US 52 BUS RAPID TRANSIT

Feasibility Study Final Report

SEPTEMBER 2025

BCDCOG
BERKELEY-CHARLESTON-DORCHESTER COUNCIL OF GOVERNMENTS
PLANNING, PARTNERSHIP & PROSPERITY

US 52 BUS RAPID TRANSIT STUDY

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FIGURE 1.1: US-52 TRAFFIC. Photo by *Post and Courier.*

1. INTRODUCTION

PROJECT INTRODUCTION AND BACKGROUND

The Berkeley-Charleston-Dorchester Council of Governments (BCDCOG) is the regional agency responsible for transportation planning across Berkeley, Charleston, and Dorchester counties along South Carolina's coast. In response to rapid growth and evolving mobility needs, BCDCOG completed the Regional Transit Framework Plan (RTFP) in 2018 to define a long-range multimodal transit vision, identify priority corridors, and explore solutions to address increasing traffic congestion. The RTFP identified five priority corridors—US 52, Glenn McConnell Parkway/US 17, US 17, Dorchester Road, and Folly Road—and recommended Bus Rapid Transit (BRT) as a high-capacity option to improve regional mobility and manage roadway congestion.

The US 52 Corridor is an important connection between North Charleston, Goose Creek, and Moncks Corner. Its proximity to Charleston and North Charleston makes it attractive for residential and employment development, increasing the demand for upgraded infrastructure and additional residences.

The US 52 Bus Rapid Transit (BRT) Feasibility Study is a focused effort to evaluate the feasibility of introducing BRT-style service along the US 52 Corridor between North Charleston in Charleston County and Moncks Corner in Berkeley County, South Carolina. BRT is a public transit mode that could include features like dedicated bus lanes, off-board fare collection, level boarding, and signal

FIGURE 1.2: CARTA AND TRICOUNTY LINK TRANSFER. Photo by Marquel Coaxum.

priority at intersections to ensure faster and more reliable service. BRT systems are designed to provide efficient, high-capacity transit service options.

The US 52 BRT Feasibility Study builds upon years of regional planning work to evaluate how high-capacity transit could serve one of the Lowcountry's most important and fastest-growing corridors. Anchored in the priorities identified in the 2018 RTFP, this study is the next step in advancing a more connected and accessible regional transit network, focused specifically on the US 52 Corridor linking North Charleston to Moncks Corner.

The RTFP established a bold, long-term vision for transit across the region and identified five priority corridors for future investment. In addition to the RTFP, the US 52 Corridor Study provided another foundational layer of analysis. That study examined broader transportation and land use trends along the Corridor and offered early recommendations for multimodal investment. The current BRT Feasibility Study takes that work further, moving from planning concepts to an implementable framework grounded in detailed technical analysis, local context, community priorities, and stakeholder feedback.

Core elements of the US 52 BRT Corridor Feasibility Study include:

- **Review of Existing Conditions:** A comprehensive look at current demographics, land use, transit service, and travel patterns to understand the baseline context.
- **TriCounty Link Service Evaluation:** A detailed analysis of the transit services within the Corridor, including recommendations to enhance TriCounty Link services and grow ridership in the short and long term.
- **BRT Feasibility Assessment:** Exploration of potential alignments, stop locations, service characteristics, and infrastructure needs for future BRT implementation.
- **Stakeholder and Public Engagement:** Collaboration with local jurisdictions, community stakeholders, and residents to ensure the vision reflects local needs and values.
- **Implementation Strategy and Cost Estimates:** A realistic, phased roadmap outlining planning-level capital and operating costs, funding considerations, and steps needed to advance toward implementation.

This study is not solely about evaluating the technical feasibility of BRT; it is about understanding how enhanced transit could offer additional travel options in a growing and evolving corridor. By exploring the potential for improved service along US 52, BCDCOG and its partners are working to ensure that residents, workers, and visitors can access safe, reliable, and efficient alternatives to driving. The US 52 BRT Feasibility Study reflects a thoughtful, forward-looking approach—grounded in data and community input—to support future mobility needs while preserving quality of life across the region.

The appendices provide expanded documentation and supporting materials, including Public Involvement resources (**Appendix I**), Existing Conditions analysis (**Appendix II**), and supplemental tables (**Appendix III**).

The US 52 BRT Feasibility Study was launched in January 2024. A graphic outlining key milestones and activities completed throughout the study is provided in **Figure 1.3** below.

FIGURE 1.3: KEY SCHEDULE MILESTONES.

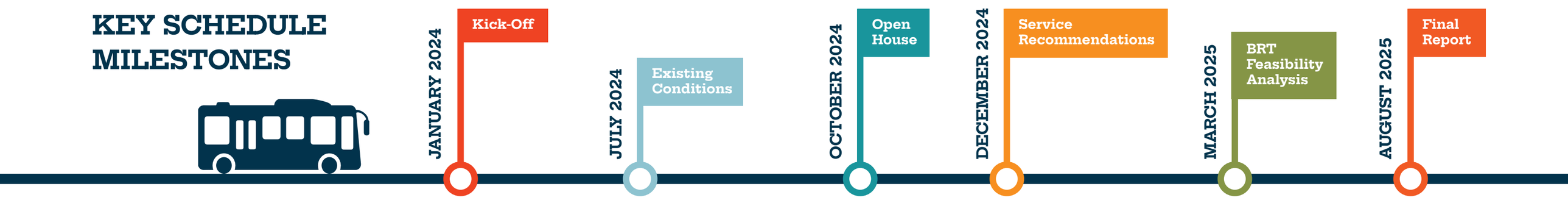


FIGURE 2.1: STAKEHOLDER WORKING GROUP.

2. PUBLIC OUTREACH

STAKEHOLDER WORKING GROUP

A Stakeholder Working Group (SWG) was formed to bring together key stakeholders and community leaders along the US 52 Corridor. The SWG provided valuable insight into the current conditions of the Corridor and knowledge of future developments and growth planned for the Corridor. The Study Team held multiple SWG meetings to collect feedback and share updates on the study. A copy of the SWG member list and a description of the SWG are available in the Public Involvement Plan (PIP), which is included in **Appendix I**. In total, four SWG meetings were held over the course of the study, with the group convening on a quarterly basis to review findings, discuss key issues, and provide input at critical milestones.

SWG Meeting One

The first Stakeholder Working Group (SWG) meeting was held on April 29, 2024. This initial meeting brought together a diverse group of Corridor stakeholders to introduce the study purpose and process, provide an update on the US 52 Corridor Study, and gather early feedback to inform the BRT feasibility effort. The Study Team presented an overview of existing conditions, including demographic and land use patterns, key infrastructure constraints, and current transit service. Stakeholders discussed areas of concern such as traffic congestion, the need for improved multimodal connectivity, and anticipated growth and development along the Corridor.

SWG Meeting Two

The second SWG meeting was held on July 24, 2024. This two-hour session was designed as an interactive workshop facilitated by the Study Team. Following a brief presentation on the study's goals and key objectives, participants engaged in small-group discussions and later reconvened as a full group to share insights. Discussions focused on four key areas: (1) strengths of the current TriCounty Link (TCL) service; (2) weaknesses of the current service; (3) aspirations for transit in both the near and long term; and (4) opportunities to enhance mobility and transit service along the US 52 Corridor.

SWG Meeting Three

The third SWG meeting was held on November 19, 2024. This meeting was structured as an interactive workshop designed to gather stakeholder input on several key elements of the study. The Study Team facilitated discussions to collect feedback on potential transit station locations, bicycle and pedestrian infrastructure needs, and anticipated challenges to improving transit service along the Corridor. Participants also provided input on major developments and land use changes that could influence future travel patterns. As part of the workshop, attendees participated in a hands-on mapping exercise using game pieces and markers to identify potential station areas, key destinations, and areas of planned growth or redevelopment along the US 52 Corridor.

SWG Meeting Four

The fourth and final SWG meeting was held on April 29, 2025. This meeting served as a concluding session to present key findings and draft recommendations from the study. The Study Team shared proposed improvements to the TriCounty Link service, including phased strategies to enhance coverage, efficiency, and overall connectivity in the Corridor. The group also reviewed the results of the BRT feasibility analysis, which included potential alignments and key implementation considerations. Stakeholders had an opportunity to ask questions, provide final input, and reflect on how the study's recommendations could support future mobility needs along the US 52 Corridor.

Small Stakeholder Group Meetings

In addition to the larger SWG meetings, the Study Team convened a series of four smaller virtual meetings to engage elected officials, jurisdictional leadership, and key technical staff. These discussions provided an opportunity to share study updates, gather feedback, and address specific local considerations. Two of the meetings were held with representatives from Berkeley County and the City of Goose Creek, and two were held with representatives from Berkeley County and the Town of Moncks

Corner. The first two meetings were held on July 15, 2024. The discussion with the Goose Creek staff focused on development trends and opportunities to coordinate future planning efforts. In the meeting with Moncks Corner representatives, participants shared hesitancy toward BRT implementation in the area, citing a preference for personal vehicle use and raising questions about the practicality of fixed-guideway transit in this portion of the Corridor. Both groups expressed interest in ensuring large employers are engaged as part of ongoing outreach efforts.

The third small group meeting was held on July 23, 2024, with Berkeley County technical staff. The discussion centered on similarities and differences between the US 52 Corridor and the adjacent Lowcountry Rapid Transit (LCRT) project on Rivers Avenue. Participants expressed support for continued study, emphasizing the importance of tailoring improvements to the unique needs of the US 52 Corridor. They also noted ongoing planning efforts at the county level and the need for continued coordination, particularly at the congested US 52 and US 176 intersection.

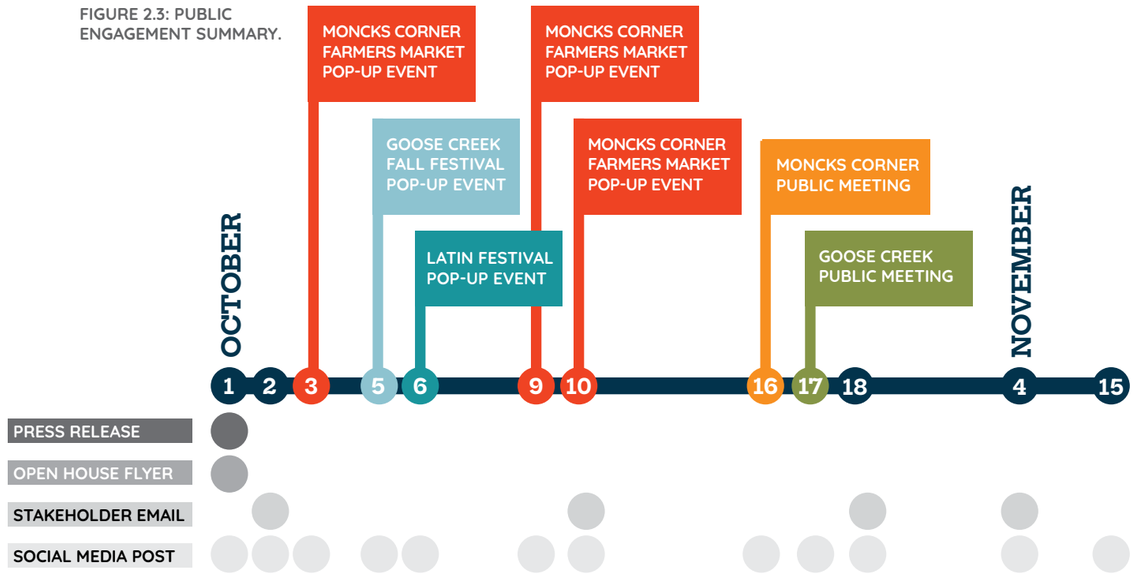
The fourth and final small group meeting occurred on August 23, 2024, with participants from both Goose Creek and Berkeley County. The conversation highlighted the growing regional interest in BRT and acknowledged that while implementation may be further out for Berkeley County, it is encouraging to see the groundwork being laid. Participants shared that recent updates to local zoning regulations were intended to proactively support future transit and mobility improvements. There was strong interest in continued involvement in the study process, particularly around improvements to key intersections such as US 52 and US 176. Stakeholders also emphasized the importance of broader efforts to enhance the quality of life and create a more livable, connected community.

FIGURE 2.2: PUBLIC INVOLVEMENT MEETING.

PUBLIC ENGAGEMENT SUMMARY

As outlined in the Public Involvement Plan (PIP), the Study Team was committed to a transparent, inclusive, and data-informed process to engage the public and key stakeholders throughout the duration of the study. Guided by the principles established in the PIP, the outreach strategy was designed to ensure that community voices were heard, local knowledge was valued, and input was used to inform decision-making. A summary of outreach activities conducted as part of this effort is provided in **Figure 2.3** below.

FIGURE 2.3: PUBLIC ENGAGEMENT SUMMARY.



Outreach Events

- **MONCKS CORNER FARMERS MARKET POP-UP EVENT** A community pop-up event where informational flyers were distributed and the public could engage the Study Team to learn more about the study.
- **GOOSE CREEK FALL FESTIVAL POP-UP EVENT** A community pop-up event where informational flyers were distributed and the public could engage the Study Team to learn more about the study.
- **LATIN FESTIVAL POP-UP EVENT** A community pop-up event where informational flyers were distributed and the public could engage the Study Team to learn more about the study.
- **MONCKS CORNER PUBLIC MEETING** A public information meeting that was held from 6 to 8 p.m. at the Train Depot in Moncks Corner. The Study Team was on-site with informational boards and a video to share relevant information and engage the public. A total of twelve (12) individuals participated in the in-person meeting.
- **GOOSE CREEK PUBLIC MEETING** A public information meeting that was held from 6 to 8 p.m. at the Fire Department in Goose Creek The Study Team was on-site with informational boards and a video to share relevant information and engage the public. A total of sixteen (16) individuals participated in the in-person meeting.

Outreach Tactics

- **PRESS RELEASE** A press release was distributed by the BCDCOG on October 1 to local media outlets to advertise the public meetings, comment period, and encourage public participation online and via the study survey. The press release generated positive coverage from local outlets including Post & Courier, Live 5, and News 4.
- **OPEN HOUSE FLYER** A flyer was designed and distributed at pop-up events advertising the public meetings and online engagement opportunities to encourage greater public participation.
- **STAKEHOLDER EMAILS** A total of four (4) emails were sent to stakeholders and large employers along the Corridor to promote public meetings, online engagement opportunities, and to request recipients share social media content with their networks.
- **SOCIAL MEDIA POSTS** Multiple social media posts were deployed on BCDCOG's Facebook, Instagram, and LinkedIn pages to promote the public meetings, raise awareness of online engagement opportunities, and promote public participation. Multiple posts were deployed before the in-person meetings with additional posts after the meetings to encourage online participation.

FIGURE 2.4: STAKEHOLDER WORKING GROUP.

The in-person public meetings were held at convenient times, locations, and dates to encourage greater public participation. The Study Team developed engaging and educational materials to clearly communicate the study's aspects and solicit public feedback. Meetings utilized an open-house format with no formal presentation; this format allowed attendees to drop in at any point during the two-hour meeting to engage with the Study Team, learn more about the study, and submit feedback.

In addition to the in-person public meetings, the BCDCOG created a dedicated page on their website housing all meeting materials, including PDFs of the meeting boards, handouts, and an information video, to encourage greater participation and accommodate individuals who could not attend the in-person meetings. This dedicated page served as an online meeting that was available 24/7, where visitors could access meeting materials, the online survey, and submit feedback at their convenience throughout the comment window.

FIGURE 2.5: US 52 BRT FEASIBILITY WEBSITE.

The materials listed below were also available on the BCDCOG's website following the in-person meetings to encourage online engagement from the public.

PUBLIC ENGAGEMENT MATERIALS

Material	Description
Study Handout	A one-page, 8.5x11" handout was developed for the in-person meetings to highlight the study area, provide an overview of the purpose of the study and meeting, explain next steps, and outline how to submit feedback and engage the Study Team during the comment window. The handouts were distributed to public meeting attendees at the sign-in station and were available on the BCDCOG's website during the comment period.
Meeting Boards	Four (4) 36x24" boards were developed for the in-person meetings to explain the study scope, existing transit service in the Corridor, and future connections to the Lowcountry Rapid Transit system. The meeting boards were available on the BCDCOG's website during the comment period.
Study Video	A seven (7) minute video was developed to explain topics including the study scope, existing transit service, key study milestones, why the US 52 Corridor is being considered for transit improvements, previous relevant studies conducted, potential connections to the Lowcountry Rapid Transit system, how and where to submit feedback, online engagement opportunities, and next steps. The video was played on a loop during both public meetings and was available on the BCDCOG's website during the comment period.
Comment Forms	Comment forms were available at dedicated comment stations during both in-person meetings. The forms were one-page, 8.5x11", asking for feedback from the public with space to provide contact information. A total of three (3) comment forms were collected at the Moncks Corner meeting and one (1) comment form was collected at the Goose Creek meeting.
Printed Surveys	In addition to the comment forms, printed versions of the online survey were available at the comment stations. The surveys were three (3) pages, one-sided, on 8.5x11" paper. These were provided to collect feedback from the public and allow individuals with limited or no online access to participate in the survey. While the printed surveys were not available on the BCDCOG's website a link to the online version was available during the comment period. A total of five (5) survey responses were collected at the Moncks Corner meeting and a total of seven (7) survey responses were collected at the Goose Creek meeting.
Online Survey	An online survey was available during the comment window via the BCDCOG's website. The online survey was promoted through social media and links were provided in emails to stakeholders and large employers. The online survey was hosted through SurveyPlanet. A total of 118 individuals completed the online survey.

TABLE 2.1: PUBLIC ENGAGEMENT MATERIALS.

An online survey was available throughout the public comment window to gather feedback on mobility needs and perceptions of transit in the US 52 Corridor. 130 responses were received, including 118 submitted online and 12 paper surveys collected during in-person public meetings. Survey results indicated that most respondents were already familiar with TriCounty Link and the Lowcountry Rapid Transit project before participating. More than 80% of respondents reported that they do not currently use public transit. Despite limited current usage, most participants expressed openness to future public transit enhancements, particularly if they could help reduce traffic congestion and improve safety. The table and figures below summarize key takeaways from the 130 responses collected during the comment period.

FIGURE 2.5: EXAMPLE OF RESPONDENT SURVEY RESULTS.

Associated public involvement materials—including the Open House materials, Engagement Summary Memo, Business and Community Leaders presentation (with dates, attendees, and summary), Community Pop-Up Event materials and survey, Online Survey materials and Survey Analysis Memo, and the Social Media Calendar and posts—are available in **Appendix III** for reference.

SURVEY RESPONSE KEY THEMES

- A desire for protective barriers to shield the mass transit system and riders from vehicular traffic
- A desire for crosswalks, multi-use paths, and pedestrian bridges that connect riders to the transit system and nearby natural resources, like Tail Race Canal and Lake Moultrie
- Bicycle racks on board transit vehicles
- Cameras on buses for safety
- Higher frequency for transit services
- Expanded route area coverage of the Tri-County region
- Covered shelters at bus stops
- More consistent and shorter route times
- More accessibility features
- More park and ride locations

FIGURE 3.1: US-52. Photo by *Post and Courier*.

3. EXISTING CONDITIONS

CORRIDOR OVERVIEW

The US 52 Corridor (**Figure 3.2**) is approximately 22 miles of urban highway from Melnick Drive in North Charleston to North Live Oak Drive in Moncks Corner. It stretches through four municipalities: Goose Creek, Hanahan, Moncks Corner, and North Charleston. Within 1 mile of the Corridor, there are 93,854 residents and 34,735 jobs.

US Highway 52 has been designated as part of the planned High-Capacity Transit (HCT) network for the Berkeley–Charleston–Dorchester (BCD) region by the Regional Transit Framework Plan (RTFP, 2018). RTFP defines HCT as Express Bus, Bus Rapid Transit (BRT), BRT Lite, or Light Rail Transit (LRT). The Lowcountry Rapid Transit (LCRT) project, now under development, will establish the region's first HCT corridor along US 78/Rivers Avenue. The US 52 Corridor connects to the LCRT, South Carolina's first High-Capacity Transit (HCT) project, a BRT line linking Charleston, North Charleston, and Ladson. With a connection to LCRT, riders would have access to the many transit benefits provided by the system, including park-n-ride (PnR) facilities and access to the 21 proposed stations running into downtown Charleston. The US 52 BRT Feasibility Study evaluates strategies to enhance and further develop transit services along US 52 and opportunities to connect to the LCRT system, improving regional mobility.

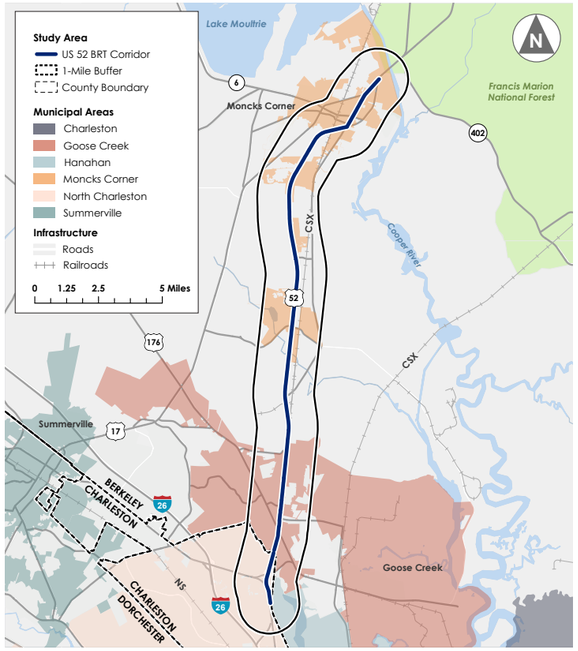


FIGURE 3.2: US 52 BRT STUDY AREA.

Study Area Definition

The study area, shown in **Figure 3.2**, is defined as the center point along US 52 that runs north to south. For the purposes of this report, the Corridor consists of all block groups within a 1-mile buffer of the study area. The region includes all block groups within Berkeley, Charleston, and Dorchester counties. Based on a review of population and housing density, along with resident and land use information, communities are identified and further segmented into three geometric areas: Southern, Central, and Northern (**Figure 3.3**).

Southern Segment

The Southern segment of the Corridor incorporates 10 miles along US 52 from Melnick Drive in North Charleston to Old Mount Holly Road in Goose Creek. This segment contains three of the four municipalities: North Charleston, Hanahan, and Goose Creek. Attributes along the segment are mixed-use and traditional neighborhoods with density varying from suburban residential to multi-family apartments. There are various recreational areas, historic sites, parks, shopping destinations, and restaurants. Key features that contribute to the number of travelers through the area within this segment include Goose Creek Town Hall, Trident Medical Center, Charleston Southern University (CSU), and Goose Creek PnRs.

Central Segment

This middle segment includes 8 miles along US 52 from Old Mount Holly Road in Goose Creek to Gaillard Road in Moncks Corner. This segment comprises of mostly single-family housing in suburban areas with some industrial and commercial locations interspersed, such as the Google Data Center and Sea Fox Boat Works.

Northern Segment

Starting at Gaillard Road in Moncks Corner and along US 52 from Gaillard Road to North Live Oak Drive in Moncks Corner is the 4-mile Northern segment. Most of the land use in the segment is suburban and industrial. There are multiple destinations including the Town of Moncks Corner, major retail centers such as Walmart, and the Santee Cooper headquarters.

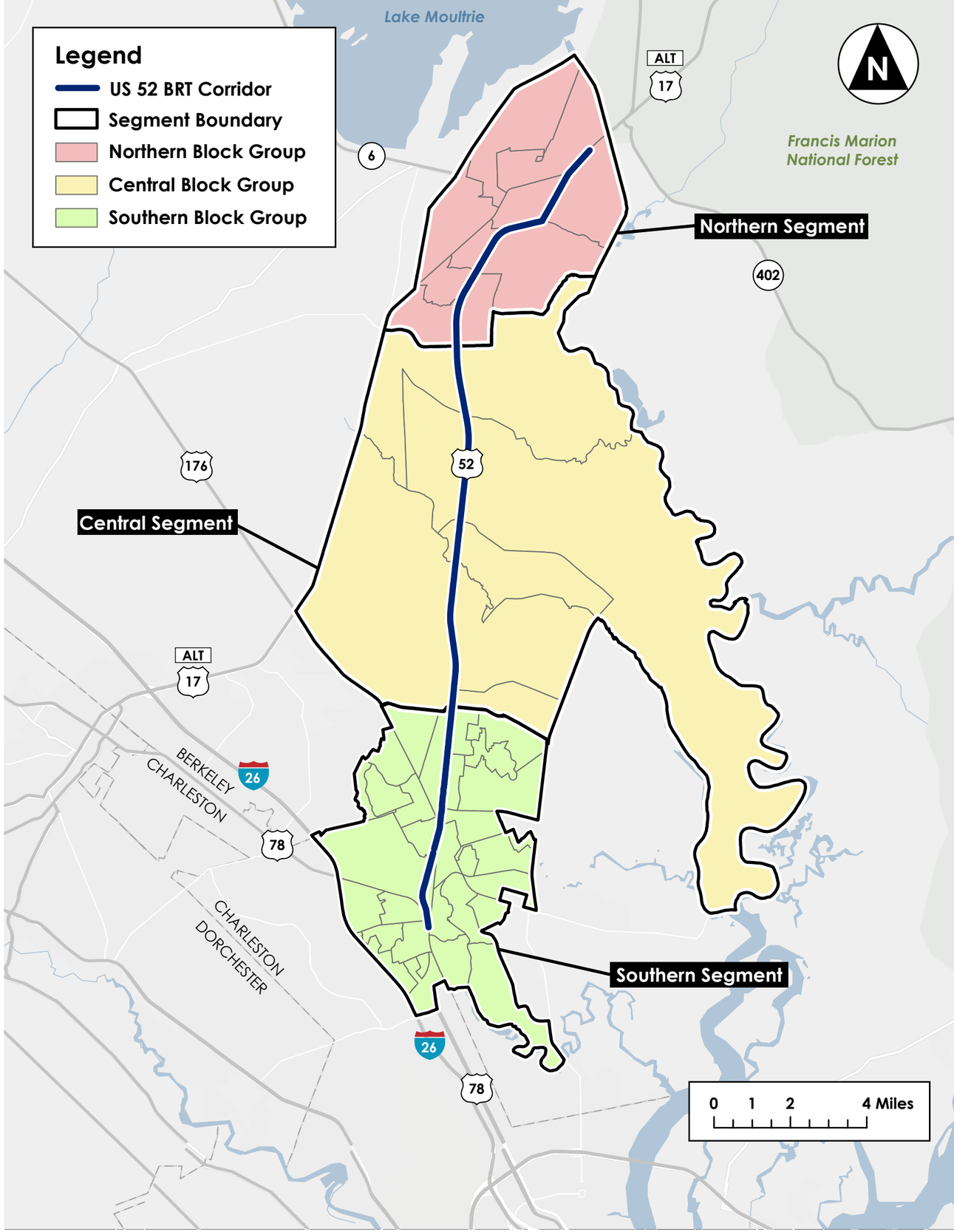


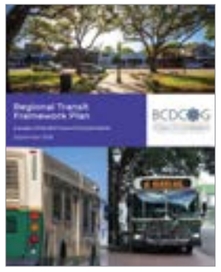
FIGURE 3.3: STUDY AREA DEFINITION SEGMENTED AREAS.

BUILD ENVIRONMENT AND INFRASTRUCTURE

Previous Planning Studies Review

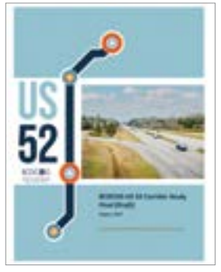
BCDCOG has performed numerous transportation studies which were utilized in examining the Corridor's existing conditions. Below is a brief description of each.

Charleston Area Transportation Study (CHATS)[1] 2025 Long-Range Transportation Plan (LRTP)
The purpose of the CHATS 2045 Long-Range Transportation Plan was to set priorities for spending federal funds on transportation projects in the CHATS region. This study recognized that the region is undergoing rapid growth. While several transit planning initiatives (transit, PnR, transit-oriented development) have taken place in recent years, LRTP acknowledges that there is an increased need for system improvements, BRT corridors, better transit infrastructure, transit fleet replacement and expansion, and on-demand services.



Regional Transit Framework Plan
The RTFP evaluated how individuals travel across the regions and identifed areas where current and future development patterns are favorable to HCTs. The plan's objectives for the region included connectivity, reliability, economy, and safety. The US 52 Corridor was identified as one of the HCT corridors suited for BRT Lite.

One Berkeley Comprehensive Plan
The One Berkeley Comprehensive Plan is the County's official policy document for growth and development through 2040. It establishes existing land use conditions, future land use designations, and policy direction to guide land use, housing, infrastructure, and economic development across the County.



US 52 Corridor Study
The US 52 Corridor Study built on the RTFP, 2018, which identified US 52 as part of the region's future HCT network. The Corridor Study refined this vision by evaluating existing conditions, projected growth, and land use needs between Moncks Corner and North Charleston. It documented that population and employment are expected to increase by nearly 70% by 2040 and emphasized the importance of creating a transit-supportive environment with safe pedestrian and bicycle facilities and resilient land use. These findings established the foundation for advancing the US 52 Bus Rapid Transit (BRT) Feasibility Study.

[1] The Charleston Area Transportation Study (CHATS) is the region's designated Metropolitan Planning Organization (MPO).

Land Use

The existing land use along the Corridor primarily includes residential, commercial, and industrial, among others. These patterns are documented in the One Berkeley Comprehensive Plan (2023) and reflect the County's current mix of urban, suburban, and rural areas.

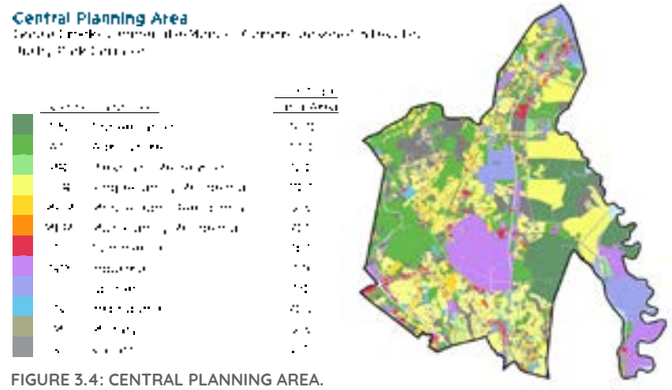
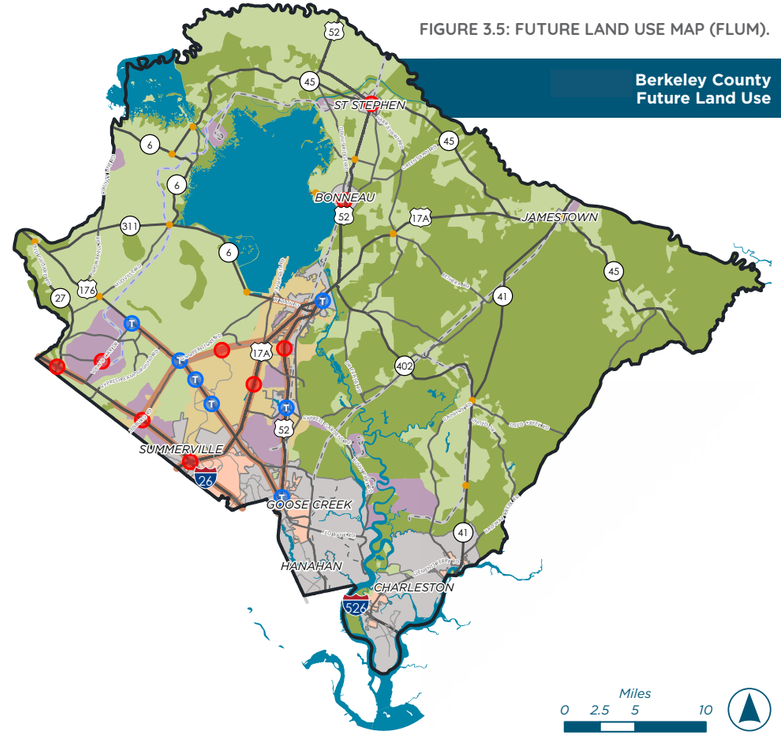


FIGURE 3.4: CENTRAL PLANNING AREA.

The One Berkeley Comprehensive Plan documents existing land use conditions across the County by dividing it into five planning areas: Northern, Eastern, Central, Southern, and Western. The US 52 Corridor lies predominantly within the Central Planning Area, where land use transitions from agricultural and low-density residential near Moncks Corner to more suburban and industrial in Goose Creek. The One Berkeley plan also includes a Future Land Use Map (FLUM) that designates residential neighborhoods, mixed-use centers, and employment areas, and other uses. Growth is directed along major corridors, including US 52, and into mixed-use centers to align with infrastructure, preserve rural areas, and support future transit options.

FIGURE 3.5: FUTURE LAND USE MAP (FLUM).



Roadway Characteristics

Cross Sections and Typical Sections

Cross sections along the Corridor vary from 75 feet to 185 feet in length. The largest Right-of-Way (ROW) widths are found in the Central segment of the Corridor. Medians in the Corridor can be up to 60 feet in width. Sidewalks can be seen along many parts of the Corridor but are not consistent due to gaps from lack of sidewalks, sidewalks ending, or only having sidewalks on one side of the road. There is a lack of sidewalks in the Central segment and the Northern and Southern segments have discontinuous path placements.

Speed Limits and Functional Classes

Speed limits in the Corridor range from 40-60 miles per hour.

Signalized Intersections

There are 24 signalized intersections along the Corridor, most of which are in the Southern segment. There are only 3 signalized intersections in the 8-mile stretch of the Central segment and 5 within the Northern segment.

Human and Natural Environment

Bicycle and Pedestrian Infrastructure

Sidewalks are mostly present in the Southern and Northern segments of the Corridor while the Central segment lacks sidewalks in most areas. There are occasionally shared-use paths for cyclists and pedestrians. Moncks Corner and North Charleston have the most bike and pedestrian infrastructure in the Corridor.

Environmental Constraints

Streams, wetlands, and flood hazard areas can be seen throughout the Corridor. Key natural water resources in the study area include the Cooper River and Lake Moultrie.

At-Grade RR Crossings and Railroads

There is significant railroad infrastructure in the Corridor Study Area and the Region. CSX railroads run parallel to or near the US 52 Corridor in many locations. There are two at-grade crossings within the Corridor itself:

- CSX and US 52 in Moncks Corner, between Merrimack Boulevard and Old US 52
- CSX and US 52 in Goose Creek, between Old US 52 and Mount Holly Plantation Lane

Review of the Corridor's physical characteristics shows that is has a relatively large ROW through each segment, but infrastructure characteristics between segments vary. The Southern segment of the Corridor has the most sidewalks, signalized intersections, and lowest speed limits. In contrast, the Central segment has gaps in pedestrian infrastructure, with high speeds and relatively no sidewalk connections. The Northern Corridor segment has lower vehicle speeds and sidewalks along US 52.

- **A large ROW can support potential BRT service, as there is room for infrastructure (lanes, stations, etc.).**
- **Lack of sidewalks and signalized intersections, especially in the Central segment of the Corridor, will have to be a consideration in BRT planning.**
- **There is an opportunity with anticipated population and employment growth to plan for transit-oriented development and make BRT feasible.**

TRANSIT MARKET PROFILE

A Transit Market Profile incorporates community characteristics and travel pattern data for the Corridor to understand where people live and the places they travel to identify potential demand for transit services.

Demographic Metrics

Demographic Analysis

All demographic and job data was collected from the U.S. Census Bureau, including information from the Longitudinal Employer-Household Dynamics program (LEHD). The Corridor is home to approximately 93,854 residents and 34,735 jobs. Most residents (70%) and jobs (75%) are located within the Southern segment of the Corridor. The median household income across the Corridor is $68,000. Demographic information for the Corridor, Region, and individual segments can be found in **Table 3.3**.

DEMOGRAPHIC METRICS

Demographic	Corridor	Southern Segment	Central Segment	Northern Segment	Region
Population	93,854	62,083	16,926	14,845	791,116
Households	34,438	23,049	5,897	5,492	310,220
Zero Vehicle Access Households	11,212	8,546	844	1,822	119,740
Low-Income Population	11,268	8,724	559	1,985	93,518
People of Color	39,166	25,349	6,545	7,272	286,651
People with Disabilities	11,735	7,327	2,592	1,816	94,604
People over 64	12,360	8,480	1,739	2,141	118,979

TABLE 3.3: DEMOGRAPHIC METRICS.

Households

Around 72% of households are located in the Southern segment, which also has the highest population density in the Corridor, with an average of 1.24 households per acre. Additionally, 60% of households within the entire Corridor consist of 1-2 persons.

Vehicle Access

Over 36% of households in the Corridor have access to one vehicle or less. More than 80% of these households are in the Southern segment, indicating a concentration of households with limited vehicle access.

Low-income Population

The median household income within the Corridor is lower than the regional average. There are over 11,000 low-income individuals residing within the Corridor, accounting for 16% of the Region's low-income population. In contrast, households in the Central segment have a average income of $86,056, approximately $20,000 higher than those in the other segments of the Corridor.

FIGURE 3.6: TCL SERVICE.

People of Color (POC) Population

About 18% of the Region's People of Color (POC) population live within the Corridor. POC populations make up approximately 46% of the Corridor's total population, with most identifying as Black or Latino. The Southern segment has the highest concentration of POC residents at 41% (over 7,000).

People with Disabilities

About 12% of the population in the Corridor has self-reported as having a disability. Over 68% of persons with disabilities in the Corridor reside in the Southern segment.

Age

Approximately 13% of the population along the Corridor is over the age of 64. Most of these individuals (8,480), reside in the Southern segment of the Corridor.

Job Density

The primary job industries along the Corridor include the industries of health care and social assistance, retail trade, administration and waste support, and accommodation and food service. Approximately 76% of all Corridor jobs are in the Southern segment and are primarily health care and retail related positions. In the Northern segment, most jobs are in public administration, utilities, or retail trade. About 50% of the jobs in the Central segment are related to construction and manufacturing. Roughly 60% of jobs along the Corridor pay less than $3,333 per month (or $40,000 annually), with the majority of these lower-paying jobs located in the Southern segment. In contrast, about 60% of jobs in the Central segment pay more than $3,333 per month. The Northern segment is more balanced, with approximately half of the jobs falling below that income threshold.

Transit Propensity Index

Transit propensity builds on the demographic characteristics described in the previous section. It refers to the likelihood that people will use transit, which increases with factors such as population characteristics, jobs, and other activity indicators. These metrics are combined to develop a Transit Propensity Index (TPI), which quantifies transit propensity by ranking block groups along the Corridor based on statistical measures (see **Figure 3.7**).

Transit Propensity Index Methodology

For this analysis, a TPI scale of 1 to 5 was developed for each block group based on "origin" and "destination" metrics, as summarized in the bullets below:

- Collect relevant demographic data at a block group level,
- Assign demographic data as origin-based or destination-based,
- Convert demographics to relevant density and percentage transit usage metrics and evaluate their effectiveness for the study area,
- Assign weights and develop a statistically relevant index score from 1-5 for each block group (5 = High; 4 = Medium High; 3 = Medium; 2 = Medium Low; 1 = Low based on quintiles),
- Develop qualitative low to high classification based on percentiles.

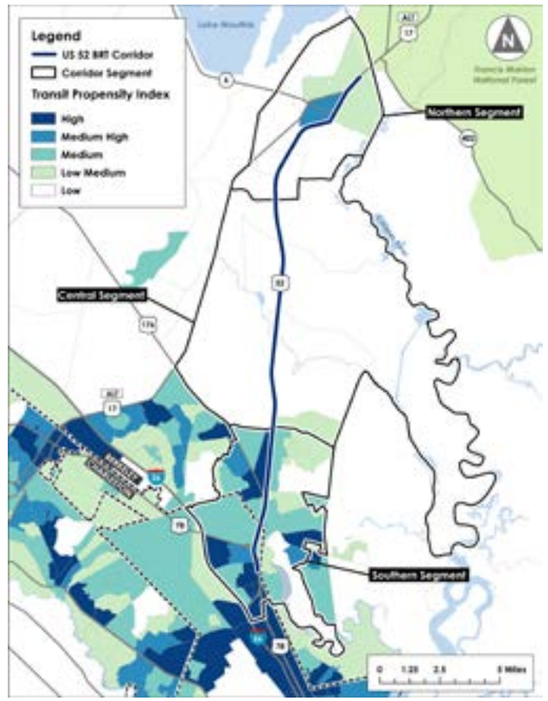


FIGURE 3.7: TRANSIT PROPENSITY INDEX MAP.

The analysis shows that approximately 50% of block groups in the Corridor have a medium or above TPI, or likelihood to use transit. Almost all medium or above block groups fall within the Southern segment.

Central segment block groups cover larger areas with lower densities and currently show little transit propensity without future development. The Northern segment has Medium High propensity around Moncks Corner, surrounded by Medium and Low.

The Southern segment contains most of the Corridor's population, jobs, households, and travel destinations, and all high transit propensity areas. In the Northern segment, Moncks Corner has a Medium-High transit propensity in its downtown and medical district. There is little to no transit propensity in the Central segment of the Corridor as it exists today; however, this can be an opportunity and a case for transit-supportive development in this segment, especially in the context of anticipated population and employment growth.

Replica Analysis

Replica is a mobility analytics tool that provides data on travel patterns that can help support transportation and planning decisions. Key takeaways of the analysis visualized in **Figure 3.8** and summarized in **Figure 3.9** show that:

- Internal trips make up most of the travel in each segment, indicating the significance of shorter trips.
- The Central segment has similar trip volumes internally as it does to the other segments.
- Trips between the Southern and Northern segments are less significant than connections between the Southern-Central and Northern-Central segments.

Weekday trips to and from the Corridor peak during typical rush hours, while weekend trips build steadily throughout the day and peak around 7 PM. Many trips occur within the Northern and Southern segments, but

FIGURE 3.8: WEEKDAY TRIPS FLOW BY CORRIDOR SEGMENT.

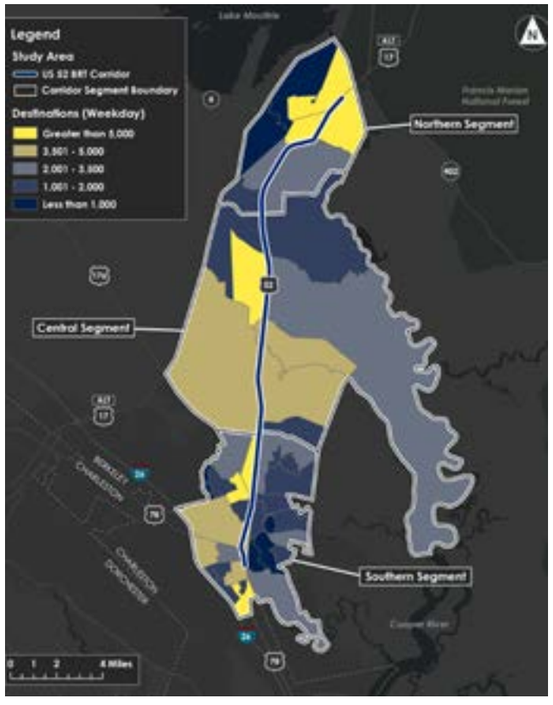


FIGURE 3.9: TRIP DENSITY BY CORRIDOR SEGMENT.

relatively little travel takes place directly between them. In contrast, there is significant travel between the Central and Southern segments and between the Central and Northern segments.

Looking ahead to potential LCRT connectivity, the analysis suggests strong activity between the Southern segment and the area served by the future LCRT Corridor.

Trip Destinations

Trip destinations were identified using Replica, a travel model that represents all trips taken in a given area on a given day. The Southern segment has the highest density of destinations in the Corridor, indicating a key area that attracts a large share of current travel. Destination totals are similar between the Central and Northern segments; however, densities in the Central segment are lower due to its larger land area. **Figure 3.9** illustrates trip destination densities along the Corridor.

Understanding where transit demand exists today and how people are currently traveling sets the stage for reviewing existing TriCounty Link service in the Corridor.

FIGURE 3.10: TRICOUNTY LINK (TCL) SERVICE.

EXISTING SERVICE ANALYSIS

The corridor is served by TriCounty Link (TCL) service (see **Figure 3.10**). TCL operates a deviated fixed local route, commuter, and on-demand services. Local routes allow for up to ¼-mile deviations and operate on a flag stop system, while commuter routes are fixed stop service and utilize PnR facilities. The fleet currently consists of 29 cutaway vehicles, each seating between 14 and 22 passengers.

FIGURE 3.11: TRANSIT COVERAGE (TPI / REPLICA TRIPS).

Gap assessment analysis was conducted to understand existing transit coverage. The gap assessment reviews transit coverage (3/4-mile buffer) against transit demand measures: Transit Propensity Index and Replica trips (see **Figure 3.11**). The analysis shows the areas with relatively

high transit propensity are covered by transit. However, some routes only have 2-4 daily trips, and ridership could increase with more frequent service. Transit routes generally cover areas of high Replica activity well, but low ridership capture can be seen in areas with a relatively high number of trips. Some routes have more daily riders than other routes in the Corridor, but other routes serve more block groups with medium to high TPI and Replica trips. However, fixed routes serve more block groups with low TPI and low Replica than the commuter and demand response routes.

Based on the analysis of various Corridor characteristics, such as demographics, travel patterns and the potential for transit use, there are significant differences between the profiles of the three Corridor segments. The Southern segment has the highest concentrations of population, jobs, and other characteristics measured. While the Central segment has a relatively low density on most of these metrics, growth is expected and should be considered.

- **The Southern segment of the Corridor has significant propensity for transit, which is a good baseline for potential BRT service. Central and Northern segments have low transit propensity, with an exception of Moncks Corner which contains medium-high transit propensity areas.**
- **Replica shows there is travel to popular destinations along all three Corridor segments, meaning future service planning could consider these destinations and capture ridership.**

System Performance Summary

System Ridership Trends (2019-2024) were evaluated over the past 6 years. The TCL routes operating in the US 52 Study Area have accounted for 30-60% of systemwide TCL ridership. Between 2022-2024, TCL routes serving the US 52 Corridor have increased in ridership at a higher rate (19%) than the rest of the TCL system (6%).

The pandemic affected all routes, and ridership is slowly improving, but only B102 (operating between Goose Creek and Moncks Corner on US 52) has recovered to its baseline 2019 ridership. All the routes have relatively low ridership, along with high numbers of vehicle revenue hours and miles in relation to number of trips per day. Some routes (CS1, CS2, B104, and D305) have low ridership per trip and 16-plus trips per day. Other routes (B101, B102, and B105) have similar ridership and only 2-4 trips per day.

- **There may be opportunity to streamline service, enhance connections, and improve connectivity for commuter routes.**
- **B102 and B105 are productive with limited service.**
- **There could be exploration of adding more trips and/or modifying alignments, especially through medium-high transit propensity areas.**
- **Understanding that these characteristics are typical for rural transit service and that TCL is an essential service, service planning should consider how to optimally serve the largest number of riders and avoid taking away service from those who benefit most or are in most need.**

FIGURE 4.1: TRICOUNTY LINK VEHICLES.

4. TRICOUNTY LINK (TCL) ROUTING ANALYSIS

STUDY AREA AND EXISTING SERVICE

TriCounty Link (TCL), originally established in 1996 as the BCD Rural Transportation Management Authority and renamed in 2007, provides transit services across several routes within the US 52 Study Area. The study area is served by five deviating fixed local routes, B101, B102, B104, B105, and D305; two commuter routes, CS1 and CS2; and an on-demand zone, the CS8 Link 2 Lunch. All of these services either partially run along the US 52 Corridor or make connections to routes operating within the Corridor. Through a contract with Unity Bay, an organization that provides adult day services for people with intellectual and developmental disabilities, TCL also provides transit service for clients from their homes to Unity Bay facilities. This contract is specific to routes B101, B102, B104, and B105. The service is contracted by Unity Bay to help provide transit service for their clients, and routing is determined to meet these needs while also serving the general public. **Table 4.1** provides additional details on each existing service in the Corridor. **Figure 4.2** displays the US 52 Study Area and related transit service components. Existing service operating statistics are provided in **Appendix III**.

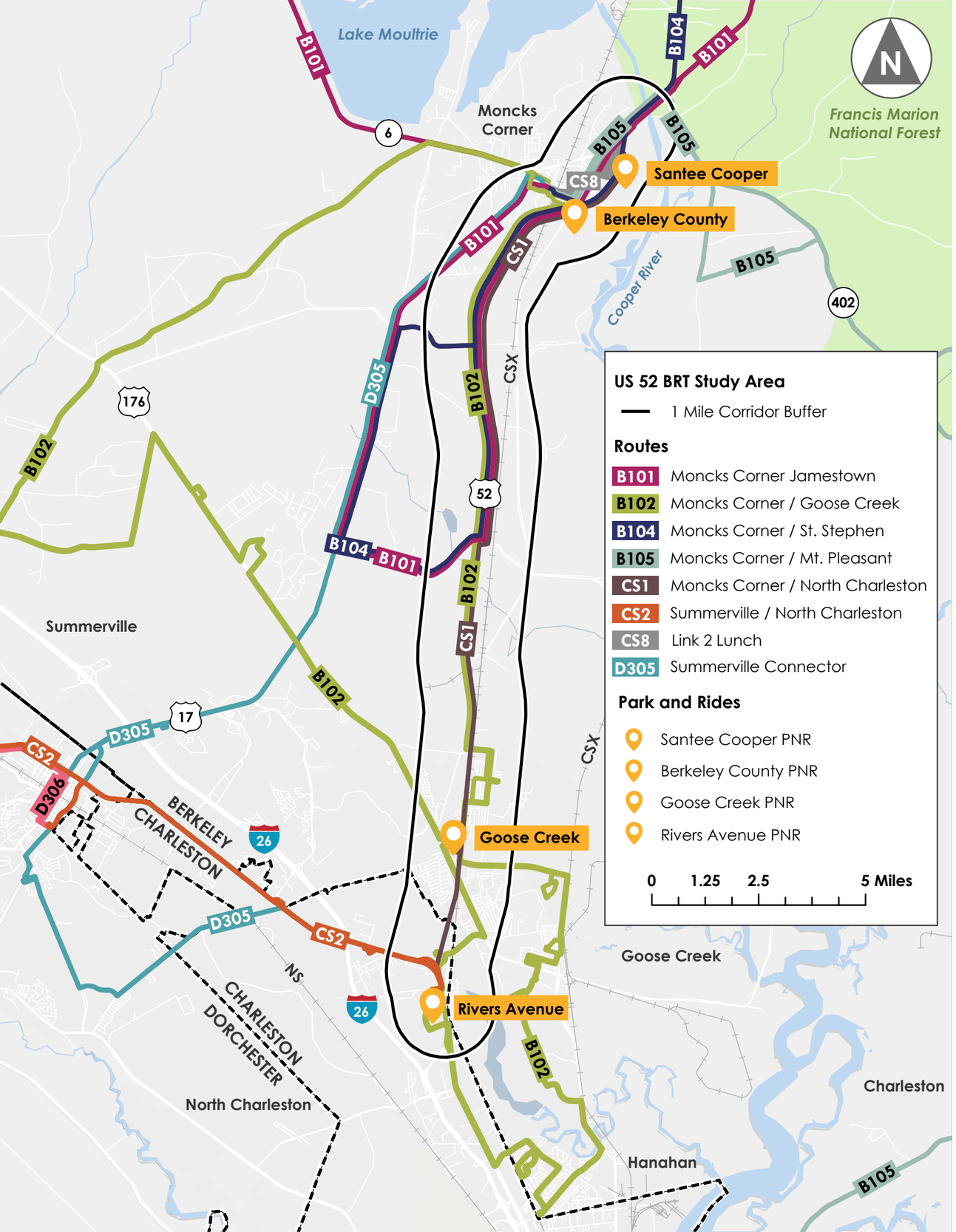


FIGURE 4.2: US 52 STUDY AREA AND RELATED TRANSIT SERVICE COMPONENTS.

EXISTING SERVICE PLAN

Route	Direction	Service Span	Trips / Day
B101	AM Loop (counterclockwise)	5:40AM to 9:20AM	1
	PM Loop (clockwise)	1:30PM to 5:05PM	1
B102	AM Loop (counterclockwise)	5:35AM to 9:25AM	1
	PM Loop (clockwise)	2PM to 5:30PM	1
B104	Inbound	7:05AM to 9:10AM	1
		4:10PM to 4:50PM	1
	Outbound	3:40PM to 4:10PM	1
B105	Inbound	5:45AM to 7:25AM	1
		2:00PM to 4:25PM	1
	Outbound	7:30AM to 9:15AM	1
		5:05PM to 6:30PM	1
D305	Inbound	5:55AM to 11:57AM	4
		12:04PM to 5:30PM	4
	Outbound	7:15AM to 11:58AM	4
		12:03PM to 6:25PM	4
CS1	Inbound	5:30AM to 8:25AM	5
		3:30PM to 7:25PM	6
	Outbound	6:15AM to 8:50AM	4
		4:20PM to 7:20PM	4
CS2	Inbound	5:30AM to 8:10AM	5
		3:10PM to 6:50PM	6
	Outbound	6:15AM to 9:00AM	5
		4:10PM to 7:30PM	6
CS8	n/a – On-Demand Service	10:45AM to 1:00PM	n/a

TABLE 4.1: EXISTING SERVICE PLAN.

***As of the time of this report, fares are $2.25 per trip; $18 for weekly or $70 for monthly passes.**

SHORT-TERM RECOMMENDATIONS

Short-term transit recommendations are made for the B101, B102, B104, CS1, and CS8. **Table 4.2** outlines modifications recommended for each route. These recommendations are also shown on a map in **Figure 4.3**. Currently, no short-term changes are recommended for routes B105, D305, or CS2. These recommendations focus on service concepts that were agreed upon during a September 2024 meeting with BCDCOG and TCL staff to address the following goals over the next two years:

1. **Optimize routing and operations**
2. **Build consistent ridership**
3. **Orient service towards future BRT service on the US 52 Corridor**

In addition to routing, the short-term recommendations include suggested service plans that highlight trip/frequency and service span recommendations.

Key Assumptions

Baseline operating statistics were modeled from published schedules or generated from average hours provided between July 2023 and July 2024. Annual costs shown are planning-level and focused on identifying incremental changes compared to the existing service. Costs were developed based on total hour estimates per route.[1] Operating statistics and costs were annualized based on weekday operations only.[2]

Service spans were generalized based on existing service and estimated running times. Average speeds used to develop running times were calculated based on estimated speeds from schedules, existing operations, and Google Maps.

SHORT-TERM SERVICE CHANGE RECOMMENDATIONS

Route	Change Justification
CS1	Adjustments to optimize operations, build ridership, move towards future BRT
B101	Optimize operations, reduce customer travel times
B102	Optimize operations, reduce customer travel times
B104	Maintain coverage for previous B101 service
CS8	Explore expansion/pilot of on-demand service
CS2	No changes recommended
B105	No changes recommended
D305	No changes recommended

TABLE 4.2: SHORT-TERM SERVICE CHANGE RECOMMENDATIONS.

[1] Total hours were calculated for each service based on ratios of revenue to total hours between July 2023 and July 2024. $76 per total hour was used to develop costs. This rate was developed based on the FY22–23 reported system operations, escalated to 2025 dollars using an inflation rate of 3% and rounded.

[2] 255 weekdays per year.

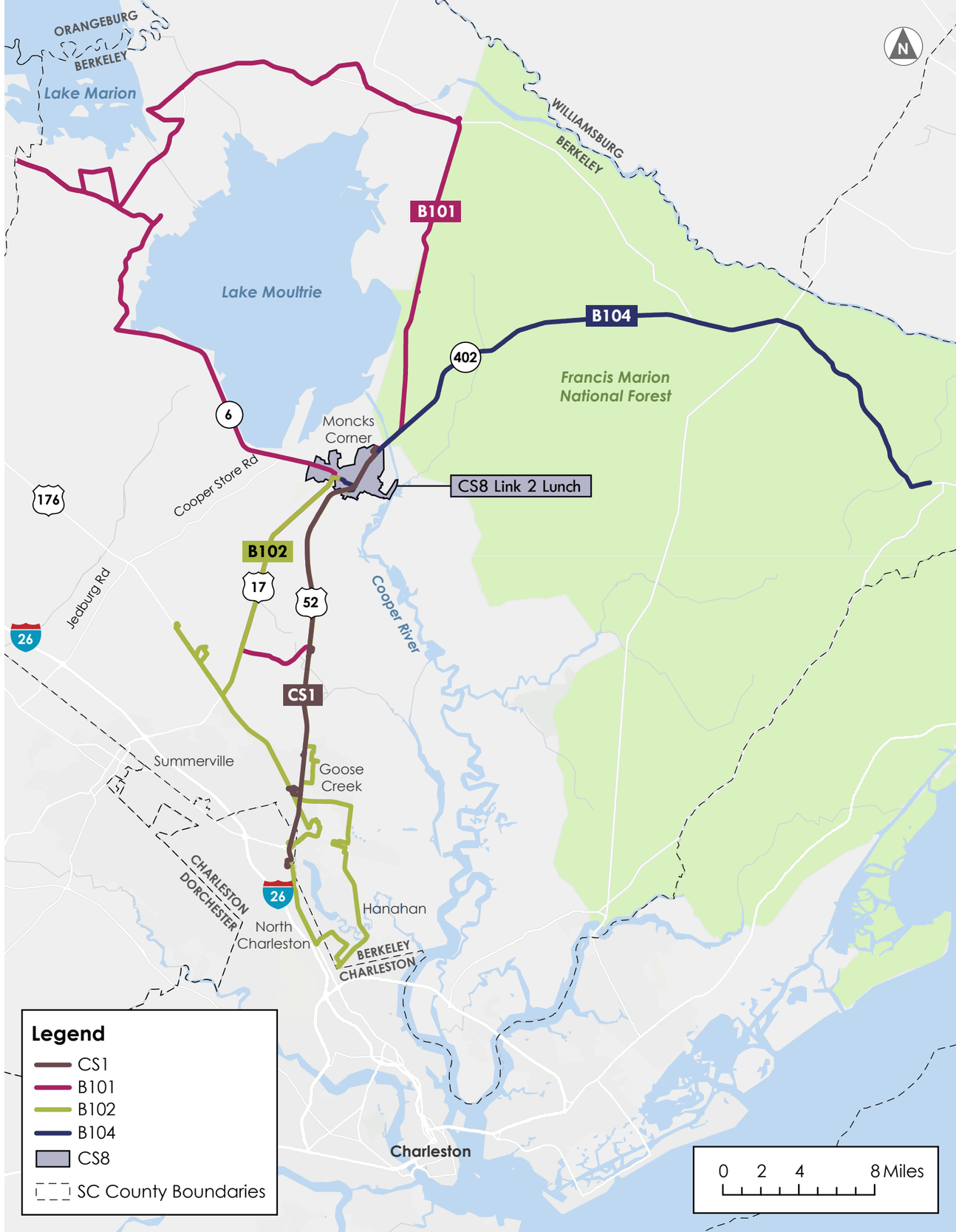


FIGURE 4.3: SHORT-TERM RECOMMENDATIONS.

CS1 SERVICE RECOMMENDATIONS

Existing Service

Route CS1 is a fixed commuter route providing service between the Santee Cooper headquarters in Moncks Corner and the Rivers Avenue Park-n-Ride in Goose Creek. The route operates along the US 52 Corridor for much of its alignment. The route provides service from 5:30 AM to 8:50 AM and from 3:30 PM to 7:25 PM with eleven inbound and eight outbound daily trips. In addition to Santee Cooper headquarters, the CS1 serves the following key destinations: Berkeley County Admin Building and Goose Creek Magistrate's Office. At the southern terminus of the CS1, the route will connect to the Lowcountry Rapid Transit (LCRT) BRT project.

Short-Term Service Goals and Recommendations

Recommended changes for Route CS1 are focused on the goal of developing the service into a more traditional fixed route to help build ridership and work towards developing the transit market to support future service in the Corridor. By optimizing operations through expanding the hours of service, increasing trip frequency, and serving more riders, service on CS1 will become more consistent and reliable. In addition to making the CS1 a route that can more feasibly be used for commuting, increasing the number of key destinations served will also help build ridership. These recommended service changes will strengthen the route and help develop US 52 into a BRT-supportive corridor in the long term.

The recommended CS1 service will operate between 5 AM and 6 PM with 14 trips in each direction per day. It will provide service between Walmart Supercenter in Moncks Corner and Rivers Avenue Park-n-Ride in Goose Creek. The recommended service primarily operates along US 52 and also serves key destinations, including Walmart Supercenter in Moncks Corner, Publix on Cypress Gardens Road, Goose Creek City Hall, Walmart on Central Avenue, and several destinations at the intersection of S Antler Dr and Otranto Rd including the Rivers Avenue Park-n-Ride. While the CS1 currently stops at the Goose Creek Magistrate's Office, it is recommended that more circulation be added in that area to better serve the key destinations in the adjacent shopping centers (e.g., Family Dollar, Walmart, Publix, Aldi, etc.). With the increased number of trips and added stops, Route CS1 is likely to trigger the United States Department of Transportation (USDOT) requirement for complementary paratransit service to be provided for the three-quarter mile area around fixed routes.

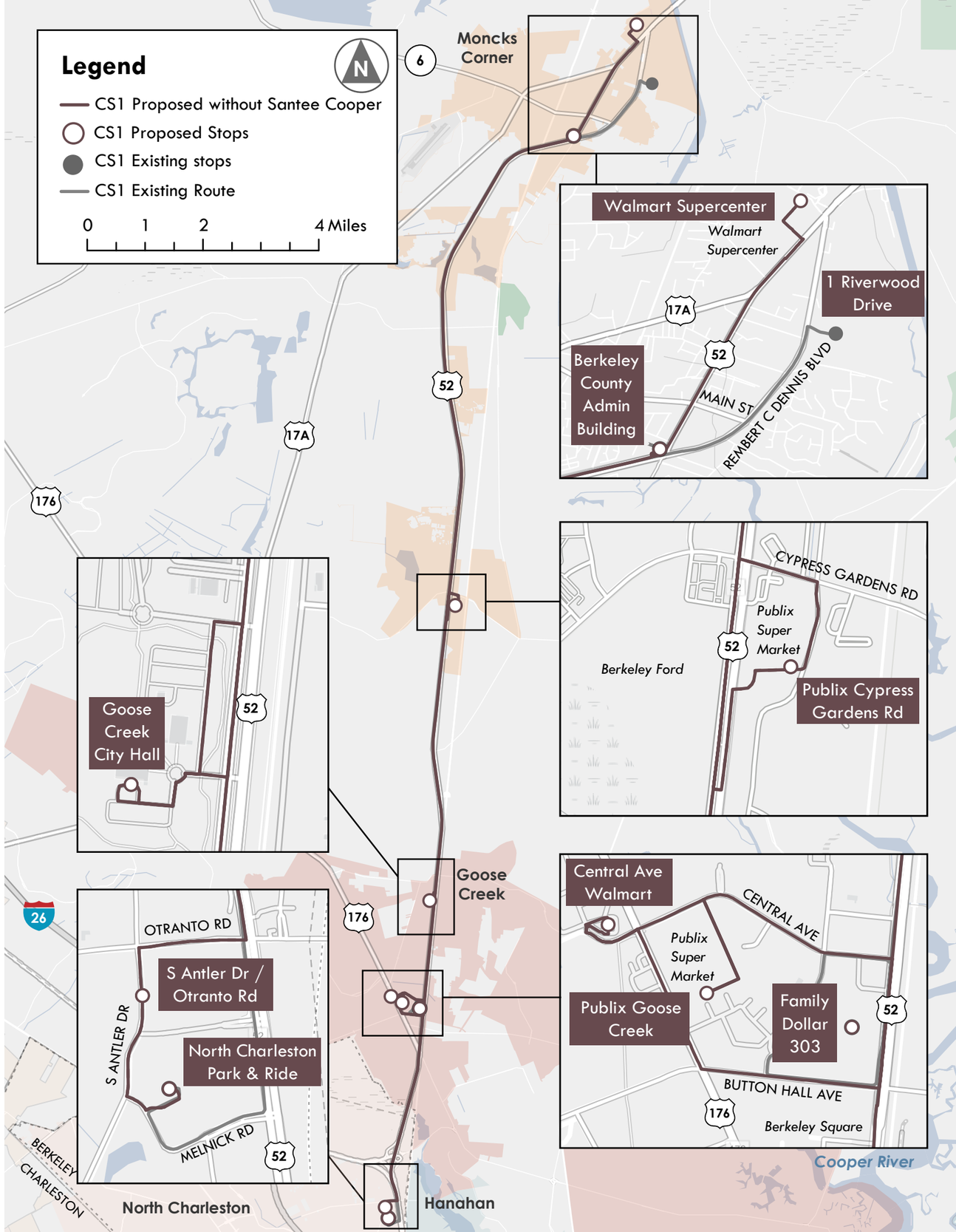


FIGURE 4.4: ROUTE CS1 EXISTING AND PROPOSED ALIGNMENTS AND STOPS.

B101 SERVICE RECOMMENDATIONS

Existing Service

Route B101 is a deviating fixed local route operating in a loop around Lake Moultrie with service between Moncks Corner, Cross, Pineville, Saint Stephen, and Jamestown. The route provides service from 5:40AM to 9:20AM and then from 1:30PM to 5:05PM with one inbound trip (counterclockwise) and one outbound trip (clockwise) each day. The B101 serves the following key destinations: TCL Terminal, Unity Bay, SC Vocational Rehab, Alvin Community Center, and Believers Temple.

Short-Term Service Goals and Recommendations

Recommended changes for Route B101 are focused on optimizing the customer experience by reducing travel times. With these recommendations, Route B101 can provide more efficient service and serve more destinations along US 52 in Moncks Corner. Shorter travel time and increased destinations served will help to build Route B101 ridership, bring more customers to the US 52 Corridor, and increase connectivity between routes.

It is recommended that the portion of Route B101 east of US 52 be removed, with the alignment instead continuing south on US 52. With this adjustment, Route B101 will serve the B104 stops along US 52 in Moncks Corner. The stops along B101 that are no longer served will be served by Route B104.

The recommended B101 service will operate from 5:30AM to 8:30AM and then from 2:00PM to 5:00PM with one inbound trip in the morning and one outbound trip in the afternoon. It will provide service between Moncks Corner, Cross, and Saint Stephen. Key destinations added to the route include Walmart Supercenter in Moncks Corner and Berkeley County Administration Building.

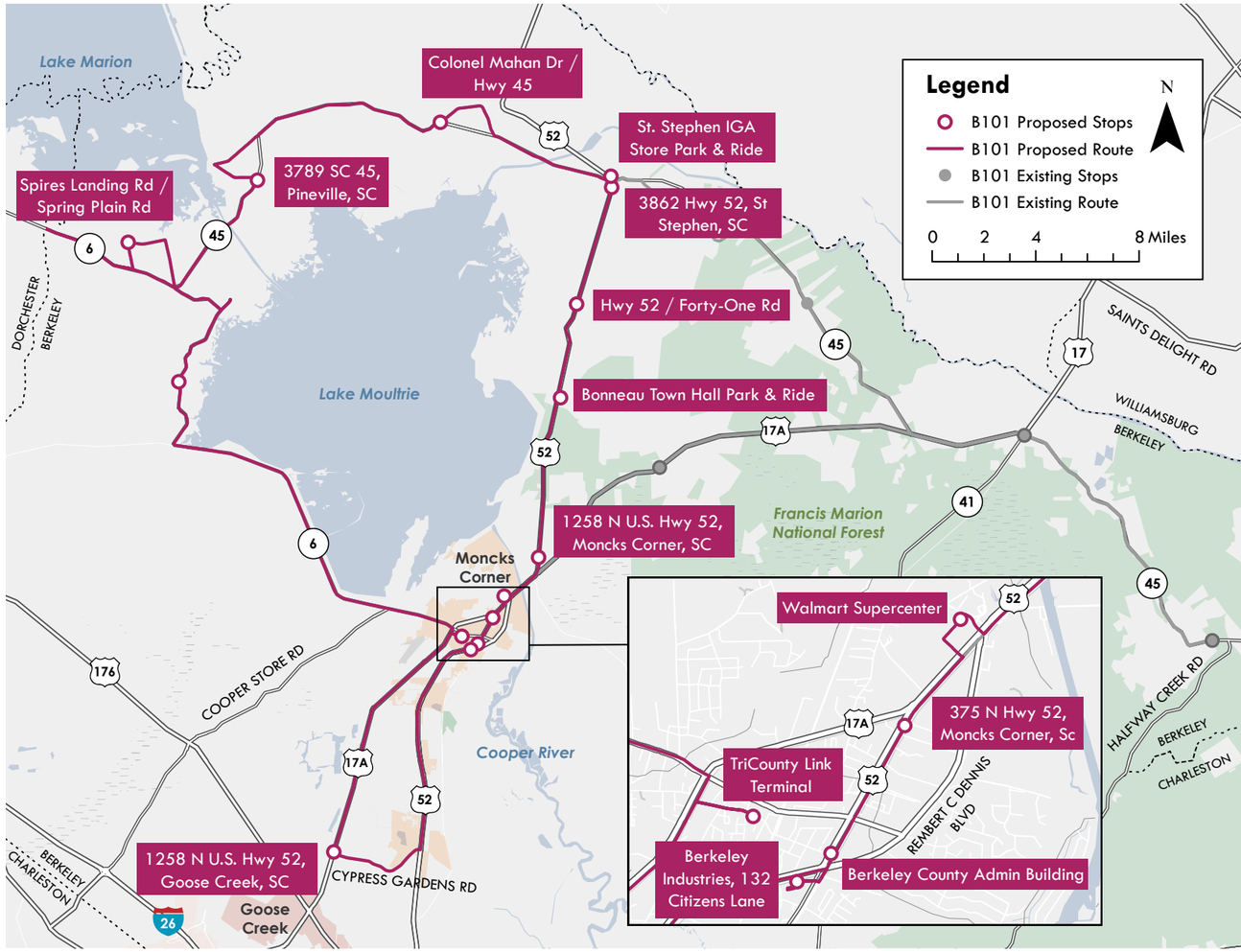


FIGURE 4.5: ROUTE B101 EXISTING AND PROPOSED ALIGNMENTS AND STOPS.

B102 SERVICE RECOMMENDATIONS

Existing Service

Route B102 is a deviating fixed local route operating in a loop with service between Moncks Corner traveling along Cooper Store Road into Jedburg, then through Summerville along US Highway 176, into Goose Creek, and returning to Moncks Corner via US 52. The route provides service from 5:35 AM to 9:25 AM and from 2:00 PM to 5:30 PM, with one inbound trip (counterclockwise) and one outbound trip (clockwise) each day. The B102 serves the following key destinations: TCL Terminal, Alexander Circle, Goose Creek's Magistrates Office, Unity Bay, Yeamans Hall Plaza, and Rivers Avenue Park-n-Ride.

Short-Term Service Goals and Recommendations

Recommended changes for Route B102 are based on the goal of reducing travel time while maintaining service for existing customers. Recommendations for B102 allow the route to provide faster travel times while serving additional destinations. These benefits will increase ridership for Route B102 while maximizing the route's efficiency.

It is recommended that the western portion of Route B102's alignment be shifted from Cooper Store Road to South Live Oak Drive. This adjustment will reduce the overall travel time of the route while providing an opportunity for the route to serve additional destinations along South Live Oak Drive. From South Live Oak Drive, the B102 will travel along State Road until Cane Bay Boulevard.

The recommended B102 service will operate from 5:35 AM to 9:10 AM and from 2:00 PM to 5:35 PM with one inbound trip in the morning and one outbound trip in the afternoon. It will provide service from Moncks Corner along South Live Oak Drive to State Road and Saint James Avenue to Goose Creek, circulating around Goose Creek Reservoir along Rivers Avenue to Hanahan, and eventually back to Moncks Corner along US 52. Key destinations added to the route include the Publix off Cane Bay Boulevard, Trident Technical College, and the South Carolina Vocational Rehabilitation.

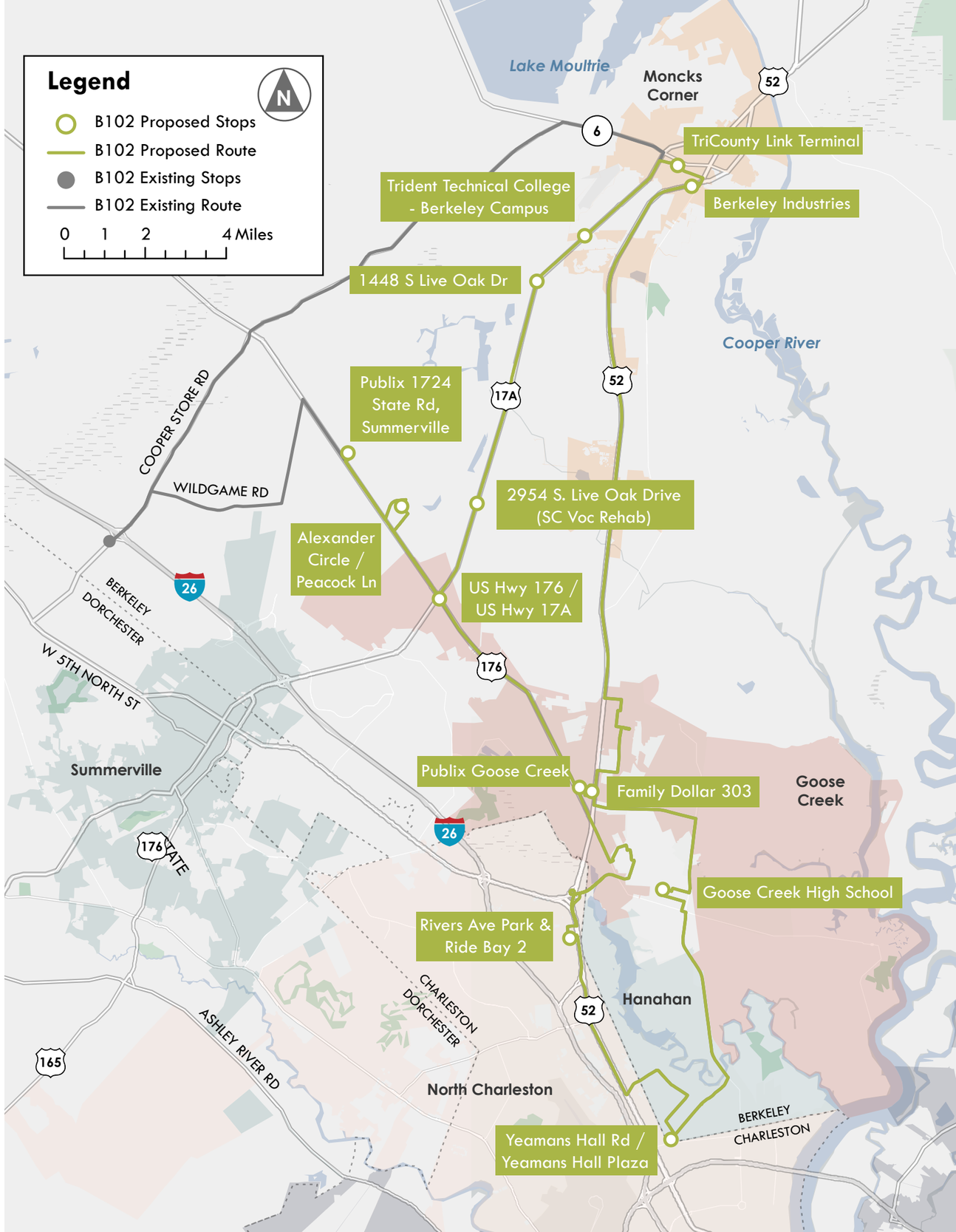


FIGURE 4.6: ROUTE B102 EXISTING AND PROPOSED ALIGNMENTS AND STOPS.

B104 SERVICE RECOMMENDATIONS

Existing Service

Route B104 is a deviating fixed local route operating in Moncks Corner. The route operates inbound along US 52, looping between Goose Creek Boulevard, Cypress Gardens Road, and South Live Oak Drive before going north on Goose Creek Boulevard and terminating at TCL Terminal. Outbound Route B104 operates from Santee Cooper headquarters to Saint Stephen IGA Park-n-Ride. The route provides service from 7:30 AM to 9:10 AM and then from 3:40 PM to 4:50 PM with two inbound trips and one outbound trip each day. The B104 serves the following key destinations: Santee Cooper headquarters, Bonneau Town Hall, South Carolina Vocational Rehabilitation, Unity Bay, Berkeley County Admin Building, Saint Stephen IGA Park-n-Ride, and TCL Terminal.

Short-Term Service Goals and Recommendations

The goal of the recommendations for Route B104 is to eliminate the redundancy of the B101 and B104 alignments. The existing B101 and B104 currently follow the same alignment and serve many of the same locations between Goose Creek Boulevard, Cypress Gardens Road, South Live Oak Drive, and the TCL Terminal. By eliminating this redundancy, the service will be streamlined to operate more efficiently and be easier for riders to understand.

It is recommended that Route B104's alignment be adjusted to operate beginning at the TCL Terminal and continuing along N Highway 17A and French Santee Road. This re-routing removes the redundancy with adjacent routes while maintaining service for customers along the easternmost portion of Route B101's alignment.

The recommended B104 service will operate from 7:00 AM to 8:40 AM and 3:30 PM to 5:10 PM with two inbound trips and two outbound trips each day. It will provide service from TCL Terminal in Moncks Corner onto North US Highway 17 Alternate along the existing B101 alignment through Macedonia, Calestown, and Jamestown on French Santee Road with service ending at the intersection of French Santee Road and Clubhouse Circle. Key destinations added on the route include Providence Baptist Church and the Dollar General in Jamestown.

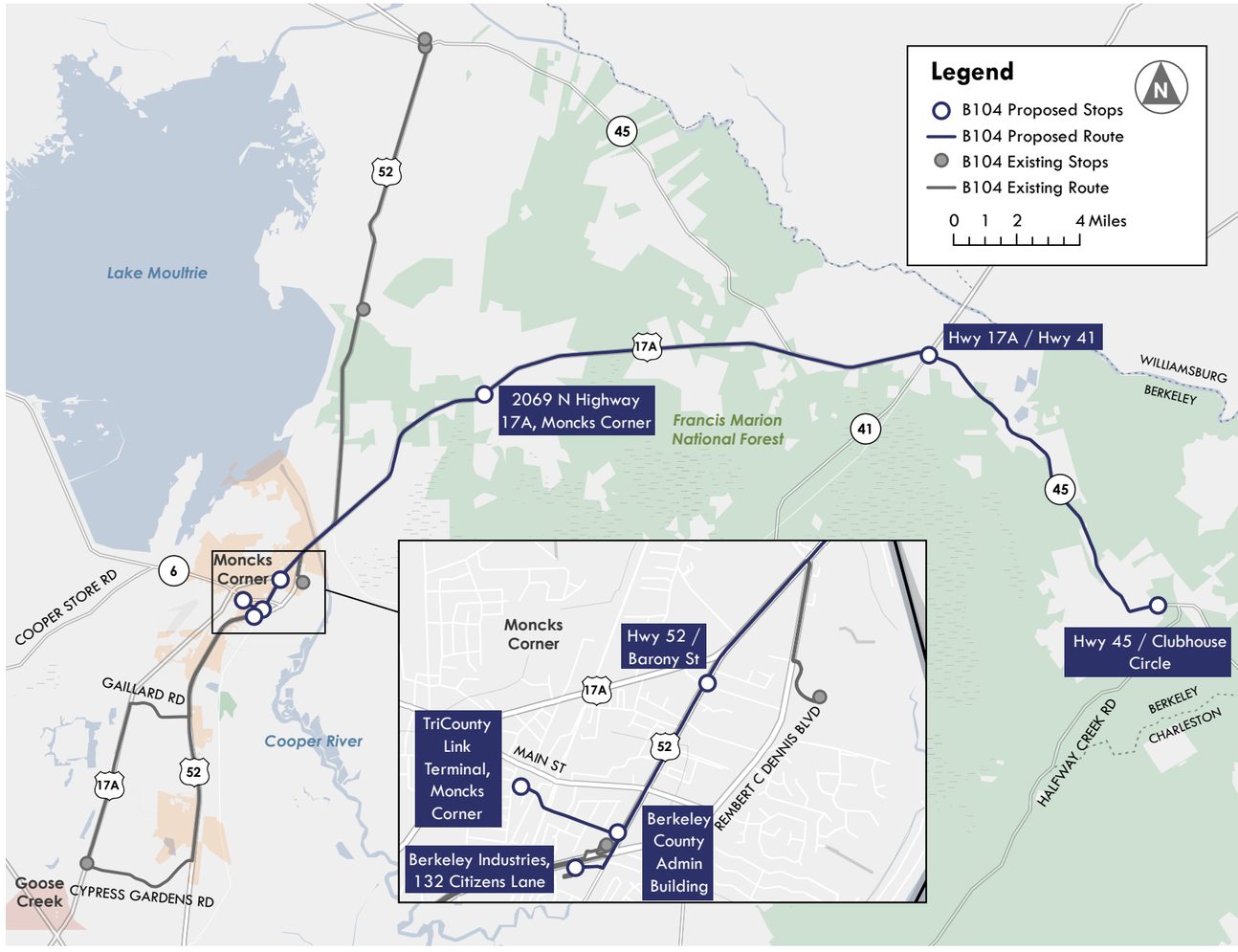


FIGURE 4.7: ROUTE B104 EXISTING AND PROPOSED ALIGNMENTS AND STOPS.

CS8 SERVICE RECOMMENDATIONS

Existing Service

Route CS8 is a fixed-zone on-demand route serving Moncks Corner along US 52 between Rembert C Dennis Boulevard and Dock Road. The route provides service during typical lunch hours from 10:45AM to 1:00PM. Rides can be requested by phone during service hours or through the TCL OnDemand app. Because Route CS8 is an on-demand route, there is no assumed speed or fixed travel times.

Short-Term Service Goals and Recommendations

Recommended changes to Route CS8 focus on expanding service through a pilot program that will test the feasibility of an on-demand transit option. This service would provide extended hours of operation, serving residents traveling in and around Moncks Corner. A more robust service offering for Route CS8 could identify any latent demand in the area for more on-demand zone-level service and be used as a case study for expanding on-demand service into other portions of the TCL service area.

Two service variations were modeled for the CS8:

- Variation 1 requires one vehicle
- Variation 2 requires two vehicles

It is recommended that a pilot program be developed for Route CS8 as an all-day on-demand service. Through this recommendation, the service area zone is expanded from the US 52 Corridor to cover the surrounding residential areas in Moncks Corner. Hours of service for Route CS8 are recommended to be expanded to 6:00AM to 6:00PM to better align with the hours of service of other routes from which customers of the CS8 might transfer, like the CS1.

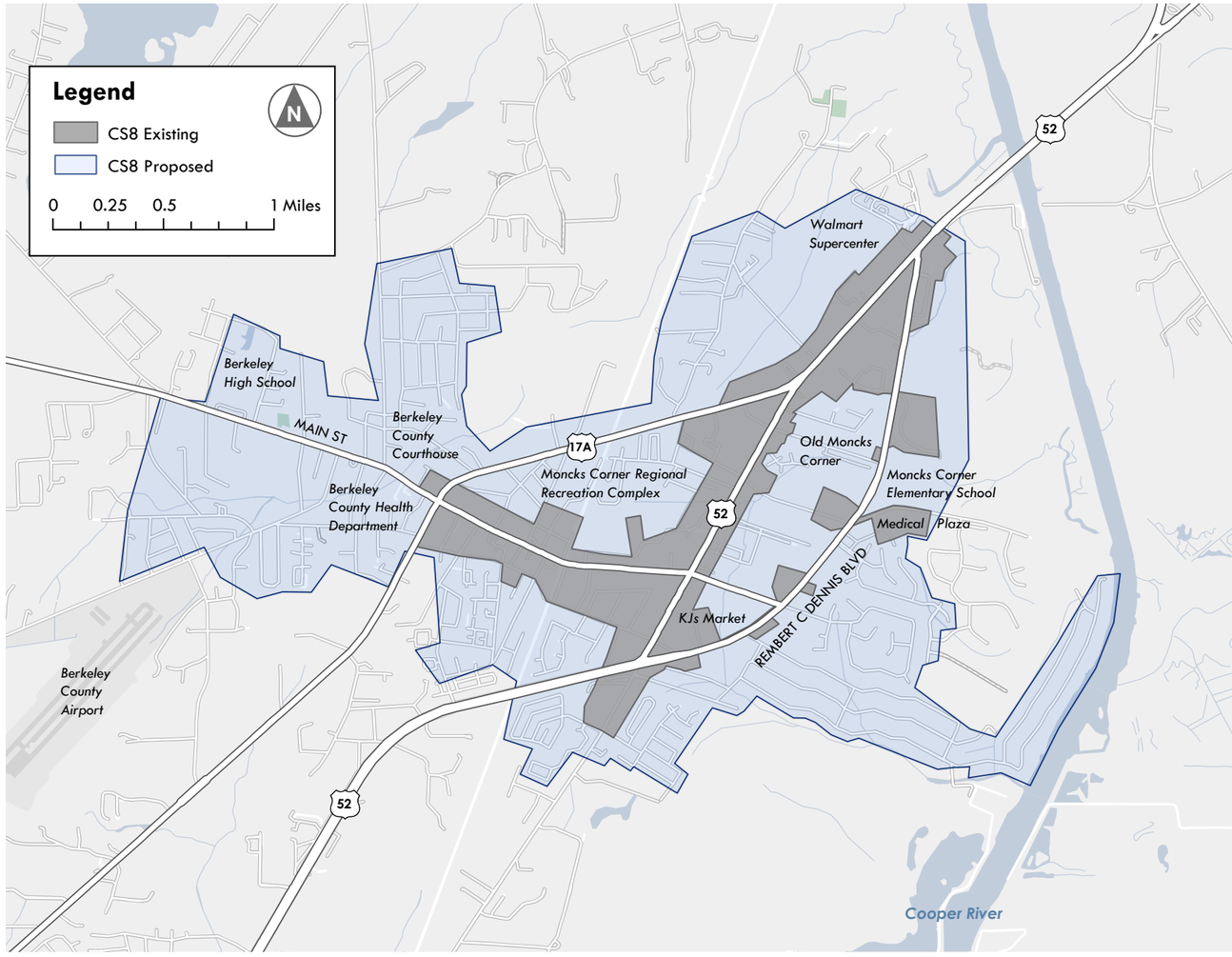


FIGURE 4.7: ROUTE CS8 EXISTING AND PROPOSED ALIGNMENTS AND STOPS.

Short-Term Recommendations Operating Summary

Baseline operating statistics were developed from TCL service data from July 2023 to July 2024 and are provided in **Appendix III**. Based on the short-term recommendations, incremental changes to these baseline statistics for recommended service changes were calculated to understand the impact of implementing these recommendations. The difference in resources required to provide service based on the short-term recommendations was determined based on added trips, adjusted spans of service, assumed speeds, and estimated running times. **Table 4.3** provides the proposed operating statistics based on short-term recommendations and **Table 4.4** lists the changes to revenue hours, total hours, total cost, and peak vehicles. Total hours increase by 95% . Additional details on proposed operating statistics are provided in the **Appendix III**.

SHORT-TERM PROPOSED OPERATING STATISTICS

Route	Pattern	General Span	Trips
B101	AM Loop (counterclockwise)	5:30AM to 8:30AM	1
	PM Loop (clockwise)	2:00PM to 5:00PM	1
B102	AM Loop (counterclockwise)	5:35AM to 9:10AM	1
	PM Loop (clockwise)	2:00PM to 5:35PM	1
B104	Inbound	7:00AM to 7:50AM	2
		3:30PM to 4:20PM	
	Outbound	7:50AM to 8:40AM	2
		4:20PM to 5:10PM	
CS1	SB (Inbound)	5:00AM to 6:00PM	14
	NB (Outbound)	6:00AM to 7:00PM	14
CS8	Moncks Corner On-Demand – 1 Vehicle	6:00AM to 6:00PM	—
	Moncks Corner On-Demand – 2 Vehicles	6:00AM to 6:00PM	—

TABLE 4.3: SHORT-TERM PROPOSED OPERATING STATISTICS.

SHORT-TERM PROPOSED OPERATING STATISTICS

Route	B101	B102	B104	CS1	CS8	Total
Base						
Rev Hours	1,849	2,009	829	3,064	1,148	**8,898**
Total Hours	1,943	2,009	850	3,097	1,254	**9,153**
Total Cost	$147,650	$152,671	$64,598	$235,367	$95,325	**$695,612**
Peak Vehicles	1	1	1	2	2	**7**
Recommended						
Rev Hours	1,530	1,825	816	6,754	6,120	**17,045**
Total Hours	1,608	1,825	837	6,826	6,690	**17,807**
Total Cost	$122,193	$138,720	$63,604	$518,813	$508,403	**$1,351,733**
Peak Vehicles	1	1	1	2	2	**7**
Change						
Rev Hours	-319	-184	-13	3,690	4,972	**8,147**
Total Hours	-335	-184	-13	3,729	5,436	**8,654**
Total Cost	-$25,457	-$13,951	-$994	$283,446	$413,078	**$656,121**
Peak Vehicles	0	0	0	0	0	**0**

TABLE 4.4: SHORT-TERM ANNUAL OPERATING SUMMARY TABLE (2 VEHICLES FOR CS8). Operating metrics impacted by the short-term recommendations include cost, total hours, and number of vehicles. Baseline metrics, metrics based on the short-term recommendations, and the incremental change between these two sets of metrics are provided in the Appendix. Additional operating considerations are also provided in Appendix III.

LONG-TERM RECOMMENDATIONS

To support future transit needs, long-term recommendations were developed for existing services in the study area building upon the previous short-term recommendations. These recommendations were developed to address the following long-term goals:

1. **Develop TCL into a fixed route and on-demand zone transit system**
2. **Support the development of BRT service on the US 52 Corridor**

These recommendations were developed through a multi-step process of evaluating each of TCL's routes against the short-term recommendations outlined in the previous section, the US 52 Preferred Scenario Report,[4] and 2040 projected population and employment growth for the study area. The key assumptions and service planning considerations used to develop the short-term recommendation service plans were also applied to develop the long-term recommendation service plans. **Table**

[4]The US 52 Preferred Scenario Report, part of the US 52 Corridor Study, documented the evaluation of growth, land use, and transit-supportive development scenarios.

4.5 summarizes the recommended long-term changes for each route. The X in the table indicates whether the long-term recommendation is based on the short-term recommendation or the Preferred

LONG-TERM PROPOSED SERVICE CHANGE SUMMARY & RECOMMENDATIONS

Route	Short-Term Rec	Preferred Scenario Rec	Change Justification	Service Description
CS1		X	Adjustments to streamline route, optimize operations, build ridership, move towards BRT.	Operates between Moncks Corner and Goose Creek along US 52.
B101	X		Adjustments to short-term recommendation to further streamline route and reduce travel time by removing the southern loop to reduce redundancy with Moncks Corner On-Demand Zone, Strawberry On-Demand Zone, and Route CS1.	Operates in a loop around Lake Moultrie primarily along SC 6, SC 45, and US 52.
B102/Route 1		X	Split Route B102 into three separate routes (Route 1, Route 2, Route 4) to optimize operations and reduce customer travel time .	Operates between Moncks Corner and Summerville primarily along Cooper Store Rd and Jedburg Rd.
B102/Route 2		X	Split Route B102 into three separate routes (Route 1, Route 2, Route 4) to optimize operations and reduce customer travel time.	Operates between Summerville and Goose Creek primarily along Wildgame Rd and US 176.
B102/Route 4		X	Split Route B102 into three separate routes (Route 1, Route 2, Route 4) to optimize operations and reduce customer travel time.	Operates between Strawberry and North Charleston primarily along S Live Oak Dr, Cypress Gardens Rd, US 52, and Henry E Brown Jr Blvd.
CS2			This route was not included in the short-term recommendations or Preferred Scenario Report, but it is recommended to continue service long-term based on 2040 projected population and employment growth for the route's service area.	Operates between Summerville and North Charleston along US 78.
D305/ Summerville N On-Demand Zone and Summerville S On-Demand Zone			This route was not included in the short-term recommendations but in the Preferred Scenario Report portions of the route are recommended for on-demand zone service. It is recommended that the remaining route service area be covered by two additional on-demand zones.	Summerville N On-Demand Zone serves Summerville between US 78, US 176, and N Main St.

TABLE 4.5: LONG-TERM SERVICE CHANGE SUMMARY & RECOMMENDATIONS. Continued on next page.

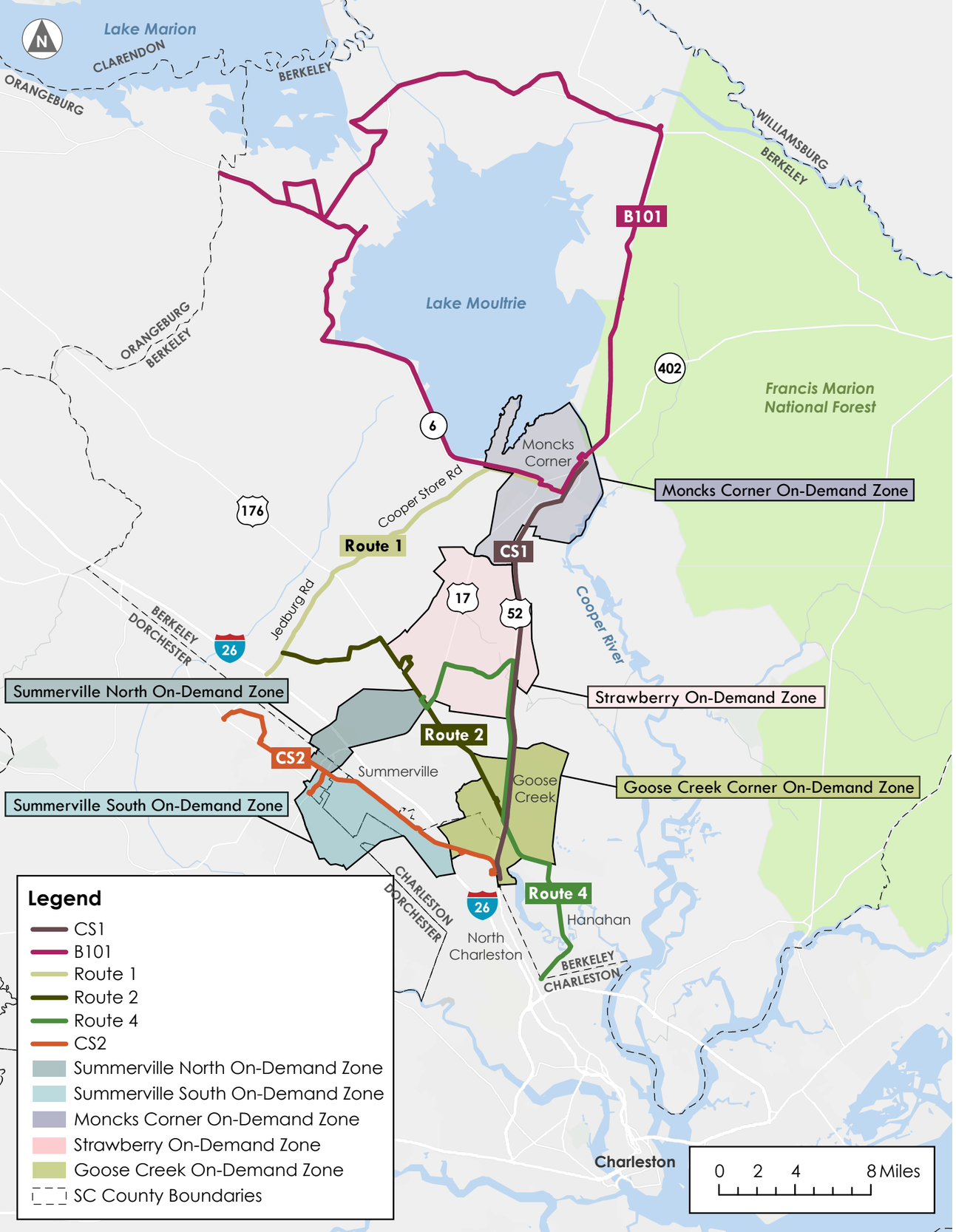
Route	Short-Term Rec	Preferred Scenario Rec	Change Justification	Service Description
CS8/Moncks Corner On-Demand Zone	X	X	Extend short-term recommended pilot boundary to become Moncks Corner On-Demand Zone. This on-demand zone was also included in the Preferred Scenario Report. Boundaries were expanded to include adjacent areas with high 2040 projected population and employment growth.	Zone serves Moncks Corner between Lake Moultrie, Cooper River, and Gaillard Rd.
Strawberry On-Demand Zone		X	This on-demand zone was included in the Preferred Scenario Report. Boundaries were expanded to provide more connectivity to fixed routes.	Zone serves Strawberry between Gaillard Rd, Old Highway 52, and the Forest Acres area.
Goose Creek On-Demand Zone		X	This on-demand zone was included in the Preferred Scenario Report.	Zone serves Goose Creek between Medway Rd, Henry E Brown Jr Blvd, US 78, and the area adjacent to Crowfield Plantation Lake.
B104	X		This route is not recommended to continue service long-term because most of its existing alignment will be covered by Route B101 and Route CS1. The short-term alignment recommended for Route B104 had the purpose of maintaining service for Unity Bay customers, but long-term it is recommended that TCL reevaluate its service contract with Unity Bay.	
B105			This route is not recommended to continue service long-term based on the projected population and employment growth. Additionally, the existing Route B105 alignment primarily serves Unity Bay customers, and that contracted service is not recommended to continue fixed route service long-term.	

TABLE 4.5: LONG-TERM SERVICE CHANGE SUMMARY & RECOMMENDATIONS. Continued from previous page.

Scenario Report recommendation. These recommendations are also shown on a map in **Figure 4.8**. More detailed maps of these recommendations are provided in **Appendix III**.

Methodology and Considerations

The short-term recommendations outlined in the previous section were reviewed against the BCDCOG US 52 Corridor Study Preferred Scenario Report. For each route, a quarter mile service area was



evaluated for 2040 projected population and employment growth. Long-term recommendations for each route are based on either the short-term recommendations or Preferred Scenario Report recommendations, whichever option had the highest projected growth for each respective route.

Almost all the recommended on-demand zones are a part of the US 52 Preferred Scenario Report. These zones were evaluated for 2040 projected population and employment growth as well as for connectivity to the developed recommended long-term routes. For some of the on-demand zones, boundaries were expanded to serve adjacent areas with high projected growth or to provide more connections to future routing.

Unity Bay

Long-term recommendations for TCL routes are based on the goals of developing TCL into a multimodal system and supporting the development of BRT service along the US 52 Corridor. Recommendations for service are based on areas within the study area with the highest projected population and employment growth, representing potential future demand and transit ridership. TCL has an existing contract with Unity Bay which requires several of the system's routes to deviate to serve Unity Bay customers. These deviations reduce TCL routes' ability to run more regular service and build towards long-term goals. For long-term planning, it is recommended that TCL reevaluate its current-term contract with Unity Bay and explore different means through which they can serve these customers. This will ensure that routes are oriented towards serving as many people as possible instead of deviating to serve specific customers. This will streamline routes, reduce roundtrip travel times, allow for more frequent service, make routes more reliable, build consistent ridership, and support the long-term goals of building TCL into a multimodal system supportive of BRT service.

Paratransit Service

As routes transition from deviated fixed routes to more structured fixed routes, TCL will need to provide complementary paratransit service for the three-quarter mile area around fixed routes. This is a USDOT requirement for fixed route service. These will include routes CS1, B101, 1, 2, 4, and CS2. This will only serve eligible riders that are unable to access vehicles, transit stops, facilities, or to independently navigate the system and will operate within a designated area, providing door-to-door service. This service can be added around each individual fixed route or operated in a larger area (e.g., county-wide). Costs for providing complementary paratransit service were not estimated as part of this effort and additional analysis will be required to further understand service and cost impacts for TCL. Additionally, it is important to note that the short-term recommendation for Route CS1 is likely to also trigger this requirement for complementary paratransit service for the three-quarter mile area around the route. Other short-term route recommendations do not require complementary paratransit service as they operate as specialized routes (i.e., commuter and deviating routes) that do not trigger the requirement by law.

FIGURE 4.8: LONG-TERM RECOMMENDATIONS

Service Planning

It is recommended that service across TCL be standardized to make it more reliable and to better facilitate transfers between routes, on-demand zones, and future BRT service. All routes and on-demand zones are recommended to operate weekdays between 5AM and 7PM. **Table 4.6** provides proposed operating statistics for the US 52 Corridor routes and the additional adjacent routes based on implementation of the long-term recommendations. Additional details are provided in **Appendix III**.

LONG-TERM PROPOSED OPERATING STATISTICS

Route	Pattern	General Span	Trips	Frequency (minutes)	Existing Vehicles	Long-Term Vehicle Needs
CS1	Roundtrip	5:00AM to 7:00PM	56	30	2	4
B101	Roundtrip	5:00AM to 7:00PM	28	60	1	5
Route 1	Roundtrip	5:00AM to 7:00PM	28	60	2	2
Route 4	Roundtrip	5:00AM to 7:00PM	56	30	0	5
Moncks Corner	Fixed Zone On-Demand	5:00AM to 7:00PM	-	-	2	2
Strawberry	Fixed Zone On-Demand	5:00AM to 7:00PM	-	-	n/a	2
Goose Creek	Fixed Zone On-Demand	5:00AM to 7:00PM	-	-	n/a	3
Route 2	Roundtrip	5:00AM to 7:00PM	56	30	0	3
CS2	Roundtrip	5:00AM to 7:00PM	56	30	2	4
Summerville N	Fixed Zone On-Demand	5:00AM to 7:00PM	-	-	n/a	1
Summerville S	Fixed Zone On-Demand	5:00AM to 7:00PM	-	-	n/a	1

TABLE 4.6: US 52 CORRIDOR ROUTES AND ADDITIONAL ADJACENT ROUTES, Long-Term Proposed Operating Statistics. Additional Adjacent Routes separated into gray table cells. As transit demand grows along the US 52 Corridor, and in support of future BRT service, frequency for Route CS1 may be increased to trips every 20 or 15 minutes. Existing B102 and B104 vehicles are included. Each of these routes currently utilizes one vehicle.

Fixed Routes

BCDCOG published the Transit and Bus Stop Design Guidelines in 2021 to guide future route planning for the region. The document notes that, in the short-term, the guidelines were developed for Charleston Area Regional Transit Authority (CARTA) bus routes, but as TCL develops into an urban area system the guidelines can be applied to TCL routes as well. It is noted that while the document provides guidelines, in dense or sparse areas variations to the standard are warranted.

Frequency and stop spacing for each route were determined based on these guidelines, through analysis of the projected population and employment density within the quarter mile service area of each route, as well through assessment of the planned type of service for each route. These guidelines informed the following long-term recommendations for TCL route frequency and stop spacing. Recommendations for frequency range from buses running every 30 to 60 minutes. High-level stop requirements and spacing recommendations were assumed for stops every two to four miles for future planning purposes. **Tables 4.7 and 4.8** below detail the recommended frequency and stop requirements, including spacing and stops needed, for the US 52 Corridor fixed routes and the additional adjacent fixed routes.

ROUTE FREQUENCY 2040 POPULATION AND EMPLOYMENT PROJECTIONS

Route	Frequency (minutes)	2040 Population Density (per sq. mile)	2040 Employment Density (per sq. mile)
CS1	30	2,080	859
B101	60	222	308
Route 1	60	610	982
Route 4	30	2,504	542
Route 2	30	2,784	651
CS2	30	2,548	4,057

TABLE 4.7: US 52 CORRIDOR AND ADDITIONAL ADJACENT ROUTES- Route Frequency 2040 Population and Employment Projections. Additional Adjacent Routes separated into gray table cells.

ROUTE FREQUENCY AND STOP REQUIREMENTS

Route	Frequency (minutes)	Long-Term Vehicle Needs	Stop Spacing (miles)	Roundtrip Route Length (miles)	Stops per Route
CS1	30	4	2	38	19
B101	60	5	4	133	33
Route 1	60	2	4	35	9
Route 4	30	5	2	42	21
Route 2	30	3	2	30	15
CS2	30	4	2	36	18

TABLE 4.8: US 52 CORRIDOR AND ADDITIONAL ADJACENT ROUTES- Route Frequency and Stop Requirements. Additional Adjacent Routes separated into gray table cells.

On-Demand Zones

Peak vehicle requirements for the on-demand zones were taken from Remix transit planning software. The software provides peak vehicle needs based on estimated ridership for each on-demand zone. Ridership is estimated using a model that factors in demographics, housing, socioeconomic data, jobs, job type, worker demographics, car ownership, walkability, and key points of interest.[3] 2040 projected population and employment growth were also considered. The on-demand zone peak vehicle requirements and associated projected population and employment densities of each zone are provided in **Table 4.9** for US 52 Corridor on-demand zones and Table 13 for additional adjacent on-demand zones.

ON-DEMAND ZONES—LONG-TERM VEHICLE REQUIREMENTS

On-Demand Zone	Long-Term Vehicle Needs	2040 Population Density (per sq. mile)	2040 Employment Density (per sq. mile)
Moncks Corner	2	1,534	885
Strawberry	2	1,722	146
Goose Creek	3	2,966	723
Summerville N	1	4,658	2,129
Summerville S	1	4,122	5,025

FIGURE 4.9: US 52 CORRIDOR AND ADDITIONAL ADJACENT ON-DEMAND ZONES- Long-Term Vehicle Requirements. Additional Adjacent Routes separated into gray table cells.

IMPLEMENTATION

The short-term and long-term recommendations serve as steps toward a more reliable multimodal transit system. Implementation of the TCL route recommendations need to begin with the smaller short-term service changes and build up to the long-term standardizations of service. As changes are implemented, it will be important to track how development is occurring in the study area to ensure the TCL system is consistently meeting the needs of the changing demographics and built environment.

Short-Term Recommendations

Short-term recommendations for routes CS1, B101, B102, B104, and CS8 are recommended to begin with the changes that are relatively cost-neutral, like removing portions of routes or moving stops from one route to another. Following cost neutral changes, implementation of these recommendations shall occur as TCL identifies funding for the increased costs. Some short-term recommendations, like the expansion of Route CS8's service and on-demand zone, may need to occur in phases depending on availability of vehicles, operators, and funding. TCL can monitor the ridership for the CS8 over time to test out the applicability and determine the utilization of the new service offering. This will inform at what pace TCL determines for permanently implementing the program. Changes recommended for each route are categorized as immediate or intermediate in **Table 4.10**. Operating and capital costs for the short-term recommendations are listed in the next section.

[3] Remix. On-Demand Planning. January 2025. https://help.remix.com/en/articles/5614531-on-demand-planning

IMPLEMENTATION OF SHORT-TERM RECOMMENDATIONS

Route	Change Justification	Immediate Changes	Intermediate Changes
CS1	Adjustments to optimize operations, build ridership, move towards future BRT	Begin service at Walmart Supercenter in Moncks Corner, add circulation to Goose Creek stops	Expand service hours, add additional stops in Goose Creek, and upgrade all stops to standard bus stop typology
B101	Optimize operations, reduce customer travel times	Remove the portion of the route east of US 52, begin serving additional stops along US 52 in Moncks Corner, adjust service span	
B102	Optimize operations, reduce customer travel times	Shift western portion of alignment to South Live Oak Dr, begin serving additional stops, adjust service span	
B104	Maintain coverage for previous B101 service	Adjust routing to serve former Route B101 area and stops, adjust service span	
CS8	Explore expansion/pilot of on-demand service	Begin expanding boundaries of the on-demand zone and service hours	Continue expansion of on-demand zone boundaries and service hours

TABLE 4.10: US 52 CORRIDOR AND ADDITIONAL ADJACENT ROUTES—Implementation of Short-Term Recommendations.

Long-Term Recommendations

Throughout the implementation of the short-term recommendations, the pace and density of development will inform at what point TCL begins planning for implementation of the long-term recommendations. Population density, employment density, and development of pedestrian facilities will determine when this implementation shall begin. Even as population and employment grow, without adequate pedestrian infrastructure, potential riders will not be able to access the enhanced service provided by the long-term recommendations. This infrastructure is specifically needed near bus stops, residential areas, and activity centers.

As these recommendations are based on 2040 projections, many may not be viable for 10 to 20 years. Recommendations need to be implemented holistically, as possible, to optimize the connectivity and

usefulness of each route. Recommended changes are categorized into two phases[4] for each US 52 Corridor route in **Table 4.11** and for each additional adjacent route in **Table 4.12**.

US 52 CORRIDOR IMPLEMENTATION OF LONG-TERM RECOMMENDATIONS

Route	Change Justification	Intermediate Changes	Final Phase
B101	Adjustments to short-term recommendation to further streamline route and reduce travel time by removing the southern loop to reduce redundancy with Moncks Corner On-Demand Zone, Strawberry On-Demand Zone, and Route CS1.	Remove the southern loop from the route. Upgrade existing stop infrastructure to include amenities for the standard stop typology.	Expand service hours to 5AM to 7PM and begin running buses every 60 minutes. Standardize stop spacing to every 4 miles.
Route 1	Split Route B102 into three separate routes (Route 1, Route 2, Route 4) to optimize operations and reduce customer travel time.	Separate Route 1 from Route B102. Upgrade existing stop infrastructure to include amenities for the standard stop typology.	Expand service hours to 5AM to 7PM and begin running buses every 60 minutes. Standardize stop spacing to every 4 miles.
Route 4	Split Route B102 into three separate routes (Route 1, Route 2, Route 4) to optimize operations and reduce customer travel time.	Separate Route 4 from Route B102. Upgrade existing stop infrastructure to include amenities for the high activity stop typology.	Expand service hours to 5AM to 7PM and begin running buses every 30 minutes. Standardize stop spacing to every 2 miles.
CS1	Adjustments to streamline route, optimize operations, build ridership, move towards BRT.	Upgrade existing stop infrastructure to include amenities for the high activity stop typology.	Expand service hours to 5AM to 7PM and begin running buses every 30 minutes. Standardize stop spacing to every 2 miles.
Moncks Corner	Extend short-term recommended pilot boundary to become Moncks Corner On-Demand Zone. This on-demand zone was also included in the Preferred Scenario Report. Boundaries were expanded to include adjacent areas with high 2040 projected population and employment growth.	Expand Route CS8 service zone boundaries.	Expand service hours to 5AM to 7PM.
Strawberry	This on-demand zone was included in the Preferred Scenario Report. Boundaries were expanded to provide more connectivity to fixed routes.	Begin on-demand zone service within the specified boundaries.	Expand service hours to 5AM to 7PM.
Goose Creek	This on-demand zone was included in the Preferred Scenario Report.	Begin on-demand zone service within the specified boundaries.	Expand service hours to 5AM to 7PM.

TABLE 4.11: US 52 CORRIDOR IMPLEMENTATION OF LONG-TERM RECOMMENDATIONS.

[4]The phasing of long-term recommendations first focuses on establishing service followed by expanding service levels and spans. Funding availability will dictate when the final phase service levels and spans can be implemented (i.e., the intermediate phase may include reduced service levels or spans); however, when possible, long-term recommendations should be implemented holistically based on the final phase.

ADDITIONAL ADJACENT ROUTES IMPLEMENTATION OF LONG-TERM RECOMMENDATIONS

Route	Change Justification	Intermediate Changes	Final Phase
Route 2	Split Route B102 into three separate routes (Route 1, Route 2, Route 4) to optimize operations and reduce customer travel time.	Separate Route 2 from Route B102. Upgrade existing stop infrastructure to include amenities for the high activity stop typology.	Expand service hours to 5AM to 7PM and begin running buses every 30 minutes. Standardize stop spacing to every 2 miles.
CS2	This route was not included in the short-term recommendations or Preferred Scenario Report, but it is recommended to continue service long-term based on 2040 projected population and employment growth for the route's service area.	Upgrade existing stop infrastructure to include amenities for the high activity stop typology.	Expand service hours to 5AM to 7PM and begin running buses every 30 minutes. Standardize stop spacing to every 2 miles.
Summerville N	This route was not included in the short-term recommendations but in the Preferred Scenario Report portions of the route are recommended for on-demand zone service. It is recommended that the remaining route service area be covered by two additional on-demand zones.	Begin on-demand zone service within the specified boundaries.	Expand service hours to 5AM to 7PM.
Summerville S	This route was not included in the short-term recommendations but in the Preferred Scenario Report portions of the route are recommended for on-demand zone service. It is recommended that the remaining route service area be covered by two additional on-demand zones.	Begin on-demand zone service within the specified boundaries.	Expand service hours to 5AM to 7PM.

TABLE 4.12: ADDITIONAL ADJACENT ROUTES IMPLEMENTATION OF LONG-TERM RECOMMENDATIONS.

TCL COSTS

The following summarizes the planning-level cost estimates developed for the recommended short and long-term services. All costs have been estimated for 2025 dollars and rounded unless otherwise noted.[5]

[5] $76 per total hour was used to develop costs. This rate was developed based on the FY22–23 reported system operations, escalated to 2025 dollars using an inflation rate of 3% and rounded.

Short-Term Recommendations

A one-vehicle scenario and two-vehicle scenario are proposed for Route CS8 short-term recommendations. Total operating cost for the one-vehicle scenario short-term recommendations is $1,098,000, and the total operating cost for the two-vehicle scenario is $1,352,000. Operating costs for these scenarios are provided in **Appendix III**.

Capital costs for the short-term recommendations include the upgrade of Route CS1's bus stops to BCDCOG's standard bus stop typology. No new vehicles need to be purchased to implement the short-term recommendations. The total capital costs for short-term recommendations is $105,000. Development of capital costs for short-term recommendations is described in the next section. Additional details on amenities included in each bus stop typology and associated costs are provided in **Appendix III**.

Long-Term Recommendations

The total operating cost for the US 52 Corridor route long-term recommendations is $5,782,000 and total operating cost for the additional adjacent routes is $2,290,000. Further details on these costs are provided in **Appendix III**. For future planning purposes, the long-term operating costs were also inflated from 2025 dollars (assuming 3%) to incremental future years, as shown in **Table 4.13** for the US 52 Corridor routes and **Table 4.14** for the additional adjacent routes.

US 52 CORRIDOR ROUTES—LONG-TERM RECOMMENDATIONS FUTURE OPERATING COST

Year	2025 Existing	2025 Short-Term[6]	2030	2035	2040
Total Operating Cost	$696,000	$1,352,000	$6,703,000	$7,770,000	$9,008,000

TABLE 4.13: US 52 CORRIDOR ROUTES—Long-Term Recommendations Future Operating Cost.

ADJACENT ROUTES—LONG-TERM RECOMMENDATIONS FUTURE OPERATING COST

Year	2025 Existing[7]	2025 Short-Term	2030	2035	2040
Total Operating Cost	$153,000	$139,000	$2,654,000	$3,077,000	$3,567,000

TABLE 4.14: ADDITIONAL ADJACENT ROUTES—Long-Term Recommendations Future Operating Cost.

[6] Cost shown is for the two-vehicle CS8 scenario.

[7] Costs shown are for Route B102. These costs are also reflected in Table 15 since long-term Route B102 is split into three separate routes that individually operate on US 52 and on adjacent corridors.

Capital costs for the long-term recommendations, which include installing bus stops (refer to **Table 4.15** and **Table 4.16**) and purchasing additional vehicles (refer to **Table 4.17** and **Table 4.18**), are estimated to cost $9,130,000 for US 52 Corridor routes and $4,584,000 for additional adjacent routes. Up to 23 additional vehicles will need to be purchased to implement the long-term recommendations. The development of capital costs for long-term recommendations is described in the next section.

Bus Stops

Capital costs for long-term recommendations include bus stops and vehicles. Several TCL routes currently provide deviating service, traveling off-route to pick up passengers at their requested locations within a certain radius of fixed stops. As TCL moves towards a more urban multimodal system, routes can phase out deviations in favor of fixed stops, to shorten run-times and make schedules more reliable. While many current stops operate as "flag stops," where passengers can board the bus at any point along the route, future bus stops can be standardized to include amenities that enhance comfort and provide useful information—such as bus arrival times, transfer locations, and trip planning tools.

The BCDCOG Bus Stop Design Guidelines include descriptions of varying bus stop typologies to be installed based on context and usage. Each typology includes minimum, preferred, and optional amenities to be included. Typology descriptions also include trip frequencies associated with each. Based on the recommended frequencies listed in **Table 4.7** and **Table 4.8**, bus stops for the long-term TCL routes will be either Park-n-Rides, high-activity stops, or standard stops. Minimum amenities required for all BCDCOG fixed route bus stops include a bus stop post, sign, and ADA landing pad. Below are the estimated total costs for each of the three bus stop typologies:[8]

- Park-n-Rides: $78,000
- High activity stops: $39,000
- Standard stops: $6,000

FIGURE 4.9: BCDCOG BUS STOP GUIDELINES.

Additional details regarding amenities included in each bus stop typology and associated costs are provided in **Appendix III**.

[8] No estimate was provided in the BCDCOG Bus Stop Design Guidelines for safety and security elements or car parking. When a range was provided for an amenity's cost, the average of the range was used to calculate costs per stop typology.

Based on these costs, **Table 4.15** and **Table 4.16** lists the bus stop typologies recommended for each of the long-term recommended routes. BCDCOG Bus Stop Design Guidelines provide recommendations for which bus stop typology is needed based on frequency. The bus stop typology suggested for each route is determined based on the recommended frequency (refer to **Table 4.7** and **Table 4.8**). Because Park-n-Rides are dependent on co-location with existing parking lots, routes that could include Park-n-Rides are defaulted to the other applicable frequency-based recommended bus stop typology.

US 52 CORRIDOR ROUTES—BUS STOP COSTS

Route	Bus Stop Typology	Stops per Route	Total Cost (includes installation and engineering fees)
CS1	High activity stop	19	$718,000
B101	Standard stop	33	$187,000
Route 1	Standard stop	9	$50,000
Route 4	High activity stop	21	$810,000
Total Bus Stop Cost			**$1,765,000**

TABLE 4.15: US 52 CORRIDOR ROUTES—Bus Stop Costs. All costs have been estimated for 2025 dollars and rounded. A 3% inflation rate was assumed.

ADDITIONAL ADJACENT ROUTES—BUS STOP COSTS

Route	Bus Stop Typology	Stops per Route	Total Cost (includes installation and engineering fees)
Route 2	High activity stop	15	$579,000
CS2	High activity stop	18	$699,000
Total Bus Stop Cost			**$1,278,000**

TABLE 4.16: ADDITIONAL ADJACENT ROUTES—Bus Stop Costs. All costs have been estimated for 2025 dollars and rounded. A 3% inflation rate was assumed.

Vehicles

As routes increase in frequency and ridership increases, new vehicles will need to be purchased to expand TCL's fleet. Cutaway buses and standard 40-foot buses provide the capacity that will be needed based on this expanded service and long-term recommendations. All vehicles used for on-demand zone service need to also be wheelchair accessible. For vehicle cost estimates, 24-seat Star Trans cutaway buses ($153,000 each) currently used by TCL and an estimate for CARTA's 40-foot buses ($600,000 each) are used. These vehicle costs were used to estimate the capital costs for long-term recommendations based on peak vehicle needs which are detailed in **Table 4.17** and **Table 4.18**. Vehicle cost calculations were determined by subtracting existing vehicles from vehicles needed for the long-term recommendations.

US 52 CORRIDOR ROUTES—LONG-TERM VEHICLE COSTS

Route	2025 Existing Vehicles	2025 Short-Term Vehicles	Long-Term Vehicles	Vehicle Type	Long-Term Cost
CS1	2	2	4	40′ bus	$1,200,000
B101	1	1	5	40′ bus	$2,400,000
Route 1	2	1	2	40′ bus	$0
Route 4	0	1	5	40′ bus	$3,000,000
Moncks Corner	2	2	2	Cutaway bus	$0
Strawberry	-	-	2	Cutaway bus	$306,000
Goose Creek	-	-	3	Cutaway bus	$459,000
Total Vehicle Cost					**$7,365,000**

TABLE 4.17: US 52 CORRIDOR ROUTES—Long-Term Vehicle Costs. Existing B102 and B104 vehicles are included. Each of these routes currently utilizes one vehicle.

ADDITIONAL ADJACENT ROUTES—LONG-TERM VEHICLE COSTS

Route	2025 Existing Vehicles	2025 Short-Term Vehicles	Long-Term Vehicles	Vehicle Type	Long-Term Cost
Route 2	0	1	3	40′ bus	$1,800,000
CS2	2	2	4	40′ bus	$1,200,000
Summerville N	-	-	1	Cutaway bus	$153,000
Summerville S	-	-	1	Cutaway bus	$153,000
Total Vehicle Cost					**$3,306,000**

TABLE 4.18: ADDITIONAL ADJACENT ROUTES—Long-Term Vehicle Costs.

Next Steps

Following the adoption of these planned short and long-term recommendations, TCL can begin to identify sources of funding for the estimated operating and capital costs. Policies that encourage greater housing, population, and employment density close to transit need to also be considered to support these recommendations. Greater density will result in greater potential ridership for TCL's system, making the short and long-term recommendations more impactful to the US 52 Study Area.

FIGURE 5.1: TCL DRIVER.

5. BUS RAPID TRANSIT FEASIBILITY ANALYSIS

ALIGNMENT SCREENING

To prepare for future transportation demand in the study area, this study analyzed the feasibility of Bus Rapid Transit (BRT). The analysis explored potential alignments for the US 52 BRT, along with service characteristics and infrastructure requirements for future implementation.

US 52 Alignment Alternatives

The US 52 alignment alternatives screening assumes that BRT service would have a southern terminus at Rivers Avenue and Melnick Drive and evaluates northern terminus alternatives based on criteria developed in accordance with the identified project objectives.

Three potential northern termini alternatives were developed for providing BRT service along the US 52 Corridor. These alternatives span the Corridor from Moncks Corner to Goose Creek. While each alignment alternative presents a different northern terminus, they are not mutually exclusive. There is potential to implement them incrementally, as demand grows, and funding becomes available. The routing and integration with LCRT for each alignment alternative are outlined in **Table 5.1**.

US 52 ALIGNMENT ALTERNATIVES

Alignment Alternative	Moncks Corner	Strawberry	Goose Creek
Objective	Provide service from Moncks Corner to connect to LCRT	Begin service in Strawberry to serve areas with high projected population and employment growth	Begin service in Goose Creek to serve areas with high projected population and employment growth
Route	US 52/Rivers Ave	US 52/Rivers Ave	US 52/Rivers Ave
Northern Terminus	US 52 and Reid Hill Rd	US 52 and Cypress Gardens Rd	US 52 and Old Mt Holly Rd
Southern Terminus	Rivers Ave and Melnick Drive		
LCRT Alignment Integration	Southern terminus of US 52 BRT is the Rivers Ave and Melnick Drive station on LCRT		
LCRT Service Integration	Transfer to LCRT at Melnick Drive		

TABLE 5.1: US 52 ALIGNMENT ALTERNATIVES.

Moncks Corner

The Moncks Corner alignment alternative provides BRT service from Moncks Corner to North Charleston. The alternative begins at the intersection of US 52 and Reid Hill Road. It continues south along US 52 onto Rivers Avenue, ending at the intersection of Rivers Avenue and Melnick Drive. The southern terminus of the alternative connects to the LCRT at the Rivers and Melnick station. Service for this alternative can be coordinated to facilitate transfers between the US 52 BRT and the LCRT.

Strawberry

The Strawberry alignment alternative provides BRT service from Strawberry to North Charleston. The alternative begins at the intersection of US 52 and Cypress Gardens Road. The alternative extends south on US 52, ending at the intersection of Rivers Avenue and Melnick Drive. The southern terminus of the alternative connects to the LCRT at the Rivers and Melnick station. Service for this alternative can be coordinated to facilitate transfers between the US 52 BRT and the LCRT.

Goose Creek

The Goose Creek alignment alternative provides BRT service from Goose Creek to North Charleston. The alternative begins at the intersection of US 52 and Old Mount Holly Road. The alternative extends south on US 52, ending at the intersection of Rivers Avenue and Melnick Drive. The southern terminus of the alternative connects to the LCRT at the Rivers and Melnick station. Service for this alternative can be coordinated to facilitate transfers between the US 52 BRT and the LCRT.

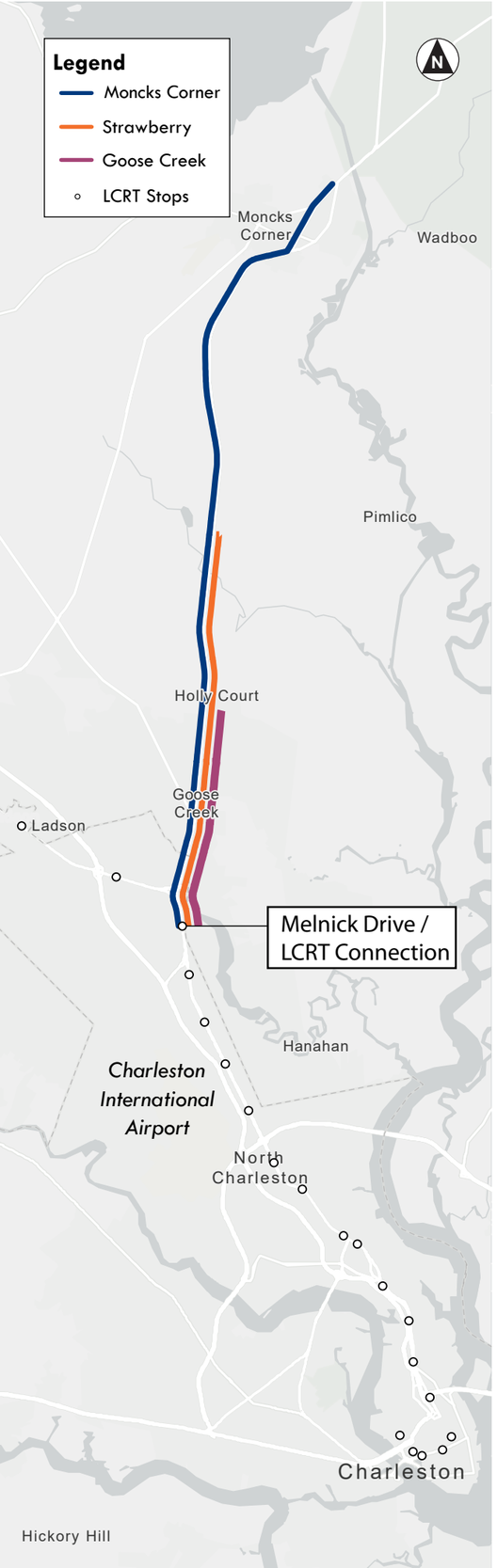


FIGURE 5.2: CS8 US 52 ALIGNMENT ALTERNATIVES

ALIGNMENT ALTERNATIVES SCREENING CRITERIA AND PROCESS

A screening tool was developed to evaluate each of the US 52 alignment alternatives and establish a process to determine which alignments are most promising for BRT service. The tool is organized around the three objectives defined under the project purpose:

- Develop a high-capacity transit corridor that can accommodate future population and employment growth
- Connect to LCRT and collectively strengthen the region's transportation system
- Ensure long-term sustainability by planning around existing roadway characteristics, natural resources, and transit-supportive communities

In addition to these three objectives, measures of cost-effectiveness and ridership were considered in evaluating the three US 52 alignment alternatives.

The tool includes both quantitative and qualitative criteria that evaluate transit demand; existing and future corridor residential, household, and employment densities; compatibility with local and regional plans; existing transit services and infrastructure; ridership of adjacent transit routes; existing roadway geometry; existing and future traffic conditions; environmental and right-of-way (ROW) constraints; capital and operating costs per rider; and annual projected ridership. Data collected and analyzed as part of the Corridor's existing conditions review and Tri-County Link (TCL) service assessment tasks of the US 52 BRT Feasibility Study were used for screening criteria where applicable. Maps for select screening criteria are included in **Appendix III**.

Objective: Develop a High-Capacity Transit Corridor that can Accommodate Future Population and Employment Growth

Transit Demand

This quantitative criterion is used to understand how demand for and potential use of transit service may differ between each alternative. The criterion is measured quantitatively using the Transit Propensity Index (TPI) that was developed for the Existing Conditions task of this study. Transit propensity is calculated for the area within a quarter-mile buffer of each alignment alternative. Each alignment alternative is scored based on the identified propensity for transit use. Factors informing the TPI include household density, percentage of population in poverty, zero to one vehicle households, population over 64, density of persons with disabilities, density of persons of color, density of total jobs, density of jobs earning less than $3,333 per month, and trip destinations. A map of TPI for the study area is provided in **Appendix III**.

Existing Residential, Household, and Employment Densities and Future Growth

This quantitative criterion evaluates the projected growth of the areas served by each alternative. The more growth that is projected for the area around each respective alternative, the greater the number of potential future riders. The criterion is measured quantitatively using HNTB's Community Intelligence Toolkit (CIT) and Traffic Analysis Zone (TAZ) data for the 2045 projected population and employment. The CIT is used to identify existing population, employment, and housing density, and the 2045 TAZ data is used to identify future population, employment, and housing density for the area within a half-mile buffer of each alignment alternative. Respective growth for each of these three measures is used to determine the score for each alignment alternative. Maps of existing residential, household, and employment densities and future growth are provided in **Appendix III**.

Compatibility with Regional and Local Plans

This qualitative criterion assesses whether each alignment alternative is supported by BCDCOG planning documents that have been developed to guide growth in the study area. The following documents were reviewed for mention of the specific alignment alternative: WalkBike BCD; the RTFP; the Existing Conditions Report and Short-Term Recommendations; the Scenario Briefing Report; the Preferred Scenario Report; the US 52 Corridor Study; and the Charleston Area Transportation Study (CHATS) Long Range Transportation Plan. Whether or not the alignment alternative is included in each plan determines the score for each alternative.

Objective: Connect to LCRT and Collectively Strengthen the Region's Transportation System

Existing Transit Services and Infrastructure

This quantitative criterion is used to demonstrate the number of adjacent transit routes that users of each BRT alignment alternative would have access to. The criterion is measured by identifying the number of

TCL routes with stops that are within the quarter-mile buffer of each alignment alternative. The number of routes with stops within each respective alignment buffer determines the score for that alternative.

Ridership of Adjacent Routes

This quantitative criterion highlights the number of existing transit users near each alignment alternative. Depending on how service is planned and where stops are located, this criterion demonstrates the number of riders that could potentially transfer between existing transit routes and each alignment alternative. Each alternative is scored based on the historic ridership of each adjacent TCL and Charleston Area Regional Transportation Authority (CARTA) route.

Objective: Ensure Long-Term Sustainability by Planning Around Existing Roadway Characteristics, Natural Resources, and Transit-Supportive Communities

Existing Roadway Geometry

This quantitative criterion evaluates the degree to which existing roadway geometry supports each alignment alternative. The criterion is based on the width of existing traffic lanes. BRT-style service needs a minimum lane width of 11 feet to operate the vehicles. Lanes are measured at intersections, approximately every mile, in each direction, and the alternative is scored based on whether the entire alignment is wide enough for BRT.

Existing and Future Traffic Conditions

This quantitative criterion assesses the degree to which existing traffic volumes are favorable along each alignment alternative. For this criterion, a traffic volume to capacity ratio is used to determine the Level of Service (LOS) along each alignment alternative. This LOS is compared to ideal conditions for US 52 BRT, which would be lower levels of congestion for operation in mixed traffic, to determine a score for each alignment alternative.

ROW Characteristics

This quantitative criterion assesses the characteristics of the ROW for each alignment alternative. The following components were used to score each alignment alternative for this criterion: existing sidewalk, existing wetlands, and whether ROW, outside of travel lanes, for each alignment alternative is wide enough for BRT lanes. Existing sidewalk is measured in each direction, and total miles of existing sidewalk is divided by total length of each alignment alternative. Existing wetlands are identified within a 150-foot buffer of each alignment alternative. Roadway median is measured to determine if it is at least 22 feet and shoulders are measured to determine if they are at least 11 feet in each direction. Roadway median and shoulders are measured at intersections, approximately every mile, in each direction. The alignment score is calculated based on an average of these three measures. A map of these ROW characteristics is provided in the **Appendix III**.

COST EFFECTIVENESS

Capital Costs per Annual Rider

Capital costs are quantitatively estimated using the provided LCRT station and vehicle costs, peak vehicle needs based on operating inputs (including a 20% spare ratio), and assuming 2-mile station spacing. Estimated capital costs for each alternative were divided by estimated annual ridership to get the capital costs per annual rider. Costs that were not factored into this criterion include Transit Signal Priority (TSP), park-and-rides, and queue jump lanes.

Operating Costs per Annual Rider

Operating costs are quantitatively estimated assuming 365 days of operation, 15-minute headways, service from 5 am to 7 pm, and a bus speed of 18 mph. The annual revenue hours resulting from these inputs were multiplied by CARTA's National Transit Database (NTD) reported cost per revenue hour. These values for each alternative were divided by the estimated annual ridership to get the operating cost per annual rider. These operating costs are for planning purposes only. As the Corridor and design continue to develop, the cost estimates will be refined to reflect real-time conditions.

Projected Ridership

Average Daily Ridership

The methodology for evaluation of ridership is based on several Transit Cooperative Research Program (TCRP) reports, including the Bus Rapid Transit Practitioner's Report. The methodology begins with identifying a transit route comparable to the anticipated characteristics of the US 52 BRT service. After reviewing both TCL and CARTA routes, CARTA Route 12 was selected as a representative route. Weekday boardings on a comparable local US 52 route were estimated based on scaling from Route 12's population density and route length and applying a

FIGURE 5.3: CARTA SCHEDULE FOR ROUTE 12.

frequency improvement elasticity factor. Then, additional time savings, frequency elasticities, and a BRT upgrade factor were applied to determine weekday boardings for a US 52 BRT route.

The methodology described above was identified as the best ridership estimation method for the purposes of this study. The BRT would be built off an existing route, beginning with the implementation of the US 52 TCL Short Term Recommendations.

Scoring, Rating, Ranking

For each criterion, alignment alternatives receive a raw score between 0 and 10 through various methods, such as normalization, quintile, and percentage-based scoring. This score is weighted by assigned screening criteria weights, allowing for a maximum score of ten for each alternative.

US 52 ALIGNMENT ALTERNATIVES SCREENING RESULTS

Through this alignment screening and evaluation, Moncks Corner is ranked as the most promising alignment alternative for BRT service along US 52. While the Moncks Corner alternative addresses each of the objectives most comprehensively, the Strawberry alternative scored higher for cost effectiveness, which drives competitiveness for federal grant funding. The US 52 alignment alternative screening results are provided in **Table 5.2**. Raw numbers for each criterion are included in the **Appendix III**.

FIGURE 5.4: US 52.

SCREENING CRITERIA RESULTS

Objective	Screening Criteria Description	Weight	Moncks Corner	Strawberry	Goose Creek
Develop a high-capacity transit corridor that can accommodate future population and employment growth	Transit Demand	10%	4.6	5.8	6.0
	Existing and future corridor densities (Population)	3%	6.5	7.2	7.3
	Existing and future corridor densities (Employment)	3%	6.4	6.1	5.7
	Existing and future corridor (Households)	3%	6.9	7.9	8.0
	Compatibility with regional and local plans	10%	8.6	8.6	8.6
Collectively strengthen the region's transportation system	Existing transit services and infrastructure	10%	4.1	1.8	1.8
	Ridership of adjacent routes	10%	4.5	2.0	2.0
Ensure long-term sustainability by planning around existing roadway characteristics, natural resources, and transit-supportive communities	Existing intersection geometries	5%	10.0	10.0	10.0
	Existing traffic conditions and travel flows	5%	5.6	4.6	4.8
	Sidewalks	5%	2.1	2.2	3.9
	Wetland impact	5%	0.6	0.6	0.4
	Intersection with median of 22 ft or shoulders of 11 ft each	5%	7.2	7.1	6.0
Cost effectiveness of alternative	Capital Costs per Annual Rider	8%	8.2	10.0	7.9
	Operating Cost per Annual Rider	8%	8.3	10.0	8.8
Ridership	Projected Daily Ridership	10%	10.0	5.9	2.9
		Total Score	98.3	94.5	89.0
		Total Weighted Score (Out of 10)	6.4	5.8	5.3

TABLE 5.2: SCREENING CRITERIA RESULTS

SOUTHERN TERMINUS ALTERNATIVES

The southern terminus alternatives screening assumes BRT service would have a northern terminus at US 52 and Reid Hill Road in Moncks Corner and evaluates southern terminus alternatives through some of the same criteria that are used to conduct the US 52 alignment alternatives screening. Additionally, qualitative considerations that impact the operation of BRT related to the southern terminus alternatives are reviewed.

Two potential southern terminus alternatives have been developed for the US 52 Corridor. These alternatives span the Corridor from Goose Creek to Downtown Charleston. The routing and integration with LCRT for each alignment alternative are outlined in **Table 5.3**.

SOUTHERN TERMINUS ALTERNATIVES

Alignment Alternative	Baseline (Melnick Drive)	Southern Extension: Downtown Charleston
Objective	Provide service from Moncks Corner to connect to LCRT	Extend service to Charleston, connect to LCRT, provide more frequent LCRT service
Southern Terminus	Rivers Ave and Melnick Dr	Hagood Ave and Line St
LCRT Alignment Integration	Southern terminus of US 52 BRT is the Rivers Ave and Melnick Dr station on LCRT BRT	Beginning at the Rivers Ave and Melnick Dr LCRT station, interlines with LCRT BRT going south; options for northern truncation
LCRT Service Integration	Transfer to LCRT at Melnick Dr	Through-running on LCRT

TABLE 5.3: SOUTHERN TERMINUS ALTERNATIVES

Baseline (Melnick Drive)

The Baseline (Melnick Drive) southern terminus alternative provides BRT service from Moncks Corner to North Charleston. The alternative begins at the intersection of US 52 and Reid Hill Road. It continues south along US 52 onto Rivers Avenue, ending at the intersection of Rivers Avenue and Melnick Drive. The southern terminus of the alternative connects to the LCRT at the Rivers and Melnick station. Service for this alternative can be coordinated to facilitate transfers between the US 52 BRT and the LCRT.

Downtown Charleston

The Downtown Charleston southern terminus alternative provides BRT service from Moncks Corner to Downtown Charleston. The alternative begins at the intersection of US 52 and Reid Hill Road. It continues south along US 52 onto Rivers Avenue into North Charleston and Charleston via the

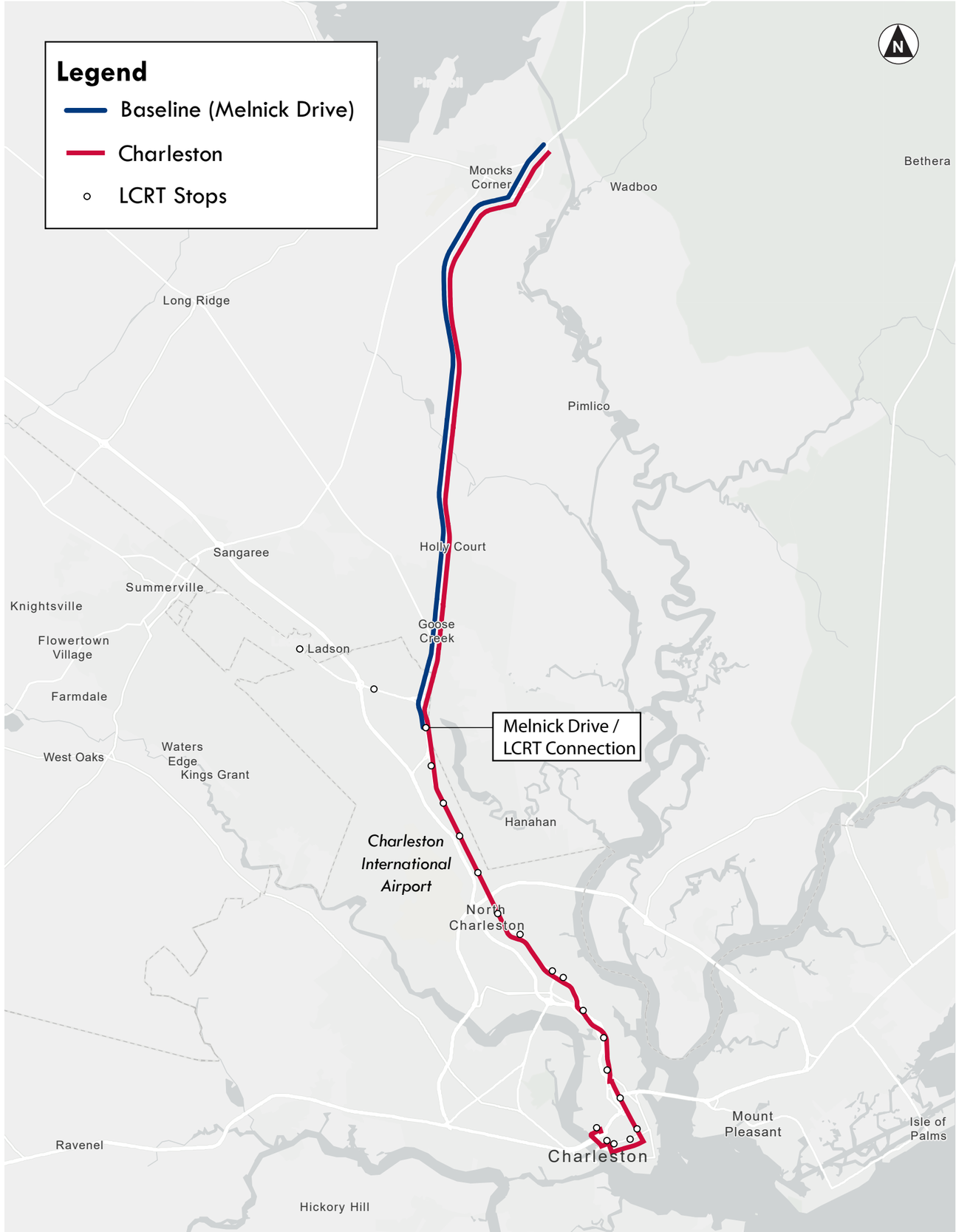


FIGURE 5.5: SOUTHERN TERMINUS ALTERNATIVES.

King Street Extension, Meeting Street, and eventually Calhoun Street. This alternative ends at the intersection of Line Street and Westedge Street in Downtown Charleston. Beginning at the Rivers and Melnick station going south, the alternative interlines with the LCRT, combining service through the rest of the LCRT's alignment. Service for this alignment would be planned to double the frequency of BRT service at stations shared with the LCRT.

SOUTHERN TERMINUS ALTERNATIVES SCREENING CRITERIA AND PROCESS

As described earlier, the southern terminus alternatives are evaluated using a subset of the criteria that are used to evaluate US 52 alignment alternatives. The screening of the southern terminus alternatives is also organized around the objective defined under the project purpose, "develop a high-capacity transit corridor that can accommodate future population and employment growth". In addition to this objective, measures of cost-effectiveness and ridership were considered in evaluating the two southern terminus alternatives.

The criteria that are used to evaluate the southern terminus alternatives are summarized in **Table 5.4.** Each criterion is described in greater detail in US 52 Alignment Alternatives Screening Criteria and Process.

Additional Operating Considerations

For the Downtown Charleston southern terminus alternative, the longer travel time from Moncks Corner to Downtown Charleston presents operational challenges related to reliability and operator schedules.

Reliability

The Downtown Charleston alternative has a roundtrip distance of 70 miles, compared to a 37-mile round-trip distance for the Baseline alternative. The longer the route, the greater the opportunity for it to get off schedule. Along the Downtown Charleston alternative, there are more opportunities for traffic conditions to impact the schedule by delaying the bus.

Operator Schedules

One roundtrip on the Downtown Charleston alternative, from Moncks Corner to Downtown Charleston, with recovery time, is estimated to take four hours. Compared to the 2.25-hour roundtrip run time of the Baseline alternative, four hours represents a much greater percentage of an operator's scheduled drive time. There would be limited opportunities for the operator to take a break. The Downtown Charleston alternative would require significantly more resources to maintain the recommended 15-minute trip frequency.

SOUTHERN TERMINUS ALTERNATIVES SCREENING CRITERIA

Objective	Screening Criteria	Screening Criteria Description
Develop a high-capacity transit corridor that can accommodate future population and employment growth	Existing and future transit demand	Average of Transit Propensity Index
	Existing and future Corridor residential and employment densities (population)	Population density
		Population growth
	Existing and future Corridor residential and employment densities (employment)	Employment density
		Employment growth
	Existing and future Corridor residential and employment densities (households)	Household density
		Household growth
Cost effectiveness of alternative	Capital costs	
	Annual operating cost	
	Annual fare revenue	
	Capital costs per annual rider	
	Operating cost per annual rider	
Ridership	Annual ridership	
	Average weekday ridership	

TABLE 5.4: SOUTHERN TERMINUS ALTERNATIVES SCREENING CRITERIA

Scoring, Rating, Ranking

For each criterion, alignment alternatives receive a raw score between zero and one. That score is then multiplied by ten to get a final score for each alignment alternative.

SOUTHERN TERMINUS ALTERNATIVES SCREENING RESULTS

Through this screening and evaluation, Downtown Charleston scores the highest out of the two southern terminus alternatives.While the two alternatives score similarly, the Downtown Charleston southern terminus alternative would only be cost-effective if coordinated with the LCRT as a branch of that service. The southern terminus alternative screening results are provided in **Table 5.5**. Raw numbers for each criterion are included in the **Appendix III**.

SOUTHERN TERMINUS SCREENING CRITERIA RESULTS

Objective	Screening Criteria Description	Weight	Baseline	Charleston
Develop a high-capacity transit corridor that can accommodate future population and employment growth	Transit Demand	**10%**	**4.6**	**5.5**
	Existing and future Corridor densities (Population)	**10%**	**6.5**	**7.7**
	Existing and future Corridor densities (Employment)	**10%**	**6.4**	**7.8**
	Existing and future Corridor (Households)	**10%**	**7.4**	**8.2**
	Compatibility with regional and local plans	**10%**	**8.6**	**2.9**
	Existing traffic conditions and travel flows	**10%**	**5.6**	**5.6**
	Environmental Justice	**10%**	**4.3**	**4.1**
Cost effectiveness of alternative	Capital Costs per Annual Rider	**8%**	**10.0**	**2.2**
	Operating Cost per Annual Rider	**8%**	**3.3**	**10.0**
Ridership	Projected Daily Ridership	**15%**	**10.0**	**10.8**
		Total Score	**66.6**	**64.8**
		Total Weighted Score (Out of 10)	**6.8**	**6.7**

TABLE 5.5: SCREENING CRITERIA RESULTS

RECOMMENDATIONS AND NEXT STEPS

Near-Term Opportunities

The lack of existing transit service along the US 52 Corridor means that there is a lack of demonstrated demand for more transit service, which is needed to justify BRT service. Expanding existing transit service and supportive infrastructure through the short- and long-term recommendations for TCL routes will help to build this needed transit market.

Expanding existing transit service depends on having transit-supportive development patterns, specifically, land use and density levels that support service expansion. Concentrating growth around existing and future transit stations makes it easier for people to incorporate transit into their daily routines. By promoting transit-supportive land uses in the study area, the Corridor can better position itself for expanded and more effective transit service in the future.

The lack of sidewalks along the US 52 Corridor is a significant challenge. If potential transit users cannot safely access bus stations, they will not choose to use transit to make their trip. This is especially an issue in the portion of the Corridor north of Goose Creek. Complete Street elements, including bicycle and pedestrian infrastructure, should be incorporated into any planned roadway improvements and development projects. Concentrating these elements adjacent to key nodes and linking ROW to destinations will build the connectivity needed to support more robust transit service along the Corridor.

The near-term potential for expanded transit service is strongest at the southern end of the US 52 Corridor, near the planned Lowcountry Rapid Transit (LCRT) line. This effort begins with enhancing TriCounty Link (TCL) services to strengthen the local transit network. Once LCRT is operational, opportunities can be explored to connect TCL routes to the LCRT system via the Goose Creek park-and-ride facility. To support this, implementing transit-supportive development policies and improving bicycle and pedestrian infrastructure, as outlined in the US 52 Corridor Study, will be essential.

Long-Term Opportunities

Once transit demand warrants rapid service, the Corridor could be suited for BRT operating in mixed traffic, with upgraded side platform stations and rapid features such as TSP and queue jump lanes. These transit priority treatments can enhance service reliability. As other infrastructure projects are implemented along the Corridor, these priority features should be incorporated to improve future service. Since dedicated lanes are not required, service can be implemented more quickly and phased incrementally. The following describes the BRT elements recommended for US 52 once demand is in place.

BRT Elements

To ensure riders can maximize the transit service offered in the US 52 service area, technology implemented for the US 52 BRT should align with what is planned for the LCRT, where feasible.

Global Elements

Similar to what is planned for LCRT, US 52 is assumed to utilize 60-foot articulated diesel vehicles. Fares would be collected off-board utilizing Ticket Vending Machines (TVM) at BRT stations.

Additional Elements

Running Ways

Running ways determine where in the ROW BRT vehicles operate, as well as how exclusively BRT operates. As noted, based on the projected ridership and existing conditions of the US 52 Corridor, US

FIGURE 5.6: LCRT SIDE PLATFORM STATION RENDERING.

52 BRT is assumed to operate in mixed traffic, with the potential to utilize queue jumps and Transit Signal Priority (TSP) to provide more rapid and reliable service.

Stations

Stations determine where and how passengers board and alight BRT vehicles. US 52 BRT would utilize similar station features as LCRT, including covered shelter or canopy, level boarding, detectable warning surface, wind screen, safety railing, benches, trash receptacles, bollards, lighting, sloped walkway, WiFi, CCTV cameras, TVMs, wayfinding signage, and real-time arrival information. Station size will likely vary based on location. A rendering of LCRT's side platform station is provided in **Figure 5.6**.

US 52 BRT station locations were proposed in the US 52 Corridor Study between Moncks Corner and North Charleston. Through that report, bicycle and pedestrian infrastructure recommendations were made for the area around each potential location. Once the Corridor is ready for BRT to be implemented, sufficient pedestrian and bicycle infrastructure will be a requirement for finalized station locations.

Intelligent Transportation Systems (ITS)

Like LCRT, US 52 BRT would utilize TSP technology to maintain schedule adherence. TSP would also give BRT vehicles utilizing queue jump lanes a green light ahead of adjacent vehicles.

Service planning for US 52 BRT would factor in existing schedules of adjacent TCL and LCRT transit services to facilitate seamless transfers between each service. This would extend the US 52 BRT service area for riders, giving them transit-based access to a wider area of resources, activity centers, and jobs. The coordinated service would ensure these individual transit options collectively operate as a unified network.

EXAMPLES OF SIMILAR BRT PROJECTS

Dixie Rapid: Louisville, KY

The Dixie Rapid[1] is an enhanced bus service in Louisville, KY that serves the 15-mile Dixie Highway corridor between Downtown Louisville and Valley Station, an outlying suburb. The system utilizes 40-foot diesel low-floor buses and the route includes queue jump lanes, dedicated stations with shelters and signage, and TSP at select intersections. Construction of queue jump lanes, sidewalks, stations, signals, and landscaping were part of a larger $34 million Dixie Highway corridor redesign project. Eight buses were purchased to provide 15-minute headways during peak periods and 20-minute headways for non-peak weekday periods and weekdays, from 4:00 am to 11:30 pm.

IndyGO Red Line: Indianapolis, IN

The IndyGO Red Line[2] is a BRT service in Indianapolis, IN that runs 13 miles north-to-south through downtown Indianapolis. The Red Line features some BRT elements, including level boarding, off-board fare payment, dedicated bus lanes, and 60-foot battery-electric buses. Select Red Line runs continue past the BRT corridor to serve local stops. The $96.3 million project included $75 million of FTA Small Starts Grant funds, and extensions are planned.

[1] Commonwealth of Kentucky. Construction Begins to Create New Dixie Highway. December 2017. https://transportation.ky.gov/DistrictFive/Pages/PressReleasePage.aspx

[2] IndyGO. Red Line. https://www.indygo.net/red-line/

US 52 BRT COSTS

Capital Costs

The US 52 BRT Moncks Corner alignment has a total capital cost of $23,437,000 in 2025$. Capital expenditures include vehicles and stations. The alignment would require 12 vehicles, which is 10 peak vehicles and 2 spare vehicles. Stations would be built every 2 miles, but stations would not be needed at the southern terminus of the route because the LCRT Rivers and Melnick station would serve as the southernmost station on the route. 17 stations would be needed. Based on the capital planning for LCRT, capital costs were developed assuming US 52 BRT would utilize New Flyer 60' buses which are $1,130,000 each and stations would cost $581,000. Based on these assumptions, **Table 5.6** outlines US 52 BRT capital costs. If service for the US 52 BRT was planned to begin in 2036, capital costs would likely be incurred in the years prior beginning roughly in 2034. In 2034$, US 52 BRT has a capital cost of $30,580,000.

US 52 BRT MONCKS CORNER ALIGNMENT CAPITAL COSTS

Vehicles	Length (miles)	Miles Between Stations	Total Stations	Station Cost	Vehicle Cost	Total Cost
12	18.6	2	17	$9,877,000	$13,560,000	$23,437,000

TABLE 5.6 US 52 BRT MONCKS CORNER ALIGNMENT CAPITAL COSTS. US BRT capital costs include stations and vehicles only. Costs for TSP, queue-jumps, and park-n-rides are not included. The LCRT Rivers and Melnick station would be the southernmost station used by the US 52 BRT and the only station that would be in Charleston County. All other stations would be built in Berkeley County. 91% of the US 52 BRT Moncks Corner alignment would run in Berkeley County and 9% would run in Charleston County.

Operating Costs

The US 52 BRT Moncks Corner alignment has a total annual operating cost of $5,477,000 in 2025$. Operating costs were calculated assuming the route would run every 15 minutes from 5am to 7pm daily at a speed of 18 MPH and factoring in a 10% layover. The cost per vehicle revenue hour was taken from CARTA's NTD reported cost per revenue hour for 2023 and escalated to 2025$ assuming a 3% inflation rate. Operating cost is outlined in **Table 5.7**.

US 52 BRT MONCKS CORNER ALIGNMENT ANNUAL OPERATING COST

Frequency (mins)	One-Way Running Times (mins)	Peak Cycle Time (mins)	Revenue Hours	Total Hours	Revenue Miles	Peak Vehicles	Operating Cost
15	62	150	46,392	48,712	759,142	10	$5,477,000

TABLE 5.7 US 52 BRT MONCKS CORNER ALIGNMENT ANNUAL OPERATING COST

6. IMPLEMENTATION OF TCL SERVICE AND BRT FEASIBILITY RECOMMENDATIONS

NEXT STEPS

Implementation begins with short-term route recommendations, long-term route recommendations, as well as improvements to pedestrian infrastructure needed to safely access transit. Annual operating costs for short-term recommendations, long-term recommendations, and the US 52 BRT alignment alternative recommendation have been projected out based on the following assumed timeframe for implementation:

- **Short-Term Recommendations** – 1 to 5 years: Begin with short-term recommendations that are relatively cost-neutral and the implementation of development policies that support the addition of transit-supportive infrastructure. Explore funding tools, such as developer contributions to a mobility fund, and continue implementing short-term recommendations as funding is identified. Pilot the expanded CS8 on-demand zone while monitoring ridership changes.
- **Long-Term Recommendations** – 5 to 10 years: Identify sustainable long-term sources of transit funding to support operations, capital needs, and local match for federal funds. Implement long-term recommendations holistically to optimize the connectivity and usefulness of each route. Base implementation on the pace of development in the study area.
- **US 52 BRT** – 10+ years: Monitor transit ridership, market demand, TOD patterns, and pedestrian infrastructure to determine when to implement US 52 BRT service.

Costs in **Tables 6.1 through 6.5** are projected from 2025$ to 2045$ using an inflation rate of 3% and have been rounded. Operating and capital costs for TCL short-term recommendations are provided in **Table 6.1**. Operating and capital costs for TCL long-term recommendations are split into US 52 routes and additional adjacent routes. Costs for US 52 routes are provided in **Table 6.2** and costs for additional adjacent routes are provided in **Table 6.3**. Operating costs for US 52 BRT Moncks Corner alternative are provided in **Table 6.4**. Operating and capital costs for short-term recommendations, long-term recommendations, and US 52 BRT Moncks Corner alternative are summarized in **Table 6.5** for the total 20-year operating period. **Figure 6.2** provides a general timeline for implementation of these recommendations.

TCL SHORT-TERM RECOMMENDATIONS COSTS

Routes	Year	Operating Costs	Total Capital Costs Bus Stops (2025$)
B101 B102 B104 CS1 CS8 Zone	2026	$1,393,000	$105,000
	2027	$1,435,000	
	2028	$1,478,000	
	2029	$1,522,000	
	2030	$1,568,000	

TABLE 6.1 TCL SHORT-TERM RECOMMENDATIONS COSTS. No new vehicles are needed to implement short-term recommendations. Short-term capital costs include bus stops only.

TCL US 52 CORRIDOR ROUTES LONG-TERM RECOMMENDATIONS COSTS

Routes	Year	Operating Costs	Capital Costs Vehicles (2025$)	Capital Costs Bus Stops (2025$)
B101 Route 1 Route 4 CS1 Moncks Corner Zone Strawberry Zone Goose Creek Zone	2031	$6,904,000	$7,365,000	$1,765,000
	2032	$7,111,000		
	2033	$7,325,000		
	2034	$7,544,000		
	2035	$7,771,000		
	2036	$8,004,000		
	2037	$8,244,000		
	2038	$8,491,000		
	2039	$8,746,000		
	2040	$9,008,000		
	2041	$9,278,000		
	2042	$9,557,000		
	2043	$9,843,000		
	2044	$10,139,000		
	2045	$10,443,000		

TABLE 6.2: TCL US 52 CORRIDOR ROUTES LONG-TERM RECOMMENDATIONS COSTS.

TCL ADDITIONAL ADJACENT ROUTES LONG-TERM RECOMMENDATIONS COSTS

Routes	Year	Operating Costs	Capital Costs Vehicles (2025$)	Capital Costs Bus Stops (2025$)
Route 2 CS2 Summerville N Zone Summerville S Zone	2031	$2,735,000	$3,306,000	$1,278,000
	2032	$2,817,000		
	2033	$2,901,000		
	2034	$2,988,000		
	2035	$3,078,000		
	2036	$3,170,000		
	2037	$3,265,000		
	2038	$3,363,000		
	2039	$3,464,000		
	2040	$3,568,000		
	2041	$3,675,000		
	2042	$3,785,000		
	2043	$3,899,000		
	2044	$4,016,000		
	2045	$4,136,000		

TABLE 6.3:TCL ADDITIONAL ADJACENT ROUTES LONG-TERM RECOMMENDATIONS COSTS.

US 52 BRT MONCKS CORNER OPERATING COSTS

Year	Implementation Time Frame	Annual Operating Costs
2036	US 52 BRT Moncks Corner Alignment (10+ years)	$7,582,000
2037		$7,809,000
2038		$8,043,000
2039		$8,285,000
2040		$8,533,000
2041		$8,789,000
2042		$9,053,000
2043		$9,324,000
2044		$9,604,000
2045		$9,892,000

TABLE 6.4: US 52 BRT MONCKS CORNER OPERATING COSTS.

SUMMARY OF 20-YEAR TOTAL OPERATING AND CAPITAL COSTS

	Short-Term	Long-Term	US 52 BRT	Total Costs
Operating Costs	$7,396,000	$179,268,000	$86,914,000	$273,578,000
Capital Costs	$105,000	$13,714,000	$23,437,000*	$37,256,000

TABLE 6.5: SUMMARY OF 20-YEAR TOTAL OPERATING AND CAPITAL COSTS. *Before the US BRT can begin operation, vehicles would need to be purchased, and stations would need to be built. Assuming US 52 BRT would begin operation in 2036, capital construction and vehicle procurement would need to occur in the years leading up to this. The total capital cost estimated for the US 52 BRT in 2025$ is $23,437,000. The final capital cost for US 52 BRT will be determined based on the year of implementation, refined design specifications, and related inflation.

FIGURE 6.2: IMPLEMENTATION TIMELINE.

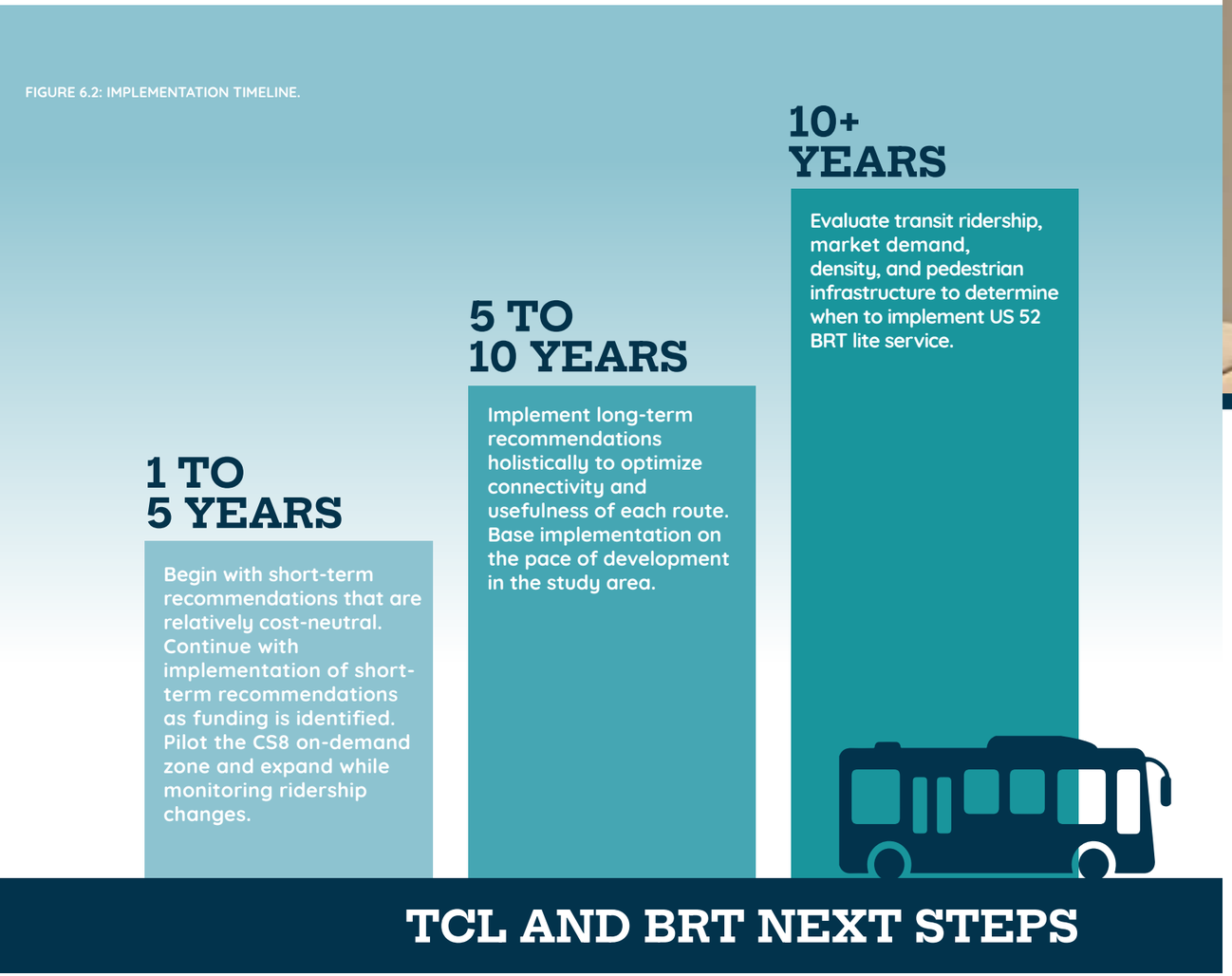


FIGURE 7.1: TRICOUNTY BUS STOP.

7. FUNDING SOURCES

FEDERAL AND LOCAL FUNDING SOURCES

Funding sources available for short-term recommendations, long-term recommendations, and the US 52 BRT alignment alternative recommendation are listed in **Table 7.1** and local funding sources and strategies are listed in **Table 7.2** Routes within the study area are eligible for both urban and rural federal funding, determined by whether routes fall into census designated urban or rural areas. **Figure 7.2** displays which routes fall into these designated urban and rural areas.

TCL is currently funded through the Federal Transit Administration's (FTA) Urbanized Area Formula Grant (5307); FTA's Rural Area Formula Grant (5311); FTA's Bus and Bus Facilities Program (5339); Berkeley, Charleston, and Dorchester Counties; state mass transit funds; advertising income; contracts; farebox revenue; as well as some miscellaneous income.

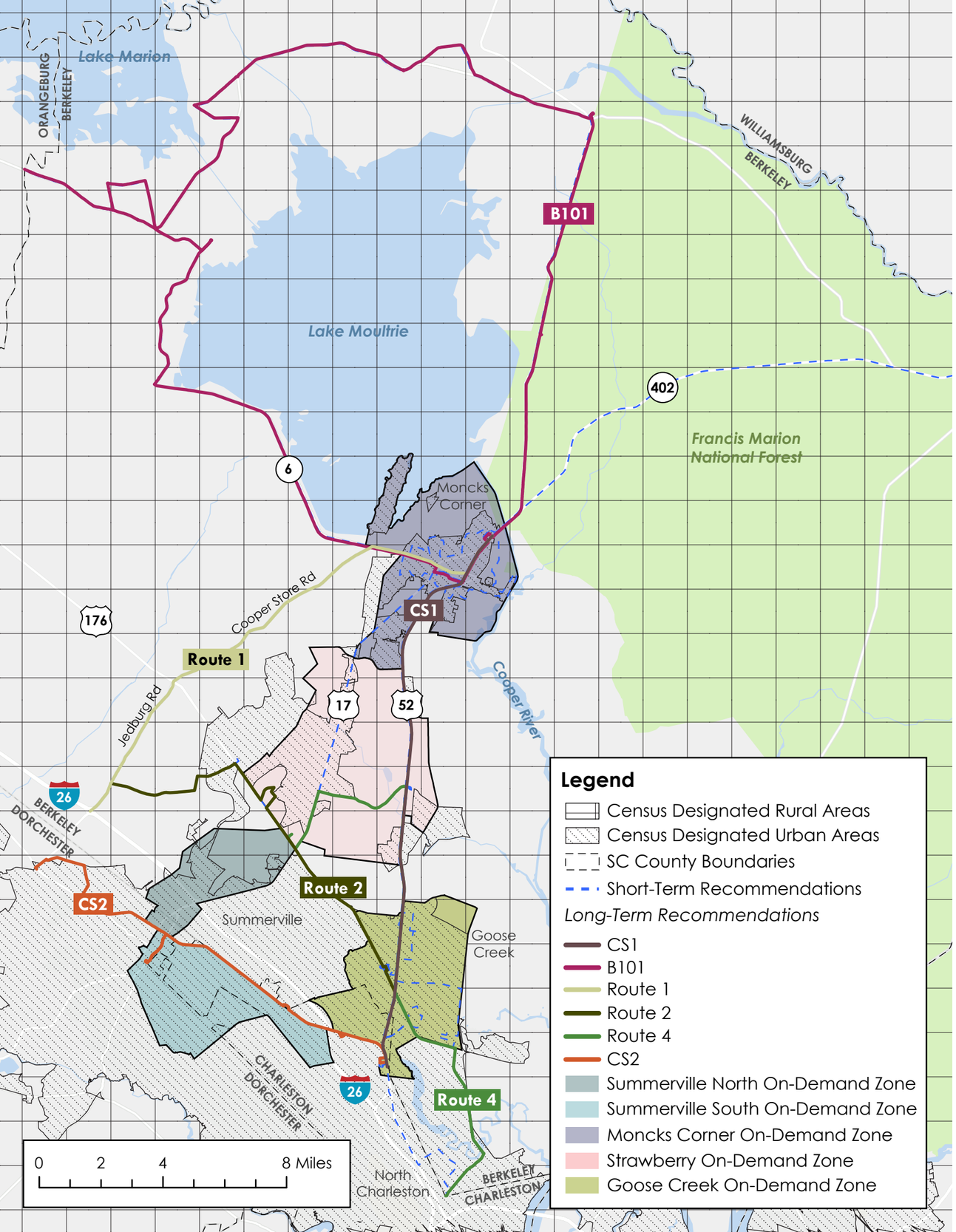


FIGURE 7.2: CENSUS DESIGNATED URBAN AND RURAL AREAS

FEDERAL FUNDING SOURCES

Funding Source	Description	Operating	Capital	Notes
5307 Urbanized Area Formula Grants	**Program Purpose:** Formula funding for urbanized areas for transit capital and operating assistance and for transportation-related planning. **Eligible Recipients:** For urbanized areas with a population of 200,000 or more, governors, responsible local officials and providers of publicly owned public transportation service shall select a designated recipient to receive and apportion funds to eligible projects and recipients within the urbanized area. Funding for urbanized areas with a population of between 50,000 and 199,999 is made available to a State's or territory's governor or governor's designee. For urbanized areas with a population of less than 200,000, the governor or governor's designee is responsible for receiving and apportioning funds to eligible projects and recipients. **Eligible Projects:** Planning, engineering, design and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities such as replacement, overhaul and rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities; and capital investments in new and existing fixed guideway systems including rolling stock, overhaul and rebuilding of vehicles, station infrastructure, track, signals, communications, and computer hardware and software. For urbanized areas with populations less than 200,000, operating assistance is an eligible expense. Urbanized areas of 200,000 or more may not use funds for operating assistance unless identified by FTA as eligible under 49 U.S.C. 5307(a)(2) and (3). $3,257,010,123 is apportioned for FY 2025 (partial year).[1]	X	X	This source is currently utilized by BCDCOG.
5311 Rural Area Formula Grants	**Program Purpose:** Capital, planning, and operating assistance to states and federally recognized Indian tribes to support public transportation in rural areas with populations less than 50,000. **Eligible Recipients:** States and federally recognized Indian tribes. Subrecipients may include state or local government authorities, nonprofit organizations, or operators of public transportation or intercity bus service that receive funds indirectly through a recipient. **Eligible Projects:** Planning, public transportation capital projects; operating costs of equipment and facilities for use in public transportation; job access and reverse commute projects; and acquisition of public transportation services, including service agreements with private providers of public transportation. $835,000,000 is apportioned for FY 2025 and $856,000,000 is apportioned for FY 2026.[2]	X	X	This source is currently utilized by BCDCOG.

TABLE 7.1: FEDERAL FUNDING SOURCES.

[1] FTA. Urbanized Area Formula Grants – 5307. https://www.transit.dot.gov/funding/grants/urbanized-area-formula-grants-5307
[2] FTA. Fact Sheet: Formula Grants for Rural Areas. April 2025. https://www.transit.dot.gov/funding/grants/fact-sheet-formula-grants-rural-areas

FEDERAL FUNDING SOURCES, CONT'D.

Funding Source	Description	Operating	Capital	Notes
5310 Seniors and Individuals with Disabilities Formula Grants	**Program Purpose:** Formula funding to states to meet the special needs of seniors and individuals with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. **Eligible Recipients**: Funding is made available to direct recipients. For rural and small urbanized areas (small UZAs), the state is the direct recipient. For large, urbanized areas (large UZAs), the governor of the state chooses a designated recipient. State or local governmental entities that operate a public transportation service are also eligible recipients. Subrecipients can include states or local government authorities, private nonprofit organizations, or operators of public transportation. **Eligible Projects:** Both traditional capital investment to meet the special needs of seniors and individuals with disabilities and nontraditional investment beyond the Americans with Disabilities Act (ADA) complementary paratransit services. Examples of eligible projects include wheelchair lifts; ramps; information technology; building an accessible path to bus stops including curb-cuts, sidewalks, accessible pedestrian signals; and improved signage. $447,000,000 is apportioned for FY 2025 and $457,000,000 is apportioned for FY 2026.[3]		X	This source of funding could specifically be used to ensure pedestrian infrastructure for accessing transit services is accessible.
5339(a) Buses and Bus Facilities Formula Grants	**Program Purpose:** Funding to states and transit agencies through a statutory formula to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. **Eligible Recipients:** Designated recipients that operate fixed route bus service or that allocate funding to fixed route bus operators; and State or local governmental entities that operate fixed route bus service that are eligible to receive direct grants under 5307 and 5311. **Eligible Projects:** Capital projects to replace, rehabilitate, and purchase buses, vans, and related equipment, and to construct bus-related facilities, including technological changes or innovations to modify low or no emission vehicles or facilities.[4] $662,000,000 total is apportioned for FY 2026 for the Grants for Bus and Bus Facilities.[5]		X	This source is currently utilized by BCDCOG.

TABLE 7.1: FEDERAL FUNDING SOURCES, CONTINUED.

[3] FTA. Fact Sheet: Enhanced Mobility for Seniors and Individuals with Disabilities. April 2025. https://www.transit.dot.gov/funding/grants/fact-sheet-enhanced-mobility-seniors-and-individuals-disabilities
[4] FTA. Grants for Buses and Bus Facilities Formula Program - 5339(a). https://www.transit.dot.gov/funding/grants/busprogram
[5] FTA. Fact Sheet: Buses and Bus Facilities Program. April 2025. https://www.transit.dot.gov/funding/grants/fact-sheet-buses-and-bus-facilities-program

FEDERAL FUNDING SOURCES, CONT'D.

Funding Source	Description	Operating	Capital	Notes
5339(b) Buses and Bus Facilities Formula and Competitive Grants	**Program Purpose:** Funding for states and direct recipients to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities, including technological changes or innovations to modify low or no emission vehicles or facilities. Funding is provided through formula allocations and competitive grants. **Eligible Recipients**: Designated recipients that allocate funds to fixed-route bus operators, states (including territories and Washington D.C.) or local governmental entities that operate fixed route bus service, and Indian tribes. Eligible subrecipients include all otherwise eligible applicants and also private nonprofit organizations engaged in public transportation. **Eligible Projects:** Capital projects to replace, rehabilitate and purchase buses, vans, and related equipment, and to construct bus-related facilities, including technological changes or innovations to modify low or no emission vehicles or facilities. On May 14, 2025, the Federal Transit Administration (FTA) announced the availability of approximately $398,000,000 for this program.[6]		X	This source is currently utilized by BCDCOG.
5339(c) Buses and Bus Facilities Competitive Grants	**Program Purpose:** Competitive funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, and leasing of required supporting facilities. **Eligible Recipients:** Eligible applicants include direct or designated recipients of FTA grants; States; local governmental authorities; and Indian Tribes. Except for projects proposed by Indian Tribes, proposals for funding eligible projects in rural (non-urbanized) areas must be submitted as part of a consolidated state proposal. States and other eligible applicants also may submit consolidated proposals for projects in urbanized areas. **Eligible Projects:** The purchase or lease of zero-emission or low-emission transit buses, including acquisition, construction, and leasing of supporting facilities. On May 14, 2025, the Federal Transit Administration (FTA) announced the availability of approximately $1,100,000,000 for this program.[7]		X	In alignment with LCRT, diesel buses will be purchased to fulfill fleet requirements for US 52 long-term and BRT recommendations. In the future, if BCDCOG decides to purchase zero or low-emission buses, this funding source could be used.

TABLE 7.1: FEDERAL FUNDING SOURCES, CONTINUED.

[6] FTA. FTA. Grants for Buses and Bus Facilities Program. May 2025. https://www.transit.dot.gov/bus-program
[7] FTA. Low or No Emission Grant Program - 5339(c). May 2025. https://www.transit.dot.gov/lowno

FEDERAL FUNDING SOURCES, CONT'D.

Funding Source	Description	Operating	Capital	Notes
United States Department of Transportation (USDOT) Discretionary Grants	**Program Purpose:** A range of USDOT grant programs for transportation infrastructure. **Eligible Recipients:** State and local governments; federally recognized tribes and affiliated groups; planning and project organizations; transportation providers and operators; academic and research institutions; job training applicants; private-sector applicants; non-profits; and US territories. **Eligible Projects:** Planning; construction; equipment and materials; operations and maintenance; technology demonstrations and deployment; technical assistance, workforce development, and training/education; research and development; climate and sustainability; accessibility; and sustainability.[8] $7,500,000,000 was apportioned through USDOT's discretionary grant program for the 5-year period from 2022 to 2026.[9]	X	X	The application cycle begins with pre-award, during which applicants apply for applicable grants and USDOT reviews applications. Then during the award period, applicants are notified of award decisions, USDOT disburses funds, and projects are implemented. During the post-award period, USDOT monitors the project progress via grantee-submitted progress reports, and finally grantees complete closeout requirements and submit final reports to USDOT[10]
Federal Highway Administration (FHWA) Transportation Alternatives Program	**Program Purpose:** The Transportation Alternatives (TA) Set-Aside from the Surface Transportation Block Grant (STBG) Program provides funding for a variety of generally smaller-scale transportation projects. **Eligible Recipients:** A Metropolitan Planning Organization (MPO) that represents an area with a population of 200,000 of fewer, any nonprofit entity responsible for the administration of local safety programs, and states (at the request of another eligible entity. **Eligible Projects:** Pedestrian and bicycle facilities; construction of turnouts, overlooks, and viewing areas; community improvements such as historic preservation and vegetation management; environmental mitigation related to storm water and habitat connectivity; recreational trails; safe routes to school projects; and vulnerable road user safety assessments. $1,468,224,182 is available for FY 2025 and $1,497,558,662 is available for FY 2026.[11]		X	This funding source could be used to fund the pedestrian facilities needed to access transit.

TABLE 7.1: FEDERAL FUNDING SOURCES, CONTINUED.

[8] USDOT. DOT Competitive Grants Dashboard. https://www.transportation.gov/grants/dashboard
[9] CHATS. Long Range Transportation Plan: Implementation and Funding. February 2024.
[10] USDOT. Grant Application Roadmap. March 2025. https://www.transportation.gov/rural/grant-toolkit/grant-application-process/grant-applicant-roadmap
[11] FHWA. Transportation Alternatives. https://www.fhwa.dot.gov/environment/transportation_alternatives/

LOCAL FUNDING SOURCES

Source	Applicability
Berkeley County One-Cent Sales Tax	The Berkeley County One Cent Sales Tax Program, approved by voters in 2008, 2014, and 2022, is earmarked to finance the costs of bridges, intersection improvements, roadway resurfacing, roadway widening, storm water, sewer, greenbelt, and other transportation-related projects within Berkeley County. Funds generated from this sales tax are anticipated to be $587 million over seven years (2022-2029).[12] Funding for transit is eligible under this tax program.
2004 Charleston Half-Cent Sales Tax	In the fall of 2004, Charleston County voters approved a half-cent sales tax on purchases made within the County for twenty-five (25) years, or until $1.3 billion is collected. The intent of the sales tax is to fund the costs of highways, roads, streets, bridges, and other transportation-related projects and drainage facilities. 18% of revenue from this tax program goes to capital and operations funding for CARTA and TCL in Charleston County.[13]
2016 Charleston County Half-Cent Sales Tax	The second half-cent sales tax referendum, passed in November 2016, includes $ 1.89 billion collected for transportation-related projects and mass transit.[14]
Public-Private Partnership (P3)	A Public-Private Partnership is formed through collaboration between a government agency and private-sector organizations, leveraging both public and private funding for projects.[15]
Tax Increment Financing District (TIF)	When a TIF district is created, the property tax base is frozen at predevelopment levels, and the portion of property tax revenues derived from increases in assessed values is applied to a special fund.
Municipal Improvement District (MID)	Authorized in South Carolina by the Municipal Improvements Act of 1999, a MID can be created by any municipal government with the approval of property owners in the improvement district. Funds assessed from property owners' part of the MID can be used for infrastructure improvements, streetscape projects, transit station improvements, etc.
Employer Transit Passes	Transit agencies sell monthly passes to local employers along routes at a discounted rate for pre-tax employee purchase/distribution programs—discounts can be offered for a higher volume of purchase.
Developer Contributions to Mobility Fund	Direct contributions (fees) from developers to a fund intended to support infrastructure investment in the immediate area. This is a common practice nationally and was identified in the One Berkeley Comprehensive Plan as necessary to assure adequate infrastructure and services to accompany growth.
Direct Business Contributions	Contractual agreements between transit agencies and local businesses to enhance and/or maintain transit service through a contribution of funding.
Municipal Contributions	Municipalities can contribute funding to transit projects with a significant local impact.

TABLE 7.2: LOCAL FUNDING SOURCES.

[12] Berkeley County. Ordinance No. 22-08-48. 2022.
[13] Charleston County. Charleston County Ordinance No. 1324. August 2004.
[14] Charleston County. An Ordinance. August 2016.
[15] USDOT. Overview of Funding and Financing at USDOT. March 2025. https://www.transportation.gov/grants/dot-navigator/overview-funding-and-financing-usdot