	-	35	14100	1500	2300	2300	15100	2-A	60	Min	Sub	
MONT0019-H	**Glenn Rd (SR 1324)**	0.4 miles east of NC 134 - NC 24-27	Montgomery Co.	2.2	22	2	60	55	14600	900	1600	1600	15100	2-A	ADQ	Min	Sub	
R-0623	**Glenn Rd Connector**	NC 24-27 - Troy Bypass	Montgomery Co.	0.1							1300	1300	15100	2-A	60	M	Sub	
	Lemonds Drywall Rd (SR 1141)	NC 109 - Dairy Rd (SR 1138)	Troy	0.3	22	2	-	55	14600	700	1200	1200	14600	ADQ	ADQ	Min	Sub	
MONT0020-H	**Lovejoy Rd (SR 1310)**	Flint Hill Rd (SR 1306) - Aunt Queen Rd (SR 1314)	Montgomery Co.	3.6	20	2	-	55	14100	300	400	400	14600	2-B	60	Min	Sub	B
MONT0020-H	**Lovejoy Rd (SR 1310)**	Aunt Queen Rd (SR 1314) - Substation Rd (SR 1315)	Montgomery Co.	1.3	18	2	-	55	13600	500	600	600	14600	2-B	60	Min	Sub	B
MONT0020-H	**Lovejoy Rd (SR 1310)**	Substation Rd (SR 1315) - Beaman Rd (SR 1317)	Montgomery Co.	0.7	20	2	-	55	14100	800	1000	1000	14600	2-B	60	Min	Sub	B
MONT0020-H	**Lovejoy Rd (SR 1310)**	Beaman Rd (SR 1317) - 0.3 miles north of Shiloh Rd (SR 1138)	Montgomery Co.	3.6	20	2	-	55	14100	400	600	600	14600	2-B	60	Min	Sub	B
MONT0020-H	**Lovejoy Rd (SR 1310)**	0.3 miles north of Shiloh Rd (SR 1138) - Shiloh Rd (SR 1138)	Troy	0.3	18	2	-	35	10800	1100	1300	1300	11200	2-B	60	Min	Sub	B
MONT0021-H	**McCallum Rd (SR 1516)**	Pekin Rd (SR 1005) - Lovin Hill Rd (SR 1563)	Montgomery Co.	4.5	18	2	-	55	13600	300	400	400	14600	2-B	60	Min	Sub	B
	McCallum Rd (SR 1516)	Lovin Hill Rd (SR 1563) - NC 731	Montgomery Co.	2.2	22	2	-	55	14600	700	800	800	14600	2-B	60	Min	Sub	B
	McCallum Rd (SR 1516)	NC 731 - US 220A	Montgomery Co.	0.1	24	2	-	55	15100	200	300	300	15100	ADQ	ADQ	Min	Sub	
	S Main St (SR 1005)	NC 24-27 - 0.2 miles south of NC 24-47	Troy	0.2	42	3	-	35	12900	2200	2800	9600	12900	3-B	80	Min	Sub	B P
	S Main St (SR 1005)	0.2 miles south of NC 24-27 - Troy Town Limits	Troy	0.4	34	2	-	35	11600	1300	1600	9000	11600	2-E	60	Min	Sub	B P
MONT0022-H	**Mt Carmel Ch Rd (SR 1134)**	NC 109 - Vestal Rd (SR 1139)	Montgomery Co.	1.8	16	2	60	55	13100	500	800	800	14600	2-B	ADQ	Min	Sub	B
MONT0023-H	**Okeewemee Rd (SR 1323)**	Okeewemee-Star Rd (SR 1340) - 0.4 miles north of NC 134	Montgomery Co.	2.4	18	2	-	55	13600	400	600	600	14600	2-B	60	Min	Sub	B
MONT0023-H	**Okeewemee Rd (SR 1323)**	0.4 miles north of NC 134 - NC 134	Montgomery Co.	0.4	18	2	-	35	10400	700	900	900	11600	2-B	60	Min	Sub	B
MONT0024-H	**Okeewemee-Star Rd (SR 1340)**	Okeewemee Rd (SR 1323) - Mabe Rd (SR 1343)	Montgomery Co.	4.2	18	2	-	55	13600	300	400	400	14600	2-B	60	Min	Sub	B
	Okeewemee-Star Rd (SR 1340)	Mabe Rd (SR 1343) - 0.5 miles west of US 220A	Montgomery Co.	0.7	22	2	-	55	14600	500	600	600	14600	2-B	60	Min	Sub	B
	Okeewemee-Star Rd (SR 1340)	0.5 miles west of US 220A - US 220A	Montgomery Co.	0.5	44	3	-	35	12900	900	1100	1100	12900	ADQ	ADQ	Min	Sub	B
MONT0025-H	**Ophir Ave (SR 1310)**	Lovejoy Rd (SR 1310) - 0.1 miles west of NC 134	Troy	0.2	18	2	-	35	10400	2900	4000	4000	11600	2-E	60	Min	Sub	B P
	Ophir Ave (SR 1310)	0.1 miles west of NC 134 - NC 134	Troy	0.1	22	2	60	35	11200	2900	4000	4000	11600	2-E	ADQ	Min	Sub	B P

HIGHWAY																			
					2010 Existing System						2040 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)	2010 AADT	2040 AADT E+C	2040 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Tier	Other Modes
	Ophir Rd (SR 1134)	Randolph County - Low Water Bridge Rd (SR 1301)	Montgomery Co.	1.3	20	2	-	55	14100	300	400	400	14100	ADQ	ADQ	Min	Sub	
	Ophir Rd (SR 1134)	Low Water Bridge Rd (SR 1301) - Flint Hill Rd (SR 1306)	Montgomery Co.	0.6	20	2	-	55	14100	300	400	400	14100	ADQ	ADQ	Min	Sub	
MONT0026-H	**Ophir Rd (SR 1134)**	Flint Hill Rd (SR 1306) - Tower Rd (SR 1134)	Montgomery Co.	5.2	20	2	-	55	14100	400	500	500	14600	2-B	60	Min	Sub	B
	Page St (SR 1332)	NC 134 - Wood St (SR 1383)	Troy	0.4	24	2	-	35	11600	3700	5300	5300	11600	2-E	60	Min	Sub	P
MONT0027-H	**Page St (SR 1332)**	Wood St (SR 1383) - Burton St (SR 1333)	Troy	0.3	22	2	-	35	11200	3600	5000	5000	11600	2-E	60	Min	Sub	P
MONT0027-H	**Page St (SR 1332)**	Burton St (SR 1333) - 0.1 miles east of Burton St (SR 1333)	Troy	0.1	22	2	-	55	14600	4500	5300	5300	14600	2-E	60	Min	Sub	P
	Page St (SR 1332)	0.1 miles east of Burton St (SR 1333) - 0.3 miles west of NC 24-27	Troy	0.8	36	3	-	55	15900	4500	5300	5300	15900	3-B	80	Min	Sub	P
	Page St (SR 1332)	0.3 miles west of NC 24-27 - 0.1 miles west of NC 24-27	Monrgomery Co.	0.2	22	2	-	55	14600	4400	6000	7000	14600	ADQ	ADQ	Min	Sub	
R-0623	**Page St Connector**	0.1 miles west of NC 24-27 - NC 24-27	Montgomery Co.	0.1	-	-	-	-	-	-	6000	7000	15100	2-B	60	Min	Sub	
R-0623	**Page St Connector**	NC 24-27 - Proposed Troy Bypass	Montgomery Co.	0.2	-	-	-	-	-	-	-	4500	15100	2-B	60	Min	Sub	
R-2314	**Pekin Rd (SR 1005)**	Troy Town Limits - Troy Bypass (R-0623)	Montgomery Co.	0.8	22	2	100	55	14600	1000	1400	8800	14600	2-B	ADQ	Min	Sub	B
R-2314	**Pekin Rd (SR 1005)**	Troy Bypass (R-0623) - Capelsie Rd (SR 1519)	Montgomery Co.	0.5	22	2	100	55	14600	1000	1400	1800	14600	2-B	ADQ	Min	Sub	B
R-2314	**Pekin Rd (SR 1005)**	Capelsie Rd (SR 1519) - Saunders Rd (SR 1550)	Montgomery Co.	1.0	22	2	100	55	14600	1200	1600	2000	14600	2-B	ADQ	Min	Sub	B
R-2314	**Pekin Rd (SR 1005)**	Saunders Rd (SR 1550) - Hicks Rd (SR 1578)	Montgomery Co.	1.7	20	2	60	55	14100	1500	2000	2200	14600	2-B	ADQ	Min	Sub	B
R-2314	**Pekin Rd (SR 1005)**	Hicks Rd (SR 1578) - McCallum Rd (SR 1516)	Montgomery Co.	2.8	18	2	60	55	13600	1500	2000	2100	14600	2-B	ADQ	Min	Sub	B
R-2314	**Pekin Rd (SR 1005)**	McCallum Rd (SR 1516) - NC 731	Montgomery Co.	5.1	22	2	-	55	14600	600	1100	1100	14600	2-B	60	Min	Sub	
R-2314	**Pekin Rd (SR 1005)**	NC 731 - Richmond County	Montgomery Co.	2.4	18	2	-	55	13600	400	600	600	14600	2-B	60	Min	Sub	
	Poole Rd (SR 1140)	NC 109 - Warner Rd (SR 1139)	Montgomery Co.	1.3	20	2	60	55	14100	500	600	600	14100	ADQ	ADQ	Min	Sub	
MONT0028-H	**River Rd (SR 1150)**	NC 109 - NC 24-27	Montgomery Co.	8.5	20	2	-	55	14100	2700	4900	4900	14600	2-B	60	Min	Sub	B
MONT0028-H	**River Rd (SR 1150)**	NC 24-27 - NC 73	Montgomery Co.	1.7	20	2	-	55	14100	700	1000	1000	14600	2-B	60	Min	Sub	B
	N Russell St (SR 1403)	Burton St (SR 1333) - 0.1 miles south of Burton St (SR 1333)	Troy	0.1	36	3	-	35	12900	2000	2300	1500	12900	ADQ	ADQ	Min	Sub	B
	N Russell St (SR 1403)	0.1 miles south of Burton St (SR 1333) - NC 24-27	Troy	0.2	24	2	-	35	11600	2000	2300	1500	11600	ADQ	ADQ	Min	Sub	B
	Saunders Rd (SR 1550)	NC 24-27-109 - Pekin Rd (SR 1005)	Montgomery Co.	2.3	20	2	60	55	14100	500	800	800	14100	ADQ	ADQ	Min	Sub	
MONT0029-H	**Shiloh Rd (SR 1138)**	Lovejoy Rd (SR 1310) - Ivey St (SR 1405)	Montgomery Co.	0.2	20	2	60	35	10600	2700	3800	3800	11600	2-B	ADQ	Min	Sub	B
MONT0029-H	**Shiloh Rd (SR 1138)**	Ivey St (SR 1405) - Shiloh Ch Rd (SR 1318)	Montgomery Co.	0.4	20	2	60	55	14100	2700	3800	3800	14600	2-B	ADQ	Min	Sub	B

HIGHWAY																			
					2010 Existing System						2040 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)	2010 AADT	2040 AADT E+C	2040 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Tier	Other Modes
MONT0029-H	**Shiloh Rd (SR 1138)**	Shiloh Ch Rd (SR 1318) - NC 109	Troy	0.7	20	2	60	55	14100	2400	3600	3600	14600	2-B	ADQ	Min	Sub	B P
	Shiloh Ch Rd (SR 1318)	Beaman Rd (SR 1317) - Dairy Rd (SR 1138)	Montgomery Co.	1.4	22	2	-	55	14600	1200	1900	1900	14600	ADQ	ADQ	Min	Sub	
	Spies Rd (SR 1002)	US 220A - US 220	Star	0.8	24	2	180	35	11600	1600	2000	2000	11600	2-E	ADQ	Min	Sub	B P
	Spies Rd (SR 1002)	US 220 - Wolf Creek Rd (SR 1367)	Montgomery Co.	0.4	24	2	180	55	15100	2200	2800	2800	14600	2-B	ADQ	Min	Sub	B
	Spies Rd (SR 1002)	Wolf Creek Rd - Moore County	Montgomery Co.	1.3	22	2	-	55	14600	1500	2100	2100	14600	2-B	ADQ	Min	Sub	B
MONT0030-H	**Tabernacle Ch Rd (SR 1524)**	NC 731 - I-74/74-US 220	Montgomery Co.	3.1	18	2	-	55	13600	300	500	500	14600	2-B	ADQ	Min	Sub	B
	Tabernacle Ch Rd (SR 1524)	I-73/74-US 220 - US 220A	Montgomery Co.	0.3	24	2	-	55	15100	400	600	600	14600	2-B	ADQ	Min	Sub	B
	Taft St (SR 1554)	NC 24-27 - 0.3 miles east of NC 24-27	Troy	0.3	40	2	-	35	11600	2200	2400	3700	11600	ADQ	ADQ	Min	Sub	
	Troy-Candor Rd (SR 1554)	0.3 miles east of NC 24-27 - Troy Bypass (R-0623)	Montgomery Co.	0.5	22	2	-	45	14600	1200	1400	2400	15100	2-B	60	Min	Sub	
	Troy-Candor Rd (SR 1554)	Troy Bypass (R-0623) - 0.3 miles east of Freeman Electric Rd (SR 1574)	Montgomery Co.	1.0	22	2	-	45	14600	1200	1400	2000	15100	2-B	60	Min	Sub	
	Troy-Candor Rd (SR 1554)	0.3 miles east of Freeman Electric Rd (SR 1574) - Capelsie Rd (SR 1519)	Montgomery Co.	1.7	22	2	-	55	14600	1000	1500	1700	15100	2-B	60	Min	Sub	
MONT0031-H	**Vestal Rd (SR 1139)**	Mt Carmel Church Rd (SR 1134) - Dairy Rd (SR 1138)	Montgomery Co.	2.0	20	2	60	55	14100	800	1600	1600	14600	2-B	ADQ	Min	Sub	
MONT0032-H	**Warner Rd (SR 1139)**	Dairy Rd (SR 1138) - Poole Rd (SR 1140)	Montgomery Co.	0.6	20	2	60	55	14100	1000	1800	1800	14600	2-B	ADQ	Min	Sub	
	Warner Rd (SR 1139)	Poole Rd (SR 1140) - NC 24-27-109	Troy	1.0	22	2	60	55	14600	1300	2200	2200	14600	2-B	ADQ	Min	Sub	
	Windblow Rd (SR 1003)	US 220A - Belford Ch Rd (SR 1524)	Montgomery Co.	2.1	22	2	60	55	14600	2200	3200	3200	14600	ADQ	ADQ	Min	Sub	
	Windblow Rd (SR 1003)	Belford Ch Rd (SR 1524) - Richmond County	Montgomery Co.	4.5	22	2	60	55	14600	1600	2600	2600	14600	2-B	ADQ	Min	Sub	B
	Wood St (SR 1383)	Page St (SR 1332) - 0.1 miles south of Page St (SR 1332)	Troy	0.1	26	2	60	35	11600	900	1500	1500	11600	ADQ	ADQ	Min	Sub	P
	Wood St (SR 1383)	0.1 miles south of Page St (SR 1332) - Burton St (SR 1333)	Troy	0.2	36	3	60	35	12900	1000	1800	1800	12900	3-B	80	Min	Sub	P

PUBLIC TRANSPORTATION AND RAIL

PUBLIC TRANSPORTATION[1]							
Local ID	Facility/ Route	Section (From - To)	Speed Limit (mph)	Distance (mi)	Existing System Type	Proposed System Type	Other Modes

[1]Only major public transportation routes and proposals are shown here..

RAIL												
						Existing System			Proposed System			
Local ID	Facility/ Route	Section (From - To)	Class	Speed Limit (mph)	Distance (mi)	Type	ROW (ft)	Trains per day	Type	ROW (ft)	Trains per day	Other Modes
	Aberdeen, Carolina, and Western Railway	Aberdeen to Star and Star to Candor	III	-	34.5	Freight	-	-	Freight	-	-	--

BICYCLE AND PEDESTRIAN [1]

BICYCLE								
				Existing System		Proposed System		
			Distance	Cross-Section				Other
Local ID	Facility/ Route	Section (From - To)	(mi)	(ft)	lanes	Type	Cross-Section	Modes
MONT0001-B	**State Bicycle Route 6**	Stanly County - Randolph County	26.8	Concurrent with several routes - see Highway Table				H

'Only major routes and proposals are shown here. For further documentation of bicycle and pedestrian facilities and proposals, refer to: *Regional Bicycle Study (PTRPO - 2005)*

PEDESTRIAN								
				Existing System		Proposed System		Other
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Type	Side of Street	Type	Side of Street	Modes
	Town of Biscoe							
MONT0001-H	**US 220A**	Shady Oak Dr - Pine St	0.5	Concurrent with US 220A - see Highway Table				H B
MONT0001-P	**US 220A**	Pine St - NC 24-27	0.4	Sidewalk	East	Sidewalk	Both	H B
MONT0001-P	**US 220A**	NC 24-27 - Factory St	0.3	Sidewalk	East	Sidewalk	Both	H B
MONT0001-P	**US 220A**	Factory St - Bruton St (SR 1501)	0.1			Sidewalk	Both	H B
MONT0001-P	**US 220A**	Bruton St (SR 1501) - 0.1 miles south of Stewart St	0.2	Sidewalk	East	Sidewalk	Both	H B
MONT0001-P	**US 220A**	0.1 miles south of Stewart St - Leach St (SR 1628)	0.1			Sidewalk	Both	H B
MONT0002-H	**NC 24-27**	Montgomery Crossing - US 220A	1.0	Concurrent with NC 24-27 - see Highway Table				H
MONT0002-P	**Aileen Ave**	Capel St - Leach St	0.2	Sidewalk	West	Sidewalk	Both	
MONT0003-P	**Arrow St**	Pine St - end	0.1	Sidewalk	West	Sidewalk	Both	H
MONT0004-P	**Brooks St**	Mills St (SR 1503) - 0.1 miles north of Stewart St	0.2	Sidewalk	West	Sidewalk	Both	
MONT0004-P	**Brooks St**	0.1 miles north of Stewart St - Leach St	0.3			Sidewalk	Both	
MONT0005-P	**Bruton St (SR 1501)**	US 220A - Biscoe Town Limits	0.6			Sidewalk	Both	
MONT0006-P	**Ceder St**	NC 24-27 - Church St	0.1			Sidewalk	Both	
MONT0007-P	**Church St**	US 220A - Ceder St	0.4			Sidewalk	Both	
MONT0008-P	**College St**	Anchor School - Page St	0.1	Sidewalk	South	Sidewalk	Both	
MONT0009-P	**Green St**	Lambert Rd (SR 1337) - US 220A	0.5			Sidewalk	Both	
MONT0010-P	**Lambert Rd (SR 1337)**	0.1 miles north of Green St - NC 24-27	0.5	Sidewalk	East	Sidewalk	Both	
MONT0011-P	**Leach St (SR 1628)**	US 220A - Jupiter Dr	0.4	Sidewalk	North	Sidewalk	Both	
MONT0012-P	**Mill St (SR 1503)**	NC 24-27 - 0.1 miles west of Brooks St	0.4			Sidewalk	Both	
MONT0012-P	**Mill St (SR 1503)**	0.1 miles west of Brooks St - Railroad St	0.3	Sidewalk	South	Sidewalk	Both	
MONT0012-P	**Mill St (SR 1503)**	Railroad St - US 220A	0.1			Sidewalk	Both	
MONT0013-P	**Oak St**	NC 24-27 - Church St	0.1			Sidewalk	Both	
MONT0014-P	**Pine St**	US 220A - Church St	0.6			Sidewalk	Both	
MONT0015-P	**Stewart St**	Brooks St - US 220A	0.1			Sidewalk	Both	

PEDESTRIAN								
				Existing System		Proposed System		Other
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Type	Side of Street	Type	Side of Street	Modes
	Town of Candor							
MONT0016-P	**US 220A**	Vivian St (SR 1511) - 0.1 miles south of Vivian St (SR 1511)	0.1			Sidewalk	Both	H B
MONT0016-P	**US 220A**	0.1 miles south of Whiskey Rd (SR 1608) - 0.3 miles south of East Randolph St	0.4	Sidewalk	West	Sidewalk	Both	H B
MONT0016-P	**US 220A**	0.3 miles south of East Randolph St - McCaskill Rd (SR 1515)	0.3			Sidewalk	Both	H B
MONT0017-P	**NC 211**	US 220A - 0.1 miles west of Industrial Rd (SR 1614)	0.6	Sidewalk	North	Sidewalk	Both	H
MONT0017-P	**NC 211**	0.1 miles west of Industrial Rd (SR 1614) - I-73/74-US 220	0.4			Sidewalk	Both	H
R-2591	**NC 211**	I-73/74-US 220 - Farmers Market Rd (SR 1573)	0.3	Concurrent with NC 211 - see Highway Table				H
MONT0018-P	**Currie Rd (SR 1518)**	Morgan St - W Railroad St (SR 1517)	0.3			Sidewalk	Both	
MONT0019-P	**McCaskill Dr (SR 1515)**	US 220A - S Whiskey Rd (SR 1608)	0.3			Sidewalk	Both	
MONT0020-P	**W Railroad St (SR 1517)**	US 220A - Currie Rd (SR 1518)	0.2			Sidewalk	Both	
MONT0021-P	**Vivian St (SR 1511)**	US 220A - East Candor Town Limits	0.4			Sidewalk	Both	
MONT0022-P	**S Old Whiskey Rd (SR 1608)**	US 220A - South Candor Town Limits	1.3			Sidewalk	Both	
	Town of Mount Gilead							
MONT0003-H	**NC 73**	Parkertown Rd (SR 1108) - Pleasant Valley Rd	0.5	Concurrent with NC 73 - see Highway Table				H
MONT0023-P	**NC 109**	Williams St (SR 1121) - Lumber St	0.5	Sidewalk	West	Sidewalk	Both	H
MONT0023-P	**NC 109**	Lumber St - 0.1 miles north of NC 73	0.2	Sidewalk	East	Sidewalk	Both	H
MONT0023-P	**NC 109**	0.1 miles north of NC 73 - NC 73	0.1			Sidewalk	Both	H
MONT0023-P	**NC 109**	NC 73 - NC 731	0.4			Sidewalk	Both	H
MONT0007-H	**NC 109**	NC 731 - 0.2 miles south of Haywood Ln	0.2	Concurrent with NC 109 - see Highway Table				H
MONT0024-P	**NC 731**	0.2 miles west of NC 109 - NC 109	0.2	Sidewalk	South	Sidewalk	Both	H B
MONT0024-P	**NC 731**	NC 73 - 0.1 miles east of E Haywood Ln	0.3	Sidewalk	North	Sidewalk	Both	H B
MONT0024-P	**NC 731**	0.1 miles east of E 1st St - Park Ave	0.2			Sidewalk	Both	H B
MONT0025-P	**East 2nd Ave**	NC 73 - 0.1 miles east of NC 73	0.1	Sidewalk	South	Sidewalk	Both	
MONT0025-P	**East 2nd Ave**	0.1 miles east of NC 73 - Sunrise Ave	0.1			Sidewalk	Both	
MONT0025-P	**West 2nd Ave**	NC 109 - NC 73	0.2			Sidewalk	Both	
MONT0026-P	**E Haywood Ln**	NC 73 - NC 731	0.4			Sidewalk	Both	
MONT0026-P	**W Haywood Ln**	NC 109 - S School St	0.2			Sidewalk	Both	
MONT0026-P	**W Haywood Ln**	S School St - NC 73	0.1	Sidewalk	North	Sidewalk	Both	
MONT0027-P	**E Ingram St**	NC 73 - Park Ave	0.3			Sidewalk	Both	
MONT0027-P	**W Ingram St**	NC 109 - NC 73	0.2			Sidewalk	Both	
MONT0028-P	**Marshall St**	NC 109 - Washington Park Rd	0.2			Sidewalk	Both	
MONT0029-P	**Park Ave**	E Ingram St - NC 731	0.4			Sidewalk	Both	
MONT0030-P	**Parkertown Rd (SR 1108)**	NC 73 - Washington Park Rd	0.1			Sidewalk	Both	

PEDESTRIAN								
				Existing System		Proposed System		Other
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Type	Side of Street	Type	Side of Street	Modes
MONT0031-P	**S School St**	NC 731 - 0.1 miles south of NC 731	0.1	Sidewalk	West	Sidewalk	Both	
MONT0031-P	**S School St**	0.1 miles south of NC 731 - 0.1 miles north of W Haywood Ln	0.1			Sidewalk	Both	
MONT0031-P	**S School St**	0.1 miles north of W Haywood Ln - W Haywood Ln	0.1	Sidewalk	West	Sidewalk	Both	
MONT0032-P	**Sunrise Ave**	NC 109 - E Ingram St	0.3			Sidewalk	Both	
MONT0033-P	**Washington Park Rd**	Parkertown Rd (SR 1108) - Williams St (SR 1121)	0.6			Sidewalk	Both	
	Town of Star							
MONT0001-H	**US 220A**	0.1 miles south of Cotton Creek Rd (SR 1369) - Shady Oak Dr	1.7			Sidewalk	Both	H
MONT0034-P	**Center St**	US 220A - 0.1 miles west of Smith St	0.3			Sidewalk	Both	
MONT0034-P	**Center St**	0.1 miles west of Smith St - Smith St	0.1	Sidewalk	South	Sidewalk	Both	
MONT0035-P	**Depot St**	US 220A - 0.1 miles east of US 220A	0.1	Sidewalk	South	Sidewalk	Both	
MONT0036-P	**East St**	US 220A - Smith St	0.3			Sidewalk	Both	
MONT0037-P	**Smith St**	East St - Center St	0.2			Sidewalk	Both	
	Town of Troy							
MONT0038-P	**NC 24-27-109**	0.1 miles west of Wade Ave - Reynolds St	0.5	Sidewalk	South	Sidewalk	Both	H
MONT0006-H	**NC 109**	Triumph St - NC 24-27	0.4	Concurrent with NC 109 - see Highway Table				H
MONT0008-H	**NC 109B**	Eldorado St - NC 134	0.2	Concurrent with NC 109B - see Highway Table				H B
MONT0039-P	**NC 134**	Okeeweme Rd (SR 1323) - Brown St	0.7			Sidewalk	Both	H B
MONT0039-P	**NC 134**	Brown St - 0.1 miles north of Johnson Rd	0.3	Sidewalk	East	Sidewalk	Both	H B
MONT0039-P	**NC 134**	0.1 miles north of Johnson Rd - Ophir Ave (SR 1310)	0.2			Sidewalk	Both	H B
MONT0040-P	**Blue St**	W Fairground Ave - W Clairmont St	0.1	Sidewalk	West	Sidewalk	Both	
MONT0041-P	**Broughton St**	NC 134 - Allen St	0.2	Sidewalk	South	Sidewalk	Both	
MONT0041-P	**Broughton St**	Allen St - Wood St (SR 1383)	0.1			Sidewalk	Both	
MONT0042-P	**Crouch St**	W Roswell St - NC 109B	0.2	Sidewalk	West	Sidewalk	Both	
MONT0043-P	**Eldorado St**	NC 109B - W Main St	0.2			Sidewalk	Both	
MONT0044-P	**W Fairground Ave**	Queen St - S Main St (SR 1005)	0.3	Sidewalk	North	Sidewalk	Both	
MONT0045-P	**Greensboro St**	Staley St - NC 109B	0.1			Sidewalk	Both	
MONT0046-P	**Guilford St**	0.1 miles west of Tremont St - Tremont St	0.1	Sidewalk	North	Sidewalk	Both	
MONT0046-P	**Guilford St**	Tremont St - NC 134	0.1			Sidewalk	Both	
MONT0047-P	**Hanover St**	NC 24-27-109B - Wooley St	0.1			Sidewalk	Both	
MONT0048-P	**Johnson Rd**	Lovejoy Rd (SR 1310) - 0.1 miles west of NC 134	0.2			Sidewalk	Both	
MONT0048-P	**Johnson Rd**	0.1 miles west of NC 134 - NC 134	0.1	Sidewalk	North	Sidewalk	Both	
MONT0049-P	**S Main St (SR 1005)**	0.1 miles south of Spring St - Barnhill St	0.4	Sidewalk	West	Sidewalk	Both	H B
MONT0050-P	**W Main St**	NC 109 - Elm St	0.3	Sidewalk	South	Sidewalk	Both	
MONT0051-P	**Nance St**	Triumph St - end	0.1	Sidewalk	East	Sidewalk	Both	

PEDESTRIAN								
				Existing System		Proposed System		Other
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Type	Side of Street	Type	Side of Street	Modes
MONT0025-H	**Ophir Ave (SR 1310)**	Lovejoy Rd (SR 1310) - Tremont St	0.2	Concurrent with Ophir Ave (SR 1310) - see Highway				H B
MONT0052-P	**Ophir Ave (SR 1310)**	Tremont St - 0.1 miles east of Tremont St	0.1	Sidewalk	North	Sidewalk	Both	H B
MONT0052-P	**Ophir Ave (SR 1310)**	0.1 miles west of NC 134 - NC 134	0.1	Sidewalk	South	Sidewalk	Both	H B
MONT0053-P	**Page St (SR 1332)**	NC 134 - 0.1 miles east of NC 134	0.1	Sidewalk	South	Sidewalk	Both	H
MONT0053-P	**Page St (SR 1332)**	0.1 miles east of NC 134 - Wood St (SR 1383)	0.3			Sidewalk	Both	H
MONT0027-H	**Page St (SR 1332)**	Bruton St (SR 1333) - 0.1 miles east of Bruton St (SR 1333)	0.6	Concurrent with Page St (SR 1332) - see Highway Table				H
MONT0053-P	**Page St (SR 1332)**	0.1 miles east of Bruton St (SR 1333) - 0.3 miles west of NC 24-27	0.8			Sidewalk	Both	H
MONT0054-P	**S. Pearl St**	E Spring St - 0.1 miles south of E Spring St	0.1			Sidewalk	Both	
MONT0054-P	**S. Pearl St**	0.1 miles south of E Spring St - Barnhill St	0.4	Sidewalk	East	Sidewalk	Both	
MONT0055-P	**Princess St**	Hanover St - Queen St	0.1			Sidewalk	Both	
MONT0055-P	**Princess St**	Queen St - Rush Ave	0.1	Sidewalk	South	Sidewalk	Both	
MONT0056-P	**Queens St**	NC 24-27-109B - Wooley St	0.1			Sidewalk	Both	
MONT0056-P	**Queens St**	Wooley St - W Fairground Ave	0.1	Sidewalk	East	Sidewalk	Both	
MONT0057-P	**Reynolds St**	NC 24-27-109 - Wooley St	0.1			Sidewalk	Both	
MONT0058-P	**W Roswell St**	NC 109B - 0.1 miles east of Tremont St	0.3	Sidewalk	North	Sidewalk	Both	
MONT0059-P	**W Spring St**	NC 109 - NC 24-27-109B	0.2			Sidewalk	Both	
MONT0059-P	**W Spring St**	S Main St - S Pearl St	0.1			Sidewalk	Both	
MONT0060-P	**Stanley St**	0.1 miles north of Fairground Ave - Fairground Ave	0.1			Sidewalk	Both	
MONT0061-P	**Tremont St**	Guilford St - W Roswell St	0.1	Sidewalk	East	Sidewalk	Both	
MONT0061-P	**Tremont St**	W Roswell St - NC 109B	0.2			Sidewalk	Both	
MONT0062-P	**Watkins St**	NC 24-27-109 - Wooley St	0.1			Sidewalk	Both	
MONT0063-P	**Wood St (SR 1383)**	Bruton St (SR 1333) - Page St (SR 1332)	0.3	Sidewalk	East	Sidewalk	Both	H
MONT0064-P	**Wooley St**	Queen St - Reynolds St	0.2			Sidewalk	Both	

MULTI-USE PATH								
				Existing System		Proposed System		Other
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Side of Street	Cross-Section	Side of Street	Cross-Section	Modes
MONT0001-M	**US 220A School Connector**	Using US 220A from Leach St (SR 1628) - East Montgomery Middle School	1.7	--	--	West	MA	H
MONT0002-M	**Spies Rd (SR 1002) Connector**	Using Spies Rd (SR 1002) US 220A - Railyard Rd (SR 1397)	1.2	--	--	South	MA	H

'Only major routes and proposals are shown here. For further documentation of bicycle and pedestrian facilities and proposals, refer to: *Regional Bicycle Study (PTRPO - 2005), Sidewalk Inventory (PTRPO - 2007), and Biscoe Pedestrian Transportation Plan (2011)*

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

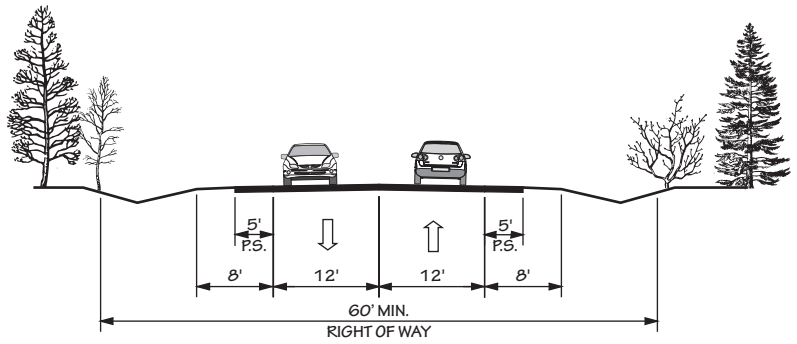
FIGURE 9

TYPICAL HIGHWAY CROSS SECTIONS

2 LANES

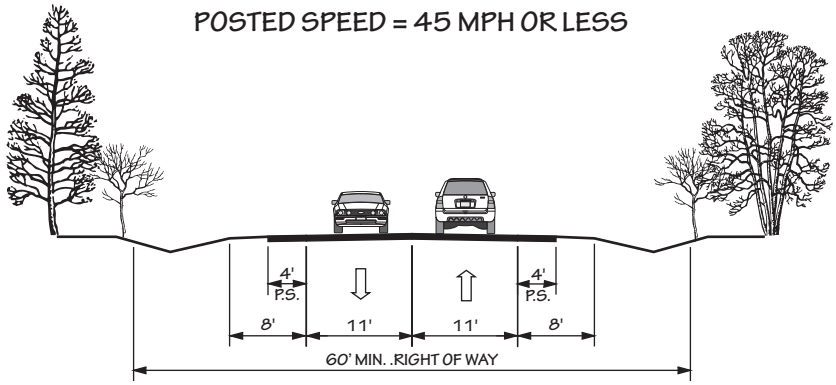
2 A

WIDE PAVED SHOULDERS
POSTED SPEED = 55 MPH



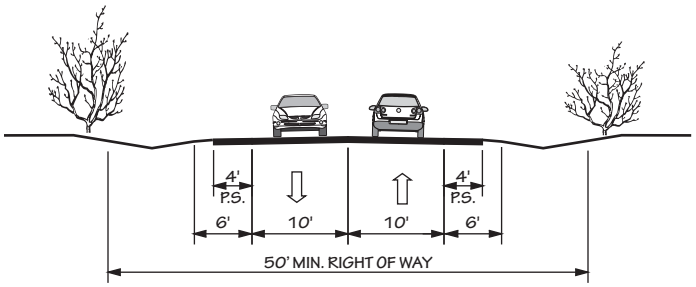
2 B

WIDE PAVED SHOULDERS
POSTED SPEED = 45 MPH OR LESS



2 C

WIDE PAVED SHOULDERS
POSTED SPEED = 35 MPH OR LESS



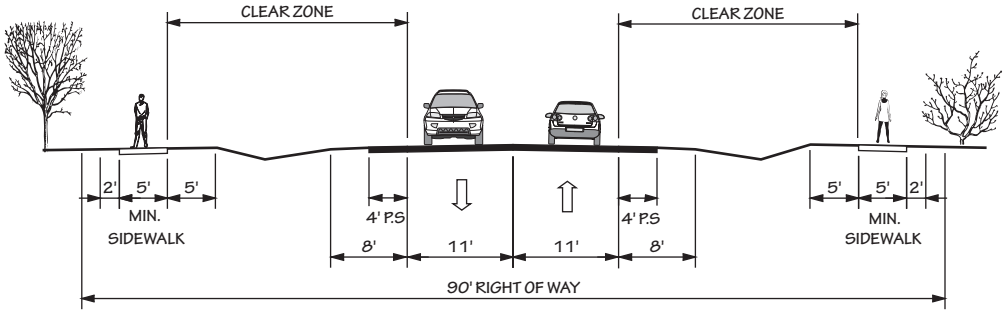
Revised 12/07/2010

TYPICAL HIGHWAY CROSS SECTIONS

2 LANES

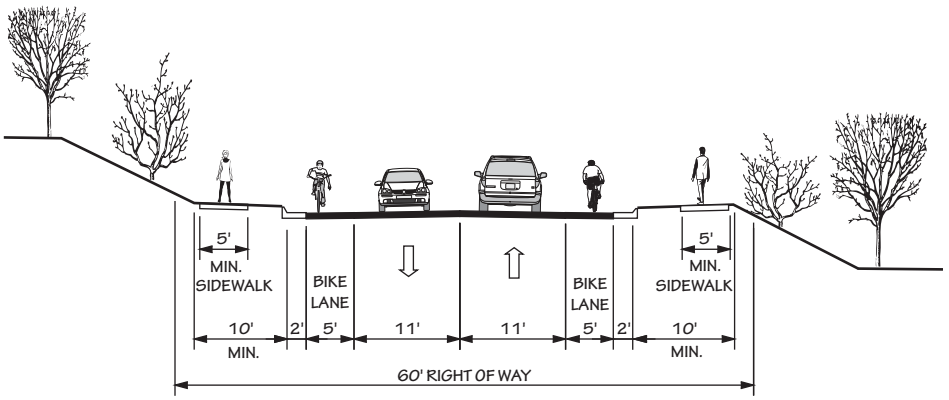
2 D

SIDEWALK PLACEMENT BEHIND A ROADWAY DITCH



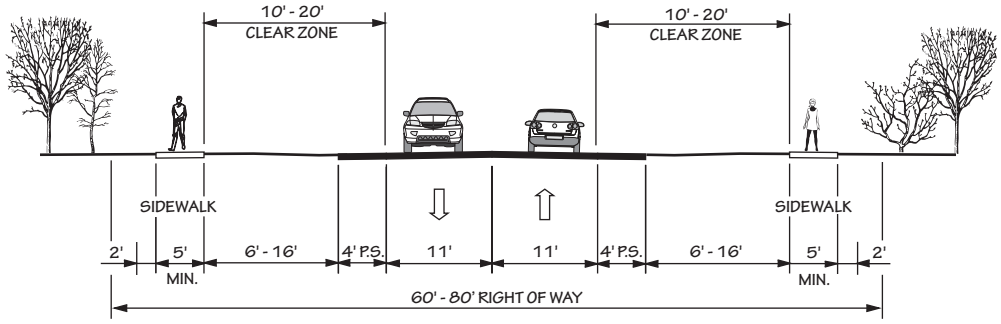
2 E

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)



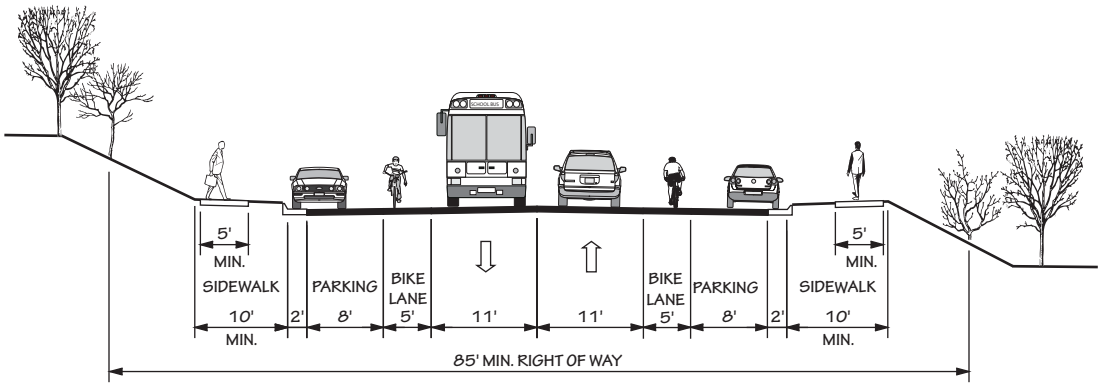
Revised 12/07/2010

TYPICAL HIGHWAY CROSS SECTIONS

2 LANES

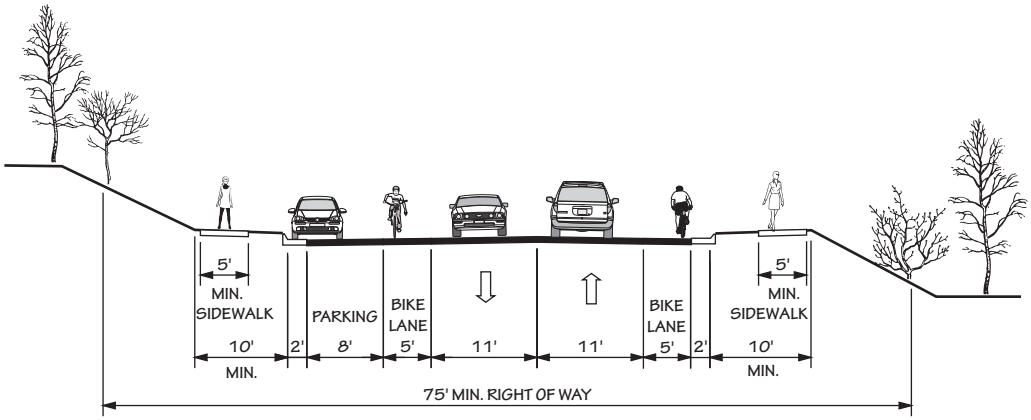
2 G

CURB & GUTTER - PARKING ON EACH SIDE



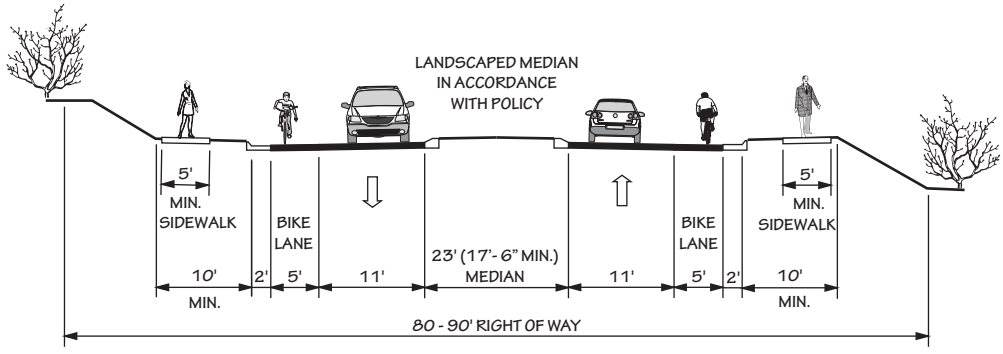
2 H

CURB & GUTTER - PARKING ON ONE SIDE



2 I

RAISED MEDIAN WITH CURB & GUTTER



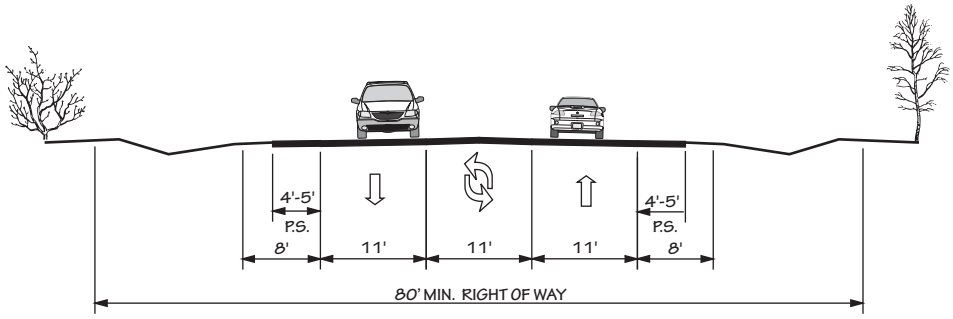
Revised 12/07/2010

TYPICAL HIGHWAY CROSS SECTIONS

3 LANES

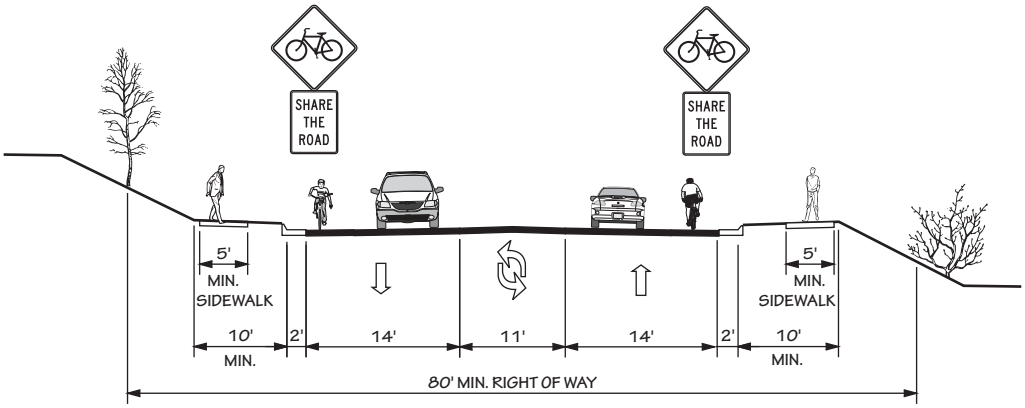
3 A

WIDE PAVED SHOULDERS



3 B

CURB & GUTTER WITH WIDE OUTSIDE LANES AND SIDEWALKS



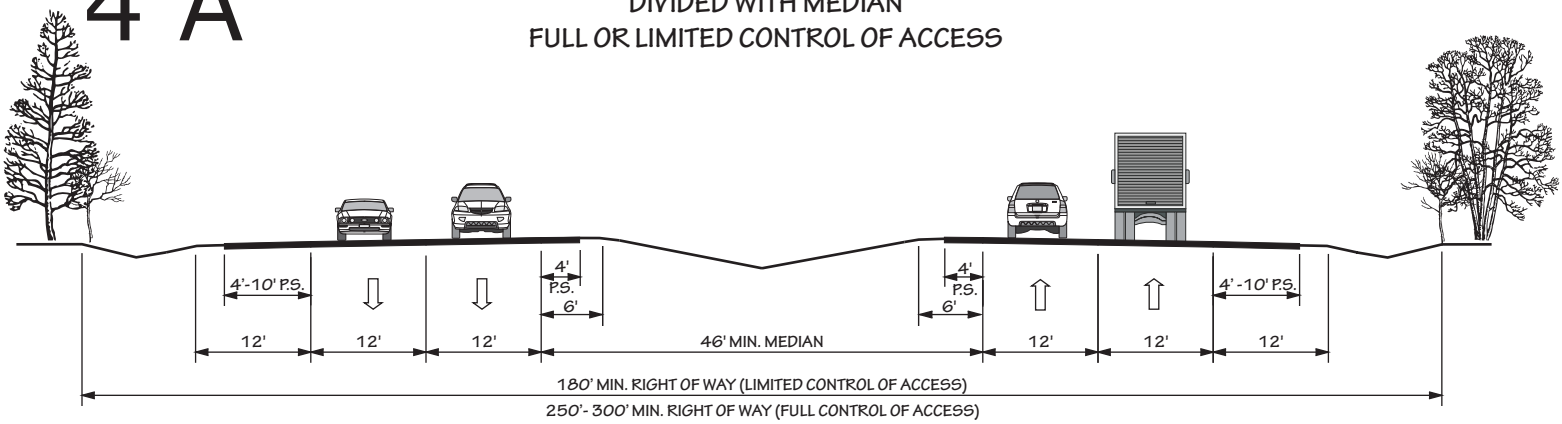
Revised 12/07/2010

TYPICAL HIGHWAY CROSS SECTIONS

4 LANES

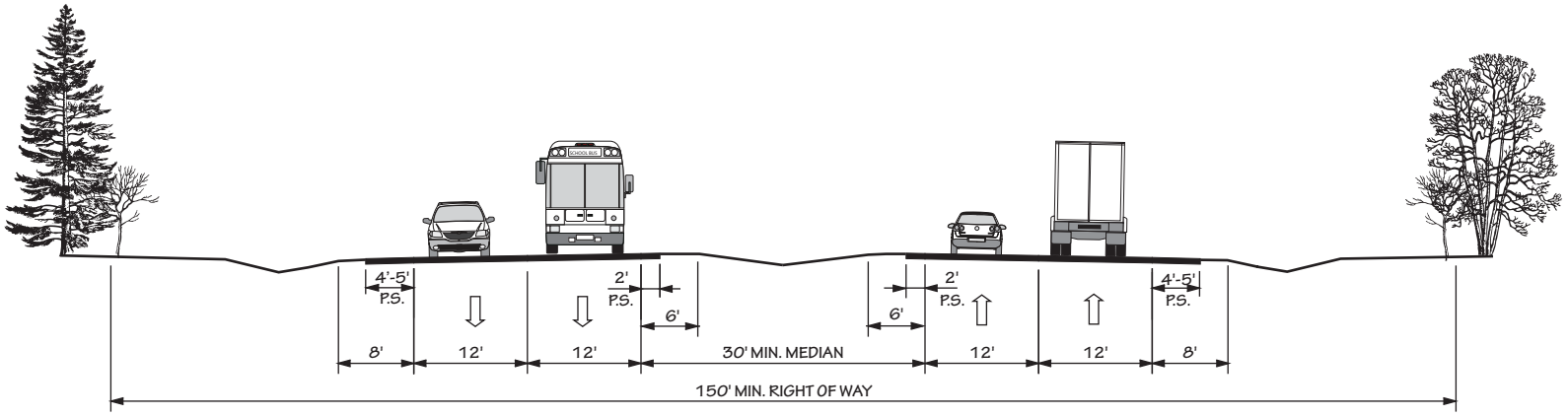
4 A

DIVIDED WITH MEDIAN
FULL OR LIMITED CONTROL OF ACCESS



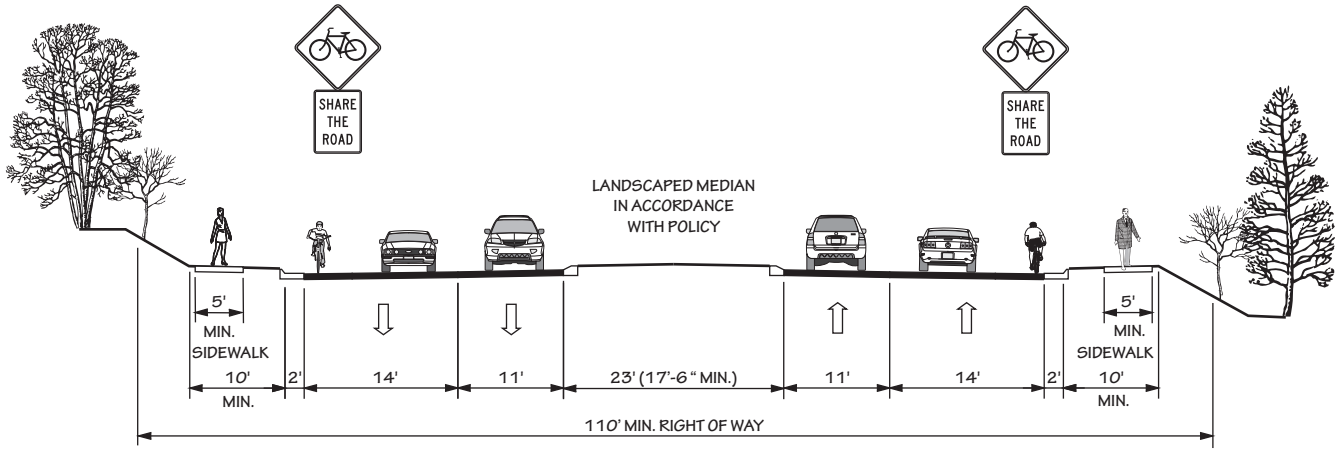
4 B

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



4 C

RAISED MEDIAN WITH WIDE OUTSIDE LANES AND SIDEWALKS



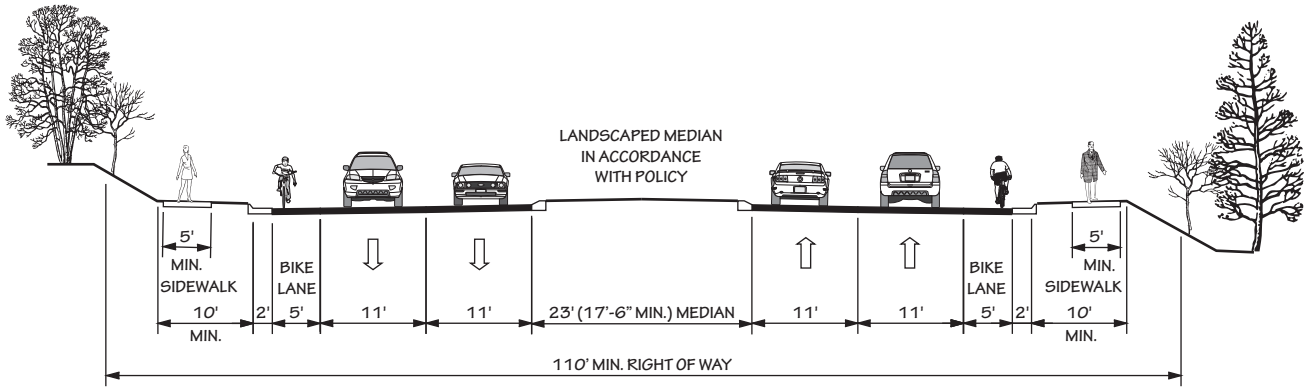
Revised 12/07/2010

TYPICAL HIGHWAY CROSS SECTIONS

4 LANES

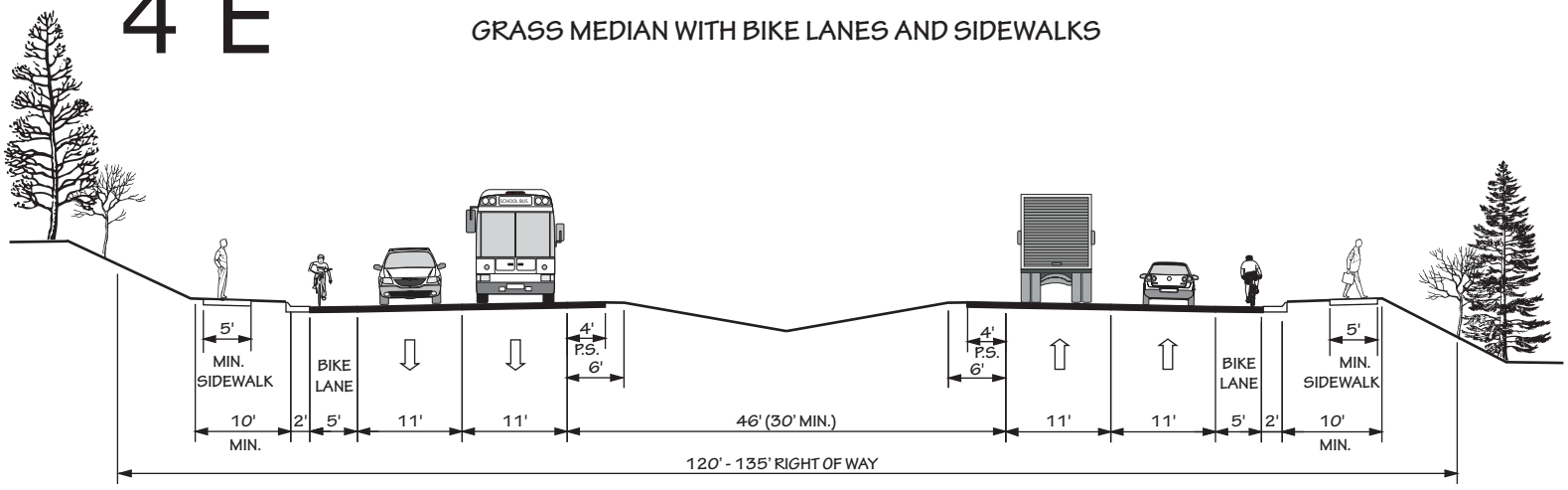
4 D

RAISED MEDIAN - CURB & GUTTER WITH BIKE LANES AND SIDEWALKS



4 E

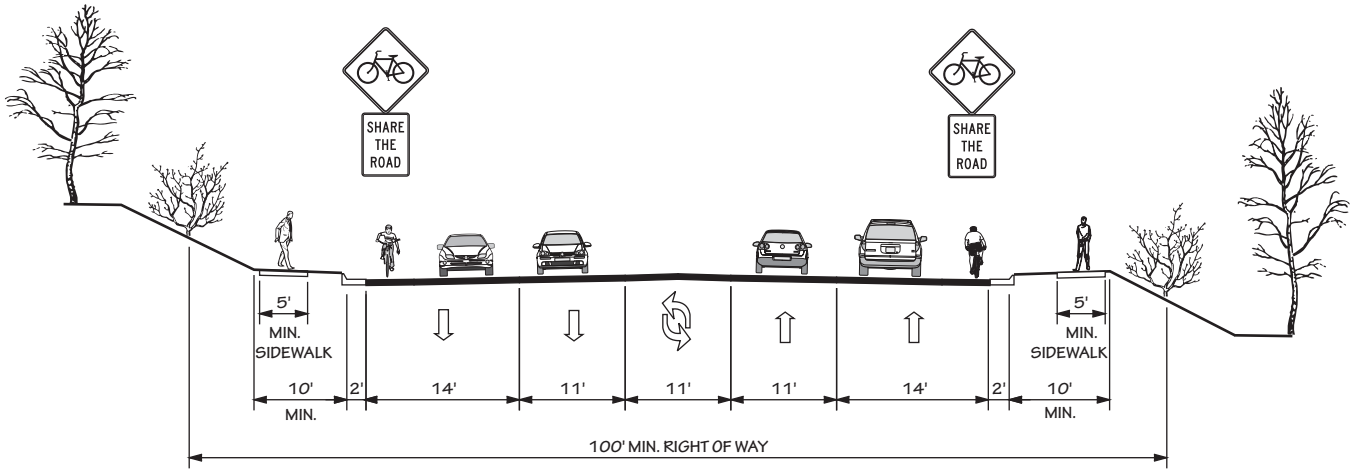
GRASS MEDIAN WITH BIKE LANES AND SIDEWALKS



5 LANES

5 A

WIDE OUTSIDE LANES

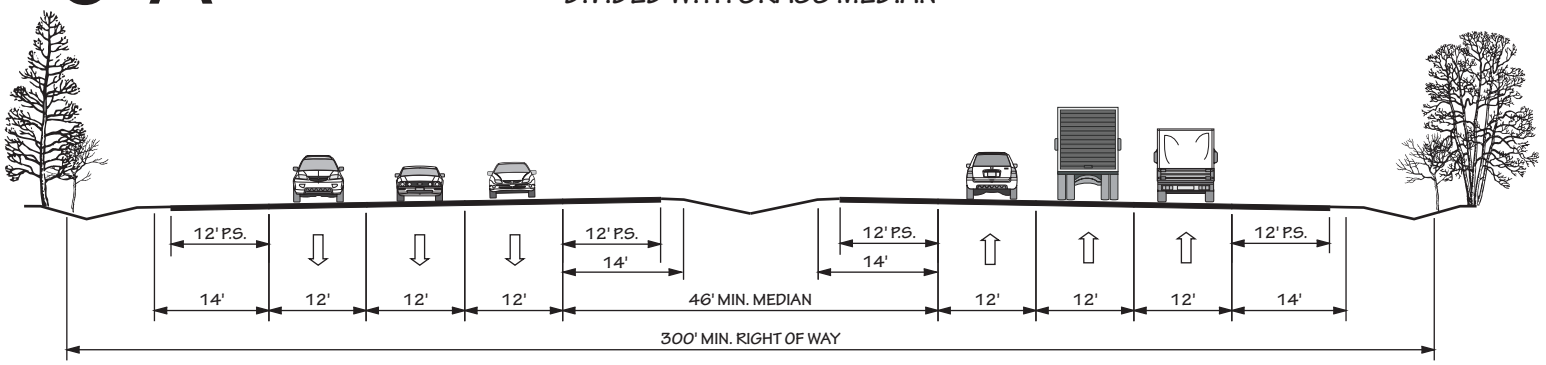


TYPICAL HIGHWAY CROSS SECTIONS

6 LANES

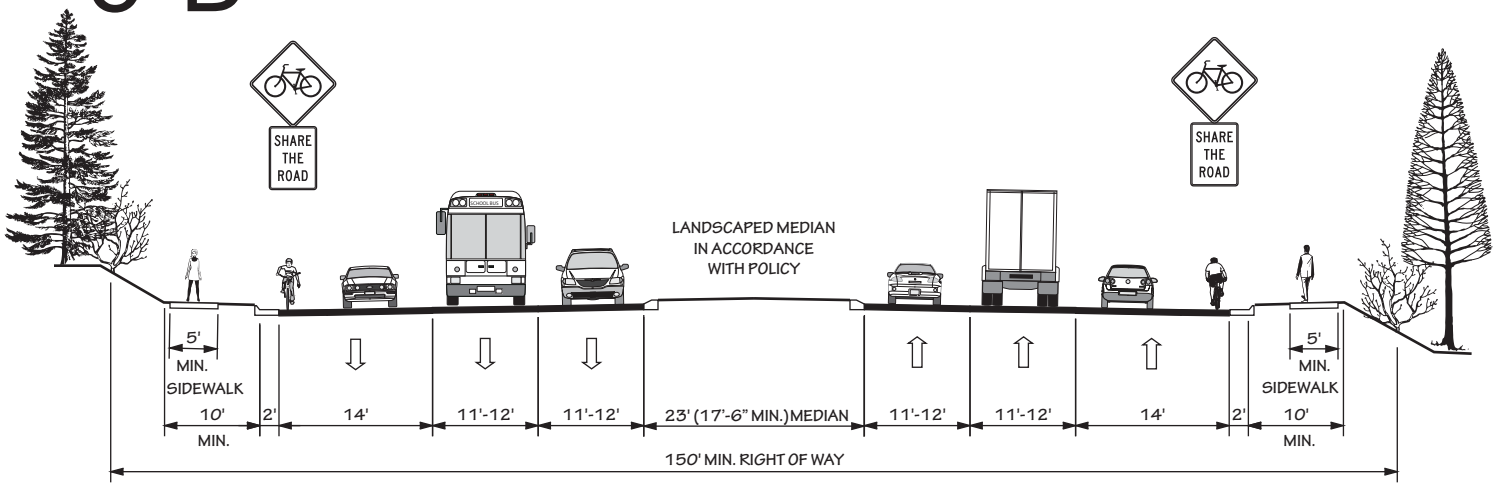
6 A

DIVIDED WITH GRASS MEDIAN



6 B

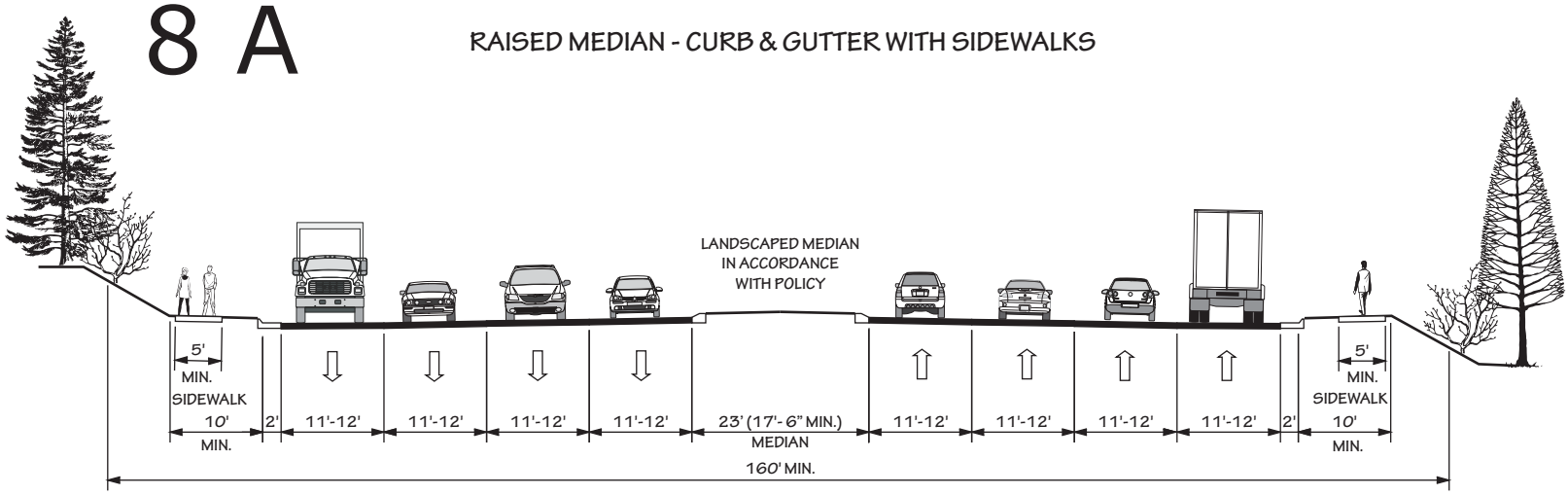
RAISED MEDIAN - CURB & GUTTER WITH WIDE OUTSIDE LANES AND SIDEWALKS



8 LANES

8 A

RAISED MEDIAN - CURB & GUTTER WITH SIDEWALKS

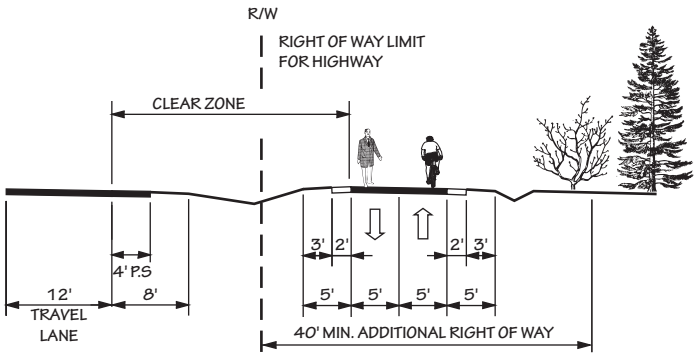


Revised 12/07/2010

TYPICAL MULTI - USE PATH

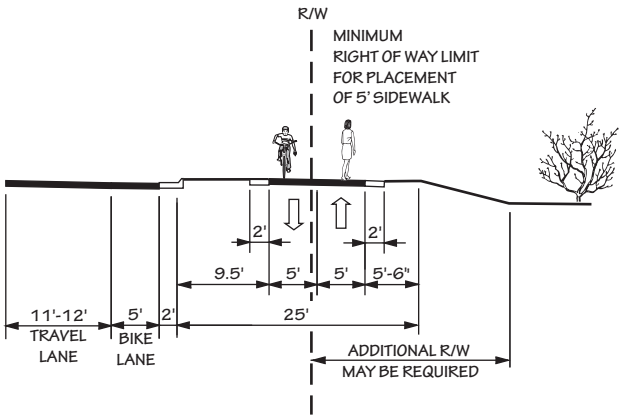
MULTI - USE PATH
ADJACENT TO RIGHT OF WAY OR SEPARATE PATHWAY

M A



MULTI - USE PATH ADJACENT TO CURB AND GUTTER

M B



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.

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

Figure 10 - Level of Service Illustrations

Level of Service A

Driver Comfort: High

Maximum Density:

12 passenger cars per mile per lane

Level of Service B

Driver Comfort: High

Maximum Density:

20 passenger cars per mile per lane

Level of Service C

Driver Comfort: Some Tension

Maximum Density:

30 passenger cars per mile per lane

Level of Service D

Driver Comfort: Poor

Maximum Density:

42 passenger cars per mile per lane

Level of Service E

Driver Comfort: Extremely Poor

Maximum Density:

67 passenger cars per mile per lane

Level of Service F

Driver Comfort: The lowest

Maximum Density:

More than 67 passenger cars per mile per lane

Source: 2000 Highway Capacity Manual

Appendix F
Traffic Crash Analysis

A crash analysis performed for the Montgomery 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, 2008 and December 31, 2010. The data represents locations with 5 or more crashes and/or a severity average greater than that of the state's 4.56 index. 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	NC 24-27 and Spring St	28.73	6
2	NC 24-27 and Walmart	14.87	6
3	NC 24-27 and Pearl St	5.62	8
4	NC 24-27 and Mill St (SR 1503)	4.7	8
5	NC 24-27 and NC 109 Business (Main St)	1.67	11

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 Bridge Maintenance 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 Num.	Facility	Feature	Condition	Local ID
5	Blaine/Pond Rd (SR 1156)	Mountain Branch	Functionally Obsolete	MONT0013-H
11	Tucker Town Rd (SR 1164)	Garr Creek	Functionally Obsolete	
13	NC 134	Densons Creek	Functionally Obsolete	
22	Fairview Farm Rd (SR 1111)	Richland Creek	Structurally Deficient	B-4780
24	Fairview Farm Rd (SR 1111)	Lower Richland Creek	Functionally Obsolete	
28	NC 109	Rock Creek	Structurally Deficient	B-4204
29	CC Camp Rd (SR 1128)	Lick Fork Creek	Functionally Obsolete	
30	Apple Orchard Rd (SR 1130)	Clarks Creek	Functionally Obsolete	
40	NC 73	Norfolk Southern Railroad	Functionally Obsolete	
44	NC 24/27	Cabin Creek	Structurally Deficient	R-2528
53	NC 73	Drowning Creek	Structurally Deficient	B-5362
58	Brewer Farm Rd (SR 1541)	Thickety Creek	Functionally Obsolete	
59	Thickety Creek Rd (SR 1543)	Disons Creek	Functionally Obsolete	
73	Thickety Creek Rd (SR 1543)	Rocky Creek	Functionally Obsolete	
79	Loving Hill Rd (SR 1563)	Cheek Creek	Functionally Obsolete	
80	Loving Hill Rd (SR 1563)	Cheek Creek	Structurally Deficient	
81	Loving Hill Rd (SR 1563)	Cheek Creek	Structurally Deficient	
82	Loving Hill Rd (SR 1563)	Cheek Creek	Structurally Deficient	
99	Center Baptist Church Rd (SR 1520)	Drowning Creek	Functionally Obsolete	
106	Cedar Creek Rd (SR 1557)	Cedar Creek	Functionally Obsolete	
121	Okeewemee Rd (SR 1323)	Densons Creek	Structurally Deficient	B-4582
123	Okeewemee-Star Rd (SR 1340)	W Fork of the Litter River	Functionally Obsolete	
128	Substation Rd (SR 1315)	Densons Creek	Structurally Deficient	B-4206
130	Shiloh Church Rd (SR 1318)	Doomas Creek	Structurally Deficient	
131	Shiloh Church Rd (SR 1318)	Fork of Doomas Creek	Functionally Obsolete	
144	Flint Hill Rd (SR 1306)	Dark Fork Creek	Functionally Obsolete	MONT0018-H
145	Flint Hill Rd (SR 1306)	Barnes Creek	Functionally Obsolete	MONT0018-H
146	Flint Hill Rd (SR 1306)	Poison Fork Creek	Functionally Obsolete	MONT0018-H
149	Mt Carmel Ch. Rd (SR 1134)	Barnes Creek	Functionally Obsolete	
157	Ophir Rd (SR 1303)	Barnes Creek	Functionally Obsolete	MONT0026-H
170	Low Water Bridge RD (SR 1301)	Uwharrie River	Functionally Obsolete	
175	Hallyburton Rd (SR 1547)	Little Rocky Creek	Functionally Obsolete	
190	Lilly Bridge Rd (SR 1110)	Clark Creek	Functionally Obsolete	
215	Tabernacle Ch. Rd (SR 1524)	Mountain Creek	Functionally Obsolete	MONT0030-H
228	Williamson St (SR 1320)	Suck Creek	Functionally Obsolete	
232	Hydro Rd (SR 1188)	Clarks Creek	Functionally Obsolete	
248	US 220 (Future I-73/74) SBL	King Rd (SR 1356)	Functionally Obsolete	

Appendix H
Public Involvement

This appendix includes a listing of CTP committee members, the Goals and Objectives and Vision Statement, the Goals and Objectives survey and results, and a summary of public involvement opportunities.

CTP Committee Members:

- Jackie Morris – Montgomery County Commissioner Chairman
- John Olmstead – Montgomery County Planning Board Chairman
- Lance Metzler – Montgomery County Manager
- Scott Carpenter – Montgomery County Planning Director
- Brooks Lockhart – Biscoe Town Manager
- John Gowan – Candor and Star Management Advisor
- Katrina Tatum – Mount Gilead Town Manager
- Cleve Willoughby – Mount Gilead Police Chief
- Susan Eggleston – Star Mayor
- Greg Zephir – Troy Town Manager
- Hanna Cockburn – Piedmont Triad Regional Council Planning Manager
- Jesse Day – Piedmont Triad Regional Council RPO Planner
- Kevin Hedrick – North Carolina Department of Transportation District Engineer

Goals & Objectives & Vision Statements:

Purpose:

To work with Montgomery County and the Towns of Biscoe, Candor, Mount Gilead, Troy, and Star to analyze all forms of transportation utilized within these areas and develop a Comprehensive Transportation Plan to act as a guide for all future modal travel needs and recommendations.

Vision:

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

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

Goals:

1. Insure the integrity of the existing transportation system by encouraging planning and strategic development.

2. Encourage right of way preservation to ensure expansion of the existing system and future roadway projects.

3. Coordinate transportation and improvement needs between multiple jurisdictions.

4. Provide means to identifying and prioritizing transportation system needs on a local and regional scale.

5. Enhance and expand services for alternative modes of transportation including but not limited to transit, walking, and bicycling through increased funding and cooperative regional planning.

6. Acknowledge ways to improve safety and congestion as well as programs to educate the public on traffic safety.

7. Recognize a sustainable transportation infrastructure linking Montgomery County with surrounding metropolitan areas including Charlotte, Greensboro, and other areas in the Eastern United States.

8. Review existing access management and provide recommendations to improve safety and efficiency of the transportation system while enhancing development.

9. Educate the public on general transportation issues as well as alternative forms of transportation.

Goals and Objectives Survey/Results:

The Transportation Planning Branch of the North Carolina Department of Transportation (NCDOT) is developing a Comprehensive Transportation Plan for the county in cooperation with Montgomery County, the municipalities of Biscoe, Candor, Mount Gilead, Star and Troy; and the Piedmont Triad Rural Planning Organization.

This is a long-range plan that identifies major transportation improvements that will be needed for highways, public transportation, and non-motorized facilities over the next 25 to 30 years. This survey helps identify the transportation issues that are important to you, other citizens, local officials, and the businesses of Montgomery County.

TRANSPORTATION GOALS AND OBJECTIVES

1. How important are the following transportation goals?

Increasing public transportation choices, like …	Very Important	Important	Not Important
Park-and-Ride Lots	8	14	14
Local or Regional Transit Service	16	13	10
Improve automobile travel times	10	22	5
Preserve community and rural character	20	18	1
Protect the environment	28	10	1
Support economic growth	28	11	0
Improve services for special needs populations	18	20	1
Improve facilities to walk and bike	16	19	4
		Answered Question	**40**
		Skipped Question	**0**

2. What are the most important transportation issues facing Montgomery County today?

Rank	Top 5 transportation issues facing Montgomery County today	Responses
1	Lack of public transportation	11
2	Roads in need of repair	5
3	Concern about truck traffic	4
4	Completion of the Troy Bypass	3
5	Improved bicycle facilities	3
	Answered Question	**25**
	Skipped Question	**15**

3. There are several strategies that can be used to improve road capacity. How important is it to use the following strategies on major roads in Montgomery County?

	Very Important	Important	Not Important
Build additional travel lanes on main roads	10	19	6
Make intersection improvements like turn lanes and better traffic signal timing	26	8	4
Control the number and location of driveways and cross streets that access main roads	6	16	14
Control the location of left turns with medians	8	17	12
		Answered Question	**39**
		Skipped Question	**1**

TRAFFIC CONCERNS

4. Are you concerned with traffic safety or vehicle crashes in the county?

Answer Options	Response Percent	Response Count
Yes	75.7%	28
No	24.3%	9
If Yes, Please describe the location, including specific safety concerns.		24
Answered Question		**37**
Skipped Question		**3**

Rank	Top 6 locations of specific safety concerns	Responses
1	NC 24-27 and NC 109 Business/Main Street in Troy	4
2	NC 73 and rural roads in Western Montgomery County near Mount Gilead	4
3	River Road (SR 1150) and rural roads in Western Montgomery County	4
4	General High Speed and Road Width concerns throughout the county	3
5	NC 24-27 and US 220A in Biscoe	2
6	NC 24-27 and Wal-Mart in Biscoe	2

5. Is truck traffic a problem in the county?

Answer Options	Response Percent	Response Count
Yes	55.3%	21
No	44.7%	17
If Yes, please give examples.		20
Answered Question		**38**
Skipped Question		**2**

Rank	Top 7 examples of truck traffic problems in Montgomery County	Responses
1	NC 24-27 throughout county	4
2	NC 24-27 and NC 109 Business/Main Street in Troy	3
3	River Road (SR 1150)	3
4	NC 24-27 and Page Street (SR 1332) in Troy	2
5	NC 109 throughout county	2
6	NC 731	2
7	NC 73 and Mount Gilead	2
N/A	Logging trucks throughout the county	2

6. When traveling in and around the county, do you find that you often have to go out of your way to get to your destination because a direct route does not exist?

Answer Options	Response Percent	Response Count
Yes	18.9%	7
No	81.1%	30
If Yes, please give examples.		7
	Answered Question	**37**
	Skipped Question	**3**

Top examples of connectivity problems in Montgomery County	Responses
Need for alternate route to NC 24-27 or NC 134 through Troy	1
Mount Gilead to US 1 in Rockingham (Richmond County)	1
River Road (SR 1150) to Troy	1
When NC 24-27 Bypass in complete, some inconvenience for local travel	1
Direct routes do not exist throughout the county due to being rural	1
Lack of interconnectivity as county grows	1
Due to current road construction in Biscoe	1

7. When traveling in and around the county, do you find that you often have to go out of your way to get to your destination because the most direct route is too congested?

Answer Options	Response Percent	Response Count
Yes	18.9%	7
No	81.1%	30
If Yes, please give examples.		7
	Answered Question	**37**
	Skipped Question	**3**

Rank	Top 3 examples of congestions problems in Montgomery County	Responses
1	NC 24-27 in Troy	4
2	NC 24-27 in Biscoe	2
3	NC 24-27 throughout county	1

ROAD ACCESSIBILITY

8. What places or roads would you most like to have improved access to?

Answer Options	Very Desirable	Desirable	Somewhat Desirable	Not Very Desirable	Rating Average	Response Count
Charlotte metro area	8	5	10	5	2.57	28
High Point-Greensboro area	3	14	5	6	2.50	28
Southern Pines-Pinehurst area	13	15	4	2	3.15	34
US 220 (I-73/74)	11	10	3	4	3.00	28
NC 24-27	18	7	4	2	3.32	31
NC 109	12	9	5	2	3.11	28
Other (please specify):	NC 211					3

OTHER MODES

9. Are there areas where you would like to see sidewalks constructed or improved?

Answer Options	Response Percent	Response Count
Yes	60.0%	21
No	40.0%	14
If Yes, please give examples.		19
	Answered Question	**35**
	Skipped Question	**5**

Rank	Top 5 sidewalk needs in Montgomery County	Responses
1	All major streets in Mount Gilead	5
2	In all municipal limits in Montgomery County	4
3	NC 73 in Mount Gilead	3
4	NC 24-27 in Troy	2
5	South Main Street (SR 1005) near the courthouse in Troy	2

10. Are there areas where you would like to see off-road trails or greenways added or improved for walking and bicycling?

Answer Options	Response Percent	Response Count
Yes	52.8%	19
No	47.2%	17
If Yes, please give examples.		13
	Answered Question	**36**
	Skipped Question	**4**

Rank	Top 7 off-road trail or greenway needs in Montgomery County	Responses
1	Along/beside River Road (SR 1150)	4
2	Throughout Troy	3
3	Along Uwharrie River	2
4	Countywide	2
5	Throughout Star	1
6	Throughout Mount Gilead	1
7	Along/beside Lilly Bridge Road (SR 1110)	1

11. Are there areas where you would like to see on-road bicycle facilities such as bicycle lanes and wide shoulders added or improved?

Answer Options	Response Percent	Response Count
Yes	58.3%	21
No	41.7%	15
If Yes, please give examples.		17
	Answered Question	**36**
	Skipped Question	**4**

Rank	Top 7 on-road bicycle facility needs in Montgomery County	Responses
1	River Road (SR 1150)	6
2	NC 731 in Mount Gilead to Indian Mound	3
3	State Bicycle Route 6/Designated Bicycle Routes	2
4	NC 24-27	2
5	North of Troy	1
6	NC 211	1
7	In all municipalities	1

12. How frequently do you use the RCATS transit services?

	Very Frequently (more than once a week)	Frequently (once a week)	Somewhat Frequently (once a month)	Infrequently (a couple of times a year)	Never	Response Count
RCATS services, in county	0	0	0	0	36	36
RCATS services, out-of-county	0	1	0	0	34	35
What other destinations would you be interested in accessing through transit services? (Please specify)						5

Possible destinations via transit service	Responses
Rural area, local areas, home areas, all areas	3
Montgomery County Health Department	1
Intercity, especially to Wal-Mart and other shopping centers	1

DEMOGRAPHICS

We would like to know a little bit about you for analysis purposes only. Your answers will be kept strictly confidential. Please answer the following questions.

13. What is your age?

Answer Options	Response Percent	Response Count
Under 18	0.0%	0
18 - 24	2.6%	1
25 - 34	7.9%	3
35 - 44	10.5%	4
45 - 64	50.0%	19
65 - 74	26.3%	10
75 or older	2.6%	1
	Answered question	**38**
	Skipped question	**2**

14. How would you classify your race?

Answer Options	Response Percent	Response Count
White	78.9%	30
Black	10.5%	4
Hispanic	5.3%	2
Asian	0.0%	0
Native American	2.6%	1
Other	2.6%	1
	Answered question	**38**
	Skipped question	**2**

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

Answer Options	Response Percent	Response Count
1	10.5%	4
2	60.5%	23
3	5.3%	2
4	13.2%	5
5	0.0%	0
6	7.9%	3
7	2.6%	1
8 or more	0.0%	0
	Answered question	**38**
	Skipped question	**2**

16. What was your household income last year?

Answer Options	Response Percent	Response Count
Less than $19,999	5.7%	2
$20,000 - $34,999	14.3%	5
$35,000 - $ 49,999	25.7%	9
$50,000 - $74,999	14.3%	5
More than $75,000	25.7%	9
Don't know	8.6%	3
Don't wish to answer	5.7%	2
	Answered question	**35**
	Skipped question	**5**

17. What is your home Zip Code? (Please check only one box)

Answer Options	Response Percent	Response Count
27203	0.0%	0
27209	10.8%	4
27229	2.7%	1
27239	2.7%	1
27242	0.0%	0
27281	2.7%	1
27306	32.4%	12
27341	2.7%	1
27356	2.7%	1
27371	40.5%	15
28127	0.0%	0
28338	0.0%	0
28367	0.0%	0
Other (28129)	2.7%	1
	Answered question	**37**
	Skipped question	**3**

18. How did you hear about this survey?

Answer Options	Response Percent	Response Count
Government meeting or location	50.0%	19
Retail location	0.0%	0
Church	13.2%	5
Newspaper	2.6%	1
Newsletter	0.0%	0
School	0.0%	0
Friend/Colleague	13.2%	5
Website	2.6%	1
Other (work)	10.5%	4
Other (email)	5.3%	2
Other (county planner)	2.6%	1
	Answered question	**38**
	Skipped question	**2**

Public Involvement:

Public Workshop #1 at the Town of Star Municipal Building

The first public workshop took place at the town of Star Municipal Building on January 25, 2009 from 6:00-8:00 pm. This workshop introduced the CTP process as well as what could be expected of the final plan. Ten citizens were in attendance. They were divided into workgroups to help identify the needs of the different modes of transportation in the county. A main issue identified was the need to coordinate transportation improvements with the proposed Montgomery/Moore County Economic Development Site, located along US 220/Future I-32/74 between Star and Biscoe.

Public Workshop #2 at Montgomery County Administration Building

The second public workshop took place at Montgomery County Commissioners work room in Troy on September 1, 2011 from 5:30-7:00 pm. There was a presentation that detailed the preliminary recommendations for Montgomery County CTP. Four citizens were in attendance. They were given the opportunity to look through the recommendations and give additional feedback if anything needed to be added, removed, or changed. Several additional pedestrian facilities were identified to create a network of sidewalks within Mount Gilead.

Public hearings were held throughout Montgomery County on the following dates:

- November 7, 2011 at 5:00 pm during the Troy Town Council Meeting
- November 7, 2011 at 7:00 pm during the Candor Town Council Meeting
- November 14, 2011 at 5:00 pm during the Star Town Council Meeting
- November 14, 2011 at 7:30 pm during the Biscoe Town Council Meeting
- December 13, 2011 at 7:00 pm during the Mount Gilead Town Council Meeting
- December 20, 2011 at 6:00 pm during the Montgomery County Commissioners Meeting