

System Recommendations

During the public involvement process, citizens repeatedly stressed a desire to see better facilities for biking and walking, both in specific locations and Townwide. The Chapel Hill 2020 Plan echoes their desire, calling for “a comprehensive transportation system that provides everyone safe and reasonable access to all that the community offers.”

On-Road Facilities - Several street corridors facilitate most of the Town’s existing auto travel, but “Complete Street” improvements could provide better accommodations for pedestrians, cyclists, and transit users. The Town adopted a Complete Streets Policy in 2011 to enable users of all ages and abilities to safely move along and across streets. In addition to adopting this policy, the Town has taken efforts to implement the Complete Streets policy in the Engineering Design Manual.

The five major roadways highlighted in the recommendations beginning on page 35 are maintained by NCDOT, therefore comprehensive improvements are most likely to come in the form of major TIP or regional transit projects. With no near-term funding identified for large-scale improvements, the focus for these corridors should be to implement short-term projects that can improve mobility for pedestrians and bicyclists, particularly through sidewalks, shared-use paths and improved crossings. Recommendations include innovative bike treatments and pedestrian enhancements that can be applied through lane reallocations or small, lower-cost projects at key locations. Long-term recommendations represent a multimodal approach to designing an ultimate cross-section for each corridor.

“When you have Complete Streets implemented in Chapel Hill, everyone wants to come to the road.”

Kumar Neppalli
Traffic Engineering Manager

Off-Road Facilities - Simply improving these heavily-traveled corridors to accommodate cyclists and pedestrians does not provide the type of low-stress facilities that many residents seek. For a percentage of the population that are “interested but concerned” about riding their bike or walking for daily travel, heavy traffic and its associated speeds and noise are deterrents to getting out of their cars. The Mobility Plan recommends developing a priority network of routes that use neighborhood streets, greenways, and multi-use paths that connect neighborhoods and the Town’s focus areas. These six corridors would provide users the option of short linkages to the transit or separated bike facilities on Complete Street corridors, as well as longer but comfortable connections to the Town’s commercial centers and ultimately the regional greenway network.

System Recommendations



Facility Types

The Complete Street and Priority Corridors recommendations in this plan include a number of innovative facility types. They are being used across the State and country provide a higher level of protection, separation, and/or visibility for pedestrians and cyclists. The facilities shown below are a range of applications that are appropriate from suburban neighborhood streets to urban thoroughfares.

Buffered Bike Lanes

6-8' standard bike lane buffered from traffic with striping and sometimes bollards

Desirable on roadways with 10,000+ daily vehicle trips



Advisory Bike Lanes

4-6' bike lane dashed on low-volume streets too narrow for dedicated lanes

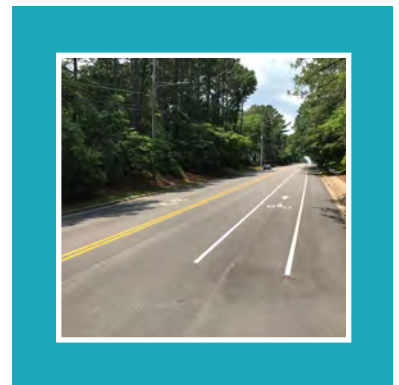
Signals to drivers that they may drive in bike lane space when a cyclist is not present



Multi-Use Trails

12-14' shared use path with mixed bicycle and pedestrian traffic parallel to a roadway

Very comfortable for most pedestrians & cyclists when volumes are low to moderate



Cycle Tracks

One- or two-way bike-only facility separated from traffic by physical barrier and pedestrians by curb or buffer

Appropriate for heavily-traveled bike routes; special accommodations should be made at intersections

Uphill Climbing Lane

4-6' standard bike lane marked on uphill portion of road with shared lane marking on downhill side

Cyclists have separate space to ride while moving relatively slow compared to motorists; no downhill separation

Two-Stage Turn Queue & Bicycle Boxes

Designated area positioning cyclists ahead of vehicles in traffic lane at signalized intersection during the red signal phase

Increases visibility and reduces signal delay for cyclists



Bike Signal Faces

Bike-specific signal providing priority to cyclists where vehicle or pedestrian movements conflict

Can provide cyclists head start and can simplify bicycle movements through complex intersections



Rapid Rectangular Flashing Beacons

Pedestrian-actuated, flashing signals supplementing signage at unsignalized intersections or mid-block crosswalks

Can increase driver yielding behavior at crosswalks significantly



Intersection Crossing Markings

Pavement markings indicating intended path of cyclists; typically include dashed edge lines with green pavement or sharrow

Provide clear boundary between paths of cyclists and vehicles in adjacent lane and conflict areas

Hybrid/HAWK Signals

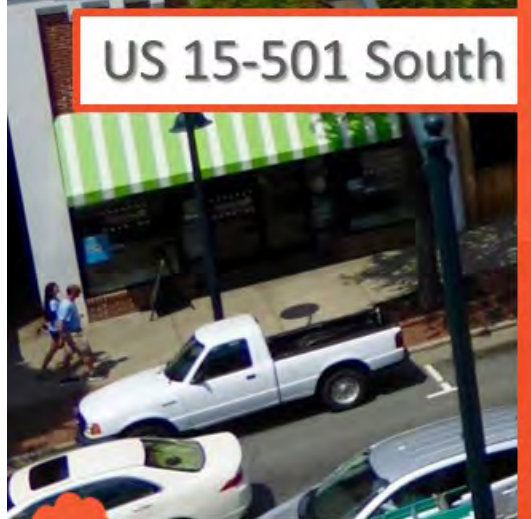
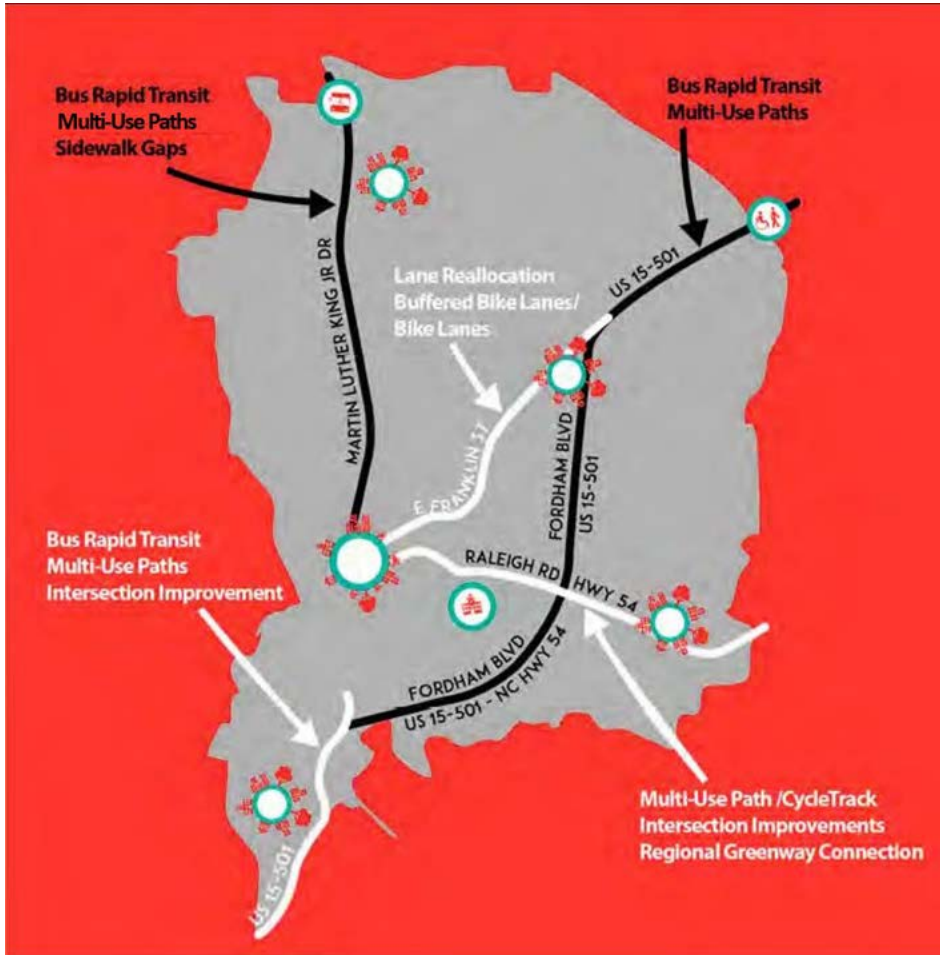
Special signals used for crosswalks/bike crossings on major streets where side streets do not warrant full signal

Improves crossing safety by creating gaps for pedestrians/cyclists to cross busy streets

What is a Greenway Connector?

A greenway connector is a combination of signing, marking, traffic calming measures, and facilities that allow bicyclists and pedestrians to get safely from point A to point B in a priority corridor.





mobility

the ability to move freely and easily from one place to another



Developing Corridor Mobility

Chapel Hill's five main street corridors—Martin Luther King Jr. Boulevard, E Franklin Street, US 15-501/Fordham Blvd, US 15/501 South, and NC 54/Raleigh Road—all have four lanes or more of traffic. They primarily serve vehicles traveling in and through Town, with some transit accommodation. But they commonly lack continuous pedestrian and bike facilities. Each corridor has gaps in the existing network and filling those gaps should increase ped/bike mobility.



Martin Luther King Jr Blvd

Fordham Blvd/US 15-501/Durham-Chapel Hill Blvd

NC Highway 54/Raleigh Rd



Developing Corridor Mobility Martin Luther King Jr. Boulevard



As many as 25% of the bicyclists are riding on the sidewalk in order to avoid traffic.

Source: Bicycle Counter, Martin Luther King Jr Blvd at Town Hall (2015)

Crossing requests at Carolina North Trails , Bicycle left turn actuation requested at Piney Mountain Road

Estes Drive Connectivity Project adds crosswalks and landings on all legs

Crossing Requests at Barclay Road

Crossing requests at Bolin Creek Trail

Crossing Requests at Longview Street

Town Hall Continuous Count Station:
Average Annual Daily Pedestrians (670)
Average Annual Daily Bicyclists (100)

Crossing Opportunities

- No Crossings
- No Crossing of Minor Road
- Two Crossing Legs
- Three Crossing Legs
- All Crossing Legs (or Midblock)



Complete Street Corridors

Martin Luther King Jr Boulevard

Existing Conditions: Martin Luther King Jr Blvd is the most heavily traveled corridor for Chapel Hill Transit, with up to 13 buses per hour for 7 routes (5 regular service, 1 peak-hour, and 1 GoTriangle regional route). Yet, some pedestrian connections to bus stops are hindered by sidewalk gaps and only key bus stops have shelters and mid-block pedestrian crossings with median refuges. Sidewalks along the road are currently 5-feet wide with little or no buffer to fast-moving traffic and many signalized intersections lack crosswalks. In some cases, long distances between marked crossings mean residents cross the five-lane roadway and using the center two-way left-turn lane as a refuge between lanes of traffic.

There are no separated cycling facilities south of Homestead Drive and, with average daily vehicle volumes between 18,000 and 31,000, cyclists may not feel comfortable riding in traffic with sharrow. Counts in 2014-2015 near Town Hall showed that as many as 25% of the bicyclists are riding on the sidewalk in order to avoid traffic. This creates bike and pedestrian conflicts and highlights the need for safe and separated bicycle facilities.

short-term recommendations

Pedestrian facilities should be the short-term focus for improvements since providing separated bike facilities will require major, long-term projects like road widening. Sidewalk work will create safe and convenient pathways to local destinations and to transit stops.



1 Fill sidewalk gaps and increase sidewalk width and buffers, most importantly from south of Ashley Forest Road to Northfield Road. Development and Town projects can aim to systematically reconstruct older sidewalk to the Town's required 6-foot width with 8-foot buffer.

2 Add pedestrian crossings to key intersections:

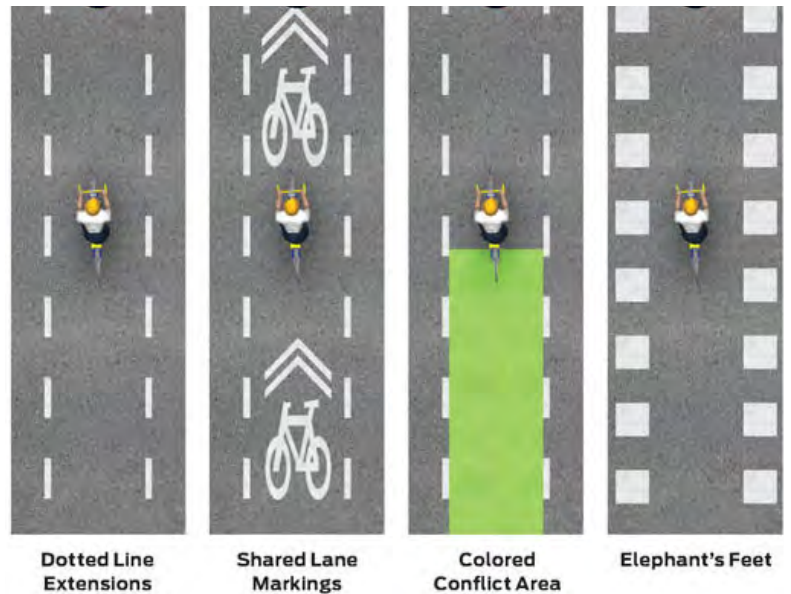
- Barclay Road to provide connections to Chapel Hill Transit
- New Stateside Drive to link Homestead Park to existing sidewalks and transit
- Piney Mountain Road to link to Carolina North Forest
- Westminster Drive on the South side of the roadway

3 Construct Northwood/Perkins sidewalk connector to replace a worn path along the Duke power easement used by locals that frequent the Chapel Hill North shopping center and adjacent bus stop.

Developing Corridor Mobility

Martin Luther King Jr. Boulevard

4 Improve bike lanes and markings at major intersections to provide delineation for cyclists and motorists, encourage safe positioning, and increase visibility and awareness of cyclists in the intersection. North of Homestead Road, there are no accommodations at major intersections and bike lanes sometimes end before intersections to make room for turn lanes or medians. Pavement widths are usually adequate to provide bike lanes through the intersections marked by skips, bike lane symbols, and/or green paint. The markings could be combined with bike boxes for the side streets to create two-stage left turn options, aiding with difficult left turns identified in public comments.



Examples of various bike intersection markings
Source: NACTO Intersection Crossing Markings Design Guidance

5 Improve bicycle signal actuation at major intersections by installing detectors or fine-tuning loop sensitivity, in particular for the bike lane approaches at the Weaver Dairy Road intersection.

6 Improve connections with Bolin Creek and Carolina North Trails by providing paved paths linking to sidewalks on both sides of the street and curb cuts for cyclists to exit from existing travel and future bike lanes.





.....
long-term recommendations

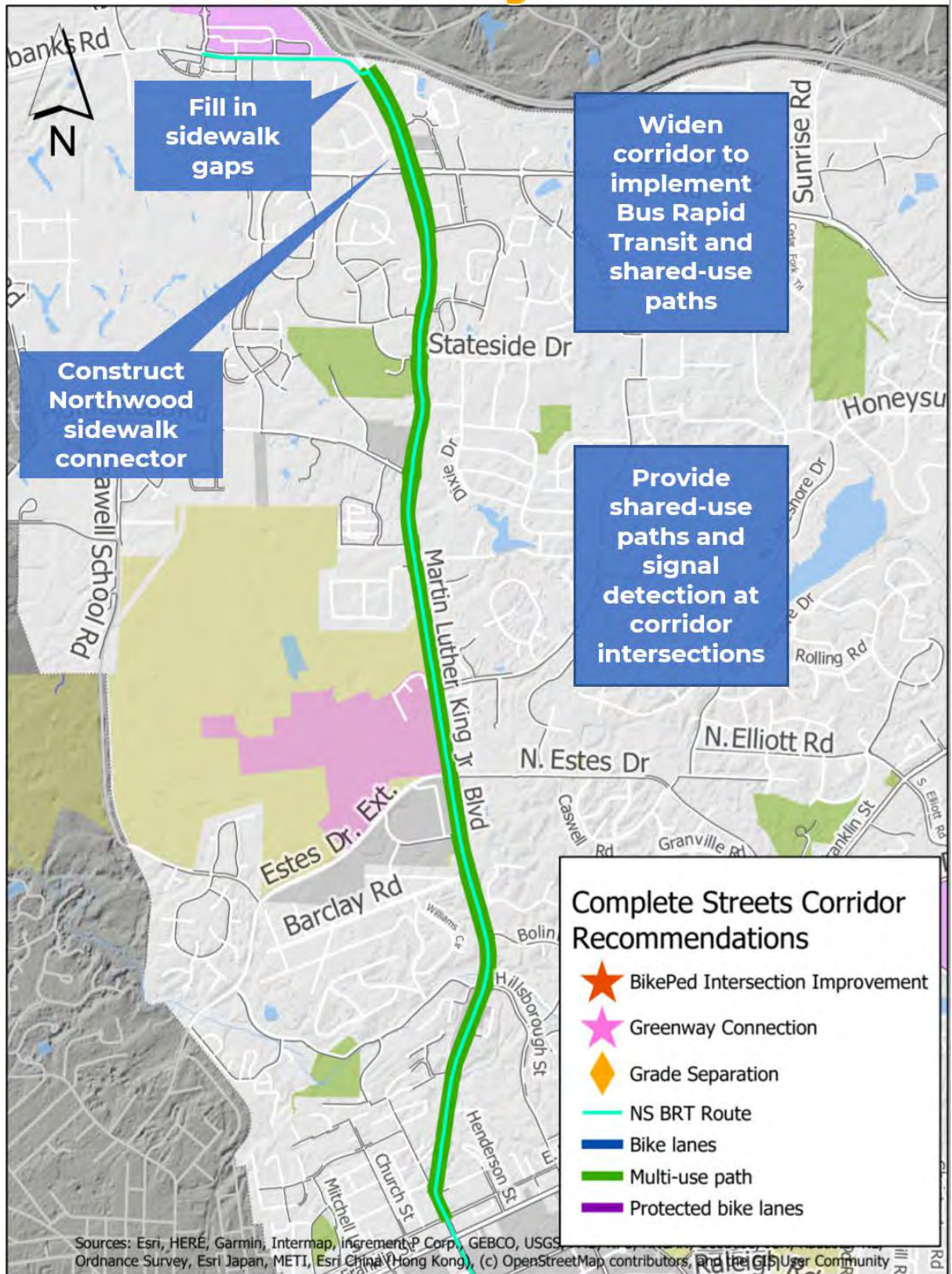
While the Martin Luther King Jr Blvd corridor is presently a multimodal corridor, long-term recommendations aim to improve all modes. This corridor is part of a future Bus Rapid Transit (BRT) route that will go between the Eubanks Park-and-Ride and the Southern Village Park-and-Ride). With BRT implementation, an opportunity exists to transform the corridor into a true Complete Street in the future.

The recommended cross-section includes multi-use paths to increase riders' comfort and upgraded sidewalks to fill in corridor gaps and connect to destinations. The image below shows a 122-foot cross section for the corridor with bus rapid transit, widening to a maximum of 154 feet at key intersections where stops and turn lanes are needed.



Bus Rapid Transit typical concept for Martin Luther King Blvd

Martin Luther King Jr. Boulevard



Complete Street Corridor Recommendation for Martin Luther King Blvd

East Franklin Street

Existing Conditions: Franklin Street connects Downtown Chapel Hill to the Ephesus-Fordham District and US 15-501 as a four-lane undivided or divided street. It intersects the Bolin Creek and Booker Creek Trails. Improved connections along this corridor would link Downtown and UNC, commercial and retail centers, and the access points to the greenway system. Existing sidewalks along E Franklin St are of minimum width (4 to 5 feet) and have little or no buffer to traffic. There are two regular and two peak hour transit routes serving the corridor.

what we heard

Difficult pedestrian crossing at Elliot Road due to high volumes and right-turn-on-red violators.

Bolin Creek Trail Connection to Franklin Street via stairs and side roads






Bicyclists often ride on the sidewalk

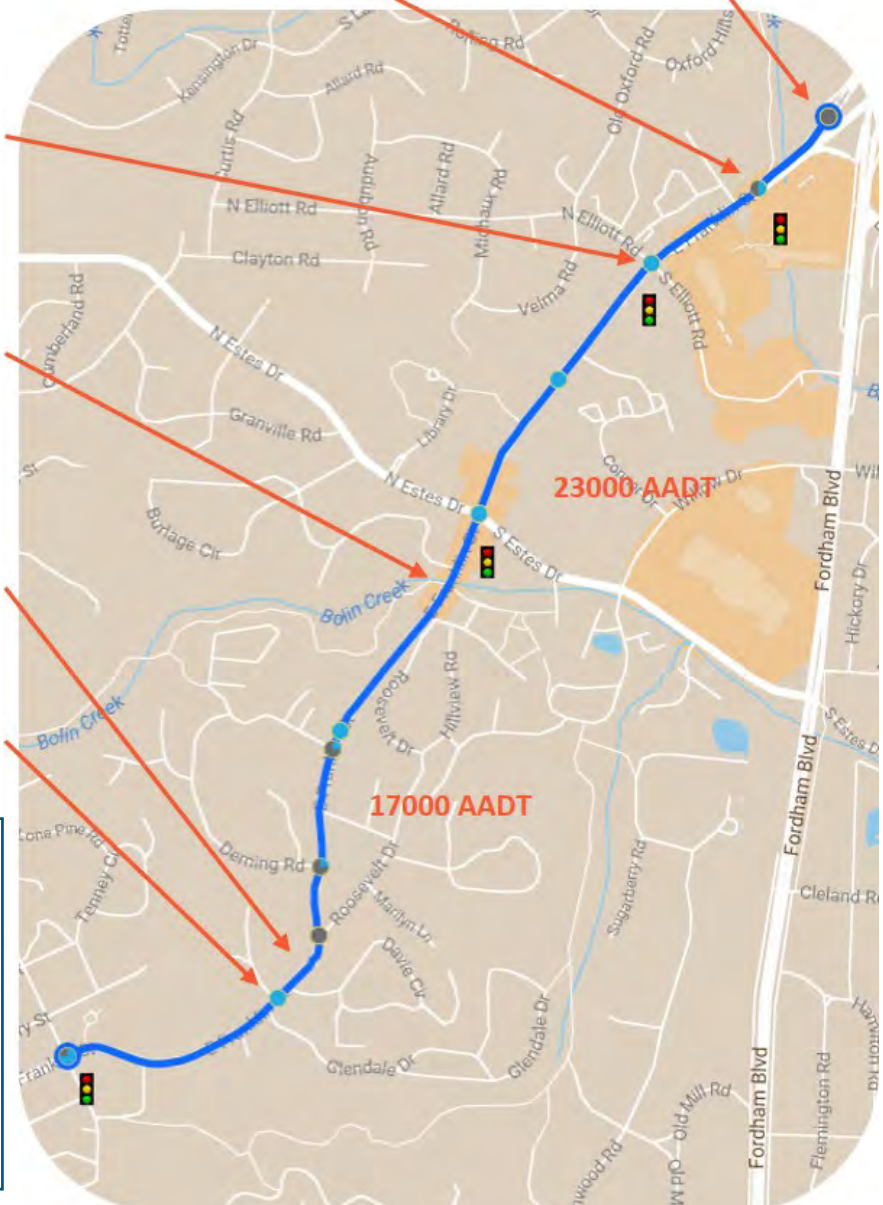
Four-lane mid-block crossing with no pedestrian refuge

Desired bicycle and pedestrian connection with Dobbins Drive

Booker Creek Trail

Crossing Opportunities

-  No Crossings
-  No Crossing of Minor Road
-  Two Crossing Legs
-  Three Crossing Legs
-  All Crossing Legs (or Midblock)



short-term recommendations

A large number of residents requested separated bike facilities along this route.



1

Current traffic volumes west of Estes Drive have been level at 17,000 vehicles per day for roughly the past five years. While this is near the upper limit of capacity for a three-lane roadway, it presents the opportunity to reallocate space from one of the four travel lanes and convert the cross-section to three lanes with buffered bike lanes and multi-use paths along the steep, mostly residential section from Downtown to the Bolin Creek Greenway. A center-turn lane allows space for pedestrian refuge islands to be added at mid-block cross-ings near transit stops. Streetscape and sidewalk enhancements can be implemented with redevelopment or as Town-initiated projects.

E Franklin St from Boundary St to Deming Rd 3-lane Conversion with Bike Lanes and Multi-use Paths



East Franklin Street lane reallocation east of Boundary Street to Deming Road

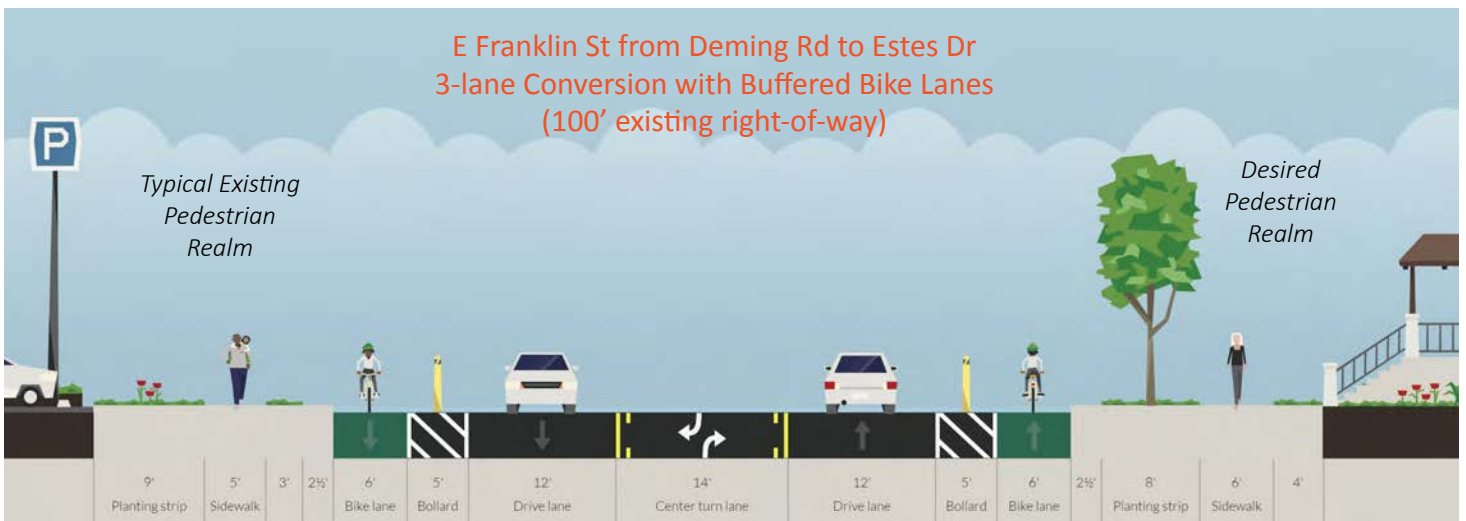
Traffic volumes east of Estes Drive are too high to eliminate travel lanes for bike facilities. Immediate improvements can be made by implementing the 5-lane concept, which would reduce travel lanes to 10 feet and add 5-foot bike lanes.



2

The roadway widens to five lanes and the right-of-way to 100 feet east Deming Road. Intermediate improvements for this segment include both 3- and 5-lane options, listed below:

- Converting to a 3-lane segment by reallocating the outside lanes to buffered bike lanes and widening center turn lanes to 14 feet (recommended).
- Maintaining the 5-lane segment and adding 5-foot bike lanes by reducing the travel lane widths to 10-feet, as called for in the Chapel Hill Bike Plan.



East Franklin Street lane reallocation east of Deming Road to Estes Drive



long-term recommendations

Since E Franklin St varies significantly along its length, the proposed cross-sections will need to be context sensitive in order to minimize impacts to abutting properties. The short-term recommendations establish the recommended bike facilities within the existing curblines, so the main additions in the long-term are to provide proposed shared multi-use trails on north side of the street to link the Bolin and Booker Creek Trails and on both sides of the street from Boundary Street to Deming Road. As transit service increases on the corridor, special consideration should be made to relocate the bike lanes behind bus stops to eliminate bus/bike conflicts.



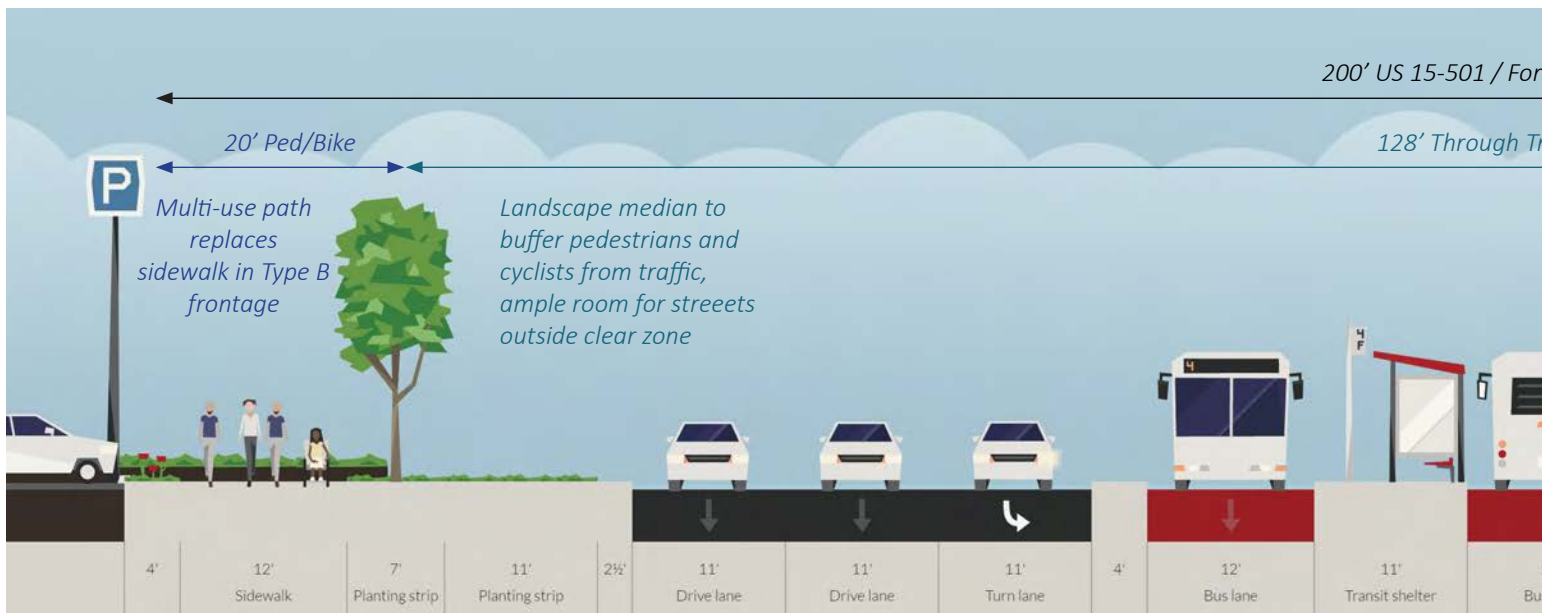
Ultimate cross section east of Estes Drive

US 15-501 Fordham Boulevard

Existing Conditions: Comments from the public input show that US 15-501 is perceived as being difficult to navigate as a bicyclist or pedestrian. Any connection between Ram’s Plaza and Eastgate Shopping Center requires crossing US 15-501 and heavy traffic, whether on foot or in a car. Sidewalk gaps make it difficult for pedestrians to access bus stops at Ram’s Plaza, with residents noting gaps on the south side of Elliott Road, on Europa Dr, along US 15-501, and on Ephesus Church Road.

short-term recommendations

NCDOT and the Town continue to plan and construct intersection improvements to help resolve congestion on the corridor. NCDOT is conducting a feasibility study looking at future widening and improvements, with funding for construction slated to begin around 2025. That study will hopefully indicate that the future of Fordham Boulevard must include all modes to meet the vision of a revitalized District supportive of transit, bicycling, and walking. To create an effective bike and pedestrian network through the Ephesus-Fordham District, there has to be a shared focus on internal and external connections between neighborhoods and the area shopping centers, schools and libraries.



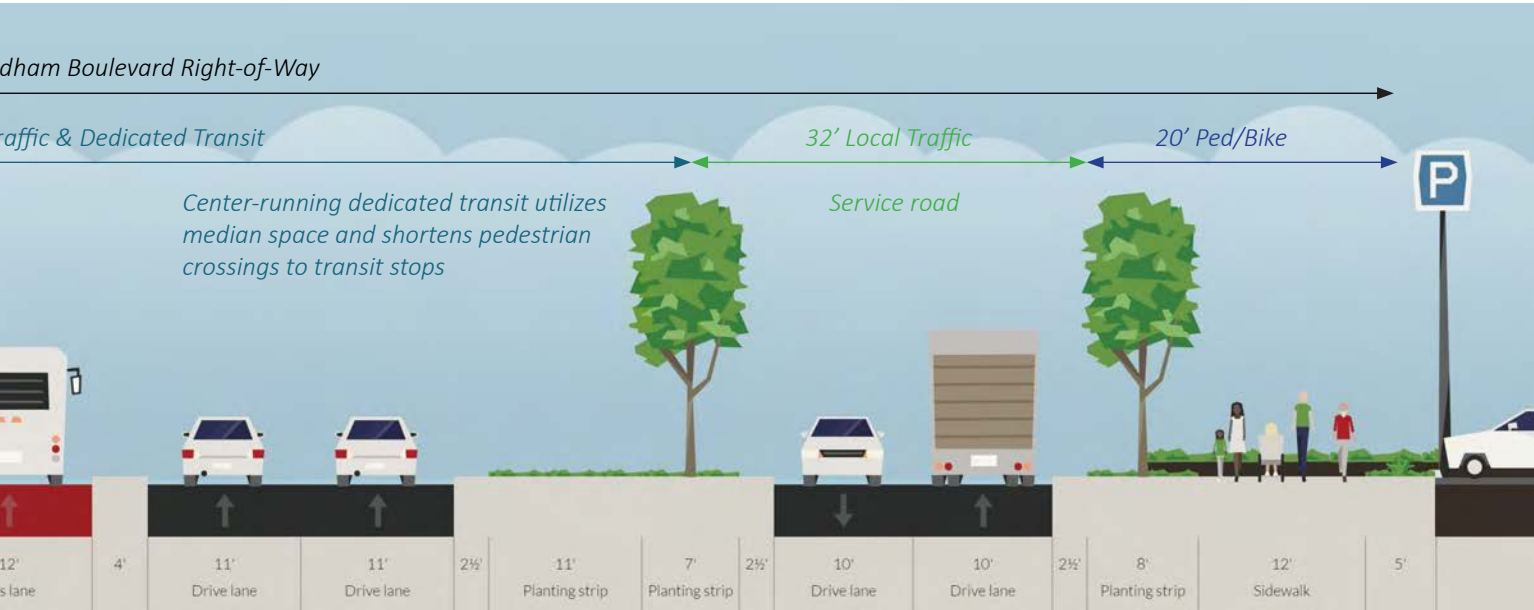
Recommended Fordham Boulevard Complete Street Cross Section



1 US 15-501 connects with major bike facilities along Sage (existing) and Old Durham Roads (proposed) to the north and the Lower Booker Creek and Bolin Creek Trail to the south. To facilitate the low-stress connections that were emphasized in public input, the corridor is recommended to include multi-use pathways along both sides of the roadway. The multi-use paths would replace the six-foot sidewalks required on certain frontages within the District and accompany any redevelopment in the area. The paths would connect to the Booker Creek Trail near Franklin Street and Bolin Creek Trail near Elliot Road. Future bike accommodations to connect to these paths should include buffered bike lanes for Elliott Road as well as bike lanes for Ephesus Church Road, Legion Road, and Erwin Road.

2 Intersection enhancements at US 15-501 with Willow Drive and Elliott Rd in the short term can include signal actuation for bicyclists, repositioned stop bars, pedestrian refuge islands, and crossings to all four corners with ADA-compliant curb ramps.

3 A HAWK signal to allow pedestrians and bicyclists to safely cross US 15-501 at Oteys Rd providing accessibility for neighborhoods to the south, the Morgan Creek Trail, and Fan Branch Trail.





long-term recommendations

While US 15-501 is currently not planned for dedicated transit infrastructure such as light rail or bus rapid transit (BRT) in the Orange County Transit Plan, the ultimate cross-section shown in Figure 40 has been developed with a Complete Streets concept to preserve the option for dedicated transit lanes in the center median. Center-running BRT has several advantages over curb-running alternatives including eliminating conflicts with right-turning vehicles and bicycles, allowing exclusive signal phasing for transit. It also reduces the length of pedestrian crossings and provides a refuge. Because transit stops can serve both directions between the bus lanes, a center-running option also reduces the right-of-way width needed for operations.

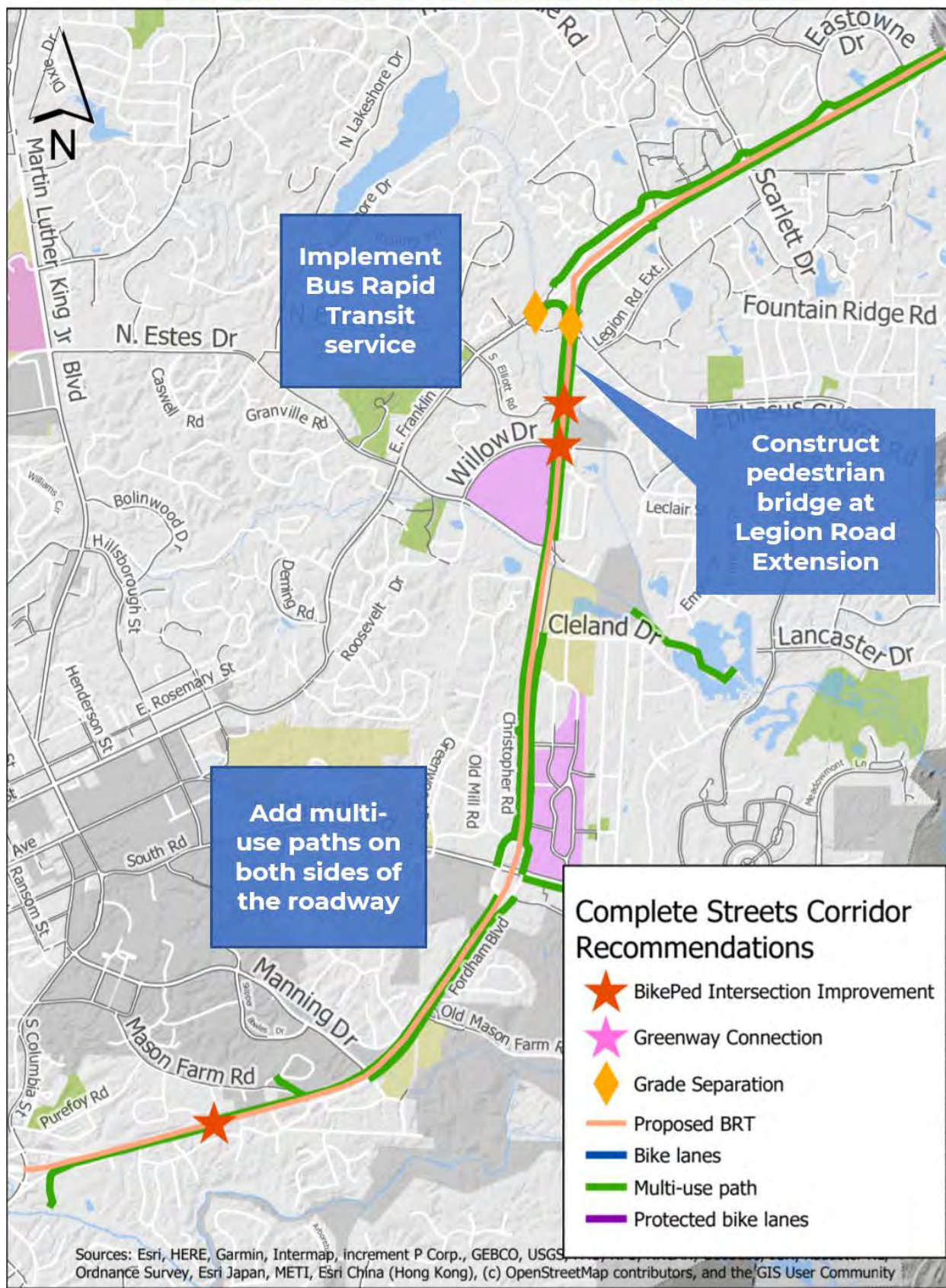
The public input showed that there was considerable need for safe, low-stress pedestrian crossings of US 15-501.



Options for crossings developed in 2015 include bridge alternatives for US 15-501 and E Franklin Street. In evaluating the options, a bridge crossing at the future Legion Road extension offers the best potential to incorporate a multi-use path as part of future redevelopment. While a pedestrian overpass at that location will not provide the most direct connection to the Lower Booker Creek Trail, the facility could extend over the open space behind Village Plaza along Booker Creek recommended for stormwater control. The bridge cost is estimated at \$3.0 million (2017 \$), not including ramps accessing transit in the median. Approximately \$1.9 million of that cost is associated with the section that would span the Booker Creek open space.

For information on the Ephesus-Fordham District Plan, see **Appendix D**

US 15-501 Fordham Boulevard



Complete Street Corridor recommendations for US 15-501 Fordham Boulevard

US Highway 15-501 South

Existing Conditions: US 15-501 south of Chapel Hill continues to see tremendous growth, with large developments such as Obey Creek. The roadway itself is four-lane divided and provides sidewalks and bike lanes for most of its length south of the NC 54 interchange. There are bicyclist and pedestrian concerns about crossing US 15-501 at Mt. Carmel and Culbreth Roads, navigating the US 15-501/NC 86 interchange, and accessing the greenway system along Morgan Creek and Merritt's Pasture.

what we heard

- Transit stop not accessible by residents on Mt Carmel Church east of US 15-501.
- No pedestrian crossing of US 15-501. Pedestrian signal needed.
- Bicyclists making turns are not detected, requests for bicycle facility striping and signal improvements on approaches to US 15-501.
- Intersection improvements needed for pedestrians to cross US 15-501.
- Transit stops not accessible.
- Southern Village Park and Ride and Proposed Bus Rapid Transit Station



- Morgan Creek Trail
- Sidewalk Gap, No safe access to Morgan Creek Trail
- Bicycle facility and traffic calming requests from public
- Sidewalk gaps
- Obey Creek Development Area
- Southern Community Park and Playground

Crossing Opportunities

- No Crossings
- No Crossing of Minor Road
- Two Crossing Legs
- Three Crossing Legs
- All Crossing Legs (or Midblock)

short-term recommendations

Many of the concerns and issues identified are being addressed by the Obey Creek development a ped-bike bridge across US 15-501 connecting Obey Creek and Southern Village, and a multi-use path parallel to US 15-501 along the property frontage. Beyond the Obey Creek improvements and the presence of multi-use paths and greenway connectors in Southern Village, the short-term focus for the corridor includes:



1 Improve bike lanes and markings at the Mt. Carmel Church/Culbreth intersection: Providing marked bike lanes with skips and bike lane symbols or green paint will provide delineation of space for cyclists and motorists, encourage safe positioning, and increase visibility and awareness of cyclists in the intersection. The markings could be combined with bike boxes for the side streets to create two-stage left turn options.

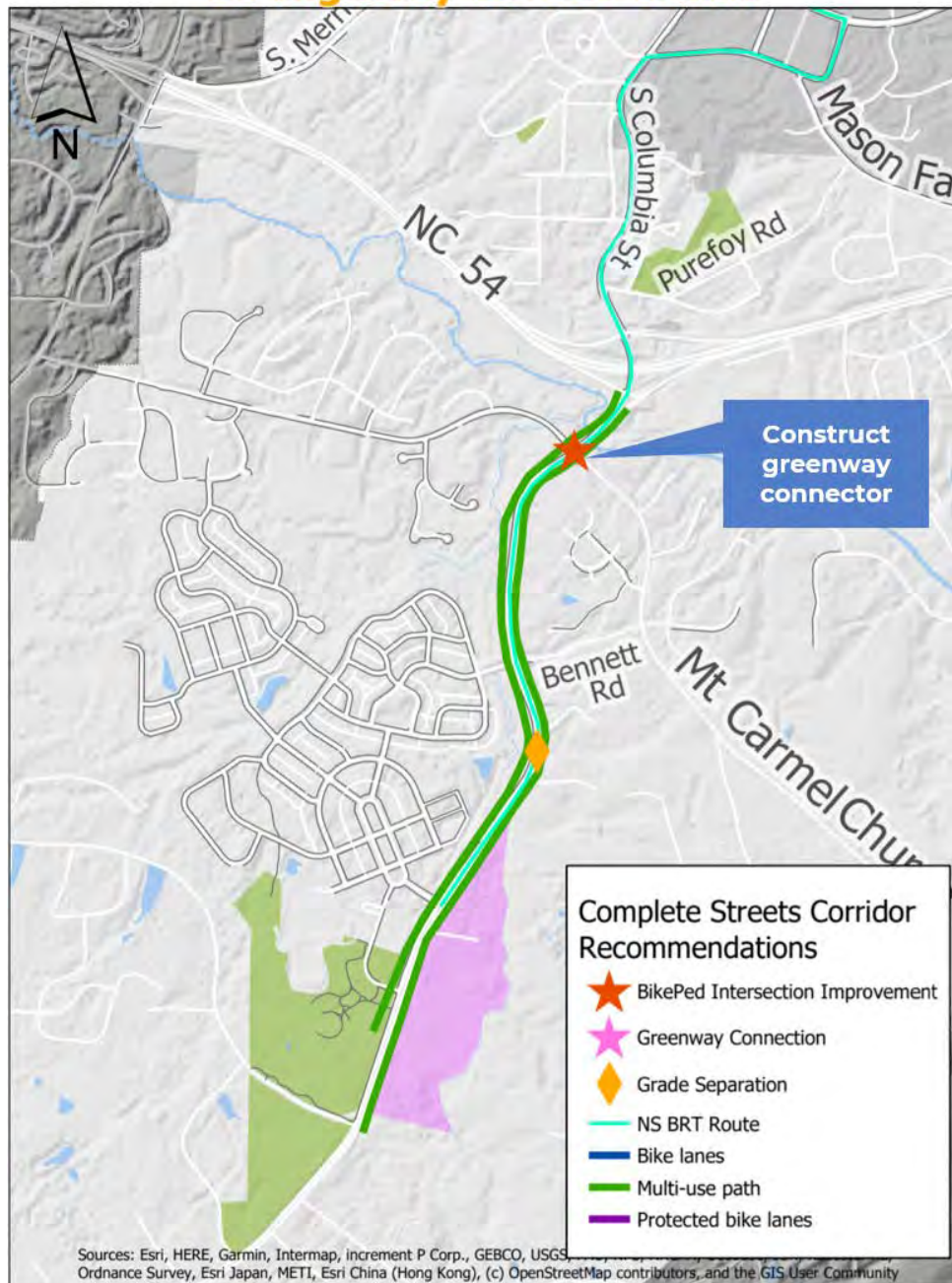
2 Construct a greenway connector from Mt. Carmel Church Road to Fan Branch Trail: The Fan Branch Trail provides a great link from Southern Village to the Morgan Creek Trail south of US 15-501, but no such connection exists for residents east of US 15-501. The developer of the parcel in the northeast quadrant of the Mt. Carmel intersection has offered to provide greenway easements as part of the development approval process, so the key hurdle will be designing an ADA-compliant grade across steep topography to link under the US 15/501 bridge to Fan Branch Trail.



long-term recommendations

With the provision of a multi-use path along the frontage of Obey Creek and a bike/ped network in Southern Village, the Town may consider eliminating the recommendation for buffered bike lanes along US 15/501 south of Fordham Boulevard. The existing cross-section of US 15-501 therefore is the ultimate cross-section and no widening is needed.

US Highway 15-501 South



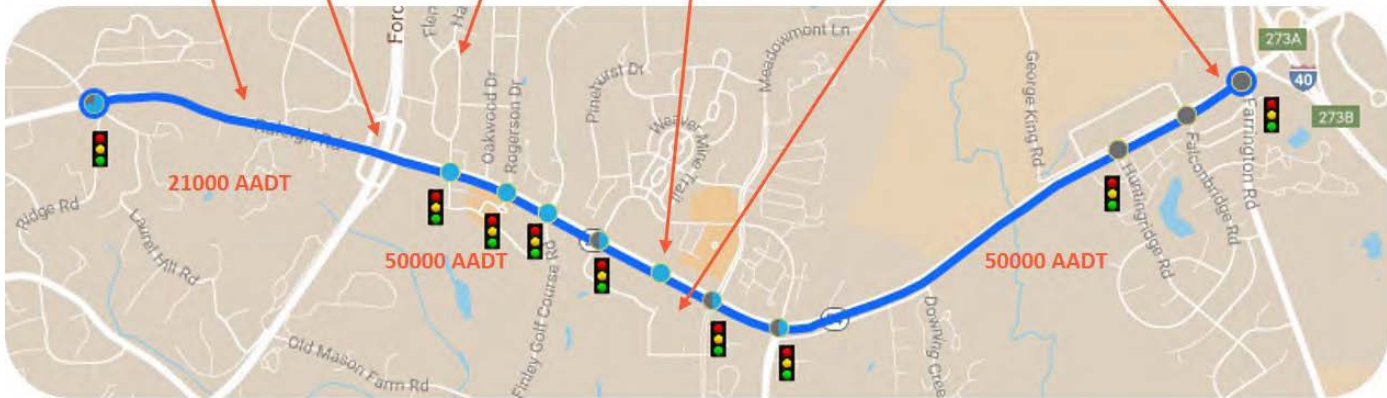
Complete Street Corridor recommendations for US 15-501 South

NC 54 Raleigh Road

Existing Conditions: NC 54 Raleigh Road shuttles travelers in and out of town as a four-lane divided highway, with the segment near Meadowmont Village expanding out to six-lane divided. While there are multi-use paths on both sides of the street between Barbee Chapel Road and Hamilton Road/ Burning Tree Drive, no additional facilities are present beyond standard sidewalks. Traffic volumes are considerably higher east of the US 15-501 interchange (50,000 vehicles per day to the east vs. 21,000 to the west) and the interchange with its ramps represents a significant barrier to cycling and walking. Raleigh Road follows a significant grade from Greenwood Road west to Ridge Road at the edge of campus.

what we heard

- No crossing opportunities, sidewalk bicycle riding
- Difficult connection, Ramp crossings
- Development Opportunity Area
- Meadowmont Greenway Underpass
- University Park and Ride
- No pedestrian facilities or crosswalks



Potential for regional bicycling connections →

Crossing Opportunities

- No Crossings
- No Crossing of Minor Road
- Two Crossing Legs
- Three Crossing Legs
- All Crossing Legs (or Midblock)

short-term recommendations

Multi-use paths are in place east of the US 15-501 but they do not connect through the interchange. The key short-term recommendations focus on intersection crossings at the interchange of US 15-501, near Meadowmont and the continuation of bike facilities west of the interchange to UNC Campus:



1

Installing signalized pedestrian crossings at:

- the US 15-501 ramps at Highway 54.
- the intersection with Meadowmont Lane/ Friday Center Drive, and
- both intersections with Barbee Chapel Roads

2

Developing an uphill climbing lane from Fordham Boulevard to Ridge Road.



Residents feel safe using this signalized pedestrian crossing

long-term recommendations

With existing development and topography, it is unlikely a cost-effective bike facility will be built on the north side of the street west of Hamilton Road without major right-of-way impacts. Such an improvement may be best left to implementation with redevelopment of the adjacent commercial sites. Therefore, feasible options for adding a pedestrian and bike link across US 15-501 could be (1) a coordinated multi-use path improvement to connect with a potential signalized mid-block crossing of US 15-501 (to be constructed as part of the Glen Lennox development) or (2) the addition of facilities through the interchange if it is replaced as part of a NCDOT project.

Battle Branch Trail could offer traffic-weary pedestrians and cyclists a parallel option to Raleigh Road. But with a reluctance by residents to improve the single track natural surface trail, two options are possible on the Raleigh Road corridor itself:



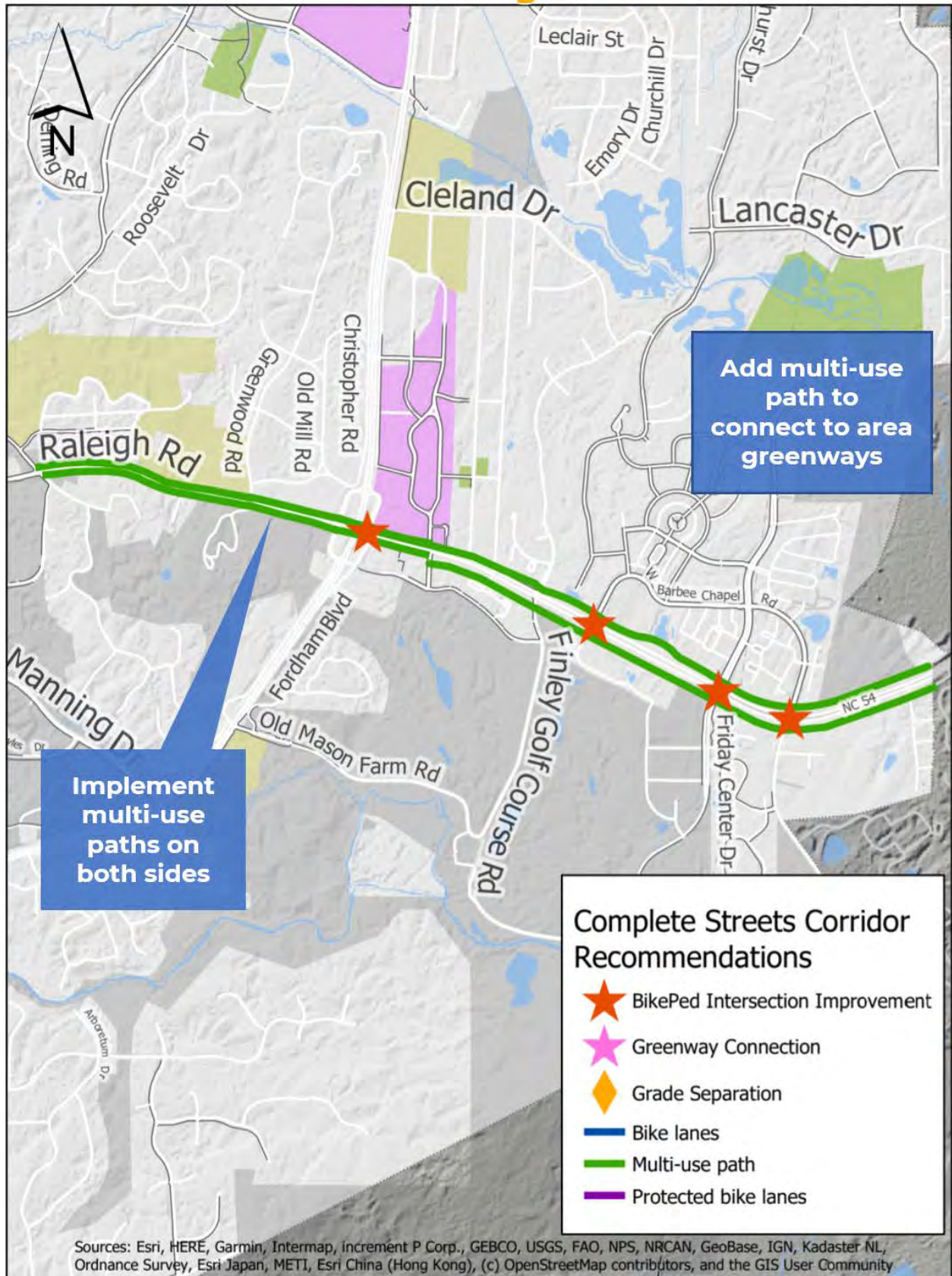
1 Construct a multi-use trail on both sides of Raleigh Road from Hamilton Road to Country Club Road: A single shared used path may not be sufficient due to the speed differentials between cyclists traveling downhill (eastbound) and with cyclists climbing uphill (westbound) sharing the space with pedestrians and transit users.

2 Reallocate lane space to provide a separated cycle track on the north side of Raleigh Road: The segment of Raleigh Road west of Greenwood is wider than 50 feet curb-to-curb. This provides the opportunity to add either full bike lanes (if width is 50 feet) or a protected cycle track (if width is 52 feet or greater). Either of these facilities will provide space for cyclists within the existing roadway by reducing the travel lanes to 10 feet to encourage slower vehicle speeds. If a separated facility is selected, the bikeway will buffer pedestrians from vehicular traffic as well and foot traffic will likely increase with more comfortable space for pedestrians and transit users.

The Town should coordinate with the City of Durham and the Durham-Chapel Hill-Carrboro MPO to plan the extension of multi-use paths east as part of the Triangle Bikeway study. There is a 3-mile gap separating the multi-use paths on Highway 54 from a regional network. Filling the gap would provide access for Chapel Hill residents to the American Tobacco Trail and the East Coast Greenway.



NC 54 Raleigh Road

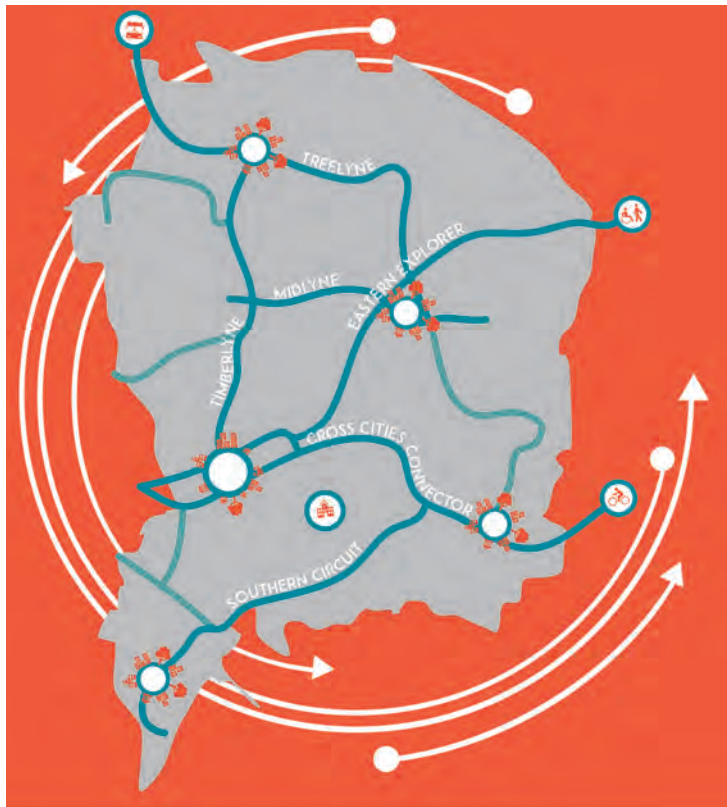


Complete Street Corridor recommendations for NC-54 Raleigh Road

Priority Bicycle/Pedestrian Corridors

While the five roads described in the previous section serve as the Town’s major vehicular corridors, no similar system exists for non-motorized transportation in Town. Understanding the public’s desire to have low-stress transportation options, six priority bike/ped corridors have been developed to connect the key focus areas of the town—Downtown, MLK/I-40, South MLK, Highway 54, North US 15-501, and South US 15-501. By connecting these destinations, residents of the Town will be able to use local street and trail connections to travel throughout Chapel Hill and ultimately access the greater Triangle greenway and bike network.

As priority corridors, projects along these six routes would be given favored status for funding.



connectivity



the quality of having the parts or elements logically linked together

Priority Non-Motorized Corridors recommended to complement Major Complete Street Corridors

Timberlyne Trail



This priority corridor connects the northwestern redevelopment zone along I-40 to downtown Chapel Hill. In the northern portion, it utilizes a low-stress trail option for bicyclists and pedestrians via an existing utility corridor and parallels the proposed Bus Rapid Transit along Martin Luther King Jr. Blvd where there are higher traffic volumes and speeds.

The majority of the trail is proposed in a utility easement, which is land granted by property owners to the utility company for the purpose of constructing, operating, and maintaining powerlines and equipment. A trail would require an additional access easement across approximately 50 properties for purposes of building and maintaining a multi-use path.

Access to future BRT and linkages to adjacent neighborhoods are made possible through several paved connections to the Timberlyne Trail. In the southern portion, the corridor joins Martin Luther King Jr Blvd south of Estes Drive. At this location, protected bike lanes are recommended alongside the Bus Rapid Transit corridor into downtown Chapel Hill.

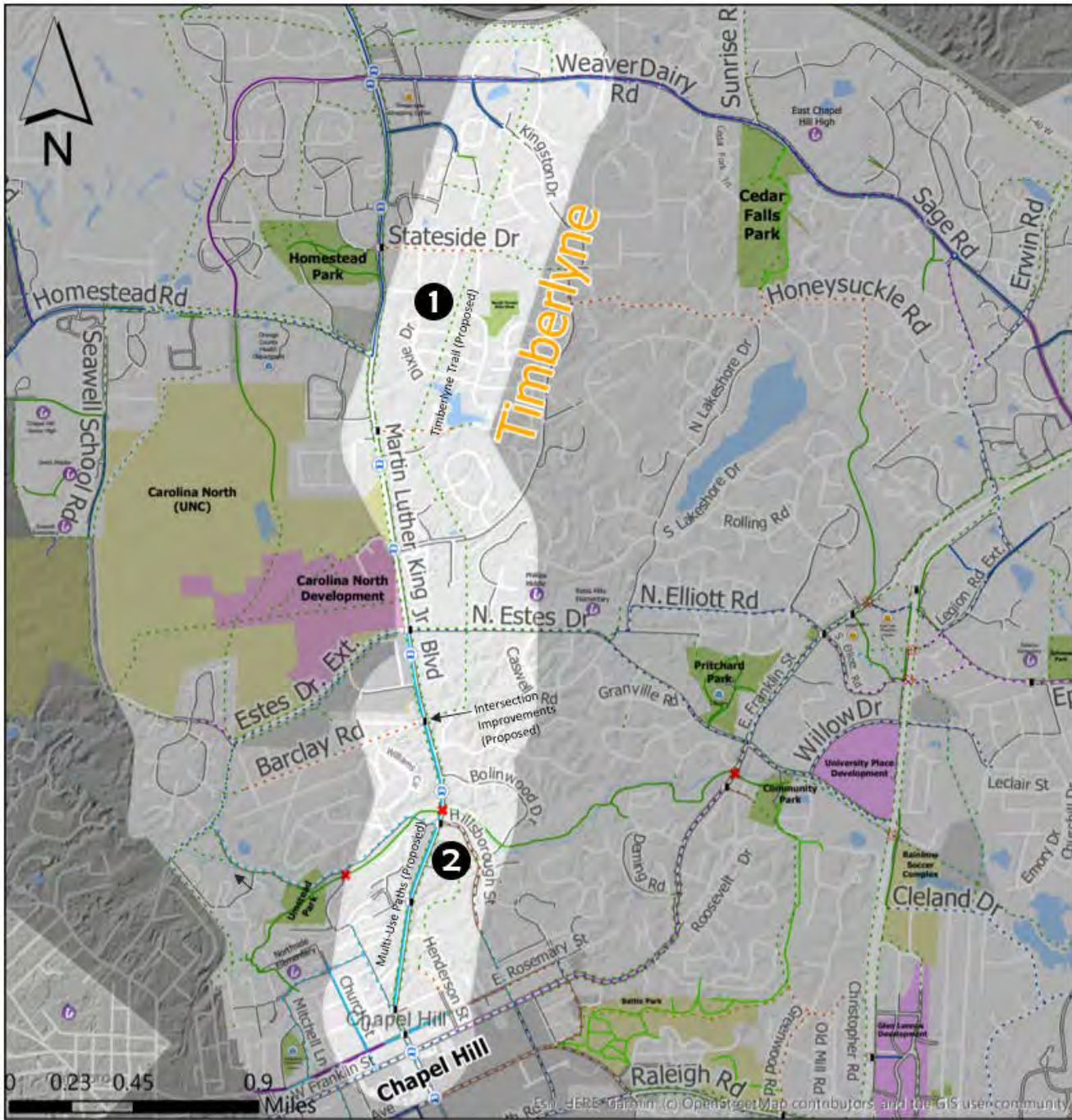
1	Improvement Type Timberlyne Trail Duke Utility Easement from Weaver Dairy Road to Martin Luther King, Jr. Blvd	2.52 miles
2	Utility Martin Luther King, Jr. Blvd	1.24 miles
Total Length		3.86 miles

Key destinations

along and near the corridor include:



- Downtown Chapel Hill/UNC
- Umstead Park/Bolin Creek Trail
- Estes Hill ES/Phillips MS/Estes Drive Multi-use Trail
- Homestead Park/Chapel Hill Aquatic Center
- Timberlyne Shopping Center
- Town Hall
- Chapel Hill/Carrboro YMCA
- Carolina North
- North Forest Hills Park
- Timberlyne Shopping Center



	Town park		UNC campus		Major development		Other park
	Future BRT		Crosswalk improvement		Existing underpass		Proposed underpass/overpass
BICYCLE	EXISTING		Bike Lane		PROPOSED		
		Buffered/Protected Bike Lane					
		Sharrows					
		Signed Bike Route					
		On-Street Greenway Connector					
		Cycle Track					
MULTI-USE		Multi-Use Path/Greenway					
		Unpaved Greenway					
		ADA Trail					
PEDESTRIAN		Sidewalk					

Priority Bicycle/Pedestrian Corridors

TOWN OF CHAPEL HILL



Mobility Plan
 2020 Complete Streets Update

Treelyne Trail



Taking advantage of existing greenways, planned greenways, and a network of low-stress on-street connectors, the Treelyne Trail priority corridor links northern neighborhoods, central neighborhoods, and two parks to the Ephesus-Fordham District. A future underpass will replace the existing Franklin Street at-grade crossing to connect the Lower Booker Creek Trail to the Ephesus-Fordham District.

Key destinations

along and near the corridor include:

- Carraway Village Development
- Eubanks Park and Ride
- Homestead Park/Chapel Hill Aquatic Center
- Upper Booker Creek Trail
- North Forest Hills Park
- Cedar Falls Park/East Chapel Hill High School
- Lower Booker Creek Trail
- Ephesus-Fordham District

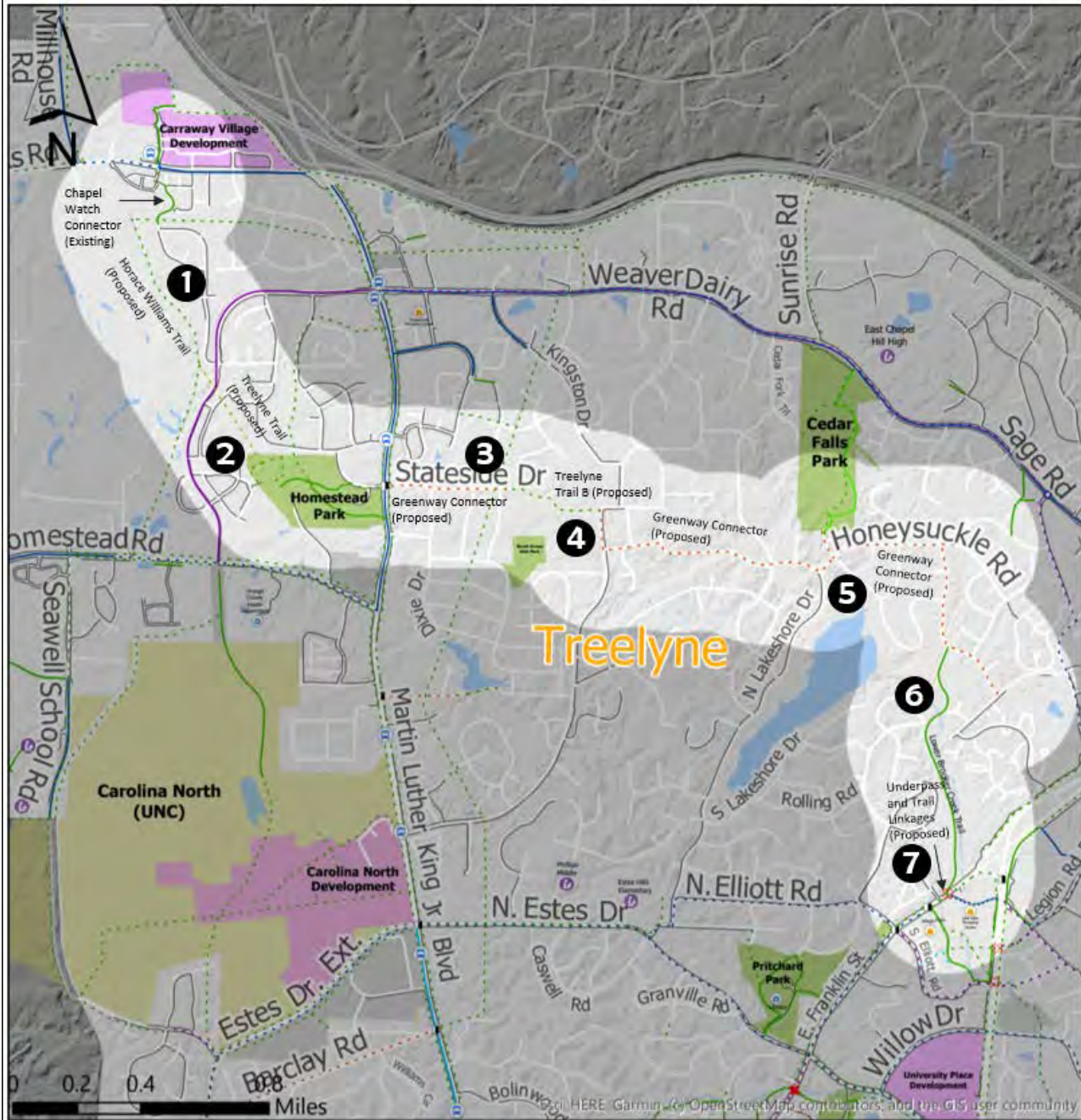


Improvement Type

- | | | | |
|---|-----------------------------|---|------------------------------|
| <p>1 Horace Williams Trail- Trail from Carraway Village to connection with Homestead Trail at Weaver Dairy Rd (16% Complete)</p> | <p>0.95
mile</p> | <p>5 On-Street Greenway Connector - Bicycle markings, wayfinding, and sidewalks along Piney Mountain Rd to Booker Creek Rd via Riggsbee Rd, Brookview Dr and Honeysuckle Rd. Uphill portions recommend min. bicycle climbing lane.</p> | <p>1.57
miles</p> |
| <p>2 Treelyne Trail A - Homestead Park to Chapel Hill Aquatic Center and Vineyard Square neighborhood</p> | <p>0.75
mile</p> | <p>6 Little Booker Creek Trail - Honeysuckle Road to E. Franklin Street (100% Complete)</p> | <p>0.80
mile</p> |
| <p>3 On-Street Greenway Connector - Bicycle markings, wayfinding, and sidewalks along Stateside Drive from Homestead Park to North Forest Hills Park</p> | <p>0.53
mile</p> | <p>7 Underpass and Trail Linkages - Underpass of Franklin St; Greenway and sidewalk linkages in Ephesus-Fordham and Dobbins Dr</p> | <p>0.46
mile</p> |
| <p>4 Treelyne Trail B - Stateside Dr through North Forest Hills Park to Piney Mountain Rd</p> | <p>0.31
mile</p> | | |

Total Length
17% Complete

**5.37
miles**



	Town park		UNC campus		Major development		Other park
	Future BRT		Crosswalk improvement		Existing underpass		Proposed underpass/overpass
BICYCLE	EXISTING		Bike Lane				
	PROPOSED		Buffered/Protected Bike Lane				
		Sharrows					
		Signed Bike Route					
		On-Street Greenway Connector					
		Cycle Track					
MULTI-USE		Multi-Use Path/Greenway					
		Unpaved Greenway					
		ADA Trail					
PEDESTRIAN		Sidewalk					

Priority Bicycle/Pedestrian Corridors

TOWN OF CHAPEL HILL



Mobility Plan
2020 Complete Streets Update

Midlyne Trail



This east-west connector links neighborhoods off Ephesus Church Road through the Ephesus-Fordham commercial district. The route continues west along Elliott Road and Estes Drive past Phillips Middle and Estes Hills Elementary schools to Martin Luther King Jr Boulevard. In the long term, the trail will connect through the Carolina North property to the schools on Seawell School Road.

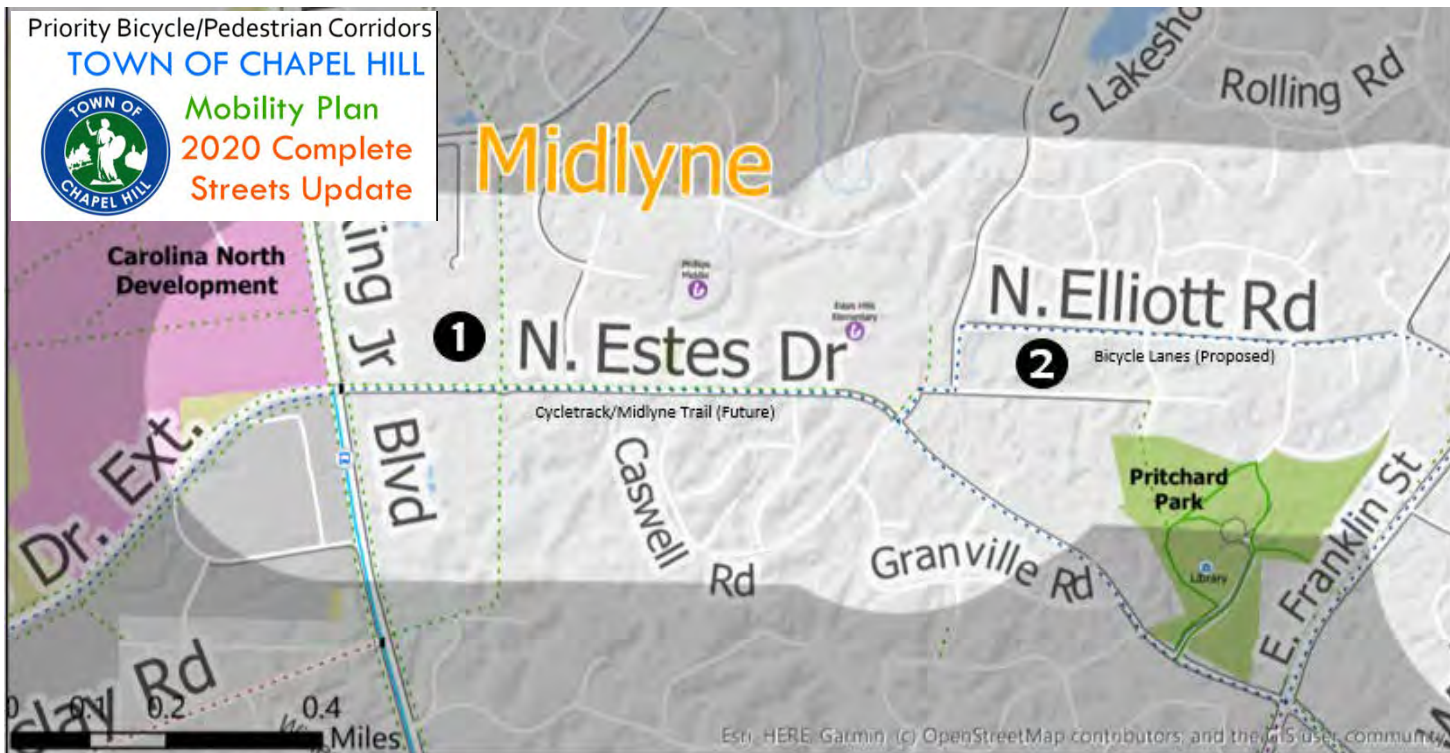
Key destinations

along and near the corridor include:

- Carolina North future development
- Estes Hill Elementary School
- Phillips Middle School
- Estes Drive Multi-use Trail
- Chapel Hill Public Library
- Lower Booker Creek Trail
- Ephesus-Fordham District
- Ephesus Elementary School



Priority Bicycle/Pedestrian Corridors
TOWN OF CHAPEL HILL
 Mobility Plan
 2020 Complete Streets Update

Improvement Type

- 1** Cycle Track and Midlyne Trail - Cycle Track and multi-use path along Estes Dr. from Martin Luther King Jr Blvd to Estes Hills Elementary/Caswell Rd (In Design)
- 2** Bicycle Lanes and Sidewalk - Bicycle Lanes on Elliott Rd from Curtis Rd to Franklin St. Sidewalk south side of roadway.
- 3** Buffered Bicycle Lanes and Sidewalk - Bicycle Lanes with buffer on Elliott Rd from Franklin St to Fordham Blvd. Fill sidewalk gaps.

0.87 mile

0.73 mile

0.44 mile

Improvement Type

- 4** Elliott Rd Extension Complete Street - Complete Street with protected bike lanes and sidewalk from Fordham Blvd to Ephesus Church Rd
- 5** Mid-block Crossing and Sidewalk Gap - Pedestrian crossing at Ephesus Elementary School. Sidewalk gap between Elliott Rd Ext and Cypress Rd
- 6** Protected Bicycle Lanes - Ephesus Church Rd from Elliott Rd Extension to Durham

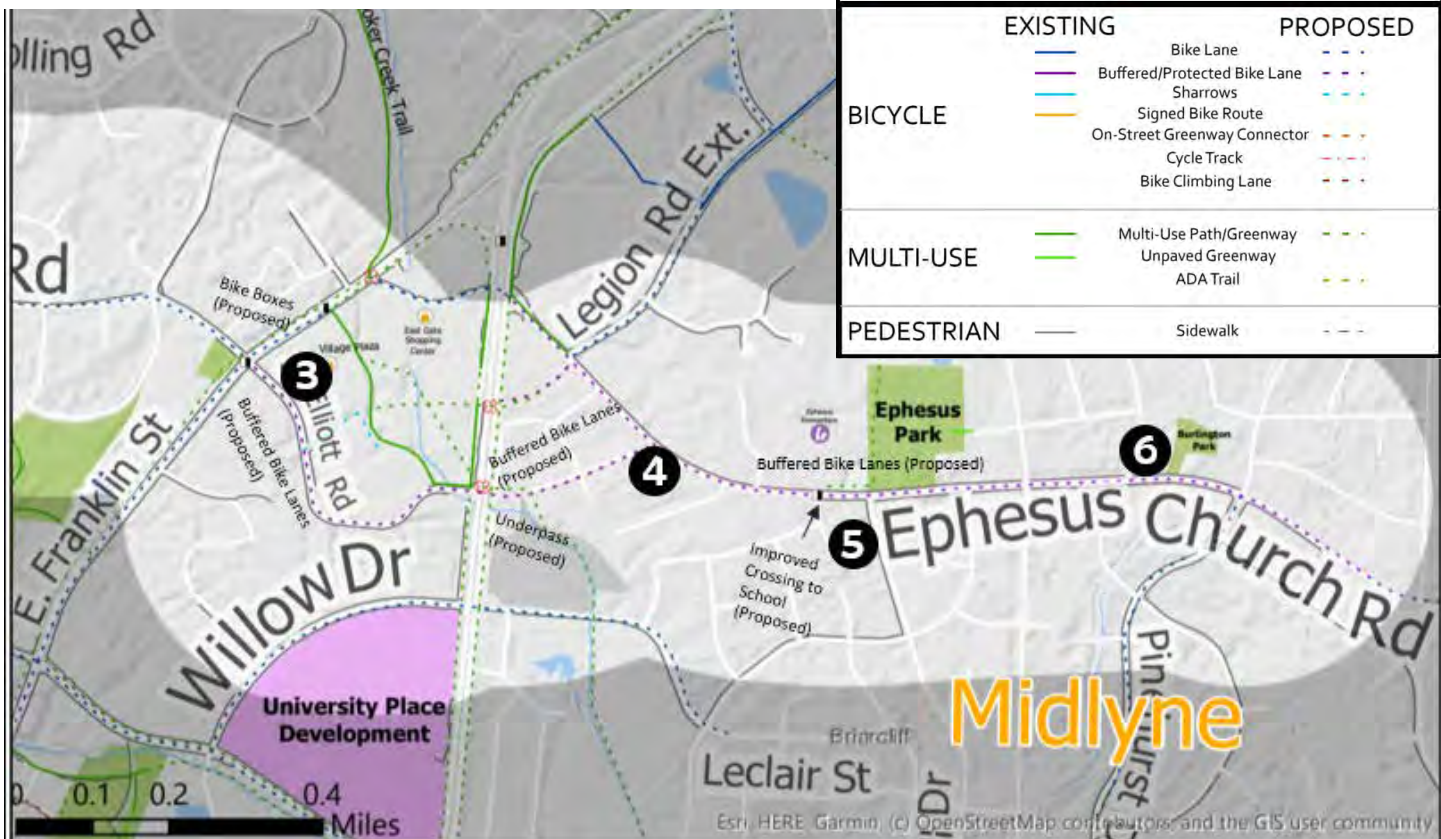
0.21 mile

-

0.73 mile

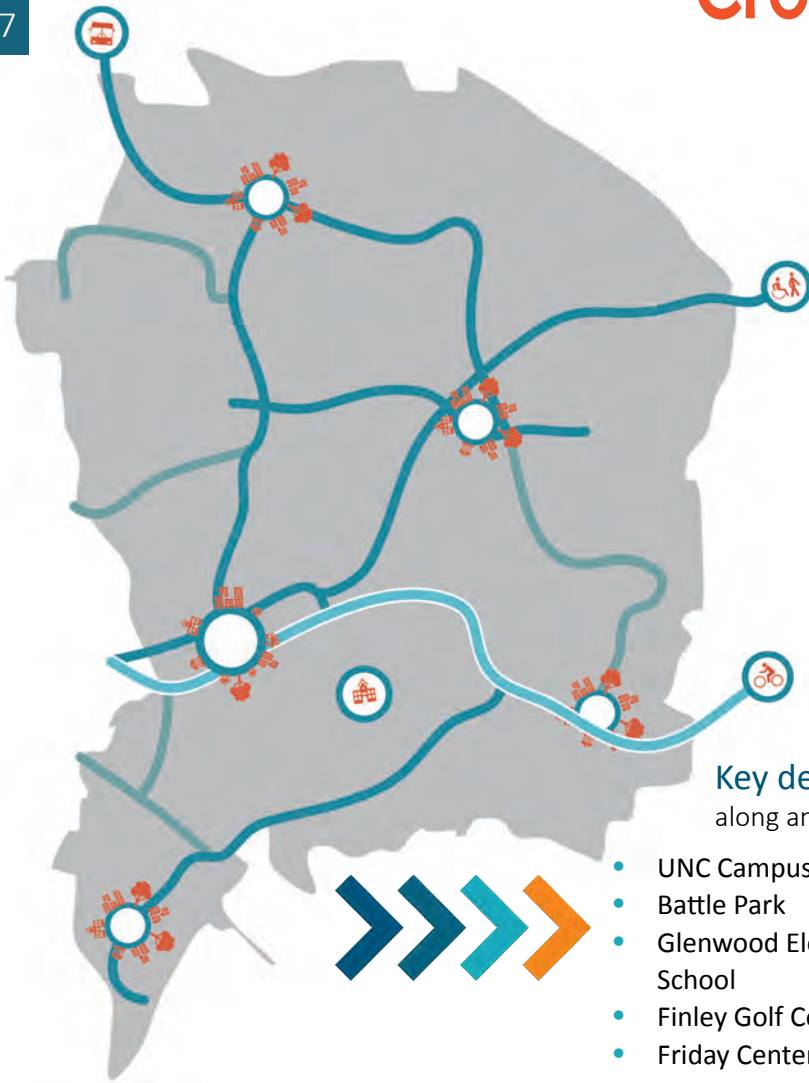
Total Length 2.98 miles
28% Complete

	Town park		UNC campus		Major development		Other park
	Future BRT		Crosswalk improvement		Existing underpass		Proposed underpass/overpass
EXISTING		PROPOSED					
BICYCLE			Bike Lane		Proposed Bike Lane		
			Buffered/Protected Bike Lane		Proposed Buffered/Protected Bike Lane		
			Sharrows		Proposed Sharrows		
			Signed Bike Route		Proposed Signed Bike Route		
			On-Street Greenway Connector		Proposed On-Street Greenway Connector		
			Cycle Track		Proposed Cycle Track		
			Bike Climbing Lane		Proposed Bike Climbing Lane		
MULTI-USE			Multi-Use Path/Greenway		Proposed Multi-Use Path/Greenway		
			Unpaved Greenway		Proposed Unpaved Greenway		
			ADA Trail		Proposed ADA Trail		
PEDESTRIAN			Sidewalk		Proposed Sidewalk		



Esti. HERE, Garmin, (C) OpenStreetMap contributors, and the GIS user community

Cross Cities Connector



The Cross Cities Connector links Carrboro through downtown Chapel Hill on Cameron Avenue, running through UNC-Chapel Hill before continuing east through Battle Park and the Greenwood neighborhood to Meadowmont via the existing Highway 54 trails. It utilizes the future at-grade 15-501 crossing at the Glen Lennox redevelopment. When completed, this route will link Chapel Hill and UNC to the expansive regional greenway system in Durham, Cary, and Raleigh as well as the East Coast Greenway.

Unpaved options exist for an accessible trail through Battle Park and should be weighed with long-term maintenance and OWASA access needs.

Key destinations

along and near the corridor include:

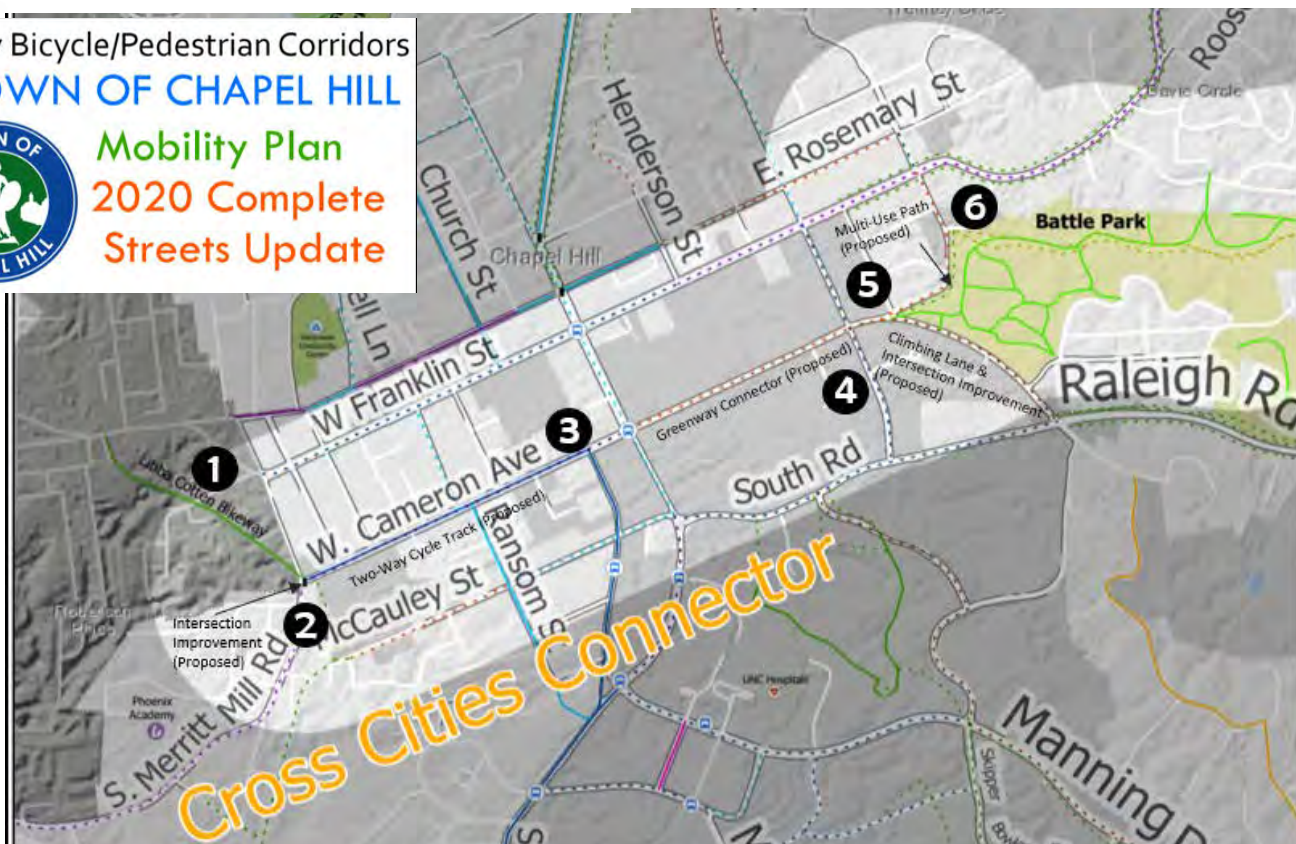
- UNC Campus
- Battle Park
- Glenwood Elementary School
- Finley Golf Course
- Friday Center
- Downtown Carrboro and Chapel Hill
- Glen Lennox, Glenwood and East 54 Retail/Mixed-Use Centers
- Meadowmont Village and Trail
- Links to the regional greenway network



Priority Bicycle/Pedestrian Corridors
TOWN OF CHAPEL HILL



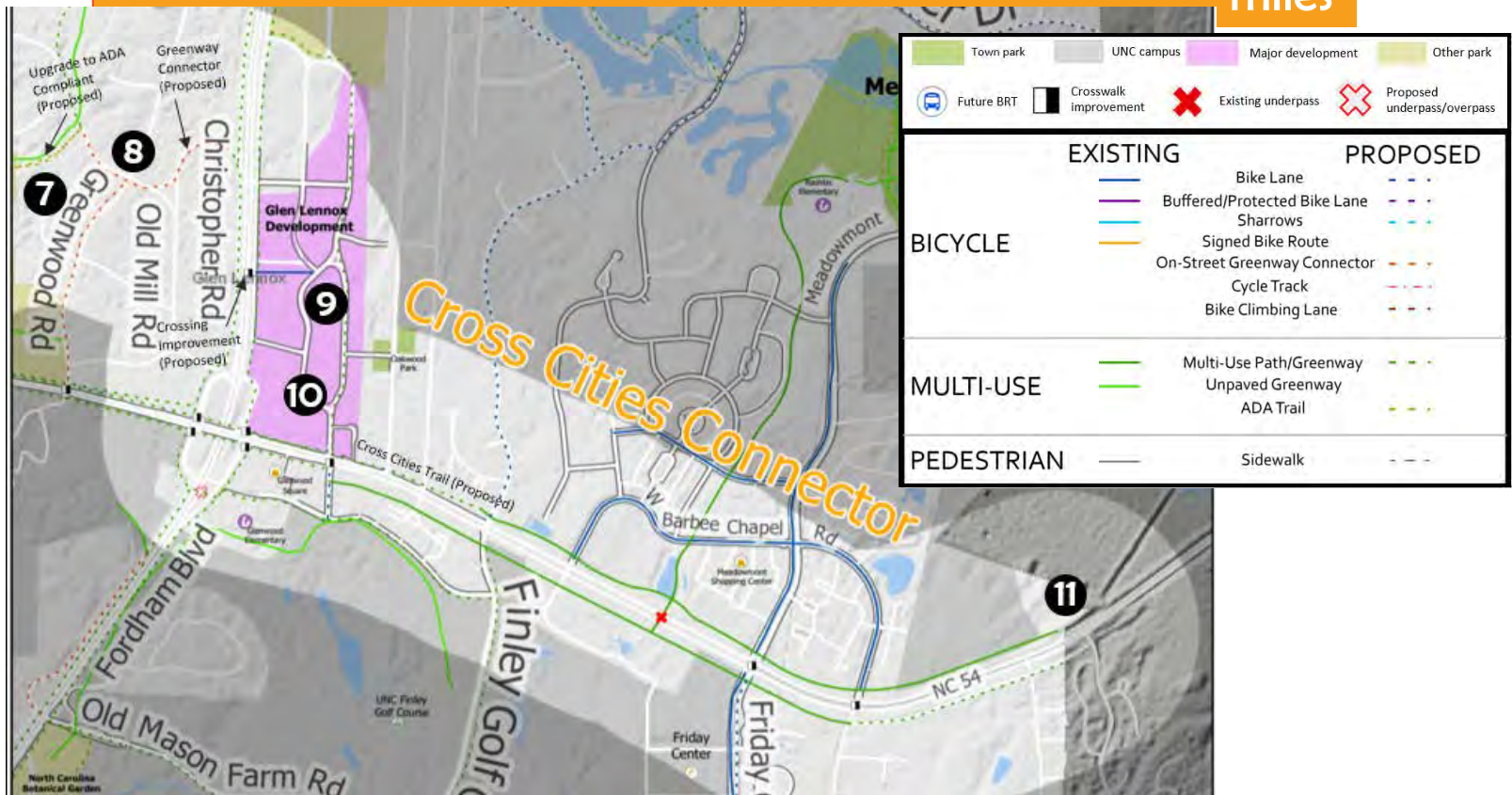
Mobility Plan
2020 Complete Streets Update



- | | | | |
|--|--|---|--|
| <p>1 Libba Cotten Bikeway* - Multi-use connection (Carrboro- 100% Complete)</p> <p>2 Intersection Improvement - Improve Bicycle and pedestrian transition from Libba Cotten Bikeway at Merritt Mill Rd and railroad crossing at W Cameron Ave</p> <p>3 Protected Bicycle Lanes - From Merritt Mill Rd to S. Columbia St.</p> <p>4 On-Street Greenway Connector* - Bicycle markings, and wayfinding on E Cameron Ave from Pittsboro St to Raleigh St (UNC Campus)</p> <p>5 Climbing Lane and Intersection Improvements - Bike/ped connections on Boundary St from Battle Park to E Cameron Ave; bicycle boxes and markings between Boundary St, Battle Ln, and Country Club Rd</p> <p>6 On-Street Greenway Connector and Trail Multi-use path along Boundary St; Bicycle pavement markings and wayfinding signage from E Cameron Ave to Franklin St</p> | <p>0.38
mile</p> <p>-</p> <p>0.53
mile</p> <p>0.47
mile</p> <p>0.07
mile</p> <p>0.24
mile</p> | <p>7 Battle Park Trail - ADA compliant trail through Battle Park along OWASA easement</p> <p>8 On-Street Greenway Connector - Bicycle pavement markings and wayfinding on Sandy Creek Trail, Greenwood Rd, and Christopher Rd</p> <p>9 Crossing Improvement at US 15-501 - At-grade crossing of US 15-501 north of NC 54 (Glen Lennox Development Agreement)</p> <p>10 Cross Cities Trail - Multi-use path from US 15-501 crossing improvement to existing trail on NC 54 (61% complete)</p> <p>11 Cross Cities Trail Regional Greenway Connection* - Joint design project with Durham Co for multi-use path between NC 54 trail terminus and American Tobacco Trail</p> | <p>0.88
mile</p> <p>0.40
mile</p> <p>-</p> <p>1.80
miles</p> <p>3.25
miles</p> |
|--|--|---|--|

*Connection outside jurisdiction

Total Length 5.08 miles
18% Complete

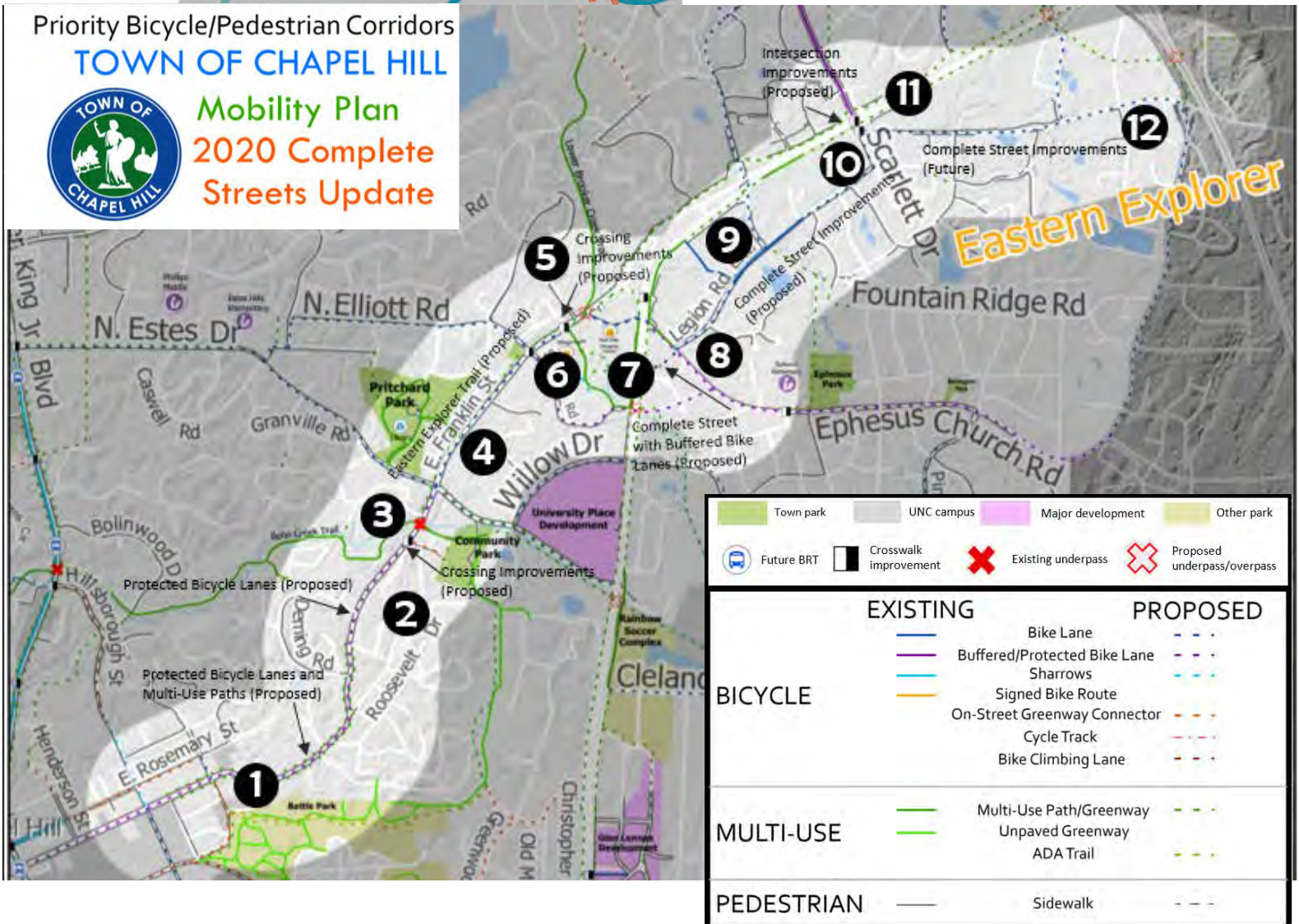


Eastern Explorer

This priority corridor connects through the Ephesus-Fordham District to Downtown. It uses Complete Streets proposed for Old Durham Rd, Legion Rd, Legion Rd Extension and a multi-use overpass of the proposed Booker Creek open space. It uses off-road multi-use paths through the Ephesus-Fordham District, the northern portion of E Franklin St. The route continues into downtown on E Franklin St. Ultimately, the Eastern Explorer creates a low-stress connection from the east to Downtown Chapel Hill.



Priority Bicycle/Pedestrian Corridors
TOWN OF CHAPEL HILL
 Mobility Plan
 2020 Complete Streets Update

Key destinations

along and near the corridor include:



- Downtown Chapel Hill
- Battle Park
- Community Park/Bolin Creek Trail
- Chapel Hill Library
- Lower Booker Creek Trail
- Multi-Family Residential Areas
- Ephesus-Fordham District
- East Gate and Village Plaza Shopping Centers
- Rams Plaza

1	Improvement Type Bicycle Lanes - Lane reallocation on E Franklin St from Boundary St to Deming Dr to 3 Lane with protected bicycle lanes and multi-use paths	0.61 mile	7	Improvement Type US 15-501 Multi-Use Overpass - Overpass of Booker Creek Passive Open Space connecting Lower Booker Creek Trail with Legion Rd Extension (Ephesus-Fordham Subarea Plan)	0.20 mile
2	Buffered Bicycle Lanes - Lane reallocation on E Franklin St from Deming Dr to Estes Dr to 3 Lane section with buffered bicycle lanes	0.63 mile	8	Legion Rd Extension Complete Street - Complete Street with Buffered Bike Lanes from US 15-501 to Ephesus Church Rd	0.10 mile
3	Intersection Improvements and Sidewalk Gap - Crosswalk to Plant Rd for Booker Creek Trail Access; Sidewalk Gap on Plant Rd and Improved crossing of Plant Rd at Roosevelt Dr	-	9	Bicycle Lanes and Sidewalk - Legion Rd Bicycle Lanes and Sidewalks from Ephesus Church Rd to Scarlett Dr	0.80 mile
4	Eastern Explorer Trail - Multi-use trail along north side of E Franklin St linking Bolin Creek Trail to Lower Booker Creek Trail with bridge across Bolin Creek	0.81 mile	10	Bicycle Lanes and Sidewalk - Scarlett Dr Bicycle Lanes and Sidewalks from Legion Rd to Old Durham Rd	0.11 mile
5	Franklin St Crossing Improvement - Improved crossing and pedestrian refuge from Eastern Explorer trail to Booker Creek Trail through Village Plaza	-	11	Sage/US 15-501 Intersection Improvements - Sage Rd/US 15-501 intersection improvements (Project is part of NCDOT EB 4707A)	-
6	Lower Booker Creek Trail - Urban section of Lower Booker Creek Trail between Eastgate Shopping Center and Village Plaza (100% Complete)	0.13 mile	12	Complete Street Improvements - Old Durham Rd Complete Street from Scarlett Dr to Pope Rd with Bicycle Lanes and Sidewalk (NCDOT Project EB-4707A)	0.95 mile
Total Length					4.34 miles
27% Complete					

Southern Circuit



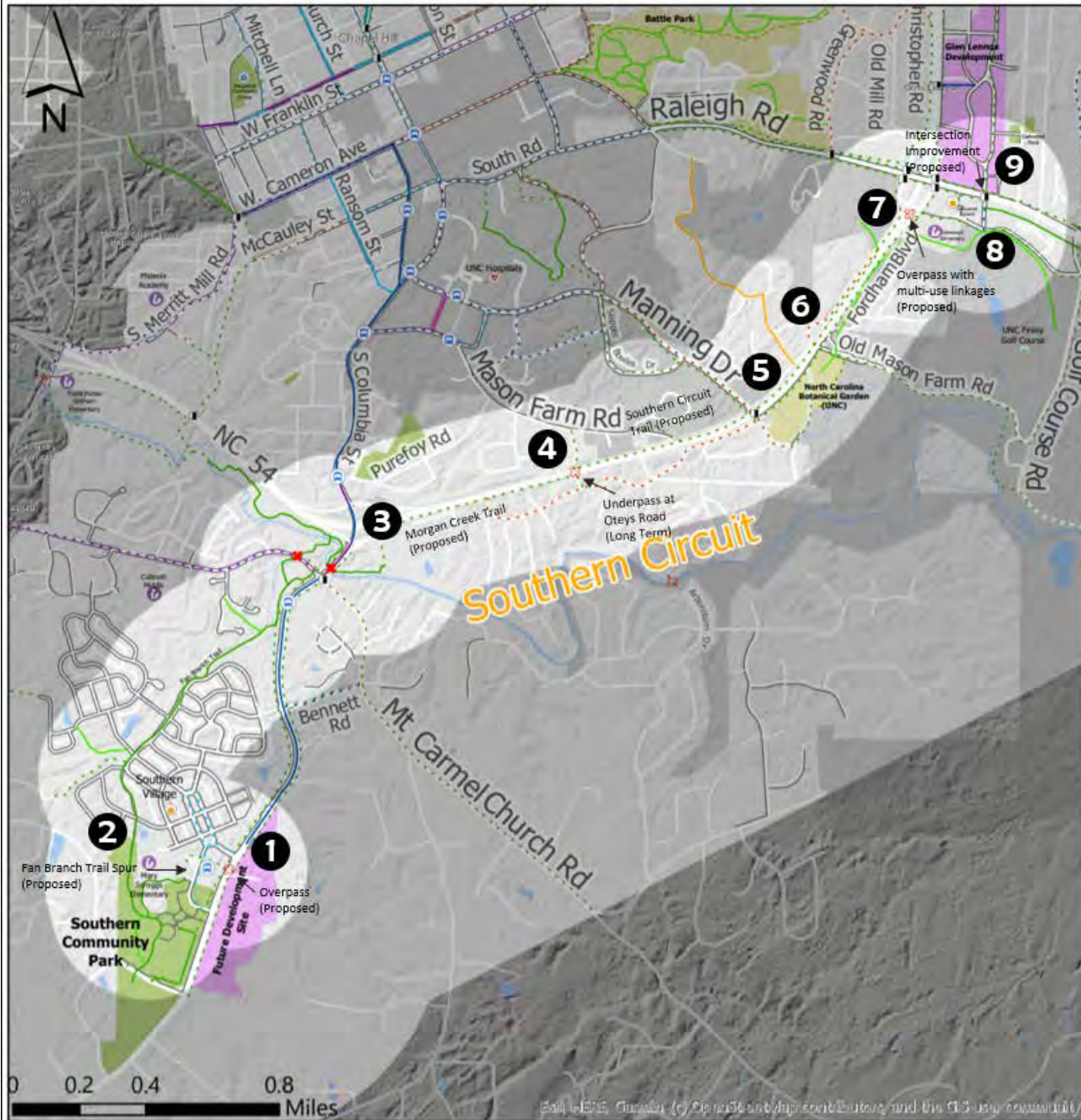
The Southern Circuit corridor begins at the Obey Creek Development on US 15-501 and terminates in the east at Hamilton Road. It links two proposed BRT stations with the Fan Branch Greenway and takes advantage of the lower elevations around Morgan Creek to pass under bridges and knit together key nodes and neighborhoods in the southern portion of Chapel Hill. In the short term, trail segments along US 15-501 with at-grade trail crossings are utilized to connect the Morgan Creek Trail to NC 54 along Raleigh Rd. In many cases the proposed multi-use paths connect with the existing trail system along NC 54, utilizing a future bike/ped bridge across US 15-501. Another bike/ped bridge will be built across US 15-501 with the Obey Creek Development to link to the Southern Community Park and the future BRT station at Southern Village Park and Ride.

Improvement Type

- | | | | |
|--|------------------------------|--|-----------------------------|
| <p>1 Overpass of US 15-501 - Multi-use connection between Obey Creek Development and Southern Village (Obey Creek Development Agreement)</p> | <p>0.03
mile</p> | <p>5 Southern Circuit Trail - Trail section along north side of US 15-501 from Oteys Rd to Christopher Rd</p> | <p>0.85
mile</p> |
| <p>2 Fan Branch Trail and Spur - Fan Branch Trail with spur to connect with BRT station area (89% Complete)</p> | <p>2.07
miles</p> | <p>6 On-Street Greenway Connector - Bicycle markings and wayfinding on Christopher Rd</p> | <p>0.50
mile</p> |
| <p>3 Morgan Creek Trail and Extension - Trail from Fan Branch to Merritt's Pasture, and planned trail extension between Merritt's Pasture and Oteys Rd (31% Complete)</p> | <p>1.02
miles</p> | <p>7 Trail Overpass and links - Trail overpass of US 15-501 with connections to Raleigh Rd, Christopher Rd, and Hamilton Rd</p> | <p>0.42
mile</p> |
| <p>4 US15-501 Underpass - Multi-use underpass at Oteys Rd</p> | <p>-</p> | <p>8 Bicycle Lanes - Hamilton Rd from Prestwick Rd to NC 54</p> | <p>0.10
mile</p> |
| | | <p>9 Crossing Improvements at NC 54 and Hamilton Rd connecting Glenwood Square to Glen Lennox Development Site</p> | <p>-</p> |

Total Length
44% Complete

**4.99
miles**



	Town park		UNC campus		Major development		Other park
	Future BRT		Crosswalk improvement		Existing underpass		Proposed underpass/overpass
BICYCLE	EXISTING		PROPOSED				
		Bike Lane					
		Buffered/Protected Bike Lane					
		Sharrows					
		Signed Bike Route					
		On-Street Greenway Connector					
MULTI-USE		Multi-Use Path/Greenway					
		Unpaved Greenway					
		ADA Trail					
PEDESTRIAN		Sidewalk					

Priority Bicycle/Pedestrian Corridors

TOWN OF CHAPEL HILL



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Other Key Linkages

Beyond the six key pedestrian/bike priority corridors, four additional segments supplement the network by providing key connections to neighborhoods, destinations, and transit.

Improvement Type	Description	Total Length
Homestead Connector Link between Timberlyne Trail and MLK Bus Rapid Transit to schools on Seawell School Rd		2.78 miles 11% Complete
1	Multi-Use Path Greenway connecting Lake Ellen Dr and Taylor St	0.08 mile
2	On-Street Greenway Connector Bicycle marking, wayfinding, and sidewalk on Taylor St between Lake Ellen Dr and Martin Luther King Jr Blvd	0.26 mile
3	Buffered Bike Lanes and Sidewalk Gap Multi-use paths on Martin Luther King, Jr. Blvd between Taylor St and Homestead Rd. Sidewalk gap between Taylor St and Homestead Rd (See Complete Street Project on Martin Luther King Jr Blvd)	0.27 mile
4	Homestead Trail Multi-use path along Homestead Rd between MLK Jr Blvd and Seawell School Rd	1.37 miles
5	Multi-use Paths Complete multi-use path on Seawell School Rd from Homestead Rd to Seawell Elementary.	0.80 mile
Barclay Connector Link between Midlyne and Timberlyne to Carrboro		1.24 miles 0% Complete
1	On-Street Greenway Connector Bicycle marking, wayfinding, and sidewalk on Barclay Rd from MLK Jr Blvd to Barclay Trail	0.70 mile
2	Barclay Trail Multi-use path along Estes Dr Extension from Barclay Rd to Bolin Creek	0.31 mile
3	Bolin Creek Trail Extension Extension of Bolin Creek Trail from Barclay Trail with a bridge over the creek and at-grade crossing of Estes Dr Ext to connect to Carrboro trail	0.23 mile
BB Little Connector Link between Ephesus-Fordham District, Meadowmont, and Highway 54		3.15 miles 31% Complete
1	Crossing Improvement Improved Trail Crossing of Elliott Rd to connect with Lower Booker Creek Trail	-
2	US 15-501 Underpass Lower Booker Creek Trail Underpass of US 15-501	-
3	Lower Booker Creek Trail Multi-use path between Elliott Rd and Little Creek Trail	0.85 mile
4	Little Creek Trail A & Trail Connection Multi-use path between Lower Booker Creek Trail and Lancaster Dr	0.55 mile
5	Bike Lanes Bicycle Lanes and wayfinding on Lancaster Dr (Sidewalks complete)	0.43 mile
6	Little Creek Trail Upgrade ADA compliant trail between Lancaster Dr and Meadowmont Trail	0.34 mile
7	Meadowmont Trail Multi-use path between Rashkis Elementary and Underpass of Highway 54 through Meadowmont (complete)	0.98 mile

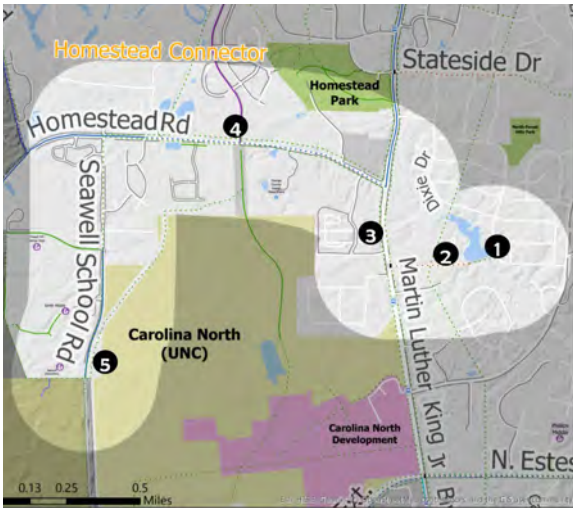
Improvement Type Description

Total Length

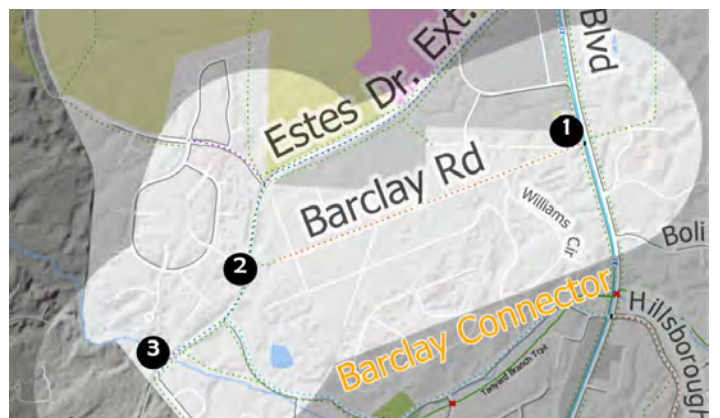
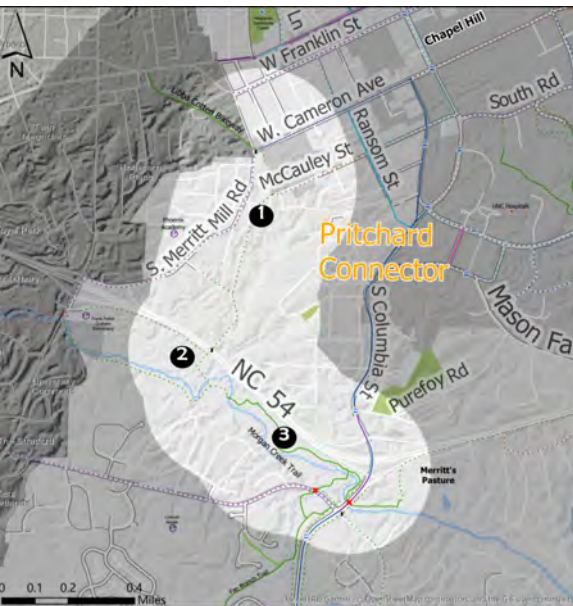
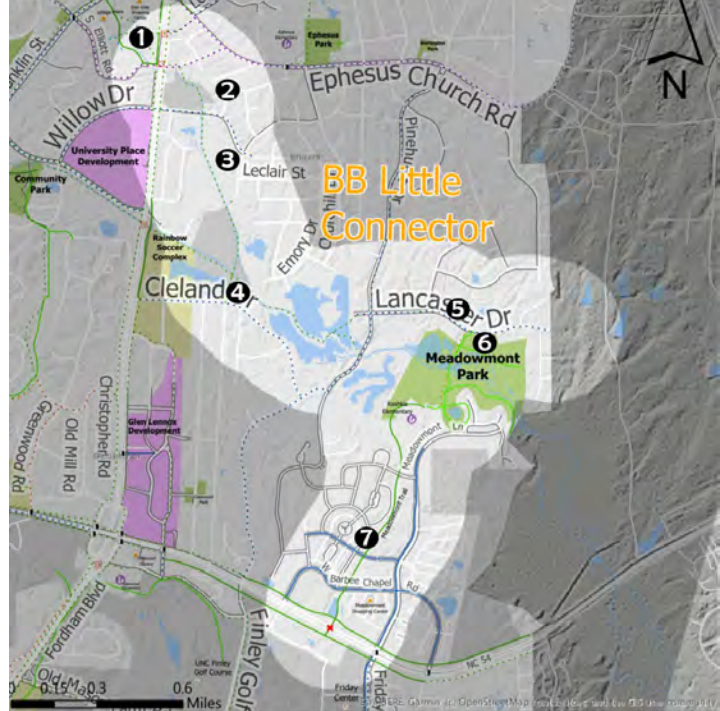
Pritchard Connector Low-stress link between Morgan Creek Trail and Downtown **1.50 miles**
35% Complete

- 1** Tower Trail Multi-use path on west side of UNC cogeneration facility, past water tower and through power easement to NC 54 **0.66 mile**
- 2** Crossing and Greenway Linkages Improved crossing of NC 54 between Laurel Ridge and Kingswood Apartments with connection between Tower Trail and Morgan Creek Trail **0.12 mile**
- 3** Morgan Creek Morgan Creek Trail to Smith Level Rd (in design) and connection with Fan Branch Trail (complete) **0.72 mile**

Homestead Connector



BB Little Connector



Pritchard Connector

Barclay Connector



To realize the vision of the Mobility Plan, the Town will need to implement these recommendations in cooperation with developers, NCDOT, local property owners, and others.

Project Implementation

To realize the vision and fundamental principles of the Mobility Plan, the Town will need to put its plans into action. Implementation is dependent on the cooperation and coordination with developers, NCDOT, GoTriangle, environmental agencies, and local property/business owners.

The following tables provide guidance on moving the Mobility Plan's projects and policies forward with next steps and potential funding options. The projects are broken up into categories for short-, mid-, and long-term implementation.

- The short-term projects represent policies that can be easily implemented with the approval of the Mobility Plan, or shortly thereafter, and projects that can be constructed as parts of redevelopment or small capital improvement projects with some engineering and through existing levels of funding.
- Mid-term projects may include more involved engineering and design, and require funding identification and planning.
- Long-term projects require significant design work and depend on strategic planning amongst Town staff, project approval by outside agencies and significant legwork to identify and secure funding.

Funding

Projects can be funded in many ways, including private and public options. Several mechanisms shown in the implementation tables are given as potential funding options:

- **Developer requirements and exactions:** The form-based code, Land Use Management Ordinance (LUMO), and Comprehensive Plan outline the requirements for developers to construct the infrastructure needed to support the new residents and users. Where facilities are in adopted plans, developers are required to install sidewalks, bicycle facilities, and greenways.
- **Private/public partnerships:** It may be advantageous at times for the Town to enter into agreements with developers to accept payments-in-lieu to help fund larger projects in the future, or to provide developers funding to build more than they are required. These types of case-by-case agreements help complete key connections or incentivize future developments.
- **Capital Improvement Program (CIP) budget/funding:** The Town's CIP is a 15-year financial plan for its major infrastructure needs, establishing priorities and potential funding sources. The CIP is approved annually as part of the Town's budget and allocates tax revenues to, amongst other things, transportation and parks/greenway projects. Revenues for CIP funding include property tax and town fees, but may also receive monies from traditional and innovative sources such as:
 - Bonds: Municipal bonds are financial bonds issued by the Town to fund numerous projects, typically by tax increases outlined in a referendum voted on by residents. For example, Chapel Hill residents approved a \$40M general obligation bond in 2015 which included streets, sidewalk, and greenway projects.

- Municipal Services District: Under North Carolina Law, the Town aids property owners in forming a Municipal Service District to provide specific services to a defined geographic area through special property tax. The tax is approved by and levied on the property owners within that area.
- Tax Increment Financing (TIF) District: TIF districts are established to fund projects within the District and repay those costs through the incremental increase in tax revenues resulting from redevelopment. TIF districts can be formally established by the Town or “synthetically” administered by monitoring and accounting for the increases in Town financial records.
- **Durham-Chapel Hill-Carrboro MPO (DCHC) funding:** The DCHC Metropolitan Planning Organization receives federal transportation funds for the region that are intended for municipalities to program for local projects. In FY2015-16, approximately \$13 million was awarded to localities in the region, including Chapel Hill.
- **NCDOT State Transportation Improvement Program (STIP) funding:** Based on current prioritization formulas, it is a competitive process to receive NCDOT funds. While there is stiff competition for ped/bike projects statewide, the Town has had success in getting bike/ped projects into the STIP.
- **NCDOT Complete Streets Policy:** The Town can use NCDOT's 2019 Complete Streets Policy to fully fund bike/ped upgrades when major highway projects occur.
- **Special federal or non-profit grants:** Examples include the USDOT’s TIGER grant program for major infrastructure projects that support job growth and People For Bikes’ Big Jump project to cycling in cities.



Complete Street Corridor Improvements

Recommended Improvement	Potential Funding Sources	Estimated Project Cost
Short-term Implementation		
Martin Luther King Jr Blvd		
Sidewalk gaps	CIP funding; with development	\$ 510,000
Barclay Rd pedestrian crossing	CIP, NCDOT funding	\$ 100,000
Stateside Dr/Piney Mountain Rd/ Westminster Dr ped crossings	CIP, NCDOT funding	\$ 305,000
Northwood/Perkins Sidewalk Connector	CIP, DCHC funding	\$ 60,000
Bike intersection improvements N of Homestead Dr. (markings, bike boxes, signal actuation)	CIP, DCHC funding	\$ 45,000
Bike signal actuation at major intersections at bike lane approaches, including Weaver Dairy Road	CIP, DCHC funding	\$ 10,000
Bolin Creek Greenway/Carolina North sidewalk connectors	CIP funding	\$ 780,000
E Franklin St		
Lane reallocation for bike lane/buffered bike lane from Boundary St to Estes Dr	CIP, NCDOT funding	\$ 985,000
Sidewalk and streetscape improvements (Boundary St to Estes Dr)	CIP, NCDOT funding; with development	\$ 660,000
US 15-501 Fordham Blvd		
Multi-use paths (both sides) from I-40 to US 15-501 South	CIP, NCDOT funding; with development	\$ 2,200,000
Willow Dr intersection improvements (crosswalks, pedestrian refuge islands, signal actuation)	CIP, DCHC, NCDOT funding	\$ 60,000
US 15-501 South		
Bike intersection improvements at Mt Carmel Ch Rd/Culbreth Rd (markings, bike boxes, signal actuation)	CIP, NCDOT funding	\$ 175,000
Mt Carmel Ch Rd/Fan Branch greenway connector	CIP funding	\$ 350,000

Complete Street Corridor Improvements (continued)

Recommended Improvement	Potential Funding Sources	Estimated Project Cost
Short-term Implementation		
NC 54 Raleigh Rd		
US 15-501 Interchange ped crossings	CIP, NCDOT funding	\$ 215,000
Meadowmont Ln/Friday Center Dr/ Barbee Chapel Rd ped crossings	CIP, NCDOT funding	\$ 105,000
Lane reallocation for uphill climbing lane (Fordham Blvd to Ridge Rd)	CIP, NCDOT funding	\$ 225,000
Long-term Implementation		
Martin Luther King Jr Blvd		
Corridor widening to include curb-running bus rapid transit, multi-use paths, 6' sidewalks, street trees	NCDOT, Federal Transit, Orange County Transit Sales Tax	\$ ----- (I-40 to Southern Village)
E Franklin St		
Lane reallocation for bike lane from Estes to Fordham Blvd	CIP, NCDOT funding	\$ 985,000
North side multi-use path and multi-use paths from Boundary to Deming	CIP, NCDOT funding; with development	\$ -----
US 15-501 Fordham Blvd		
Corridor widening to include center-run bus rapid transit	NCDOT, Federal Transit, Orange County Transit Sales Tax	Feasibility study underway
Grade-separated pedestrian bridge at Legion Rd extension	CIP, NCDOT funding	\$ 3.1 million
US 15-501 South		
Change Bike Plan recommendation for buffered bike lanes to planned multi-use paths	N/A	--
NC 54 Raleigh Rd		
Multi-use paths on both sides of the street	CIP, NCDOT funding	\$ -----
Bike lanes from Country Club Rd. to 15-501	CIP, NCDOT funding	\$ -----

Priority Ped/Bike Corridor Improvements

Recommended Improvement	Potential Funding Sources	Estimated Project Costs
Timberlyne Trail		
Timberlyne Trail - Duke Utility easement from Weaver Dairy Road to MLK Jr Blvd	CIP, NCDOT funding; parks grants	\$ 3,100,000
Multi-use paths on MLK Jr Blvd	NCDOT, Federal Transit, Orange County Transit Sales Tax	Part of NSBRT
Treelyne Trail		
Horace Williams Trail - Carraway Village at Weaver Dairy Rd	CIP funding; parks grants	\$ 985,000
Treelyne Trail A - Homestead Park to Chapel Hill Aquatic Center and Vineyard Square	CIP funding; parks grants	\$ 825,000
On-Street Greenway Connector - Bicycle markings, wayfinding, & sidewalks along Stateside Dr from Homestead Park to North Forest Hills Park	CIP funding	Sidewalk \$550,000 Markings \$40,000
Treelyne Trail B - Stateside Dr through North Forest Hills Park to Piney Mountain Rd	CIP funding; parks grants	\$ 350,000
On-Street Greenway Connector - Bicycle markings, wayfinding, & sidewalks along Piney Mountain Rd to Booker Creek Rd, Brookview Dr & Honeysuckle Rd	CIP funding	Sidewalk \$1,620,000 Markings \$55,000
Underpass of Franklin St and greenway and sidewalk linkages in Ephesus-Fordham and to Dobbins Dr	CIP, NCDOT funding; with development	\$ 905,000

Priority Ped/Bike Corridor Improvements (continued)

Recommended Improvement	Potential Funding Sources	Estimated Project Costs
Midlyne Trail		
Bicycle lanes on Elliott Rd from Curtis Rd to Franklin St; sidewalk south side of roadway	CIP funding; with development	\$ 375,000
Elliott Rd widening with buffered bike lanes and sidewalks from Franklin St to Fordham Blvd	CIP funding; with development	\$ 3,500,000
Elliott Rd Extension - Complete Street with raised bike lanes and sidewalk from Fordham Blvd to Ephesus Church Rd	CIP, NCDOT funding; with development	\$ 4,200,000
Pedestrian crossing at Ephesus Elementary School; sidewalk gap between Elliott Rd Extension and Cypress Rd	CIP, DCHC funding	\$ 50,000
Protected bicycle lanes - Ephesus Church Rd from Elliott Rd Extension to Pinehurst Dr	CIP, NCDOT funding	\$ -----
Cross Cities Connector		
Intersection/bike-ped improvements from Cotten Bikeway at Merritt Mill Rd and railroad crossing at W Cameron Ave	CIP funding	Dependent on preferred alternative
Two-way cycle track from Merritt Mill Rd to Pittsboro Rd	CIP funding	\$ 375,000
On-Street Greenway Connector - Bicycle markings & wayfinding on E Cameron Ave from Pittsboro St to Raleigh St	CIP, DCHC funding	\$ 35,000
Bike/ped connections on Boundary St from Battle Park to E Cameron Ave; bike boxes & markings bw Boundary St, Battle Ln, and Country Club Rd	CIP, DCHC funding	\$ 20,000
Multi-use path along Boundary St; bicycle pavement markings and wayfinding signage from E Cameron Ave to Franklin St	CIP funding; parks grants	\$ 50,000

Priority Ped/Bike Corridor Improvements (continued)

Recommended Improvement	Potential Funding Sources	Estimated Project Costs
Cross Cities Connector (continued)		
Battle Park Trail - ADA-compliant trail through Battle Park along OWASA easement	CIP funding; parks grants	\$ 640,000
On-Street Greenway Connector - Bicycle pavement markings and wayfinding on Sandy Creek Trail, Greenwood Rd, & Christopher Rd	CIP funding	\$25,000
Cross Cities Trail - Multi-use path gaps between from US15-501 crossing improvement to existing trail on NC 54	CIP, NCDOT funding; parks grants	\$ 725,000
Eastern Explorer		
Lane reallocation for bike lane/buffered bike lane from Boundary St to Estes Dr	CIP, NCDOT funding	\$ 985,000
Intersection improvements and sidewalk gap - Crosswalk to Plant Rd for Booker Creek Trail Access; sidewalk gap on Plant Rd and improved crossing of Plant Rd at Roosevelt Dr	CIP, NCDOT funding	\$ 135,000
Eastern Explorer Trail - Multi-use trail along Franklin St linking Bolin Creek Trail to Lower Booker Creek Trail; Bridge across Bolin Creek	CIP, NCDOT funding; parks grants; with development	\$ 840,000
Franklin St Crossing Improvement - improved crossing and pedestrian refuge from Eastern Explorer trail to Booker Creek Trail through Village Plaza	CIP, NCDOT funding; with development	\$ 130,000
Grade-separated pedestrian bridge at Legion Rd extension	CIP, NCDOT funding	\$ 2,020,000

Priority Ped/Bike Corridor Improvements (continued)

Recommended Improvement	Potential Funding Sources	Estimated Project Costs
Eastern Explorer (continued)		
Legion Rd Extension Complete Street - Complete Street with buffered bike lanes between Fordham Blvd and US 15-501	CIP funding; with development	\$ 1,600,000
Bicycle Lanes and Sidewalk - Legion Rd bicycle lanes and sidewalks from Ephesus Church Rd to Scarlett Dr	CIP funding; with development	\$ 875,000
Bicycle Lanes and Sidewalk - Scarlett Dr bicycle lanes and sidewalks from Legion Rd to Old Durham Rd	CIP funding	\$ 120,000
Southern Circuit		
Overpass of US 15-501 between Obey Creek Development and proposed BRT	Developer Agreement	--
Fan Branch Trail and Spur - Fan Branch Trail with spur to connect with BRT station area	CIP, NCDOT funding; parks grants	\$ 260,000
Morgan Creek Trail and Extension - Trail from Fan Branch to Merritt's Pasture, and planned trail extension between Merritt's Pasture and Oteys Rd	CIP, NCDOT funding; parks grants	\$ 640,000
US 15-501 Underpass - Multi-use underpass at Oteys Rd	CIP, NCDOT funding	\$ 1,000,000
Southern Circuit Trail - Trail section along north side of US 15-501 to Christopher Rd	CIP, NCDOT funding; parks grants	\$ 885,000
On-Street Greenway Connector - Bicycle marking and wayfinding on Christopher Rd	CIP funding	\$ 30,000
Trail Overpass and links - Trail overpass of US 15-501 near NC 54 with links to Christopher Rd, Raleigh Rd, and Hamilton Rd	CIP, NCDOT funding	\$ 1,300,000
Bicycle Lanes - Hamilton Rd to NC 54	CIP funding	\$ 25,000
Crossing Improvements at NC 54 and Hamilton Rd connecting Glenwood Square to Glen Lennox Development Site	CIP, NCDOT funding; with development	\$ 150,000

Priority Ped/Bike Corridor Improvements (continued)

Recommended Improvement	Potential Funding Sources	Estimated Project Costs
Homestead Connector		
Greenway from Lake Ellen Dr to Taylor St	CIP funding; parks grants	\$ 85,000
On-Street Greenway Connector - Bicycle marking, wayfinding, & sidewalk on Taylor St bw Lake Ellen Dr and MLK Jr Blvd	CIP, DCHC funding	Sidewalk \$270,000 Markings \$20,000
Buffered bike lanes on Martin Luther King, Jr. Blvd between Taylor St and Homestead Rd.	NCDOT, Federal Transit, Orange County Transit Sales Tax	Part of NCDOT corridor widening
Sidewalk gap between Taylor St and Homestead Rd	CIP funding; with development	\$ 50,000
Multi-use path along Homestead Rd between MLK Jr Blvd and Seawell School Rd	CIP, NCDOT funding; parks grants	\$ 1,415,000
Multi-use path on Seawell School Rd from Homestead Rd to Seawell Elementary School	CIP, NCDOT funding	\$ -----
Barclay Connector		
On-Street Greenway Connector - Bicycle marking, wayfinding, and sidewalks on Barclay Rd from MLK Jr Dr to Barclay Trail	CIP funding	Sidewalk \$725,000 Markings \$45,000
Multi-use path along Estes Dr Extension from Barclay Rd to Bolin Creek	CIP, NCDOT funding; parks grants	\$ 325,000
Extension of Bolin Creek Trail from Barclay Trail with a bridge over the creek and at-grade crossing of Estes Dr Ext	CIP, NCDOT funding; parks grants	\$ 525,000

Priority Ped/Bike Corridor Improvements (continued)

Recommended Improvement	Potential Funding Sources	Estimated Project Costs
BB Little Connector		
Improved Trail Crossing of Elliott Rd to connect with Lower Booker Creek Trail	CIP, DCHC funding	\$ 55,000
Lower Booker Creek Trail Underpass of US 15-501	CIP, NCDOT funding; parks grants	\$ 550,000
Multi-use path between Elliott Rd and Little Creek Trail	CIP, NCDOT funding; parks grants	\$ 880,000
Multi-use path between Lower Booker Creek Trail and Lancaster Dr	CIP, NCDOT funding; parks grants	\$ 570,000
Bicycle lanes and wayfinding on Lancaster Dr	CIP, DCHC funding	\$ 25,000
ADA compliant trail between Lancaster Dr and Meadowmont Trail	CIP, NCDOT funding; parks grants	\$ 355,000
Pritchard Connector		
Multi-use path on west side of UNC cogeneration facility, past water tower and through power easement to NC 54	CIP, NCDOT funding; parks grants	\$ 750,000
Crossing of NC 54 and trail connections between Morgan Creek Greenway and Tower Trail	CIP, NCDOT funding	\$ 360,000

Priority Projects

Through the development of the Complete Street Corridors and Priority Ped/Bike Corridors, 20 projects are identified as key projects for the Town to evaluate in detail and to pursue as capital improvements. These key projects represent those requested or mentioned most often by citizens, key linkages in the ped/bike network, or facilities ripe for improvements to provide protected/separated bike facilities.

Selection Criteria - Many plans will develop a prioritization methodology and process for selecting projects for implementation. That prioritization then becomes adopted with the plan and becomes set, with little flexibility to react to specific funding opportunities or shifts in policy priorities.

The top 20 project identified here were selected by considering a number of factors and criteria that should be reevaluated by Town staff year-to-year as they look at funding projects through annual budgets, bonds, grant proposals, and NCDOT/DCHC project submissions.



Project Selection Criteria



The road to success is always under construction.

Partnerships/Cost Share - Is there an opportunity to work with another party (developer, NCDOT, Go Triangle) to share project costs or combine projects? Are other Town departments completing projects within right-of-way where Complete Street elements can be included?

Safety Impacts - Will the project resolve a proven concern or crash location?

Pending Development - Will the project help serve demand from new development and be funded all or in-part by the developer of the project?

Citizen Requests - Is the project constantly requested by residents?

Connectivity to:

- **Pedestrian/Bike Network** - Is the project a part of the priority network? Does it provide a connection from a key destination/activity center to the network?
- **Transit/Schools/Activity Centers** - Does the project connect residents to schools, transit, or activity centers? Does it expand bike-/walksheds to these?

Momentum - Will the project encourage and excite residents to bike or walk more? Can the project serve as a pilot installation to test new ideas or facility types?

Topography - Does topography contribute to a need for a facility that will increase safety and/or potential use?



20 Key Projects + 5 Priority Programs/Policies - These were the most requested in the public input sessions or represent important missing links. When completed and paired with the [key policy/program recommendations](#), these select improvements will help encourage even more residents to walk and bike in their Town.

Recommended Improvement	Network Importance	Corridor	Cost Est.
Complete Street Corridors			
Barclay Rd Pedestrian Crossing	Improves and facilitates safe crossings for residential near Chapel Hill Transit bus stops and Bolin Creek greenway	MLK Jr. Blvd	\$ 100,000
Northwood/Perkins Sidewalk Connector	Serve demonstrated pedestrian demand between area neighborhood. shopping centers, and transit stop	MLK Jr. Blvd	\$ 60,000
Multi-use paths (both sides) in Ephesus-Fordham District	Establish key linkage between Booker and Bolin Creek Greenways, as well as area shopping centers and redevelopment	US 15-501 Fordham Blvd	\$ 2,200,000
Raleigh Road Uphill Climbing Lane	Reallocate lanes from Country Club Ln to median before Quali Hill Ct. to add uphill climbing lane; resurfacing	NC 54 Raleigh Rd	\$ 225,000
Meadowmont Ln/Friday Center Dr/ Barbee Chapel Rd ped crossings	Improves and facilitates safe crossings between medium density residential and office nodes in E Chapel Hill	NC 54 Raleigh Rd	\$ 105,000
Bike intersection improvements at Mt Carmel Ch Rd/Culbreth Rd	Improves bike wayfinding and safe crossings at large intersection	US 15-501 South	\$ 175,000
Priority Bike/Ped Corridors			
E Franklin St Lane Bike Lanes	Improve bike/ped environment on E Franklin St from Boundary St to Estes Dr by converting existing roadway to three-lane roadway; resurfacing	Eastern Explorer/ E Franklin St	\$ 985,000
US 15-501 Underpass at Oteys Rd	Create safe, low-stress connection for bicyclists and pedestrians south of US 15-501 to UNC and downtown Chapel Hill	Southern Circuit	\$ 1,000,000
Protected Bicycle Lanes and Sidewalk on Ephesus Church Rd	Provide facilities for residents east of US 15-501 to access shopping centers and for families with children to access Ephesus Church Elem	Eastern Explorer	\$ -----
Greenway Connectors Marking Package	Sign and mark advisory lanes, bicycle lanes, or uphill climbing lanes to create 3.7 miles of low stress connections for bicyclists in existing ROW Treeline 3, Treeline 5, Cross Cities 4, Cross Cities 8, Barclay 1	Treelyne Cross Cities Barclay	\$ 195,000
Greenway Connectors Sidewalk Package	Provide 2.8 miles of sidewalk on both sides to enhance/ supplement longer-term Priority Corridor projects Treeline 3, Treeline 5, Barclay 1	Treelyne Barclay	\$ 2,895,000
N Elliott Rd Complete Street	Provide facilities for residents west of E Franklin St to access shopping and for families with children to access Estes Elem & Phillips Middle Schools	Midlyne	\$ 375,000
Multi-Use Path: Piney Mountain Rd to Martin Luther King Jr Blvd	Complete Treelyne Trail B multi-use connection between Weaver Dairy Rd and Estes Dr to establish East-West bicycle and pedestrian corridor	Treelyne	\$ 350,000
Underpass of Franklin St	Create a safe, low-stress connection east of E Franklin St and users of Lower Booker Creek Trail to access Ephesus-Fordham district	Eastern Explorer/ E Franklin St	\$ 905,000
Battle Park Trail	Improve access for users with disabilities by creating an ADA-compliant multi-use trail along OWASA easement and create alternate low-stress route to the Chapel Hill CBD from the East	Cross Cities Connector	\$ 640,000
Morgan Creek Trail Extension	Fill missing link to proposed Oteys Rd Underpass for safe, low-stress access along US 15-501	Southern Circuit	\$ 640,000
Barclay Trail & Bolin Creek Extension	Provide low-stress alternate to Estes Dr Extension	Barclay Connector	\$ 850,000
Cross Cities Connector	Joint Design Study for corridor in partnership with Durham County	Cross Cities Connector	\$350,000
W Cameron Ave Protected Bike Lanes	Improve bicycling conditions into UNC Campus on Cameron Ave	Cross Cities Connector	\$ 375,000
Multi-Use Path: Piney Mountain Rd and Barclay Rd	Complete Piney Mountain Rd to Barclay Rd portion of Timberlyne Trail to provide safe, low-stress route	Timberlyne	\$ 750,000

One of the project criteria listed for consideration is momentum. Certain projects can excite the community, help shift the mindset of residents, and spur the interest of those that may not walk and bike frequently. Therefore developing a select number of signature projects for early implementation can help jump start increased ped/bike/transit commuting and travel and keep the Town’s progress moving towards the 2025 35% modeshare goal.

Implementing a high-impact and high-visibility project will engage a wide number of citizens and can potentially provide significant safety and modeshift benefits relative to other projects. Evaluation is an important part of the project to demonstrate the intended goals are met.



1

Franklin Street Protected Bike Lanes - The conversion of E Franklin Street from Estes Drive west to E Boundary Street will provide a new bike-friendly corridor between Downtown and the UNC Campus and popular business at and along the way to University Mall and Ephesus-Fordham district. The facility also connects bicyclists to the Bolin Creek Greenway and would make it safer for pedestrians who currently share the sidewalk with less confident bicyclists.

Creation of such a visible project with the potential for high ridership could encourage future lane reallocation eastward for Estes Drive to Ephesus-Fordham, establishing a key corridor for bicycling.

Timberlyne Trail from Piney Mountain Rd to Barclay Rd - This trail represents one of the most ambitious concepts in the plan, with the transformation of a power easement through neighborhoods into a potential greenway corridor.

2



The greenway would provide a proof of concept of creating a low-stress alternative to bike lanes and sidewalks along a major road corridor, and combined with a new crossing at Barclay Rd, would link to neighborhood streets for cyclists and pedestrians trying to get to Downtown or Carrboro. It also links the planned Estes Drive multi-use path and cycletrack to the south towards Downtown.

Beginning planning for this project will help determine both the willingness of Duke Energy to partner on expanding the Town’s greenway system and grow the system in the north Chapel Hill.