

Chatham County

Bikeway Plan



Prepared By
Chatham County-Savannah Metropolitan Planning Commission

September, 2000

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FOREWORD

This plan recommends a countywide bikeway system that consists of over 170 miles of on-road bikeways supplemented by off-road multi-purpose paths suitable for bicycle use. The basic elements of the plan are: (1) an inventory of existing facilities; (2) a detailed analyses pertaining to the suitability of existing and planned facilities for use as bicycle routes; and (3) the recommended bikeway system, along with detailed costs of upgrading facilities and constructing new facilities on all segments of suitable corridors. A prioritized list of bikeway projects is included to guide implementation of the bikeway system. Funding sources are suggested and planned roadway projects affecting the system have been documented in order to provide further guidance for implementation.

Several modifications haven been made to the 1992 bikeway plan. These include the following:

- The rerouting of key on-road routes to avoid hazardous conditions such as those found at highway interchanges;
- The addition of a spur to Skidaway Island State Park;
- The addition of a route on Chatham Parkway to accommodate a statewide bikeway;
- The addition of segments lending connectivity to the system as a whole; and
- Modifications and additions to the bikeway system in the Historic District to link key points of interest and to better serve target groups such as students.

Additional recommendations include roadway treatments to better accommodate bicyclists. Many of these treatments involve design changes that can be built in to new road construction and added to road widening projects. They include bicycle lanes and bicycle shoulders, route signage, lane width changes, and re-striping. Other recommendations focus on providing:

- Bicycle-friendly traffic control device actuators;
- Bicycle-friendly drainage grates;
- Off-road connections lending to further system continuity;
- Signs identifying corridors; and
- Bicycle and bus transit integration.

It is anticipated that the bikeway system presented in this plan will be further enhanced by the on-going greenway planning process. As additional greenway corridors are identified that are suitable for multi-purpose paths that will contribute to the bikeway system, they will be presented as amendments to this plan.

Chapter 1

INTRODUCTION

THE JOINT BIKEWAY/GREENWAY PLANNING PROCESS

The goal of bikeway and greenway planning is to develop a countywide system of on-road and off-road trails offering many potential benefits to the Chatham County community. Eventually, an integrated system of bikeways and greenways can provide increased opportunities for alternative transportation modes, recreation and health benefits, environmental awareness, local economic benefits, and access to additional State and Federal funding. The Chatham County-Savannah Metropolitan Planning Commission (MPC) initiated planning process for bikeways and greenways in 1996 by forming a committee consisting of 37 members selected for their interest and expertise in bikeway and greenway development (see Appendix 1-A, Bikeway/Greenway Committee Roster). A Bikeway Subcommittee and a Greenway Subcommittee worked separately on their respective parts of the proposed system, building upon the current Bikeway Plan.

The planning for bikeways and greenways in Chatham County will be expressed in two separate documents—this one, pertaining to Bikeways only, and a separate document focused on the planning for Greenways. This document updates the 1992 Bikeway Plan with several changes to the on-road bikeway system and incorporates select multi-use greenway corridors that may be suitable as bikeways. The Greenway planning process is ongoing. As the Greenway Plan is refined, and as additional off-road paths with bikeway potential are identified, this plan can be amended, reflecting those additional bikeway corridors.

1992 Bikeway Plan

The Chatham County-Savannah Bikeway Plan was completed in 1992, soon after passage of the Intermodal Surface Transportation Efficiency Act of 1991. This legislation provided Federal funding for bikeway projects through a new category of funds known as Transportation Enhancement (TE) funds. Some of the recommended projects in the 1992 Bikeway Plan are being implemented with TE funds. Also, bicycle shoulders are planned for several roads that are being widened with Federal funds. These roads include Diamond Causeway, Whitfield Avenue, US 17 South, and US 80 East. Although Federal funds have been used to achieve partial implementation of the 1992 Bikeway Plan, the lack of local funding has hampered implementation. The 1998-2003 One Percent Special Purpose Local Option Sales Tax (SPLOST) will assist future bikeway construction by providing local matching funds for State and Federal monies.

Bikeway Work Tasks

The following work tasks were accomplished in order to prepare the bikeway components during the join Bikeway/Greenway planning process.

- Develop an expanded bikeway system by planning for bikeways within existing and future thoroughfare corridors that can connect or extend the existing bikeway system.
- Develop design standards for bikeways.
- Develop a design treatment methodology for bikeways.
- Develop a priority list of bikeway projects that will serve as a guide for implementation.
- Identify potential bikeway connections to a greenway system.
- Identify potential funding sources for bikeway construction and develop cost estimates for the recommended design treatments.
- Develop bike and transit integration to increase the opportunity for Chatham County residents to utilize transit services.

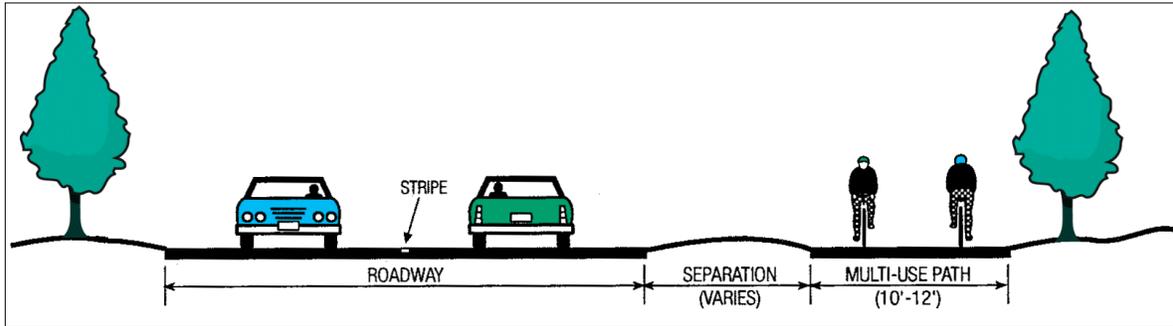
DEFINITIONS

A bikeway as defined by the American Association of State Highway and Transportation Officials (AASHTO) is any road, path, or way that in some manner is specifically designated for bicycle travel, regardless of whether such facility is designated for the exclusive use of bicycles or is shared with other transportation modes.¹ Bikeways come in many different forms such as bicycle paths and multi-use trails, bicycle lanes, paved shoulders, wide curb lanes, and shared lanes.

Bicycle Paths and Multi-Use Trails (Figure 1-1) are physically separated from motorized vehicular traffic by an open space or barrier and are located within either a highway right-of-way or within an independent right-of-way. Bike paths and multi-use trails can be located along rivers, streams, canals, utility and roadway rights-of-way, abandoned railroad rights-of-way, inside college campuses, and in parks. While bike paths are dedicated exclusively to bicycle use, multi-use trails accommodate a range of users including cyclists and pedestrians. If sufficiently wide, these facilities can serve bicycle travel in two directions. The novice cyclist feels more comfortable using these facilities because the safety threat from vehicular traffic is removed. McQueen's Island Trail and the off-road segments of the Robert McCorkle Bikeway are examples of this type of facility.

Figure1-1

Bicycle Path/Multi-Use Trail



Bicycle Lanes (Figures 1-2 and 1-3) are one-way on-road facilities that carry bicycle traffic in the same direction as adjacent motor vehicle traffic. They are designated by striping, signage, and pavement markings for the preferential or exclusive use of cyclists. Bicycle lanes are often placed on urban and suburban streets where there is significant vehicular traffic and a demand for bicycle travel. These facilities promote the use of bicycling as an alternative mode of transportation for more experienced cyclists and often provide a direct link between major traffic generators. The Lincoln Street and Habersham Street bikeways are examples of this type of facility.

Figure 1-2

Bicycle Lane Without Parking

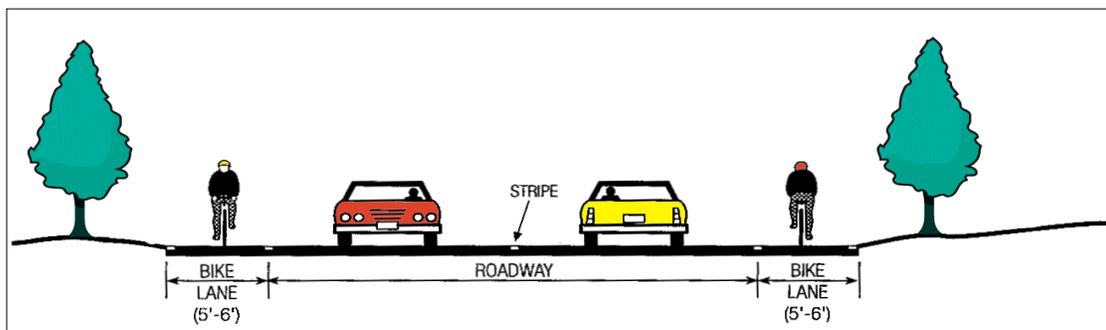
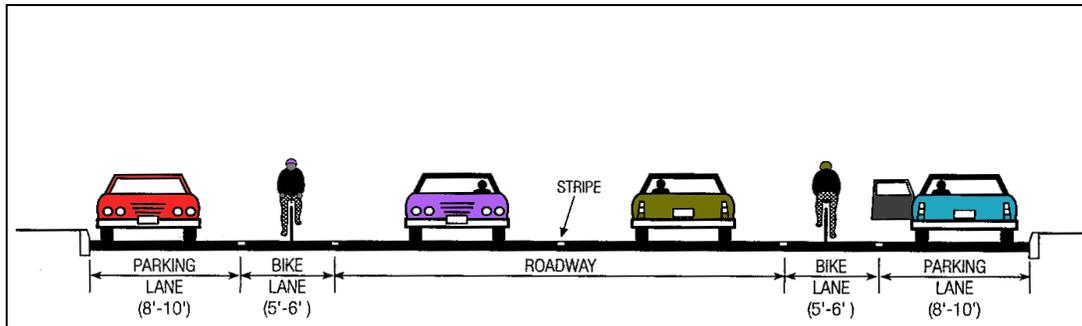


Figure 1-3

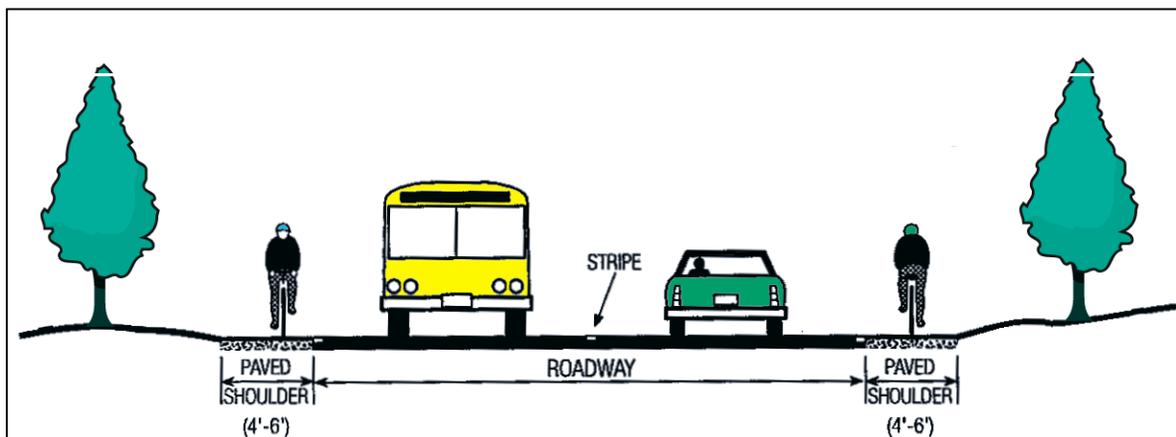
Bicycle Lane With Parking



Paved Shoulders (Figure 1-4) of a highway immediately adjacent to the roadway are typically found on rural roads where they provide emergency lanes, temporary parking lanes, and delivery vehicle and bus stop areas. They may also be used by experienced cyclists on high-speed major arterials in urban areas. When paved shoulders are used as part of the designated bikeway system, parking should be prohibited except in emergency situations.

Figure 1-4

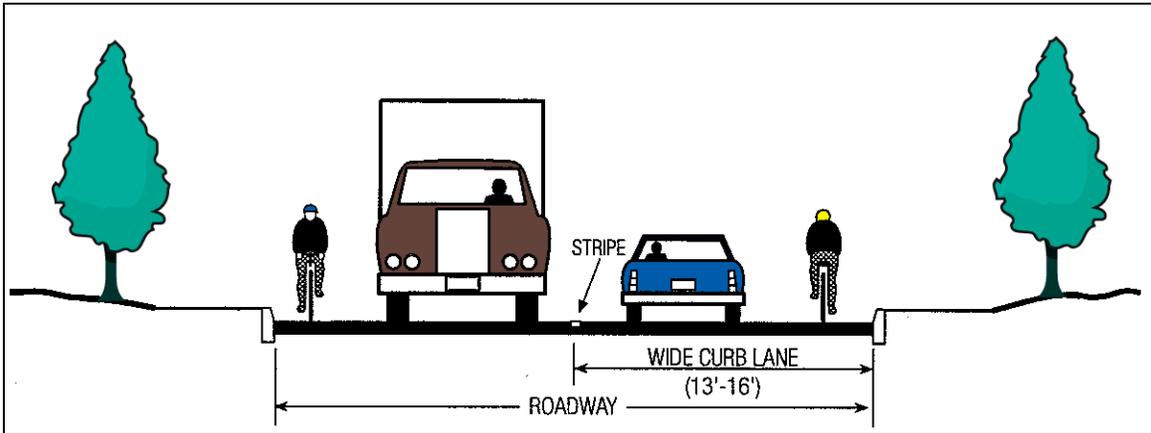
Paved Shoulder



Wide Curb Lanes (Figure 1-5) are on-street facilities where cyclists and motor vehicles share the same travel lane. They are wider than the standard 12 feet. A desirable width is 14 feet. Wide curb lanes are most common in heavily congested areas.

Figure 1-5

Wide Curb Lane



Shared Lanes (not illustrated) may be used by cyclists but provide the least accommodation for bicycle travel. They are not striped but may be signed for bicycle travel. Shared lanes are typically 12 feet wide or less, allowing cars to safely pass cyclists only by crossing the center line or moving into an adjacent traffic lane. Experienced cyclists willing to travel in mixed traffic are comfortable using these bikeways because they offer direct routes and higher travel speeds. The 52nd Street Bikeway and a segment of the River Street Bikeway are examples of shared lane facilities.

Chapter 1 Endnotes:

¹"*Guide for the Development of Bicycle Facilities*," American Association of State Highway and Transportation Officials, August, 1991.

²Georgia Trail Corridors and Greenways Plan, June, 1993

Chapter 2

BIKEWAY AND GREENWAY SYSTEM BENEFITS

Bikeways and greenways provide direct benefits to individual users and general benefits to the community as a whole. An integrated system can offer alternative transportation, promote the health and well-being of users through recreational and physical activity, enhance tourism and the local economy, and increase a sense of community. Environmental benefits include promoting non-polluting transportation modes, providing opportunities for outdoor education, improving water quality, flood control, and preserving natural areas. A bikeway/greenway system can connect natural environments for the purpose of maintaining a diversity of wildlife habitats and can connect separate communities of people as well.

TRANSPORTATION

Bikeways and greenways provide opportunities for alternative modes of transportation and therefore can reduce automobile travel. Some traffic congestion problems may be helped by a bikeway/greenway system because more people will find it convenient to cycle or walk to employment centers, commercial districts, transit stations, institutions, and recreation destinations. Thus a bikeway/greenway system can increase the traffic carrying capacity of the roadway system. For example, the Bloomingdale/Pooler Abandoned Railroad Corridor and the Thomas Square Railroad Corridor already serve as convenient alternative transportation corridors for cyclists and pedestrians who use them for short trips to work, school, or a local store. As bicycle and pedestrian trips increase, all residents will benefit from reductions in traffic congestion, air pollution, and energy consumption.

A comprehensive bikeway/greenway system can also provide improved safety for all transportation system users. Cyclists and pedestrians are provided a safer space on the road that helps them to obey safety laws and helps motorists to become more familiar with the presence and location of cyclists and pedestrians on the roadways. Roadway improvements to increase safety for bicyclists and pedestrians can also enhance safety for motorists. For example, the addition of four-foot paved shoulders on rural two lane roads has been shown to reduce motor vehicle crashes by 29 percent, while eight-foot shoulders yielded a 49 percent reduction.¹ Use of operational improvements such as traffic calming devices on residential streets creates safer conditions for all users, whether driving, bicycling, or walking. These improvements can discourage cut-through traffic and lower traffic volumes and speeds.

Bikeways also promote a more economical mode of transportation. According to the Motor Vehicle Manufacturers' Association, the average annual cost of operating an automobile is \$5,675. By comparison a bicycle typically costs less than \$100 per year to own and operate. In addition, bicycle accommodations such as bike lanes, wide curb lanes, and bicycle parking make efficient use of public dollars when compared to other

types of system capacity expansions such as road widening. Implementation of bikeways can be relatively simple and inexpensive as, for example, when a bicycle lane is created by restriping during a routine road resurfacing project.

A bikeway/greenway system, together with bicycle parking facilities at the work place, can enhance an employee fitness program. Fitness programs contribute to employee health, productivity, and job satisfaction and decrease absenteeism, employee turnover, injury rates, and health care costs. Employers can encourage commuting to work by bicycle by providing shower/locker rooms and secure bicycle parking facilities. Employers can more easily implement a bicycle program and benefit from its results if a system of bikeways is available.

RECREATION

In addition to being a non-polluting mode of transportation, bicycling provides an easily accessible means of exercise and outdoor recreation. Chatham County is blessed with beautiful scenic routes for cyclists that will become more accessible and safer for a larger number of users if a system of connected bikeways is provided. Road bikes as well as mountain bikes continue to increase in popularity as vehicles for sport, exercise, and leisure. A bikeway system would support all of these various types of recreation activities.

Greenways also provide a variety of opportunities for outdoor recreation and leisure. The most common type of recreation within greenways is trail-related recreation including bicycling, jogging, walking, hiking, and horseback riding. They have more “perimeter” or edge recreation space than do most traditional parks. This configuration is more conducive to many recreational activities. Because of their linear shape, greenways increase close-to-home recreation opportunities for a large number of citizens. The availability of greenways can help bring a community together by providing space for recreational and social activities. Finally, greenways provide a venue for traditional park activities such as picnicking, photography, camping, and festivals.

TOURISM

The majority of visitor spending in Chatham County is generated from tourists attracted to Savannah and its historic setting and buildings. A bikeway/greenway system could increase the amount of tourist dollars. Because of the family oriented recreational activities and natural attractions that greenways and bikeways provide, tourists may be encouraged to extend their stay in the area. Development of a bikeway/greenway system would address a strategy in the Economic Development Element of the Comprehensive Plan for Chatham County that calls for identifying, establishing, and promoting family oriented attractions to encourage visitors to extend their length of stay. A quality bikeway system would enhance the status of the community as an individual/group touring destination for bicyclists. Companies choose locations for conventions, workshops, or vacations for their employees based on what the area has to offer in terms of recreation, leisure, and services. Chatham County offers a selection of quality convention centers to choose from and the Visitors Bureau handles convention sales and provides quality services to conventions. The region is already known for its historic districts in an urban forest setting. It is served by high quality

hotels and excellent restaurants. The added attraction of recreation activities that a bikeway/greenway system can offer could help persuade companies to choose this area for a convention site. A bikeway/greenway system could also help to encourage companies to locate in the area or to expand existing operations.

Investments in travel and tourism amenities can impact the local economy in areas such as lodging, food, retail, and service industries. Tourists also benefit the transportation industry as commercial airlines, train, and bus services acquire more business.

REVENUE AND PROPERTY VALUES

Bikeways and greenways help support specialty businesses such as outdoor equipment outfitting stores, bike and canoe rental shops, tour agencies, and other businesses that provide goods and services to support nature-oriented experiences. These businesses generate revenues from business licenses and fees. A greenway system can also create new jobs for trail development and maintenance and can increase employment indirectly in related industries such as retail and hospitality.

Studies have shown that trails can increase the values of nearby and adjacent properties. Appraisers and real estate agents contend that proximity to trails is a positive selling point for residential property. Property value increases can benefit property owners and benefit the local government by increasing property tax revenues.

ENVIRONMENTAL

A countywide bikeway/greenway system would help to meet many of the critical ecological needs of Chatham County. Bikeways and greenways promote non-polluting forms of transportation that can reduce energy consumption and contribute to cleaner air. They also facilitate quiet forms of transportation that can decrease noise pollution. They would serve to make citizens more aware of the rich and diverse natural resources in Chatham County. Additional environmental benefits from greenways include protection of wildlife and wildlife habitats, improved water quality, additional air pollution filtering, flood control, and temperature control.

Air and Noise Pollution

Bicycling is a quiet, non-polluting mode of transportation. By contrast, automobiles produce 50 percent of the carbon monoxide, nearly 30 percent of the lead, nitrogen oxides, and volatile organic compounds, and nearly 20 percent of the particulate matter emitted into the atmosphere from the United States. Bikeways, therefore, help to improve air and water quality, and to reduce noise.

Bikeways also help conserve non-renewable resources. Automobiles consume about 50 percent of the petroleum used annually in the United States. At current rates of production, the United States' supply of petroleum will be exhausted within 30-40 years. By providing a mode of transportation that does not rely on petroleum, bikeways reduce negative environmental impacts from drilling, refining, transporting, storing, using, and disposing of petroleum products.

Greenways provide opportunities for bike riding, walking, hiking, running, and horseback riding. All are non-motorized and non-polluting activities. In addition, greenways preserve and enhance tree canopy and other vegetation that filters the air and reduces noise pollution. Greenways ensure that natural areas continue to serve as air cleaners, controlling pollution through dilution and oxygenation. Oxygenation refers to the introduction of excess oxygen into the atmosphere. Plants and trees within greenways act as cleansers by absorbing pollutants directly into their leaves and assimilating them.

Community Benefits

Museums, monuments, and preserved historic houses along the bikeway and greenway routes can provide a link to the history of coastal Georgia. In addition to these linkages to historic and natural resources, connected bikeways and greenways create a strong sense of place and community. The automobile has reduced many of the opportunities for day-to-day social interaction, and a bikeway/greenway system enables individuals to come face-to-face once again. Residents of a community surrounding a bikeway or greenway are provided an opportunity to interact with one another while using the system.

Chapter 2 Endnotes:

¹ Zegeer, CV, Hummer, J, Reinfurt, D, Hef, L and W Hunter. "Safety Effects of Cross-Section Design for Two-Lane Roads, Volumes I and II," Federal Highway Administration, Washington, DC 1987.

Chapter 3

BIKEWAY INVENTORY

At the present time, a partial bikeway system exists with Chatham County. Only one fully functional greenway, the McQueen's Island Trail, has been established as an off-road trail. However, there are many canal and rail rights-of-way that are potential greenway corridors containing multi-use trail facilities. These corridors need more study to determine their suitability as off-road bicycle transportation facilities. The ongoing greenway planning effort will address this issue.

EXISTING BIKEWAYS

There are nine existing bikeways in Chatham County. These include public and private facilities and on-road and off-road facilities. Map 3-1 shows the locations of existing bikeways within numeric route identifiers.

4 **East-West Bikeway** This bikeway runs east from US 17 as a shared lane facility on 52nd Street past Skidaway Road to Savannah State University. Deficiencies include narrow segments, deteriorating pavement, on-road parking conflicts, and high traffic volumes. The total length of the bikeway is 6.4 miles.

10 **Lake Mayer Bikeway** This facility is a paved path circling Lake Mayer. It was originally constructed as a bikeway but is now a multi-purpose path used primarily by walkers and joggers. The perimeter is approximately .75 miles in length.

15 **Habersham Street Bikeway** This bikeway begins in downtown Savannah, south of Bryan Street, where it is a shared facility along Habersham Street. At Victory Drive it changes to exclusive bike lanes until it reaches Kensington Avenue. From this point, there are alternate segments of both shared and exclusive bike lanes. At Stephenson Avenue, the bikeway turns east, then travels south on Forest Park Drive. It turns east on Benfield Drive and south on Hodgson Memorial Drive. The bikeway then follows a system of roads including Dunwoody, Hilger, Dychess, Lorwood, Tibet, Largo, and Windsor, ending on Science Drive.



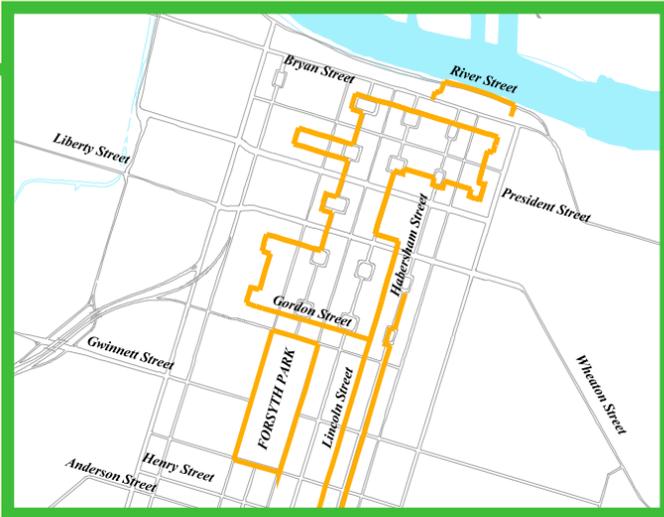
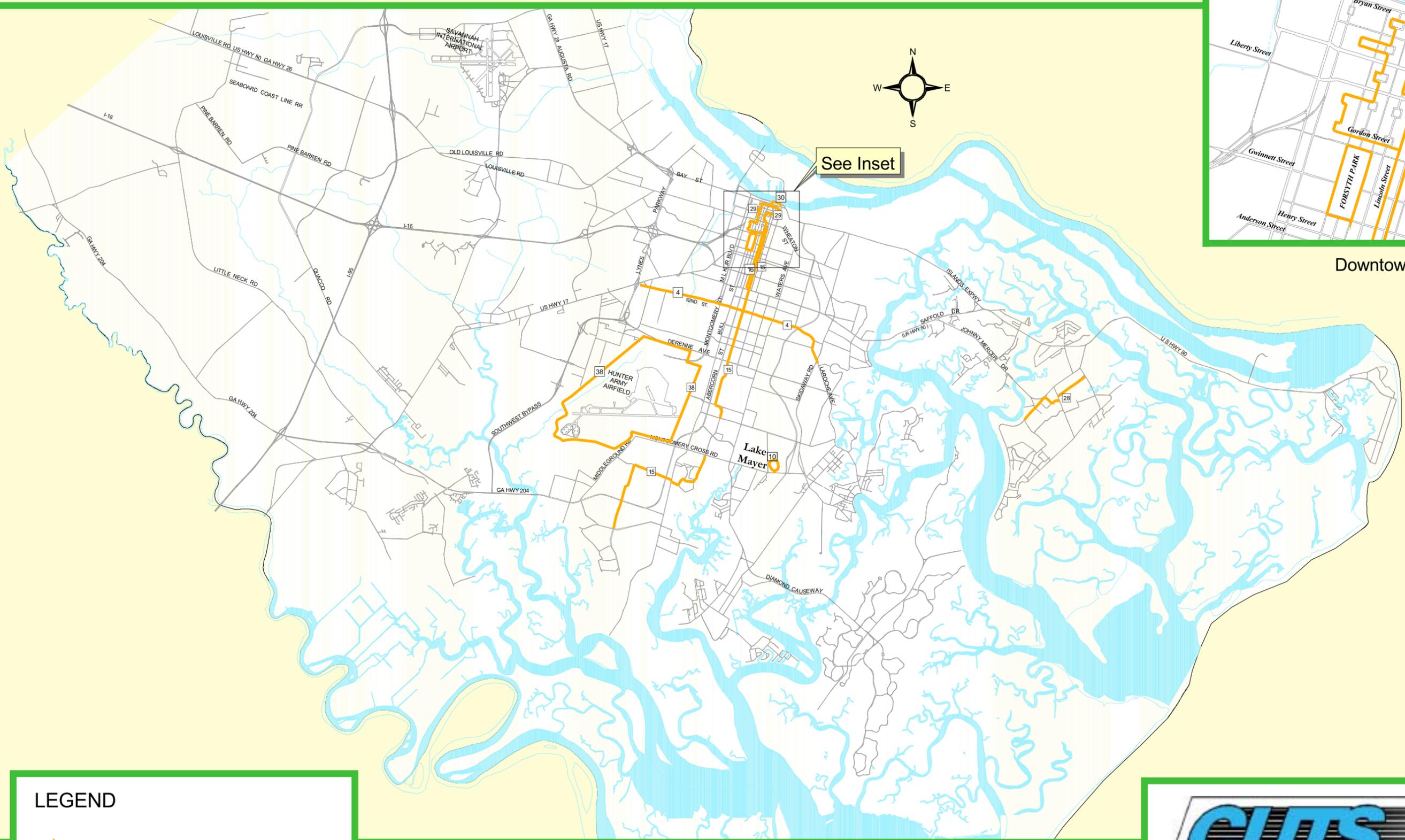
Lake Mayer Bikeway



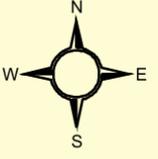
Habersham Street

The Habersham Street Bikeway is about 14 miles long, and travels through a mix of commercial and residential districts. From Dunwoody Drive south to Science Drive the area is residential except for a small segment within the Armstrong Atlantic University campus. The City of Savannah is considering use of the undeveloped Habersham Street right-of-way between Stephenson Avenue and Eisenhower Drive as a possible off-road link between the two streets.

MAP 3-1 Existing Chatham County Bikeways



Downtown Inset



See Inset

LEGEND

 Existing Bikeways



The Habersham Street Bikeway has some model bikeway segments with wide cross sections, designated bike lanes, proper signage and marking, and good pavement. However, there are other segments with narrow cross-sections, intersections unfriendly to bicycle access (at the intersection with Victory Drive, for example), on-street parking, and heavy traffic volumes.

16 **Lincoln Street Bikeway** This is a one-way bikeway running north on Lincoln Street from Victory Drive to Liberty Street in downtown Savannah. The bikeway overlaps the Historic District Bikeway from Gordon Street to Liberty Street. The bikeway has an exclusive bike lane on the west side of the street and bike signs. The total length of the bikeway is 1.3 miles.



Lincoln Street Bikeway

28 **Robert McCorkle Bikeway** This bikeway on Wilmington Island includes two off-road bike path segments connected by a shared lane facility. The first segment runs parallel to Concord Road from Walthour Cove Road to Penn Waller Road. The second segment runs parallel to Sea Island Drive from Catherine Drive to Cromwell Road. At Penn Waller Road, the first path segment connects with a shared lane facility that runs southeast and then southwest on Port Royal Drive. At Catherine Drive, it turns northwest and connects with the second path segment. The bike path then turns southeast on Cromwell Road and ends at the property line of the Wilmington Island Presbyterian Church. The length of the bikeway is two miles.



Robert McCorkle Bikeway

29 **Historic District Bikeway** This bikeway is a network of shared lane facilities within the Historic District. The bikeway overlaps a segment of the Lincoln Street Bikeway between Gordon Street and Liberty Street, then continues north on Lincoln Street around Colonial Park to President Street. At President Street it turns east and then north on Houston to Bryan, Bull, State and York Streets. At Bull Street it turns south and follows a route along a network of streets including Harris, Barnard, and Gordon before completing a loop at Lincoln Street. The entire loop is about 3.3 miles in length.



Historic District Bikeway

30 **River Street Bike Path** This bikeway includes a shared lane facility on River Street between East Broad Street and Lincoln Street and a bike path between Lincoln Street and Jefferson Street. The bike path is narrow with a raised granite curb separating it from the travel lane. The path is more popular with pedestrians than bicyclists. There is only one sign informing bicyclists that River Street is a designated bike route. Additional signs warn bicyclists to stay off the railroad tracks. The total path length is less than 0.8 miles.



River Street Bike Path

38 **Hunter Perimeter Bikeway** The Perimeter Road on Federal property inside Hunter Army Airfield serves as a shared lane bicycle facility during hours set by post officials. Its length is 10 miles.

EXISTING OFF-ROAD TRAIL

The McQueen's Island Trail is the only developed greenway that exists within Chatham County. This historic abandoned rail corridor was formerly used to carry people between Tybee Island and Savannah. The present trail was constructed as a Rail-to-Trails conversion project.

The trail runs adjacent to the Savannah River from Bull River to Fort Pulaski National Park. It is about six miles long and varies from 10 to 20 feet in width. Phase II of the conversion project will extend the trail from the Ft. Pulaski Bridge to Tybee Island.

The McQueen's Island Trail has visitor signs, workout or exercise stations, and picnic areas along the way. It contains a wide variety of wildlife species including the diamondback terrapin, eastern box turtle, American alligator, and bobcat. Birds nesting or feeding in the area include osprey, great-blue heron, red-tailed hawk, brown pelican, and willet. The vegetation providing habitat for these species includes southern wax myrtle, sabal palm, cedar, fig, sumac, and yaupon holly.



McQueen's Island Trail

Chapter 4

SELECTED BIKEWAY SYSTEM

This chapter explains the methodology for evaluating bikeways in Chatham County and presents a selected on-road bikeway system. Future off-road bikeways are to be evaluated as part of the ongoing greenway planning effort. This plan will be amended to incorporate the off-road bikeways described in the greenway system.

EVALUATION METHODOLOGY FOR BIKEWAYS

The members of the Bikeway Subcommittee were assigned a roadway that was determined to have potential to function as part of an integrated on-road bikeway system. The members quantitatively evaluated the roadways based upon selected criteria. The purpose of the evaluation was to help determine the suitability of the roadways for on-road bikeways. The evaluations were also intended to help set priorities that would serve as a guide for implementation of the selected bikeway system. The evaluation procedure included on-site observations and collection of video footage and photographs.

Evaluation Criteria

Eleven criteria were selected to evaluate the roadways as potential bikeway routes. The criteria are as follows:

Traffic Volume - Heavily traveled roads can be suitable for bicyclists if there is adequate width. Commuting bicyclists frequently use arterial streets because they minimize delay and offer continuity for lengthy trips. Inexperienced bicyclists generally prefer minor streets.

Speed Limit - Higher speed roads can also be suitable for bicyclists if there is adequate width. Inexperienced bicyclists generally prefer streets with lower traffic speeds.

Lane/Shoulder Width - Lane width and shoulder width must be adequate to ensure the safety of bicyclists, particularly on heavily traveled high speed roads.

Bus/Truck Traffic - Because of their width and aerodynamic effect, high-speed trucks, buses, motor homes, and trailers can cause special problems for bicyclists. Where bus stops are located along a route, conflicts with bus loading and unloading and pavement deterioration may also be problems.

Pavement Quality - Bikeways should be free of bumps, holes, and other surface irregularities. Utility covers and drainage grates should be at grade and, if possible, outside the travel way.

On-Street Parking - The turnover and density of on-street parking can affect bicycle safety because of the opening of car doors and cars leaving parking spaces.

Bridges - Bridges serve an important function by providing bicycle access across barriers. However, some features present in bridges can be unsuitable to biking. These features include curb-to-curb widths that are more narrow than the approach roadways (especially where combined with relatively steep grades), open grated metal decks found on many movable spans, low railings or parapets, and certain types of expansion joints that can cause steering problems.

Directness - For utilitarian bicycle trips, facilities should connect traffic generators and should be located along a direct line convenient for users.

Attractiveness - Scenic value is especially important along a facility that is intended primarily to serve a recreational purpose.

Delays - Bicyclists have a strong inherent desire to maintain momentum. If a route requires bicyclists to make frequent stops they may tend to avoid the route or disregard the traffic controls.

Intersection Conditions - A high percentage of bicycle accidents occur at intersections. Facilities should be selected to minimize the number of street intersections.

Criteria Weighting

Members of the Bikeway Subcommittee agreed that the 11 evaluation criteria were not equally important for determining the suitability of roadways as on-road bikeway routes. Therefore, it was determined that a weighting factor should be applied. Each subcommittee member ranked the criteria on a scale of 1 to 11, with 1 being the most important ranking (see Table 4-1 *Bikeway Evaluation Criteria Weighting*). Then, for each criterion, the scores were averaged and the average was used as the weighting factor.

**Table 4-1
Bikeway Evaluation Criteria Weighting**

CRITERIA	Respondent Ranking										Criterion Weight (average)
	1	2	3	4	5	6	7	8	9	10	
Traffic Volume	9	4	4	11	1	4	3	7	4	6	5.3
Speed Limit	10	9	3	10	4	5	2	10	1	7	6.1
Lane/Shoulder Width	1	3	5	2	2	1	1	1	2	1	1.9
Bus/Truck Traffic	8	5	1	8	3	3	4	9	3	5	4.9
Pavement Quality	2	1	7	4	5	6	6	6	11	3	5.1
On-Street Parking	5	2	8	5	9	2	7	11	10	2	6.1
Bridges	11	10	6	6	6	7	9	8	5	11	7.9
Directness	4	11	9	9	11	11	11	4	9	10	8.9
Attractive	7	6	11	7	8	10	10	5	8	9	8.1
Delays	6	8	10	3	10	9	8	2	7	8	7.1
Intersection Condition	3	7	2	1	7	8	5	3	6	4	4.6
Total Points	66	66	66	66	66	66	66	66	66	66	

EVALUATION RESULTS

A quantitative evaluation of roadways as potential on-road bikeway routes was based upon the weighted criteria. The roadways were evaluated by rating each of the 11 criterion on a scale of 1 to 5, with 1 the best and 5 the worst. The total score for each criterion was then calculated by multiplying the rating by the weighted average. The sums for all 11 criteria were added to give a total score for each roadway segment. The lowest score indicates that a roadway is most suitable as an on-road bikeway. In Table 4-2, *On-Road Ranking by Segments*, four levels of suitability are assigned. These are DP1, DP2, DP3, and DP4. About one-third of the roadway segments are in the Most Suitable category (DP1). A large number of these segments are along the existing North-South (Habersham and Lincoln) Corridor. The majority of the roadway segments are ranked in the middle levels of suitability (DP2 and DP3). The least suitable segments were ranked DP4 and tended to score poorly on the evaluation of Bridge Condition, Directness, Attractiveness, and Delays.

Corridor Ranking

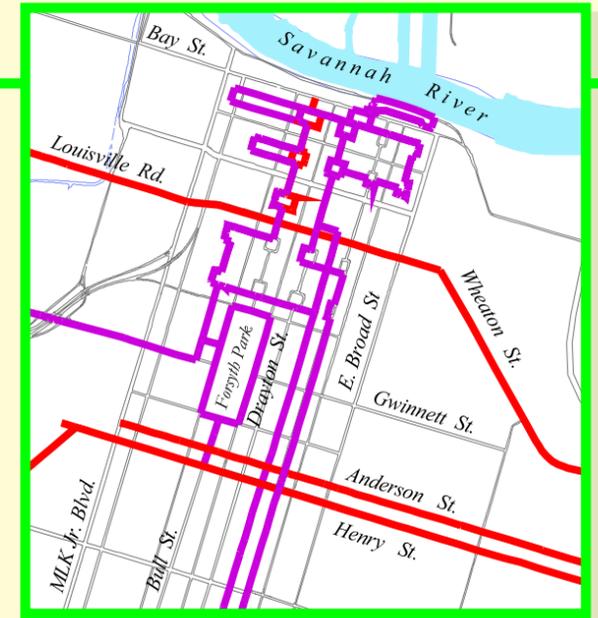
Corridors were ranked using the individual segment ratings. The length of the segments was used as another weighting element, with longer segments given greater weight in the corridor score than short segments. This weighting method was chosen to recognize that longer segments lend continuity to the corridor. A composite score was calculated for each corridor and is presented in Table 4-3 *Bikeway Ranking by Corridor*. Map 4-1 depicts the location of each corridor and its suitability as an on-road bikeway route based on this scoring. The route identification numbers in Table 4-3 are keyed to Map 4-1 and Map 4-3. Map 4-3 displays the Savannah Historic District routes in detail.

DESCRIPTION OF THE SELECTED BIKEWAY SYSTEM

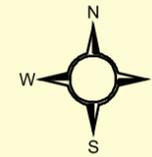
Roadway corridors that comprise the selected Chatham County Bikeway System are described in the sections that follow. Existing bikeways and planned bikeways are both included in the system, which is illustrated on Map 4-2. The route numbers in the bikeway descriptions reference the numeric index on the map. In addition to the on-road corridors described below, certain multi-use trail corridors that also support bicycling are also included.

When completed, the system will consist of over 170 miles of bikeways. Nearly all are designated as on-road facilities. The off-road exceptions include the Lake Mayer loop and the Robert McCorkle trail (described in Chapter 3), as well as a small portion of the Thunderbolt Corridor, and portions of the Truman Linear Park. The three longest corridors are the Tybee Island Corridor (15.3 miles), US 17 Corridor (13.0 miles) and the March to the Sea/Trans Georgia/Savannah River Run Corridor (19.7 miles).

MAP 4-1 Bikeway Corridor Ratings



Downtown Inset



See Inset

On-Road Bikeway Corridor Ratings

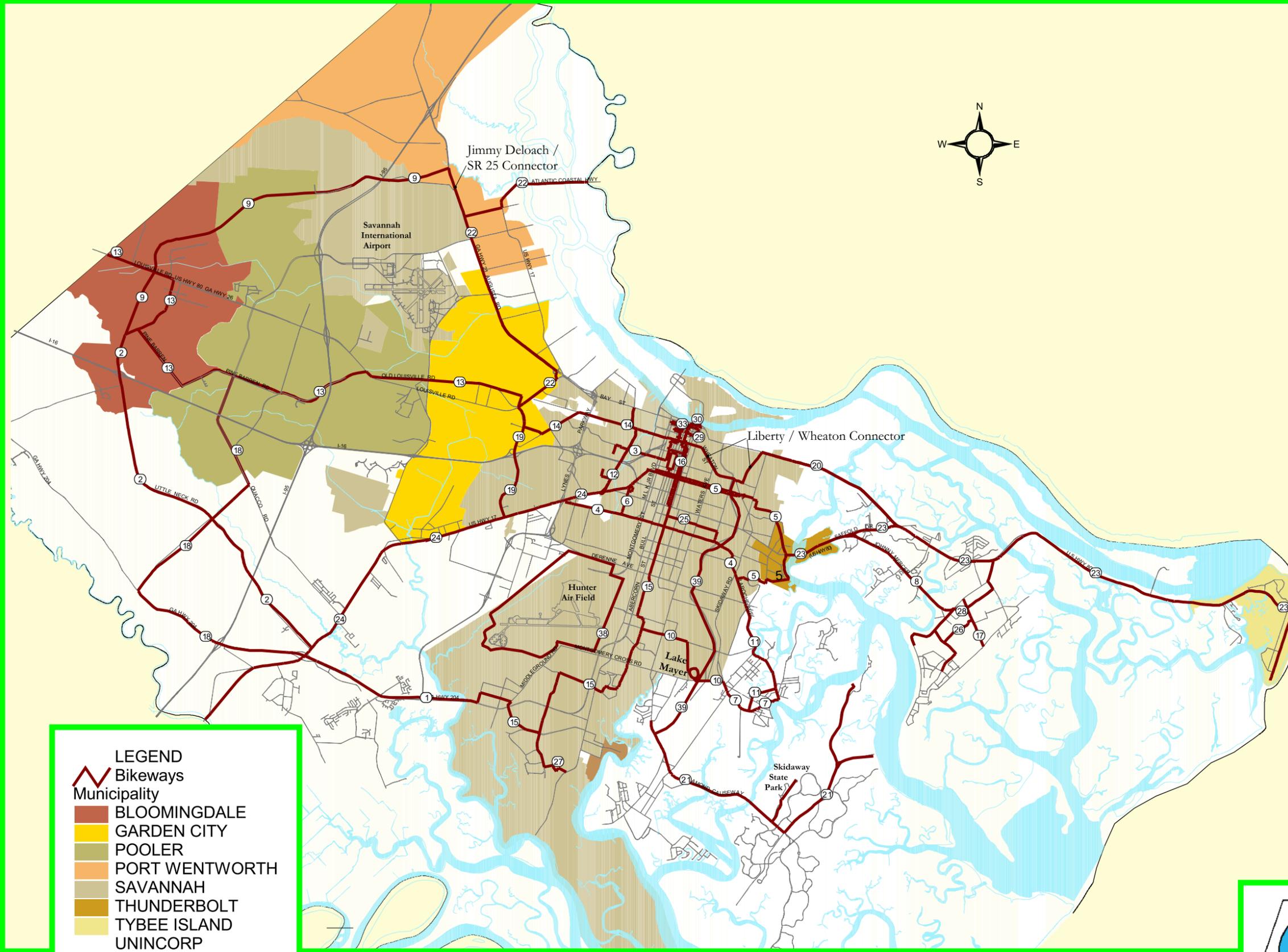
-  I Most Suitable
-  II Suitable
-  III Least Suitable
-  Bikeway Not Rated



Map 4-2 Selected Bikeway Corridors

Bicycle Corridor Guide

- ① Abercorn Extension Corridor
- ② Bloomingdale/Little Neck Corridor
- ③ Cloverdale/West Gwinnet Corridor
- ④ East-West Corridor
- ⑤ Henry/Anderson-Thunderbolt Corridor
- ⑥ Hopkins Street Corridor
- ⑦ Isle of Hope Corridor
- ⑧ Johnny Mercer Corridor
- ⑨ Jimmy DeLoach Corridor
- ⑩ Lake Mayer Corridor
- ⑪ Laroche Avenue Extension
- ⑫ Lathrop and Stiles Corridor
- ⑬ MTTs/TG/Savannah River Run
- ⑭ March to the Sea/Trans Georgia Corridor
- ⑮ North-South Corridor (Habersham)
- ⑯ North-South Corridor (Lincoln)
- ⑰ Penn Waller Corridor
- ⑱ Quacco Road/Fort Argyle Corridor
- ⑲ Savannah River Run Corridor
- ⑳ Savannah-Whitemarsh Corridor
- ㉑ Skidaway
- ㉒ SR 25 Corridor
- ㉓ Tybee Island Corridor
- ㉔ US 17 Corridor
- ㉕ Washington Avenue Corridor
- ㉖ Wilmington Cross Connectors
- ㉗ Windsor Forest Connector
- ㉘ Robert McCorkle Bikeway Connector
- ㉙ Historic District Corridor
- ㉚ Historic District Corridor Extension
- ㉛ City Market Connector
- ㉜ Hunter Airfield Perimeter
- ㉝ Truman Linear Park Corridor



- LEGEND**
- Bikeways
 - Municipality
 - BLOOMINGDALE
 - GARDEN CITY
 - POOLER
 - PORT WENTWORTH
 - SAVANNAH
 - THUNDERBOLT
 - TYBEE ISLAND
 - UNINCORP
 - VERNONBURG



TABLE 4-2 ON ROAD BIKEWAY RANKING BY SEGMENTS

<u>Segment Rankings</u> DP1 82-115 DP2 116-149 DP3 150-184 DP4 185-214					<u>Corridor Rankings</u> I Most Suitable 113-152 II Suitable 153-192 III Least Suitable 193+					Criteria Sum = Rank * Weight Segment specific sum= ? Criteria Sums Corridor Ranking Score = ? <u>Segment Scores (weighted by Length)</u> Number of segments in corridor																
										Detail by Individual Criteria: Ranking and Weighted Sums																
										Traffic	Speed	Width	Trucks	Pave-ment	Parking	Bridges	Direct-ness	Attrac-tiveness	Delays	Inter-section						
					weight= 5.3	weight= 6.1	weight= 1.9	weight= 4.9	weight= 5.1	weight= 6.1	weight= 7.9	weight= 8.9	weight= 8.1	weight= 7.1	weight= 4.6											
Route	Segment Description	Segment Specific			Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum						
		Length	Sum	Suitability																						
Abercorn Extension Corridor																										
Middleground Rd.	Abercorn St. to Shawnee St.	0.3	205	DP4	4	21	3	18	5	9.5	5	25	5	26	1	6.1	1	7.9	1	8.9	5	41	4	28	3	14
Shawnee St.	Middleground Rd. to Rio Rd.	0.8	124	DP2	2	11	1	6.1	3	5.7	2	9.8	3	15	2	12	1	7.9	1	8.9	3	24	2	14	2	9.2
Rio Rd.	Shawnee St. to Abercorn St.	0.3	127	DP2	2	11	2	12	3	5.7	3	15	2	10	1	6.1	1	7.9	1	8.9	3	24	3	21	1	4.6
Abercorn St./SR 204	Rio Rd. to US 17	5.0	212	DP4	5	27	5	31	1	1.9	5	25	4	20	1	6.1	3	23.7	1	8.9	3	24	3	21	5	23
		Corridor Ranking:																								
			197	III																						
Bloomington/Little Neck Corridor																										
Little Neck Rd.	US 17 to Bloomington X Rd.	11.0	202	DP4	2	11	5	31	5	9.5	3	15	3	15	1	6.1	2	15.8	5	45	3	24	1	7.1	5	23
Bloomington X Rd.	Little Neck Rd. to Pine Barren Rd.	2.3	201	DP4	2	11	5	31	5	9.5	3	15	1	5.1	1	6.1	5	39.5	4	36	4	32	1	7.1	2	9.2
		Corridor Ranking:																								
			201	III																						
Cloverdale/West Gwinnet Corridor																										
Bull St.	Forsyth Park to Anderson St.	0.4	159	DP3	3	16	2	12	4	7.6	3	15	2	10	3	18	1	7.9	1	8.9	4	32	3	21	2	9.2
Gwinnett St.	MLK Jr. Blvd. to Forsyth Park	0.4	168	DP3	2	11	2	12	5	9.5	3	15	3	15	4	24	1	7.9	1	8.9	3	24	3	21	4	18
Gwinnett St.	W. Boundary St. to MLK Jr. Blvd.	0.3	175	DP4	4	21	2	12	2	3.8	5	25	2	10	1	6.1	1	7.9	2	18	3	24	4	28	4	18
Gwinnett St.	Crosby St. to W. Boundary St.	0.9	192	DP4	3	16	2	12	3	5.7	4	20	2	10	1	6.1	3	23.7	3	27	4	32	3	21	4	18
Crosby St.	Winburn St. to Gwinnett St.	0.6	99	DP1	1	5.3	1	6.1	4	7.6	1	4.9	1	5.1	2	12	1	7.9	1	8.9	3	24	1	7.1	2	9.2
Cynthia St.	Chevy Chase Rd. to Belair St.	0.2	107	DP1	1	5.3	1	6.1	5	9.5	1	4.9	1	5.1	3	18	1	7.9	1	8.9	3	24	1	7.1	2	9.2
Belair St.	Cynthia St. to Stiles Ave.	0.5	101	DP1	1	5.3	1	6.1	5	9.5	1	4.9	1	5.1	2	12	1	7.9	1	8.9	3	24	1	7.1	2	9.2
		Corridor Ranking:																								
			146	I																						
Skidaway Island Corridor																										
Diamond Causeway	Old Whitfield Ave. to Ferguson Ave	2.4	160	DP3	4	21	5	31	4	7.6	3	15	2	10	1	6.1	1	7.9	2	18	1	8.1	3	21	3	14
Diamond Causeway	Ferguson Ave to McWhorter Dr	3.1	176	DP2	4	21	5	31	4	7.6	3	15	2	10	1	6.1	4	31.6	2	18	1	8.1	2	14	3	14
Skidaway Island	Diamond Cswy. to Skid. Is. State Park	0.6	125	DP2	2	11	1	6.1	5	9.5	1	4.9	3	15	1	6.1	1	7.9	5	45	1	8.1	1	7.1	1	4.6
McWhorter Dr.	Diamond Cswy. to Skid. Inst. of Oceanog	3.5	135	DP2	2	11	5	31	4	7.6	1	4.9	1	5.1	1	6.1	1	7.9	2	18	2	16	2	14	3	14
		Corridor Ranking:																								
			153	II																						
East West Corridor																										
Laroche Ave.	Tompkins Rd. to Ward St.	0.9	205	DP4	3	16	3	18	5	9.5	5	25	4	20	1	6.1	1	7.9	2	18	4	32	4	28	5	23
Ward St.	Laroche Ave. to 52nd St.	0.4	153	DP3	2	11	2	12	5	9.5	3	15	3	15	2	12	1	7.9	2	18	3	24	2	14	3	14
52nd St.	Ward St. to Montgomery St.	2.5	155	DP3	3	16	1	6.1	2	3.8	2	9.8	1	5.1	5	31	3	23.7	1	8.9	2	16	3	21	3	14
52nd St.	Montgomery St. to Hopkins St.	0.8	175	DP3	4	21	1	6.1	2	3.8	4	20	4	20	1	6.1	1	7.9	2	18	4	32	3	21	4	18
52nd St.	Hopkins St. to Ross Rd.	0.7	177	DP3	4	21	4	24	4	7.6	4	20	4	20	1	6.1	1	7.9	2	18	4	32	2	14	1	4.6
52nd St.	Ross Rd. to Ogeechee Rd.	1.2	184	DP3	3	16	4	24	4	7.6	4	20	4	20	1	6.1	3	23.7	2	18	3	24	2	14	2	9.2
		Corridor Ranking:																								
			172	II																						

TABLE 4-2 ON ROAD BIKEWAY RANKING BY SEGMENTS (continued)

<u>Segment Rankings</u> DP1 82-115 DP2 116-149 DP3 150-184 DP4 185-214					<u>Corridor Rankings</u> I Most Suitable 113-152 II Suitable 153-192 III Least Suitable 193+					Criteria Sum = Rank * Weight																	
										Detail by Individual Criteria: Ranking and Weighted Sums																	
										Traffic	Speed	Width	Trucks	Pave-ment	Parking	Bridges	Direct-ness	Attrac-tiveness	Delays	Inter-section							
Segment specific sum= ? Criteria Sums Corridor Ranking Score = ? <u>Segment Scores (weighted by Length)</u> Number of segments in corridor					weight=	weight=	weight=	weight=	weight=	weight=	weight=	weight=	weight=	weight=	weight=	weight=											
					5.3	6.1	1.9	4.9	5.1	6.1	7.9	8.9	8.1	7.1	4.6												
Route	Segment Description	Segment Specific			Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum							
		Length	Sum	Suitability																							
Laroche Avenue Corridor																											
Laroche Avenue	Tompkins Road to Bluff Road	3.3	174	DP3	3	16	3	18	5	9.5	3	15	3	15	1	6.1	1	7.9	3	27	3	24	3	21	3	14	
		Corridor Ranking:			174	II																					
Coastal Route Corridor																											
Chatham Pkwy.	Telfair Place to US 17	2.4	174	DP3	4	21	4	24	3	5.7	5	25	2	10	1	6.1	1	7.9	2	18	4	32	2	14	2	9.2	
		Corridor Ranking:			174	II																					
March to the Sea/Trans Georgia/Savannah River Run/Coastal Route																											
US 80	Effingham Co. to Cherry St.	1.7	145	DP2	4	21	5	31	2	3.8	3	15	3	15	1	6.1	1	7.9	1	8.9	3	24	1	7.1	1	4.6	
Cherry St.	US 80 to Bloomingdale X Rd.	0.8	132	DP2	2	11	4	24	4	7.6	3	15	3	15	1	6.1	1	7.9	1	8.9	3	24	1	7.1	1	4.6	
Bloomingdale X Rd.	Cherry St. to Pine Barren Rd.	0.9	138	DP2	2	11	5	31	4	7.6	3	15	3	15	1	6.1	1	7.9	1	8.9	3	24	1	7.1	1	4.6	
Pine Barren Rd.	Bloomingdale X Rd. to US 80	0.6	154	DP3	2	11	5	31	4	7.6	3	15	3	15	1	6.1	3	23.7	1	8.9	3	24	1	7.1	1	4.6	
US 80	Pine Barren Rd. to Old Louisville Rd.	0.2	182	DP4	4	21	5	31	2	3.8	5	25	2	10	1	6.1	1	7.9	1	8.9	5	41	2	14	3	14	
Old Louisville Rd.	US 80 to Dean Forest Rd.	1.3	129	DP2	1	5.3	3	18	5	9.5	3	15	3	15	1	6.1	1	7.9	1	8.9	3	24	2	14	1	4.6	
Old Louisville Rd.	Dean Forest Rd. to Heidt St.	2.3	137	DP3	2	11	3	18	4	7.6	3	15	3	15	1	6.1	1	7.9	1	8.9	3	24	2	14	2	9.2	
Heidt St.	Old Louisville Rd. to Chatham Pkwy.	0.3	141	DP2	1	5.3	2	12	4	7.6	2	9.8	3	15	1	6.1	1	7.9	1	8.9	4	32	3	21	3	14	
Chatham Pkwy.	Heidt St. to Telfair Place	0.5	178	DP3	4	21	5	31	2	3.8	5	25	2	10	1	6.1	1	7.9	1	8.9	5	41	2	14	2	9.2	
		Corridor Ranking:			141	I																					
March to the Sea/Trans Georgia Corridor																											
Telfair Pl.	Chatham Parkway to Telfair Rd.	0.5	152	DP3	1	5.3	1	6.1	4	7.6	5	25	3	15	1	6.1	1	7.9	3	27	5	41	1	7.1	1	4.6	
Telfair Rd.	Telfair Place to Louisville Rd.	1.1	164	DP3	1	5.3	3	18	4	7.6	5	25	3	15	1	6.1	1	7.9	3	27	5	41	1	7.1	1	4.6	
Louisville Rd.	Telfair Rd. to Stiles Ave.	1.5	189	DP4	1	5.3	4	24	4	7.6	5	25	3	15	1	6.1	1	7.9	3	27	5	41	1	7.1	5	23	
Louisville Rd.	Stiles Ave. to Boundary St.	0.5	158	DP3	3	16	3	18	2	3.8	3	15	1	5.1	1	6.1	1	7.9	3	27	3	24	3	21	3	14	
Louisville Rd.	Boundary St. to MLK Blvd.	0.3	126	DP2	2	11	1	6.1	1	1.9	3	15	3	15	1	6.1	1	7.9	3	27	3	24	1	7.1	1	4.6	
Liberty St.	MLK Blvd. to Bull St.	0.6	129	DP2	4	21	1	6.1	2	3.8	1	4.9	1	5.1	3	18	1	7.9	1	8.9	1	8.1	3	21	5	23	
Bull St.	Liberty St. to President St.	0.5	130	DP2	2	11	1	6.1	2	3.8	1	4.9	1	5.1	5	31	1	7.9	1	8.9	1	8.1	3	21	5	23	
		Corridor Ranking:			160	II																					

TABLE 4-2 ON ROAD BIKEWAY RANKING BY SEGMENTS (continued)

Segment Rankings		Corridor Rankings		Criteria Sum = Rank * Weight Segment specific sum= ? Criteria Sums Corridor Ranking Score = ? Segment Scores (weighted by Length) Number of segments in corridor	Detail by Individual Criteria: Ranking and Weighted Sums																	
DP1 82-115	I Most Suitable 113-152	DP2 116-149	II Suitable 153-192		Traffic	Speed	Width	Trucks	Pave- ment	Parking	Bridges	Direct- ness	Attrac- tiveness	Delays	Inter- section							
DP3 150-184	III Least Suitable 193+	DP4 185-214		weight= 5.3	weight= 6.1	weight= 1.9	weight= 4.9	weight= 5.1	weight= 6.1	weight= 7.9	weight= 8.9	weight= 8.1	weight= 7.1	weight= 4.6								
Route	Segment Description	Segment Specific			Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum		
		Length	Sum	Suitability																		
SR 25 Corridor																						
US 80	Chatham Pkwy. to SR 21	1.9	162	DP3	5	27	5	31	1	1.9	5	25	1	5.1	1	6.1	1	7.9	1	8.9	3	24
SR 21	US 80 to Rommel Ave.	2.0	164	DP3	5	27	5	31	2	3.8	5	25	1	5.1	1	6.1	1	7.9	1	8.9	3	24
SR 21	Rommel Ave. to Bourne Ave.	1.5	171	DP3	5	27	5	31	1	1.9	5	25	1	5.1	1	6.1	1	7.9	1	8.9	3	24
SR 21	Bourne Ave. to Bonnybridge Rd.	2.1	162	DP3	5	27	5	31	1	1.9	5	25	1	5.1	1	6.1	1	7.9	1	8.9	3	24
SR 25	Bonnybridge Rd. to Sav. National Wildlife	2.9	149	DP2	2	11	3	18	2	3.8	3	15	3	15	1	6.1	3	23.7	3	27	1	8.1
Bonnybridge Rd.	SR 21 to SR 25	1.2	151	DP3	2	11	4	24	4	7.6	5	25	3	15	1	6.1	1	7.9	1	8.9	3	24
Corridor Ranking:		159		II																		
Savannah-Whitemarsh Corridor																						
President St./I Exwy.	Bull St. to Pennsylvania Ave.	2.5	183	DP4	5	27	3	18	4	7.6	4	15	3	15	3	18	1	7.9	2	18	4	32
President St./I Exwy.	Pennsylvania Ave. to Wilmington River	1.7	182	DP4	4	21	5	31	2	3.8	3	15	3	15	1	6.1	3	23.7	2	18	4	32
President St./I Exwy.	Wilmington River to Bryan Woods Rd.	3.0	138	DP2	4	21	5	31	2	3.8	2	5.1	1	5.1	1	6.1	1	7.9	2	18	3	24
Corridor Ranking:		168		II																		
Tybee Island Corridor																						
Saffold Dr.	River Drive to Bryan Woods Dr.	1.7	146	DP3	5	27	5	31	2	3.8	3	3.8	1	5.1	1	6.1	1	7.9	1	8.9	2	16
US 80	Bryan Woods to Bull River	1.8	140	DP3	4	21	5	31	2	3.8	3	3.8	2	10	1	6.1	3	23.7	1	8.9	1	8.1
US 80	Bull River to Lazaretto Creek	5.2	142	DP3	3	16	5	31	2	3.8	3	3.8	2	10	1	6.1	4	31.6	1	8.9	1	8.1
US 80	Lazaretto Creek to Campbell St.	2.2	141	DP3	3	16	5	31	2	3.8	3	3.8	2	10	2	12	3	23.7	1	8.9	1	8.1
US 80	Campbell St. to 6th St.	1.1	135	DP3	3	16	3	18	2	3.8	3	3.8	2	10	3	18	1	7.9	1	8.9	3	24
US 80	6th St. to 19th St.	1.4	152	DP3	3	16	3	18	1	1.9	3	1.9	3	15	3	18	1	7.9	1	8.9	3	24
Corridor Ranking:		154		II																		
Washington Avenue Corridor																						
Washington Ave.	Waters Ave. to Bee Rd.	0.5	102	DP1	2	11	2	12	4	7.6	1	4.9	1	5.1	1	6.1	1	7.9	1	8.9	1	8.1
Bee St.	Washington Ave. to 52nd St.	0.2	141	DP2	3	16	3	18	3	5.7	1	4.9	2	10	1	6.1	1	7.9	1	8.9	4	32
Washington Ave.	Habersham St. to Waters	0.8	113	DP1	3	16	2	12	1	1.9	1	4.9	2	10	2	12	1	7.9	1	8.9	1	8.1
Corridor Ranking:		113		I																		
US 17 Corridor																						
US 17	Ogeechee River to Hwy 204	3.0	130	DP2	4	21	5	31	2	3.8	3	15	1	5.1	1	6.1	1	7.9	1	8.9	1	8.1
US 17	Hwy 204 to Quacco Road	1.5	140	DP2	4	21	5	31	2	3.8	3	15	3	15	1	6.1	1	7.9	1	8.9	1	8.1
US 17	Quacco Road to Dean Forest Road	2.4	146	DP3	4	21	5	31	1	1.9	3	15	3	15	1	6.1	1	7.9	1	8.9	2	16
US 17	Dean Forest Road to Chatham Parkway	2.6	172	DP3	4	21	5	31	2	3.8	3	15	3	15	1	6.1	1	7.9	1	8.9	4	32
US 17	Chatham Parkway to Stiles Avenue	2.5	180	DP3	5	27	5	31	2	3.8	3	15	2	10	1	6.1	2	15.8	1	8.9	4	32
US 17	Stiles Avenue to Henry Street	1.3	179	DP3	3	16	3	18	2	3.8	3	15	3	15	3	18	1	7.9	1	8.9	5	41
Corridor Ranking:		113		II																		

TABLE 4-2 ON ROAD BIKEWAY RANKING BY SEGMENTS (continued)

<u>Segment Rankings</u> DP1 82-115 DP2 116-149 DP3 150-184 DP4 185-214					<u>Corridor Rankings</u> I Most Suitable 113-152 II Suitable 153-192 III Least Suitable 193+					Criteria Sum = Rank * Weight Segment specific sum= ? Criteria Sums Corridor Ranking Score = ? <u>Segment Scores (weighted by Length)</u> Number of segments in corridor																
										Detail by Individual Criteria: Ranking and Weighted Sums																
										Traffic	Speed	Width	Trucks	Pave-ment	Parking	Bridges	Direct-ness	Attrac-tiveness	Delays	Inter-section						
					weight= 5.3	weight= 6.1	weight= 1.9	weight= 4.9	weight= 5.1	weight= 6.1	weight= 7.9	weight= 8.9	weight= 8.1	weight= 7.1	weight= 4.6											
Route	Segment Description	Segment Specific			Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum	Rank	Sum						
		Length	Sum	Suitability																						
Wilmington Cross Connectors																										
Cromwell Rd.	Winchester Dr. to Wilmington Island Rd.	1.3	134	DP2	2	11	1	6.1	4	7.6	1	4.9	2	10	4	24	1	7.9	4	36	1	8.1	2	14	1	4.6
Deerwood Rd.	Cromwell Rd. to Penn Waller Rd.	1.1	134	DP2	2	11	1	6.1	4	7.6	1	4.9	2	10	4	24	1	7.9	4	36	1	8.1	2	14	1	4.6
		Corridor Ranking:		134			I																			
Windsor Forest Corridor																										
Largo/Plantation/Old Mill/Mill	Windsor Rd. to Coffee Bluff	1.7	152	DP3	2	11	2	12	4	7.6	1	4.9	3	15	3	18	3	23.7	1	8.9	3	24	3	21	1	4.6
		Corridor Ranking:		152			I																			
Robert McCorkle Corridor																										
Catherine Dr.	Sea Island Dr. to Port Royal Dr.	0.3	119	DP1	1	5.3	2	12	4	7.6	1	4.9	2	10	3	18	1	7.9	1	8.9	4	32	1	7.1	1	4.6
Port Royal Dr.	Catherine Dr. to Penn Waller Rd.	0.2	119	DP1	1	5.3	2	12	4	7.6	1	4.9	2	10	3	18	1	7.9	1	8.9	4	32	1	7.1	1	4.6
		Corridor Ranking:		119			I																			
Historic District Corridor																										
Gordon St.	Barnard St. to Lincoln St.	0.4	171	DP3	1	5.3	2	12	2	3.8	1	4.9	3	15	5	31	1	7.9	4	36	4	32	2	14	2	9.2
Lincoln St.	Gordon St. to Liberty St.	0.3	129	DP2	1	5.3	2	12	1	1.9	1	4.9	2	10	4	24	1	7.9	2	18	4	32	1	7.1	1	4.6
Lincoln St.	Liberty St. to Colonial Park	0.0	129	DP2	1	5.3	2	12	1	1.9	1	4.9	2	10	4	24	1	7.9	2	18	4	32	1	7.1	1	4.6
Perry St.	Lincoln St. to Abercorn St.	0.1	128	DP2	1	5.3	2	12	5	9.5	1	4.9	2	10	1	6.1	1	7.9	4	36	3	24	1	7.1	1	4.6
Abercorn St.	Perry St. to Oglethorpe Ave.	0.1	166	DP3	3	16	2	12	2	3.8	1	4.9	2	10	4	24	1	7.9	4	36	4	32	2	14	1	4.6
Oglethorpe Ave.	Abercorn St. to Lincoln St.	0.1	128	DP2	1	5.3	2	12	1	1.9	1	4.9	2	10	4	24	1	7.9	2	18	3	24	2	14	1	4.6
Lincoln St.	Oglethorpe Ave. to President St.	0.1	139	DP2	1	5.3	2	12	5	9.5	1	4.9	2	10	3	18	1	7.9	3	27	4	32	1	7.1	1	4.6
President St.	Lincoln St. to Houston St.	0.3	141	DP2	1	5.3	2	12	4	7.6	1	4.9	2	10	5	31	1	7.9	2	18	4	32	1	7.1	1	4.6
Houston St.	President St. to Bryan St.	0.2	141	DP2	1	5.3	2	12	4	7.6	1	4.9	2	10	5	31	1	7.9	2	18	4	32	1	7.1	1	4.6
Bryan St.	Houston St. to Bull St.	0.4	144	DP2	1	5.3	2	12	2	3.8	1	4.9	2	10	5	31	1	7.9	2	18	4	32	2	14	1	4.6
Bull St.	Bryan St. to State St.	0.2	141	DP2	1	5.3	2	12	4	7.6	1	4.9	2	10	5	31	1	7.9	2	18	4	32	1	7.1	1	4.6
State St.	Bull St. to Barnard St.	0.2	141	DP2	1	5.3	2	12	2	3.8	1	4.9	2	10	5	31	1	7.9	2	18	4	32	1	7.1	2	9.2
Barnard St.	State St. to York St.	0.1	135	DP2	1	5.3	2	12	1	1.9	1	4.9	2	10	5	31	1	7.9	2	18	4	32	1	7.1	1	4.6
York St.	Barnard St. to Bull St.	0.2	140	DP2	1	5.3	2	12	1	1.9	1	4.9	3	15	5	31	1	7.9	2	18	4	32	1	7.1	1	4.6
Bull St.	York St. to Harris St.	0.3	141	DP2	1	5.3	2	12	2	3.8	1	4.9	2	10	5	31	1	7.9	2	18	4	32	1	7.1	2	9.2
Harris St.	Bull St. to Barnard St.	0.2	135	DP2	1	5.3	2	12	1	1.9	1	4.9	2	10	5	31	1	7.9	2	18	4	32	1	7.1	1	4.6
Barnard St.	Harris St. to Gordon St.	0.3	135	DP2	1	5.3	2	12	1	1.9	1	4.9	2	10	5	31	1	7.9	2	18	4	32	1	7.1	1	4.6
		Corridor Ranking:		143			I																			
Historic District Extension Co																										
Lincoln St.	President St. to Bay St.	0.1	134	DP2	1	5.3	2	12	4	7.6	1	4.9	2	10	4	24	1	7.9	2	18	4	32	1	7.1	1	4.6
Bay St.	Lincoln St. to Lincoln St. Ramp	0.0	195	DP4	5	27	2	12	4	7.6	3	15	2	10	5	31	1	7.9	3	27	4	32	3	21	1	4.6
Lincoln St. Ramp	Bay St. to River St.	0.1	117	DP2	1	5.3	1	6.1	2	3.8	1	4.9	4	20	1	6.1	1	7.9	3	27	3	24	1	7.1	1	4.6
River St.	Lincoln St. to E. Broad St. Ramp	0.2	124	DP2	1	5.3	1	6.1	4	7.6	1	4.9	4	20	3	18	1	7.9	3	27	1	8.1	2	14	1	4.6
E. Broad St. Ramp	River St. to Factors Walk	0.0	117	DP2	1	5.3	1	6.1	1	1.9	1	4.9	2	10	3	18	1	7.9	3	27	3	24	1	7.1	1	4.6
E. Broad St. Ramp	Factors Walk to Rossiter St.	0.1	125	DP2	1	5.3	1	6.1	2	3.8	1	4.9	4	20	1	6.1	1	7.9	3	27	4	32	1	7.1	1	4.6
Rossiter St.	E. Broad St. Ramp to Huston St.	0.2	143	DP2	1	5.3	1	6.1	4	7.6	1	4.9	2	10	5	31	1	7.9	3	27	4	32	1	7.1	1	4.6
		Corridor Ranking:		132			I																			

Table 4-3
On-Road Bikeway Ranking by Corridor

Bicycle Route		Weighted Average Score*	
I Most Suitable	25	Washington Avenue Corridor	113
	28	Robert McCorkle Corridor	119
	9	Jimmy DeLoach Corridor	121
	8	Johnny Mercer Corridor	122
	15	North-South Corridor (Habersham)	123
	30	Historic District Extension Corridor	132
	26	Wilmington Cross Connectors	134
	13	MTTS/Trans-Georgia/ Savannah River Run/Coastal Route	141
	16	North-South Corridor (Lincoln)	142
	29	Historic District Corridor	143
	3	Cloverdale/West Gwinnett Corridor	146
	27	Windsor Forest Corridor	152
II Suitable	21	Skidaway Island Corridor	153
	23	Tybee Island Corridor	154
	24	US 17 Corridor	156
	12	Lathrop and Stiles Corridor	157
	22	SR 25 Corridor	159
	14	March to the Sea/Trans Georgia Corridor	160
	6	Hopkins Street Corridor	161
	17	Penn Waller Corridor	162
	18	Quacco Road/Fort Argyle Corridor	162
	7	Isle of Hope Corridor	165
	20	Savannah-Whitemarsh Corridor	168
	4	East West Corridor	172
	19	Coastal Route Corridor	174
	11	LaRoche Avenue Corridor	174
	5	Henry/Anderson-Thunderbolt Corridor	175
III Least Suitable	10	Lake Mayer Corridor	197
	1	Abercorn Extension Corridor	197
	2	Bloomingdale/Little Neck Corridor	201

* Lowest values reflect highest suitability.

The Georgia Statewide Bicycle and Pedestrian Plan addresses only on-road bikeways whereas the MPC and the Connecting the Coast plans address both on-road bikeways and multi-use off-road trails. The proposed multi-use trails in the Connecting the Coast Plan are part of a greenway system and may have segments parallel to existing roads that may contain planned on-road bikeways. The on-road bikeways proposed in the Connecting the Coast Plan serve as connectors between the trails and desired destinations where greenway connectors are impractical. Because most bikeways in the selected system are carried forward from previous plans, special notation by italics is made below only if a bikeway is new or is already funded for construction as part of the County's Transportation Improvement Program.

The Bikeway Subcommittee reselected all except one of the proposed bikeway corridors from the 1992 MPC Bikeway Plan. The corridor that was deleted from the system was a route in the Historic District Corridor. This route along Martin Luther King Jr. Boulevard, Congress Street, Bryan Street, and River Street was in a corridor that was not considered to be bicycle friendly. The subcommittee expanded the proposed bikeway network by adding several corridors including the Jimmy DeLoach Parkway, SR 25, Quacco Road/Fort Argyle, Skidaway Island State Park Spur, and several modifications within and around the Historic District.

The proposed system of bikeways is described below within the geographic areas of the county as follows:

Eastern corridors,
Central corridors,
Western corridors, and
Savannah Historic District and surrounding area.

EASTERN CORRIDORS

This portion of the bikeway system includes corridors to Wilmington Island and Tybee Island. The first three eastern corridors described below are relatively long corridors that connect islands to the urban core. Additional corridors are located on Wilmington Island, making the system there more complete.

Savannah-Whitemarsh Corridor **20** The bikeway proposed in this corridor will run on President Street Extension and Islands Expressway from Goebel Avenue to the intersection with US 80. The total length of the bikeway will be 6.6 miles. *Modification from previous plan: The new Liberty/Wheaton Connector will connect this Bikeway from the Historic District to President Street Extension via Goeble Avenue.*

Tybee Island Corridor **23** Proposed for US 80 from the Wilmington River Bridge in Thunderbolt to 19th Street at Tybee Island, the total length of the bikeway will be 15.3 miles. *Certain segments of this bikeway are already programmed for construction concurrent with roadway widening projects.*

Johnny Mercer Corridor **8** This corridor, parallel to the Tybee Island Corridor, is planned to extend from US 80 toward Wilmington Island for 3.3 miles along Johnny

Mercer Boulevard. At Sapelo Road the bikeway will connect with the existing Robert McCorkle Bikeway running parallel to Sea Island Drive.

Robert McCorkle Corridor Extension **28** Adding to the existing path in this corridor, a two-way eight foot bike path will extend the bikeway beyond its current western terminus at Cromwell Road. This extension will take the bike path to the Wilmington Club complex on Wilmington Island Road. An additional eight foot wide extension from the eastern terminus at Walthour Road will parallel Walthour Road and Johnny Mercer Boulevard before it reaches US Highway 80. The total length of both extensions will be 1.4 miles.

Wilmington Cross Connectors **26** Two bikeway connectors are proposed in this corridor. The first bikeway will run on Cromwell Road from Winchester Drive and will connect with the existing Robert McCorkle Bikeway near the Wilmington Island Presbyterian Church. The second connector will run on Deerwood Road from Cromwell Road and will connect with the proposed Penn Waller Bikeway on Penn Waller Road. The total length of this connector will be 2.3 miles. *Modification from previous plan: A third bikeway connector proposed in the 1992 MPC Plan was deleted by the Bikeway Subcommittee.*

Penn Waller Corridor **17** The bikeway proposed in this corridor will run on Penn Waller Road from Johnny Mercer Boulevard to Walthour Road. A 200 foot segment of the bikeway already exists in the form of a six-foot wide paved bike path on the east side of the road. The total length of the bikeway will be 1.3 miles.

CENTRAL CORRIDORS

A second set of corridors comprises the bikeway system in the southern and eastern portions of the county within the cities of Savannah and Thunderbolt. East-west and north-south corridors are described below, along with the parts of the system that extend to Isle of Hope and Skidaway Island.

Henry/Anderson-Thunderbolt Corridor **5** The bikeway proposed in this corridor will run on the Henry Street/Anderson Street one-way pair. It will begin at May Street at the point where the US 17 Corridor bikeway enters the city from the west, and will run eastward to Pennsylvania Avenue. Turning south on Pennsylvania Avenue, the bikeway then continues east on Florida, Ohio, and Tennessee Avenues. At Maryland Avenue the old Thunderbolt Street Car right-of-way will serve as an off-road bikeway to Mechanics Avenue. This segment, which connects Maryland Avenue to Bonaventure Road and Mechanics Avenue, is also included as part of the proposed Placentia Canal Greenway. At Mechanics Avenue, the bikeway reverts to an on-road bikeway and will run on Dogwood Avenue, River Drive, Falligant Drive, and Whatley Avenue before meeting with the LaRoche Avenue Corridor at Tompkins Road. The entire length of the bikeway will be 7.6 miles.

Washington Avenue Corridor **25** This is a 1.6 mile connector that will run on Washington Avenue from Habersham Street to 52nd Street, and then on Bee Road. This bikeway will include a portion of an existing multi-purpose path inside Daffin Park.

After completion, the Washington Avenue Bikeway will serve as an alternate route to the existing bikeway along the **East-West Corridor** **4**. As mentioned in Chapter 3, this route connects the US 17 Corridor with Savannah State University near the intersection of LaRoche Avenue and Skidaway Road.

North-South Corridor **15** This existing route, one of two major north-south corridors in the central area of the county, is described in detail in Chapter 3. The North-South Bikeway serves several major activity centers, passing near the Savannah Mall, Olgelthorpe Mall, and the Downtown Historic District.

Truman Linear Park **39** The other major north-south corridor, this park runs parallel to the Harry S. Truman Parkway from Daffin Park to the Lake Mayer Recreation Area. The park will have a paved, eight-foot multi-use trail over much of its length which totals approximately 15.1 miles. The first phase of the Linear Park specifies multi-use trails beginning in and around Daffin Park using on-road segments along Bee Road as far as the 52nd Street Corridor. This phase will be integrated with the Washington Avenue Connector. The second phase will extend southward along off-road right-of-way just east of the Truman Parkway as far as Eisenhower Drive. From this point the path runs west along Eisenhower Drive, from the Truman Interchange to the Casey Canal. The path then follows the Casey Canal as an off-road portion southward to the Lake Mayer Recreation area.

Lathrop and Stiles Corridor **12** This short north-south connector is 2.6 miles long. It will run on Stiles Avenue, Louisville Road and Lathrop Avenue from Ogeechee Road to Bay Street.

The Isle of Hope area is served by the following three corridors that together comprise a semicircular loop extending from Savannah State University to Lake Mayer. These corridors are the LaRoche Avenue, Isle of Hope, and Lake Mayer bikeways.

LaRoche Avenue Corridor **11** This bikeway will provide connectivity between the routes planned to the north and south. Beginning on Bluff Drive at Isle of Hope, it will continue north on LaRoche Avenue to the point where the East-West and Henry/Anderson-Thunderbolt bikeways converge. It ends at the entrance to Savannah State at Tompkins Road for a total length of 4.3 miles.

Isle of Hope Corridor **7** Beginning at the proposed Lake Mayer Connector at the intersection with Montgomery Cross Road, this bikeway will go north along Skidaway Road, Parkersburg Road, and Bluff Drive. From here it will continue eastward to meet the LaRoche Avenue Bikeway. The total length of the bikeway will be 1.9 miles.

Lake Mayer Connector **10** The Lake Mayer Connector will provide access to the existing Lake Mayer Bikeway from the east (beginning at the Isle of Hope Bikeway) and from the west (starting at the North-South Bikeway). It will run on Eisenhower Drive from Hodgson Memorial Drive to Sallie Mood Drive. At Sallie Mood Drive it will turn southeast and connect with the Lake Mayer Bikeway. East of the Lake Mayer Bikeway this connector follows Montgomery Cross Road and then follows Skidaway Road south to connect with the Isle of Hope Bikeway. The total length of the bikeway will be 2.5 miles, not including the Lake Mayer segment.

Skidaway Island Corridor **21** This bikeway provides a connection from points south of Lake Mayer to Diamond Causeway and to the residential areas and points of interest on Skidaway Island. From north to south, the route is on Whitfield Avenue, Diamond Causeway, and McWhorter Road. A scheduled roadway widening project for Diamond Causeway between Ferguson Avenue and McWhorter Drive includes bike shoulders. Upon completion, Whitfield Avenue and Diamond Causeway will serve as a major bicycle corridor and will provide a connection to the proposed Coastal Georgia Greenway. *Modification: A one-mile bikeway is also proposed as a spur off the Diamond Causeway to provide a connection to the Skidaway Island State Park. The total length of the bikeway including the spur will be 11.3 miles.*

Windsor Forest Corridor **27** A bikeway connector is proposed on Largo Drive between Windsor Road and Coffee Bluff Road. The bikeway will run on Largo Drive, Plantation Drive, Old Mill Road, Old Mill Lane, and Mill Court before terminating at White Bluff Road. The length of the bikeway will be 1.6 miles.

WESTERN CORRIDORS

Several bikeways are planned within the western portion of Chatham County. Some are part of planned intrastate bike routes and therefore provide links into neighboring counties.

US 17/Ogeechee Corridor **24** Beginning in Savannah on Ogeechee Road at the western end of the Henry/Anderson-Thunderbolt Corridor (Route 5), this bikeway continues southwest along US 17 into Bryan County. *Two phases are funded for construction.* These are Phase I, a segment between Dean Forest Road and Abercorn Street Extension, and Phase II, a segment between Abercorn Street Extension and Bryan County. Another segment of US 17 between I-516 (Lynes Parkway) and Victory Drive is scheduled for widening from two to four lanes in 2001-2002. Bike shoulders will be constructed during the widening and reconstruction of the highway. The length of the bikeway totals 13 miles.

Abercorn Corridor Extension **1** The two segments making up this corridor will link the southern end of the North-South Bikeway to the US 17 Corridor farther west. The first segment will run on Middleground Road, Shawnee Street, and Rio Road from Armstrong Atlantic State University to Abercorn Street. The second segment will run on Abercorn Street between Rio Road and US 17. The total length of the bikeway is 5.6 miles.

Quacco Road/Fort Argyle Corridor **18** Beginning at the point where Abercorn Extension Bikeway meets US 17, this proposed bikeway will run on Fort Argyle Road, Bush Road, and Quacco Road, terminating at Pine Barren Road. A segment of this corridor includes the undeveloped S&O Canal right-of-way where a new two-lane road is proposed with bike shoulders. The total length of the bikeway will be 11 miles.

March to the Sea/Trans Georgia/Savannah River Run/Coastal Route Corridor **13**
14 **19** Four intrastate bikeways proposed in this corridor originate outside Georgia. They share a common route when they enter Chatham County on US 80 in Bloomingdale. This bikeway leaves Bloomingdale on a route including Pine Barren Road, Old Louisville Road, Heidt Avenue, and Chatham Parkway. At the intersection of Telfair Place and Chatham Parkway, the March to the Sea, the Trans Georgia, and the Savannah River Run bikeways turn east toward downtown Savannah. This route travels along Telfair Road, Louisville Road, Liberty Street and Bull Street, terminating at City Hall on Bay Street. The Coastal Route Bikeway diverges south on Chatham Parkway, meeting the US 17 Bikeway at its southern terminus. *The 2.4-mile segment on Chatham Parkway (Route 19) is a new part of the system.* The total length of the combined bikeways (Route 13 and Route 14 together) is 19.7 miles.

Three corridors in western Chatham County—SR 25 Corridor, Jimmy DeLoach Parkway Corridor and Bloomingdale / Little Neck Road Corridor—form a large semicircle that passes through the cities of Garden City, Port Wentworth, Savannah, Pooler and Bloomingdale. The arc continues to the unincorporated areas in southwest Chatham County. These corridors are described as follows:

SR 25 Corridor **22** This bikeway is proposed to extend for 9.2 miles beginning on SR 25 at the Savannah River in Port Wentworth and continuing on Bonnybridge Road to SR 21 and then south into Garden City. The bikeway will provide continuity to the planned bicycle network by connecting with the Jimmy DeLoach Bikeway and the March to the Sea, Trans Georgia, Savannah River Run, and Coastal Route bikeways.

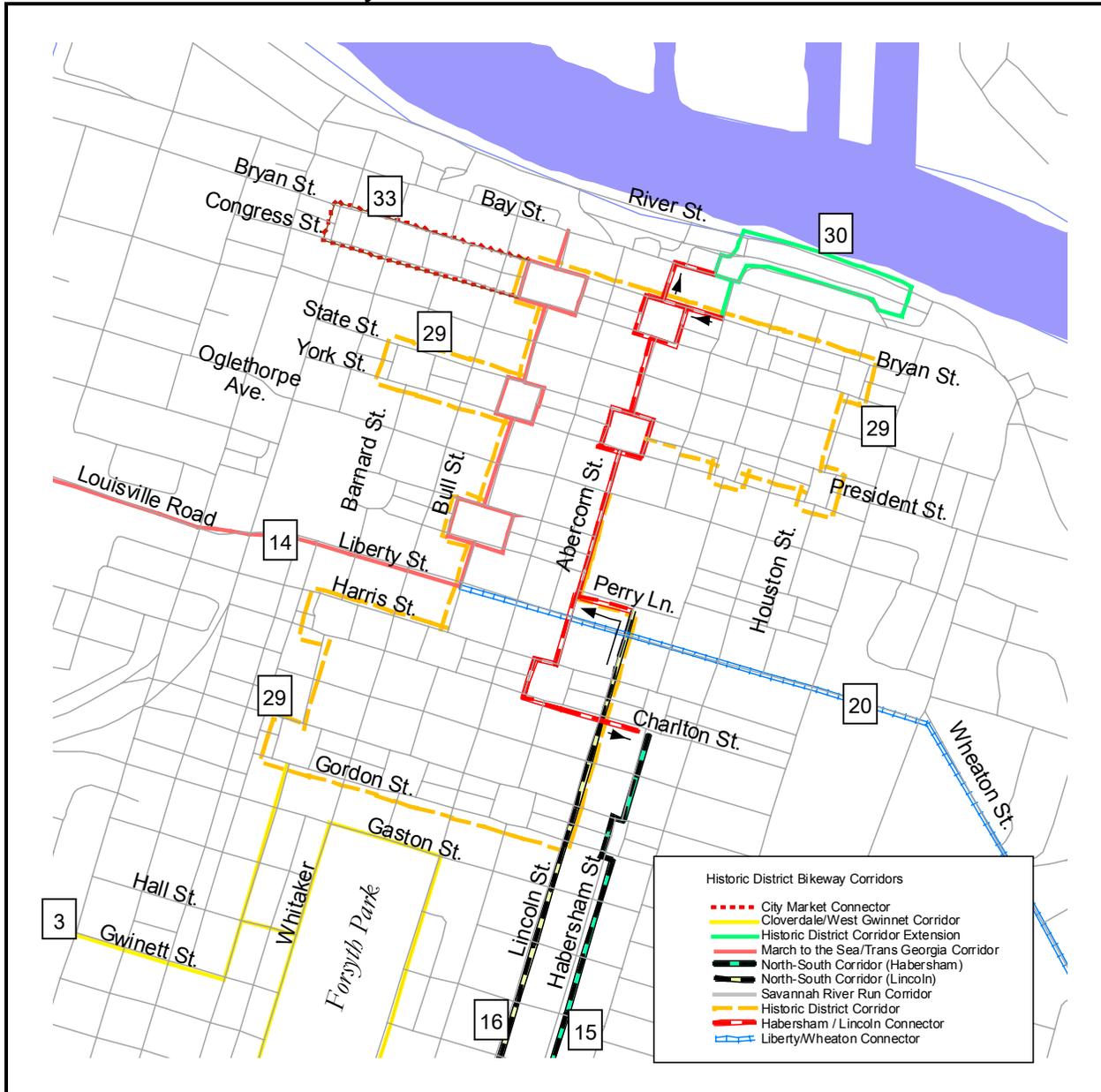
Jimmy DeLoach Corridor **9** The bikeway will be along Jimmy DeLoach Parkway, extending from I-16 to SR 21. The total length of the bikeway will be 9.8 miles. *The Jimmy DeLoach/SR 25 Connector is an additional bikeway proposed to run on SR 21 between Jimmy DeLoach Parkway and Bonnybridge Road connecting the Jimmy DeLoach and the SR 25 Corridors.* The total length of the connector will be 1.2 miles.

Bloomingdale/Little Neck Road Corridor **2** Beginning on Pine Barren Road in Bloomingdale, this bikeway continues south along Little Neck Road to the Quacco Road/Fort Argyle Corridor. It continues along Little Neck Road until it terminates at US 17. The total length of this bikeway is 10 miles.

SAVANNAH HISTORIC DISTRICT AND SURROUNDING AREA

Additional bikeways are planned within and around the downtown area of Savannah as connectors to other routes or as complements to the designated Historic District Bikeway. Map 4-3 shows many of the corridors in this area in detail.

Map 4-3
Bikeways in the Savannah Historic District



Cloverdale/West Gwinnett Corridor **3** Two bikeways are proposed in this corridor. The Cloverdale portion runs .4 miles along Cynthia Street and Belair Drive, connecting Butler Elementary School to Stiles Avenue (Route 12). The West Gwinnett portion begins at Windburn Street and runs on Crosby, Gwinnett, Barnard, Hall, Drayton, Gaston, Whittaker, Park, and Bull Streets until it meets the Henry-Anderson Corridor

(Route 5). At Forsyth Park, between Hall Street and Bull Street, the proposed bikeway will run clockwise on existing sidewalks around Forsyth Park. The bikeways together total 2.8 miles in length. *Modification: The use of sidewalks differs from the 1992 Bikeway Plan, which included a multi-purpose paved path inside Forsyth Park.*

Hopkins Street Corridor **6** This .7 mile bikeway will run on Hopkins Street from 52nd Street (Route 4) to Ogeechee Road (Route 24).

The Historic District Extension **30** The shared lane facilities in this bikeway run on Lincoln Street (north of Bryan Street), Lincoln Street Ramp, River Street, East Broad Street Ramp, and Rossiter Street. The bikeway connects with the Lincoln Street Bikeway and the Historic District Bikeway at Bryan Street.

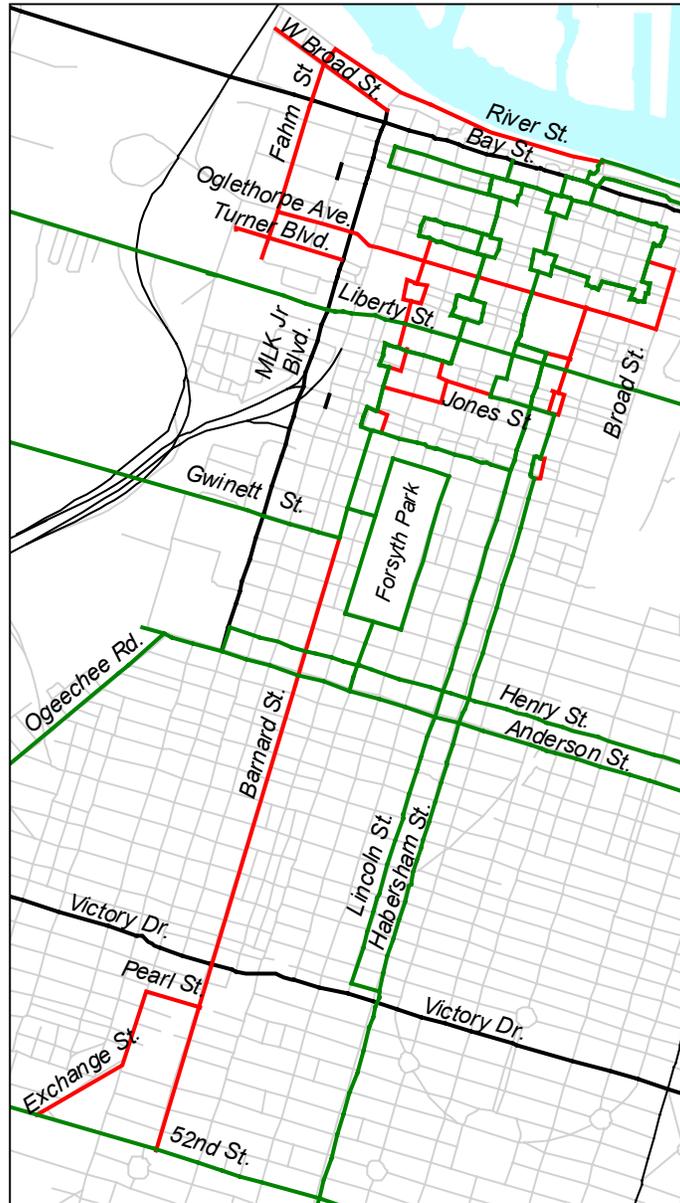
Habersham/Lincoln Connector This half-mile segment on Abercorn Street connects the North-South Corridor to the Historic District Bikeway Extension to River Street. In addition to Abercorn Street, Perry Lane and Charlton Street are used for the connector. Bicycles northbound on the Lincoln Street Bikeway will proceed through the Liberty Street intersection and turn west on Perry Lane, then bear right on Abercorn Street in order to proceed north. At Bay Street, the bikeway will connect with the proposed Historic District Extension Bikeway. Travelers leaving Bay Street will move southbound on Abercorn Street then east on Charlton Street for two blocks (past Lincoln Street) to connect with the Habersham Street Bikeway.

Liberty/Wheaton Corridor This proposed bikeway links the Savannah Whitemarsh Corridor with other bikeways that converge into Savannah's Historic District. Starting at Bull Street, it runs on Wheaton, Gwinnett, and Goebel Streets to meet with the Savannah-Whitemarsh Bikeway **20** at President Street Extension. *Modification: This bikeway replaces congested segments of the proposed Savannah-Whitemarsh Bikeway near the Truman Parkway, where the ramp entrances are considered hazardous to cycling.* The total length of the bikeway is 2.8 miles.

City Market Connector **33** The proposed bikeway will form a loop on Bryan, Montgomery, and Congress Streets, connecting City Market to Bull Street. The bikeway will connect with the Historic District Bikeway Corridor. The total length of the bikeway is 2.8 miles.

Additional Historic District Bikeways In addition to the Historic District bikeways described above, the City of Savannah has proposed several bikeways to be targeted for use by students attending the Savannah College of Art and Design (SCAD). Recognizing that the majority of buildings comprising the SCAD campus are in or near the city's Historic District, College and City Engineering staff collaborated to determine bicycle routes most likely to benefit SCAD users. Bikeway signage and in some cases bike lane striping are anticipated for these bikeways. Map 4-4 displays these proposed routes together with the originally-proposed corridors in the Historic District. Where the two networks coincide, only the initially planned bikeway corridor is shown.

Map 4-4 Additional Historic District Bikeways



- Planned Bikeway Corridors
- Additional Bikeways

Chapter 5

DESIGN TREATMENTS FOR ON-ROAD BIKEWAYS

The objective of the design treatment analysis is to evaluate the current status of the selected bikeway corridors and to determine improvements that are necessary to formally designate them as components of the countywide system. The ultimate treatments for the proposed Chatham County bikeway system conform to the design standards of the American Association of State Highway and Transportation Officials (AASHTO) and the Federal Highway Administration (FHWA).

METHODOLOGY

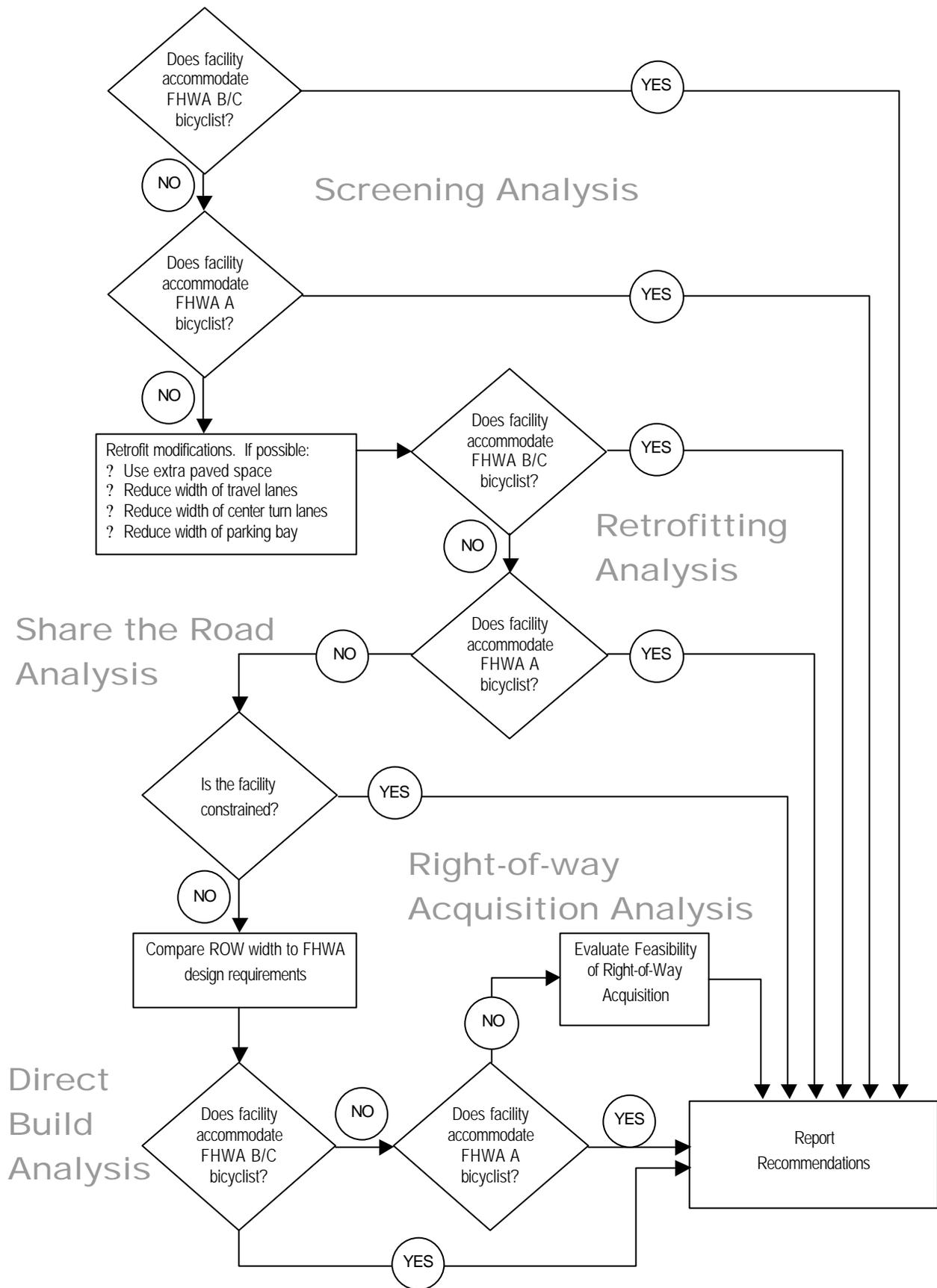
The design treatment analysis consists of a series of examinations to identify facility treatment needs. As shown in Figure 5-1 the methodology included the following five types of analysis:

1. Screening Analysis - Determines which corridors could immediately accommodate a recommended bicycle facility.
2. Retrofitting Analysis - Determines the optimum treatment that could be attained without construction to widen the facility.
3. Share-the-Road Analysis - Identifies constrained segments where the only possible treatment is to install "share-the-road" signs in combination with bike route signs.
4. Direct Build Analysis - Identifies segments where the recommended treatment requires construction.
5. Right-of-Way Acquisition Analysis - Identifies segments where additional right-of-way must be acquired in order to implement the recommended treatment.

Guidelines from the FHWA were used to evaluate each roadway segment's ability to accommodate two levels of cyclists. The first level considered is Group B/C cyclists (Beginners/Children) who are the least experienced cyclists. On-road bikeways designed for Group B/C cyclists generally have higher standards than those roadways accommodating Group A (Advanced) cyclists. The analysis considers a number of traffic operations and design parameters that affect the accommodation of cyclists of various skill levels. The guidelines consider the following:

- Annual Average Daily Traffic (AADT)
- Average motor vehicle operating speed
- Truck/bus traffic mix
- Sight distance

FIGURE 5-1
Flow Chart of Design Treatment Methodology



Details of the FHWA guidelines are included in Appendix 5-A. In addition to County and City sources, the “Georgia Department of Transportation Road Characteristics Database for Chatham County” provided data for the analysis. The analysis was facilitated by the use Geographic Information Systems computer technology.

RESULTS

Design treatment recommendations include both interim and ultimate treatments. Interim recommendations include only low cost design treatments that do not require construction (i.e., those resulting from the screening, retrofitting, and share-the-road analyses). For the direct build and right-of-way acquisition analyses, interim recommendations include only bikeway signage treatments. Ultimate recommendations include all treatments including acquisition of right-of-way and construction.

Recommended treatments include shared lanes, wide curb lanes, bike lanes, and bike shoulders, as well as the “share the road” designation. In addition, other treatments have been recommended including bridge replacement, widening of bike/pedestrian paths, installation of bike crossing pavement symbols and markings, and improved traffic control devices. Tables summarizing the recommended treatments in each corridor are located in Chapter 7, Bikeway Cost Estimates. In addition to costs, Tables 7-2 and 7-3 display the length of each corridor under a general treatment type for interim and ultimate treatment, respectively.

The process and results of each phase of the treatment analysis are discussed in the sections that follow. Reference can be made to the *Flow Chart of Design Treatment Methodology* presented in Figure 5-1.

Screening Analysis

The purpose of the screening is to determine the capacity of the existing roadways to accommodate cyclists of either skill level. Segments unable to accommodate Group B/C cyclists were evaluated to determine whether they could presently accommodate Group A cyclists. Segments able to accommodate either Group A cyclists or Group B/C cyclists can be signed as bikeways with pavement markings installed if necessary.

The analysis revealed that 59 roadway segments within the selected system have pavement widths that meet FHWA standards for Group B/C and/or Group A cyclists and do not require retrofitting. Twenty of the 59 meet the requirements for both groups, and need only be designated and signed. For these, interim and ultimate recommendations are the same. Examples include Abercorn Street from U.S. 17 South to Rio Road, segments of Bull Street, and segments of Henry Street.

The remaining 39 segments meet the requirements for Group A cyclists only. Eleven of these are recommended for ultimate upgrading to Group B/C requirements. An example is the Jimmy DeLoach Bikeway Corridor, where current vehicular traffic and posted speed limits make the existing four-foot bike shoulders adequate for all groups. However, increased traffic volumes after completion of the Parkway will make it necessary to increase bike shoulders to six feet or wider. The remaining 28 segments

that presently meet only Group A requirements are not recommended for further upgrading because reconstruction is impractical for various reasons. Examples include segments within the Historic District that are physically constrained.

Retrofit Analysis

Retrofit design treatments are low cost improvements that do not involve construction. In the retrofit analysis, all segments that do not meet FHWA width standards were evaluated to determine if they could accommodate wide curb lanes or bicycle lanes to serve Group B/C cyclists and Group A cyclists by:

- using any existing extra paved space,
- reducing the width of motor vehicle lanes,
- reducing the width of a center turn lane, or
- reducing the width of parking bays.

Eight of the segments currently have pavement widths capable of meeting standards with only minimal improvements. An example of these segments is Anderson Street between May Street and 31st Street. Four of the eight segments can be upgraded to serve Group A cyclists and Group B/C cyclists in the interim period. The remaining four are recommended for upgrading to serve only Group A cyclists because of construction constraints.

Remaining segments were classified as “no fit” situations. Some of the road segments in this category were treated as constrained facilities with Share-the-Road signs. The other segments in this category were evaluated for construction improvements in the direct build analysis.

Share-The-Road Analysis

This analysis identified roadway segments that cannot be reconstructed because of physical constraints associated with surrounding development. Constrained segments occur within historic districts in Savannah and in residential neighborhoods where reconstruction is not compatible with community character.

These segments are recommended to be signed as bike routes in combination with Share the Road sub-plates. Use of such signs will indicate that these segments form part of a preferred bicycle route but that cyclists should exercise caution. Ultimate construction of bicycle facilities is recommended in situations where future redevelopment could make pavement widening possible. Such corridors include the neighborhoods around Hopkins Road, Gwinnett Street west of Boundary Street, and Ogeechee Road between Stiles Avenue and Anderson Street.

Share-the-Road signs are recommended for all constrained facilities. Some of these roadways are in neighborhoods with low traffic volumes and speed limits less than 30 mph. These will be attractive for all cyclists. Other constrained roadways are urban collectors or rural highways with relatively high speeds and traffic volumes. These should be used by experienced bicyclists only.

Direct Build Analysis

In this phase of the analysis, all roadway segments (other than constrained facilities) that were classified as “no fit” from the retrofit analysis were analyzed to determine if right-of-way width is adequate to construct a wide curb lane, a bike lane, or a shoulder that meets the minimum requirements for Group B/C cyclists. Segments with inadequate right-of-way for construction to meet Group B/C standards were further analyzed to determine if they could accommodate Group A cyclists by construction of facilities. In the Right-Of-Way Acquisition Analysis described in the next sub-section, the remaining segments that could not meet the standards for either Group B/C or Group A cyclists within the existing right-of-way were considered for right-of-way acquisition.

For direct build segments, physical roadway space (and substantial funding) must be available in order to construct the recommended treatment. Construction can involve either resurfacing or increasing the width of a suitable paved surface. Bike shoulders are generally recommended for rural sections. Wide curb lanes and bike lanes are recommended for urban curb and gutter sections.

Available right-of-way width determines whether a segment can be upgraded to Group A or B/C standards. It was assumed that an urban road with urban curb and gutter has adequate right-of-way if road reconstruction can accommodate the recommended bicycle facility treatments plus 10 feet on each side for sidewalk construction and relocation of utilities. For a rural ribbon pavement section, right-of-way must accommodate the recommended treatments plus 20 feet on each side. Based on the available data, 87 segments have sufficient right-of-way width to accommodate Group B/C cyclists. For the remaining segments that cannot accommodate Group B/C or Group A cyclists, right-of-way must be purchased.

Right-Of-Way Acquisition Analysis

Typical right-of-way cross sections were developed for road segments that require pavement widening to install bicycle facilities. The typical widths include provisions for utilities using Georgia Department of Transportation standards. A typical ribbon road cross-section provides a utility allowance of 20 feet per side while an urban curb and gutter cross-section provides 10 feet per side.

Using these right-of-way standards, it was estimated that 24 roadway segments require right-of way acquisition to implement the desired treatment. Examples include the LaRoche Avenue Corridor, the Old Louisville Road segment of the March to the Sea/Trans Georgia Corridor, and the Isle of Hope Corridor. It is recommended that all segments requiring right-of-way acquisition should be upgraded for Group B/C facilities. Share the Road and bikeway signage installation are recommended as interim treatments.

GENERAL DESIGN TREATMENTS

The following are operational improvements that enhance the safety and comfort of cyclists. These improvements were considered for segments requiring either retrofitting or construction.

Traffic Control Devices

AASHTO guidelines recommend that traffic-actuated signals should be sensitive enough to detect bicycles. At critical intersections in the bikeway system, bicycles should be considered in the timing of the traffic signal cycle. Recent research has resulted in the manufacture of traffic control devices that use bicycle-sensitive under-pavement triggers known as loop detectors. The following design treatments are recommended:

- Install quadrupole loops for bicycle lanes (Figure 5-2). This design detects most strongly over the center wires and is relatively insensitive to vehicles in adjacent lanes.
- Install diagonal quadrupole loops for shared roadway situations where the exact location of the bicycle cannot be predicted. The devices are relatively sensitive over a larger area.
- Re-time traffic signals where necessary to include an “all red” interval greater than 2.0 seconds to clear bicycles from intersections.

Examples of intersections recommended to be evaluated for signal retiming and actuation for cyclists include Abercorn Street at Science Drive, Victory Drive at River Street, and Skidaway Road at Montgomery Cross Road.

Drainage Grates

Drainage grate inlets, especially parallel bars, pose problems for cyclists. Grates of this type should be identified along all designated bike routes. Ultimately, they should be replaced with bicycle-safe drainage grates such as those shown in Figure 5-3. Bicycle-safe drainage treatments are recommended for the River Drive segment of the Henry/Anderson-Thunderbolt Corridor and for the US Highway 80 Corridor between Johnny Mercer Boulevard and Dolphin Drive.

Figure 5-2
Examples of Bicycle Sensitive
Loop Detectors

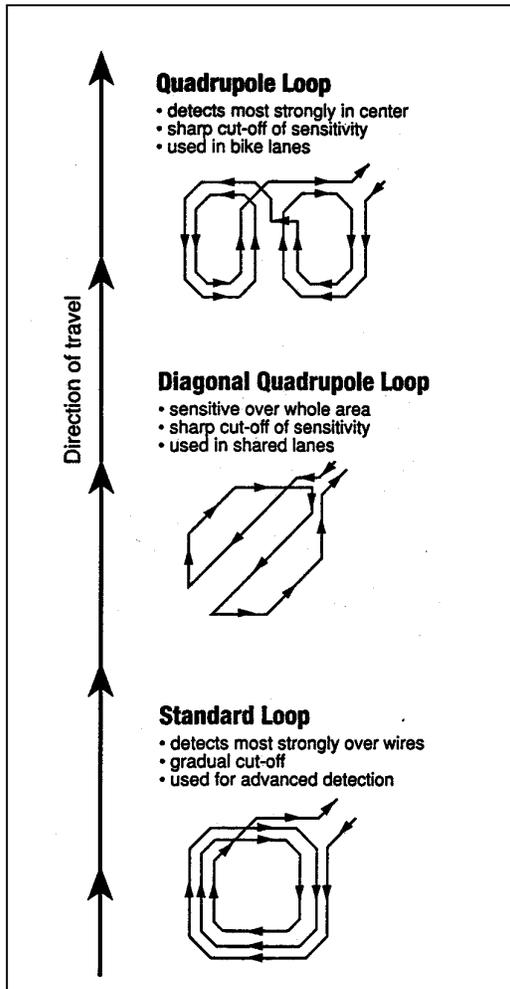
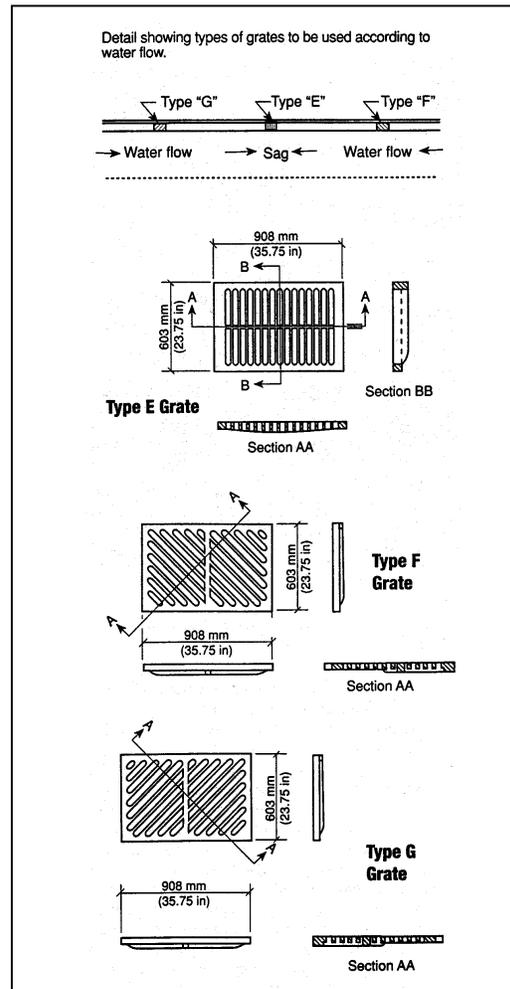


Figure 5-3
Examples of Bicycle Friendly
Drainage Grates



Source: NORTH CAROLINA PLANNING AND DESIGN GUIDELINES

Off-Road Connectors

Construction of some off-road bike connectors is necessary to maintain the continuity of the on-road bikeway system. Examples include a bike path on the Old Thunderbolt Abandoned Rail Right-of-Way, a multipurpose path off Science Drive, and the Truman Linear Park.

Other Treatments

Other recommended treatments include bridge replacements to accommodate bicycle facilities, widening of existing bike/pedestrian paths, and installation of pavement symbols and markings at bike crossings. Examples of recommended bridge replacements include the Bull River and the Lazaretto Creek Bridges on US 80, and the Diamond Causeway Bridge.

SIGNS

All designated corridors in the Chatham County Bikeway System should be signed. Efforts should be made to promote public understanding that bikeways are designated and signed because they provide continuous routes to destinations and have adequate room for cars and bikes. The appropriate signs should be selected from the “Manual on Uniform Traffic Control Devices.” This manual should also be consulted for designing customized supplemental plaques to identify a community that is served by a bicycle route or to identify a specific route by a local name.

Chapter 6

BICYCLE AND BUS TRANSIT INTEGRATION

Bicycle travel and bus transit together can provide mobility options that are not available from either mode individually. By bringing bicycles with them on buses, bicyclists have their personal vehicle available at the end of their bus trip. Buses can be used to avoid biking on heavily traveled corridors or corridors with high-speed traffic. Bicycle access increases transit ridership because transit stops that may be too far to walk may be within the range of a short bicycle trip. Cyclists with their bicycles can travel in buses over roads and bridges where bicycling is prohibited and have access to previously inaccessible destinations. A Bikes-On-Bus program will be especially beneficial for low-income residents without automobiles. The addition of bike racks to the buses can also be a way to improve air quality by increasing bus ridership and thereby reducing traffic congestion.

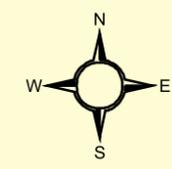
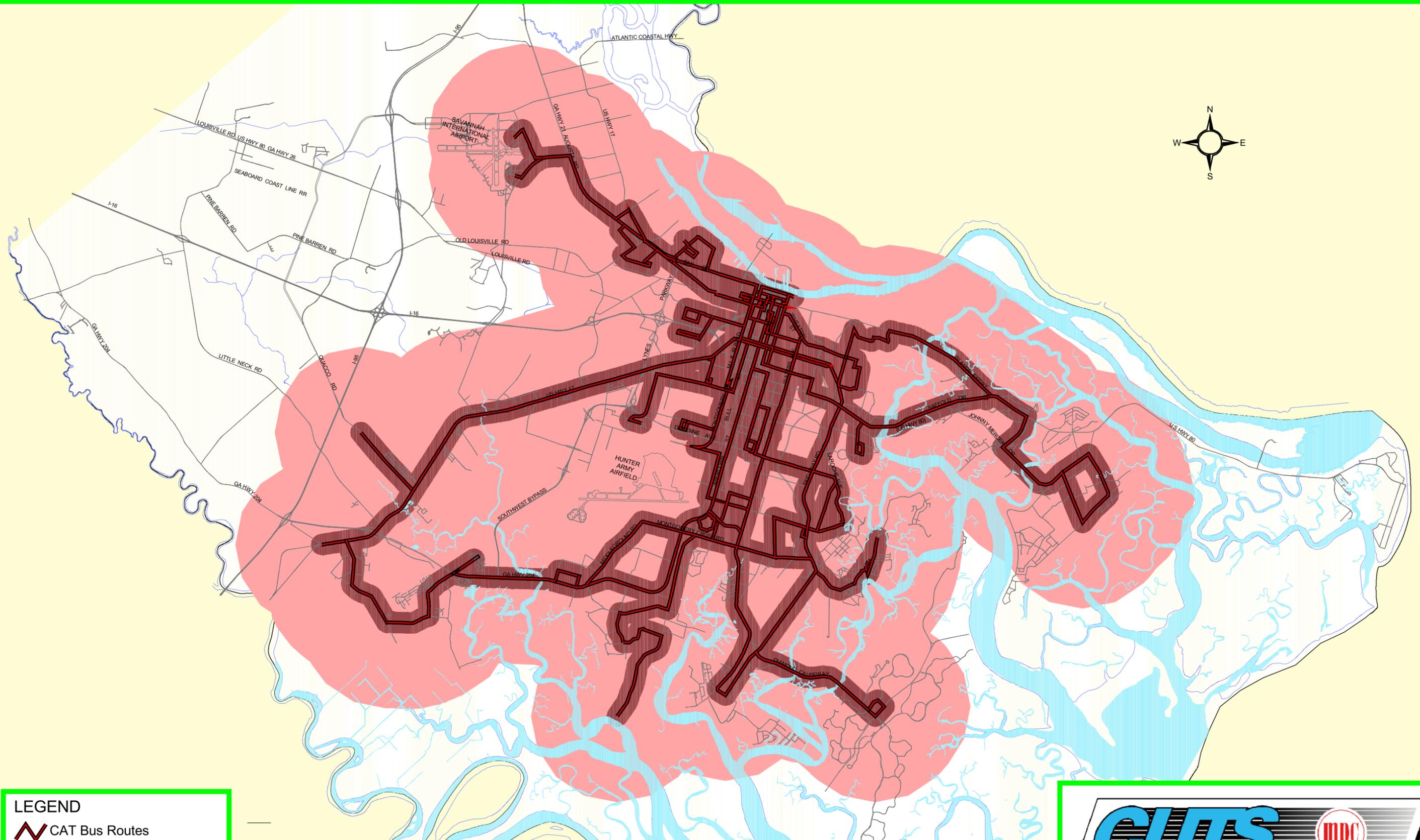
BIKES-ON-BUS PROGRAM IN SAVANNAH AND CHATHAM COUNTY

The Chatham Area Transit Authority (CAT) intends to use money from sources like the Passenger Amenities Grant to install bike racks on all its 61 buses. Bicycles on CAT's fixed route buses can increase the normal coverage from a quarter mile to two miles, allowing individuals outside CAT's current service area to access the bus system. Map 6-1, *Quarter Mile and Two Mile Coverage Areas of CAT Bus Routes*, displays the increase in transit coverage area. This is based on the assumption that .25 miles is the average distance that pedestrians are willing to walk to reach a bus stop (usually 5 to 10 minutes). In the same amount of time, a bicyclist can travel .75 to 1.5 miles.

Using 1998 CUTS socio-economic data and the quarter mile and two mile coverage scenarios presented on Map 6-1, an estimate was made of the number of households without automobiles that would be served by a Bikes-On-Bus system. The total population served under each scenario was calculated by multiplying the number of households by the countywide average of 2.63 persons per household. Under the first scenario the quarter mile area contained 7,298 households that do not have an automobile, for an estimated service population of 19,194. The two mile buffer contained 8,311 households with no automobiles with an estimated population of 21,858. Therefore a Bikes-On-Bus program has the potential to capture 1,023 additional households without automobiles, representing 2,664 potential users.

If households with one automobile are considered in addition, the existing bus route system (no Bikes-on-Bus program and quarter mile service area) has 25,037 households or 65,847 people. With a Bikes-On-Bus program, the two mile coverage yields 35,513 households with one or fewer automobiles and potentially provides transit access to a population of 93,399. This represents 10,476 additional households and 27,552 additional people with access to bus routes.

Map 6-1 Quarter Mile and Two Mile Coverage Areas of CAT Bus Route System



LEGEND

-  CAT Bus Routes
-  Quarter Mile from Bus Route
-  Two Miles from Bus Line



CUTS 
CHATHAM URBAN TRANSPORTION STUDY

With a Bikes-On-Bus program, the opportunity for Chatham County residents to ride transit could be increased significantly. More importantly, it could assist welfare recipients and low-income people by providing a reliable form of transportation to their place of employment and back. A combined bicycle and transit experience may also appeal to those who have been regularly commuting to work by automobile. Some people who normally prefer riding a bicycle to work are discouraged by trip distances and traffic congestion. A Bikes-On-Bus program could cause them to reconsider transit as an option for transportation to work.

HARDWARE AND INSTALLATION COSTS OF BIKE RACKS IN CAT BUSES

A front-mounted bicycle rack has been chosen for the Bikes-On-Bus system. This design allows direct observation by the driver during loading and unloading and does not conflict with other driver duties during a stop. The total cost for bike racks for 61 CAT buses would be approximately \$32,000. There may be some additional costs for development of a demonstration program, educational/informational brochures, driver training, and advertisements.

BICYCLE FACILITIES AT BUS STOPS AND TRANSIT CENTERS

Bicycle parking at major bus stops and transit centers is an important component of promoting bicycle-bus transit integration. Theft is a major concern. In Savannah, secured bicycle parking in the workplace, in downtown areas and at malls could encourage more people to use that mode for work commuting and pleasure. None of CAT's existing bus stops have permanent bicycle parking. Installation of permanent bike racks and lockers should first occur at bus stops that have high potential to attract bicycle and transit users. At a minimum these should include bus stops in the downtown loop, Oglethorpe Mall, and the Savannah Mall. The transit agency might explore the possibility of defraying some of the amenities' expense through involvement of local businesses that would benefit from the program.

A downtown transfer center for the CAT transit system is in the design stages. This project will include facilities for bicycle access such as permanent bike racks and lockers.

Chapter 7

BIKEWAYS COST ESTIMATES

The costs to implement the bikeway plan were estimated for both interim and ultimate design treatments. Estimates include costs for signage, pavement markings, pavement widening, road structure construction, right-of-way acquisition, and installation of special items such as drainage grates and traffic signal actuators. The elements included in the estimate depend on the interim and ultimate treatment type determined by the process described in Chapter 5. These estimates are intended as planning level estimates only. Precise cost determinations are possible when each bikeway project is actually designed for construction.

METHODOLOGY

Unit costs were determined by querying state and local agencies and construction firms familiar with actual (1998) costs of construction, materials and land in the region. A list of these figures and their sources can be found in Appendix 7-A. The method of compiling total costs by segment is based on the North Carolina DOT thoroughfare planning cost estimate methodology. This includes a summation by category to arrive at construction costs based on the length of the segment, plus preliminary engineering (estimated at 10 percent of construction), contingency (20 percent), and overhead (15 percent).

The following cost categories are found in both interim treatments and ultimate treatments:

- Signage – Includes bike route signs, Share the Road signs, bike lane signs, and bicycle crossing signs. Costs on a per mile basis were estimated to be \$ 240 per mile.
- Striping – Following Savannah's practice of using paint for striping, unit costs are estimated at \$ 633 per mile.
- Pavement marking – Calculated for segments with bike lanes, bike shoulders, and wide curb lanes, these markings include the on-road symbols indicating lane and shoulder use by bicycles. Costs are estimated at \$ 1,950 per mile.

Certain special costs are included in interim treatments. Examples of special costs are traffic signal improvements, replacement of drainage grates, and railing replacements where existing railings are below the minimum height for bicyclists (4 feet, 6 inches). Signal improvement costs of \$250 per lane include the installation of signal detection systems capable of detecting bicycles. Parallel bar drainage grates, which are a biking hazard, can be replaced with bicycle-friendly grates at a typical cost of \$250 per unit. Information was unavailable to estimate costs for replacement or extension of substandard bridge rails.

In addition to signage, striping, and pavement marking costs, ultimate treatment costs include the following additional cost categories:

- Widening–Widening sub-standard travel lanes, pavement abatement, pavement construction, and curb and gutter abatement or construction. This is necessary to accommodate the recommended width for wide curb lanes, bike lanes, and bike shoulders.
- Structures – Items such as bridge replacement, bridge widening, and sidewalk widening.
- Right-of-Way – Includes the cost of land required to implement the recommended treatment for Group B/C bicyclists. As shown in Appendix 7-A, land costs vary by location and land use, and were assumed to range from \$20 per square foot for waterfront property to \$ 0.046 per square foot for undeveloped land in western Chatham County. The costs for administration and relocation are also factored into the cost for right-of-way acquisition

COST ANALYSIS RESULTS

All cost estimates are presented in 1998 dollars. The overall cost of the total program is \$51 million. On an average per-mile basis, the \$306,000 per mile cost for ultimate treatment is much higher than the interim treatment cost of only \$940 per mile. Construction-related items such as right-of-way acquisition, pavement widening, and road structures account for this difference. Table 7-1 presents a summary of the interim and ultimate costs by corridor. The most costly corridor is the US 17 route at \$8.4 million. It is part of the State Bike Route System and at 13 miles is the second longest corridor in the system. On a cost per mile basis, however, the most costly corridors are the Isle of Hope, Lake Mayer, and LaRoche Avenue Corridors. These three corridors have ultimate costs per mile of \$675,000, \$659,000 and \$652,000, respectively. Corridors such as the North-South (Lincoln), the Robert McCorkle, the Historic District, and the Historic District Extension do not have ultimate treatment costs associated with them because construction is not proposed. Instead, the non-construction treatments of signage and striping are considered to be accomplished through the recommendations for interim treatment.

Tables 7-2 and 7-3 show costs by category for each level of treatment in all bikeway corridors. For the interim treatment (Table 7-2), the Share the Road treatment accounts for nearly 70 percent (120 miles) of the total linear distance of the system. Share the Road costs are about one third of the interim treatment total (\$ 53,000 out of \$ 157,000), and are incurred mostly for signage. Use of existing paved shoulders is planned as an interim treatment on about 15 percent (27 miles) of the bikeways system at a cost of \$ 62,000. The remaining 15 percent of bikeway mileage is to be treated on an interim basis by using existing street width for a wide curb lane, shared lane, or other bike lane. The combined cost of these remaining treatments that do not involve construction is \$ 42,000.

Ultimately, 61 percent (105 miles) of the bikeway system would feature paved shoulders as an ultimate treatment. This treatment is estimated to cost \$ 28 million, about half of which is right-of-way cost. Bike lanes will make up an additional 15 percent of the bikeway mileage (added to the existing three miles of bike lanes) at a cost of about \$ 16 million including about \$ 11 million for right-of-way acquisition.

Table 7-1

COST ESTIMATES FOR ON-ROAD BIKEWAY CORRIDORS

Route No.	Corridor Name	Corridor Length	Total Interim Cost	Interim Cost per Mile	Total Ultimate Cost	Ultimate Cost per Mile
1	Abercorn Extension Corridor	5.6	\$12,500	\$2,200	\$892,000	\$158,400
2	Bloomington/Little Neck Corridor	10.0	\$3,500	\$300	\$489,000	\$49,000
3	Cloverdale/West Gwinnet Corridor	2.3	\$2,700	\$1,200	\$398,000	\$176,000
4	East-West Corridor	4.9	\$2,600	\$500	\$1,300,000	\$263,600
5	Henry/Anderson-Thunderbolt Corridor	8.8	\$18,800	\$2,100	\$1,882,000	\$213,400
6	Hopkins Street Corridor	1.0	\$900	\$900	\$412,000	\$411,500
7	Isle of Hope Corridor	1.9	\$1,600	\$800	\$1,248,000	\$674,600
8	Johnny Mercer Corridor	3.0	\$1,700	\$500	\$630,000	\$209,900
9	Jimmy DeLoach Corridor	9.8	\$22,600	\$2,300	\$266,000	\$27,100
10	Lake Mayer Corridor	2.5	\$1,000	\$400	\$1,629,000	\$659,200
11	LaRoche Avenue Extension	4.3	\$2,700	\$600	\$2,810,000	\$651,900
12	Lathrop and Stiles Corridor	2.6	\$800	\$300	\$1,290,000	\$494,000
13	March to the Sea/Trans Georgia/Savannah River Run/Coastal Route Corridor	14.7	\$5,800	\$400	\$7,618,000	\$517,200
14	March to the Sea/Trans Georgia Corridor/Savannah River Run	5.0	\$4,800	\$900	\$2,496,000	\$500,100
15	North-South Corridor (Habersham)	11.3	\$7,800	\$700	\$2,779,000	\$245,500
16	North-South Corridor (Lincoln)	1.9	\$300	\$100	\$0	\$0
17	Penn Waller Corridor	1.3	\$700	\$500	\$577,000	\$457,200
18	Quacco Road/Fort Argyle Corridor	11.0	\$7,600	\$700	\$1,365,000	\$124,300
19	Coastal Route Corridor	2.4	\$900	\$400	\$557,000	\$229,200
20	Savannah-Whitemarsh Corridor	6.6	\$4,900	\$700	\$3,468,000	\$526,200
21	Skidaway Corridor	11.3	\$4,200	\$400	\$2,374,000	\$209,700
22	SR 25 Corridor	9.2	\$7,400	\$800	\$1,428,000	\$154,500
23	Tybee Island Corridor	15.3	\$17,500	\$1,100	\$6,044,000	\$396,000
24	US 17 Corridor	13.0	\$8,800	\$700	\$8,377,000	\$643,300
25	Washington Avenue Corridor	1.5	\$2,000	\$1,300	\$181,000	\$117,400
26	Wilmington Cross Connectors	2.3	\$5,800	\$2,500	\$347,000	\$152,800
27	Windsor Forest Corridor	1.6	\$2,500	\$1,600	\$0	\$0
28	Robert McCorkle Corridor	0.5	\$300	\$500	\$0	\$0
29	Historic District Corridor	3.3	\$5,000	\$1,500	\$0	\$0
30	Historic District Corridor Extension	0.6	\$800	\$1,200	\$0	\$0
	Historic District Bikeway Additions		\$9,200		\$0	\$0
			\$ 166,300	\$900	\$50,849,000	\$306,100
Totals may not match sums of rows due to rounding.						

Overall, the largest cost category is costs associated with right-of-way acquisition (\$ 31 million). This makes up 62 percent of the total cost for ultimate treatment. Systemwide, over 51 miles of the bikeways require the acquisition of additional right-of-way in order to construct the recommended facilities. Right-of-way prices vary, with commercial and office property typically having the highest cost.

The second highest cost category is road widening at \$ 14.5 million. This is followed by structural costs of \$ 4.7 million for bridge widening to accommodate shoulder treatments.

TABLE 7-2
INTERIM COSTS AND TREATMENTS OF BIKEWAYS BY CORRIDOR

Corridor	Interim Treatment	Length (miles)	Estimated Costs for Interim Treatments *				Special Costs \$
			Total \$	Signage \$	Striping \$	Pavement Marking \$	
Abercorn Extension Corridor	Share the Road	0.4	700	140	-	-	500
	Paved Shoulder	4.4	11,600	1,430	-	8,660	1,500
	Shared Lane	0.8	300	260	-	-	-
	Total	5.6	12,500	1,830	-	8,660	2,000
Bloomington/Little Neck Corridor	Share the Road	10.0	3,500	3,450	-	-	-
	Total	10.0	3,500	3,450	-	-	-
Cloverdale/West Gwinnet Corridor	Share the Road	1.9	1,800	1,290	-	-	500
	Wide Curb Lane	0.4	1,000	210	-	750	-
	Total	2.3	2,700	1,500	-	750	500
East-West Corridor	Share the Road	4.9	2,600	2,090	-	-	500
	Total	4.9	2,600	2,090	-	-	500
Henry/Anderson- Thunderbolt Corridor	Other Treatment	0.9	-	-	-	-	-
	Share the Road	2.8	3,500	1,510	700	-	1,250
	Shared Lane	0.8	500	430	-	-	-
	Wide Curb Lane	2.4	7,400	1,560	1,400	4,050	500
	Retrofit Curb Lane	1.6	6,400	1,050	2,150	3,280	-
	Retrofit Bike Lane	0.3	1,200	80	560	560	-
Total	8.8	18,800	4,630	4,810	7,890	1,750	
Hopkins Street Corridor	Share the Road	1.0	900	880	-	-	-
	Total	1.0	900	880	-	-	-
Isle of Hope Corridor	Share the Road	1.9	1,600	1,030	-	-	500
	Total	1.9	1,600	1,030	-	-	500
Johnny Mercer Corridor	Share the Road	2.9	1,400	1,370	-	-	-
	Paved Shoulder	0.1	300	110	-	160	-
	Total	3.0	1,700	1,480	-	160	-
Jimmy DeLoach Corridor	Paved Shoulder	9.8	22,600	3,400	-	19,180	-
	Total	9.8	22,600	3,400	-	19,180	-
Lake Mayer Corridor	Share the Road	2.5	1,000	940	-	-	-
	Total	2.5	1,000	940	-	-	-
Laroche Avenue Extension Corridor	Share the Road	3.8	1,600	1,620	-	-	-
	Wide Curb Lane	0.5	1,200	200	-	920	-
	Total	4.3	2,700	1,820	-	920	-
Lathrop and Stiles Corridor	Share the Road	2.6	800	780	-	-	-
	Total	2.6	800	780	-	-	-
MTTS/Trans Georgia/ Savannah River Run Corridor	Share the Road	14.7	5,800	5,810	-	-	-
	Total	14.7	5,800	5,810	-	-	-
March to the Sea/Trans Georgia Corridor	Share the Road	2.9	1,200	1,200	-	-	-
	Shared Lane	0.5	300	240	-	-	-
	Wide Curb Lane	1.6	3,400	770	-	2,570	-
	Total	5.0	4,800	2,210	-	2,570	-

* All costs have been rounded. Therefore totals may not match sums of individual rows or columns.

TABLE 7-2
INTERIM COSTS AND TREATMENTS OF BIKEWAYS BY CORRIDOR (continued)

Corridor	Interim Treatment	Length (miles)	Estimated Costs for Interim Treatments *				Special Costs \$
			Total \$	Signage \$	Striping \$	Pavement Marking \$	
North-South (Habersham) Corridor	Other Treatment	0.1	-	-	-	-	-
	Share the Road	6.4	3,400	2,920	-	-	500
	Wide Curb Lane	0.3	900	270	-	630	-
	Bike Lane	0.8	3,000	520	980	1,510	-
	Existing Bike Lane	3.7	500	-	-	-	500
	Total	11.3	7,800	3,710	980	2,140	1,000
North-South (Lincoln) Corridor	Share the Road	0.3	300	270	-	-	-
	Existing Bike Lane	1.6	-	-	-	-	-
	Total	1.9	300	270	-	-	-
Penn Waller Corridor	Other Treatment	0.2	-	-	-	-	-
	Share the Road	1.1	700	680	-	-	-
	Total	1.3	700	680	-	-	-
Quacco Road/Fort Argyle Corridor	No treatment	0.7	-	-	-	-	-
	Share the Road	8.2	2,700	2,700	-	-	-
	Paved Shoulder	2.1	4,900	760	-	4,120	-
	Total	11.0	7,600	3,460	-	4,120	-
Savannah River Run Corridor	Share the Road	2.4	900	870	-	-	-
	Total	2.4	900	870	-	-	-
Savannah-Whitemarsh Corridor	Share the Road	5.9	3,300	3,370	-	-	-
	Paved Shoulder	0.2	600	150	-	390	-
	Wide Curb Lane	0.4	800	280	-	470	-
	Retrofit Curb Lane	0.1	400	120	-	220	-
	Total	6.6	4,900	3,920	-	1,080	-
Skidaway Corridor	Share the Road	10.0	3,700	3,620	-	-	-
	Shared Lane	1.3	600	510	-	-	-
	Total	11.3	4,200	4,130	-	-	-
SR 25 Corridor	Share the Road	7.2	2,800	2,760	-	-	-
	Paved Shoulder	2.0	4,700	720	-	3,900	-
	Total	9.2	7,400	3,480	-	3,900	-
Tybee Island Corridor	Share the Road	9.5	4,200	3,920	-	-	250
	Wide Curb Lane	0.2	500	140	-	340	-
	Paved Shoulder	5.6	12,900	1,960	-	10,930	-
	Total	15.3	17,500	6,020	-	11,270	250
US 17 Corridor	Share the Road	11.0	4,000	3,980	-	-	-
	Paved Shoulder	2.0	4,800	750	-	4,050	-
	Total	13.0	8,800	4,730	-	4,050	-
Washington Avenue Corridor	Other Treatment	0.52	100	90	-	-	-
	Share the Road	0.27	200	130	-	-	-
	Wide Curb Lane	0.75	1,800	290	-	1,490	-
	Total	1.5	2,000	510	-	1,490	-
Wilmington Cross Connectors Corridor	Shared Lane	0.4	200	170	-	-	-
	Wide Curb Lane	1.9	5,700	740	1,210	3,700	-
	Total	2.3	5,800	910	1,210	3,700	-

* All costs have been rounded. Therefore totals may not match sums of individual rows or columns.

TABLE 7-2
INTERIM COSTS AND TREATMENTS OF BIKEWAYS BY CORRIDOR (continued)

Corridor	Interim Treatment	Length (miles)	Estimated Costs for Interim Treatments *				
			Total \$	Signage \$	Striping \$	Pavement Marking \$	Special Costs \$
Windsor Forest Corridor	Shared Lane	0.7	500	470	-	-	-
	Bike Lane	0.9	2,100	320	-	1,700	-
	Total	1.6	2,500	790	-	1,700	-
Robert McCorkle Corridor	Share the Road	0.2	200	110	-	-	-
	Shared Lane	0.3	200	120	-	-	-
	Total	0.5	300	230	-	-	-
Historic District Corridor	Share the Road	1.8	1,000	1,010	-	-	-
	Wide Curb Lane	1.4	3,600	740	-	2,870	-
	Retrofit Bike Lane	0.1	500	90	210	160	-
	Total	3.3	5,000	1,840	210	3,030	-
Historic District Extension Corridor	Share the Road	0.3	400	390	-	-	-
	Shared Lane	0.3	300	310	-	-	-
	Wide Curb Lane	0.0	100	50	-	40	-
	Total	0.6	800	750	-	40	-
Additional Historic District Bikeways	Various Treatments						
	Total	N/A	9,200	N/A	N/A	N/A	-
All Corridors	Share the Road	69.4%	52,800	48,800	700	-	4,000
	Paved Shoulder	15.5%	62,100	9,300	-	51,400	1,500
	Wide Curb Lane	5.8%	25,800	5,300	2,600	17,800	500
	Existing Bike Lane	3.1%	500	-	-	-	500
	Shared Lane	3.0%	2,400	2,500	-	-	-
	Other Treatment	1.0%	100	100	-	-	-
	Retrofit Curb Lane	1.0%	6,700	1,200	2,200	3,500	-
	Bike Lane	1.0%	5,000	800	1,000	3,200	-
	Retrofit Bike Lane	0.2%	1,600	200	800	700	-
	Various Treatments		9,200				
GRAND TOTAL *	100%	166,000	67,000	7,110	76,410	6,500	

Treatment Definitions:

- Paved Shoulder - 4, 6, or 8 ft. wide shoulder per FHWA guidance for Group B/C or A design bicyclists.
- Wide Curb Lane - 14 or 15 ft. wide lane per FHWA guidance for Group B/C or A design bicyclists.
- Shared Lane - at least 12 ft. wide per FHWA guidance for Group A design bicyclists.
- Share the Road - roadway designated as an official bicycle route through signs.
- Other Treatment - may include multipurpose paths or sidewalks.

* All costs have been rounded. Therefore totals may not match sums of individual rows or columns.

**TABLE 7-3
ULTIMATE COSTS AND TREATMENTS OF BIKEWAYS BY CORRIDOR**

Estimated Costs for Ultimate Treatments *									
Corridor	Ultimate Treatment	Length (miles)	Segment		Pavement			Structures	Right of Way
			Total	Signage	Striping	Marking	Widening		
			\$	\$	\$	\$	\$	\$	\$
Abercorn Extension Corridor	Paved Shoulder	4.4	-	-	-	-	-	-	-
	Bike Lane	0.4	530,000	230	1,370	800	85,000	-	442,000
	Wide Curb Lane	0.8	362,000	250	2,000	1,500	120,000	-	239,000
	Total	5.6	892,000		3,370	2,300	205,000		681,000
Bloomington/Little Neck Corridor	Paved Shoulder	10.0	489,000	3,430	12,630	19,400	419,000	-	34,000
	Total	10.0	489,000	3,430	12,630	19,400	419,000		34,000
Cloverdale/West Gwinnet Corridor	Share the Road	1.2	-	-	-	-	-	-	-
	Wide Curb Lane	1.1	398,000	310	900	1,400	179,000	-	216,000
	Total	2.3	398,000	310	900	1,400	179,000		216,000
East-West Corridor	Share the Road	1.7	-	-	-	-	-	-	-
	Paved Shoulder	1.6	504,000	600	2,050	3,200	207,000	-	291,000
	Bike Lane	1.6	797,000	1,150	4,270	3,200	423,000	-	365,000
	Total	4.9	1,300,000	1,750	6,320	6,300	630,000		655,000
Henry/Anderson- Thunderbolt Corridor	Share the Road	1.4	-	-	-	-	-	-	-
	Bike Lane	0.4	143,000	130	100	300	20,000	-	122,000
	Wide Curb Lane	6.2	1,738,000	1,110	2,810	4,300	425,000	-	1,304,000
	Rail to Trail	0.9	2,200	370	-	1,800	-	-	-
	Total	8.8	1,882,000	1,610	2,910	6,300	445,000		1,426,000
Hopkins Street Corridor	Share the Road	0.3	-	-	-	-	-	-	-
	Bike Lane	0.7	412,000	690	1,850	1,400	157,000	-	251,000
	Total	1.0	412,000	690	1,850	1,400	157,000		251,000
Isle of Hope Corridor	Share the Road	0.8	-	-	-	-	-	-	-
	Bike Lane	1.1	1,248,000	830	2,010	2,100	269,000	-	974,000
	Total	1.9	1,248,000	830	2,010	2,100	269,000		974,000
Johnny Mercer Corridor	Paved Shoulder	0.8	54,000	380	860	1,300	51,000	-	-
	Bike Lane	2.3	577,000	1,510	2,880	4,400	568,000	-	-
	Total	3.0	630,000	1,880	3,740	5,700	618,000		-
Jimmy DeLoach Corridor	Paved Shoulder	9.8	266,000	3,390	-	19,200	243,000	-	-
	Total	9.8	266,000	3,390	-	19,200	243,000		-
Lake Mayer Corridor	Paved Shoulder	0.7	48,000	270	910	1,400	36,000	9,000	-
	Bike Lane	1.8	1,581,000	1,080	9,020	3,500	360,000	-	1,207,000
	Total	2.5	1,629,000	1,350	9,930	4,900	396,000	9,000	1,207,000
Laroche Avenue Extension Corridor	Share the Road	0.6	-	-	-	-	-	-	-
	Paved Shoulder	3.3	2,810,000	1,260	4,210	6,500	383,000	-	2,415,000
	Wide Curb Lane	0.5	-	-	-	-	-	-	-
	Total	4.3	2,810,000	1,260	4,210	6,500	383,000		2,415,000
Lathrop and Stiles Corridor	Paved Shoulder	2.6	1,290,000	760	2,050	3,200	207,000	-	1,077,000
	Total	2.6	1,290,000	760	2,050	3,200	207,000		1,077,000
March... Sea/Trans Georgia/Savannah River Run Corridor	Paved Shoulder	14.7	7,618,000	5,770	18,730	28,800	2,217,000	-	5,348,000
	Total	14.7	7,618,000	5,770	18,730	28,800	2,217,000		5,348,000
March to the Sea/Trans Georgia Corridor	Paved Shoulder	3.0	2,101,000	1,190	3,780	5,800	149,000	-	1,941,000
	Bike Lane	0.7	396,000	570	1,880	1,400	124,000	-	267,000
	Wide Curb Lane	1.3	-	-	-	-	-	-	-
	Total	5.0	2,496,000	1,770	5,650	7,300	273,000		2,208,000

* All cost figures in this table have been rounded. Therefore, totals may not match sums of individual rows or columns.
Some Ultimate Treatments were complete through Interim Treatment. These costs are displayed only in the Interim Cost table.

TABLE 7-3
 ULTIMATE COSTS AND TREATMENTS OF BIKEWAYS BY CORRIDOR (continued)

Estimated Costs for Ultimate Treatments *										
Corridor	Ultimate Treatment	Length (miles)	Segment			Pavement			Structures	Right of Way
			Total	Signage	Striping	Marking	Widening	\$		
			\$	\$	\$	\$	\$	\$	\$	
North-South (Habersham) Corridor	Share the Road	3.4	-	-	-	-	-	-	-	
	Bike Lane	2.6	1,356,000	1,260	5,790	3,500	462,000	-	884,000	
	Wide Curb Lane	1.4	1,354,000	600	4,330	2,200	193,000	-	1,154,000	
	12 Foot Multipurpose	0.1	-	-	-	-	-	-	-	
	Existing Bike Lane	3.7	-	-	-	-	-	-	-	
	Wide Sidewalk (Ped/Bike)	0.1	69,000	160	-	300	29,000	-	39,000	
Total		11.3	2,779,000	2,030	10,120	6,100	684,000	-	2,076,000	
North-South (Lincoln) Corridor	Share the Road	0.3	-	-	-	-	-	-	-	
	Existing Bike Lane	1.6	-	-	-	-	-	-	-	
	Total	1.9	-	-	-	-	-	-	-	
Penn Waller Corridor	Paved Shoulder	1.1	552,000	670	1,380	2,100	117,000	-	431,000	
	Wide Sidewalk (Ped/Bike)	0.2	24,000	-	-	-	-	24,000	-	
	Total	1.3	576,000	670	1,380	2,100	117,000	24,000	431,000	
Quacco Road/Fort Argyle Corridor	Paved Shoulder	11.0	1,365,000	3,160	10,390	17,300	974,000	-	360,000	
	Total	11.0	1,365,000	3,160	10,390	17,300	974,000	-	360,000	
Savannah River Run Corridor	Bike Lane	2.4	557,000	1,450	12,370	4,800	538,000	-	-	
	Total	2.4	557,000	1,450	12,370	4,800	538,000	-	-	
Savannah-Whitemarsh Corridor	Share the Road	0.8	-	-	-	-	-	-	-	
	Paved Shoulder	4.1	2,648,000	1,740	4,990	7,700	432,000	120,000	2,082,000	
	Bike Lane	1.4	820,000	1,220	1,920	2,700	313,000	-	501,000	
	Wide Curb Lane	0.4	-	-	-	-	-	-	-	
	Total	6.6	3,468,000	2,960	6,910	10,400	745,000	120,000	2,583,000	
Skidaway Corridor	Paved Shoulder	11.3	2,373,000	4,110	14,380	22,100	977,000	767,000	588,000	
	Total	11.3	2,373,000	4,110	14,380	22,100	977,000	767,000	588,000	
SR 25 Corridor	Paved Shoulder	5.4	603,000	1,240	4,280	6,600	195,000	-	396,000	
	Bike Lane	3.9	824,000	2,420	21,200	7,600	793,000	-	-	
	Total	9.2	1,427,000	3,660	25,480	14,200	988,000	-	396,000	
Tybee Island Corridor	Paved Shoulder	12.7	4,688,000	2,790	-	14,100	582,000	3,711,000	378,000	
	Wide Curb Lane	2.5	1,356,000	1,080	6,430	4,700	444,000	-	900,000	
	Total	15.3	6,044,000	3,870	6,430	18,700	1,026,000	3,711,000	1,278,000	
US 17 Corridor	Paved Shoulder	7.6	592,000	2,020	4,510	11,600	574,000	-	-	
	Bike Lane	4.8	7,119,000	2,840	21,420	9,300	1,096,000	-	5,989,000	
	Wide Curb Lane	0.6	665,000	240	770	1,200	157,000	-	506,000	
	Total	13.0	8,376,000	5,100	26,700	22,100	1,828,000	-	6,495,000	
Washington Avenue Corridor	Bike Lane	0.3	144,000	200	-	500	78,000	-	65,000	
	Wide Curb Lane	0.8	-	-	-	-	-	-	-	
	Wide Sidewalk (Ped/Bike)	0.5	36,000	-	-	1,000	-	35,000	-	
	Total	1.5	181,000	200	-	1,600	78,000	35,000	65,000	
Wilmington Cross Connectors Corridor	Wide Curb Lane	2.3	347,000	160	-	800	90,000	-	256,000	
	Total	2.3	347,000	160	-	800	90,000	-	256,000	
Windsor Forest Corridor	Bike Lane	0.9	-	-	-	-	-	-	-	
	Shared Lane	0.7	-	-	-	-	-	-	-	
	Total	1.6	-	-	-	-	-	-	-	
Robert McCorkle Corridor	Share the Road	0.2	-	-	-	-	-	-	-	
	Shared Lane	0.3	-	-	-	-	-	-	-	
	Total	0.5	-	-	-	-	-	-	-	

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 Some Ultimate Treatments were complete through Interim Treatment. These costs are displayed only in the Interim Cost table.

TABLE 7-3
 ULTIMATE COSTS AND TREATMENTS OF BIKEWAYS BY CORRIDOR (continued)

Estimated Costs for Ultimate Treatments *										
Corridor	Ultimate Treatment	Length (miles)	Segment			Pavement			Right of	
			Total \$	Signage \$	Striping \$	Marking \$	Widening \$	Structures \$	Way \$	
Historic District Corridor	Share the Road	1.8	-	-	-	-	-	-	-	
	Bike Lane	0.1	-	-	-	-	-	-	-	
	Wide Curb Lane	1.4	-	-	-	-	-	-	-	
	Total	3.3	-	-	-	-	-	-	-	
Historic District Extension Corridor	Share the Road	0.3	-	-	-	-	-	-	-	
	Wide Curb Lane	0.0	-	-	-	-	-	-	-	
	Shared Lane	0.3	-	-	-	-	-	-	-	
	Total	0.6	-	-	-	-	-	-	-	
All Corridors	Paved Shoulder	61.4%	27,998,000	32,800	85,200	170,000	7,761,000	4,607,000	15,341,000	
	Bike Lane	14.8%	16,500,000	15,600	86,100	46,000	5,287,000	-	11,066,000	
	Wide Curb Lane	11.3%	6,219,000	3,800	17,300	16,000	1,608,000	-	4,574,000	
	Share the Road	7.4%	-	-	-	-	-	-	-	
	Existing Bike Lane	3.1%	-	-	-	-	-	-	-	
	Shared Lane	0.7%	-	-	-	-	-	-	-	
	Rail to Trail	0.5%	2,000	400	-	1,800	-	-	-	
	Wide Sidewalk (Ped/Bike)	0.5%	129,000	200	-	1,300	29,000	59,000	39,000	
	12 Foot Multipurpose	0.1%	-	-	-	-	-	-	-	
GRAND TOTAL*	100.0%	50,849,000	52,700	189,000	235,000	14,686,000	4,666,000	31,020,000		

Treatment Definitions:

- Paved Shoulder - 4, 6, or 8 ft. wide shoulder per FHWA guidance for Group B/C or A design bicyclists.
- Wide Curb Lane - 14 or 15 ft. wide lane per FHWA guidance for Group B/C or A design bicyclists.
- Shared Lane - at least 12 ft. wide per FHWA guidance for Group A design bicyclists.
- Share the Road - roadway designated as an official bicycle route through signs.
- Other Treatment - may include multipurpose paths or sidewalks and rails-to-trails facilities.

* All cost figures in this table have been rounded. Therefore, totals may not match sums of individual rows or columns.
 Some Ultimate Treatments were complete through Interim Treatment. These costs are displayed only in the Interim Cost table.

Chapter 8

IMPLEMENTATION AND FUNDING

Bikeways with the highest implementation priority are those that are part of road projects having bicycle facilities built in to their design. Having been identified in the long range transportation plan, these roadway projects have been included in the Chatham Urban Transportation Study (CUTS) Transportation Improvement Program (TIP), which is updated annually. The TIP identifies short-term projects which are expected to be developed during the ensuing six year period. Elements identified in the first three years of the TIP are considered to have committed funds (Table 8-1A), while those in the fourth, fifth, and sixth years are expected to receive funding commitment (Table 8-1B). Each of these tables identify anticipated road projects affecting the on-road bikeway corridors detailed in this plan. An asterisk (*) next to a project description denotes that the project has an explicitly-stated bicycle component. Generally, projects listed in Table 8-1A are in Tier I of the TIP, and are scheduled for construction within the next three years. The projects listed in Table 8-1B (Tier II of the TIP) are expected to be constructed in the next four to six 4 years, though funding status or issues relating to their planning, design, and environmental review may affect scheduling.

Table 8-1A

**Funded Projects within Planned Bicycle Corridors in the
Transportation Improvement Program (TIP) 2001-2003**

<i>Funded Road Projects</i>
Abercorn Street – Intersection Improvements at Tibet Avenue affecting the North-South Corridor Bikeway (FY 2002)
Abercorn Street – Intersection Improvements at Largo Drive affecting the North-South Corridor Bikeway (FY 2002)
Diamond Causeway – Widening from Ferguson Ave to McWhorter Drive (3.3 mile Paved Shoulder section of the Skidaway Corridor Bikeway – FY 2003)*
US 80 / SR 26 – From Bull River to Lazaretto Creek (5.1 mile Paved Shoulder section of the Tybee Island Bikeway – FY 2003)*
US 80 / SR 26 – Bridge Replacement at Placentia Canal in Thunderbolt affecting the Tybee Island Corridor Bikeway (FY 2001)
US 17 Widening – From Hwy 204 to Dean Forest Road (Paved Shoulder section of the US 17 Bikeway – FY 2001)*
<i>Funded Transportation Enhancements</i>
Garden City Bike Lane – From Oak Street to Smith Street (part of the SR 25 Corridor – FY 2001)*
Tom Triplett Community Park Trail / Savannah-Ogeechee Canal Master Plan – Design and construct bicycle and hiking trails with amenities within the existing Tom Triplett Park. Prepare the Master Plan for the historic Savannah-Ogeechee Canal (FY 2001)*

* Project has bicycle facilities specified as a planned component of the design.

Table 8-1B

Short- and Long-term Road Projects within Planned Bicycle Corridors

Abercorn Street Extension(SR 204) – Widening from Rio Road to King George Boulevard (Long Range)
Jimmy DeLoach Parkway – New construction from I-16 to US 80 (1.7 mile Paved Shoulder section of the Jimmy DeLoach Bikeway)*
LaRoche Avenue – Widening to three lanes (from Tompkins Road to Ward Street - 0.4 mile Paved Shoulder section of the East-West Corridor)
Whitfield Avenue – From Old Whitfield Avenue to Ferguson Avenue (1.3 mile Paved Shoulder section of the Skidaway Corridor Bikeway)*
Eisenhower Drive – From Hodgson Memorial Drive to Sallie Mood Drive (1.2 miles of Bike Lane on the Lake Mayer Corridor)
Middleground Road – From Abercorn Street to Shawnee Street (0.2 mile Bike Lane section of the Abercorn Extension Corridor – FY 2004)
Skidaway Road – From Montgomery Cross Road to Norwood Plaza (Bike Lane sections within the Isle of Hope Corridor – FY 2004)
Montgomery Cross Road – Casey Canal Bridge Replacement – Bridge design to incorporate the bike lane extending from the Lake Mayer recreation area to Skidaway Road
US 17 – Widening from Ogeechee River to Hwy 204 (3 mile Paved Shoulder section of the US 17 Bikeway – FY 2004)*
US 80 / SR 26 (Ogeechee Road widening) – Eastern segments of the US 17 Bikeway from I-516 to Stiles Avenue (0.9 miles Paved Shoulder section) and from Stiles Avenue to Sadler Street (0.6 mile Bike Lane section)

* Road project has bicycle facilities specified as a planned component of the design.

In most cases, Tables 8-1A and 8-1B describe projects having funding sources available for planning, design, and construction within a relatively short period of time. In the case of off-road facilities (Table 8-2), a portion of 1998-2003 Chatham County SPLOST funds has been designated for bikeway and greenway use. Many greenway projects, including those having transportation value as off-road bikeways, do not have sources of funding dedicated to their design and construction. Options for funding greenways will be explored further as part of the on-going greenway planning process. A description of some of the potential sources for future funding is presented in the second part of this chapter.

Table 8-2

Off-Road Bicycle Corridors

Coastal Georgia Greenway Multi-use Trails	Funding for the Master Planning for the Savannah and Ogeechee Canal (Phase I, portion of Phase II) is being sought through Transportation Enhancement program.
Thunderbolt Street Car Right-of-Way	See Table 8-5 for cost estimates for this rail-trail conversion project.
Truman Linear Park Greenway/Multi-use Trails	Master Planning has been funded for this corridor and is underway.

Additional Short-term Implementation Efforts

In addition to the road construction projects, several minor bikeway improvements, interim bikeway treatments, and off-road trail developments should be considered in the short term. These low-cost measures include pavement markings, signage, and other minor (non-construction) improvements to areas such as the Savannah Historic District, Windsor Forest Corridor, and the Robert McCorkle path. Interim bikeway treatments should be considered for the US 17, US 80, and March to the Sea Corridors, where roadway improvements will add bike shoulders to some portions of the route but not to others. These “gaps” should be examined and interim treatments sought in order to make these cross-county routes continuous. One strategy for ensuring timely implementation of ultimate treatments is to investigate right-of-way cost and acquisition at the time interim treatments are implemented. This may be especially important to the purchase of canal and former rail rights-of-way for use in off-road bicycle facilities and multi-use paths.

Long Term Bikeway Implementation

The remainder of on-road bikeways will have longer time frames for construction. Funding must be secured for design and construction of these projects. Some bikeways are components of roadway projects in the 2025 Long Range Transportation Plan (LRTP), but many of these have not yet been brought forward as short-range projects. Table 8-3 lists these LRTP projects in order of most suitable to least suitable (see Chapter 4 for a description of corridor rankings).

The final category of bikeway projects (Table 8-4) are those that are not part of short-range road projects and are also not listed in the 2025 Long Range Transportation Plan. As such, these on-road bikeways have no specific funding source identified. They are also listed in order of their suitability rating.

The bikeway cost estimates shown in each table are based on 1998 prices for materials, rights-of-way and other expenses (see Chapter 7). The costs are meant to represent planning level estimates for the creation of the bicycle facility as a separate project. For those segments where road construction is planned, the incremental cost for providing bicycle facilities is likely to be less than the costs displayed in the tables.

Table 8-3

**Planned Bikeway Projects with Corresponding Roadway Projects in the
2025 Long Range Transportation Plan**

<i>Projects listed in descending order of suitability</i>	<i>Cost Estimates (Totals are in bold)</i>
Stephenson Avenue From Forest Park Drive to Habersham Street (0.1 mile Wide Sidewalk Ped/Bike)	\$69,000
Jimmy DeLoach Parkway (Jimmy DeLoach Bikeway Corridor) From US 80 to I-95 (6.5 mile Paved Shoulder) From I-95 to SR 21 (1.7 mile Paved Shoulder)	\$221,000 \$175,000 \$46,000
US 80 / SR 17 (Bloomington Road Widening) From Cherry Street to Effingham County line (1.8 miles of Paved Shoulder)	
State Route 204 and Quacco Road/Fort Argyle Corridor Improvements Paved Shoulder sections along: Quacco Road from Pine Barren Road to Bush Road/Canal Road (2.8 mile) † Bush Road/Canal Road from Pine Barren Road to S&O Canal Right-of-way (0.5 mile) S&O Canal Right-of-way (undeveloped) from Quacco Road to Bush Road (0.7 mile)	\$712,000 \$425,000 \$136,000 \$151,000
† Requires rerouting due to the removal of the Quacco Road overpass at I-16. Pooler Parkway will connect Pine Barren Road with Quacco Road.	
SR 21 widening (SR 25 Bikeway) From Dean Forrest Road to I-516 and US80 Burnsed Blvd (2.5 mile Bike Lane)	\$550,000
President Street / Island Expressway (Savannah-Whitemarsh Bikeway) From Randolph Street to St Regis ‡ From St Regis to Pennsylvania Avenue (0.2 mile Paved Shoulder) From Pennsylvania Avenue to Woodcock Road (0.5 mile Bike Lane)	\$2,338,000 \$1,495,000 \$585,000 \$221,000
‡ This has been replaced by the Liberty Wheaton Connector with access to President Street Extension via Goeble Avenue.	
US 80 From City of Thunderbolt to Johnny Mercer Blvd (Tybee Island Bikeway) US 80 westbound direction only from River Drive to Guard Rail (0.3 mile Wide Curb Lane) US 80 from beginning of bridge to end of bridge (0.5 mile Paved Shoulder) US 80 from end of bridge to Lake Woods (0.1 mile Paved Shoulder) US 80 from Lake Woods to Johnny Mercer Drive (0.9 mile Paved Shoulder)	\$148,000 \$40,000 \$2,000 \$34,000 \$72,000
La Roche Avenue (La Roche Avenue Extension Bikeway) From DeRenne Avenue to Tompkins Road (0.6 miles Paved Shoulder)	\$483,800
US 17 (US 17 Bikeway Corridor) From Quacco Road to Dean Forest Road (2.4 mile Paved Shoulder)	
SR 204 Abercorn Extension †† From US 17 to Rio Road (4.4 mile Paved Shoulder section of the Abercorn Extension Bikeway) From I-95 to US 17 (2.1 mile Paved Shoulder section of the Quacco Road/Fort Argyle Bikeway)	\$17,000 \$12,000 \$5,000

†† Since part of this corridor is being planned as a freeway concept, alternatives to the Paved Shoulder design must be considered.

Table 8-4

Other Planned On-Road Bikeways

<i>Projects listed in descending order of suitability</i>	Cost Estimates (Totals are in bold)
Washington Avenue Corridor	\$184,000
1.3 miles of Shared Lane / Wide Sidewalk	\$39,000
0.3 miles of Bike Lane	\$145,000
Wilmington Cross Connectors	\$353,000
Wide Curb Lane on Cromwell Road and Deerwood Road	
Cloverdale / West Gwinnett Bikeway Corridor	\$341,000
1.1 miles of Wide Curb Lane between Crosby Street and MLK Jr. Blvd.	\$399,000
Share the Road designation for remainder	\$2,000
Johnny Mercer Bikeway Corridor	\$631,000
2.3 miles of Bike Lane	\$577,000
0.8 miles of Paved Shoulder	\$54,000
North-South Bikeway Corridor (Remainder not covered in planned road projects)	\$1,282,000
Windsor Road/Science Drive from Southside Community Park to Largo Drive (0.8 mile Bike Lane section)	\$3,000
Habersham Street from Stephenson Avenue to Kensington Avenue (0.8 mile Bike Lane section)	\$239,000
Tibet Avenue from Largo Drive to White Bluff Road (0.9 mile Bike Lane section)	\$1,040,000
March to the Sea/Trans Georgia/Savannah River Run Bikeway Corridor	\$7,331,000
Paved Shoulder from Cherry Street in Bloomingdale to the corner of Telfair Place and Chatham Parkway along US 80, Old Louisville Road, Heidt Street, and Chatham Parkway (13 miles)	
Skidaway Island Bikeways (Remainder not covered in Short Term projects)	\$813,000
McWhorter Drive from Diamond Cswy to Skid. Inst. of Oceanography (4.3 mile Paved Shoulder)	\$338,000
Osca Road from McWhorter Dr to Priest's Landings (1.1 mile Paved Shoulder)	\$87,000
Skidaway Island from Diamond Cswy to Skid. Is. State Park (1.3 mile Paved Shoulder)	\$388,000
Quacco Road / Fort Argyle Bikeway Corridor (Remainder not covered in planned road projects)	\$655,000
4.9 miles of Paved Shoulder on Bush Road and Fort Argyle Road	
7 miles of Paved Shoulder on Bush Road, Fort Argyle Road and SR 204 between I-95 and US-17	
SR 25 Corridor (Remainder not covered in planned road projects)	\$884,000
5.4 miles of Paved Shoulder from the National Wildlife Refuge to Bourne Avenue along SR 25, Bonnybridge Road, and SR 21	\$609,000
1.4 miles of Bike Lane on US 80 from SR 21 to Chatham Parkway	\$275,000
Henry Anderson / Thunderbolt Bikeway Corridor	\$1,903,000
2.3 miles of Wide Curb Lane in Thunderbolt from Tompkins Road to Dogwood Avenue (at Mechanics Avenue)	\$1,739,000
0.9 mile of Rail-to-Trail bikeway along the Old Thunderbolt Rail ROW from Mechanics Av to Maryland Av	\$3,000
Share the Road / Wide Curb Lane along Tennessee, Ohio and Florida Avenue	\$1,000
Bike Lane on Pennsylvania Avenue from Florida Avenue to Henry Street	\$26,000
2.5 miles of Share the Road / Wide Curb Lane along Henry Street (westbound)	\$7,000
2.4 miles of Bike Lane / Wide Curb Lane along Anderson Street and 31st Street (eastbound)	\$127,000
Coastal Route (Savannah River Run) Bikeway Corridor	\$557,000
2.4 miles of Bike Lane Chatham Parkway from US 17 to Telfair Place	

(continued)

Table 8-4
Other Planned On-Road Bikeways
(continued)

East-West Bikeway Corridor (Remainder not covered in planned road projects)	\$1,121,000
1.9 miles of Paved Shoulder / Bike Lane on 52nd Street, West of Montgomery Street	\$801,000
1.7 miles of Share the Road between Montgomery Street and Hickory Street	\$1,000
0.9 miles of Bike Lane on 52nd Street and Ward Street from Hickory Street to La Roche Avenue	\$319,000
<hr/>	
Savannah-Whitemarsh Bikeway Corridor	\$1,138,000
1.1 miles of Share the Road / Wide Curb Lane in and around the Historic District	\$2,000
0.1 miles of Bike Lane from East Broad Street to Randolph Street	\$27,000
3.3 miles of Paved Shoulder from Woodcock Road to Junction with US 80	\$1,109,000
<hr/>	
Hopkins Street Bikeway Corridor	\$413,000
0.7 mile Bike Lane from 52nd Street to Ogeechee Road (remainder is Share the Road)	
<hr/>	
Penn Waller Bikeway Corridor	\$577,000
1.3 miles of Paved Shoulder / Wide Curb Lane	
<hr/>	
Lathrop and Stiles Bikeway Corridor	\$1,290,000
2.6 miles of Paved Shoulder	
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Tybee Island Bikeway Corridor (Remainder not covered in planned road projects)	\$1,846,000
2 miles of Paved Shoulder on US 80 from Johnny Mercer Drive to Bryan Woods Road	\$55,000
4.4 miles of Paved Shoulder / Wide Curb Lane on US 80 from Campbell Street to 19th Street	\$1,791,000
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La Roche Avenue Bikeway Corridor (Remainder not covered in planned road projects)	\$2,328,000
2.7 miles of Paved Shoulder	\$2,326,000
1 mile of Share the Road / Wide Curb Lane	\$2,000
<hr/>	
March to the Sea / Trans Georgia Bikeway Corridor	\$1,478,000
1.5 miles of Paved Shoulder from Chatham Parkway to Louisville Road	\$1,474,000
1.5 mile Paved Shoulder on Louisville Rd from Telfair Road to Stiles Avenue	\$627,000
0.7 mile Bike Lane section on Louisville Rd from Stiles Avenue to MLK Blvd	\$396,000
Wide Curb Lane through the Historic District	\$4,000
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Bloomingdale / Little Neck Bikeway Corridor	\$489,000
10 miles of Paved Shoulder along Bloomingdale Cross Rd and Little Neck Rd from Pine Barren Rd to US 17	
<hr/>	
Abercorn Extension Bikeway Corridor (Remainder not covered in planned road projects)	\$668,000
0.3 mile Bike Lane on Rio Road from Abercorn Street to Shawnee Street	\$306,000
0.8 mile Wide Curb Lane on Shawnee Street from Rio Road to Middleground Road	\$362,000
<hr/>	
Lake Mayer Bikeway Corridor (Remainder not covered in planned road projects)	\$1,129,000
0.7 mile of Bike Lane along Eisenhower Drive from Waters Road to Sallie Mood Drive	\$753,000
0.7 mile of Paved Shoulder along Sallie Mood Drive from Eisenhower Drive to Lake Mayer Bike Path	\$48,000
0.6 mile of Bike Lane along Montgomery Cross Road from Lake Mayer Bike Path to Skidaway Road	\$328,000

FUNDING AND SUPPORT OF THE BIKEWAY SYSTEM

Sources of support and funding have been identified from federal, state, and local government entities, private businesses and industry, and non-profit groups and foundations.

FEDERAL GOVERNMENT FUNDING SOURCES

Transportation Equity Act for the 21st Century (TEA-21)

On May 22, 1998, Congress passed the Transportation Reauthorization Bill known as TEA-21 -- the Transportation Equity Act for the 21st Century. It continued many of the initiatives of the landmark ISTEA legislation (the Intermodal Surface Transportation Efficiency Act of 1991), considered the most environmentally progressive and community-friendly federal transportation bill in a generation. Key issues of these federal transportation acts include improving public safety, protecting public health and the environment, transportation enhancements, and funding new and advanced technologies. TEA-21 now requires states and Metropolitan Planning Organizations to consider bicycle and pedestrian access planning "*if possible*" in their comprehensive transportation plans for all newly constructed/reconstructed transportation facilities. The following eight specific funding programs address bicycle facilities:

1. National Highway System (NHS)

NHS funds may be used to construct bicycle transportation facilities on land adjacent to any highway on the National Highway System including Interstate Highways. NHS funds can be transferred to the Surface Transportation Program (STP) by the state.

2. Surface Transportation Program (STP)

STP funds can be used for construction of bicycle transportation facilities and for carrying out non-construction projects related to safe bicycle use. The STP is a broadly defined program giving states the flexibility to invest in a wide variety of transportation activities including highways, transit, transportation demand management, and safety. As with the NHS, bicycle transportation facilities are specifically listed as eligible activities under this program.

3. Surface Transportation Enhancement Activity (TEA)

Transportation enhancements are funded through a ten percent set-aside of the STP funds that is allocated to projects falling under ten eligible transportation enhancement activities or categories. Bicycle and pedestrian facilities and the conversion of abandoned railroad corridors to trails are two of the ten categories. Trails are most commonly funded through these two categories. They can also be included in a combination with other categories in more comprehensive enhancement projects.

Transportation enhancements have historically provided the best opportunity to use federal funds for bicycle and trail facilities. Enhancement funds are accessed through a project selection process that includes submission of a formal application to the Georgia Department of Transportation (GDOT). The projects must have the sponsorship of either a local government or a state agency. Local match requirements are at least 20 percent of the total grant amount. Chatham County must compete for enhancement funds with 17 other counties in Congressional District 1.

4. Transit Enhancement Activity

In this new transit enhancement activity program established by TEA-21, transit agencies in urbanized areas with over 200,000 population must set aside one percent of their Urban Area Formula Grant funds for transit enhancement activities. Some of the transit enhancement money is designated for bicycle access, bicycle storage facilities, and installing equipment for transporting bicycles on mass transportation. The Savannah urbanized area will be eligible for this funding only if the 2000 Census reflects an urbanized population of over 200,000. The Metropolitan Planning Commission estimate of Chatham County's population in 1999 is 237,000.

5. Urbanized Area Formula Grant

Title 49 U.S.C. (as amended by TEA-21) allows Urbanized Area Formula Grants to be used for improving bicycle and pedestrian access to transit facilities and vehicles. Eligible activities include investments in pedestrian and bicycle access to a mass transportation facility.

6. Hazard Elimination and Railway-Highway Crossing Programs

This program addresses bicycle and pedestrian safety issues. Each state is required to implement a Hazard Elimination Program to identify and correct locations that may be unsafe to motorists, cyclists, and pedestrians. Funds may be used for (1) a survey of hazardous locations, (2) projects on any publicly owned bicycle or pedestrian pathway or trail; and (3) any safety related traffic calming measure. Railway-highway crossing improvements for bicycle access can be funded through this program.

7. Federal Land Highway (FLH) Funds

Federal land managing agencies charged with administration of these funds may use them for construction of bicycle facilities in conjunction with trails, roads highways, and parkways. Federal land managing agencies include the National Park Service, Forest Service, Military Traffic Management Command, Fish and Wildlife Service, and the Bureau of Indian Affairs.

8. Job Access and Reverse Commute Grants

These grants are available to support bicycle projects designed to transport welfare recipients and eligible low income individuals to and from employment.

In Chapter 6, the efforts of the Chatham Area Transit Authority to acquire bicycle racks for buses were described in terms of the potential increase in ridership that an

integrated transit system could provide. A passenger amenities grant for transit contributed to the implementation of this program. In the future, when the metropolitan population reaches the threshold of 200,000 persons, bikeways designed for transit integration will be eligible to apply for funding through Job Access and Reverse Commute Grants. These projects may also qualify for Urbanized Area Formula Grants of the Federal Transit Program (one percent set-aside), which can be used to improve bicycle and pedestrian access to transit facilities and vehicles.

Other federal programs may provide funding for bicycle facilities as part of grants available from those agencies. Programs legislated by TEA-21 such as Transportation Enhancements allow grants from other federal agencies to count as local matching funds. The section that follows describes some of the relevant federal programs.

Community Development Block Grants

The Department of Housing and Urban Development (HUD) provides these grants to communities for neighborhood revitalization, economic development and improvement of community facilities and services, especially in low and moderate-income areas. These grants require no match of funds or services from the community. HUD provides an entitlement to each community annually and the community develops its own programs and sets its own funding priorities.

National Park Service Rivers, Trails, and Conservation Assistance Program

The Rivers, Trails, and Conservation Assistance (RCA) program was established in response to increased public demand to conserve rivers and provide trail opportunities for all Americans. The National Park Service provides technical assistance to state and local governments in developing and implementing plans to conserve rivers and trails, assists in the inventory and evaluation of significant river and trail corridors, and provides training and advice on river and trail conservation methods and information exchange with professionals and citizens groups.

The Land and Water Conservation Fund (LWCF)

The LWCF was established in 1965 to help provide “close-to-home” park and recreation opportunities. Money for the fund comes from the sale or lease of non-renewable resources, primarily federal offshore oil and gas leases and surplus federal land sales. A large portion of the annual LWCF allocation goes toward the acquisition of land for federal agencies. However, a portion of the money is provided to local agencies to acquire and develop local parks. This program has been a major source of financial assistance for local park efforts for the past 25 years, but LWCF funding has decreased steadily over the last decade.

LWCF funds are provided to each state annually by the National Park Service. Each state has a State Liaison Officer (SLO) who administers these funds within the state. The SLO evaluates potential projects and selects those for which the state has funding. Communities must provide a 50 percent match in either funding or services.

STATE OF GEORGIA FUNDING SOURCES

Statewide Trails and Greenways Coordination Program

This program facilitates coordination of statewide trails and green-space planning in Georgia. The State Outdoor Recreation Planner is a liaison between trails groups, task forces, committees, and other state or federal agencies. The program provides data on trail and greenway inventories, trail planning, coordination of rail-trail conversions, promotion of regional trail systems, and coordination with local trail organizations and state and federal agencies on trail issues.

Recreation Assistance Fund (RAF)

This fund was established to provide grants to municipal and county governments to purchase land for parks, natural areas, greenways, and for facility development on other recreation lands. These funds can be used for trail development, rehabilitation of existing recreation facilities, new parks, and capital projects for natural areas and greenways.

LOCAL GOVERNMENT FUNDING SOURCES

Although there is an increasing variety of federal and state funding sources available for bikeway and greenway development, strong local support remains the most important avenue for tapping into all funding sources. Local funding can be used to provide matching funds for federal, state, private, and non-profit grants or used where other funding is not available.

Special Purpose Local Option Sales Tax (SPLOST)

The 1998-2003 SPLOST program contains a projected \$9,000,000 for open space, bikeway and greenway projects. This program, which was designated primarily for drainage improvement projects could be designated for bikeway and greenway projects over the next five year period, 2004-2008. It is anticipated that the SPLOST funds will be used as local match for additional funding sources sought for bikeway and greenway projects.

NON-GOVERNMENTAL RESOURCES

Bicycle Federation of America

The Bicycle Federation of America is a national non-profit organization founded in 1977 to promote the increased safe use of bicycles and bicycle safety. The Federation serves as a clearinghouse for information on all aspects of bicycling, organizes training programs and conferences, and provides information and technical assistance to federal, state and local government agencies, community organizations, and professional associations involved in bicycling.

Coastal Georgia Land Trust

The Coastal Georgia Land Trust promotes the responsible stewardship and preservation of land in Coastal Georgia that has natural, recreational, scenic, historic, or educational value. This organization has been instrumental in planning for bikeways and greenways through their participation in the development of this plan and in planning programs such as "Gateway to Coastal Georgia, Connecting the Coast."

Rails-to-Trails Technical Assistance

The Rails-to-Trails Conservancy (RTC) is a non-profit organization created in 1985 by rail-trail enthusiasts. The RTC provides technical assistance, public education, advocacy, negotiation, and legislative action. Through its nationwide network of contacts in the recreation and conservation communities, RTC notifies trail advocates, local governments and groups of upcoming rail-trail opportunities; assists public and private agencies in following proper legal procedures; and publicizes rails-to-trails issues through the country. RTC provides extensive technical assistance to agencies, organizations, and individuals seeking to convert rails to trails. RTC has assisted in many of the over 500 rail-trails developed in this nation.

PARTICIPATION AND SUPPORT

Government agencies, private citizens, and community groups should continue to take part in the implementation of the Chatham County Bikeway Plan. Implementation strategies will include continuing citizen participation as well as local government policies, programs, and capital investment. Chatham County and its municipalities should adopt a policy to ensure that, in addition to the high priority corridors identified in this plan, all new roadway projects be designed with bicycle accommodation unless it is determined that such accommodation is not feasible. Additionally, local governments should provide technical assistance to prospective sponsors of individual projects in the process of applying for grants to fund the design and construction of those bikeway projects.

Full implementation of the Countywide Bikeway Plan will depend on continuing citizen participation. Individual bicycle and trail advocacy groups, private landowners, and trusts, businesses, and developers will all need to be involved on a continuing basis. Implementation of some recommendations will require that private constituency groups work as co-sponsors along with government agencies to undertake the implementation process and build support in the neighborhoods and communities affected by the bikeway system. This community support will convince local governments and others to fund and implement the plan. While this support is perhaps more crucial for off-road corridors that are owned by a variety of public and private entities, strong community support for on-road bikeways will help ensure that these facilities are part of the highway planning and design process.

APPENDICES

APPENDIX 1-A

BIKEWAY/GREENWAY COMMITTEE ROSTER

Barbara Allen
Ginny Borders
Jack Borders
Steve Bracket
Steve Braden
Rufus Burkhalter
Theresa Clemmons
Mark Doney
Stephen Dowd
George Fidler, Jr.
Don Gardener
Nick Gardner
Jim Golden
Jeffrey Griffith
Stan Hames
Marianne Heimes
Jo Hickson
Julie Hiscox
Page Hungerpillar
Alex Ikefuna
Billy Jones
Buddy Kahn
Jane Kahn
Beth Kostka

Mary Leopold
Jackie Lowman
Frank McIntosh
Patty McIntosh
Gwen McKee
C.J.Mellor
Bill Miller
Virginia Mobley
April Moore
Mallory Pearce
Miles Pinckney
Ruth Powers
Kacey Ratterree
Martha Rudd
Cathy Sakas
Charles Samz
Joe Shearhouse
Becky Shortland
Dave Spoolstra
Jim Stephens
Carolene Tucker
John Walz
Mike Weiner
Anton Withington

APPENDIX 5-A

FHWA GUIDELINES FOR DETERMINING THE MOST APPROPRIATE FACILITY TYPE

The 1992 FHWA research study "Selecting Roadway Design Treatments to Accommodate Bicycles" begins with the assertion that any roadway treatments intended to accommodate bicycle use must address the needs of both experienced and less experienced riders. The concept of a "design cyclist" was developed and a classification system for bicycle users was proposed as follows:

Group A—Advanced Bicyclists: These are experienced riders who can operate under most traffic conditions. They comprise the majority of the current users of collector and arterial streets and are best served by the following:

- Direct access to destinations usually via the existing street and highway system.
- The opportunity to operate at maximum speed with minimum delays.
- Sufficient operating space on the roadway or shoulder to reduce the need for either the bicyclist or the motor vehicle operator to change position when passing.

Group B—Basic Bicyclists: These are casual or new adult and teenage riders who are less confident of their ability to operate in traffic without special provisions for bicycles. Some will develop greater skills and progress to the advanced level, but there will always be a high percentage of basic bicyclists. They prefer:

- Comfortable access to destinations, preferably by a direct route, using either low-speed, low traffic-volume streets or designated bicycle facilities.
- Well-defined separation of bicycles and motor vehicles on arterial and collector streets (bike lanes or shoulders) or separate bike paths.

Group C—Children: These are pre-teen riders whose roadway use is initially monitored by parents. Eventually they are accorded independent access to the system. They and their parents prefer the following:

- Access to key destinations surrounding residential areas, including schools, recreation facilities, shopping, or other residential areas.
- Residential streets with low motor vehicle speed limits and volumes.
- Well-defined separation of bicycles and motor vehicles on arterial and collector streets or separate bike paths.

Combining groups B and C bicyclists the "design cyclist" concept recognizes two broad classes of bicyclists: Group A riders and Group B/C riders.

Generally, Group A bicyclists are best served by designing all roadways to accommodate shared use by bicycles and motor vehicles. This can be accomplished by:

- Establishing and enforcing speed limits to minimize speed differentials between bicycles and motor vehicles on neighborhood streets and/or by implementing "traffic-calming" strategies.
- Providing wide outside lanes on collector and arterial streets built with an "urban section" (i.e., with curb and gutter).
- Providing usable shoulders on highways built with a "rural section" (i.e., no curb and gutter).

Generally, Group B/C bicyclists are best served by a network of neighborhood streets and designated bicycle facilities, which can be provided by:

- Ensuring neighborhood streets have low speed limits through effective speed enforcement or controls and/or by implementing "traffic calming" strategies.
- Providing a network of designated bicycle facilities (e.g., bike lanes, separate bike paths, or side-street bicycle routes) through the key travel corridors typically served by arterial and collector streets.
- Providing usable roadway shoulders on rural highways.

Design Treatments to Accommodate Bicycles

The types of facilities that are used to accommodate bicyclists are as follows:

- Shared lane: shared motor vehicle/bicycle use of a "standard"-width travel lane
- Wide outside lane: an outside travel lane with a width of at least 14 ft (4.2 m)
- Bike lane: a portion of the roadway designated by striping, signing, and/or pavement markings for preferential or exclusive use of bicycles
- Bike Shoulder: a paved portion of the roadway to the right of the edge stripe designed to serve bicyclists
- Separate bike path: a facility physically separated from the roadway and intended for bicycle use

Factors for Determining Treatments

Five traffic operations and design factors are used to determine the appropriate treatment for the design bicyclist. The recommendations are contained in the tables that follow. The major factors are as follows:

- **Traffic volume.** Higher motor vehicle traffic volumes represent greater potential risk for bicyclists and the more frequent overtaking situations are less comfortable for group B/C bicyclists unless special design treatments are provided. The recommendations contained in the tables are based on three ranges of Average Annual Daily Traffic (AADT):
 - Under 2,000 AADT
 - 2,000 to 10,000 AADT
 - Over 10,000 AADT
- **Average motor vehicle operating speed.** The average operating speed is more important than the posted speed limit, and better reflects local conditions. Again, motor vehicle speed can have a negative impact on risk and comfort unless mitigated by special design treatments. Four ranges of average speeds are used:
 - Less than 30 mi/h
 - 30 to 40 mi/h
 - 41 to 50 mi/h
 - Over 50 mi/h
- **Traffic mix.** The regular presence of trucks, buses, and/or recreation vehicles (i.e., approximately 30 per hour or more) can increase risk and have a negative impact on comfort for bicyclists. At high speeds, the wind blast from such vehicles can create a serious risk of falls. Even at lower operating speeds, shared lane use is less compatible. All types of bicyclists prefer extra roadway width to accommodate greater separation from such vehicles. Many bicyclists will choose a different route or not ride at all where there is a regular presence of such traffic unless they are able to remove themselves several feet from these motor vehicles. Different design treatments and widths are suggested depending on whether or not the volume of truck, bus, or recreational vehicles is likely to have a negative impact on bicycle use.
- **On-street parking.** The presence of on-street parking increases the width needed in the adjacent travel lane or bike lane to accommodate bicycles. This is primarily a concern associated with streets and highways built with an urban section.
- **Sight distance.** "Inadequate sight distance" relates to situations where bicycles are being overtaken by motor vehicles and where the sight distance is likely less than that needed for a motor vehicle operator to either change lane positions or slow to the bicyclist's speed. This problem is primarily associated with rural highways, although some urban streets have sight distance problems due to poor design and/or sight obstructions.

In Tables A-1 through A-6, separate tables exist for each design cyclist (Group A or Group B/C) based on roadways with urban sections (curb and gutter) and rural sections (no curb and gutter). These are further separated into tables based on the presence of parking. Within the body of each table, recommendations are shown based on levels of AADT, speed, sight distance and truck/RV/bus prevalence.

Table A-1: Group A bicyclists, urban section, no parking

average motor vehicle operating speed	average annual daily traffic (AADT) volume											
	less than 2,000				2,000-10,000				over 10,000			
	adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance	
less than 30 mi/h	sl 12	truck, bus, rv		wc 14	sl 12	truck, bus, rv		wc 14	wc 14	truck, bus, rv		wc 14
		sl 12	wc 14			wc 14	wc 14			wc 14	wc 14	
30-40 mi/h	wc 14	wc 14	wc 15	wc 15	wc 14	wc 15	wc 15	wc 15	wc 14	wc 15	wc 15	wc 15
41-50 mi/h	wc 15	wc 15	wc 15	wc 15	wc 15	wc 15	sh 6	sh 6	wc 15	wc 15	sh 6	sh 6
over 50 mi/h	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6

1 mi/h = 1.61 km/h

Table A-2: Group A bicyclists, urban section, with parking

average motor vehicle operating speed	average annual daily traffic (AADT) volume											
	less than 2,000				2,000-10,000				over 10,000			
	adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance	
less than 30 mi/h	wc 14	truck, bus, rv		wc 14	wc 14	truck, bus, rv		wc 14	wc 14	truck, bus, rv		wc 14
		wc 14	wc 14			wc 14	wc 14			wc 15	wc 15	
30-40 mi/h	wc 14	wc 14	wc 15	wc 15	wc 14	wc 15	wc 15	wc 15	wc 14	wc 15	wc 15	wc 15
41-50 mi/h	wc 15	wc 15	wc 15	wc 15	wc 15	wc 16	wc 16	wc 16	wc 15	wc 15	wc 16	wc 16
over 50 mi/h	na	na	na	na	na	na	na	na	na	na	na	na

1 mi/h = 1.61 km/h

Key:* **wc** = wide curb lane** **sh** = shoulder **sl** = shared lane **bl** = bike lane **na** = not applicable

* See page 11 for definitions.

** WC numbers represent "usable widths" of outer travel lanes, measured from the left edge of the parking space (8 to 10 ft [2.4 to 3.0 m] minimum from the curb face) to the left stripe of the travel lane.

Table A-3: Group A bicyclists, rural section

average motor vehicle operating speed	average annual daily traffic (AADT) volume											
	less than 2,000				2,000-10,000				over 10,000			
	adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance	
less than 30 mi/h	sl 12	truck, bus, rv		wc 14	sl 12	truck, bus, rv		wc 14	wc 14	wc 14	truck, bus, rv	
		sl 12	wc 14			wc 14	wc 14				wc 14	sh 4
30-40 mi/h	wc 14	wc 14	sh 4	sh 4	wc 14	wc 15	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4
41-50 mi/h	sh 4	sh 4	sh 4	sh 4	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6
over 50 mi/h	sh 4	sh 6	sh 6	sh 4	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6

1 mi/h = 1.61 km/h

Table A-4: Group B/C bicyclists, urban section, no parking

average motor vehicle operating speed	average annual daily traffic (AADT) volume											
	less than 2,000				2,000-10,000				over 10,000			
	adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance	
less than 30 mi/h	wc 14	truck, bus, rv		wc 14	wc 14	truck, bus, rv		wc 14	bl 5	truck, bus, rv		bl 5
		wc 14	wc 14			wc 14	wc 14			bl 5	bl 5	
30-40 mi/h	bl 5	bl 5	bl 5	bl 5	bl 5	bl 6	bl 6	bl 5	bl 5	bl 6	bl 6	bl 5
41-50 mi/h	bl 5	bl 5	bl 5	bl 5	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6
over 50 mi/h	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6

1 mi/h = 1.61 km/h

Key:* **wc** = wide curb lane** **sh** = shoulder **sl** = shared lane **bl** = bike lane** **na** = not applicable

* See page 11 for definitions.

** **WC** numbers represent "usable widths" of outer lanes, measured from lane stripe to edge of gutter pan, rather than to face of curb. If no gutter pan is provided, add 1 ft (0.3 m) minimum for shy distance from face of curb. **BL** numbers indicate minimum width from the curb face. The bike lane stripe should lie at least 4 ft (1.2 m) from the edge of the gutter pan, unless the gutter pan is built with adequate width to serve as a bike lane by itself.

Table A-5: Group B/C bicyclists, urban section, with parking

average motor vehicle operating speed	average annual daily traffic (AADT) volume											
	less than 2,000				2,000-10,000				over 10,000			
	adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance	
less than 30 mi/h	wc 14	truck, bus, rv		wc 14	wc 14	truck, bus, rv		wc 14	bl 5	truck, bus, rv		bl 5
		wc 14	wc 14			wc 14	wc 14			bl 5	bl 5	
less than 30 mi/h	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	wc 14	bl 5	bl 5	bl 5	bl 5
30-40 mi/h	bl 5	bl 5	bl 5	bl 5	bl 5	bl 6	bl 6	bl 5	bl 6	bl 6	bl 6	bl 6
41-50 mi/h	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6	bl 6
over 50 mi/h	na	na	na	na	na	na	na	na	na	na	na	na

1 mi/h = 1.61 km/h

Table A-6: Group B/C bicyclists, rural section, with parking

average motor vehicle operating speed	average annual daily traffic (AADT) volume											
	less than 2,000				2,000-10,000				over 10,000			
	adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance		adequate sight distance		inadequate sight distance	
less than 30 mi/h	sh 4	truck, bus, rv		sh 4	sh 4	truck, bus, rv		sh 4	sh 4	truck, bus, rv		sh 4
		sh 4	sh 4			sh 4	sh 4			sh 4	sh 4	
less than 30 mi/h	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4	sh 4
30-40 mi/h	sh 4	sh 4	sh 4	sh 4	sh 4	sh 6	sh 6	sh 4	sh 6	sh 6	sh 6	sh 6
41-50 mi/h	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6	sh 6
over 50 mi/h	sh 6	sh 6	sh 6	sh 6	sh 8	sh 8	sh 8	sh 8	sh 8	sh 8	sh 8	sh 8

1 mi/h = 1.61 km/h

Key:* **wc** = wide curb lane **sh** = shoulder **sl** = shared lane **bl** = bike lane **na** = not applicable
 * See page 11 for definitions.

APPENDIX 7-A

TYPICAL UNIT COSTS

The displayed costs used for calculating cost estimates
are those in use by the specified agencies in 1998.

Item	Cost	Source
Pavement Widening		
·6" Graded Aggregate Based (GAB)	\$ 5.70/SY	GDOT Spec Table
·4" Graded Aggregate Base (GAB)	\$ 3.80/SY	Extrapolation
·Binder	\$ 48.41/tonne	Chatham County Engineering
·Topping	\$ 40/tonne	Chatham County Engineering
·Curb & Gutter Abatement (all sizes)	\$ 4.60/FT (one side only)	GDOT Spec Table
·6" x 30" Curb & Gutter Construction	\$ 10.5/FT (one side only)	GDOT Spec Table
·Pavement Abatement	\$ 1.23/SY	GDOT Spec Table
Roadway Structures		
·Bridge Widening	\$ 50/SF	GDOT, Jesup
·Draw Bridge Widening/Replacement	n/a	
·Sidewalk Widening	\$ 19.38/SF	GDOT, Jesup
Special Items		
·Traffic Intersection Improvements	\$ 250/Item	City of Savannah Traffic Engineering
·Drainage Grate Replacement	\$ 250/Item	City of Savannah Street Maintenance
Signage		
·All bike related signs	\$ 40/Item (\$240/Mile)	City of Savannah Traffic Engineering
·Pavement Markings (Bicycle/arrow symbol, white paint)	\$ 75/Item (\$1,950/Mile)	MPC Estimate
ROW (vacant land costs)		
·Public (Urban)	\$ 7/SF	Chatham County Tax Assessor's Office
·Commercial	\$ 10/SF	Moreland & Altobelli
·Commercial (Waterfront)	\$ 20/SF	Moreland & Altobelli
·Residential (Urban)	\$ 2/SF	Moreland & Altobelli
·Residential (Waterfront)	\$ 15/SF	Moreland & Altobelli
·Residential (Rural)	\$ 0.23/SF	Moreland & Altobelli
·Wooded (Rural)	\$ 0.08/SF	Moreland & Altobelli
·Wetlands	\$ 0.012/SF	Moreland & Altobelli
·Recreation	\$ 0.344/SF	MPC Estimate
·Agricultural	\$ 0.069/SF	Moreland & Altobelli
·Industrial (Urban)	\$ 2/SF	Moreland & Altobelli
·Industrial (Rural)	\$ 1.25/SF	Moreland & Altobelli
·Office (Urban)	\$ 10/SF	Moreland & Altobelli
·Undeveloped Land (West side)	\$ 0.046/SF	Chatham County Tax Assessor's Office
Restriping		
·Paint	\$ 0.12/FT	City of Savannah Street Maintenance