


Town of Tarboro Bicycle Plan

Draft Report



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For:  The Town of Tarboro
With Support From:  NCDOT

June 2006

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Acknowledgements.

We would like to thank the North Carolina Department of Transportation for the NCDOT Bicycle Planning Grant, without which this Plan would not be possible. We would also like to thank the Town of Tarboro Council for their support of this project.

Finally, we would like to thank the members of the Stakeholder Committee and Town Staff for their time and on-going commitment to making Tarboro a more bicycle-friendly community.

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Executive Summary

This Executive Summary provides a brief review of all of the sections contained in the Town of Tarboro Bicycle Plan (the “Plan”). The Plan was begun in August 2005 and completed in May 2006 as part of a Bicycle Planning Grant received from the North Carolina Department of Transportation Division of Bicycle and Pedestrian Transportation. The Plan will serve as the bicycle planning portion of the forthcoming state-wide Comprehensive Transportation Plan. It is intended to provide recommendations for future projects, programs, and policies that will make Tarboro a more bicycle-friendly town.

Section 1. Introduction and Goals.

Introduction

The Town of Tarboro Comprehensive Bicycle Plan (“Plan”) is the first of its kind in Tarboro. Its purpose is to improve and encourage bicycle transportation in the Town. Throughout the planning process, a Stakeholder Committee of residents and Town staff provided guidance and input to create a Plan that will serve the entire Tarboro community. The Plan focuses on creating a safe biking environment and providing more convenient bicycle opportunities for more people in Tarboro, commuters and recreational riders alike.

Goals and Objectives

The following is a listing of the goals and related objectives defined for the Plan. These goals and objectives were created by the Stakeholder Committee as tools to help focus the Plan on Tarboro’s needs.

Goal 1: Funding.

Identify adequate funding, existing and future, for all proposed bicycle projects and programs.

Objective 1: Create adequate yearly budget to maintain existing facilities.

Objective 2: Establish an on-going process for applying for grants for new facility construction.

Goal 2: Capital Projects.

Identify and plan for the construction of more bicycle facilities, including more on-street bicycle lanes and off-road bicycle trails, as well as additional bicycle parking and wide outside shoulders on more rural streets.

Objective 1: Develop a map of existing and proposed facilities to serve as guidance for future construction.

Objective 2: Outline a feasible timeline for project construction that includes cost estimates and priorities based on community needs.

Goal 3: Education.

To educate bicyclists and motorists alike about bicycle safety through the distribution of informational pamphlets and brochures, bicycle safety programs through schools and the DMV, and other Town-sponsored group activities such as a bike rodeo or group ride.

Objective 1: Continue and expand bicycle safety programs in Edgecombe County Schools.

Objective 2: Create and distribute educational brochures on bicycle safety.

Goal 4: Maintenance.

To keep well-maintained bicycle facilities, where the outside shoulders of roads with marked bicycle routes are kept clean, with no potholes, and off-road trails are swept and maintained throughout the year.

Objective 1: Establish a regular maintenance program that will routinely clean and upgrade existing bicycle facilities.

Objective 2: Create a partnership plan to establish citizen-based trail maintenance and bike route maintenance programs to supplement routine Town maintenance.



As part of Goal 6: Access, Tarboro intends to create bicycle access to all destinations, including jobs and shops in downtown Tarboro.

Goal 5: Safety.

To have safe bicycle routes and facilities where children and adults feel comfortable riding their bicycles. In this atmosphere, children have safe bicycle routes to school, bicycles lanes are kept clear of parked cars, and cyclists are respected as viable commuters and travelers on roadways.

Objective 1: Maintain a low bicycle-automobile crash rate as the bicycle network expands in Tarboro.

Objective 2: Make all roads in Tarboro safe enough for all ages to feel comfortable when riding on them.

Goal 6: Access.

To create an inter-connected network of bicycle facilities including marked bike lanes and off-road trails that allow for access to all destinations throughout Tarboro so that residents can travel by bicycle to work, school, and shopping destinations.

Objective 1: Create a network of bicycle routes by 2015 such that all major destinations in Tarboro are accessible by bicycle.

Objective 2: Create development guidelines and ordinances such that all future construction and new destinations are accessible by bicycle.

Goal 7: Policy. To establish construction and development policies to ensure bicycle facilities are included in all new public and private projects in Tarboro.

Objective 1: Ensure the Bicycle Plan is in compliance and adequate to meet the needs of the bicycle portion of the Statewide Comprehensive Transportation Plan.

Objective 2: Design development policies for all new construction: public and private, to include consideration for bicycles.

Section 2. Evaluating Current Needs.

This section provides the physical and demographic context for the Tarboro Bicycle Plan and its recommendations by providing a review of current demographics in Tarboro, existing physical conditions, a crash analysis, and the results of the Plan's public involvement process.

The results of this section indicated that Tarboro has a good start to its bicycle facilities. It has a long existing bicycle route and a well-planned addition. Tarboro's population demographics shows that it is a community that would be open to more biking – especially for recreation purposes – and the Town's low crash rate shows that the area is relatively safe for biking currently. As can be seen from the inventory of Tarboro's existing facilities, any new bicycle routes should go to Tarboro's major destinations, which are schools, parks, shopping, and Downtown. Tarboro's major needs are as follows:

1. **New Facilities:** Tarboro needs new bike routes, both as bike lanes and bike trails, as well as new bike racks at all major destinations.
2. **Safety and Awareness Programs:** Tarboro should create bicycle programs that raise awareness about bicycle safety and increase helmet usage while also improve relations between cyclists and motorists.
3. **Plan for Implementation:** In order to create these new facilities and new programs, Tarboro needs a plan that outlines the implementation process for constructing these facilities and creating new programs.

Section 3. Existing Plans and Recommendations.

This section reviewed and provided recommendations on existing plans that may relate to the Tarboro Bicycle Plan. The existing plans that were reviewed are as follows:

Plans

- *Land Development Plan Update: Edgecombe County, North Carolina, 1997 – 2007*, adopted September 8, 1997.
- *Tarboro Land Development Plan Update*, adopted December 10, 1990.
- *Resolution for Bicycle Plan*, adopted November 8, 2004.
- *Map of Existing Tarboro Bicycle Routes*, August 17, 1999. Town of Tarboro Public Works Department, Engineering Division.
- *Map of Proposed Bicycle Route Picnic, Parking Area, and Canoe Landing*, dated August 25, 1999. Town of Tarboro Public Works Department, Engineering Division.
- *Town of Tarboro Zoning Map*. Town of Tarboro Public Works Department, Engineering Division.
- *Thoroughfare Plan*, dated August 4, 1964.
- *Tarboro Commerce Center Master Plan*, date unknown. Carolinas Gateway Partnership.
- *Tarboro Municipal Code and Zoning Ordinance*.

Section 4. Bicycle System Plan.

This section provides bicycle-related project recommendations and project cost estimates for the Town of Tarboro. The section then prioritizes these projects based on demand, need, funding, safety, connectivity and constructability. Table 1 provides a listing of the projects and their cost estimates. Figure 1 shows the project locations. Table 3 through Table 6 organizes the projects based on short-term, mid-term, and long-term construction priorities. In addition, the section also provides recommendations for bicycle parking locations. Figure 2 shows bicycle parking locations and their priorities.

Table 1. Project Cost Estimates.

Route Name		Type of Facility	Length (miles)	Cost
Tarboro Outer Bike Loop			~20	\$415,302 <i>(includes existing road improvements only)</i>
Segments	1. US 64 Alt/Main St: McNair to Northern	signed & marked facility	4	\$3,910
	2. Northern and Baker: Main to Daniel St	signed & marked facility	2	\$2,055
	- Daniel St Extension	<i>-see estimate -</i>		
	3. US 258: Daniel St Ext. to Greenway	signed & marked facility	3	\$2,673
	Main St. to US 258 N	<i>-see estimate-</i>		
	4. In-town roads	signed & marked facility	1	\$1,278
	5. US 258 South	signed & marked facility	2	\$1,794
	- McNair Rd Extension	<i>-see estimate-</i>		
	6. McNair: Sara Lee Rd to US 64 Alt	signed & marked facility	4	\$3,593
Tarboro Inner Bike Loop			~8	\$7,363
Segments	1. Northern and Baker: Main to Daniel St	signed & marked facility	2	\$2,055
	2. Baker St: Daniel to MLK Jr	signed & marked facility	1	\$1,363
	3. In town roads: MLK Jr to Albemarle	signed & marked facility	1	\$1,403
	4. St James St: Albemarle to Western	signed & marked facility	1	\$740
	5. Western Blvd: St. James St to Northern	signed & marked facility	2	\$1,801
St. Andrew St. Extension		signed & marked facility	~0.5	\$481
Howard Ave. Cross-Town Connector		signed & marked facility	3	\$2,884
Industrial Pkwy. Cross-Town Connector		signed & marked facility	2	\$1,923
Wilson St. Cross-Town Connector		signed & marked facility	4	\$3,845
Daniel St. Cross-Town Connector		signed & marked facility	1.66	\$1,596
McNair Rd. Extension – NCDOT FUNDED		new road construction	1.5	\$ 3.75M <i>(includes road cost)</i>
Daniel St. Extension – NCDOT FUNDED		new road construction	1.6	\$ 4M <i>(includes road cost)</i>
Greenway Connection: Main St. to US 258 N		new paved bicycle trail	1	\$ 400,000
Greenway Connection: Daniel St. to St. James St.		new paved bicycle trail	1.5	\$ 600,000
Greenway Connection: Royster St. to Western Blvd.		new paved bicycle trail	0.1	\$ 40,000

Cost estimates were based on the following assumptions:

Table 2. Itemized cost assumptions for projects in Tarboro.

Item	Cost
<u><i>Restriping and Signage Project:</i></u>	
On-pavement symbol	\$120 each
Bicycle Route sign	\$200 each
Striping	\$0.85 per linear foot
<u><i>New Trail Construction:</i></u>	
	\$400,000 per mile
<u><i>New Road Construction:</i></u>	
	\$2.5M per mile

Restriping and Signage Projects: Individual pricing estimates for restriping and signage projects were based on 2005 NCDOT Bid Averages for NCDOT Division 4. It was assumed that a sign and symbol would be placed every ½ mile for all restriping and signage projects. Also, it was assumed that any restriping and signage project would not require resurfacing or additional pavement width and curb and gutter. This would add additional cost to the project.

New Trail Construction: Estimate assumes a 10 foot wide, multi-purpose trail with minor earthwork and minimal type structures to cross drainage features.

New Road Construction: Estimate assumes two lane, rural highway with minor earthwork and minimal type structures.

Please note that all cost estimates may increase or decrease depending on the cost of raw materials, labor, and inflation.

Figure 1. Project locations.

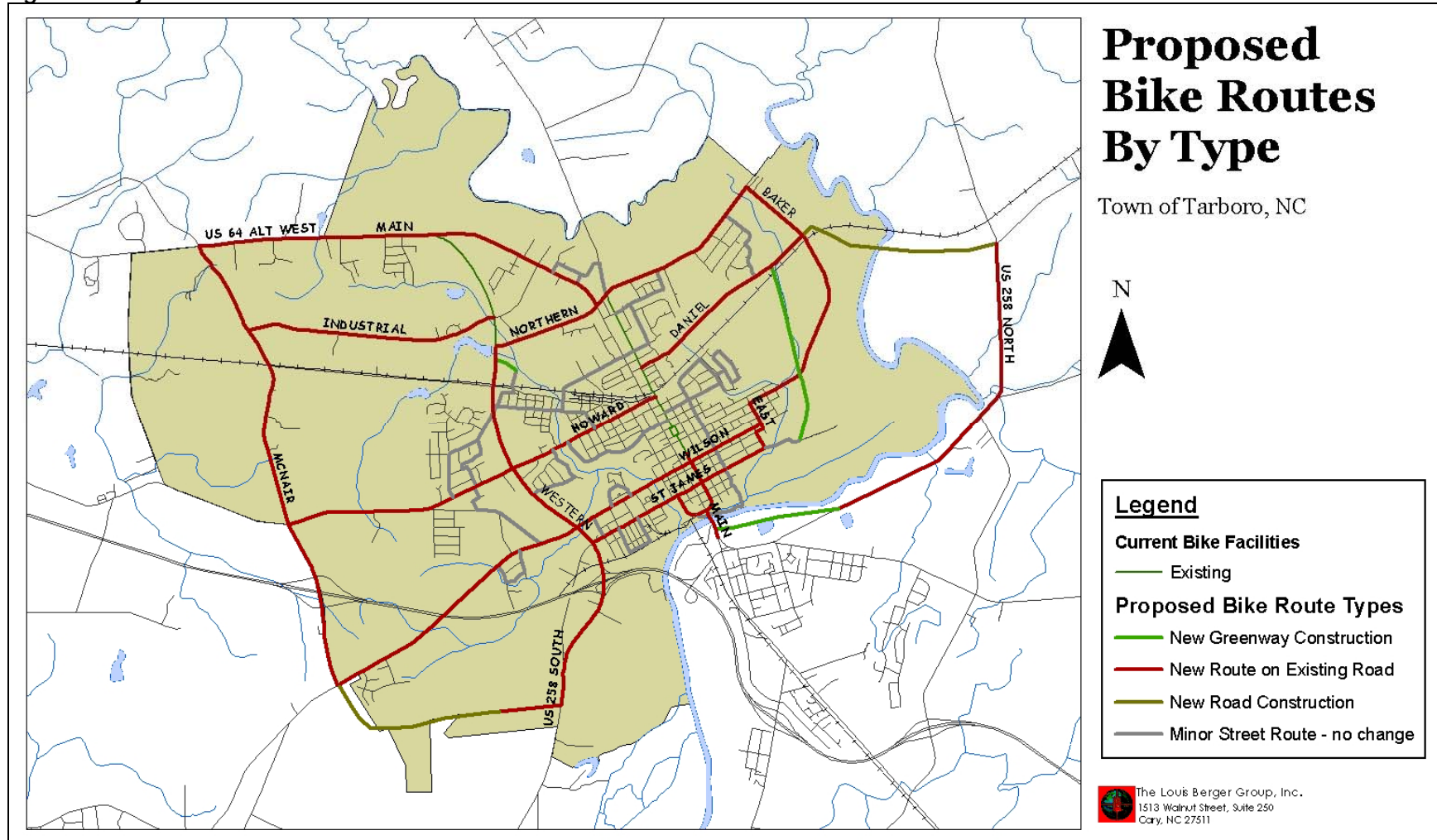


Table 3. Short-term bicycle projects.

Route Name/Segment	Action	Priority	Constructability
Additional bike lane on Northern Blvd: St. James to Western	Re-striping & signage	1	\$
Northern and Baker: Main St. to Daniel St.	Re-striping & signage	2	\$\$\$
Baker St.: Daniel St. to MLK Jr. St.	Re-striping & signage	4	\$
Main St.: Western Blvd. to Northern Blvd.	Re-striping & signage	11	\$\$
Daniel St. Cross-town Connector	Re-striping & Signage	13	\$

Table 4. Mid-term bicycle projects.

Route Name/Segment	Action	Priority	Constructability
US 64 Alt.: McNair Rd. to Western Blvd.	Re-striping & signage	10	\$\$
In-town Roads: MLK Jr. to Albemarle	Re-striping & signage	5	\$\$
St. James St.: Albemarle to Western	Re-striping & signage	6	\$\$
Western: St. James to Northern	Re-striping & signage	7	\$\$\$
Wilson St. Cross-town Connector	Re-striping & signage	8	\$\$\$

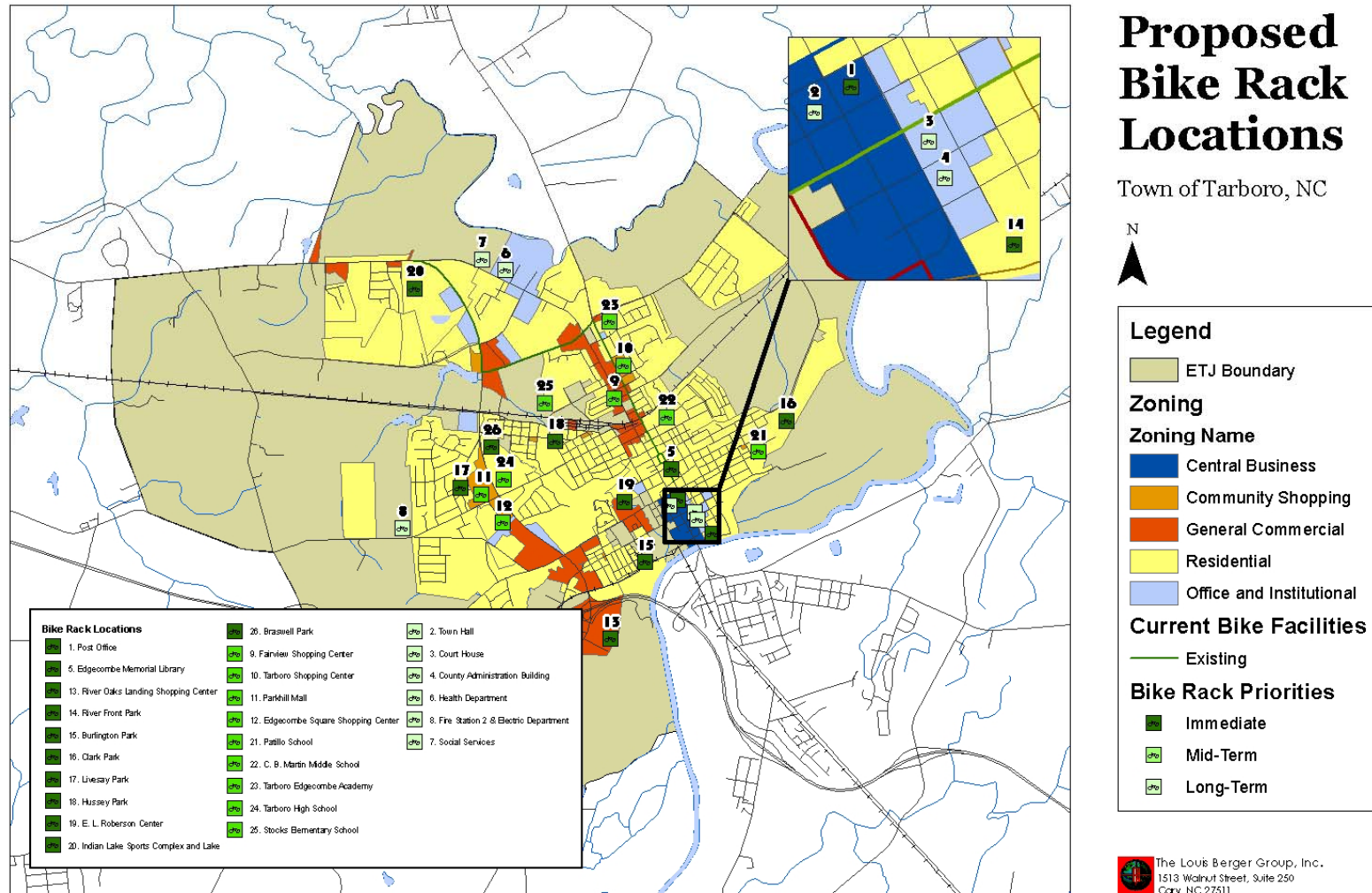
Table 5. Long-term bicycle projects.

Route Name/Segment	Action	Priority	Constructability
St. Andrews St. Extension	Re-striping & signage	3	\$\$\$\$
Greenway Connection: Daniel St. to St. James St.	New Construction	14	\$\$\$\$
Greenway Connection: Royster St. to Western Blvd.	New Construction	15	\$\$\$\$
McNair: US 64 Alt to Wilson	Re-striping & signage	11	\$\$
US 258: Daniel St Ext. to Greenway	Re-striping & signage	16	\$\$\$
Greenway Connection: Main St to US 258	New Construction	17	\$\$\$\$
US 258 South	Re-striping & signage	18	\$\$\$
Industrial Parkway Cross-town Connector	Re-striping & signage	21	\$\$

Table 6. NCDOT bicycle projects.

Route Name/Segment	Action	
Daniel St. Extension	New Construction	~ NCDOT Schedule ~
McNair Rd. Extension	New Construction	~ NCDOT Schedule ~

Figure 2. Proposed Bike Rack Locations by Priority.



Section 5. Bicycle Facility Standards and Guidelines.

This section provides a summary of best-practices for bicycle facility standards and guidelines. The purpose of the section is to supplement, not replace, the accepted roadway and cycling standards available at national and state levels. Items that are reviewed include:

- Street cross-sections
- Intersection standards
- Bicycle facilities near school crossings
- Bicycle facilities on bridges
- Off-road bicycle facility design
- Bicycle parking standards

This section also touches on methods for measuring designs that encourage bicycling such as the land use index for walkability and the bicycle compatibility index.

Section 6. Program and Policy Recommendations.

The following section outlines program and policy recommendations that were developed throughout the planning process to address the three E's of bicycle-friendliness: Encouragement, Enforcement, and Education. Key policy recommendations are:

Construction and Maintenance

1. Consider bicycle facilities in all road construction and road maintenance projects.
2. Include bicycle consideration in all private development site plans.
3. Interconnectivity of adjacent developments.
4. Require bike parking at all public facilities.
5. Consistent bicycle facilities maintenance.
6. Pursue funding opportunities as a top priority.
7. Credit bicycle parking.

Encouragement

1. Promote bicycle use for town and government employees
2. Coordinate with other bicycle activities in the area.
3. Create a standing bicycle advisory committee.

Key program recommendations are:

Encouragement

1. Safe Routes to School Program.
2. Bike route brochure for new residents and visitors.
3. Annual bicycle event (Bike Day Tarboro).
4. Historic Tarboro Bike Ride.

Education

1. Bicycle education and safety classes.
2. Bicycle safety brochure.

A recommended schedule of implementation is as follows:

Short-Term (1 – 5 Years)

Policy

- o Consider bicycle facilities in all road construction and road maintenance projects.
- o Include bicycle considerations in all private development site plans.
- o Require bike parking at all new public facilities.
- o Pursue funding opportunities as a top priority.

Program

- o Create a standing bicycle advisory committee.
- o Bike route brochure for new residents and visitors.
- o Safe-Routes-to-School Program.

Mid-Term (5 – 10 Years)

Policy

- o Credit bicycle parking.
- o Require inter-connectivity of adjacent developments.
- o Promote bicycle use for town and government employees.
- o Coordinate with other bicycle activities in the area.

Program

- o Bicycle Education and Safety Classes
- o Bicycle Safety Brochure

Long-Term (10 or More Years)

Policy

- o Establish consistent bicycle facilities maintenance.

Program

- o Annual Bicycle Event (Bike Day Tarboro)
- o Historic Tarboro Bike Ride

Section 7. Implementation.

This section discusses the financing and partnerships that are available to the Town of Tarboro to plan, design, acquire right-of-way for, and construct the various types of bicycle projects and programs contained in this Plan. Sources of funding that are discussed include:

NCDOT Funding

Transportation Enhancement Program

Small Urban Funds

Hazard Elimination Program

Spot Improvement Program

Governor's Highway Safety Program

Statewide Discretionary Funding

State Transportation Improvement Program

Share the Road License Plate Program

Safe-Routes-to-School Program

Other Funding:

Economic Development Grants and Funding

Parks and Recreation Related Funding

Grants from Non-Profits and Advocacy Groups

This section provides a listing of potential partnership agencies and identifies their responsibilities. It also lists the key projects and programs generated as part of the plan, their estimated cost, potential funding sources, and key responsible parties. A listing of potential partnership agencies is in Table 7.

Table 7. Potential Partnering Agencies for Tarboro Bicycling Efforts.

Organization	Relationship and Interests
Rotary Club	Both the Rotary and Kiwanis Clubs are active in Tarboro, and may be helpful in procuring maintenance assistance for multi-use trails and volunteers for programs.
Kiwanis Club	
Garden Club	There is a local garden club that may be useful in landscaping and maintaining trailside plantings.
Chamber of Commerce	The Chamber is quite active in Tarboro, and its membership provides a convenient one-stop source of potential volunteer and donation resources.
Tarboro-Edgecombe Redevelopment Corporation	This agency acquires redevelopment grants to repair and rehabilitate historic buildings downtown, and may be interested in an annual bike ride tied to Tarboro's historic attractions.
NAACP, Edgecombe County Chapter	Another active group in Tarboro and Edgecombe, with members that have historically assisted with trail maintenance and are active in a variety of recreational and youth-oriented activities.
Community Enrichment Organization	The "CEO" is a religious-based organization that ties several area churches together, and might be useful in distributing information, asking for sponsorships/donations, and so forth.
Heritage Hospital	The Tarboro hospital and its staff and doctors have a direct interest in helping people achieve more active and healthy lifestyles. Good source of volunteer effort and coordination.
Tar River Riders	Based in nearby Rocky Mount, Tarboro would be close enough to attract this group to an annual event and help provide expertise on organizing successful bike rides.
Pilot Club	These women's groups are dedicated to civic service, and may be useful to finding a coordinator for one or more events or programs.
Tarboro Woman's Club	
Relay for Life	The Edgecombe County Relay for Life has raised nearly \$1.2 million in its almost 10-year history to help combat cancer, encourage cancer survivors and remember loved ones who died from cancer. This group may wish to be tied into a bike event or can share mailing lists if the event is tied to funding cures for cancer-related illnesses.
Edgecombe Community College	Colleges are an excellent source of volunteer resources, and the Community College's health-based education programs could be tied into supporting cycling-related health events.

Short Term

Projects

Route Name/Segment	Primary Responsibility	Potential Funding Sources							
		TEP	SUF	HEP	SIP	GHSP	SDF	STIP –	
								Inc.	Ind.
Additional bike lane on Northern Blvd	NCDOT	X		X	X	X	X	X	X
Northern and Baker: Main St. to Daniel St.	NCDOT/Town	X	X				X	X	X
Baker St.: Daniel St. to MLK Jr. St.	NCDOT/Town	X	X				X	X	X
Main St.: Western Blvd. to Northern Blvd.	NCDOT/Town	X					X	X	X
Daniel St. Cross-town Connector	NCDOT/Town	X					X	X	X

Programs

Program Name	Est. Cost	Primary Responsible Party	Potential Partners	Potential Funding Source								
				PR	NP	ED	NCDOT					
							SRTS	TEP	GHSP	SDF	STIP – Inc. Ind.	
Bicycle Advisory Committee	\$0	Town: Council and Planning Department	Tarboro Citizens	NA								
Bike Route Brochure	~\$300	Town: Planning	Town: Planning, Parks &Rec, Chamber of Commerce	X	X	X		X	X	X		X
Safe-Routes-to-School Program	Variable	Edgecombe County Schools	NCDOT, Town: Planning, Parks & Rec, Police Dept.	X	X		X	X	X	X		X

Tarboro Bicycle Plan
Executive Summary

Plans

Plan	Primary Responsible Party	Potential Partners
Update the Tarboro Land Development Plan		
- include prioritized bicycle facilities	Town: Planning	Parks & Rec., Public Works
- insert language to encourage mixed use zoning and discourage strip commercial zoning	Town: Planning	Council
- provide recommendations for greenways and trails	Town: Planning	Parks & Rec., Public Works
- support strengthened driveway restrictions	Town: Planning	Public Works
Update the Tarboro Municipal Code & Zoning Ordinance:		
- change minimum driveway length	Town: Planning & Public Works	Council
- make bicycle registration free	Town: Police Dept.	Council
- eliminate parking or motorized vehicle operation in bike lanes	Town: Planning	Police Dept.

Policies

Policy	Primary Responsible Party	Potential Partners
Consider bicycle facilities in all road construction and road maintenance.	NCDOT	Town Public Works, Planning
Include bicycle considerations in all private site plans.	Town: Planning	Town: Planning Commission
Require bike parking at all new public facilities.	Town: Public Works	Schools, Parks and Rec., Edgecombe County
Pursue funding as a top priority.	Town: Planning	Town: Parks & Rec, Public Works, Edgecombe County

Mid Term

Projects

Route Name/Segment	Primary Responsibility	Potential Funding Source							
		TEP	SUF	HEP	SIP	GHSP	SDF	STIP –	
								Inc.	Ind.
US 64 Alt.: McNair Rd. to Western Blvd.	NCDOT/Tarboro	X					X	X	X
In-town Roads: MLK Jr. to Albemarle	NCDOT/Tarboro	X	X		X		X	X	X
St. James St.: Albemarle to Western	NCDOT/Tarboro	X	X				X	X	X
Western: St. James to Northern	NCDOT/Tarboro	X	X	X	X	X	X	X	X
Wilson St. Cross-town Connector	NCDOT/Tarboro	X					X	X	X

Programs

Program Name	Est. Cost	Primary Responsible Party	Potential Partners	Potential Funding Source								
				PR	NP	ED	NCDOT					
							SRTS	TEP	GHSP	SDF	STIP –	
											Inc.	Ind.
Bicycle Education & Safety Classes	Variable	Town Police Dept.	Schools, DMV	X	X		X	X	X	X		X
Bicycle Safety Brochure	Variable	Town Police Dept.	Schools, DMV		X		X	X	X	X		X

Plans

Plan	Primary Responsible Party	Potential Partners
Update the Tarboro Land Development Plan - bicycle-specific design standards	Town: Public Works	County, Public Works, NCDOT
Update the Tarboro Municipal Code & Zoning Ordinance: - designate urban trail-type facilities	Town: Parks & Rec	Town: Planning, Public Works
- modify street standards	Town: Public Works	Town: Planning, NCDOT
Create a multi-modal Transportation Plan	Town: Planning	Town: Public Works, NCDOT, Edgecombe County, RPO

Policies

Policy	Primary Responsible Party	Potential Partners
Credit bicycle parking.	Town: Planning, Council	Homeowner's Associations, Local Developers
Require inter-connectivity of adjacent developments.	Town: Planning, Council	Development Review Board?
Promote bicycle use for town and government employees.	Town: Human Resources, Planning	Chamber of Commerce, all other Town departments
Coordinate with other bicycle activities in the area.	Town: Planning	Town: Parks & Rec, Chamber of Commerce, Edgecombe County, neighboring counties

**Long-Term
Projects**

Route Name/Segment	Primary Responsibility	Potential Funding Source							
		TEP	SUF	HEP	SIP	GHSP	SDF	STIP –	
								Inc.	Ind.
St. Andrews St. Extension	NCDOT/Tarboro	X	X	X	X	X	X	X	X
Greenway Connection: Daniel to St. James	NCDOT/Tarboro	X					X	X	X
Greenway Connection: Royster to Western	NCDOT/Tarboro	X					X	X	X
McNair: US 64 Alt to Wilson	NCDOT/Tarboro	X					X	X	X
US 258: Daniel St Ext. to Greenway	NCDOT/Tarboro	X		X		X	X	X	X
Greenway Connection: Main St to US 258	NCDOT/Tarboro	X					X	X	X
US 258 South	NCDOT/Tarboro	X		X		X	X	X	X
Industrial Parkway Cross-town Connector	NCDOT/Tarboro	X					X	X	X

Programs

Program Name	Est. Cost	Primary Responsible Party	Potential Partners	Potential Funding Source							
				PR	NP	ED	NCDOT				
							SRTS	TEP	GHSP	SDF	STIP – Inc. Ind.
Bike Day Tarboro	Variable	Town Parks & Rec	Chamber of Commerce, Town: Planning, Police Dept.	X	X	X		X	X	X	X
Historic Tarboro Bike Ride	Variable	Town Parks & Rec	Chamber of Commerce, Town: Planning, Police Dept.	X	X	X		X	X	X	X

Plans

Plan	Primary Responsible Party	Potential Partners
Revise the Economic Development Plan to reflect Tarboro's Bicycle Plan	Chamber of Commerce	Town: Planning
Develop a plan to promote Tarboro as a bicycle-friendly place and eco-tourism attraction	Chamber of Commerce	Town: Planning

Policies

Policy	Primary Responsible Party	Potential Partners
Establish consistent bicycle facilities maintenance.	NCDOT	Town: Public Works, Planning

Section 8: Conclusion

This section reviews the contents of the plan, provides a summary of the Plan's recommendations, and includes a brief discussion of the benefits of the Plan and improving the bicycle-friendliness of the Town.

Table 8. Short-Term Recommendations.

Projects	Programs
Additional bike lane on Northern Blvd	Bicycle Advisory Committee
Northern and Baker: Main St. to Daniel St.	Bike Route Brochure
Baker St.: Daniel St. to MLK Jr. St.	Safe-Routes-to-School Program
Main St.: Western Blvd. to Northern Blvd.	
Daniel St. Cross-town Connector	
Plans	
Update the Tarboro Land Development Plan <ul style="list-style-type: none"> - include prioritized bicycle facilities - insert language to encourage mixed use zoning and discourage strip commercial zoning - provide recommendations for greenways and trails - support strengthened driveway restrictions 	Update the Tarboro Municipal Code & Zoning Ordinance: <ul style="list-style-type: none"> - change minimum driveway length - make bicycle registration free - eliminate parking or motorized vehicle operation in bike lanes
Policies	
Consider bicycle facilities in all road construction and road maintenance.	Require bike parking at all new public facilities.
Include bicycle considerations in all private site plans.	Pursue funding as a top priority.

Table 9. Mid-Term Recommendations.

Projects	Programs
US 64 Alt.: McNair Rd. to Western Blvd.	Bicycle Education & Safety Classes
In-town Roads: MLK Jr. to Albemarle	Bicycle Safety Brochure
St. James St.: Albemarle to Western	
Western: St. James to Northern	
Wilson St. Cross-town Connector	
Plans	
Update the Tarboro Land Development Plan - bicycle-specific design standards Create a multi-modal Transportation Plan	Update the Tarboro Municipal Code & Zoning Ordinance: - designate urban trail-type facilities - modify street standards
Policies	
Credit bicycle parking.	Promote bicycle use for town and government employees.
Require inter-connectivity of adjacent developments.	Coordinate with other bicycle activities in the area.

Table 10. Long-Term Recommendations.

Projects	Programs
St. Andrews St. Extension	Bike Day Tarboro
Greenway Connection: Daniel to St. James	Historic Tarboro Bike Ride
Greenway Connection: Royster to Western	
McNair: US 64 Alt to Wilson	
US 258: Daniel St Ext. to Greenway	
Greenway Connection: Main St to US 258	
US 258 South	
Industrial Parkway Cross-town Connector	
Plans	
Revise the Economic Development Plan to reflect Tarboro's Bicycle Plan	Develop a plan to promote Tarboro as a bicycle-friendly place and eco-tourism attraction
Policies	
Establish consistent bicycle facilities maintenance	

Summary: This section provides an introduction to the Tarboro Bicycle Plan. It includes a brief review of the planning process and the goals of the Plan.



The Edgecombe County Courthouse is one of the many excellent destinations for cyclists who are interested in seeing the beautiful historic buildings in downtown Tarboro.

Section 1. Introduction and Goals

1.1. Introduction and Purpose

The Town of Tarboro Comprehensive Bicycle Plan ("Plan") is the first of its kind in Tarboro. Its purpose is to improve and encourage bicycle transportation in the Town. Begun in August 2005 and completed in May 2006, the Plan was funded by a Bicycle Planning Grant received from the North Carolina Department of Transportation Division of Bicycle and Pedestrian Transportation and intended to serve as the bicycle planning portion of the forthcoming state-wide Comprehensive Transportation Plan. Throughout the planning process, a Stakeholder Committee of residents and Town staff provided guidance and input to create a Plan that will serve the entire Tarboro community.

The Plan focuses on creating a safe biking environment and providing more convenient bicycle opportunities for more people in Tarboro, commuters and recreational riders alike. To this end, the Plan provides: a set of goals for the Town; an assessment of existing facilities and potential assets; a listing of future projects; and, recommendations for safety, education, and encouragement programs. By improving and encouraging bicycle transportation, the Town hopes to increase bicycle usage, which has a variety of benefits, including improved health, better air quality, reduced traffic congestion, and increased attractiveness for visitors and residents alike.

1.2. Goals and Objectives

The following is a listing of the goals and related objectives defined for the Plan. These goals and objectives were created by the Stakeholder Committee as tools to help focus the Plan on Tarboro's needs. Goals, objectives, and success benchmarks should be grounded in realistic expectations but should also be aggressive enough to inspire confidence that the purpose of the Plan will be achieved.

Goal 1: Funding.

Identify adequate funding, existing and future, for all proposed bicycle projects and programs.

***Objective 1:** Create adequate yearly budget to maintain existing facilities.*

***Objective 2:** Establish an on-going process for applying for grants for new facility construction.*

Goal 2: Capital Projects.

Identify and plan for the construction of more bicycle facilities, including more on-street bicycle lanes and off-road bicycle trails, as well as additional bicycle parking and wide outside shoulders on more rural streets.

***Objective 1:** Develop a map of existing and proposed facilities to serve as guidance for future construction.*

***Objective 2:** Outline a feasible timeline for project construction that includes cost estimates and priorities based on community needs.*

Goal 3: Education.

To educate bicyclists and motorists alike about bicycle safety through the distribution of informational pamphlets and brochures, bicycle safety programs through schools and the DMV, and other Town-sponsored group activities such as a bike rodeo or group ride.

***Objective 1:** Continue and expand bicycle safety programs in Edgecombe County Schools.*

***Objective 2:** Create and distribute educational brochures on bicycle safety.*

Goal 4: Maintenance.

To keep well-maintained bicycle facilities where the outside shoulders of roads with marked bicycle routes are kept clean, with no potholes, and off-road trails are swept and maintained throughout the year.

***Objective 1:** Establish a regular maintenance program that will routinely clean and upgrade existing bicycle facilities.*

The Town hopes to increase bicycle usage, which has a variety of benefits, including:

- *improved health,*
- *better air quality,*
- *reduced congestion,*
- *and, increased attractiveness for visitors and residents alike.*

Objective 2: Create a partnership plan to establish citizen-based trail maintenance and bike route maintenance programs to supplement routine Town maintenance.



As part of Goal 6: Access, Tarboro intends to create bicycle access to all destinations, including jobs and shops in downtown Tarboro.

Goal 5: Safety.

To have safe bicycle routes and facilities where children and adults feel comfortable riding their bicycles. In this atmosphere, children have safe bicycle routes to school, bicycles lanes are kept clear of parked cars, and cyclists are respected as viable commuters and travelers on roadways.

Objective 1: Maintain a low bicycle-automobile crash rate as the bicycle network expands in Tarboro.

Objective 2: Make all roads in Tarboro safe enough for all ages to feel comfortable when riding on them.

Goal 6: Access.

To create an inter-connected network of bicycle facilities including marked bike lanes and off-road trails that allow for access to all destinations throughout Tarboro so that residents can travel by bicycle to work, school, and shopping destinations.

Objective 1: Create a network of bicycle routes by 2015 such that all major destinations in Tarboro are accessible by bicycle.

Objective 2: Create development guidelines and ordinances such that all future construction and new destinations are accessible by bicycle.

Goal 7: Policy.

To establish construction and development policies to ensure bicycle facilities are included in all new public and private projects in Tarboro.

Objective 1: Ensure the Bicycle Plan is in compliance and adequate to meet the needs of the bicycle portion of the Statewide Comprehensive Transportation Plan.

Objective 2: Design development policies for all new construction: public and private, to include consideration for bicycles.

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Summary: The following section serves to establish the context for the Plan and identify Tarboro's current bicycle needs. The section includes:

- a review of Tarboro's population demographics;
- a crash analysis;
- a description of the Town's existing bicycle related facilities;
- and, a summary of the Tarboro Bicycle Survey results.

Section 2. Evaluating Current Needs

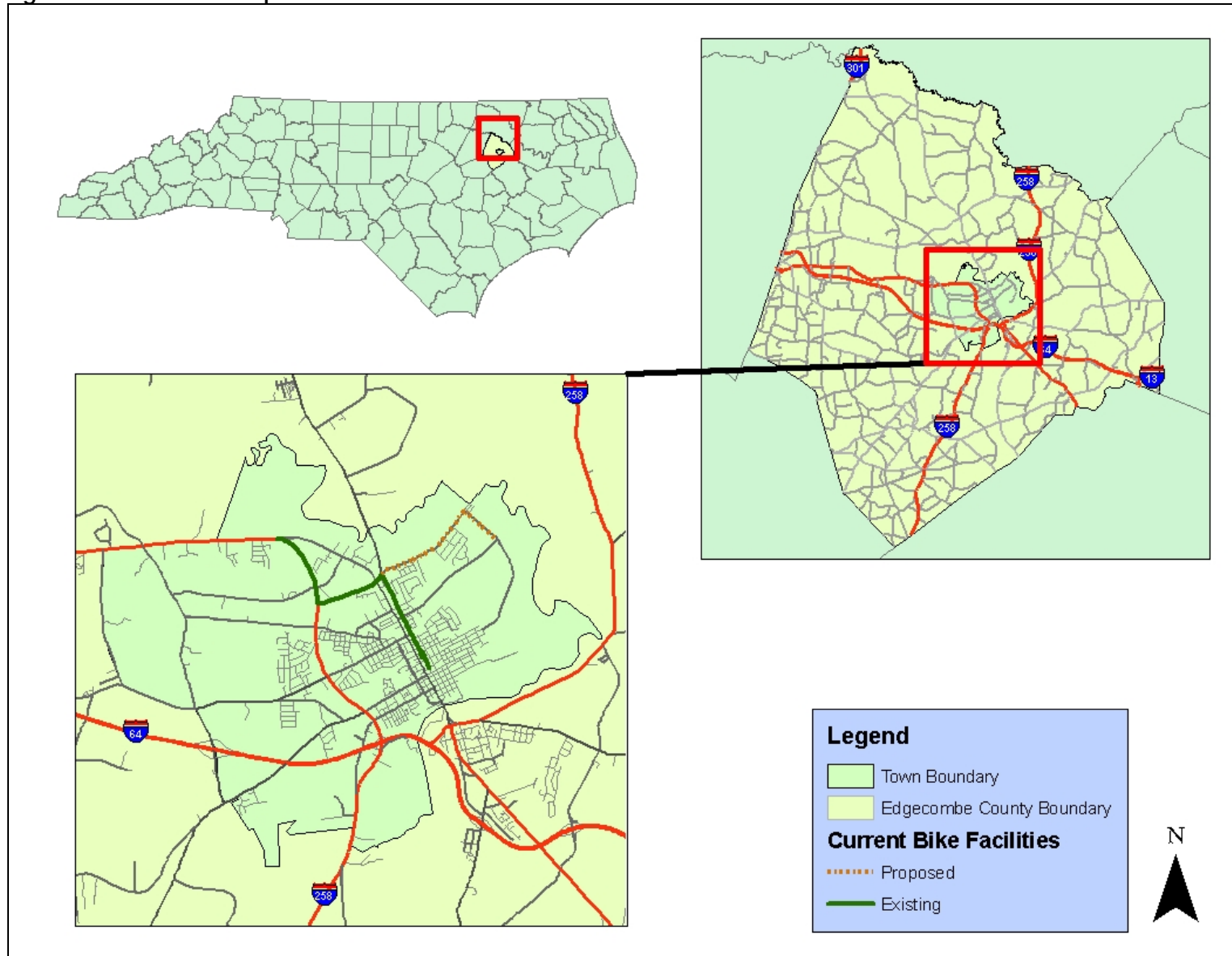
2.1. Context for Tarboro Bicycle Plan

The following section serves to establish the context for the Tarboro Bicycle Plan and identify Tarboro's current bicycle needs. First, a demographic analysis focuses on the Town population's travel behaviors and income levels, which are characteristics that often suggest a person's propensity to travel via bicycle. Next, a review of existing conditions in Tarboro addresses the Town's existing facilities, particularly its existing and proposed bicycle facilities as well as complimentary items such as land use, recreation facilities, and schools. Then, a crash analysis provides an overview of bicycle-automobile crashes from 2001 to 2003 to develop an understanding of the safety needs in Tarboro. Finally, a discussion of survey results summarizes the results of the Tarboro Bicycle survey conducted from September to November 2005 as part of the Plan. A clear understanding of existing conditions – both of the population and the bicycle facilities in Tarboro – as well as perceived needs, as revealed through the survey results, will help the Plan to identify and address the bicycle needs of the Town.

2.2. Tarboro Characteristics

Incorporated in 1760, Tarboro, North Carolina is known as one of the oldest towns in the United States. The Town of Tarboro, population 11,138 people (2000 US Census), is located in Edgecombe County and has long been noted as a prime location for work and livability. Encompassing 11.10 square miles, Tarboro is neighbored by Princeville, which is less than two miles to the east (population 2,029), and Rocky Mount, about 16 miles to the west (population 55, 893). Tarboro's key industries include food processing, plastics, fertilizer, textiles and communications. As the county seat, Tarboro is also at the center of one of North Carolina's finest agricultural areas, producing tobacco, cotton, peanuts, and corn.

Figure 2 - 1. Location Map of Tarboro in North Carolina.



*In general, this demographic analysis indicates that alternative modes of transportation, **such as cycling**, may benefit the Tarboro community.*

2.2.1. Tarboro's Residents: Demographics

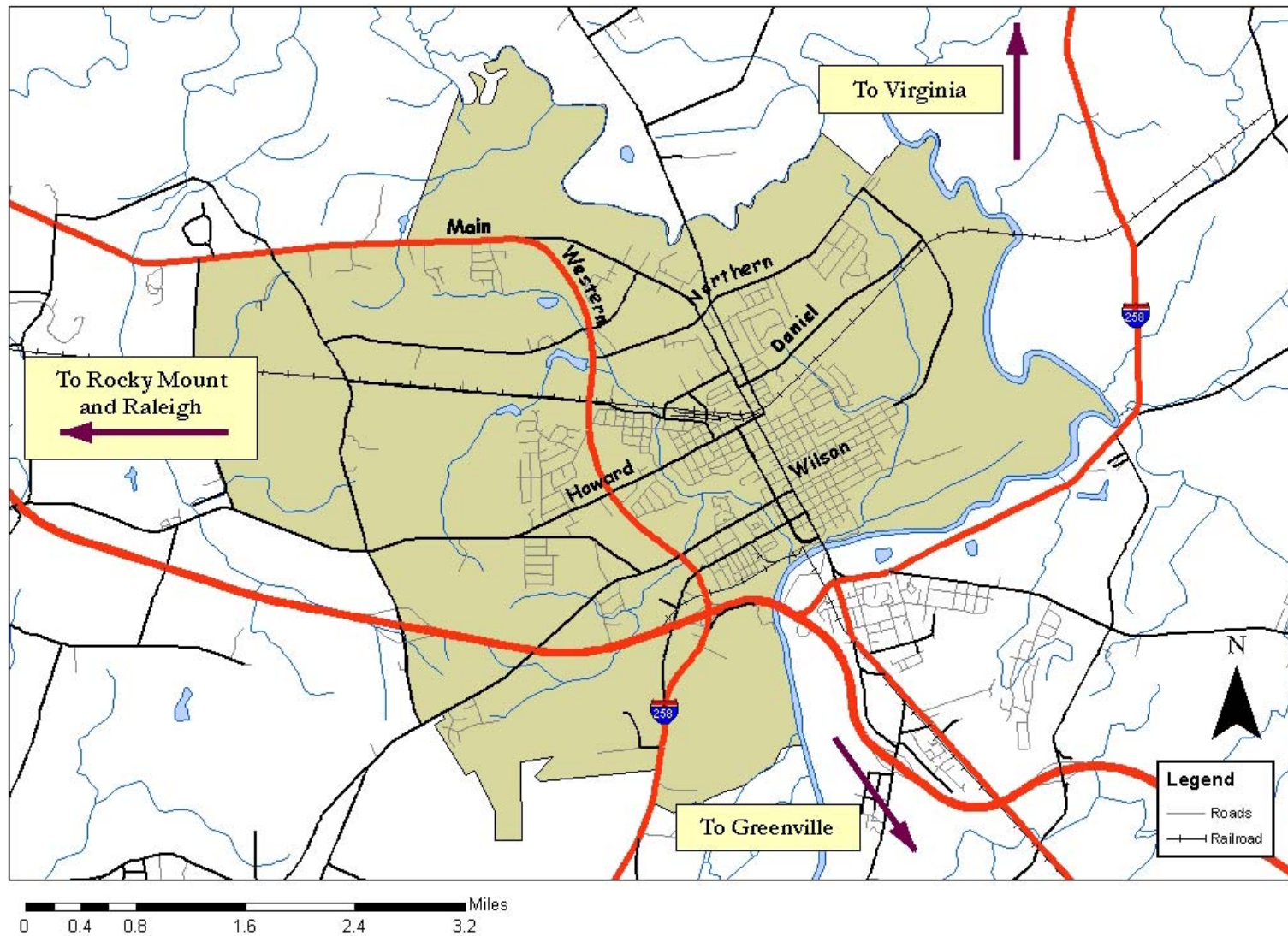
It is important to look at current demographic trends in Tarboro to facilitate the development of a plan that appropriately addresses Tarboro's needs. A thorough analysis of Tarboro's demographics is contained in Appendix 4. Most notably, the demographic analysis found that up to 14.5 percent of Tarboro's households have no vehicles available. This percentage is higher than those reported for the state (6.7 percent) and nation (9.4 percent). In addition, commute time for the majority of the population residing in Tarboro ranges from 5 to 14 minutes, suggesting that Tarboro residents do not travel far to get to work. In general, the demographic analysis indicates that improving cycling in Tarboro would benefit its residents, especially those without a car. In addition, Tarboro residents with shorter commutes would be able to take advantage of bicycle improvements, not only for recreation but also for commuting and travel to specific destinations.

2.3. Existing Conditions

2.3.1. Major Roads

Figure 2 - 2 shows major roads in Tarboro. As can be seen, Tarboro is connected to the eastern North Carolina region via US 64 and US 64 Alt., US 258, and NC HWY 33. US 64 and US 64 Alt. provide access west to Rocky Mount and Raleigh, and east to Manteo, Nag's Head, and the coast. US 258 is a north-south route that provides access to the North Carolina-Virginia State line in the north and to Kinston and Jacksonville in the south. NC Hwy 33 connects Tarboro in the north to I-95 and south to Greenville, NC. Major east-west corridors within Tarboro include: Howard Ave, Wilson St, and Northern Blvd, and major north-south corridors include: Main St., Western Blvd, and St. Andrews St.

Figure 2 - 2. Major roads in Tarboro.



2.3.2. Currently Existing and Proposed Bicycle Facilities

Tarboro has three major bicycle routes, as shown in Figure 2 - 3. They are:

- **St. Andrews St. Route:** Consisting of signed and marked bike lanes, this route runs north-south through downtown Tarboro and ends at the intersection of Park Ave. and St. Andrews St. At its northern end, the route connects with the Northern Blvd. bicycle route at the intersection of Northern Blvd. and St. Andrews St.
- **Northern Blvd. Route:** This route connects the northern end of the St. Andrews St. Route to the Western Blvd. Route. This facility consists of *one*, signed bicycle lane with pavement markings (see *Image 1*).
- **Western Blvd. Route:** This route also consists of signed and marked bike lanes, on both sides of the road. It runs north-south from the intersection of Western Blvd. with US 64 Alt. to the intersection of Northern Blvd. and Western Blvd (see *Image 2*).

Combined, these routes provide access between downtown Tarboro and the Indian Lake Sports Complex northwest of town. The routes also provide access to some shopping along St. Andrew St. and the health services complex north of town.

A top priority that should be addressed is the lack of a second bike lane on Northern Blvd. Only one bike lane on a road suggests that cyclists should ride in the bike lane when traveling in either direction. Bicycling against traffic flow is a highly dangerous activity and should be strongly discouraged.

The condition of Tarboro's bike routes is average: although the routes are relatively new, some of the markings have already begun to lose their paint and the condition of the pavement is deteriorating with grass showing through.

Currently, Tarboro also has a proposed route for Northern Blvd. east of its intersection with St. Andrews St. This proposed route will turn south onto Baker St. and then connect with the future Daniel St. Extension. On Daniel St. Extension the route is proposed to run to US Highway 258 across the Tar River.

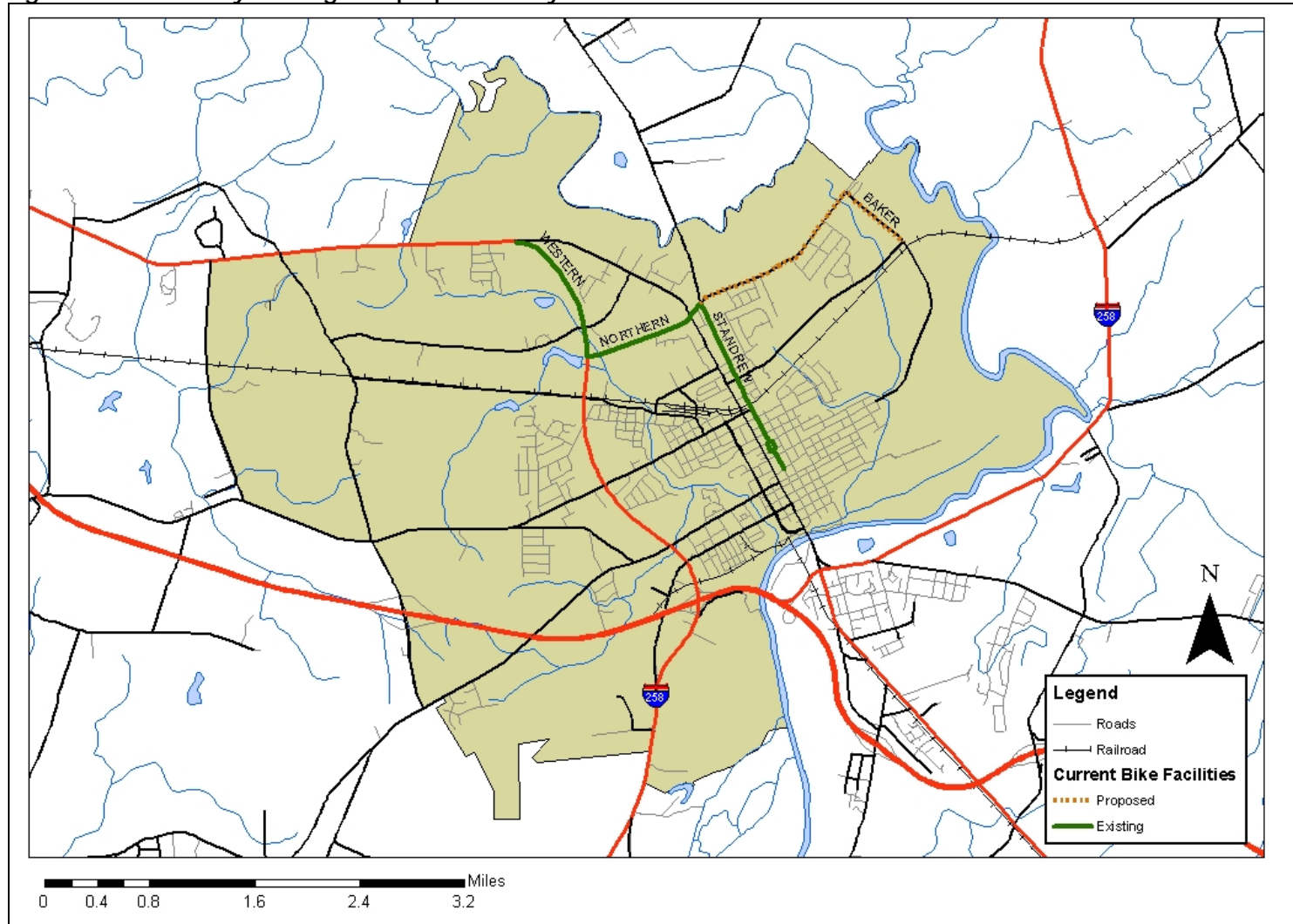


Image 1. Bike lane on Northern Blvd. near the intersection with Whitehall Rd.



Image 2. A fading bike lane marking on Western Blvd.

Figure 2 - 3. Currently existing and proposed bicycle routes in Tarboro.



2.3.3. Bicycle Suitability

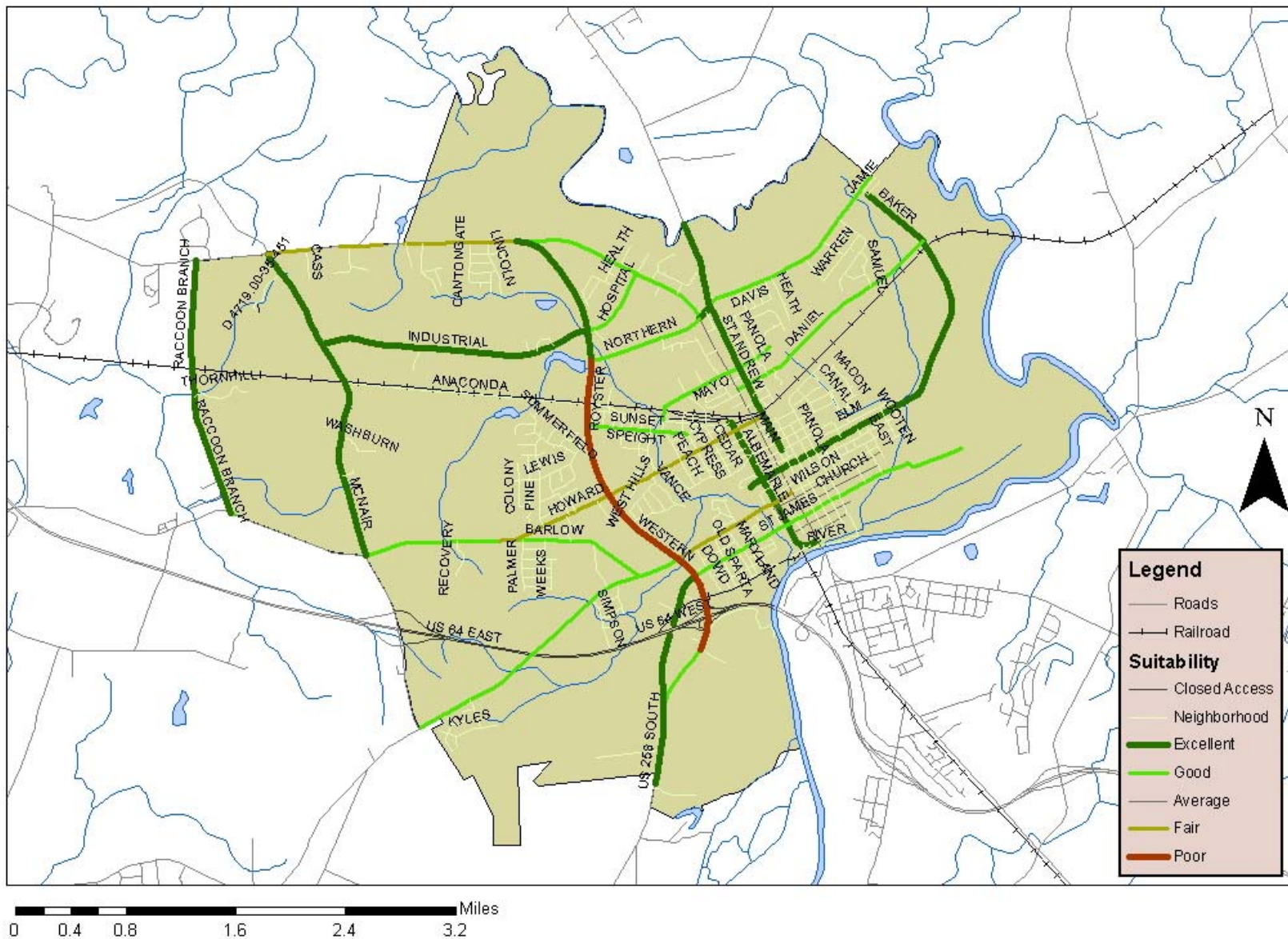
Figure 2 - 4 shows a map of the suitability of the roads in Tarboro for bicycle use. Roads in Tarboro serve a wide range of bicyclists with a wide range of abilities. This map is targeted towards the suitability of the roads in Tarboro for an adult cyclist who rides on a regular basis for either recreation or suitability, is in good health, and is fairly accustomed to riding in traffic.

Road suitability is categorized into the following levels:

Restricted Access	Restricted access roads are roads such as highways and interstates upon which it is illegal for cyclists to ride.
Neighborhood	A neighborhood street is located in a primarily residential area and characterized by low traffic volumes. This is a street typically found in a subdivision and would be comfortable for children to ride.
<i>All Others...</i>	
Excellent	wide outside lanes or bike lanes, low traffic volumes, low traffic speeds, minimal driveways/intersections/entering traffic.
Good	wide outside lanes or bike lanes, two or more of the following characteristics: low traffic volumes, low traffic speeds, minimal driveways/intersections/entering traffic
Average	may or may not have adequate space for bikes, one or more of the following characteristics: low traffic volumes, low traffic speeds, minimal driveways/intersections/entering traffic
Fair	may or may not have adequate space for bikes, may or may not have low traffic volumes, low traffic speeds, minimal driveways/intersections/entering traffic
Poor	may or may not have adequate space for bikes, high traffic volumes, high traffic speeds, many driveways/intersections/entering traffic

An examination of the bicycle suitability of Tarboro's roads allows for the identification of those roads that are in the most need of improvements to make it safer for cyclists to ride on them. Some of these roads include Western Blvd, Howard Ave, and Wilson St.

Figure 2 - 4. Bicycle Suitability of Tarboro's Roads.



2.3.4. Schools

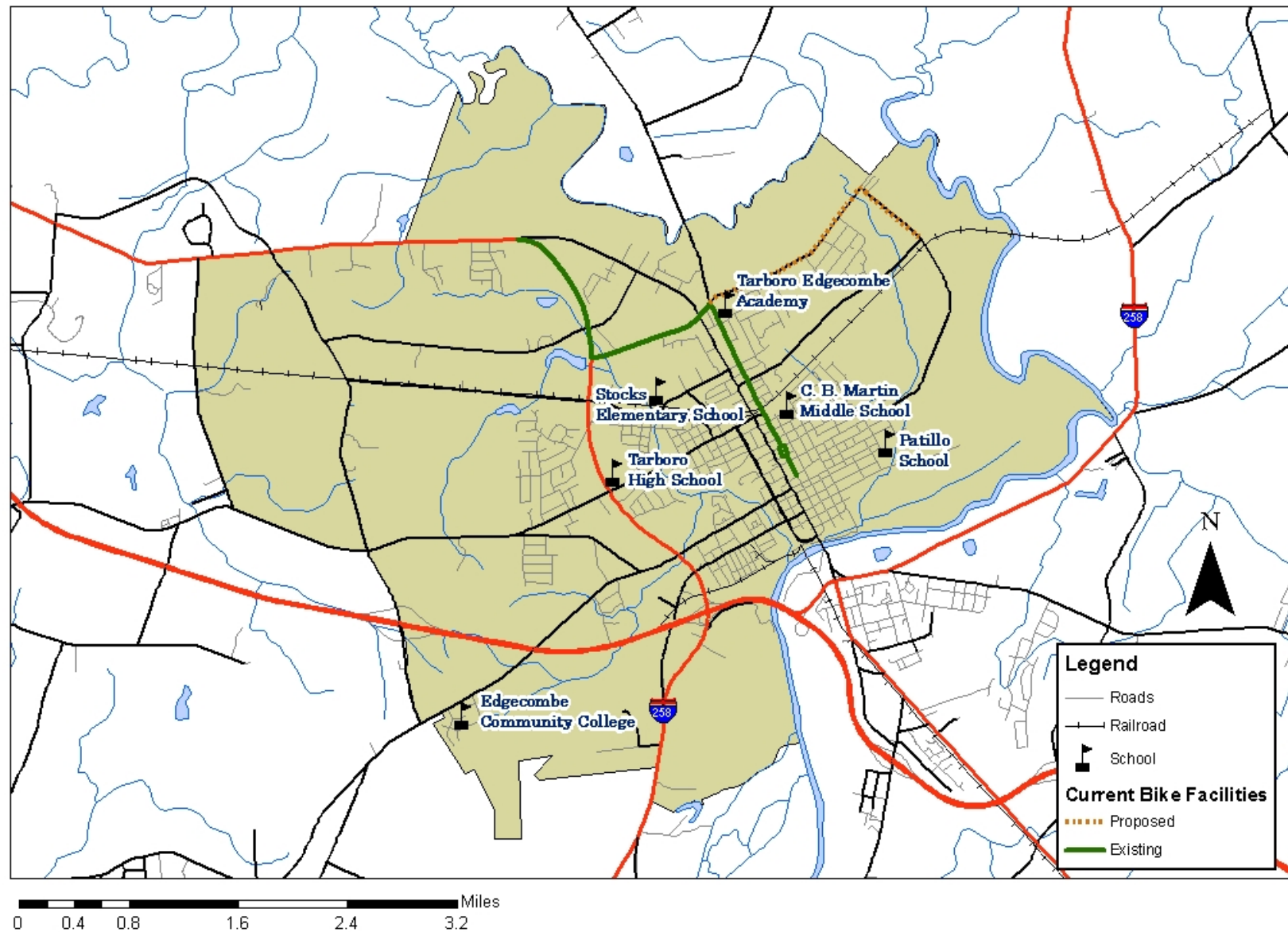
Tarboro is part of the Edgecombe County School System, which consists of 7,645 students and 1,075 staff overall and 2,481 students and 287 staff in Tarboro. There are 4 public schools in Tarboro and one private school, Tarboro Edgecombe Academy (see Figure 2 - 5). The public schools are as follows:

- Tarboro High School
- C. B. Martin Middle School
- Stocks Elementary
- W. A. Patillo A+ Elementary School

Currently, none of Tarboro's schools are on existing bicycle routes. There are bike racks for bicycle parking at C. B. Martin Middle School.

Tarboro is also home to the main campus of Edgecombe Community College (ECC). The Tarboro campus of ECC is located southwest of town and comprises 120 acres and 8 buildings. Its average semester enrollment is approximately 1,000 students for fall and spring classes and 500 students for summer. Currently, ECC does not have bicycle racks or other bicycle-related facilities at the campus, however, the school would be more than willing to work with the Town to accommodate any future bicycle-related facilities.

Figure 2 - 5. Public Schools in Tarboro.



2.3.5. Recreation Facilities

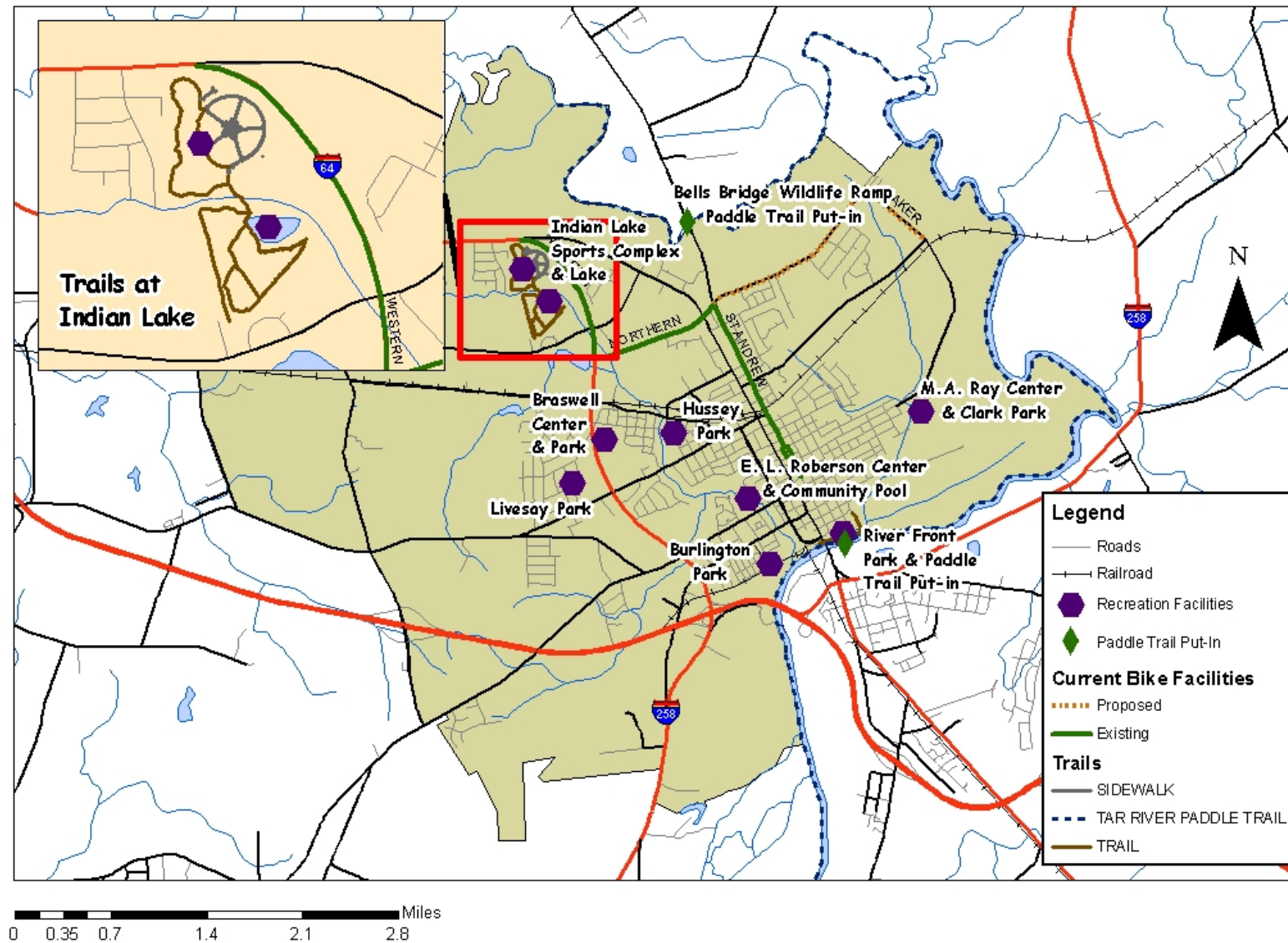
The Town's Parks and Recreation Department manages the following recreational facilities, also shown in Figure 2 - 6:

- **Community Centers:**
 - **Braswell Center** – includes gym, fitness room, meeting room, and basketball courts
 - **M. A. Ray Center** – includes basketball courts and meeting rooms
 - **E. L. Roberson Center** – a senior center with meeting rooms to host activities and events
- **Parks:**
 - **Riverfront Park** – a park with picnic facilities and boat ramp for fishermen and boaters
 - **Indian Lake Park** - a 52-acre recreational park with amphitheater, jogging trails, lake and paddle boats
 - **Braswell Park** – a park with playground equipment, picnic tables, tennis courts, and a ballfield
 - **Neighborhood Parks** - Burlington Park, Clark Park, Hussey Park, and Livesay Park
- **Indian Lake Sports Complex** a major outdoor recreation facility with multi-purpose athletic fields, baseball fields, tennis courts and spectator seating

There are uncovered, metal bicycle racks located at both M.A. Ray Community Center and the Braswell Center.

Tarboro is also in the process of establishing itself as a part of the Tar River Paddle Trail. The trail is approximately 30 miles long and runs from the Dunbar Wildlife Ramp northwest of Tarboro to Old Sparta south of the town. The Tarboro portion of the trail is 10 miles long and includes put-ins at Bells Bridge Wildlife Ramp on NC 33 and at River Front Park in downtown Tarboro.

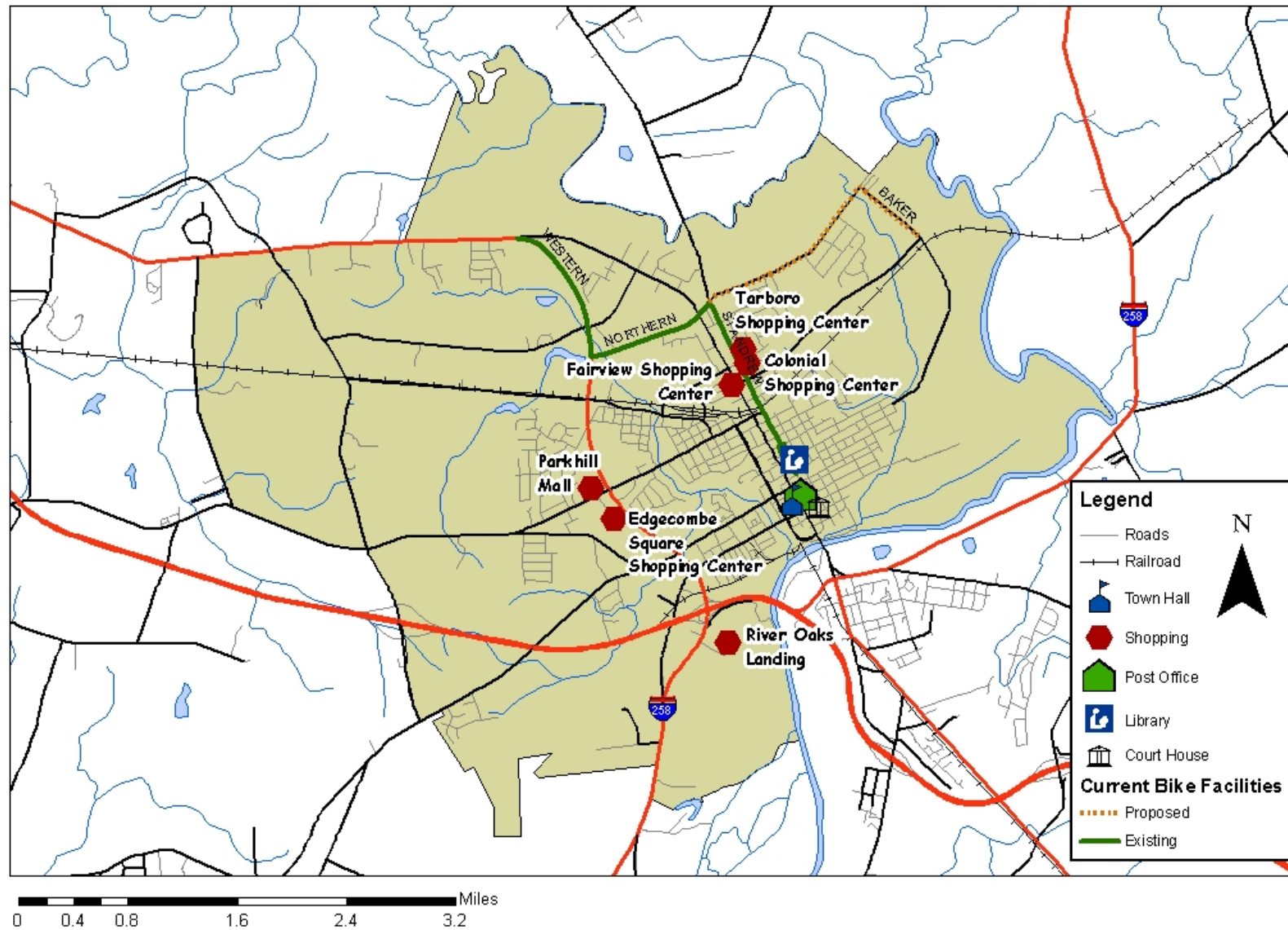
Figure 2 - 6. Recreation facilities in Tarboro.



2.3.6. Other Attractions

Other potential destinations for cyclists include shopping centers and commercial areas, Tarboro's Downtown, major employers, and historic sites. Tarboro has six major shopping centers: Fairview Shopping Center, Colonial Shopping Center, Tarboro Shopping Center, Parkhill Mall, Edgecombe Square Shopping Center, and River Oaks Shopping Center. Figure 2 - 7 shows the shopping centers as well as the post office, library, town hall, and court house in Downtown Tarboro. Other major destinations include the medical complex north of town on Main St. and the Sara Lee factory southwest of town. All of these destinations should eventually be accessible by bicycle, and making them accessible will reduce traffic congestion and improve air quality and public health.

Figure 2 - 7. Major destinations in Tarboro.



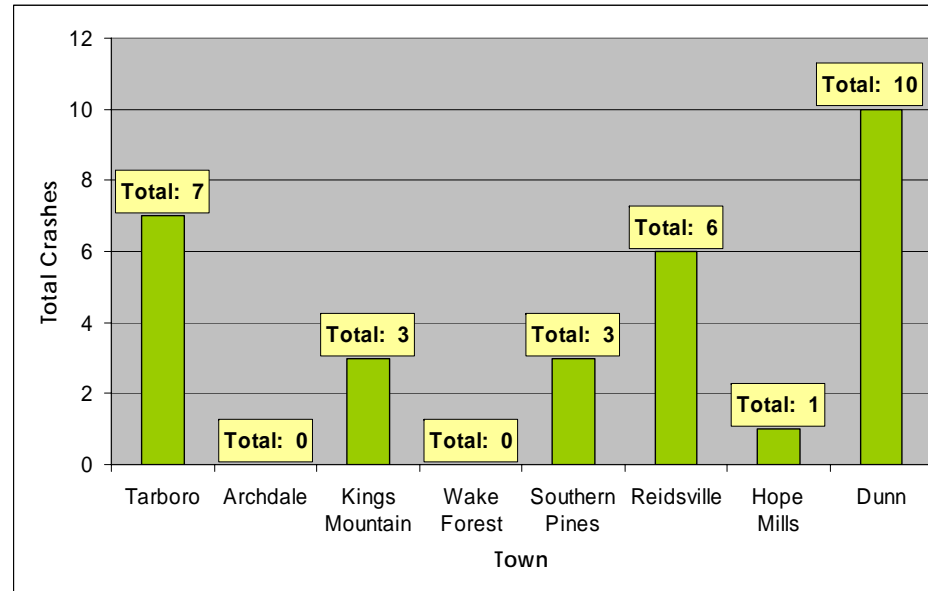
2.4. Tarboro Bicycle-Automobile Crashes

2.4.1. Crash Analysis

Tarboro has had seven bicycle-automobile accidents between January 1, 2002 and December 31, 2004 (see Figure 2 - 9). Five accidents were Type C severity (possible injuries) and two were Type B (evident injuries); no accidents were Type A severity (disabling injuries). Figure 2 - 8 shows a comparison of bicycle accidents in North Carolina towns of similar size to Tarboro from 2002 to 2004. From these results, it can be seen that the Town has a low rate of bicycle-automobile accidents, and that few of these accidents are severe. Two out of the six accidents occurred on Main Street, a road without bicycle facilities which parallels St. Andrew Street - a road with bicycle facilities. This suggests that some cyclists continue to use Main Street rather than St. Andrew Street for travel – perhaps either because they are unaware of the bicycle facilities on St. Andrew Street, or because there are better destinations on Main St. Further analysis finds that only two out of the six accidents occurred near dusk or at night and only one accident involved alcohol. This is notable considering that darkness and alcohol are often found to be contributing factors in bicycle accidents.

Tarboro has a low rate of bicycle-automobile accidents, and few of them are severe.

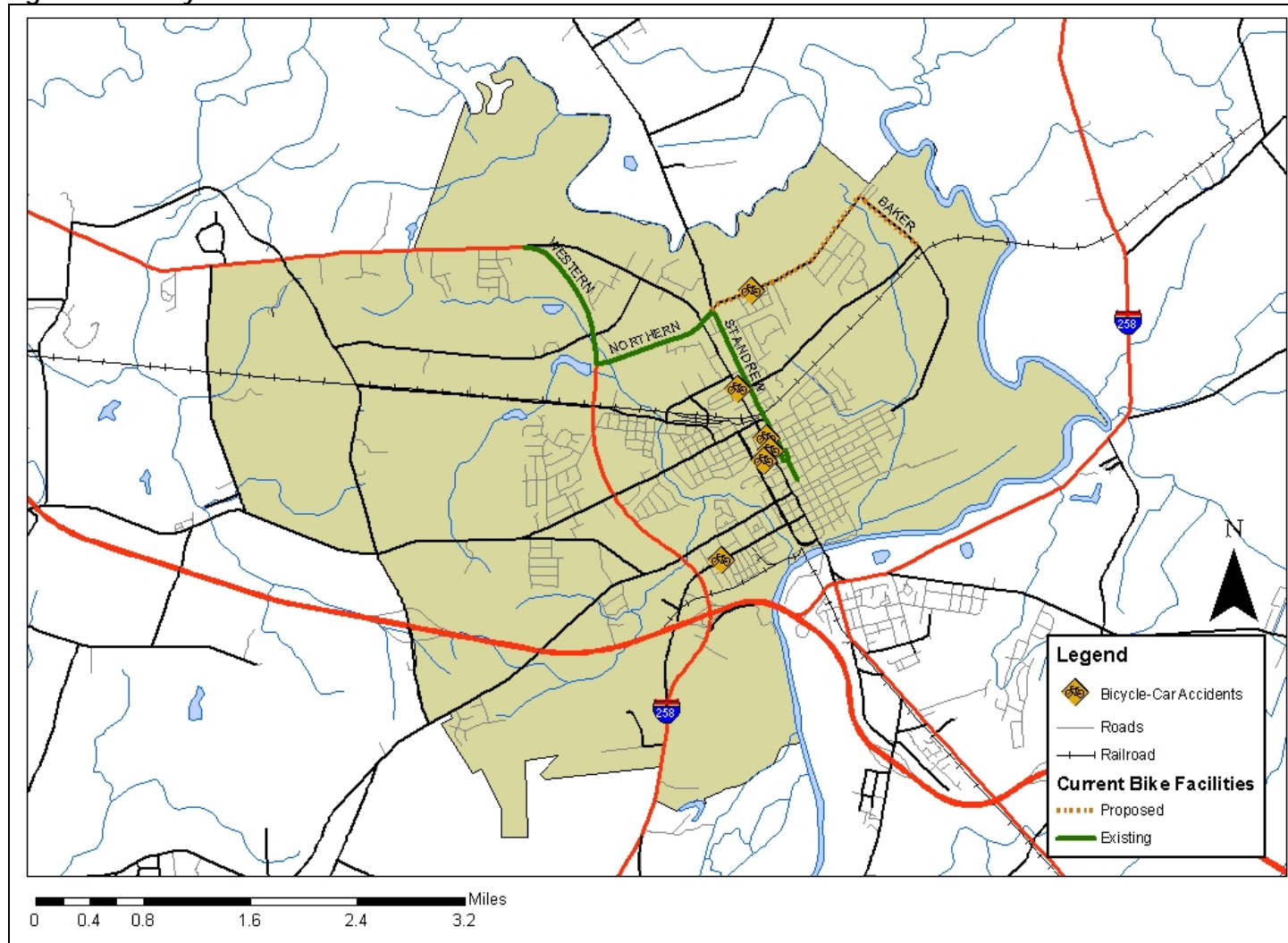
Figure 2 - 8. 2002 – 2004 Tarboro crash accident comparison with similar sized NC towns.



2.4.2. Recommendations

While Tarboro does not seem to have a problem with accident severity or night-riding safety, the Town could still consider programs to raise awareness about the need to use protective equipment such as helmets at all times and to use reflective equipment at night. The Town should also consider investigating the reason for bicycle travel on Main St. when a bicycle route is available on the parallel St. Andrew St. If cyclists are unaware of the presence of the St. Andrew St. route, the Town could increase signage on nearby roads, such as Main St., that direct cyclists to St. Andrew St. and other bicycle routes. Cycling on existing routes is often much safer than cycling on roads without bicycle facilities. If cyclists are riding on Main St. because it has more destinations than St. Andrew St., the Town may wish to consider putting bicycle lanes on Main St. as well.

Figure 2 - 9. Bicycle-automobile accidents in Tarboro from 2002-2004.



2.5. Public Involvement

2.5.1. Public Involvement throughout the Plan

Public involvement for the Bicycle Plan was a two-pronged process. First, a Stakeholder Committee was created to serve as a guide and to provide input throughout the planning process. Members of the Stakeholder Committee are as follows:

Name	Representing
David Bender	NCDOT Division of Bicycles and Pedestrians
Paul Black/Chris Lukasina	Upper Coastal Plains Council of Governments
David Cashwell	Town of Tarboro Public Works
Robert Cherry	Tarboro Police Department
Al Hull	Tarboro Citizen
Ronnie Keeter	NCDOT District 1
Troy Lewis	Town of Tarboro Planning Department
Earl Miller	Tarboro Planning Board
John Moore	Tarboro Engineering
Jenny Newton	Edgecombe County Health Department
Sam Noble	Tarboro Town Manager
Lee Perry	Town of Tarboro Parks and Recreation
David Smoot	Tarboro Town Council
Billy Whitaker	Tarboro Fire Department
Matt Whittle	<i>The Daily Southerner</i>

The public involvement process helped gather input for the Plan about the Town's needs and helped generate ideas for new projects.



Image 3. *Members of the Stakeholder Committee meet to discuss a draft of the Plan. The Stakeholder Committee served as a guide throughout the planning process.*

Second, a public outreach effort was established which included a Public Workshop held at the beginning of the Plan and a survey to gather public input. Flyers about the public workshop and surveys were distributed via the Town's utility bill in the months of September and October. Sample flyers and surveys are available in Appendix 1. The survey was also available online during the months of September and October and could be accessed via:

the Town website - <http://www.tarboro-nc.com/>

or via a direct link - <http://www.keysurvey.com/survey/78701/157c/> .

Tarboro Bicycle Plan

Section 2: Evaluating Current Needs

The public workshop was held on October 25, from 6 – 8 PM at the Braswell Center in Tarboro. Flyers and a presentation from the workshop are also available in Appendix 2. The workshop was also advertised via the *Daily Southerner* and local radio stations including:

- WCPS 760 AM
Gospel Music, Radio
- WRMT 1490 AM, 98.5 FM, 99.3 FM, 95.5 FM
Sports, Radio
- WEED 1390 AM
Spanish, Radio
- WUNC 91.5 FM
Public Radio, Radio

The public involvement process helped gather input for the Plan about the Town's needs and helped generate ideas for new projects.

2.5.2. Survey Results

The following is a summary of the results of the Bicycle Survey conducted during the planning process. While the respondents to this survey did not represent a statistically random sampling of the Tarboro population, the results of the survey are still useful for identifying the general needs of the Tarboro community. A complete summary of survey results can be seen in Appendix 3. Overall, the survey received a total of 263 responses: 191 handwritten and 72 online. Of the online responses, 64 were from students at Edgecombe County Schools. These responses were analyzed separately.

Notable results were:

Where, when, and why respondents ride: The top three purposes for cycling were: 1. Recreation, 2. Exercise, and 3. Family Event. Most cyclists ride their bikes on both weekends and weekdays, but more cyclists ride their bikes in only good weather rather than all year-round. Most cyclists ride in their neighborhood, followed by to or in a park, and then to a library. Most cyclists ride on local roads and St. Andrews Street and they avoid major roads such as Western Blvd., Howard Avenue, and Main Street.

*Most survey respondents would ride more if there were more **marked trails** and if they felt **safer on the roads**.*

Cyclists would ride more if: Most respondents indicated that they would ride more if there were more marked trails. The next greatest percentage of respondents indicated they would ride more if they felt safer on the roads.

Respondents' sense of safety and comfort when riding: Forty-one percent of respondents indicated they felt safe riding in Tarboro, but 35 percent indicated they do not. Of those respondents that did not feel safe riding on the roads in Tarboro, the greatest number indicated that this was because they felt that motorists did not respect cyclists. The second main reason that respondents do not feel safe on the roads is because they feel there are too many speeding vehicles and too much traffic.

*Most respondents **do not wear** helmets when they bike.*

Helmet Usage: The majority of respondents do not wear helmets when they bike. Out of adult respondents, 37 percent do not wear a helmet; out of student respondents, 56 percent do not wear a helmet. Although the most commonly stated reason for adult respondents is because they do not own one, this may mask the fact that they do not own helmets because they don't think they are necessary.

*Most respondents felt that Tarboro needed **more bike parking racks**.*

Bike Parking Needs: Over 50 percent of adult respondents and over 87 percent of student respondents indicated they felt that Tarboro needed more bike parking racks.

Major conclusions that were made from the survey results are as follows:

1. **The Plan should focus on constructing more off-road bike trails and on-road facilities.** New off-road bike trails and on-road bike facilities will allow for more access to other locations, which may result in more cycling for recreation and perhaps more cycling for utilitarian purposes as well. These new bike trails and facilities should also focus on locations like schools and libraries to provide improved access.
2. **New on-road bike facilities should be created on major roads that make them safer and more comfortable for cyclists, or new on-road bike facilities should be created on paralleling non-major roads so that cyclists can avoid heavy traffic.**
3. **The Plan should include the creation of programs to promote bicycle safety and awareness.** A bicycle safety program would foster greater helmet use in cyclists, young and old. This indicates that a bicycle awareness program should be in order to promote better cyclist and motorist relations.
4. **The Plan should contain provisions for new bike racks.** More bike parking racks may also promote bike travel to locations like shops, work, and school.

Since this survey was not a true random sampling of Tarboro residents, some of its results may be skewed. In particular, it should be noted that although most respondents ride for recreation, there still may be a large proportion of cyclists who ride for utilitarian reasons that may have gone unrepresented in the survey. As a result, it should be important to keep in mind the different types of needs (such as the need for more bicycle parking racks and access to shopping and work) of those people who ride for utilitarian purposes as well as the needs of those that ride recreationally. In addition, the majority of the respondents for this survey are within the 40 – 59 years old age range. This indicates that the survey results may not represent adequately the needs of younger cyclists. Respondents' feelings of safety and frequency of bicycle use may be skewed towards an adult perspective – someone who may feel safer, and may use a bicycle less because they drive a car. The needs of younger cyclists, such as bicycle safety zones near schools and more access to schools, libraries, and other youth centers, should still be considered strongly in the Plan.

2.6. Summary

As can be seen in this chapter, Tarboro has a good start to its bicycle facilities. It has an existing bicycle route and a well-planned addition. Tarboro's population demographics shows that it is a community that would be open to more biking – especially for recreation purposes – and the Town's low crash rate shows that the area is relatively safe for biking currently. As can be seen from the inventory of Tarboro's existing facilities, any new bicycle routes should go to Tarboro's major destinations, which are schools, parks, shopping, and Downtown. Tarboro's major needs are as follows:

1. **New Facilities:** Tarboro needs new bike routes, both as on-road bike lanes and off-road bike trails, as well as new bike racks at all major destinations.
2. **Improved existing facilities:** Tarboro should add a second bike lane to the portion of Northern Blvd. which currently has a bike lane in only one direction. This will serve to discourage cyclists from riding against traffic flow.
3. **Safety and Awareness Programs:** Tarboro should create bicycle programs that raise awareness about bicycle safety and increase helmet usage while also improve relations between cyclists and motorists.
4. **Plans for Implementation:** In order to create these new facilities and new programs, Tarboro needs a plan that outlines the implementation process for constructing these facilities and creating new programs.
5. **Additional Plans and Programs:** Tarboro's future plans should support bicycling in the Town, and also support the recommendations of this Plan. In addition, Tarboro should establish additional programs that will support bicycling in the Town.

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Summary: This section reviews existing plans, policies, and programs that may relate to Tarboro's Bicycle Plan. The section also provides recommendations to those plans and policies that may improve bicycling conditions in Tarboro.

Section 3. Existing Plans and Recommendations

An important part of constructing a comprehensive planning document is to review the work contained in other documents and related plans that may influence recommendations by the Bicycle Plan for new programs, policy directions, and project development. This section reviews existing plans that effect cycling in Tarboro, and also provides recommendations for improvements to the existing plans by the Town of Tarboro and its government partners in order to better support cycling.

3.1. Existing Plans

The following planning documents were reviewed as part of the Tarboro Comprehensive Bicycle Plan:

- *Land Development Plan Update: Edgecombe County, North Carolina, 1997 – 2007*, adopted September 8, 1997.
- *Tarboro Land Development Plan Update*, adopted December 10, 1990.
- *Resolution for Bicycle Plan*, adopted November 8, 2004.
- *Map of Existing Tarboro Bicycle Routes*, August 17, 1999. Town of Tarboro Public Works Department, Engineering Division.
- *Map of Proposed Bicycle Route Picnic, Parking Area, and Canoe Landing*, dated August 25, 1999. Town of Tarboro Public Works Department, Engineering Division.
- *Town of Tarboro Zoning Map*. Town of Tarboro Public Works Department, Engineering Division.
- *Thoroughfare Plan*, dated August 4, 1964.
- *Tarboro Commerce Center Master Plan*, date unknown. Carolinas Gateway Partnership.
- *Tarboro Municipal Code and Zoning Ordinance*.

The intent of this review was to identify areas that may support, hinder, or otherwise influence the recommendations in this plan. The following descriptions of these planning documents are thus limited to areas that are relevant to bicycle planning, facility construction, or implementation.

Land Development Plan: Edgecombe County, North Carolina, 1997 – 2007, Benchmark, Inc. Adopted September 8, 1997. This is a comprehensive planning document for Edgecombe County, which includes the Town of Tarboro. This plan updated the 1990 version of the Plan, which in turn updated an earlier 1983 edition. Its purpose is to outline the land development goals and land classification system for Edgecombe County. The Land Development Plan also covers the then-current demographic information to produce a profile of the County. The Plan does not recommend mixed use zoning, which is now not allowed in the Edgecombe County zoning ordinance. However, the Plan does suggest that strip commercial zoning is not always desirable, and that the Edgecombe County Subdivision and Zoning Ordinances should be rewritten. Mixed use zoning is beneficial for promoting bicycle use in a town because it creates developments of various types in close proximity to each other. An example of this would be a mixed use development that includes shopping, commercial and residential uses all within the same site. This encourages bicycle use by reducing travel distances and increasing the types of destinations for a cyclist in a central location. Strip commercial zoning is undesirable in a bicycle-friendly town because it often results in high traffic roadways with many driveway access points – situations that are often dangerous for cyclists.

Tarboro Land Development Plan Update. Adopted December 10, 1990. The purpose of the 1990 Land Development Plan is to reevaluate and update key elements of the 1983 Plan such as land development goals and objectives, existing land use patterns, natural and man-made factors affecting land use, and land use trends. The Plan provides an analysis of existing conditions in Tarboro, a fold-out Land Development Plan map with a summary narrative, and recommendations for implementing the plan.

Key points of the Plan that may influence bicycling in Tarboro include:

1. Recommendations for protection of environmentally sensitive areas through the provision of open space in private developments; preserving land for future recreational and institutional uses; and, limiting development in flood plains. While these recommendations restrict

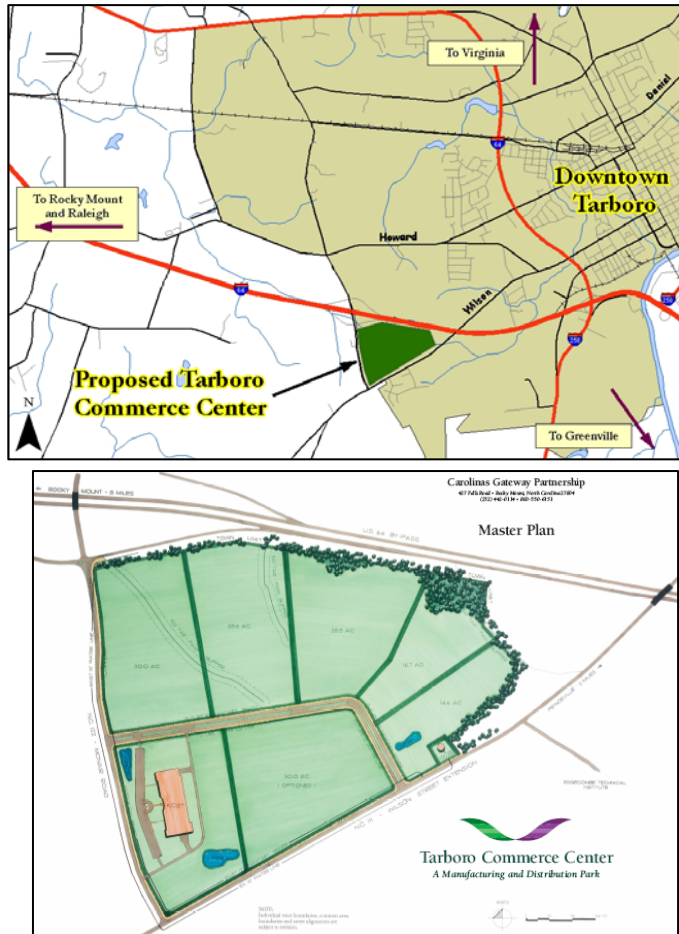
development, they provide opportunities for low-impact uses such as bicycle trails and greenways in these areas.

2. Recommendations for in-fill and multi-family moderate density development as well as support for mixed-use, planned development. This type of development is supportive of bicycling because it reduces travel distances and provides more destinations for more people in greater proximity to each other.
3. Recommendations to create driveway standards for commercial developments that would require access through service drives, prevent multiple driveways on a single lot, and control the spacing of driveways on major roads. These standards are beneficial for bicyclists because they make riding safer by reducing potential vehicle-bicycle conflict areas such as intersections.

Tarboro Municipal Code and Zoning Ordinance. The Tarboro municipal code can be found on the internet¹, and describes local laws and regulatory authority over the use of land and public infrastructure. The chapters titled “Streets” (Chapter 16) and “Traffic: Bicycles” (Chapter 19, Article VII) are emphasized in this review.

- Section 16-7. Vehicles on Sidewalks. This section prohibits any wheeled vehicle from being used on a public sidewalk. In some instances, Tarboro may wish to designate an urban trail-type facility that does allow bicycles on wide (8' – 10') “sidewalks.”
- Section 16-68. Number and Width of Drives. The current Tarboro regulation specifies 50' as the maximum width for two-way operations. The recommendation is to reduce this to a maximum of 36' for two-way operations and 24' for one-way driveways, stipulating that the need for wider driveways will be determined on a case-by-case basis.² Driveway angles should be specified as 90° or as close to 90° as possible given site limitations. Driveways should be a minimum of 100' apart measured from the centerlines, and 600' apart on major thoroughfares and arterials. Smaller and less-frequent driveways reduce the number of potential conflicts between cyclists (and pedestrians) and motorists, improving the safety for both.

- Depth of Driveways (Driveway “Throats”). No mention is made either in the NCDOT Policy or in the Tarboro Municipal Code about the depth of driveways, (e.g., the distance between the street curblin and the closest point where a car can turn off of the driveway in the site). Having a longer throat length is critical to keeping cars out of the through travel lanes and preventing turning-through vehicle conflicts for cyclists and motorists alike. The recommended minimum herein is 50’, with longer distances (minimum of 90’) being desirable for high-turnover and high volume locations (more than 1,000 vehicles/day). Very high traffic generators (e.g., over 200,000 square feet of gross leasable floor area) may require a driveway throat length in excess of 250’.³ (See Also Section 5 on Driveway Standards.)
- Section 16-70. Return Radii. The corner radius is left to the Town Engineer, but should be kept to the minimum (20’ according to NCDOT, but 15’ radii or smaller should be considered in downtown or areas where there is expected to be high foot-traffic and cyclist volumes) whenever possible and when the smaller radius does not interfere with high volumes of larger, multi-axle vehicles and trucks.
- Section 19.VII. Bicycles. Chapter 19, Article VII of the Municipal Code regulates registration and operation of bicycles. This code is fairly thorough, although registration, which is required, should be free of charge (§ 19-214). The Chief of Police keeps a record of bicycle registrations. Section 19-220 also makes it unlawful to ride on the sidewalk, mimicking state law. However, Tarboro may develop wide sidewalks (urban “trails”) that would necessitate specifying the location of these trails and the lawfulness of riding on them. Also in this Section, there should be some mention of bicycle lanes and eliminating parking or motorized vehicle operations in them in all non-emergency situations.



Tarboro Commerce Center Location (Top) and Master Plan.

Source: Carolinas Gateway Partnership

Tarboro Commerce Center Master Plan, Carolinas Gateway Partnership. This summary of a 125-acre property located within the triangle created by US 64 Bypass, McNair Road, and NC 111 (Wilson St. Extension) describes the utilities, access, tax rates, and existing industries already in the Tarboro area. The “plan” is really a marketing description of the property and, to a lesser extent, Tarboro and the surrounding region. The seven tracts making up the property are zoned for manufacturing and distribution. The Plan mentions protective covenants that are in place to ensure that floor area ratios, landscaping, and signage are compatible with each other and surrounding uses.

Town of Tarboro Strategic Economic Development Plan. The Economic Development Plan was prepared by the Sanford Holshouser Business Development Group, LLC and their partner, Whittaker Associates, as part of a contract with Electricities of NC, Inc. to provide economic development planning assistance for member cities, including Tarboro. The Plan contains four key elements: an economic and demographic profile, an economic development preparedness assessment, a target industry analysis, and a marketing plan. As part of the Economic Development Preparedness Assessment, the plan identifies Tarboro's quality of life, excellent parks and recreation facilities, and extensive historic district as some of the town's strengths. The plan also identifies marketing Tarboro for tourism and downtown development as key opportunities, and the current EPA non-attainment designation for the area as a key threat. The Target Industry Analysis identifies the following industries to target for recruitment: plastic products, food processing, electronic equipment manufacturing, and fabricated metals.

Tarboro Bicycle Plan

Section 3: Existing Plans, Policies, and Programs

Map of Existing Tarboro Bicycle Routes, Town of Tarboro Public Works Department, Engineering Division. Adopted August 17, 1999. A set of two maps describes the proposed routes of both the Daniel Street Extension (on-road facility) that would cross the Tar River and join the town with US 258 to the east of town; and a second route on Western Boulevard, West Northern Boulevard, and St. Andrews Street. Western and Northern Boulevards would require shoulder paving; the portion of St. Andrews Street will only require markings and signage. Both of these routes will be incorporated in the new Bicycle Plan, and the resulting map will replace these two maps.

Thoroughfare Plan, dated August 4, 1964. Adopted January 11, 1965 and updated August 14, 1974. The State of North Carolina has produced Thoroughfare Plans as a part of its mission since the late 1950's, perhaps longer than any other state in the country. The North Carolina General Statutes (NCGS §136-66.2) describing the "coordinated transportation system" plan require that municipalities have an adopted transportation plan prior to receiving state transportation funds. Tarboro's Thoroughfare Plan, while last updated in 1974, is not unique in North Carolina for its age – many such state transportation plans date back to the 1970's. Daniel Street Extension is shown on this map, as is a bypass route on the east side of the Town extending from East Northern Boulevard to US Highway 64. Prior to 2001, the NCGS did not ask that a municipality or county consider any facilities other than roadways in the development of a Plan. The 2001 revised language in the NCGS now requires that "consideration shall be given to all transportation modes including, but not limited to, the street system, transit alternatives, bicycle, pedestrian, and operating strategies." Any update of the Thoroughfare Plan should include the project recommendations contained in this Bicycle Plan as an element. This will help to ensure bicycle planning recommendations will be incorporated into future transportation projects and will assist with applying to the state for funds or other resources needed to construct or maintain such facilities.



Daniel Street Extension Route Map (top) and Downtown Route Map.

Source: Town of Tarboro, 1999.

3.4 Plan Recommendations

The following are recommendations concerning each of the adopted plans, ordinances, and policies discussed in the previous section. Priorities are broken out into short-, medium-, and long-term actions based on their relative importance to improving the bicycling safety and environment of Tarboro as well as the likely update cycles of existing plans and ease of implementation.

Short-Term (1-5 Years)

- Update the Tarboro Land Development Plan with the following:
 - Prioritized bicycle facilities, both on-road and multi-purpose off-road/mountain biking facilities, generated from this Comprehensive Bicycle Plan and any subsequent proposed projects.
 - Language that encourages mixed use zoning and continues to discourage strip commercial zoning. The Development Plan should clearly state when and where mixed-use developments shall be allowed, and create provisions for mixed-use (commercial and residential) development in areas that can support it. Creating areas where different land uses are in close proximity is one of the most important factors in promoting the use of bicycle facilities.
 - Recommendations for the use of greenways and bicycle trails in environmentally-sensitive areas with development restrictions in order to maximize the best use of the protected land.
 - Support for strengthened driveway restrictions in future land development plans.
- Update the Tarboro Municipal Code and Zoning Ordinance as follows:
 - Reduce the minimum driveway length to 50 feet, with even longer distances (minimum of 90 feet) preferred for high-turnover and high volume locations (more than 1,000 vehicles per day).
 - Make bicycle registration free of charge.
 - Include language that eliminates parking or motorized vehicle operation in bicycle lanes in all non-emergency situations.
- Update the Commerce Center Master Plan such that strong consideration is given to marked bicycle lanes three feet in width in addition to minimum 12'

outside travel lanes on Wilson Road. Bicycle lanes should be considered as a safety measure due to the potential for intense truck traffic coming from this site in the future. Recommended minimum extent is from the Park entrance Road on Wilson Road to Barlow Road in Tarboro.

Mid – Term (5 – 10 Years)

- Create preferred design standards for incorporation into the next Land Development Plan, Thoroughfare Plan, and Municipal Code updates. These standards should augment the NCDOT design standards, and address specifically preferred bicycle provisions, streetscaping, and access management that will encourage bicycling in different environments encountered in the County.
- Update the Tarboro Municipal Code and Zoning Ordinances as follows:
 - Designate urban trail-type facilities that allow bicycles on wide (8 – 10 feet) facilities particularly where the number of intersecting streets and driveways will remain low.
 - Modify street standards as follows:
 - Reduce local street widths to a maximum of 36 feet for two-way operations and 24 feet for one-way driveways, and stipulate that the need for wider driveways will be determined on a case-by-case basis.⁴
 - Specify driveway angles at 90 degrees or as close to 90 degrees as possible given site limitations.
 - Require driveways to be a minimum of 100 feet apart measured from the centerlines, and 600 feet apart on major thoroughfares and arterials. Smaller and less-frequent driveways reduce the number of potential conflicts between cyclists (and pedestrians) and motorists, improving the safety for both.
 - Require that the corner radius be kept to the minimum whenever possible and when it does not conflict with high volumes of larger, multi-axle vehicles and trucks. According to NCDOT, the minimum corner radius should be 20 feet, but 15 feet radii or smaller can be considered in areas where there is expected to be high pedestrian or cyclist volumes, such as downtown.

- Create a multi-modal Transportation Plan to replace the existing Thoroughfare Plan and incorporate the physical recommendations contained in the Bicycle Plan.

Long-Term (10 or More Years)

- Revise the Economic Development Plan to reflect the Tarboro Bicycle Plan and the Town's emphasis on bicycle-friendliness. The Tarboro Bicycle Plan should be used as an opportunity to build upon Tarboro's strengths of quality of life, excellent parks and recreation facilities, and historic district by creating more bike paths and greenways and a Bicycle Tour of Historic Tarboro.
- Develop a plan to promote Tarboro as a bicycle-friendly place and eco-tourism attraction.

¹ Tarboro Municipal Code (website: www.municode.com/resources/gateway.asp?pid=11306&sid=33).

² North Carolina Department of Transportation, "Policy On Street And Driveway Access to North Carolina Highways." July, 2003. 90 pages.

³ Genesee Transportation Council, "Safe and Efficient Driveway Design." Date unknown. (www.gtcmpo.org/) and Transportation Research Board, "Access Management Manual." 2003. 373 pages.

⁴ North Carolina Department of Transportation, "Policy On Street And Driveway Access to North Carolina Highways." July, 2003. 90 pages.

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Summary: This section discusses proposed bicycle-related projects for the Town of Tarboro and how they were identified and prioritized. The section also includes maps of future projects.

Section 4. Bicycle System Plan

This section discusses proposed bicycle-related projects for the Town of Tarboro and how they were identified and prioritized. Proposed projects include new bike lanes on existing roads, upgrading existing bike lanes, bike lanes on future roads, future greenways and bike paths, and bike rack locations.

4.1. Project Development

Bicycle projects of all types were developed based on input from the Steering Committee, Town Staff, the public, and an analysis by the consultant. The consultant used the following criteria to identify potential facility locations:

- **Demand:** The amount of demand for a particular project was measured through the amount of public comments and Steering Committee recommendations for a facility.
- **Need:** Although there may not be a great public outcry for a particular project, there still may be a need for it that has gone unaddressed. Two factors contribute to the “need” for a project:
 1. **Destinations:** A bicycle facility may be needed in a location with popular destinations for people to access by bike. Examples of these types of destinations include: schools, parks, shopping centers, downtown business areas, and employment centers.
 2. **Safety Concerns:** The presence of many bicycle accidents in a particular location is a useful indicator for the need of a bicycle facility, first because the presence of accidents indicates that there are people riding bicycles in that location, and second because these accidents also indicate a deficiency in the transportation infrastructure that may be causing accidents at the location.

4.1.1. List and Map of Projects:

The following pages provide a listing and description of the proposed projects developed using the above-mentioned criteria. Projects can be categorized into the following groups: new routes on existing routes, new construction of roads or greenways, and minor street routes requiring no changes.

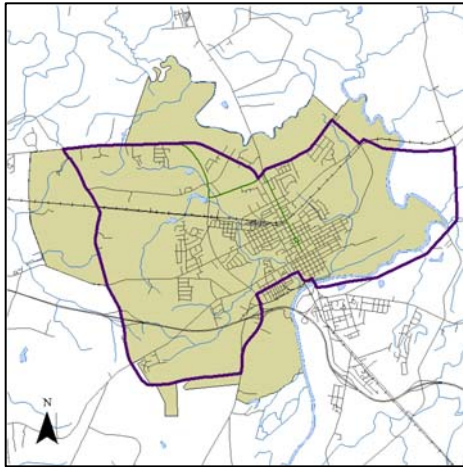


Image 4 - 1. Tarboro Outer Bike Loop.

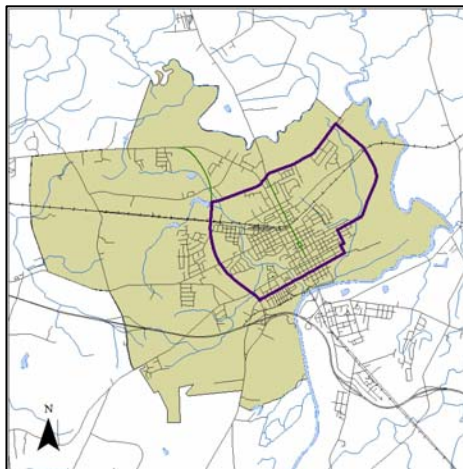


Image 4 - 2. Tarboro Inner Bike Loop.

New Bike Routes on Existing Roads (see Figure 4 - 1):

1. Tarboro Outer Bike Loop: This approximately 20-mile bicycle route will be a signed facility with marked bike lanes in both directions. It is intended for use as both a recreational facility and as access to major destinations such as the Indian Lake Sports Complex, River Oaks Landing Shopping Center, and Sara Lee. Portions of the following roads comprise the Tarboro Outer Bike Loop:

- Albemarle Ave
- Baker St. Ext.
- E. Northern Blvd.
- McNair Rd.
- N. Main St
- Sara Lee Rd.
- US 258 North and South
- US 64 Alt. West
- W. St. James St.
- Western Blvd.
- McNair Road Extension
- Greenway Connection: Main St. to US 258 N

2. Tarboro Inner Bike Loop: This approximately 8.5-mile bicycle route will be a signed facility with marked bike lanes in both directions. It is intended for use as both a recreational facility and as access to major destinations such as the Indian Lake Sports Complex, Tarboro High School and the Patillo School, the downtown business district, and Clark Park. The Inner and Outer Bike Loop facilities will complement each other – allowing for longer or shorter rides depending on a recreational cyclist's abilities, and allowing for more destinations for the utilitarian cyclists. Portions of the following roads comprise the Tarboro Inner Bike Loop:

- Baker St. Ext.
- Northern Blvd.
- St. James St.
- East Ave.
- Martin Luther King Jr. Dr.
- Oakland St.
- Western Blvd.

Tarboro Bicycle Plan
Section 4: Bicycle System Plan

3. St. Andrew St. Extension: This ½-mile route will be an extension of the existing bicycle route on St. Andrews St. This will be a signed facility with marked bicycle lanes in both directions. It will provide connections from the existing St. Andrew St. bicycle route to the proposed Outer and Inner Bicycle Loops. It will also provide access to business in the historic downtown, the County Courthouse, and River Front Park.

Cross-town Connectors: The following routes will provide connections for riders to travel across town. They will provide access from the Inner and Outer Bike Loops to the Historic Downtown and Business District, to all of the schools, and commercial areas such as Parkhill Mall and Edgecombe Square Shopping Center.

4. Daniel St. – approx. 1.66 miles, from St. Andrew St. to Baker St.

5. Howard Ave. – approx. 3 miles, from McNair Rd. to St. Andrew St. Signed and marked bicycle lanes in both directions.

6. Industrial Pkwy. – approx. 2 miles, from McNair Rd. to Western Blvd. Signed and marked bicycle lanes in both directions.

7. Wilson St. – approx. 4 miles, from McNair Rd. to East Ave. Signed and marked bicycle lanes in both directions.

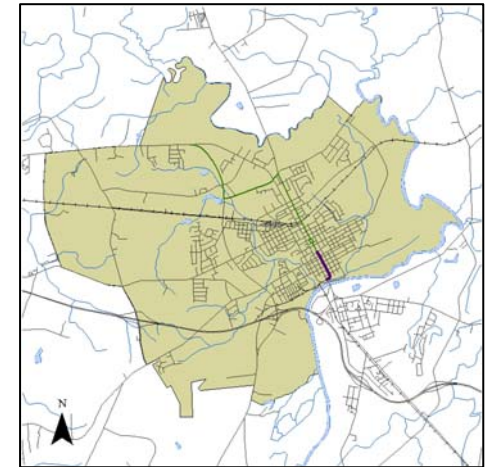


Image 4 - 3. St. Andrews St. Extension.

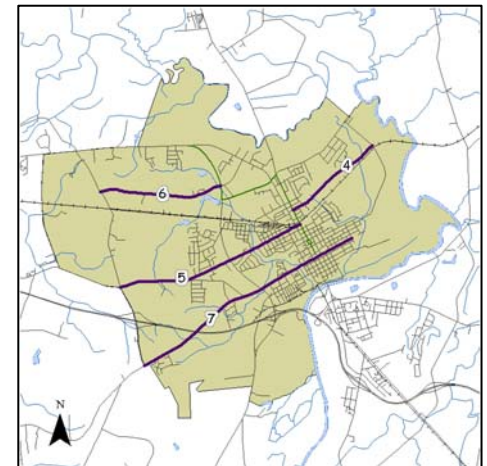


Image 4 - 4. Cross-town Connectors.

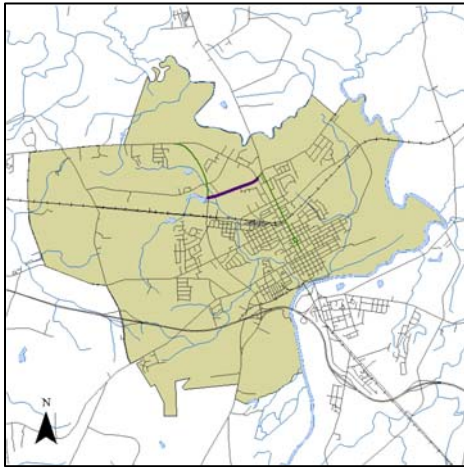
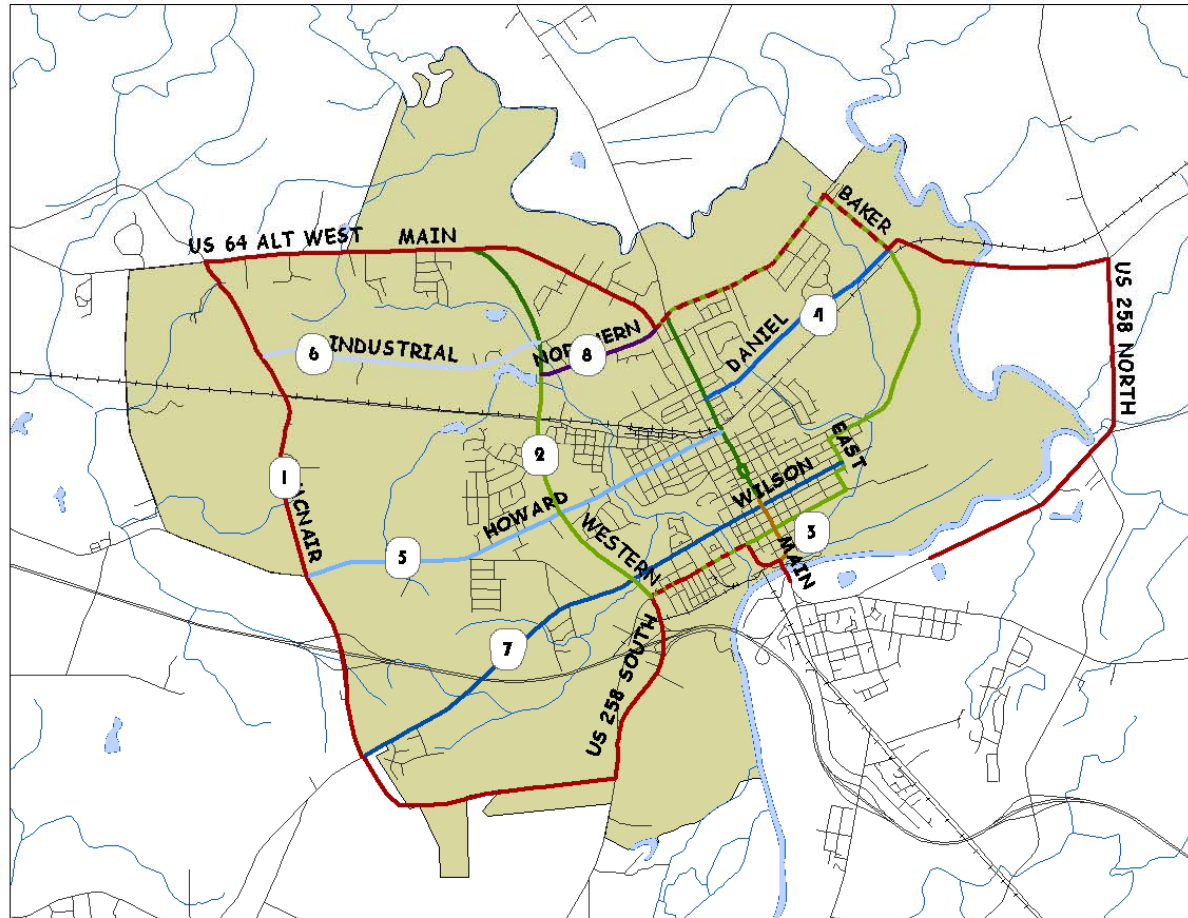


Image 4 - 5. Northern Blvd.
Additional Bike Lane.

Northern Boulevard Additional Bike Lane. Currently, Northern Blvd. between Western Blvd. and St. Andrew St. has a bike lane on only the northern side, but not the southern side. Only one bike lane on a road suggests that cyclists should ride in the bike lane when traveling in either direction. Bicycling against traffic flow is a highly dangerous activity and should be strongly discouraged. The project will add a second bike lane to alleviate the safety issue.

Figure 4 - 1. New bike routes on existing roads.



New Bike Routes on Existing Roads

Town of Tarboro, NC

Legend

Current Bike Facilities

Existing

Proposed Bike Routes

- 1. Tarboro Outer Bicycle Loop
- 2. Tarboro Inner Bicycle Loop
- Inner/Outer Loop-
- 3. St. Andrews St. Extension
- 4. Daniel St. Cross-Town Connector
- 5. Howard St. Cross-Town Connector
- 6. Industrial Dr. Cross-Town Connector
- 7. Wilson St. Cross-Town Connector
- 8. Add. Bike Lane on Northern

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1513 Walnut Street, Suite 250
Cary, NC 27511



New Construction (see Figure 4 - 2): These new construction projects include projects for new greenways, as well as projects for new roadways with bike lanes.

1. McNair Rd. Extension – approx. 1.5 miles, from the end of Sara Lee Road to McNair Rd. This project would add signed and marked bicycle lanes to a new road which will complete the connection between McNair Rd. and US 258 South. This facility will be incorporated into the Outer Loop Bike Route upon its completion.

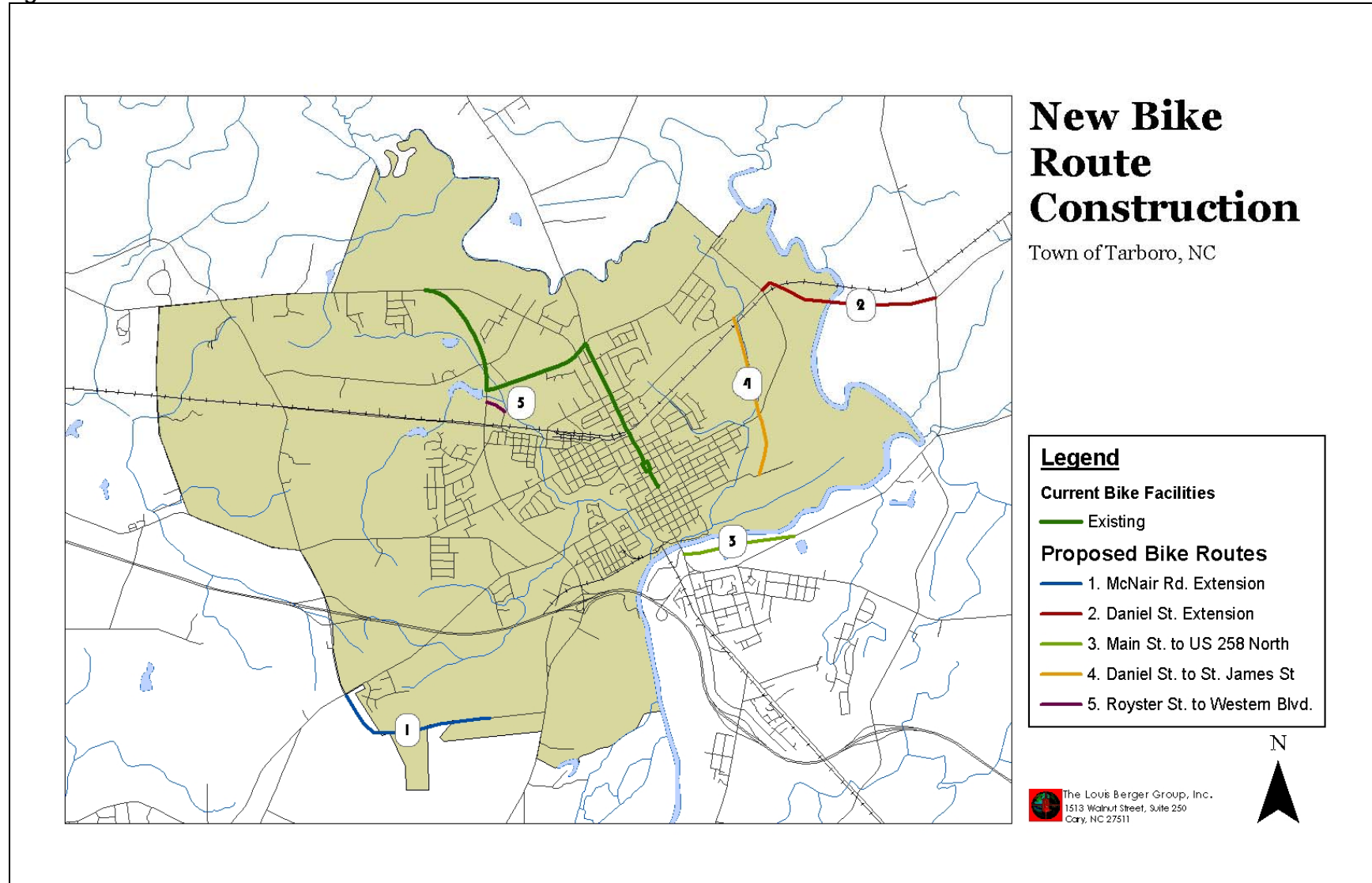
2. Daniel St. Extension – approx. 1.6 miles, from the end of Daniel St. to US 258 North. This project would add signed and marked bicycle lanes to a new road to be constructed for the NCDOT TIP Project U-3826, which will complete the connection between Daniel St. and US 258 North. This facility will be incorporated into the Outer Loop Bike Route upon its completion.

3. Greenway Connection: Main St. to US 258 North – approx. 1 mile, from Main St. to US 258 North. This project will create a new off-road paved bicycle trail, signed and marked to complete the Outer Loop Bike Route around Tarboro.

4. Greenway Connection: Daniel St. to St. James St. – approx. 1.5 miles, new off-road paved bicycle trail, signed and marked. This project will partially follow the creek which feeds into the East Tarboro Canal. This area is particularly suited for a new greenway given the nearby vacant land and Clark Park. The trail will also provide more direct bicycle access from the south of Town and downtown area to the north of Town.

5. Greenway Connection: Royster St. to Western Blvd. – approx. 1/10 of a mile, off-road bicycle trail. This short connection will provide more direct access to the Indian Lake Sports Complex for recreational riders without having to travel on the heavily trafficked Western Blvd.

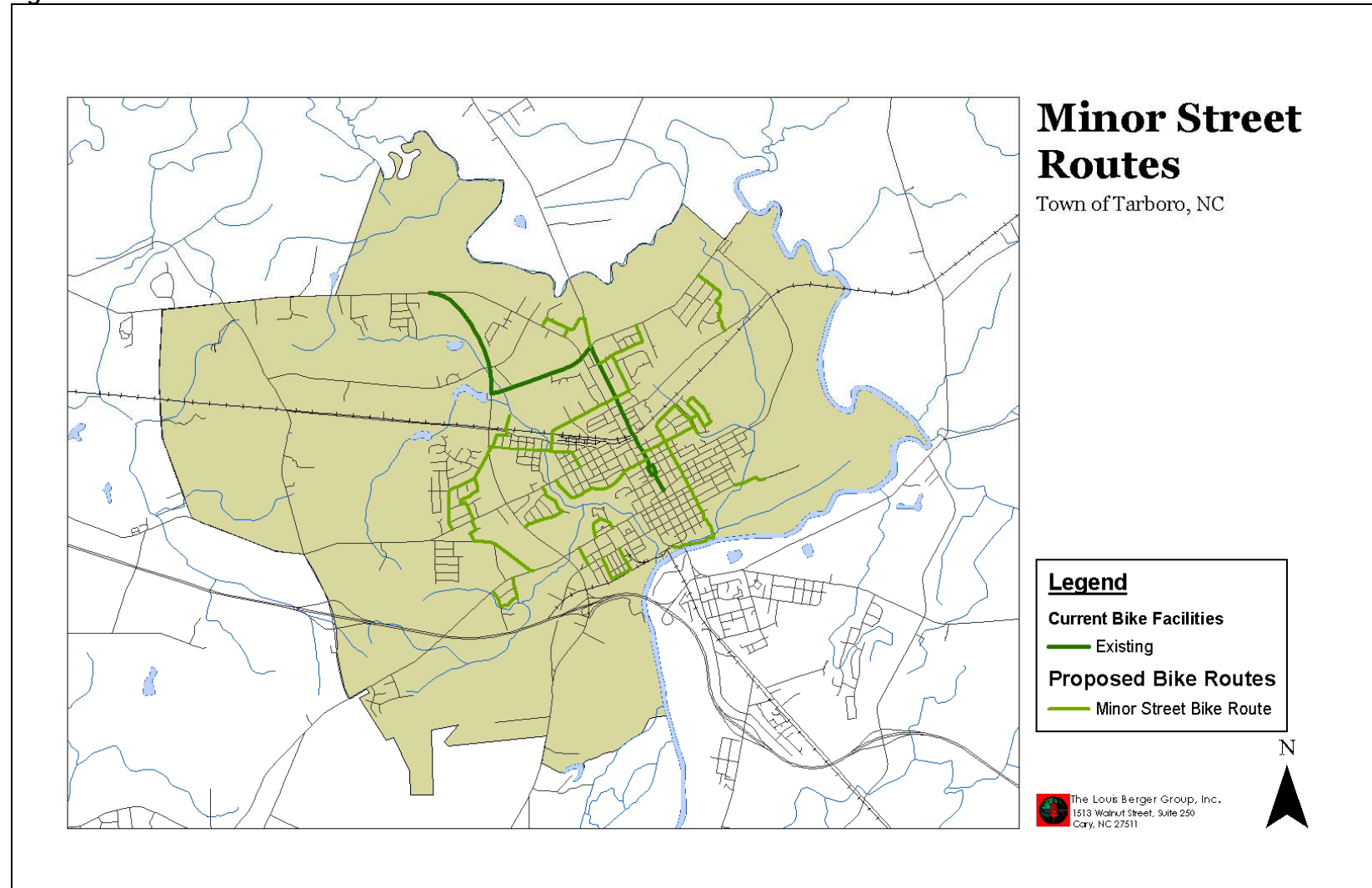
Figure 4 - 2. New bike route construction.



Minor Street Routes: The following streets are low traffic volume, low speed residential streets that are highly suitable for signed bicycle routes that will not require the installation of bicycle lanes or pavement markings (see Figure 4 - 3). These roads will complete the network of bicycle routes in the Town, and allow for more direct access to locations such as Stocks Elementary School, Tarboro Edgecombe Academy, and CB Martin Middle School, as well as many residential neighborhoods.

Ambleside	Country Club	Panola
Barlow	Hope Lodge	Pine
Beechwood	Johnston	Pinewoods
Benson	St. James	River
Brandon	Forest Acres	Royster
Canal	Hope Farm	Howard
Captains	Lake	Samuel
Chauncey	Lewis	Simpson
Clark	Lynn	Speight
Creek	Macon	Speight Forest
Cypress	Maryland	St. Andrew
Davis	Memorial	Sunset
Dowd	Meredith	Taylor
Battle	Old Sparta	Vance
		Windsor

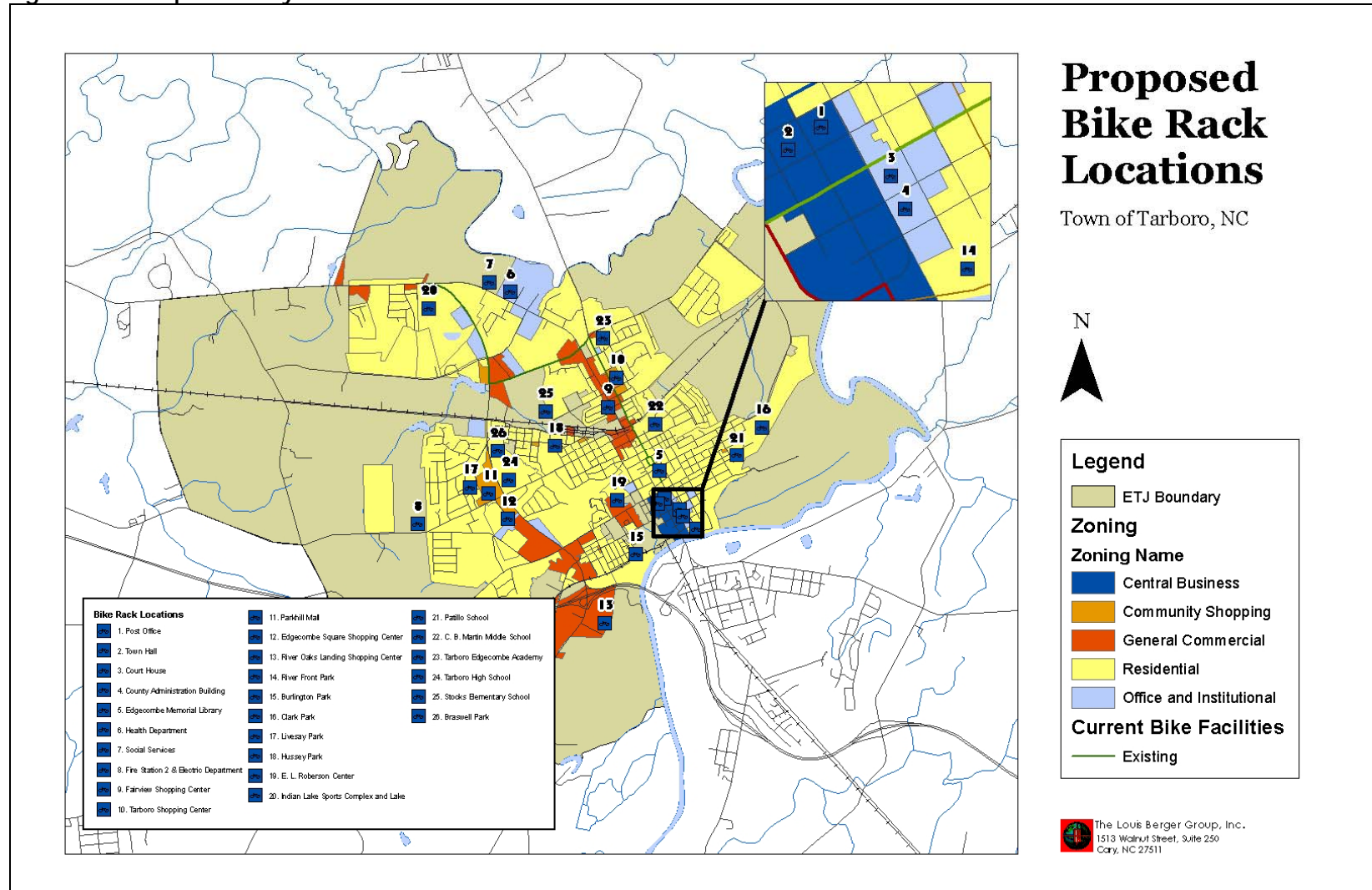
Figure 4 - 3. Minor street routes.



Future Bike Rack Locations: In addition to bicycle routes, a bicycle-friendly town needs locations for cyclists to store their bikes when they are not riding. This is especially important for cyclists who are riding for errands or work, but also useful for cyclists who may be riding for recreation and have stopped to get a drink or bite to eat at a nearby restaurant. For these reasons, ideal locations for bicycle racks range from shopping centers to the Downtown Business district, to schools to major employers, and also recreation facilities. Some of these locations, such as private employers and shopping centers, will require coordination with property owners to install bike racks while others, such as government buildings, schools, and some recreation centers, will not. Costs for bike racks range from around \$100 per rack for a 2-bike series of inverted “U” racks to \$250 or more for wave racks for five bikes or more. Bike lockers can cost around \$1,000 per locker. The following is a list of all of the proposed locations for new bicycle racks. Proposed bicycle rack locations are shown in Figure 4 - 4:

Government Buildings	Shopping Centers
<ul style="list-style-type: none">• Post Office• Town Hall• Court House• County Administration Building• Edgecombe Memorial Library• Health Department• Social Services• Fire Station 2 & Electric Department• Public Works	<ul style="list-style-type: none">• Fairview Shopping Center• Tarboro Shopping Center• Parkhill Mall• Edgecombe Square Shopping Center• River Oaks Landing Shopping Center
Parks and Recreation	Schools
<ul style="list-style-type: none">• River Front Park• Burlington Park• Clark Park• Livesay Park• Hussey Park• E. L. Roberson Center• Indian Lake Sports Complex and Lake	<ul style="list-style-type: none">• Patillo School• C. B. Martin Middle School• Tarboro Edgecombe Academy• Tarboro High School• Stocks Elementary School

Figure 4 - 4. Proposed bicycle rack locations for Tarboro.



4.2. Project Scheduling

4.2.1. On-road and Off-Road Facilities

The following paragraphs develop an estimated construction schedule for Tarboro's proposed bicycle projects. Scheduling must address several elements of a project: project cost, constructability, and priority. The following paragraphs develop basic project cost estimates, approximate project constructability, and describe the community's project priorities. Finally, the section incorporates all of three necessary elements into an estimated schedule for project construction.

4.2.1.1. Basic Cost Estimates and Constructability

Project constructability is a function of both the basic costs of a project, and also the ease with which the project can be constructed. Some projects may be relatively short and require very little materials, but have high constructability costs due to the need to purchase right-of-way or the removal of obstructions.

Constructability of a project is identified in two steps. First, the basic costs of a project are calculated based on project length. Second, the ease of project construction is evaluated based on the presence of adequate right-of-way, obstructions, bridges, and terrain conditions. These two factors are then incorporated into a general value for constructability, categorized as easy, moderate, and difficult.

Basic Costs Estimates. Table 4 - 2 provides a preliminary estimate of the basic costs for each of the proposed bicycle routes in Tarboro. The Tarboro Outer Bike Loop and Inner Bike Loop were broken down into smaller segments in order to facilitate better prioritization and funding analysis. Please note that all cost estimates may increase or decrease depending on the cost of raw materials, labor, and inflation. **Cost estimates do not take into account purchase of Right-of-Way or structure construction.**

Itemized cost assumptions are shown in Table 4 - 1 as follows:

Table 4 - 1. Itemized cost assumptions for projects in Tarboro.

Item	Cost
<u>Restriping and Signage Project:</u>	
On-pavement symbol	\$120 each
Bicycle Route sign	\$200 each
Striping	\$0.85 per linear foot
<u>New Trail Construction:</u>	
<u>New Road Construction:</u>	
	\$400,000 per mile
	\$2.5M per mile

Restriping and Signage Projects: Individual pricing estimates for restriping and signage projects were based on 2005 NCDOT Bid Averages for NCDOT Division 4. It was assumed that a sign and symbol would be placed every ½ mile for all restriping and signage projects. Also, it was assumed that any restriping and signage project would not require resurfacing or additional pavement width and curb and gutter. This would add additional cost to the project.

New Trail Construction: Estimate assumes a 10 foot wide, multi-purpose trail with minor earthwork and minimal type structures to cross drainage features.

New Road Construction: Estimate assumes two lane, rural highway with minor earthwork and minimal type structures.

Table 4 - 2. Tarboro Projects and Basic Cost Estimates.

Route Name		Type of Facility	Length (miles)	Cost
Tarboro Outer Bike Loop			~20	\$415,302 <i>(existing road improvements only)</i>
Segments	1. US 64 Alt: McNair to Western	signed & marked facility	2	\$1,740
	2. US 64/Main St: Western to Northern	Signed & marked facility	2	\$2,169
	3. Northern and Baker: Main to Daniel St	signed & marked facility	2	\$2,055
	- Daniel St Extension	<i>-see estimate -</i>		
	4. US 258: Daniel St Ext. to Greenway	signed & marked facility	3	\$2,673
	- Greenway Conn. : Main St. to US 258 N	<i>-see estimate-</i>		
	5. In-town roads	signed & marked facility	1	\$1,278
	6. US 258 South	signed & marked facility	2	\$1,794
	- McNair Rd Extension	<i>-see estimate-</i>		
	7. McNair: US 64 Alt to Wilson St.	signed & marked facility	4	\$3,593
Tarboro Inner Bike Loop			~8	\$7,363
Segments	1. Northern and Baker: Main to Daniel St	signed & marked facility	2	\$2,055
	2. Baker St: Daniel to MLK Jr	signed & marked facility	1	\$1,363
	3. In town roads: MLK Jr to Albemarle	signed & marked facility	1	\$1,403
	4. St James St: Albemarle to Western	signed & marked facility	1	\$740
	5. Western Blvd: St. James St to Northern	signed & marked facility	2	\$1,801
St. Andrew St. Extension		signed & marked facility	~0.5	\$481
Northern Blvd. Additional Bike Lane		Additional bike lane	1	\$400
Howard Ave. Cross-Town Connector		signed & marked facility	3	\$2,884
Industrial Pkwy. Cross-Town Connector		signed & marked facility	2	\$1,923
Wilson St. Cross-Town Connector		signed & marked facility	4	\$3,845
Daniel St. Cross-Town Connector		signed & marked facility	1.66	\$1,596
McNair Rd. Extension – NCDOT FUNDED		new road construction	1.5	\$ 3.75M <i>(includes road cost)</i>
Daniel St. Extension – NCDOT FUNDED		new road construction	1.6	\$ 4M <i>(includes road cost)</i>
Greenway Connection: Main St. to US 258 N		new paved bicycle trail	1	\$ 400,000
Greenway Connection: Daniel St. to St. James St.		new paved bicycle trail	1.5	\$ 600,000
Greenway Connection: Royster St. to Western Blvd.		new paved bicycle trail	0.1	\$ 40,000

Tarboro Bicycle Plan

Section 4: Bicycle System Plan

Constructability. Table 4 - 3 identifies the presence of adequate right-of-way, obstructions, bridges, and terrain conditions for and incorporates it into cost estimates to create a value of constructability for each project. Constructability is categorized into the following levels:

Constructability Level	Description
Easy (\$)	easy construction, low expense
Moderate (\$\$)	Moderate construction, moderate expense
Difficult (\$\$\$)	difficult construction, high expense

Table 4 - 3. Project constructability based on basic cost and ease of construction.

	Basic Cost	ROW	Obstructions	Bridges	Terrain	Constructability
US 64 Alt: McNair to Western	\$1,740	Limited	Traffic	None	Level	\$\$
US 64/Main St: Western to Northern	\$2,169	Limited	Traffic	None	Level	\$\$
Northern and Baker: Main to Daniel St	\$2,055	Adequate	Old Railroad Crossing	None	Level	\$\$\$
US 258: Daniel St Ext. to Greenway	\$2,673	Adequate	none	need bridge	level	\$\$\$
In-town roads	\$1,278	Limited	On-street Parking	None	Level	\$\$
US 258 South	\$1,794	Limited	traffic	US 64 Overpass	Level	\$\$\$
McNair: US 64 Alt to Wilson St.	\$3,593	Adequate	None	None	Level	\$\$
Baker St: Daniel to MLK Jr	\$1,363	Adequate	None	None	Level	\$
In town roads: MLK Jr to Albemarle	\$1,403	Limited	On-street Parking	None	Level	\$\$
St James St: Albemarle to Western	\$740	Limited	On-street Parking	Box Culvert	Level	\$\$
Western Blvd: St. James St to Northern	\$1,801	Limited	On-street Parking	Box Culvert & Railroad Overpass	Level	\$\$\$
St. Andrew St. Extension	\$481	Limited	On-street Parking	None	Level	\$\$\$
Northern Blvd. Additional Bike Lane	\$400	Limited	None	None	Level	\$
Howard Ave. Cross-Town Connector	\$2,884	Adequate	creek crossing	need bridges	Level	\$\$\$
Industrial Pkwy. Cross-Town Connector	\$1,923	Limited	Wetlands	None	Level	\$\$
Wilson St. Cross-Town Connector	\$3,845	Limited	On-street Parking & Traffic	Box Culvert	Level	\$\$\$
Daniel St. Cross-Town Connector	\$1,596	Adequate	None	None	Level	\$
Greenway Connection: Main St. to US 258 N	\$400,000	None existing	River and wetlands	need bridges	level	\$\$\$
Greenway Connection: Daniel St. to St. James St.	\$600,000	None existing	several creek crossings	need bridges	level	\$\$\$
Greenway Connection: Royster St. to Western Blvd.	\$40,000	None existing	creek crossing	need bridges	Level	\$\$\$

4.2.1.2. Project Prioritization

Table 4 - 4 shows the order of projects based on their priority excluding considerations for constructability and funding. Project priority is based upon its need in terms of safety and creating better connectivity in the bicycle system. The greater the safety or access need, the higher the project priority.

Table 4 - 4. Project priority based on safety and access need.

Demand	Safety	Access	Opportunity	Priority
Northern Blvd. Additional Bike Lane	high	businesses, residences, rec. areas	improves existing bike lanes	1
Northern and Baker: Main to Daniel St	medium	outer loop and neighborhoods	extend existing bike lane	2
St. Andrew St. Extension	medium	business, residences, rec. areas	extends existing bike lanes	3
Baker St: Daniel to MLK Jr	medium	Rec. center, neighborhoods, school	extends existing proposed bike lanes	4
In-town roads	medium	businesses, residences, & inner loop	bicycle access to downtown	5
St James St: Albemarle to Western	medium	businesses, residences, & inner loop	bicycle access to downtown	6
Western Blvd: St. James St to Northern	high	businesses, residences, & inner loop	extends existing bike lanes	7
Wilson St. Cross-Town Connector	medium	business, residences, rec. areas	connects existing bike lanes to outer Tarboro	8
US 64/Main St: Western to Northern	high	outer loop, hospital & other med. facilities	extend existing bike lane	9
US 64 Alt: McNair to Western	medium	outer loop	extend existing bike lane	10
McNair: US 64 Alt to Wilson St.	medium	outer loop, recreational ride		11
Daniel St. Extension – NCDOT FUNDED	N/A	businesses, residences, rec. areas	provide bike lanes on new road, extends existing bike lanes	12
Daniel St. Cross-Town Connector	medium	businesses, residences, recreational areas	extends existing bike lanes	13
Greenway Connection: Daniel St. to St. James St.	N/A	more direct, safer access for bikes	access to recreational area, recreational use for land in flood plain	14
Greenway Connection: Royster St. to Western Blvd.	high	more direct, safer access for bikes	access to Indian Lake Park from residential area	15
US 258: Daniel St Ext. to Greenway	none	part of outer loop		16
Greenway Conn. : Main St. to US 258 N	high	outer loop	recreational use for land in flood plain	17
US 258 South	high	businesses, outer loop, & residences	bicycle access to shopping center	18
McNair Rd Extension	none	outer loop, recreational ride	provide bike lanes on new road	19
Howard Ave. Cross-Town Connector	high	business, residences, rec. areas	connects existing bike lanes to outer Tarboro	20
Industrial Pkwy. Cross-Town Connector	medium	business, residences, rec. areas	connects existing bike lanes to outer Tarboro	21

4.2.1.3. Project Scheduling

Table 4 - 5 through Table 4 - 7 provide a recommended schedule for project construction which takes into account project priority and constructability. Since Tarboro has limited funding, most of the projects are unfunded. Section 7 provides a listing for possible funding sources.

A project designated as “short-term” can reasonably be built within 5 years of completion of this plan, while those designated “mid-term” can be built within 5 – 10 years. A “long-term” project may take more than 10 years to design, fund, and construct. As projects are built, project priorities and scheduling should be reassessed depending on available funding and revised cost estimates.

Table 4 - 8 identifies the proposed projects that will be completed as part of a currently planned NCDOT project, and will therefore follow the NCDOT’s proposed schedule for construction. These projects are: Daniel St. Extension (TIP Project U-3826) and McNair Road Extension (TIP Project R-4434). There is also a proposed NCDOT project for bike and pedestrian facilities for NC 33 & SR 1577 (Main St.) from SR 1213 (Hope Lodge) to SR 1298 (Hospital Dr).

Table 4 - 5. Short-term bicycle projects.

Route Name/Segment	Action	Priority	Constructability
Additional bike lane on Northern Blvd: St. James to Western	Re-striping & signage	1	\$
Northern and Baker: Main St. to Daniel St.	Re-striping & signage	2	\$\$\$
Baker St.: Daniel St. to MLK Jr. St.	Re-striping & signage	4	\$
Main St.: Western Blvd. to Northern Blvd.	Re-striping & signage	11	\$\$
Daniel St. Cross-town Connector	Re-striping & Signage	13	\$

Table 4 - 6. Mid-term bicycle projects.

Route Name/Segment	Action	Priority	Constructability
US 64 Alt.: McNair Rd. to Western Blvd.	Re-striping & signage	10	\$\$
In-town Roads: MLK Jr. to Albemarle	Re-striping & signage	5	\$\$
St. James St.: Albemarle to Western	Re-striping & signage	6	\$\$
Western: St. James to Northern	Re-striping & signage	7	\$\$\$
Wilson St. Cross-town Connector	Re-striping & signage	8	\$\$\$

Table 4 - 7. Long-term bicycle projects.

Route Name/Segment	Action	Priority	Constructability
St. Andrews St. Extension	Re-striping & signage	3	\$\$\$\$
Greenway Connection: Daniel St. to St. James St.	New Construction	14	\$\$\$\$
Greenway Connection: Royster St. to Western Blvd.	New Construction	15	\$\$\$\$
McNair: US 64 Alt to Wilson	Re-striping & signage	11	\$\$
US 258: Daniel St Ext. to Greenway	Re-striping & signage	16	\$\$\$
Greenway Connection: Main St to US 258	New Construction	17	\$\$\$\$
US 258 South	Re-striping & signage	18	\$\$\$
Industrial Parkway Cross-town Connector	Re-striping & signage	21	\$\$

Table 4 - 8. NCDOT bicycle projects.

Route Name/Segment	Action	
Daniel St. Extension	New Construction	~ NCDOT Schedule ~
McNair Rd. Extension	New Construction	~ NCDOT Schedule ~

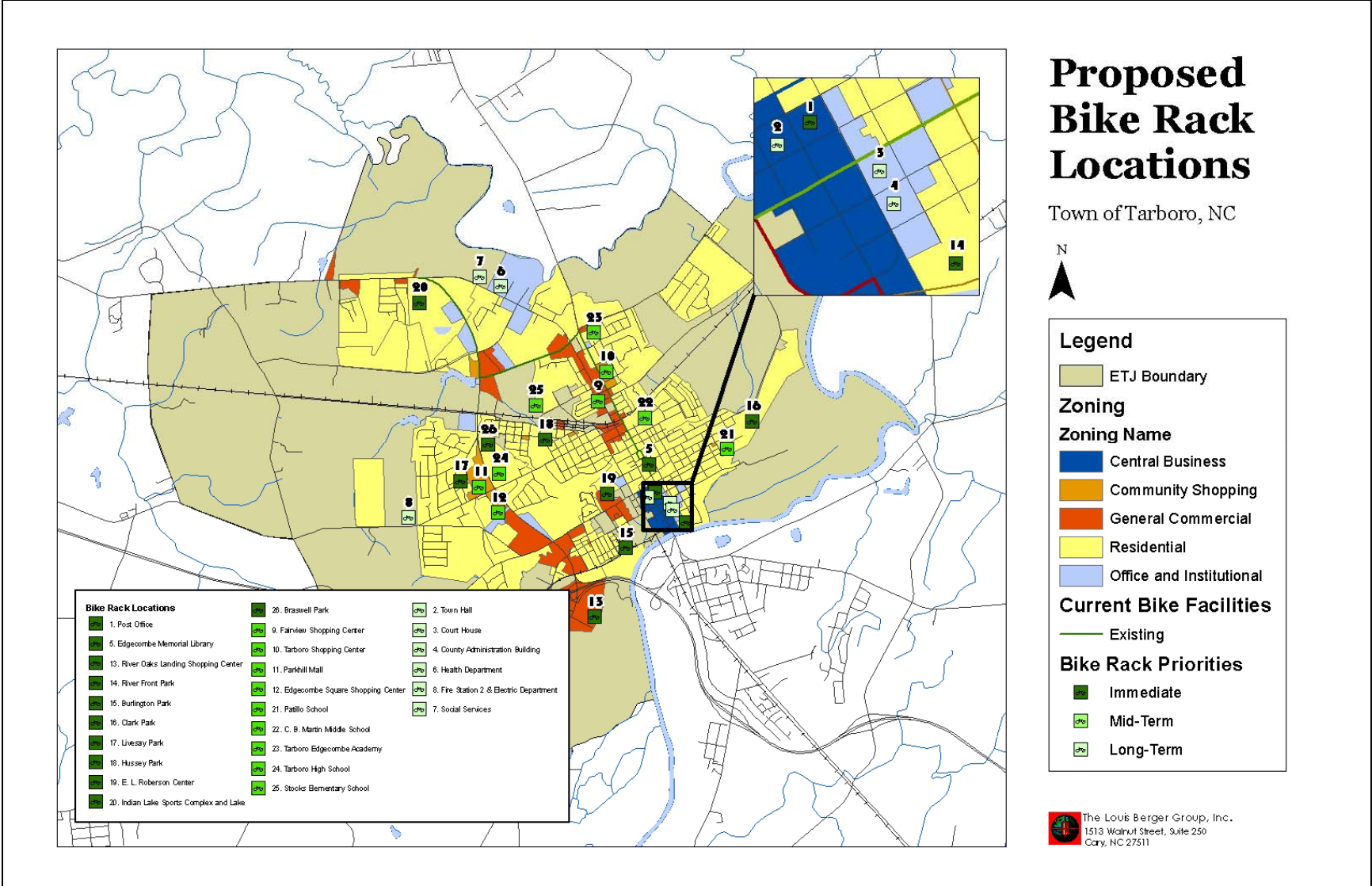
Tarboro Bicycle Plan
Section 4: Bicycle System Plan

Bike Racks. Table 4 - 9 shows prioritized bike rack locations based on the following factors: current demand, likely future use, and security need. Bike racks at parks and recreation facilities should be given top priority since these locations are likely to attract people who are biking for recreation – one of the most common bike-riding purposes in Tarboro according to survey results. Second priority should be given to shopping centers and schools, which are destinations that are likely to attract cyclists who will need secure places to store their bikes while they shop and attend class. Next priority should be given to employment centers, which are likely to get more consistent bikers, but generally provide more inherently secure opportunities for bike storage than at schools and shopping centers. In addition, this priority list attempts to provide a range of bike rack locations, such that there will be bike racks spread throughout the town rather than concentrated in one location. Figure 4 - 5 shows bike rack priorities.

Table 4 - 9. Bike rack priorities.

Immediate Priority Bike Rack Locations	
River Front Park	E. L. Roberson Center
Burlington Park	Indian Lake Sports Complex and Lake
Clark Park	Post Office
Livesay Park	Edgecombe Memorial Library
Hussey Park	
Mid-Term Bike Rack Locations	
C. B. Martin Middle School	Stocks Elementary School
Tarboro High School	Patillo School
Tarboro Edgecombe Academy	Fairview Shopping Center
Parkhill Mall	Edgecombe Square Shopping Center
Tarboro Shopping Center	River Oaks Landing Shopping Center
Long Term Priority Bike Rack Locations	
County Administration Building	Social Services
Court House	Fire Station 2 & Electric Department
Health Department	Public Works
Town Hall	

Figure 4 - 5. Proposed bike rack locations by priority.



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Summary: This section provides a summary of best-practices for bicycle facility standards and guidelines.

Section 5. Bicycle Facility Standards and Guidelines

The Town of Tarboro, like most towns in the United States and North Carolina, relies on only a few engineering guidance documents which in aggregate deal with nearly all aspects of designing roadways, including signage, intersection crossings, pavement markings, signal timings, and pedestrian/bicycle facilities. These guidance documents are:

- Manual on Uniform Traffic Control Devices (MUTCD);
- American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Roadways and Streets; and
- The Transportation Research Board's Highway Capacity Manual.

North Carolina, with the passage of the Bicycle and Bikeway Act of 1974 and subsequent creation of the first statewide bicycle program in the country, has maintained a strong bicycle and pedestrian planning presence relative to other state departments of transportation. Unusually, the North Carolina State DOT has operational responsibility for almost every non-private roadway in North Carolina – over 80,000 linear miles. Hence, North Carolina has exerted an unusual degree of influence over the planning, design, and implementation of cycling facilities. There are a number of other guidance documents that are specific to North Carolina or the design of bicycle facilities that the Town and advocates of cycling need to be aware of that compliment, and in some cases expand upon, the traditional guidelines.

The following, among others, are important publications that increasingly find their way to the bookshelves of local government engineers and planners:

- NCDOT Roadway Design Manual;¹
- NCDOT Subdivision Roads Minimum Construction Standards;¹
- NCDOT Curb Cuts and Ramps for Disabled Persons (1995);¹
- NCDOT Policy on Street and Driveway Access to North Carolina Highways;¹
- NCDOT Context Sensitive Solutions (CSS) Manual;
- NCDOT Bicycle Facilities Planning and Design Guidelines;
- NCDOT Policies on Greenways² and Sidewalks;³ and
- FHWA Flexibility in Highway Design.⁴

A number of other guidance documents not officially recognized by either the federal or state governments also exist to help with the design of neotraditional communities, bicycle facilities, traffic calming, and other important areas of design potentially relevant to bicycle facilities.

The purpose of this section of the Tarboro Bicycle Plan is to supplement, not replace, these important guidance and policy documents. Through this section, Tarboro wants to communicate a clear message to its staff, public, and private development interests the intentions of the community with regards to good design for cyclists.

PURPOSE: *To supplement, not replace, the accepted roadway and cycling standards available at national and state levels.*

¹ All of these NCDOT publications are available electronically at:

<http://www.ncdot.org/doh/construction/ps/altern/value/manuals>.

² http://www.ncdot.org/transit/bicycle/laws/laws_greenway_admin.html.

³ http://www.ncdot.org/transit/bicycle/laws/laws_pedpolicy.html.

⁴ USDOT, Flexibility in Highway Design, Federal Highway Administration, publication no. FHWA-PD-97-062. 1997.



Examples of marked bicycle lanes and "Share the Road" Signs. These are common elements in a bicycle network.

5.1. Street Cross-Sections

This subsection covers basic street design elements and presents typical cross-sections for the roads encountered in Tarboro. Note that limited access, freeway, and interstate roadways are not shown; these roadways are not recommended for bicycle use and are illegal for cyclists to ride upon.

Marked bicycle lanes: Marked bicycle lanes are one of the key elements of a bicycle system. They provide an additional level of perceived comfort for cyclists, and raise driver awareness of the potential for cyclists on the road. The bicycle lane is typically 4'-5' wide; wider areas are discouraged since they can be easily confused by motorists as parking or even through travel lanes. Marked bicycle lanes require proper maintenance and application. Their effectiveness can be reduced if blocked by on-street parking, interrupted by frequent intersections with right-turning bays and lanes (see Section 5.2), and filled with road debris. In some areas, these conditions have caused some avid cyclists to oppose bicycle lanes. In spite of this, the benefits of bicycle lanes make them valuable tools for creating a bicycle-friendly town

Bicycle Warning or "Share the Road" signs: Bicycle signage on a route is useful because it makes riders and drivers alike aware of the presence of a bicycle route, and can encourage users to "Share the Road". Signage should always be used to signal the presence of bicycle lanes, but can also be used independently to indicate that a road is a common bicycle route.

The following designs are examples of some recommended "best practice" approaches; however, specific engineering judgment may be required in many cases to ensure an optimal design given right-of-way, environmental, or other considerations.

Figure 5-1. Combined Parking and Bicycle Use*

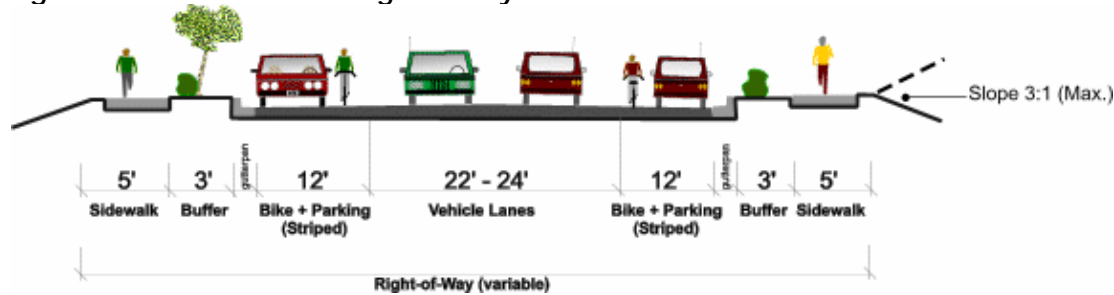
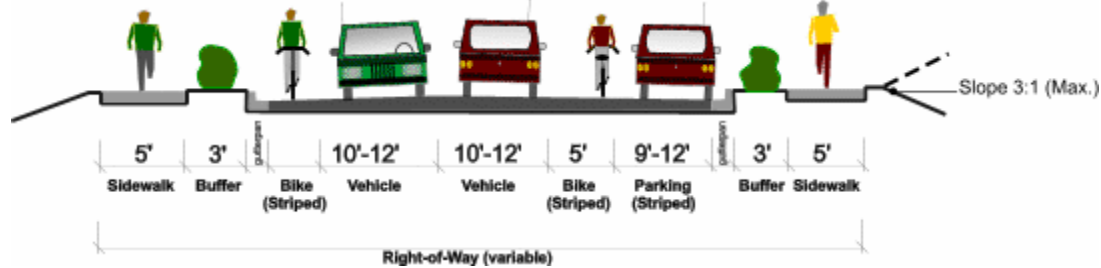
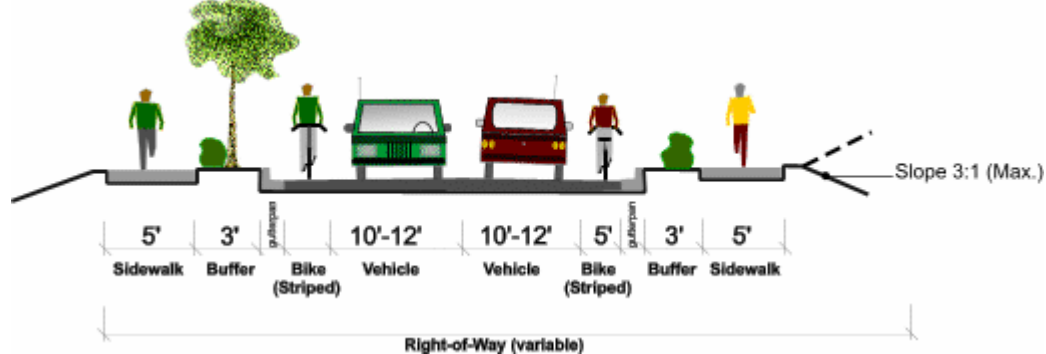


Figure 5-2. Separated (Marked) Parking on one side and Bicycle Lanes*



**Note: Marked bike lanes and parking lanes have 4" - 6" solid white painted (not thermoplastic) lines, as well as "BIKE LANE" text in the former.*

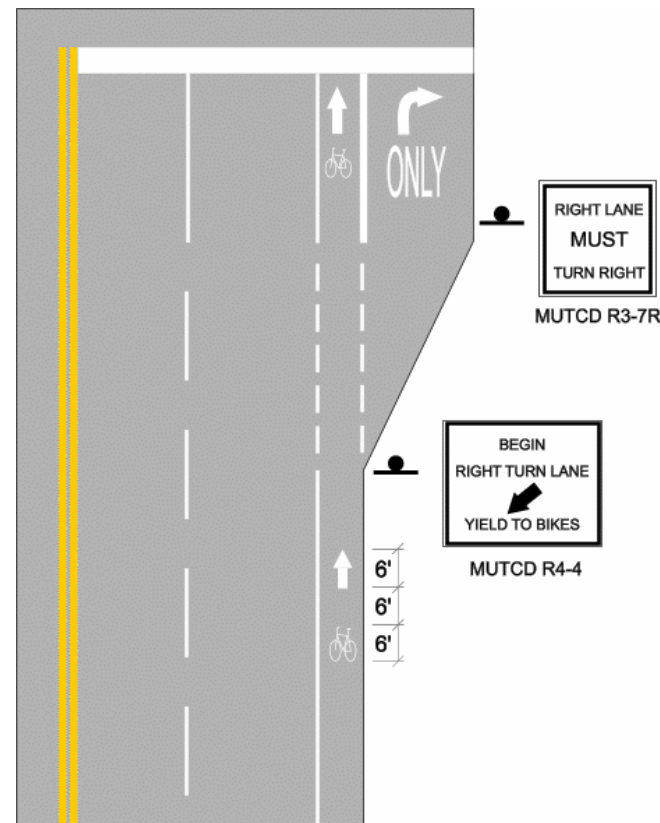
Figure 5-3. Marked Bicycle Lane, No Parking*



5.2. Intersection Standards

Providing for transitions at intersections for cyclists is a perennially difficult design issue, particularly so when dedicated right-turning lanes or bays will potentially require cyclists to weave with motorists moving over from a through lane into the turning lane. The typical weave area is marked with a standard 4" - 6" white striped line to denote the presence of a bicycle lane (see Figure 5-4).

Figure 5-4. Bicycle Lane Treatment at Intersection w/Right Turn Lane¹



**Note: "BIKE LANE" text may also be used in place of the bicycle symbol. Also, dashed lines shown may be omitted for long taper sections or small right-turn volumes.*

5.3. Bicycle Facilities near School Crossings

North Carolina's existing bicycle policies assume that cyclists will be accommodated near school facilities during the planning and design of roadways. Bicycling education programs are also encouraged and supported by NCDOT. Many safety programs with children begin at public schools – Tarboro's Police Department provides 2-3 lectures per year on bicycling safety. Some physical safety features that should be included at all schools are:

- placing parking away from loading/unloading areas
- providing a clear space for bicycle parking and quality rack equipment (see Section 5.6)
- placing clear and obvious "Share the Road" signage on all school routes
- equipping school roads with striped shoulders, bike lanes, and off-road facilities

5.4. Bicycle Facilities on Bridges

The North Carolina Department of Transportation has developed a policy that specifically supports on-road, non-separated bicycle facilities. In addition, this policy states that bridges, interchanges, viaducts, tunnels and other such structures must accommodate cyclists according to FHWA policy for federally funded roadway projects. The reality of state-funded roadway projects is that, while cycling accommodations are now fairly established where rights-of-way are adequate, constrained projects or areas where minimizing pavement due to environmental concerns may necessitate significant additional funds to be appropriated for the roadway project. Tarboro should be very clear about its cycling priorities and communicate them to NCDOT Division personnel.

Bridge design standards for bicyclists (and pedestrians) are stated explicitly in the AASHTO Standard Specifications for Highway Bridges (esp. Figure 2.7.4A)². Figure 5.5 typifies the North Carolina standard, which ensures a maximum railing height

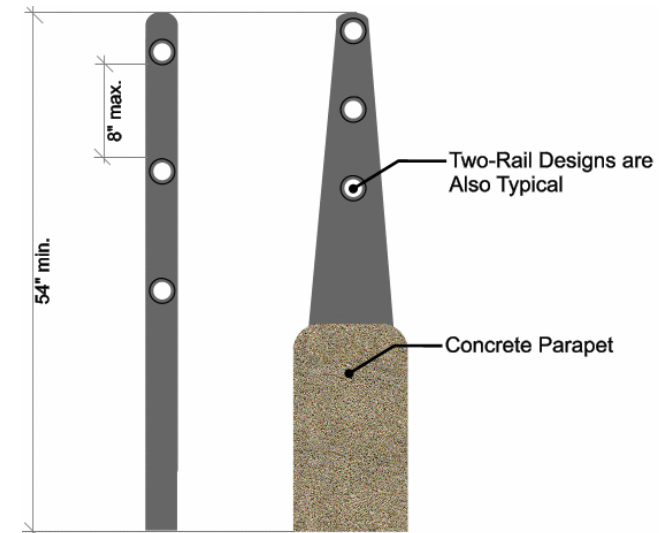
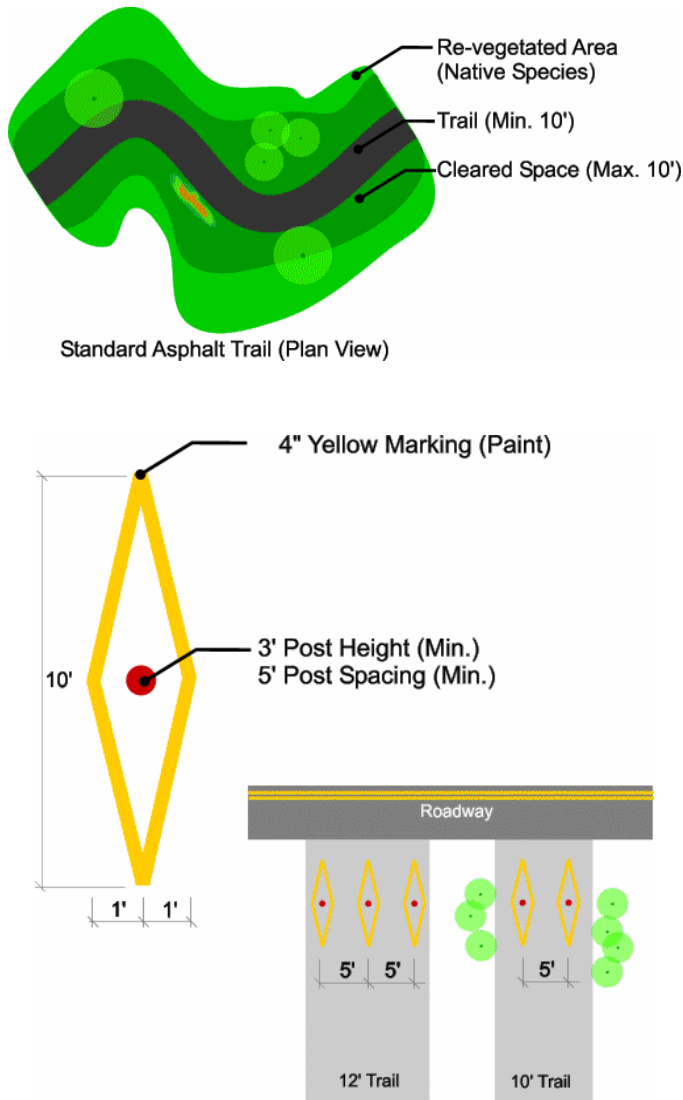


Figure 5-5. Typical Railing Design (Profile View) for Bicycle-Safe Roadway Bridges.



of not less than 54" and railing spacing of not less than 8" (note that pedestrian railing minimum heights are slightly lower). NCDOT does not recommend attempting to transition a bike lane into the travel lanes of a roadway bridge, if possible. All bridge transitions should have rubberized expansion joints placed at not greater than 45 degrees to the angle of travel to ensure a smooth ride from the roadway surface to the bridge surface. Also, in rare circumstances bikeway facilities may be marked on one side of a roadway bridge; if so, the on-bridge facility should connect to a bicycle facility at both ends; physical separation should be provided from motoring traffic; and interference from on/off ramps at either end must be safely addressed. Generally, two-directional, on-road bicycle facilities are not recommended.

5.5. Off-Road Bicycle Facility Design

Sometimes the best option for a cyclist is a pathway that does not follow along or on a roadway. Off-street trails, multi-use trails, and bicycle paths are some of the names for these types of facilities.

Design considerations for off-road bicycle paths include the following:

- Placing a multi-use pathway next to an adjacent roadway poses operational problems at intersections and driveways, and is generally not recommended unless it is necessary to do so for short distances. When the path crosses a roadway, the crossing should be designed according to Figure 5-7³.
- The minimum recommended width of an off-road bicycle path is 10 feet. Lesser widths are not recommended since they will not accommodate two-way bicycle traffic and a single pedestrian moving side-by-side. Twelve feet is the recommended standard.
- Horizontal clearances should be maintained for at least 2' – 3' from the edge of pavement of the bicycle path to ensure good visibility and minimize the potential harm from obstructions. If a minimum 2' horizontal and 8' vertical clearance cannot be maintained, then warning signs should be posted in

Figure 5-6. Typical Off-Street Design (Top) and Entryway Security (Bottom).

advance. Note: in underground passages or tunnels, the vertical clearance should be increased to 10'.

- Separating a walking path (min. 5') from a bicycle path by a white strip (6") or with a grassy swale or berm (min. 3') is excellent practice. However, the bicycle path should still be a minimum of 10' wide to ensure safe, two-way bicycle traffic.
- Due to the periodic flooding to which Tarboro and the surrounding region are subjected, considering porous pavement options for off-road bicycle trails is important. The substrate (what the wearing surface of the bikeway rests upon) should be permeable, not, for example, possessing a high clay content. One design calls for 2-1/2" of porous asphalt sitting upon a substrate of gravel fill (see, for example, www.millermicro.com/porpave.html) as shown in Figure 5-8. More geotextiles are also being used to provide an interlocking network of hard surfaces with compacted gravel; dirt and grass fill; or other materials in the intervening spaces. These materials, when applied properly, are more expensive to install and maintain than standard asphalt but have good durability and are ADA accessible.⁵ On the other hand, non-porous materials such as concrete may have different environmentally-desirable characteristics, such as not being petroleum-based like asphalt. This may be a factor in environmentally-sensitive areas like stream corridors.

5.6. Bicycle Parking Standards

Bicycle parking, typically through a rack-type, ground-mounted device, is not common in Tarboro. Bicycle parking should be a standard in the development policies of all multi-family residential, recreation, school, institutional, commercial and office establishments, just as it is for motorized vehicle parking.

⁵ See, for example, www.millermicro.com/porpave.html for one of the older applications in an area with much worse freeze-thaw cycles. Also, one manufacturer that provides information on a gravel-fill textile product is located at: www.invisiblestructures.com/GV2/gravelpave.htm.

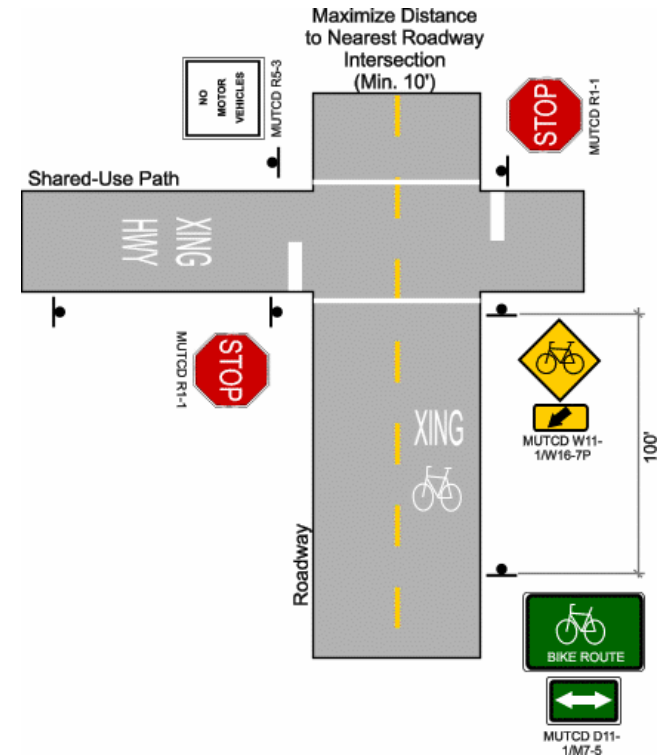


Figure 5 – 7. Shared Path Intersection Control.

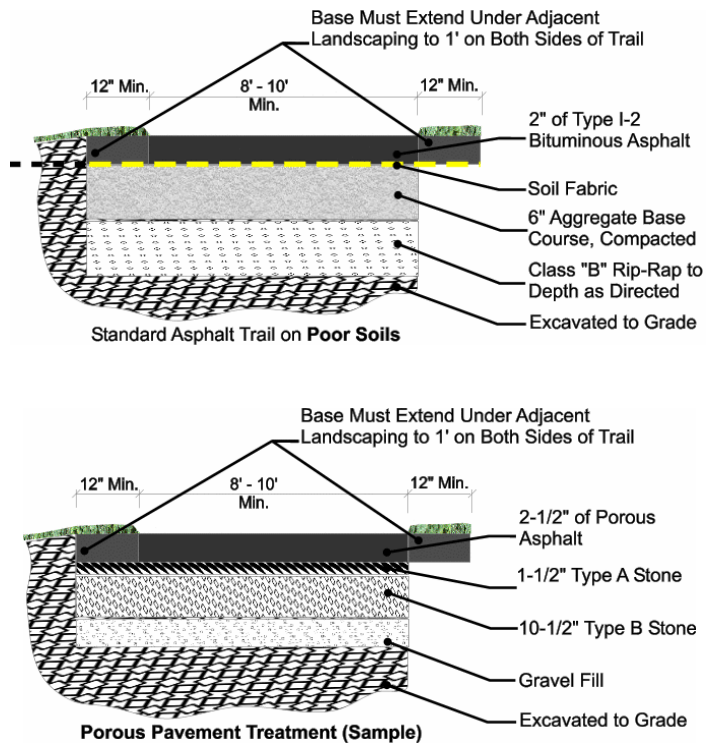
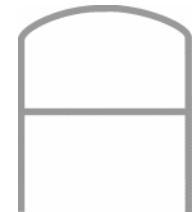


Figure 5 - 8. Standard (Top) and Porous Pavement Designs.

Bicycle parking racks should be located near the front of commercial and office buildings for the convenience of the cyclist as well as to advertise and encourage biking as a form of transportation in Tarboro. When locating a bicycle rack, it is important to visualize the rack in use, with bicycles already in place extending at least 3' – 4' beyond the rack. Bicycle racks with bicycles in them should not interfere with pedestrian movement, car doors opening, or obstruct other users as they place their bicycles in the rack. Racks should also be in clear view - cyclists like being able to see their bicycles through windows.

Bicycle parking rack styles, colors, and ground-mounting can vary greatly, but the most common are the vertical rack types, exemplified by the popular "wave"-style rack (Figure 5-9 on the following page). Some cyclists feel that wave racks can be difficult to use, but ensuring that each "wave" is separated by 11" of clearance and the bike rack is accessible from both sides will increase the capacity of the rack. Comb racks share the same problems as wave racks, with the added difficulty that they are often not as secure from theft.

Another, better design is shown at right. In this design, the tubular steel rack is anchored to a concrete base as with the wave rack, but the cyclist is expected to lock her bike parallel to the rack, not "through" it. The horizontal bar in the middle of the rack helps cue the cyclist as to the correct way of placing the bike in the rack.



The number of parking spaces is estimated, or done through an informal survey. However, the number of spaces (which run anywhere from \$40/space to over \$300/space or more for cage lockers) should accommodate additional users that, when they see the bikes parked, will want to use their bicycles for the next trip. One space per 15 residential units, or one space per 5,000 square feet of non-residential space, is suggested as a starting point. The ordinance should allow some vehicular parking to be removed as a result of installing a bicycle rack, typically one vehicle space for one rack.

5.7. Driveway Specifications

Better driveways reduce the number and potential for conflicts between motorists and cyclists, improving the safety record of both. Figure 5-10 and Table 5-1 indicate appropriate design standards for driveway widths and spacing (which is variable based on the through street's traffic speed) and how bicycle lanes influence driveway design, respectively⁴. These standards are different than those found in the Tarboro Municipal Code (see also Section 3).

Design Condition	Driveway Radius (feet)	Driveway Throat Width (feet)
Single-Lane Exit	15	25
Two-Way (Cars)	15	35
Two-Way (Car and Truck)	25	40
Left- and Right-Turn Exit (Cars)	20	43
Two-Way (All Trucks)	30	40
With Bicycle Lane		
Single-Lane Exit	10	25
Two-Way (Cars)	15	30
Two-Way (Car and Truck)	25	40
Left- and Right-Turn Exit (Cars)	15	40
Two-Way (All Trucks)	25	40

Table 5-1. Design Conditions for Driveways With and Without Bicycle Lanes. (Source: TRB)

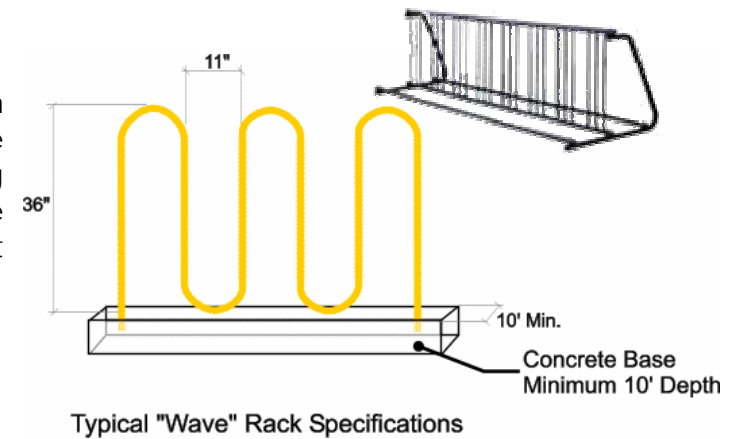


Figure 5 – 9. Comb-type Bicycle Parking Rack (Top), and the Wave Rack Typical Specifications.

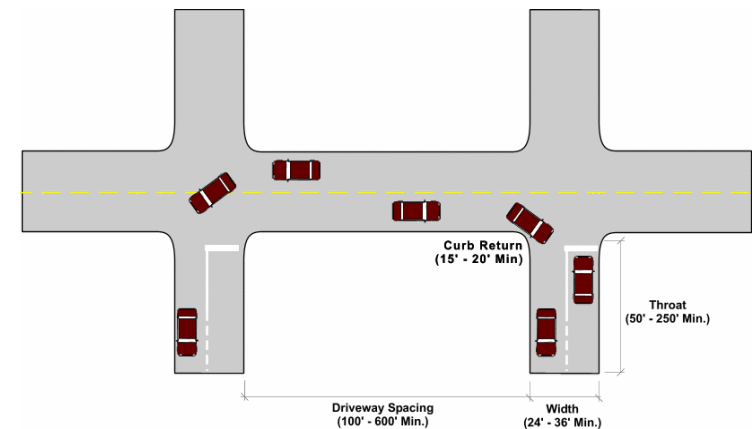


Figure 5 – 10. Recommended Driveway Specifications.

5.8. Designs that Encourage Bicycling

Land Use. Regardless of the facility type used, bicycling is best accommodated where land uses are in close proximity, typically within one to four miles. Hence, a land use index that describes the level of compatibility for land uses within a one-mile radius of any given location (an area like a census block group or census tract) may look something like the following, which has been adapted from a land use index for walkability:⁵

$$LIB = LU^1/A \times \ln(LU^1/A) + LU^2/A \times \ln(LU^2/A) + LU^3/A \times \ln(LU^3/A) + \dots$$

where:

LIB = the Land Use Index for Bicycling in an area

A = Square footage of all land uses in the area

LU^x = Land Uses 1 through *N*, where *N* is the number of land uses in the study area, examples of which are entertainment, education, residential, retail, and office

Essentially, the more varied, densely developed, and closely spaced the land uses in an area, the more attractive that area will be for cyclists (and pedestrians, too). Hence, to create a more bike-friendly environment depends not only on the design of bicycle facilities and public outreach, but also on the very design of the community. The downtown of Tarboro is a great example of where many of these favorable land use factors come together to create a great potential for generating bicycle trips.

Design Conditions. If land use provides the demand for bike riders, then the design conditions in the area can be thought of as the supply that satisfies that demand. While cyclists are able to ride any non-access controlled roadway (an Interstate is an example of a fully access controlled roadway that is illegal for

cycling), the design and conditions on that roadway dictate to a large extent how attractive the facility is for a broad range of cyclists. There is a small percentage of cyclists in Tarboro that are extremely experienced and comfortable riding in tightly constrained, high traffic, and other circumstances that make more occasional riders nervous. There are several variations on bicycle compatibility and bicycle suitability models, but all operate on the principal that certain roadway operating conditions have a pronounced effect on the comfort level of cyclists.

The Bicycle Compatibility Index (BCI) discussed in this section was developed by the Federal Highway Administration (FHWA), and, in one survey of 200 respondents (n=200), was shown to explain 89% of the variation in the comfort level associated with different cycling conditions (see Figure 5-11)⁶. The BCI takes into account factors such as:

- Bike lane or paved shoulder present;
- Outside (curb) lane width;
- Residential or commercial land uses;
- Outside (curb) lane vehicular volume;
- Other lanes' vehicular volume;
- Typical maximum (85th percentile) speed;
- On-Street parking spaces occupied; and
- Truck volumes.

The first three items in this list – bike lanes, lane width, and residential land use – all have positive influences on the BCI; that is to say, the BCI is reduced. The rest of the items on this list worsen the BCI (the BCI is increased) if they are present, including commercial land uses.

Using this index requires a significant amount of roadway data, but a simplified version can be generated by taking the best available estimates of various conditions on the roadways in an area. For small, local streets, the BCI can be

$BCI = 3.67 - 0.966BL - 0.410BLW - 0.498CLW + 0.002CLV + 0.0004OLV + 0.022SPD + 0.506PKG - 0.264AREA + AF$			
where:			
BL = presence of a bicycle lane or paved shoulder ≥ 0.9 m no = 0 yes = 1		PKG = presence of a parking lane with more than 30 percent occupancy no = 0 yes = 1	
BLW = bicycle lane (or paved shoulder) width m (to the nearest tenth)		AREA = type of roadside development residential = 1 other type = 0	
CLW = curb lane width m (to the nearest tenth)		AF = $f_t + f_p + f_{rt}$	
CLV = curb lane volume vph in one direction		where:	
OLV = other lane(s) volume - same direction vph		f_t = adjustment factor for truck volumes (see below)	
SPD = 85th percentile speed of traffic km/h		f_p = adjustment factor for parking turnover (see below)	
		f_{rt} = adjustment factor for right-turn volumes (see below)	
Adjustment Factors			
Hourly Curb Lane Large Truck Volume ¹	f_t	Parking Time Limit (min)	f_p
≥ 120	0.5	≤ 15	0.6
60 - 119	0.4	16 - 30	0.5
30 - 59	0.3	31 - 60	0.4
20 - 29	0.2	61 - 120	0.3
10 - 19	0.1	121 - 240	0.2
< 10	0.0	241 - 480	0.1
		> 480	0.0
Hourly Right-Turn Volume ²	f_{rt}		
≥ 270	0.1		
< 270	0.0		

¹ Large trucks are defined as all vehicles with six or more tires.

² Includes total number of right turns into driveways or minor intersections along a roadway segment.

Figure 5 – 11. Bicycle Compatibility Index.

assumed to be very good, since automobile volumes are so small and cyclists have room to maneuver. Larger, more heavily-traveled, and higher-speed roadways can benefit from having the BCI calculated for them. Alternative conditions can be estimated from making bicycle improvements (e.g., increasing shoulder widths) or changing conditions (like lowering traffic volumes due to a parallel roadway expansion).

¹ Manual on Uniform Traffic Control Devices for Streets and Highways, 2003 Edition. Federal Highway Administration, 2003. From Figure 9C-3, Section 9C.06.

² Standard Specifications for Highway Bridges, American Association of State Highway and Transportation Officials, 2002. pp. 11-15.

³ Manual on Uniform Traffic Control Devices for Streets and Highways, 2003 Edition. Federal Highway Administration, 2003. From Figure 9B-7, Section 9B.20.

⁴ Transportation Research Board, "Access Management Manual." 2003. 373 pages.

⁵ Lawrence D. Frank, et al. "Many Pathways from Land Use to Health, Associations between Neighborhood Walkability and Active Transportation, Body Mass Index, and Air Quality." Journal of the American Planning Association, vol. 72, no. 1, pages 75-86. Winter, 2006.

⁶ *The Bicycle Compatibility Index, A Level of Service Concept Implementation Manual*. Federal Highway Administration, Publication No. FHWA-RD-98-095. 1998. 22 pages.
(www.hsrc.unc.edu/research/pedbike/98095/index.html)

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Summary: The following section outlines policy and program recommendations that were developed throughout the planning process to address the three E's of bicycle-friendliness:

- Encouragement
- Enforcement
- Education

Section 6. Policies and Programs

A bicycle friendly community is not just one that has a lot of bicycle facilities, but also one that places an emphasis on bicycling in many of its actions and considerations. In addition to bicycle facility projects, certain policies and programs can be implemented to create a mind-set of bicycle friendliness in the Town. During the course of the Plan's preparation, several different policy recommendations and programs specific to Tarboro were identified and discussed. These policies and programs cover the three E's of bicycle-friendliness: encouragement, enforcement, and education. The following sections outline these ideas and identify their key components and those departments or entities within the town responsible for carrying out the policy or program.

6.1. Existing Policies

The Town of Tarboro does not currently have a well-developed bicycle policy of its own, but it does come under the jurisdiction of the State's policies. Notable among these is the **1978 NCDOT Bicycle Policy**, more recently updated in 1991. The Policy covers all of North Carolina's extensive (80,000+ miles) of street system, and encourages the proactive integration of bicycle facilities into roadway engineering, and considerations of bicycle funding, design, construction, and maintenance. A complete description of the NCDOT Bicycle Policy can be found at the following website:

www.ncdot.org/transit/bicycle/laws/laws_bikepolicy2.html.

Other significant laws and policies that might affect the practice of cycling or development of a bicycle system in Tarboro are the following:

- **North Carolina Bicycle Helmet Law** (NCGS §20-171.6-171.9). Under North Carolina law, it is illegal for the parent or legal guardian of any person under the age of 16 to operate a bicycle without wearing a helmet. The fine for the infraction is currently set at \$10.00.
- **North Carolina Bicycle Racing Law** (NCGS §20-171.2) North Carolina state and local governments are obligated to sanction any bicycle racing, which is

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illegal otherwise. Law enforcement agencies should be consulted with prior to any sanctioned race.

- **North Carolina Bicycle Facilities Planning and Design Guidelines.** Created in 1994, this useful set of guidelines is still in wide circulation. The document summarizes AASHTO guidelines and other design policies, and also provides a useful description of the basic contents of a bicycle plan. A copy of this guidance should be kept in Tarboro's planning, engineering, and parks and recreation departments. It can be ordered over the Internet at: www.ncdot.org/transit/bicycle/projects/resources/projects_facilitydesign.html. An instructional video is also available.
- **NCDOT Greenway Administrative Process.** Adopted in 1994, the principal purpose of this policy is to ensure that, "where possible, within the policies of the Department," greenway access occurs during highway development and design, if the greenway is part of a locally-adopted plan. Justifications of highway crossings shall be made in priority order in the local planning document. It is important to note the transportation use of the facility as opposed to simply a recreational use to help justify future crossings of roadways that are widened or placed on new location across the greenway alignment. The complete Greenway Administrative Process is located at: www.ncdot.org/transit/bicycle/laws/laws_greenway_admin.html.
- **North Carolina Bicycle and Bikeway Act of 1974 (NCGS §136-71.6 – 136-71.13).** Much of the policy progress in North Carolina stems from this comprehensive act, which established the North Carolina Bicycle Committee and helps local governments fund and implement bicycle projects and safety initiatives. A description and the full language of the Act can be read at: www.ncdot.org/transit/bicycle/laws/laws_bikewayact.html.
- **NCDOT TIP Funding Selection Criteria.** While not, strictly speaking, a policy, it is important that Tarboro and any government or advocacy group wishing to fund a bicycle project using state monies understand these criteria, and keep a detailed project description for each desired project that addresses these criteria:
 - Right-of-way;
 - Design standards;
 - Project purpose;
 - Preliminary project approval (permitting and MPO approval);



- Local area involvement;
- Inclusion in transportation or bicycle planning process;
- Project need, using accident data and users of the facility; and
- Boardwalks, which may not be deemed handicap-accessible.

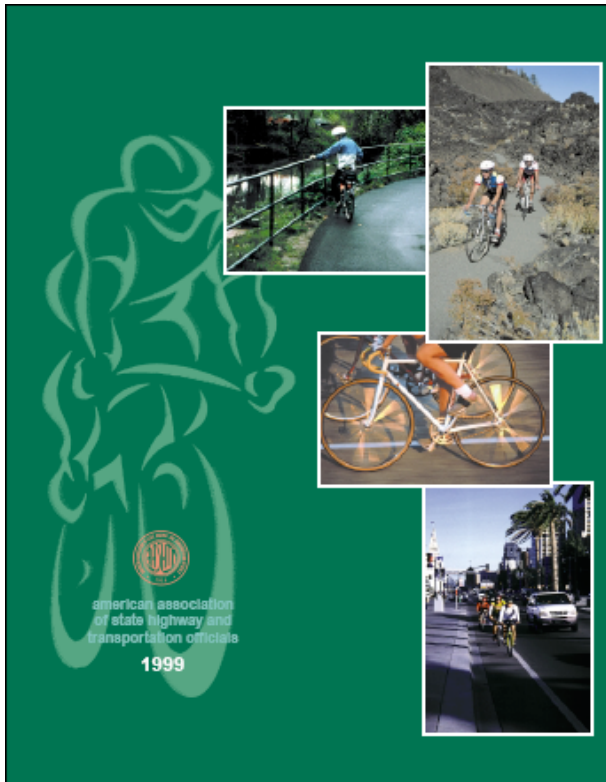
Finally, it is worthwhile to note that the federal government, through the Federal Highway Administration (FHWA) of the United States Department of Transportation (USDOT) and the American Association of State Highway and Transportation Officials (AASHTO) have developed meaningful national bicycle documents that have assumed the stature of valuable guidance. Both of these resources tend to be less on the “cutting edge” of bicycle practice and research, but they are still heavily-cited sources of information in the engineering community.

- *Federal Highway Administration, United States Department of Transportation* (www.fhwa.dot.gov/Environment/bikeped/). This website offers links to valuable Internet-based resources as well as specific federal guidance on programming and designing bicycle projects. Most notable among these documents is the 1999 FHWA Memorandum entitled “Transmittal of Guidance on Bicycle and Pedestrian Provisions of the Federal-aid Program.”
- *American Association of State Highway and Transportation Officials, Guide for the Development of Bicycle Facilities* (available through: www.communitymobility.org/pdf/aashto.pdf). One of the most often-cited documents on bicycle facility design, the AASHTO Guidance offers descriptions of three different bicycle user types; facility types and when to choose each; and basic design criteria.

6.2. Policy Recommendations

6.2.1. Construction and Maintenance

Many of Tarboro’s policy recommendations are related to the Town’s internal policies for project construction, development, and maintenance. The following recommendations address policies related to these items.



1. **Consider bicycle facilities in all road construction and road maintenance projects.** The Town's commitment to encouraging bicycle use must extend to its construction and public works projects. The Town should always consider the construction of new bicycle facilities on new roads and in any maintenance or other roadway project. The Town should also require other construction entities, such as NCDOT or developers, to consider bicycle facilities on new roads. This will expedite the construction process for new bicycle facilities and guarantee the preservation of existing bicycle facilities. *Responsible Parties: Town public works, NCDOT, Town planning department.*
2. **Include bicycle considerations in all private development site plans.** The Town should require all developers to include facilities for bicycles, from bicycle lanes on new roads to bicycle parking at new apartment complexes and office buildings. This will emphasize to the private sector the Town's desire to create a bicycle community and encourage more bicycle consideration in the future. *Responsible Parties: Town planning department*
3. **Interconnectivity of Adjacent Developments.** The Town should ensure that its policies for creating shared use, off-road paths are supported by requiring adjacent developers to build connections through properties being developed. Furthermore, off-road connections between compatible developments – including retrofitting existing developments, where feasible – should be required for new developments.
4. **Require bike parking at all public facilities.** The Town should require bicycle parking at all new public facilities, such as recreation centers, schools, libraries, and health facilities. The Town should also create a plan for bicycle parking construction at existing facilities. This will make more locations bicycles accessible and allow for more utilitarian cycling – cycling to work, to shop, and to run errands. *Responsible Parties: Town Administration and manager to communicate with other public entities such as police, fire, health, schools, and libraries.*
5. **Consistent bicycle facilities maintenance.** Once bike facilities are constructed, they must be properly maintained to continue use. The Town



A bicycle lane in need of maintenance. *Once bike facilities are constructed, they must be properly maintained.*

should establish a consistent bicycle facilities maintenance program that includes

- Off-road bicycle facilities such as greenways and trails: regular sweeping, resurfacing as needed
- On-road facilities to regularly sweep bike lanes, and to restripe and repave as necessary

Responsible Parties: Town Public Works and Parks and Recreation Departments, NCDOT.

6. **Pursue funding opportunities as a top priority.** The Town should make a commitment to pursuing funding opportunities for bicycle facilities at every opportunity. There are many funding sources that the Town can consider, these are discussed in Section 7. *Responsible Parties: Town Planning, Public Works, and Parks and Recreation.*
7. **Credit Bicycle Parking.** The Town should modify its Unified Development Ordinance to include provisions for crediting bicycle parking as a substitute for vehicular parking spaces (one-to-one transfer of parking credit for parking lots of five vehicular spaces or greater).

6.2.2. Encouragement

Other policy changes focused more on bicycle-related encouragement and support. These policy recommendations are:

1. **Promote bicycle use for town and government employees.** The Town should promote and encourage bicycle use by Town and other government employees. In order to do so, the Town should establish employee policies that allow for flexible commuting times and habits that may be necessary for cycling commuters. These policies should be advertised amongst the Town's employees and included in new employee information packets. Town facilities should have safe, secure, and adequate facilities such as bicycle parking and showers for bicycle commuters. The Town should consider establishing a program for emergency rides home for cyclists who ride to work. *Responsible Parties: Town Administration*
2. **Coordinate with other bicycle activities in the area.** Tarboro's effort to create a more bicycle-friendly community is part of a growing region-

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Section 6: Program and Policy Recommendations

wide effort to promote bicycling and bicycling tourism. In order to capitalize on this, the Town should consider coordinating with nearby communities, such as neighboring towns, counties, and the state, as well as local bicycling advocacy or recreation groups to establish new bicycle facilities, create promotional material, and facilitate bicycle region-wide bicycle events. Entities that have shown particular interest in bicycling-related activities thus far include Edgecombe County, the Town of Scotland Neck, NCDOT, and the Triangle Off-Road Cyclist Club. Additional entities are displayed in Section 7, Table 7 – 1. *Responsible Parties: Town of Tarboro departments of Planning and Parks & Recreation, Tarboro Chamber of Commerce.*

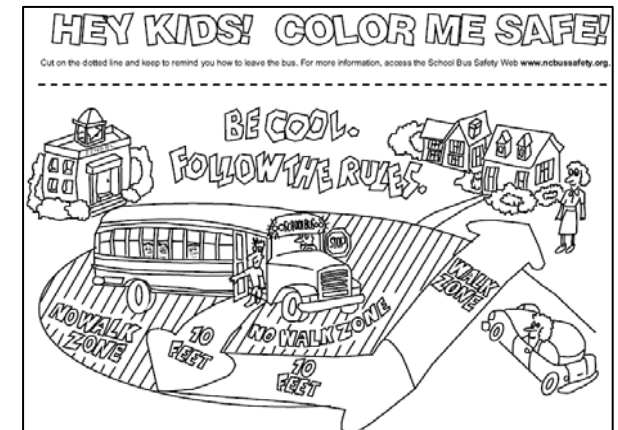
3. **Create standing bicycle advisory committee.** A standing bicycle committee can serve as a guiding group for new bicycle facilities, coordinating bicycle facility maintenance, and advocating for bicycle issues – both locally and on a regional or state-wide scale. A standing bicycle committee ensures that the Town receives community input on new projects and community support for any programs or bicycle-related activities. *Responsible Parties: Town of Tarboro Planning Department.*

6.3. Existing Programs

Bicycle programs can come from a wide range of sources in a community, from schools and police departments to health care centers and recreation departments. The following paragraphs summarize the existing bicycle-related programs in Tarboro.

Tarboro Schools

Bicycle programs, which seek to educate, enforce, or encourage bicycle use, are not frequently found in North Carolina's more rural communities where resources for programs are especially thin. Many communities focus their efforts on children and through the public school system. Edgecombe County Public Schools has developed a very user-friendly and useful Internet resource (for example, www.ncbussafety.org/parents.html) that discusses the basics of boarding and exiting a school bus. However, there is no mention of student cycling provisions in these pages.



Source: Edgecombe County Public School System.

Tarboro Police Department

The Tarboro Police Department (TPD) has proved to be quite aggressive in promoting and enforcing safe bicycle behavior, particularly among children. The TPD has issued warnings (first year) and tickets to parents of children that do not wear bicycle helmets. Bicycles may be taken from children who are not wearing helmets, and the bicycles can then be retrieved from the police station in return for a \$10 fine.

In addition, the TPD has participated or solely sponsored 2-3 bicycle rodeos every year. The Police Department also lectures school children 2-3 times per year about bicycle safety. The TPD offers free bicycle registration from 8am to 5pm on weekdays. Finally, the TPD also stations officers as crossing guards at local schools.ⁱⁱ

6.4. Program Recommendations

Programs are specific actions that are done on a repeated schedule, often annually, to promote bicycle use. Like policies, they can be used to address the three “E’s”: encouragement, enforcement, and education. The following are some of the bicycle-related programs that the Town has identified for implementation through its planning process.

6.4.1. Encouragement

1. **Safe-Routes-to-School Program.** Across the nation, Safe-Routes-to-School programs are springing up everywhere. The Safe Routes to School Program is a federally funded program that passes money to state governments which in turn select candidate programs for funding. Eligible funding activities include capital (e.g., bike lanes and parking) and non-capital (e.g., educational and safety programs) items. The goal of Safe-Routes-to-School is to encourage students to have more active lifestyles. Tarboro should consider establishing a Safe-Routes-to-School program within Edgecombe county schools which will emphasize bicycling and safe bicycling practices. Tarboro’s Safe-Routes-to-School program will be a joint school system and local government effort to encourage students

to bike or walk to school. Frequently these programs will include a Bike-to-School day during which students and their parents will work together to make sure students arrive at school either by walking or bicycling. The Safe-Routes-to-School program could also include educational classes that will teach students about bicycling safety and the benefits of bicycling, such as better health, reduced air pollution, and less traffic congestion. Another possible event could include a sponsored annual program whereby middle school children ride bicycles on a set route to earn money for the school to purchase books. A suggested route map is contained in Appendix 5. *Responsible Parties: Town of Tarboro Planning Department and Edgecombe County Schools.*

2. **Bike route brochure for new residents and visitors.** Tarboro should create a bicycle brochure that educates visitors and new residents about the bicycling opportunities in Tarboro. This brochure would include maps of Tarboro's bicycle routes which would include other major attractions such as Tarboro's downtown, recreation centers, Indian Lake Sports Complex, schools, and libraries. The brochure would be useful as promotional material not just for bicycling but also for the Town itself to attract more residents and visitors. The brochure could be distributed at the following locations:
 - Town Hall
 - Libraries
 - Schools
 - Recreation Centers and Indian Lake Sports Complex
 - Health Centers: Heritage Hospital and other medical facilities
 - Chamber of Commerce
 - Tarboro Town events such as July 4th activities

Responsible Parties: Town of Tarboro Planning Department, Tarboro Chamber of Commerce or Visitor's Bureau

3. **Annual Bicycle Event (Bike Day Tarboro):** During the course of the Plan's preparations, there was a lot of discussion about an annual bicycle event for Tarboro. The purposes of this event would be many: promote bicycling for public health and better lifestyles, educate about bicycle and motorist safety, and attract visitors who may be interested in bicycle events. The

event could be held independently or alongside another Tarboro town event, such as Tar River Day. Major contributors in Bike Day Tarboro could include the Town's administration and Parks and Recreation Department, Tarboro Police Department, local schools, and public health entities. The day, possibly titled Bike Day Tarboro, could include a variety of activities including:

- a. **A group bike ride:** participants in Bike Day Tarboro could come in the morning for a group ride, possibly of Historic Tarboro or perhaps a more scenic route through Tarboro's Outer Loop. The ride could end at the Town Commons, where the rest of the day's events would begin.
- b. **A bike rodeo** in which bicycle-related goodies such as helmets and bike lights are handed out during the course of safety and bicycle maintenance or repair demonstrations.
- c. **Booths and Tables.** Vendors for food and bicycle-related equipment could set-up booths alongside public health and bicycle awareness promotional booths.

Responsible Parties: Tarboro Parks and Recreation Department, public health agencies, and Tarboro Police Department.

4. **Historic Tarboro Bike Ride:** In addition to the Bike Day Tarboro event, the town could also establish a Historic Tarboro Bike Ride, based off of the Historic Tarboro Bike Loop. The ride could be manageable for riders of all ages. Guides and information about the ride could be available at the Visitor's Bureau and Tarboro could even consider establishing the route as a regularly ridden event, perhaps once every Saturday morning replete with tour guide and rentable bikes. The purpose of this ride would both be to promote cycling in Tarboro and also to promote the town itself to visitors and potential new residents. If it gained enough popularity, the ride could become an attraction for visitors.

Responsible Parties: Tarboro Chamber of Commerce or Visitor's Bureau, or Tarboro Parks and Recreation

6.4.2. Education

1. **Bicycle Education and Safety Classes.** The Tarboro Police Department already conducts bicycle safety classes in the school system. Additional classes could be considered as part of driver's licensing requirements or through after school programs. *Responsible Parties: Tarboro Police Department.*
2. **Bicycle Safety Brochure.** This brochure would be Tarboro-focused, with discussion of issues specific to the Town and the surrounding area. The brochure should contain graphics and text that make it easy for a broad audience to understand. Brochure contents should include: Tarboro's efforts to improve bicycle safety, contacts for specific bicycle-related issues, and how to access the Tarboro Bicycle Plan. The brochures should go to schools, health care facilities, senior centers, and other public locations. *Responsible Parties: Tarboro Police Department, Tarboro Planning Department*

6.5. Recommended Schedule of Implementation

The following is a proposed schedule for the policy and program recommendations discussed in this section. This schedule takes into account the ease with which a policy or program can be implemented, the immediate need of the policy or program change, as well as available funding and staffing. A short-term recommendation is generally one that can be implemented quickly, or one that should be implemented quickly in order to address a need. A mid-term recommendation is one that may take longer to implement due to institutional or economic restrictions. Long-term recommendations are those that may take over ten years to implement, and will require staffing and funding.

Short-Term (1 – 5 Years)

Policy

- o Consider bicycle facilities in all road construction and road maintenance projects.
- o Include bicycle considerations in all private development site plans.
- o Require bike parking at all new public facilities.
- o Pursue funding opportunities as a top priority.

Program

- Create a standing bicycle advisory committee.
- Bike route brochure for new residents and visitors.
- Safe-Routes-to-School Program.

Mid-Term (5 – 10 Years)

Policy

- Credit bicycle parking.
- Require inter-connectivity of adjacent developments.
- Promote bicycle use for town and government employees.
- Coordinate with other bicycle activities in the area.

Program

- Bicycle Education and Safety Classes
- Bicycle Safety Brochure

Long-Term (10 or More Years)

Policy

- Establish consistent bicycle facilities maintenance.

Program

- Annual Bicycle Event (Bike Day Tarboro)
- Historic Tarboro Bike Ride

ⁱ North Carolina Department of Transportation, "TIP Project Selection Criteria." September 10, 2002. (http://www.ncdot.org/transit/bicycle/funding/funding_criteria.html)

ⁱⁱ Conversation with Robert Cherry, Tarboro Chief of Police, March 6, 2006 4:00pm.

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Summary: This section reviews the financing and partnerships that are available to the Town of Tarboro. It also provides an overview of the proposed projects and programs within the Plan.

Section 7. Implementation

This section discusses the financing and partnerships that are available to the Town of Tarboro to plan, design, acquire right-of-way for, and construct the various types of bicycle projects and programs contained in this Plan. Also important is providing a schedule for implementation. Even if funding sources and partnerships are still evolving and not secured, identifying a reasonable schedule is the basis for assessing progress made in implementing the Tarboro Bicycle Plan in future years. It is this periodic, annual assessment that is the most important –and often overlooked – part of developing an effective plan and planning process.

7.1. Financing

Tarboro is generally reliant upon the State of North Carolina Department of Transportation to fund any significant roadway and major enhancement projects. The Tarboro Capital Improvement Program (CIP) is limited in terms of resources to be spent on new, capital-intensive projects in any given year. Tarboro takes great pride in keeping the tax burden on its citizens as low as possible. Hence, not only the regular revenue streams from state sources are important, but also exploring partnerships among many different agencies to create a positive change that advances the goals of this Bicycle Plan. Several funding sources are common to many different kinds of bicycle projects; these are briefly described below.

North Carolina Department of Transportation Funding Sources

- **Transportation Enhancement Program** - Transportation enhancements are transportation-related activities that are designed to strengthen the cultural, aesthetic, and environmental aspects of transportation systems. The transportation enhancements program provides for the implementation of non-roadway capacity improvement projects, including bike and pedestrian facilities; landscaping; and similar aesthetic improvements.

Various forms of bicycle paths, on-road improvements, safety actions, educational programs, and bicycle parking are eligible for funding.

- **Small Urban Funds** - Each NCDOT Highway Division has \$2 million of small urban funds available annually. Local requests for small bike and pedestrian projects can be directed to the NCDOT Highway Division office for funding through this source. A written request should be submitted to the Division Engineer providing technical information such as location, improvements being requested, timing, etc. for thorough review. There is a \$250,000 maximum amount per request per fiscal year for local projects within two miles of Tarboro's Town limits.
- **Hazard Elimination Program** - Bicycle and pedestrian projects are eligible for this program. This program focuses on projects intended for locations that should have a documented history of previous crashes. As of this writing the Tarboro NCDOT Division receives \$100,000 annually for hazard elimination and another \$200,000 is allocated to the Division of Bicycle and Pedestrian Transportation for statewide projects such as training workshops, pedestrian safety and research projects.
- **Spot Improvement Program** - The NCDOT Bicycle and Pedestrian Transportation Division budgets \$500,000/year "spot" safety improvements throughout the State. These improvements might include signing, grate replacement, bike rack installations, hazard remediation at skewed RR crossings, and other small-scale improvements. Proposals should be submitted directly to the Bicycle & Pedestrian Transportation Division.
- **Governor's Highway Safety Program (GHSP)** - Substantial progress in reducing crashes, injuries and fatalities is required as a condition of receiving funding through the annual GHSP program. All funding is considered to be "seed money" to get programs started – the grantee is expected to provide a portion of the project costs and to continue the program after GHSP funding

ends. Projects are only approved for one full or partial federal fiscal year at a time; however, projects may be funded for up to three consecutive years. Amounts of GHSP funds vary from year to year, according to the specific amounts requested.

- **Statewide Discretionary Funding** - The Statewide Discretionary Fund consists of \$10 million and is administered by the Secretary of the Department of Transportation. This fund can be used on any project at any location within the State. Primary, urban, secondary, industrial access, and spot safety projects are eligible for this funding. To request funding, an agency must submit a written request to the NCDOT Highway Division office (or Board of Transportation representative representing Tarboro), providing a clear description of project and project justification.
- **State Transportation Improvement Program** - Bicycle and pedestrian projects are broadly eligible for funding from most of the major federal-aid transportation sources. One of the most cost-effective ways of accommodating bicycle and pedestrian accommodations is to incorporate them as part of larger reconstruction, new construction and some repaving projects. Generally, the same source of funding can be used for the bicycle and pedestrian accommodation as is used for the larger highway improvement, if the bike/ped accommodation is "incidental" in scope and cost to the overall project. Overall, most bicycle and pedestrian accommodations within the state are made as incidental improvements. The other type of specific bicycle project is termed "independent" for the simple reason that it is not connected to a specific roadway improvement funded by NCDOT, which sets aside \$6 million annually through the Bicycle & Pedestrian Transportation Division for the construction of bicycle improvements across the State. Eighty percent of these funds are from STP-Enhancement funds, while state funds provide the remaining 20 percent. Tarboro, by providing the local 20% match, can make its projects more attractive relative to competing applications.

- **Share the Road License Plate Program** - When finalized, this program places money from purchases of the Share the Road License Plate towards bicycle safety and educational programs sponsored by NCDOT.
- **Safe-Routes-to-School Program** - The Safe-Routes-to-School program just began in 2006 as a result of the passage of the federal SAFETEA-LU Act. Once formalized, it will provide grants and technical assistance for the establishment of Safe-Routes-to-School programs throughout the state.

Proposed programs may also draw from several other funding sources, including general matching grants from NCDOT for specific local initiatives and non-transportation related funding sources. Other potential funding sources include:

- **Economic Development Grants and Funding** for activities that may serve to attract new residents and visitors;
- **Parks and Recreation Related Funding** for improvements which may be applicable to greenway construction or recreational activity, like Bike Day Tarboro; and,
- **Grants from Non-Profits and Advocacy Groups** interested in promoting bicycle and pedestrian activities, recreation, or physical activity.

Tarboro is also a member of the Upper Coastal Plains Rural Planning Organization (RPO) and Kerr-Tarr Council of Government (COG) can also provide technical assistance such as planning and grant writing for various projects.

7.2. Partnerships

A partnership is often the basic building block for small towns and rural places that wish to create a new piece of infrastructure or program in their community. In many larger cities, the value of creating and maintaining partnerships is often overlooked, as it often is within government in general. However, working with non-profit agencies, institutions, private sector agents, and chambers of commerce comes more naturally to North Carolina's rural communities since they have fewer "in-house" resources to do capital construction on their own.

Table 7 - 1 lists some potential partners and their "tie-ins" to biking in Tarboro.¹

¹ Partially obtained from a conversation with Connie Hull, Media Coordinator, South Edgecombe Middle School. March 8, 2006 at 2:00pm.

Table 7 – 1. Potential Partnering Agencies for Tarboro Bicycling Efforts.

Organization	Relationship and Interests
Rotary Club	Both the Rotary and Kiwanis Clubs are active in Tarboro, and may be helpful in procuring maintenance assistance for multi-use trails and volunteers for programs.
Kiwanis Club	
Garden Club	There is a local garden club that may be useful in landscaping and maintaining trailside plantings.
Chamber of Commerce	The Chamber is quite active in Tarboro, and its membership provides a convenient one-stop source of potential volunteer and donation resources.
Tarboro-Edgecombe Redevelopment Corporation	This agency acquires redevelopment grants to repair and rehabilitate historic buildings downtown, and may be interested in an annual bike ride tied to Tarboro's historic attractions.
NAACP, Edgecombe County Chapter	Another active group in Tarboro and Edgecombe, with members that have historically assisted with trail maintenance and are active in a variety of recreational and youth-oriented activities.
Community Enrichment Organization	The "CEO" is a religious-based organization that ties several area churches together, and might be useful in distributing information, asking for sponsorships/donations, and so forth.
Heritage Hospital	The Tarboro hospital and its staff and doctors have a direct interest in helping people achieve more active and healthy lifestyles. Good source of volunteer effort and coordination.
Tar River Riders	Based in nearby Rocky Mount, Tarboro would be close enough to attract this group to an annual event and help provide expertise on organizing successful bike rides.
Pilot Club	These women's groups are dedicated to civic service, and may be useful to finding a coordinator for one or more events or programs.
Tarboro Woman's Club	
Relay for Life	The Edgecombe County Relay for Life has raised nearly \$1.2 million in its almost 10-year history to help combat cancer, encourage cancer survivors and remember loved ones who died from cancer. This group may wish to be tied into a bike event or can share mailing lists if the event is tied to funding cures for cancer-related illnesses.
Edgecombe Community College	Colleges are an excellent source of volunteer resources, and the Community College's health-based education programs could be tied into supporting cycling-related health events.

GRANT FUNDS AND PROCUREMENT

The Governor's Highway Safety Program, Community Development Block Grants, fitness and health grant sources, Congestion Mitigation and Air Quality (CMAQ), and the federal/state Safe Routes to School program all represent potential sources of funding for pedestrian projects. However, in order to capitalize on these opportunities Tarboro must have staff that is well-versed in preparing grants and tracking the grant cycles. These sources are often very competitive, and being prepared for an upcoming grant cycle is critical to the applicant's success. Optimally, the Town would have a Grants Coordinator, but at a minimum the Town should work through the Council of Governments to get assistance in grant preparation, a common role for North Carolina COGs.

Other organizations should be kept in mind in terms of providing financial resources to bicycling efforts. These include:

- National Park Service (Land and Water Conservation Fund Grants);
- North Carolina State Government, including Parks and Recreation; Wildlife Resources Commission; Division of Water Resources; Division of Community Assistance (facilitation);
- Conservation trusts, such as the N.C. Conservation Trust Fund or Triangle Land Conservancy, for off-road trails, should be coordinated on a six-month cycle to keep informed of funding and other right-of-way acquisition mechanisms and opportunities; and
- Fitness and health-based initiatives are becoming more frequent, such as the Fit Together program and Fit Community grants. Working locally with the Heritage Hospital in Tarboro to custom-fit a program is advisable, and may produce faster results than pursuing traditional grant sources (see text box on this page).

The most critical component of partnerships is locating the person, or "champion," that will spend the time and effort coordinating multiple people and agencies to achieve results. Keeping the same person for several consecutive years is crucial to building the long-term momentum necessary to establish ongoing programs and annual events like those discussed in this Plan (see also Section 7.3).

The Town of Tarboro itself cannot sustain the workload necessary to build that momentum, but the town and its staff constitute valuable support and initiators of programs. The Town planning and management staff should be prepared to make presentations to various partnering organizations, including providing a summary of the Bicycle Plan, and make links to the Plan's recommendations and the missions of the partners.

7.3. Scheduling, Responsibilities, and Funding

The following tables provide information on recommendation implementation. Tables are presented in the time frame of short-term, mid-term, and long-term, and also organized by proposed projects, programs, plan changes, and policies. Each table identifies the suggested agencies or departments that should spearhead the effort to implement each recommendation. The tables for projects and programs also list suggested funding sources. Project costs are available in Section 4. Funding sources are identified by the following abbreviations:

For Projects:

- TEP: Transportation Enhancement Program
- SUF: Small Urban Funds
- HEP: Hazard Elimination Program
- SIP: Spot Improvement Program
- GHSP: Governor's Highway Safety Program
- SDF: Statewide Discretionary Funding
- STIP: State Transportation Improvement Program – Incidental (Inc.) or Independent (Ind.)

For Programs:

- PR: Parks and Recreation-related Funding Sources
- NP: Non-profit and other advocacy organization sources
- ED: Economic Development-related Funding Sources
- SRTS: Safe-Routes-to-School Program
- TEP: Transportation Enhancement Program
- GHSP: Governor's Highway Safety Program
- SDF: Statewide Discretionary Funding
- STIP: State Transportation Improvement Program – Incidental (Inc.) or Independent (Ind.)

NOTE: Bolded X's indicate a highly recommended funding source.

Short Term

Projects

Route Name/Segment	Primary Responsibility	Potential Funding Sources							
		TEP	SUF	HEP	SIP	GHSP	SDF	STIP –	
								Inc.	Ind.
Additional bike lane on Northern Blvd	NCDOT	X		X	X	X	X	X	X
Northern and Baker: Main St. to Daniel St.	NCDOT/Town	X	X				X	X	X
Baker St.: Daniel St. to MLK Jr. St.	NCDOT/Town	X	X				X	X	X
Main St.: Western Blvd. to Northern Blvd.	NCDOT/Town	X					X	X	X
Daniel St. Cross-town Connector	NCDOT/Town	X					X	X	X

Programs

Program Name	Est. Cost	Primary Responsible Party	Potential Partners	Potential Funding Source								
				PR	NP	ED	NCDOT					
							SRTS	TEP	GHSP	SDF	STIP –	
										Inc.	Ind.	
Bicycle Advisory Committee	\$0	Town: Council and Planning Department	Tarboro Citizens	NA								
Bike Route Brochure	~\$300	Town: Planning	Town: Planning, Parks &Rec, Chamber of Commerce	X	X	X		X	X	X		X
Safe-Routes-to-School Program	Variable	Edgecombe County Schools	NCDOT, Town: Planning, Parks & Rec, Police Dept.	X	X		X	X	X	X		X

Tarboro Bicycle Plan
Section 7: Implementation

Plans

Plan	Primary Responsible Party	Potential Partners
Update the Tarboro Land Development Plan		
- include prioritized bicycle facilities	Town: Planning	Parks & Rec., Public Works
- insert language to encourage mixed use zoning and discourage strip commercial zoning	Town: Planning	Council
- provide recommendations for greenways and trails	Town: Planning	Parks & Rec., Public Works
- support strengthened driveway restrictions	Town: Planning	Public Works
Update the Tarboro Municipal Code & Zoning Ordinance:		
- change minimum driveway length	Town: Planning & Public Works	Council
- make bicycle registration free	Town: Police Dept.	Council
- eliminate parking or motorized vehicle operation in bike lanes	Town: Planning	Police Dept.

Policies

Policy	Primary Responsible Party	Potential Partners
Consider bicycle facilities in all road construction and road maintenance.	NCDOT	Town Public Works, Planning
Include bicycle considerations in all private site plans.	Town: Planning	Town: Planning Commission
Require bike parking at all new public facilities.	Town: Public Works	Schools, Parks and Rec., Edgecombe County
Pursue funding as a top priority.	Town: Planning	Town: Parks & Rec, Public Works, Edgecombe County

Mid Term

Projects

Route Name/Segment	Primary Responsibility	Potential Funding Source							
		TEP	SUF	HEP	SIP	GHSP	SDF	STIP –	
								Inc.	Ind.
US 64 Alt.: McNair Rd. to Western Blvd.	NCDOT/Tarboro	X					X	X	X
In-town Roads: MLK Jr. to Albemarle	NCDOT/Tarboro	X	X		X		X	X	X
St. James St.: Albemarle to Western	NCDOT/Tarboro	X	X				X	X	X
Western: St. James to Northern	NCDOT/Tarboro	X	X	X	X	X	X	X	X
Wilson St. Cross-town Connector	NCDOT/Tarboro	X					X	X	X

Programs

Program Name	Est. Cost	Primary Responsible Party	Potential Partners	Potential Funding Source								
				PR	NP	ED	NCDOT					
							SRTS	TEP	GHSP	SDF	STIP –	
											Inc.	Ind.
Bicycle Education & Safety Classes	Variable	Town Police Dept.	Schools, DMV	X	X		X	X	X	X		X
Bicycle Safety Brochure	Variable	Town Police Dept.	Schools, DMV		X		X	X	X	X		X

Tarboro Bicycle Plan
Section 7: Implementation

Plans

Plan	Primary Responsible Party	Potential Partners
Update the Tarboro Land Development Plan		
- bicycle-specific design standards	Town: Public Works	County, Public Works, NCDOT
Update the Tarboro Municipal Code & Zoning Ordinance:		
- designate urban trail-type facilities	Town: Parks & Rec	Town: Planning, Public Works
- modify street standards	Town: Public Works	Town: Planning, NCDOT
Create a multi-modal Transportation Plan	Town: Planning	Town: Public Works, NCDOT, Edgecombe County, RPO

Policies

Policy	Primary Responsible Party	Potential Partners
Credit bicycle parking.	Town: Planning, Council	Homeowner's Associations, Local Developers
Require inter-connectivity of adjacent developments.	Town: Planning, Council	Development Review Board?
Promote bicycle use for town and government employees.	Town: Human Resources, Planning	Chamber of Commerce, all other Town departments
Coordinate with other bicycle activities in the area.	Town: Planning	Town: Parks & Rec, Chamber of Commerce, Edgecombe County, neighboring counties

Long-Term
Projects

Route Name/Segment	Primary Responsibility	Potential Funding Source							
		TEP	SUF	HEP	SIP	GHSP	SDF	STIP –	
								Inc.	Ind.
St. Andrews St. Extension	NCDOT/Tarboro	X	X	X	X	X	X	X	X
Greenway Connection: Daniel to St. James	NCDOT/Tarboro	X					X	X	X
Greenway Connection: Royster to Western	NCDOT/Tarboro	X					X	X	X
McNair: US 64 Alt to Wilson	NCDOT/Tarboro	X					X	X	X
US 258: Daniel St Ext. to Greenway	NCDOT/Tarboro	X		X		X	X	X	X
Greenway Connection: Main St to US 258	NCDOT/Tarboro	X					X	X	X
US 258 South	NCDOT/Tarboro	X		X		X	X	X	X
Industrial Parkway Cross-town Connector	NCDOT/Tarboro	X					X	X	X

Programs

Program Name	Est. Cost	Primary Responsible Party	Potential Partners	Potential Funding Source							
				PR	NP	ED	NCDOT				
							SRTS	TEP	GHSP	SDF	STIP – Inc. Ind.
Bike Day Tarboro	Variable	Town Parks & Rec	Chamber of Commerce, Town: Planning, Police Dept.	X	X	X		X	X	X	X
Historic Tarboro Bike Ride	Variable	Town Parks & Rec	Chamber of Commerce, Town: Planning, Police Dept.	X	X	X		X	X	X	X

Tarboro Bicycle Plan
Section 7: Implementation

Plans

Plan	Primary Responsible Party	Potential Partners
Revise the Economic Development Plan to reflect Tarboro's Bicycle Plan	Chamber of Commerce	Town: Planning
Develop a plan to promote Tarboro as a bicycle-friendly place and eco-tourism attraction	Chamber of Commerce	Town: Planning

Policies

Policy	Primary Responsible Party	Potential Partners
Establish consistent bicycle facilities maintenance.	NCDOT	Town: Public Works, Planning

The following table shows a listing of proposed bicycle rack locations by priority. Funding for bicycle racks can be found through a variety of sources, including the Congestion Mitigation and Air Quality Program (CMAQ), NCDOT Spot Improvement Program, NCDOT Transportation Enhancement Program, and Fit Community Grants for designated Fit Communities.

Immediate Priority Bike Rack Locations	
River Front Park	E. L. Roberson Center
Burlington Park	Indian Lake Sports Complex and Lake
Clark Park	Post Office
Livesay Park	Edgecombe Memorial Library
Hussey Park	
Mid-Term Bike Rack Locations	
C. B. Martin Middle School	Stocks Elementary School
Tarboro High School	Patillo School
Tarboro Edgecombe Academy	Fairview Shopping Center
Parkhill Mall	Edgecombe Square Shopping Center
Tarboro Shopping Center	River Oaks Landing Shopping Center
Long Term Priority Bike Rack Locations	
County Administration Building	Social Services
Court House	Fire Station 2 & Electric Department
Health Department	Public Works
Town Hall	

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Summary: This section summarizes the plan, provides a brief overview of the recommendations, and discusses the benefits of making Tarboro a more bicycle-friendly community.

Section 8. Conclusion

The Town of Tarboro Comprehensive Bicycle Plan is intended to improve bicycle conditions in Tarboro, promote bicycling in Tarboro, and increase bicycle safety. It serves as a guide to the future of bicycling in Tarboro, and is intended to enhance the attractiveness of the Town to newcomers – both potential residents and businesses alike.

The contents of the Plan review the existing demographic, physical, and institutional conditions in Tarboro that may impact bicycling and the town's bicycle-friendliness. The Plan then provides a series of recommendations for changes to existing policies and plans, and new projects and programs. To supplement these recommendations, the Plan also provides recommended funding sources, responsible parties, and partnership opportunities for the Town to use. A section on standards and guidelines is provided to assist with project design and construction.

The benefits of the Tarboro Comprehensive Bicycle Plan will be many. Not only will the plan improve bicycle-friendliness in the Town, but it will also make it safer and more pleasant for cyclists. In addition, by promoting bicycling, the Plan will increase bicycle activity. This should have a subsequent result of increasing physical activity, which will thereby improve the health of the Town's population. Increasing bicycle activity is generally accompanied by a reduction in auto trips, and this also has the benefits of reducing traffic and improving air quality.

Finally, a reputation of bicycle-friendliness is often an incentive for visitors and businesses to come to a Town. Eco-tourists will be attracted to the region for its beauty, history, and outdoor activities, and businesses will be lured by the quality of life for its employees. There is great potential for Tarboro to work with neighboring communities to create a major event and marketing effort to generate national attention. By attracting newcomers, Tarboro will be able to capitalize on its investment in improved quality of life.

From here, the Town, its leaders, and its citizens can use this plan as instructions for the next steps to meet the Town's goals of more bicycle funding, projects, education, maintenance, safety, access, and policy. By following the recommendations within this document, Tarboro will find the tools, in the form of recommended policies and programs, and the building blocks, in the form of recommended projects, to create the Town's vision of a safe, bicycle-friendly community.

Appendix 1: Public Workshop Announcement and Bicycle Survey

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We Need Your Help!

with the Tarboro Bicycle Plan

Who: The Town of Tarboro is putting together a Comprehensive Bicycle Plan to guide the creation of future bicycle facilities in the Town and to make it a better, safer place to bike. The plan is supported by a grant from the North Carolina Department of Transportation and matching funds from the Town. Tarboro has hired a leading consultant in bicycle and pedestrian planning, The Louis Berger Group, Inc., to assist with the project.

What: This public meeting is intended to get your input on the plan. The goals of the Plan are to use *ALL* of Tarboro's assets: greenways, floodplains, downtown strips, to create new bicycle facilities and upgrade old facilities. We hope to connect major community facilities such as parks and libraries with neighborhoods, businesses, and schools. A better cycling environment will have the added benefits of making Tarboro more attractive for new business and visitors *and* more accessible for all residents (including those who can't drive). The result will be a safer, more bicycle-friendly Tarboro.

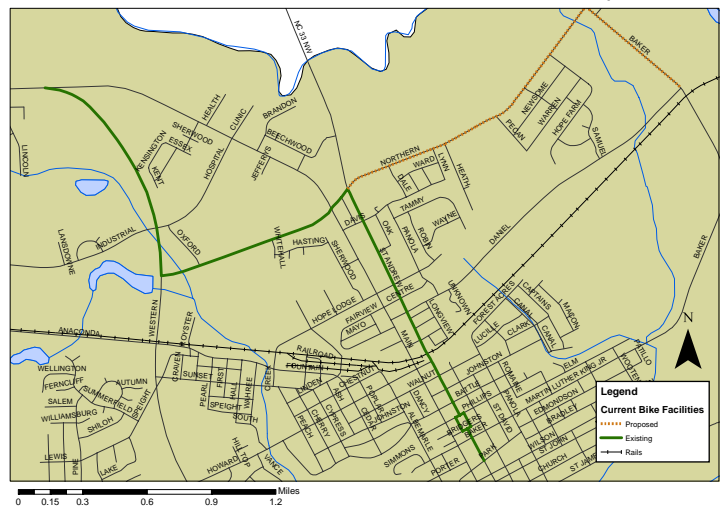
Why do we need your help? We need you to provide input on:

- ◆ New bike lanes,
- ◆ Improvements to existing bike lanes,
- ◆ new project ideas you may have (for greenways, bike lanes, parks, and other facilities),
- ◆ safety issues you're aware of,
- ◆ places in Town you'd like to go on a bike,

.... *The list goes on and on.*

Tarboro's Current Existing and Proposed Bike Lanes

Map created 18 October 2005



When: The making of this plan will be an eight-month effort. In October, in addition to this public meeting, we will also distribute surveys in the Town's utility bills for residents to complete and return to us. This is your opportunity to voice your opinions about the Plan and make recommendations for future changes. Later, in March, we will hold another Public Meeting for Tarboro residents to review and comment on a draft version of the plan. The Final Report will be finished at the end of April.

How to help:

1. Fill out an online survey at:
<http://www.keysurvey.com/survey/78701/157c/>
2. Contact the Project Team!

For more information, contact:

Troy Lewis

Planning Director, Town of Tarboro
P.O. Box 220
500 Main Street
Tarboro, NC 27866-0220

Phone: (252) 641-4249

Email: troylewis@tarboro-nc.com

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Bicycle Survey Town of Tarboro, NC



The Town of Tarboro is preparing a Comprehensive Bicycle Plan, funded by the Town and a grant from the North Carolina Department of Transportation. The Plan is intended to improve access and safety for cyclists of all ages.

This survey is intended to obtain general information about you as a cyclist, the biking conditions of your neighborhood, and recommendations that you may have to improve the bicycle conditions in the Town. If you have children, this would be a good exercise for the family as well. Thank you for your participation!

Bicyclist Information

1. Do you ride a bicycle?
☐ Yes ☐ No
- 1a. If no, why?
☐ Don't know how ☐ Unsafe
☐ Don't own a bike ☐ Unable
☐ No where to bike
 (if you answered no, skip to question 10)
2. What do you ride your bike for? *(check all that apply)*
☐ Shopping
☐ Work
☐ Recreation
☐ Family Event
☐ Exercise
3. When do you usually bike? *(check all that apply)*
☐ Weekdays ☐ Weekends
4. Do you bike all year-round or only in good weather?
☐ All year ☐ good weather
5. How often during the week do you ride (round trip)?
☐ 1-2 times ☐ 3-4 times
☐ More than 5 times
6. When you bike, where do you typically go?
☐ To or In a Park ☐ Library
☐ In Neighborhood ☐ Store
☐ Recreational Center ☐ Into town
☐ Other: _____ ☐ School
☐ All of the above
7. When you bike, do you wear a helmet?
☐ Yes ☐ No
- 7a. If no, why not?
☐ Don't own one ☐ Looks silly
☐ Uncomfortable ☐ Unnecessary
☐ Other: _____
8. Do you think Tarboro needs more bike parking racks?
☐ Yes ☐ No
9. Do you feel safe riding a bicycle in Tarboro?
☐ Yes ☐ No
- 9a. If no, why?
☐ Too much traffic
☐ Too many trucks
☐ Lanes too narrow
☐ Speeding vehicles
☐ Motorists don't respect cyclists
☐ Other: _____
☐ All of the above

Personal Information

Name (optional): _____

Zip Code: _____

Address: _____

Email: _____

Are you: ☐ Male ☐ Female

What is your age?

- ☐ 19 and under ☐ 50 – 69
☐ 20 -29 ☐ 70 and over
☐ 30 – 49

Would you like to receive newsletters and project notices?

- ☐ Yes ☐ No

Town Conditions

10. Did you know Tarboro has a bike route? *(St. Andrews Street)*

- ☐ Yes ☐ No

11. Which roads do you typically ride on?

- ☐ Western Blvd ☐ Main St
☐ Wilson St ☐ St. Andrews St.
☐ Howard Ave
☐ Other _____

12. Which roads would you avoid riding on?

- ☐ Western Blvd ☐ Main St
☐ Wilson St ☐ St. Andrews St.
☐ Howard Ave
☐ Other _____

12a. Why?

13. Would you ride a bike more if:

- ☐ you felt safer
☐ drivers drove slower
☐ there were more clearly marked trails
☐ you had better places to go
☐ you had someone to ride with
☐ you felt more confident on your bike
☐ only if you couldn't drive
☐ none of the above

Continued on back...



14. Please provide any additional comments you may have:

PLEASE RETURN THIS SURVEY:

AT THE PUBLIC WORKSHOP

-OR-

**AT TARBORO TOWN HALL
CASHIER OFFICE**

-OR-

VIA MAIL: Troy Lewis
Planning Director, Town of Tarboro
P.O. Box 220
Tarboro, NC 27866-0220



Help Make Tarboro Better!

DON'T FORGET!

**Tarboro Comprehensive Bicycle Plan
Public Meeting**

**Tuesday, October 25, from 6 to 8 PM
At the Braswell Center**

We need your help! Bring your
questions, comments, and concerns about
Tarboro's Bike Paths and Routes.

For more information, please contact:

Troy Lewis
Planning Director
Town of Tarboro
(252) 641-4249

Appendix 2: Public Workshop Flyer and Presentation

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We Need Your Help!

with the Tarboro Bicycle Plan

Who: The Town of Tarboro is putting together a Comprehensive Bicycle Plan to guide the creation of future bicycle facilities in the Town and to make it a better, safer place to bike. The plan is supported by a grant from the North Carolina Department of Transportation and matching funds from the Town. Tarboro has hired a leading consultant in bicycle and pedestrian planning, The Louis Berger Group, Inc., to assist with the project.



What: The goals of the Plan are to use *ALL* of Tarboro's assets: greenways, floodplains, downtown strips, to create new bicycle facilities and upgrade old facilities. We hope to connect major community facilities such as parks and libraries with neighborhoods, businesses, and schools. A better cycling environment will have the added benefits of making Tarboro more attractive for new business and visitors *and* more accessible for all residents (including those who can't drive). The result will be a safer, more bicycle-friendly Tarboro.



Why do we need your help? We need you to provide input on:

- ◆ routes you'd like to see become bike lanes,
- ◆ bike lanes you recommend we improve,
- ◆ new project ideas you may have (for greenways, bike lanes, parks, and other facilities),
- ◆ safety issues you're aware of,
- ◆ places in Town you'd like to go on a bike,

.... *The list goes on and on.*

When: The making of this plan will be an eight-month effort. In October, we will distribute surveys in the Town's utility bills for residents to complete and return to us. We will also hold a **Public Meeting October 25, 2005 from 6 to 8 PM at the Braswell Center**. This is your opportunity to voice your opinions about the Plan and make recommendations for future changes. Later, in March, we will hold another Public Meeting for Tarboro residents to review and comment on a draft version of the plan. The Final Report will be finished at the end of April.

How to help:

1. Attend an open public workshop:
**Tuesday, October 25 from 6:00 – 8:00 PM at the
Braswell Center**
2. Fill out an online survey at:
<http://www.keysurvey.com/survey/78701/157c/>
3. Contact the Project Team!

For more information, contact:

Troy Lewis
Planning Director, Town of Tarboro
P.O. Box 220
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Tarboro, NC 27866-0220

Phone: (252) 641-4249
Email: troylewis@tarboro-nc.com

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Tarboro Comprehensive Bicycle Plan



Town of Tarboro
October 25, 2005





1



Why is Tarboro Doing This?

- Improve "Bikeability": Connections!
- Increase Safety
- Identify New Projects

2



What is the Bicycle Plan Project?

- Public Outreach
- Revisions to City Policies
- Funding for Projects & Programs
- User-Friendly Maps and Report
- And YOU...

3



How Can I Help?



- **Today's Workshop**
 - Sign in
 - Listen
 - Talk (Surveys & Comments)
 - Map It!
- **Afterwards**
 - Attend our next workshop
 - Visit the website
 - Write or call...we would love to hear from you!

4



THANK YOU!

Please Attend Our
Next Workshop:
February 2006

Town of Tarboro
Troy Lewis
500 Main Street
Tarboro, NC 27866 - 0220
(252) 641 - 4249


Website: www.tarboro-nc.com

Consultants (The Louis Berger Group, Inc.)
1513 Walnut Street, Suite 250
Cary, NC 27511
467.3885 (T) 467.9458 (F)
jlewis@louisberger.com
(Jennifer Lewis)

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Appendix 3: Summary of Bicycle Survey Results

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Final Summary Results Town of Tarboro Bicycle Survey

Overview

This is an analysis of the final results for the Town of Tarboro Bicycle Survey, which comprises of a total of 191 handwritten survey responses and 72 online survey responses. Of the online survey responses, 64 responses were from students at Edgecombe County Schools. The following analysis includes a separate section for student surveys.

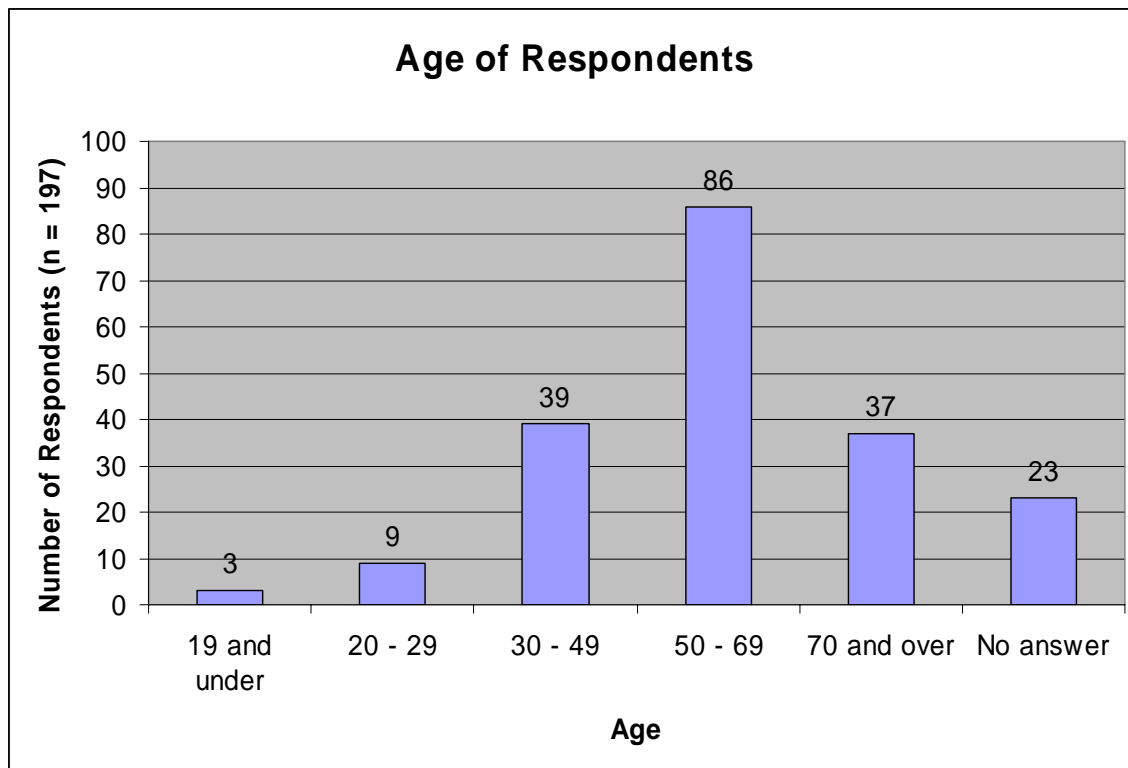
Major conclusions of this analysis are summarized as follows:

1. The Tarboro Bicycle Plan (the Plan) should focus on constructing more bicycle paths, trails, and facilities.
2. New bike paths should be created that either make the major roads in Tarboro safer and more comfortable for cyclists, or new bike trails should be created on non-major roads so that cyclists can avoid heavy traffic.
3. The Plan should include the creation of programs to promote bicycle safety and awareness.
4. The Plan should contain provisions for new bike racks.

A discussion of these conclusions is contained in the “Conclusions” section of this document.

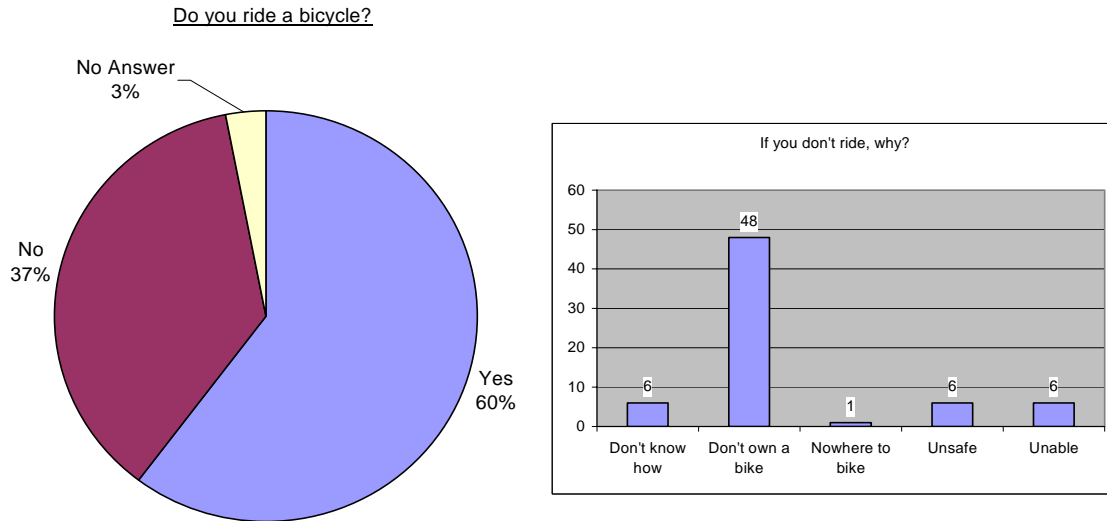
Results

Of the 199 adult respondents, 35.1 percent were male and 49.7 percent were female (15.8 percent gave no response). Respondents’ ages ranged from 20 years to over 70 years old. The most respondents were within the age range of 50 – 69 years old (see graph).



Cyclist Behavior

Results indicate that more respondents ride a bike (60.3 percent) than those that do not (36.7 percent). Of those who **do not ride** a bicycle, the most common reason is because they don't own a bike. This is followed by "don't know how", "unsafe", and "unable" (equal number of respondents (6) for each).

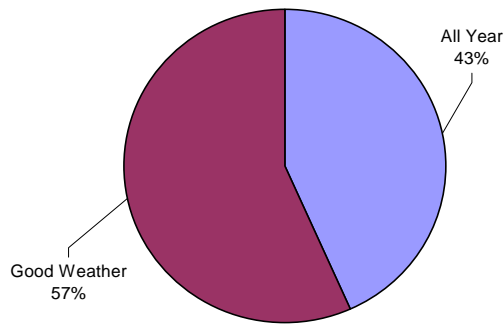


The top three bike riding purposes were: **1. Recreation, 2. Exercise, and 3. Family Event**. The table below shows all of the listed purposes and the percent of respondents who indicated they rode for that purpose.

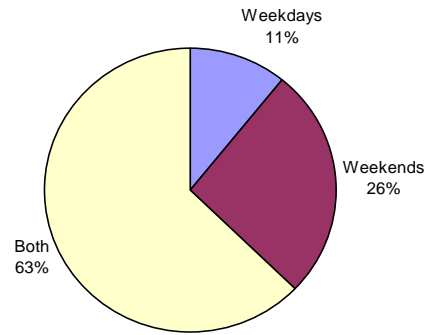
Reason to Bike	Percent Respondents
Recreation	47.24
Exercise	51.26
Family Event	12.06
Work	8.04
Shopping	8.04

Of those respondents that bike, 63 percent ride their bikes on both weekends and weekdays, followed by 26.7 percent of respondents ride their bikes on weekends only. More respondents (57 percent) ride their bikes in good weather than those who ride their bikes all year-round (43 percent). In addition, the most respondents (49.2 percent) ride 1-2 times per week round trip, followed by 25.8 percent of respondents who ride 3 – 4 times per week (round trip).

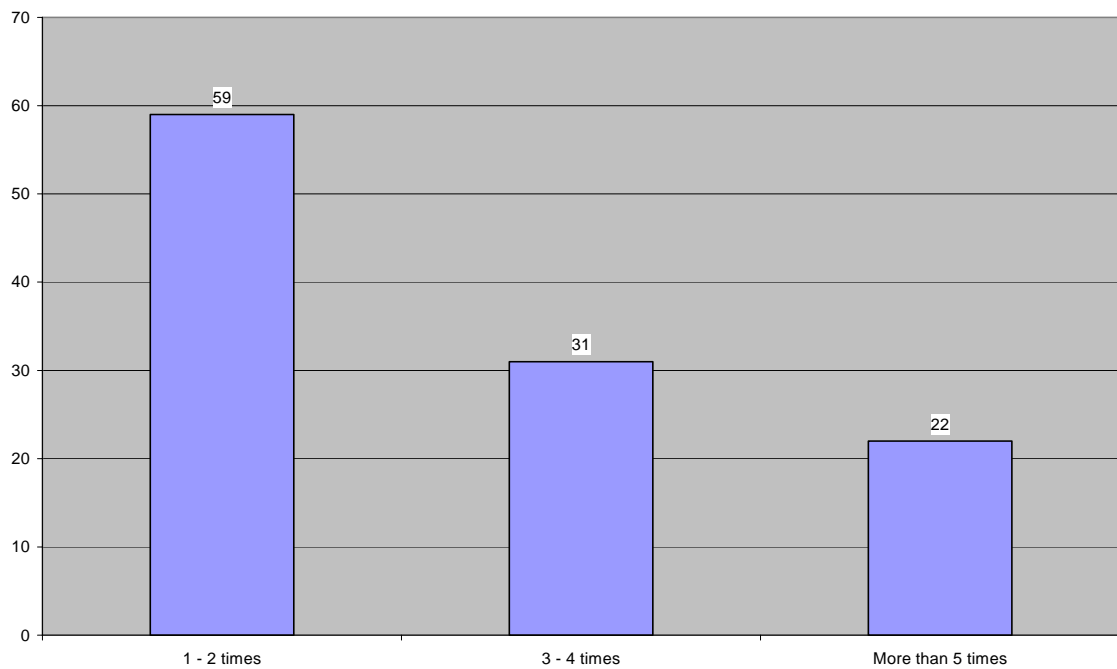
Do you bike all year-round or only in good weather?



When do you usually bike?

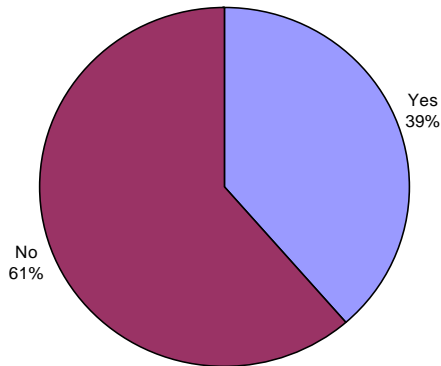


How often during the week do you ride (round trip)?

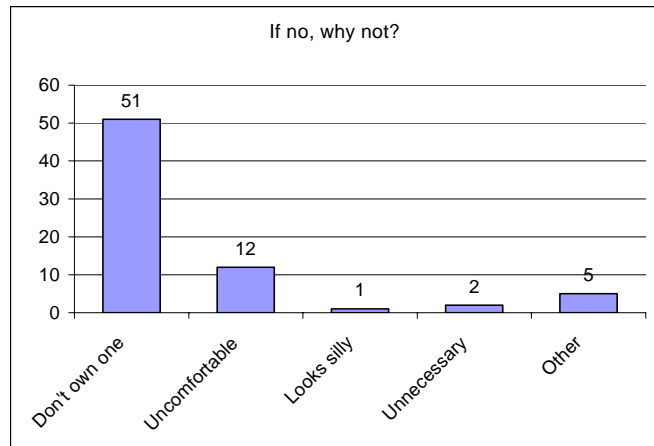


Of those respondents that bike, 60.8 percent indicated they do not wear a helmet when they bike and of these, 70 percent or 51 respondents indicated they do not wear a helmet because they do not own one. Other reasons for not owning a helmet include: uncomfortable, looks silly, unnecessary, and “bike helmets are poor SUV protection”.

When you bike, do you wear a helmet?



If no, why not?

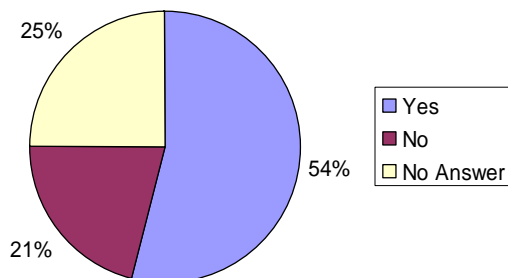


Facilities

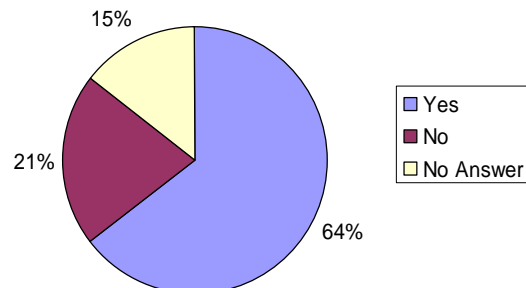
The most common location where respondents bike is in their neighborhood, followed by to or in a park, and then to a library. In addition to those listed below, other locations included into the county, to the river, and to church. 53.8 percent of respondents think that Tarboro needs more bicycle racks, while 64.3 percent of respondents are aware that Tarboro has a bike route.

Locations	No. of Respondents
In the neighborhood	92
To or in a park	32
Library	29
All of the above	22
Into Town	16
Other	13
School	13
Store	12
Recreational Center	8

Do you think Tarboro needs more bike parking racks?

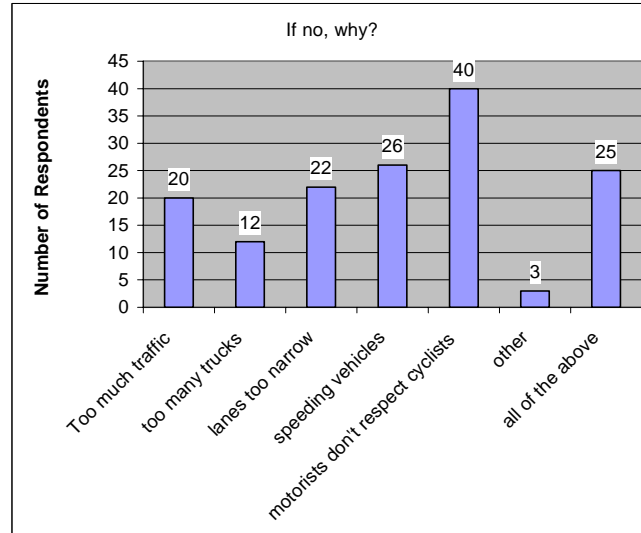
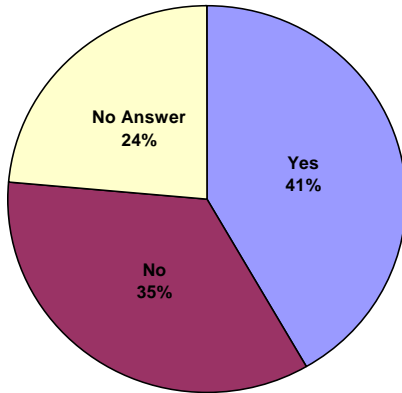


Did you know Tarboro has a bike route?



The most number of respondents (41 percent) feel safe riding in Tarboro, but 35 percent do not. The main reason respondents do not feel safe riding in Tarboro is because motorists don't respect cyclists, followed by speeding vehicles. Other responses include: not enough bike lanes and lanes should be lighted.

Do you feel safe riding a bicycle in Tarboro?



The top three roads that respondents ride on are: Howard Ave, Main St, St. Andrews St; the top three roads that respondents would NOT ride on are: Western Blvd, Howard Ave, and Main St.

Roads Respondents Ride On	Roads Respondents would NOT Ride On
1. Other Roads (37.2%)	1. Western Blvd (43.7%)
2. St. Andrews St (27.1%)	2. Howard Ave (25.1%)
3. Main St (25.6%)	3. Main St (21.6%)
4. Howard Ave	4. Wilson St
5. Wilson St.	5. St. Andrews St
6. Western Blvd	6. Other Roads

Behavior Change

The most respondents (40.7 percent) indicated they would ride more if there were more clearly marked trails, followed by 29.2 percent of respondents would ride more if they felt safer.

Would bike more if...	Percent Respondents
there were more clearly marked trails	40.7
you felt safer	29.2
you had better places to go	22.1
drivers drove slower	18.1
you had someone to ride with	12.1
none of the above	9.6

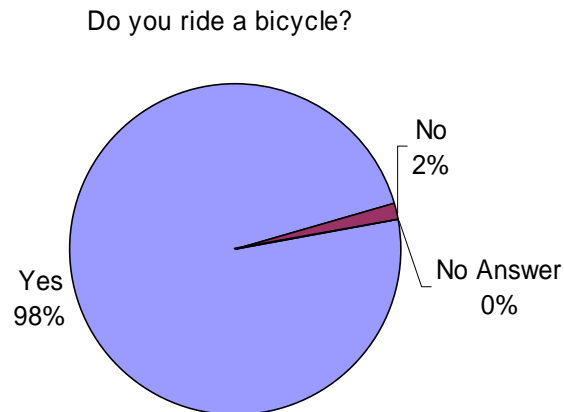
you felt more confident on your bike	2.5
only if you couldn't drive	2.0

Student Survey Results

The Town of Tarboro Bicycle Survey had a total of 64 student responses from Edgecombe County Schools. The following is an analysis of their results.

Cyclist Behavior

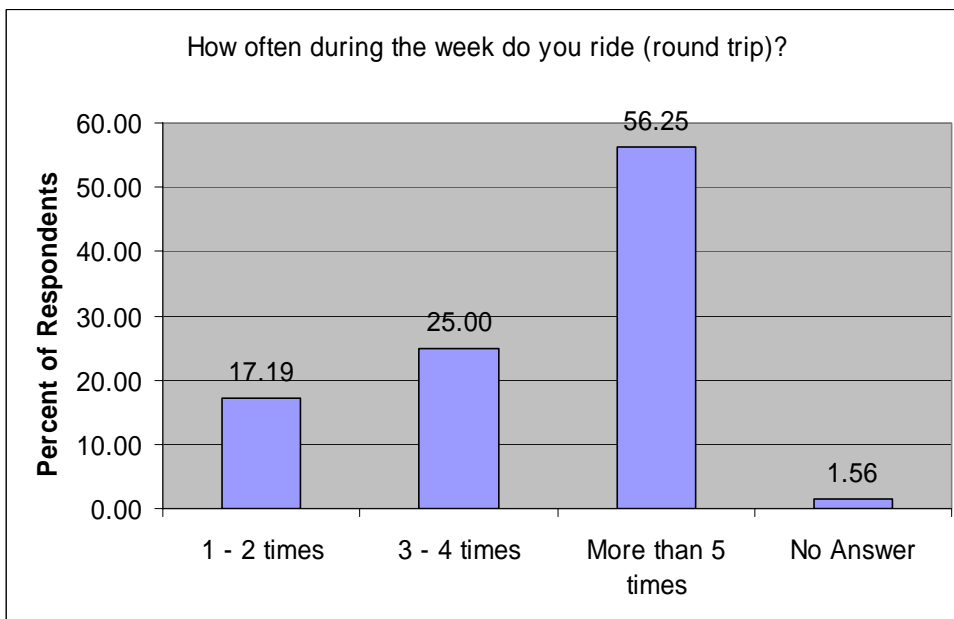
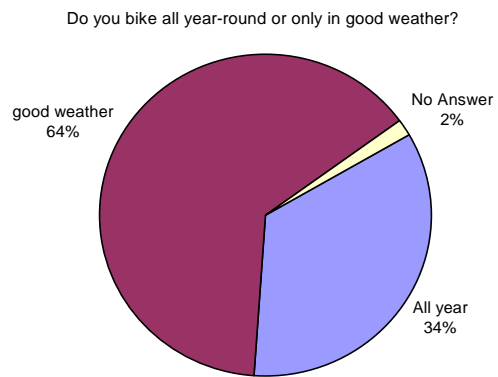
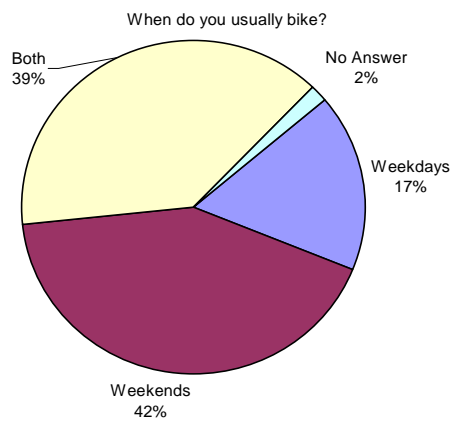
98 percent of the student respondents ride a bike. The one student who does not ride a bike, does not ride because “there’s no where to go”.



The top three bike riding purposes were: **1. Exercise, 2. Recreation, and 3. Family Event.** The table below shows all of the listed purposes and the number of students who indicated they rode for that purpose.

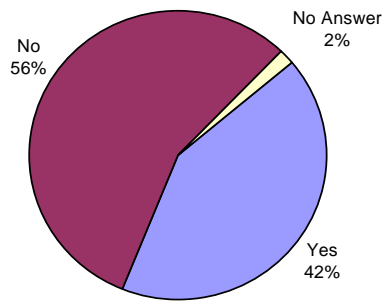
Reason to Bike	Number of Students
Exercise	48
Recreation	15
Family Event	8
Shopping	4
Work	2

The most number of respondents (42.2 percent) ride their bikes on weekends only, followed by 39.1 percent of respondents riding their bikes on both weekends and weekdays. More respondents (64.1 percent) ride their bikes in good weather than those who ride their bikes all year-round. In addition, the most students (56.3 percent) ride their bike more than five times per week (round trip).

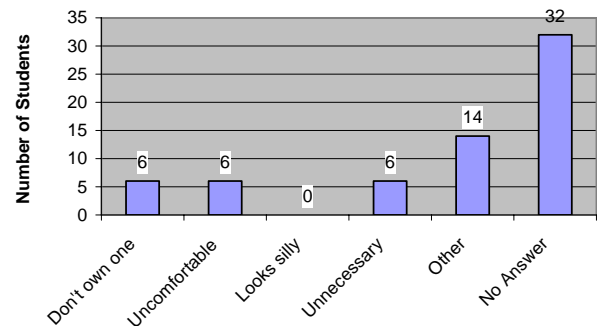


Over 55 percent of the students indicated they do not wear a helmet when they bike. Reasons for not wearing a helmet include: uncomfortable, unnecessary, and “I don’t like it”.

When you bike, do you wear a helmet?



If no, why not?

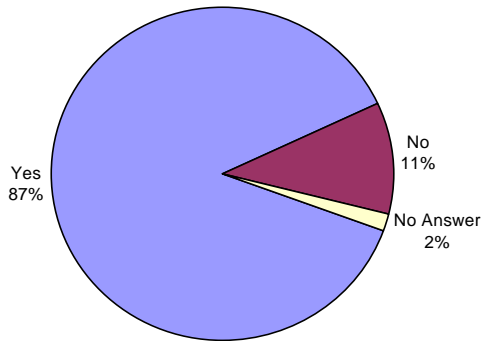


Facilities

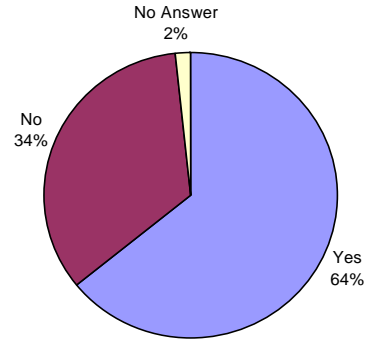
The following is a list of common locations where students bike. In addition to those listed below, other locations include “down the driveway”, “in my yard”, or “to a friend’s house”. 87.5 percent of students think that Tarboro needs more bicycle racks. 64.1 percent of students know that Tarboro has a bike route.

Locations	Number of Students
other	20
in neighborhood	18
to or in a park	7
all of the above	7
into town	6
store	4
no answer	2
recreational center	0
library	0
school	0

Do you think Tarboro needs more bike parking racks?



Did you know Tarboro has a bike route?



The most number of students (67.2 percent) feel safe riding in Tarboro, but 31.3 percent do not. Some of the reasons students do not feel safe riding in Tarboro are: “people could take you” and “my mom won’t let me”.

Behavior Change

The most respondents (14 students) indicated they would ride more if they felt safer. The following is a listing of the reasons students would bike more:

Would bike more if...	Number of Students
you felt safer	14
drivers drove slower	12
there were more clearly marked trails	10
you had better places to go	10
you had someone to ride with	6
you felt more confident on your bike	3
only if you couldn't drive	1
none of the above	0
Other	8

Conclusions

Given the nature of the survey responses, we can make several suggestions about the future of Tarboro’s Bicycle Plan. These are as follows:

1. **The Plan should focus on constructing more bike trails and facilities.**
Excluding student results, most respondents indicated that they would ride more if there were more marked trails. The majority of the survey respondents are recreational cyclists, who might also turn the activity into an occasional family event. Most cycling is going on in the cyclist’s neighborhood, with some cyclists venturing out into the surrounding rural areas for longer rides or to a park (possibly Indian Lake), maybe for more off-road biking. This suggests that perhaps respondents are unable or unwilling to venture beyond their

neighborhoods, either for recreation or for more utilitarian cycling (shopping, work). New bike trails and bike facilities will allow for more access to other locations, which may result in more cycling for recreation and perhaps more cycling for utilitarian purposes as well. In addition, it is notable that none of the student respondents indicated that they ride their bike to school. These new bike trails and facilities should also focus on locations like schools and libraries to provide improved access.

2. **New bike trails should be created that either make the major roads in Tarboro safer and more comfortable for cyclists, or new bike trails should be created on non-major roads so that cyclists can avoid heavy traffic.** The responses to where cyclists ride show that most cyclists avoid the major roads in Tarboro, especially Western Blvd. In addition, the second main reason that respondents do not feel safe on the roads is because they feel there are too many speeding vehicles and too much traffic. Almost 30 percent of respondents would ride more if they felt safer on the roads.
3. **The Plan should include the creation of programs to promote bicycle safety and awareness.** The majority of respondents do not wear helmets when they bike. Out of adult respondents, 37 percent do not wear a helmet; out of student respondents, 56 percent do not wear a helmet. Although the most commonly stated reason for adult respondents is because they do not own one, this may hide the fact that they do not own helmets because they don't think they need them. A bicycle safety program would foster greater helmet use in cyclists, young and old. In addition, of those respondents that did not feel safe riding on the roads in Tarboro, the greatest number indicated that this was because they felt that motorists did not respect cyclists. This indicates that a bicycle awareness program should be in order to promote better cyclist and motorist relations.
4. **The Plan should contain provisions for new bike racks.** Over 50 percent of adult respondents and over 87 percent of student respondents indicated they felt that Tarboro needed more bike parking racks. More bike parking racks may also promote bike travel to locations like shops, work, and school.

Caveats

The following are a list of things to keep in mind when looking at the results of this survey:

1. Since this survey does not take into account the socioeconomic status of its respondents, we can not be sure that we have received an accurate sampling of the entire Town of Tarboro population. However, we can gather that less respondents ride for utilitarian purposes than recreation, suggesting that perhaps this survey does not represent those people who do so. If this were the case, it should be important to keep in mind the different types of needs (such as the need for more bike parking racks and access to shopping and work) of these people as we proceed with the Plan.
2. The majority of the respondents for this survey were within the 40 – 59 years old age range, and only three were younger than 19. This indicates that the survey results may not represent the needs of the younger cyclists, especially those of school age. Respondents' feelings of safety and frequency of bicycle use may be skewed towards an adult perspective – someone who may feel safer, and may use a bicycle less because they can drive a car. The needs of younger cyclists, such as bicycle safety zones near schools, and more access to

schools, libraries, and other youth centers, should still be considered as we proceed with the Plan.

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Appendix 4: Tarboro Demographic Analysis

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Tarboro Demographic Analysis.

Population. According to the U.S. Census Bureau, 10,583 individuals reside in Tarboro in 2004. Tarboro showed little growth between 1990 and 2000, and has declined since 2000 as indicated in Table 2 - 1. One possible reason for this decline is economically based. The labor force in Edgecombe County has also gradually declined since the 1990's.

Table 2 - 1. Tarboro Population Trends.

Year	Tarboro Total Polutation
1990	11,037
2000	11,138
2004	10,583

(Source: U.S. Census Bureau, 2005 Population Estimates, Census 2000, 1990 Census)

Urban/Rural Population. Individuals residing in portions of Tarboro that are considered to be urban represent 98.5 percent of the total population of the Town as presented in Table 2 - 2.

Table 2 - 2. Tarboro Population in Urban and Rural Settings.

Tarboro	Population	Percent of Population
Total:	11,138	100
Urban:	10,976	98.5
Rural	162	1.5

(Source: 2000 US Census, Summary Tape File 1)

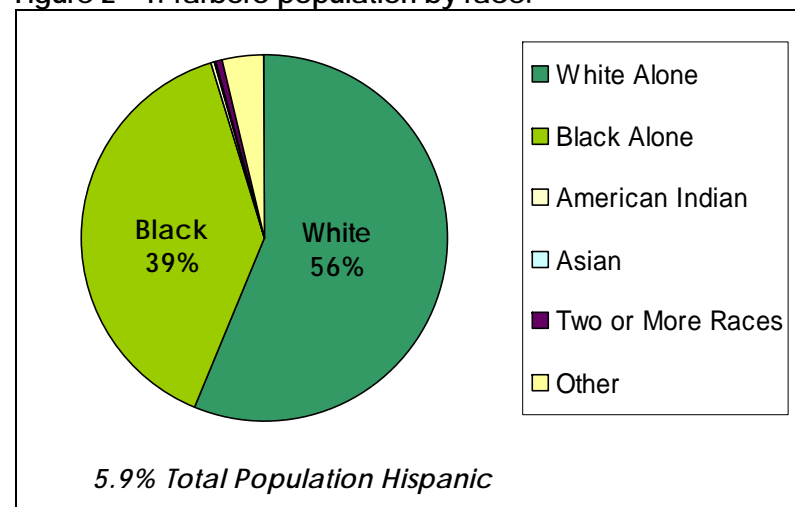
Race. Tarboro has a racially diverse population as presented in Table 2 - 3 and Figure 2 - 1. Minority populations represent 44 percent of the total reported population in Tarboro, which is higher then the percentage reported by North Carolina or the United States overall. Black residents represent the largest minority population in Tarboro and make up 39.4 percent of the total population. This percentage is notably higher then the percentages reported for the state and nation.

Table 2 - 3. Tarboro Population by Race.

	Tarboro	North Carolina	United States
Total Population	11,138	8,049,313	281,421,906
<i>Percent of Population:</i>			
White Alone	56	72.1	75.1
Black Alone	39.4	21.6	12.3
American Indian	0.1	1.2	0.9
Asian	0.3	1.4	3.6
Two or More Races	0.6	1.3	2.4
Other	3.6	2.4	5.6
Hispanic*	5.9	4.7	12.6

**Note: Hispanic is an ethnicity. It is therefore a separate population analysis than race.
(Source: 2000 US Census, Summary Tape File 1)*

Figure 2 - 1. Tarboro population by race.



(Source: 2000 US Census, Summary Tape File 1)

Housing. There are a total of 4,911 housing units in Tarboro. Of that total, 4,775 are located within the urban sections of Tarboro. The median housing value in Tarboro is \$78,000 which is below the median values reported by the state and nation (see Table 2 - 4).

Table 2 - 4. Median Housing Value in Tarboro.

	Tarboro	North Carolina	United States
Median Value*	\$78,000	\$108,300	\$119,600

(Source: 2000 US Census, Summary File 3)

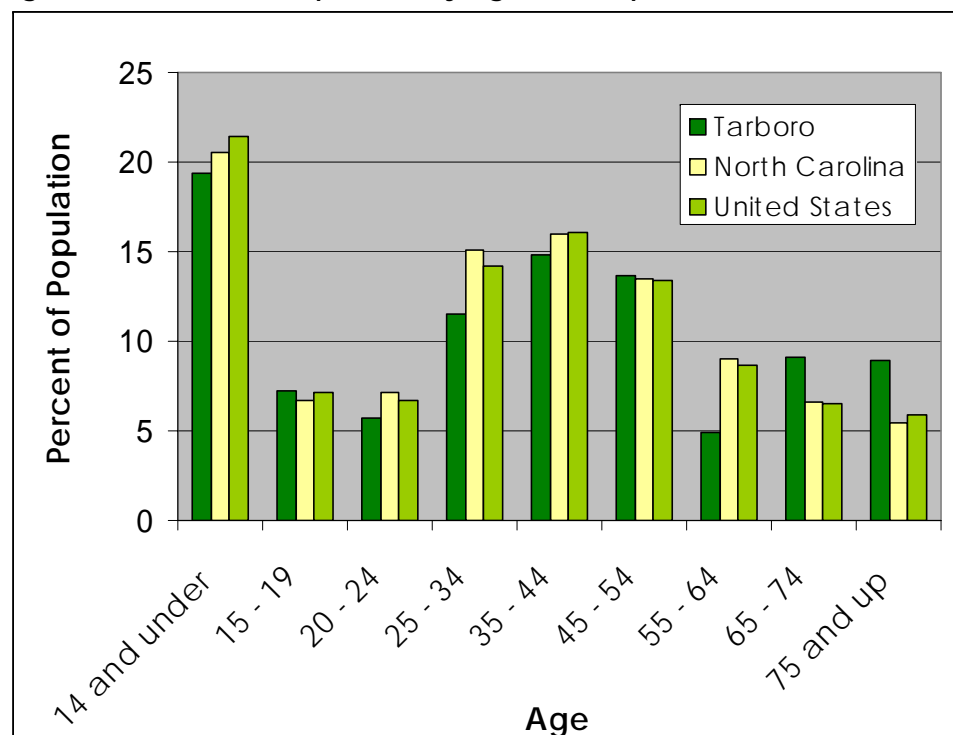
Age. The median age in Tarboro is 39.4 which is older than the state and national averages (see Table 2 - 5 and Figure 2 - 2). When compared to the state and nation, Tarboro also has a smaller population percentage between the ages of 15 and 64, which is typically the age range when individuals seek employment.

Table 2 - 5. Tarboro's Population by Age as Compared to the State and Nation.

	Tarboro	North Carolina	United States
Total Population	11,138	8,049,313	281,421,906
<i>Percent of Population:</i>			
14 and under	19.4	20.54	21.41
15 - 19	7.2	6.71	7.18
20 - 24	5.7	7.17	6.74
25 - 34	11.5	15.07	14.18
35 - 44	14.8	15.99	16.04
45 - 54	13.7	13.48	13.39
55 - 64	4.9	8.99	8.63
65 - 74	9.1	6.63	6.54
75 and up	8.9	5.41	5.90
Median Age	39.4	35.3	35.3

(Source: 2000 US Census, Summary File 1)

Figure 2 - 2. Tarboro's Population by Age as Compared to the State and Nation.



(Source: 2000 US Census, Summary File 1)

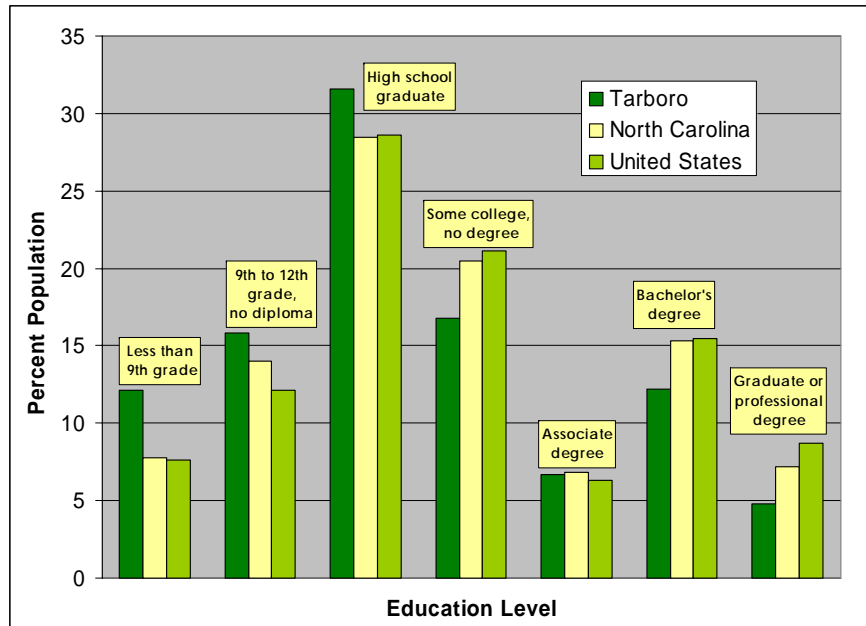
Education. Tarboro's population has a lower level of educational attainment than that reported by the state and nation. Twenty-three percent of Tarboro's population over the age of 25 has a college degree or higher, which is lower than the state and nation which reported 29 percent and 31 percent, respectively. Table 2 - 6 Figure 2 - 3 show a complete breakdown of the educational attainment for Tarboro's population over the age of 25 compared to that of the state and nation.

Table 2 - 6. Tarboro Population by Educational Attainment.

	Tarboro	North Carolina	United States
Population 25 years and over	11,138	5,282,994	182,211,639
Less than 9th grade	12.1	7.8	7.6
9th to 12th grade, no diploma	15.8	14.0	12.1
High school graduate (includes equivalency)	31.6	28.5	28.6
Some college, no degree	16.8	20.5	21.1
Associate degree	6.7	6.8	6.3
Bachelor's degree	12.2	15.3	15.5
Graduate or professional degree	4.8	7.2	8.7

(Source: 2000 US Census, Summary File 3)

Figure 2 - 3. Tarboro Population by Educational Attainment.



Labor Force. Tarboro's economic base is supported by various industries in textiles, food processing, plastics, and communications. Table 2 - 7 lists the major industries in the Tarboro area and the number of employees they typically employ.

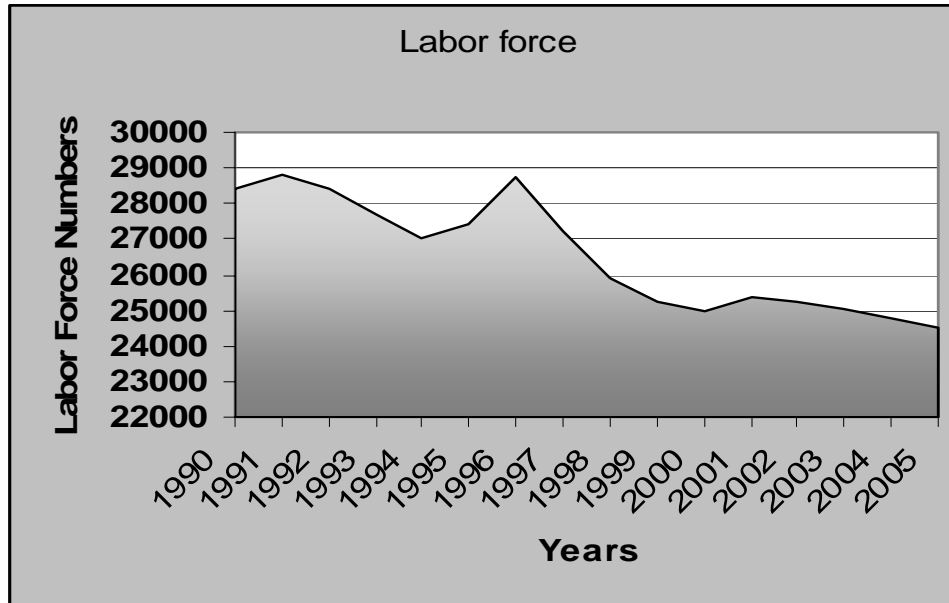
Table 2 - 7. Major Industries in the Tarboro Area.

Company	Employees
Sara Lee Bakery	850
Keihin Carolina System Technologies, Inc.,	460
Superior Essex	365
Air System Components	325
Barnhill Contracting Co	200
General Foam Plastics	200
Glenoit Fabrics Corp	200
Mayo Knitting Mill, Inc.	200
Long Agribusiness, LLC	200
Focal Point, Inc.	100
HC Composites, LLC	100

(Source: Carolinas Gateway Partnership)

According to the Employment Security Commission of North Carolina, Tarboro has experienced a gradual shrinking of its labor force from the 1990's to the present. Figure 2 - 4 displays the work force trend from 1990 to 2005.

Figure 2 - 4. Tarboro work force trend from 1990 to 2005.



(Source: Employment Security Commission of North Carolina)

Income. Tarboro has a median household income of \$34,000, which is less than that reported by the state and nation of \$39,184 and \$41,994, respectively. As of 1999, fifteen percent of the total population in Tarboro lives at or below the established poverty level. Individuals under the age of five represented approximately 10 percent of the Tarboro population classified as living in poverty which is comparable to the nation's percentage but less than the percentage reported by North Carolina. Tarboro reported a notably lower percentage of individuals classified as living in poverty that are over age 65 than the state and nation, which reported 31.5 percent and 33.6 percent, respectively (see Table 2 - 8).

14.5 percent of Tarboro's households have no vehicles available, which is higher than reported percentages for the state and nation.

Table 2 - 8. Tarboro median household and family incomes, population living below the poverty line in comparison to the state and nation.

	Tarboro	North Carolina	United States
Median Household Income	\$34,400	\$39,184	\$41,994
Total Population	11,138	8,049,313	281,421,906
Population below Established Poverty Level	15.1	11.9	12.0
Percent Under Age 5	9.5	12.8	9.7
Percent Over Age 65	14.1	31.5	33.6

(Source: 2000 US Census, Summary File 3)

Vehicle Availability. Table 2 - 9 shows the percent of Tarboro households by vehicle availability. As can be seen, 14.5 percent of Tarboro's households have no vehicles available, which is higher than reported percentages for the state and nation. The majority of households in Tarboro (36.8 percent) have only one vehicle available.

Table 2 - 9. Tarboro vehicle availability compared to state and nation.

	Tarboro	North Carolina	United States
Vehicles Available	Percent Housing Units		
None	14.5	6.7	9.4
1	36.8	28.7	31.2
2	30.5	35.5	34.9
3 or more	18.2	18.0	15.6

(Source: 2000 US Census, Summary File 3)

Work Commute. Tarboro's commute for workers 16 years and over may be reflective of its vehicle ownership. As can be seen in Table 2 - 10, Tarboro has a higher percent of workers 16 years and older that travel to work by car than both the state and nation. Alternative modes of commuting such as public transportation, walking and others were lower than the national percentage yet higher than that reported by the state.

Tarboro has a higher percent of workers 16 years and older that travel to work by car than both the state and nation.

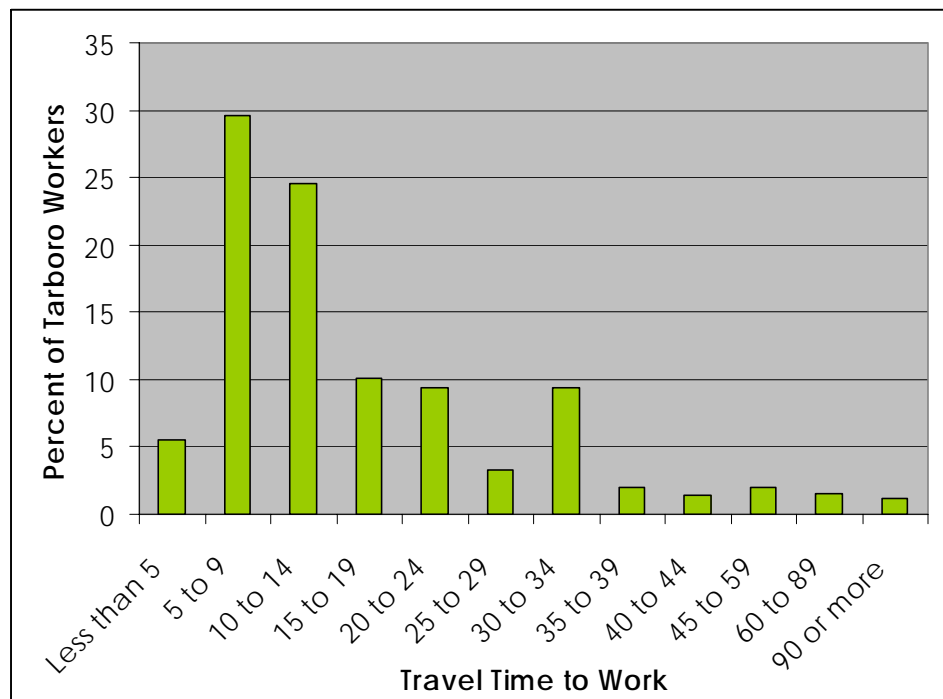
Table 2 - 10. Commuter behavior for Tarboro compared to state and nation.

	Tarboro	North Carolina	United States
Total Workers 16 years and over	4,705	3,837,773	128,279,228
	<i>Percent Workers 16 years and over</i>		
Car, truck, or van -- drove alone	84.3	79.4	75.7
Car, truck, or van -- carpooled	15.7	14.0	12.2
Public transportation (including taxicab)	2.0	0.9	4.7
Walked	2.2	1.9	2.9
Other means	0.9	1.1	1.2
Worked at home	1.5	2.7	3.3

(Source: 2000 US Census, Summary Tape File 3.)

Figure 2 - 5 provides a breakdown of commute time for individuals over the age of 16 that utilize vehicles to travel to and from work. The typical commute time for more than half of the population residing in Tarboro and traveling to work ranges from 5 to 14 minutes.

Figure 2 - 5. Percent of workers by travel time to work in Tarboro.



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Appendix 5: Bike for Books Map

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Proposed Bike for Books Route

Town of Tarboro, NC



Legend

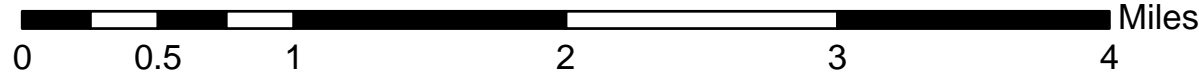
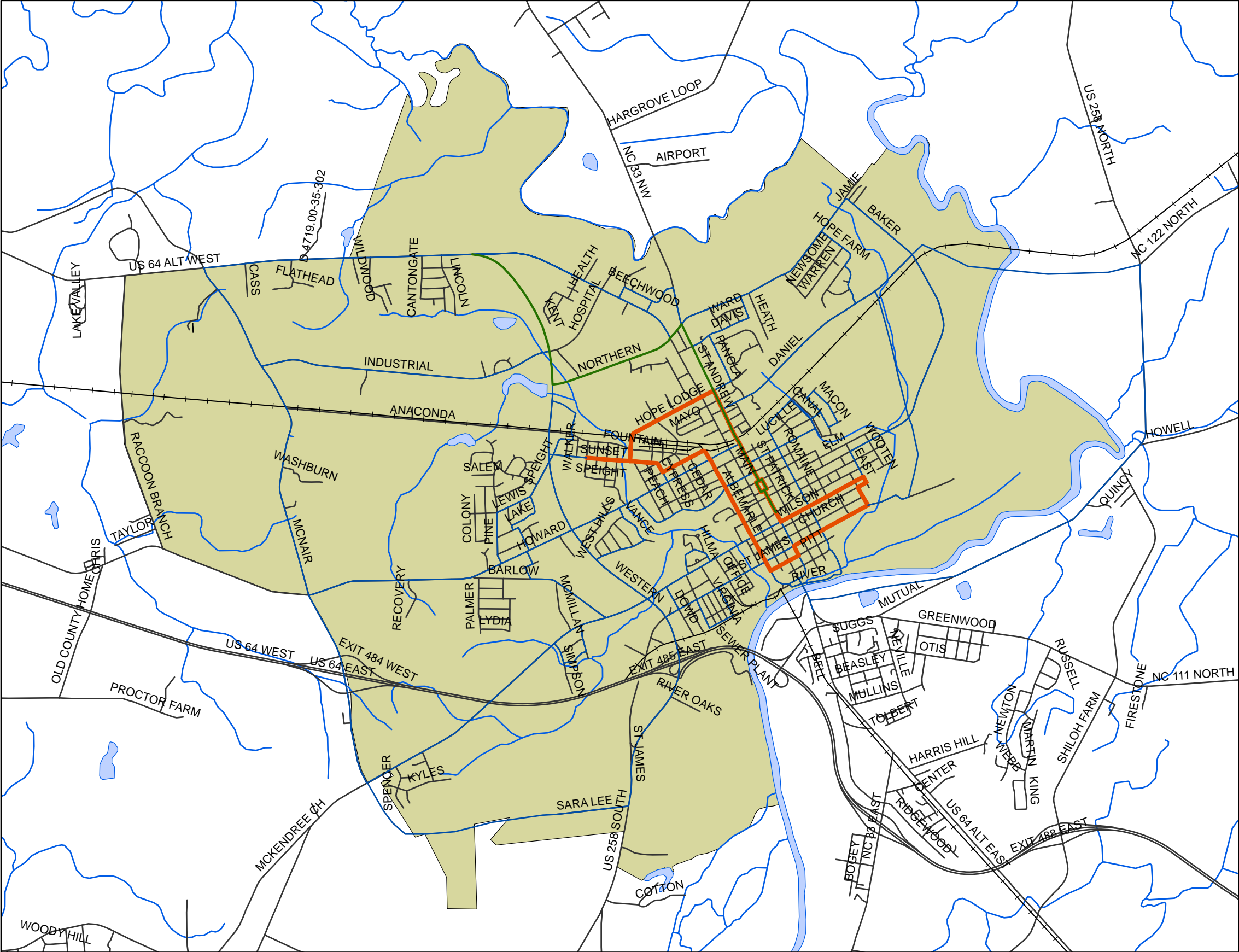
Current Bike Facilities


Existing

Proposed Routes

Other Proposed Routes

Bike for Books Route



 The Louis Berger Group, Inc.
1513 Walnut Street, Suite 250
Cary, NC 27511

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