

# Chapel Hill Bicycle and Pedestrian Action Plan

*A Planning Guide for Future Physical Improvements and for Actions to Encourage Bicycling and Walking as a Mode of Transportation.*

## 1.0 Introduction

### 1.1 *General public interest purposes*

The general public interest purposes implicit in this Bicycle and Pedestrian Action Plan are:

- To promote public health and safety, access to community facilities and businesses for all, regardless of age, physical capacity, weather conditions and time of day, and to promote diverse modes of transportation.

This section sets out the more specific purpose and objectives of the Bicycle and Pedestrian Action Plan.

### 1.2 *Purpose of the Plan:*

- To increase bicycle and pedestrian use,
- To identify a potential network of bicycle and pedestrian facilities, and
- To identify methods of creating it.

### 1.3 *Objectives of the Plan:*

- To identify locations for improved facilities or engineering improvements which:
  - \* *connect neighborhoods to adjacent existing schools, activity centers, recreational facilities and transit stops,*
  - \* *close gaps between existing facilities,*
  - \* *facilitate travel between residential neighborhoods and key employment, recreation, shopping centers, such as downtown and UNC and,*
  - \* *connect Chapel Hill with neighboring communities.*
- To identify actions which promote walking and bicycling through education and encouragement.
- To outline an implementation strategy for the actions identified in the action plan.

## 2.0 Background

This section sets out the context to the Bicycle and Pedestrian Action Plan. More plan and policy background is provided in Appendix 1 and 2. The section also identifies other planned bicycle and pedestrian facilities that are to be undertaken by others, separately from this plan.



### 2.1 *Context for the Plan*

In May 2000 the Town of Chapel Hill adopted a Comprehensive Plan.

The stated transportation goal of the Comprehensive Plan (p 92) is to:

*“Develop a balanced, multi-modal transportation system that will enhance mobility for all citizens, reduce automobile dependence, and preserve/enhance the character of Chapel Hill.”*

The Plan states the following general objectives (p 93) for

**Bikeways:** Develop and maintain a system of safe and efficient bikeways (on-street bike lanes and off-street bike paths within greenways) designed to contribute to Town-wide mobility, connecting neighborhoods with activity centers, schools, parks, and other neighborhoods.

**Pedestrian (facilities):** Develop and maintain a pedestrian circulation system, including sidewalks and greenway trails that provide direct, continuous, and safe movement within and between districts of Town. Link neighborhoods to activity centers, transit stops, schools, parks, and other neighborhoods.

A key action as stated in Section 10A-2 p 97 of the Comprehensive Plan is to:

*“Develop a comprehensive pedestrian and bicycle network.”*

*“This network should be designed to provide direct connections between neighborhoods and from neighborhoods to activity centers. It should include sidewalks and bike lanes along streets and highways (the focus of this strategy) and off-street bicycle/pedestrian paths developed as part of the greenway network.”*

Page 97 goes on to state that::

*“A multi-faceted approach to developing the comprehensive pedestrian and bicycle network should be pursued. For example, roadway resurfacing or reconstruction projects should incorporate re-striping to accommodate bicycle lanes wherever feasible. Traffic signals or other devices should be provided at intersections to accommodate pedestrians and bicyclists needing to cross major roadways. Consideration should be given to use of utility rights-of-way for bikeways/greenways where feasible. Development of the pedestrian/bicycle network should be coordinated with Carrboro, Orange County, Hillsborough, and the City and County of Durham to encourage regional connections.”*



## **2.2 Other planned bicycle and pedestrian improvements shown on the facilities plan maps but covered by other plans**

In addition to the facilities identified in the Action Plan there are other bicycle and pedestrian facilities programmed and planned for construction in the Town. The plan has taken into account of the following.

### **UNC Campus Development Plan**

Sidewalks on:

- Mason Farm Road to South Fordham Boulevard
- South Road north side, west of Country Club Road, adjacent cemetery

### **UNC Campus to NC Botanical Garden Trail**

- Proposed nature trail running from Ridge Road roughly parallel to Manning Drive

### **UNC Softball Complex**

- The Town Council’s 2004 approval for development at the UNC Softball Complex off Raleigh Road included a stipulation to provide a short off road bicycle and pedestrian path to Christopher Road and thereby providing a bicycle and pedestrian route between Raleigh Road and Christopher Road/ Fordham Boulevard by-passing the intersection of US 54 and US15-501

## Town of Chapel Hill

### Town Operations Center

- Sidewalk on Millhouse Road from Eubanks Road to the Town Operations Center

### 1998 Town of Chapel Hill Greenways Master Plan:

One of the stated goals of the greenways master plan is to connect neighborhoods, so although greenways are covered by a separate long-range plan they are integral to the development of a connected system of bicycle and pedestrian facilities for the town. (Please note that the Town Council will consider an update of the Greenways Master Plan in 2005 which may include some facilities that are different than the Bicycle and Pedestrian Action Plan).

The list of greenways included in the 1998 Plan is reproduced below:

- Upper Booker Creek from Homestead Park to Weaver Dairy Road and spur to Weaver Dairy Road Extension
- Rail Trail Umstead Park to Eubanks Road
- Old Field Creek Trail north of Eubanks Road
- North Trail running east to west from Erwin Road west of Martin Luther King Jr. Boulevard with spur from Erwin Road to east to New Hope Creek
- Dry Creek Trail from Perry Creek Drive to Providence Road
- Lower Booker Creek from Fordham Boulevard to Little Creek Trail north of Cleland Road
- Little Creek Trail from north of Cleland Road to Pinehurst Drive
- Bolin Creek, extension from Community Center at S. Estes Drive to Little Creek Trail
- Bolin Creek, extension from north of Rashkis Elementary School eastwards
- Bolin Creek spur from Burlage Drive to existing greenway
- Tanyard Trail from Caldwell Street to Umstead Park
- Morgan Creek east from Frank Porter Graham Elementary School to US 15-501 and Merritt Mill Pasture
- Wilson Creek Trail from US 15-501 South to town limits
- Fan Branch south from Scroggs Elementary

School to Town limits

The highest priorities for the greenway program are the Bolin Creek, Dry Creek, Morgan Creek and Upper Booker Creek Trails. These projects have funding scheduled in the near term.

### *2.3 North Carolina Department of Transportation (NCDOT) Programmed Improvements to State Maintained Streets*

#### **Sidewalks and Striped Bicycle Lanes**

- US 15-501 North of Main Street, Southern Village to Culbreth Road - 2005
- Weaver Dairy Road from Martin Luther King Jr. Boulevard to Erwin Road - 2009
- South Columbia Street from Purefoy Road to Manning Drive- 2009

#### **Crossing Improvement**

- Intersection of US15-501 at Erwin Road 2006

### *2.4 Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) Programmed Improvements to State Maintained Streets*

#### **Sidewalks, Striped Bicycle Lanes and Crossing Improvements:**

- Old Durham Chapel Hill Road from US 15-501 in Chapel Hill to Garrett Road in Durham - 2008
- NC 86 Martin Luther King Jr. Boulevard from I-40 to North Street - Phased improvements beginning 2008



*Striped bicycle lane on Martin Luther King Jr. Boulevard, looking north of intersection with Homestead Road.*

### 3.0 Proposed Plan:

This section sets out the overall facilities plan with reference to a pedestrian facilities map and a bicycle facilities map. The proposed plan identifies a network of facilities connecting to existing and planned greenways, also to homes, workplaces, schools and services. The plan maps show the main bicycle and pedestrian corridors which serve the town. These corridors are where most bicycle and pedestrian travel is expected and so where generally improvements to facilities would likely be concentrated (see section 4.1.9 Corridor Improvements). The maps also show specific improvement proposals.

The proposed facilities consist of:

- Sidewalks,
- Off Road Paths (surfaced, shared facilities for pedestrians and bicyclists),
- Crossing Improvements,
- Signed Advisory Routes for pedestrians and bicyclists and.
- Bicycle Facilities.



*Sample of the legend from the Pedestrian Facilities Plan. Plan maps are located in the pocket of this document.*

### 3.1 Sidewalk Priorities

For the purposes of establishing broad priorities for a Town construction program, the sidewalks proposed in this plan have been divided into four categories based on the objectives of the plan and the sidewalk and transportation priorities identified by the Town\*. Projects will be selected from these categories through the annual construction plan process. Selection would also take into account the factors of funding availability, right-of-way, construction feasibility, and necessity.

Projects are listed according to their street classification. The preferred side(s) of the street on which the sidewalk would likely be located is indicated in brackets. Streets are sorted into categories of State-maintained or Town-maintained to show which agency has maintenance responsibility for the streets listed. For State-maintained streets, where total improvement costs would exceed tens of thousands it is most likely that the timing of improvements will be determined by Federal and State funded improvement and enhancement programs. Sidewalks included in the Towns Transportation Improvement Priority List 2006-2102 are indicated with (#). Please note that the State Transportation Improvement Program (STIP) and the Town's Transportation Improvement Program Priority List is revised periodically, generally every two years.

*\*Please see Appendix 3, 2006-2012 Town of Chapel Hill Transportation Priority List and Appendix 4 Action Plan Sidewalks Priority List. The Action Plan Sidewalks Priority List is a compilation of sidewalks identified through the preparation of this plan and the Town's Sidewalk Priority list as it existed when work began on the Action Plan.*



### **First Priority.**

Projects considered to be first priority are drawn from either the Town's Transportation Improvement Priority List\* or its sidewalks priority list (projects scoring 24 or more points according to the Town sidewalks ranking system). **See Map 1**

#### **Arterial Streets** *-(State-Maintained)*

- Martin Luther King Jr. Boulevard (east) from Timber Hollow Court to Homestead Road
- Martin Luther King Jr. Boulevard (west) north and south of N. Fields Drive
- Ephesus Church Road (south) from 15-501 By-pass (N. Fordham Boulevard) to Eden Lane
- # Estes Drive. (south) from Caswell Road to East Franklin St
- Estes Drive (south) from Franklin Street to Willow Drive
- # Estes Drive Extension from Seawell School Road to Martin Luther King Jr. Boulevard
- NC 54 East (south) west of Finley Golf Course Road
- # South Fordham Boulevard (north) from Manning Drive to Old Mason Farm Road  
(See also section 3.2 "Off Road Paths")
- US 15-501 By-pass (N Fordham Boulevard) (west) from Ephesus Church Road to Elliott Road
- US 15-501 By-pass (N Fordham Boulevard) (east) northeast corner at Estes Drive

#### **Collector Streets** *-(State-Maintained)*

- # Barbee Chapel Road (west) phase 1 from NC54 to Finley Forest Drive
- # Barbee Chapel Road (west) phase 2 from Finley Forest Drive to Downing Creek Parkway
- Culbreth Road (both sides) from US 15-501 South to Channing Lane
- Culbreth Road (south) from Cobble Ridge Drive west to town limits
- Culbreth Road (north) Adam Way to Smith Level Road
- Old Weaver Dairy Road (one side) from Weaver Dairy Road to Erwin Road
- West Rosemary Street south side at Roberson Street and at Graham Street

#### *-(Town-Maintained)*

- Cameron Avenue (north) at northeast corner at Merritt Mill Road
- Legion Road (both sides) Europa Drive to Ephesus Church Road
- Legion Road at intersection Ephesus Church Road
- Ransom Street (east) from McCauley Street to University Drive
- East Rosemary Street (north) from 157 E. Rosemary to Henderson Street
- East Rosemary Street (north) from Pickard Street to Boundary Street
- West Rosemary Street north side, east and west of Church Street
- West Rosemary Street south side at Roberson Street and at Graham Street
- Willow Drive (west) south of Conner Drive

#### **Local Streets** *-(Town-Maintained)*

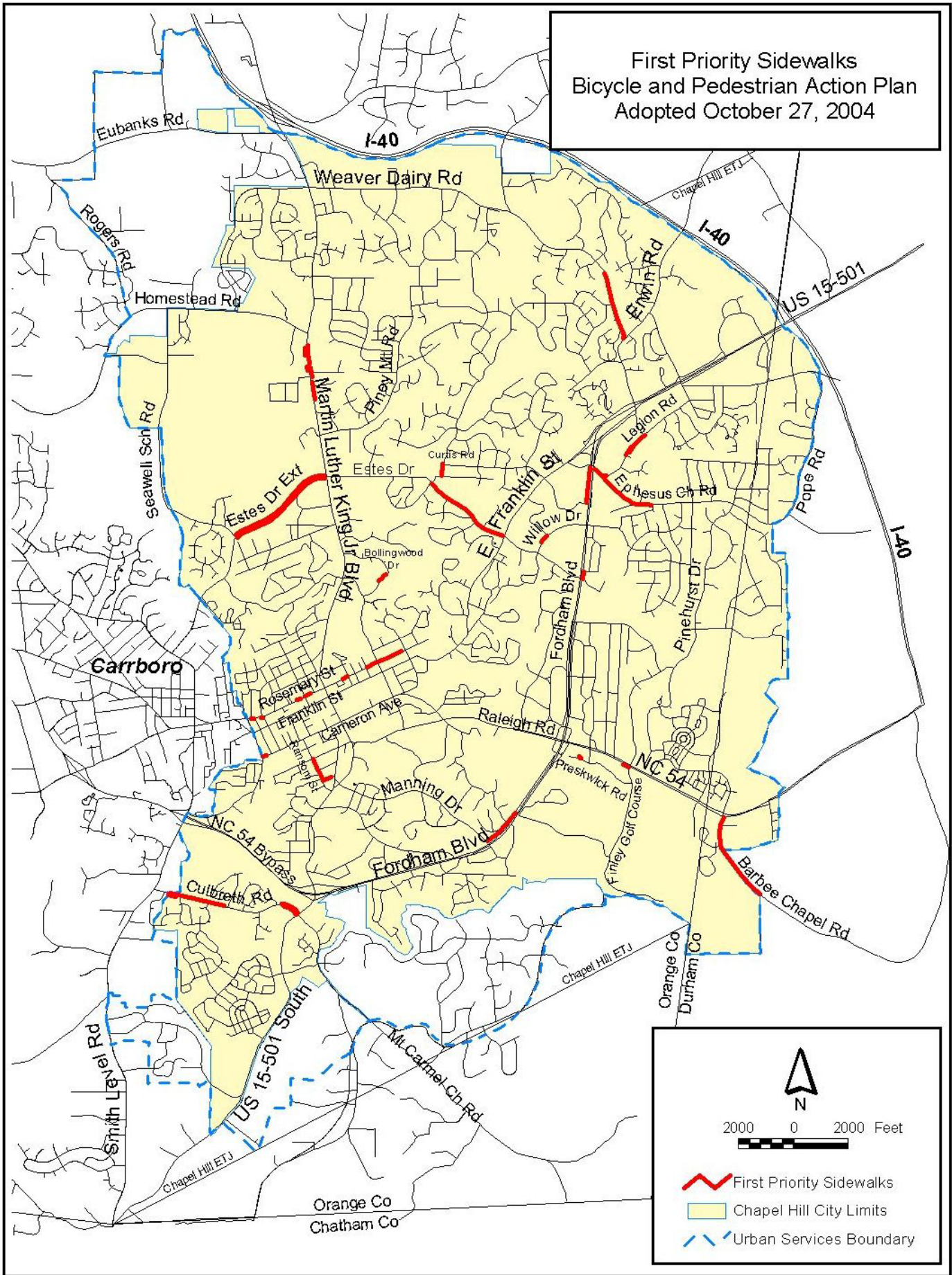
- Curtis Road (west) from Clayton Road to Elliott Road
- Bolinwood Drive (west) from Bolinwood Drive
- Northside neighborhood (various) following neighborhood study planned 2004
- Prestwick Road (north) short link into shopping center
- University Drive (north) from Pittsboro Street to Ransom Street






*\*Sidewalks included in the Towns Transportation Improvement Priority List 2006-2102 are indicated with (#). Please note that the State Transportation Improvement Program (STIP) and the Town's Transportation Improvement Program Priority List is revised periodically, generally every two years.*



*Summer 2004, sidewalk ends abruptly outside Legion Post, Legion Road. A sidewalk extension is scheduled for construction 2005.*

First Priority Sidewalks  
 Bicycle and Pedestrian Action Plan  
 Adopted October 27, 2004



  
 2000 0 2000 Feet  
  
 First Priority Sidewalks  
 Chapel Hill City Limits  
 Urban Services Boundary

### **Second Priority**

Projects considered to be second priority are drawn from the Towns Transportation Improvement Priority List\* and its sidewalks priority list (projects scoring between 20 to 23 points according to the Town sidewalks ranking system). See **Map 2**.

#### **Arterial Streets**-(*State-Maintained*)

- # Erwin Road (one side) from Weaver Dairy Road to 15-501 By-pass (North Fordham Boulevard)
- # Estes Drive (north) from Martin Luther King Jr. Boulevard to Curtis Road
- # Estes Drive Extension from western town limits (University Railroad Spur) to Seawell School Road
- # Homestead Road (south) from Hearthstone Lane to Weaver Dairy Road Extension
- # Homestead Road (south) from Orange Human Services to Shelter
- # Homestead Road (south) from Seawell School Road to existing sidewalk
- Sage Road (west) south from Coleridge Drive
- US 15-501 South (east) from Mount Carmel Church Road to S. Columbia Street

#### **Collector Streets** -(*State-Maintained*)

# Seawell School Road from Homestead Road to High School Road  
Sunrise Road (east) from Sweeten Circle Drive northwards (development related)

#### -(*Town-Maintained*)

Hillsborough Street (west) from Bolinwood Drive to Martin Luther King Jr. Boulevard  
Kingston Drive (east) from Weaver Dairy Road to Cedar Court  
McCauley Street (south) from Brookside Drive to Pittsboro Street  
Pritchard Avenue (one side) from Longview Street to Umstead Drive  
Piney Mountain Road (north) from Forest Creek Drive to Priestly Circle Drive  
Hillsborough Street (east) from Rosemary Street to Mill Race Drive  
Sedgefield Drive (one side) for entire length  
Westminster Drive (north) from east of Banks Road  
Caswell Road (north) for entire length

Umstead Drive (south) from Estes Drive extension to Village Drive (link to Bolin Creek Greenway)

#### **Local Streets**-(*State-Maintained*)

Dobbins Drive (north) missing sections for entire length

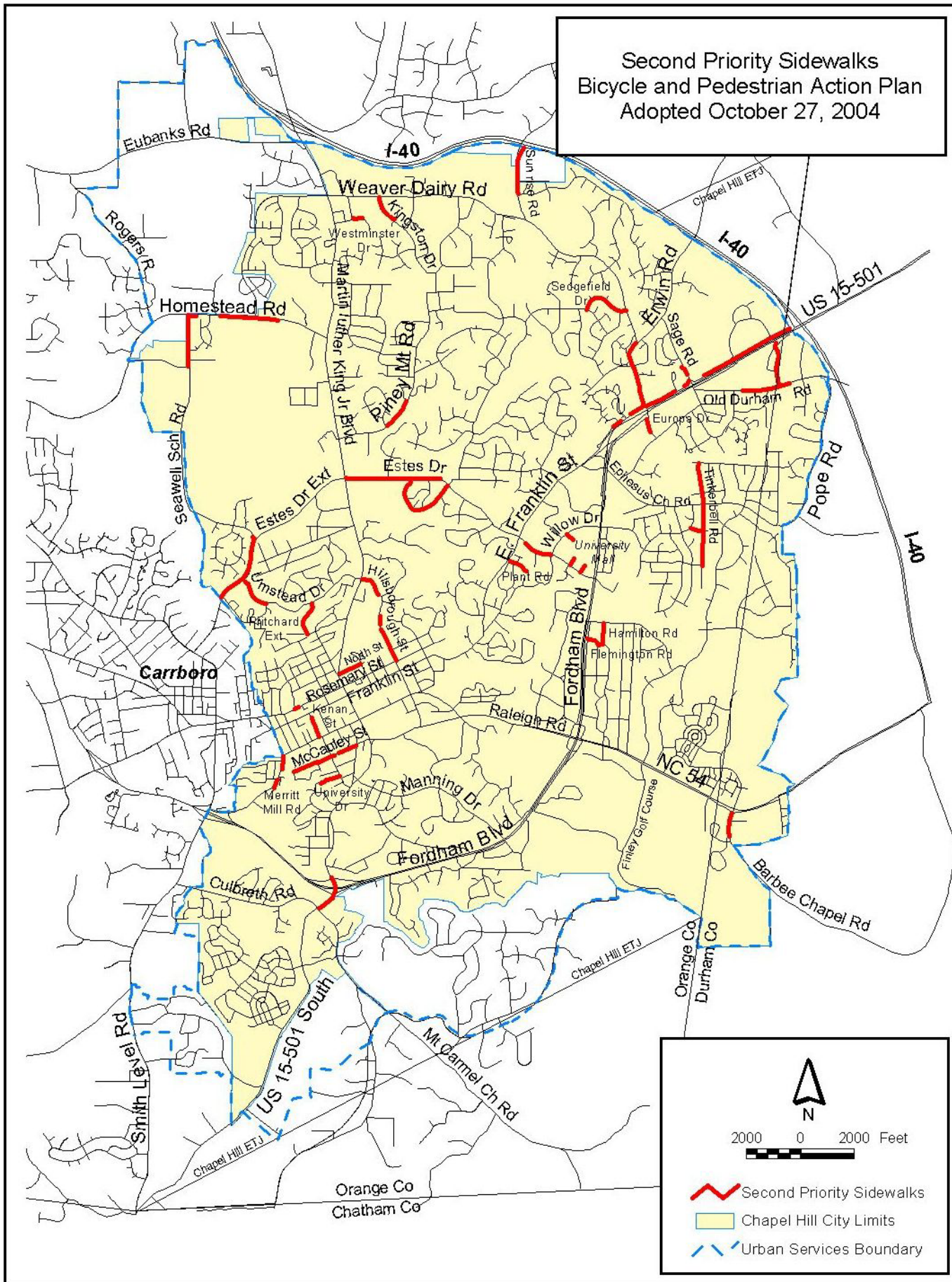
#### -(*Town-Maintained*)

- University Mall entrances S. Estes Drive (2 locations west side, request Mall owners to provide or require as future development stipulation)
- University Mall north entrance at Willow Drive (request Mall owners to provide or require as future development stipulation)
- Europa Drive (west) from Europa Drive missing sections entire length
- Kenan Street (east) from Cameron Avenue to Franklin Street
- McCauley Street (north) from Brookside Drive to Brookside Drive Extension
- West University Drive (south) from Ransom Street to Westwood Drive
- Lakeview Drive (east) from Old Durham Chapel Hill Road to 15/501(require as development stipulation)
- Hamilton Road (east) from Cleland Drive to Flemington Road
- Flemington Road (one side) from Hamilton Road to Hayes Road
- North Street (north) Martin Luther King Jr. Boulevard to Henderson Street
- Plant Road (south) from Parks & Recreation facility to Franklin Street
- Manly Street from Longleaf Drive to Tinkerbell Drive
- Tinkerbell Road from Ephesus Church Road to LeClair Street
- Tinkerbell Road from Ephesus Church Road to Fountain Ridge Road

*\*Sidewalks included in the Towns Transportation Improvement Priority List 2006-2102 are indicated with (#). Please note that the State Transportation Improvement Program (STIP) and the Town's Transportation Improvement Program Priority List is revised periodically, generally every two years.*



Second Priority Sidewalks  
 Bicycle and Pedestrian Action Plan  
 Adopted October 27, 2004





### **Third Priority**

Projects considered to be third priority are drawn from the Towns Transportation Improvement Priority List\* and its sidewalks priority list (projects scoring less than 20 points according to the Town sidewalks ranking system). **See Map 3**

#### **Arterial Streets** *-(State-Maintained)*

- Fordham Boulevard (north) from rear of Binkley Baptist Church to Estes Drive (see also Section 3.2 “Off road paths”)

#### **Collector Streets** *-(State-Maintained)*

# Old Durham Chapel Hill Road from US 15-501 to Town limits (facility to continue into City of Durham)

#### *-(Town-Maintained)*

- Burning Tree Drive from NC54 to Pinehurst Drive
- Cameron Avenue (south) southeast corner at Merritt Mill Road
- Cleland Drive (south) for entire length
- Cleland Road (south) for entire length Eastwood Road (north) at Shady Lawn Drive
- Country Club Road (north) from Raleigh Road to Gimghoul Road and 300 feet west (UNC Campus possible upgrade from Chapel Hill Gravel to permanent material)
- Cedar Hills Drive (one side) from Weaver Dairy Road to Partin Street
- Honeysuckle Road Sedgefield Drive to N. Lakeshore Drive
- Dixie Drive (one side) to Cynthia Drive
- Cynthia Drive (one side from Dixie Drive to Seminole Drive
- Dixie Lane (one side) for entire length
- Lake Ellen Drive from Piney Mountain Road to Forest Hills Road
- Mallette Street. from West Franklin Street to Cameron Avenue
- Stateside Drive (one side) from Martin Luther King Jr. Boulevard to Dixie Drive
- Old Oxford Road missing sections from Erwin Road to Booker Creek Road
- Westminster Drive (north) from west of Banks Road to Martin Luther King Jr. Boulevard
- Willow Drive from Longleaf Drive to Emory Drive

#### **Local Streets** *-(Town-Maintained)*

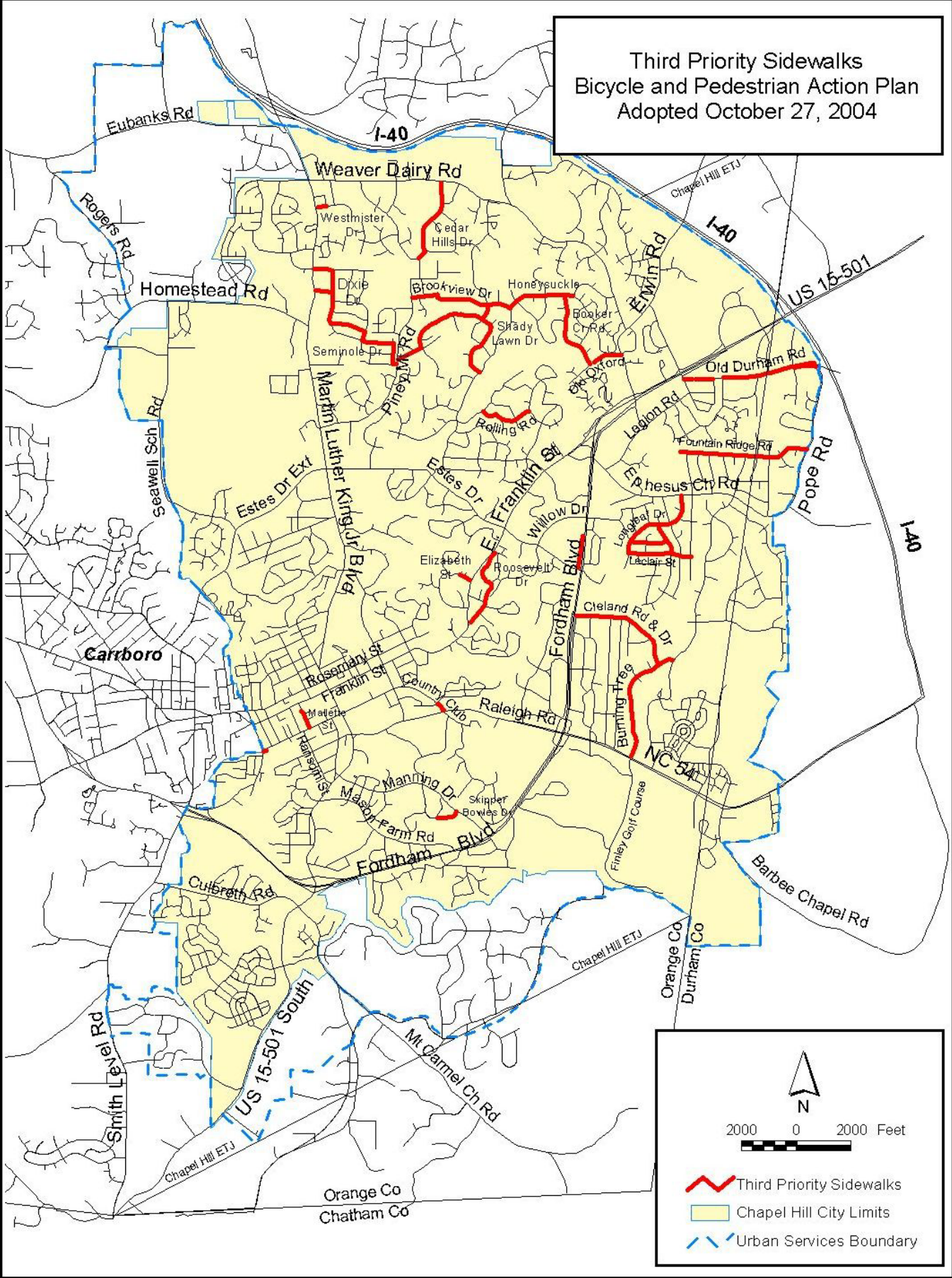
- Elizabeth Street (north) from Penny Lane to East Franklin Street
- Rigsbee Road (one side) from Piney Mountain Road to Brookview Drive
- Roosevelt Drive (east) for entire length
- Brookview Drive for entire length
- Booker Creek Road for entire length
- Shady Lawn Road (north) from Eastwood Road to Lakeshore Drive
- Rolling Road (south) from South Lakeshore Drive to Ridgecrest Drive
- Forest Hills Road from Lake Ellen Drive to Seminole Drive
- Seminole Drive (one side) for entire length
- LeClair Street from Longleaf Drive. to Tinkerbell Drive
- Longleaf Drive from Ephesus Church. Road. to LeClair Street
- Churchill Drive from Longleaf Drive to LeClair Street
- Fountain Ridge Road for entire length






#### **UNC Maintained Streets**

- Skipper Bowles Drive (north)
- Manning Drive to Manning Drive (UNC Campus)

*\*Sidewalks included in the Towns Transportation Improvement Priority List 2006-2102 are indicated with (#). Please note that the State Transportation Improvement Program (STIP) and the Town's Transportation Improvement Program Priority List is revised periodically, generally every two years.*

Third Priority Sidewalks  
 Bicycle and Pedestrian Action Plan  
 Adopted October 27, 2004



  
 2000 0 2000 Feet  
  
 Third Priority Sidewalks  
 Chapel Hill City Limits  
 Urban Services Boundary

### **Long Range Projects.**

Projects considered to be long range projects are drawn from the Towns Transportation Improvement Priority List\* and its sidewalks priority list and are located either beyond present town limits or in partially developed areas of the town. **See Map 4**

#### **Arterial Streets**

- Martin Luther King Jr. Boulevard from Estes Drive to Critz Drive (west); require as stipulation to UNC Carolina North/ Horace Williams Development
- Martin Luther King Jr. Boulevard (west) from Weaver Dairy Road to Northwood Drive (outside town limits)
- Martin Luther King Jr. Boulevard (west) from Northwood Drive to Eubanks Road (outside town limits)
- # Homestead Road (one side from High School Road to Seawell School Road (project outside town limits)
- # Homestead Road (north) from Hearstone Lane to Weaver Dairy Road Extension
- # Homestead Road (north) from Weaver Dairy Road to Martin Luther King Jr. Boulevard
- # Ephesus Church Road (north) from Sharon Road to Pope Road
- Pope Road (both sides) from Ephesus Church Road to Old Durham Road (outside of Town limits in Durham City County jurisdiction)
- # US 15-501 By-pass (North Fordham Boulevard) Corridor improvement from East Franklin Street to eastern town limits and beyond. (Within corridor opportunities may exist to provide sidewalks through development/redevelopment along existing service roads which run parallel to thoroughfare).
- NC 54 East of Barbee Chapel Road to town limits

#### **Collector Streets**

- Rogers Road (east) from Homestead Road to Sylvan Way (outside town limits)
- Rogers Road (east) from Rusch Road to Urban Services Boundary
- Bennett Road (north) from US 15-501South, to Fire Station 5

- # Seawell School Road from Seawell Elementary School to Hanover Pl (mostly in Carrboro Town limits)
- Eubanks Road from Urban Services Boundary to Martin Luther King Jr. Boulevard
- # Mount Carmel Church Road US 15-501South to southern town limits (possible first phase to Azalea Drive)
- # Piney Mountain Road. from Woodshire Lane to Old Forest Creek Drive
- # Piney Mountain Road. from Priestly Circle Drive to Rigsbee Road

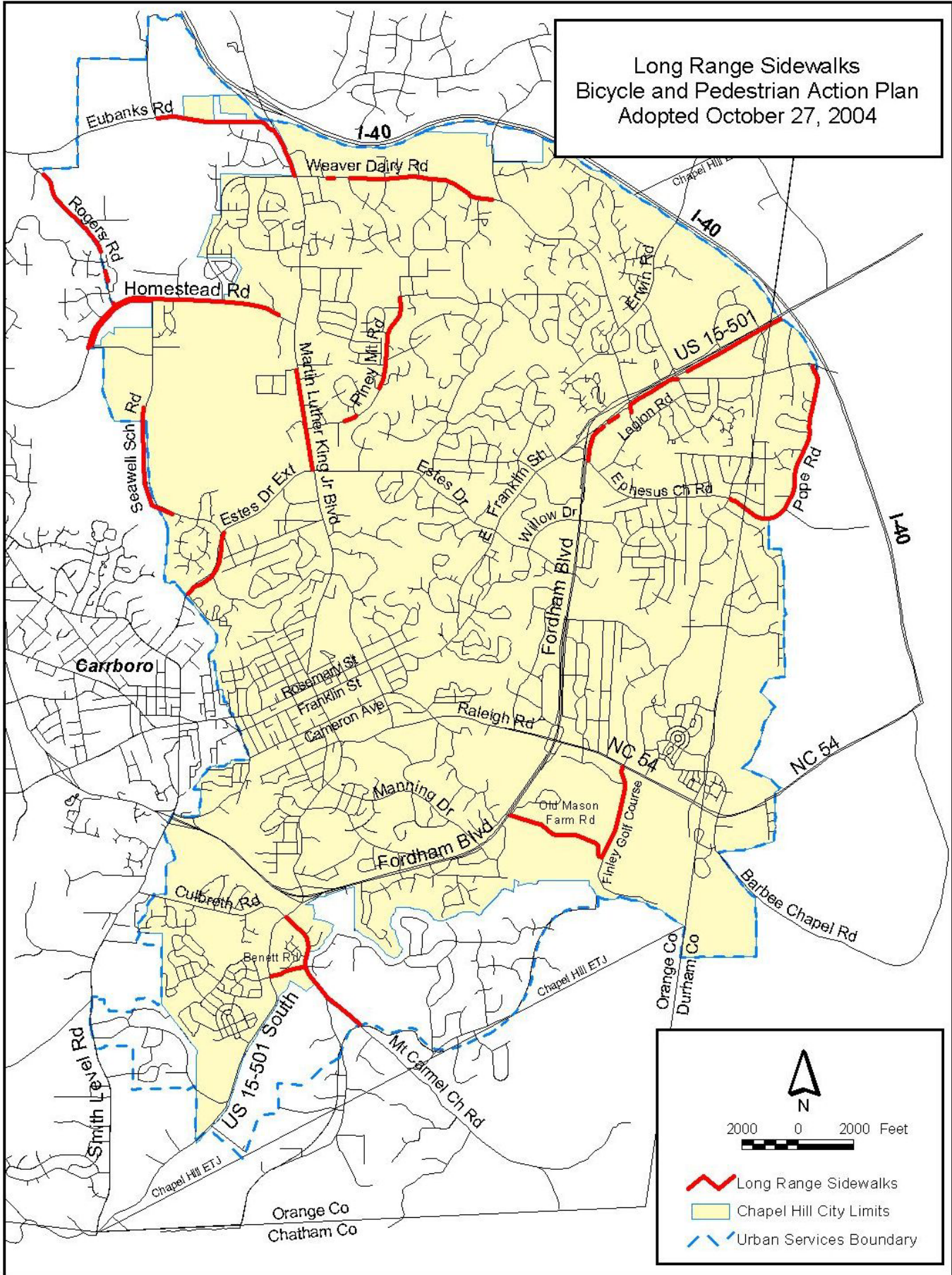
#### **Local Streets**

- Old Mason Farm Road (one side) for entire length
- Finley Golf Course Road (one side) for entire length

*\*Sidewalks included in the Towns Transportation Improvement Priority List 2006-2102 are indicated with (#). Please note that the State Transportation Improvement Program (STIP) and the Town's Transportation Improvement Program Priority List is revised periodically, generally every two years.*



Long Range Sidewalks  
 Bicycle and Pedestrian Action Plan  
 Adopted October 27, 2004





### **3.2 Off Road Paths**

Off road paths are surfaced, shared facilities for pedestrians and bicyclists. They share many of the characteristics of greenways except the primary function is intended to be more for transportation than recreation. Paved greenways and paved off-road paths will likely be constructed of the same materials, concrete or asphalt; unpaved greenways are often dirt unless they are heavily worn. Unpaved off-road paths are more likely to be constructed of compacted crushed aggregate or Chapel Hill Gravel because of wear and tear. The selection of appropriate materials may vary with local conditions such as at watercourses or in wooded areas.



The proposed plan contains only a few of these facilities. However, for the purposes of establishing priorities for a Town construction program, projects 1 and 2 are strategically important facilitating access for both pedestrians and cyclists. In combination they would create a link between neighborhoods in the south east of the town (Glen Lennox, The Oaks and Meadowmont) to the UNC campus. They should be scheduled together and linked to the provision of a crosswalk at US 15-501 and Old Mason Farm Road.

#### **First Priority**

1. US 15-501 South Fordham Boulevard from Manning Drive to Kings Mill Road (path on north side of street parallel to road way, suggest combine with proposed sidewalk in this location included on the Chapel Hill 2006-2012 TIP priority list)
2. US 15-501 South Fordham Boulevard by-

pass from Old Mason Farm Road to Prestwick Road through UNC property

3. Merritt Mill Road to west end of Cameron Avenue (facilitate access to campus)

#### **Second Priority**

4. Fordham Boulevard (north) from rear of Binkley Baptist Church to Estes Drive (suggest require as stipulation to any rehabilitation of University Mall ; part of a north south facility providing access to University Mall)
5. Christopher Road (extension) from northern end to S. Estes Drive
6. US 15-501 South Fordham Boulevard from Meadow Lane to Morgan Creek Greenway
7. NC54 Finley Golf Course Road to Hamilton Road (south side) extend existing path as part of any redevelopment of University Inn property

#### **Third Priority**

8. From Broad Street (Carrboro) to Tanyard Branch greenway (consider as a possible addition to Town Greenways Master Plan)



*Top left, path parallel to NC 54 looking east from the Friday Center to Barbee Chapel Road. Bottom right Cleland Drive looking north at Hayes Road. Path leads to S. Estes Drive.*

### **3.3. Crossing Improvements**

The bicycle and pedestrian facilities maps identify the locations where improvements to existing crossings or new crossings would assist bicyclists and pedestrians. The list is not definitive; it reflects input at the time the plan was prepared, and in future other locations may be identified. Further, the locations shown are not fixed. Further action is recommended by this plan to investigate if and how and then what improvements could be made in these locations. Improvements may include but are not limited to the following:

Street markings, advanced signing, signals (automatic and user activated), central refuges to assist crossing of wider streets or speed tables (ramped crosswalk area, raised to level of sidewalk).



*Photo: Existing crosswalk with push button activation and a colored / textured surface finish at Glen Lennox Apartments off NC 54*

The following list is not exhaustive and locations are not fixed. Locations will depend on safety and spacing requirements in relation to intersections and driveways.

Several potential underpasses associated with the Greenways Master Plan and potential footbridges are also identified on the facilities maps.

Crossing improvements should be provided in combination with the provision of sidewalk, and greenway facilities. The following facilities are identified by street:

#### **Martin Luther King Jr. Boulevard:**

Estes Drive  
Mount Bolus Road  
Airport Drive  
Stateside Drive  
Weaver Dairy Road  
Westminster Drive  
N. Columbia Street  
Piney Mountain Road  
Bolin Creek Greenway (potential underpass)

#### **Ashe Place:**

Footbridge across Morgan Creek linking to Arboretum Drive, Farrington Hills

#### **E. Barbee Chapel Road:**

Harris Teeter and Village center at Meadowmont

#### **Barclay Road:**

Access to Estes Drive extension from end of Barclay Road

#### **Cameron Avenue:**

Merritt Mill Road  
Country Club Road

#### **Country Club Road:**

Termination of Battle Branch Greenway

#### **Culbreth Road:**

Fan Branch Greenway (potential underpass)

#### **Erwin Road:**

Dry Creek Greenway Trail

#### **Estes Drive Extension:**

Bolin Creek Greenway (potential underpass)

#### **N. Estes Drive:**

Curtis Road  
Library Drive

#### **S. Estes Drive:**

Community Park/ Willow Drive

#### **E. Franklin Street:**

Bolin Creek greenway  
Booker Creek greenway at Eastgate Mall  
Elliott Road

Elizabeth Street  
S. Estes Drive

**W. Franklin Street:**

Merritt Mill Road  
Mallette Street  
Church Street  
Graham Street

**Fordham Boulevard North:**

Cleland Road  
Brandon Road  
S. Estes Drive  
Ephesus Church Road  
Willow Drive

**S. Fordham Boulevard:**

Morgan Creek Greenway (potential underpass)  
Manning Drive  
Oteys Road  
Old Mason Fm Road  
Mason Fm Road

**Homestead Road:**

Hearthstone Lane  
Rogers Road  
High School Road  
Weaver Dairy Road Extension  
Homestead Park

**NC54 By-pass:**

East of Merritt Mill Road

**NC54:**

Barbee Chapel Road  
Meadowmont Lane & Friday Center  
Burning Tree/Finley Golf Course Road  
15/501 ramps

**Prestwick Road:**

Rear of shopping center

**Seawell School Road:**

High School Road  
University railroad crossing (connect Rail trail  
to Carrboro trails)

**Sprunt Street:**

Mid block east of UNC Health Center

**Umstead Drive:**

Pritchard Extension

**US 15-501:**

Eastowne Drive

**Weaver Dairy Road:**

Kingston Drive  
Entrance to East Chapel Hill High School  
Silo Drive  
Entrance to Carol Woods  
Silver Creek Trail



*Photo: Multi-lane crossing point on NC86/ Martin Luther King Jr. Boulevard at Homestead Road. This is a potential location for a pedestrian refuge.*

### **3.4 Bicycle Advisory Routes**

Bicycle Advisory Routes are identified on the proposed plan to be signed as routes for cyclists. They connect parts of the town via local and collector streets as alternatives to more heavily trafficked arterial streets.

Ashe Place  
Arrowhead Road  
Audubon Road  
Bolin Creek Greenway  
Booker Creek Road  
Brookview Drive  
Burning Tree Drive  
Caldwell Street  
Cameron Avenue  
Cedar Hills Drive  
Christopher Road  
Church Street  
Cleland Drive  
Cleland Road  
Curtis Road  
Dobbins Drive  
Elliott Road  
Europa Drive  
Finley Golf Course Road  
Greenwood Road  
Hamilton Road  
Hayes Road  
Honeysuckle Road  
Kings Mill Road  
Lanark Road  
Laurel Hill Road  
Legion Road  
Morgan Creek Road  
N. Columbia Street  
North Lakeshore Drive  
North Street  
Old Durham Chapel Hill Road  
Old Mason Farm Road  
Park Place  
Partin Street  
Pinehurst Drive  
Prestwick Road  
Ransom Street  
Rigsbee Road  
Rosemary Street  
S. Boundary  
Sandy Creek Road

Seawell School Road  
Sedgefield Drive  
Sunrise Road  
Umstead Drive  
Weaver Dairy Road Extension



### **3.5 Bicycle Facilities**

Existing bicycle facilities are identified on the bicycle facilities plan map as either wide outside lanes or striped bicycle lanes. The map also identifies which greenways have paved surfaces.

In November 2003, the Town adopted a revised bicycle facilities policy which calls for the provision of striped bicycle lanes on newly constructed or reconstructed Arterial Streets and for either striped bicycle lanes or wide outside lanes on Collector Streets depending on site specific circumstances. (Please see Appendix 5 for the full policy).

The policy recognizes that

*“ There are variable circumstances exist in the Town of Chapel Hill such as topography, vehicle speed and volume, impediments such as parked vehicles, drainage grates or raised reflectors, access to public facilities and activity centers and available right of way.”*



And states that:

*“Within the Planning Jurisdiction of the Town of Chapel Hill, the appropriate design, type and width of bicycle facilities will be assessed on an individual and site-specific basis depending on the circumstances that exist.”*

The Town Manager has been authorized by the Town Council to utilize this policy in reviewing development plans and in the design of roadway improvements within the Chapel Hill Planning Jurisdiction.

The following is a list of long range road way improvements to arterial and collector streets as expressed in the Town’s Transportation Priority List\*. These improvements include the provision of bicycle lanes with a preference for striped lanes if possible in accordance with the Town’s bicycle facilities policy.



*Striped Bicycle lane on Martin Luther King Jr. Boulevard, north of intersection with Homestead Road .*

#### **Proposed Facilities included in Town of Chapel Hill Transportation Improvement Priority List 2006-2012\*.**

- Barbee Chapel Road from NC 54 to Southeastern town limits
- Erwin Road from eastern town limits to US 15-501
- Estes Drive Extension from western town limits to Martin Luther King Jr. Boulevard

- Finley Golf Course Road from NC 54 to Old Mason Farm Road
- Homestead Road from western town limits to Martin Luther King Jr. Boulevard
- Mason Farm Road. from South Fordham Boulevard to Finley Golf Course Road
- Mount Carmel Church Road from US 15-501 South to Urban Services Boundary
- Old Durham Chapel Hill Road from northern town limits to US 15-501 (project extends to Durham feasibility in study 2004)
- Piney Mountain Road from Martin Luther King Jr. Boulevard to Rigsbee Road
- Pope Road from Ephesus Church Road to Old Durham Chapel Hill Road
- Seawell School Road from Estes Drive Extension. to Homestead Road. (feasibility study in 2004)
- US 15-501 from Northeastern town limits to E. Franklin Street

#### **Facilities Programmed for Construction on State Maintained Streets (See NCDOT Transportation Improvement Program [TIP])**

##### Striped Bicycle Lanes

- US 15-501(South) north of Main Street. Southern Village to Culbreth Road - 2005
- S. Columbia Street. South Fordham Boulevard to Manning Drive - 2009
- Weaver Dairy Road - 2009
- Old Durham Chapel Hill Road from US 15-501 in Chapel Hill to Garrett Road in Durham - 2008 \*\*

#### **Proposed Assessment for Potential Future Facilities**

Section 4 of this plan sets out a recommended action for the Town to make an assessment of each existing arterial and collector streets in order to determine whether wide outside lanes or bicycle lanes would be appropriate.

*\*Please note that the State Transportation Improvement Program (STIP) and the Town’s Transportation Improvement Program Priority List is revised periodically, generally every two years.*

*\*\* This project is to be undertaken with Federal and State funds allocated to the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization.*

## 4.0 Implementation Strategy

This section describes various actions which have been categorized as either involving engineering improvements or actions for education and encouragement that would help increase bicycle and pedestrian use.

Table 1 which is located at the end of this section presents a summary schedule of these initiatives and actions for implementing the Action Plan. It classifies the actions according to a time frame and type of action. Actions are shown with provisional timeframes as being implemented in either the short, medium or long term.



*Summer 2004, sidewalk under construction along Friday Center Drive. Required as part of the development of the Marriott Hotel off NC 54*

### 4.1 Engineering Actions

The Pedestrian Facilities Plan and the Bicycle facilities Plan outlined in Section 3 will take many years to complete through the coordination of the Town Capital Improvement Program (CIP), the State Transportation Improvement Program (STIP) and through the development or redevelopment of adjoining properties.

#### Principal Sources of Funding

Since the mid 1980s the Town has had a construction program for facilities. It has the most control over its own construction program, but the program is dependent on the availability of

resources. Funds and manpower are needed to implement. The Town has historically used a combination of its own public works crew and private contractors to construct facilities. Funding for facilities in the Town's annual capital budget cannot be guaranteed because of the uncertainties of the economy and contributions to the costs of providing local services from State and Federal funds. In November 2003, when citizens endorsed a sidewalks and streets bond, this provided a commitment to a specific source of funding for facilities.

Improvements to State-maintained streets are normally scheduled and provided through State Transportation Improvement Program (STIP). These programs are subject to competing demands and priorities for projects and improvements from other municipalities and agencies in our region. They are also subject to the availability of funds. State programs identify improvements for a six year period and can also identify long range projects for inclusion in a future program beyond that timeframe.

Section 4.1.1 below includes recommendations for implementation of the facilities identified on the plan maps and listed in Section 3.

Section 4.1.2 identifies how individual improvements could be combined into packages for implementation.

#### 4.1.1 Approach for Implementation

The facilities improvements set out on Section 3 "Proposed Plan" and identified on the bicycle and pedestrian facilities maps will take many years to accomplish. While there may be a natural tendency where public money is being spent, to spread improvements around, there should be an overriding principle to undertake where possible packages of improvements.

The underlying objectives of this plan set out in section 1 envision that emphasis will be given to providing continuous facilities, connecting existing and programmed facilities, providing access to the most popular origins and destinations.

Packages of improvements would be made up of a combination of sidewalks, crossing improvements, off road paths and bicycle facilities which provide accessibility to an area, connecting it to a wider system.

Individual or isolated improvements would still be undertaken and the following considerations would apply.

**Sidewalks:**

These should be selected from either the first or second priority categories as funds and material considerations allow. Priority shall be given to the expenditure of Town funds for sidewalk construction on Town-maintained Streets. Material considerations would include but are not limited to the availability of right-of-way, construction feasibility, necessity and the potential combination with other proposed bicycle and pedestrian facilities identified in the plan.

Projects would not normally be selected from the third priority category unless or until there were no projects feasible in the higher priority categories for inclusion in the Town's annual Sidewalks and Bicycle Facilities Construction Plan in any given year. Long range improvements would either be tackled as development reached these locations or as state improvement projects were undertaken.

**Off Road Paths:**

Highest priority is recommended for the construction of facilities linking Manning Drive to



*Paved greenway at Meadowmont, constructed as part of neighborhood development.*

Prestwick Road as part of a combination of improvements to link the Meadowmont, Glen Lennox and the Oaks neighborhoods to the UNC central Campus.

**Crossing improvements:**

In order to assess which are the most pressing crossing improvements for implementation identified in this plan, a detailed look of each location should be undertaken. This should be programmed if possible as a first priority action of this plan. Investigation should be carried out by the spring of 2005 If possible.

Priority thereafter would be given to the implementation of crossing improvements which would enhance safety, connectivity with other facilities and that could be carried out in conjunction with the provision of other facilities identified in the Plan.

**Bicycle Advisory Routes:**

2 or 3 routes should be selected as a pilot initiative and then if successful sign other routes as funds allow. The routes could either be numbered or named. If named suggestions should be considered by a Council Naming Committee.

**Bicycle Facilities (Bicycle lanes):**

Bicycle lanes and striped bicycle lanes if possible will be implemented according to the Town's adopted bicycle facilities policy. Before this can be done it is a recommended action of this plan that the Town makes an assessment of each existing arterial and collector street in order to determine whether wide outside lanes or bicycle lanes would be appropriate. See paragraph 4.1.5 below.

#### 4.1.2 Package of Improvements

The following identify potential packages of improvements for specific areas of the town. They are identified as a guide to show how individual improvements could be combined if implemented incrementally. An # indicates if the improvement is included on the Town of Chapel Hill 2006-2012 Transportation Improvement Priority list\*.

#### Package 1 Glen Lennox, The Oaks and Meadowmont to UNC Central Campus and to University Mall. (See Map 5)

##### Sidewalks-(On State-Maintained Streets):

- # Barbee Chapel Road (west) phase 1 from NC54 to Finley Forest
- NC 54 East (south) west of Finley Golf Course Road

##### (On Town-Maintained Streets):

- Hamilton Road (east) from Cleland Drive to Flemington Road
- Cleland Road from Hamilton Road to southern end of existing "Muirhead Trail" off-road path
- Prestwick Road (link on north side into shopping center)

##### Off Road Paths-(On State-Maintained Streets):

- # US 15- 501 South Fordham Boulevard from Manning Drive to Old Mason Farm Road (path parallel to road way; suggest combine with sidewalk in this location included on Chapel Hill TIP priority list)

##### (On UNC property)

- US 15-501 South Fordham Boulevard bypass from Old Mason Farm Road to Prestwick Road through UNC property

##### Crossings-(On State-Maintained Streets):

##### US 15-501 (North):

- Bolin Creek Greenway (potential underpass)
- Cleland Road
- Brandon Road
- S. Estes Drive

##### NC54:

- Barbee Chapel Road
- Meadowmont Lane & Friday Center
- Burning Tree/Finley Golf Course Road
- 15/501 ramps

##### S. Fordham Boulevard:

- Manning Drive
- Old Mason Fm Road

##### (On Town-Maintained Streets):

- Prestwick Road

##### Bicycle Advisory Routes

##### (On Town-Maintained Streets):

- Burning Tree Drive
- Cleland Drive
- Cleland Road
- Finley Golf Course Road
- Hamilton Road
- Hayes Road
- Laurel Hill Road
- Old Mason Farm Road
- Pinehurst Drive
- Prestwick Road

##### Bicycle Facilities

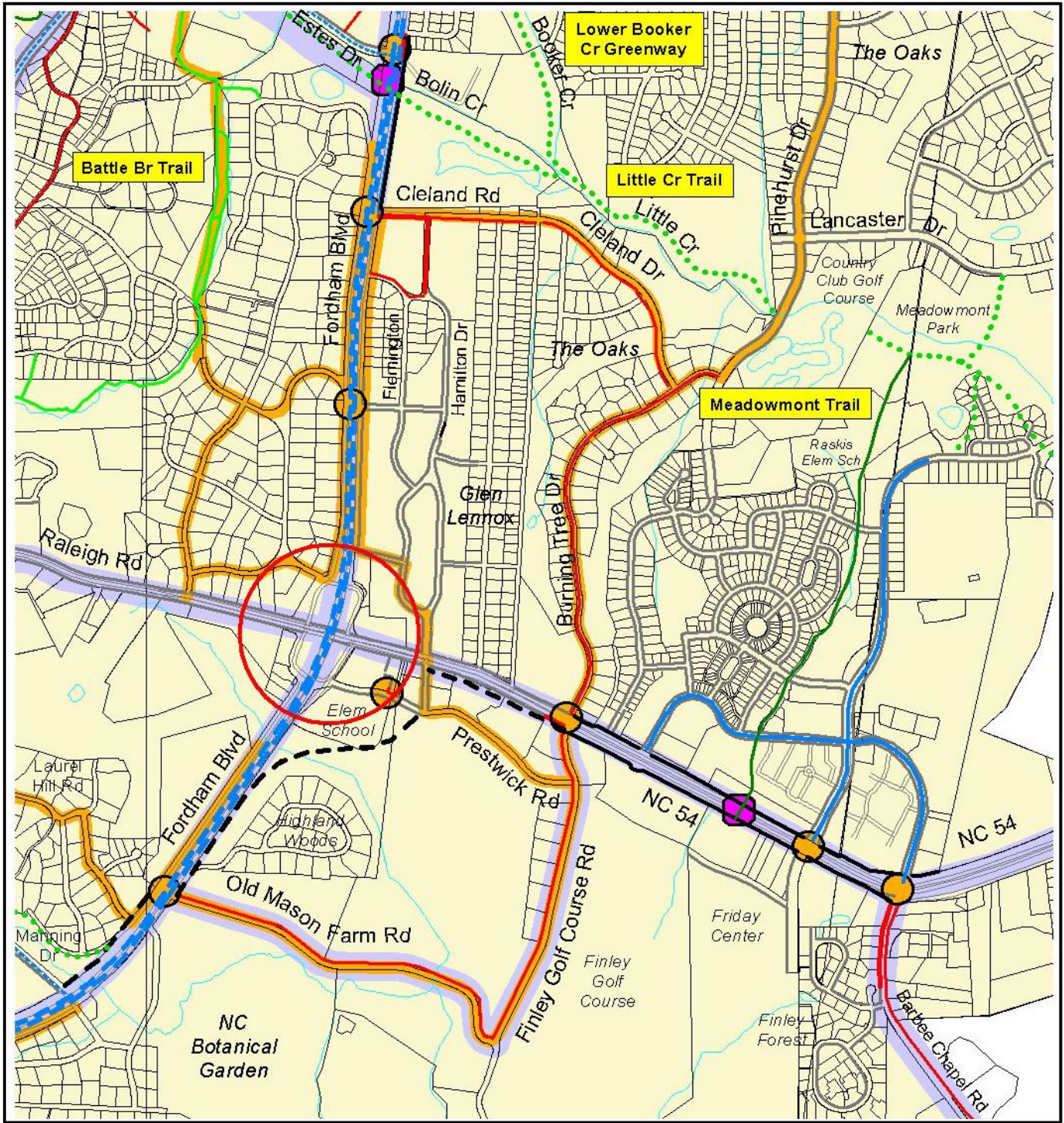
Apply bicycle facilities policy to:

- Barbee Chapel Road
- NC54
- South Fordham Boulevard
- Raleigh Road
- Finley Golf Course Road
- Old Mason Farm Road

*\*Sidewalks included in the Towns Transportation Improvement Priority List 2006-2102 are indicated with (#). Please note that the State Transportation Improvement Program (STIP) and the Town's Transportation Improvement Program Priority List is revised periodically, generally every two years.*



# Map 5 Package 1: Glen Lennox, The Oaks and Meadowmont



<p><b>Sidewalks</b></p> <ul style="list-style-type: none"> <li> Existing Sidewalk</li> <li> Proposed Sidewalk</li> </ul> <p><b>Bicycle Facilities</b></p> <ul style="list-style-type: none"> <li> Existing Bicycle Lane</li> <li> Existing Wide Outside Lane</li> <li> Existing Wide Shoulder</li> <li> Funded Future Bicycle Facility</li> </ul>	<p><b>Off Road Path (Bicycle/Pedestrian)</b></p> <ul style="list-style-type: none"> <li> Existing</li> <li> Proposed</li> </ul> <p><b>Greenways Master Plan</b></p> <ul style="list-style-type: none"> <li> Paved Greenway</li> <li> Unpaved Greenway</li> <li> Future Greenway</li> </ul>	<p><b>Other Improvement Needs</b></p> <ul style="list-style-type: none"> <li> Crossing Improvements</li> <li> Pedestrian Underpass</li> <li> Bicycle/Pedestrian Bridge</li> <li> Intersection Improvement Study</li> <li> Signed Bicycle Advisory Route</li> <li> Corridor Improvement</li> </ul>
		<p style="text-align: center;"></p> <p style="text-align: center;">500 0 500 Feet</p> <p style="text-align: center;"></p>
		<p style="text-align: center;"><b>Adopted October 27, 2004</b></p>



**Package 2 Southern Village to UNC Central Campus and Downtown. (See Map 6)**

**Sidewalks-(On State-Maintained Streets):**

- Culbreth Road (south) from US 15-501 South to Culbreth Park Drive
- Culbreth Road from US 15-501 South, north side to Channing Lane
- Culbreth Road (south) from Cobble Ridge Drive west to town limits
- Culbreth Road (north) Adam Way to Smith Level Road

**Off Road Paths:**

- Meadow Lane (parallels US 15-501 South Fordham Boulevard) to Morgan Creek Greenway

**Crossings-(On State-Maintained Streets):**

**Culbreth Road:**

- Fan Branch Greenway (potential underpass)

**S. Fordham Boulevard:**

- Morgan Creek Greenway (potential underpass)

**Bicycle Advisory Routes:**

- Meadow Lane to Morgan Creek Road (depends upon off-road path)

**Bicycle Facilities-(On State-Maintained Streets):**

Apply bicycle facilities policy to:

- Culbreth Road

*Sidewalks included in the Town's Transportation Improvement Priority List 2006-2102 are indicated with (#). Please note that the State Transportation Improvement Program (STIP) and the Town's Transportation Improvement Program Priority List is revised periodically, generally every two years.*



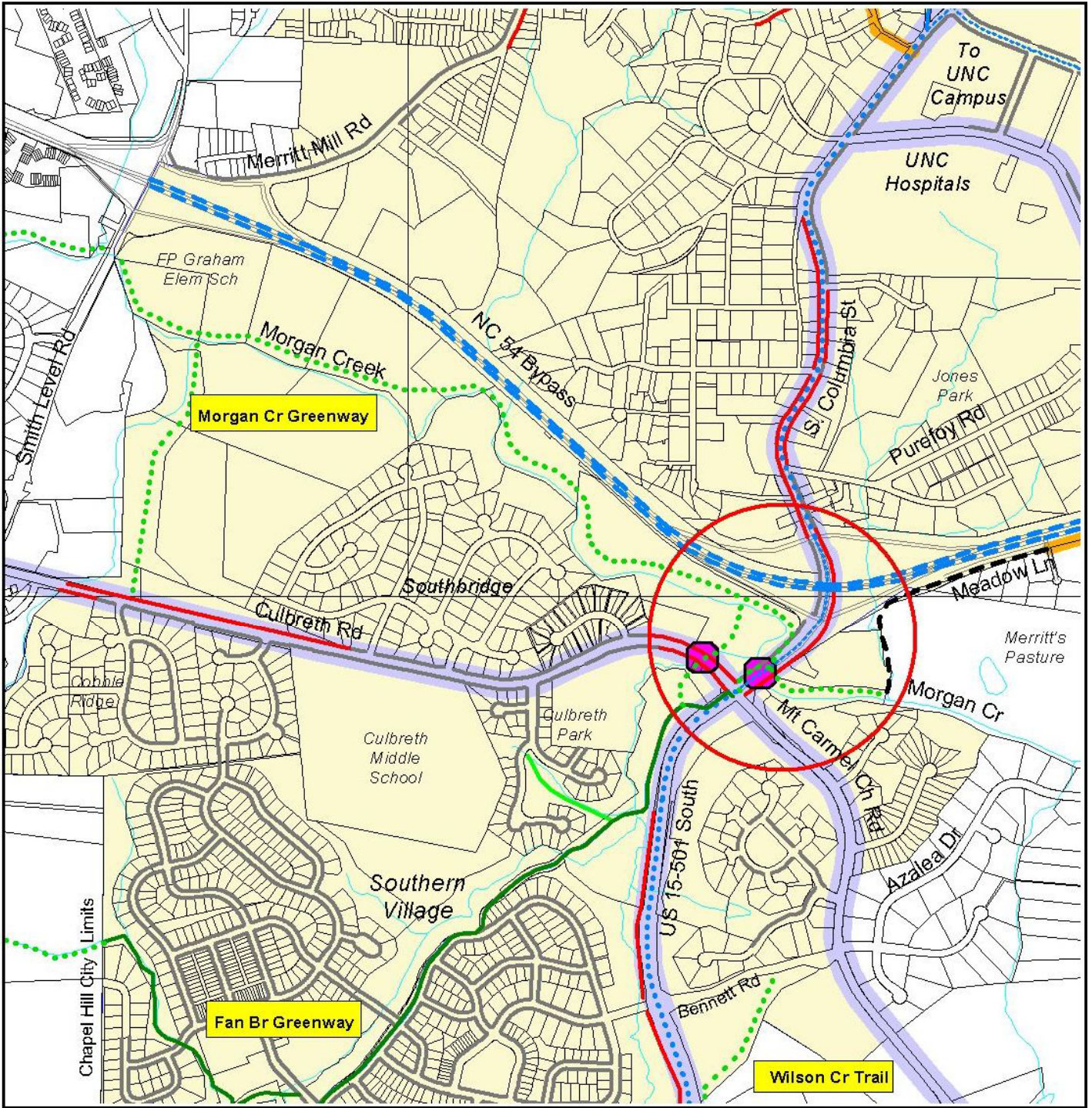
*Summer 2004, worn path along Culbreth Road from US 15-501 South, to Channing Lane, connects to existing Fan Branch Greenway at Southern Village.*



*Pedestrian activated signal crossing as US 15-501 South and Culbreth Road showing entrance to greenway in center of photograph.*



# Map 6 Package 2: Southern Village to UNC Central Campus and Downtown



<p><b>Sidewalks</b></p> <ul style="list-style-type: none"> <li> Existing Sidewalk</li> <li> Proposed Sidewalk</li> </ul> <p><b>Bicycle Facilities</b></p> <ul style="list-style-type: none"> <li> Existing Bicycle Lane</li> <li> Existing Wide Outside Lane</li> <li> Existing Wide Shoulder</li> <li> Funded Future Bicycle Facility</li> </ul>	<p><b>Off Road Path (Bicycle/Pedestrian)</b></p> <ul style="list-style-type: none"> <li> Existing</li> <li> Proposed</li> </ul> <p><b>Greenways Master Plan</b></p> <ul style="list-style-type: none"> <li> Paved Greenway</li> <li> Unpaved Greenway</li> <li> Future Greenway</li> </ul>	<p><b>Other Improvement Needs</b></p> <ul style="list-style-type: none"> <li> Crossing Improvements</li> <li> Pedestrian Underpass</li> <li> Bicycle/Pedestrian Bridge</li> <li> Intersection Improvement Study</li> <li> Signed Bicycle Advisory Route</li> <li> Corridor Improvement</li> </ul>
		<p><b>Adopted October 27, 2004</b></p>



**Package 3 Intersection Ephesus Church Road and US 15-501.  
(See Map7)**

**Sidewalks-(On State-Maintained Streets):**

- US 15-501 By-pass (North Fordham Boulevard) (west) from Ephesus Church Road to Elliott Road
- Ephesus Church Road (south) from 15-501 By-pass (North Fordham Boulevard) to Eden Lane

*-(On Town Maintained Streets):*

- Legion Road (both sides) Europa Drive to Ephesus Church Road
- Legion Road intersection with Ephesus Church Road

**Off Road Paths:**

- Fordham Boulevard (north) from rear of Binkley Baptist Church to Estes Drive (require as stipulation to any rehabilitation of University Mall, this could be part of a north south facility providing access to University Mall)

**Crossings-(On State-Maintained Streets):**

**Fordham Boulevard North**

- Ephesus Church Road
- Willow Drive
- Elliott Road (potential underpass for Booker Creek Greenway)
- S. Estes Drive

**Bicycle Advisory Routes**

*-(On State-Maintained Streets):*

- Dobbins Drive

*-(On Town Maintained Streets):*

- Legion Road
- Booker Creek Greenway
- Elliott Road
- Europa Drive

**Bicycle Facilities**

*-(On State-Maintained Streets):*

Apply bicycle facilities policy to:

- Ephesus Church Road and

*-(On Town Maintained Streets)*

Apply bicycle facilities policy to:

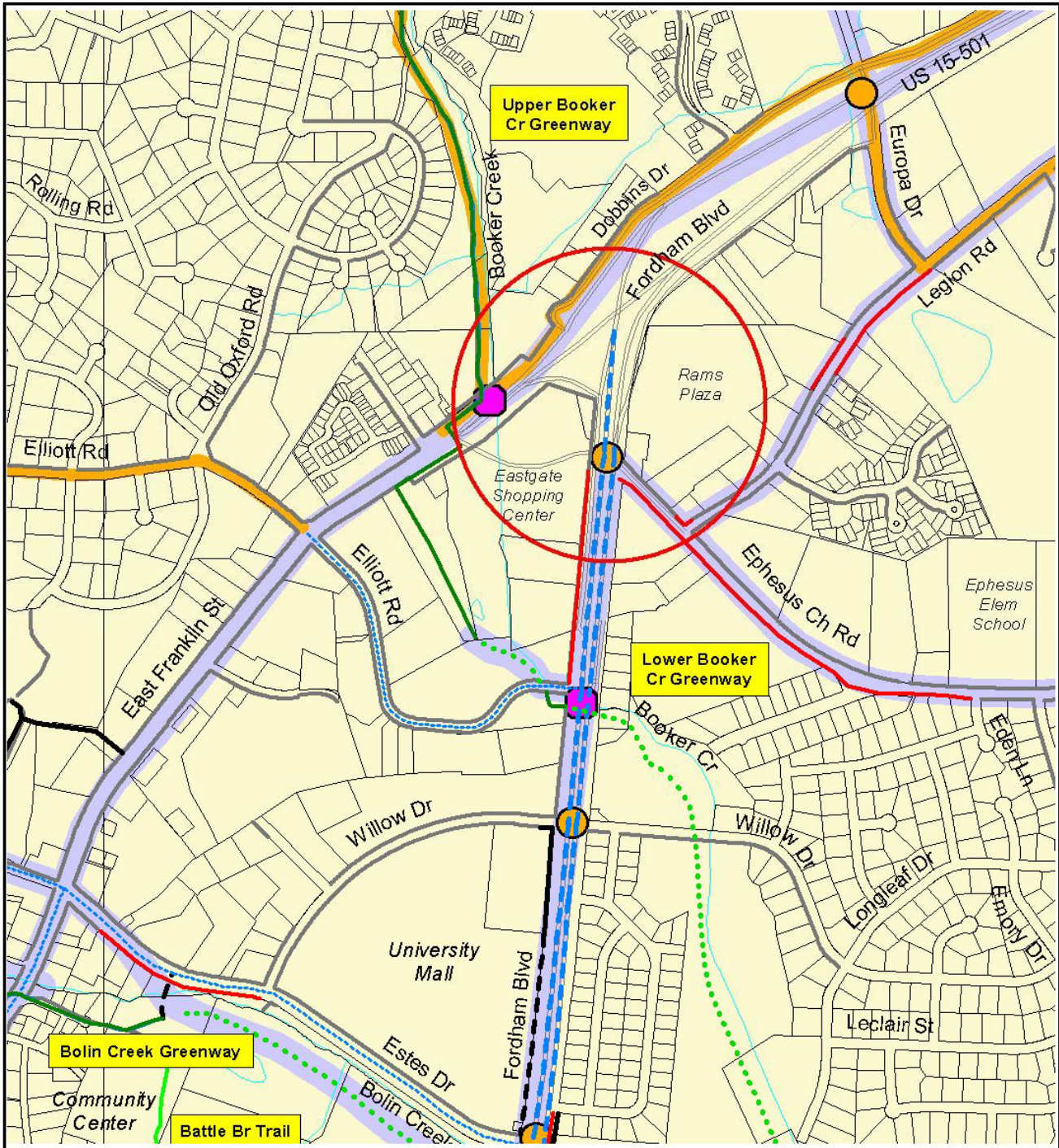
- Legion Road



*Photo: Sidewalk constructed at northern end of Legion Road in the summer of 2004.*

*Sidewalks included in the Towns Transportation Improvement Priority List 2006-2102 are indicated with (#). Please note that the State Transportation Improvement Program (STIP) and the Town's Transportation Improvement Program Priority List is revised periodically, generally every two years.*

# Map 7 Package 3: Intersection Ephesus Church Rd and US 15-501



<p><b>Sidewalks</b></p> <ul style="list-style-type: none"> <li> Existing Sidewalk</li> <li> Proposed Sidewalk</li> </ul> <p><b>Bicycle Facilities</b></p> <ul style="list-style-type: none"> <li> Existing Bicycle Lane</li> <li> Existing Wide Outside Lane</li> <li> Existing Wide Shoulder</li> <li> Funded Future Bicycle Facility</li> </ul>	<p><b>Off Road Path (Bicycle/Pedestrian)</b></p> <ul style="list-style-type: none"> <li> Existing</li> <li> Proposed</li> </ul> <p><b>Greenways Master Plan</b></p> <ul style="list-style-type: none"> <li> Paved Greenway</li> <li> Unpaved Greenway</li> <li> Future Greenway</li> </ul>	<p><b>Other Improvement Needs</b></p> <ul style="list-style-type: none"> <li> Crossing Improvements</li> <li> Pedestrian Underpass</li> <li> Bicycle/Pedestrian Bridge</li> <li> Intersection Improvement Study</li> <li> Signed Bicycle Advisory Route</li> <li> Corridor Improvement</li> </ul>
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**Adopted  
October 27, 2004**



### Package 4 Downtown (See Map 8)

#### Sidewalks-(On Town Maintained Streets):

- Ransom Street (east) from McCauley Street to University Drive
- Rosemary Street (north) From 157 E. Rosemary to Henderson Street
- Rosemary Street (north) from Pickard Street to Boundary Street
- University Drive (north) from Pittsboro Street to Ransom Street
- McCauley Street (south) from Brookside Drive to Pittsboro Street
- Kenan Street (east) from Cameron Avenue to Franklin Street
- McCauley Street (north) from Brookside Drive to Brookside Drive Extension
- West University Drive (south) from Ransom Street to Westwood Drive
- West Rosemary Street east and west of Church Street, at S.Graham Street and at Roberson Street
- North Street (north) Martin Luther King Jr. Boulevard to Henderson Street
- Mallette Street (west) from Cameron Avenue to West Franklin Street

#### Off Road Paths:

- Merritt Mill Road to west end of Cameron Avenue( facilitate access to campus)

#### Crossings-(On State-Maintained Streets):

##### W. Franklin Street:

- Merritt Mill Road
- Mallette Street
- Church Street
- Graham Street

##### Martin Luther King Jr. Boulevard:

- North Street

*-(On Town Maintained Streets):*

##### Cameron Avenue:

- Merritt Mill Road

#### Bicycle Advisory Routes

*-(On Town Maintained Streets):*

- Caldwell Street
- Cameron Avenue
- Church Street
- N. Columbia Street

- North Street
- Ransom Street
- Rosemary Street
- S. Boundary

#### Bicycle Facilities

*-(On State-Maintained Streets):*

Apply bicycle facilities policy to:

- Franklin Street

*-(On Town Maintained Streets):*

Apply bicycle facilities policy to:

- Rosemary Street
- Cameron Avenue



*Photo: Franklin Street and N. Columbia Street*

#### Package 5 Martin Luther King Jr. Boulevard

During 2004, a separate study identifying potential improvements for bicyclists and pedestrians using the Martin Luther King Jr. Boulevard/ Historic Airport Road corridor from I-40 to Franklin Street was prepared by the University of North Carolina Highway Safety Research Unit as part of the Town's Active Living by Design Program. The Town Council reviewed the report in 2005. The next step for this project is to prepare an implementation plan.

#### Package 6 Northside Neighborhood

The Northside neighborhood is an established residential neighborhood located adjacent the Downtown. As part of the Town's Active Living by Design Program a separate study identifying potential improvement for pedestrians was scheduled to be carried out in 2005. A package of improvements is expected to be recommended.



# Map 8 Package 4: Downtown



<p><b>Sidewalks</b></p> <ul style="list-style-type: none"> <li> Existing Sidewalk</li> <li> Proposed Sidewalk</li> </ul> <p><b>Bicycle Facilities</b></p> <ul style="list-style-type: none"> <li> Existing Bicycle Lane</li> <li> Existing Wide Outside Lane</li> <li> Existing Wide Shoulder</li> <li> Funded Future Bicycle Facility</li> </ul>	<p><b>Off Road Path (Bicycle/Pedestrian)</b></p> <ul style="list-style-type: none"> <li> Existing</li> <li> Proposed</li> </ul> <p><b>Greenways Master Plan</b></p> <ul style="list-style-type: none"> <li> Paved Greenway</li> <li> Unpaved Greenway</li> <li> Future Greenway</li> </ul>	<p><b>Other Improvement Needs</b></p> <ul style="list-style-type: none"> <li> Crossing Improvements</li> <li> Pedestrian Underpass</li> <li> Bicycle/Pedestrian Bridge</li> <li> Intersection Improvement Study</li> <li> Signed Bicycle Advisory Route</li> <li> Corridor Improvement</li> </ul>	<p style="text-align: center;">             500 0 500 Ft  </p> <p style="text-align: right;"> <b>Adopted October 27, 2004</b> </p>
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### **4.1.3 Small area studies**

The design and layout of the following listed intersections are perceived as barriers to bicyclists and pedestrians with origins and destinations on either side them. Pedestrians and slower moving cyclists can be in conflict with vehicles trying to change lanes and make turning movements. Cloverleaf intersection designs are particularly difficult for cyclists to use. The intersections are all located on State maintained streets. Improvements which may include alternative facilities are needed to get users safely through or around these locations:

- NC54 and US 15-501
- NC54 by-pass and Merritt Mill Road
- US 15-501 South, S. Columbia and Culbreth Road and Mount Carmel Church Road (study to include providing a sidewalk crossing James Taylor bridge on the east side of the highway to connect S. Columbia and Mount Carmel Church Road)
- US 15-501 North and Ephesus Church Road

**Recommended Action:** *It is recommended that the Town Council request that the North Carolina Department of Transportation (NCDOT) to make an assessment of these locations for solutions to overcome bicycle and pedestrian impediments to use.*

### **4.1.4 Pedestrian performance measures (procedures developed for evaluating the operating performance of pedestrian facilities).**

The Town of Chapel Hill 2000 Comprehensive Plan, included an Action to develop a comprehensive pedestrian and bicycle network. Specifically it identified 2 new initiatives to address the main action:

- **The Development of this Bicycle and Pedestrian Action Plan**
- **Adoption of pedestrian/bicycle operating performance measures.**

For the latter action page 94 of the Town of Chapel Hill 2000 Comprehensive Plan, advocated the development and adoption of a pedestrian levels of service performance measures. The per-

formance measures would be used to evaluate the operating performance of a pedestrian network. The performance measures would include factors including directness, continuity, safety crossing a street, visual attractiveness and visual features and sense of security.

The Comprehensive Plan identified potential pedestrian zones where such performance measures might be applied (Please see Appendix 6) The Approved Town Council Goals for 2004 have targeted completion of this task in early 2005

**Adopted Town Council Goal and Plan Action :** *Develop and adopt pedestrian performance measures.*

### **4.1.5 Bicycle performance measures (procedures developed for evaluating the operating performance of bicycle facilities).**

As stated in the previous section the Town of Chapel Hill Comprehensive Plan, 2000, identifies the development of bicycle performance measures as an initiative tied to the development of a comprehensive pedestrian and bicycle network

Page 96 of the Town of Chapel Hill Comprehensive Plan, 2000 states that:

*“Intuitively the Town of Chapel Hill has all the makings for a community with high bicycle mobility: a University population, high trip density with relatively short trips, and good climate. The completeness of the bicycle network to provide safe and direct connections, however, is lacking.*

*Further complicating matters, there is no methodology widely accepted by engineers, planners, or bicycle coordinators that will allow the ability of a roadway to allow efficient operation of both bicycles and motor vehicles to be determined. Determining how existing traffic operations and geometric conditions impact a bicyclist’s decision to use or not use a specific roadway is the first step in defining the bicycle compatibility or performance of the roadway.”*



The Comprehensive Plan included the following recommendations on page 96:

**“Actions: Pedestrian/Bicycle Operating Performance**

- Use the adopted procedures to evaluate existing and planned pedestrian and bicycle facilities (Town staff)
- Hold a Town/NCDOT summit on bicycle compatible highway design and develop roadway design standards that incorporate bicycle lanes (Citizens, Town staff, NC DOT)
- Incorporate schedule to implement bicycle lane design standards into the Bicycle Improvement Action Plan developed per Strategy 10A-2 (Walks and Bikeways Commission, Town staff, Town Council)”

Except in a few cases where road improvement plans are sufficiently developed it does not define the streets in the town where particular types of bicycle lane are planned. The Town’s revised bicycle facilities policy sets out a preference for the provision of striped bicycle lanes on newly constructed or reconstructed Arterial Streets and for either striped bicycle lanes or wide outside lanes on Collector Streets depending on site specific circumstances. However, until an assessment of each street can be made it is not possible to identify what type of facility is appropriate to the particular location.

**Adopted Town Council Goal and Plan Action:**  
*Develop and adopt bicycle performance measures.*

**Recommended Action:** *That the Town Council of the Town of Chapel Hill undertake a preliminary assessment of the existing streets for the application of its adopted bicycle facilities policy as part of the development of the bicycle performance measures. Thereafter the bicycle facilities map could be amended to be more specific.*

**4.1.6 Town bicycle parking standards**

Bicycle parking requirements are included in the Town of Chapel Hill Land Use Management Ordinance. These identify the number and type of spaces which should be provided as part of new developments and redevelopments. The Town of Chapel Hill Design Manual includes information on the type of bicycle parking facilities and rec-

ommendations for their location.

**Recommended Action:** *It is recommended that every two years the Town bicycle parking standards be reviewed in the light of experience. It is also recommended that supplementary graphic details of appropriate parking stands and storage facilities be selected by the Bicycle and Pedestrian advisory Board for inclusion in the Town of Chapel Hill Standard Details.*

**4.1.7 Traffic Control Devices:**

The free movement of bicyclists and pedestrians can be restricted by traffic control devices at street intersections. The Town has traditionally installed pedestrian activated crossing signals instead of having an automatic pedestrian phase at traffic lights.

Traditional traffic lights include detection loops installed in the pavement to detect the presence of waiting vehicles and cause the light sequence to change. These loops are normally activated by the mass of metal contained in the vehicle. Bicycles often have insufficient metal mass to be detected and so the cyclist is at a disadvantage. In the summer of 2004, the Town will install an experimental bicycle loop detector at an intersection in the Town to evaluate its performance.

**Recommended Action:** *That the Bicycle and Pedestrian Advisory Board work with Town staff to review existing Town standards for traffic control devices and to develop a policy and program for detecting pedestrians and bicyclists at traffic controlled intersections.*



*A bicycle detection loop was installed at the intersection of Cameron Avenue and Kenan Street in the Spring of 2005*



#### **4.1.8 Sunken drainage grates.**

The Town of Chapel Hill Design Manual requires that new streets be installed with curb inlets clear of travel lanes. However, many of the existing arterial and collector streets in the town which, are mainly State maintained, have slatted drainage grates in the pavement. When streets are resurfaced, a common oversight is not to make adjustments to the height of existing drainage grates. Resurfacing can result in the drainage grate being sunken inches below the travel lane surface. This is a hazard to bicyclists. On Martin Luther King Jr. Boulevard and Raleigh Road hazardous sunken grates are marked with a diagonal white stripe.

**Recommended Action:** *That the Bicycle and Pedestrian Advisory Board develop for the Town a policy and program for raising sunken drainage grates.*



*Left: sunken grate on Martin Luther King Jr. Boulevard marked with a diagonal warning stripe.  
Right: Level grate north of Homestead Road on Martin Luther King Jr. Boulevard*

#### **4.1.9 Corridor Improvements**

Roads into and through Chapel Hill can be improved in order to facilitate Pedestrian and Cyclist movement. These corridor improvement routes are colored purple on the Facilities Plans. The bicycle facilities policies should be applied to these corridors.

**Recommended Action:** *That in addition to the specific improvements identified on the facilities maps whenever regional plans for the corridors are being prepared they should include facilities for bicyclist and pedestrians.*

#### **4.2 Education and Encouragement Actions:**

The Town of Chapel Hill, Comprehensive Plan page 97 states that:

*“Bicycle facility development and maintenance should be coupled with other measures to promote bicycle usage in Chapel Hill, such as a public information and education program.”*

##### **4.2.1 Bicycle education class**

Despite opportunities to expand greenways and other off-road facilities through recent bond funding, the town’s street network will continue to be the primary facilities for cyclists. In order to safely increase bicycle usage in the town, it is important that cyclists (1) feel confident riding in traffic, and (2) feel comfortable using their bicycle to travel throughout the town. Bicycle education classes are an important way to achieve these goals and have been used by many localities as part of a comprehensive program to enhance bicycle usage. In the last several years, successful classes have been offered in Cary, Carrboro and Durham.

**Recommended Action:** *That the Town of Chapel Hill offer bicycle education classes and provide facilities for bicycle instructor training.*

##### **4.2.2 Historic district/downtown way-marked walk**

The central core of the Town of Chapel Hill contains two historic districts, the UNC central campus and the downtown. These are overlapping attractions and destinations. A way-marked walk (route/ trail marked by signs) could connect places of interest, recreation and commerce to enhance the visitor experience. It could also provide an opportunity to display public art and also interpretive material about places of interest.

**Recommended Action:** *That the Bicycle and Pedestrian Advisory Board or a sub-committee thereof prepare a proposal for a historic district/ downtown way-marked walk.*

#### **4.2.3 Pedestrian facilities map**

**Recommended Action:** *That the Town publish a map which shows the location of existing pedestrian facilities and transit stops.*

#### **4.2.4 Recreational walks map**

The maps accompanying this plan document show where pedestrian facilities already exist and the location of proposed future facilities. This is useful information but it does not direct potential users to or recommend which places would make an enjoyable, recreational walk.

As part of this plan preparation process a citizen presented to Town staff an undated, aged pamphlet entitled "Walking in Chapel Hill, Ten Neighborhood Walks". The pamphlet identifies ten walks through the neighborhoods of Chapel Hill. Each walk is planned to take 1 ½ to 2 hours at an east pace. Much of the walks shown must be done in the streets, but walks have been planned to avoid streets with a lot of traffic. Suggested parking areas are included at the beginning of each walk. The walks were designed to be roughly circular to avoid retracing steps. In order to promote pedestrian activity.

**Recommended Action:** *That the Bicycle and Pedestrian Advisory Board or a sub-committee thereof prepare a recreational walks map for publication by the Town of Chapel Hill.*

#### **4.2.5 Bicycle route/rides map**

In the spring and fall each year the Town's Bicycle and Pedestrian Advisory Board and the Transportation Board have a stall at the Apple Chill and Festifall Street Festivals. One of the most frequent citizen requests is for a map showing the location of bicycle routes and recreational rides. The maps accompanying this plan document show where bicycle facilities already exist and the location of proposed future facilities. This is useful information but it does not direct potential users to or recommend which places are currently suitable to ride for leisure and recreation.

**Recommended Action:** *That the Bicycle and Pedestrian Advisory Board or a sub-committee thereof prepare*

*an advisory bicycle route map for publication by the Town of Chapel Hill.*

#### **4.2.6 Safe Routes to School program**

Safe Routes to School (SR2S) programs are sustained efforts by parents, other community members, community leaders and local, state, and federal governments to improve the health and well-being of children by enabling and encouraging them to walk and bicycle to school. SR2S programs examine conditions around schools and facilitate the planning, development, and implementation of projects and activities that improve safety and reduce traffic and air pollution in the vicinity of schools. As a result, these programs make bicycling and walking to school a safer and more appealing transportation alternative thus encouraging a healthy and active lifestyle from an early age.

In November 2003, the Town of Chapel Hill was selected as a grant recipient by Active Living by Design a health promotional organization funded by the Robert Wood Johnson Foundation. The Town has outlined a 5 year program involving a partnership group of community organizations to promote active living. The program includes developing a Safe Routes to School Program.

**Recommended Action:** *That the Town of Chapel Hill be an active partner in the Active Living by Design program to promote and develop a Safe Routes to School program.*

#### **4.2.7 Way-marking and advisory sign program.**

This plan identifies advisory bicycle routes. The main task in encouraging use of these routes is to install information or direction signs to alert users. Information and direction signs may also be used to draw attention to existing facilities. Signs which advise users to "Share the Road" and "City wide watch for Pedestrians" are currently installed at entrance locations to the Town. The existing signs do not encompass all modes of transportation and the "Share the Road" sign can be misinterpreted by motorists.

The Bicycle and Pedestrian Advisory Board has designed replacement signs which are clearer. Please see below which is a design for a “Streets Are for Everyone” (SAFE) sign and a COEXIST sign.

**Recommended Action:** *It is recommended that the Bicycle and Pedestrian Advisory Board select 2 or 3 advisory routes for signing as a pilot project. If deemed a success the Board can develop a program for sign installation as funds allow.*

*It is further recommended that the Town Council consider replacing the present “Share the Road” and “City wide watch for Pedestrians” signs with “Streets Are for Everyone” (SAFE) and or a “COEXIST” sign.*



#### ***4.2.8 Lobby State and Federal representatives for funds.***

The majority of improvements identified in this plan are located on State-maintained streets. Funds for improvements to State-maintained streets are programmed through the State Transportation Improvement Program (STIP). This is an expenditure program which is produced every two years and covers a six year period. The Town of Chapel Hill can use this plan as a tool to help justify the inclusion of bicycle and pedestrian facilities in future reviews of the STIP. The Town can also use this plan as a tool to help justify any discretionary expenditure available via the North

Carolina Department of Transportation (NCDOT) or the Durham, Carrboro, Chapel Hill Metropolitan Planning Organization (DCCHMPO). There are formal public participation processes built into the preparation of these programs.

**Recommended Action:** *That the Town Council of the Town of Chapel Hill develop a strategy to lobby State and Federal representatives for funds, including the provision of guidance to citizens and interest groups to encourage effective public participation and lobbying of local representatives.*

#### ***4.2.9 Lobby State agencies and other agencies as appropriate to make policy changes to increase bicycle and pedestrian use.***

The majority of improvements identified in this plan are located on State-maintained streets. Facilities must be constructed in accordance with State standards and must meet thresholds to justify provision. In the case of crossings, meeting the standards required is arduous. There is need for greater flexibility and pragmatism in order to increase bicycle and pedestrian use in the Town.

**Recommended Action:** *That the Town Council of the Town of Chapel Hill develop a strategy to lobby State agencies and other agencies as appropriate to make policy changes to increase bicycle and pedestrian use.*

#### ***4.2.10 Performance measures for action plan implementation.***

The preparation and adoption of this plan should mark the beginning of a process to monitor and review the actions recommended herein.

**Recommended Action:** *That the Bicycle and Pedestrian Advisory Board undertake an annual review of progress on the actions set out in this plan. The review should coincide with the preparation of the Town’s Capital Improvements Program. The Board should also develop a set of performance measures and benchmarks for the annual review.*



#### **4.2.11 Integrating Public Art**

When implementing the Action Plan the Town will encourage the integration of public art in the fabric of the built environment and public space in order to define space and offer aesthetic interpretations of how space may be used.

**Recommended Action:** *Public art and an artistic approach shall be included in the development of facilities where possible, including paving, bicycle racks, way-finding signs and pedestrian maps, and any other improvements where a change of materials or design turns an everyday object into something artistic, and does not create additional cost.*

#### **4.3 Coordinating Actions:**

The Town of Chapel Hill cannot develop a comprehensive network of bicycle and pedestrian facilities alone; it will require the assistance and cooperation of other public service agencies and landowners.

##### **4.3.1 University Plans**

Several proposed routes go through university property. The university campus and property form important corridors of the town. There is much to be gained by coordinating efforts with the University.

**Recommended Action:** *Town Staff meet with University planners.*

##### **4.3.2 Other Public and Community Entities.**

Orange County, Chapel Hill Carrboro City School. (CHCCS) The Orange Water and Sewer Authority (OWASA), religious institutions, and social organizations control properties which have public paths and routes that connect to town and university facilities. Some also control unofficial paths to neighborhoods. Some of these entities might be interested in adding to the network of facilities the public can use.

**Recommended Action:** *Invite these organizations to inventory their paths, trails and sidewalks. If they have any routes that could connect to the town facilities, encourage them to make them available to the walking or cycling*

*public by granting easements and constructing links.*

##### **4.3.3 Greenways**

The Greenways Master Plan contains a number of goals. There is the goal of preserving riparian environment. There is the goal of providing off-road paths that connect neighborhoods and parks. Paths may be unimproved, mulch, chapel hill gravel, large size gravel, asphalt, concrete, new pervious materials, board walk etc. Paths can be narrow or wide.

**Recommended Action:** *As part of the Greenways Master Plan update clarify how Greenways can be used for non-motorized transportation.*

##### **4.3.4 Maintenance**

Once facilities are created they need to be maintained. This may be done by nearby property owners, volunteers, Chapel Hill Public Works, UNC, local businesses, clubs and DOT. Sometimes there is confusion about who should provide maintenance.

**Recommended Action:** *Inform the public who has the responsibility to maintain facilities. Describe the procedures to report problems.*