

CTP UPDATE SUMMARY REPORT

CHEROKEE COUNTY CTP

DECEMBER 2022

Cherokee



MOVES

Cherokee County
2022 Comprehensive Transportation Plan

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1. INTRODUCTION

ABOUT THE CTP

The last Cherokee County Comprehensive Transportation Plan (CTP) was completed in 2016 and was an update from the preceding 2008 CTP. The 2016 CTP identified multi-modal transportation improvement opportunities through the horizon year of 2040. This CTP update will build upon the previous CTP and its recommended projects to a new horizon year of 2050.

The purpose of the Cherokee County CTP update is to identify a countywide transportation vision and to prioritize transportation improvements in the near-, mid- and long-term. The CTP will consider all forms of transportation including automobiles, transit, walking, biking, freight, and emerging transportation technologies.

The Cherokee County CTP has followed the following process and completed the following tasks:

- Established a clear transportation vision, goals, and objectives
- Developed an interactive transportation model for County use
- Updated the Trails Master Plan
- Completed a Transit Service Assessment
- Developed a prioritized list of transportation projects for the short, mid and long terms and created a list of recommended transportation programs and policies
- Completed a final recommendations documentation report

The CTP has incorporated the input and feedback from multiple public and stakeholder groups including a Technical Advisory Committee (TAC), a Citizen Advisory Group (CAG), and the general public. These groups have been engaged through public and committee meetings, an interactive project website, an online survey, and other engagement tactics. The TAC and CAG provided technical and practical feedback which guided the overall development of the CTP.

ABOUT THIS REPORT

The Recommendation report provides the final list of prioritized projects for the Cherokee County CTP. The projects in this report reflect the results of the existing conditions analysis, needs assessment, and public engagement process. The recommendations include both short-term and long-term project lists. The lists are also prioritized using the CTP evaluation framework to help the County make implementation decisions. This report also contains policy recommendations, to further assist the County with prioritization and implementation.



2. GOALS AND OBJECTIVES

The following are the updated Goals and Objectives for the 2022 Cherokee County CTP. Based on the feedback from the CTP Project Management Team and Technical Advisory Committee, these goals and objectives were derived and updated from the previous 2016 CTP which consisted of nine (9) goals total. These goals were used to guide the CTP process including project evaluation and prioritization.

Goal: Improve Connectivity & Mobility



- Decrease roadway congestion
- Increase connectivity between population, employment, and other activity centers
- Enhance goods movement and improve designated truck routes
- Support and enhance accessibility to manufacturing and distribution

Goal: Maintain Community Health, Safety, and Environment



- Increase and enhance safe active transportation facilities
- Address high crash corridors and intersections
- Minimize environmental impacts on natural and historic features in transportation project and implementation
- Engage in effective public involvement and coordination strategies

Goal: Align Transportation and Land Use Planning



- Use transportation improvements to encourage development types desired by the community in specific character areas
- Support and enhance access to accessibility to job centers, destinations, and changing land uses

Goal: Infrastructure Preservation



- Maintenance of existing transportation facilities
- Address known capacity issues on existing roadways
- Ensure functional classification alignment with Comprehensive Plan

Goal: Increase Modal Options



- Continue to encourage mode shift to walk, bike, and transit
- Expand and enhance countywide multi-use trail system
- Increase access to regional transit



3. PUBLIC ENGAGEMENT SUMMARY

The Comprehensive Transportation Plan (CTP) update provided opportunities for Cherokee County to think broadly and develop a forward-thinking transportation plan. Engaging stakeholders and the public early in the development of the recommendations is key to implementing that vision. As a vital part of the CTP update, the Project Management Team (PMT) has led public engagement and collaboration efforts with Cherokee County officials, city officials, business community members as well as residents and surrounding area commuters from June 2021 to July 2022. The PMT initiated these efforts by creating a Public Participation Plan (PPP) that provided the framework for facilitating activity planning throughout the project, as difficult decisions were made for funding, prioritizing and programming transportation projects.

The stakeholder and public engagement efforts were strengthened by a robust, multilayered digital communications strategy. Among the most notable communication successes was launching Cherokee Moves – the CTP update brand – and launching the public engagement survey. Two public meetings and virtual meeting rooms were available to the public to access information related to the project and provide opportunities for sharing comments, questions and feedback. Additionally, the team organized several committees to help guide the CTP update development efforts including the Technical Advisory Committee (TAC) and Citizens Advisory Committee (CAC) meetings.

Details on the public engagement process and feedback can be found in the Public Engagement Summary Report.

PUBLIC MEETINGS

Two public meetings took place throughout the CTP update – in December 2021 and June 2022. Both meetings provided the public with information about current transportation modes and infrastructure in Cherokee County, details about what the PMT has heard thus far from citizens, and opportunities for the public to provide feedback and information about their transportation priorities within Cherokee County. The second public meeting for the project provided details about the proposed transportation priorities and projects within the CTP update. Following both in-person public meetings, a virtual meeting room (VMR) was launched providing similar information and opportunities for the public to engage and provide feedback. See Appendix A for comments received in the virtual meeting room.

PUBLIC MEETING #1

| Meeting Type | Date/Time | Location | Attendees |
|--------------------------|----------------------------|--|-----------|
| In-Person Public Meeting | December 8, 2021, 6-8 p.m. | Northside Hospital Cherokee County Conference Center | 23 |

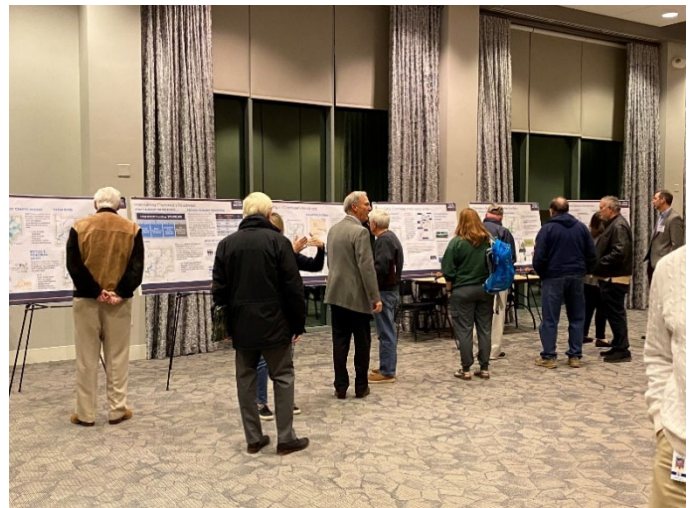
Virtual meeting room: <https://virtualmeeting.cherokeemoves.com/>



SUMMARY OF FEEDBACK RECEIVED:

- Concerned about the amount of congestion on all roadways in Cherokee County
- Express lanes should be extended to SR 20
- Arnold Mill Road needs congestion relief due to planned new residences
- Increasing capacity was a major theme
- SR 140 should be widened
- Ragsdale Road should be widened
- Dissatisfied with the low quantity of sidewalks
- Ragsdale Road needs sidewalks (and guardrails, streetlights and restriping)
- Investing in reducing congestion and improving transportation technology are priorities
- Aligning transportation use with land-use planning is a priority
- Various priority levels in CTP goals
- Various support levels in funding methods

Figure 1 First Public Meeting Photos



PUBLIC MEETING #2

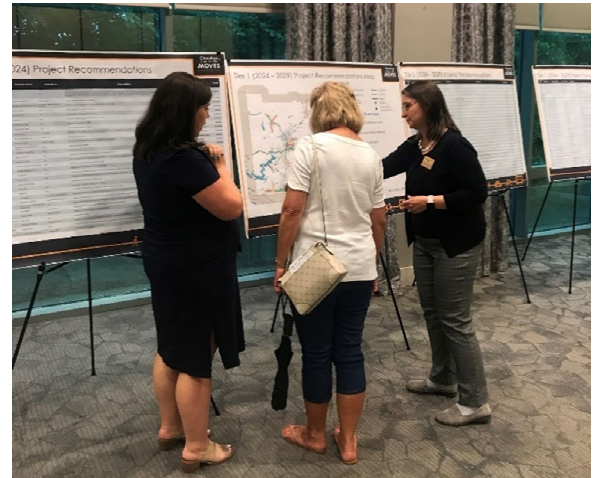
| Meeting Type | Date/Time | Location | Attendees |
|--------------------------|-------------------------|--|-----------|
| In-Person Public Meeting | June 28, 2022, 6-8 p.m. | Northside Hospital Cherokee County Conference Center | 13 |

Virtual meeting room: <https://virtualmeeting.cherokeemoves.com/>

SUMMARY OF FEEDBACK RECEIVED:

- o Expressed interest in improvements for Fate Conn Road or Highway 5 Corridor N/W between Fate Conn and Airport Road (N) or south to Riverstone.
- o Expressed interest in traffic control to support upcoming development in Bluffs district
- o Request for middle turn lane at Hwy 5 south to Walmart/Bojangles
- o Request for a "No Left Turn" sign on EB 140 at Avery Road to reduce congestion
- o Interest in using existing train tracks for commuter rail into the city
- o Request for increased lighting and visibility at intersection of SR 140 and Arnold Mill Road to prevent collisions with the existing islands
- o Request for safety improvements between Ranchwood Trail and East Cherokee Drive
- o Request for safety improvements between North Arnold Mill and Tripp Road

Figure 2 Second Public Meeting Photos



SURVEY

The public engagement survey launched in October 2021 and resulted in over 2,400 responses, helping the PMT understand the public priorities and goals for transportation in Cherokee County. The survey provided opportunities for respondents to rank potential projects, current and future needs and provide open-ended responses to how transportation can be improved in specific areas of Cherokee County. The survey closed in December 2021 with 98% of survey respondents being residents in Cherokee County and 97% commuters who drive to work using their own vehicle. The top five CTP investment and goal priorities ranked by respondents are below. See Appendix B for the full survey summary.

TOP FIVE INVESTMENT PRIORITIES

1. Reduced traffic congestion
2. More roadway capacity
3. Improved traffic signaling and signage
4. Improved roadway maintenance
5. Innovative transportation technologies and traffic signals

CTP GOAL PRIORITIES (RANKED)

1. Align transportation and land-use planning
2. Infrastructure preservation
3. Maintain community health, safety and environment
4. Improve connectivity and mobility
5. Increased modal options

STAKEHOLDER ENGAGEMENT

TECHNICAL ADVISORY AND CITIZEN ADVISORY COMMITTEE MEETINGS

There were four Technical Advisory Committee (TAC) meetings and three Citizen Advisory Committee (CAC) meetings held throughout the CTP update which provided opportunities to engage key stakeholder groups about audience-specific aspects of the CTP update and create dedicated space to discuss project goals and priorities, upcoming milestones and stakeholder engagement opportunities. Representatives from the following organizations and partner agencies were included in the TAC/CAC process:

- o American Society of Highway Engineers Georgia
- o Atlanta Realtors Association
- o Atlanta Regional Commission
- o Cherokee County
- o Cherokee County Board of Commissioners
- o Cherokee County Chamber of Commerce
- o Cherokee County School District



- Cherokee County Sheriff's Office
- Cherokee County Traffic Incident Management Team
- Cherokee County Fire and Emergency Services
- City of Ball Ground
- City of Canton
- City of Holly Springs
- City of Waleska
- City of Woodstock
- Georgia Commute Options
- Georgia Department of Transportation
- Kiwanis Club of Greater Cherokee
- Reinhardt University
- Rotary Club of Canton
- Rotary Club of Towne Lake
- State Road and Tollway Authority
- Woodstock Lions Club



4. EXISTING CONDITIONS SUMMARY

Throughout the review of existing conditions in Cherokee County, a number of key findings surfaced that were significant to note as the CTP process advanced. These key findings are summarized below but are detailed more fully in the Existing Conditions Report. The document can be found on the project website at www.CherokeeMoves.com.

KEY FINDINGS



Population & Employment

The areas where the highest population growth is expected is the northwest and southeast corners of the county, while the employment is expected to stay largely concentrated in the south-central areas between the Cities of Woodstock and Canton.



Land Use & Development

A shift is anticipated toward more commercial nodes along state routes according to the County's future land use map.



Travel Trends

Daily, 50% of the external trips from Cherokee County are to Cobb County, while the East Central Cherokee superdistrict, which includes the City of Canton, is the most popular destination for trips.



Roadway Conditions & Safety

Currently, I-575, SR 92 and SR 20 are the highest volume roadways in Cherokee County.





**Programmed
Projects**

Programmed projects to widen SR 20 and Bells Ferry Road will mitigate major congestion points observed under current travel demand. By 2050, congestion mitigation projects may be necessary on SR 92, Sixes Road/Holly Springs Parkway/Main Street, SR 140 and SR 372 according the ARC Regional Activity Based Model (ABM).



**Bicycle &
Pedestrian
Infrastructure**

The County and cities have done a significant amount of planning in support of improving bicycle, pedestrian, and multi-use trail infrastructure. This effort is reflected in the good sidewalk coverage in downtown areas of the cities, recreational unpaved trails throughout the county and the multi-use trails in the Cities of Woodstock and Canton. Overall, there is a general lack of paved multi-use facilities, sidewalks and on-road bicycle facilities connecting the cities and key activity centers.



Transit

Cherokee County is well served by local and regional transit services that meet a variety of customer needs and trip purposes. The ATL Xpress Bus Services serves the needs of commuters into job centers in Midtown and Downtown Atlanta and the CATS Services operated within Cherokee County.



**Goods
Movement**

Cherokee County is a critical corridor for the north/northwestern Georgia's freight movement and the most impacted corridors are I-575, I-75, SR 92, SR 20 and SR 369. Cherokee County also has one legacy rail line, the Georgia Northeastern Railroad, managed by Patriot Rail and Ports.



5. NEEDS ASSESSMENT SUMMARY

Following the existing conditions analysis, a Needs Assessment was conducted to identify specific areas for improvement in Cherokee County. The Needs Assessment was divided into the following categories: roadway, technology, bicycles and pedestrians, ITS and emerging technology, and goods movement. This information served as the foundation for further analysis and eventually lead to the development of the main deliverables of the CTP: a prioritized list of projects and a set of policy recommendations.

ROADWAY NEEDS ASSESSMENT OVERVIEW

Roadway infrastructure needs were identified through analysis of historical, existing, and forecasted data presented in the Existing Conditions Report. Potential project needs were categorized as either roadway (capacity, safety, new road, etc.), bridge, intersection (safety, operations, etc.), or technology projects. The roadway needs assessment also included the identification of freight and goods movement needs which are also summarized in this section.

CONGESTION & SAFETY NEEDS

Congestion and safety corridor needs were primarily identified based on safety and congestion thresholds in reviewing the following elements:

- Existing Travel Time Index (TTI) data
- Existing and projected peak period Level of Service (LOS)
- Recent crash data

Intersection project needs were identified by reviewing:

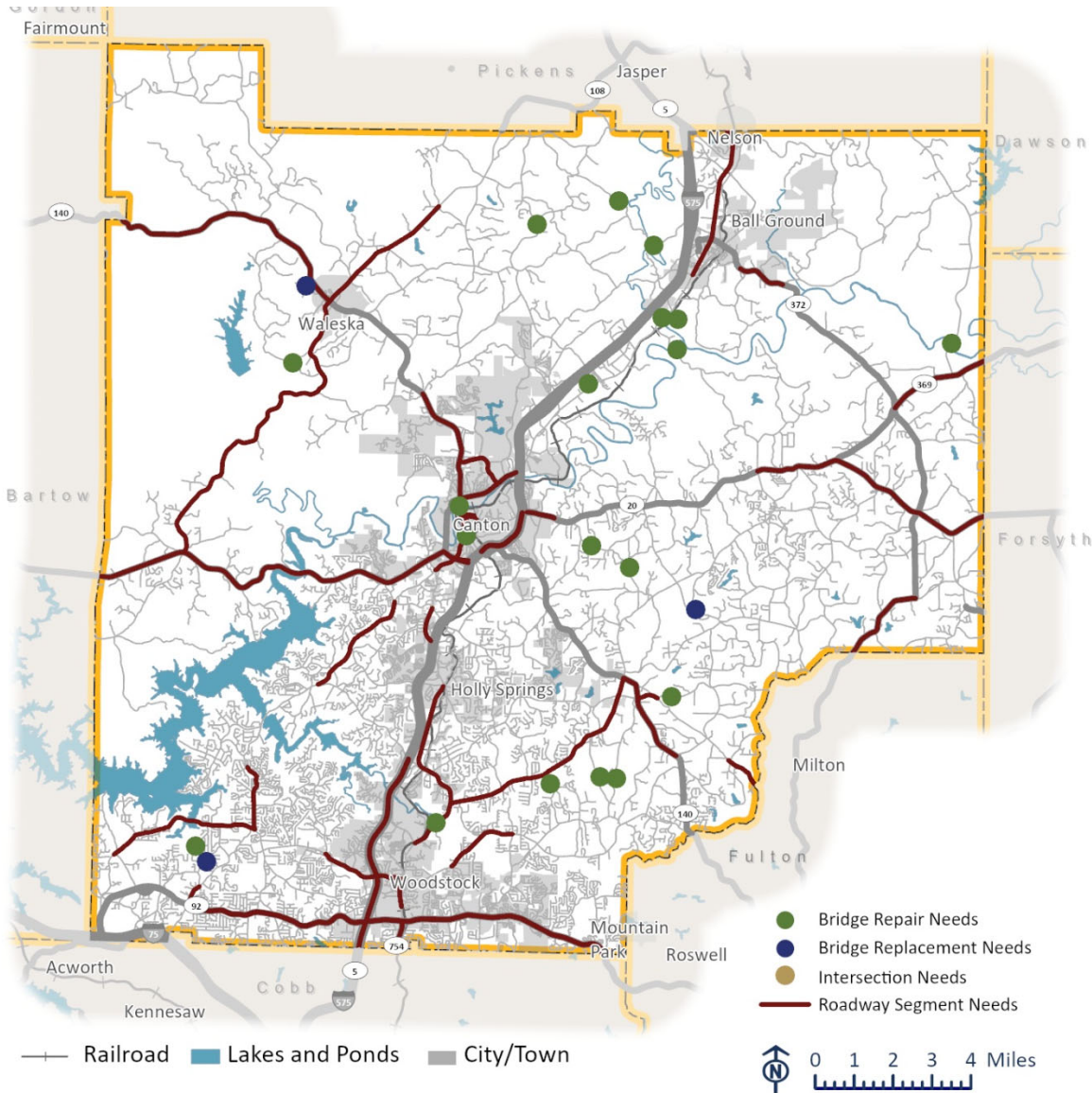
- Existing TTI data
- Recent crash data



BRIDGE NEEDS

Bridge needs were determined based on the sufficiency rating reported in the National Bridge Inventory. A map of all identified roadway needs can be seen below, in Figure 3 and more details on each type of need assessed can be found in the following sections.

Figure 3 Cherokee County Roadway Needs Map



TECHNOLOGY NEEDS

Technology needs were also analyzed in Cherokee County. Technology is an important tool to actively manage traffic and congestion. Technology needs can consist of better utilizing already deployed technology, like optimizing and coordinating signal timing, or installing new technologies on the roadways. This section summarized several technology needs identified in Cherokee County, including signalizations, intelligent transportation systems (ITS) and emerging technologies that would help improve safety and mobility in the County.

Optimizing signal timing and synchronization along heavily traveled corridors is a low-cost, short-term, opportunity to improve capacity while avoiding higher cost, long-term, road widenings. Based on the population and development growth in Cherokee County, the County's transportation network has experienced increased congestion and travel times. With this growth has come new and expanded development that has put more demand on the existing transportation system and changed traditional travel patterns. Highlighted corridors that would benefit the most from signal optimization and synchronization

The corridors that would benefit most from signalization improvements include SR 92, SR 20, Bells Ferry Road, and portions of SR 140.

ITS/AMTS technology can improve traffic flow through the dissemination of real-time information

improvements include SR 92, SR 20, Bells Ferry Road, and densely developed sections of SR 140.

ITS also known as, Advanced Traffic Management Systems (ATMS) encompass a broad range of innovative communication equipment to monitor and control traffic as well as transmit information to drivers about travel options. Types of ITS/ATMS equipment include real-time signal coordination, cameras, sensors, and dynamic message signs. Such technology provides the opportunities to enhance traffic flow and reduce congestion during peak travel times and special events. Coordinating ITS/ATMS implementation plans with public safety departments, such as Law Enforcement, Fire and Rescue, and Medical Transportation, is important as emerging technology can

greatly benefit emergency response times. Cherokee County should consider the installation of ATMS countywide and the creation of a Traffic Management Center (TMC).

Upon completion of identifying needs and gaps in the current existing technology system, thought was given to projects outside of what currently exists. From looking at best practices nationwide, as well as looking at local level plans and studies, several projects were identified as potential improvements. The technologies identified for Cherokee County to explore include Connected and Automated Vehicles (CAV), Electric Vehicle (EV) infrastructure, and smart streetlights and parking meters that are identified in the Smart Woodstock Plan.



FREIGHT NEEDS

Finally, freight and goods movement were considered in the Needs Assessment. Current freight modes in Cherokee County include truck and one existing legacy freight rail line that runs north-south through the middle of the County (the Georgia Northeastern Railroad or GNRR) that connects to the CSX rail network in Marietta. These freight modes were considered along with future land use and freight needs, the level of service on major freight routes, and emerging technologies.

The following key needs and specific areas of concern were identified through the freight and goods movement needs assessment:

- Roadway capacity improvements planned for the county may be insufficient for future freight needs
- Support for innovative technologies will help the county best leverage these opportunities
- Spillover effects to the county's character areas from freight growth need to be considered
- Truck parking is a critical need across the state including Cherokee County
- Traffic signals can be programmed to improve freight movements
- Careful freight movement planning for areas designated as Workplace Centers is critical to their success



6. PROJECT EVALUATION & PRIORITIZATION PROCESS

The purpose of the project evaluation and prioritization process is to provide a consistent methodology to compare and rank projects in Cherokee County. This process will lead to creating the tiers of recommended projects in the CTP set of Final Recommendations. Projects will be scored according to their potential to adhere to the established Goals & Objectives.

UNIVERSE OF PROJECTS DEVELOPMENT

The first step in the project evaluation and prioritization process was developing a Universe of Project List. This is a comprehensive list that contains all projects that are to be considered for inclusion the CTP final recommendations. This list was built by pulling projects from the following sources:

- 2022 CTP Needs Assessment
- 2016 CTP Final Recommendations
- ARC TIP
- Arnold Mill Corridor Study
- Bells Ferry Corridor Study
- East Cherokee Corridor Study
- SR 140 Corridor Study
- SR 140 (North) Corridor Study
- Trickum Road Corridor Study
- Old Highway 5 Corridor Study
- Smart Woodstock Plan
- Public Feedback

Once all the Cherokee County projects included in the previous sources were compiled into one list, an initial filtering process was conducted. This screening removed any projects that were duplicate efforts, already completed, underway or funded by the County before the evaluation process began.

PROJECT EVALUATION, PRIORITIZATION, AND TIERING PROCESSES

Once the draft recommendations were identified, projects were evaluated based on their alignment with the goals of the study. Each project was scored and those with higher scores represent project that are better aligned with the goals of the CTP and are considered a higher priority. This chapter also provides the methodology and results of tiering the projects which is a process based on project readiness, the timeline to implement, and available local funding from Cherokee County's SPLOST program.

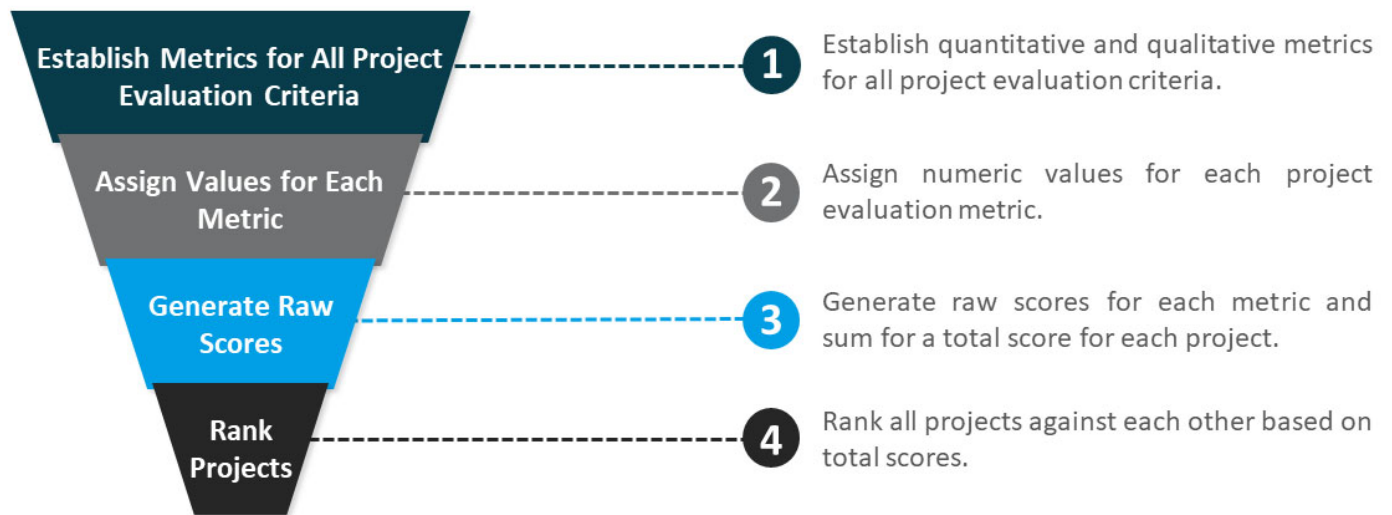


PROJECT EVALUATION AND PRIORITIZATION

METHODOLOGY

This section documents the Cherokee CTP process for evaluating projects. All projects were evaluated according to a project evaluation and prioritization process, summarized in Figure 4. This process was designed to support the plan's goals and objectives and to incorporate feedback from stakeholders and the public.

Figure 4 Project Evaluation and Prioritization Process



Five evaluation criteria were established based on Cherokee County's goals and objectives, for which all projects would be evaluated. These evaluation categories include:

- Improve Connectivity & Mobility
- Maintain Community Health, Safety, and Environment
- Align Transportation and Land Use Planning
- Infrastructure Preservation
- Increase Modal Options

The criteria were selected for their ability to capture each project's impacts on the transportation network, environment, and other critical areas important to Cherokee County. Each evaluation criterion, along with its metric and maximum score is shown in Table 1.



Table 1 Evaluation Performance Measures

| Performance Measure | Metric | Maximum Score |
|---|---|---------------|
| Goal 1: Improve Connectivity & Mobility | | |
| Connectivity Reliability | If project reduces congestion on the roadway network. Score based on Low, Medium, or High. | 2 |
| Cost Effective Connectivity | If project provides the most cost-effective improvements for transportation. Score based on Yes or No. | 2 |
| Parallel Relief | If project supports parallel relief of an existing transportation element. Score based on Yes or No. | 2 |
| Connectivity to Activity Centers | If project connects to activity centers within .25 miles of a project. Score based on Low, Medium, or High (<5: Low, 5-10: Medium, >10 High). | 2 |
| Enhanced Freight Movement | If project connects to enhanced freight movement land uses. Score based on Low, Medium, or High. | 2 |
| Goal 2: Maintain Community Health, Safety, and Environment | | |
| High Crash Location | If project is located in a high crash location. Score based on Yes or No. | 2 |
| High Fatality Rate | If project is located in a high fatality area. Score based on Yes or No. | 2 |
| Proximity to Schools and/or EMS Facilities | If project is located near a school and/or EMS facility. Score based on Low, Medium, High (½ mile of facility: High, ½ - 2 miles: Medium, >2 miles: Low). | 2 |
| Anticipated Emissions Reductions | If project is expected to reduce emissions. Score based on Low, Medium, or High. | 2 |
| Potential Environmental Impacts | If project is expected to have environmental impacts. Score based on Low, Medium, or High. (Historic properties or floodplain located within ½ mile: High, ½- 2 miles: Medium, >2 miles: Low) | 2 |
| Goal 3: Align Transportation and Land Use Planning | | |
| Complements Existing Development Patterns | If project correlates with existing land use. Score based on Yes or No. | 2.5 |
| Linkage to Planning Documents | If project is included in local, regional, or state planning documents. Score based on Yes or No. | 2.5 |
| Located in High Social Vulnerability Index (SVI) Areas | If project is located near High SVI areas. Score based on Low, Medium, or High. (>1 mile from a High SVI area: Low, ½-1 mile: Medium, <½ mile: High). | 2.5 |



| Performance Measure | Metric | Maximum Score |
|---|--|---------------|
| Improves Access to Environmental Justice Communities | If project is expected to improve access for environmental justice communities. Score based on Low, Medium, or High. (>1 mile from an EJ community: Low, ½-1 mile: Medium, <½ mile: High). | 2.5 |
| Goal 4: Infrastructure Preservation | | |
| Poor Pavement Conditions | If project is located on a road that needs repaved. Score based on Yes or No. | 5 |
| Poor Bridge Conditions | If project is located on a bridge that needs improvement. Score based on Yes or No. | 5 |
| Goal 5: Increase Modal Options | | |
| Provides New Modes of Transportation | If project provides new modes of transportation. Score based on Yes or No. | 5 |
| Improves Existing Bike/Pedestrian/Transit Facilities | If project improves existing bike/pedestrian/transit facilities. Score based on Yes or No. | 5 |

In the project prioritization tool, each project received a score for every measure, resulting in a total project score. The final scores were then weighted against the public survey to provide additional insight into which goals were most important to residents of Cherokee County. Based on the results from the survey, Align Transportation with Land Use Planning was the most important goal to the residents of the County. This was followed by Infrastructure Preservation, Maintain Community Health, Safety, and Environment, Improve Connectivity and Mobility, and lastly, Increase Modal Options.

The weighted scores for each project are intended to act as a guide for Cherokee County staff and stakeholders to understand which proposed projects are best aligned with the goals and objectives of the CTP. These scores are not intended to indicate which should be implemented in a short-, medium-, or long-term time, because the phasing of projects have several factors to consider such as funding, community support, and project readiness that impact the implementation of each project.



PROJECT TIERING PROCESS

METHODOLOGY

Once the projects were scored and prioritized, they were grouped into four tiers to guide Cherokee County on when projects should be implemented. The tier's, time frames, and anticipated revenue are shown in Table 2. Each tier has five considerations utilized to divide projects based on the corresponding set of needs listed below:

- Current status of project implementation
- Project score from evaluation and prioritization
- Immediacy of the need addressed by the project
- Distribution of the project's estimated capital costs among local jurisdictions
- Cherokee County's anticipated level of transportation funding available through the SPLOST program

Table 2 Project Tiers

| Tier | Timing of Need | Implementation Period | Anticipated County Funding Available |
|--------|---------------------------|-----------------------|--------------------------------------|
| Tier 0 | Projects Already Underway | 2022 – 2024 | Current SPLOST Revenues |
| Tier 1 | Immediate / Short-Term | 2024– 2029 | \$170,490,866 |
| Tier 2 | Mid-Term | 2030 - 2036 | \$228,474,060 |
| Tier 3 | Long-Term | 2037 - 2050 | \$882,200,685 |

ESTIMATING AVAILABLE SPLOST FUNDING

In order to estimate the available amount of SPLOST funding, Cherokee County provided a SPLOST collections breakdown by year. It assumes a 5% growth by year and was extended to the year 2050. Based on the collections breakdown by year, \$170,490,866 of dedicated transportation funds will be collected from SPLOST years 2024/2025 to 2029/2030. Funding by jurisdiction had been provided by Cherokee County and is shown in the table below.

Table 3 Estimated SPLOST Funding by Jurisdiction

| Jurisdiction | Tier 1 | Tier 2 | Tier 3 |
|-----------------|----------------------|----------------------|----------------------|
| Cherokee County | \$119,242,765 | \$159,796,705 | \$617,018,679 |
| Ball Ground | \$1,707,114 | \$2,287,696 | \$8,833,418 |
| Canton | \$9,360,892 | \$12,544,490 | \$48,437,699 |
| Holly Springs | \$9,000,000 | \$12,060,860 | \$46,570,273 |
| Nelson | \$1,092,738 | \$1,464,373 | \$5,654,345 |
| Woodstock | \$30,087,357 | \$40,319,935 | \$155,686,270 |
| Total | \$170,490,866 | \$228,474,060 | \$882,200,685 |



For each project, tiering was determined by the following process shown in Figure 5.

Figure 5 Project Tiering Process



Projects were not assumed to be funded solely by the County or its jurisdictions; therefore, assumptions were made, based on project characteristics, a funding split between the local jurisdiction and other shares. Other shares include federal funding (formula or discretionary grants), state funded programs, and private funding such as public-private partnerships. Table 4 illustrates these cost shares by project characteristic.

Table 4 Cost Share Assumptions

| Project Characteristic | Local Share | Other Share (e.g., state, federal, private) |
|------------------------------------|----------------|---|
| State Route/Interstate/Interchange | 20% | 80% |
| Bridge Project | 25% | 75% |
| Local Road/Trail/Sidewalk | 100% | 0% |
| City Projects | 100% (city) | 0% |
| Traverses City and County boundary | 50%/50% (city) | 0% |
| Technology/ITS | 50% | 50% |

RESULTS

The results of the evaluation, prioritization, and tiering process is a final list of projects sorted into tiers with associated costs and funding sources. The final project recommendations by tier are summarized in the recommendations section of this report and are detailed in full in the standalone Recommendations Report.

The exception to these final recommended projects were the bicycle and pedestrian projects which followed a different evaluation process as part of the update to the



Trails Master Plan. These recommended projects and their evaluation process are detailed in the Trails Master Plan Report.

Additionally, any transit-related projects and recommendations are detailed in the standalone Transit Service Assessment Report.



7. FINAL RECOMMENDATIONS

The final project recommendations are summarized by tier, jurisdiction responsibility, and cost share below. As detailed in the previous section there are four tiers over the next 30+ years which include:

- Tier 0: 2022 – 2024 (Projects already underway)
- Tier 1: 2024 – 2029 (Immediate/Short-Term)
- Tier 2: 2030 – 2036 (Mid-Term)
- Tier 3: 2037 – 2050) (Long-Term)

Overall, across all four tiers, the CTP recommends just over 300 projects with a total estimated cost of \$2,447,156,000. A breakdown of this investment across tiers and jurisdictions is summarized in Table 5 below. Figure 6 below illustrates the spatial breakdown of projects by tier across the County. A complete list of all project recommendations are included in this report in Appendices E-H.

Table 5 Estimated Project Investments by Jurisdiction

| Jurisdiction | Tier 0 | Tier 1 | Tier 2 | Tier 3 |
|------------------------|---------------|---------------|---------------|---------------|
| Cherokee County | \$41,458,500 | \$49,578,000 | \$67,475,467 | \$287,031,933 |
| Ball Ground | - | \$2,495,000 | \$2,860,000 | \$4,106,000 |
| Canton | \$4,861,000 | \$35,376,800 | \$17,634,533 | \$18,404,667 |
| Holly Springs | \$1,810,000 | \$6,980,000 | \$6,700,000 | \$46,540,000 |
| Waleska | - | \$2,073,600 | \$1,222,400 | \$832,000 |
| Woodstock | \$20,960,000 | \$11,764,000 | \$3,276,000 | \$55,555,000 |
| GDOT | \$136,645,500 | \$778,202,000 | \$289,176,767 | \$554,136,233 |
| Total | \$205,735,000 | \$886,470,000 | \$388,345,167 | \$966,605,833 |

The County has allocated approximately 50% of its upcoming 2024-2030 SPLOST to cover the anticipated transportation project needs during that time period. In addition, a projection of GDOT funds available – both state and federal funding – has been determined to supplement the project costs and cover the portion of projects that occur on state highways within the County. A comparison of project costs and projected funding is shown below in Table 6, highlighting the deficit/surplus that is estimated to occur in Tiers 1-3.

The estimated project costs include an amount that the County spends on contracted resurfacing, required GDOT match for Local Maintenance & Improvement Grant (LMIG) projects, in-house resurfacing, roadway striping/restriping, guardrail repairs, and other maintenance needs. The County's goal for pavement preservation is to resurface approximately 40 road miles of pavement each year. It is estimated that the County will spend approximately \$9 million dollars per year on these items, over the life of the current 6-year SPLOST program. As roadways are added and expanded throughout the County, it is assumed that this maintenance amount will increase to \$10 million dollars per year from 2030 to 2036, and \$11 million dollars per year from 2037 to 2050. This table shows that the County, and its cities, can likely fund its projects, as well as



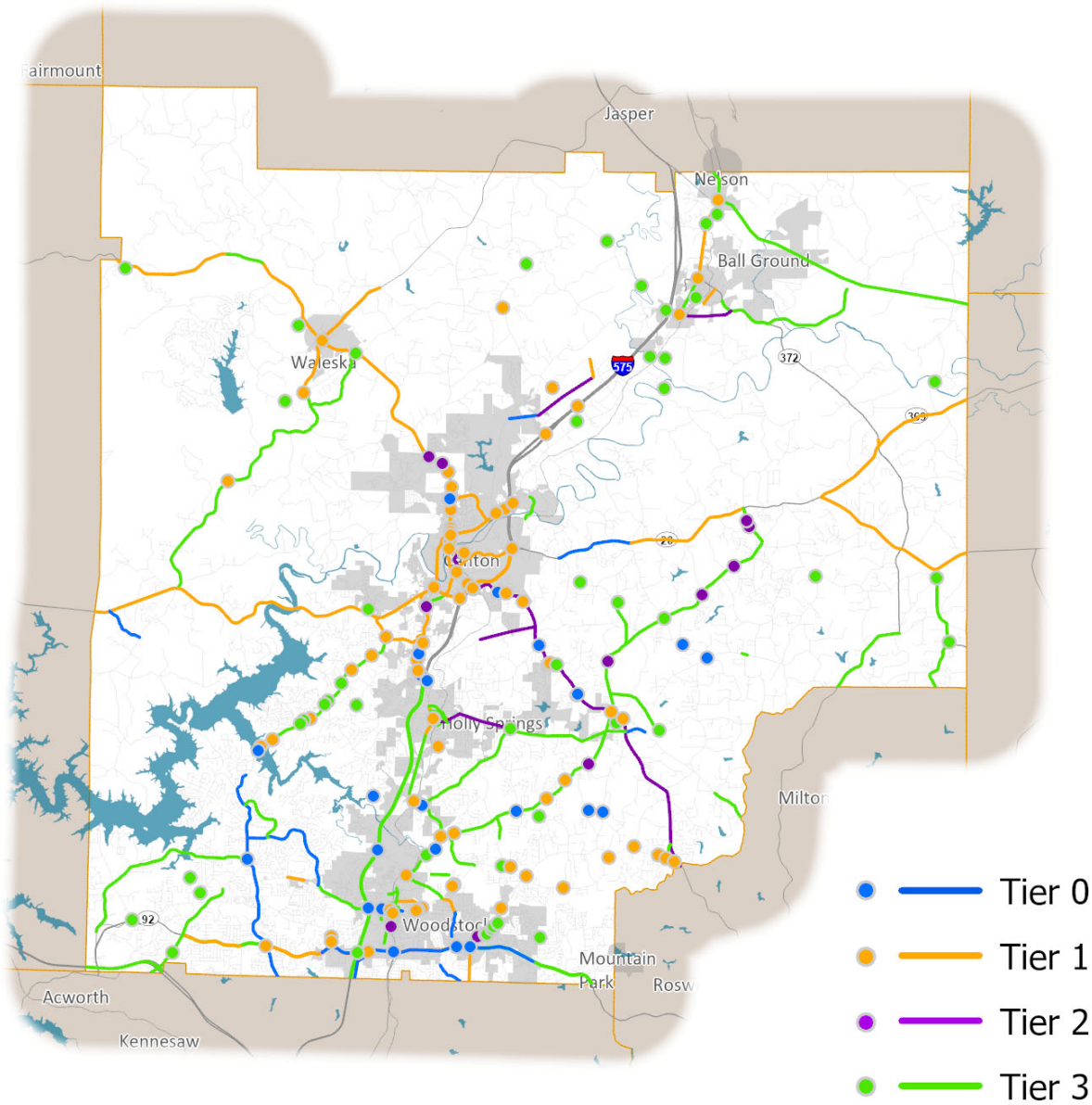
roadway maintenance needs, such as resurfacing, through Tier 3, with funds remaining to cover unknown projects costs or to over-match GDOT-funded projects.

Table 6 Project Surplus and Deficit Projections

| Jurisdiction | Tier 1 | Tier 2 | Tier 3 | Total |
|------------------------------------|-----------------|---------------|---------------|-----------------|
| Cherokee County | | | | |
| Project Costs | \$103,578,600 | \$137,475,467 | \$441,031,933 | \$682,086,000 |
| Anticipated SPLOST Funding | \$119,242,765 | \$159,796,705 | \$617,018,679 | \$896,058,149 |
| Surplus/Deficit | \$15,664,165 | \$22,321,238 | \$175,986,746 | \$213,972,149 |
| Ball Ground | | | | |
| Project Costs | \$2,495,000 | \$2,860,000 | \$4,106,000 | \$9,461,000 |
| Anticipated SPLOST Funding | \$1,707,114 | \$2,287,696 | \$8,833,418 | \$12,828,228 |
| Surplus/Deficit | (\$787,886) | (\$572,304) | \$4,727,418 | \$3,367,228 |
| Canton | | | | |
| Project Costs | \$35,376,800 | \$17,634,533 | \$18,404,667 | \$71,416,000 |
| Anticipated SPLOST Funding | \$9,360,892 | \$12,544,490 | \$48,437,699 | \$70,343,081 |
| Surplus/Deficit | (\$26,015,908) | (\$5,090,043) | \$30,033,032 | (\$1,072,919) |
| Holly Springs | | | | |
| Project Costs | \$6,980,000 | \$6,700,000 | \$46,540,000 | \$60,220,000 |
| Anticipated SPLOST Funding | \$9,000,000 | \$12,060,860 | \$46,570,273 | \$67,631,133 |
| Surplus/Deficit | \$2,020,000 | \$5,360,860 | \$30,273 | \$7,411,133 |
| Woodstock | | | | |
| Project Costs | \$11,764,000 | \$3,276,000 | \$55,555,000 | \$70,595,000 |
| Anticipated SPLOST Funding | \$30,087,357 | \$40,319,935 | \$155,686,270 | \$226,093,562 |
| Surplus/Deficit | \$18,323,357 | \$37,043,935 | \$100,131,270 | \$155,498,562 |
| GDOT | | | | |
| Project Costs | \$778,202,000 | \$289,176,767 | \$554,136,233 | \$1,621,515,000 |
| Anticipated State Funding | \$179,537,415 | \$209,460,318 | \$418,920,635 | \$807,918,368 |
| Anticipated Federal Funding | \$87,604,882 | \$102,205,696 | \$204,411,391 | \$394,221,969 |
| Surplus/Deficit | (\$511,059,703) | \$22,489,247 | \$69,195,793 | (\$419,374,663) |



Figure 6 Project Map by Tier



POLICY RECOMMENDATIONS + STRATEGIES

Several of the recommended projects are policy or strategy based which are often countywide. These projects, while not directly calling for a change of physical infrastructure, will help guide the future development of Cherokee County's transportation network. The policy or strategy recommendations comprise several



projects in the freight, ITS/emerging technology and operational improvement categories and include recommendations related to:

- Truck parking
- Freight size and weight restrictions along local roadways
- Freight road design
- Freight signal priority
- Additional ITS deployment at key signalized intersections
- Adaptive signals with radar detections (Maxtime/Maxview software)
- Ramp meters
- Electric vehicle charging stations
- Exploration of drone systems for several uses
- CAV and EV support
- Autonomous transit shuttle feasibility study
- Rectangular rapid flashing beacons (RRFB) deployment on key corridors
- DSRC conversion and addition of signal preemption
- City of Woodstock Grid Street program

These policy recommendations and studies are discussed in further detail in the standalone Recommendations Report.



SUPPLEMENTAL STUDIES

TRAILS MASTER PLAN RECOMMENDATIONS

As part of the CTP process, the project team produced a Trails Master Plan for Cherokee County. The Trails Master Plan effort contains more detailed information specifically related to the state and future of multi-use paths and trails in Cherokee County and its municipalities. The document provides an existing conditions analysis, needs assessment and updated project prioritization for the trail system in Cherokee County and is intended to stand alone from the CTP.

The first step was conducting an inventory of existing and planned bicycle and pedestrian infrastructure and policies in Cherokee County. This includes elements like sidewalks, walking/hiking trails, multi-use paths, and bike lanes. The full existing conditions analysis for Cherokee County Trails can be found in Existing Conditions Report.

The existing conditions review showed a connected network of trails that could serve a transportation function in the County is currently lacking outside of Woodstock. The active transportation network is less connected in-between the downtown areas. Additionally, some frequently visited locations such as community parks, outdoor recreation opportunities, and schools are under-served by existing bicycle and pedestrian facilities. The southern portion of the County is generally better served with multi-use trail facilities than the northern portion of the County.

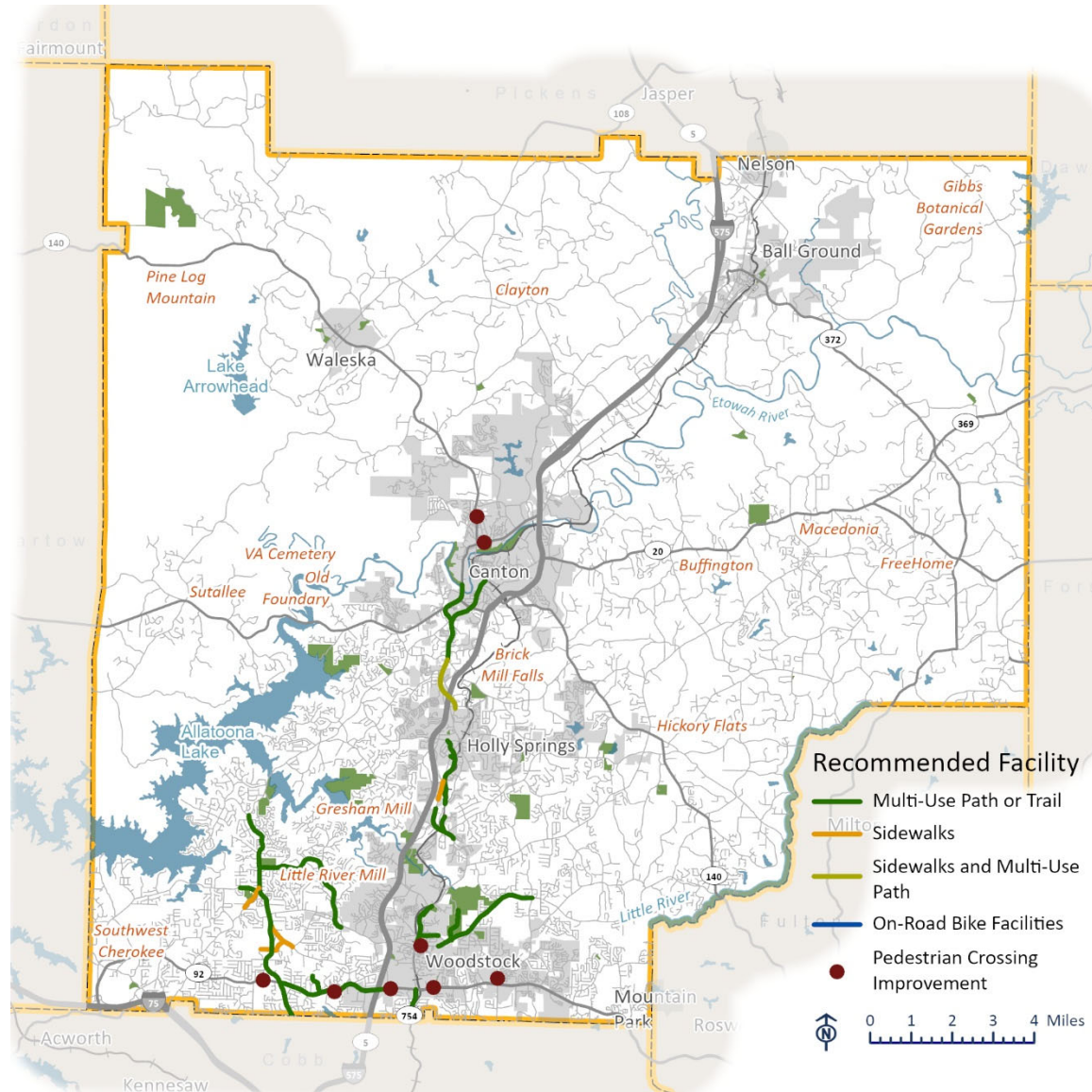
Following the existing conditions analysis, a needs assessment was conducted. The bicycle and pedestrian needs assessment involved a multifaceted analysis approach. The project team built off the review of previous bicycle, pedestrian, trail, and small area planning studies by documenting which facilities have been built. Parks, along with community destinations, were identified as part of a multi-phase bicycle and pedestrian needs selection analysis that looked at proposed facilities proximity to key destinations and land uses. The facilities were then cataloged based on their type. Initial findings were then presented to stakeholders for feedback to help identify additional recreation trails that are priority projects. The priority projects were then scored based on the plan's vision, goals, and objectives. Finally, the balance of previously recommended projects was carried forward as aspirational projects. For additional detailed descriptions and analysis of the bicycle and pedestrian needs analysis process, please refer to the Trails Master Plan in Appendix C.

Finally, the trails master plan projects were prioritized. The prioritization process uses a four metric scoring rubric with a four-tier scoring system. Using the universe of projects identified in the existing conditions and needs assessment portion of the plan, projects are analyzed and scored in GIS. Projects are prioritized using a weighted scoring system based on four key factors. The criteria used are: connections to key activity centers and destinations, connections to bicycle and pedestrian facilities, bicycle and pedestrian safety, and improving access to transit vulnerable communities. Projects are then ranked based on their composite score where the top 30 projects are considered for prioritized implementation.



The final list of project recommendations consists of 29 linear bicycle and pedestrian facilities and seven pedestrian crossing improvements, which can be seen below in Figure 7. A detailed list of prioritized project recommendations can be seen in the Trails Master Plan, included in Appendix C. Policy and program recommendations for active transportation in Cherokee County can also be found in the Trail Master Plan.

Figure 7 Final Recommended Trail Projects in Cherokee County



TRANSIT SERVICE STUDY RECOMMENDATIONS

An additional part of this CTP process was a Transit Service Assessment which built off the 2016 CTP Transit Feasibility Study. Since 2016, there have been significant advancements in transportation technologies, service modes, and changes in transportation patterns, transit usage and commuting trends. These factors have necessitated a reexamination of Cherokee County's transit services to ensure the current system is reflecting existing conditions and leveraging advancements in technology to provide the greatest benefits to the residents of Cherokee County.

The impacts of the COVID-19 pandemic on travel behavior and the rise in wide-scale use of transportation network companies (TNCs), like Uber and Lyft, are two other recent factors necessitating a reexamination of transit provision in the county. Developments in planned transit investments, the coordination of regional services, and the advancement of a regional fare policy are other important factors considered in this reevaluation of transit service.

Transit providers throughout the United States are considering new modes of public transportation to meet the mobility needs of residents. This includes microtransit, which is a new form of demand response transit that uses smartphone technology to match riders to vehicles to provide flexible, cost-effective, and timely transit service. The American Public Transit Association (APTA) defines microtransit as small-scale, on-demand public transit services that can offer fixed-routes and schedules, as well as flexible routes and on-demand scheduling. This form of transit is particularly suited to lower-density suburban areas where fixed-route bus service struggles to serve transit riders efficiently. This transit assessment has a special focus on the applicability of microtransit services in Cherokee County.

Another major focus of the assessment is an examination of Cherokee Area Transit System's (CATS) fare policy and fare recommendations. Other key components of this report include recommendations to improve regional transit connectivity and enhancements to fixed-route local bus service.

Among the recommendations for transit improvements in the County include:

- Low-performing existing fixed-route service may be better replaced with microtransit service
- If fixed-route service is preferred, there are several identified gaps in service where route expansion would be warranted
- Bus stop amenities, including shelters, benches, and trash cans, should be improved at high-use locations.
- Service recommendations to improve connectivity between CATS and the regional Xpress commuter service
- Potential for replacing fixed-route service with microtransit service
- Fare policy updates including:
 - Increasing fares
 - Utilization of regional fare payment system
 - Adopt complimentary regional transfer policy



The details of the Transit Assessment, including overview of existing conditions, needs analysis, fare policy, and microtransit assessment can be found in the Transit Assessment Report in Appendix D.

