Appendix D –Transportation Plans

Capital Area Metropolitan Planning Organization Long Range Transportation Plan

The Capital Area Metropolitan Planning Organization (CAMPO) was originally established to collaboratively develop the Greater Raleigh Urban Area Thoroughfare Plan of 1964, which involved Wake County, Garner, Raleigh, and Cary. Now, CAMPO has expanded regionally to include portions of multiple counties and their municipal governments within, including Granville, Franklin, Johnston and Harnett. The expansion of CAMPO was an effort to coordinate transportation planning across the region in order to comply with federal regulations.

In 2005, CAMPO published an updated version of the 2030 Long Range Transportation Plan (LRTP). The LRTP has set in place a series of goals associated with transportation planning which include:

- Develop a regional transportation system that improves quality of life and the environment
- Provide convenient, reliable, safe and affordable transportation choices and provide public education on those choices
- Enhance connectivity by developing a multi-modal transportation network that promotes economic growth that is compatible with environment and land use patterns
- Develop and efficient transportation network that is both affordable and reliable for the movement of people and goods

These goals an the stated vision, "A multi-modal transportation network that is compatible with growth, sensitive to the environment, improves quality of life, and is accessible to all", are generally the foundation of many individualized municipal transportation plans through Wake County and the expanded region.

In addition to the CAMPO LRTP the collaborative planning efforts have provided a series of maps. The maps provide schematics of funded and unfunded road projects (Figures 1 & 2), transit projects (Figure 3), and planned bike accommodations (Figure 4).

The follow sections describe specific transportation plans for the municipalities within the Raleigh SCI Management Plan Study Area: Garner, Knightdale, Raleigh, Rolesville, Wake Forest, Wendell, and Zebulon.

City of Raleigh Comprehensive Plan - Transportation

The Raleigh Comprehensive Plan (2002) includes a detailed section on transportation, the Transportation Plan. The Transportation Plan is comprised of five sections including: roadway system plan, public transportation plan, pedestrian and greenways plan, bicycle plan, and the CAMPO Transportation Plan Update 2025. There are several goals associated with the Transportation Plan, which are outlined below:

- Reduce vehicle miles of travel
- Provide a system of thoroughfares which will operate at acceptable levels of service
- Improve mobility for Raleigh residents and visitors by providing safe, affordable and customer-oriented transportation while pro-actively promoting economic opportunity, intermodal connection and sustainable regional development
- Provide for other transportation modes
- Promote the use of bicycles for transportation and recreation
- Provide facilities that create a functional, complete and efficient system for bicycling
- Provide improvements to increase opportunities for commuter and utilitarian riding
- Provide more opportunities for recreational riding
- Provide a safer bicycling environment in Raleigh

Figure 5 is the Roads Map, which is taken from the Raleigh Comprehensive Plan (2002).

Town of Wake Forest Transportation Plan

The Town of Wake Forest adopted its Transportation Plan in 2003. This plan contains 7 chapters; which include vision, existing conditions, future conditions, recommended thoroughfare, pedestrian element, bicycle element, transit element and implementation plan. The objectives outlined in the Wake Forest Transportation Plan were developed to guide overall transportation planning and include:

- Develop a plan compatible with future land use plans and adjacent jurisdictions' plans.
- Create a plan that accommodates community growth and its related traffic increases.
- Create a system of interconnected streets.
- Preserve future transportation corridors.
- Maintain and improve roadway safety.
- Create interconnected bicycle and pedestrian networks.
- Provide and plan for future transit service expansions.
- Provide more downtown parking.
- Minimize cultural and environmental impacts.
- Retain old growth trees throughout the town.

Figure 6 is the Thoroughfare Plan Map, which is taken from the Wake Forest Transportation Plan (2003).

Town of Rolesville Community Plan

The Town of Rolesville adopted a Community Plan in 2007; the plan details various planning goals including a section on transportation. The section describing transportation presents two goals and several associated objectives. The two goals and associated objectives are as follows:

- Establish a safe and efficient transportation system that provides for vehicular, pedestrian and bicycle travel.
    - Create a road network to support the land use and greenway goals.
    - Create a pedestrian-friendly environment throughout the town.
    - Work with the Triangle Transit Authority and Wake County Transportation Services to provide transit service linking Rolesville to other communities when demand warrants.
    - Ensure that the transportation network provides easy access to all parts of Rolesville and the surrounding area.

- Ensure that all major entranceways into Rolesville are both functional and attractive.

Figure 7 is the Thoroughfare Plan Map, which is taken from the Rolesville Transportation Plan (2002).

Town of Garner Transportation Plan

The Town of Garner developed a Transportation Plan in 1999. According to the Town's 2006 Comprehensive Growth Plan, the 1999 Transportation Plan is scheduled for an update in the near future. The Town of Garner's Comprehensive Growth Plan includes a section on transportation, which identifies some of the key issues:

- Pedestrian access must be built to enhance access and health.
- Sidewalks should be safe, enjoyable to use and convenient.
- Alternative connections between neighborhoods and land uses are needed for access options and to reduce congestion.
- Arterial widening and extensions are needed to adequately move traffic.
- Land development patterns should encourage compact and mixed use developments.
- Transit should be expanded for present day and future needs.

Additionally, the 2006 Comprehensive Growth Plan details both planning principles and strategies which the Town of Garner intends to follow and implement in order to improve transportation within the town. The planning principles include the following:

- Provide a variety of connections between residential areas, employment centers, commercial areas, and other amenities such as parks and schools.
- Promote measures to reduce congestion and the amount of vehicle miles traveled in Garner.
- Preserve opportunities for transit

Furthermore, the strategies to implement these principles include:

- Increasing pedestrian activity through proper street section design with sidewalks and street trees.
- Promoting street and road connections between existing and future developments.
- Providing improved east/west connections through Garner.
- Establishing a development pattern that reduces the distance between home, schools, work, shopping, and recreation.

Figure 8 displays a map of the Town of Garner's Thoroughfare Plan, as taken from the Comprehensive Growth Plan (2006).

Town of Knightdale Comprehensive Plan – Transportation Master Plan

The Town of Knightdale adopted the 2027 Comprehensive Plan 2003. This plan includes a detailed chapter on transportation entitled the Transportation Master Plan. The intention of the Transportation Master Plan is to plan a transportation network that enhances quality community design. The Transportation Master Plan is divided into 6 components, which include: transportation system plan, street system classifications transportation maps, street design principles, transportation objectives/action items and a greenway corridor map. The main objectives listed in the 2027 Comprehensive Plan, Transportation Master Plan section includes:

- Ensuring that development enhances the mobility options of all residents.
- Ensuring that all development provide safe and convenient accessibility to pedestrians, bicyclists, and vehicles.
- Working with other regional entities, public and private, to pursue a multi-modal network of transportation options and facilities.
- Encouraging land use development patterns that shorten the average length of vehicle trips as a means of reducing congestion and delay throughout the Town.

Figure 9 is the transportation map for the Town of Knightdale, which is taken from the 2027 Comprehensive Plan (2003).

Town of Wendell Town Plan

The Town of Wendell has a draft Town Plan that is available for public review on the Town's website, as of December 2007. The Town Plan of Wendell includes a detailed section on transportation and mobility. The guiding principle under transportation section of this plan is to "Ensure local and regional interconnectivity and transportation options while also maintaining Wendell as a walkable community." More specifically, this principle was elaborated through the planning process to include a series of goals:

- Create an interconnected street network for safety and access.
- Improve the safety and appearance of Wendell Boulevard.
- Provide context-appropriate design standards for new development.
- Construct more and better quality facilities for walking and bicycling.

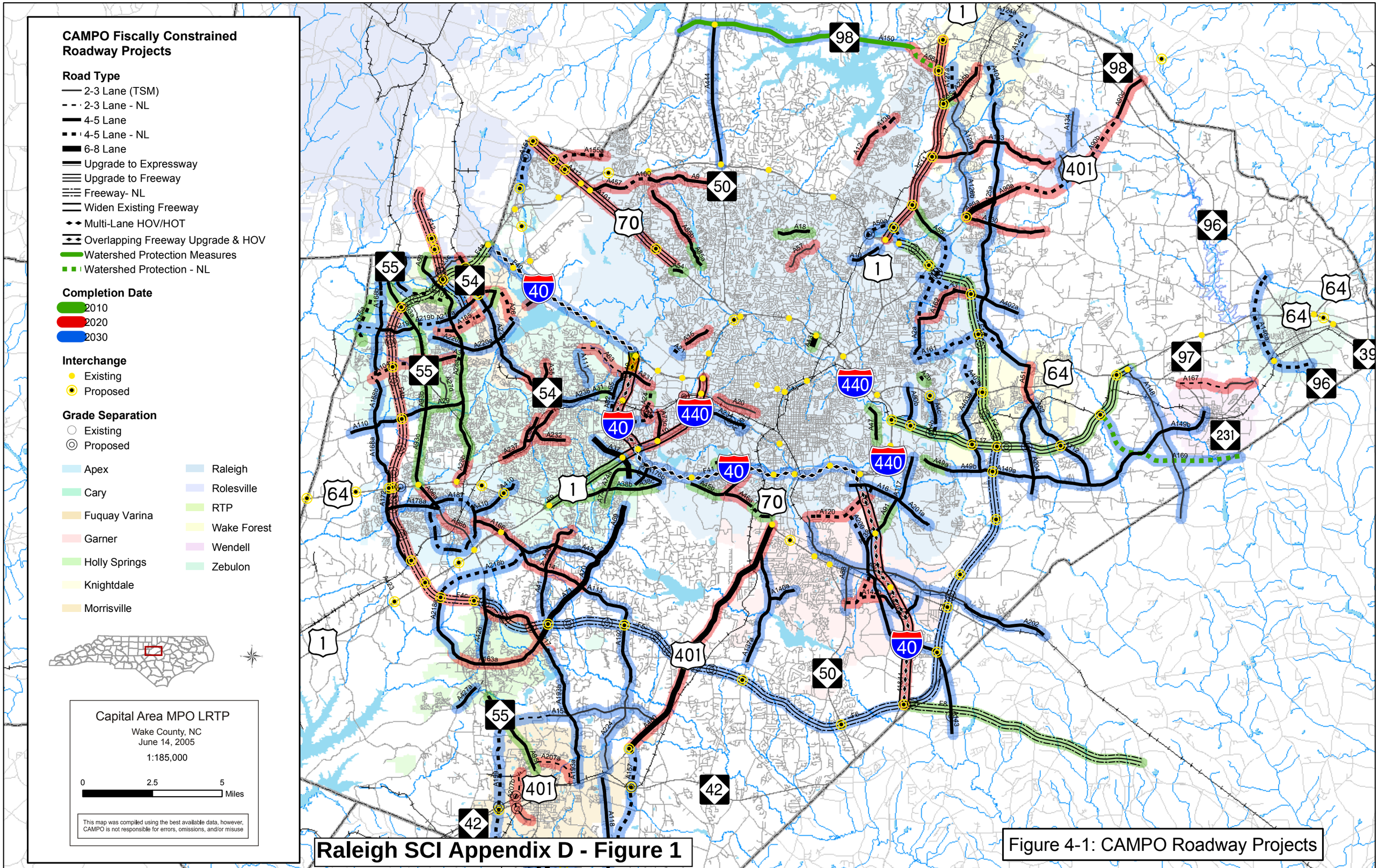
Figure 10 is the Recommended Road Network Map for the Town of Wendell, which is taken from the Town Plan of Wendell.

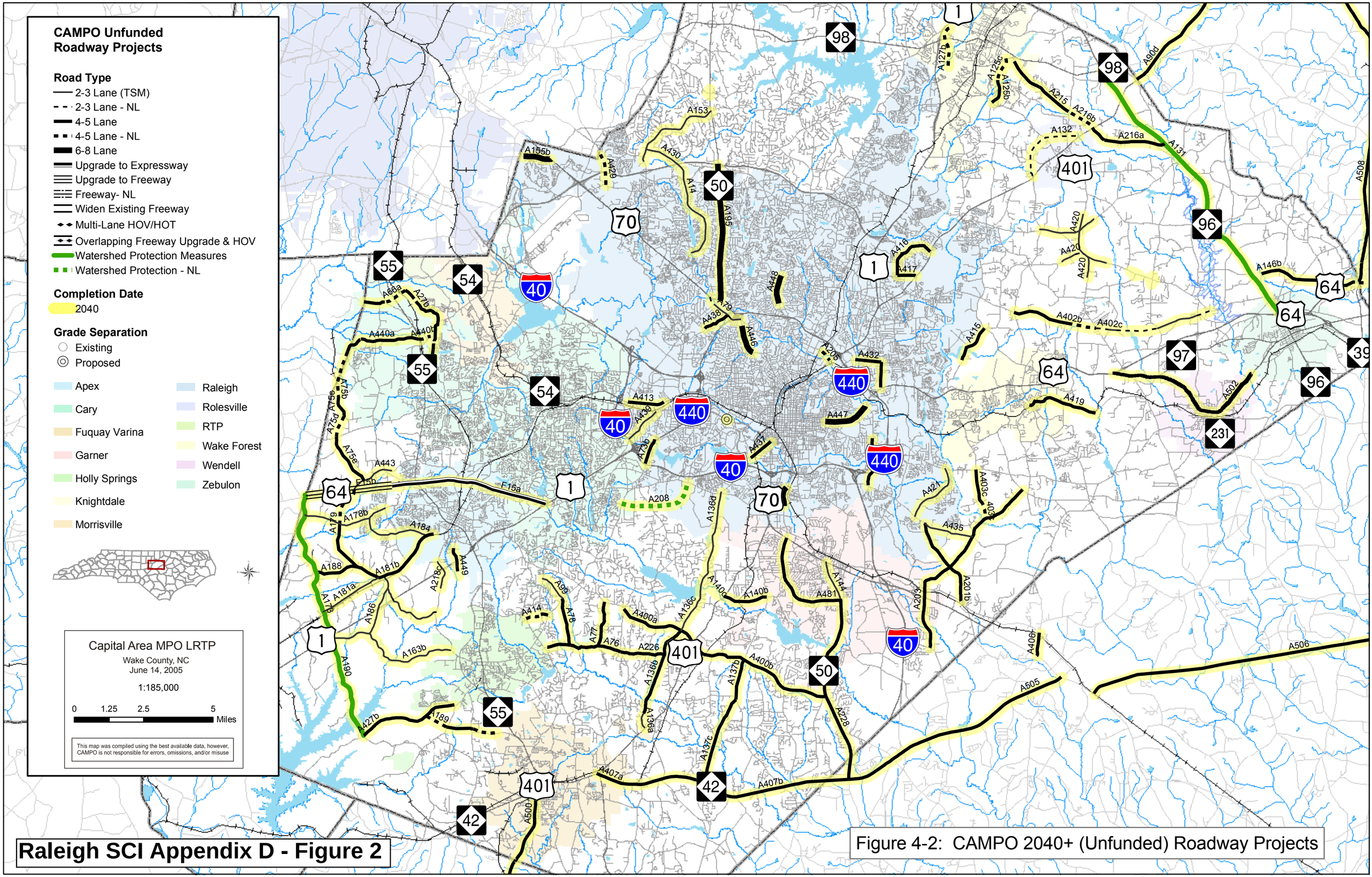
Town of Zebulon Multimodal Transportation Plan

Under the guidance of CAMPO and Wake County, the Town of Zebulon developed a multimodal transportation plan. The Town of Zebulon's Multimodal Transportation Plan includes reports for thoroughfare plans, bicycle and pedestrian plans, transit plans, and implementation plans. The recommended transportation plan included traffic improvement strategies, such as the following:

- Mass transit
- Access control
- Traffic signal synchronization
- Intersection improvements
- Roadway widening
- New roadway construction
- Conversion from intersections to freeway-style interchanges

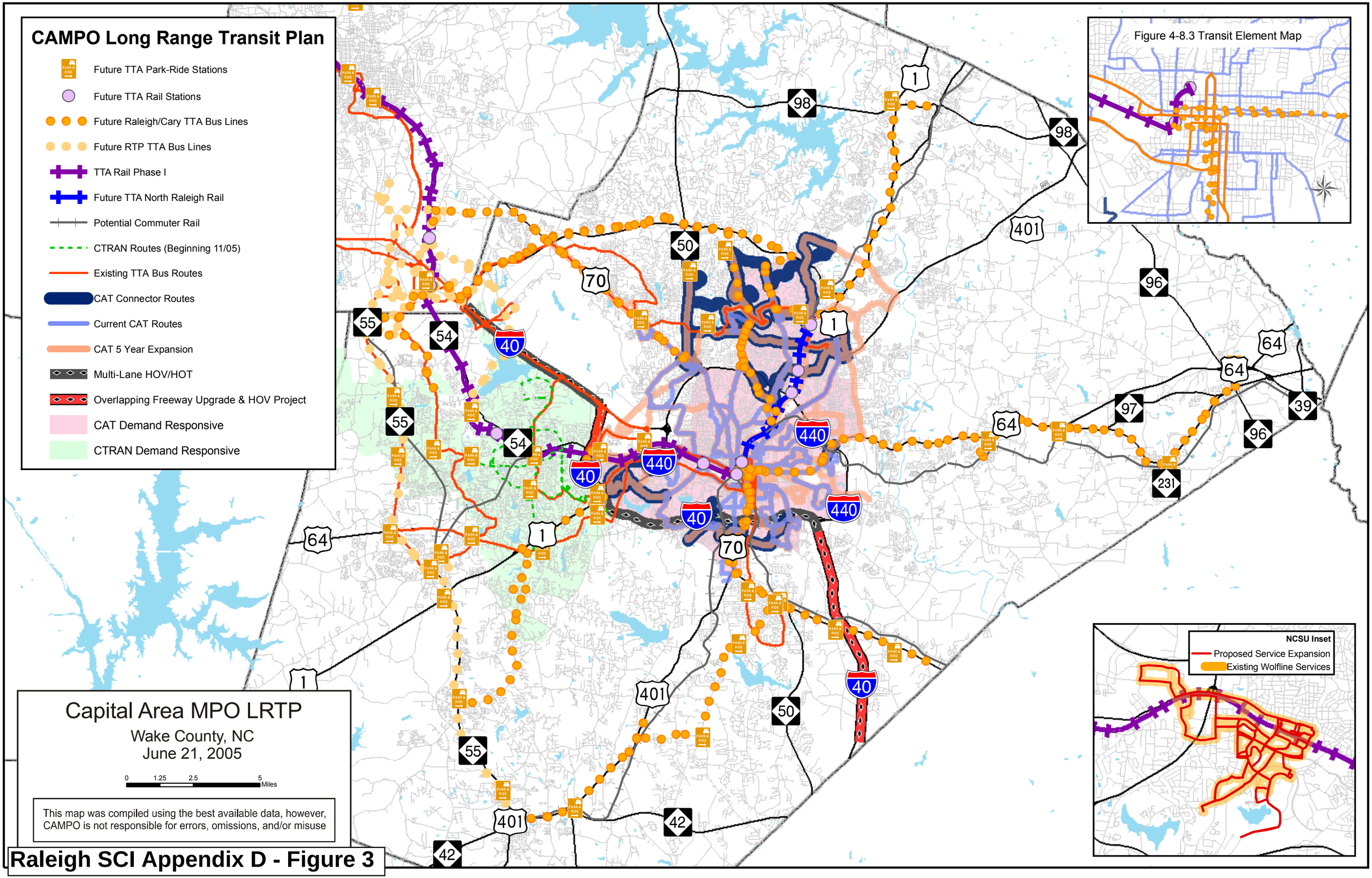
Figure 11 is the Thoroughfare Plan for the Town of Zebulon, which is taken from the Town's Multimodal Transportation Plan.


CAMPO Fiscally Constrained Roadway Projects
Road Type
2-3 Lane (TSM)
2-3 Lane - NL
4-5 Lane
4-5 Lane - NL
6-8 Lane
Upgrade to Expressway
Upgrade to Freeway
Freeway- NL
Widen Existing Freeway
Multi-Lane HOV/HOT
Overlapping Freeway Upgrade & HOV
Watershed Protection Measures
Watershed Protection - NL
Completion Date
2010
2020
2030
Interchange
Existing
Proposed
Grade Separation
Existing
Proposed
Apex
Cary
Fuquay Varina
Garner
Holly Springs
Knightdale
Morrisville
Raleigh
Rolesville
RTP
Wake Forest
Wendell
Zebulon
Capital Area MPO LRTP
Wake County, NC
June 14, 2005
1:185,000
0
2.5
5
Miles
This map was compiled using the best available data, however, CAMPO is not responsible for errors, omissions, and/or misuse
Raleigh SCI Appendix D - Figure 1
Figure 4-1: CAMPO Roadway Projects



Raleigh SCI Appendix D - Figure 2

Figure 4-2: CAMPO 2040+ (Unfunded) Roadway Projects



Raleigh SCI Appendix D - Figure 3

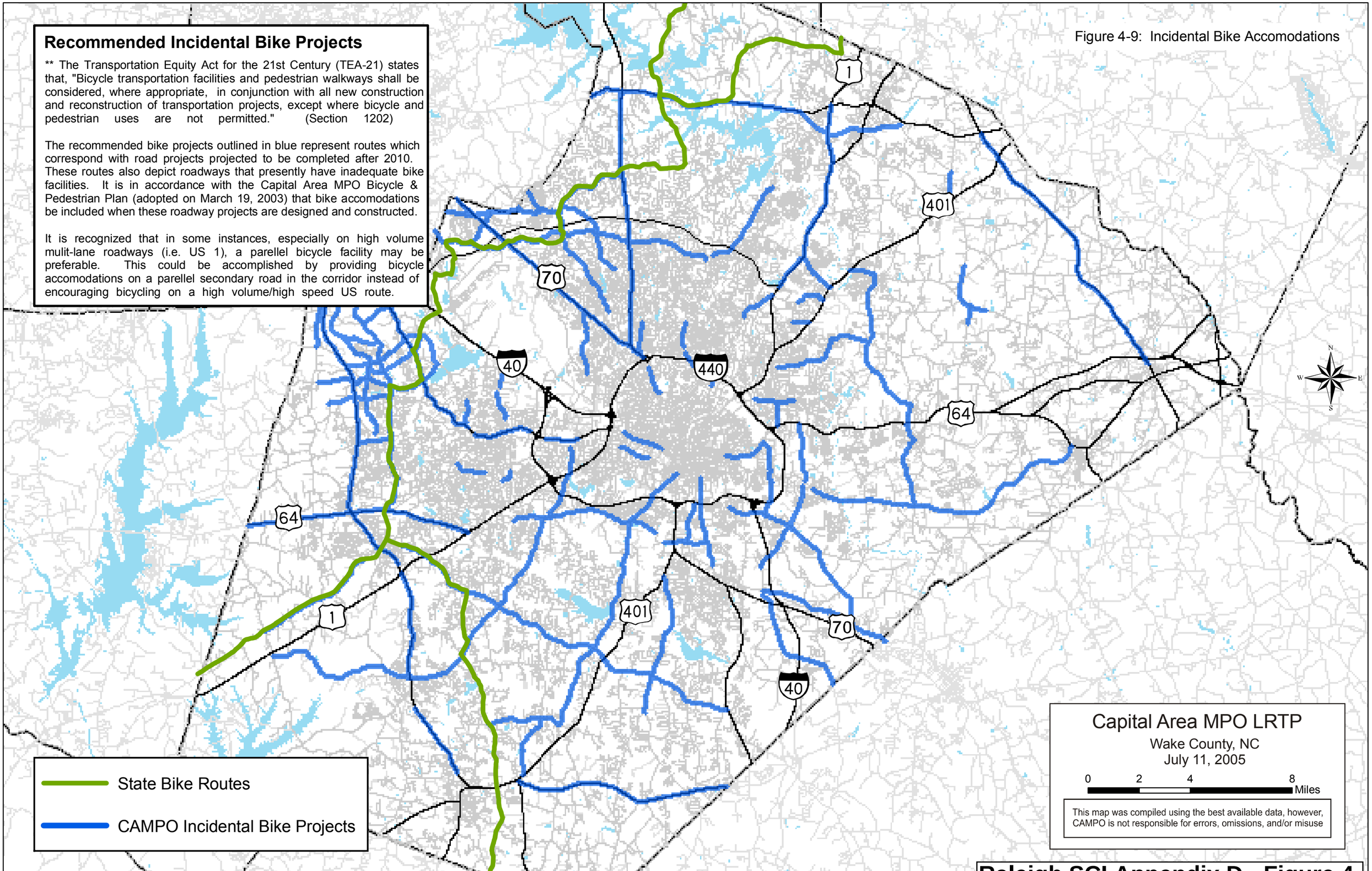
Figure 4-9: Incidental Bike Accomodations

Recommended Incidental Bike Projects

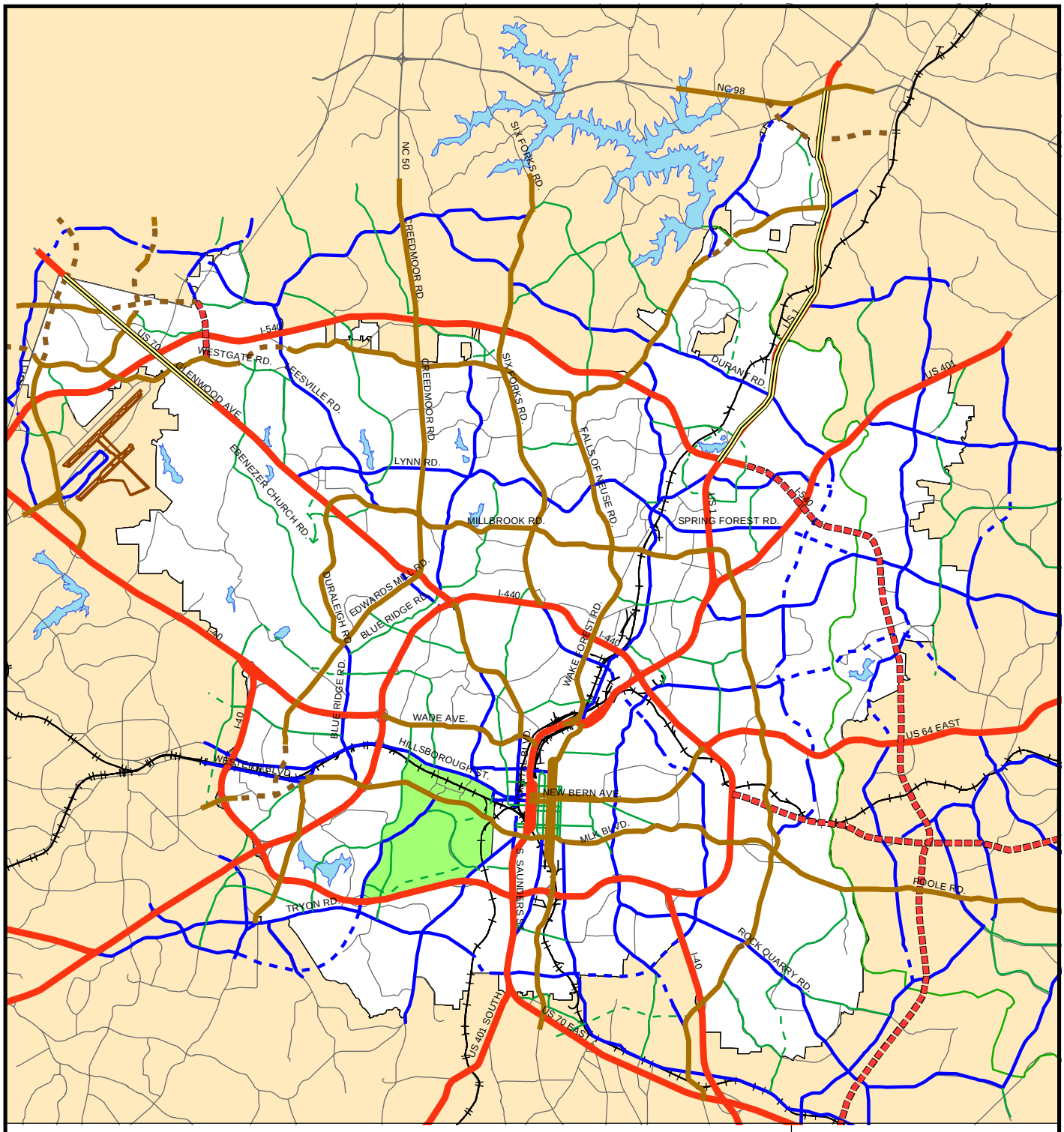
** The Transportation Equity Act for the 21st Century (TEA-21) states that, "Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation projects, except where bicycle and pedestrian uses are not permitted." (Section 1202)

The recommended bike projects outlined in blue represent routes which correspond with road projects projected to be completed after 2010. These routes also depict roadways that presently have inadequate bike facilities. It is in accordance with the Capital Area MPO Bicycle & Pedestrian Plan (adopted on March 19, 2003) that bike accomodations be included when these roadway projects are designed and constructed.

It is recognized that in some instances, especially on high volume mulit-lane roadways (i.e. US 1), a parellel bicycle facility may be preferable. This could be accomplished by providing bicycle accomodations on a parellel secondary road in the corridor instead of encouraging bicycling on a high volume/high speed US route.



Raleigh SCI Appendix D - Figure 4



Roads: Arterials and Thoroughfares

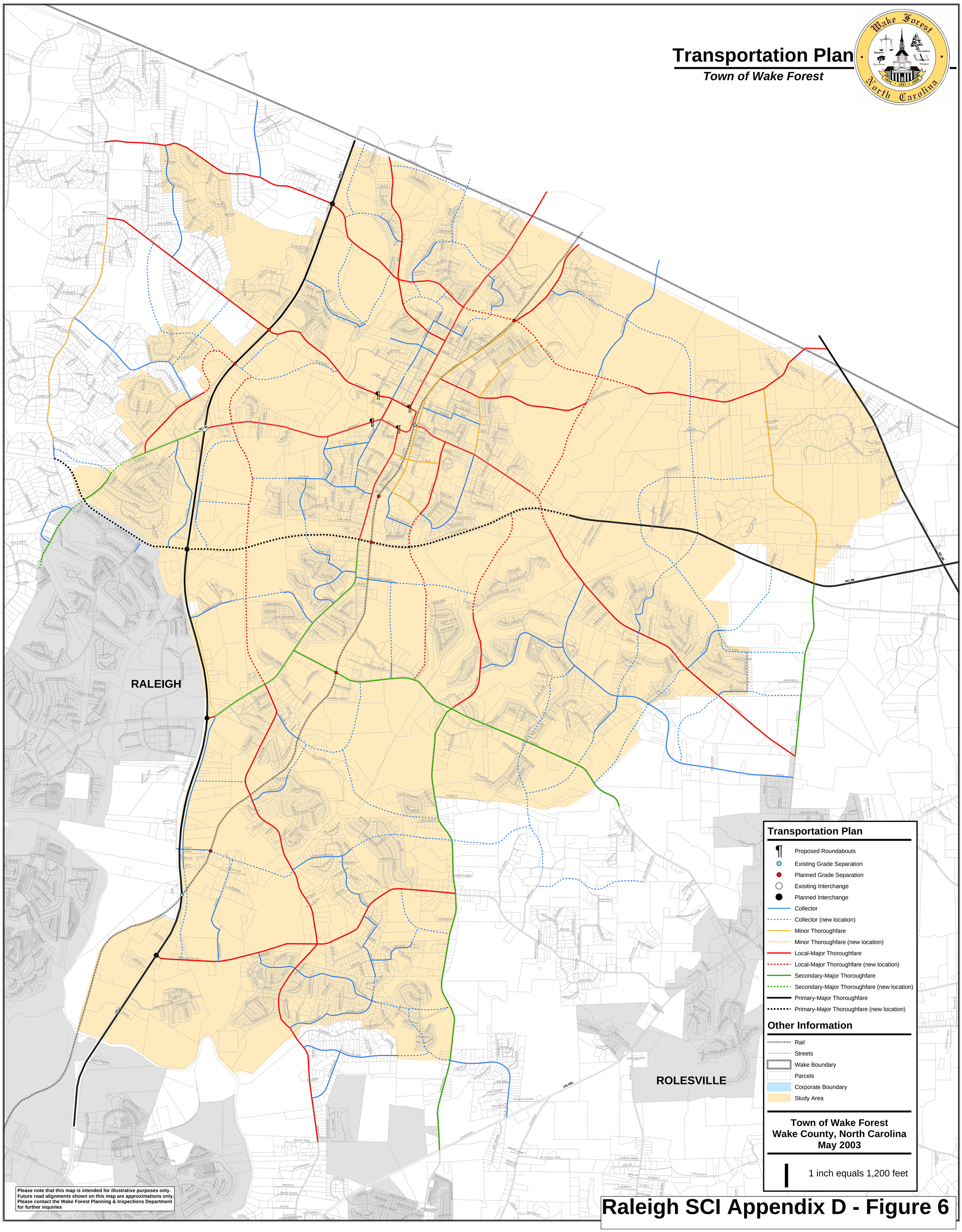
- PRIMARY ARTERIALS
- SECONDARY ARTERIALS
- MAJOR THOROUGHFARES
- MINOR THOROUGHFARES
- PROPOSED ROADS
- UPGRADE TO FREEWAY
- NCDOT REVIEW AREA
- RALEIGH ETJ

1 0.5 0 1 Miles

Raleigh SCI Appendix D - Figure 5

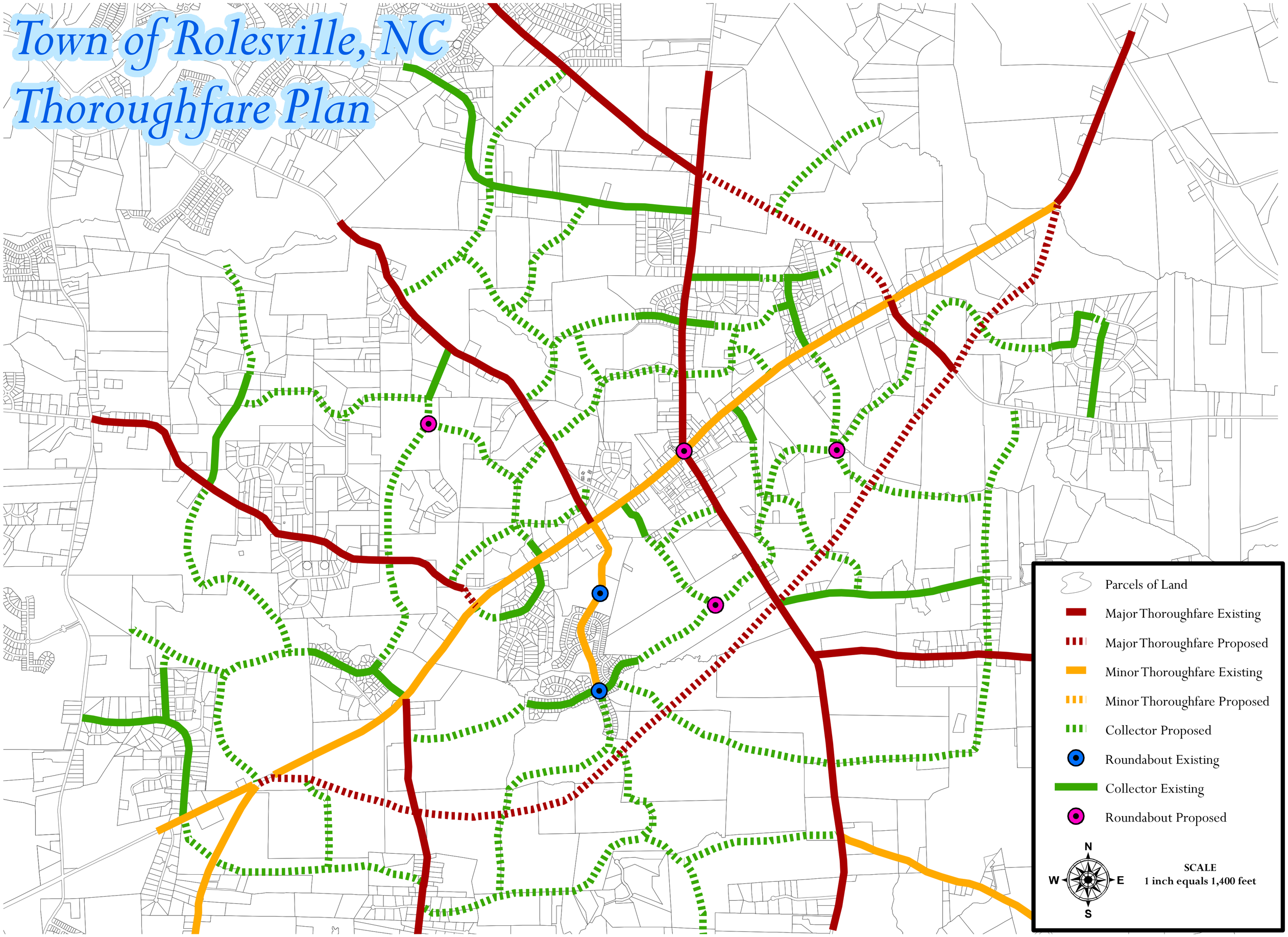
Transportation Plan

Town of Wake Forest



Raleigh SCI Appendix D - Figure 6

Town of Rolesville, NC
Thoroughfare Plan



Raleigh SCI Appendix D - Figure 7

MAP 6

NOTES:
Amended May 3, 2004
Portion of Ackerman Road removed
All of Yeargan Road removed

N
W E
S

0 1 2 Miles

Garner Urban Services Area
Garner Town Limits

Thoroughfares

TYPE

- Existing Freeways/Interstates
- Proposed Freeways/Interstates
- Existing Major Thoroughfares
- Proposed Major Thoroughfare
- Existing Minor Thoroughfares
- Proposed Minor Thoroughfare
- Non Jurisdictional
- Clayton Bypass

Interchanges

- Existing Interchange
- Proposed Interchange

November 16, 1999

Thoroughfare Plan for the Town of Garner

Wake County
North Carolina

Raleigh SCI Appendix D - Figure 8

Town of Knightdale

TRANSPORTATION MAP

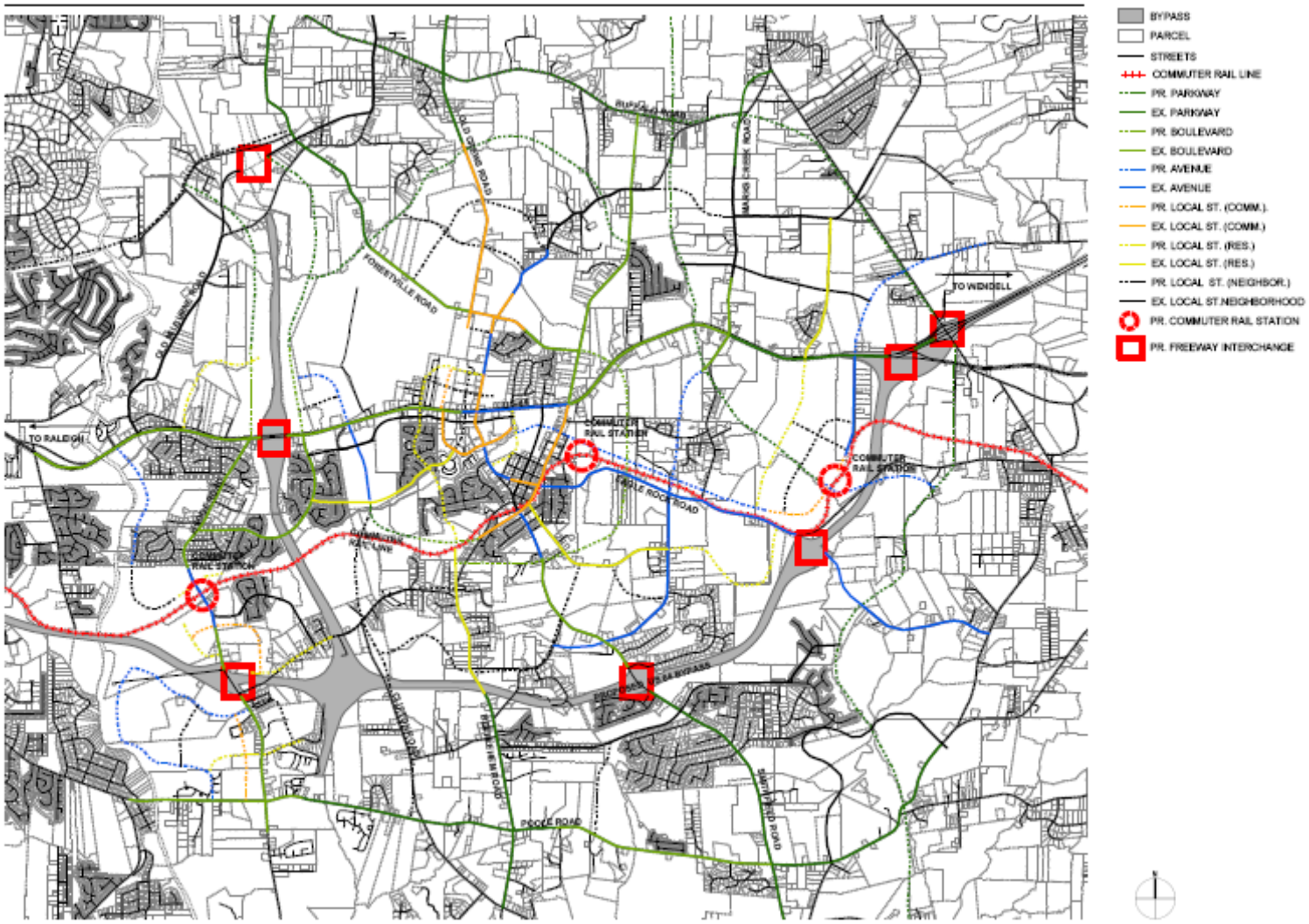
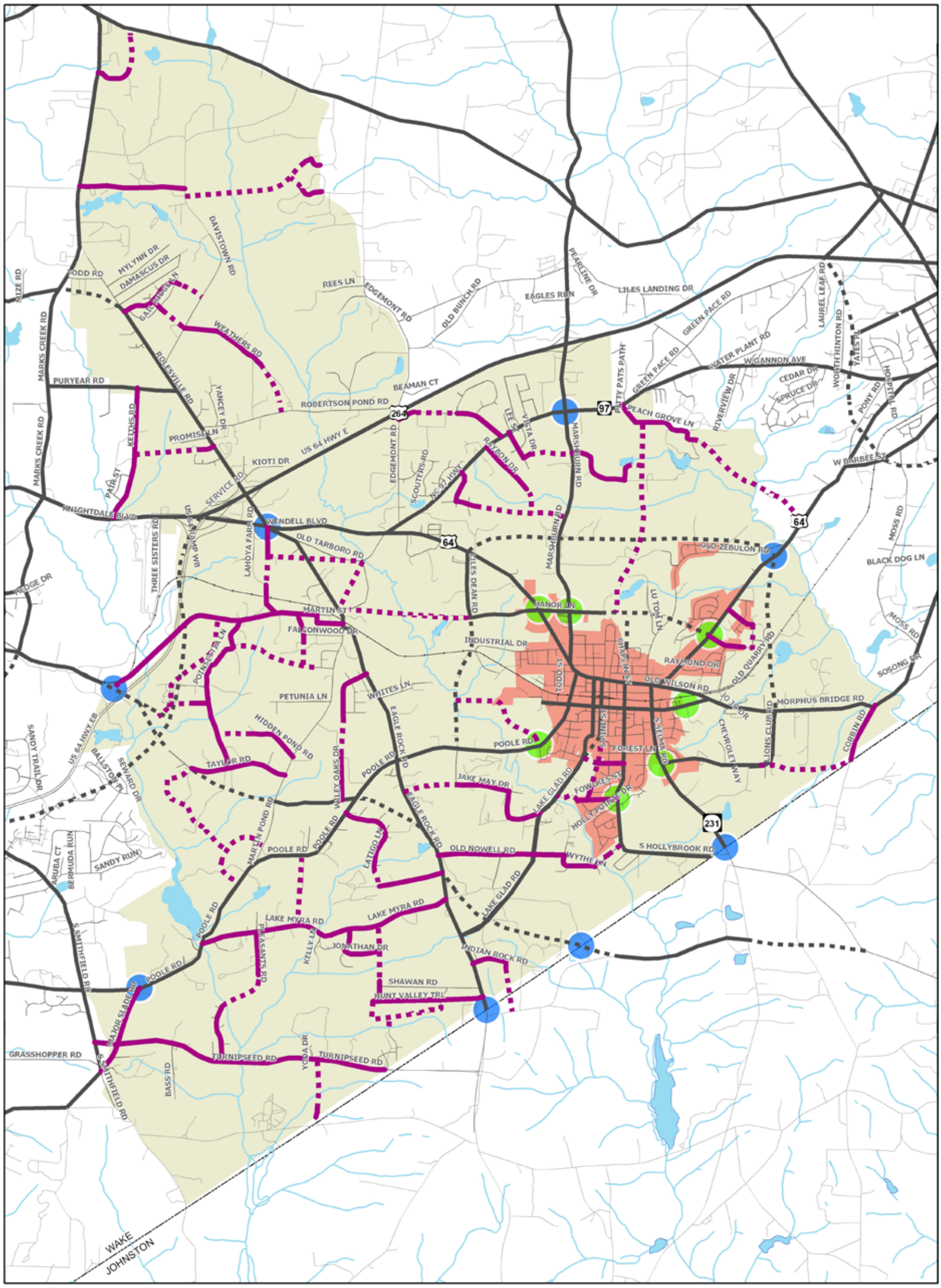


FIGURE 8.5 207

Raleigh SCI Appendix D - Figure 9



The Town Plan of Wendell
RECOMMENDED ROAD NETWORK

Study Area
Town of Wendell
County Boundary
Bodies of Water
Rivers and Streams
Local Roads
Railroads
CAMPO Thoroughfare Plan
Existing Thoroughfare
Proposed Thoroughfare
Collector Street Plan
Existing Collector
Proposed Collector
Gateway Locations
Wendell
Downtown

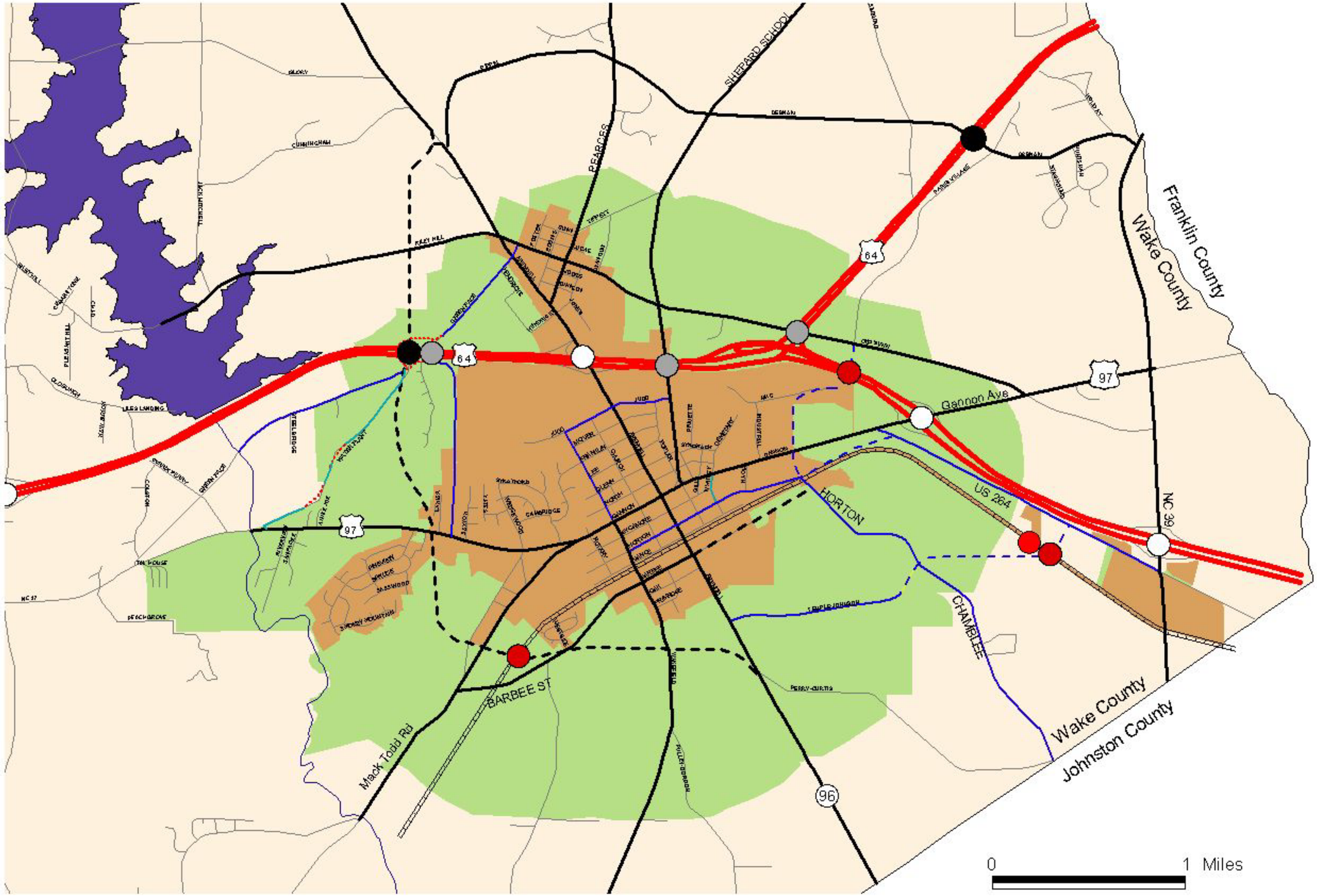
Draft for Public Review

Raleigh SCI Appendix D - Figure 10

Town of Zebulon

Figure 2

Thoroughfare Plan



Prepared by
Wilbur Smith Associates
Raleigh, North Carolina
(919) 755-0583

Raleigh SCI Appendix D - Figure 11