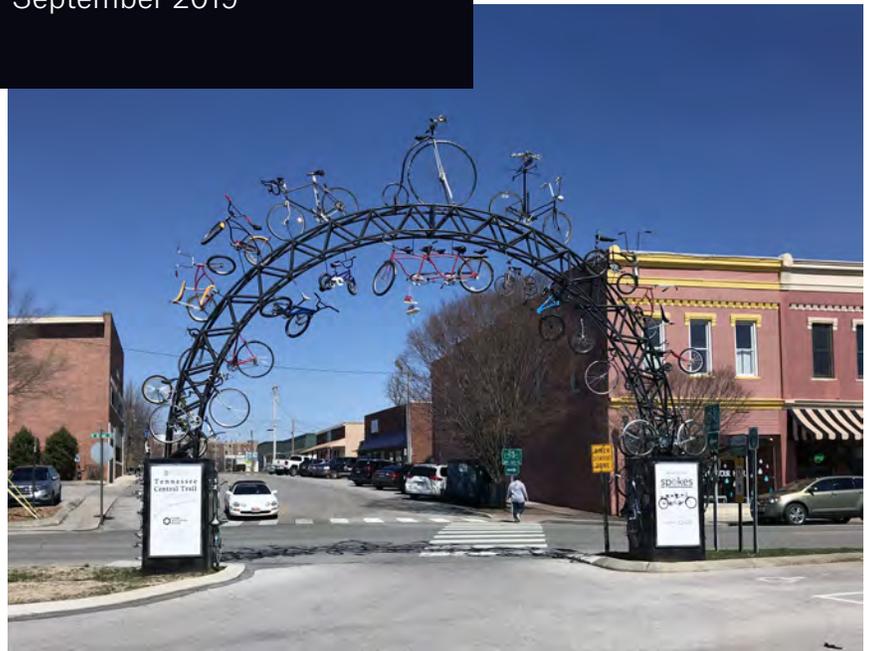
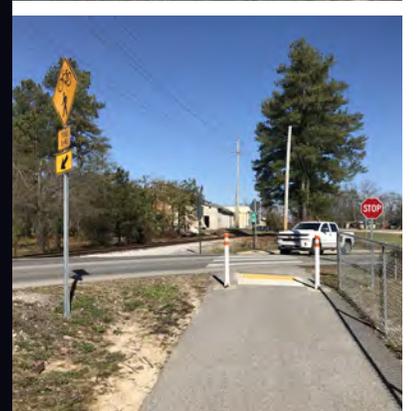
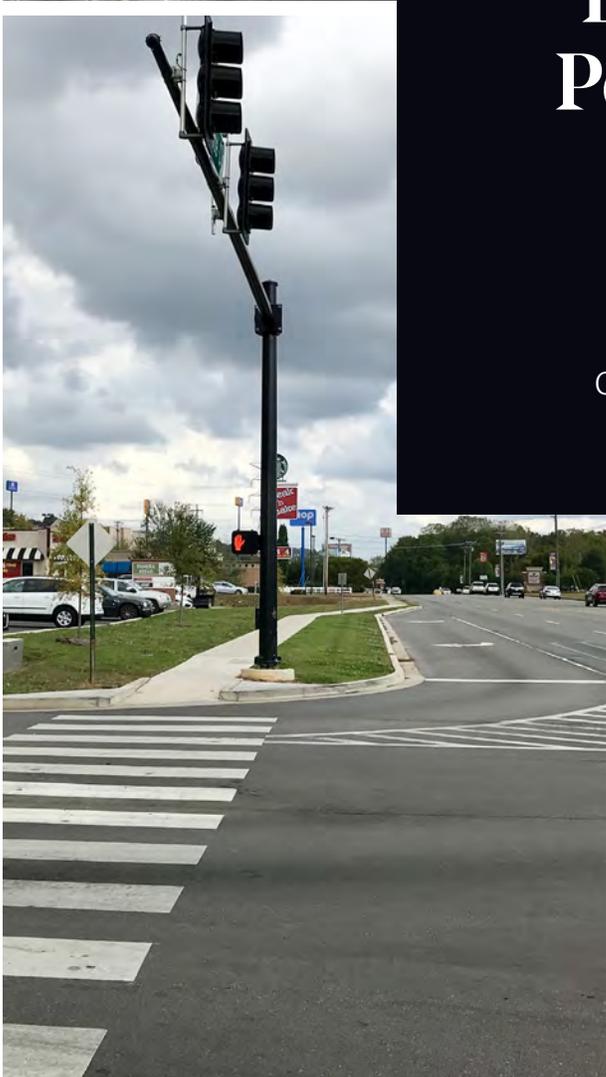




COOKEVILLE
TENNESSEE

Bicycle & Pedestrian Plan

City of Cookeville, TN
September 2019





Prepared by



Funded through the Community
Transportation Planning Grant Program



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CITY OF COOKEVILLE, TN

Bicycle & Pedestrian Plan

The Tennessee Department of Transportation (TDOT) established the Community Transportation Planning Grant (CTPG) program to assist Tennessee's small and rural communities in developing transportation plans to address transportation, land use, and growth management issues. The program is designed to better integrate multimodal transportation systems with local land use objectives and achieve statewide transportation goals.

The City of Cookeville is one of the grant recipients during the CTPG program's 2018-2019 grant cycle. This report documents the findings and recommendations of the City of Cookeville's Bicycle and Pedestrian Plan.

Section 1.0

Overview

Cookeville is growing. And, like many cities across Tennessee and around the country, with growth comes the need to invest and reinvest in public facilities and services. Chief among these needs are the streets, sidewalks, and bikeways necessary to safely connect neighborhoods, commercial districts, schools, parks, and many other destinations throughout the city for everyday trips.

In 2003, the City of Cookeville developed a comprehensive bicycle and pedestrian plan to provide safe and convenient walking and biking opportunities. Led by a community task force, the 2003 plan focused on three strategies to connect the city for pedestrians and bicyclists (Figure 1):

- Outer Ring – a circumferential route of primarily shared-use paths located along the perimeter of the city and the planning region;
- Inner Ring – a combination of shared-use paths and bike lanes centered on Tennessee Technological University and downtown Cookeville; and
- Spoke Routes – a mix of shared-use paths, sidewalks, and on-road bikeways linking the outer and inner rings.

The purpose of the 2019 Cookeville Bicycle and Pedestrian Plan is to update the 2003 plan and guide the development of bicycle and pedestrian improvements over the next 20 years throughout the City of Cookeville and its Urban Growth Boundary (Figure 2). The 2019 update includes the following major elements:

- Statement of vision, goals, and objectives for walking and bicycling in Cookeville (Section 1.2);
- Assessment of existing walking and bicycling deficiencies and future needs based on estimated demand (Section 1.4) and Levels of Traffic Stress (Section 1.5);
- Recommended bicycle and pedestrian networks (Section 2.0);
- Bicycle and pedestrian design guide (Section 3.0);
- Recommended non-infrastructure programs (Section 4.0); and
- Implementation and funding strategies (Section 5.0).

Figure 1. 2003 Cookeville Pedestrian and Bicycle Circulation Plan

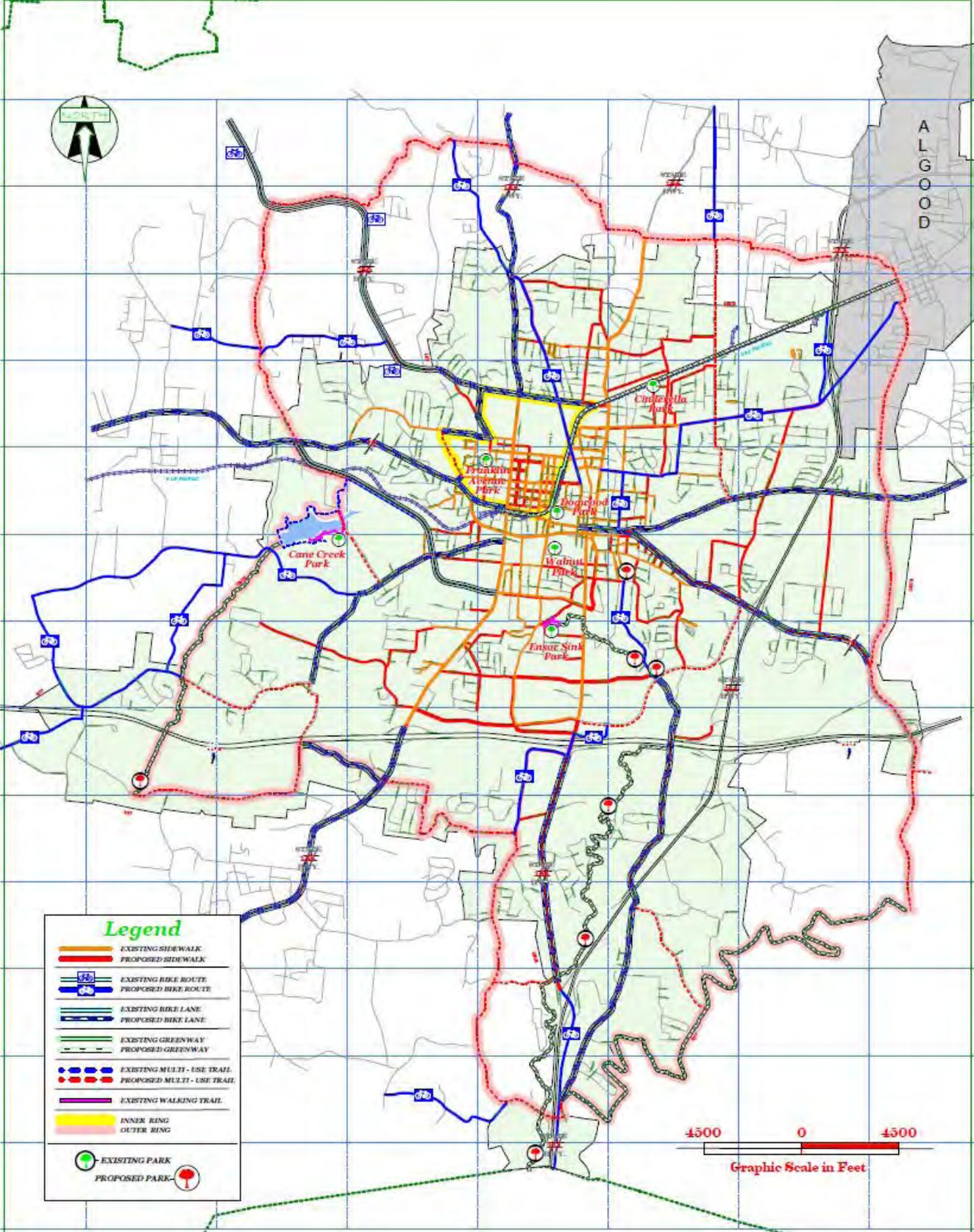
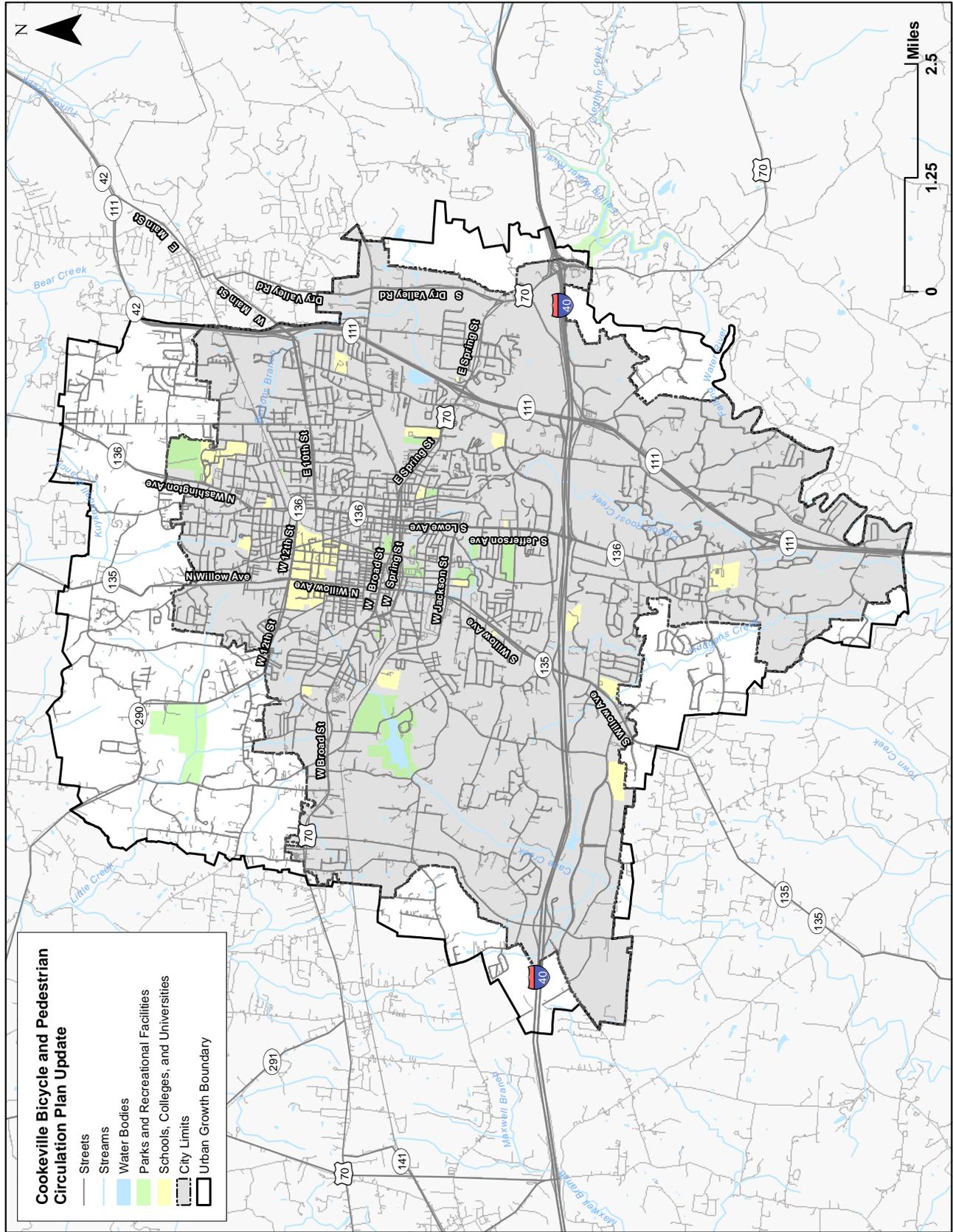


Figure 2. 2019 Bicycle and Pedestrian Plan Study Area



1.1 Public and Stakeholder Involvement

Two public meetings as well as an online interactive map and online survey formed the backbone of the public engagement process and augmented a task force comprised of community members. The first public meeting, held at the Cookeville City Hall on April 25, 2019, centered on three questions:

- What goals are important to the future of walking and bicycling in Cookeville?
- What type of improvements do you want to see?
- What are the key factors that determine if you will drive, walk, or bike to places in Cookeville?

To answer the first question, the 2003 plan's goals were reintroduced at the first public meeting with only a couple of minor changes. Table 1 reports the results. More than two-thirds of participants identified the following goals as "More Important":

- Develop a network that connects people to places they want to go;
- Ensure bicycle and pedestrian facilities are safe and convenient for people of all ages and abilities; and
- Provide facilities and programs that minimize conflicts among pedestrians, bicyclists, and vehicles.

Responses to the second question – what type of improvements do people prefer – expanded on the goals, showing a strong preference for walkways and bikeways that provide physical separation from motor vehicles (Table 2). Walkways and bikeways receiving high levels of support included greenways, sidepaths, buffered bike lanes, and separated bike lanes (Figures 3-6).

Table 1. Walking and Biking Goals

Goals/Objectives	More Important		Important		Less Important	
	Total	Percentage	Total	Percentage	Total	Percentage
1. Develop a bicycle and pedestrian network that connects people to the places they want to go	121	73%	39	24%	5	3%
2. Ensure bicycle and pedestrian facilities are safe and convenient for people of all ages and abilities	116	73%	39	24%	5	3%
3. Design facilities that are comfortable and attractive and fit their surrounding context	52	32%	77	48%	32	20%
4. Locate walking and biking facilities in ways to protect natural areas and provide quality open spaces	85	54%	59	37%	14	9%
5. Provide facilities and programs that minimize conflicts among pedestrians, bicyclists, and vehicles	114	67%	47	28%	8	5%
6. Build facilities that can be designed, developed, and maintained in a cost-efficient manner	47	29%	93	57%	23	14%
7. Promote walking and bicycling through pilot projects, programs, and special events	57	36%	62	39%	40	25%
8. Develop and fund maintenance programs for all bicycle and pedestrian facilities	68	41%	77	47%	19	12%

Table 2. Preferred Walking and Biking Improvements

		Total	% of Category
Walking	Greenways	114	20%
	Sidepaths	94	16%
	Natural Trails	82	14%
	Sidewalks	75	13%
	Pedestrian Signals	64	11%
	Crosswalks	63	11%
	Lighting & Street Trees	48	8%
	Crossing Islands	42	7%
Bicycling	Buffered Bike Lanes	99	20%
	Separated Bike Lanes	88	17%
	Bike Parking	85	17%
	Bike Lanes	79	16%
	Bike Sharing	47	9%
	Paved Shoulder	44	9%
	Bike Boulevards	37	7%
	Shared Lanes	26	5%
Programs	Festivals and "Open Streets"	83	31%
	Enforcement	79	30%
	Safety Education	67	25%
	Marketing	36	14%

Figure 3. Walking and Biking Option: Greenways



Figure 4. Walking and Biking Option: Sidepaths



Figure 5. Walking and Biking Option: Buffered Bike Lanes



Figure 6. Walking and Biking Option: Separated Bike Lanes



Finally, while several themes characterized responses to the third question – what determines whether one walks, bike, or drives in Cookeville, the presence or absence of safe walkways and bikeways was the primary factor in the decision to walk or bike. Additional factors emphasized included the convenience of sidewalks and bikeways – or how accessible they are, and education and enforcement around rules of the road (Table 3).

The second public meeting on August 29, 2019 at the Cookeville City Hall focused on the draft bicycle and pedestrian networks, information also made available through an online interactive map. Comments primarily addressed additional opportunities for new sidewalks and intersection improvements, especially around Tennessee Tech, Cookeville High School, and Northeast Elementary School. Participants also highlighted priority areas and corridors, which included E. Jackson Street, W. 12th Street, and S. Willow Avenue.

Table 3. Factors Influencing Walking and Biking in Cookeville

What are the key factors that determine if you will drive, walk, or bike to places in Cookeville?	Number of Responses
Safe Sidewalks & Bikeways	58
Convenient Sidewalks & Bikeways	15
Education & Enforcement	12
Connected Sidewalks & Bikeways	7
Bicycle Parking	7
Distance	7
Weather	3

1.2 Vision, Goals, and Objectives

Based on stakeholder and public input, the vision, goals, and objectives remained largely the same as in the 2003 plan and are described in Table 4. Importantly, while the focus of many bicycle and pedestrian plans is understandably on developing new facilities, there are many other steps communities can take to improve walking and bicycling. In Table 4, each objective has been further defined relative to a type of progress measure: administrative, design, or planning. Briefly, an administrative measure is one that captures adopted policies, standards or regulations that support walking and bicycling. A design measure evaluates an intermediate physical result that an agency directly influences, and a planning measure reports on the progress toward a desired system.

Of the 40 objectives associated with the goals, approximately 40 percent fall into the category of a design measure, 40 percent into an administrative measure, and 20 percent into a planning measure. More than three-quarters of the plan's objectives, then, represent actions that can be achieved either through design or administrative steps – steps that can be taken relatively quickly. Of course, planning or outcome related objectives will remain a high priority and the recommended bicycle and pedestrian networks in the plan update build on several of the objectives in greater detail, especially the strong desire to connect places for people of all ages and abilities. Planning-oriented objectives that underpin the recommended bicycle and pedestrian networks include:

- Linking major employment and activity centers, such as downtown Cookeville, Tennessee Tech, Cookeville Regional Medical Center, schools, parks, and shopping areas; (Objectives 1.a, 1.b)
- Promoting connectivity within neighborhoods and school zones; (Objective 1.c)
- Promoting low-stress facilities for pedestrians and bicyclists; (Objective 1.e)
- Providing multiple access points to the network and within a reasonable distance; (Objectives 1.d, 2.c) and
- Designing for the needs of users of all ages and abilities. (Objectives 2.a, 2.b)

Table 4. Walking and Biking Vision, Goals, and Objectives**Vision Statement**

To develop a comprehensive circulation network, including both on- and off-street routes, that makes pedestrian and bicycle travel a feasible, safe and enjoyable mode of transportation and form of recreation for users of all ages and abilities, while preserving and enhancing the area's environment.

Goals and Objectives		Type of Measure*
1. Connectivity The pedestrian and bicycle circulation system should be designed so that it connects to places people want to go.	a. Include links with Tennessee Technological University, Cookeville Regional Medical Center, Cane Creek Park and other existing recreational facilities, schools and other public facilities, natural areas, shopping areas, and employment centers	P
	b. Provide enhanced multimodal access to downtown Cookeville	P
	c. Promote intracity connectivity as well as local connectivity within key areas, such as neighborhoods and school zones	P
	d. Locate components of the network to be within a reasonable distance of every residence with the City of Cookeville	P
	e. Promote interconnection by way of low-stress facilities for pedestrians and bicyclists	D/P
	f. Coordinate components of the network with parks and recreation plans, and other relevant land use and development plans	A/D
	g. Provide linkages to any regional or state bike or trail systems	P
2. Functionality and Accessibility The pedestrian and bicycle circulation system should be functional and accessible to all people.	a. Design and locate the pedestrian circulation system to incorporate the needs of users of all ages and abilities, including children, senior adults, and people with disabilities	D/P
	b. Retrofit existing components of the network to meet ADA and other applicable standards	D/P
	c. Provide multiple access points to the network	P
	d. Design the system so that it will serve many types of users including walkers, runners, bicyclists, and persons in wheelchairs	D
	e. Provide appropriate signage for each component of the network and for both pedestrian and vehicular traffic	D
	f. Produce, regularly update and distribute maps of the circulation network	A
3. Safety The users of the pedestrian and bicycle circulation system should feel safe.	a. Minimize the number of conflict points between pedestrian and vehicular traffic	D
	b. Design new and improve existing intersections to provide safer crossings for pedestrians and bicyclists	D
	c. Utilize pedestrian- and bicycle-friendly design	D
	d. Repair damaged segments of the system in a timely manner	A
	e. Educate pedestrians, bicyclists, and motorists about safety rules	A
	f. Consistently enforce bicycle and pedestrian safety laws among motorists, bicyclists and pedestrians	A
	g. Provide police presence	A
4. Environmental Protection and Enhancement The pedestrian and bicycle circulation system should protect and enhance the environment.	a. Design and locate pedestrian and bicycle facilities to protect and enhance the environment	D/P
	b. Acquire environmentally sensitive areas, including waterways, and floodplain and sinkhole retention areas, in the development of the circulation system	A/D
	c. Utilize the development of the circulation network to provide corridors of quality open space	P
	d. Promote environmental education along greenways, trails and other network facilities	A/D
5. Maintenance and Management Elements of the pedestrian and bicycle circulation system should be well-maintained and well-managed.	a. Develop and implement a scheduled maintenance program through appropriate city departments	A
	b. Provide adequate funding for repairs and maintenance	A
	c. Solicit participation from local business, industry, neighborhood, and civic organizations	A
	d. Communicate and enforce applicable municipal codes	A

*Type of Measure: A = Administrative; D = Design; P = Planning

Table 4. Walking and Biking Vision, Goals, and Objectives (continued)

Goals and Objectives	Type of Measure*
6. Cost Efficiency	D
The pedestrian and bicycle circulation system should be designed, developed, and maintained in a cost-efficient manner.	a. Design the system to utilize existing rights-of-way, easements, and city properties whenever feasible
	b. Seek local, state, federal, private individual and corporate financial assistance for the development of the various elements of the circulation system
	c. Coordinate development of system with planned street improvements and new street construction projects
	d. Through zoning code and subdivision regulations, continue to require the installation of pedestrian circulation system elements as part of new developments
7. Variety and Appearance	D
The pedestrian and bicycle circulation system should be attractive and provide a variety in design.	a. Design and locate the pedestrian circulation system to take advantage of natural or unique areas
	b. Provide a variety of surface types to suit the environment
	c. Provide buffering and screening between components of the system and adjacent lands, when necessary to minimize impacts
	d. Provide amenities such as lighting, landscaping, and street furniture to enhance the appearance of the system
8. Promotion	A
Pedestrian, bicycle, and other non-motorized recreational activities should be promoted in the City of Cookeville.	a. Explore demonstration projects or events to illustrate the potential for walking and bicycling in the city
	b. Develop a promotional campaign to educate the city's residents about the benefits of walking and bicycling
	c. Encourage employers in the city to promote biking and walking as commuting options
	d. Develop programs and special events through the Leisure Services Department which incorporate the use and appreciation of the pedestrian circulation system

*Type of Measure: A = Administrative; D = Design; P = Planning

1.3 Existing Plans and Studies

In addition to the 2003 bicycle and pedestrian plan, two other city planning documents provide a basis for the current plan update. The Cookeville 2030 Plan (2010), the city's comprehensive plan, retains the bicycle and pedestrian recommendations from the 2003 plan, and, notably, proposes a number of street improvements and new streets that, if planned accordingly, can include walkways and bikeways. The comprehensive plan also underscores a series of deficiencies documented in the 2003 bicycle and pedestrian plan, specifically:

- General lack of facilities;
- Fragmentation of existing network;
- Unsafe and insufficient crossings along major streets;
- Poor maintenance of existing facilities;
- Deterioration of existing facilities;
- Lack of crosswalks;
- Obstruction of facilities (e.g., electric poles, street lights, and mailboxes); and
- Inadequate accessibility for persons with disabilities.

Similarly, the City of Cookeville Major Street Plan Update (2017) expands on the comprehensive plan and highlights several street improvements that will play an important role in long-term bicycle and pedestrian safety and connectivity, especially east and south of downtown Cookeville, including:

- Widening of E. Spring Street, from Broad Street to State Route 111 and from State Route 111 to Interstate 40;
- Widening of W. 12th Street, between Mississippi Avenue and N. Washington Avenue;
- Widening of E. 10th Street, between N. Washington Avenue and State Route 111; and
- Widening of S. Walnut Avenue, between Interstate Drive and Broad Street.

1.4 Bicycle and Pedestrian Demand Analysis

Analyzing the estimated demand for walking and bicycling in a community yields multiple insights. First, the analysis augments public input and helps to paint a more complete picture of where people will likely walk and bike. And, because it relies on available local, state, and federal data, the analysis overcomes the common lack of bicycle and pedestrian counts. Additionally, in conjunction with conventional roadway data, such as traffic volumes and speeds, the demand analysis helps to identify appropriate locations for transitions between different bikeway and walkway types. Finally, the demand analysis can play a role in prioritizing improvements. The demand analysis, captured in Figure 7, incorporates the following variables:

- Population density;
- Employment density;
- Proximity to commercial areas;
- Proximity to schools and colleges;
- Proximity to parks; and
- Proximity to transit.

The areas with the highest estimated bicycle and pedestrian demand are, not surprisingly, concentrated north of Interstate 40 between approximately Cane Creek Park and State Route 111 and north to Cookeville High School. The demand map, however, also highlights the importance of elementary and middle schools as natural destinations for walking and biking. Prescott South Elementary and Middle Schools and Northeast Elementary School fall outside the highest demand areas, but nevertheless should be safe places to walk and bike.

1.5 Bicycle and Pedestrian Level of Traffic Stress

Measuring the Level of Traffic Stress (LTS) is an effective tool for describing the perceived safety of walking and biking in a community. Unlike conventional level of service analyses, LTS rates streets relative to general user groups. For bicycling, the user groups associated with LTS are:

- **Level of Traffic Stress 1** – The level most users can tolerate including children and older adults; strong separation from all traffic except for low-speed, low-volume traffic;
- **Level of Traffic Stress 2** – The level tolerated by most adults; may require engaging with multiple vehicles at once, but only on lower-volume, lower-speed facilities;
- **Level of Traffic Stress 3** – The level tolerated by more confident adults, but those who still prefer dedicated space; involves interaction with moderate speed or multilane traffic or close proximity to higher speed traffic; and
- **Level of Traffic Stress 4** – The level tolerated by the most experienced adults; involves mixing with moderate speed traffic or riding in close proximity to high speed traffic.

From a safety perspective, LTS 1 and LTS 2 are the desired levels of traffic stress for bicycle and pedestrian networks that appeal to people of different ages and abilities. Figures 8 and 9 illustrate existing bicycle and pedestrian LTS in the Cookeville area. For bicyclists, many local streets have lower traffic volumes and speeds and correspondingly low bike LTS while higher volume, higher speed arterials and collectors all rate LTS 3 or 4. For pedestrians, many local streets conversely rate as LTS 4 if they do not have a sidewalk on either side of the street in residential areas. In effect, the LTS documents the relative low levels of traffic stress for pedestrians and bicyclists in downtown Cookeville and for bicyclists in neighborhoods throughout the city. Based on the LTS, the key challenges, then, are twofold:

- Address safety and comfort on arterials and collectors for pedestrians and bicyclists; and
- Improve pedestrian conditions in residential areas.

Figure 8. Bicycle Level of Traffic Stress

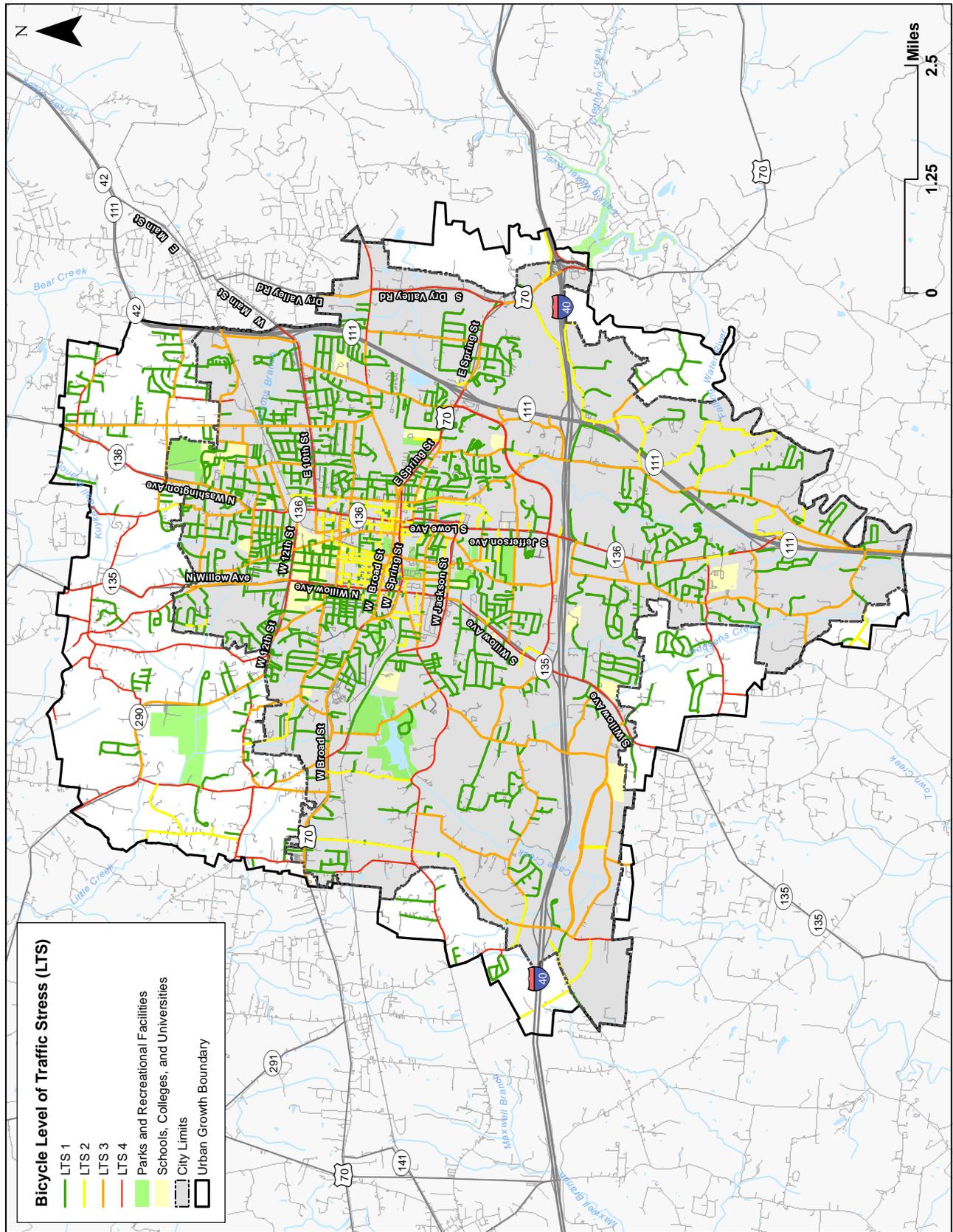
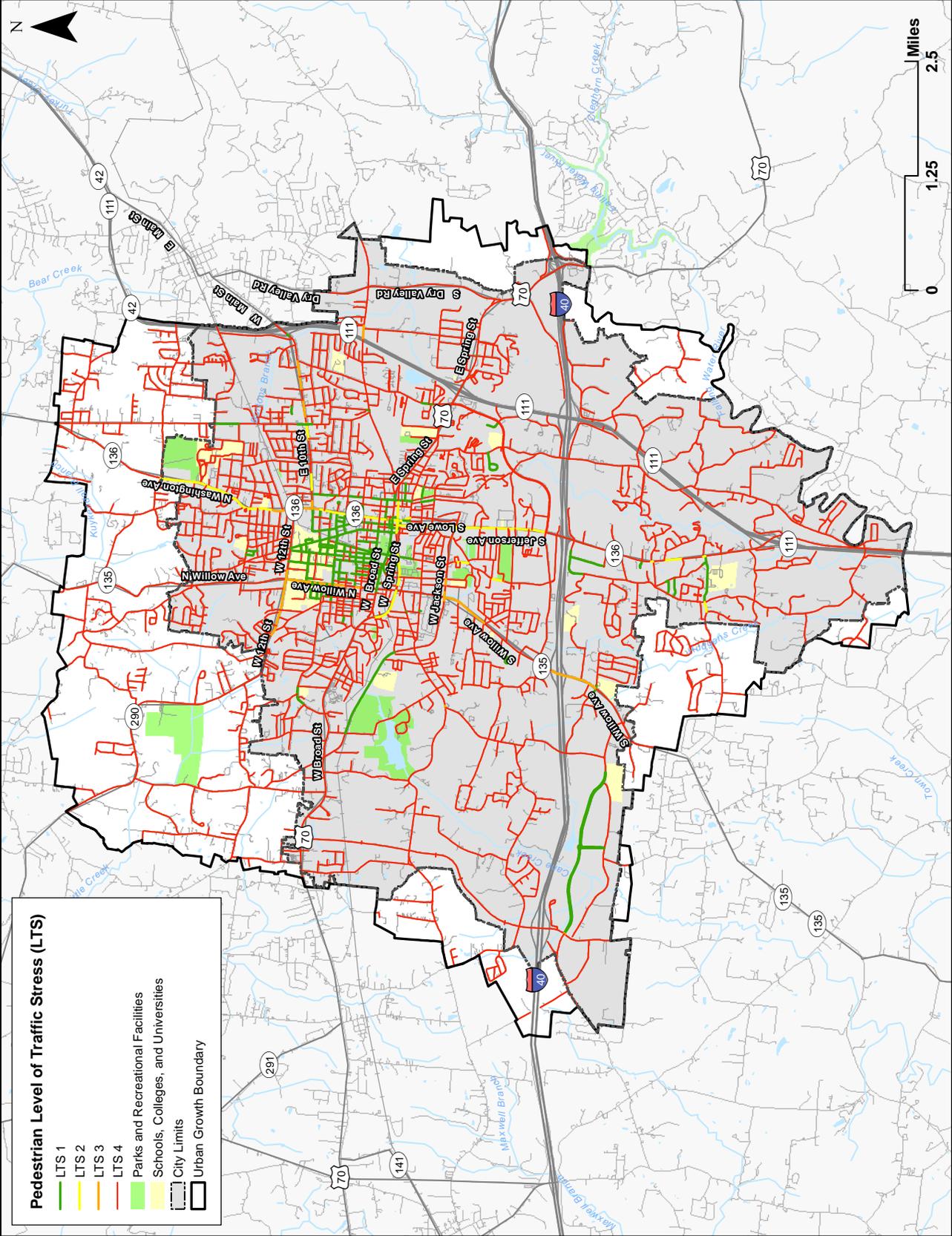


Figure 9. Pedestrian Level of Traffic Stress



Section 2.0

Bicycle & Pedestrian Network Plans

Over the past 20 years, bicycle and pedestrian planning has shifted from focusing almost exclusively on the most experienced adults using arterial and collector streets to the daily needs of people of all ages and abilities. Successful bicycle and pedestrian networks now include combinations of state highways, county roads, local streets, and trails, as well as different facility types – including sidewalks, paved shoulders, bicycle boulevards, bike lanes, and shared-use paths. The new strategies and tools offer every community the ability to plan, design, and build great bicycle and pedestrian systems.

2.1 Bicycle Recommendations

Building on the 2003 bicycle and pedestrian plan, public input, and technical analysis, the recommended bicycle network (Figure 10) combines three principal strategies:

- Carrying forward most of the arterial and collector street corridors from the 2003 plan;
- Updating the arterial and collector street corridor bikeway recommendations to reflect national best practices; and
- Expanding the recommended bikeway networks in residential areas between arterial and collector streets.

Figure 11 provides a more detailed look at the bicycle network in the urban core, while Table 5 offers a general description of the proposed bikeways. For planning purposes, several of the bikeway types are recommended together in the plan, providing options during the design phase. Table 6 lists the recommended improvements by road. Recommended bikeways by facility type and total estimated costs follow:

- Bike Boulevard – 10 miles at a total estimated cost of \$800,000
- Bike Lane/Paved Shoulder – 64 miles at a total estimated cost of \$6.7 million
- Buffered/Separated Bike Lane – 17 miles at a total estimated cost of \$2.6 million
- Shared-Use Path/Sidepath – 44 miles at a total estimated cost of \$35.1 million

Please note: The recommended improvements are listed generally from north to south and west to east, and are not listed in any priority. All cost estimates in the document are based on planning level unit costs, and reflect bicycle facilities in both directions except for shared use paths/sidepaths, which are one direction.

Table 5. Types of Bikeways

Type	Example	Description
Paved Shoulders		<p>Paved shoulders are typical of highways and roads in rural areas, and provide important safety benefits to minimize run-off-the-road crashes, especially on higher speed (greater than 40 mph) roads. While paved shoulders are not dedicated bikeways, for bicyclists, paved shoulders provide important operating space. Adequate width (4' minimum) and bike friendly rumble strips are important design considerations.</p>
Bike Boulevards		<p>Bike boulevards are lower volume, lower speed local streets that offer a safe and comfortable option for bicycling compared to major streets. Relatively low cost improvements such as shared lane pavement markings (sharrows), signage and mini-traffic circles reinforce the role of bike boulevards as safe and comfortable places to bicycle and discourage motor vehicle through traffic in neighborhoods.</p>
Bike Lanes		<p>Bike lanes provide dedicated operating space for bicyclists, and with paved shoulders, have traditionally served as the foundation for bike networks for more experienced bicyclists. While bike lanes remain a good option for urban streets with moderate traffic volumes and speeds, creating more lateral distance between bicyclists and motor vehicles either with buffers or physically separated facilities is important for people of all ages and abilities.</p>
Buffered Bike Lanes		<p>Buffered bike lanes add a striped buffer space between the bicycle lane and the motor vehicle traffic lane, and where applicable, between an adjacent parking lane. Used on higher volume, higher speed streets, the buffered space effectively establishes the minimum 3 foot passing space required in many states, and additionally, provides room for bicyclists to pass each other and avoid obstacles in bike lanes including the opening of parked car doors.</p>
Separated Bike Lanes		<p>Separated bike lanes add a vertical element, such as plastic posts, bollards, medians or on-street parking, that physically separates bicyclists from motor vehicle traffic. Combining vertical and horizontal separation clearly delineates the designated space for bicyclists and ensures a relatively safe and comfortable facility on higher volume, higher speed streets, including multilane streets and streets with higher truck volumes.</p>
Shared-Use Paths/Sidepaths		<p>Unlike the various bike lane types, shared-use paths and sidepaths are designed for use by both pedestrians and bicyclists. Sidepaths are located within the street or road right-of-way, while shared use paths are located within an independent right-of-way. Shared-use paths/sidepaths have become increasingly popular with the growing demand for walking and bicycling, and can provide important connections for longer distance trips.</p>

Figure 10. Bicycle Network Plan

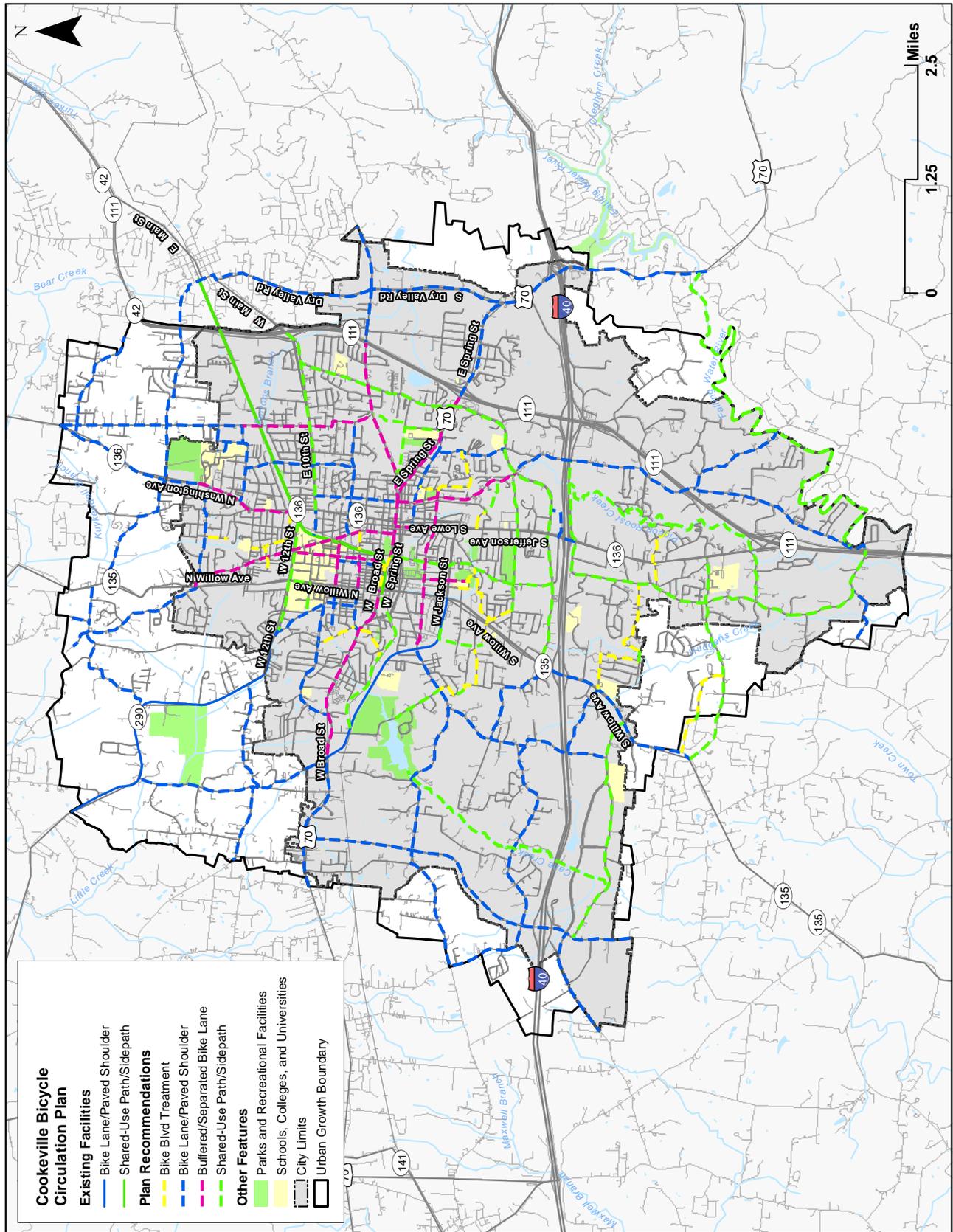


Table 6. Recommended Bicycle Improvements

ID	Road	From	To	Linear Feet	Facility Type	Unit Cost per LF	Estimated Cost
1	Shipleigh School Rd.	Shipleigh Rd.	Gainesboro Grade	6,570	BL/PS	\$20	\$131,400
2	Lane Farm Rd.	Northern Terminus	N. Allen Rd.	1,293	BL/PS	\$20	\$25,860
3	Kuyrkendall Rd.	S. of Kay Dr.	N. Allen Rd.	1,259	BL/PS	\$20	\$25,180
4	N. Allen Rd.	Shipleigh Rd.	Dodson Branch Rd.	2,690	BL/PS	\$20	\$53,800
5	Shipleigh Rd.	N. Allen Rd.	Phillips Dr.	4,023	BL/PS	\$20	\$80,460
6	Shipleigh Rd.	Phillips Dr.	N. Willow Ave.	3,119	BL/PS	\$20	\$62,380
7	Country Farm Rd.	Gainesboro Grade	Wakefield Dr.	3,546	BL/PS	\$20	\$70,920
8	Country Farm Rd.	Wakefield Dr.	Pippin Rd.	3,272	BL/PS	\$20	\$65,440
9	Kinniard Rd.	Dodson Branch Rd.	Free Hill Rd.	4,410	BL/PS	\$20	\$88,200
10	Free Hill Rd.	Kinniard Rd.	Dale Ln.	1,173	BL/PS	\$20	\$23,460
11	Dale Ln.	Free Hill Rd.	N. Washington Ave.	1,924	BL/PS	\$20	\$38,480
12	Hilham Rd.	Fisk Rd.	Whiteaker Springs Rd.	7,200	BL/PS	\$20	\$144,000
13	Fisk Rd.	Hilham Rd.	Whiteaker Springs Rd.	6,170	BL/PS	\$20	\$123,400
14	Quinlan Lake Rd.	Hilham Rd.	R D Anderson Rd.	4,148	BL/PS	\$20	\$82,960
15	Quinlan Lake Rd.	R D Anderson Rd.	E. of Jasper Dr.	2,713	BL/PS	\$20	\$54,260
16	Whiteaker Springs Rd.	N. Washington Ave.	Fisk Rd.	3,165	BL/PS	\$20	\$63,300
17	Whiteaker Springs Rd. / Gibbons Rd.	Fisk Rd.	Bowser Rd.	1,928	BL/PS	\$20	\$38,560
18	Gibbons Rd.	Bowser Rd.	Algood City Limit	4,258	BL/PS	\$20	\$85,160
19	4th Ave. / W. Main St.	Algood City Limit	Dry Valley Rd.	4,373	BL/PS	\$20	\$87,460
20	Dry Valley Rd.	W. Main St.	Old Walton Rd.	4,964	BL/PS	\$20	\$99,280
21	Dry Valley Rd.	Old Walton Rd.	Buck Mountain Rd.	4,368	BL/PS	\$20	\$87,360
22	Fisk Rd.	Whiteaker Springs Rd.	Volunteer Dr.	4,389	BL/PS	\$20	\$87,780
23	Fisk Rd.	Volunteer Dr.	E. 10th St.	3,883	BBL/SBL	\$30	\$116,490
24	Volunteer Dr.	Summerfield Rd.	Fisk Rd.	1,014	BL/PS	\$20	\$20,280
25	Cookeville HS Access Rd.	Cookeville HS	Summerfield Rd.	969	BL/PS	\$20	\$19,380
26	Summerfield Rd.	Shag Rag Rd.	E. 20th St.	1,751	BL/PS	\$20	\$35,020
27	E. 20th St.	N. Washington Ave.	Summerfield Rd.	3,359	BL/PS	\$20	\$67,180
28	Brown Ave.	E. 20th St.	E. 10th St.	4,013	BL/PS	\$20	\$80,260
29	N. Washington Ave.	Whiteaker Springs Rd.	Mary Dodson Ln.	1,881	BL/PS	\$20	\$37,620
30	N. Washington Ave.	Mary Dodson Ln.	E. 20th St.	2,622	BBL/SBL	\$30	\$78,660
31	N. Washington Ave.	E. 20th St.	TN Central Heritage Rail Trail	3,419	BBL/SBL	\$30	\$102,570
32	Kenway St.	N. Dixie Ave.	Massa Ave.	2,509	BL/PS	\$20	\$50,180
33	Kenway St. / Free Hill Rd. / Choate Cemetery Rd.	Massa Ave.	N. Washington Ave.	2,995	BL/PS	\$20	\$59,900
34	Massa Ave.	Kenway St.	Jere Whitson Ballpark	1,334	BB	\$15	\$20,010
35	N. Dixie Ave.	N. Willow Ave.	Jere Whitson Rd.	3,523	BBL/SBL	\$30	\$105,690
36	N. Dixie Ave.	Jere Whitson Rd.	E. 12th St.	2,784	BBL/SBL	\$30	\$83,520
37	Woodland Ave.	E. Jere Whitson Rd.	E. 13th St.	2,178	BBL/SBL	\$30	\$65,340
38	W. 17th St.	Lee Ave.	N. Dixie Ave.	844	BB	\$15	\$12,660
39	E. 17th St.	N. Dixie Ave.	Woodland Ave.	658	BB	\$15	\$9,870
40	E. 13th St.	N. Dixie Ave.	N. Washington Ave.	2,346	BB	\$15	\$35,190
41	Pippin Rd.	W. of Thomas Rd.	Country Farm Rd.	4,513	BL/PS	\$20	\$90,260
42	Benton Young Rd.	Country Farm Rd.	Gainesboro Grade	6,365	BL/PS	\$20	\$127,300
43	Country Farm Rd. / Pippin Rd.	Pippin Rd.	W. Broad St.	4,711	BL/PS	\$20	\$94,220
44	W. Broad St.	W. of Locust Grove Rd.	Tennessee Ave.	2,788	BL/PS	\$20	\$55,760

Note: BB = Bike Boulevard; BBL/SPL = Buffered/Separated Bike Lane; BL/PS = Bike Lane/Paved Shoulder; SUP = Shared-Use Path/Sidepath

Table 6. Recommended Bicycle Improvements (continued)

ID	Road	From	To	Linear Feet	Facility Type	Unit Cost per LF	Estimated Cost
45	W. Broad St.	Tennessee Ave.	W. Jackson St.	5,203	BL/PS	\$20	\$104,060
46	W. Broad St.	W. Jackson St.	Crescent Dr.	2,571	BBL/SBL	\$30	\$77,130
47	W. Broad St.	Crescent Dr.	W. 4th St.	5,351	BBL/SBL	\$30	\$160,530
48	Crescent Dr.	W. Broad St.	Ellis Ave.	2,578	BL/PS	\$20	\$51,560
49	W. 9th St.	Ellis Ave.	N. Franklin Ave.	5,121	BL/PS	\$20	\$102,420
50	W. 12th St.	Sherwood Ln.	N. Franklin Ave.	1,047	BL/PS	\$20	\$20,940
51	N. Franklin Ave.	W. 12th St.	W. 9th St.	3,110	BL/PS	\$20	\$62,200
52	N. Franklin Ave.	W. 9th St.	W. 4th St.	1,894	BL/PS	\$20	\$37,880
53	Buck Ave. / Undeveloped Right-of-Way	W. 9th St.	W. 4th St.	2,340	BB	\$15	\$35,100
54	W. 7th St.	Western Terminus	N. Franklin Ave.	1,267	BL/PS	\$20	\$25,340
55	W. 7th St.	N. Franklin Ave.	N. Willow Ave.	1,033	BL/PS	\$20	\$20,660
56	W. 4th St.	W. Broad St.	N. Franklin Ave.	1,463	BL/PS	\$20	\$29,260
57	W. 4th St.	N. Franklin Ave.	N. Willow Ave.	1,111	BL/PS	\$20	\$22,220
58	W. Broad St.	W. 4th St.	W. Spring St.	911	BBL/SBL	\$30	\$27,330
59	W. Broad St.	W. Spring St.	N. Willow Ave.	1,797	BBL/SBL	\$30	\$53,910
60	W. 12th St.	N. Franklin Ave.	Pine Ave.	1,173	SUP	\$150	\$175,950
61	W. 12th St.	Pine Ave.	N. Willow Ave.	1,859	SUP	\$150	\$278,850
62	W. 12th St.	N. Willow Ave.	N. Dixie Ave.	1,838	SUP	\$150	\$275,700
63	N. Willow Ave.	W. 12th St.	University Dr.	1,128	SUP	\$150	\$169,200
64	University Dr.	N. Franklin Ave.	N. Dixie Ave.	1,772	SUP	\$150	\$265,800
65	N Peachtree Ave.	W. 12th St.	W. 7th St.	2,589	BBL/SBL	\$30	\$77,670
66	W. 7th St.	N. Willow Ave.	N. Peachtree St.	1,693	BBL/SBL	\$30	\$50,790
67	W. 7th St.	N. Peachtree St.	TN Central Heritage Rail Trail	813	BBL/SBL	\$30	\$24,390
68	W. 4th St.	N. Willow Ave.	N. Cedar Ave.	1,476	BBL/SBL	\$30	\$44,280
69	W. 4th St.	N. Cedar Ave.	Mahler Ave.	774	BBL/SBL	\$30	\$23,220
70	E. 4th St.	Mahler Ave.	N. Dixie Ave.	1,037	BB	\$15	\$15,555
71	N. Cedar Ave.	W. 7th St.	W. 4th St.	1,228	BL/PS	\$20	\$24,560
72	N. Cedar Ave.	W. 4th St.	W. 2nd St.	870	BL/PS	\$20	\$17,400
73	N. Cedar Ave.	W. 2nd St.	W. Broad St.	754	BB	\$15	\$11,310
74	N Peachtree Ave.	W. 7th St.	W. 4th St.	1,228	BBL/SBL	\$30	\$36,840
75	N Peachtree Ave.	W. 4th St.	E. 1st St.	1,100	BBL/SBL	\$30	\$33,000
76	W. Broad St.	N. Willow Ave.	N. Cedar Ave.	1,479	BB	\$15	\$22,185
77	W. Broad St.	N. Cedar Ave.	N. Walnut Ave.	589	BB	\$15	\$8,835
78	E. Broad St.	Mahler Ave.	N. Dixie Ave.	1,321	BBL/SBL	\$30	\$39,630
79	N. Dixie Ave.	W. 12th St.	E. 9th St.	1,753	BBL/SBL	\$30	\$52,590
80	N. Dixie Ave.	E. 9th St.	E. 4th St.	2,223	BBL/SBL	\$30	\$66,690
81	N. Dixie Ave.	E. 4th St.	E. Broad St.	1,996	BBL/SBL	\$30	\$59,880
82	E. 12th St.	N. Dixie Ave.	TN Central Heritage Rail Trail	1,750	SUP	\$150	\$262,500
83	E. 10th St.	TN Central Heritage Rail Trail	N. Washington Ave.	4,034	BL/PS	\$20	\$80,680
84	E. 6th St.	N. Dixie Ave.	N. Washington Ave.	1,130	BL/PS	\$20	\$22,600
85	E. 6th St.	N. Washington Ave.	N. Maple Ave.	1,036	BL/PS	\$20	\$20,720
86	E. Broad St.	N. Dixie Ave.	N. Maple Ave.	1,873	BBL/SBL	\$30	\$56,190
87	N. Maple Ave.	E. 10th St.	E. 6th St.	2,078	BL/PS	\$20	\$41,560
88	N. Maple Ave.	E. 6th St.	E. Broad St.	2,690	BL/PS	\$20	\$53,800
89	E. 10th St.	N. Washington Ave.	Brown Ave.	5,764	SUP	\$150	\$864,600

Note: BB = Bike Boulevard; BBL/SPL = Buffered/Separated Bike Lane; BL/PS = Bike Lane/Paved Shoulder; SUP = Shared-Use Path/Sidepath

Table 6. Recommended Bicycle Improvements (continued)

ID	Road	From	To	Linear Feet	Facility Type	Unit Cost per LF	Estimated Cost
90	E. 10th St.	Brown Ave.	Fisk Rd.	6,609	SUP	\$150	\$991,350
91	Brown Ave.	E. 10th St.	E. 6th St.	2,350	BL/PS	\$20	\$47,000
92	E. 6th St.	N. Maple Ave.	Brown Ave.	1,771	BL/PS	\$20	\$35,420
93	E. 6th St.	Brown Ave.	Fisk Rd.	2,650	BL/PS	\$20	\$53,000
94	E. Broad St.	N. Maple Ave.	Fisk Rd.	5,334	BBL/SBL	\$30	\$160,020
95	Fisk Rd.	E. 10th St.	E. Broad St.	3,999	BBL/SBL	\$30	\$119,970
96	E. 10th St.	Fisk Rd.	N. Old Kentucky Rd.	10,511	SUP	\$150	\$1,576,650
97	E. 10th St.	N. Old Kentucky Rd.	SR-111	5,035	SUP	\$150	\$755,250
98	N. Old Kentucky Rd.	E. 10th St.	E. Broad St.	4,087	SUP	\$150	\$613,050
99	E. Broad St.	Fisk Rd.	N. Old Kentucky Rd.	1,681	BBL/SBL	\$30	\$50,430
100	E. Broad St.	N. Old Kentucky Rd.	SR-111	2,501	BBL/SBL	\$30	\$75,030
101	Buck Mountain Rd.	SR-111	Dry Valley Rd.	3,026	BL/PS	\$20	\$60,520
102	Buck Mountain Rd.	Dry Valley Rd.	Old Qualls Rd.	3,822	BL/PS	\$20	\$76,440
103	Tennessee Ave.	W. Broad St.	Buffalo Valley Rd.	6,270	BL/PS	\$20	\$125,400
104	Buffalo Valley Rd.	Hawkins Crawford Rd.	Tennessee Ave.	7,494	BL/PS	\$20	\$149,880
105	Hawkins Crawford Rd.	Buffalo Valley Rd.	Tennessee Ave.	5,286	BL/PS	\$20	\$105,720
106	Tennessee Ave.	Buffalo Valley Rd.	Hawkins Crawford Rd.	8,241	BL/PS	\$20	\$164,820
107	Buffalo Valley Rd.	Tennessee Ave.	Ridgedale Dr.	4,263	BL/PS	\$20	\$85,260
108	Cane Creek Greenway	Cane Creek Park	Mine Lick Creek Rd.	8,164	SUP	\$150	\$1,224,600
109	Mine Lick Creek Rd.	Tennessee Ave.	Bush Rd.	5,745	BL/PS	\$20	\$114,900
110	Buffalo Valley Rd.	Ridgedale Dr.	Holladay Rd.	5,091	BL/PS	\$20	\$101,820
111	Mine Lick Creek Rd.	Bush Rd.	Holladay Rd.	6,005	BL/PS	\$20	\$120,100
112	Holladay Rd.	Buffalo Valley Rd.	Mine Lick Creek Rd.	5,235	BL/PS	\$20	\$104,700
113	Tennessee Ave.	Mine Lick Creek Rd.	Highlands Park Blvd.	2,654	BL/PS	\$20	\$53,080
114	Tennessee Ave.	Highlands Park Blvd.	Bob Gentry Rd.	3,970	BL/PS	\$20	\$79,400
115	Academy Rd.	Homestead Cir.	Bennett Rd.	6,444	BL/PS	\$20	\$128,880
116	Cane Creek Greenway	Mine Lick Creek Rd.	Lee Seminary Rd.	6,769	SUP	\$150	\$1,015,350
117	Lee Seminary Rd.	Tennessee Ave.	Cane Creek Rd.	5,369	SUP	\$150	\$805,350
118	Lee Seminary Rd.	Cane Creek Rd.	Highlands Park Blvd.	4,495	SUP	\$150	\$674,250
119	Lee Seminary Rd.	Highlands Park Blvd.	Burgess Falls Rd.	3,881	SUP	\$150	\$582,150
120	TN Central Heritage Rail Trail	W. Jackson St.	S. of Garrett Ave.	4,804	SUP	\$150	\$720,600
121	TN Central Heritage Rail Trail	S. of Garrett Ave.	W. of N. Willow Ave.	4,345	SUP	\$150	\$651,750
122	Garrett Ave.	W. of Hunter Ave.	W. Broad St.	2,199	BB	\$15	\$32,985
123	C C Camp Rd.	Cane Creek Park	Buffalo Valley Rd.	3,037	SUP	\$150	\$455,550
124	Buffalo Valley Rd.	Holladay Rd.	W. Jackson St.	3,805	BL/PS	\$20	\$76,100
125	C C Camp Rd. / Springdale Dr.	Buffalo Valley Rd.	(New SUP)	1,348	BB	\$15	\$20,220
126	New Greenway Connection	Springdale Dr.	Forest Hills Dr.	530	SUP	\$150	\$79,500
127	Forest Hills Dr. / W. Oak Dr. / Lone Oak Dr.	(New SUP)	Forest Hills Dr.	3,025	BB	\$15	\$45,375
128	Bill Smith Rd. / Foreman Dr.	Holladay Rd.	S. Willow Ave.	6,224	BL/PS	\$20	\$124,480
129	Holladay Rd.	Mine Lick Creek Rd.	Gould Dr.	2,902	BL/PS	\$20	\$58,040
130	Holladay Rd.	Gould Dr.	Lee Seminary Rd.	2,139	BL/PS	\$20	\$42,780
131	Gould Dr.	Holladay Rd.	S. Willow Ave.	4,261	BL/PS	\$20	\$85,220
132	S. Willow Ave.	Interstate Dr.	Gould Dr.	3,765	BL/PS	\$20	\$75,300
133	S. Willow Ave.	Gould Dr.	Lee Seminary Rd.	2,613	BL/PS	\$20	\$52,260

Note: BB = Bike Boulevard; BBL/SPL = Buffered/Separated Bike Lane; BL/PS = Bike Lane/Paved Shoulder; SUP = Shared-Use Path/Sidepath

Table 6. Recommended Bicycle Improvements (continued)

ID	Road	From	To	Linear Feet	Facility Type	Unit Cost per LF	Estimated Cost
134	Burgess Falls Rd.	Lee Seminary Rd.	W. Cemetery Rd.	4,547	BL/PS	\$20	\$90,940
135	Buffalo Valley Rd. / W. Stevens St.	W. Jackson St.	S. Willow Ave.	3,241	BBL/SBL	\$30	\$97,230
136	W. Stevens St.	S. Willow Ave.	S. Jefferson Ave.	3,936	BBL/SBL	\$30	\$118,080
137	S. Walnut Ave.	E. Broad St.	W. Stevens St.	2,062	SUP	\$150	\$309,300
138	S. Walnut Ave.	W. Stevens St.	E. Veterans Dr.	5,493	SUP	\$150	\$823,950
139	S. Walnut Ave.	E. Veterans Dr.	Interstate Dr.	2,242	SUP	\$150	\$336,300
140	(New SUP)	W. Jackson St.	County Services Dr.	3,551	SUP	\$150	\$532,650
141	County Services Dr.	(New SUP)	S. Willow Ave.	1,225	BB	\$15	\$18,375
142	Orchard St. / Greenland Ave. / Southgate Dr.	S. Willow Ave.	Fairground St.	1,898	BB	\$15	\$28,470
143	Scott Ave.	W. Stevens St.	W. Jackson St.	1,428	BBL/SBL	\$30	\$42,840
144	Scott Ave.	W. Jackson St.	Darwin St.	1,066	BBL/SBL	\$30	\$31,980
145	Polly Dr.	Parkview ES	Darwin St.	1,397	BB	\$15	\$20,955
146	Darwin St. / Chote St.	Scott Ave.	S. Walnut Ave.	1,074	BB	\$15	\$16,110
147	Greenland Ave. / Dakota Ave. / Boatman Dt. / Darwin St.	Orchard St.	Chote St.	2,787	BB	\$15	\$41,805
148	Fairgrounds St. / E. Veterans Dr.	Southgate Dr.	S. Jefferson Ave.	4,787	SUP	\$150	\$718,050
149	E. Veterans Dr.	S. Jefferson Ave.	S. Maple Ave.	3,181	SUP	\$150	\$477,150
150	Commerce Ave.	S. Jefferson	Whitson Ave.	1,183	BB	\$15	\$17,745
151	(New SUP)	Whitson Ave.	S. Maple Ave.	2,167	SUP	\$150	\$325,050
152	Interstate Dr.	S. Willow Ave.	S. Walnut Ave.	4,752	SUP	\$150	\$712,800
153	Interstate Dr.	S. Walnut Ave.	S. Jefferson Ave.	4,664	SUP	\$150	\$699,600
154	Neal St.	S. Jefferson Ave.	S. Maple Ave.	4,787	SUP	\$150	\$718,050
155	Dubois Rd. / S. Jefferson Ave.	Neal St.	Bunker Hill Rd.	3,082	BL/PS	\$20	\$61,640
156	Winston Dr.	S. Willow Ave.	Brookdale Ave.	4,350	BB	\$15	\$65,250
157	(New SUP)	Brookdale Ave.	Breen Ln.	1,017	SUP	\$150	\$252,550*
158	Breen Ln. / Essex Rd.	Brookdale Ave.	Bunker Hill Rd.	5,506	BB	\$15	\$82,590
159	Belmont Dr.	Burgess Falls Rd.	Pimlico Dr.	2,325	BB	\$15	\$34,875
160	(New SUP)	Belmont Dr.	Heathwood West Dr.	467	SUP	\$150	\$70,050
161	Heathwood West Dr. / John West Rd.	(New SUP)	W. Cemetery Rd.	3,157	BB	\$15	\$47,355
162	W. Cemetery Rd.	Burgess Falls Rd.	John West Rd.	5,520	SUP	\$150	\$828,000
163	W. Cemetery Rd.	Heathwood West Dr.	Bunker Hill Rd.	4,459	SUP	\$150	\$668,850
164	Bunker Hill Rd.	S. Jefferson Ave.	Essex Rd.	5,781	SUP	\$150	\$867,150
165	Bunker Hill Rd.	Essex Rd.	W. Cemetery Rd.	4,160	SUP	\$150	\$624,000
166	Bunker Hill Rd.	W. Cemetery Rd.	Southern Woods Ct.	5,288	SUP	\$150	\$793,200
167	Bunker Hill Rd. / Lovelady Rd.	Southern Woods Ct.	S. Lovelady Rd.	4,202	SUP	\$150	\$630,300
168	Lovelady Rd.	S. Lovelady Rd.	S. Jefferson Ave.	2,610	SUP	\$150	\$391,500
169	S. Lovelady Rd.	Luke Ln.	Lovelady Rd.	3,414	BL/PS	\$20	\$68,280
170	Messenger Rd.	Bunker Hill Rd.	S. Jefferson Ave.	1,446	BB	\$15	\$21,690
171	Julia Dr.	S. Jefferson Ave.	S. of Royal Cir.	2,628	BB	\$15	\$39,420
172	S. Jefferson Ave.	E. Broad St.	E. Stevens St.	2,363	BBL/SBL	\$30	\$70,890
173	Maple Ave.	E. Broad St.	E. Stevens St.	2,358	BBL/SBL	\$30	\$70,740
174	E. Stevens St.	S. Jefferson Ave.	S. Maple Ave.	1,741	BBL/SBL	\$30	\$52,230

Note: BB = Bike Boulevard; BBL/SPL = Buffered/Separated Bike Lane; BL/PS = Bike Lane/Paved Shoulder; SUP = Shared-Use Path/Sidepath

*Estimated cost includes pedestrian bridge over Hudgens Creek.

Table 6. Recommended Bicycle Improvements (continued)

ID	Road	From	To	Linear Feet	Facility Type	Unit Cost per LF	Estimated Cost
175	S. Maple Ave.	E. Stevens St.	Hampton Cir.	3,288	BBL/SBL	\$30	\$98,640
176	S. Maple Ave.	Hampton Cir.	Neal St.	1,809	BBL/SBL	\$30	\$54,270
177	E. Spring St.	E. Broad St.	Carlen Dr.	4,069	BBL/SBL	\$30	\$122,070
178	Belle Acres Greenway	E. Broad St.	Fisk Rd.	5,263	SUP	\$150	\$789,450
179	Raider Dr.	Belle Acres Greenway	E. Spring St.	2,043	SUP	\$150	\$306,450
180	S. Old Kentucky Rd.	E. Broad St.	Frisbie Ln.	1,927	SUP	\$150	\$289,050
181	S. Old Kentucky Rd.	Frisbie Ln.	E. Spring St.	3,281	SUP	\$150	\$492,150
182	E. Hudgens St.	S. Washington Ave.	S. Maple Ave.	1,147	BL/PS	\$20	\$22,940
183	E. Hudgens St.	S. Maple Ave.	S. Elm Ave.	1,018	BL/PS	\$20	\$20,360
184	E. Hudgens St.	S. Elm Ave.	Old Walton Rd.	2,228	BL/PS	\$20	\$44,560
185	E. Hudgens St.	Old Walton Rd.	E. Spring St.	918	BL/PS	\$20	\$18,360
186	E. Spring St.	Carlen Dr.	SR-111	2,743	BBL/SBL	\$30	\$82,290
187	E. Spring St.	SR-111	S. Dry Valley Rd.	6,262	BL/PS	\$20	\$125,240
188	S. Dry Valley Rd.	Buck Mountain Rd.	E. Spring St.	7,861	BL/PS	\$20	\$157,220
189	S. Elm Ave.	E. Hudgens St.	E. Stevens St.	1,095	BB	\$15	\$16,425
190	Nash Ave. / Russell Strausse Rd.	E. Stevens St.	Old Walton Rd.	4,576	BB	\$15	\$68,640
191	Old Walton Rd.	S. Hudgens St.	Russell Strausse Rd.	1,420	BL/PS	\$20	\$28,400
192	Old Walton Rd.	Russell Strausse Rd.	Neal St.	2,645	BL/PS	\$20	\$52,900
193	Neal St.	S. Maple Ave.	Old Walton Rd.	1,538	SUP	\$150	\$230,700
194	Neal St.	Old Walton Rd.	E. Spring St.	4,418	SUP	\$150	\$662,700
195	S. Maple Ave.	Neal St.	Fleetguard Rd.	3,579	BL/PS	\$20	\$71,580
196	Ferrell Dr. / New Location	S. Jefferson Ave.	S. Maple Ave.	4,709	SUP	\$150	\$706,350
197	Pigeon Roost Creek Greenway	E. of Ferrell Dr.	Charles St.	5,485	SUP	\$150	\$822,750
198	Pigeon Roost Creek Greenway	Charles St.	Julia Dr.	5,101	SUP	\$150	\$765,150
199	Pigeon Roost Creek Greenway	Julia Dr.	S. Jefferson Ave.	6,191	SUP	\$150	\$928,650
200	W. Cemetery Rd.	Bunker Hill Rd.	S. Jefferson Ave.	2,696	SUP	\$150	\$404,400
201	Pigeon Roost Creek Rd.	Bunker Hill Rd.	S. Jefferson Ave.	3,074	SUP	\$150	\$461,100
202	S. Maple Ave. / Old Sparta Rd.	Fleetguard Rd.	Old Bridge Rd.	7,880	BL/PS	\$20	\$157,600
203	US-70E	S. Dry Valley Rd.	Bridgeway Dr.	5,524	BL/PS	\$20	\$110,480
204	US-70E	Bridgeway Dr.	Watson Rd.	7,422	BL/PS	\$20	\$148,440
205	Old Bridge Rd.	Old Sparta Rd.	S. of Boyd Farris Rd.	6,213	BL/PS	\$20	\$124,260
206	Old Sparta Rd.	Old Bridge Rd.	Horace Lewis Rd.	4,653	BL/PS	\$20	\$93,060
207	Old Sparta Rd.	Horace Lewis Rd.	S. Jefferson Ave.	6,310	BL/PS	\$20	\$126,200
208	Falling Water River Greenway	Old Sparta Rd.	Bob Bullock Rd.	8,677	SUP	\$150	\$1,301,550
209	Falling Water River Greenway	Bob Bullock Rd.	Old Bridge Rd.	8,029	SUP	\$150	\$1,204,350
210	Falling Water River Greenway	Old Bridge Rd.	US-70E	19,678	SUP	\$150	\$2,951,700

Note: BB = Bike Boulevard; BBL/SPL = Buffered/Separated Bike Lane; BL/PS = Bike Lane/Paved Shoulder; SUP = Shared-Use Path/Sidepath

2.2 Pedestrian Recommendations

The City of Cookeville has expanded the sidewalk network over the past two decades and currently has several projects under development that will add to the total. Current projects of note with new sidewalks include:

- Interstate Drive;
- S. Jefferson Avenue; and
- E. Spring Street.

Similar to the bikeway recommendations, the recommended pedestrian network (Figure 12) carries forward many of the proposed sidewalks from the 2003 plan. Key features of the recommended pedestrian network include:

- Linking the city's core with surrounding neighborhoods and neighborhoods to one another;
- Connecting sidewalks with shared-use paths and sidepaths, and utilizing, where applicable, shared-use paths and sidepaths to provide a combined walking and bicycling facility more effectively than a standalone sidewalk; and
- Improving intersections throughout the city to eliminate barriers to walking.

It is important to note that the specific intersection improvements will be developed in future design phases, but in general, but may include the following treatments to increase pedestrian safety and comfort:

- High visibility crosswalks on all intersection legs;
- Advanced stop lines;
- Pedestrian signal countdown heads;
- Leading pedestrian intervals on traffic signals;
- Curb extensions and/or reduced curb radii;
- Pedestrian refuge islands; and
- Improved nighttime lighting.

Figure 13 provides a more detailed look at the pedestrian network in the urban core, while Table 7 lists the sidewalk recommendations – a total of approximately 57 miles with an estimated cost of \$76.2 million.

Please note: The recommended improvements are listed generally from north to south and west to east, and are not listed in any priority. All cost estimates in the document are based on planning level unit costs.

Figure 12. Pedestrian Network Plan

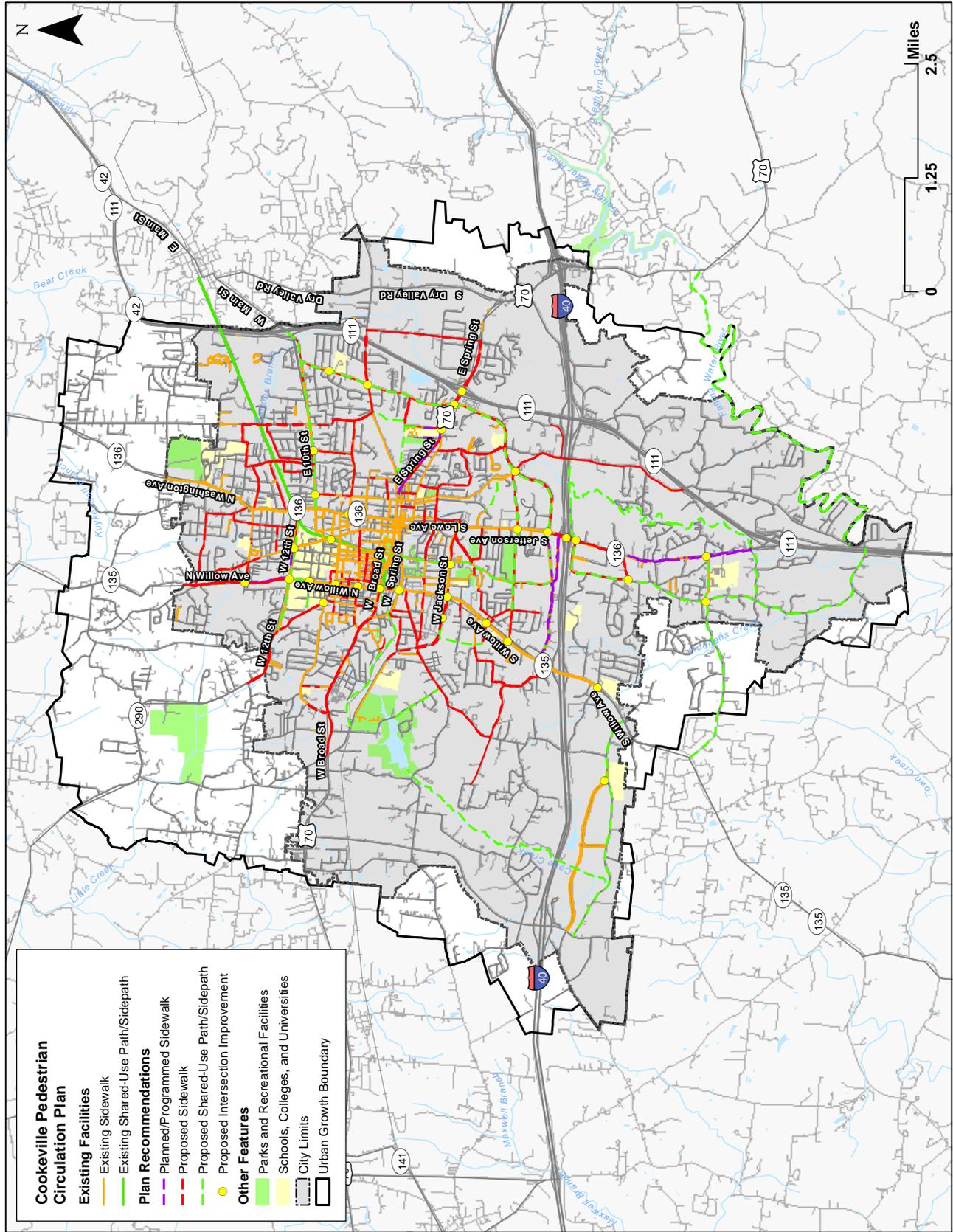


Figure 13. Pedestrian Network Plan: Detail of Urban Core

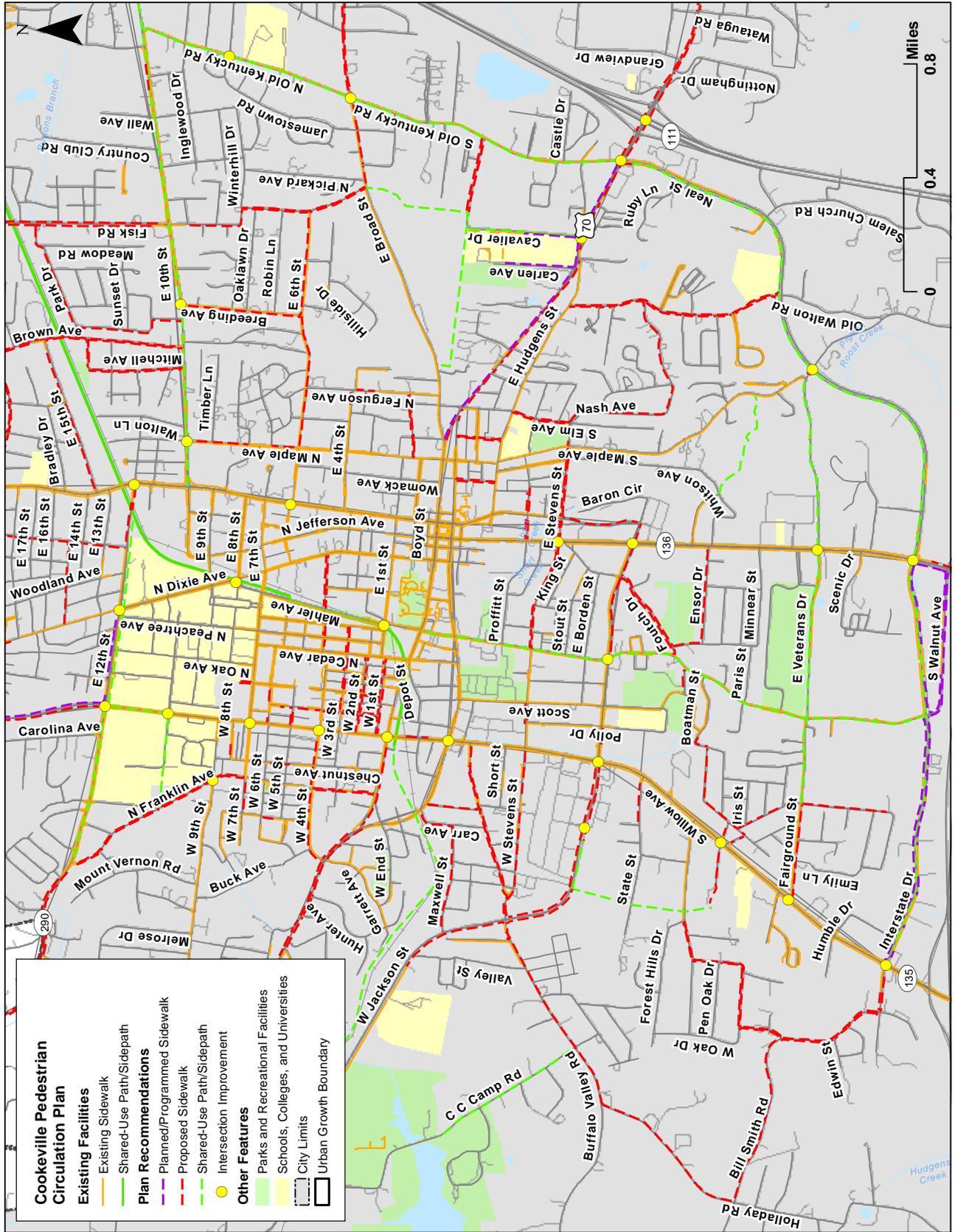


Table 7. Recommended Pedestrian Improvements

ID	Road	From	To	Linear Feet	One (1) or Two (2) Sides of Street	Unit Cost per LF	Estimated Cost
1	N. Willow Ave.	Shipley Rd. / N. Dixie Ave.	W. Jere Whitson Rd.	3,232	2	\$250	\$1,616,000
2	N. Willow Ave.	W. Jere Whitson Rd.	W. 12th St.	2,545	2	\$250	\$1,272,500
3	N. Dixie Ave.	N. Willow Ave.	Kenway St.	512	1	\$250	\$128,000
4	Kenway St.	N. Dixie Ave.	Free Hill Rd.	3,604	1	\$250	\$901,000
5	N. Dixie Ave.	Kenway St.	W. Jere Whitson Rd.	2,773	2	\$250	\$1,386,500
6	W. Jere Whitson Rd.	N. Willow Ave.	N. Dixie Ave.	1,136	1	\$250	\$284,000
7	N. Dixie Ave.	W. Jere Whitson Rd.	E. 18th St.	753	1	\$250	\$188,250
8	E. Jere Whitson Rd. (Gap)	Woodlane Ave.	E. of Louisiana Ave.	114	1	\$250	\$28,500
9	Free Hill Rd.	Kenway St.	N. Washington Ave.	2,252	1	\$250	\$563,000
10	Mississippi Ave. / Mississippi Ct.	Free Hill Rd.	E. Jere Whitson Rd.	1,487	1	\$250	\$371,750
11	Mississippi Ave.	E. Jere Whitson Rd.	E. 12th St.	2,355	1	\$250	\$588,750
12	E. 13th St.	N. Dixie Ave.	Mississippi Ave.	1,530	1	\$250	\$382,500
13	W. 12th St.	Autumn Ave.	N. Dixie Ave.	1,229	1	\$250	\$307,250
14	E. 12th St.	Mississippi Ave.	N. Washington Ave.	598	2	\$250	\$299,000
15	E. Jere Whitson Rd.	N. Washington Ave.	N. Maple Ave.	880	1	\$250	\$220,000
16	E. Jere Whitson Rd.	N. Maple Ave.	Brown Ave.	1,524	2	\$250	\$762,000
17	E. 20th St.	Brown Ave.	Volunteer Dr.	1,320	2	\$250	\$660,000
18	Volunteer Dr.	Summerfield Rd.	Fisk Rd.	977	2	\$250	\$488,500
19	Brown Ave.	E. 20th St.	E. 15th St.	1,263	2	\$250	\$631,500
20	E. 15th St.	N. Washington Ave.	Brown Ave.	2,509	1	\$250	\$627,250
21	Fisk Rd.	Volunteer Dr.	Park Dr.	1,404	2	\$250	\$702,000
22	Fisk Rd.	Park Dr.	E. 10th St.	2,258	2	\$250	\$1,129,000
23	Park Dr.	Fisk Rd.	E. 10th St.	4,233	1	\$250	\$1,058,250
24	Brown Ave.	E. 15th St.	E. 10th St.	2,444	2	\$250	\$1,222,000
25	Cinderella Dr.	Mitchell Ave.	Brown Ave.	524	2	\$250	\$262,000
26	Mitchell Ave.	Cinderella Dr.	E. 10th St.	1,660	2	\$250	\$830,000
27	E. 10th St. (Gap)	W. of Bilbrey Ave.	E. of Bilbrey Ave.	550	1	\$250	\$137,500
28	Crescent Dr.	Linnaeus Ave.	W. Broad St.	1,276	2	\$250	\$638,000
29	Ellis Ave.	Crescent Dr.	N. of W. Broad St.	1,050	1	\$250	\$262,500
30	W. Broad St.	Crescent Dr.	Johnson Ave.	2,677	2	\$250	\$1,338,500
31	W. Broad St.	Johnson Ave.	Freedom Ave.	895	1	\$250	\$223,750
32	Gainesboro Grade	Benton Young Rd.	N. Franklin Ave.	3,370	2	\$250	\$1,685,000
33	W. Broad St.	Freedom Ave.	Garrett Ave.	1,723	2	\$250	\$861,500
34	N. Franklin Ave.	W. 12th St.	Pine Ave.	1,820	2	\$250	\$910,000
35	N. Franklin Ave.	Pine Ave.	W. 9th St.	1,097	2	\$250	\$548,500
36	N. Franklin Ave.	W. 9th St.	W. 7th St.	579	2	\$250	\$289,500
37	W. 7th St.	Pine Ave.	N. Franklin Ave.	639	1	\$250	\$159,750
38	Pine Ave.	W. 6th St.	W. 4th St.	442	1	\$250	\$110,500
39	W. 4th St.	W. Broad St.	Pine Ave.	825	1	\$250	\$206,250
40	W. Broad St.	W. 4th St.	W. Spring St.	800	2	\$250	\$400,000
41	W. Broad St.	W. Spring St.	N. Willow Ave.	1,535	1	\$250	\$383,750
42	N. Franklin Ave.	W. 4th St.	W. Broad St.	1,024	2	\$250	\$512,000
43	W. 4th St.	W. of Spruce Ave.	N. Willow Ave.	1,278	1	\$250	\$319,500
44	Chestnut Ave.	W. 6th St.	S. of W. 5th St.	422	1	\$250	\$105,500

Table 7. Recommended Pedestrian Improvements (continued)

ID	Road	From	To	Linear Feet	One (1) or Two (2) Sides of Street	Unit Cost per LF	Estimated Cost
45	W. 8th St.	N. Willow Ave.	W. 7th St.	670	2	\$250	\$335,000
46	Medical Center Blvd.	W. 8th St.	W. 7th St.	268	2	\$250	\$134,000
47	W. 6th St.	N. Willow Ave.	Medical Center Blvd.	435	1	\$250	\$108,750
48	N. Whitney Ave.	S. of W. 6th St.	W. 3rd St.	735	1	\$250	\$183,750
49	W. 5th St.	N. Willow Ave.	N. Whitney Ave.	335	2	\$250	\$167,500
50	N. Whitney Ave.	W. 3rd St.	W. 1st St.	634	2	\$250	\$317,000
51	W. 3rd St.	N. Whitney Ave.	N. Walnut Ave.	1,076	2	\$250	\$538,000
52	W. 2nd St.	N. Willow Ave.	N. Cedar Ave.	1,010	2	\$250	\$505,000
53	N. Hickory Ave.	W. 2nd St.	W. 1st St.	324	1	\$250	\$81,000
54	W. 1st St.	N. Willow Ave.	N. Cedar Ave.	1,142	2	\$250	\$571,000
55	W. 4th St.	N. Cedar Ave.	Mahler Ave.	448	2	\$250	\$224,000
56	E. 4th St.	Mahler Ave.	N. Dixie Ave.	951	2	\$250	\$475,500
57	N. Maple Ave.	E. 10th St.	E. 6th St.	1,539	1	\$250	\$384,750
58	Breeding Ave.	E. 10th St.	E. 6th St.	2,211	1	\$250	\$552,750
59	Fisk Rd.	Syracuse St.	Winterhill Dr.	1,336	1	\$250	\$334,000
60	Fisk Rd.	Winterhill Dr.	E. Broad St.	2,366	2	\$250	\$1,183,000
61	E. 6th St.	N. Maple Ave.	Breeding Ave.	2,395	1	\$250	\$598,750
62	E. 6th St.	Breeding Ave.	Fisk Rd.	1,936	1	\$250	\$484,000
63	E. 4th St.	Denton Ave.	N. Ferguson Ave.	233	1	\$250	\$58,250
64	N. Ferguson Ave.	E. 4th St.	S. of E. 3rd St.	353	1	\$250	\$88,250
65	Freeze St.	N. Maple Ave.	N. Ferguson Ave.	1,117	2	\$250	\$558,500
66	E. Broad St. / Buck Mountain Rd.	Briargate Way	Whitson Chapel Rd.	1,905	2	\$250	\$952,500
67	Whitson Chapel Rd.	Buck Mountain Rd.	McCulley Rd.	4,372	1	\$250	\$1,093,000
68	Whitson Chapel Rd.	McCulley Rd.	E. Spring St.	2,145	1	\$250	\$536,250
69	Buffalo Valley Rd.	Holladay Rd.	W. Jackson St.	4,037	1	\$250	\$1,009,250
70	Holladay Rd.	Buffalo Valley Rd.	Bill Smith Rd.	3,093	1	\$250	\$773,250
71	Bill Smith Rd.	Holladay Rd.	W. Oak Dr.	3,279	1	\$250	\$819,750
72	E. Broad St.	Fisk Rd.	N. Old Kentucky Rd.	1,561	1	\$250	\$390,250
73	E. Broad St.	N. Old Kentucky Rd.	Briargate Way	1,128	2	\$250	\$564,000
74	W. Jackson St.	W. of Eagles Landing Rd.	Buffalo Valley Rd.	2,086	1	\$250	\$521,500
75	W. Jackson St.	Buffalo Valley Rd.	S. Willow Ave.	3,655	2	\$250	\$1,827,500
76	Maxwell St. / Carl Ave.	W. Jackson St.	W. Spring St.	2,693	1	\$250	\$673,250
77	S. Franklin Ave.	W. Spring St.	Hughes St.	1,070	1	\$250	\$267,500
78	W. Stevens St.	W. Jackson St.	S. Willow Ave.	2,886	1	\$250	\$721,500
79	W. Stevens St.	W. Jackson St.	S. Willow Ave.	2,540	2	\$250	\$1,270,000
80	S. Willow Ave.	N. of Depot St.	S. of Depot St.	436	1	\$250	\$109,000
81	State St.	E. of Bybee Ave.	S. Willow Ave.	791	1	\$250	\$197,750
82	W. Stevens St.	Polly Dr.	Scott Ave.	354	2	\$250	\$177,000
83	W. Jackson St.	E. of S. Willow Ave.	Polly Dr.	326	1	\$250	\$81,500
84	E. Stevens St.	S. Walnut Ave.	S. Jefferson Ave.	2,252	2	\$250	\$1,126,000
85	E. Jackson St.	S. Walnut Ave.	S. Lowe Ave.	2,318	1	\$250	\$579,500
86	Chote St.	Darwin St.	S. Walnut Ave.	425	1	\$250	\$106,250
87	Foutch Dr.	S. Walnut Ave.	E. Jackson St.	1,766	2	\$250	\$883,000
88	Clover Hill Dr. / Ensor Dr.	Foutch Dr.	S. Jefferson Ave.	2,291	1	\$250	\$572,750

Table 7. Recommended Pedestrian Improvements (continued)

ID	Road	From	To	Linear Feet	One (1) or Two (2) Sides of Street	Unit Cost per LF	Estimated Cost
89	Locust Ave.	E. Spring St.	E. Hudgens St.	692	2	\$250	\$346,000
90	Hill Ave.	E. Spring St.	E. Hudgens St.	775	2	\$250	\$387,500
91	Profitt St.	S. Jefferson Ave.	Dyer Ave.	852	2	\$250	\$426,000
92	S. Elm Ave.	E. Hudgens St.	E. Stevens St.	1,022	2	\$250	\$511,000
93	E. Stevens St.	S. Jefferson Ave.	S. Elm Ave.	1,750	2	\$250	\$875,000
94	S. Lowe Ave.	E. Stevens St.	E. Jackson St.	1,425	1	\$250	\$356,250
95	Nash Ave.	E. Stevens St.	Hermitage Ave.	2,328	1	\$250	\$582,000
96	E. Spring St.	E. Broad St.	Crockett Ave.	1,670	2	\$250	\$835,000
97	E. Spring St.	Crockett Ave.	Raider Dr.	2,089	2	\$250	\$1,044,500
98	Carlen Dr.	Cookeville Community Center	E. Spring St.	1,287	1	\$250	\$321,750
99	Raider Dr.	Avery Trace MS	E. Spring St.	1,056	1	\$250	\$264,000
100	Raider Dr.	Avery Trace MS	S. Old Kentucky Rd.	1,384	2	\$250	\$692,000
101	E. Spring St.	Raider Dr.	SR-111	2,518	2	\$250	\$1,259,000
102	E. Spring St.	SR-111	Winston Chapel Ave.	2,593	2	\$250	\$1,296,500
103	Russell Strausse Rd.	Hermitage Ave.	Old Walton Rd.	1,673	1	\$250	\$418,250
104	Old Walton Rd.	E. Hudgens St.	Neal St.	3,839	2	\$250	\$1,919,500
105	E. Veterans Dr.	S. Maple Ave.	Neal St.	171	2	\$250	\$85,500
106	Lone Oak Dr.	Spring Valley Rd.	Forest Hills Dr.	744	2	\$250	\$372,000
107	Spring Valley Rd.	W. Oak Dr.	Lone Oak Dr.	2,035	2	\$250	\$1,017,500
108	W. Oak Dr.	Spring Valley Rd.	Bill Smith Rd.	811	2	\$250	\$405,500
109	Bill Smith Rd.	W. Oak Dr.	Foreman Dr.	1,966	2	\$250	\$983,000
110	Foreman Dr.	Bill Smith Rd.	S. Willow Ave.	549	2	\$250	\$274,500
111	County Services Dr.	Putnam County EMS	S. Willow Ave.	1,147	1	\$250	\$286,750
112	Orchard St.	S. Willow Ave.	Greeland Ave.	256	1	\$250	\$64,000
113	Ashwood Dr.	S. Willow Ave.	Greeland Ave.	264	1	\$250	\$66,000
114	Boatman St.	Darwin St.	Greeland Ave.	348	1	\$250	\$87,000
115	Greenland Ave.	Dakota Ave.	Ashwood Dr.	1,908	1	\$250	\$477,000
116	Southgate Dr.	Greenland Ave.	Fairground St.	1,150	1	\$250	\$287,500
117	Fairground St.	S. Willow Ave.	Southwood Dr.	1,707	1	\$250	\$426,750
118	Southwood Dr.	Fairground St.	S. of Tanglewood Dr.	1,576	1	\$250	\$394,000
119	Interstate Dr.	S. Willow Ave.	S. Walnut Ave.	3,689	2	\$250	\$1,844,500
120	Interstate Dr.	S. Walnut Ave.	S. Jefferson Ave.	2,041	1	\$250	\$510,250
121	S. Walnut Ave.	Interstate Dr.	S. Jefferson Ave.	3,768	2	\$250	\$1,884,000
122	S. Jefferson Ave.	S. Walnut Ave.	Davis Rd.	3,869	2	\$250	\$1,934,500
123	W. Davis Rd.	Bunker Hill Rd.	S. Jefferson Ave.	1,351	2	\$250	\$675,500
124	S. Jefferson Ave.	Davis Rd.	W. Cemetery Rd.	4,069	2	\$250	\$2,034,500
125	S. Jefferson Ave.	W. Cemetery Rd.	SR-111	2,657	2	\$250	\$1,328,500

Section 3.0

Bicycle & Pedestrian Design

Implementing bicycle and pedestrian improvements typically involves retrofitting existing roadways and requires a large degree of flexibility. Accordingly, design guidelines with multiple options and ranges can assist in achieving desired outcomes. Conversely, the land development process, especially new subdivisions, offer a critical opportunity to ensure that high quality walkways and bikeways are included as growth occurs. The following sections discuss both recommended design guidelines and land development policies and regulations.

3.1 Design Guidelines

To help ensure that bicycle and pedestrian improvements meet national best practices and are consistent with state department of transportation guidance, design guidelines have been developed for the City of Cookeville to support implementation of the recommended network plans. The design guidelines (Figures 14-17) cover the following facility types, and with the network plans, serve as the blueprint for improving walking and bicycling throughout the city.

- Bike lanes;
- Buffered bike lanes;
- Separated bike lanes;
- Signalized intersections;
- Shared use paths;
- Sidepaths; and
- Sidewalks.

Figure 16. Design Guidelines: Intersections

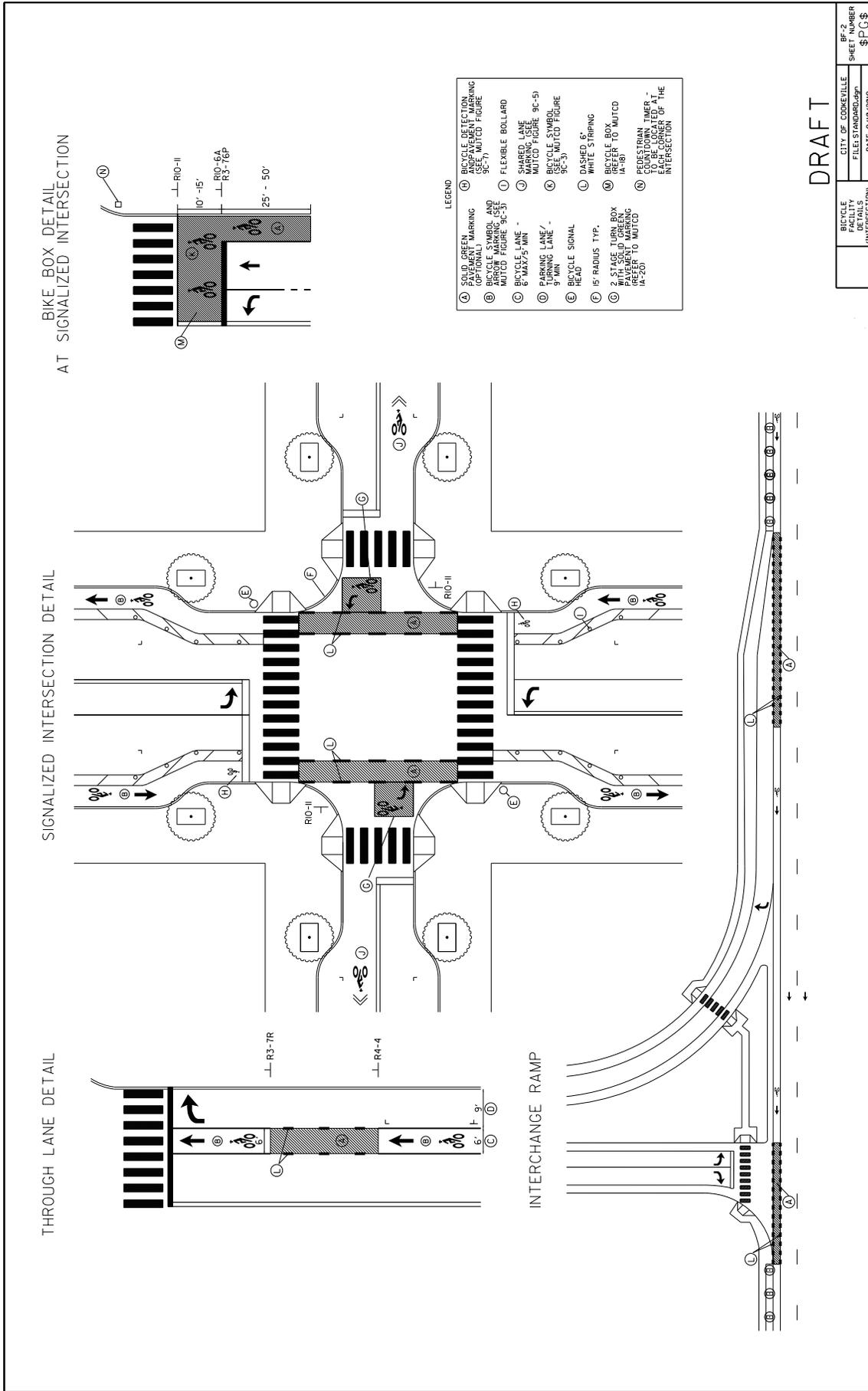
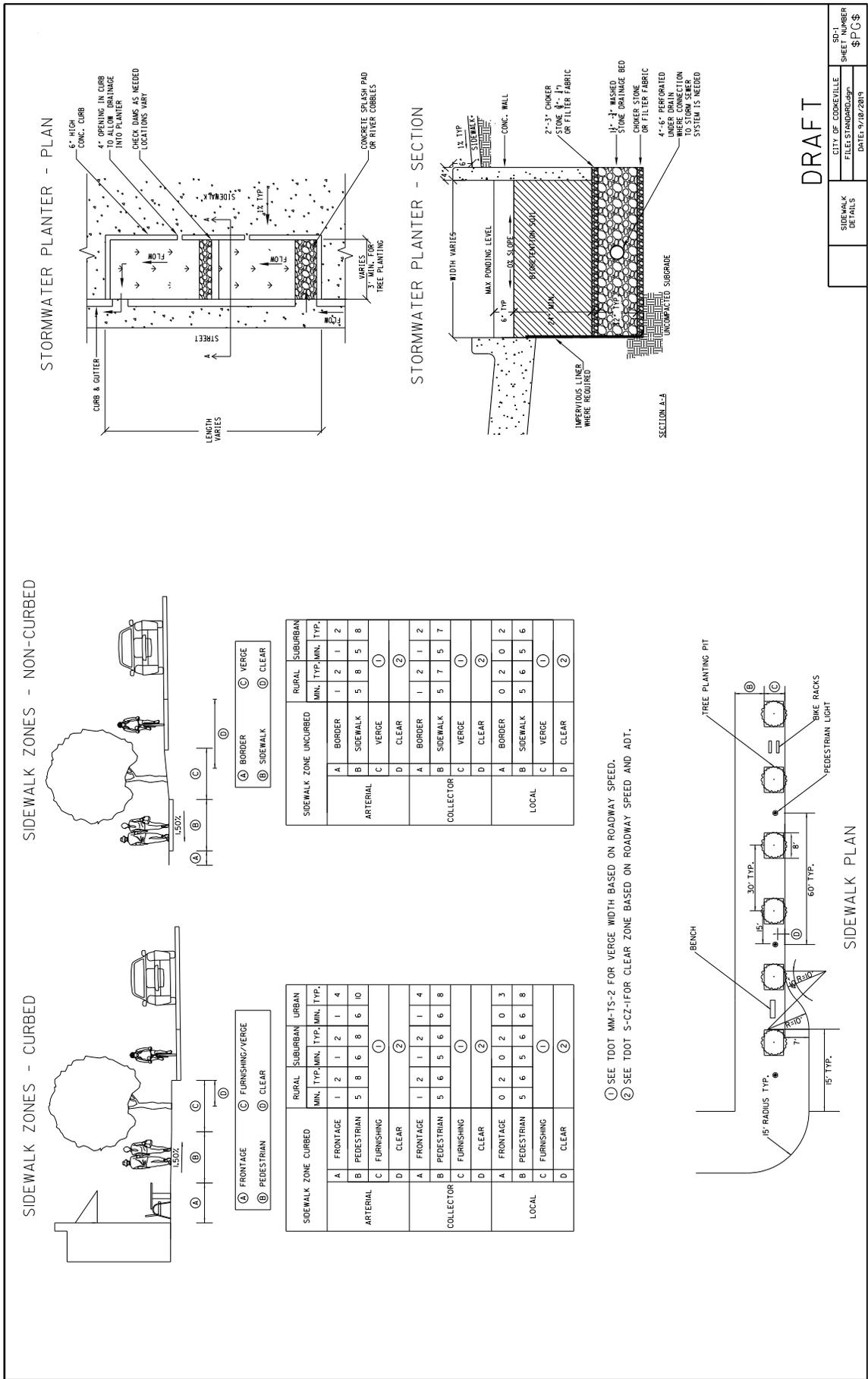


Figure 17. Design Guidelines: Sidewalks



3.2 Land Development Policies & Regulations

In addition to adopting state-of-the-art design guidelines, local jurisdictions can also use other policy and regulatory tools to improve walking and biking in their communities – notably, zoning ordinances, subdivision regulations, and Complete Streets policies. These tools, taken together, establish the context for walking and biking and help provide answers to such fundamental questions as:

- How far is it from my home to work, school, or shopping? and
- Is there a safe and direct way to walk and bike to my destination?

Table 8 lists best practices in land development policies and regulations that promote places for walking and biking. Importantly, the City of Cookeville’s Zoning Code and Subdivision Regulations already support many of the key strategies, including opportunities for mixed-use development and requirements for sidewalks. To augment existing policies and regulations, the city should consider the following:

- Reduce front yard requirements in commercial and multi-family residential zoning districts to promote pedestrian-oriented development either through an overlay district or new mixed-use base zoning districts;
- Provide floor area bonuses in return for additional pedestrian-oriented features, infill development, and mixed-use development that includes residential;
- Reduce parking requirements in designated commercial and multi-family locations and adjacent to transit, and provide floor area bonuses for locating parking behind or to the side of the principal building;
- Require bicycle parking for principal uses in designated commercial and multi-family locations;
- Establish a walkable subdivision option that provides density incentives in return for pedestrian-oriented features;
- Review access management policies and standards to minimize conflict points among all modes of transportation;
- Adopt and implement a Complete Streets policy; and
- Implement a neighborhood traffic calming program.

Table 8. Best Practices: Land Development Policies and Regulations

Best Practices	What is it?	Where is it typically applied?	How is it typically applied?
Access management standards	Requires minimum access spacing, connectivity, and cross-access to preserve operations and safety for all transportation modes.	Designated areas and streets	Zoning ordinance
Bicycle parking ordinance	Requires the provision of bicycle parking based on land use and location.	Designated areas and streets	Zoning ordinance
Development incentives	Provide developers with additional development rights in exchange for public benefits, such as plazas, parks, trails, and other pedestrian-oriented amenities.	Downtown, mixed-use districts, and neighborhood centers	Zoning ordinance
Form-based code	Regulates the built environment based primarily on building form rather than building use to achieve a pedestrian-oriented development pattern.	Downtown, mixed-use districts, and neighborhood centers	Zoning ordinance
Mixed-use zoning	Allows for the vertical and horizontal combination of commercial, residential, and civic uses in a given area, supporting walkable live-work-play districts.	Downtown, mixed-use districts, and neighborhood centers	Zoning ordinance
Sidewalk ordinance	Requires sidewalks in new development, redevelopment, and expansion based on land use and location.	Designated areas and streets	Zoning ordinance
Tree ordinance	Protects trees in public right-of-way and on private property and requires trees in new construction based on land use and location.	Designated areas and streets	Zoning ordinance
Greenway easement	Requires an easement for greenways identified in city plans.	Citywide	Subdivision regulations
Walkable subdivisions	Support more walkable communities through improved connectivity, defined centers, increased housing choices, and well designed public spaces.	Citywide	Subdivision regulations
Complete Streets ordinance or policy	Requires or encourages a safe, comfortable, integrated transportation network for all users, regardless of age, ability, income, ethnicity, or mode of transportation.	Citywide	Land use and transportation plans, policies, and standards
Traffic calming policy and program	Aims to reduce negative impacts of motor vehicle use, alter driver behavior, and improve conditions for pedestrians and bicyclists.	Designated areas and streets	Agency program

Section 4.0

Non-Infrastructure Program Recommendations

While the focus of a bicycle and pedestrian plan tends to concentrate on capital improvements, national best practices in bicycle and pedestrian planning and design underscore the importance of taking a comprehensive approach and highlighting the six “Es”:

- Education;
- Encouragement;
- Equity;
- Evaluation and planning;
- Engineering; and
- Enforcement.

The non-infrastructure programs described in this section complement the plan’s capital improvements and give Cookeville residents and visitors the tools they need to safely and confidently walk and bike. A particular emphasis of the non-infrastructure recommendations is providing more information and opportunities to traditionally underrepresented communities in active transportation and recreation programs, such as non-white and non-English speaking residents and visitors. Implementation of non-infrastructure programs relies heavily on partnerships within the public sector and across the public and private sectors, and local and regional agencies, businesses, community organizations, and other civic groups will play a vital role in their success. Table 9 describes non-infrastructure programs that can be implemented in the short-term along with potential partners.

Since many non-infrastructure programs typically depend on in-kind staff and resources, the key to building awareness, education, and participation is offering a regular schedule of events that engage both participants and volunteers. In addition to the short-term priorities, other potential non-infrastructure programs that can help improve walking and bicycling in Cookeville include:

Table 9. Non-Infrastructure Programs: Short-Term Opportunities

Category	Program	Potential Sponsors/Partners
Education	Bike rodeos and classes for children	City Agencies; Law Enforcement Agencies; School Districts; Community Organizations; Bicycle Clubs
Education	Pop-up demonstrations (“tactical urbanism”) to test out potential infrastructure projects and generate community interest	City Agencies; Community Organizations; Chamber of Commerce; Business Districts
Education	Bicycle/pedestrian safety awareness campaign for motorists	City Agencies; Law Enforcement Agencies
Encouragement	Free bicycle and bicycle helmet program for low-income residents	City Agencies; School Districts; Law Enforcement Agencies; Community Organizations; Bicycle Clubs
Encouragement	Bicycle and pedestrian maps and website	City Agencies; Chamber of Commerce
Encouragement	Open street events	City Agencies; Law Enforcement Agencies; Chamber of Commerce; Business Districts; Community Organizations; Walking Clubs; Bicycle Clubs
Evaluation	Annual bicycle and pedestrian counts at key locations (e.g., major intersections, schools, commercial districts, bridges)	City Agencies; Walking Clubs; Bicycling Clubs

Education

- Partner with local community organizations to host adult “how-to-ride” classes (e.g., Boys & Girls Club)
- Provide information and educational materials in Spanish, in addition to English
- Offer safe routes to school programming

Encouragement

- Host grand opening parties for new walking and bicycling facilities
- Conduct mountain bike workshops for children
- Celebrate National Bike Month in May and “Walk-tober” events in the fall
- Promote access to nature/recreation opportunities (e.g., “Five-Dollar 5k Run”, bike share stations in/near parks for recreational use)

Evaluation

- Conduct walking and bike safety audits with volunteers, including utilizing available technology such as the ArcGIS collector application on smart phones

Section 5.0

Implementation

Implementing a bicycle and pedestrian plan is primarily a two-pronged process centered on program development and facility development.

5.1 Program Development

Transforming a community into a great place to walk and bike takes time requiring the coordination of thousands of decisions made by many different stakeholders, from public agencies and interested residents to property owners and developers. To build a strong foundation for walking and biking in Cookeville, Table 10 outlines three program development goals and related objectives. The program development goals and objectives center on managing, measuring, and achieving the plan's vision.

Cookeville has a long history of actively supporting safe, comfortable, and convenient walking and biking in the city. While the city has had a community-based bicycle, pedestrian, and greenway advisory task force since 1997, recommissioning the committee and charging it with steering this plan's implementation is an important first step in achieving the plan's goals. Similarly, designating a city official as a bicycle and pedestrian program manager or coordinator will help support the advisory committee's work and ensure coordination among all stakeholders.

An additional early and critical action for both the advisory committee and city bicycle and pedestrian coordinator will be the development of tools to measure and monitor progress. As noted in Table 4 (Walking and Biking Vision, Goals, and Objectives), each of the plan's objectives is a candidate for measuring progress – either in terms of planning, design, or administration. The advisory committee and bicycle and pedestrian coordinator should determine which objectives will be the near-term focus for implementation. The objectives associated with the goals for connectivity, functionality and accessibility, and safety – priorities identified through the planning process, provide a good starting point.

Finally, implementation requires dedicated individuals and committees to develop strategies, objectives, and tactics for each plan goal. Again, the plan's goals and objectives have been defined in Table 4 and largely reflect the ones from the 2003 plan, affirming their ongoing relevance and value. The challenge now is to flesh out the specific tactics or tools for the objectives that are near-term priorities. Tactics highlighted in this plan include:

- Bicycle and pedestrian design guidelines;
- Land development policies and regulations; and
- Non-infrastructure programs.

Table 10. Program Development Goals and Objectives

Program Development Goals	Program Development Objectives
Identify a plan champion or champions	Designate a city bicycle and pedestrian program manager or coordinator
	Recommission a city bicycle, pedestrian, and greenway advisory committee
Measure progress	Task individuals and/or committees to define implementation measures
	Review implementation performance on an annual basis
Achieve plan goals	Task individuals and/or committees to develop strategies, objectives, and tactics for each plan goal

5.2 Facility Development

The bicycle and pedestrian network plans provide the overall framework for improving walking and biking in Cookeville. While the improvement lists in Sections 2.0 identify recommendations by street or road, they do not necessarily represent specific projects. The project development phase begins with project definition – typically describing the project’s purpose and need, its logical termini, and feasibility.

As part of the planning process, however, criteria were identified to help prioritize streets and roads in the network plans. Figure 18 depicts the relationship between the network plans, prioritization criteria, and project development. The criteria are closely tied to the plan’s goals and objectives and can be used by the city to evaluate and weigh different needs. The criteria include:

- Safety (crash history, network gaps, traffic volumes)
- Demand (schools, parks, commercial areas, population density)
- Equity (low income populations, transit)
- Cost efficiency (cost/capita)

Of course, project development ultimately depends on funding availability. While walking and bicycling facilities are typically included as part of larger public infrastructure and private development projects, increasingly, communities are undertaking targeted bicycle and pedestrian improvements to retrofit commercial districts and neighborhoods for economic and community development purposes. Funding for bicycle and pedestrian projects typically fall into two categories:

Multimodal Corridor Projects

The most cost-effective way to implement the recommendations in the plan is to coordinate walking and bicycling improvements with either local or state road projects during the project planning and programming processes. Opportunities for coordinating projects include:

- Corridor resurfacing;
- Corridor reconstruction;
- Intersection and safety improvements;
- Drainage improvements; and
- Utility projects.

State/Federal Transportation Grant Programs

There are also several grant opportunities at the state and federal levels aimed at bicycle and pedestrian improvements. Table 11 summarizes several programs, including eligible activities.

Figure 18. Project Prioritization and Development Process

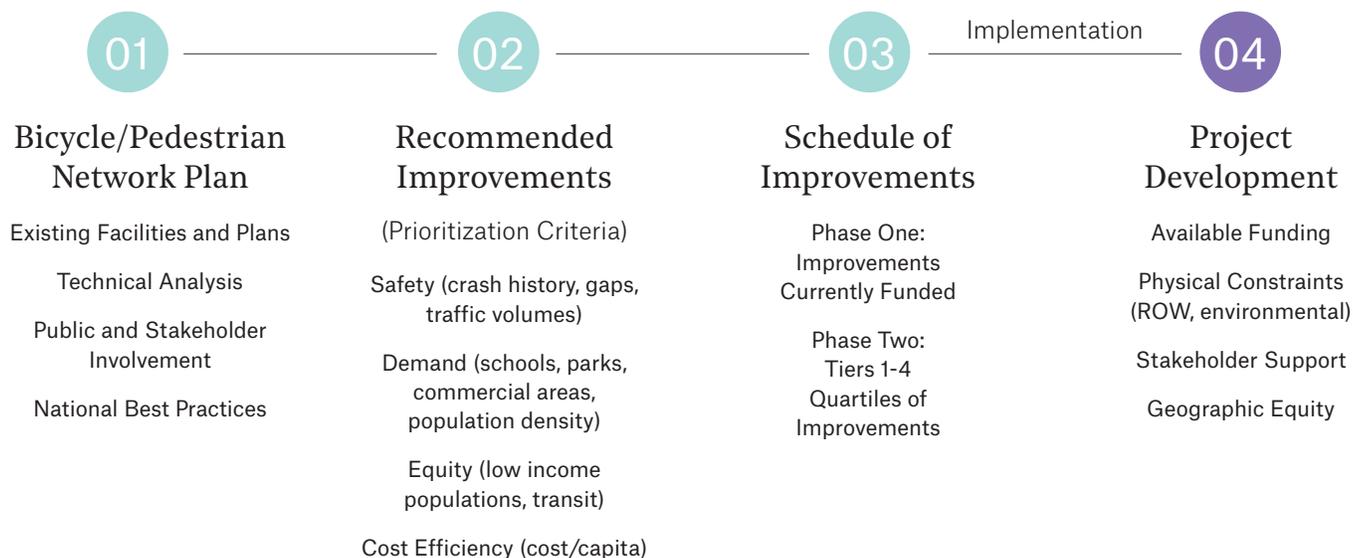


Table 11. Federal and State Grant Programs

Program Name/ Administering Agency	Examples of Eligible Activities	Funding	How to Apply
Transportation Alternatives Program/ Tennessee Department of Transportation	On- and off-road pedestrian and bicycle facilities, and safe routes to school projects.	80 percent federal with a 20 percent non-federal construction share. Non-federal share must be provided as a hard cash match, and all preliminary engineering (PE), design and right-of-way expenditures are solely the responsibility of the local governmental agency.	Application cycle is open from July to October each year. Application materials can be accessed on the TDOT website: www.tn.gov/tdot/topic/tap
Multimodal Access Grant/ Tennessee Department of Transportation	Pedestrian crossing improvements, sidewalks, paved shoulders, bicycle lanes, ADA, multi-use paths, and pedestrian lighting.	95 percent state with a 5 percent local match. Total project costs must not exceed \$1 million.	Application materials can be accessed on the TDOT website: www.tn.gov/tdot/topic/multimodal-multimodal-access-grant
Spot Safety Improvement Program/ Tennessee Department of Transportation	Signalization, school flashing signals, and flashing beacons on state routes or at intersections with state routes only.	Depending on the type of work, 80 percent to 100 percent federal with corresponding local match.	Application materials can be accessed on the TDOT website: www.tdot.tn.gov/PublicDocuments/LocalPrograms/FundingGuidance/SpotSafetyGuidelines.pdf
Recreational Trails Program/ Tennessee Department of Environment & Conservation	Land acquisition for trails, trail maintenance, trail construction, trail rehabilitation and trail head support facilities.	80 percent federal with a 20 percent non-federal match. Maximum award is \$200,000.	Application materials can be accessed on the TDEC website: tn.gov/environment/article/res-recreation-educational-services-grants
Access to Health through Healthy Built Environments/ Tennessee Department of Health	Greenways, trailhead signs, sidewalks, bikeways, crosswalks, and pedestrian/bicycle traffic signs/signals.	100 percent state with a maximum award of \$85,000, including a maximum of \$80,000 for design/construction. All applications must include an evaluation framework.	Application announcement is in the fall of each year. Materials from the prior year can be accessed on the TDH website: https://www.tn.gov/content/dam/tn/health/funding-opportunities/RFA_Access_to_Health_34301-17618_Final_Posting.pdf
Project Diabetes/ Tennessee Department of Health	Greenways connecting schools and neighborhoods and park walking trails.	There are two levels of Project Diabetes funding. Category A grants are funded for up to 3 years for a maximum amount of \$150,000 per year. Category B grants are funded for up to 2 years for a maximum amount of \$15,000 per year	Additional information can be accessed on the TDH website: www.tn.gov/health/article/project-diabetes

5.3 Summary

Although implementation can be challenging, the Cookeville Bicycle and Pedestrian Plan represents a critical step in achieving the city's vision for walking and bicycling – and making the case for funding. There are, of course, multiple needs and demands for resources in every community. Because bicycle and pedestrian improvements fundamentally tie communities together – neighborhoods, commercial districts, schools, parks, and other civic spaces – they offer a unique opportunity to achieve many community goals and objectives simultaneously, and in the process, deliver a great return on investment. With the bicycle and pedestrian plan, the City of Cookeville is poised to realize the benefits of great places to walk and bike.



Bicycle & Pedestrian Plan



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