Town of White Bluff
Community Mobility Plan

July 2021

TOWN OF 1869 WHITE BLUFF TENNESSEE

TN TDOT Department of Transportation

U.S. Department of Transportation Federal Highway Administration

THE CORRADINO GROUP

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I. Introduction & Overview

Mobility Plans are prepared for communities to evaluate their transportation network, determine future growth and recommend projects that will provide mode choices for all users. Communities want to provide multiple, safe, well-connected mode choices for trips in their area. Transportation networks that provide mode choices help improve the health of the community. Providing a safe option to walk or bike to a destination removes a vehicular trip from the roadway and contributes to a healthy, friendly sense of community.

There is an important link between the land use patterns and transportation trips. There are typically more home-to-work and home-to-school trips during the morning, more home-to-retail and retail-to-retail trips during the middle of the day and evening, and more work-to-home trips seen in the evening. Knowing that trips occur daily from these origins helps us plan facilities to move people to their destinations. Obtaining input from the community regarding their desire for walking and biking trips is a key element used to plan facilities to provide comfortable walking and biking trips. The modal options promoted in this Mobility Plan will help foster a stronger sense of community and guide future development so that mode choices are a viable part of the transportation network.

In order to plan for the future, a strong understanding of the existing facilities in the transportation network and the pattern of land use in the community is required. For the purposes of this mobility plan, we reviewed existing studies, plans, and guidelines in the Town of White Bluff to establish where and how the transportation network is being guided for future growth. We inventoried the existing roadways, sidewalks, and bicycle facilities, along with the traffic volumes and crash history in the community. To prepare for future growth, we coordinated with the Town of White Bluff to identify future projects and developments. Analysis of the existing system and future growth helped us determine recommendations for the transportation network including infrastructure and policy, that will encourage safe, connected, mode choices to enhance the overall mobility of the community.

II. Goals & Objectives

The goals and objectives of the plan were established with the Town of White Bluff and Dickson County, focusing on four areas; safety, connectivity, mode choice, and overall mobility. All communities strive to provide a safe transportation network for all users. Planning adequate facilities designed for users of all levels, including children, older users, and various physical abilities, requires a design focused on expected movement between vehicles, pedestrians, and bicyclists. Properly connected facilities contribute to safer trips on the network.

An area with adequate connectivity is one that provides modal choices between different land uses identified as origin and destination trip pairs. For example, networks that connect residential areas with local parks and schools with sidewalks or separate bicycle facilities will promote walking and biking trips. Connecting residential areas to neighborhood retail such as restaurants, convenience stores, and grocery stores, with sidewalks and separate bicycle facilities can also promote biking and walking trips. Promoting connected bicycle and pedestrian facilities accomodates mode choices for transportation trips.

Safety	• Create safe facilities for all modes of travel
Connectivity	• Enhance tourism and service to residents by providing a connected multimodal network to local parks and Montgomery Bell State Park
Mode Choices	• Improve the non-vehicular infrastructure and increase multi-modal choices
Mobility	• Plan for growth and development by improving the multi-modal network • Consider facilities for all modes of travel when designing for future growth

Mode Choices include providing safe, comfortable facilities for walking, biking, and vehicular trips. Separate facilities for vehicles, pedestrians, and bicycles and properly designed intersections where the three modes interact will help maintain good operation of the network. Networks designed with these mode choices provide adequate mobility through the community.

Lastly, creating a mobile transportation network yields safe, free movement for all users throughout the community. Providing appropriate roadway characteristics so that interaction with pedestrians and cyclists occurs at expected locations is needed for a successful transportation network. The operation of a network's design is most successful when users can easily choose to walk or bike to destinations while providing adequate movement of vehicles.

III. Characteristics and Operation of the Existing Transportation System

Roadway Characteristics

The first step of this mobility plan is to evaluate the current transportation network in White Bluff and evaluate the future needs based on expected growth. The existing condition evaluation includes the analysis of the current traffic volumes, safety of the roadways and the availability of other transportation facilities such as sidewalks, bicycle facilities, and greenways.

Existing Functional Classification

The first step in gathering the existing conditions in White Bluff was to identify the roadway classifications based on established Federal Highway Administration (FHWA) standards which are similar to the classification in the Major Thoroughfare Plan. These are based on the purpose of the roadway and evaluated using the amount of traffic moved on the roadways and the purpose of the trips typically taken on the roadway. A brief description of each roadway classification is in the following graphic.

Local

- Carry a small amount of traffic at low speed
- Serve trips that begin and end at residential uses
- Through movements are limited

Collector

- Have a moderate amount of traffic travelling at a moderate speed
- Serve vehicles travelling from local roadways to their destination or arterial roadway

Minor Arterial

- Have moderate to high volumes of traffic travelling at a moderate to high speed
- Typically they will serve trips between collector roadways and their destination or freeways

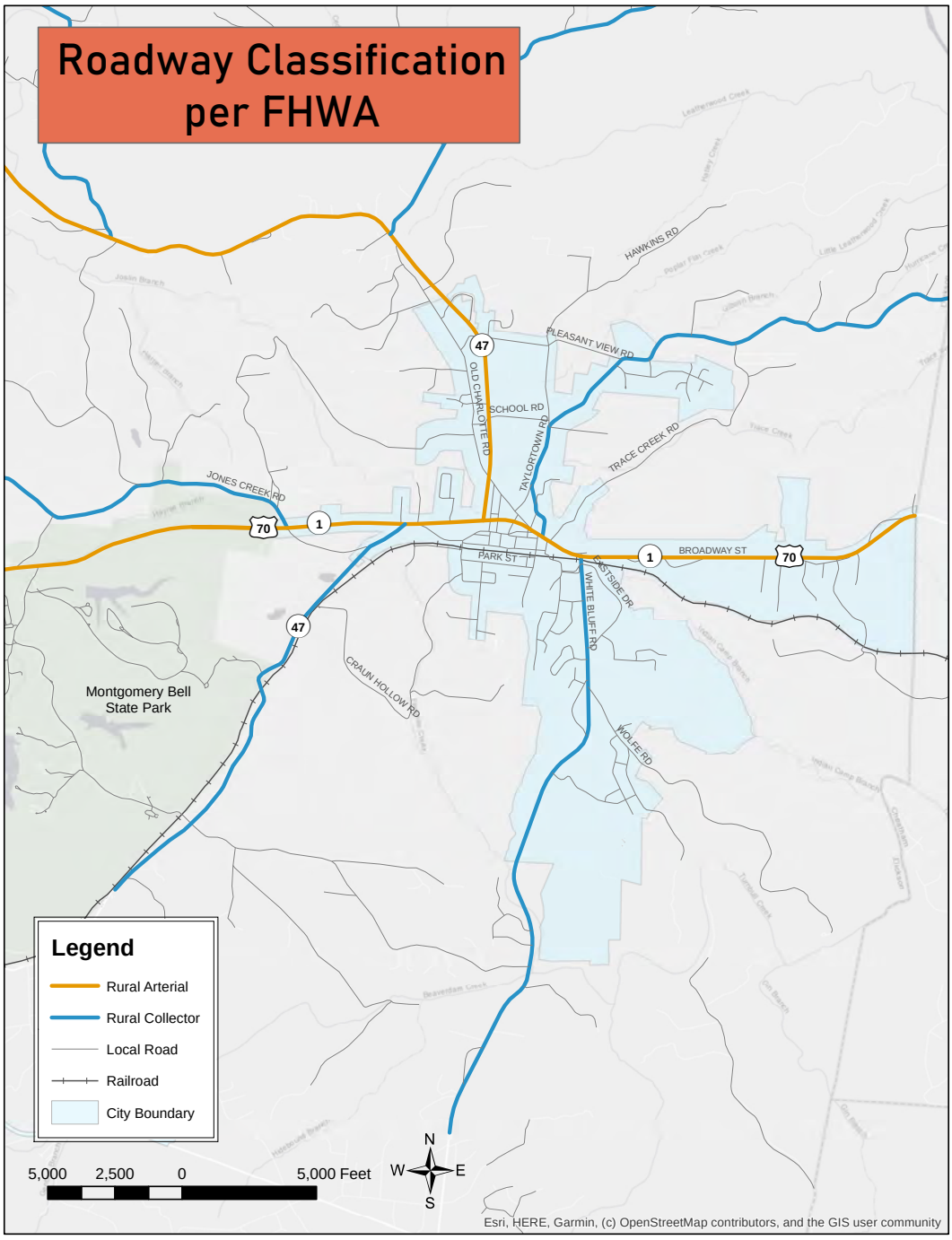
Major Arterial

- Have a moderate to high volume of traffic travelling at relatively high speeds
- Serve traffic travelling between collector and arterial roadways but tend to serve areas with dense development

Freeways

- Intended to serve high speed traffic travelling mid to long distance
- The traffic volumes on these roads are high
- Connect mostly areterials wihtin a commmunity and between communties

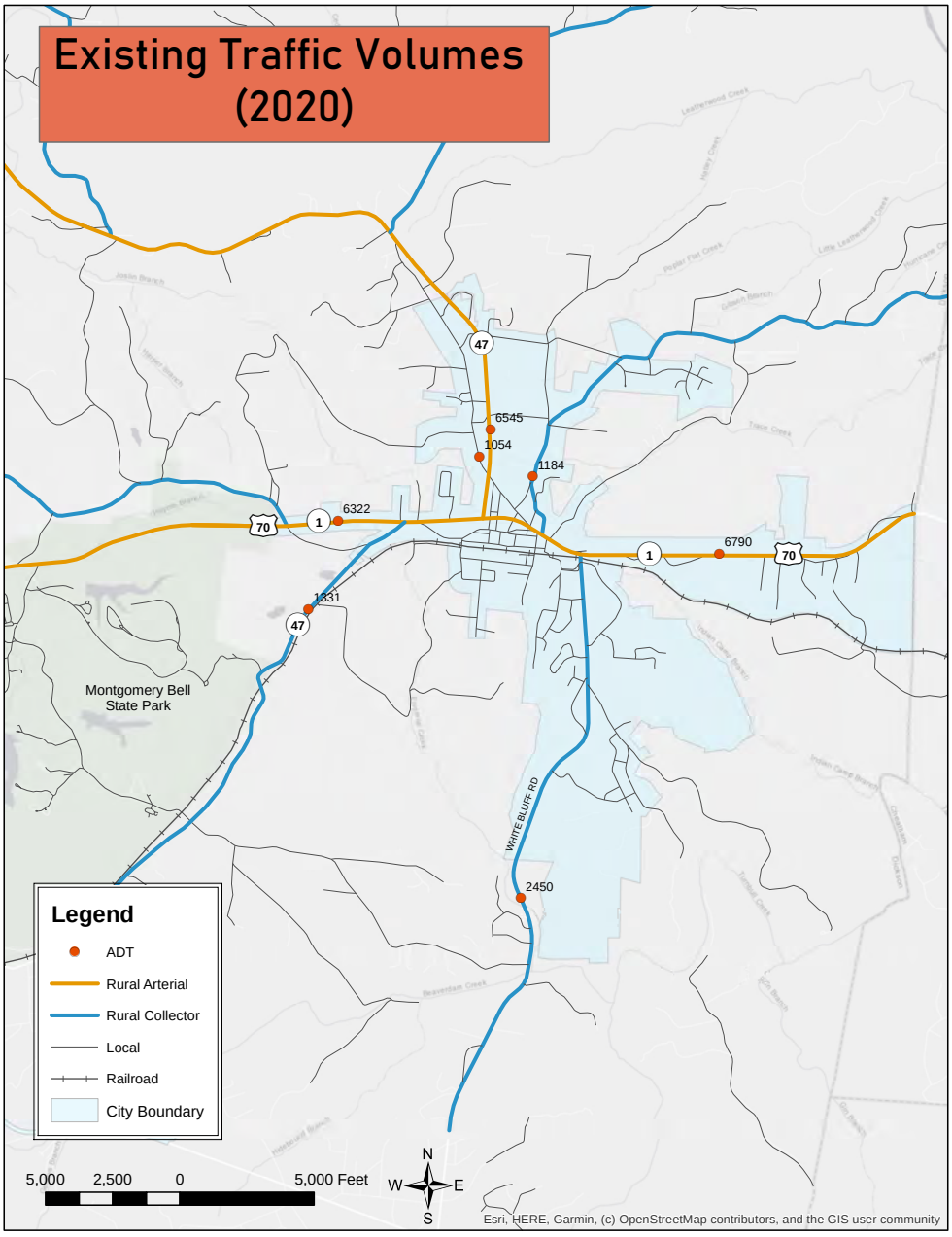
There are two roadways in White Bluff classified as Rural Arterial Roads, Highway 70 (State Route 1) and Highway 47N (State Route 47N). The three roadways classified as Rural Collectors are Taylortown Road, White Bluff Road, and State Route 47. The remaining roads in White Bluff are classified as local roads. The roadway classification map is shown in **Map 1**.



***Map 1**. Existing Roadway Classification per FHWA*

EXISTING TRAFFIC VOLUMES

Traffic volumes on the roadways help us identify where operational issues exist. For this mobility plan, the Average Daily Traffic (ADT) volume was used for the analysis of the roadway segments. ADT volumes are collected by counting every trip that occurs in a 24-hour time frame at a specific location by all vehicles, passenger vehicles, motorcycles and trucks of all sizes. The existing traffic volumes for 2020 in the Town of White Bluff are shown in **Map 2**.



***Map 2**. Existing Traffic Volumes*

The traffic volumes shown in Map 2 are from the Tennessee Department of Transportation (TDOT) count program. **Table 1** shows the 2016, 2019 and 2020 traffic counts along with the average growth seen during that time frame. As expected, due to the shutdowns that occurred in 2020 for the pandemic there was a decrease in traffic seen on most of the roadways in the Town of White Bluff. However, since conditions are returning to normal in 2021, the Town of White Bluff has started to experience traffic volumes at least equal to pre-pandemic volumes and slightly higher on some roadways.

Table 1 - Historical & Existing Traffic Volumes

TDOT Station No. (Location)	2016	2019	2020	Growth (%)
48 (Highway 70/SR 1)	7564	7856	6790	-10%
49 (Taylortown Rd)	1643	1158	1184	-28%
50 (Old Charlotte Rd)	1299	1161	1054	-19%
51 (Hwy 70/SR 1)	7175	7091	6322	-12%
108 (SR 47)	7201	7212	6545	-9%
52 (SR 47)	1380	1371	1331	-4%
116 (White Bluff Rd)	1934	2299	2450	27%

Source: TDOT TN Times website

Existing Traffic Operations

Based on the 2019 traffic volumes and existing roadway characteristics, we evaluated how well the roadways function in the transportation network in White Bluff. This segment analysis results in a Level of Service (LOS) which represents operational function based on maneuverability, delays, and speed of vehicles. The LOS based on the daily traffic volumes and roadway geometry results in a value denoted as A through F. For two lane roadways, the evaluation is determined based on the traffic volumes and the length and number of passing areas. Since the possibility of passing vehicles on a two-lane highway decreases as volumes increase, the operational mobility of this type of roadway will deteriorate at relatively low traffic volumes. This analysis was conducted using the design-hour traffic volume which is calculated from the Average Daily Traffic (ADT) and the design hour factor. The results of this analysis are included in **Appendix A** and summarized in **Table 2.**

Table 2. LOS (2019 Traffic Volume)

TDOT Station No. (Location)	LOS
48 (Highway 70/SR 1)	D
49 (Taylortown Rd)	A
50 (Old Charlotte Rd)	A
51 (Hwy 70/SR 1)	C
108 (SR 47)	C
52 (SR 47)	A
116 (White Bluff Rd)*	A

*Based on 2020 ADT, K value, & Directional Distribution

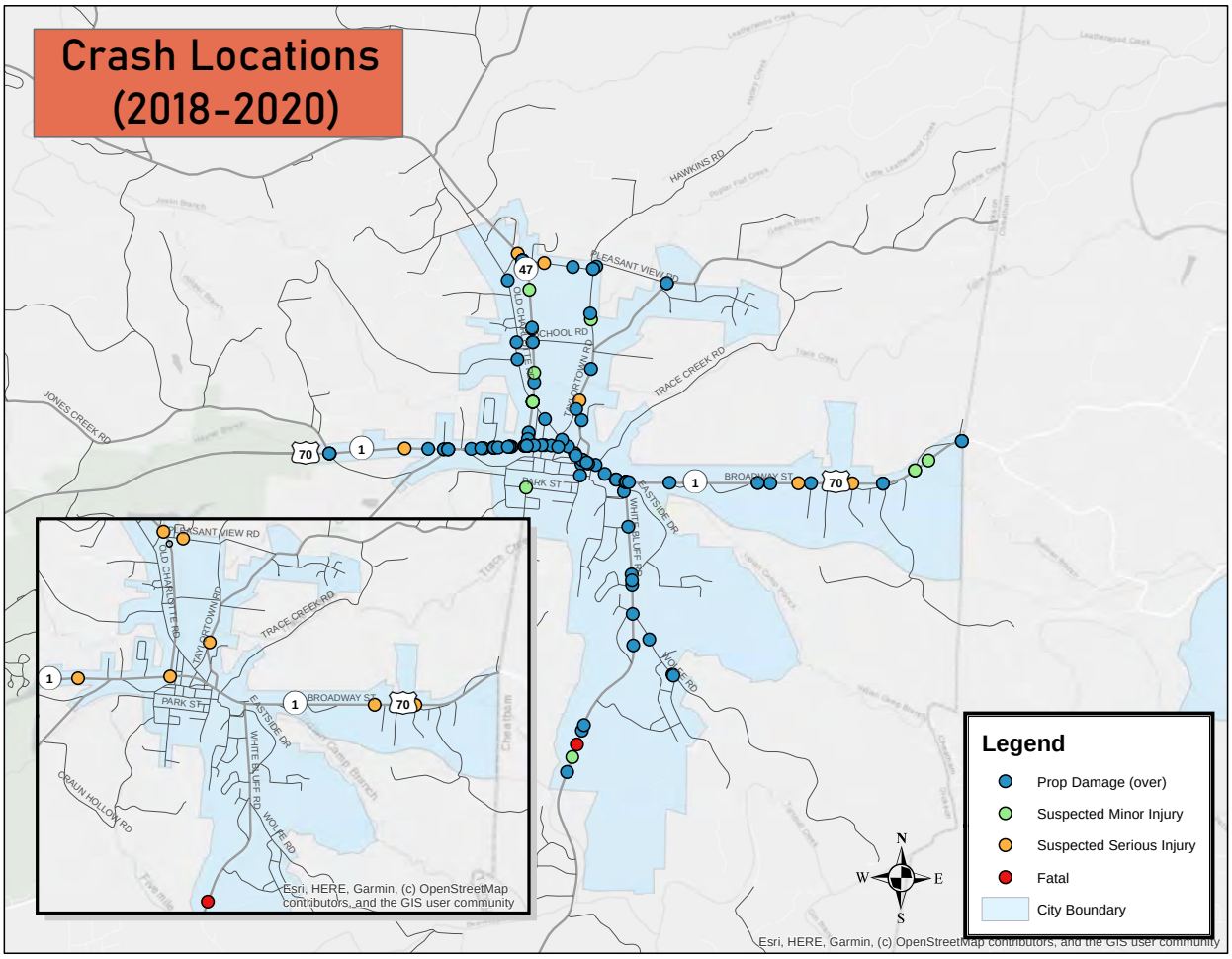
Typically, a LOS A through D is considered acceptable operation and LOS E or F are considered unacceptable and need improvements to improve the operation. Based on the segment analysis of the roadways in White Bluff, the quality of the operation is acceptable. It is important to note this is not an intersection or peak hour analysis.

Safety of the Roadway Network

All towns strive to provide a safe transportation network for vehicles, pedestrians, and cyclists. To achieve this goal, it is important to create a system where all users have an understanding and comfort with the use of facilities by all modes and interaction by all users is clearly established. As part of this mobility plan, the crash types and locations in the area were reviewed to determine if there were issues that need to be addressed.

Table 3. Crashes (2018-2020)

Crash Type	2018	2019	2020
Property Damage (Over)	34	38	40
Suspected Minor Injury	8	11	9
Suspected Serious Injury	1	5	1
Fatal	1	0	0



Map 3. *Crash Locations (2018-2020) per TDOT Titan*

As illustrated in **Map 3**, most crashes are located along Highway 70, SR-47N, and Taylortown Road. From 2018 to 2020, there was only one fatal crash and seven crashes with suspected serious injuries. The remaining crashes during that time period were suspected minor injury or property damage only. Along Highway 70, between SR-47N and the town limits, there were seventeen rear-end crashes that mostly occurred on clear days. On two-lane roadways, rear-end crashes were common. Adding a left-turn lane for refuge or a right-turn lane for vehicles to slow down may alleviate parcel access issues.

EXISTING LAND USE

All trips taken on the transportation system have a purpose. Some trips are from home to office, to take children to school, or to go shopping. Depending on the reason for the trip, the time of day, and the distance, if adequate facilities are available vehicular trips may turn into walking or biking trips. Identifying the land use along the transportation system is important when evaluating the transportation system and recommending adequate facilities for all modes.

The Town of White Bluff land use map, shown as **Map 4**, depicts the commercial areas along Highway 70 and SR-47N, the industrial areas around Highway 70 and White Bluff Road, and the residential, timber/forest, and agricultural in remaining areas.

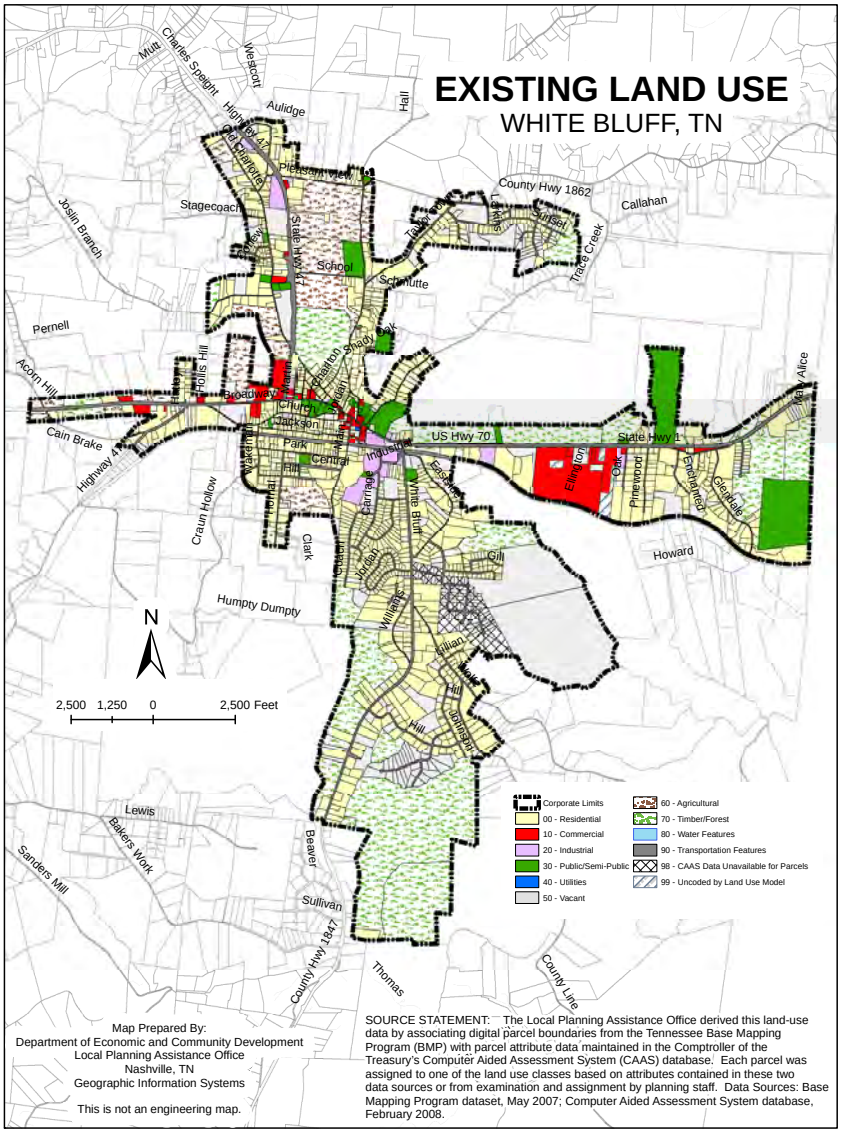


ILLUSTRATION 7

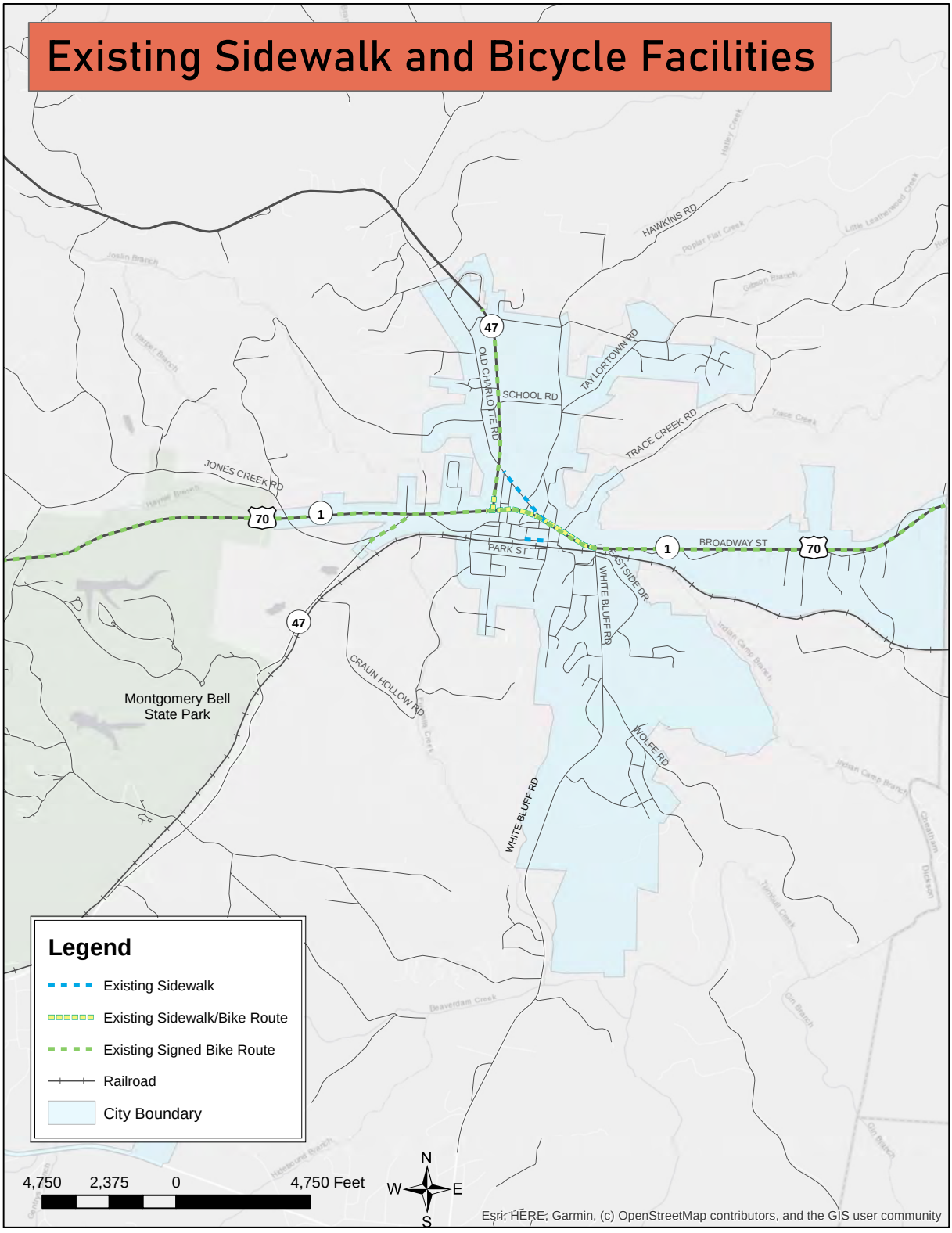
***Map 4**. Existing Land Use*

Existing Sidewalks and Bike Facilities

Walking and biking along roadways is allowed per law but to increase the number of trips taken by walking and biking requires analysis and planning. The more comfortable it is for people to walk or bike the more likely they are to choose this mode of travel and dedicated facilities encourage people to walk and bike. Sidewalks are intended to help pedestrians move in a safe manner along a roadway, outside the vehicular path. When they are constructed to be aesthetically pleasing and properly located between uses, sidewalks create an opportunity further encourage walking trips.

Some bicycle facilities require vehicles to share the lanes with the bikes such as bike routes. However, bicycle facilities that provide a separation from vehicular traffic, encourage users of all abilities. Separate bicycle facilities including bike lanes, bike boulevards, side paths and greenways create a safer, friendly environment. These facilities, intended to serve all users, are good for providing a connection to parks and other recreational areas.

Inventory of the sidewalks and bicycle facilities conducted for the Town of White Bluff is illustrated in **Map 5**. Sidewalks are provided along portions of Highway 70, along State Route 47N from Highway 70 to just north of the commercial development, and on a portion of Taylortown Road.



***Map 5**. Existing Sidewalks & Bicycle Facilities*

Reports, Plans, and Guidelines that Influence White Bluff's Transportation System

In order to understand the influence of development and the effect future growth will have on the transportation system, a review of reports, plans, and guidelines that influence White Bluff's transportation system was performed. A summary of how each report, plan and guideline affects the transportation network is detailed in the following.

White Bluff Community Strategic Plan (Approved 2013)

The White Bluff Community Strategic Plan establishes the need to protect, maintain and enhance public infrastructure including roadways and sidewalks. The priorities included in this plan include multimodal projects, promoting resiliency, recreation facilities and roadway projects that address resiliency.

Strategic Actions from the Community Strategic Plan

Multimodal

- Fund and implement sidewalk improvements and expansion projects in neighborhoods and on roadways that will link downtown to public buildings and parks.
- Provide adequate, safe crosswalks on both Highway 70 and SR-47.
- Walking and biking facilities should be considered as part of all future designs and developments.

Resiliency

- Evaluate resiliency needs and provide options for crossing the railroad tracks so that access between the areas north and south of them is maintained.
- Extend Park Street to Industrial Drive to allow residents living south of the railroad tracks access to White Bluff Road, Highway 96, and Interstate 40 without the need to cross the tracks.

Recreation

- Consider providing new recreation facilities that include walking/biking trails between downtown and Veterans Memorial Park and downtown and Montgomery Bell State Park.

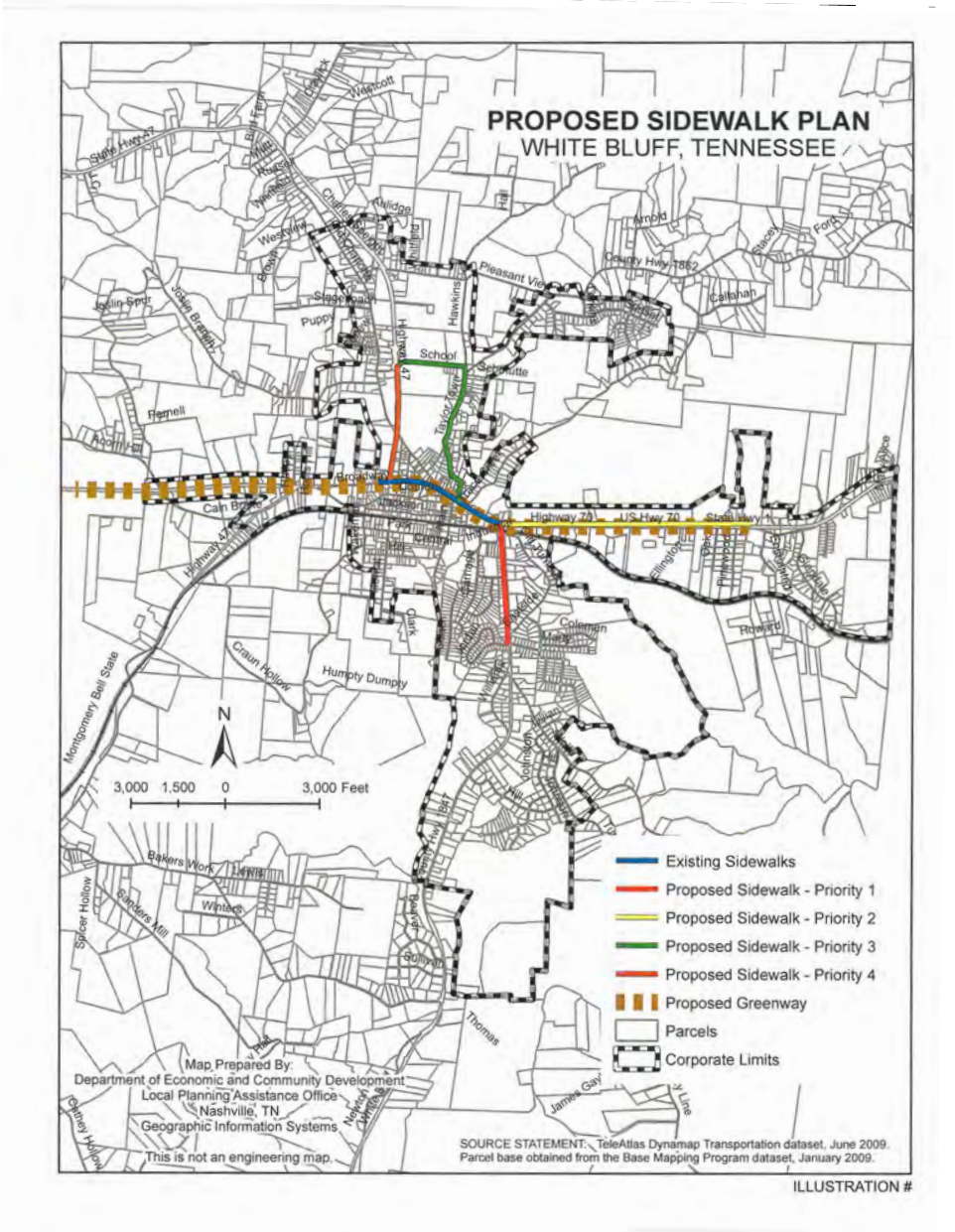
Access

- Promote the extension of I-840 to Highway 96 as phase 1 and ultimately extend I-840 to Highway 70.

Proposed Sidewalk Plan (From Land Use & Transportation Plan 2009)
The proposed sidewalk plan includes several specific sidewalk projects in the Town of White Bluff listed below:

1. Sidewalk on White Bluff Road between Wagner Way and Highway 70
2. Sidewalk on Highway 70 between Veterans Memorial Park and White Bluff Road
3. Sidewalk on Taylor Town Road between Highway 70 and School Road; School Road between Taylor Town Road and SR-47
4. Sidewalks on SR-47 between Highway 70 and School Road

In addition, a greenway is proposed on Highway 70 between Veterans Memorial Park and continues west to Montgomery Bell State Park.



Major Thoroughfare Plan (From Land Use & Transportation Plan 2009)

The White Bluff Major Thoroughfare Plan has classified the roads in the transportation network as Primary, Secondary, and Collector Roads. The roadways classified as primary correlate to the arterial roadways in the FHWA classification. Several roads used as collector roads within the town limits are included in the Major Thoroughfare Plan that are not part of the FHWA classification system.

Table 4. White Bluff Major Thoroughfare Plan Roadway Classification

Classification	Roadway	From	To
Collector	*Old Charlotte Rd*	*SR-47*	*N. Town limit*
	Pleasant View Road	*SR-47*	*Taylortown Road*
	School Road	*SR-47*	*Taylortown Road*
	Trace Creek Road	*SR 1 (Hwy 70)*	*Town Limit*
	Glendale Road	*SR 1 (Hwy 70)*	*Town Limit*
	Main Street	*SR 1 (Hwy 70)*	*Park St*
	Park Street	*Main Street*	*Wakeman Road*
	Wakeman Road	*Park Street*	*Church Street*
	Church Street	*Wakeman Road*	*Main Street*
	Main Street	*Church Street*	*SR 1 (Hwy 70)*
Secondary	*White Bluff Road*	*SR 1 (Hwy 70)*	*Town Limit*
	Taylortown Road	*SR 1 (Hwy 70)*	*Pleasant View Road*
Primary	*SR 1 (Hwy 70)*	*E. Town Limit*	*W. Town Limit*
	SR 47 N	*SR 1 (Hwy 70)*	*N. Town Limit*
	SR 47 S	*SR 1 (Hwy 70)*	*S. Town Limit*

Montgomery Bell State Park Plan (Updated 2018)

The Montgomery Bell State Park Management Plan was updated in 2018. Part of the mission statement is to "provide opportunities for safe enjoyable outdoor and recreational experiences to all park visitors…partner with local community leaders to bring a positive economic impact to the area surrounding the park." As a step towards reaching this vision, one of the plan's goals is to expand partnership opportunities. The objective is to include a program that offers campers to local businesses, events, and attractions. This effort will attempt to increase participation in events, festivals and other park projects. The park also hopes to identify new ways

to incorporate volunteer programs or docents. As a long-term recommendation, the park would like to provide public access to its facilities, and grounds.

White Bluff Subdivision Regulations (Updated May 15, 2000)
The subdivision regulations for the Town of White include specifications for location and width of roadways based the available right-of-way and functional classification. There are also construction standards that specify grades and sidewalk locations and widths.

White Bluff Zoning Ordinance (Amended December 2020)
The zoning ordinance includes guidelines for sight distance at intersections and near railroad crossings. It also includes access control specifications and off-street parking requirements based on land use.

IV. Public Outreach and Engagement

Successful transportation projects inform and involve the public from the planning phase through construction. As part of the Mobility Plan for the Town of White Bluff, we conducted surveys, held virtual meetings, and provided an opportunity for in-person participation. During the last year, public participation was modified for safe outreach while ensuring everyone in the community was provided an equal opportunity to participate. To accomplish this, our team prepared two online surveys for public response, at the beginning of the project and again after the recommendations were prepared. We conducted a virtual public meeting to introduce the project to the public and give them an additional opportunity to ask questions and provide feedback. For those that do not have access to a computer, we provided paper copies of the survey with information on the project at the Bibb-White Bluff Civic Center and at White Bluff Town Hall. Once the recommendations were prepared, maps and tables detailing the recommendations were also prepared. Paper copies were made available at the two locations for those that wanted to provide input in person.

The first round of public outreach included one of the online surveys intended to gather information regarding issues or concerns with the transportation network and the type of pedestrian and bicycle facilities the public will use and believes the town needs. The virtual public meeting was also held on March 15th to present the project and gather feedback from the public. The results of the survey are included in **Appendix B.** There were 78 people who completed the initial survey providing us with information regarding the reasons people walk and bike in the area, how often they visit Montgomery Bell State Park, obstacles to walking and biking, the mode they would choose to get to the park if options were available and the types of improvements they want to see on the transportation network.

We used this information along with the existing characteristics of the network and existing operation to prepare recommendations for improving mobility in the community. The recommendations were presented to the Leadership Committee and the public to gather additional thoughts regarding where the transportation network needs improvements. Revisions were made to the recommendations based on the feedback provided.

V. White Bluff's Plans for Future Growth

Planning for future growth and development in the Town of White Bluff will help the network maintain its mobility. The Town is constantly evaluating the future needs of the system and addressing issues and concerns through new projects that enhance the sense of community. These projects address vehicular issues and provide walking and biking options for users.

Future Projects & Development

In addition to identifying the land use patterns in the Town of White Bluff, identifying new projects and developments within the town limits is critical in planning for proper operation of the transportation network. Based on the information provided, there are four subdivision/residential developments, one commercial development, five community development and recreation projects and three transportation projects in planning, design, or bidding phase. In addition, there are three transportation projects, four subdivisions/residential developments, and four commercial developments being discussed or considered.

Table 5. White Bluff Projects and Developments

Type	Number of Projects*	Year Expected
Community Development	2	2024
Transportation	3 (3)	2025
Recreation	2	2022
Subdivision/ Residential	4 (4)	2022
Commercial	1 (4)	2022

* # Represents projects in planning, design, or bid phase
(#) Represents projects that are being considered

Future Pedestrian and Bicycle Facilities

Various methods are used to analyze the transportation network to determine adequate or needed pedestrian facilities. Some methods result in a level of service for walkers or cyclists and others will result in a comfort level for users. Most of the methods for analysis use characteristics such as speed limit, width of lane and shoulders, presence of buffer area or planting strip, presence of separated walking and biking facilities, presence of on-street parking, amount of traffic, number of accesses, and location of land use. Analysis based on these characteristics results in the need for specific facilities.

Connectivity for All Users

Complete Street with Sidewalks, Bike Lanes, & On-street Parking

The location of land uses heavily influences where walking and biking facilities are expected to be most used. Pedestrian and cycling trips are more likely to occur where residential uses are located within a half-mile to a mile of retail, parks, schools, and restaurants. Also, the walking and biking trips are more likely to occur if safe, comfortable, pedestrian friendly facilities are provided. If the uses along a corridor are not conducive to encouraging pedestrian and bicycle trips for transportation purposes, there are still benefits to the community to provide proper facilities for recreational purposes. Communities that provide recreational facilities for walking and biking experience health benefits such as a friendlier atmosphere, preservation of open space, and more opportunities for physical activity.

Based on the land use map presented previously, the residential areas in the Town of White Bluff are along White Bluff Road, on the north and south sides of Highway 70, Taylortown Road and along Old Charlotte Road. There are commercial developments along Highway 70 and SR-47, north of Highway 70; the schools are located on Highway 70 and on School Road; and the public buildings are located on Highway 70, SR-47, and Old Charlotte Road. In addition, parks and historic areas are located on Highway 70, Old Charlotte Road and SR-47. Providing pedestrian and bicycle facilities connecting these places of interest will add to the mobility and enhanced sense of community for the Town of White Bluff.

Providing facilities that connect the parks within the town and connect the downtown White Bluff area to the Montgomery Bell State Park entrance on Highway 70 will provide opportunity for economic growth. A facility that walkers and cyclists can safely use between the parks and downtown will provide more recreational and exercise opportunities while providing downtown businesses an opportunity to attract visitors from Montgomery Bell State Park.

Roadway Characteristics

The section explaining the existing conditions and operation of the current network includes the traffic volumes and segment analysis of the arterial and collector roadways based on the FHWA classification. In addition, an analysis of Old Charlotte Road was conducted. These analyses were all based on the data provided by TDOT. Also, previously discussed were the crash locations for the last years from 2018-2020. It was noted that rear-end crashes were common on Highway 70 between SR-47N and the western town limits. To address these crashes, a left turn lane on Highway 70 in this area will provide refuge for vehicles making left turns into and out of the parcels along this segment of roadway.

VI. Recommendations

This section presents the recommendations to address mobility for the Town. Building on the review of the projects in the existing reports and plans projects, the evaluation of the existing operation of the multimodal network, and using the public input, the list of projects presented in this section will assist the Town of White Bluff in creating a mobile network for all users. The intention of the project list is to guide the town towards providing a safe, connected network for all users.

Types of Pedestrian and Bicycle Facilities

There are various types of pedestrian and bicycle facilities suitable for roadways. When the land use and roadway characteristics change, the design of bicycle and pedestrian facilities will often change. The various types of facilities that may apply to the White Bluff Community Mobility Plan are briefly described in the following.

Sidewalks are the most common pedestrian facility. They are typically made of concrete and run parallel to the roadway, often at the back of the curb without a buffer between the travel lane and sidewalk. However, for pedestrian comfort, it is recommended to provide a minimum 2-foot buffer. These facilities are dedicated spaces for pedestrians.

Bicycle routes are provided within the travel lanes, designated with signs and striping. Often, they are provided on a shoulder with signage that indicates to the vehicles that bicyclists may be sharing the pavement. A benefit of bike routes is that they are usually provided on existing pavement and may only require low-cost improvements such as signage or pavement markings.

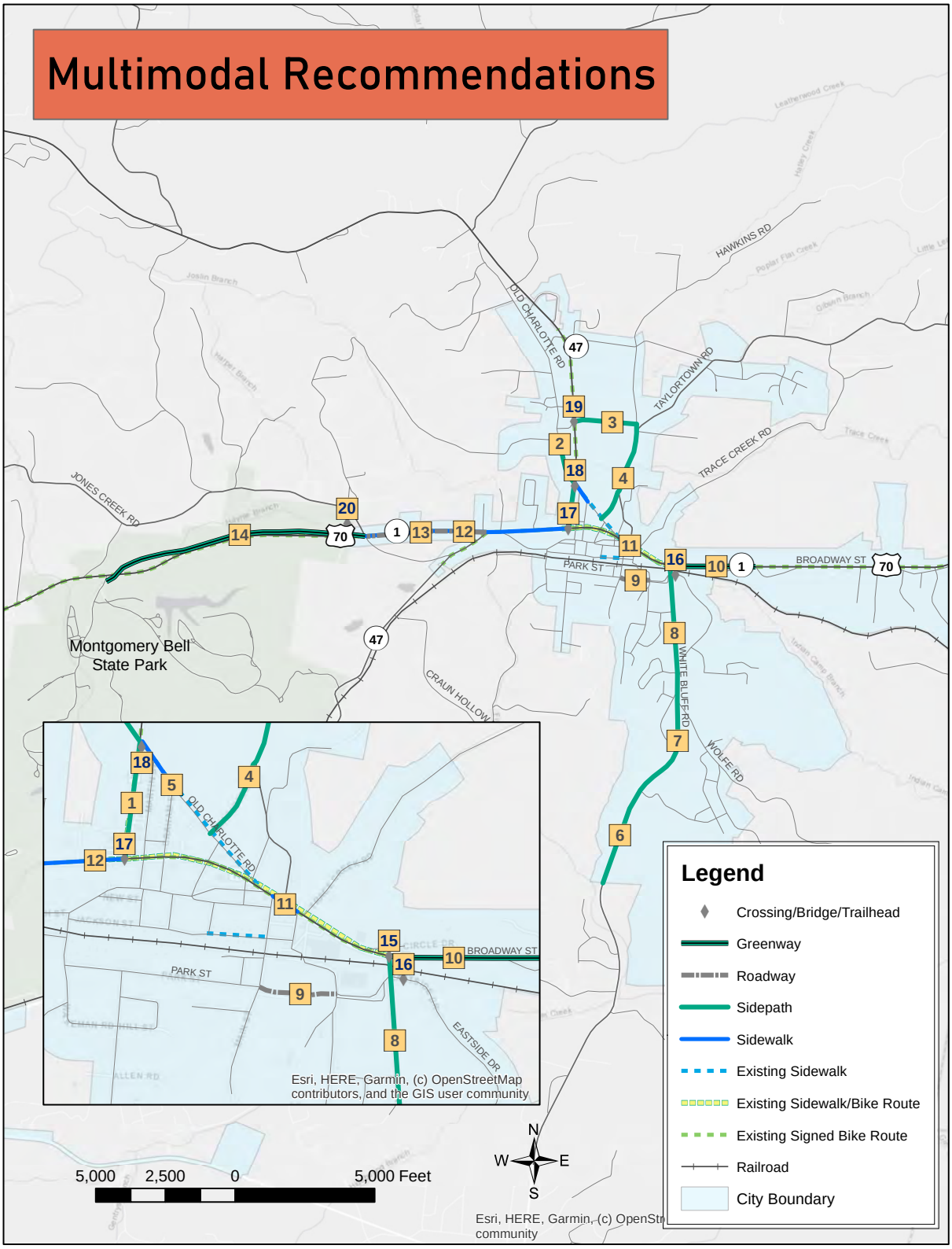
A *sidepath* is similar to a multi-use path or greenway, but is typically located adjacent to and parallel to a roadway in a rural area, where the number of pedestrians and cyclists is lower. In heavy traffic and high-speed environments, these facilities provide a separation from traffic, allowing bicyclists and pedestrians of all abilities to feel comfortable on a shared facility. They are typically constructed of crushed, fine stone, compact sand, or asphalt and can be as narrow as five feet wide. These facilities help areas maintain their rural and agricultural character,

with buffer areas consisting of vegetation that separate the roadway and sidepath. They are sometimes used as regional arterial links to local biking and walking facilities.

Greenways often constructed in park areas or undeveloped land provide a paved path for all non-vehicular modes and users. These pathways add great value to the community by providing connectivity for walkers, bikers, skaters, runners, and hikers, gathering space for families and friends, and a safe location for various community outdoor activities. The paths are typically 8'-10' wide and follow the surrounding environment's alignment.

Multimodal Projects

Map 6 and **Table 6** contains roadway, sidewalk, and bicycle facility projects. The recommendations list includes projects from existing reports and plans the Town has prepared as well as new projects identified through the Mobility Plan.



Map 6. *Multimodal Recommendations*

Table 6. *Future Multimodal Projects*

Proj. No.	Project Name	Location	Project Description
1	SR-47N sidewalks	From Hwy 70 to Old Charlotte Rd	Construct new sidewalks
2	Old Charlotte Rd sidewalks	From SR-47 to Bibb-White Bluff Civic Center	Construct new sidewalks
3	School Rd sidepath	SR-47 to Taylortown Rd (Hawkins Rd)	Construct new sidepath
4	Taylortown Rd sidepath	School Rd to Old Charlotte Rd	Construct new sidepath
5	Old Charlotte Rd sidewalks	From end of Sidewalk east to SR-47 N	Construct new sidewalks
6	White Bluff Rd sidepath/sidewalk	Hill Dr to Town limits	Construct sidepath/sidewalk
7	White Bluff Rd sidepath/sidewalk	Wagners Way to Hill Dr	Construct sidepath/sidewalk
8	White Bluff Rd sidepath/sidewalk	Hwy 70 to Wagners Way	Construct sidepath/sidewalk
9	Park St extension	E. Park St termini to Industrial Dr	Extend Park St to Industrial Dr as a 2-lane roadway
10	Hwy 70 Greenway	From Veterans Memorial Park to White Bluff Rd	Construct greenway
11	Hwy 70 repair sidewalks	From Main St to Commerce St	Repair sidewalks
12	Sidewalk extension	Hwy 70	Construct sidewalks from SR-47 N (McDonalds) to Jones Creek Rd
13	Extend Two Way Left Turn lane	Hwy 70	Add turn lane from Hwy 70/SR-47 N intersection to Hwy 70/Church St intersection
14	Greenway connection	Hwy 70	Build greenway from the end of the sidewalk at Jones Creek Rd to the state park entrance
15	Hwy 70 & White Bluff Rd	Maintain/Upgrade crosswalks	Install appropriate pedestrian crossings at the intersection including ped signals & pushbuttons & pavement markings (crosswalks)
16	Railroad Crossing	Hwy 70 and White Bluff Rd	Construct bridge/overpass at railroad crossing on White Bluff Road to eliminate at-grade crossing
17	Hwy 70 & SR-47N	Maintain/Upgrade crosswalks	Install appropriate pedestrian crossings at the intersection including ped signals & pushbuttons & marked crosswalks

18	SR-47N & Old Charlotte Rd	Construct pedestrian crossing	Install appropriate pedestrian crossing (signalized @ grade)
19	SR-47N & School Rd	Construct pedestrian crossing	Install appropriate pedestrian crossing (signalized @ grade)
20	Trailhead	Hwy 70 and Jones Creek Rd (NW corner)	Acquire land and construct trailhead for greenway (Project 14)
21	Bicycle Parking	Install Bike Racks	At Public Parks & Buildings install bike racks for parking
22			Require all modes of travel to be considered in future design projects
23			Research commuter train and bus availability

Taylortown Road where Sidewalks or Sidepaths are recommended

Projects 1, 2, 3, 4 & 5

The sidewalks recommended in Projects 1 and 2 on SR-47N and Old Charlotte Road will provide a connection from the commercial area around Highway 70 to the Bibb-White Bluff Civic Center on Old Charlotte Road. The five-foot sidewalk may be provided on both sides of the road with a minimum four-foot buffer area between the travel lanes and the sidewalk.

Both School Road and Taylortown Road have parcels with residential uses, open land and farms. With this type of land use, sidepaths can be constructed to provide a separate facility for both pedestrians and bicyclists. The desire for a concrete sidewalk or asphalt sidepath can be evaluated during the design process for Projects 3 and 4. The sidewalk or sidepath is proposed on one side of School Road providing a connection between SR-47N, a future park area, and White Bluff Elementary School near Taylortown Road. Similarly, a sidewalk or sidepath is proposed for one side of Taylortown Road from Old Charlotte Road to School Road. A five-foot buffer area should be provided separating the vehicular travel lanes from the five-foot sidewalk or sidepath.

For Project 5, a sidewalk is proposed for Old Charlotte Road from where it ends, just east of Graham Street to SR-47N. This will connect Highway 70 in downtown White Bluff to SR-47N connecting to the proposed sidewalk or sidepath in Project 1. The five-foot sidewalk is proposed to run on the north side of Old Charlotte Road with a buffer, if possible, between the vehicular travel lanes and sidewalk.

Projects 6, 7, & 8

The proposed sidewalk or sidepath for White Bluff Road is planned to be constructed in three phases, broken into Projects 6, 7, and 8. Due to the limited right-of-way, location of the houses, and terrain on White Bluff Road, a sidepath or sidewalk may only be located on one side of the road. During the design process, a sidepath or sidewalk will be determined based on the limitations. With residential uses on both sides of the road and the sidewalk or sidepath only being proposed on one side, adequate, safe crossings should be evaluated during the design process.

Project 9

Project 9 provides an extension of Park Street to Industrial Drive creating an important connection to White Bluff Road south of the railroad. This gives necessary redundancy to the roadway network south of the railroad tracks. As parcels are developed, it is important for the town to work with the property owners to provide this connection to Industrial Drive.

Park Street looking Eastbound

Project 10

The characteristics and identity of White Bluff being a rural town with parks and open land is an ideal setting for greenways. Project 10 proposes a greenway starting at Veterans Memorial Park on the north side of Highway 70 and follows the roadway alignment to White Bluff Road. The greenway is expected to be 8'-10' wide and located four feet from the edge of the shoulder to 25' north of the ditch.

Rural Area and Agriculture in White Bluff

Project 11

The sidewalks between Main Street and Commerce Street are in need of repair. Project 11 will address the maintenance for the cracks and missing segments. A field survey is recommended to identify the locations and extent of the maintenance needed.

Project 12

Highway 70 has sidewalks on both the north and south sides through the commercial areas in downtown White Bluff between White Bluff Road and SR 47N. Project 12 proposes to extend the sidewalk on the north side of the road to Jones Creek Road. The sidewalks should be five-foot wide with a minimum four-foot buffer. This project can be included as part of Project 13, in which the two-way left turn lane is recommended.

Highway 70 looking Eastbound
Sidewalk on Both Sides

Highway 70 Westbound
Sidewalk Termini

Project 13

Highway 70 provides access for commercial property and collector roadways leading into residential areas. There are a number of left-turn maneuvers into and out of the commercial property on the roadway. Providing a refuge for left turning vehicles entering and exiting the parcels will help improve the safety for vehicles travelling east-west on Highway 70. Additionally, extending the two-way left-turn lane from the intersection at SR-47N to SR-47E will improve the operation of the roadway. If possible include the sidewalks and separate bike facilities from Project 12 as part of this project.

Highway 70 looking Eastbound
East of Church St

Highway 70 looking Westbound
West of SR 47N

Project 14

Both the Town of White Bluff and Montgomery Bell State Park would like to have a pedestrian and bicyclist connection separate from the roadway. This is intended to provide a route for State Park visitors to the commercial area in White Bluff and will also serve as a facility for recreation and exercise in the area.

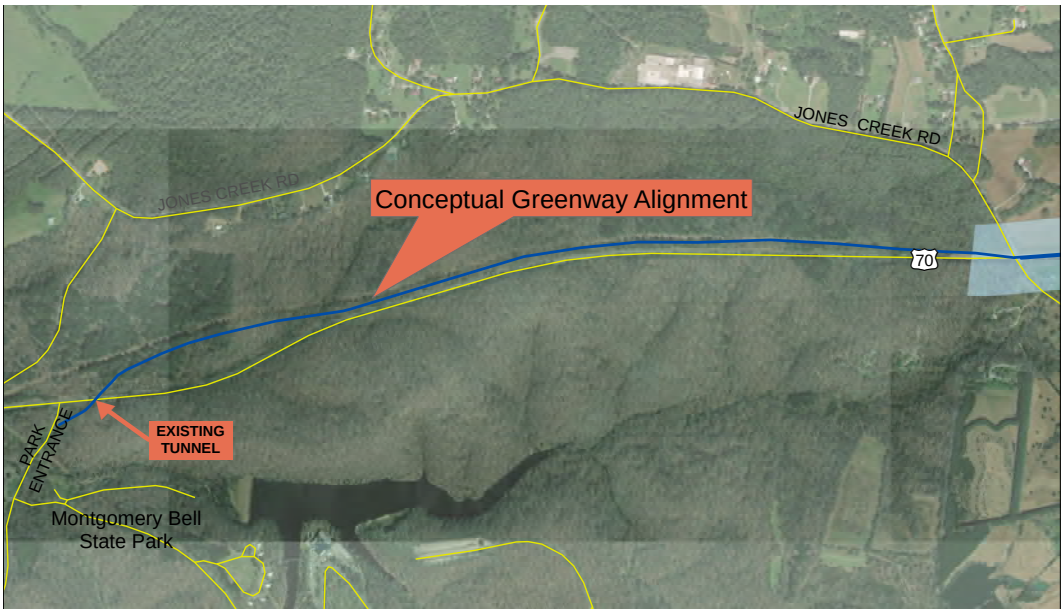
Highway 70 looking Eastbound

Highway 70 West of Park Entrance

Existing Tunnel under Highway 70

High level conceptual analysis of a greenway from Jones Creek Road to Montgomery Bell State Park Entrance was conducted. Evaluating the contours in the area, the location of the creek that runs along Highway 70, and the State Park trail system, led to a possible greenway alignment. The route follows the utility lines between Jones Creek Road to a crossing point near the Park Entrance. Coordination between the State Park, utility company, Dickson County, and the Town of White Bluff has begun to address creating a maintenance agreement outlining the commitment needed from for cost and labor. This ongoing coordination will guide the layout and design of the greenway and the future maintenance needs.

The team conducted a high-level evaluation of possible crossing locations. The two types of crossings considered were a bridge or a tunnel since a signal is not warranted at the entrance. There is an existing tunnel that can possibly provide a crossing with some modifications that is located approximately 350 feet east of the Montgomery Bell State Park entrance on Highway 70. However, further evaluation of the age and condition of the tunnel is required to determine the feasibility. Another alternative is to cross west of the Montgomery Bell State Park entrance, where the existing embankments provide natural height so that a large amount of fill is not required for a bridge structure to cross Highway 70.



Conceptual Greenway alignment between Jones Creek Road and Montgomery Bell State

Projects 15 & 17

There are two signalized intersections in White Bluff and both provide pedestrian crossing facilities. The north and west legs of the intersection of Highway 70 and White Bluff Road provide crossing facilities with accessible ramps, pushbuttons and signals. This crossing provides pedestrians the ability to safely walk from the residential areas on the south side of Highway 70 to the convenience store on the north side. An inventory of the facilities indicated some maintenance is needed such as the dark pedestrian signal head, on the west leg heading north. Regular surveys of the pedestrian crossing can help identify minor issues that occur intermittently at crossings.

Highway 70 @ White Bluff Road North Leg Crossing

Dark Pedestrian Signal on Northwest corner

The north and west legs of the intersection of Highway 70 and SR 47N provide crosswalks with accessible ramps. This crossing provides pedestrians the ability to safely get from the residential areas on the south side of Highway 70 to the Chappell's Grocery Store, McDonald's, and other businesses on the north side. An inventory of

the facilities indicated some improvements will help pedestrians safely cross this intersection. Project 17 will improve safety for pedestrians crossing at this intersection by recommending installation of pushbuttons, signs, and countdown pedestrian signal heads. These improvements may require additional pedestrian poles be installed per TDOT and ADA standards. During the design process, the professional engineer should ensure all requirements are met. When updating the pavement markings consider the longitudinal crosswalks for higher visibility to vehicles.

Highway 70 @ SR 47N
North Leg Crossing

Highway70@ SR 47N
West Leg Crossing

Project 16

The railroad tracks that run east-west create a barrier between the residential areas south of the tracks, Highway 70, and the downtown area. The tracks also create a barrier between the commercial and residential area north of the tracks and access to Highway 96 and Interstate 40. In order to provide redundancy on the transportation network and remove the barrier created by the railroad tracks, Project 16 provides constant access between the north and south areas that is not at grade and will not be blocked by trains. Once design starts, this project will require early communication and coordination with the railroad company.

Main Street looking South
at Railroad Crossing

White Bluff Road looking South
At Railroad Crossing#

Projects 18 & 19

Concrete Greenway at Bibb White Bluff Civic Center

SR-47N looking South at Fire Department

Currently, there is a project to expand the concrete greenway at the Bibb White Bluff Civic Center to the Health Department and Fire Department on School Road. In addition, a park is being discussed at the intersection of SR-47N at School Road, which will create a need for a safe crossing for pedestrians and bicyclists on SR-47N. Since a traffic signal is not currently warranted at either Old Charlotte Road or School Road, an at-grade crossing is not recommended at this time. Until a safe at-grade crossing can be recommended at one of the intersections, we considered if a bridge or tunnel is possible in this area. Preliminary review of the terrain indicates that a tunnel going under SR 47N from the Civic Center to the east side of SR 47N may be a feasible option. This will require TDOT approval, so it is recommended that coordination begin early in the planning process. If a tunnel is determined to be feasible, Projects 18 and 19 would become one project providing on SR-47N crossing. If a signal is warranted in the future at either Old Charlotte Road or School Road, a safe at-grade crossing should be included in the signal design.

Project 20

Constructing a trailhead at Jones Creek Road near the intersection with Highway 70 will enhance the greenway proposed between White Bluff and the state park entrance. Currently, the town is working with land owners in the area to identify possible locations for the trailhead. The trailhead envisioned for Project 20 will be designed with appropriate amenities. In areas similar to this, a few amenities that may be provided are a lit parking area, map, some type of shade refuge and some type of seating. The amenities will be finalized during the design phase.

Greenway Trailhead With Shade and Map

Project 21

As the town increases the number of facilities for bicyclists to use, bike parking becomes an amenity that encourages biking for trips that begin or end at parks and commercial locations. Project 21 is intended to provide bike racks at the public parks and buildings throughout the town. The town may also reach out to local businesses to encourage them to show support for bicyclists by providing bike racks at their store fronts. Uniquely designed bike racks support the community character.

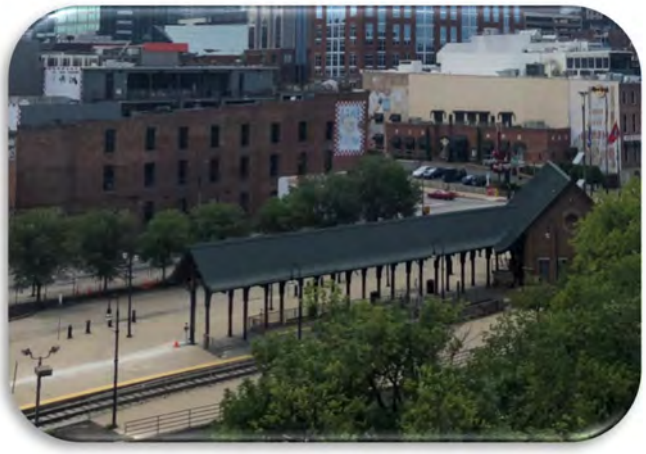
Example of Unique Bike Parking Rack

Project 22

As the town grows and develops, it is important for the town to have policies guiding this growth and forming the community with proper infrastructure in the manner envisioned by the community. White Bluff has effective policies in place to help guide the transportation network and maintain the community's mobility. Project 22 is a policy that the town can include in their zoning ordinance requiring pedestrian and bicycle facilities to be considered in all projects. Such policy guidelines will enhance the multimodal network in White Bluff and build upon the projects currently underway.

Project 23

The growth in Middle Tennessee continues at a fast pace. With Davidson County just to the east and Williamson county just south of White Bluff, the town is experiencing similar growth. Although the traffic in White Bluff operates at an acceptable level, the transportation system bordering the Town is strained. In order to maintain acceptable mobility, the Town should continue to work with the region to determine if bus or train service may become available through White Bluff. Coordination with TDOT and Middle Tennessee Regional Planning Office is important to maintain participation in the planning process for commuter train and bus services.



Commuter Rail Station in Middle Tennessee

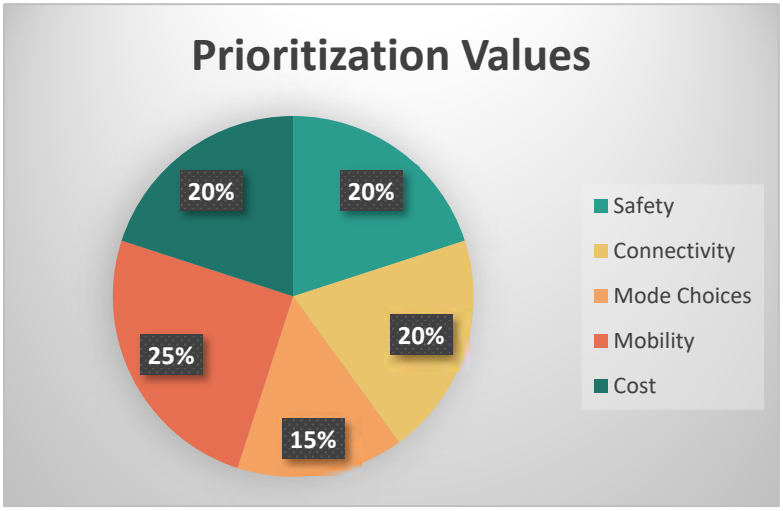
Transit Services in Nashville

VII. Prioritization and Implementation

Prioritization

Implementation of transportation projects required justification for constructing the project and identification of funding sources. The projects identified in this Mobility Plan Recommendations Section will address safety, connectivity, and mobility while providing mode choices. This section will present a process that identifies the issues addressed by the projects, creates a point system tied to data identifying the problems, and calculates a value based on need for each project. This process combined with the funding sources available, can be used for prioritization.

The first step in the prioritization process requires the Town to determine a percentage of the total score that applies to each traffic issue based on the benefits expected from construction of the project. An example the prioritization percentage structure is shown in the chart to the right using the goals of this mobility plan. The ranking values are based on stakeholder and public input where issues and concerns were identified. Each item addressed is given a point value based on a measurable variable. Below are some examples of the issues the Town of White Bluff can address with measurable data driven factors.



Does the project improve safety?

- Points are based on the number of crashes in a location for an established time frame, such as three years. In this example, more crashes equates to more points.

Will the project provide connectivity?

- Points are based on the FHWA roadway classification, assigning more points for higher classified roads.
- Assign points for projects located on state routes.

Does the project include sidewalks or bike facilities (mode choices)?

- Assign points for sidewalk and bike facilities included in a project
- Assign points for projects that link areas where gaps exist in the sidewalks or bike facilities

Does the project improve vehicular operation (mobility)?

- Assign points for projects that relieve delays on the system. For example a signal timing project or turn lane project will get points.
- Assign points based on the LOS so roadways with poor LOS will receive higher points.

Implementation

Identifying projects in the Mobility Plan is only the first step in the project delivery process. Moving projects through the design and construction phases requires planning and coordination that begins once funding for the project is identified. For the purposes of this plan, the possible funding sources were identified as federal and state options that usually require a local match. It is important to realize private funding through local developers can also serve as a funding source for some of these projects.

Fund Name	Program Description	Federal Share
Transportation Alternatives (TA)	Projects pertaining to pedestrian and bicycle facilities, recreational trails, safe routes to schools projects, community improvements such as historic preservation and vegetation management, environmental mitigation related to stormwater and habitat connectivity	80%
Recreation Trail Programs	Projects include land acquisition for trails, trail maintenance, trail construction, trail rehabilitation and trail head support facilities	80%
Local Parks and Recreation Fund (LPRF)	Projects that purchase land for parks, natural areas, greenways and recreational facilities; Projects that include trail development and capital projects in parks, natural areas and greenways.	50%
Multimodal Access Grants (MMAG)	Created to support needs of transit users, pedestrians, and bicyclists through infrastructure projects that address existing gaps along state routes	95%
Surface Transportation Block Grant (STBG)	Projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge & tunnel project on any public road, pedestrian and bicycle infrastructure, and transit capital projects	80%

Appendix A – Traffic Analysis

HCS7 Two-Lane Highway Report

Project Information

Analyst	TMN	Date	6/21/2021
Agency	TCG	Analysis Year	2019
Jurisdiction	Town of White Bluff	Time Period Analyzed	Sta. 48 (Hwy70/SR 1)
Project Description	Mobility Plan for Town of White Bluff	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	30	Access Point Density, pts/mi	10.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	611	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.36

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	31.6
Speed Slope Coefficient	2.27470	Speed Power Coefficient	0.41674
PF Slope Coefficient	-1.37509	PF Power Coefficient	0.65959
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	12.9
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	29.9

Vehicle Results

Average Speed, mi/h	29.9	Percent Followers, %	63.0
Segment Travel Time, minutes	2.01	Follower Density, followers/mi/ln	12.9
Vehicle LOS	D		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	4
Flow Rate Outside Lane, veh/h	611	Bicycle Effective Width, ft	24
Bicycle LOS Score	2.56	Bicycle Effective Speed Factor	3.39
Bicycle LOS	C		

Facility Results

T	Follower Density, followers/mi/ln	LOS
1	12.9	D

HCS7 Two-Lane Highway Report

Project Information

Analyst	TMN	Date	6/21/2021
Agency	TCG	Analysis Year	2019
Jurisdiction	Town of White Bluff	Time Period Analyzed	Sta. 49 (Tayortown Rd)
Project Description	Mobility Plan for Town of White Bluff	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	11	Shoulder Width, ft	1
Speed Limit, mi/h	30	Access Point Density, pts/mi	10.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	94	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.96	Total Trucks, %	1.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	27.6
Speed Slope Coefficient	2.05429	Speed Power Coefficient	0.41674
PF Slope Coefficient	-1.34646	PF Power Coefficient	0.63798
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.9
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	27.6

Vehicle Results

Average Speed, mi/h	27.6	Percent Followers, %	25.7
Segment Travel Time, minutes	2.18	Follower Density, followers/mi/ln	0.9
Vehicle LOS	A		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	4
Flow Rate Outside Lane, veh/h	94	Bicycle Effective Width, ft	19
Bicycle LOS Score	2.53	Bicycle Effective Speed Factor	3.39
Bicycle LOS	C		

Facility Results

T	Follower Density, followers/mi/ln	LOS
1	0.9	A

HCS7 Two-Lane Highway Report

Project Information

Analyst	TMN	Date	6/21/2021
Agency	TCG	Analysis Year	2019
Jurisdiction	Town of White Bluff	Time Period Analyzed	Sta. 50 (Old Charlotte Rd)
Project Description	Mobility Plan for Town of White Bluff	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	11	Shoulder Width, ft	1
Speed Limit, mi/h	30	Access Point Density, pts/mi	10.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	86	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.96	Total Trucks, %	1.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	27.6
Speed Slope Coefficient	2.05429	Speed Power Coefficient	0.41674
PF Slope Coefficient	-1.34646	PF Power Coefficient	0.63798
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.8
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	27.6

Vehicle Results

Average Speed, mi/h	27.6	Percent Followers, %	24.6
Segment Travel Time, minutes	2.18	Follower Density, followers/mi/ln	0.8
Vehicle LOS	A		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	4
Flow Rate Outside Lane, veh/h	86	Bicycle Effective Width, ft	19
Bicycle LOS Score	2.48	Bicycle Effective Speed Factor	3.39
Bicycle LOS	B		

Facility Results

T	Follower Density, followers/mi/ln	LOS
1	0.8	A

HCS7 Two-Lane Highway Report

Project Information

Analyst	TMN	Date	6/21/2021
Agency	TCG	Analysis Year	2019
Jurisdiction	Town of White Bluff	Time Period Analyzed	Sta. 51 (Hwy 70/SR 1)
Project Description	Mobility Plan for Town of White Bluff	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	12	Shoulder Width, ft	2
Speed Limit, mi/h	45	Access Point Density, pts/mi	10.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	501	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.29

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	45.9
Speed Slope Coefficient	3.04976	Speed Power Coefficient	0.41674
PF Slope Coefficient	-1.38503	PF Power Coefficient	0.71962
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	6.5
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	43.8

Vehicle Results

Average Speed, mi/h	43.8	Percent Followers, %	56.9
Segment Travel Time, minutes	1.37	Follower Density, followers/mi/ln	6.5
Vehicle LOS	C		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	4
Flow Rate Outside Lane, veh/h	501	Bicycle Effective Width, ft	14
Bicycle LOS Score	4.66	Bicycle Effective Speed Factor	4.42
Bicycle LOS	E		

Facility Results

T	Follower Density, followers/mi/ln	LOS
1	6.5	C

HCS7 Two-Lane Highway Report

Project Information

Analyst	TMN	Date	6/21/2021
Agency	TCG	Analysis Year	2019
Jurisdiction	Town of White Bluff	Time Period Analyzed	Sta. 52 (SR 47)
Project Description	Mobility Plan for Town of White Bluff	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	11	Shoulder Width, ft	2
Speed Limit, mi/h	50	Access Point Density, pts/mi	10.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	103	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.95	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.0
Speed Slope Coefficient	3.32618	Speed Power Coefficient	0.41674
PF Slope Coefficient	-1.36163	PF Power Coefficient	0.73591
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	50.7

Vehicle Results

Average Speed, mi/h	50.7	Percent Followers, %	22.6
Segment Travel Time, minutes	1.18	Follower Density, followers/mi/ln	0.5
Vehicle LOS	A		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	4
Flow Rate Outside Lane, veh/h	103	Bicycle Effective Width, ft	20
Bicycle LOS Score	2.90	Bicycle Effective Speed Factor	4.62
Bicycle LOS	C		

Facility Results

T	Follower Density, followers/mi/ln	LOS
1	0.5	A

HCS7 Two-Lane Highway Report

Project Information

Analyst	TMN	Date	6/21/2021
Agency	TCG	Analysis Year	2019
Jurisdiction	Town of White Bluff	Time Period Analyzed	Sta. 108 (SR 47)
Project Description	Mobility Plan for Town of White Bluff	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	11	Shoulder Width, ft	6
Speed Limit, mi/h	40	Access Point Density, pts/mi	10.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	510	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.92	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.30

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	42.4
Speed Slope Coefficient	2.86006	Speed Power Coefficient	0.41674
PF Slope Coefficient	-1.39394	PF Power Coefficient	0.70708
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	7.3
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	40.5

Vehicle Results

Average Speed, mi/h	40.5	Percent Followers, %	57.9
Segment Travel Time, minutes	1.48	Follower Density, followers/mi/ln	7.3
Vehicle LOS	C		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	4
Flow Rate Outside Lane, veh/h	510	Bicycle Effective Width, ft	23
Bicycle LOS Score	2.93	Bicycle Effective Speed Factor	4.17
Bicycle LOS	C		

Facility Results

T	Follower Density, followers/mi/ln	LOS
1	7.3	C

HCS7 Two-Lane Highway Report

Project Information

Analyst	TMN	Date	6/21/2021
Agency	TCG	Analysis Year	2020
Jurisdiction	Town of White Bluff	Time Period Analyzed	Sta. 116 (White Bluff Rd)
Project Description	Mobility Plan for Town of White Bluff	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	5280
Lane Width, ft	11	Shoulder Width, ft	2
Speed Limit, mi/h	40	Access Point Density, pts/mi	10.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	166	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.96	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.10

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	39.6
Speed Slope Coefficient	2.70830	Speed Power Coefficient	0.41674
PF Slope Coefficient	-1.39623	PF Power Coefficient	0.69610
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	1.4
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-	-	38.8

Vehicle Results

Average Speed, mi/h	38.8	Percent Followers, %	32.9
Segment Travel Time, minutes	1.55	Follower Density, followers/mi/ln	1.4
Vehicle LOS	A		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	4
Flow Rate Outside Lane, veh/h	166	Bicycle Effective Width, ft	16
Bicycle LOS Score	3.73	Bicycle Effective Speed Factor	4.17
Bicycle LOS	D		

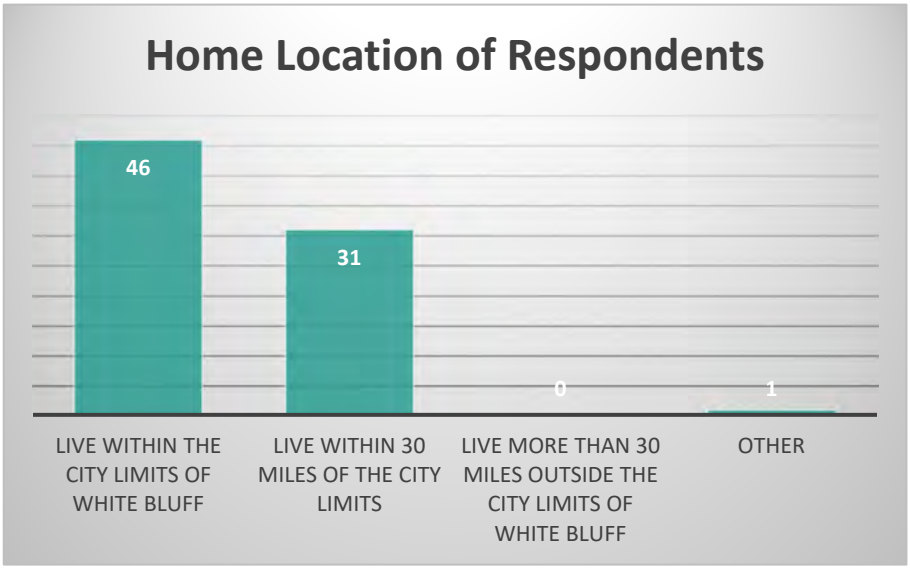
Facility Results

T	Follower Density, followers/mi/ln	LOS
1	1.4	A

Appendix B – Survey Results

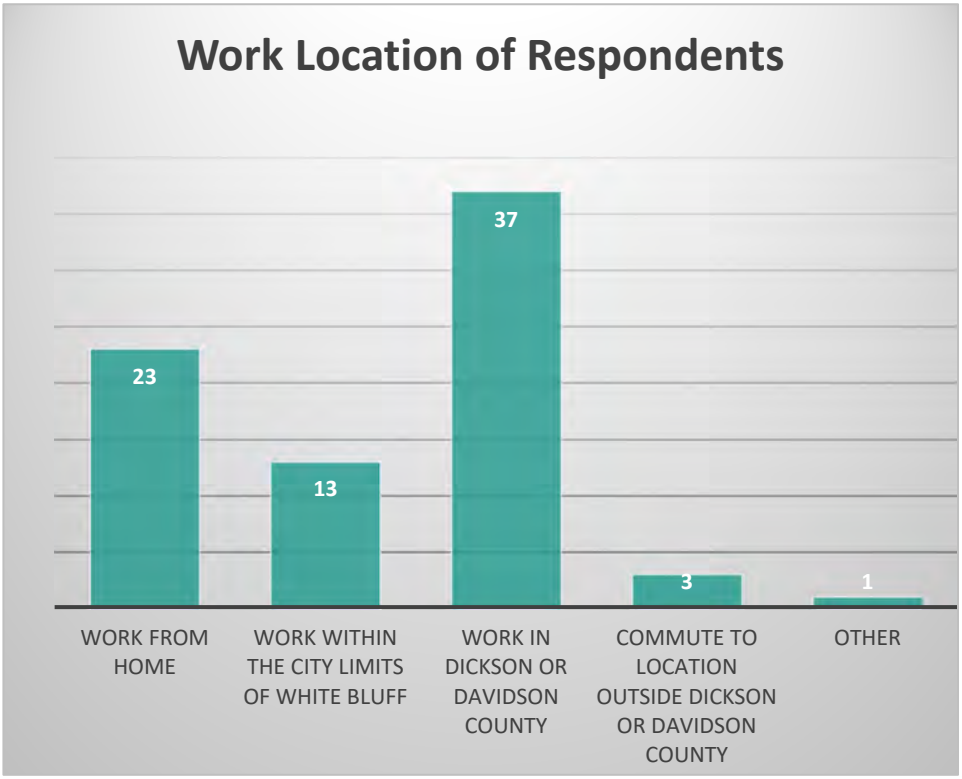
Who completed the survey?

Of the 78 people that completed the survey, there were 46 that live within the Town limits of White Bluff, 31 that live within 30 miles of the White Bluff town limits and one that lives in another area.



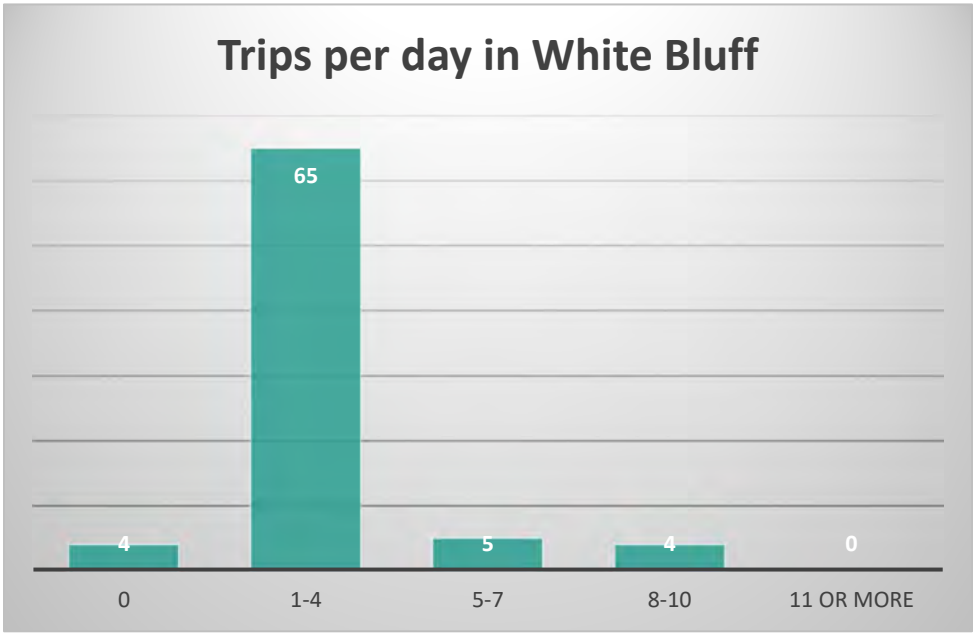
Where do people work?

We wanted to know where people work that completed the survey. The largest number of people work in Dickson or Davidson counties outside the White Bluff town limits. The second largest number is people working from home with the smallest number of people working within the of limits of White Bluff.



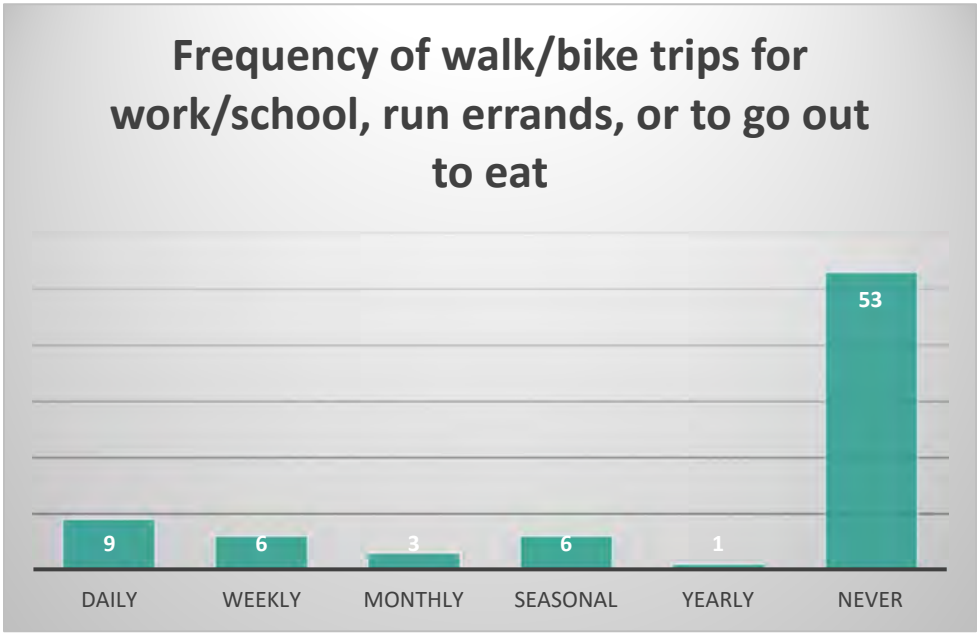
How many trips per day do you make in White Bluff?

Most people that completed the survey make between 1-4 trips per day that begin and end in White Bluff.



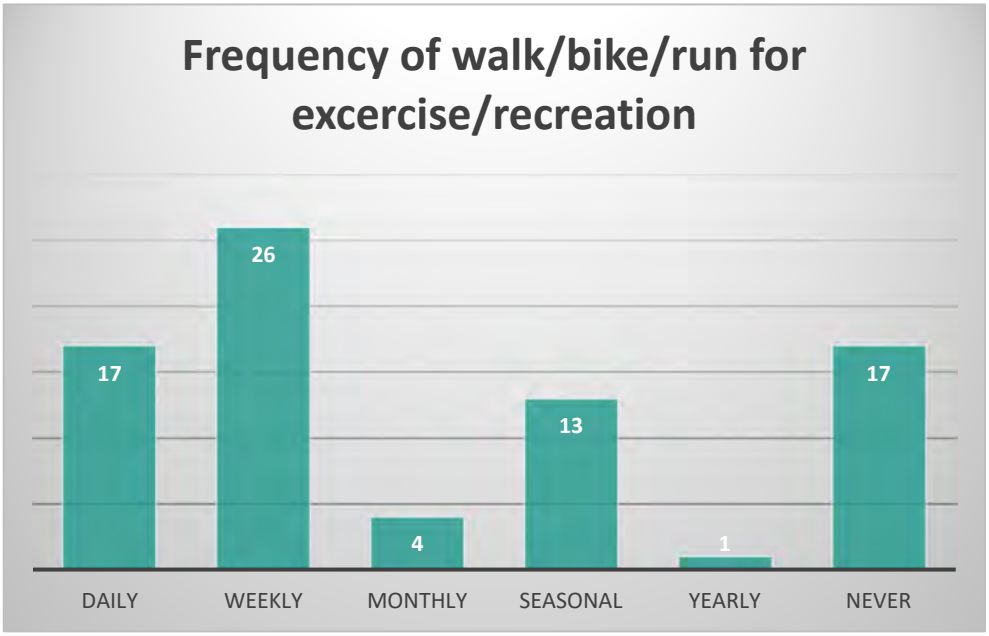
How often do you walk or bike to work or school, to run errands, or to go out to eat?

The survey respondents indicated that they do not walk or bike to work or school, to run errands, or to go out to eat. This is fairly consistent with the lack of facilities to accommodate these types of trips.



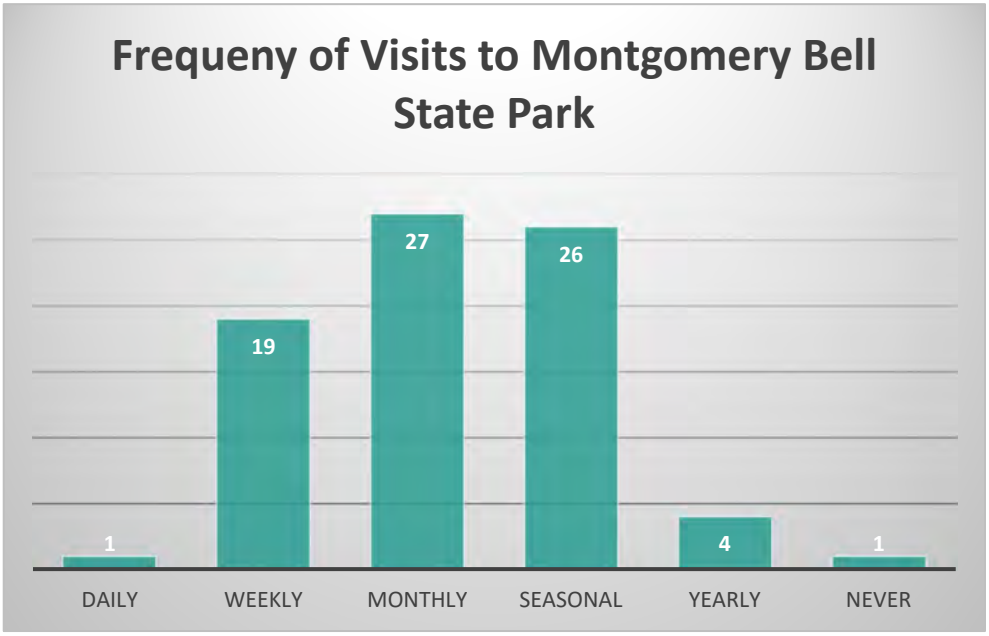
How often do you walk, bike, run for exercise?

Over half of the respondents, 43, indicated that walk, bike, or run for exercise or recreation on a daily or weekly basis. Another 17 respondents indicated they walk, bike, or run monthly or seasonally for exercise or recreation.



How often do people visit Montgomery Bell State Park?

The survey respondents that visit the Montgomery Bell State Park weekly, monthly, or seasonally was 72 with another person indicating they visit the park daily. This indicates a very high use of the park.

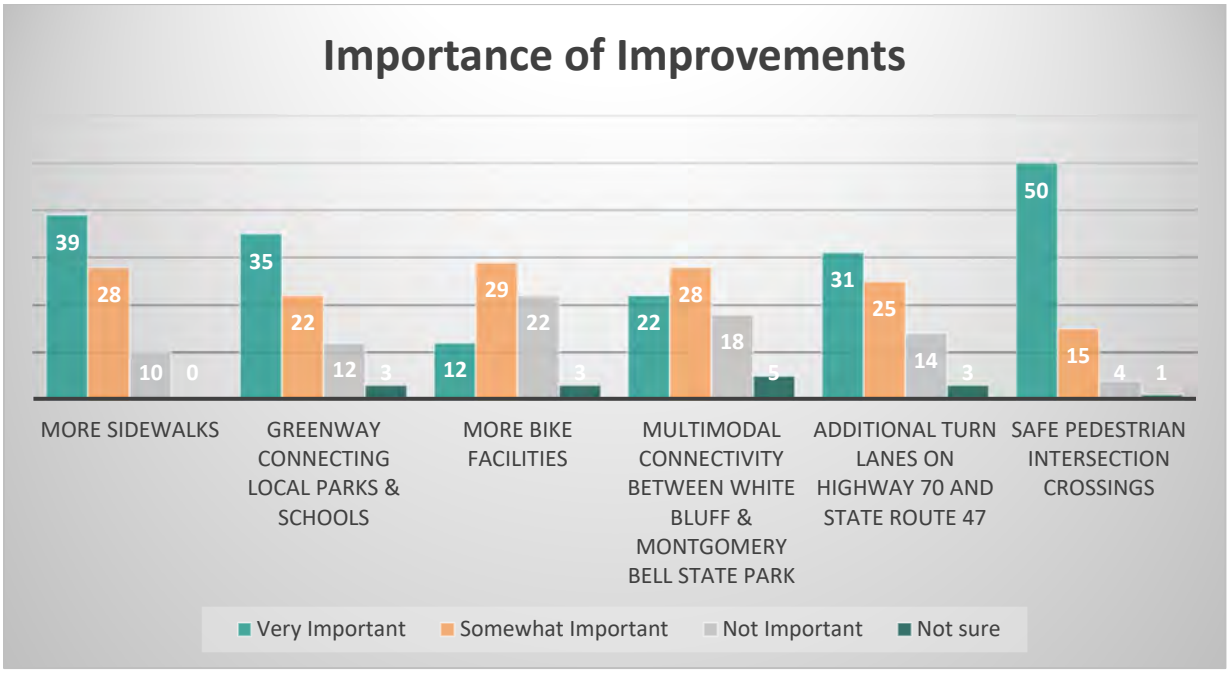


Why don't people walk/bike?

There are several major reasons people do not walk or bike. The respondents indicated in the White Bluff area the major reasons include lack of sidewalks and being worried about vehicular drivers. The other reasons that seem to be an obstacle include unsafe crossings, too much traffic, and concern for personnel safety.

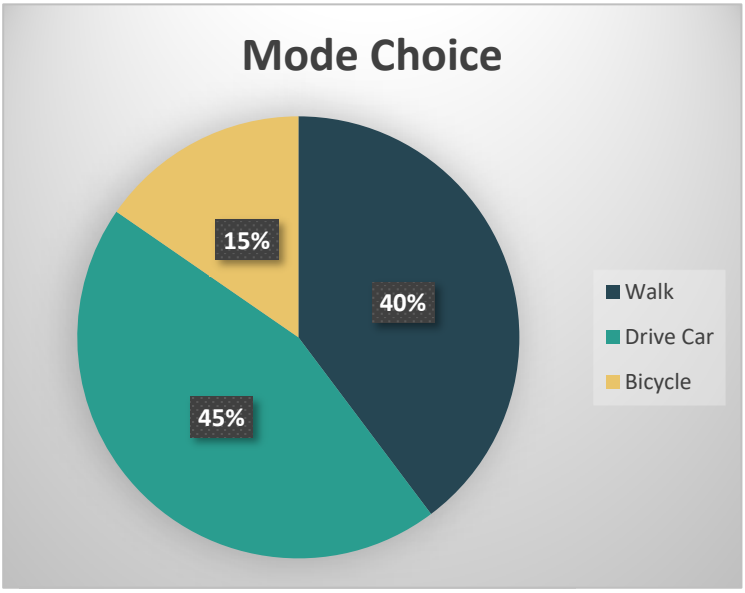
What improvements are important for the transportation network?

From the improvements listed over 35 respondents ranked safer pedestrian crossings, more sidewalks, and greenways connecting the local parks and schools as being very important. In addition, additional turn lanes on Highway 70 and State Route 47 are considered very important by 31 respondents and 25 considered it somewhat important. Multimodal connectivity between White Bluff and Montgomery Bell State Park is considered to be very important by 22 respondents and somewhat important by 28.



If adequate facilities are available what would be your mode choice between White Bluff and Montgomery Bell State Park?

When asked to rank their mode choice for traveling between White Bluff and Montgomery Bell State Park, 35 respondents (45%) prefer to drive, 31 respondents (40%) prefer to walk and 12 respondents (15%) prefer to bike.



What are your concerns or issues with the transportation network in White Bluff?

1	**safety**
2	We don't need more traffic through wb
3	transportation infrastructure growing too slow compared to the population boom
4	The increasing traffic volume is my main concern. As more homes and businesses are placed along 70 and 47, there'll be increased need to manage the resulting traffic and protect the safety of pedestrians..
5	Sidewalks to Veteran's Park
6	Often clogs from narrow roads, unsafe to walk or bike on narrow roads and tight curves, turning on to main and secondary roads, and access to business not interfering with travel.
7	Too many new people moving in and not enough adequate roadways to
8	When you ask the city planner, and the mayor for help dealing with an issue caused by the paving of your street they mock your concerns and do nothing to help you
9	Only one main road through town
10	Minimal side walks. No bike lanes. Poor road surface. Minimal lighting.
11	Not enough options
12	Safety I sew a lot of people walking on roads where there are no sidewalks. Drivers speed and don’t pay attention
13	Connections via sidewalk and/or bike lane between the following landmarks would rank in most importance to me: Schools(Hawkins/Taylor Town), Neighborhoods within .75 miles of HWY 70 (Corlew Circle, Sunset Drive, Wagners Way, Carriage Way, Shells Way), Montgomery Bell.
14	Pot holes
15	Congestion
16	There is always at least one signal head with a bulb out.
17	None except that I'm afraid of it becoming overly populated.
18	There is not a transportation network in White Bluff. As our foster care community grow there are not ways for our Extended foster childrent o get to those secondary schools which leads them to not be eligible for the extended foster care program, lack of education and ultimately no where for them to go.
19	People don't understand the purpose of middle lane
20	No sidewalks
21	The need for additional red lights
22	No real concerns
23	There is none that I know of at this time. I offer my services to my neighbors if they need.
24	Traffic laws broken, jake brakes, wide loads
25	Sidewalks and bike lanes
26	Will a greenway connect to Dickson
27	Narrow road ways and faded street line paint
28	Required movement or rezoning of personal properties.

29	To much traffic and new zoning allows traffic into subdivisions. Specially where there Dairy Queen is going in and whatever is going to be across from McDonald's.
30	It's not safe to run or walk on 70, white bluff road, or hwy 47
31	Primarily relies on roadways for cars.
32	Cost
33	Not any
34	Many commercial and residential properties are close to the shoulder of Hwy 70. I would not want to see anything impede or detract from those small-town successes.
35	The lack of people speeding and not paying attention is ridiculous. I live on old County House less than a mile from my mom but will not bike or walk there because people drive in the wrong lane and think the speed limit is 85. We need more police presence in the immediate surround city limits than we get. It's really bad out here.
36	Mostly lack of sidewalks. Also safe road crossing

How would you like to see the transportation network grow in the future?

1	**more sidewalks**
2	Not at all. Keep our town a small town that's why ppl love it here
3	Additional sidewalks. Quit investing in areas around Bibb Center. It is not centrally located within the town.
4	close quarter 4 lanes through town , more turning lanes , sidewalks through out town, especially on Sunset through taylortown on the way to town .
5	Unsure
6	I'd like to see a strong focus on expanding pedestrian safety. I'd also like to see a "park & walk" option at either end of downtown -- places where people can leave their cars and safely walk into town to take advantage of restaurants, etc.
7	Public transportation between White Bluff and Dickson. Affordable transportation for Senior Citizens. (Check out Martin TN for their service)
8	I would love to see something like this! Especially as our town grows. I think it would be great for our community in many ways, but especially to the children and elderly. We live just outside of city limits and wish we could walk into town daily, but we would get run over walking Taylortown Rd.
9	Give people things by where they live to encourage walking, having sidewalks with curb to protect pedestrians. Less car dependency Zillow has it score 4/100 for walking and 13/100 for biking, and for White Bluff to have a uniform look to the community that promotes safety, identifies dangerous drivers, and ease of travel between businesses in town. Having connections or services available to get to Montgomery Bell would be great host events, encourage town interest in connecting to nature. Lastly getting delivery or ride services would be beneficial for those who are unable to get out due to disability or age.
10	Additions to the main highways

11	A marked (mileage) walking track/sidewalk through town
12	Address the “concerns or issues” above.
13	Connect WB and Dickson
14	Safer crossings more sidewalks and sidewalks for those in wheel chairs
15	Creating a greenway to Montgomery Bell would offer a nice alternative to driving to the park, but to be honest that is a long journey for the leisurely cyclist/walker. The return on investment per person would make more sense to focus on connecting the white bluff town limits via sidewalk. Requiring a sidewalk for future developments obviously would be a nice boost to the town in the future.
16	Better flow of traffic when there's an increase of traffic in the area.
17	Add lanes/improve intersections to plan for future growth. Fix the sidewalk through town to be protected by at least a 6” curb. It looks like the pavement has slowly risen to where there is now only about a 2” curb in many places. Some drainage structures are nearly buried.
18	Not needed.
19	I would like to see maybe a bus system for people who do not have a vehicle and cannot get to the places that are needed. .
20	Hwy 70 4 lane to Bellevue
21	Add sidewalks!!
22	Rail Travel from White Bluff to Nashville
23	Fix the roads. Old Charlotte Rd is bad from the caution light to the city limits
24	I wouldn’t. I liked the small town feel.
25	Need to find out more of city planning. Adding bike lanes and pedestrian crossings not necessarily a stop but a caution when the walk is occupied.
26	I would love to see a bike trace that runs through town.
27	Turning lane 70 west past old Steve/Rita’s market. Speed limit 30 to same spot
28	Sidewalks and bike lanes
29	Would love to see sidewalk / greenway connectivity between White Bluff and MBSP
30	sidewalks and greenways
31	Become more family friendly with the roadways from like Taylor Town Rd into the city limits of White Bluff. Sidewalks to the school in White Bluff.
32	I don't see a need for it.
33	More turn lanes to allow for traffic growth that is happening now
34	Better greenway and more connections
35	More walking/biking and public transport options.
36	Something that helps everyone
37	The same as Usual
38	Slowly.
39	Walkable communities is the future including more side walks and bike lanes.
40	I love the idea of greenways for biking close to my home. Would use for exercise. I would drive my car there to begin biking due to avoiding biking on Hwy 70.
41	Controlling the transportation we have now should be 1st priority
42	add sidewalks, create safe road crossing.


I BELIEVE
IN
WHITE BLUFF