BRITE Microtransit Feasibiliity Study






Final Report

July 2025

Kimley»Horn

Celebrating 55 Years
CSPDC
Central Shenandoah Planning District Commission

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Executive Summary

Introduction

The Central Shenandoah Planning District Commission (CSPDC) conducted a comprehensive feasibility study to evaluate the potential for implementing microtransit service within the BRITE Bus service area, which includes Staunton, parts of Augusta County, and Waynesboro. This study responds to evolving community needs, interest in identifying more efficient service, and the desire to expand mobility options for underserved populations. The CSPDC initiated the study following the 2022 Transit Development Plan (TDP), which identified microtransit as an initiative to explore further.

What is Microtransit?

Microtransit is a flexible, on-demand public transportation service that uses smaller vehicles (like vans, shuttles, and small buses) and dynamic routing—similar to ride-hailing apps. This service model improves access, reduces wait times, and serves areas where traditional fixed-route buses operate less effectively.

Project Process

The study involved reviewing existing planning documents, engaging stakeholders, and analyzing demographic, socioeconomic, and trip demand data. Researchers identified key areas as microtransit opportunity zones based on transit potential, need, existing transit service performance, and travel patterns. The team developed recommendations that can be advanced following the feasibility study.

Key Findings

The study identified high-need areas, underperforming routes, travel patterns that could align with microtransit service, and stakeholder support for microtransit. Portions of Staunton, Waynesboro, Fishersville, and Lyndhurst demonstrated the highest transit need, while low-density outlying areas proved most suitable for microtransit. The existing Stuarts Draft Link and BRCC North & South routes showed lower productivity and are strong candidates for microtransit replacement or support. Significant travel occurs along the US 250 corridor and between Staunton and Waynesboro—areas where microtransit could enhance connectivity and feed customers into the BRITE Bus system.

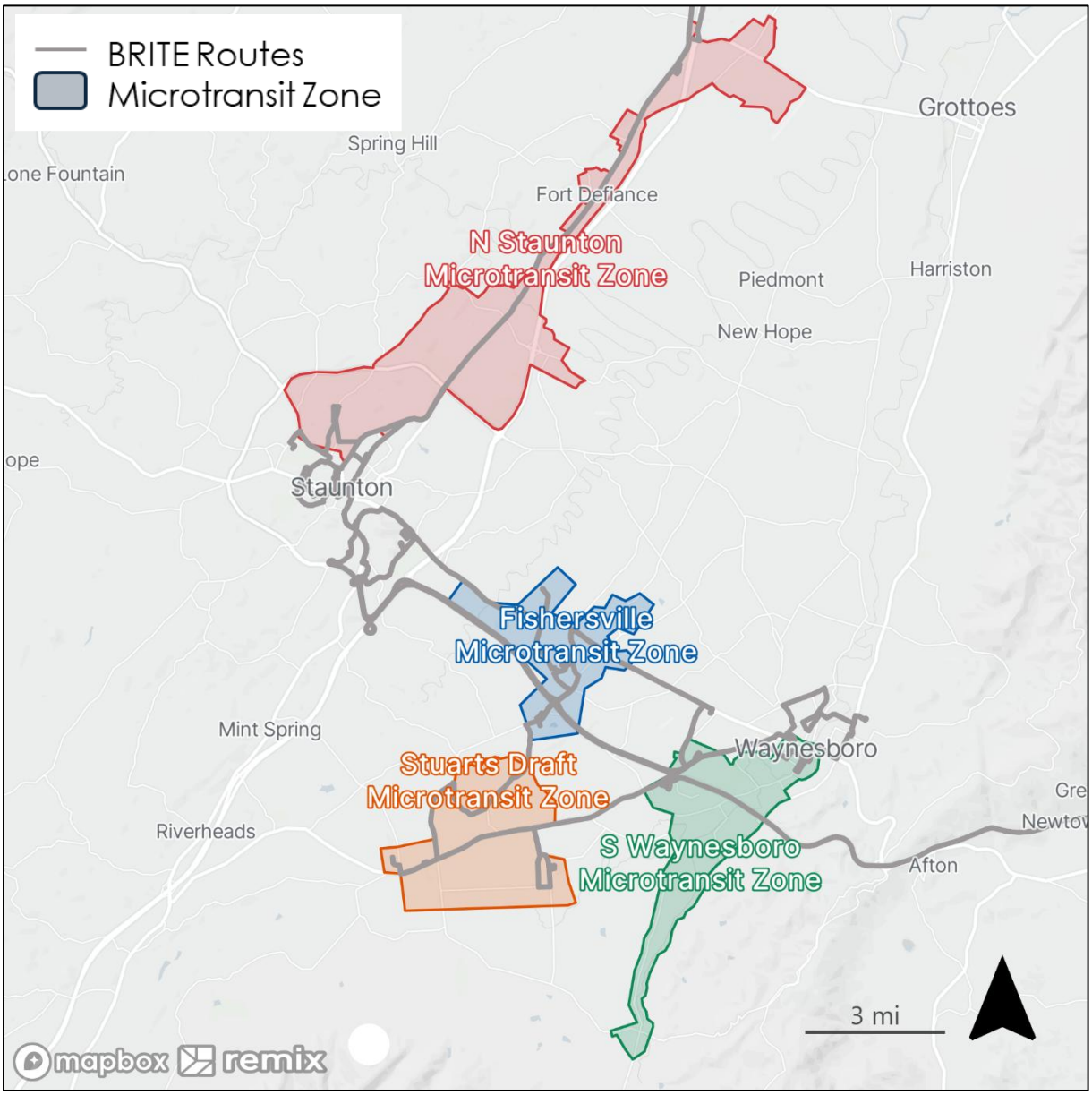
Recommended Microtransit Zones

An opportunity zone is a geographic area where microtransit services are particularly well-suited and have potential to address specific transportation needs. A zone also represents the area within which a customer's trip must begin or end. In some cases, external nodes can provide connections to key destinations outside the microtransit zone or connections to the greater transit network. A trip to or from an external node must begin or end within the defined microtransit zone.

This study identifies seven opportunity zones within the region surrounding BRITE's existing transit network. The study prioritizes four of the seven opportunity zones for near-term implementation: North Staunton, South Waynesboro, Fishersville, and Stuarts Draft (see **Figure 1**). The study team selected these priority zones based on transit need, and the potential to yield

the most immediate and greatest benefit if implemented. The selected zones also offer geographic diversity and future flexibility, covering key areas in Staunton, Waynesboro, and Augusta County.

Figure 1: Priority Microtransit Opportunity Zones



The study recommends piloting weekday microtransit service in one of these four priority zones. The pilot zone should be selected based on available funding. This service may be expanded to Saturday operations or additional zones, depending on the initial pilot's performance.

Recommended Service Model

The study recommends a turnkey service model, where all transit services—including microtransit— operate under a single contract. Under this approach, the CSPDC's contractor that currently provides fixed-route, commuter, and paratransit services would also provide microtransit in the future. The CSPDC would execute this plan through an amendment to an existing turnkey contract. This model offers simplified administration, better integration with existing services,

greater cost efficiency, and potentially faster implementation compared to alternative service models that the study team evaluated.

Implementation Plan

The study outlines a phased approach: Pre-Launch (6–12 months prior), Launch (0–3 months), and Post-Launch (3–18 months). Key activities include securing funding and selecting a pilot zone, developing marketing plans, amending the turnkey services contract with service provider, promoting the new service, monitoring performance, gathering rider feedback, and refining the service.

Estimated Costs and Ridership

The estimated annual costs and daily ridership for the prioritized zones are as follows:

Table 1: Comparison of Annual Cost and Daily Ridership

Zone	Annual Cost (Weekday)	Estimated Daily Ridership	Peak Vehicles Needed
North Staunton	$915,200 - $967,200	95 – 135 riders/day	3 to 4
South Waynesboro	$696,800 - $811,200	105 – 150 riders/day	3
Fishersville	$540,800 – $644,800	55 – 80 riders/day	2
Stuarts Draft	$696,800 - $811,200	85 – 120 riders/day	2

Note: Cost estimates are based on $80 per vehicle revenue hour, estimated ridership ranges, and assumed service hours of 6:30 AM to 7:30 PM on weekdays. A turnkey service delivery model is assumed, inclusive of vehicles, technology, and operators. Based on study team research, turnkey microtransit operations typically cost between $65 to $90 per vehicle revenue hour. Actual costs may vary depending on final service parameters, including hours of operation, wait time targets, and ridership levels.

Additional Recommendations

Additionally, the study provides recommendations on fleet options, fare structure, technology, staffing, engagement strategies, data collection and reporting, as well as partnerships and funding opportunities. These recommendations aim to improve and expand BRITE's current services while leveraging existing infrastructure and processes to facilitate sustainable growth.

Conclusion

Microtransit presents a strategic opportunity to modernize and expand public transportation in the BRITE service area. With community support for additional transit connections, clear service gaps, and a scalable implementation plan, the CSPDC is well-positioned to pilot microtransit and improve mobility for residents across the region.

Introduction

Purpose of the Study

The CSPDC plans and manages BRITE Bus, which operates fixed-route, commuter, and paratransit services in the Staunton-Augusta-Waynesboro region. BRITE Bus is operated under contract by Virginia Regional Transit (VRT). The CSPDC is exploring public transportation alternatives to best serve its ridership and the community. One of the more viable alternatives of interest is on-demand microtransit service. This service has become a popular solution for transit providers looking to supplement underperforming fixed-route service or to increase mobility options in the service area. The CSPDC conducted this microtransit feasibility study to analyze potential service models, associated costs, and key considerations for implementing on-demand microtransit service within its current service area.

This study's objective was to identify opportunities for microtransit in BRITE's current and future service structures, determine demand for service, and evaluate potential service models for future implementation.

Microtransit Overview

Microtransit is a flexible, on-demand type of transportation service that uses trip optimization methods similar to private ride-hailing services under the umbrella of public transit. Microtransit typically uses smaller vehicles, like vans, which can be dynamically routed based on real-time rider demand, often coordinated through mobile app technology. Microtransit typically operates in zones of five- to 15-square mile areas including or connecting to designated transit stops or activity hubs. The benefits of microtransit include opportunities to improve connectivity, reduce rider wait times compared to infrequent fixed-route service, and expand service to underserved areas. Microtransit can also offer greater flexibility to customers who qualify for ADA paratransit services, if they can safely utilize microtransit services.

Figure 2: Characteristics of Microtransit

Project Process

The study team reviewed existing planning documents from the jurisdictions within the BRITE service area to identify current and future initiatives that can complement or be supported by microtransit, as well as existing goals for the area which can be supported by a microtransit service. Following this, the study team developed a set of goals for a microtransit service based on region specific values identified by the study team and the BRITE Transit Advisory Committee (BTAC). The study team identified areas most suitable for microtransit, determined opportunity zones, by utilizing stakeholder feedback, census-data powered spatial analysis, and trip demand

data. The study team prioritized candidate opportunity zones and considered different service models to best match the needs of the CSPDC and evaluated cost for service recommendations.

Stakeholder Engagement

The study team gathered feedback from stakeholders throughout the study. The BTAC was engaged to introduce the concept of microtransit, gather needs, and provide feedback on the draft service plan through two virtual meetings. The first meeting focused on introducing the study and gathering goals and assessing needs for this type of transit service. The second meeting focused on the review of the identified microtransit opportunity zones identified, draft service plan, and draft recommendations, wherein the study team presented the recommendations for feedback prior to completing the Draft Report.

The attendees at both meetings included representatives from:

- Augusta Health
- Blue Ridge Community College (BRCC)
- County of Augusta
- City of Staunton
- City of Waynesboro
- Virginia Department of Rail and Public Transportation (DRPT)
- Shenandoah Valley Social Services (SVSS)
- Staunton Downtown Development Association (SDDA)
- Transit service riders
- Valley Community Services Board (VCSB)
- Virginia Regional Transit (VRT)
- Wilson Workforce Rehabilitation Center (WWRC)

Key Takeaways from Meeting 1 Tuesday, November 13, 2024; 1:30 PM
• It is a challenge to serve Augusta County with transit given its large size (967 square miles)
• Stakeholders advocated for considering microtransit for Greenville, Crimora, and Grottoes
• Microtransit could be a replacement alternative to the current Stuarts Draft Link service
• BRCC students often need evening service when they miss the last bus
• Staunton desires more service in areas experiencing new development, such as Middlebrook Road/Seth Drive
• Service to low-income housing in Waynesboro is a need
• Consider how microtransit could be an option for an aging population

Key Takeaways from Meeting 2 Wednesday, March 12, 2025; 2:30 PM
• Stakeholders inquired about the considerations for replacing current fixed-route service, and what level of performance indicates when a fixed route service is no longer viable
• Stakeholders inquired about the methodology for determining service span for potential services and considerations for fares to offset cost of new service

Foundations

This section establishes the groundwork for developing a successful microtransit strategy. The study team reviewed relevant planning documents from jurisdictions within the BRITE service area, developed and defined goals for a successful microtransit service, and conducted a comprehensive analysis of current conditions. Beginning with the review of previous and current plans, the study team identified regional priorities that align with and could reasonably be supported by the implementation of a microtransit service.

Previous Plans

Previous Plans Reviewed

- Community Action Partnership of Staunton, Augusta, and Waynesboro (CAPSAW) Fiscal Year (FY) 2024 Community Needs Assessment Report
- 2014 Augusta County Comprehensive Plan
- 2018 Waynesboro Comprehensive Plan
- 2018 Staunton Comprehensive Plan and 2024 Staunton Plan
- 2024 West End Revitalization Strategies Plan
- 2022 BRITE Transit Development Plan (TDP)
- 2050 SAWMPO Long Range Transportation Plan (LRTP) Survey

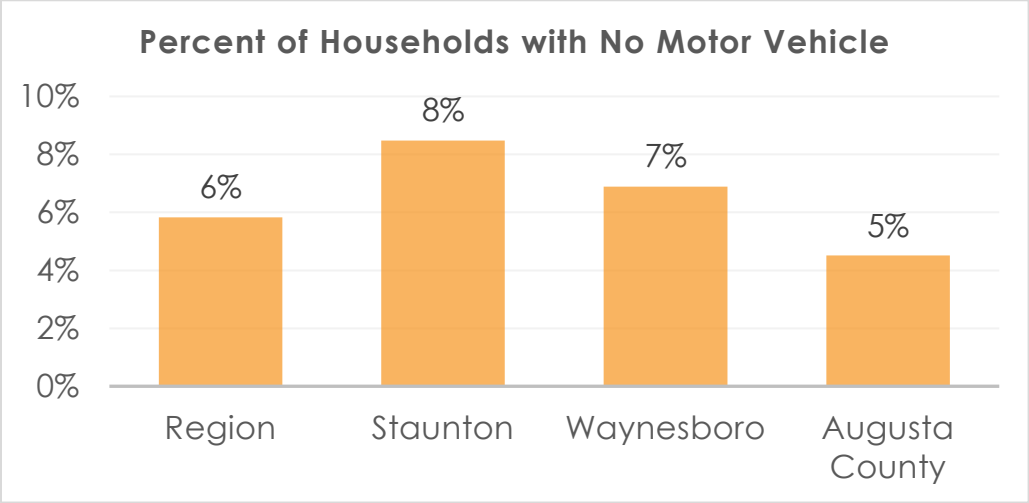
CAPSAW FY24 Community Needs Assessment Report

This report was published in 2024 by the Community Action Partnership of Staunton, Augusta and Waynesboro (CAPSAW) and aimed to define the local causes and conditions of poverty and develop priorities, recommendations, and strategies to address these challenges. The following key points provided relevant contextual information for the microtransit feasibility study:

- Transportation challenges identified in the area are a lack of on-demand transit—limited public transportation system hinders access to existing programs and services.
- Of the estimated 50,424 occupied households in the region, nearly 6% do not have a motor vehicle.
- The CAPSAW Community Survey inquired about topics such as housing, community health, employment, education, childcare, and transportation.

The number of households within the region with no motor vehicle access is highest in Staunton (8%) and Waynesboro (7%). **Figure 3** shows the distribution of homes with no motor vehicles in the region. Households or individuals that do not own or have access to private vehicles are considered prime candidates for transit services. They are more likely to depend on public transportation for their mobility needs, if such services are made available for their use.

Figure 3: Percent of Households with No Motor Vehicle



Source: CAPSAW, 2024; ACS 2017-21

Table 2: Method of Transportation used to Travel to Work

	Workers 16 and Up	Percent Drive Alone	Percent Carpool	Percent Public Transportation	Percent Bicycle or Walk	Percent Taxi or Other	Percent Work at Home
SAW Region	58,934	83.20%	8.40%	0.40%	1.80%	0.70%	5.60%
Augusta County, VA	36,339	84.20%	8.90%	0.40%	0.60%	0.40%	5.60%
Staunton City, VA	11,881	81.40%	6.90%	0.40%	5.10%	1.20%	5.00%
Waynesboro City, VA	10,714	81.70%	8.60%	0.40%	2.20%	0.90%	6.30%
Virginia	4,268,079	72.80%	8.50%	3.40%	2.60%	1.40%	11.40%

Data Source: US Census Bureau, American Community Survey. 2017-21.

2014 Augusta County Comprehensive Plan

This plan was published between 2014–2015 and is currently undergoing an update at the time of this report. The comprehensive plan addresses policies for all aspects of the community including housing, health, the economy, education, transportation, recreation, and the natural environment. The comprehensive plan analyzes existing conditions, growth trends, and projected future needs of the county to achieve the same quality of life for all parts of the county. The following key points provided relevant contextual information for the microtransit feasibility study:

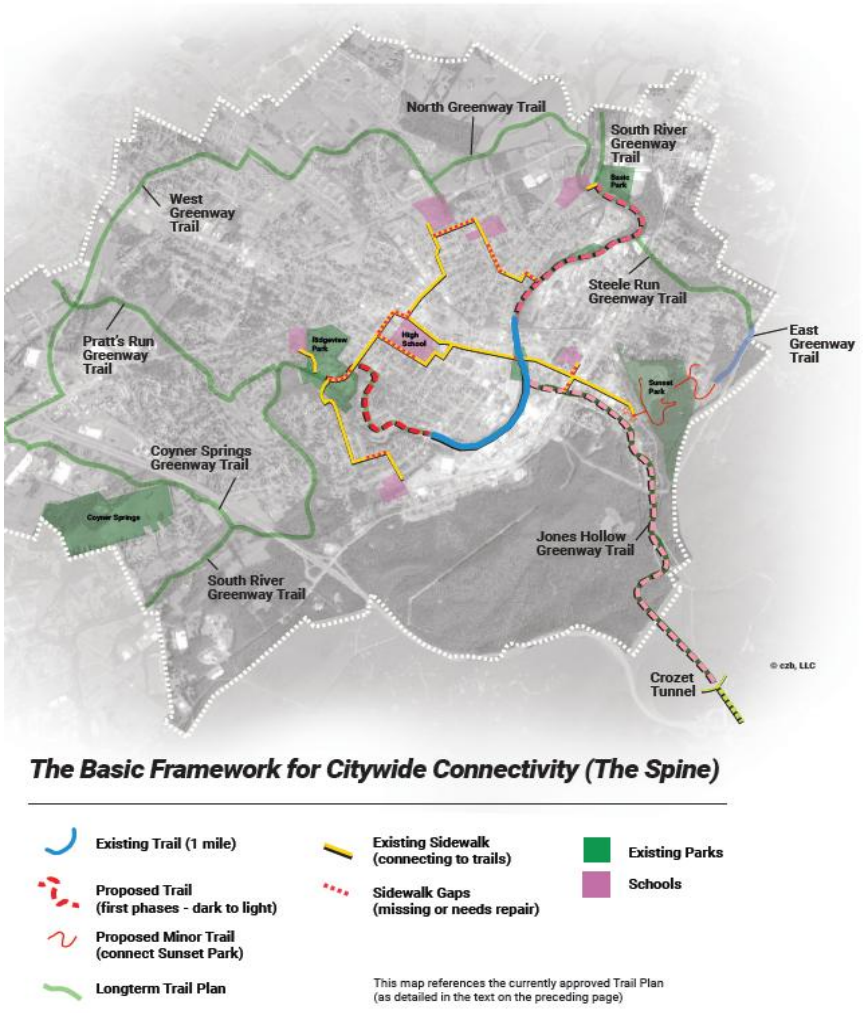
- The plan noted that the current transit system in Augusta County has limited geographic coverage. The lack of transit frequency makes the available service insufficient to meet future ridership needs, particularly for an aging population.
- Multimodal recommendations in the plan included sidewalk expansion in Stuarts Draft (Scholastic Way project) and multi-use trail projects along Lifecore Drive and Tinkling Spring Road in Fishersville. These projects have since been completed and were an important step in developing a complete network of pedestrian and bicyclist facilities in the county.

2018 Waynesboro Comprehensive Plan

This plan was published in 2018. Like the county's comprehensive plan, it addresses policies for all aspects of the community including housing, health, the economy, education, transportation, recreation, and the natural environment. The Waynebsoro Comprehensive Plan is underway with a 2025 update. The following key points provided relevant contextual information for the microtransit feasibility study:

- Priority transportation infrastructure projects were mainly focused on sidewalk improvements and adding more foliage to the streetscape in this plan.
- The Greenway trails map and phased recommendations cover the majority of the City of Waynesboro.
- This plan included a citywide circumferential trail system which would enable every resident to be a short walk from a trailhead.

Figure 4: The City of Waynesboro Connectivity Map



Source: Waynesboro 2018 Comprehensive Plan

2018 Staunton Comprehensive Plan and 2024 Staunton Plan

Staunton City Council adopted its Comprehensive Plan in 2019. Staunton is underway with a Comprehensive Plan Update which is intended to be completed in 2026. The 2018-2040 Comprehensive Plan included a recommendation to encourage and support alternative transportation options such as public transit.

City staff developed the 2024 Staunton Plan to guide the priorities and focus of the City Council and staff. Applicable objectives of the 2024 Staunton Plan to the microtransit feasibility study included:

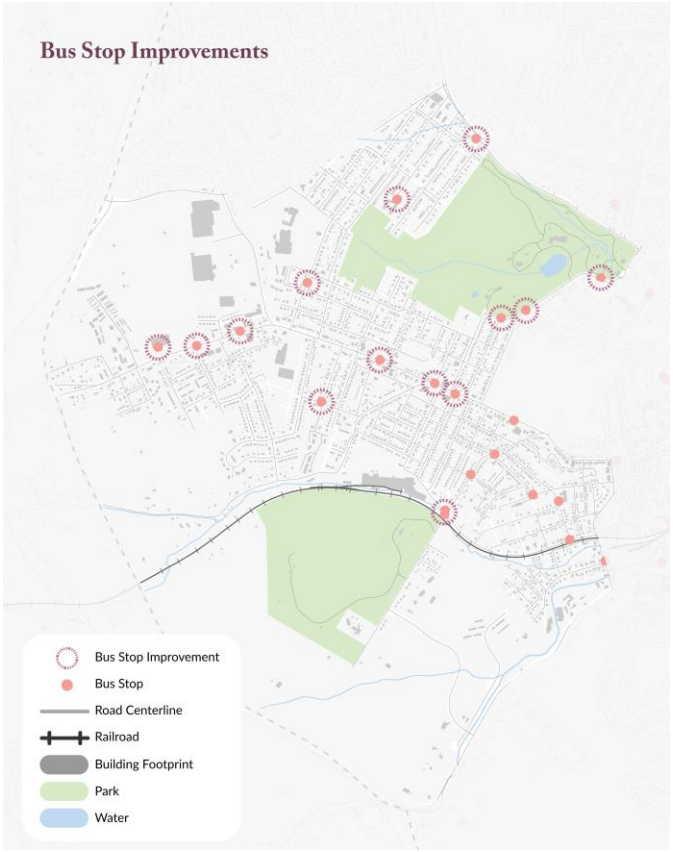
- A focus on creating walkable spaces (pedestrian focus, greenways, trails)
- Pursue targeted industries for the development of Staunton Crossing
- Implement the West End Revitalization Plan

2024 West End Revitalization Strategies Plan

The City published this plan in 2024 as a holistic plan for Staunton's western neighborhoods as a response to residents and businesses requesting attention to development decline trends and other community concerns. It includes development strategies based on demographic data and other analysis to produce recommended actions. The following key points provided relevant contextual information for the microtransit feasibility study:

- This plan identified the BRITE West Loop route and Staunton Downtown Trolley as assets for connections to downtown and destinations around Staunton.
- Based on community feedback, this plan recommended bike and pedestrian improvements and adding bus stop shelters on West Beverley Street and Churchville Avenue.
- This plan recommended the City of Staunton explore Tax Increment Financing (TIF) to finance infrastructure needs and improve public amenities.

Figure 5: Staunton West End Bus Stop Improvements Map



Source: 2024 West End Revitalization Strategies Plan

2022 BRITE Transit Development Plan

The BRITE TDP, finalized in 2022, provides a strong foundation for exploring microtransit as a viable mobility solution in the Central Shenandoah Valley. The TDP explicitly identified the need for first mile/last mile connectivity and more flexible service options, particularly in areas such as Stuarts Draft, Verona, and Bridgewater, where fixed-route coverage is limited or indirect. Stakeholder input gathered through the BTAC, and public surveys highlighted challenges faced by shift workers, individuals with disabilities, and residents in lower-density areas—underscoring the demand for more responsive, on-demand transit options.

BRITE Fixed Route and Access Rider Survey Findings

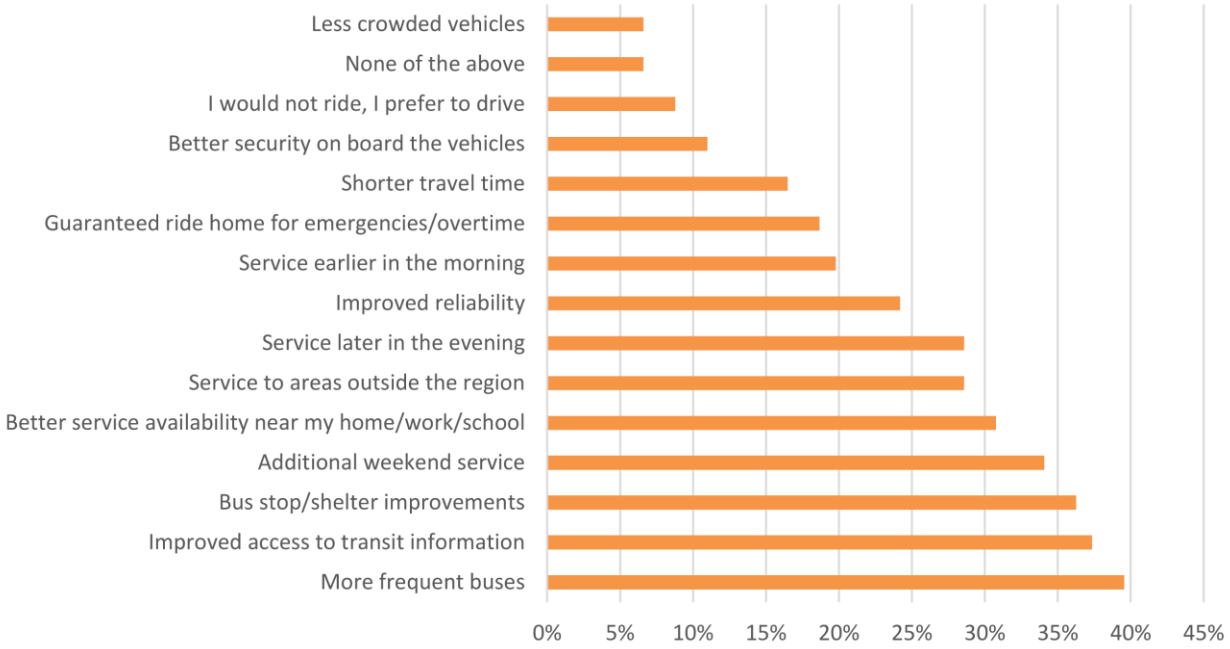
- Half of the current riders who responded to this survey reported using BRITE services 5-6 days a week.
- Increased weekend service was a top improvement in service.
- Survey respondents desired BRITE Access service for more of Augusta County.

Public Survey Findings

- 90% of respondents indicated that they would use public transportation if there was a service that met their needs.
- More frequent buses ranked as the highest priority improvement needed.

- Locations listed for better service availability and future service consideration included the Mint Spring area, Fishersville (specifically Goose Creek Road), Greenspring Valley, Ivy Ridge, Hillcrest, the New Hope area, Coyner Spring Park area, more service to Route 250, and increased service in Downtown Waynesboro (between Lew DeWitt Boulevard and Rosser Avenue).

Figure 6: Improvements Needed for Non-Users of Public Transportation to Ride



Source: 2022 BRITE TDP, KFH Group Inc.

In response, the TDP recommended a microtransit pilot project as a near-term initiative. The proposed pilot would deploy two vehicles within a defined geofenced zone. The TDP identified a microtransit feasibility study for FY2025, with potential implementation in FY2026, contingent on funding and stakeholder support.

2050 SAWMPO Long Range Transportation Plan Survey

The Staunton-Augusta-Waynesboro Metropolitan Planning Organization (SAWMPO) is currently updating the region's Long Range Transportation Plan (LRTP) at the time of this report. This plan provides an analysis of future transportation needs within the SAWMPO area over a 25-year period. The plan presents recommendations for transportation projects that improve the transportation network, including construction of new facilities, improved connectivity across travel modes, and the enhancement of existing highway, transit, as well as bicycle and pedestrian facilities. The plan is informed by public input through a multi-phase development process. In 2024, the SAWMPO conducted a public survey to understand current and future needs from the public's perspective. The following key findings from the survey provided relevant contextual information for the microtransit feasibility study:

- Bus access was the most cited unavailable transportation mode, particularly in Augusta County.
- Locations in Augusta County with transit service requests:
    - Verona, Greenville, Middlebrook, Craigsville, West Augusta, Churchville, Buffalo Gap, and Mt. Sidney.
- Specific locations with additional transit service requests in served areas:
    - Weyers Cave (Shenandoah Valley Regional Airport), Montgomery Hall Park, (top of hill), Valley View Senior Apartments, Middlebrook Avenue, Food Pantries in Fishersville and Verona.
- New development areas:
    - Lucy Lane and Shenandoah Village Drive (Waynesboro).
- Specific street requests for transit service:
    - West Beverley Street and North Augusta Street (Staunton), Dooms Crossing Road, Rife Road, New Hope, and Crimora Road (Waynesboro).

Microtransit Goals

Developing goals for guiding the implementation of a microtransit service is essential for providing clear direction and measurable outcomes. Defining these goals also helps to evaluate the service's success and guide future improvements. The study team developed goals for BRITE microtransit service by integrating the mission, goals, and public feedback from the TDP, goals from previous plans, and input from the BTAC. The goals will drive future implementation efforts for a microtransit service, as funding becomes available.

Goals for BRITE Microtransit

1. Provide a convenient, reliable, and adaptable transit service.
2. Expand transit connections and mobility options to serve underserved areas, increase access to essential destinations, and complement existing transit routes.
3. Prioritize financially sustainable strategies that support local economic development, improve the quality of life for residents, and maximize resource efficiency.

Analysis

To establish a clear connection between the project goals and the potential benefits of microtransit service in the region, the study team conducted an analysis to determine: (1) where people may want to travel if microtransit were available; (2) where populations with a high potential to benefit from improved transit access are concentrated; (3) how the existing BRITE service is performing; and (4) overall travel patterns across all modes within the region. This analysis enabled the team to strategically identify the areas within or near the exiting BRITE service area most suitable for microtransit implementation.

Analysis Sources:

- **Transit potential and need:** Based on demographic and socioeconomic data from the 2018–2022 American Community Survey (ACS) five-year estimate and 2021 Census Longitudinal Employer-Household Dynamics (LEHD).
- **BRITE service performance:** Evaluated using route productivity and cost-effectiveness data from July 2023 through June 2024.
- **Travel patterns:** Derived from origin-destination data for a typical weekday and Saturday, using trip tables from Replica[1] (Spring 2024 release).

Transit Potential and Need

To identify microtransit opportunity zones, which are areas most suitable for microtransit given the microtransit goals, the study team conducted spatial analysis using US Census Data in Augusta County, Staunton, and Waynesboro.

Transit Potential

Figure 7 and **Figure 8** show the density of population and employment per acre with varying densities between 0.5 and 10 jobs and residents per acre. The areas highlighted in blue are areas with greater residential density, areas highlighted in red represent areas with greater employment density, and the areas highlighted in purple represent the confluence of both. The intersection of areas with residential density and employment density indicates areas with high transit potential. In general, locations with a low to moderate density are more suitable for microtransit, and fixed-route service is more appropriate in areas with higher density, or potential. As visible in **Figure 9** and in **Figure 10**, areas with low to moderate transit potential are urban areas surrounding where BRITE currently operates, including areas in Verona, Stuarts Draft, Weyers Cave, and Crimora. Areas with higher transit potential are in downtown Staunton, downtown Waynesboro, and Augusta Health in Fishersville.

[1] Replica is a third-party dataset that uses cellphones, GPS, and other anonymized location-based sources such as credit card transactions to estimate travel demand down to the Census Block Group level. Typical trip data contains millions of individual records for the CSPDC region and is sourced across all Thursdays and Saturdays in Spring 2024. Data is run through a travel demand model and is validated against real-world conditions. The raw data detail enables a categorical breakdown of trips by purpose, length, duration, mode taken, and start and end times that are processed and aggregated for the purpose of this report.

Figure 7: Population and Job Density

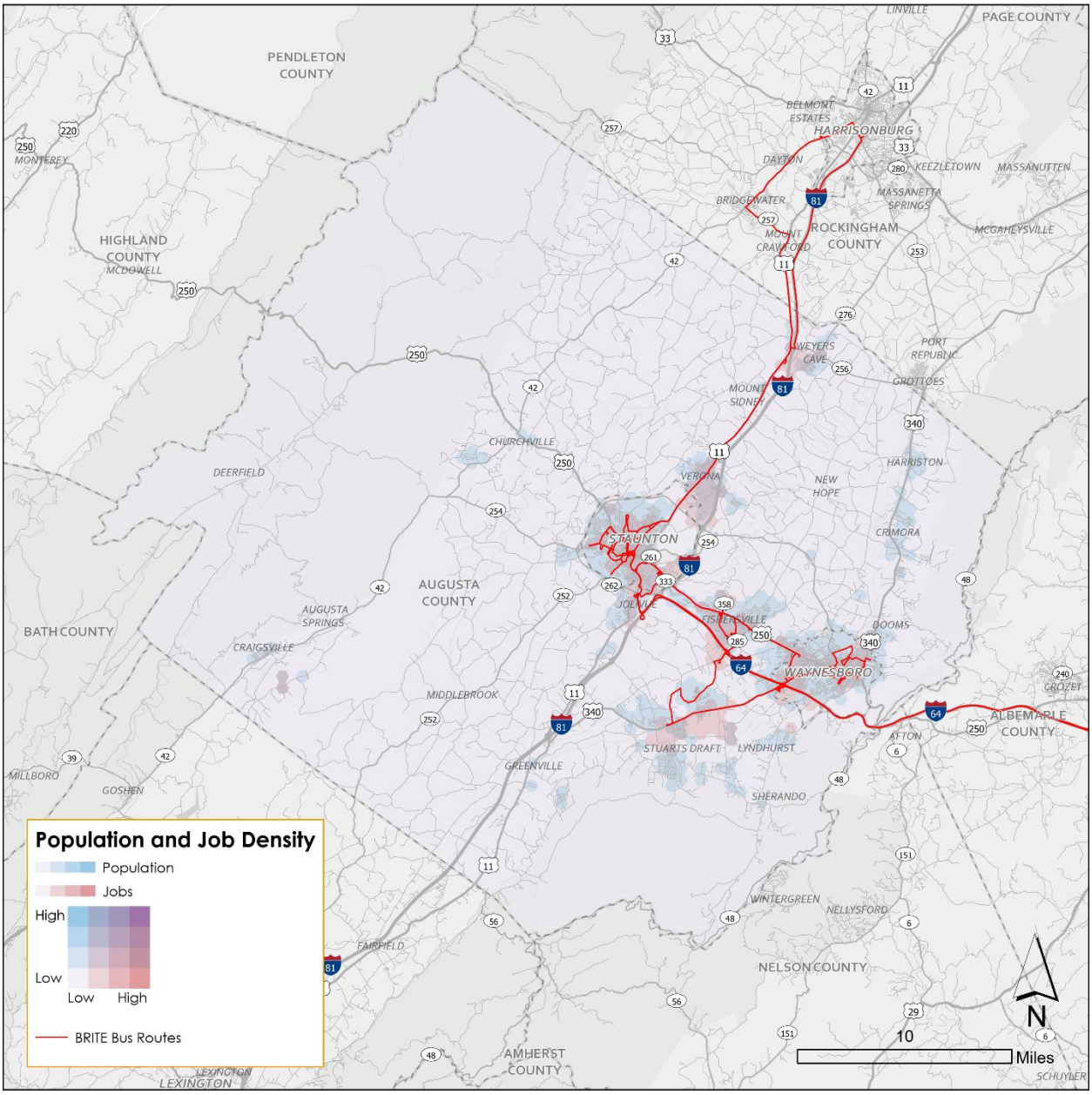


Figure 8: Population and Job Density (Core BRITE Service Area)

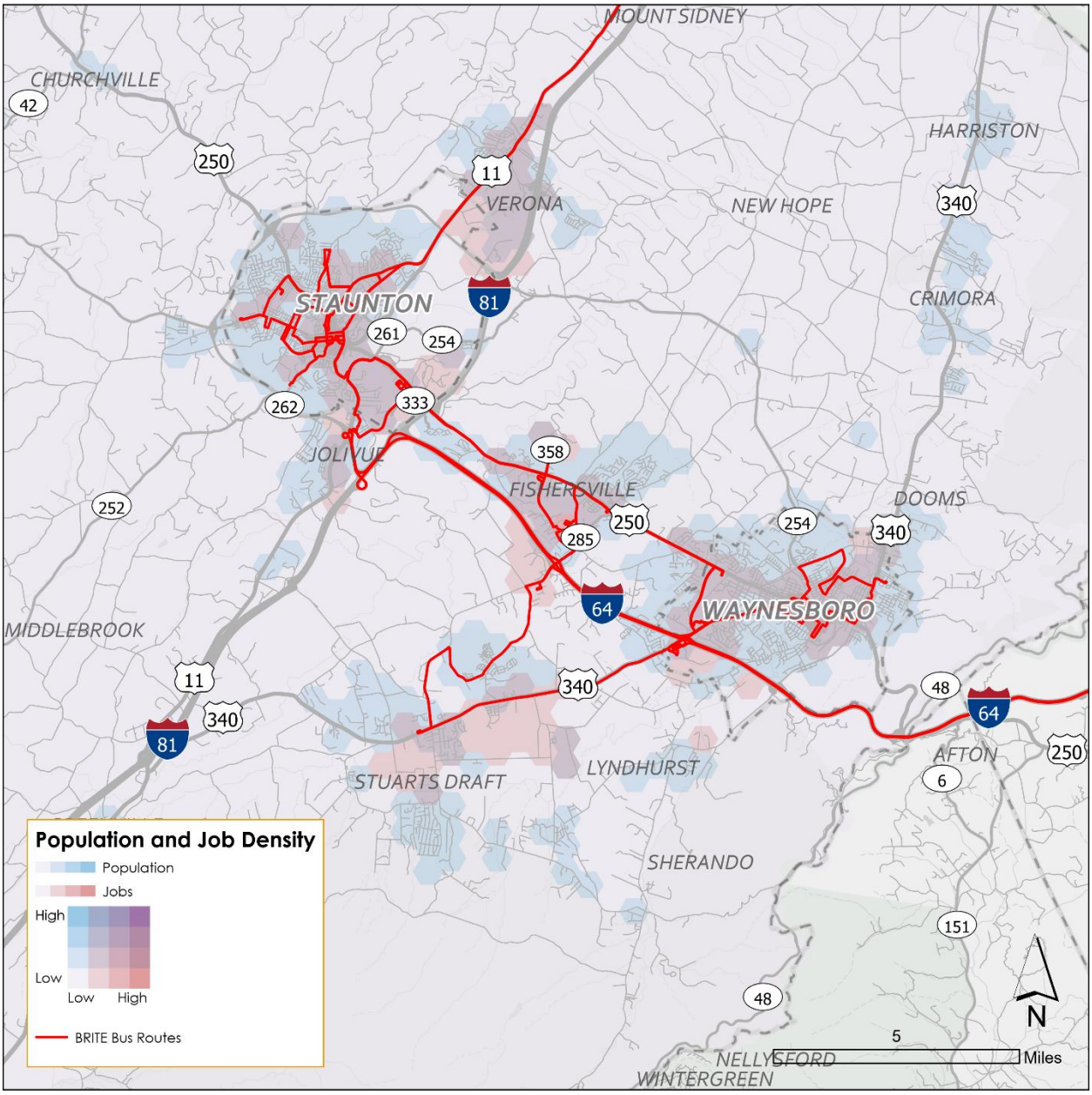


Figure 9: Transit Potential

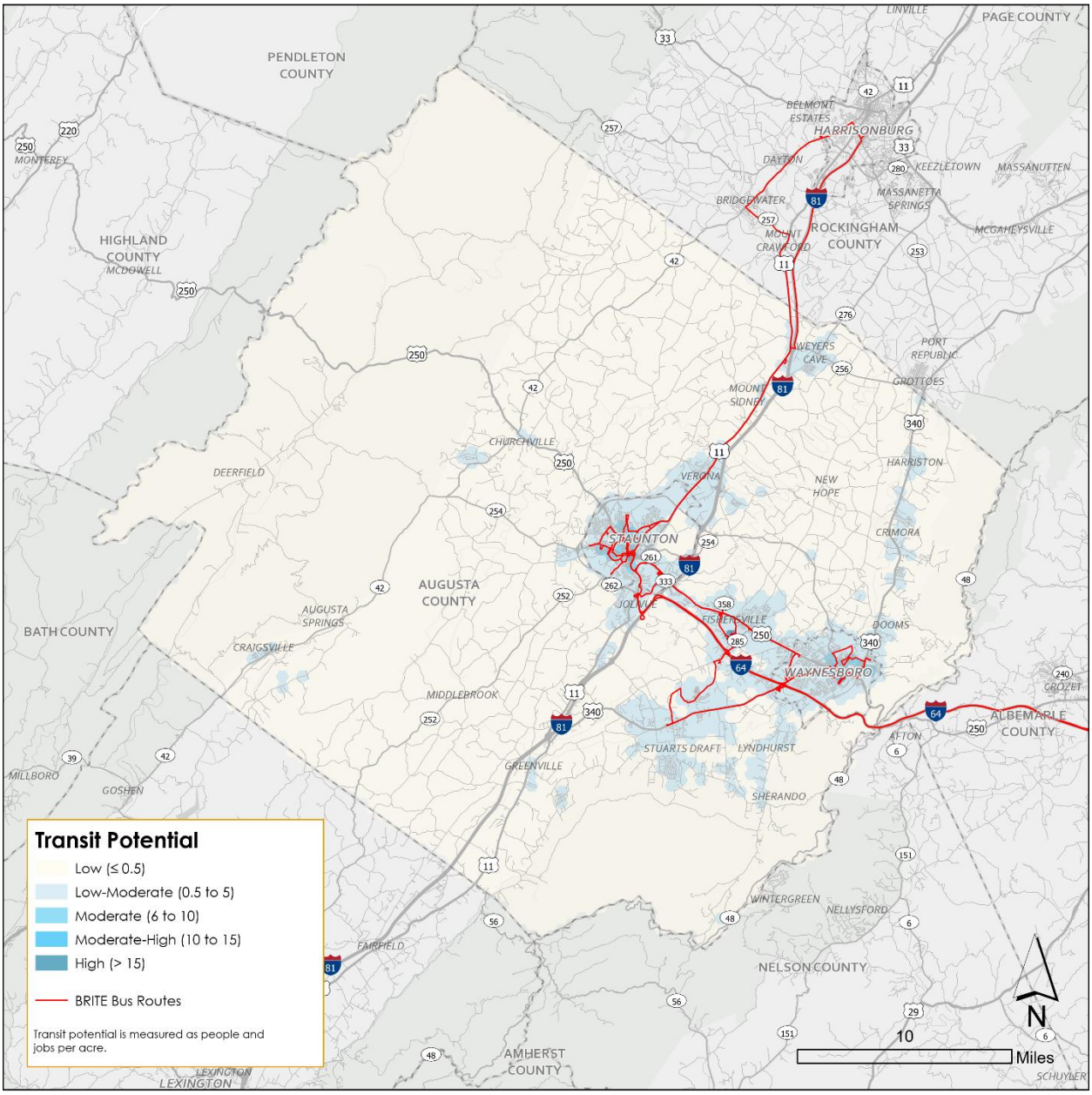
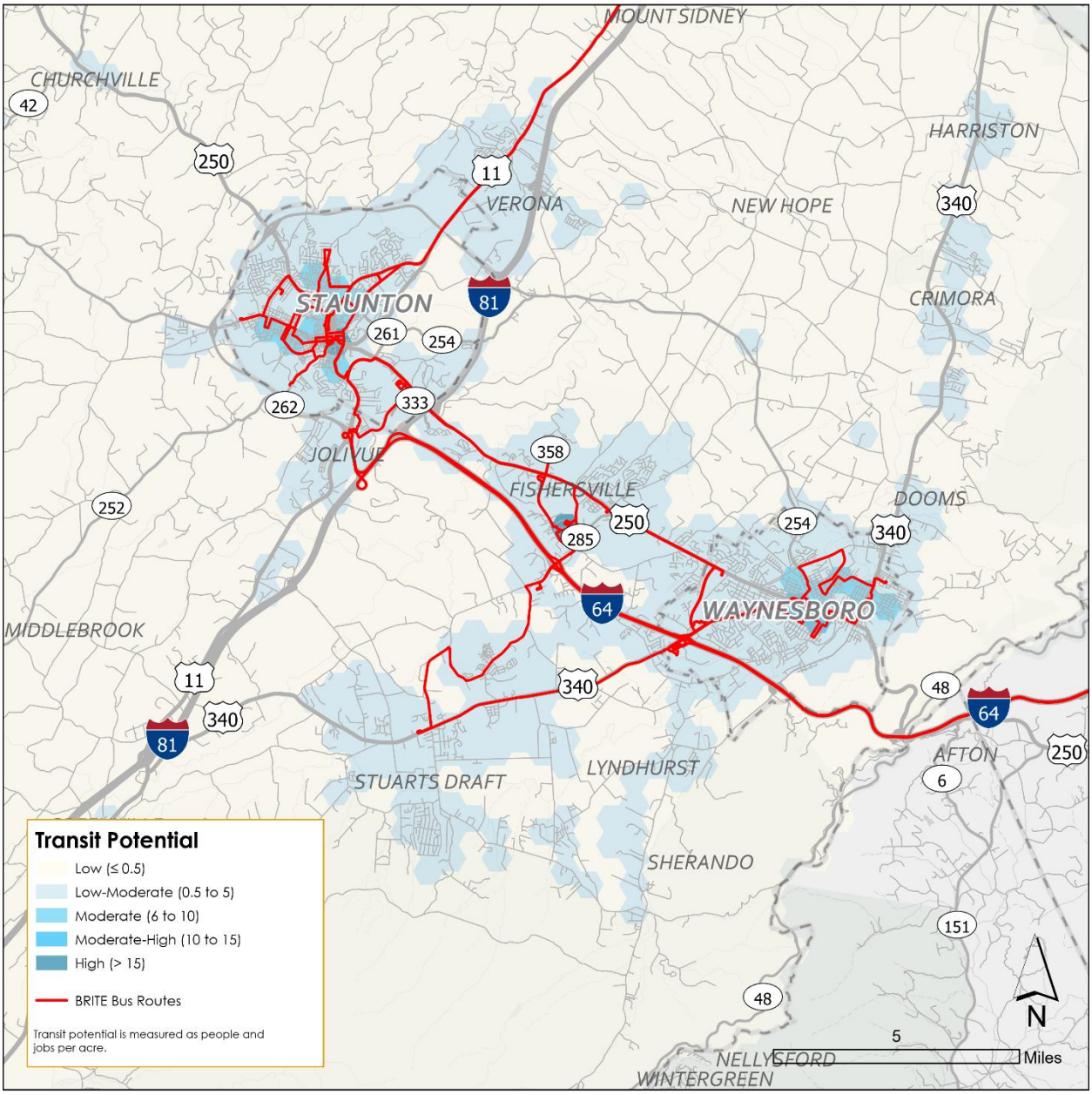


Figure 10: Transit Potential (Core BRITE Service Area)



Transit Need

Areas that have identified transit needs are defined as having a higher concentration of people that have a greater propensity for using transit. The study team identified these areas by indexing the following factors relative to other areas in Augusta County, Staunton, and Waynesboro, and then combining for a composite need score. Equal weighting was used for all factors.

- Total Population
- Older Adults (age 65+)
- Students (age 5-21)
- Minority Population
- Low-Income Population
- Population living with a Disability
- Zero-Car Households
- One-Car Households
- Limited English proficient (LEP) individuals

Figure 11 and **Figure 12** show the areas with the highest transit need including Fishersville, central and western Staunton, Waynesboro, and Lyndhurst.

Figure 11: Transit Need

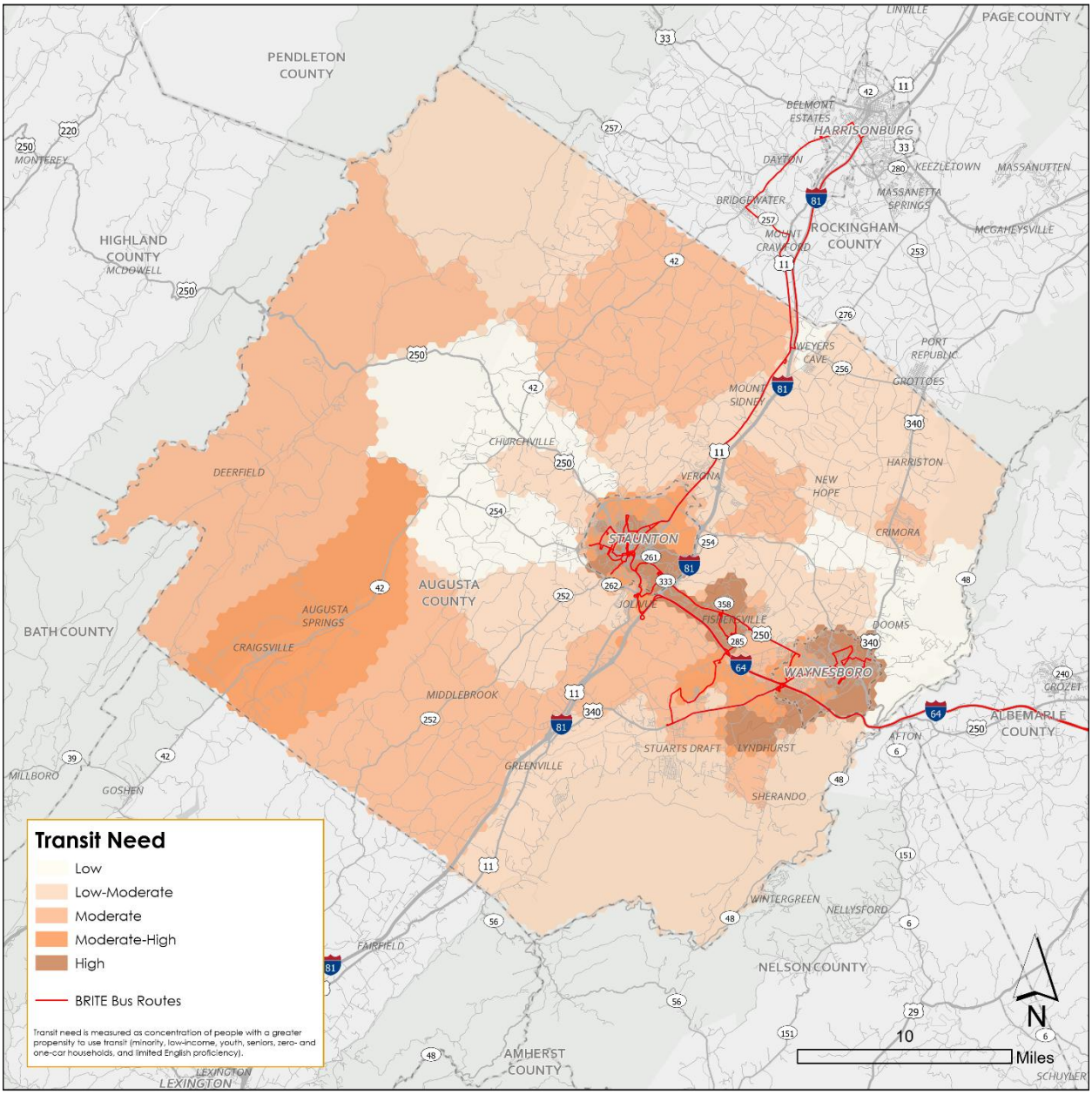
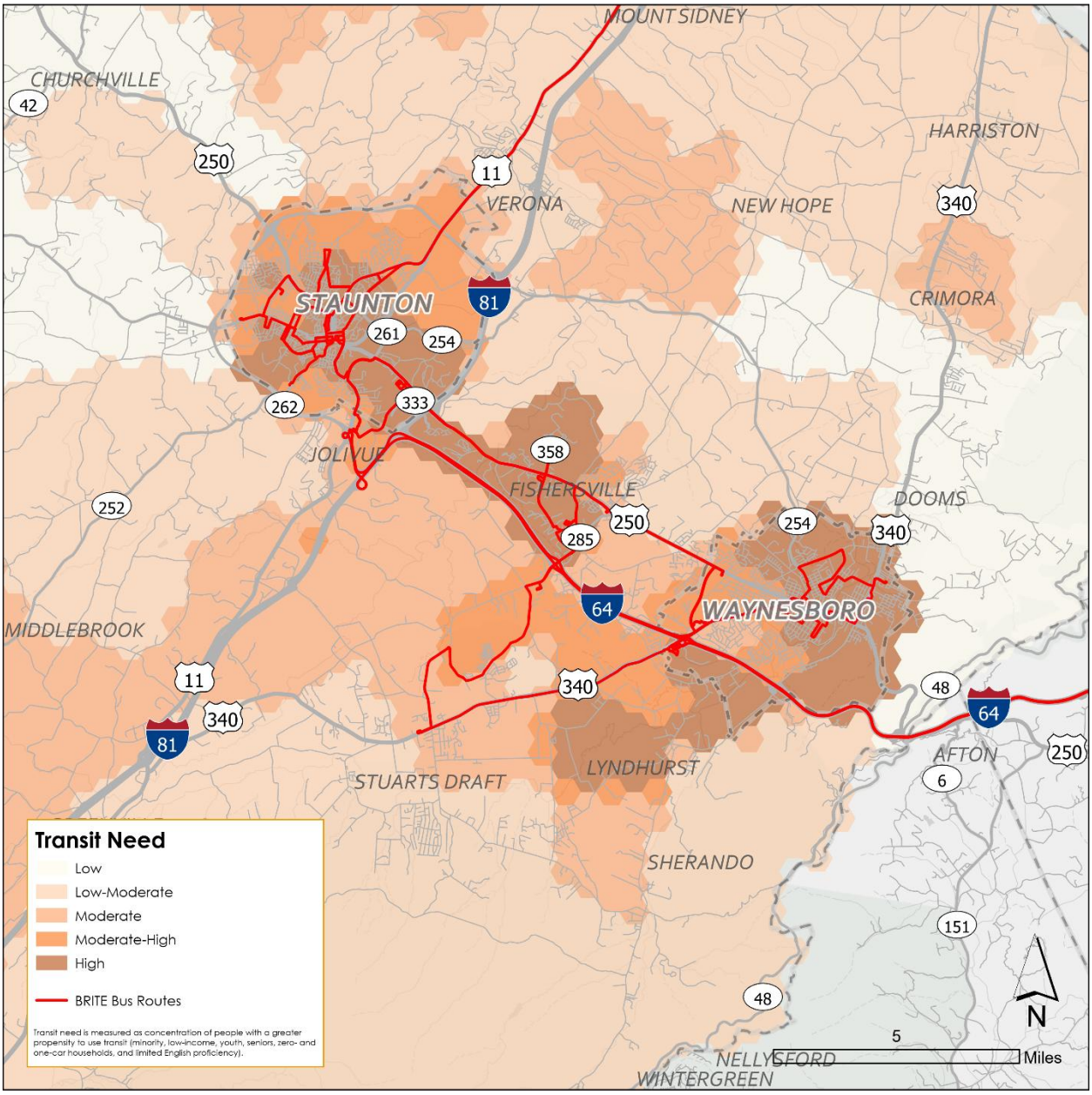


Figure 12: Transit Need (Core BRITE Service Area)



Microtransit Suitability

The study team considered transit potential and transit need together to initially identify areas more suitable for microtransit. Microtransit suitability was defined as areas with:

- **Low-moderate transit potential**: Between 0.5 and 6 people and jobs per acre; and
- **Moderate to high transit need**: Higher than average concentrations of populations with a greater propensity to use transit, as previously described in the Transit Need section.

These represent areas that do not have the density to support high-performing fixed-route service but have populations that may depend on public transit. **Figure 13** and **Figure 14** show areas with microtransit suitability in the outlying portions of Staunton and Waynesboro, Verona, Fishersville, Stuarts Draft, Lyndhurst, Sherando, Crimora, and Craigsville, to name a few.

Figure 13: Microtransit Suitability

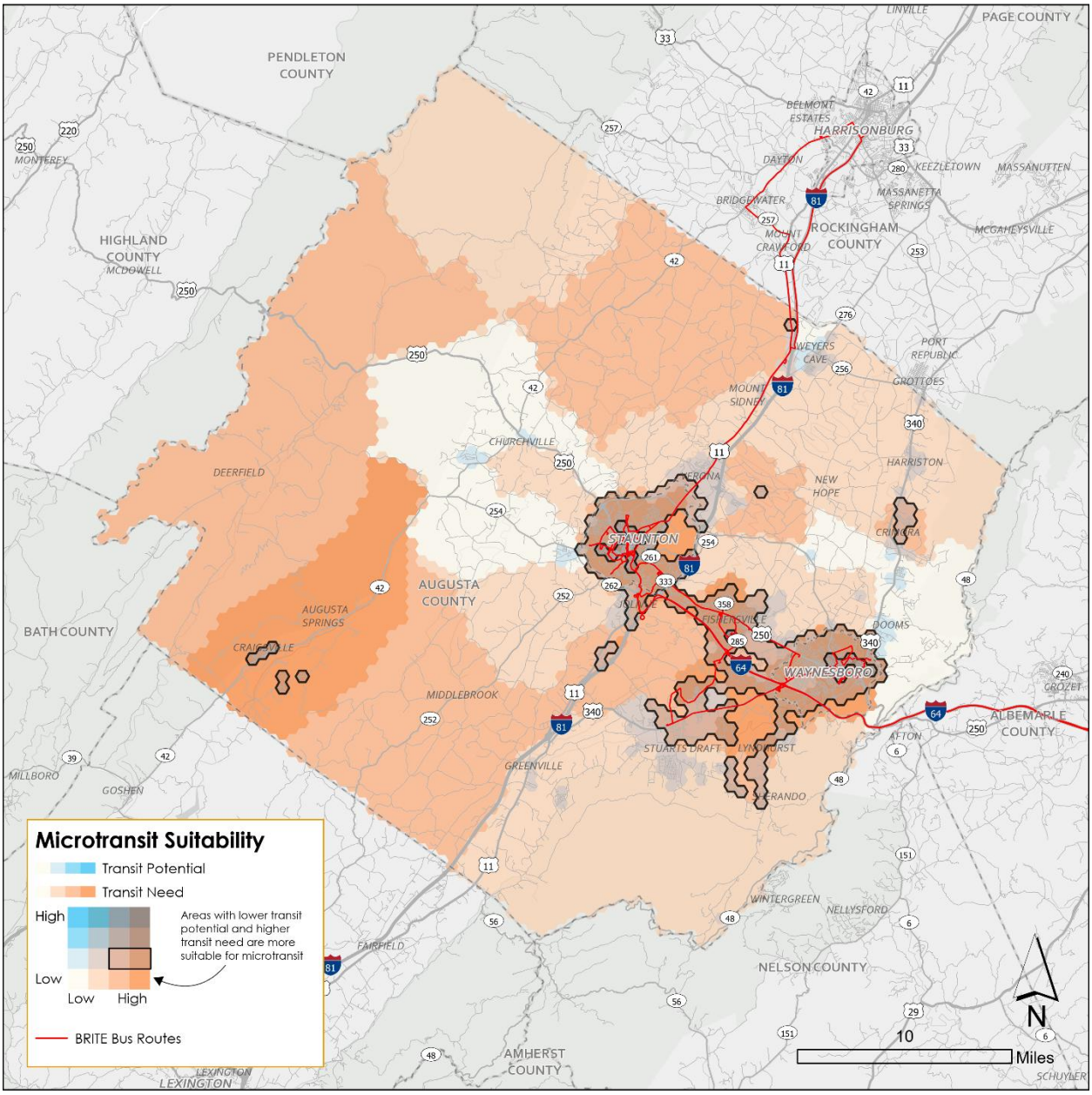
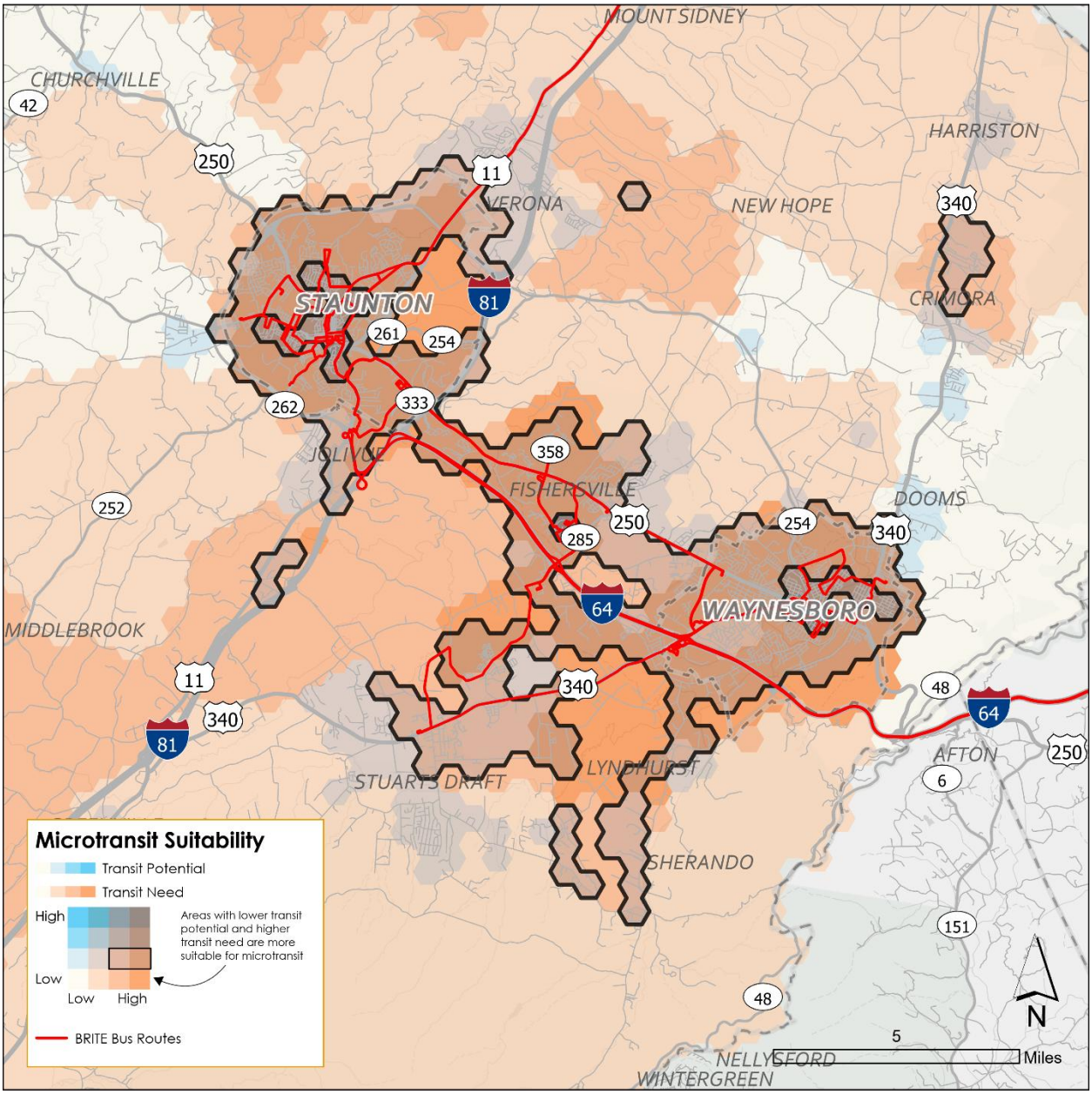


Figure 14: Microtransit Suitability (Core BRITE Service Area)



Existing BRITE Service Performance

To establish a benchmark for future comparisons with microtransit, the study team analyzed the existing BRITE service productivity and cost efficiency (**Table 3**). Experiences with other transit agencies show that microtransit typically achieves a productivity of two to five passengers per vehicle revenue hour. Local routes with a productivity at or below this threshold could be considered for partial replacement by microtransit, depending on the transportation needs and priorities of the area. Conversely, routes performing above this level are unlikely to achieve comparable results with a microtransit system. Routes that exhibit similar performance to microtransit, shown in red text, include the Staunton Downtown Trolley, Staunton Saturday Night Trolley, Stuarts Draft Link, and BRCC Shuttles routes.

The analysis showed lower productivity routes as the Stuarts Draft Link, BRCC Shuttles, and the Afton Express. Among these, the Stuarts Draft Link emerged as a prime candidate for replacement with microtransit, especially due to its overlap with areas that exhibit transit potential and need for suitable microtransit. On the other hand, BRCC Shuttles and Afton Express, which serve long-distance routes, may not be ideal for complete replacement with microtransit but could benefit from adopting microtransit as a feeder service. The Afton Express is not a candidate for microtransit replacement but rather would benefit from having microtransit as a feeder to support connectivity for riders. This approach could enhance connectivity and support out-of-county connections more effectively.

Table 3: Existing BRITE Service Performance

Service	Passengers per Revenue Hour		Operating Cost per Passenger*	
	Weekday	Saturday	Weekday	Saturday
Fixed Route Average	**6.7**	**7.7**	**$9.09**	**$7.91**
Waynesboro Circulator	**10.0**	**7.5**	**$6.07**	**$8.07**
Staunton Loops	**9.5**	**7.5**	**$6.40**	**$8.13**
250 Connector	**8.4**	**7.9**	**$7.28**	**$7.73**
Downtown Trolley	**5.1**		**$11.87**	
Saturday Night Trolley	**5.4**		**$11.26**	
Stuarts Draft Link	**3.7**		**$16.59**	
BRCC Shuttles	**3.6**		**$16.93**	
Commuter – Afton Express	**3.8**		**$22.77**	
Paratransit Average	**2.1**		**$28.39**	
Systemwide Average	**5.8**		**$11.04**	

Source: BRITE service performance data for July 2023 through June 2024
*Based only on contract cost of $60.84 per revenue hour
Red values indicate fixed-route passengers per revenue hours at or below typical microtransit levels.

Travel Patterns

Weekday Travel Patterns

The study team identified weekday travel patterns for the BRITE service area using Replica data which utilizes a mix of Census data and location-based services data to estimate typical travel in a region. The study team visualized daily trips across all modes of travel per 0.25 square mile area, ranging from 10 trips per day to 100 trips per day. As shown in **Figure 15** and **Figure 16,** the travel pattern data revealed that the most established trip patterns include:

- Trips between Staunton and Waynesboro, and along the US 250 corridor
- Trips between Staunton and Harrisonburg
- Trips between Verona and Staunton
- Trips between Craigsville and Staunton
- Trips within Stuarts Draft
- Trips between Stuarts Draft and Waynesboro
- Trips between Waynesboro and Charlottesville

Figure 15: Weekday Travel Patterns

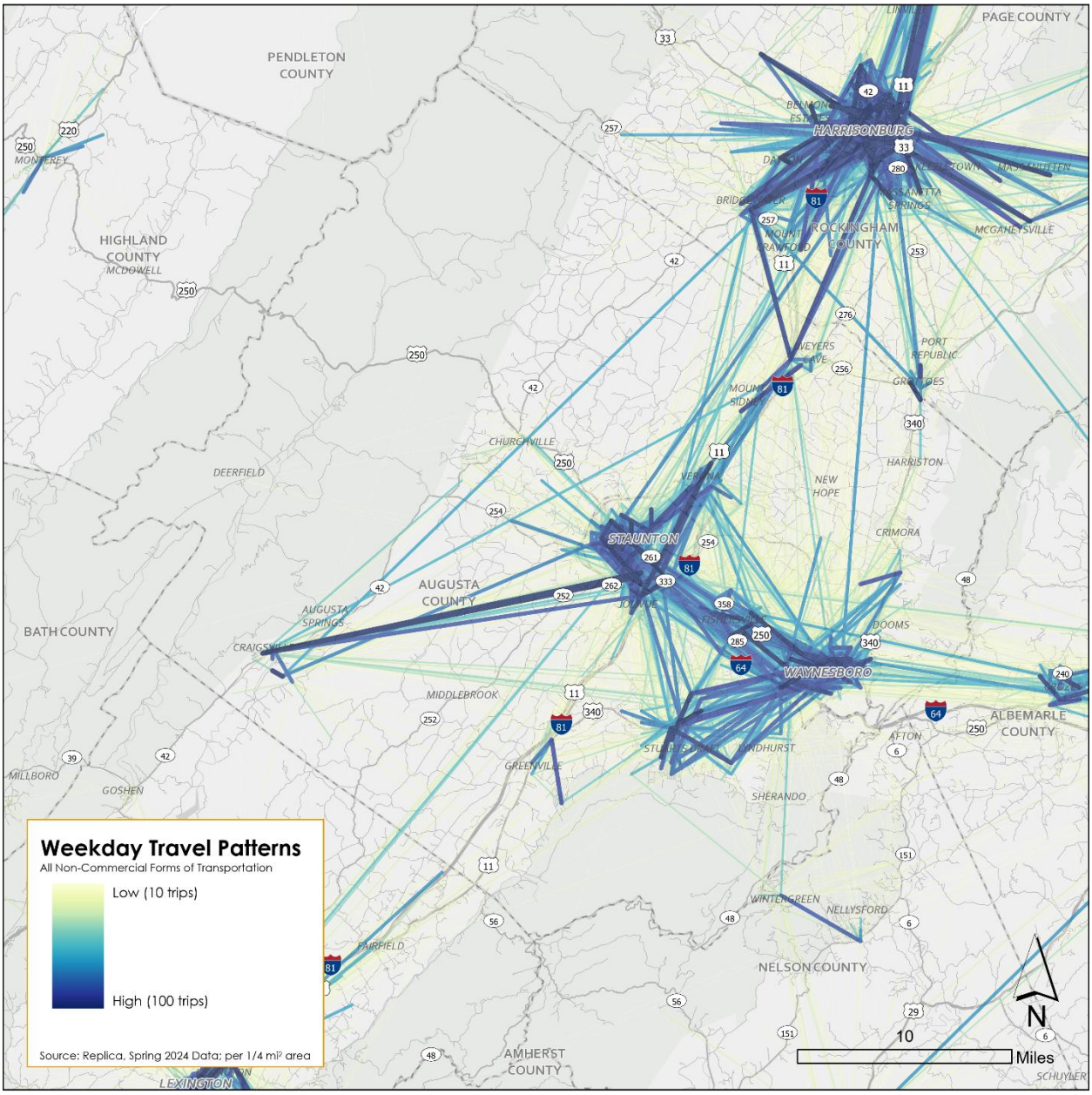
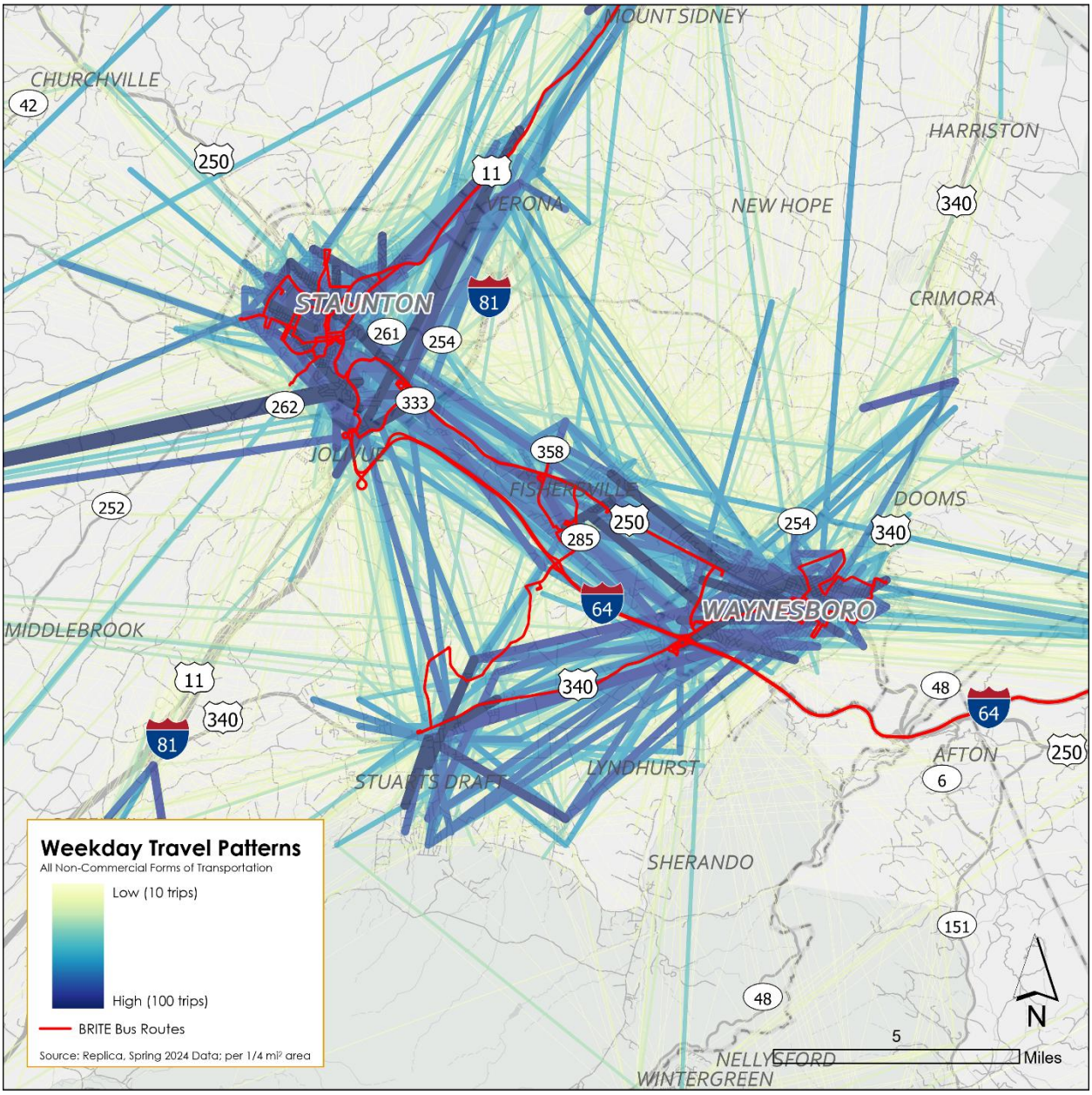


Figure 16: Weekday Travel Patterns (Core BRITE Service Area)



Weekend Travel Patterns

The study team also identified weekend travel patterns for the BRITE service area using Replica data. **Figure 17** and **Figure 18** show daily Saturday trips across all modes of travel. The travel pattern data revealed that the most established trip patterns include:

- Trips between Staunton and Waynesboro, and along the US 250 corridor
- Trips between Verona and Staunton
- Trips between Craigsville and Staunton
- Trips between Craigsville and Churchville
- Trips within Stuarts Draft
- Trips between Stuarts Draft and Waynesboro
- Trips between Waynesboro and Charlottesville

Figure 17: Saturday Travel Patterns

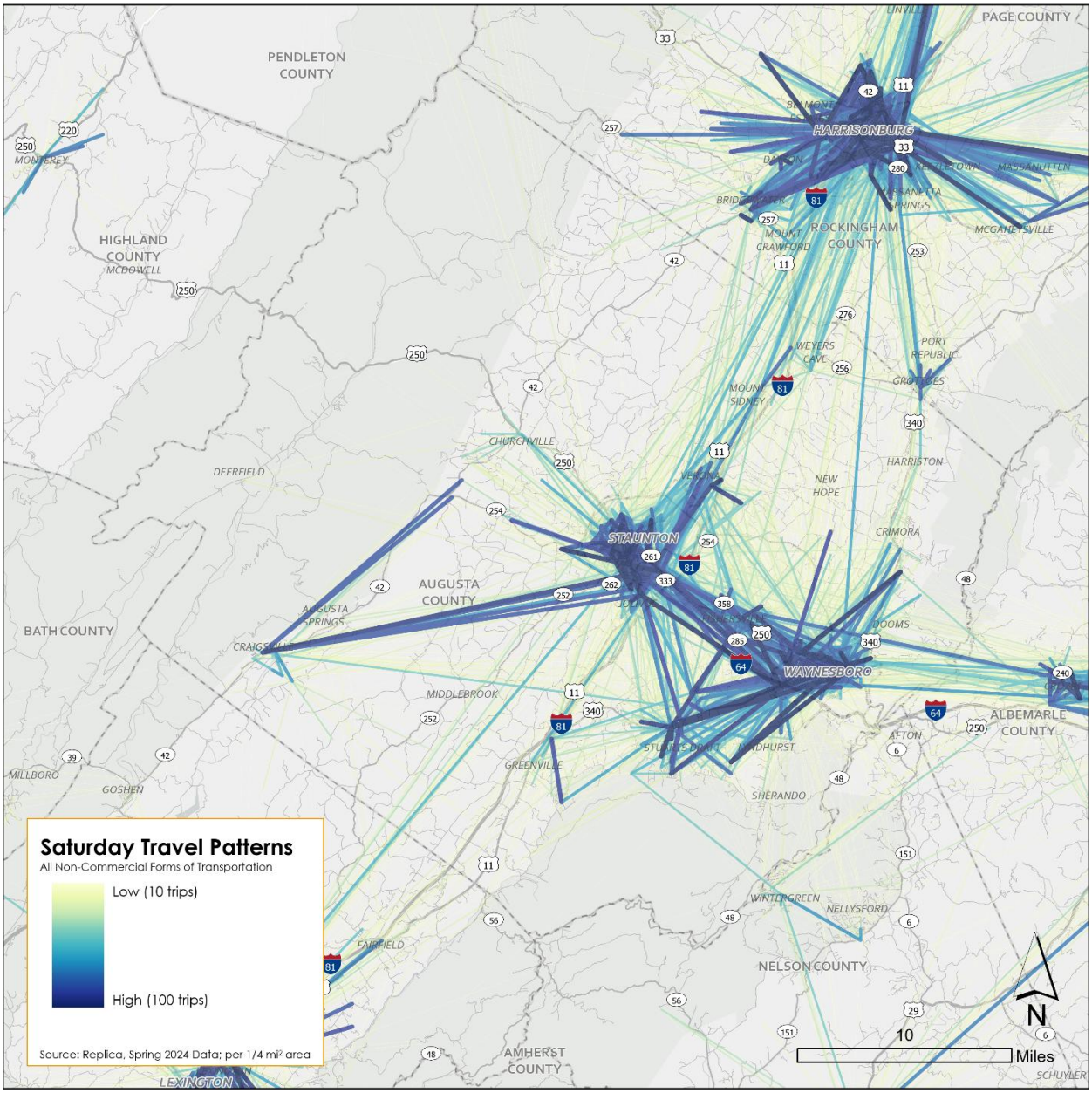
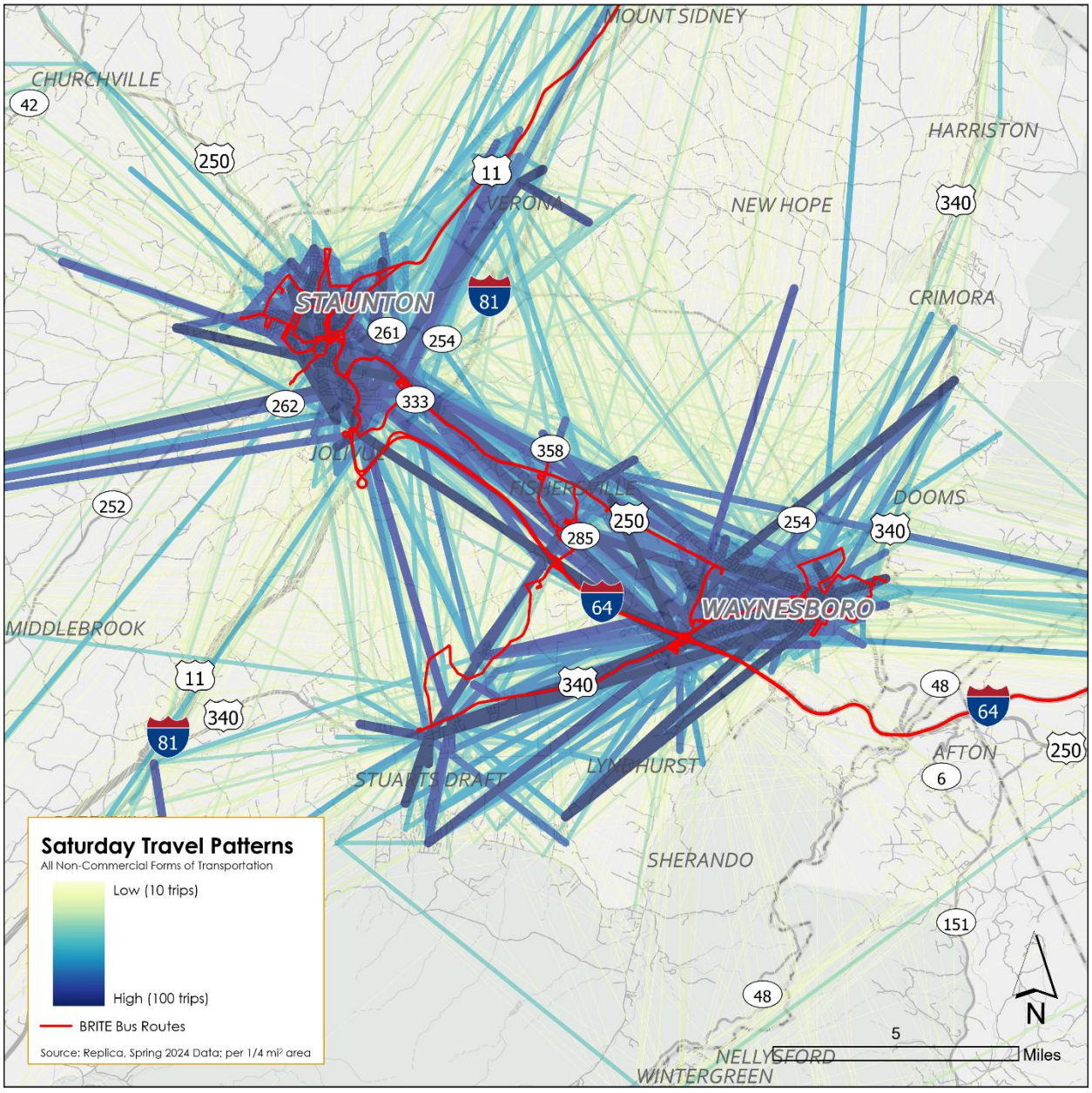


Figure 18: Saturday Travel Patterns (Core BRITE Service Area)



Analysis Takeaways

Transit Potential: Microtransit suits low-moderate density areas like Verona, Stuarts Draft, Weyers Cave, and Crimora; fixed-routes are better for high-density areas such as downtown Staunton, Waynesboro, and Augusta Health.

Transit Need: Highest in Staunton, Fishersville, Waynesboro, and Lyndhurst.

Microtransit Suitability: Areas with low to moderate transit potential and moderate to high transit need are ideal for microtransit. These suitable areas include Staunton and Waynesboro outskirts, Fishersville, Stuarts Draft, Lyndhurst, Sherando, Crimora, Craigsville, and Verona, where transit needs outweigh density.

Existing BRITE Service Performance: Stuarts Draft Link is a top candidate for microtransit replacement; BRCC and Afton Express could use microtransit as feeders.

Travel Patterns: Key weekday and weekend travel includes the US 250 corridor, Staunton-Waynesboro, and within Stuarts Draft, some of which lack frequent transit connections.

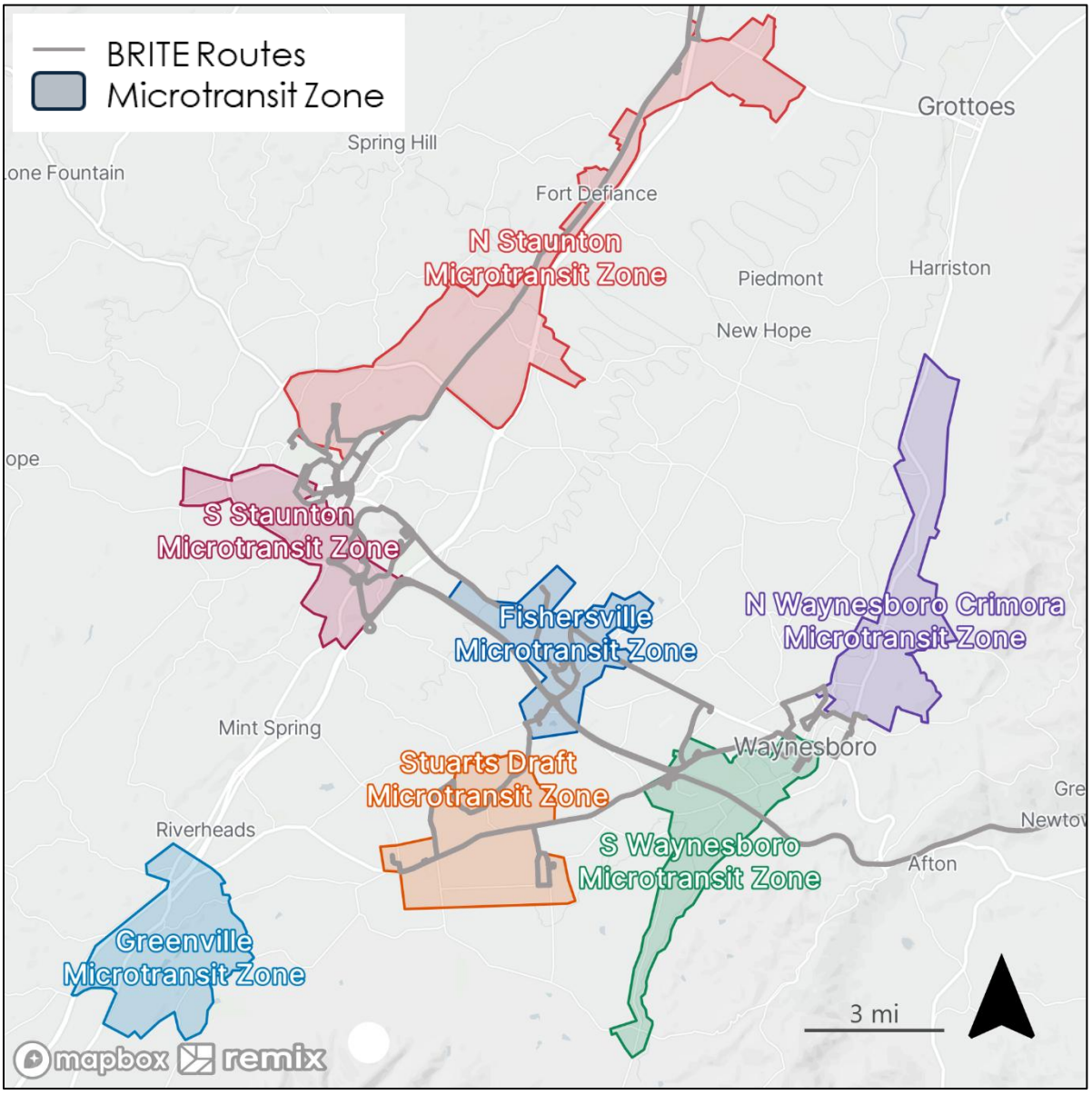
BTAC Stakeholder Insights: The BTAC suggested microtransit for areas like Greenville, Crimora, and Grottoes; prioritizing employment trips, evening service for BRCC, and access for low-income and aging populations.

Microtransit Opportunity Zones

Opportunity zones are geographic areas where microtransit services are particularly well-suited or have potential to address specific transportation needs. The study team identified seven zones through the analysis in the previous section. Zone boundaries represent the area within which a customer's trip must begin and end. Additionally, external nodes can provide connections to key destinations outside the microtransit zone or connections to the greater transit network. A trip to or from an external node must begin or end within the defined microtransit zone. It is common for zone boundaries to be considered preliminary at this stage of planning, and transit agencies typically refine these boundaries as they move toward implementation.

Figure 19 shows the potential microtransit zones from the analysis of transit potential, transit need, existing BRITE service performance, and travel patterns.

Figure 19: Microtransit Opportunity Zones



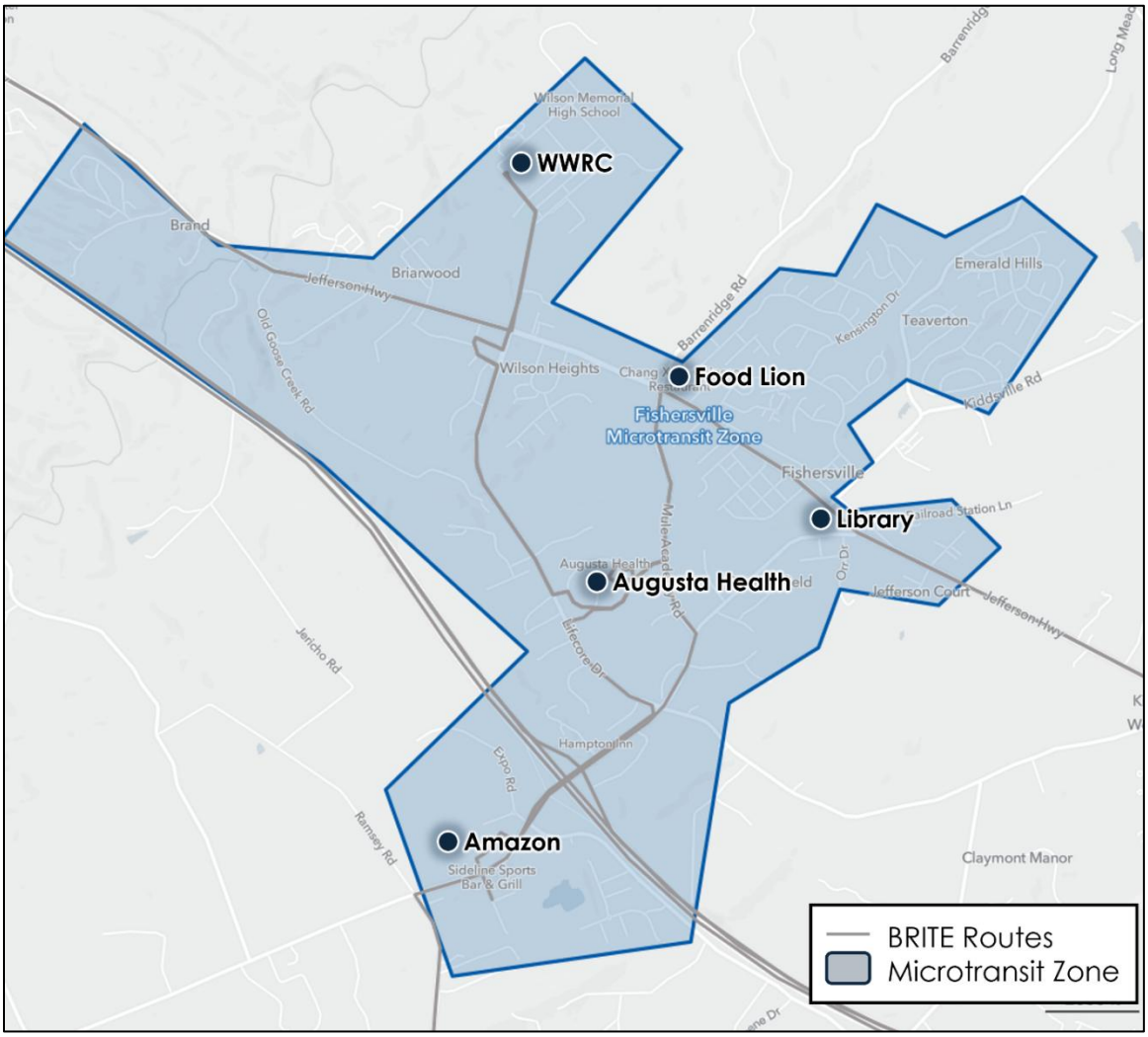
Zone Comparison

Fishersville Zone

Fishersville is a census-designated place located between the City of Staunton and the City of Waynesboro in Augusta County, Virginia. Fishersville has several schools, including the Valley Vocational Career and Technical Center; Shenandoah Valley Governor's School; and Wilson Elementary, Middle, and High Schools. Fishersville is also home to the Wilson Workforce & Rehabilitation Center (WWRC) and an Amazon Fulfillment Center in the southwestern corner of Fishersville. Augusta Health is in Fishersville, which sits between I-64 and US Route 250. The potential Fishersville microtransit zone (see **Figure 20**) contains 4,900 people (total population) and 4,670 jobs. The zone connects to the Stuarts Draft Link, 250 Connector, and the Afton Express, with no external nodes. The points of interest in this zone include:

- WWRC
- Amazon Fulfillment Center
- Food Lion (shopping plaza)
- Augusta Health
- Augusta County Public Library

Figure 20: Fishersville Microtransit Zone

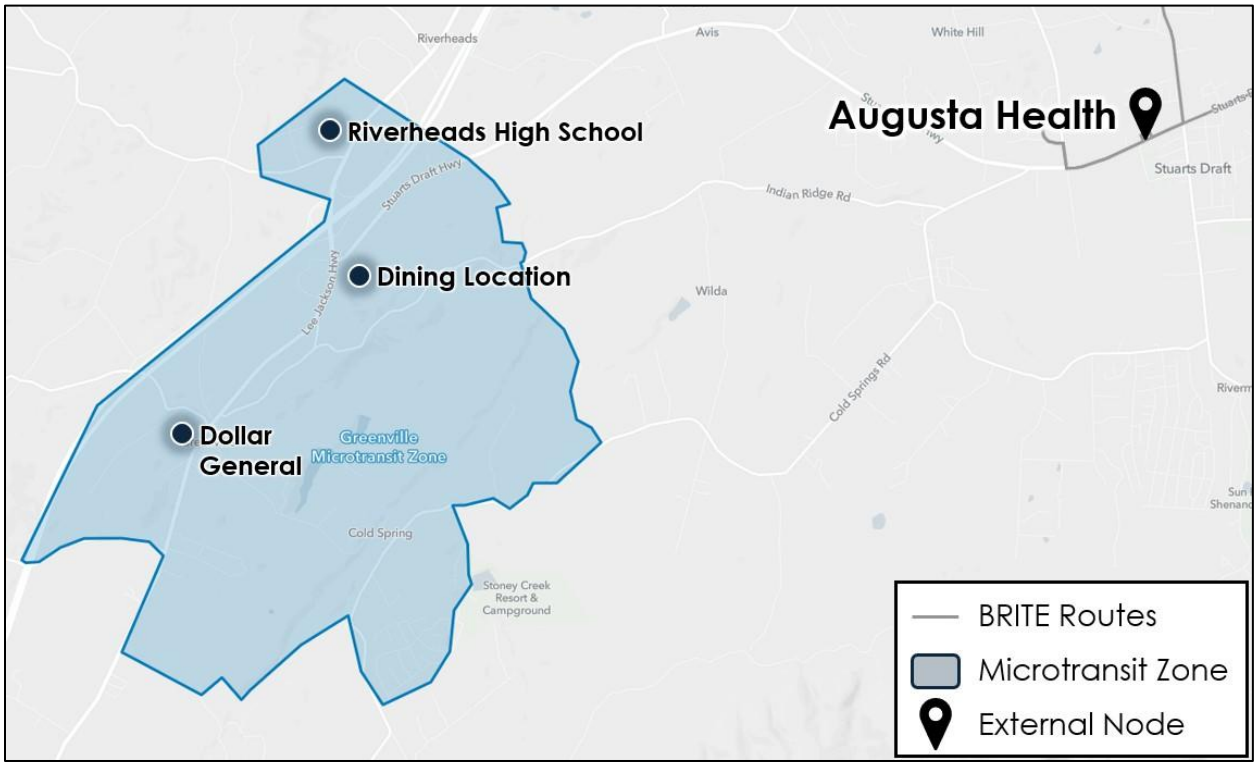


Greenville Zone

Greenville is a census-designated place (CDP) located south of the City of Staunton. The CDP has a total area of 3.7 square miles, which includes Riverheads High School and largely rural residential neighborhoods. The potential Greenville microtransit zone (see **Figure 21**) contains 1,590 people and 250 jobs. The zone will provide access to shopping, restaurants, convenience stores, and gas stations in the vicinity. The Augusta Health Primary Care in Stuarts Draft is an external node where riders can transfer to the Stuarts Draft Link. The points of interest in this zone include:

- Riverheads High School
- Dollar General
- Restaurants, convenience stores, and gas stations

Figure 21: Greenville Microtransit Zone

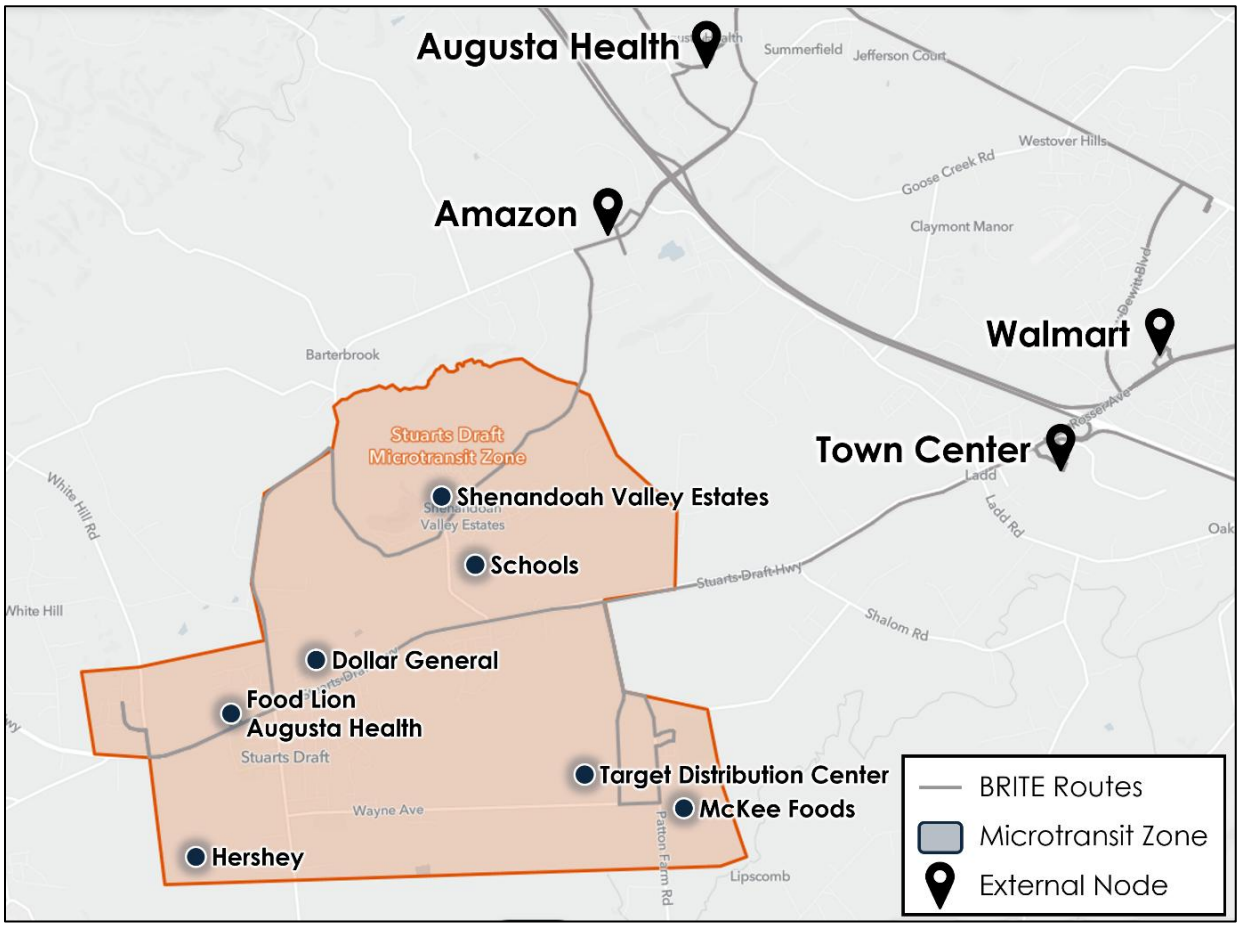


Stuarts Draft Zone

Stuarts Draft is a census-designated place that sits between the City of Staunton and the City of Waynesboro, south of Fishersville. Stuarts Draft has several manufacturing plants, Augusta Health Primary Care, and several schools. The potential Stuarts Draft microtransit zone (see **Figure 22**) contains 5,030 people and 4,770 jobs. This zone covers a significant portion of the current Stuarts Draft Link, which presents an opportunity to replace the current service, which may offset costs associated with operating a new microtransit service. Microtransit riders who want to travel beyond the zone can connect to the Waynesboro Circulator, 250 Connector, and Afton Express. External nodes for this zone include Waynesboro Walmart, Waynesboro Town Center, Amazon Fulfillment Center, and Augusta Health. The points of interest in this zone include:

- Augusta Health Primary Care
- Food Lion
- Dollar General
- Stuarts Draft Middle School/High School
- Target Distribution Center
- McKee Food Corporation
- Hershey Chocolate
- Shenandoah Valley Estates

Figure 22: Stuarts Draft Microtransit Zone

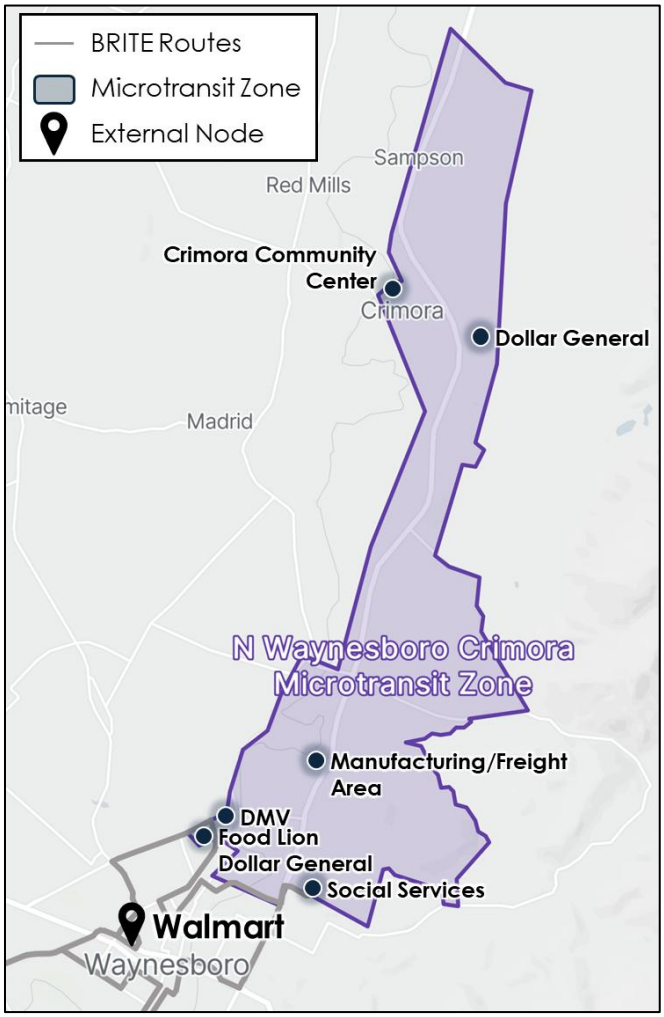


North Waynesboro and Crimora Zone

This microtransit zone begins in the northern portion of the City of Waynesboro and extends north into Crimora, a census-designated place along East Side Highway (US 340). The north side of Waynesboro is a largely residential area, including several schools, grocery stores, and the Department of Motor Vehicles (DMV). Along US 340, between north Waynesboro and Crimora, is largely rural, with some agricultural production plants and residential neighborhoods along the corridor. The potential microtransit zone (see **Figure 23**) contains 5,100 people and 1,120 jobs. This zone offers potential for realignment of the current Waynesboro Circulator service to avoid duplicative service, and connections to the fixed route at various points. An external node for this zone is Walmart Market in downtown Waynesboro. The points of interest in this zone include:

- Crimora Community Center
- Dollar General (two)
- Food Lion
- Manufacturing/freight in north Waynesboro
- DMV
- Shenandoah Valley Social Services

Figure 23: North Waynesboro and Crimora Microtransit Zone

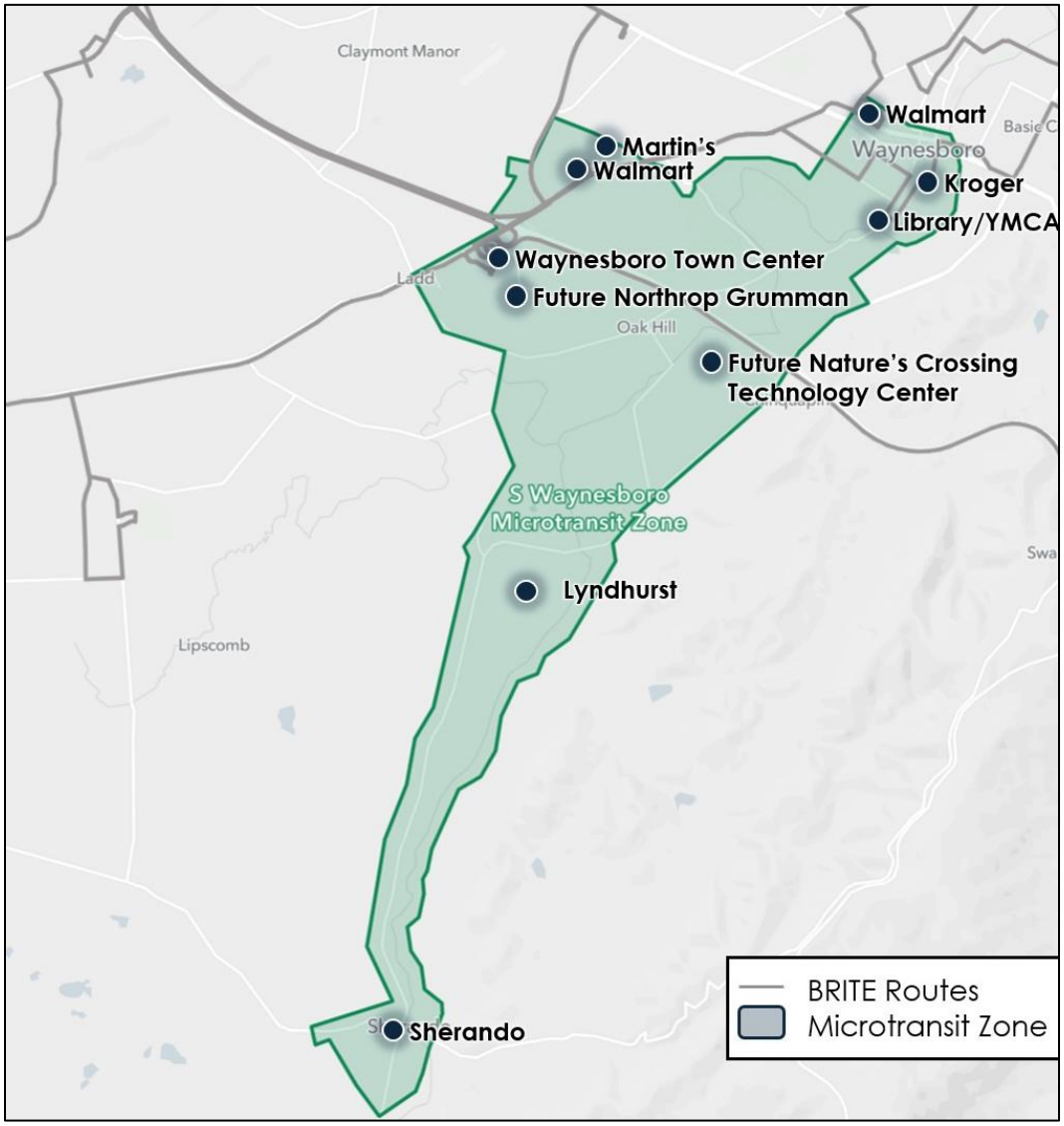


South Waynesboro Zone

This microtransit zone covers the southern part of the City of Waynesboro up to West Main Street and extends south towards Lyndhurst and Sherando along Mt. Torrey Road. The potential microtransit zone (see **Figure 24**) contains 8,050 people and 5,550 jobs. This zone offers potential connections to the Stuart Draft Link, the 250 Connector, the Waynesboro Circulator, and the Afton Express. There are no external nodes associated with this zone, and the points of interest identified include:

- Waynesboro Town Center/Waynesboro Park & Ride
- Walmart Market (downtown Waynesboro)
- Walmart Supercenter
- Northrop Grumman (future)
- Nature's Crossing Technology Park (future)
- Martin's
- Kroger
- Library
- YMCA
- Lyndhurst
- Sherando

Figure 24: South Waynesboro Microtransit Zone



North Staunton Zone

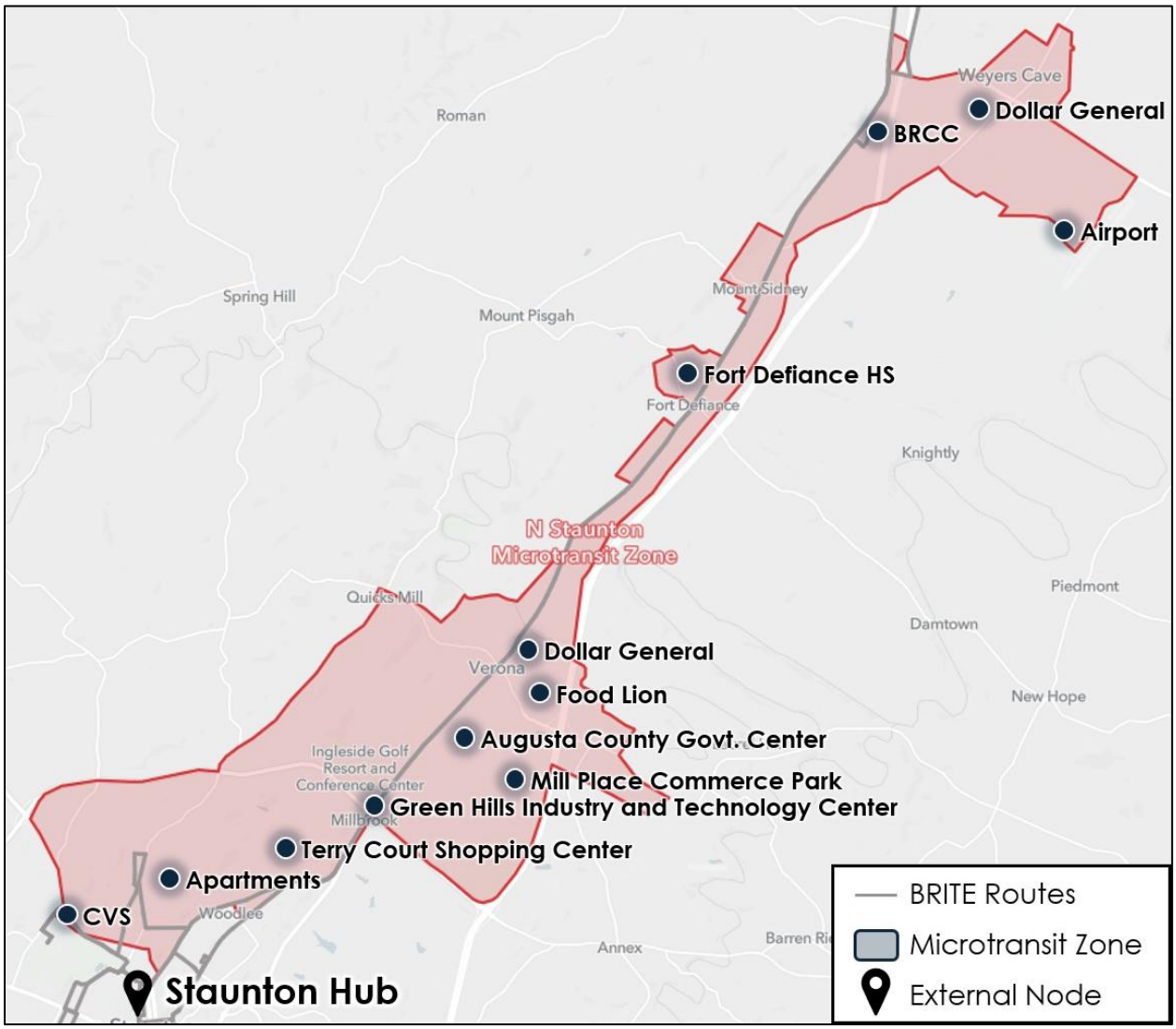
This microtransit zone offers coverage for the northern part of the City of Staunton up to Weyers Cave along the US 11 and the Interstate 81 corridor. There are connections to the communities of Verona, Fort Defiance, and Mount Sidney. The potential microtransit zone (see **Figure 25**) contains 13,420 people and 8,430 jobs. This zone offers potential connections to the BRCC Shuttles, Staunton Downtown and Saturday Night Trolleys, the Staunton West/North Loops, and the 250 Connector. Since this zone covers where the current BRCC Shuttles operate, there is an opportunity for fixed-route service adjustments, which may offer an offset to the costs of operating microtransit. The points of interest identified in this zone include:

- Terry Court Shopping Center
- Spring Hill, Farrier Court, and Willow View Townhome Apartments
- Green Hills Industry and Technology Center
- Mill Place Commerce Park
- Augusta County Government Office
- Food Lion
- Fort Defiance High School
- BRCC
- Shenandoah Valley Regional Airport
- CVS in Staunton
- Dollar General in Verona and Weyers Cave

An external node for this zone is the Staunton Lewis Street Hub.

The implementation of a North Staunton microtransit zone may warrant service changes to the BRCC Shuttles. This could include converting local service to express service for the portion of the route between the City of Staunton's northern limits and BRCC given that microtransit could be used to serve local trips in this area. If this zone advances to implementation, the CSPDC should conduct further analysis to determine fixed-route service changes.

Figure 25: North Staunton Microtransit Zone



South Staunton Zone

This zone offers microtransit coverage in the southern part of the City of Staunton, from the west end area along the Route 262 corridor down through Jolivue. This area covers rural residential areas, some of which are planned to be redeveloped with considerations for multimodal inclusions and commercial developments. The potential microtransit zone (see **Figure 26**) contains 7,450 people and 1,770 jobs. This zone offers the potential for realignment of and connections to the Staunton West/North Loops, and connections to the 250 Connector, and the Downtown and Saturday Night Trolleys. The points of interest in this zone include:

- Orchard Hill Square/Food Lion
- W Beverley St Food Lion
- Middlebrook Trace Apartments
- Staunton Apartments
- Elizabeth Miller Apartments
- Park Hill Apartments
- Montgomery Hall Park

External nodes for this zone include the Staunton Lewis Street Hub and Staunton Walmart.

Figure 26: South Staunton Microtransit Zone

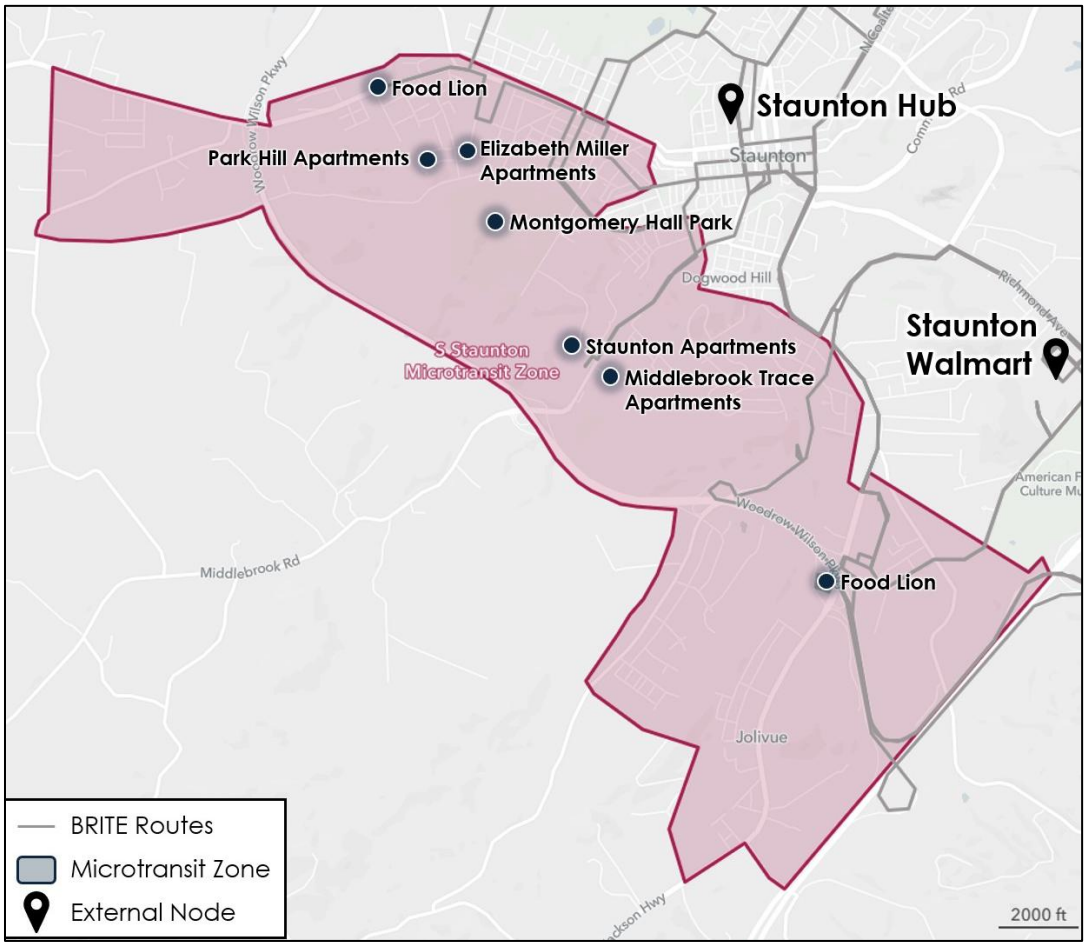


Table 4: Zone Comparison

Zone Measure	Fishersville	Greenville	Stuarts Draft	North Waynesboro/ Crimora	South Waynesboro	North Staunton	South Staunton
Size (square miles)	6.3	8.6	8.9	9.0	8.2	16.8	6.4
Transit Need	High	Low-Moderate	Moderate	Low-Moderate	Moderate-High	Moderate	Moderate-High
Population	4,900	1,590	5,030	5,100	8,050	13,420	7,450
Jobs	4,670	250	4,770	1,120	5,555	8,430	1,770
Transit Potential (people + jobs per acre)	2.5 (Low-Moderate)	0.3 (Low)	1.7 (Low-Moderate)	1.0 (Low-Moderate)	2.6 (Low-Moderate)	2.0 (Low-Moderate)	2.1 (Low-Moderate)
Number of Trip Generators in the Area	8	4	10	6	11	13	7
Number of Fixed-Routes Connections	3	1	3	1	4	5	6
Square Mileage not Currently Served by Fixed Route (% of zone area)	1.7 (27%)	8.6 (100%)	4.6 (52%)	8.6 (95%)	5.6 (68%)	11.6 (69%)	3.4 (52%)
Annual Cost (relative to others)	Moderate	Low	Moderate	Low	Moderate	High	Low
Mentioned by the Public/Stakeholders	3	2	2	3	5	5	6
Productivity of Potential Fixed Route Replacement/Removal	Low-Moderate 3.7 pass./rev. hr. (Stuarts Draft Link)	N/A	Low-Moderate 3.7 pass./rev. hr. (Stuarts Draft Link)	High 10 pass./rev. hr. (Waynesboro Circulator)	Low-Moderate 3.7 pass./rev. hr. (Stuarts Draft Link)	Low-Moderate 3.6 pass./rev. hr. (BRCC)	High 9.5 pass./rev. hr. (Staunton Loops)

Zone Prioritization

The CSPDC would likely begin microtransit implementation with a single service zone depending on available funding before expanding to others. The study team prioritized the seven potential microtransit zones using measures that aligned with the microtransit goals (see **Table 5**). **Table 4** on the previous page shows the values of the measures. For each measure, the team compared the zone's value to those of all other zones and assigned a relative index score (see **Table 6**). They then summed the indexed scores across all measures to calculate each zone's total score—a higher score indicating higher priority. The team applied greater weight to certain measures based on discussions with the BTAC and internal evaluation.

The process produced a ranked list of opportunity zones, ordered from most to least viable for short-term microtransit implementation.

1. North Staunton
2. South Waynesboro
3. Fishersville
4. South Staunton
5. Stuarts Draft
6. North Waynesboro/Crimora
7. Greenville

Table 5: Zone Prioritization Measures

Goal	Measure	Detail
Provide a convenient, reliable, and adaptable transit service.	1A - Transit need	Indexed score
	1B - Transit potential	Indexed score
Expand transit connections and mobility options to serve underserved areas, increase access to essential destinations, and complement existing transit routes.	2A - Number of trip generators in the area	Indexed score Shopping centers, employment centers, schools, park & rides, etc.
	2B - Number of fixed routes connections	Indexed score
	2C - Square mileage not currently served by fixed route	Indexed score Excludes a ¼ mile buffer around fixed routes
Prioritize financially sustainable strategies that support local economic development, improve the quality of life for residents, and maximize resource efficiency.	3A - Annual cost	Indexed score High-level assumptions using the Remix tool
	3B - Mentioned by the public/stakeholders	Indexed score based on number of mentions in previous plans, by staff, or by BTAC
	3C - Productivity of potential fixed route replacement/removal	Indexed score, with lower productivity routes scoring higher than higher productivity routes

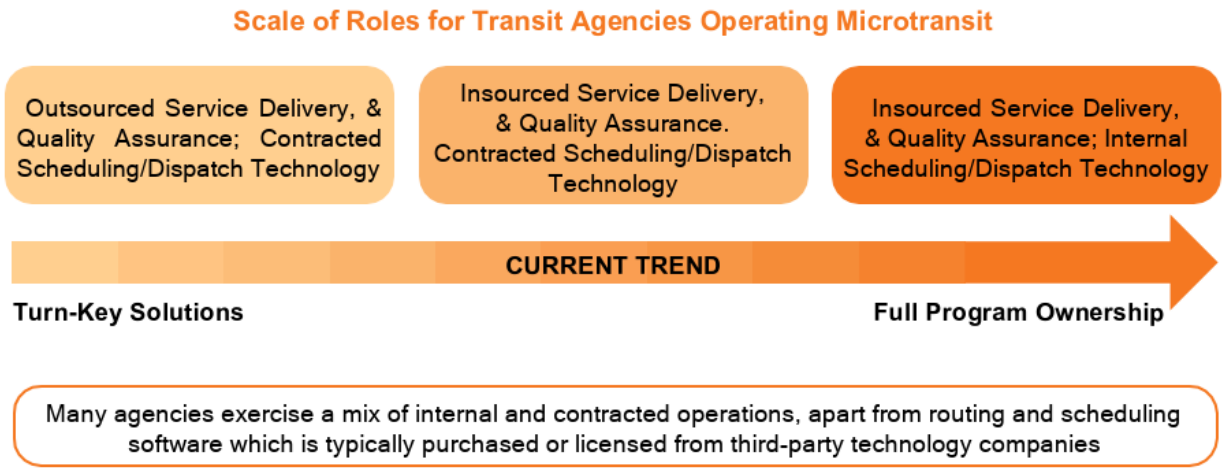
Table 6: Zone Prioritization Indexed Scores

Measure	Weight	Fishersville	Greenville	Stuarts Draft	North Waynesboro/ Crimora	South Waynesboro	North Staunton	South Staunton
1A - Transit need	x 2	1.00	0.62	0.78	0.63	0.98	0.68	0.84
1B - Transit potential	x 1	0.97	0.13	0.64	0.40	1.00	0.77	0.83
2A - Number of trip generators in the area	x 1	0.62	0.31	0.77	0.46	0.85	1.00	0.54
2B - Number of fixed routes connections	x 1	0.50	0.17	0.50	0.17	0.67	0.83	1.00
2C - Square mileage not currently served by fixed route	x 2	0.15	0.74	0.40	0.73	0.48	1.00	0.29
3A - Annual cost	x 1	0.67	1.00	0.67	1.00	0.67	0.33	1.00
3B - Mentioned by the public/stakeholders	x 1	0.50	0.33	0.33	0.50	0.83	0.83	1.00
3C - Productivity of potential fixed route replacement/removal	x 2	0.97	0.00	0.97	0.36	0.97	1.00	0.38
Total		**7.5**	**4.7**	**7.2**	**6.0**	**8.9**	**9.1**	**7.4**

Note: A higher score indicates that a zone ranks higher compared to others and should therefore be considered a higher priority.

Microtransit Service Models

A microtransit service delivery model refers to the logistics and mechanisms used to deliver the service. Service delivery for microtransit is a spectrum. An agency can fully contract out all required elements of the service to one contractor or take full ownership. Many agencies implement a hybrid in which some elements are contracted out to one contractor while other elements may be contracted out to a different contractor or handled in-house.



Source: National Center for Applied Transit Technology (N-CATT)

Definitions

A microtransit service delivery model consists of a technology component and an operations component (service provided, vehicles, and operators). Multiple potential models exist for microtransit:

Software as a Service (SaaS) – In-House

This service model allows transit agencies to have a direct hand in selecting, adjusting, or expanding their services. The agency handles operator staffing, fleet management and maintenance in-house directly. Through this service delivery model, the agency has a great influence over customer experience and the data collection processes, allowing it to easily tailor operations. Although the agency operates the service in-house, it contracts with a technology

vendor to provide the technology (hardware and scheduling software) to run the service, typically through a licensing agreement—hence the term software as service. Since the CSPDC currently operates BRITE using a turnkey contract that includes vehicles, this model would require the CSPDC to acquire a vehicle fleet and hire operators, which would pose procurement and maintenance challenges as well as administrative burdens compared to the current approach to delivering transit service. However, the SaaS model allows for the CSPDC to respond quickly to service fluctuations without the need for coordination with an external contractor.

Turnkey A – Microtransit Only

This service model allows transit agencies to manage microtransit services separately from their existing operations, giving them flexibility to adjust and expand microtransit independently. In this model, although microtransit service is separate from other services, the agency manages technology and operations for microtransit service under one contract comprehensively which may help the agency grow or adjust service elements more efficiently with fewer coordination demands across contracts.

Turnkey B – All Services

This service model allows transit agencies to manage all transit services, both technology and operations, under one contract. For BRITE, this would include all fixed routes, commuter, paratransit, and microtransit services. This model grants agencies the ability to oversee and adjust all service types more efficiently. This model minimizes the need for coordination across multiple contracts, allowing for quicker decision-making and more streamlined service adjustments.

Hybrid A – Microtransit Only

This service model allows transit agencies to manage a microtransit service independently from other transit services, using separate contracts for microtransit technology and operations. The technology contract includes the maintenance and management of the software used for microtransit trip planning, service optimization, and data collection. The operations contract includes responsibilities such as microtransit vehicle fleet management, operator staffing, and other essential service components. By separating microtransit from other transit services, this model provides agencies with greater flexibility to adjust specific elements of the microtransit program without affecting the broader transit system. This granularity can be especially advantageous for pilot programs, where adaptability and targeted evaluation are key.

Hybrid B – All Services

This service model allows transit agencies to manage all services by individual element, offering a modular structure. Under this model, a single contractor operates all transit services—such as fixed-route, commuter, paratransit, and microtransit—but the agency procures technology separately, allowing flexibility in choosing technology platforms for each service type. The agency would manage the microtransit technology contract while the operations contractors is responsible for delivering all modes using the agency-procured technology. Technology for other transit services may also be developed through separate technology contracts. Unlike Hybrid A, this model embeds microtransit within a larger transit ecosystem, allowing for centralized operations but with distributed technology oversight. It supports high flexibility but also demands more coordination across vendors and contracts to ensure alignment.

Existing Service Delivery Model

BRITE currently offers fixed-route, commuter, and paratransit services. BRITE operates eight fixed routes and paratransit on both weekdays and Saturdays, depending on the specific route. The CSPDC manages BRITE's transit services through a turnkey contract, with VRT handling the daily operations, including service management, vehicles, and operators. The CSPDC oversees contract management and provides an administrative, maintenance, and storage facility for the contractor's staff and vehicles.

The CSPDC procured a mobile data collection system for fixed-route and commuter bus services in 2023/2024, while VRT provides other technological systems like on-board cameras. VRT also provides scheduling technology for paratransit service.

This approach is most like a Hybrid B service delivery model, given that separate contracts exist for operations and some technological elements, but operations of all modes are bundled with one contractor. The CSPDC is currently developing a Request for Proposal (RFP) for the turnkey operations of BRITE Bus services. A new operational contract will need to be in place by Summer 2026. If this future contract were to be used to also deliver microtransit service, the CSPDC would need to amend the contract when ready to implement the new service. This will incorporate microtransit in the technology and operations contract, aligning with a Turnkey B service delivery model.

Evaluation

The study team evaluated the service delivery models using the following criteria, which are further defined in subsequent sections:

- Ease of implementation
- Infrastructure needs
- Cost efficiency
- Customer experience
- Interoperability
- Reporting
- Adaptability

The team scored each of the service delivery models as Low, Moderate, or High against each criterion to determine a cumulative score by considering BRITE’s existing operations and the CSPDC’s capacity. The evaluation results and subsequent service delivery model recommendation would apply to microtransit implemented in any of the identified opportunity zones.

Ease of Implementation

Ease of implementation refers to the time and effort to transition from microtransit planning to implementation.

A “Low” rating means a service model would be more difficult or take longer to implement (worse).

A “High” rating means a service delivery model may be easier or quicker to implement (better).

SaaS (in-house)	Turnkey A (microtransit only)	Turnkey B (all services)	Hybrid A (microtransit only)	Hybrid B (all services)
Low	**Moderate**	**High**	**Low**	**Moderate**
In addition to the marketing efforts the CSPDC already lead, it would need to deliver service. This would include obtaining vehicles, hiring operators, and support staff. This service delivery model is furthest from current operations.	Streamlined process for implementation with one contractor handling all elements of microtransit service. Additional agency coordination would be needed for integration with other transit services and marketing.	Streamlined process for implementation with one contractor handling all elements of all transit services. Consistent branding and marketing across all transit services.	Requires more coordination for the agency to manage multiple contracts, including separate contracts for microtransit operations and technology. Microtransit service marketing will require additional coordination for the agency.	Requires the agency to coordinate multiple contracts, including separate ones for technology; however, there are fewer overall contracts since a single operations contract would cover all transit services.

Infrastructure Needs

Infrastructure needs refer to the level of agency responsibility in providing the vehicle and technology infrastructure required to implement microtransit service.

A "Low" rating means a service delivery model with fewer infrastructure needs on the agency side (better).

A "High" rating means a service delivery model with more infrastructure needs on the agency side (worse).

SaaS (in-house)	**Turnkey A (microtransit only)**	**Turnkey B (all services)**	**Hybrid A (microtransit only)**	**Hybrid B (all services)**
High	**Low**	**Low**	**Moderate**	**Moderate**
Agency is responsible for supplying vehicles, technology, and operating the overall service.	Contractor provides all elements of microtransit service including vehicles and technology.	Contractor provides all elements of all transit services including vehicles and technology.	Agency is responsible for some infrastructure (i.e., facility for BRITE), and managing a separate microtransit technology contract. Contractor provides microtransit vehicles.	Agency is responsible for some infrastructure (e.g., facility for BRITE) and managing a separate microtransit technology contract. Contractor provides vehicles for all services.

Cost Efficiency

Cost efficiency refers to the ability to reduce redundancy, streamline operations, and leverage economies of scale. This rating is qualitative and relative among the options.

- Operating costs include vehicle maintenance, staff, technology fees, and other day-to-day operations.
- Capital costs include the procurement of new technology, vehicles, facilities, and stop infrastructure.

A "Low" rating means a service delivery model with less efficiency (worse).

A "High" rating means a service delivery model with greater efficiency (better).

SaaS (in-house)	**Turnkey A (microtransit only)**	**Turnkey B (all services)**	**Hybrid A (microtransit only)**	**Hybrid B (all services)**
Low	**Moderate**	**High**	**Low**	**Moderate**
Acquiring infrastructure and staff for service would be a long-term investment with ongoing maintenance required. There may be redundancies in functions provided by the CSPDC versus what is/could be provided by a turnkey contractor.	Costs related to hiring an external operator solely for microtransit services, without the added complexity of having them manage other transit operations. Additional staff time is also required to oversee and coordinate multiple contracts.	Combining all transit services under one contractor could offer efficiency and reduce agency time for managing multiple contracts, potentially keeping costs similar or lower than separate contracts.	Splitting contracts for operations and technology can be efficient but may require additional agency time for overseeing and coordinating multiple operations and technology contracts.	Creating a comprehensive contract for operating all transit services, plus a contract for technology, could incur additional overall costs due to complexity and coordination challenges.

Customer Experience

Customer experience refers to how favorable an option could be for the customer. It consists of outreach and rider experience.

- Outreach refers to the information circulated by the CSPDC to inform customers of new services and upcoming changes. This includes marketing and branding efforts.
- Rider experience refers to responsiveness to customer feedback and the degree of agency control over service quality.

A "Low" rating means a service delivery model that has the potential for a worse customer experience (worse).

A "High" rating means a service delivery model that has the potential for a better customer experience (better).

SaaS (in-house)	**Turnkey A (microtransit only)**	**Turnkey B (all services)**	**Hybrid A (microtransit only)**	**Hybrid B (all services)**
High	**Moderate**	**Moderate**	**Moderate**	**Moderate**
Agency will have maximum control over quality. Service elements affecting customer experience such as staffing and vehicle maintenance are all done in-house.	Agency will have limited control over quality. Agency will oversee two turnkey contracts to control quality of customer experience, but there is potential for more specialized operators suited to each transit service type.	Agency will have limited control over quality and will oversee one turnkey contract to control operations and technology affecting customer experience for all transit services. Opportunity for more consistent experience with one contractor.	Separate contracts could allow specialized contractors to provide higher quality service (technology, operators, etc.)	Separate contracts could allow specialized contractors to provide higher quality service (technology, operators, etc.)

Interoperability

Interoperability refers to how well a microtransit operating model option integrates with the existing transit network and service delivery. One example is commingling with paratransit service. Commingling is common between agencies' demand-response services. It is the sharing of certain aspects between the different services such as the technology platform, vehicles, operator shifts, or trips.

A "Low" rating means a service delivery model that has a lower likelihood of integrating with other existing services (worse).

A "High" rating means a service delivery model with a higher likelihood of integrating with other existing services (better).

SaaS (in-house)	**Turnkey A (microtransit only)**	**Turnkey B (all services)**	**Hybrid A (microtransit only)**	**Hybrid B (all services)**
Low	**Low**	**High**	**Low**	**High**
Agency provides microtransit operations in-house and technology is contracted out. Agency would continue to contract fixed route and paratransit services, limiting its ability to commingle service (vehicles or operators).	Agency may have challenges integrating existing fixed-route service with microtransit since different entities handle operations and scheduling. The commingling of microtransit and paratransit trips is also not feasible given separate contractors.	Operations and technology under one contract provides consistency for users between transit services. This can allow for commingling of vehicles and operators between services.	Agency may have challenges integrating existing fixed-route service with microtransit since different entities handle operations and scheduling. The commingling of microtransit and paratransit trips is also not feasible given separate contractors.	Bundling all transit services under a single operations contract, while maintaining a separate technology contract, promotes consistency for users across service types. This approach also allows for the commingling of vehicles and operators between services.

Reporting

Reporting refers to performance data collection, monitoring, and reporting.

- Data collection refers to the methods used to collect data for performance monitoring and reporting.
- Monitoring refers to the ongoing, regular review of metrics such as ridership, wait time, safety, customer experience, etc.
- Reporting refers to the recurring reports required for submission to the Federal Transit Administration (FTA), DRPT, and other funding partners.

A “Low” rating means a service delivery model with less agency access to performance data and tools (worse).

A “High” rating means a service delivery model with more agency access to performance data and tools (better).

SaaS (in-house)	**Turnkey A (microtransit only)**	**Turnkey B (all services)**	**Hybrid A (microtransit only)**	**Hybrid B (all services)**
High	**Moderate**	**Moderate**	**Moderate**	**Moderate**
Agency would be responsible for collecting and displaying data outside of what is provided by technology provider.	Contractor would provide data reporting for microtransit service. Agency would be responsible for aggregating this data with the other transit services for reporting.	Contractors would provide data reporting for all transit services. Agency would be able to arrange one data pull for all service types for all monthly and annual reporting needs.	Contractors would provide data reporting for microtransit service utilizing agency-provided technology. Agency would be responsible for aggregating this data with the other transit services for reporting.	Contractors would provide data reporting for all transit services utilizing agency-provided technology. Agency would be responsible for overall system reporting.

Adaptability

Adaptability refers to the flexibility an agency has to modify its existing services to better meet transit needs as well as to change the capacity of its service to allow for growth while maintaining service quality.

A "Low" rating means a service delivery model with less flexibility for modifying or growing service (worse).

A "High" rating means a service delivery model with more flexibility for modifying or growing service (better).

SaaS (in-house)	**Turnkey A (microtransit only)**	**Turnkey B (all services)**	**Hybrid A (microtransit only)**	**Hybrid B (all services)**
High	**Moderate**	**High**	**Low**	**Moderate**
Agency has direct control over service delivery to coordinate changes to service while maintaining service quality. Technology changes to support service adjustments are handled by the agency.	Agency has control to modify all aspects of each service mode but must coordinate microtransit service changes separately from fixed-route and paratransit services.	Agency has control to modify all aspects of each service mode easily in a "one-stop-shop" approach.	Agency has less control to modify service elements due to more coordination needed to scale service capacity. Agency must coordinate service types separately as well as operations and technology separately.	Agency has less control to modify service elements due to extra coordination needed to scale service capacity. Agency must coordinate operations and technology separately.

Evaluation Summary

The following matrix summarizes the relative scores for each service model, along with the total score. The total score is the sum of the scores across seven evaluation criteria. In the matrix, red cells represent one point, orange cells represent two points, and green cells represent three points. The highest-scoring model overall is Turnkey B, in which all transit service, inclusive of operations and technology, are delivered through a single turnkey contract.

Evaluation Criteria	SaaS (in-house)	Turnkey A (microtransit only)	Turnkey B (all services)	Hybrid A (microtransit only)	Hybrid B (all services)
Ease of Implementation	Low	Moderate	High	Low	Moderate
Infrastructure Needs	High	Low	Low	Moderate	Moderate
Cost Efficiency	Low	Moderate	High	Low	Moderate
Customer Experience	High	Moderate	Moderate	Moderate	Moderate
Interoperability	Low	Low	High	Low	High
Reporting	High	Moderate	Moderate	Moderate	Moderate
Adaptability	High	Moderate	High	Low	Moderate
Total Score	Low-Moderate (13)	Moderate (14)	High (19)	Low-Moderate (10)	Moderate (15)

Recommendations

This section outlines key microtransit service recommendations for the CSPDC, focusing on prioritizing proposed microtransit zones, a suitable service delivery model, and additional enhancements. These additional recommendations include:

- Fleet
- Technology
- Fare structure and transfer policy
- Ride request and payment mechanism
- CSPDC staffing
- Engagement strategies
- Data collection and reporting
- Potential partnerships
- Funding opportunities

These recommendations aim to improve as well as expand BRITE's current services while leveraging the existing infrastructure and processes to facilitate sustainable growth.

Service Model

The study recommends the Turnkey B service model due to its streamlined structure, which consolidates all transit services—including microtransit operations and technology—under a single contract. This approach minimizes administrative complexity, reduces coordination burdens, and enables more efficient service adjustments. Its high score across evaluation criteria reflects its strong potential to support scalable, responsive, and cost-effective transit service delivery for the CSPDC.

Under this approach, the CSPDC should work with its future turnkey contractor for fixed-route, commuter, and paratransit services to provide microtransit vehicles, operators, and supporting technology. If the future turnkey contractor is not able to provide microtransit service, the CSPDC should procure a separate turnkey contractor for microtransit service which may resemble a Turnkey A or Hybrid A service model. While service delivery would be fully contracted, the CSPDC would retain the ability to guide implementation through clearly defined technical requirements, ensuring alignment with its goals and service expectations.

Priority Zones Service Plans

The study recommends four of the seven microtransit zones for near-term implementation:

- North Staunton
- South Waynesboro
- Fishersville
- Stuarts Draft

The CSPDC, with its funding partners, should select one of these four for an initial deployment before considering expanding to other areas. This selection will be highly dependent on interest and available funding, particularly local matches from funding partners.

All seven zones designed through the study capture where existing and future transit needs are present in the BRITE service area and remain viable candidates for future implementation.

However, the four prioritized zones have the greatest scope of employment, residential, social, and development captured. These factors suggest that implementation in these areas would yield the most immediate and greatest benefits. The selected zones also offer geographic diversity and future flexibility, covering key areas in Staunton, Waynesboro, and Augusta County. While South Staunton scored comparably and slightly higher than Stuarts Draft in the evaluation, the study prioritized Stuarts Draft due to the opportunity to offset service costs by replacing the existing Stuarts Draft Link fixed-route service.

The study team developed service plans for the four prioritized microtransit zones, consisting of service hours, target wait times, estimated ridership, vehicle requirements, and projected annual costs. These metrics were informed by origin-destination data and modeled using the microtransit modeling tool, *Remix*. The methodology used by the study team is as follows.

Ridership was estimated based on the number of trips projected to occur within the microtransit zone and to/from fixed-route connections for travel beyond the zone. A certain percentage of those trips was assumed to be converted to microtransit trips based on existing transit mode share, points of interest, travel patterns, and existing transit service.

Service hours for microtransit service were selected based on the service hours of adjacent fixed-route service. The study recommends limiting service hours for microtransit during a pilot phase to conserve resources. The CSPDC can refine and expand service levels post-launch based on customer feedback as well as observed demand. For an initial pilot, the study recommends weekday service, but the study team also modeled and costed Saturday service for future consideration.

Target wait time for microtransit service usually ranges from 15 to 30 minutes. Selection of wait time targets is based on the size of the zone; expected trip distances and durations; and fleet size limitations.

Peak vehicles are the number of vehicles needed during the time of day with the greatest number of expected riders. This is determined based on zone size, target wait time, and estimated ridership. Off-peak vehicle requirements are also reported, which are anticipated given ridership estimates during lower-demand times of day.

Estimated annual costs reflects the operating cost of turnkey service delivery models inclusive of operators, vehicles, and technology. These estimates are based on a rate of $80 per vehicle revenue hour, within the range of costs observed by peer agencies using turnkey operations. Based on study team research from other agencies and vendors, turnkey microtransit operations typically cost between $65 to $90 per vehicle revenue hour. Actual costs may vary depending on final service parameters, such as service hours, wait time targets, and ridership levels.

North Staunton Zone

See the previous **North Staunton Zone** comparison section for more details on the zone. **Table 7** below is North Staunton's service plan.

Table 7: North Staunton Zone Service Plan

Metric	Value
Area	16.8 square miles
Estimated Weekday Ridership	95-135 per day
Weekday Service Hours	6:30 AM to 7:30 PM
Adjacent Fixed Route Hours	6:30 AM to 9:30 PM
Target Wait Time	30 minutes
Peak Vehicles	3 to 4 vehicles
Off-Peak Vehicle	1 to 2 vehicles
Estimated Annual Cost (Weekday)	$915,200–$967,200

South Waynesboro Zone

See the previous **South Waynesboro Zone** comparison section for more details on the zone. **Table 8** below is South Waynesboro's service plan.

Table 8: South Waynesboro Zone Service Plan

Metric	Value
Area	8.2 square miles
Estimated Weekday Ridership	105–150 per day
Weekday Service Hours	6:30 AM to 7:30 PM
Adjacent Fixed Route Hours	6:30 AM to 9:30 PM
Target Wait Time	30 minutes
Peak Vehicles	3 vehicles
Off-Peak Vehicles	1 to 2 vehicles
Estimated Annual Cost (Weekday)	$696,800–$811,200

Fishersville Zone

See the previous **Fishersville Zone** comparison section for more details on the zone. **Table 9** below is Fishersville's service plan.

Table 9: Fishersville Zone Service Plan

Metric	Value
Area	6.3 square miles
Estimated Weekday Ridership	55–80 per day
Weekday Service Hours	6:30 AM to 7:30 PM
Adjacent Fixed Route Hours	6:45 AM to 9:30 PM
Target Wait Time	20 minutes
Peak Vehicles	2 vehicles
Off-Peak Vehicles	1 vehicle
Estimated Annual Cost (Weekday)	$540,800–$644,800

Stuarts Draft Zone

See the previous **Stuarts Draft Zone** comparison section for more details on the zone. **Table 10** below is Stuarts Drafts's service plan.

Table 10: Stuarts Draft Zone Service Plan

Metric	Value
Area	8.9 square miles
Estimated Weekday Ridership	85–120 per day
Weekday Service Hours	6:30 AM to 7:30 PM
Adjacent Fixed Route Hours	6:30 AM to 9:30 PM
Target Wait Time	25 minutes
Peak Vehicles	2 vehicles
Off-Peak Vehicles	1 vehicle
Estimated Annual Cost (Weekday)	$696,800–$811,200

Cost and Ridership Comparison

Table 11 shows a comparison of annual cost and daily ridership across the four priority zones. This includes a breakdown of weekday and Saturday service.

Table 11: Comparison of Annual Cost and Ridership

Zone	Weekday	Saturday	Total
North Staunton	$915,200–$967,200 95–135 riders/day	$79,000–$122,800 40 – 60 riders/day	$994,200–$1,090,000
South Waynesboro	$696,800–$811,200 105–150 riders/day	$91,500–$124,800 55–80 riders/day	$788,300–$936,000
Fishersville	$540,800–$644,800 55–80 riders/day	$79,000 25–40 riders/day	$619,800–$723,800
Stuarts Draft	$696,800–$811,200 85–120 riders/day	$79,000–$124,800 40–60 riders/day	$775,800– $936,000

Costs are based on $80 per vehicle revenue hour, estimated ridership ranges, and assumed service hours of 6:30 AM to 7:30 PM on weekdays and 7:30 AM to 6:30 PM on Saturdays. Costs also assume a turnkey service delivery model, inclusive of vehicles, technology, and operators. Actual costs may vary depending on final service parameters such as service hours, wait time targets, and ridership levels.

Additional Recommendations

The CSPDC will need to make additional microtransit service design decisions beyond service delivery model and zone to implement microtransit service. These components are fleet, technology, fare structure and transfer policy, ride request and payment mechanism, staffing needs, engagement strategy, data collection and reporting, partnerships, and funding opportunities. Recommendations below for each component are based on existing CSPDC and BRITE operations and can include multiple options. Following the CSPDC's selection of a microtransit service model and zone, the CSPDC can determine specific recommendations best suited for its needs from the listed options.

Fleet

The study team considered the following factors in selecting the fleet options: cost, physical accessibility, passenger capacity, and existing fleet. The study assumed that a microtransit fleet will use gasoline as fuel for consistency with BRITE's existing fleet. Below are the three fleet options for the CSPDC. While all are feasible, the study recommends the sprinter van to provide the most flexibility for a variety of demand levels and roadway constraints. A smaller cutaway could be an option for an initial pilot, if the intent is to quickly leverage existing vehicles available for BRITE services.

Cutaways

Figure 27 is an example of a cutaway transit vehicle. Their capacity ranges from 12 to 27 riders, depending on size and level of accessibility accommodation. Vehicle costs range from $100,000 to $150,000. BRITE's fixed route and paratransit services operate with cutaways. WinReady, a microtransit service of the City of Winchester, a peer agency, also operates with this vehicle type. BRITE's current use of this fleet option allows for microtransit commingling with paratransit operations.

This fleet option is best suited for the North Staunton, South Waynesboro, or Stuarts Draft zone.

Figure 27: BRITE Cutaway

Sprinter Van

Figure 28 is an example of a sprinter van. Their capacity ranges from 7 to 11 riders, depending on size and level of accessibility accommodation. This vehicle's ability to provide accessibility accommodations allows for microtransit commingling with paratransit operations. Vehicle costs range from $70,000 to $100,000. Other microtransit services that use sprinter vans for their fleet

are OmniRide in Prince William County, Virginia; PonyPlus in Monroe County, Pennsylvania; and MetGo! in southwest Virginia.

This fleet option is best suited for the North Staunton, South Waynesboro, Fishersville, or Stuarts Draft zone.

Figure 28: OmniRide Sprinter Van

Minivan

Figure 29 is an example of a minivan. Their capacity ranges from 2 to 6 riders, depending on size and level of accessibility accommodation. This vehicle's ability to provide accessibility accommodations allows for microtransit commingling with paratransit operations. Vehicle costs range from $60,000 to $80,000. Other microtransit services that use minivans for their fleet are MicroCAT in Charlottesville, Virginia and PGC Link in Prince George County, Maryland.

This fleet option is best suited for the Fishersville zone.

Figure 29: Chandler Flex Minivan

Technology

A key component of microtransit service is technology. This is one of the requirements that sets microtransit apart from other transit modes. In general, the primary components of a microtransit technology platform consist of the following supplied by a technology provider:

- **Dispatch and Scheduling Software**: A system that uses algorithms to create real-time routes in response to rider trip requests that come in from multiple booking methods such

as a mobile app, website, or call-in. The software optimizes time, distance, and vehicle occupancy. This is commonly web-based (cloud), accessed by the transit operator's dispatch/scheduling staff via an internet browser.

- **Passenger Mobile Application**: A system that allows riders to book trips in real-time by inputting desired pick-up and drop-off locations within the microtransit service area. The rider receives an estimated wait time, and the application may have options to book for scheduled times and collect fare payment.
- **Vehicle Operator Application**: A system that provides vehicle operators (drivers) with real-time trip assignments and management of rider pick-ups and drop-offs. This application is installed on on-board hardware (e.g., tablet or mobile data terminal) and can provide GPS-based navigation and route guidance.
- **Performance Monitoring Dashboard/Report**: A system that generates and displays statistics on customer experience and service performance. This system can be used by agency staff to monitor the success of the program and later adapt the service as needed.

In a turnkey service model, it is the contractor's responsibility to supply the technology, but the CSPDC would have the ability to guide the implementation through clearly defined technical requirements. When acquiring an ideal microtransit technology platform, the CSPDC should consider the features depicted in **Table 12**. The table also highlights the subcomponents of the features above that may help in improving the efficiency and effectiveness of a microtransit application, along with a description of their importance.

Table 12: Microtransit Technology Features

Feature	Sub-components	Importance
Trip Booking	• Book a trip on-demand or in advance (if enabled) • Book a trip on the mobile application or desktop application • Book a trip through a call center operator/customer service phone number and dispatcher • Select origin and destination by typing in address or selecting a stop on the map	Allowing several booking methods ensures that the service is accessible to all users. This includes advance scheduling for those that know travel needs ahead of time or have a standing appointment. It allows for booking through a call center for those that are not as familiar with mobile apps.
Service Area	• Limit pick-up and drop-off to service area zone or select nodes outside of zone for connectivity • Define virtual and designated stops • Provide flexibility in changing virtual stops	Providing the option for defining service stops and offering the flexibility of choosing and changing destinations is key to encouraging more ridership. For trip generating areas, like grocery stores and hospitals, users would benefit from a designated place to wait for the microtransit service that is accurately marked on the app.

Feature	Sub-components	Importance
Routing Algorithm	• Adjust based on additional pick-ups or drop-offs as requests come in • Adjust to increase or decrease ridesharing percentage • Adjust based on designated places for idling vehicles between passenger trips • Set a minimum and maximum number of passengers per vehicle • Maintain service standards, such as on-time performance and cost per vehicle hour, set by the agency	Providing an efficient routing algorithm can improve both rider and operator experience by displaying different route options when navigating a trip. Selecting thresholds for these parameters can allow for more efficient trips and potentially decrease costs per vehicle hour and costs per passenger trip.
Customer Communication	• Track vehicle locations to display in-app for customers • Inform users of service demands and trip routing • Reach out to customer service for assistance	Informing customers of their vehicle location and information about wait times will allow customers to make informed decisions about their mode choice. Customers can also reach out to customer service if issues arise.
Customer Experience	• Set maximum and average wait time targets • Set maximum and average walk distance targets (applicable if operating with virtual stops rather than curb-to-curb) • Set maximum time added to a passenger's trip when considering ridesharing • Provide options for customer rating and feedback in-app	Adjusting parameters such as wait time and walk time can be based on agency information about the community that is being serviced. The threshold for maximum trip time relative to a single occupancy vehicle trip may differ based on road network or socioeconomic status of the area. The maximum walk time may also have a shorter threshold for communities with a higher percentage of people with disabilities. Developing an opportunity for customers to provide feedback during or after their trip in-app ensures that customers can express their thoughts on the service.
Operator Functionality	• Live tracking on the number of passengers and driver location	Provides agency users, like dispatchers, with information on field operations. This feature

Feature	Sub-components	Importance
	• Set maximum time an operator will wait for a passenger	also helps operators enforce wait time and no-show policies.
Fare Payment	• Offer in-app fare payment option • Offer the ability to pay onboard (if applicable) • Account for relevant existing transfer policies • Integrate existing transit payment systems (if appliable) • Accept discounted and zero-fare programs for a subset of the population	Offering a variety of payment options, like credit cards, debit cards, and transit card payments (if applicable), will help provide more accessibility for users. Additionally, users can efficiently pay for their trips using the option they are most comfortable with rather than having them accommodated to one single payment option.
Integration with Existing Services	• Integrate microtransit applications with other existing applications to provide one interface for all transit services • Integrate microtransit into existing trip planner (if applicable) • Integrate microtransit applications with other local and regional transit services	Offering a more seamless trip by integrating all transit services will encourage ridership and improve customer experience. All transit types within one agency and within a region should be connected as people's travel does not end at a jurisdictional boundary.
Performance Monitoring	• Generate performance metrics based on agency's service standards, oversight agency requirements, and customer experience • Display performance metrics for staff to easily review and assess the service	Generating performance metrics and displaying them in a simple interface will allow agency staff to keep track of the effectiveness of the service and adapt services as needed. Refer to the ***Data Collection and Reporting*** section for more guidance on measuring the performance of the service.

Microtransit technology providers in the marketplace include Via, Spare Labs, Ecolane, RideCo, TransLoc, QRyde, Moovit, Share Mobility, and TripSpark. **Table 13** lists examples of other transit agencies with microtransit service and their technology provider.

Table 13: Microtransit Technology Providers of Other Agencies

Location and Agency	Microtransit Service Name	Microtransit Technology Provider	Duration of Partnership
Winchester, VA (Winchester Transit)	WinReady	Via	2024-Current
Richmond, VA (GRTC)	Link	Via	2023-Current
Montgomery County, MD (Ride On)	Ride On Flex	Via	2019-Current
Prince William County, VA (OmniRide)	OmniRide Connect	RideCo	2023-Current
Charlottesville, VA (CAT)	MicroCAT	Via	2023-Current
Gloucester, VA (Bay Transit)	Bay Transit Express	Via	2021-Current
Monroe County, PA (MCTA)	PonyPlus	Via	2023-Current
Wilmington, NC (Wave Transit)	RideMICRO	Moovit	2021-Current

Fare Structure and Transfer Policy

Fare Structure

The approach to microtransit fares can vary greatly from fare-free to dynamic distance-based pricing. **Table 14** lists the fare structures and transfer policies of several other agencies, including comparison to their fixed-route fares. The most often seen fare structures are fare-free, fare parity among services, and premium.

- Agencies often temporarily implement **fare-free structures** at the start of a microtransit service to encourage ridership on a new and unfamiliar service. This ensures that ridership numbers are not limited by costs, reduces the barrier to entry for customers, and may provide useful ridership data to refine the zone or plan future zones. Fare-free structures can also be implemented permanently due to accessibility or connectivity reasons. Agencies may be focused on making transit more accessible to a wider group of people, as microtransit often serves as a first-mile/last-mile solution. The following microtransit services have adopted this fare structure: GRTC LINK, OmniRide Connect, and MicroCAT.
- Agencies often implement **fare parity among services** when microtransit service is designed to replace inefficient fixed-route service to avoid creating obstacles for riders interested in using the microtransit service. The following microtransit services have adopted this fare structure: Bay Transit Express, Montgomery County Ride On Flex, Pony Plus, and RideMICRO.
- A **premium fare structure** charges riders more for microtransit service than for fixed-route service with the recommended maximum being double that of fixed-route to comply with FTA regulations for paratransit service, which is often complemented by microtransit service. Agencies may implement this fare structure to recoup farebox revenue and offset microtransit operating costs. Others may consider microtransit service premium because it provides a more convenient and customizable customer experience that warrants the raised cost to customers. The following microtransit services have adopted this fare structure: WinReady and PGC Link.

Table 14: Peer Agencies' Microtransit Fare Structure

Microtransit Service	Microtransit Regular Fare	Microtransit Reduced Fare	Fixed-Route Regular Fare	Fixed-Route Reduced Fare	Microtransit Transfer Policy
MEOC (Wise, VA)	$1.50	$0.75	N/A	N/A	N/A – no transfer opportunities
WinReady (Winchester, VA)	$1.50	Free (Students)	$1.00 to 2.00 (by route)	50%	N/A – pay each time
MicroCAT (Charlottesville, VA)	Free	Free	Free	Free	N/A - free
Bay Transit Express (Gloucester, VA)	$1.00	--	$1.00 to $4.00 (by route)	--	N/A – pay each time
OmniRide Connect (Prince William County, VA)	$2.00	--	Local–Free Express– $5.50 or $11.00	50%	Free to/from other services when using smartcard
Montgomery County Ride On Flex (Montgomery County, MD)	$1.00	Free	$1.00	Free	Free to/from bus and $1.00 discount to/from rail when using smartcard
PGC Link (Prince George's County, MD)	$2.00	--	$1.00	Free	N/A – pay each time
PonyPlus (Monroe County, PA)	$2.00	Free (Seniors)	$2.00	$1.30 (College) $1.00 (Disability) Free (Seniors, Children)	N/A – pay each time
RideMICRO (Wilmington, NC)	$2.00	--	$2.00	$1.00	N/A – pay each time

Regardless of the fare structure, most agencies provide a reduced fare program for specific customer groups, such as children, seniors, and persons with disabilities. A reduced fare program for microtransit service should closely mirror that of fixed-route service.

Table 15 shows the recommended fare structure for a BRITE microtransit service given the above considerations. The study recommends that BRITE offer services for free during the first month to allow customers to familiarize themselves with the new service.

Table 15: BRITE Microtransit Recommended Fare Structure

Service	Fare Structure
Afton Express	Regular fare - $3 Cost saving fare card – 10 rides for $25
BRITE Bus	Staunton routes fare - $0.25 Staunton Seniors, people with disabilities - $0.10 All other routes' regular fare - $0.50 Seniors, individuals with disabilities - $0.25 Children (12 and under), students – free Cost-saving fare card – 12 rides $5 (regular fare) or $3 (Staunton fare)
BRITE Access	Staunton complementary routes - $0.50 All other complementary routes - $1.00
BRITE Microtransit	Regular fare - $1.00 Seniors, individuals with disabilities - $0.50 Children (12 and under), students - free

If the Stuarts Draft zone is chosen, the CSPDC should consider a fare equity analysis to determine impacts of fare changes due to the elimination/replacement of Stuarts Draft Link, which has a lower existing fixed-route fare compared to the recommended microtransit fare. This can help determine if mitigation or matching the current fixed-route fare are appropriate.

Transfer Policy

Transfer policies vary by agency depending on their existing fare payment operations and their available technology. **Table 14**, shown previously**,** lists the transfer policies for other agencies operating microtransit services. Agencies often implement a free transfer policy to encourage ridership and connectivity to other services in the area. This is especially true when microtransit is partially replacing existing fixed-route service and when microtransit is being used as first-mile/last-mile solution.

The following proposed transfer policy and procedures would effectively allow 'free' transfers between fixed-route service and microtransit. The customer would pay no more than their highest-fare leg along the journey. In this scenario, the CSPDC or its contractor would need to print paper transfer slips in bulk and make available on all buses to issue to transfer customers. When issuing the transfer slip, the driver would write the date and time so eligibility can be confirmed by the driver on the next vehicle that is boarded.

Customer Transferring from Fixed Route to Microtransit

- Customer pays for fixed-route trips as normal when boarding the bus.
- Customer books a microtransit trip with app or call-center, and indicates they are transferring and will pay at pick-up.
- Customer requests a paper transfer slip (driver writes date/time) from the fixed-route driver when getting off the bus.
- Customer hands transfer slip to the microtransit driver at pick-up and pays 'upcharge':
    - $0.50 if regular fare customer (i.e., $1.00 total trip)
    - $0.25 if reduced fare customer (i.e., $0.50 total trip)
    - It may be possible to allow payment when booking the microtransit trip with the app using a voucher code printed on the transfer slip, however this would complicate administration and would not be easily time-enforced.

Customer Transferring from Microtransit to Fixed Route

- Customer pays for a microtransit trip with app or at pick-up.
- Customer requests a paper transfer slip (driver writes date/time) from the microtransit driver at drop-off.
- Customer hands transfer slip to the fixed-route driver when boarding bus.
- Customers are not required to pay a fixed route fare (if boarding Afton Express, a reduced fare of $2.00 would be required to match the $3.00 Afton Express fare since $1.00 would have already been paid for the microtransit).

No-Show Policy

The CSPDC should implement a microtransit no-show policy that clearly defines expectations for cancellations, passenger pick-ups, and consequences for repeated offenses. Key components should include:

- Cancellation window: Specify the amount of time a passenger has the ability to cancel a trip in advance to avoid being marked as a late cancel. Among peer agencies, this window typically ranges from 30 minutes to 2 hours before the pre-scheduled trip.
- Operator wait time: Define how long a driver will wait at the pick-up location before marking the trip as a no-show. Most agencies use a wait time in the range of 1 to 5 minutes after the vehicle's arrival.
- Offense threshold: Set a limit for how many late cancels or no-shows a passenger can accumulate within a defined period before facing service suspension.
- Appeals process: Outline a clear and fair process for passengers to appeal suspensions or penalties.

Ride Request and Payment Mechanism

BRITE microtransit service should allow for advance booking (up to two weeks) for those with prior commitments or standing appointments. There should also be an option for on-demand scheduling as that is a typical feature of microtransit service and allows for flexibility and ease in use. However, customers will not be able to "hop-on". Customer must book trips either on the app or through the call center/calls to the customer service phone number. Customers should expect a 20-to-30-minute average wait time depending on the zone and should be informed to plan their travel accordingly. Customers can pay for the service via the app when booking by inputting a

credit/debit card or a voucher code. Other options include the BRITE fare punch cards or paying cash. If existing punch cards are to be used, each microtransit trip would be two punches given its higher recommended fare.

CSPDC Staffing

Administering a new microtransit service will require additional staff time for the CSPDC. **Table 16** shows the estimated amount of staffing effort in units of full-time equivalent (FTE) needed by task and the duration of that effort. The tasks are related to procurement, marketing of the service, and administrative responsibilities. Overall, approximately 0.5 FTE is required to cover marketing and administrative efforts for the duration of the microtransit service. Marketing efforts may decrease as the service matures.

Table 16: CSPDC Staffing Effort for Microtransit Implementation

Task	Marketing Effort for Implementation		Administrative Effort	
	FTE	Duration (months)	FTE	Duration (months)
RFP Development	-	-	0.1	1
Proposal Evaluation	-	-	0.1	1
Negotiation	-	-	0.1	1
Planning (3-6 months prior to launch)	0.25	3	0.25	3
Implementation Preparation (3 months prior and 3 months following launch)	0.5	6	0.25	6
Refinements (3-6 months following launch)	0.25	3	0.25	3
Ongoing (6 months to 18 months following launch)	0.125	12	0.25	12
Average FTE per month	**0.25**	**24**	**0.23**	**27**

Engagement Strategies

Prior to implementation of the service, the purpose of public engagement for microtransit service is to educate the public on what microtransit service is and how to use it. Directly leading up to implementation and following launch, the purpose of public engagement is to market the service and encourage ridership. Below is a list of public engagement strategies for both stages of engagement:

- **Digital Marketing**
  - Service website
  - Social media posts
  - Geotargeted ads
  - YouTube/website videos about how to use the service
- **Print Marketing**
  - Direct mail to residents within the service area zone

- Brochures and flyers at transit hubs, affected bus stops, and for fixed-route, commuter, paratransit, and microtransit drivers to hand out
- Advertising at or on transit hubs, bus shelters, bus interiors and exteriors
- Feature story in local paper
- Posters and flyers at key trip generators

- **Direct Outreach**
  - A month of fare-free service following launch
  - Attend community events
  - Public meetings
  - Stakeholder meetings
  - Pop-up events
  - Brand ambassadors on buses affected by change
  - Wrapping service vehicle in new microtransit program logo and colors and includes a phone number or information on how to book a trip
  - Educational ride-alongs and travel training by staff

Data Collection and Reporting

Data collection and reporting are necessary for agencies in addition to being required by Federal and State reporting requirements. Reporting can inform agencies of their services' performance and can provide information on how to refine and adapt those services. The study recommends performance measures to track, broken down by primary and secondary. Experiences of other agencies have shown active monitoring of service is a key to success, even more so than traditional transit service.

Primary

Primary performance measures should be closely monitored to determine if the pilot service is worth continuing or if adjustments need to be made. **Table 17** lists the primary performance measures and their targets by zone where applicable. Several measures' targets remain the same by zone because they are recommendations for any microtransit service. Passengers per revenue hour target is the typical value attributed to a successful microtransit service. Cost per passenger trip target is based on estimated annual costs and ridership. Daily ridership and average wait time are based on service design targets. Farebox recovery target is based on the recommended fare structure and ridership. Ridesharing percentage and trip rating are based on experiences of peer agencies.

Table 17: Primary Performance Measures

Performance Measure	North Staunton	South Waynesboro	Fishersville	Stuarts Draft
Passengers per Revenue Hour	3 to 5			
Cost per Passenger Trip	$32 - $34	$22 - $25	$32 - $38	$27 - $32
Farebox Recovery Ratio	0.03	0.04	0.03	0.04
Average Daily Ridership	95-135	105-150	55-80	85-120
Monthly Ridership	Track for DRPT Reporting			
Average Wait Time	30	30	20	25
Ridesharing Percentage	30% to 40%			
Average Customer Trip Rating	4 out of 5			

Secondary

Secondary performance measures are additional measures that should be collected to monitor service for other reporting requirements or planning. **Table 18** lists the secondary performance measures and their targets by zone where applicable. Several measures' targets remain the same by zone because they are recommendations for any microtransit service. In addition to revenue hours and revenue miles, operating costs should also be tracked for DRPT reporting purposes, and for calculating several primary measures. The study team determined the operating costs by the ridership projections, vehicle needs, and service hours. The booking method target and number of no-shows targets are based on experience with peer agencies.

Table 18: Secondary Performance Measures

Performance Measure	North Staunton	South Waynesboro	Fishersville	Stuarts Draft
Passengers by Time of Day	Monitor monthly to consider adjustments to service span and/or vehicle availability.			
Number of Unique Rider Accounts	Measure monthly. Anticipate a 2-5% increase.			
Number of Repeat Customers	Measure monthly. Anticipate a 2-5% increase.			
ADA Trips	Track for informational and planning purposes.			
Booking Method	50% or more by app			
Number of No-Shows	1% to 3%			
Revenue Hours	Track for DRPT reporting			
Revenue Miles	Track for DRPT reporting			
Weekday Operating Cost	$915,200 - $967,200	$696,800 - $811,200	$540,800 - $644,800	$696,800 - $811,200
Top Origin/Destinations	Monitor monthly to consider adjustments to service boundaries			

Potential Partnerships

The CSPDC can consider the organizations and jurisdictions in **Table 19** for partnership financially or for marketing and outreach efforts. The table below shows the partnerships that would be best suited for each zone. Actively engaging the local business community as potential financial partners can strengthen the funding base of this initiative and nurture mutual benefit within the region. Community organizations and human service agencies are also good partners for outreach efforts.

Table 19: BRITE Microtransit Potential Partnerships

Partner	North Staunton	South Waynesboro	Fishersville	Stuarts Draft
Augusta Health	X	X	X	X
BRCC	X			
WWRC			X	
City of Staunton	X			
City of Waynesboro		X		
Augusta County	X	X	X	X
Shenandoah Valley Social Services	X	X	X	X
Valley Community Services	X	X	X	X
Staunton Downtown Development Association	X			

Funding Opportunities

Identifying funding resources is a critical step when considering implementing microtransit service. The CSPDC can leverage federal funding, capital cost of contracting, state funding, and local financial partnerships.

Federal Funding

Several options exist for the CSPDC looking to take advantage of federal funding. For example, as a designated recipient of federal funding with suballocation policies, the CSPDC can revise its existing policies to create regional set-aside programs for Locally Operated Transit Systems (LOTS). Funding from the regional set-aside can be used to pay for high-priority, high-impact cross-jurisdiction projects, such as microtransit programs.

In addition, the Bipartisan Infrastructure Law (BIL) presents additional funding options. The law allows agencies, like the CSPDC, to pursue federal discretionary grant opportunities. Specific grant opportunities for microtransit include:

- **Advanced Transportation Technology and Innovation (ATTAIN) program:** Annual federal grant funding for transportation and congestion management technologies such as advanced mobility access and on-demand transportation service technologies.
- **Enhancing Mobility Innovation program:** Annual federal grant funding for the development of software to facilitate demand-response services.
- **Rural Surface Transportation program:** Annual federal grant funding for a range of transportation projects including on-demand mobility projects.

The current authorization of the BIL expires September 2026. The future of these discretionary grant programs is uncertain until the reauthorization is complete.

Capital Cost of Contracting

As an FTA recipient that was elected for a contracted public transportation service, the CSPDC can take advantage of FTA's Capital Cost of Contracting (CCOC) policy to cover a portion of microtransit capital costs. The policy says that FTA will provide assistance with capital costs accrued through a contract with a vendor. 50% of a turnkey contract is eligible for an 80% federal share.

State Funding

DRPT also provides several grant opportunities for microtransit service:

- **Demonstration Project Assistance:** State grant program to support local efforts to improve transit reliability and access through implementing new services or implementing new technology.
- **Capital Assistance:** State grant program to support capital projects necessary to maintain, improve, or expand public transportation services (not as applicable if using a turnkey service delivery model).
- **Operating Assistance:** State grant program to support operating projects necessary to maintain, improve, or expand public transportation services.

Recommendations Overview

Based on the discussion above, **Table 20** presents microtransit service recommendations for each area of recommended to evaluate the effectiveness of microtransit service.

Table 20: Service Recommendations Comparison and Overview

Areas for Consideration	Current BRITE Service	Microtransit Service Recommendation
Service Model	Turnkey–one provider for all transit services	Turnkey B (all services included) – one provider for all transit services
Fleet Options	Cutaway bus	Sprinter van
Technology	VRT provides paratransit technology. VRT and the CSPDC both provide fixed-route technology	Contractor to provide microtransit technology
Fare Structure	Multiple fare groups based on service type (Afton Express, BRITE Bus, BRITE Access)	Three fare types—regular, children/student, seniors/individuals with disabilities
Transfer Policy	No transfer policy currently	Customer's microtransit fare covers 'free' use of fixed route when transferring (additional charge for Afton Express)
Payment Mechanism	Cash, tokens, BRITE Fare Punch Cards	Cash, app-based payment, BRITE Fare Punch Cards
CSPDC Staffing	Three (3) FTE	Use of existing staff + 0.5 FTE for marketing/administrative effort
Engagement Strategy	In-house, on-going, marketing and outreach for transit services	A variety of digital marketing, print marketing and direct outreach
Data Collection and Reporting	Service performance metrics and ongoing operational performance and costs	Additional measures, including wait time, ridesharing percentage, customer trip rating, number of unique rider accounts, number of repeat customers, booking method, etc.
Partnerships	Augusta Health, BRCC, City of Staunton, Augusta County, City of Waynesboro, WWRC, SVSS, Staunton Downtown Development Association, Valley Community Services Board	Dependent on microtransit zone (i.e., local community businesses, municipality, Augusta Health, BRCC, WWRC, etc.)

Implementation Next Steps

Following the completion of the microtransit feasibility study and review of the recommendations and considerations presented in this report, the CSPDC should follow these next steps to ensure the successful implementation of a pilot microtransit service:

- 12 months before service launch
    - **Funding:** Identify and secure funding sources and partners.
    - **Zone Selection:** Select pilot zone based on funding sources and partners the CSPDC has secured.
    - **Initial Engagement:** Create service branding (logo, name) and develop marketing plan (pre-implementation, launch, and post-implementation phases). Begin educating the public on microtransit service and garner excitement in the community.
- 6 months before service launch
    - **Pre-implementation Engagement:** Inform the community of the upcoming service changes. Explain how to use the service through social media efforts and print material distribution.
    - **Contracting Approach:** Connect with the contractor for fixed-route and paratransit service to understand their ability to add on microtransit service. This will inform if a turnkey contract can be utilized for all BRITE services or if a separate turnkey contract needs to be established separately for a microtransit service.
    - **RFP Process:** Work with a consultant or peer agencies to develop technical requirements for the microtransit service. Amend the future service contract to include microtransit service delivery. If the CSPDC determines that a separate contractor is needed, release an RFP, evaluate proposals, and select the contractor.
- 3 months before service launch
    - **Onboard Contractor:** Work with the contractor to understand their organizational structure for service. Introduce them to existing facilities and existing operations for other services, if not fixed-route and paratransit service provider. Collaborate on standardized processes like incident reporting, maintenance, and facility upkeep. Work with the contractor to acquire, configure, and test technology.
    - **Service Design Finalization:** Finalize service hours, target wait time, zone boundaries, external nodes, and other design parameters based on contractor feedback.
- Service Launch
    - **Launch Engagement.** Host a launch event to draw attention to the service and directly engage with the community. Ensure there are staff “on the ground” to assist customers with using the service and to solicit customer feedback.
    - **Fare-Free Period.** Promote the service as fare-free during the first month of service to familiarize the public with the service without the barrier of cost.
    - **Monitor Service**. Closely track the service’s primary performance measures.

- Post Launch – remainder of the pilot service
    - **Evaluation.** Evaluate service post-pilot using primary performance measures.
    - **Post-Launch Engagement.** Continue to encourage the use of microtransit services and regularly seek feedback from customers.
    - **Service Refinements.** Refine the service based on customer feedback and service performance. This can include design parameters such as service hours, zone boundaries, and external nodes. It can also include customer interface elements like instructions, stop locations, and no-show policy, among others.

Microtransit presents a strategic opportunity to modernize and expand public transportation in the BRITE service area. With community support for additional transit connections, clear service gaps, and a scalable implementation plan, the CSPDC is well-positioned to pilot microtransit and improve mobility for residents across the region.