

Town of Gainesboro Community Mobility Plan





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Gainesboro is a historic, vibrant community in Middle Tennessee, known for its Historic Downtown and music scene. The county seat of Jackson County, Gainesboro is situated 15 miles northwest of Cookeville and 65 miles northeast of Nashville. Gainesboro is a small community of 1.8 square miles and is home to less than 1,000 residents. Providing a transportation system that both supports growth, maintains historic character, and serves residents and visitors alike requires forethought and smart planning.







About the CTPG

The preparation of this plan has been financed in part by the Tennessee Department of Transportation's (TDOT) Community Transportation Planning Grant (CTPG), which is made available by State Planning and Research funds through the Federal Highway Administration (FHWA), a division of the U.S. Department of Transportation (USDOT). The contents of this report do not necessarily reflect the official views or policies of the USDOT, FHWA, and/or TDOT. It is the policy under Title VI of the Civil Rights Act of 1964 that TDOT prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance.

In 2020, Gainesboro applied to develop a Community Mobility Plan through the CTPG program, which is administered by the Long Range Planning Division of TDOT, to identify deficiencies and opportunities in the current transportation network and recommend improvements that could be implemented in the future. A mobility plan focuses on all modes of transportation including motor vehicles, bicycles, pedestrians, and public transportation; however, the Town wanted to emphasize bicycle and pedestrian improvements, as well concept designs for specific corridors. These improvements are in line with the CTPG program goals which include the following:

- Assist rural municipalities with planning efforts that define **transportation cohesiveness** between **multimodal transportation systems** and **local land use objectives** that achieve state transportation goals.
- Aid rural municipalities with the creation of planning documents that support improvements in traffic flow, safety, and overall efficiency of the transportation system.
- Provide rural city governments with **planning resources to achieve community visions** related to transportation and land use needs that promote **future economic growth**.





Project Goals

Every good project has a set of specific, measurable, realistic goals that provide a framework for prioritizing projects and determining success. The goals for this Mobility Plan were defined by the project team at the project outset and refined based on feedback throughout the planning process. These goals reflect the priorities of community leaders and are supported by feedback from the broader community. Beyond this Plan, the goals provide guidance on how to move forward to address Gainesboro's mobility issues and realize its communal vision.

This Plan seeks to:

Provide the citizens of Gainesboro with a safe, accessible Americans with Disabilities Act (ADA)-compliant multimodal system that connects the Town's businesses and tourism destinations for people walking, bicycling, driving, and taking transit

Create the best design for the future implementation of sidewalks and crosswalks for pedestrian traffic around Downtown and other activity centers

Determine the feasibility of a multiuse path/greenway to connect the Town to the Roaring River Park

Assess the parking availability

Downtown and create a framework for safer interaction between parking and people walking and bicycling



Process

The planning process began with an assessment of the existing conditions (Chapter 2). This review included developing a general understanding of the community, reviewing previous plans & policies, and summarizing data related to transportation infrastructure, travel patterns, and safety. Where data about existing transportation infrastructure was not available, it was developed as part of this project. The project team created new sidewalk and on-street parking databases to better inform this planning process and serve as a data resource to the Town for future planning and design efforts.

Parallel to the Mobility Plan, the Town of Gainesboro also conducted a roadway Resurfacing and Restriping Plan, funded by a **Rural Planning Initiative (RuPI) Grant,** that collected data to prioritize roadways for resurfacing and restriping. The existing conditions assessment for the Resurfacing and Restriping Plan included creating a comprehensive database of Gainesboro streets, with data on pavement condition, posted speed limit, presence of curbs, and pavement markings. Although this Plan is a separate contract from the Mobility Plan, the data collected as part of each plan informed the other and the efforts were coordinated.

The existing conditions analysis resulted in a baseline understanding of Gainesboro that is complimented by community engagement (Chapter 3). Community engagement for the Mobility Plan included the following components: stakeholder engagement, a community survey, and an interactive online map. Stakeholder engagement consisted of engaging with a Steering Committee throughout the planning process. This Committee provided valuable insights about local goals and priority locations. The survey was distributed online and on paper and sought to gauge general attitudes on the existing transportation network, mobility issues, and potential improvements. Similarly, the interactive map allowed community members to place points or draw lines on the maps reflecting their current or desired transportation patterns. To support the development of the Resurfacing and Restriping Plan, the interactive map also included the ability to identify locations with uneven pavement and excessive potholes.

Following the engagement process, the project team

identified focus areas: priority locations in Gainesboro where the Mobility Plan makes recommendations (Chapter 4). These areas, depicted in Figure 1.1, were identified because they are important local activity centers (Downtown and Gainesboro Elementary School) or are missing a specific transportation connection (Gaines Street and Roaring River Park Connection). The focus area selection process for the Mobility Plan and Resurfacing and Restriping Plan mutually informed each other, with selected areas in one plan overlapping areas prioritized in the other.

With the focus areas selected, the final phase in developing the Mobility Plan was to identify specific recommendations to address the issues seen in each focus area. The recommendations are depicted in concept designs and accompanied by cost estimates and high-level implementation steps. The recommended projects include a variety of pedestrian and bicycle connections and safety improvements, such as sidewalks, crosswalks, curb ramps, parking reconfiguration, a greenway, and signal warrant analysis. Recommendations that overlap the priority areas of the Resurfacing and Restriping Plan and that could be accomplished as part of a restriping project were added to the final prioritizations and cost estimates of that Plan. Together, these two Plans provide a framework for creating an updated, multimodal, safe transportation network in Gainesboro.

Investigation

- · Existing Conditions Review
- · Community Engagement

Focus Area Development

Recommendations & Adoption

Focus Areas

As part of the CTPG grant application, the Town identified four Focus Areas of specific concern where it sought more detailed recommendations to address key issues in the area. Each represents an important location for Gainesboro's community identity and transportation network. Focus Areas are highlighted in Figure 1.1.

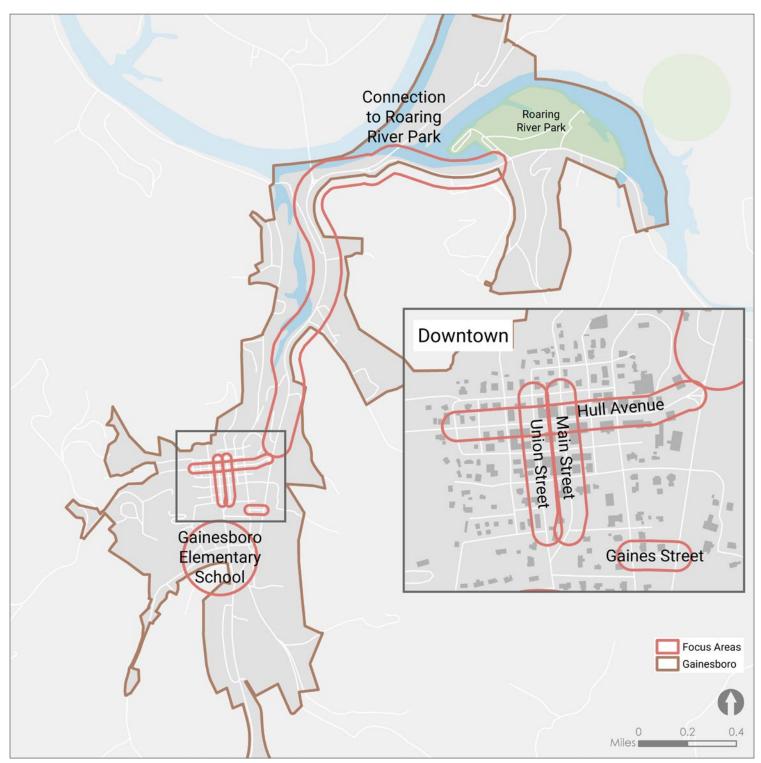


Figure 1.1: The five focus areas being studied as part of this Mobility Plan.



CHAPTER 02

State of Transportation



Existing Conditions

Recommendations come from a robust understanding of community values and objectives, but also from an understanding of the current system's problems, opportunities, strengths, and weaknesses.

This chapter examines the Gainesboro area holistically, beginning with its demographic and community context, followed by a summary of previous planning efforts, and ending with a synthesis of the region's multimodal transportation system. The latter includes a review of existing conditions and system performance, laying out key insights that will drive this Plan's recommendations.



- Community Overview
- Previous Plans & Policies
- Roadways
- Multimodal Facilities



Downtown Gainesboro's charm as seen in Gainesboro at the intersection of North Main Street and Hull Avenue. Photo taken by J. Stephen Conn.

Settled near a bend of Cumberland River, Gainesboro's transportation network is primarily defined by its historical development, as well as the rolling topography by which it is surrounded. Choices of mode and route are affected by the cost and benefit calculations each individual makes before starting their trip. The analysis of existing conditions presented in this chapter serves as a foundation for the subsequent recommendations.





Community Overview

About Gainesboro

Gainesboro is the county seat of Jackson County, approximately 60 miles northeast of Nashville and 95 miles northwest of Knoxville. The town was founded through the gift of a local resident, who donated 40 acres to serve as the county seat near the mouth of Roaring River. The town itself is named after Major General Edmund Pendleton Gaines. The community was incorporated in 1820 and the town of Gainesboro hit the map. In 1990, town residents led a successful campaign to designate the Town Square as a National Register Historic District. In 2003, a grant application helped

secure placement of several residential homes near the Town Square on the National Register of Historic Places.

Current transportation behaviors reflect a community that is heavily dependent on driving. Of the Town survey respondents, 98% of residents get around by automobile. A mere 2% get around on foot, with no one answering that they use bikes, public transit, or other means of transportation. Despite this, and reflecting the Town's relatively small geographical footprint, over 50% of the population faces a commute of less than 30 minutes to work. However, as growth occurs, maintaining this dependence on the automobile will create pressure on the existing roadway network, underscoring the need for an enhanced multimodal system.

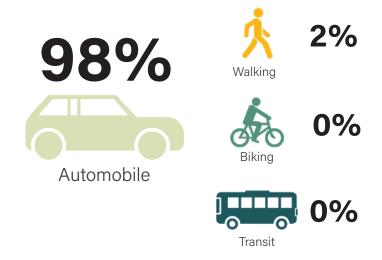
In Gainesboro, 28% of the population lives at or below the federal poverty line according to ESRI Business Analyst. Median Household Income has grown to \$27,422, which is below the state median, household

income of \$53,320 (Source: U.S. Census Bureau, American Community Survey 2015-2019) Despite this, rates of vehicle availability for homeowners in the area remain high: The average car ownership in Gainesboro is 2 cars per household.

Transportation costs represent a significant portion of household budgets. Creating convenient, affordable alternative means of transportation can aid in creating a more equitable transportation system for all Gainesboro community members.

In Gainesboro... 98% of residents drive 50% have a commute under 30 minutes 12% of residents do not have access to a vehicle

How does Gainesboro get to work?



Certain community features, such as downtowns, schools, and key shopping destinations generate traffic and influence travel patterns within the community. These are called trip attractors, or trip generators, and understanding their location in Gainesboro is important to understanding a community's transportation network as a whole.

Key trip generators within Gainesboro's Town limits are identified in Figure 2.1 below. Notably, many of these trip generators are found within the limits of this Plan's Focus Areas:

- Gainesboro Downtown Historic District
- · Gainesboro Residential Historic District
- Gainesboro Elementary
- · Roaring River Park

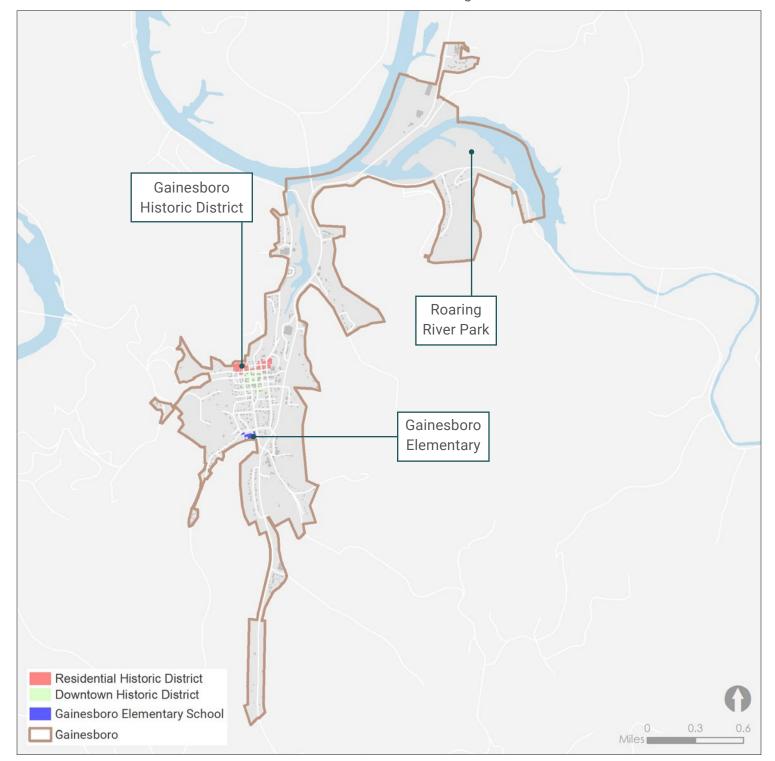


Figure 2.1: Gainesboro Overview Map with key destinations:







Previous and Ongoing Plans & Policies

This Mobility Plan builds on Gainesboro's previous planning efforts. These plans provide a guiding framework, revealing Gainesboro's vision for itself and strategies to achieve that vision. This Plan provides a vision that stands on the shoulders of these prior efforts, consistent with the Town's vision, and increases the overall mobility, comfort, health, and quality of life of its residents.

Plans reviewed here:

- Resurfacing and Restriping Plan (2021)
- Residential Historic District Design Guidelines (2016)
- Town of Gainesboro Master Plan (1990)

Resurfacing and Restriping Plan (2021)

The Resurfacing and Restriping Plan was developed concurrently with this Mobility Plan by Mattern & Craig. This Plan was funded by a TDOT Rural Planning Initiative (RuPI) Grant. The primary output of this plan was a comprehensive database of roadways in Gainesboro with data on the current roadway condition from curb-to-curb (i.e., excluding sidewalks and other facilities outside of the roadway). Details on pavement condition, posted speed limit, presence of curbs, and pavement markings informed cost estimates to resurface each corridor. Finally, the Plan created a framework to prioritize resurfacing projects. Where priority corridors overlapped with focus area corridors in the Mobility Plan, the Resurfacing and Restriping Plan cost estimates included elements from the Mobility Plan recommendations. Occurring at the same time, the inputs and outputs of the Mobility Plan and the Resurfacing and Restriping Plan influenced each other.



Residential Historic District Design Guidelines (2016)

The Residential Historic District Design Guidelines were completed in 2016 by the offices of Michael Emrick, AIA. The guidelines outlined an array of objectives:

- Reinforce Gainesboro's historic character
- Properly manage growth to protect public and private investment
- SCALE OF ADDITIONS

 SCALE OF ADDITIONS

 DECOMMENDED

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 DESCRIPTION AND SHALL BE LECARDING FRACTORS.
- Improve the quality and growth of development
- Follow community feedback to design approaches
- Serve as a guideline to approve or deny Certificates of Appropriateness
- Increase public recognition of design issues and options

The guidelines focused on maintaining the integrity and charm of the Historic Downtown, while providing options to promote growth and maintain proper scale and design throughout Town.

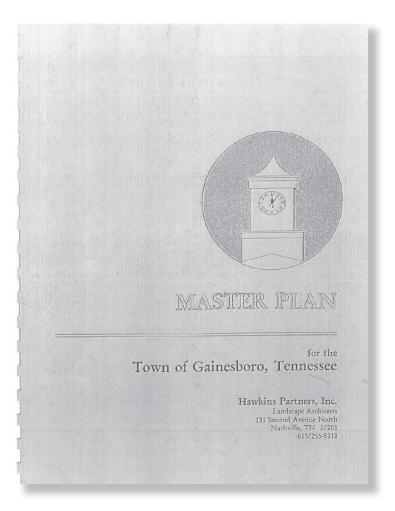
Town of Gainesboro Master Plan (1990)

In the 1990s, Gainesboro leadership promoted the economic redevelopment of the downtown area while maintaining the historical and scenic character throughout the town. The goals of this plan were to attract businesses and hospitality attractions to the area, and to enhance streetscape to entice businesses to set up their storefront in the Historic District.

The plan focused on two highly impactful intersections, referenced as the Southern and Eastern Gateways. The Southern Gateway occurs at the intersection of Highway 56 and South Union Street, and the Eastern Gateway at the intersection of Highway 56 and East Hull Avenue. Both of these intersections provide direct access to the Historic District.

The Master Plan calls for safety of all visitors by developing a pedestrian sensitive environment. The plan notes that, visitors may arrive by car, but once in the area they will be circulating throughout town by foot and considerations for their movements should be taken into account.

The plan inventoried existing land use, zoning, drainage patterns, and utilities at the time. Proposed sketches show mature street trees pedestrian lighting, banners, signage, outdoor dining, and benches.







Roadways

Gainesboro's demographics and previous planning efforts lay the foundation for understanding how this Mobility Plan can support community goals and objectives. Understanding the transportation network, however, requires a robust understanding of how it operates. Analysis of the existing street network, connectivity, and pedestrian and bicycle service tells us how the network does -- or does not -- perform for its residents, and begins to frame the recommendations of this Plan.

In this Section:

- Network Characteristics
- Traffic Volumes & Crashes
- Bicycle Facilities & Level of Traffic Stress
- Pedestrian Facilities & Sidewalk Gaps

Network Characteristics

Roadways are the foundation of the existing transportation system in Gainesboro. They are the backbone for the movement of people and goods, whether by automobile, transit, bicycle, or on foot. One way to conceptualize roadways is by their functional classification -- the character of the transportation service they provide. Freeways and expressways have a different character than collector streets or arterials. Understanding these classifications frames our understanding of how a road system operates -- or is intended to operate.

The functional classification of Gainesboro's road network is shown in Figure 2.2. SR-56 and SR-85 are the two principal arterials for the Town, with a network of collector streets and minor arterials distributing traffic throughout the neighborhoods and districts. In the downtown area, arterials an collectors are more densely located, allowing for distribution of traffic in moments of congestion. Local roads near the downtown follow a grid pattern, with numerous intersections creating connections and distributing traffic along side streets.

Moving away from the downtown, however, local streets are isolated and disconnected from the transportation network, connected only to a trunk

route that accounts for local topography. Notably very few collector streets exist south and west of Downtown, where residential development is expected to occur. Lacking connections, side streets and collectors, traffic is forced out onto arterials, increasing congestion on roads intended to function as higher speed thoroughfares.

These problems are accentuated in the Focus Areas. Near the Gainesboro Town Schools, few collector streets can be found, and what local residential streets exist provide only limited connections to the schools complex. Families driving children to school have limited options: Gipson Avenue, S Main Street, and S. Crescent Avenue; these roads are only accessible via SR-56, Gipson Avenue, S. Main Street and S. Murray Street, increasing traffic on all of these streets during critical school pick-up and drop-off times. Increasing connections to these collector streets and providing sidewalks and bike facilities to allow alternative means of travel is critical to relieving congestion and improving safety in these areas.

What are Functional Classifications?

Functional classifications help to understand roads are intended to be used.

0.6

0.3

	Functional Classification	Length	Access Points	Speed Limit	Usage (Volume)
	Arterials	Longest	Few	Highest	Highest
	Collectors	Medium	Medium	Medium	Medium
	Local	Shortest	Many	Lowest	Lowest
	Table 2.2: Functional Classification.	ation roadways cha	aracteristics. Sour	ce: Federal Highw	/ay
Functional Classification Local Major Collector Minor Arterial Minor Collector			4		0

Figure 2.2: Existing functional classification network, Town of Gainesboro. Collector streets and minor arterials provide some connectivity for drivers, though this wanes further from downtown Gainesboro. Source: TDOT.



Gainesboro Boundary





Traffic Volume and Crashes

Traffic

High traffic volumes reveal workhorse corridors, shuttling residents to and through key destinations within a community on a daily basis. In the same vein, changing traffic volumes also tell us where a community is growing and evolving with time, suggesting areas where improvements may be necessary to support this new growth.

Figure 2.3 depicts current traffic volumes. The importance of SR 56 and SR 53 is clear, with these roads **experiencing the highest traffic volumes within Gainesboro** over 2014-2019.

The majority of the crashes, from 2014 to 2019, occur at intersections. The crashes are dispersed pretty evenly around the town square and near the Elementary School. A hot spot for crashes occurs around Montpelier Avenue and SR 56. Over this time frame, there has been one fatality. This crash took place near the Dairy Queen on SR 56.

More severe crashes have occurred on streets with higher volumes and speeds (see figure 2.3). Crash densities here reflect higher traffic volumes and greater opportunities for conflict but may also reflect poor geometric design or improperly timed signals in these areas.

Crashes

Crash analysis reveals broader trends in a transportation network, and highlights locations where the network's features may contribute to concentrations or patterns of crashes. Both are critical to understanding a multimodal network and how it serves, or fails to serve, its community.

Crash Severity, 2015-2019			
Year	Fatal	Property Damage	Minor Injury
2015	0	14	4
2016	0	5	3
2017	1	9	2
2018	0	5	5
2019	0	6	10
Total	1	39	24

Table 2.3: Crash Types by year, 2015-2019. Source: TDOT.

Crash Type, 2015-2019			
Туре	Count	Percent	
Rear End	10	16.1%	
Rear to Side	2	3.2%	
Sideswipe, same direction	2	3.2%	
Head-on	3	4.8%	
Angle	17	27.4%	
No collision w/ Vehicle	16	25.8%	
Sideswipe, opp. direction	3	4.8%	
Unknown	3	4.8%	
Other	4	6.5%	
Rear to Rear	2	3.2%	

Table 2.4: Crash Types by manner of crash, 2015-2019. Source: TDOT

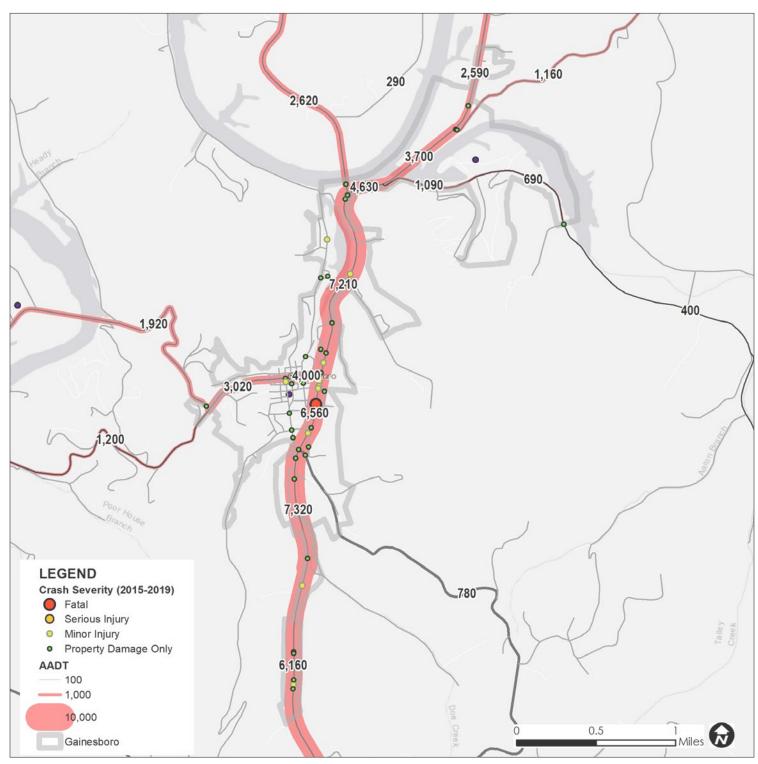


Figure 2.3: Traffic volumes, 2014-2019 and crash severity. Source: TDOT.







Focus Areas Downtown Corridors

The downtown corridors of focus are Hull Avenue, Union Street, and Main Street. These are the key corridors that move vehicular traffic and people throughout Gainesboro. Main Street and Union Street provide passageway to Gainesboro Elementary, which sits at the corner of Main Street and Gipson Avenue. Hull Avenue carries the majority of the traffic volume through the Historic Downtown and out to SR-56. On the Figure to the right crashes are shown dispersed throughout town. The majority of crashes occur at intersections, which suggest low speeds and traffic due to congestion. On the southside of Main Street resides Gainesboro Park. This a popular destination for Town residents.



Figure 2.4: Crash locations and severity, and traffic volumes within downtown corridor focus area. The high concentration of property damage-only crashes near the intersections suggest stop-and-go traffic due to congestion. Access management improvements can improve operations here. Source: TDOT.

Gainesboro Elementary School

Gainesboro Elementary School is within walking distance to the Downtown Historic District and Residential Historic District. Traffic volumes around the elementary school experience their peak around pick-up and drop-off times. Right now the drop-off/pick-up lane extends off Gipson Avenue. Bus drop-off also occurs through the Gipson Avenue entrance. Crashes around this focus area occurred at unsignalized intersections near the school. One midblock crash have occurred near the entrance to the Elementary on Main Street. Another crash occurred at School Drive and SR-56, where there is currently no signal.

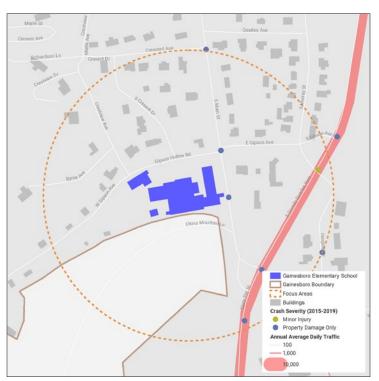


Figure 2.5: Crash locations and severity, and traffic volumes within the Downtown focus area. Angled crashes are most common in this area, with severity low, reflecting low speeds and sudden turning movements, perhaps for parking. Source: TDOT.





Connection to Roaring River Park

Jackson County leaders are working with the town of Gainesboro to develop a large parcel near the Cumberland River, Roaring River Park. This park will host a variety of attractions and will attract tourists from all over Central Tennessee. The proposed connection to Roaring River Park will run along SR-56, SR-53, and SR-135. Due to this location being a major thoroughfare through Gainesboro, the average daily traffic volume is higher and cars are traveling at higher speeds. The majority of accidents along SR-56 result in property damage only. A few minor injury accidents have occurred on SR-56 near Montpelier Avenue. It will be critical to make this connection to the park a safe way to travel with the increase of traffic along SR-56.

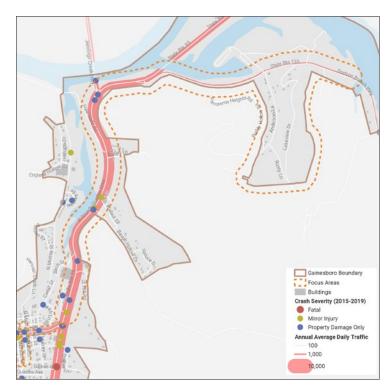


Figure 2.6: Crash locations and severity, and traffic volumes within the SR-305/CR-250 focus area. The cluster of crashes near both ramps highlights travel patterns focused on I-75 as well as poor geometric design. Source: TDOT.

Gaines Street/ SR-56 Intersection

The Mobility Plan Steering Committee members pointed out that Gaines Street lacks sidewalks. This street is commonly frequented by pedestrians trying to access the Dairy Queen across SR-56. The one vehicular fatality recorded occurred at this intersection. There are no pedestrian crossing facilities at the intersection.



Figure 2.7: Crash locations and severity, and traffic volumes within the SR-56/Gaines Street focus area. One fatality recorded at this location between 2014-2019. Source: TDOT.







Multimodal Facilities

Bicycle Facilities

Multimodal users in Gainesboro, and in particular bicyclists, face a very different set of circumstances attempting to travel throughout the Town than automobile users. Whereas drivers have an interconnected network of roadways designed for their travel, bicyclists face a lack of safe, adequate facilities to reach their key destinations. Currently, there are no bike lanes within Town limits, nor are there off-street greenways providing connections throughout the Town. While some streets may have wide shoulders, these facilities are not considered adequate for most bicyclists.

Bicyclists must share the road with traffic in order to travel around Gainesboro. Bicyclist Level of Traffic Stress (LTS) is an analytical index that uses traffic speeds, volumes, and existing bicycle facilities to estimates how different types of bicycle users perceive the Gainesboro transportation network, and their relative likelihood of using a particular facility to travel. The higher the level of perceived stress, the

fewer bicyclists are likely to be comfortable using that roadway. Figure 2.8 shows Bicyclist LTS for Gainesboro's streets.

Major arterials and cross-town connectors appear as high-stress corridors. With their higher speeds and volumes, SR-56 and SR-83 are both challenging to navigate for typical bicyclists, and these conditions may deter individuals from using bikes in these areas, both traveling along and attempting to cross the roadways. Conditions improve on more residential streets, where volumes and speeds are lower. Importantly, many roads depicted as lowstress are also those where traffic volumes have grown significantly in the past five years, such as Hull Avenue. As growth continues in these areas, conditions may worsen for cyclists and present even greater obstacles to navigation.

What is Level of Traffic Stress?

LTS measures a road's suitability for different types of bicyclists, showing how connected a bike network is for different types of users.

		Characteristics		
Level	Category	Traffic Volume	Traffic Speed	User Comfort
4	Highest Stress	High volumes	High speeds (45+ mph)	Advanced, highly skilled bicyclists <i>only</i>
3	High Stress	High volumes	Moderate- to high speeds (35+ mph)	Experienced, confident bicyclists
2	Moderate Stress	Moderate volumes	Moderate speeds (30-35-mph)	Most adult bicyclists
1	Low Stress	Low volumes	Low speeds (<30mph)	All ages and abilities
0	Prohibited	Interstates & Freeways		N/A

Table 2.5: Level of Traffic Stress.

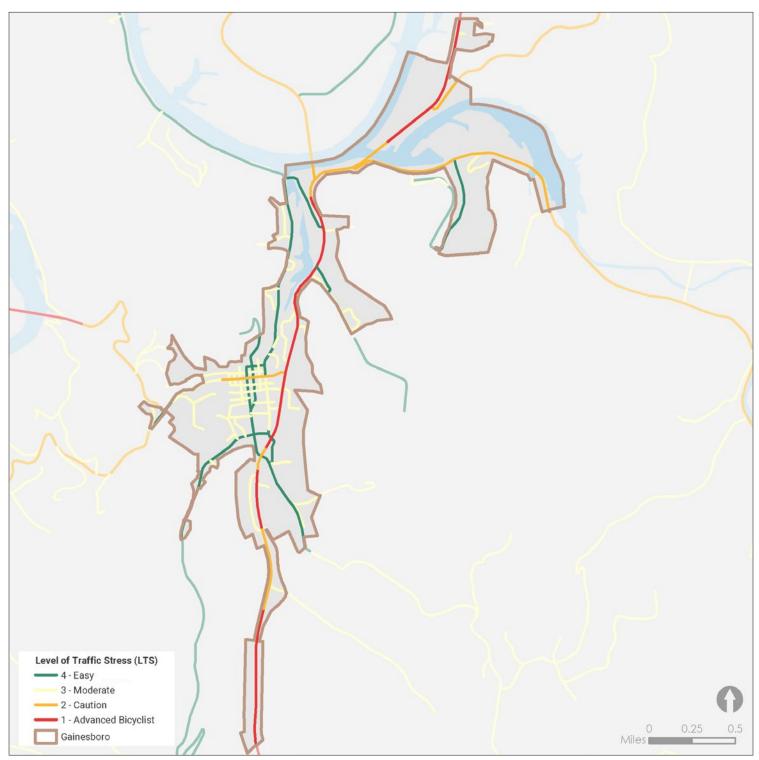


Figure 2.8: Bicycle Level of Traffic Stress, Gainesboro. While local collectors provide relatively calm, safe streets for biking, connectivity is broken by the high-stress corridors of SR-56, SR-85, and SR-135, limiting accessibility to destinations beyond these roadways for cyclists who need to cross them. Only experienced, confident bicyclists may feel comfortable bicycling along these roads -- a small percentage of the population. The roads that serve the Elementary school are relatively low stress and could provide options for bicycling to and from school. The Source: Stantec







Sidewalks

Walking remains an option only in certain parts of Gainesboro. Those choosing to walk through Gainesboro face a disconnected network, with sidewalks along both sides of streets in key locations, but only on one side in others and non-existent elsewhere. Crosswalks are incomplete in many locations, making crossings a challenge to users who find themselves "on the wrong side of the road."

Specific data about the locations of sidewalks in Gainesboro did not exist prior to this project. As part of this planning process, and to compliment the roadway database created as part of the Resurfacing and Restriping Plan, the project team created a **Gainesboro sidewalk database**. This georeferenced database includes information on the length, width, elevation change, and condition of all sidewalks in the Town. The sidewalks database informed the recommendations in this Plan and will also be used by Gainesboro going forward to identify and shape future sidewalk projects and priorities.

Figure 2.9 shows the location of existing sidewalk facilities, as developed through this added deliverable. Of the 20 miles of roads in Gainesboro, only 4.4% (0.89 miles) have sidewalks present. Of those 0.89 miles, most are found in close proximity to downtown Gainesboro (see inset) and in the neighborhoods immediately surrounding the Downtown Square. Here, sidewalks are largely found on both sides of the street, although crosswalks may not provide needed connections for those seeking to cross safely. Further from downtown, sidewalks and crosswalks decrease in frequency.

Lacking pedestrian connections along or across the corridor, users may either opt to complete their trip via an automobile, increasing congestion, — or engage in potentially unsafe behavior, increasing the likelihood of a pedestrian-involved crash.

Facility	Miles	
Sidewalks	0.89	
Roads	19.9	

Table 2.6: Sidewalk facilities and total road miles. Source: Town of Gainesboro.

In Gainesboro			
<1.0	miles of sidewalks		
4.4%	of all Gainesboro roads have sidewalks		
0	crosswalks throughout Town		

Focus Areas Downtown

The downtown area, see Figure 2.9, in contrast to other focus areas in this Plan, features a **compact, interconnected sidewalk network**. Sidewalks exist along both sides of Hull Avenue in some locations and along one side of Main Street from Hull Avenue to Gainesboro Elementary. Sidewalks continue along School Drive to the site of the Robert Fox Middle Redevelopment. Currently there are **no sidewalks along the extents of SR-56**.

However, there are limited connections to downtown from other neighborhoods. Sidewalks are lacking in the more residential areas on the southwest side of town and there is poor connection from the Historic Residential Area on the north side of the Town Square. This forces visitors to drive to downtown rather than walk, and reinforces the need for automobiles to get around, contrasting the walkable vision of the 1990 Master Plan.

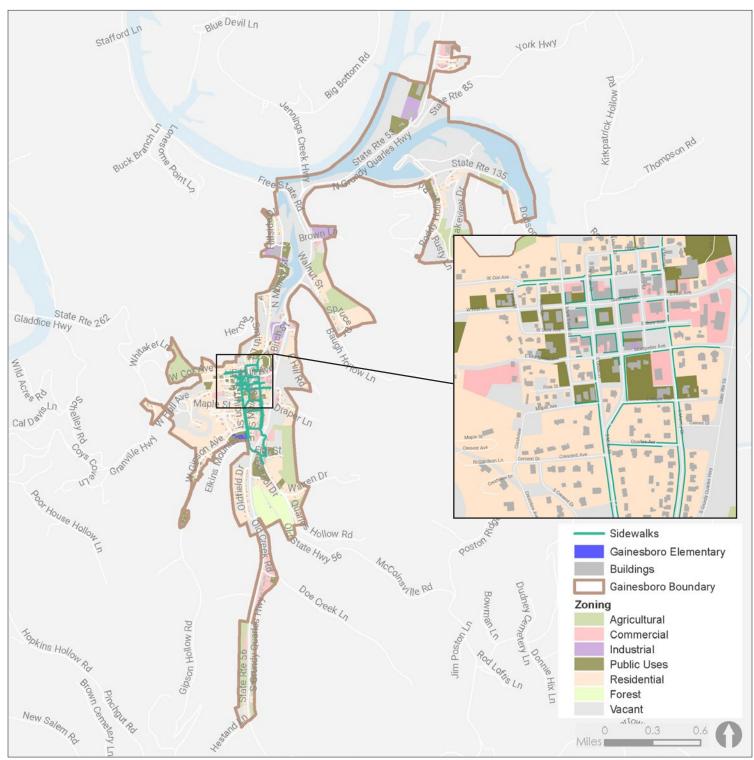


Figure 2.9: Sidewalks and current zoning. Apart from an interconnected network in downtown and older neighborhoods immediately north of downtown, the sidewalk network is fragmented and lacks consistent crossing opportunities. Increasing access to commercial destinations and into residential areas is critical to creating a pedestrian-friendly Town. Source: Stantec







Parking

Stakeholders identified that parking and a lack of parking is an issue in some locations throughout Gainesboro. To better understand the parking needs in Gainesboro the project team created a **database of the Town's on-street parking**. Similar to the sidewalk database, this new georeferenced inventory includes on-street parking location, extents, type, and number of spaces. This inventory, for the first time, provides the Town with an understanding of the available parking supply and better contextualizes the need for additional parking capacity.

In total, Gainesboro has approximately 210 parking spaces available: 133 of these are angled and 62 are parallel; the remaining 15 are perpendicular. The angled and perpendicular spaces present more safety and visibility issues to bicyclists and drivers due to visibility constraints while interacting with parking.

Downtown Square has angled parking on all four sides. Many of the streets adjacent to the Square also have other forms of parking. There is on-street parking along Union Street, Main Street, Hull Avenue, Gore Avenue, and Montpelier Avenue. The Mobility Plan Steering Committee members pointed out a lack of parking near the Gainesboro Park, especially when there is an event held at the park.

Type of Parking	Number of Spots
Angled	133
Parallel	62
Perpendicular	15
Total	210

Table 2.7: Parking Spaces throughout Gainesboro. Source: Town of Gainesboro.

Transit

The Town of Gainesboro has access to a demandresponse transit service provided to Jackson County through the Upper Cumberland Human Resource Agency (UCHRA). The service does not have any fixed stops and operates only on an on-demand basis. The service is available to all members of the community.

On Street Parking exists on:

- Union Street
- Main Street
- Hull Avenue
- Gore Avenue
- Montpelier



Parallel parking in Downtown Gainesboro





Figure 2.10: Existing on-street parking, by parking configuration, and focus areas. On-street parking is available on the five core streets around **Downtown Square. Source: Stantec**









Public Engagement

Public engagement plays an integral role in any planning effort, as its results will impact the daily lives of community members and local businesses. Meaningful engagement means stronger results, tighter community bonds, and a greater will to implement the plan. Furthermore, engagement provides invaluable feedback to planners, engineers, and designers that might not be fully understood looking at data alone; the human element and a diversity of perspectives helps to reframe the project team's view of the issues and provide better recommendations for improvement.

This chapter describes the processes, strategies and activities used to engage with the Gainesboro community during the Mobility Plan's development. It also summarizes information received from the public, through various channels.

In this Chapter:

- Survey and Map
- Stakeholder Discussions

Impacts of COVID-19

Like many communities during this time, the COVID-19 Pandemic and its impacts on social engagement had a profound impact on this planning process and traditional means of public engagement. Daily routines, around which traditional methods of engagement were devised, were reformulated to adapt to remote working and social distancing. Social gatherings were restricted with limitations on types of events and attendance, in order to limit the spread of the coronavirus. Public meetings, such as the steering committee meetings were conducted via new formats in order to engage the public meaningfully in the planning process.

Like our community, this Plan adjusted to the new normal and shifted traditionally in-person means of outreach into the virtual realm. Coupling new online capabilities, such as Zoom and Microsoft Teams cloud meeting technology, with familiar methods of online engagement such as interactive web mapping and surveys, virtual public engagement stepped up to meet the needs of this project. Innovation borne out of this challenging time provided a virtual format that nonetheless fostered deep engagement and meaningful participation from the community.







Survey and Map

Early in the process, the Town released a link to an online survey and interactive map so residents, property owners, business owners and other stakeholders could access information and provide input on the discussions surrounding the plan's development. A paper version of the survey was also circulated, which yielded about 50% of the survey responses overall. As a result of Town's efforts to publicize this Plan, over a hundred people were able to hear about and provide input to the Mobility Plan during its development.

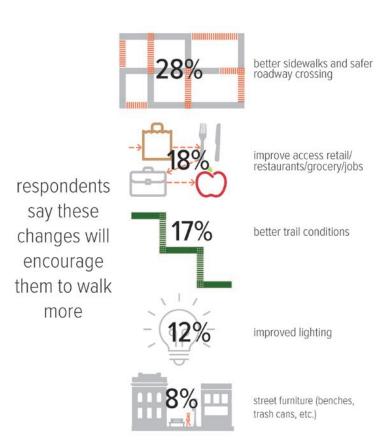
The survey and map were open for interaction for one month and closed as the project transitioned into the recommendations phase. Summaries of both are shown below.

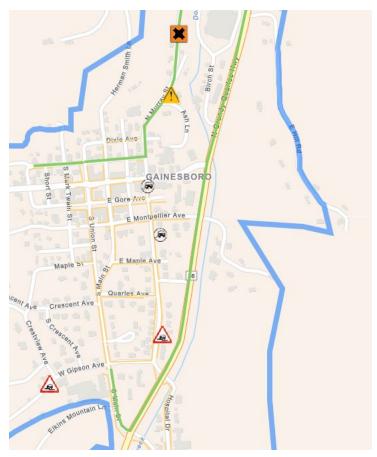
Survey

The paper and online survey measured the community's sentiment regarding the present transportation network, as well as expectations for future growth. It featured a set of 11 questions related to mobility choices, feelings of safety, and community priorities. There were 113 responses to the survey. Major takeaways from the survey are summarized below.

Interactive Map

The interactive map allowed Gainesboro stakeholders to identify problem areas and points of interest within Gainesboro. On the web map, respondents identified features, including pavement issues and safety issues, with points and icons that they could place on the interactive map. The web map provided a different and needed perspective on corridor-level issues than could not be fully captured through other methods.



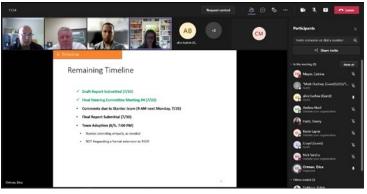


Stakeholder Discussions

Steering Committee

Early in the planning process, the project team gathered a Steering Committee to guide this study's progress. This core group of elected officials, agency representatives, and local stakeholders worked closely with the team to drive broader public engagement, provide guidance on goals, focus areas, and priorities, and vet study recommendations. Occurring during the COVID-19 Pandemic, the team met virtually at regular intervals during the process to stay up-to-date on project progress, and on schedule to complete a comprehensive plan that moved rapidly from initiation to conclusion. At all stages of the Plan's development, this group was present to provide their local, specialize knowledge, and consistent in their advocacy for a strong Mobility Plan.

View of the Steering Committee in action!















This chapter presents conceptual design recommendations for the four focus areas.

In this Chapter:

- Downtown Recommendations
- Gainesboro Elementary **School Recommendations**
- Gaines Street Recommendations
- Roaring River **Park Greenway** Recommendations
- Design Guidance
- Funding Opportunities

Recommendations & Implementation Overview

In response to Gainesboro's concerns and desires expressed through the engagement process, the Mobility Plan makes a series of recommendations for capital projects in the focus areas and provides a framework for their implementation. As a multimodal plan, the Mobility Plan seeks to address all modes of travel and to shape the Town's transportation system to be consistent with its goals. However, this planning-level guidance requires additional steps (feasibility studies and design) prior to projects being built or actions being taken.

The primary goals of this Plan are to provide the citizens of Gainesboro with safe and accessible multimodal connections. The survey confirmed these goals, finding that the most common interventions that would encourage respondents to travel by a mode other than driving were, better sidewalks (19%) and better trail conditions (17%). In response to these goals, recommendations in all four focus areas include projects to improve pedestrian connectivity and safety. Recommendations for the Downtown focus areas also address the goal of providing Gainesboro with safe and accessible parking. The Roaring River Greenway focus area specifically addresses the goal of providing a multimodal connection to the Roaring River Park.

This Chapter is organized by focus area. Each section describes why the focus area was selected and outlines the key issues identified within. Then each section includes a detailed list of proposed projects to address the focus area's gaps and issues. Proposed projects appear on a concept design for the study area that shows the project location, extents, and preliminary design details. In addition, a planning-level cost estimate and a potential implementation strategy are provided for the proposed projects.

Cost Estimate Assumptions

As the project areas were identified, project quantities were developed based on the Design Concepts using CAD design software. In turn, construction costs estimates were calculated using TDOT standard unit costs values, where applicable, and previous project's cost estimates that had similar elements. Right-of-way acquisition costs were not included, and a 20% design fee, a 15% construction engineering and inspection fee, and a 25% contingency were included in the cost assumptions. These estimates are for 2021 costs and subject to change with time.





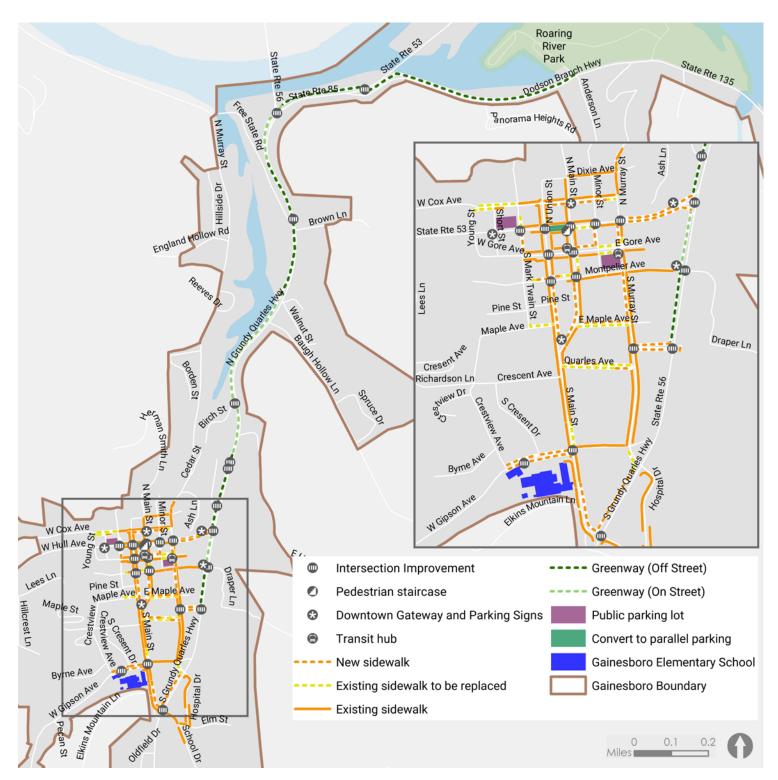


Figure 4.8: Gainesboro Townwide Recommendations

Downtown Recommendations

Downtown is the heart of activity in Gainesboro. Concentrated around Hull Avenue (SR-53), Union Street, and Main Street, this district includes the dining and tourism destinations that give the Town its identity. Downtown was identified as one of the project focus areas by the project team because it is the epicenter of activity in Gainesboro, and it has aging infrastructure in need of upgrading.

The key issues in Downtown are pedestrian safety and accessibility, parking access, and transit availability. While most of the sidewalks in Gainesboro are concentrated in Downtown, there are many gaps in the sidewalk network, no marked crosswalks, nor ADAcompliant curb ramps. Community engagement raised parking availability as another transportation concern in Downtown, revealing that parking supply may be limited during the peak periods. Finally, engagement pointed to the need for better information about the public transit options that are available to Gainesboro residents.

This Chapter is organized by focus area. Each section describes why the focus area was selected and outlines the key issues identified within. Then each section includes a detailed list of proposed projects to address the focus area's gaps and issues. The project team selected the proposed projects based on the existing conditions assessment, community engagement, and collaboration with the Resurfacing and Restriping Plan process. Proposed projects appear on a concept design for the study area that shows the project location, extents, and preliminary design details. These concept designs draw on existing conditions data gathered and created as part of the Mobility Plan and the Resurfacing and Restriping Plan. In addition, a planning-level cost estimate and a potential implementation strategy are provided for the proposed projects.

The intersection of Hull Avenue and SR-56 is the main vehicular access point to Downtown. With the proposed greenway, described below, and other sidewalk improvements, this intersection will also become the primary multimodal access point to Downtown. To better balance the needs and safety of multimodal users at this intersection, this Plan recommends removing the free-flow right-turn lanes onto and off of Hull Avenue. This change will reduce the safety risk to pedestrians as drivers making right turns will be forced to slow down. In addition, pedestrian crossing signals are proposed at the crosswalks at this intersection and at the intersection of Hull Avenue and Murray Street.

Parking

As the cultural and entertainment center of Gainesboro, parking is a key issue in Downtown. While this Plan does not include a comprehensive parking analysis, it includes a parking inventory and parking issues identified through stakeholder engagement. Figure X depicts the current parking supply by parking space type. To address parking availability and safety issues, this Plan proposes converting some angled parking spaces to parallel parking spaces, identifying a public parking lot, and installing parking signage.

Angled parking can cause safety issues when drivers must back out of their parking space with limited visibility of oncoming vehicle and bicycle traffic. The segment of Hull Avenue between Union Street and Main Street has high vehicular volumes and is likely a common bike route through Downtown, meaning that the safety risks of angled parking are heightened at this location. The 31 angled parking spaces on this segment of Hull Avenue should be converted to 12 parallel parking spaces, resulting in a net loss of 19 parking spaces. Parking on the remainder of Hull Avenue is configured as parallel parking; therefore, this change would result in consistency along Hull Avenue.







Stakeholder engagement revealed that during peak times Downtown, weekends and evenings, people have a hard time finding parking. This challenge could be because of (1) limited parking supply and (2) limited information about where parking is available. This Plan proposes projects that address both challenges.

To address the challenge of parking supply, this Plan recommends creating a municipal public parking lot. One potential location is the block bounded by Gore Avenue to the north, Murray Street to the east, Montpelier Avenue to the south, and Minor Street to the west. This lot is currently vacant and would need to be improved and paved to be used as a parking lot. This lot could serve both Downtown and Gainesboro Town Park and could add approximately 44 parking spaces. The second potential public parking lot would be located along Hull Avenue between Short Street and Mark Twain Street. This lot is currently used as a parking lot for the Veteran's Archives, meaning that converting this location to a public parking lot would require an agreement with the current owner and minimal physical improvements. This lot contains about 35 parking spaces.

With these two parking lots and the conversion of angled parking to parallel parking on Hull Avenue, the total Downtown parking supply would increase by 60 spaces, from 210 to 270.

Table 4.9: Proposed change in parking supply by type

PARKING TYPE	CURRENT	PROPOSED	DIFFERENCE
Angled	133	102	-31
Parallel	62	74	+12
Perpendicular	15	15	+0
Gore Avenue Parking Lot	0	44	+44
Hull Avenue Parking Lot	0	35	+35
TOTAL	210	270	+60

To address the challenge of information about where parking is available, this Plan proposes adding wayfinding and gateway signage at five locations approaching Downtown. The signs would direct people to the proposed public parking lot and note that this lot is only a three-minute walk

from Gainesboro restaurants. To further highlight Downtown Gainesboro as a destination for visitors and residents alike, the signs should also include distinct Gainesboro branding, welcoming people to Downtown.

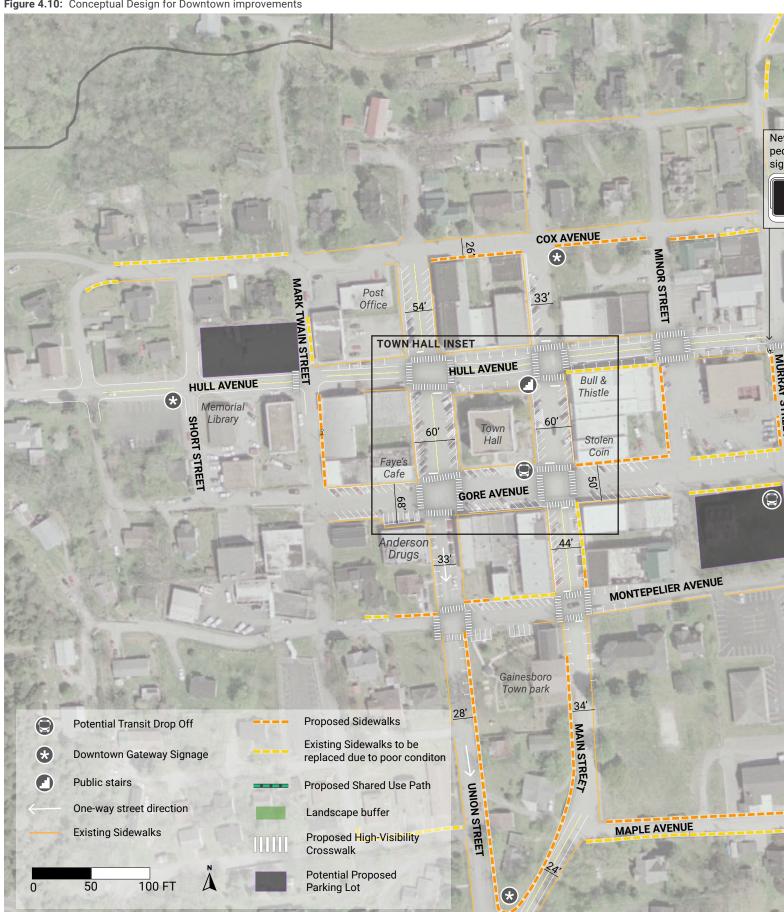
Transit

The community survey revealed that 80% of respondents felt that they had no access to transit and ride sharing services. However, Jackson County, including Gainesboro, is served by the Upper Cumberland Human Resource Agency (UCHRA) transit service. This service is a demand-response system that is open to all community members, unlike in other communities where such service may only be available to seniors or people with disabilities.

To address this gap in understanding and further promote multimodal transportation in Gainesboro, the Town should work with UCHRA to establish a transit hub within Downtown Gainesboro. The transit hub would be a central location where the bus would stop and where people could learn about the service. The hub should include a bench, potentially a transit shelter, and signs explaining the service and how to use it.

Two potential transit hub locations are identified on Figure 4.10 on page 36. The first location is at the southeast corner of the Court House, along Gore Avenue west of its intersection with Main Street. Installing a transit hub at this location could be accomplished in the near-term by repurposing the handicapped or standard parking spaces on this corner. In the long-term, if the Town moves forward with constructing a parking lot located between Gore Avenue, Murray Street, Montpelier Avenue, and Minor Street, a more sophisticated transit hub could be included in the design of the parking lot. This potential transit hub could include a designated bus pull-out or parking space, in addition to the other amenities.

Figure 4.10: Conceptual Design for Downtown improvements

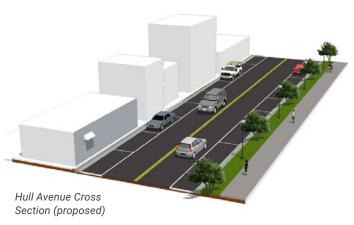












Retrofit Angled-Parking to Parallel Parking: When drivers are required to back out of angled parking spaces sight distance to approaching traffic is blocked by other parked vehicles. Changing to parallel parking allows drivers to leave the parking space with a clearer view of traffic on the busy Hull Ave. This change also improves safety for people biking who would likely use Hull Ave.





Table 4.11: Downtown project list and details

PROJECT TYPE	LOCATION	LENGTH (FT)/ QUANTITY (EA.)	UNIT	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
New High Visibility Crosswalk	Hull Ave at Mark Twain St, west leg	1	each	\$4,000	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Hull Ave at Union St, all four legs	4	each	\$16,000	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Hull Ave at Main St, all four legs	4	each	\$16,000	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Hull Ave at Minor St, all four legs	4	each	\$16,000	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Hull Ave at Murray St, south and east legs	2	each	\$8,000	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Hull Ave at SR 56, west leg	1	each	\$4,000	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Gore Ave at Union St, all four legs	4	each	\$16,000	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Gore Ave at Main St, all four legs	4	each	\$16,000	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Montpelier Ave at Union St, all four legs	4	each	\$16,000	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Montpelier Ave at Main St, all four legs	4	each	\$16,000	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes







PROJECT TYPE	LOCATION	LENGTH (FT)/ QUANTITY (EA.)	UNIT	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
Retrofit angled parking to parallel parking	Hull Ave from Union St to Main St, both sides (net loss of 19 parking spaces)	200	LF	\$2,240	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
Add Pedestrian Crossing Signal	Hull Ave at Murray St, south and east legs	2	each	\$6,400	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Add Pedestrian Crossing Signal	Hull Ave at SR 56, west leg	1	each	\$3,200	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Create public parking lot	North of Hull Ave between Short St and Mark Twain St	13,400	SF	\$107,200	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Create public parking lot	Between Gore Ave and Montpelier Ave and Minor St and Murray St	15,300	SF	\$122,400	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Create transit hub (includes bench, shelter, pedestrian lighting, trash can, and sign)	At parking lot between Gore Ave and Montpelier Ave and Minor St and Murray St	1	each	\$17,600	6-10 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Create transit hub (includes bench, shelter, and sign)	Gore Ave at Main St, northwest corner	1	each	\$17,600	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Existing sidewalk to be replaced (includes removal and replacement)	Cox Ave from Young St 80 ft east, south side	80	LF	\$8,960	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No



PROJECT TYPE	LOCATION	LENGTH (FT)/ QUANTITY (EA.)	UNIT	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
Existing sidewalk to be replaced (includes removal and replacement)	Cox Ave from Young St to Mark Twain St, north side	265	LF	\$29,680	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Existing sidewalk to be replaced (includes removal and replacement)	Cox Ave from Murray St to 65 ft west, south side	65	LF	\$7,280	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Existing sidewalk to be replaced (includes removal and replacement)	Mark Twain St from Hull aver to 85 ft north, east side	85	LF	\$9,520	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Existing sidewalk to be replaced (includes removal and replacement)	Hull Ave from Main St to Minor St, south side	150	LF	\$16,800	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Existing sidewalk to be replaced (includes removal and replacement)	Murray St from Gore Ave to 50 ft north, east side	50	LF	\$5,600	1-5 years	Taxes ¹ , Municipal Bonds	No
Existing sidewalk to be replaced (includes removal and replacement)	Gore Ave from Minor St to Murray St, north side	150	LF	\$16,800	1-5 years	Taxes ¹ , Municipal Bonds	No
Existing sidewalk to be replaced (includes removal and replacement)	Gore Ave from Minor St to Murray St, south side	150	LF	\$16,800	1-5 years	FTA 5310, Multimodal Access Grant	No

^{1:} May include Property Taxes, Beer & Liquor Taxes, Hotel/Motel Taxes, Business Taxes, Sales Taxes







PROJECT TYPE	LOCATION	LENGTH (FT)/ QUANTITY (EA.)	UNIT	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
Existing sidewalk to be replaced (includes removal and replacement)	Main St from Gore Ave to Montpelier Ave, east side	135	LF	\$15,120	1-5 years	FTA 5310, Multimodal Access Grant	No
Existing sidewalk to be replaced (includes removal and replacement)	Montpelier Ave from 60 ft east of Mark Twain St to 40 ft east, north side	40	LF	\$4,480	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Existing sidewalk to be replaced (includes removal and replacement)	Montpelier Ave from 70 ft east of Union St to Main St, north side	100	LF	\$11,200	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Existing sidewalk to be replaced (includes removal and replacement)	Maple Ave from Mark Twain St to Union St, north side	180	LF	\$20,160	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Existing sidewalk to be replaced (includes removal and replacement)	Maple Ave from Main St to Murray St, south side	350	LF	\$39,200	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Install Downtown Gateway and Parking Signs	Main St south of Cox Ave	1	each	\$800	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Install Downtown Gateway and Parking Signs	Hull Ave west of SR 56	1	each	\$800	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Install Downtown Gateway and Parking Signs	Montpelier Ave west of SR 56	1	each	\$800	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Install Downtown Gateway and Parking Signs	Main St north of Union St	1	each	\$800	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No



PROJECT TYPE	LOCATION	LENGTH (FT)/ QUANTITY (EA.)	UNIT	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
Install Downtown Gateway and Parking Signs	Hull Ave west of Short St	1	each	\$800	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Install pedestrian staircase	Hull Ave at Main St, southwest corner	1	each	\$8,000	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Cox Ave from Union St to Main St, south side	155	LF	\$54,560	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Cox Ave from Main St to Minor St, south side	170	LF	\$59,840	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Cox Ave from Minor St to 90 ft to east, south side	90	LF	\$31,680	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Hull Ave from Murray St to SR 56, north side	630	LF	\$221,760	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Hull Ave from Murray St to Gore Ave, south side	230	LF	\$80,960	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Hull Ave from Gore Ave to SR 56, south side	310	LF	\$109,120	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Mark Twain St from Hull Ave to Gore Ave, east side	155	LF	\$54,560	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Minor St from Hull Ave to Gore Ave, west side	160	LF	\$56,320	1-5 years	Taxes ¹ , Municipal Bonds	No
New sidewalk with curb and gutter	Murry St from Hull Ave to Gore Ave, west side	160	LF	\$56,320	1-5 years	Taxes ¹ , Municipal Bonds	No

^{1:} May include Property Taxes, Beer & Liquor Taxes, Hotel/Motel Taxes, Business Taxes, Sales Taxes







PROJECT TYPE	LOCATION	LENGTH (FT)/ QUANTITY (EA.)	UNIT	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
New sidewalk with curb and gutter	Gore Ave from Main St to Minor St	155	LF	\$54,560	1-5 years	Taxes ¹ , Municipal Bonds	No
New sidewalk with curb and gutter	Main St from Montpelier Ave to 30 ft north of Montpelier Ave, east side	30	LF	\$10,560	1-5 years	Taxes ¹ , Municipal Bonds	No
New sidewalk with curb and gutter	Montpelier Ave from Union St to 70 ft west, north side	70	LF	\$24,640	1-5 years	Taxes ¹ , Municipal Bonds	No
New sidewalk with curb and gutter	Montpelier Ave from Union St to 60 ft east, north side	60	LF	\$21,120	1-5 years	Taxes ¹ , Municipal Bonds	No
New sidewalk with curb and gutter	Union St from Montpelier Ave to Main St, east side	440	LF	\$154,880	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Main St from 60 ft south of Montpelier Ave to Union St, west side	420	LF	\$147,840	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Maple Ave from Main St to Murray St, north side	360	LF	\$126,720	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Murray St from Montpelier Ave to Maple Ave, west side	370	LF	\$130,240	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Remove free- flow right- turns	Hull Ave at SR 56, southbound right and eastbound right	N/A	N/A	\$37,600	6-10 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No



^{1:} May include Property Taxes, Beer & Liquor Taxes, Hotel/Motel Taxes, Business Taxes, Sales Taxes

Gainesboro Elementary School Recommendations

Gainesboro Elementary School is located at the corner of Main Street and Gipson Avenue, south of Downtown. This area was selected as a focus area because it is an important local institution and presents an opportunity to promote multimodal transportation and safety for the youth of Gainesboro.

The area around Gainesboro Elementary School includes 1.16 miles of existing sidewalk, meaning that the school is well connected to the surrounding areas for people walking. However, there are no existing crosswalks in the vicinity of the school, nor are there signalized intersections that would provide protected crossing opportunities.

This Plan proposes installing 0.41 miles of new sidewalk and upgrading 0.19 miles of existing sidewalk. In addition, the Plan proposes adding high visibility crosswalks at several locations, including Main Street crossing at Gipson Avenue, which would be supported by an RRFB.

To improve vehicular circulation and pedestrian connections, this Plan proposes a signal warrant analysis at the intersection of SR-56 and Main Street/ School Drive. Should a signal be warranted in the near-term or long-term, crosswalks and pedestrian crossing signals should be included on all legs of the intersection.



Main Street Cross Section (proposed)



Gipson Avenue Cross Section (proposed)







Figure 4.12: Conceptual Design for Gainesboro Elementary School area improvements

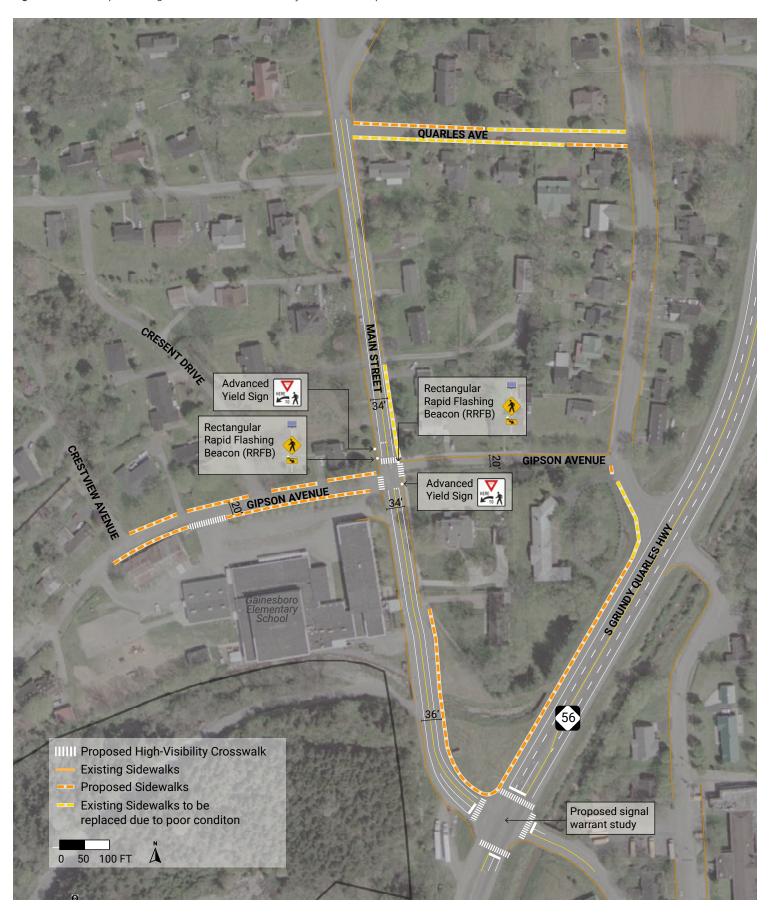


Table 4.13: Gainesboro Elementary School project list and details

PROJECT TYPE	LOCATION	UNIT	LENGTH (FT)/ QUANTITY (EA.)	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
Advance Yield Markings and Signs	Main St at Gipson Ave, for crossing across Gipson Ave, two each	each	2	\$1,120	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Gipson Ave at Elementary School entrance, south leg	each	1	\$4,000	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Main St at Gipson Ave, north and west legs	each	2	\$8,000	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Main St at SR 56, all four legs	each	4	\$16,000	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
Existing sidewalk to be replaced (includes removal and replacement)	Quarles Ave from 250 ft east of Main to Murray St, north side	LF	270	\$30,240	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Existing sidewalk to be replaced (includes removal and replacement)	Quarles Ave from Main to 120 ft west of Murray St, south side	LF	405	\$45,360	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No







PROJECT TYPE	LOCATION	UNIT	LENGTH (FT)/ QUANTITY (EA.)	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
Existing sidewalk to be replaced (includes removal and replacement)	Main St from Gipson Ave to 190 ft north of Gipson Ave, east side	LF	190	\$21,280	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Existing sidewalk to be replaced (includes removal and replacement)	Murray St from Gipson Ave to SR 56, west side	LF	160	\$17,920	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Quarles Ave from Main to 270 ft west of Murray St Murray St, north side	LF	250	\$88,000	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Quarles Ave from 405 ft east of Main to Murray St, south side	LF	120	\$42,240	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Gipson Ave from Crestview Ave to Cresent Dr, north side	LF	245	\$86,240	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Gipson Ave from Cresent Dr to Main St, north side	LF	230	\$80,960	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No

PROJECT TYPE	LOCATION	UNIT	LENGTH (FT)/ QUANTITY (EA.)	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
New sidewalk with curb and gutter	Gipson Ave from Crestview Ave to Elementary School entrance, south side	LF	165	\$58,080	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Gipson Ave from Elementary School entrance to Main St, south side	LF	320	\$112,640	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Main St from 265 ft south of Gipson Ave to SR 56, east side	LF	395	\$139,040	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	SR 56 from Main St to Murray St, west side	LF	525	\$184,800	1-5 years	USTBG, Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
RRFB	Main St at Gipson Ave, for crossing across Gipson Ave	each	1	\$16,000	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
Signal warrant study (includes traffic counts)	Main St at SR 56, all four legs	each	1	\$8,000	6-10 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No







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Gaines Street Recommendations

Gaines Street is one of three streets that provide an east-west connection between SR-56 and Downtown. Opposite Downtown at Hull Avenue and Montpelier Avenue, the other roadways connecting SR-56 with Downtown, there is undeveloped land or very limited development on the opposite side of SR-56. However, at Gaines Street there is a Dairy Queen opposite Downtown, which has the potential to generate pedestrian trips. There are currently no crosswalks across SR-56 and no sidewalks on Gaines Street. Further highlighting the need for improvement at the SR-56 and Gaines Street intersection, the crash analysis in the existing conditions section identified a fatal vehicular crash just north of this intersection.

This Plan proposes installing a crosswalk across SR-56, supported by a Rectangular Rapid Flashing Beacon (RRFB), to provide access between Downtown and the Dairy Queen. To provide a complete pedestrian connection with Downtown, 545 feet of sidewalk is proposed, including a short segment on the east side of SR-56 connecting to the Dairy Queen driveway, and along both sides of Gaines Street connecting to sidewalks along Murray Street. Finally, high visibility crosswalks are also proposed across Gaines Street and Murray Street.







Figure 4.14: Conceptual Design for Gaines Street focus area improvements

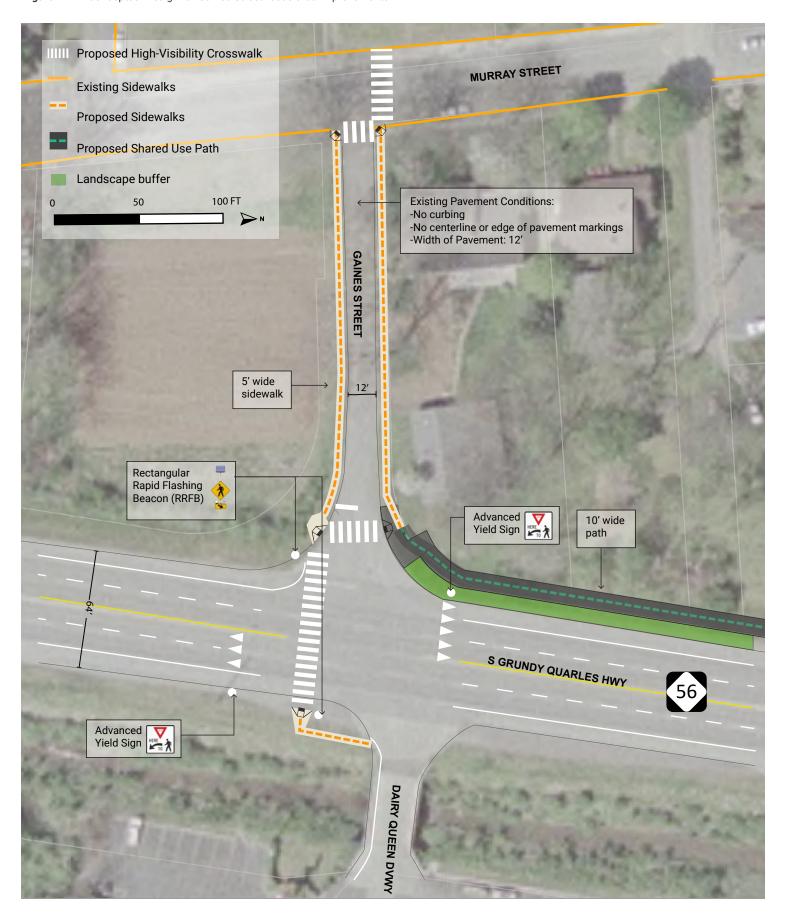


Table 4.15: Gaines Street project list and details

PROJECT TYPE	LOCATION	UNIT	LENGTH (FT)/ QUANTITY (EA.)	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
Advance Yield Markings and Signs	Gaines St at SR 56, for crossing across SR 56, two each	each	2	\$1,120	1-5 years	USTBG. Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Gaines St at Murray St, north and west legs	each	2	\$8,000	1-5 years	USTBG. Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New High Visibility Crosswalk	Gaines St at SR 56, south and west legs	each	2	\$8,000	1-5 years	USTBG. Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	Yes
New sidewalk with curb and gutter	Gaines St from Murray St to SR 56, north side	LF	275	\$96,800	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	Gaines St from Murray St to SR 56, south side	LF	260	\$91,520	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
New sidewalk with curb and gutter	SR 56 from 45 ft south of Dairy Queen Driveway to Dairy Queen Driveway	LF	40	\$14,080	1-5 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No
RRFB	Gaines St at SR 56, for crossing across SR 56	each	1	\$16,000	1-5 years	USTBG. Transportation Alternatives, State Transportation Funding, Multimodal Access Grant	No



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Roaring River Park Greenway Recommendations

Jackson County is developing a Master Plan for the Roaring River Park that would transform the wooded area into a significant regional amenity with ball fields, boat launches, an amphitheater and much more. A greenway connection between this park and Gainesboro is proposed in the Roaring River Park Conceptual Master Plan. The Roaring River Connection was selected as a focus area for this Plan because it aligns with the County's priorities. Over 55% of survey participants said they would bike/walk to Roaring River Park if there was a greenway (30% said maybe), further emphasizing the potential benefits of a connection to the park. Figure 4.16 on page 54 shows the potential greenway in the County's plans; it extends to the west of the park on Route 135.

Over 55% of survey participants said they would bike/walk to Roaring River Park if there was a greenway (30% said maybe), further emphasizing the potential benefits of a connection to the park.

Figure 4.16: Roaring River Park Conceptual Master Plan developed by Jackson County







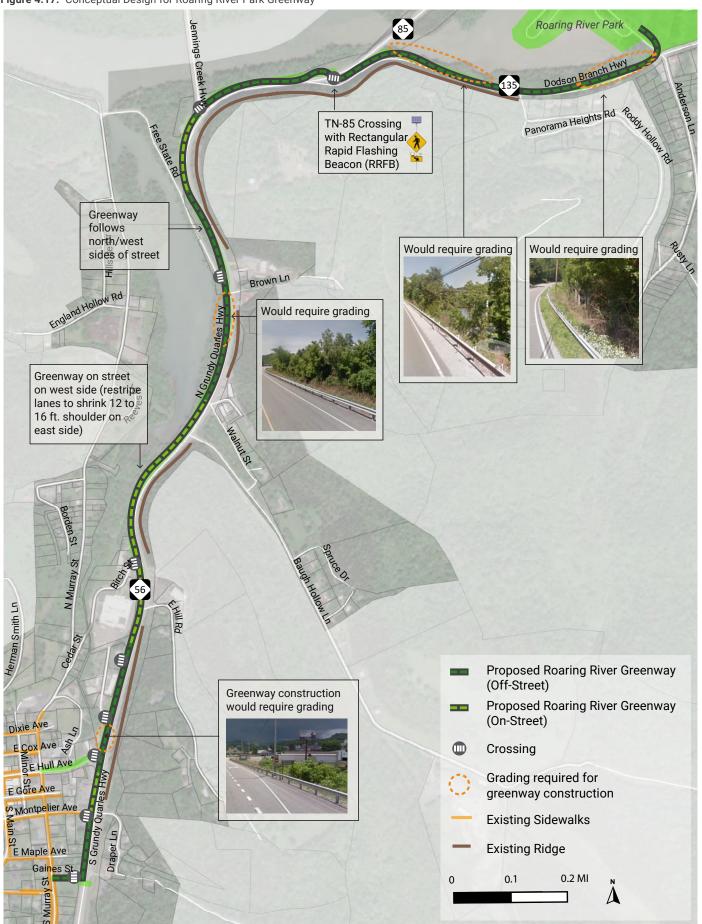


This project aims to provide this connection and help the residents of Gainesboro realize the benefits of the park. The proposed greenway is 2.27 miles and runs both on-street and off-street between Roaring River Park and Downtown, terminating at the proposed sidewalks on Gaines Street. The greenway runs parallel to SR-56, then SR-85, and then SR-135. Due to the ridge on the south and east side of this route the greenway is proposed on the north and west sides of the roadway.

Where there is space within the current roadway width, an on-street greenway is proposed (0.73 miles). This configuration would require restriping the roadway lanes to decrease shoulder width and potentially lane width, and in some cases reduce the length of a twoway center left-turn lane. The on-street configuration is shown in ; this configuration includes a jersey barrier to separate the greenway users from vehicular traffic. On the remaining segments (1.54 miles), the greenway is proposed off street. For most of the off-street segments there is space to construct the greenway on current grading, but on four segments grading would be required to make space for the greenway. The configuration for these segments is depicted in Figure X and includes a guard rail to separate vehicle and greenway traffic. In some segments it may be possible to use the existing guard rail.

High visibility crosswalks are recommended at the ten locations where the greenway crosses driveways and side streets (three of these crossings are included within the Downtown focus area recommendations and not duplicated here). Where the greenway crosses SR-85, before turning southward toward Downtown, the crosswalk should be supported by an RRFB to better alert drivers to the presence of people travelling on the greenway.

Figure 4.17: Conceptual Design for Roaring River Park Greenway



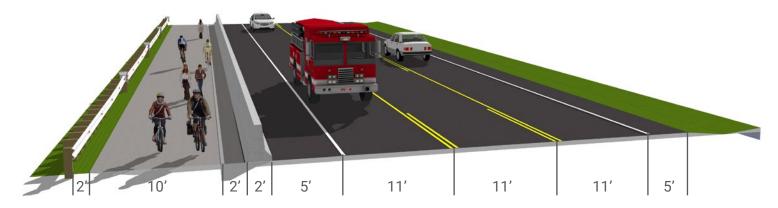






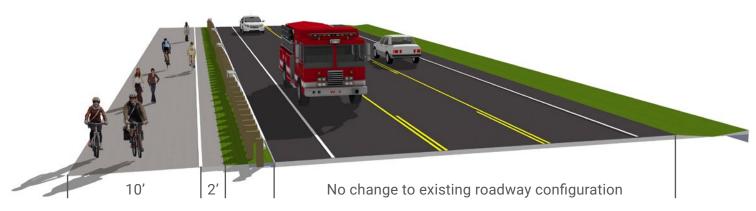
The following cross sections show typical greenway dimensions for "on-street" (i.e. within the extent of the existing roadway) and "off-street" (i.e. outside of the existing roadway). See Figure 4.17 on page 56 for the general extents of each scenario.

Figure 4.18: Roaring River Park Greenway Cross Section - On-Street



Where there are steep grades and sufficient roadway width, the greenway is proposed to go within the extents of the existing road. The greenway would be located on the inside of the existing guardrail, with a 2-foot shoulder between the path and the guardrail. Because of the high vehicle speeds, the greenway should have a buffer that provides both vertical and horizontal separation, such as a jersey barrier. The City should work with TDOT to coordinate changes to the roadway configuration.

Figure 4.19: Roaring River Park Greenway Cross Section - Off-Street



Where the grades are not as steep, or where the roadway is too narrow to accommodate further lane and shoulder narrowing, the greenway will be located on the outside of the existing guardrail. In some places, this may require significant grading and retaining wall construction. The path should have a 2' shoulder (paved or grass) from the guardrail. For these off-street segments, there will be no change to the roadway configuration.

Table 4.20: Roaring River Greenway project list and details

PROJECT TYPE	LOCATION	UNIT	LENGTH (FT)/ QUANTITY (EA.)	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
Advance Yield Markings and Signs	SR-85 at SR-135, for crossing across SR-85, two each	each	2	\$1,120	6-10 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant, Healthy Active Built Environments, Recreational Trails Program	Yes
New High Visibility Crosswalk	Driveways and sidestreets along the proposed greenway	each	7	\$28,000	6-10 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant, Healthy Active Built Environments, Recreational Trails Program	No
Misc. Grading due to Multiuse Path Construction	Multiple Sections Totaling Approx 0.55 miles	LF	2904	\$464,640	6-10 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant, Healthy Active Built Environments, Recreational Trails Program	No
New multi- use path, off street	SR 135/85 from Roaring River Park entrance/Anderson Ln to Jennings Creek Hwy, north side	LF	4,475	\$1,324,600	6-10 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant, Healthy Active Built Environments, Recreational Trails Program	No
New multi- use path, off street	SR 56 from 915 ft south of Jennings Creek Hwy to Walnut St, west side	LF	2035	\$602,360	6-10 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant, Healthy Active Built Environments, Recreational Trails Program	No
New multi- use path, off street	SR 56 from 355 ft south of Hill Rd to Hull Ave, west side	LF	1185	\$350,760	6-10 years	USTBG. Transportation Alternatives, State Transportation Funding, Multimodal Access Grant, Healthy Active Built Environments, Recreational Trails Program	No







PROJECT TYPE	LOCATION	UNIT	LENGTH (FT)/ QUANTITY (EA.)	COST ESTIMATE	TIMELINE	POTENTIAL FUNDING SOURCES	CORRESPONDS WITH RESTRIPING & RESURFACING PLAN
New multi- use path, off street	SR 56 from Montpelier Ave to Gaines St, west side	LF	560	\$165,760	6-10 years	USTBG. Transportation Alternatives, State Transportation Funding, Multimodal Access Grant, Healthy Active Built Environments, Recreational Trails Program	No
New multi- use path, on street with jersey barrier	SR 56 from Jennings Creek Hwy to 915 ft south of Jennings Creek Hwy, west side	LF	915	\$907,680	6-10 years	USTBG. Transportation Alternatives, State Transportation Funding, Multimodal Access Grant, Healthy Active Built Environments, Recreational Trails Program	No
New multi- use path, on street with jersey barrier	SR 56 from Walnut St to 355 ft south of Hill Rd, west side	LF	2485	\$2,465,120	6-10 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant, Healthy Active Built Environments, Recreational Trails Program	No
New multi- use path, on street with jersey barrier	SR 56 from Hull Ave to Montpelier Ave, west side	LF	460	\$456,320	6-10 years	Transportation Alternatives, State Transportation Funding, Multimodal Access Grant, Healthy Active Built Environments, Recreational Trails Program	No
RRFB	SR-85 at SR-135, for crossing across SR-85, two each	each	1	\$16,000	6-10 years	USTBG. Transportation Alternatives, State Transportation Funding, Multimodal Access Grant, Healthy Active Built Environments, Recreational Trails Program	No

Design Guidance

The Town should refer to relevant design guidance to ensure that recommendations are implemented in accordance with best practices. The following design guidance include relevant guidance on roadway, sidewalk, trail, and intersection design:

- FHWA Manual on Uniform Traffic Control Devices (MUTCD): https://mutcd.fhwa.dot.gov/
- AASHTO Policy on Geometric Design of Highways and Streets (aka "The Green Book"): https://store.transportation.org/item/
- AASHTO Bicycle Facility Design Guide: https://nacto.org/wp-content/uploads/2015/04/AASHTO_Bicycle-Facilities-Guide_2012-toc.pdf
- TNDOT Roadway Design Guidelines: https://www.tn.gov/tdot/roadway-design/design-standards/design-guidelines.html
- NACTO Urban Streets Design Guide: https://nacto.org/publication/urban-street-design-guide/
- FHWA Small Town and Rural Design Guide: <u>https://www.fhwa.dot.gov/environment/bicycle-pedestrian/publications/small_towns/</u>
- U.S Access Board Public Rights of Way Design Guidance (PROWAG): https://www.access-board.gov/prowag/



Funding Opportunities

When considering the next steps, the Town should review the following funding opportunities to help prioritize and construct the recommendations outlined in this Mobility Plan. The information in this Plan will serve as the groundwork and initial detail to prepare applications for funding. The following grant programs and funding sources have been identified to assist the Town with funding construction of their priority improvements:

Transportation Alternatives Program (TAP)

Healthy Active Built Environments

USTBG

FTA 5310

State Transportation Funding

Multimodal Access Grant (MMAG)

Recreational Trails Program

Other Funding Opportunities

Municipal Funding (Taxes and Municipal Bonds)

Public Private Partnership

Transportation Alternatives Program (TAP)

The TDOT TAP program supports various transportation and multimodal improvements with the overarching goal to improve a city's travel choices, experience, history, and culture, creating a foundation for equitable access. TAP provides funding for programs and projects defined as transportation alternatives, including:

- Bicycle and pedestrian improvements
- · New paths, trails, or sidewalks
- · Reconstruction of pedestrian infrastructure
- Pedestrian and bike facilities, including parking, repair stations, and water fountains
- · Striping, curb ramps, ADA-compliant ramps
- Downtown improvements or "Downtown Revitalization" projects
- Safe Routes to School (SRTS) projects: pedestrian infrastructure plans, design, construction, and education to connect neighboring residential areas to local schools.

Grant projects are funded through a competitive selection process, with a typical local share of 20% of net costs.

Healthy Active Built Environments

Tennessee's Department of Health manages the Access to Health Built Environments program. These grants aim to increase access to safe and publicly-accessible places that provide opportunities for physical activity for a diverse group of users, including those who live, visit, work, play, worship, and learn in the community. The funds may be used for new construction, improvement, or planning of facilities and infrastructure. Grants are non-competitive, do not require matching funds, and can be used as a match for other grant programs. Partnerships, community engagement, and health equity are encouraged when developing each grant project. All grantees must evaluate the community impacts of their projects.

Urban Surface Transportation Block Group (USTBG)

U-STBG funds are provided to MPOs based on a population-based formula set by the State of Tennessee. This funding is available for all roads not functionally classified as local or rural minor collectors. Transit capital projects and bicycle/ pedestrian projects are also eligible under this program. Projects are funded through a competitive selection process, and federal share is limited to 90%. Funding is also eligible for some types of projects regardless of classification, including bridges and tunnels, pedestrian and bicycle facilities, and transit capital projects. The federal share for most projects is 80%, requiring a 20% local match. Certain projects, including traffic signals, pavement markings, rumble strips, and carpooling/vanpooling, may receive 100% federal funding.

FTA 5310

Elderly & Persons with Disabilities Grants: transit capital assistance for private non-profit organizations and public bodies that provide specialized transportation services to elderly and/or disabled persons. Funds are appropriated annually based on a formula considering the number of elderly individuals with disabilities in each State. Federal share must not exceed 80% of net project costs for capital projects (50% for operating projects).

State Transportation Funding

In 2017 Tennessee General Assembly passed the IMPROVE Act which provided funding for the state to fund 962 transportation projects. The legislation increased the state fuel taxes for the first time in over 25 years. Funding is spent on a variety of transportation project types and is often used to match the federal share on projects.

Multimodal Access Grant Program (MMAG)

The state's Multimodal Access Grant is a state-funded program created to support the transportation needs of pedestrians, bicyclists, and transit users through infrastructure projects that address existing gaps along state routes. Multimodal facilities play an important role in providing transportation choices for people across Tennessee. Multimodal Access Grant projects are state-funded at 95% with a 5% local match. State match portion of an awarded project does not exceed \$950,000. Eligible projects include the following:

- Intersection improvements
- Multimodal Access
- Bicycle and Pedestrian Improvements
- Complete Streets/Road Diet/Traffic Calming
- Safety Upgrades
- Recreational Trails Program (RTP)

The Tennessee Department of Environment and Conservation (TDEC) Recreation grant includes the Recreational Trails Program (RTP). The RTP would provide funding for trail land acquisition, maintenance, restoration, construction, and facilities. These funds are distributed in the form of an 80% grant with a 20% local match. Note, this land must be publicly owned, and the trail may be in an urban area.





Other Funding Opportunities

MUNICIPAL FUNDING

Additionally, transportation projects can also be funded through issuance of municipal bonds. These bonds, which can be either revenue-backed (in the case of tolling projects or other revenue-generating projects) or general obligation, backed by the municipality's full faith and credit, can be used to finance all of a transportation project, or provide the local share with matching state or federal funds. For projects with significant community interest or support, bonds can be a means of accelerating development and construction.

In conjunction with municipal bonds, there are several exclusive local taxes collected by cities and counties that provide revenue that can be used for improvements to the transportation system. These sources include:

- Property Taxes
- Beer and Liquor Taxes
- Hotel/Motel Taxes
- · In Lieu of Tax Payments
- Business Taxes
- Sales Taxes

PUBLIC-PRIVATE PARTNERSHIPS

Public-Private Partnerships are designed to accomplish a combination of goals related to economic and community development efforts, some of which have been identified in this plan. Public funds must only be made available to those projects determined otherwise unfeasible or unachievable "but for" the combined efforts of public and private participation. The projects must comply with community adopted standards and program guidelines established for that area.