



SUMMER 2021

TUSCALOOSA

Transit Improvement Study

FINAL REPORT



Kimley»Horn

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Introduction

The Tuscaloosa Transit Authority (TTA) embarked upon the Tuscaloosa Transit Improvement Study in 2020 in partnership with the City of Tuscaloosa and Elevate Tuscaloosa. This study represents TTA and the City's efforts to explore the transit system's operations and identify opportunities for improvement over the next five years, including improving access to jobs, enhancing connections for community members who need additional mobility choices, and connecting destinations within downtown Tuscaloosa. The Tuscaloosa Transit Improvement Study was developed using both a data-driven and community-based approach to identify transit needs in Tuscaloosa. The study resulted in a set of budget neutral recommendations as well as additional transit improvement opportunities for TTA and the City of Tuscaloosa to explore as additional funding becomes available.

System Overview

The Tuscaloosa County Parking and Transit Authority (PATA) was set up by an act of the Alabama Legislature in 1971. The TTA in partnership with the City of Tuscaloosa started operating service in 1999 and currently operates seven local bus fixed routes, paratransit services within three-quarters of a mile of all fixed routes, special services for University of Alabama gamedays, and senior programs at the McDonald Hughes Community Center. The existing services provided by TTA were evaluated using performance indicators of ridership and revenues and then compared to peer systems. The Tuscaloosa market was also evaluated using demographic, socioeconomic, and employment factors to determine how well the existing routes serve areas home to people more likely to ride transit. This section highlights findings from the *Existing Services Report* that is included in **Appendix A – Existing Services Report**.

Existing Fixed Route Service

The seven fixed routes operated by TTA generally travel in a one-way loop and connect to the Intermodal Facility (IMF) Terminal in downtown Tuscaloosa. The fixed route service schedules are set up to facilitate simple transfers between routes by having all routes arriving and departing the IMF within a 10-minute window at the top of every hour. Six of the seven routes operate from 5:00 a.m. to 6:00 p.m. Monday through Friday, and the Shelton State Route operates from 7:00 a.m. to 4:00 p.m. Monday through Thursday and 7:00 a.m. to 12:00 p.m. on Fridays.

The fare to ride the fixed route service is \$1.00 in cash. Reduced fares (\$0.50) are available for K-12 students during school days between 6:30 a.m. to 8:00 a.m. and 2:30 p.m. to 4:00 p.m., for adults over 60 years of age with a senior card, and for persons living with disabilities with a Medicare card. The University Shuttle route is free to University of Alabama (UA) students who

have a valid UA ID. All routes are free to riders under three years of age. The seven fixed routes are shown in **Figure 1**.

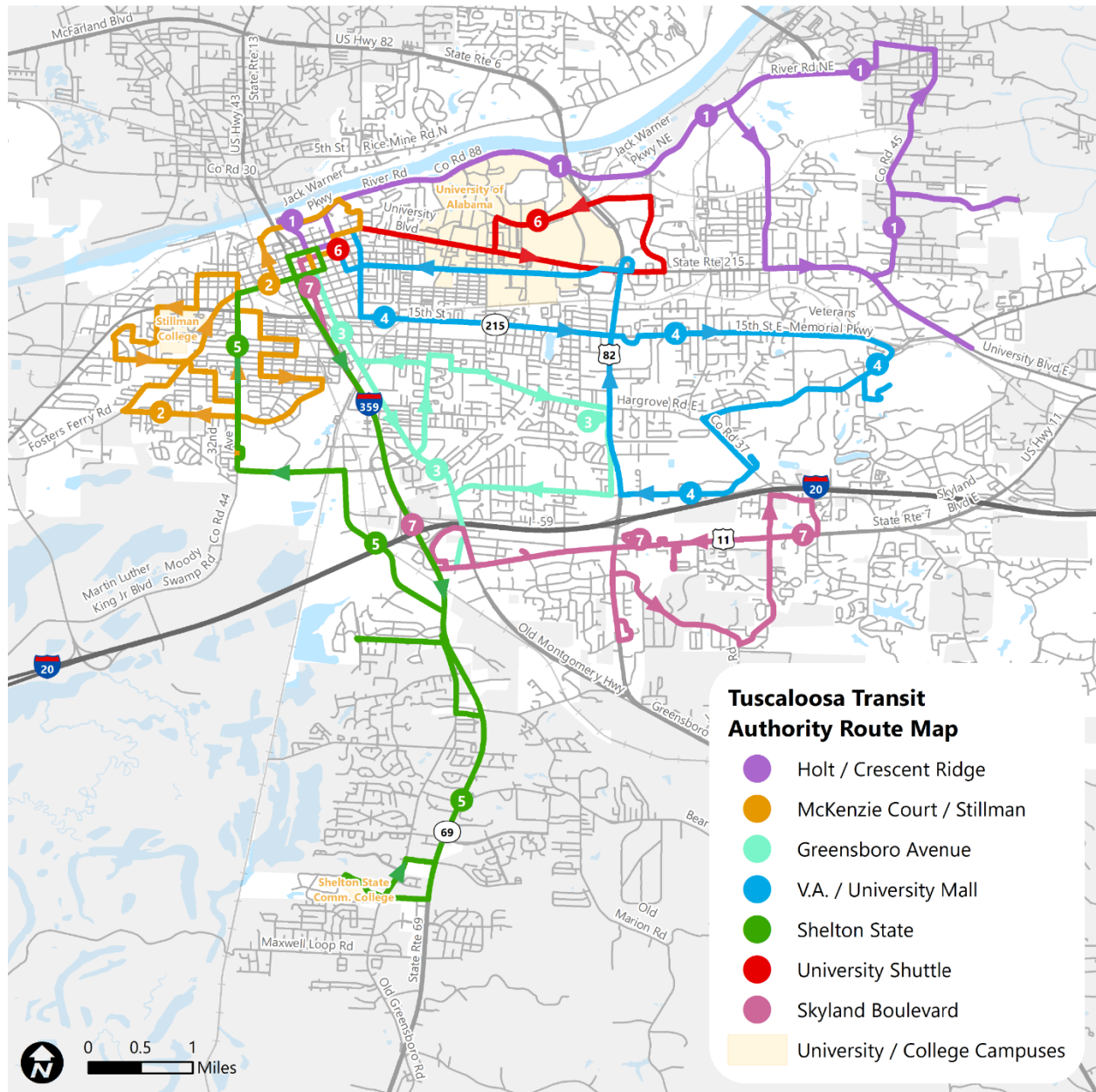


Figure 1. TTA Existing Fixed Route Bus Network

Route 1: Holt / Crescent Ridge

Route 1 connects downtown Tuscaloosa and several residential neighborhoods in the eastern area of the city, including the Alberta, Westview, and Holt areas (**Figure 2**). The ridership on the route has declined 9 percent over 5 years (**Table 1**). Most of the decline occurred between 2015 and 2016, but route ridership has steadied since that drop.

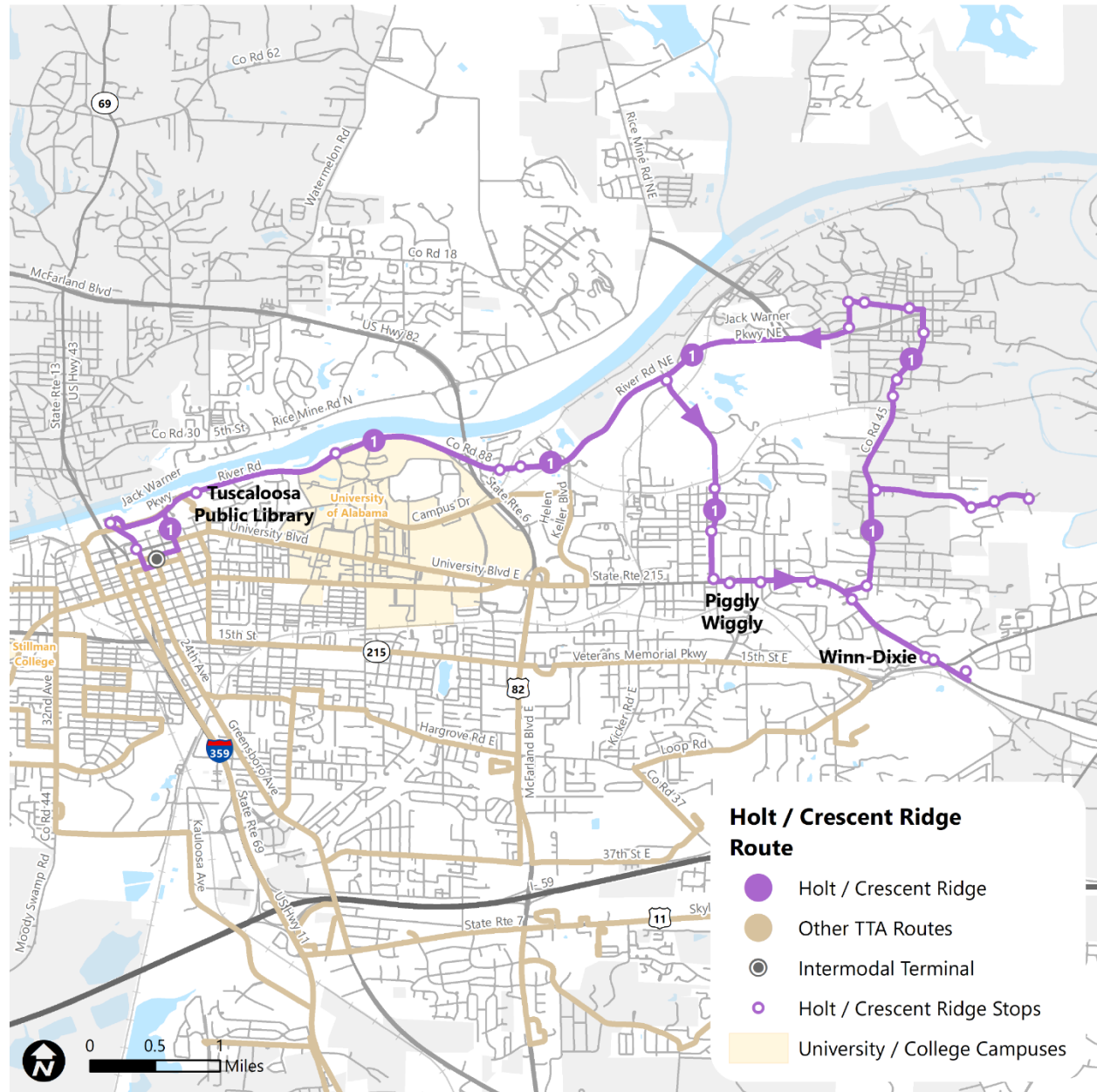


Figure 2. Existing Route 1 (Holt / Crescent Ridge)

Route 2: McKenzie Court / Stillman College

Route 2 connects downtown Tuscaloosa and several residential neighborhoods in West Tuscaloosa, as well as Stillman College (**Figure 3**). Ridership on the route has declined 17 percent over five years, with a noticeable dip in 2017, followed by a rebound in 2018 (**Table 1**).

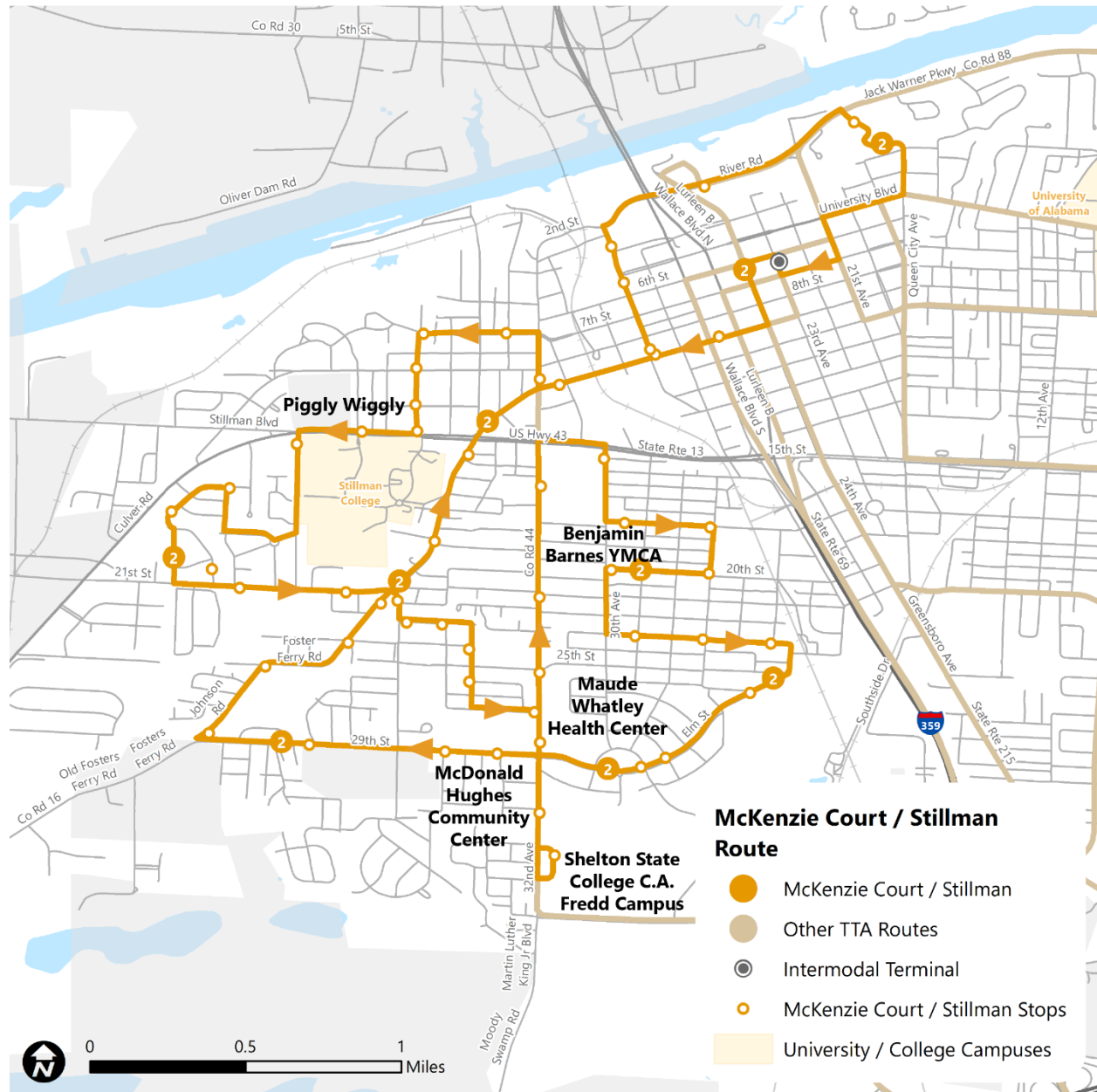


Figure 3. Existing Route 2 (McKenzie Court / Stillman Route)

Route 3: Greensboro Avenue

Route 3 connects downtown Tuscaloosa and several residential neighborhoods in the southern portion of the city, as well the city's Amtrak station and a number of large commercial developments on Skyland Boulevard (**Figure 4**). Route 3 is one of the highest-ridership TTA routes, with steady ridership between 2015 and 2018, followed by a sharp 30 percent decrease in 2019 (**Table 1**). The 2019 decrease is likely a direct result of the introduction of Route 7, which provides more direct service between the areas on Skyland Boulevard served by Route 3 and the IMF.

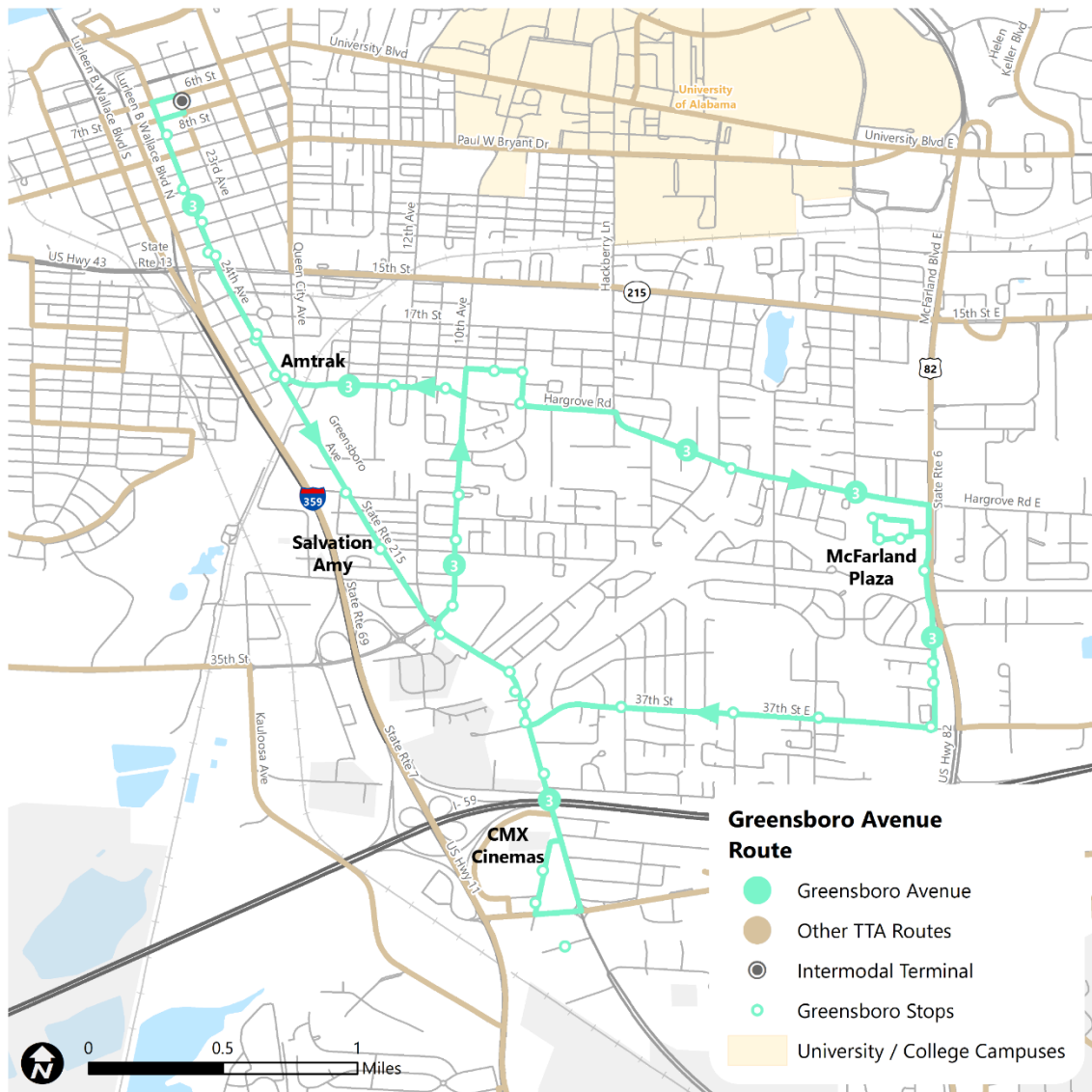


Figure 4. Existing Route 3 (Greensboro Avenue Route)

Route 4: V.A. / University Mall

Route 4 connects downtown Tuscaloosa and the Veteran’s Affairs Medical Center, University Mall, and residential neighborhoods in the eastern portion of the city (**Figure 5**). Annual ridership on Route 4 has increased by 9 percent since 2015, with strong performance in 2018 and 2019, reversing a trend of declining ridership between 2015 – 2017 (**Table 1**).

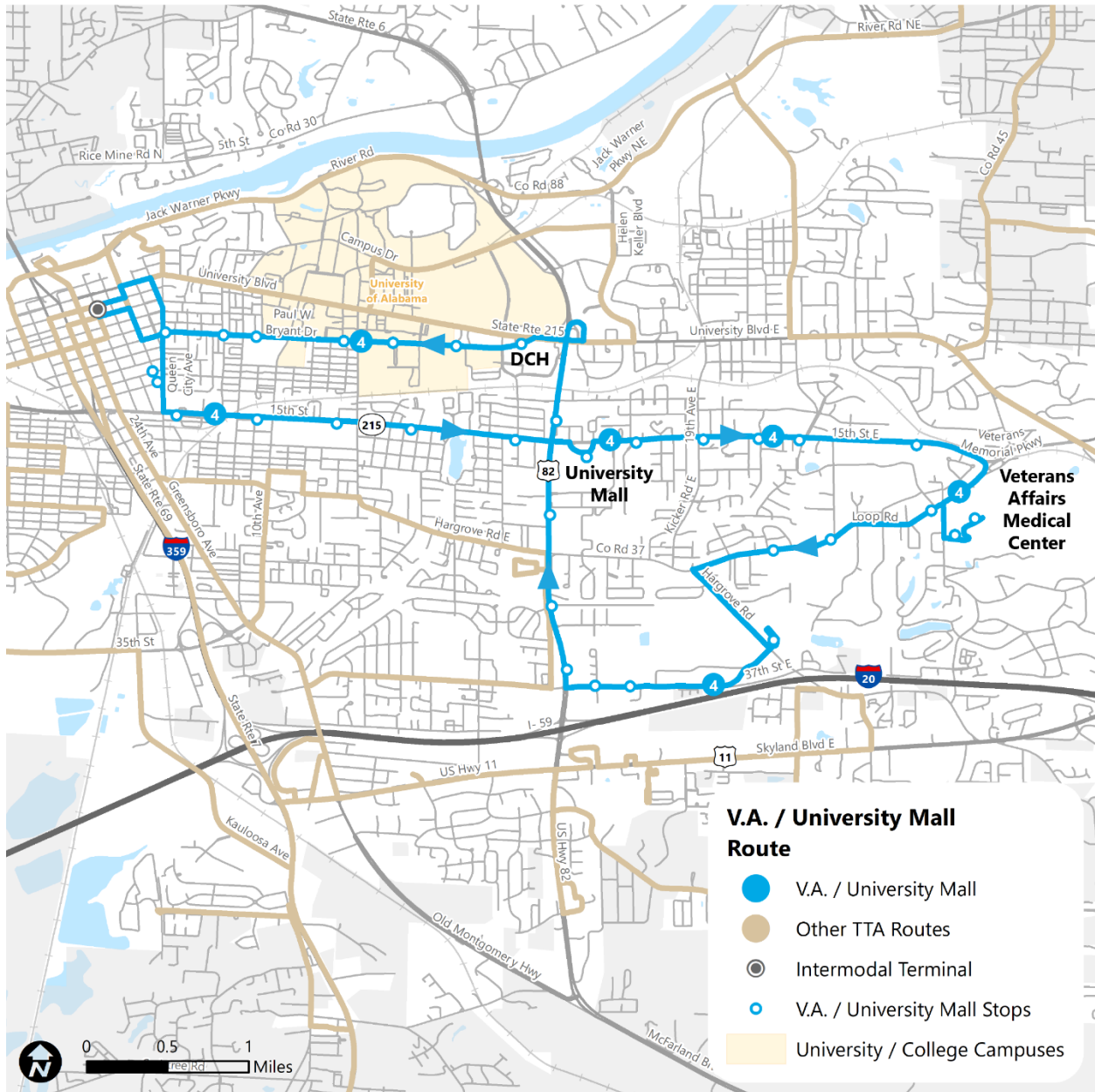


Figure 5. Existing Route 4 (V.A. / University Mall Route)

Route 5: Shelton State

Route 5 connects downtown Tuscaloosa and both Shelton State Community College campuses (C.A. Fredd and Martin) and provides service to residential neighborhoods in the western and southwestern portion of the city (**Figure 6**). Ridership on the route is also lower than other routes, although strong ridership growth in 2018 and 2019 has reversed a dip observed in 2016 and 2017 (**Table 1**).

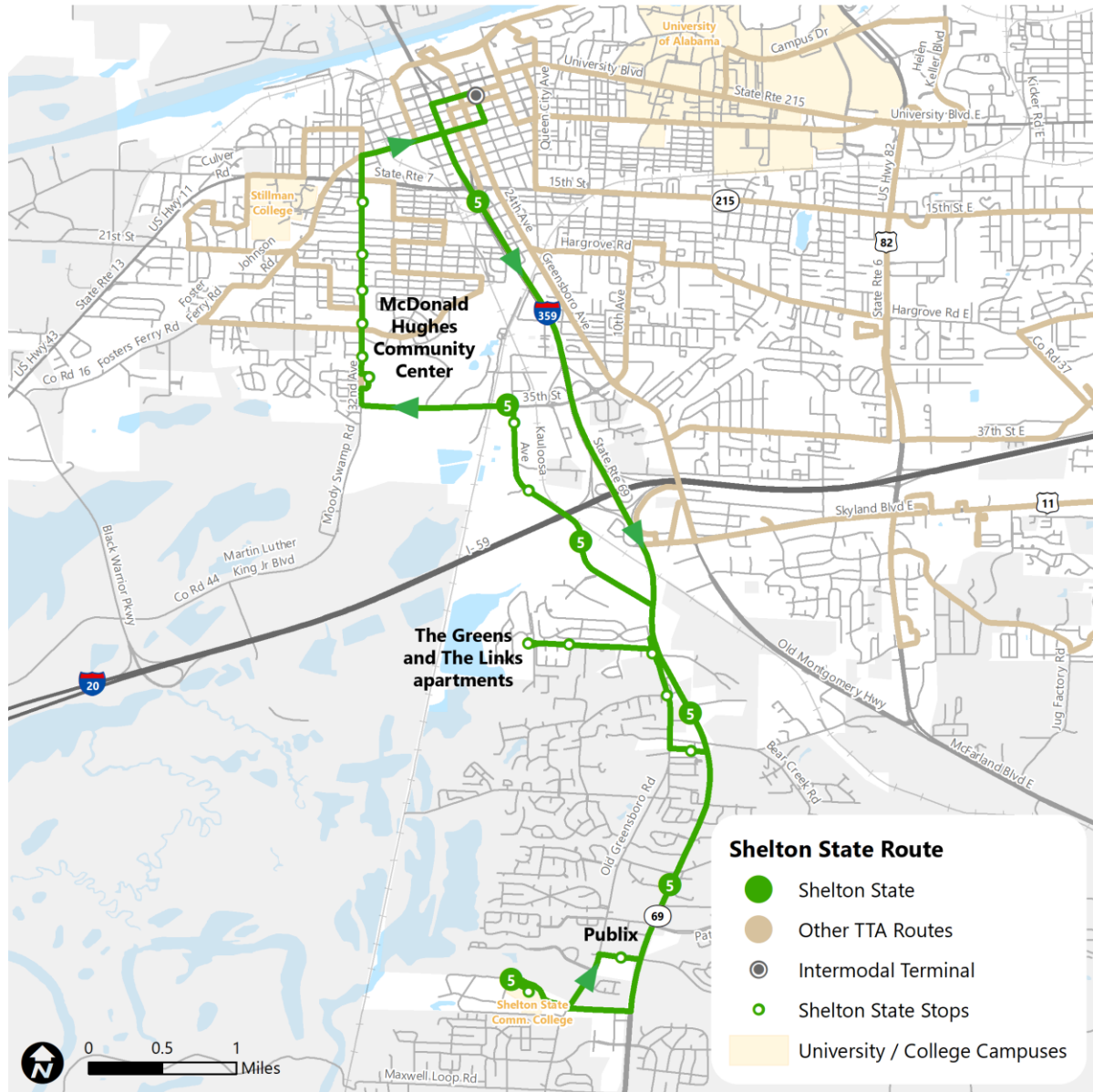


Figure 6. Existing Route 5 (Shelton State Route)

Route 6: University Shuttle

Route 6 connects downtown Tuscaloosa and the University of Alabama campus and adjacent student housing (**Figure 7**). Ridership on Route 6 has declined by 24 percent since 2015, with an 11 percent dip in ridership in 2019 (**Table 1**).

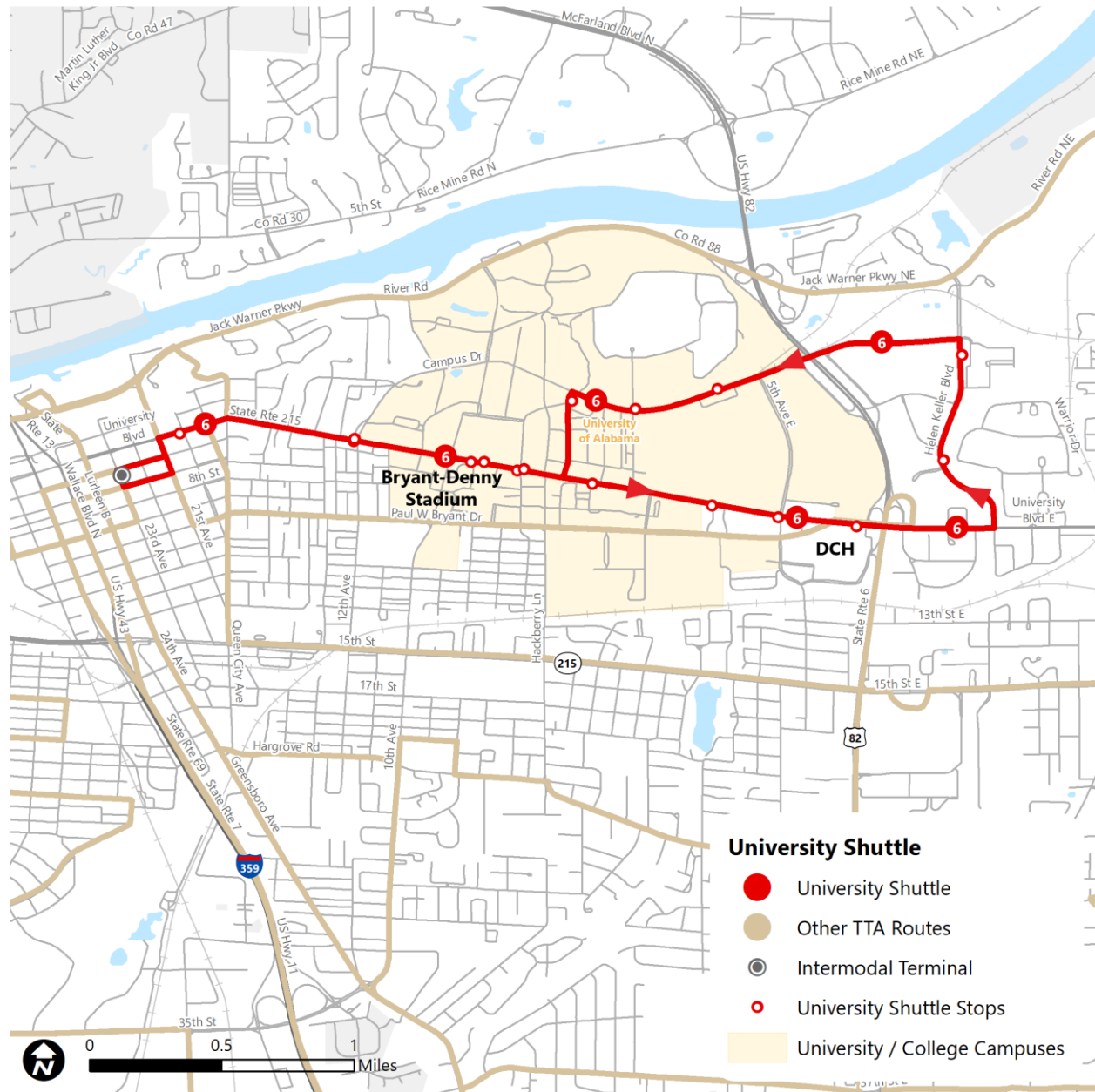


Figure 7. Existing Route 6 (University Shuttle)

Route 7: Skyland Boulevard

Route 7 connects downtown Tuscaloosa to commercial and retail development along Skyland Boulevard (**Figure 8**). The service was introduced in October 2018, and average monthly ridership on the route grew four percent between 2018 and 2019 (**Table 1**).

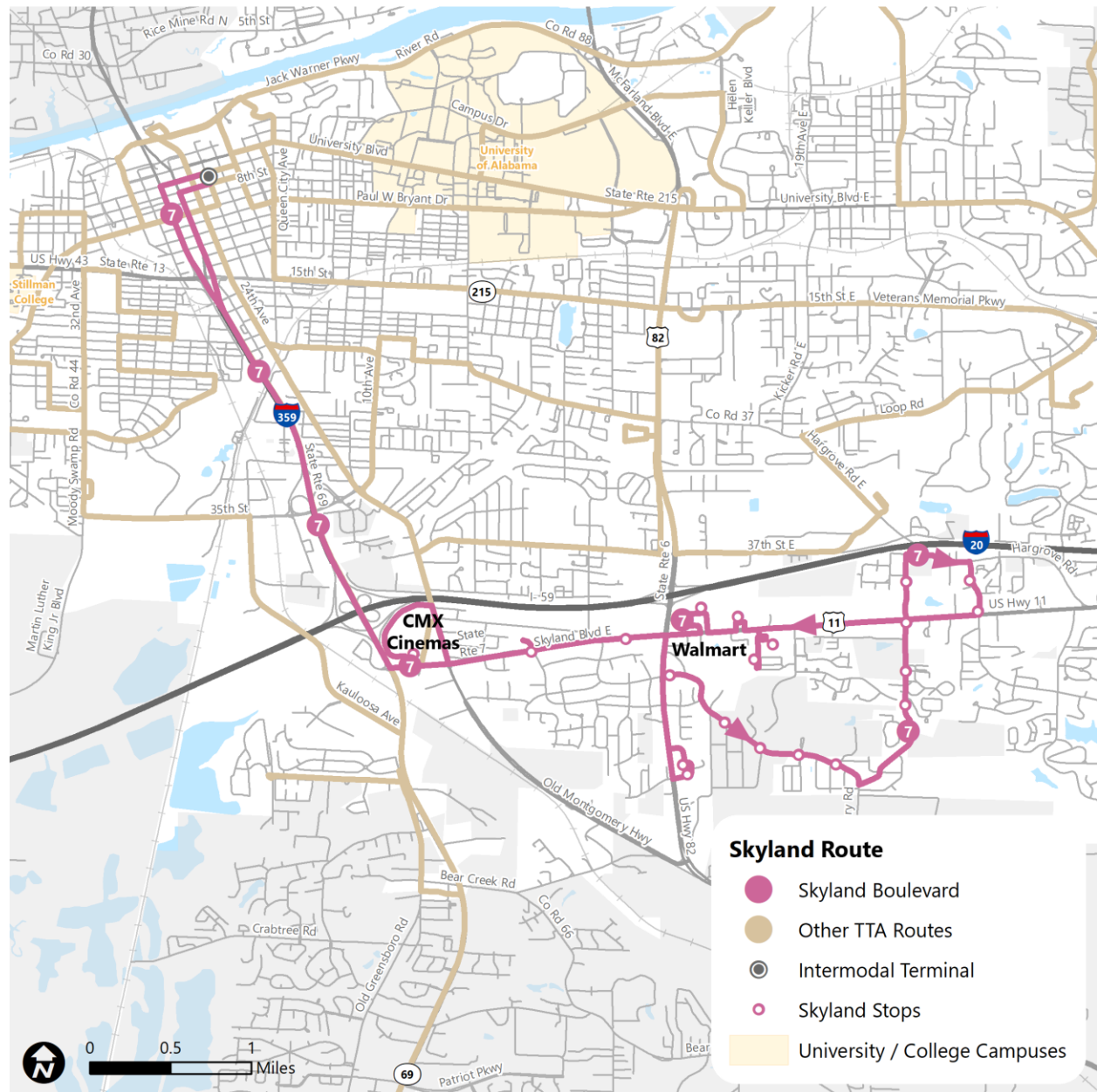


Figure 8. Existing Route 7 (Skyland Boulevard Route)

Paratransit Service

Complementing the fixed-route service, the TTA also provides paratransit service within three-quarters of a mile of any fixed route. The paratransit service is a demand-response service, meaning riders make requests in advance to be taken from one location to another within the service area. The service is limited to persons with disabilities and their caretakers. The cost to use the paratransit service is \$2.00 one-way.

Other Existing Services

University of Alabama Game Day Shuttle

The Game Day Shuttle provides direct service from the IMF to Calvary Baptist Church (just outside Bryant-Denny Stadium) for University of Alabama home football games. The fare structure for the Shuttle is the same as for other TTA fixed route services.

McDonald Hughes Community Center Senior Shuttle

In addition to the traditional fixed route and paratransit services, TTA operates a senior shuttle for programs at the McDonald Hughes Community Center. The shuttle service provides transportation on Mondays and Wednesdays for senior members of the community to attend programming at the center. Additionally, the service provides transportation to the annual West Alabama Senior Appreciation Day and to one City Council meeting annually. The service is funded through the City of Tuscaloosa.

Performance Indicators

To understand the performance of the existing TTA service, six performance indicators were examined. The six performance indicators used to evaluate existing TTA service are:

- Annual Ridership
- Revenue Miles per Capita
- Passengers per Revenue Mile
- Cost per Revenue Mile
- Cost per Trip
- Farebox Recovery

Data used to determine each of the performance indicators are based on data that TTA reports to the National Transit Database (NTD). NTD data are reported for a calendar year and are standardized across agencies, making peer comparison more accurate and insightful. Data presented in this report for 2019 are from the preliminary submittal by TTA to the Federal Transit Administration in January of 2020. Where data was readily available, a comparison for prior years

is shown. More detailed information regarding performance indicators can be found in **Appendix A – Existing Services Report**.

Annual Ridership

Annual ridership represents the number of trips that are taken on transit services during a given year.

Fixed Route Ridership

Total ridership on the fixed route services in 2019 was approximately 288,000 trips, representing a five-year decrease of two percent from 2015. (**Table 1**). Fixed route ridership declined from 2016 to 2018 but at a slower rate than peer systems, and ridership began to increase in 2018. The 2018-2019 increase in ridership can be attributed to both the introduction of Route 7 in October 2018 that provides a more direct connection to the Skyland Boulevard area and the increase in ridership on the gameday shuttle that is included in fixed route ridership data.

Table 1. Fixed Route Bus Ridership (2015-2019)

Route Name	Ridership (2015-2019)				
	2015	2016	2017	2018	2019
Route 1 (Holt)	40,338	36,884	36,391	37,174	36,665
Route 2 (McKenzie)	49,591	46,854	37,210	45,020	41,206
Route 3 (Greensboro)	64,742	63,604	67,045	65,653	45,850
Route 4 (VA)	38,526	37,296	35,422	37,130	41,889
Route 5 (Shelton)	8,647	8,228	6,307	7,964	8,672
Route 6 (UA)	64,769	56,673	49,761	54,975	49,079
Route 7 (Skyland)	N/A	N/A	N/A	7,852	35,220
McDonald Hughes	2,746	2,476	2,413	1,572	1,621
Football	26,283	28,194	25,136	17,091	28,502
Total (Year):	295,642	280,209	259,685	274,431	288,704

Paratransit Ridership

Ridership on the paratransit services provided by TTA has increased since 2016 (**Table 2**). In 2019, the paratransit service provided just over 15,000 trips, representing a one percent increase from 2018 and a 13.8 percent increase from 2015. National paratransit ridership of transit agencies that report to the National Transit Database observes growth over the same 2015 to 2019 period is lower than the growth seen within TTA; the growth in TTA paratransit ridership shows an increased need in the Tuscaloosa area for transportation services for people with disabilities.

Table 2. Paratransit Ridership (2015-2019)

Paratransit	Ridership (2015-2019)				
	2015	2016	2017	2018	2019
Paratransit	13,232	13,954	14,068	14,989	15,066

Revenue Miles per Capita

The amount of revenue miles per capita indicates how much service is delivered based on the population of the service area. A revenue mile is a transportation metric that shows the number of miles traveled by paying passengers. The 2019 population used in the calculation was 126,253 which is consistent with what was used for the NTD submittal. Revenue miles as reported to NTD for 2015 and 2019 from TTA were 296,570 and 300,066, respectively.

In 2019, TTA provided just over 300,000 miles of fixed route service and 125,000 miles of paratransit service. **Table 3** shows the revenue miles per capita provided by TTA.

Table 3. Revenue Miles per Capita (2019)

	2019 Revenue Miles Per Capita	5-Year Percent Change (2015 to 2019)
Paratransit	1.24	-2.8%
Fixed route	2.94	-3.0%
All Service Combined	4.17	-2.9%

The decrease in revenue miles per capita over the five-year period occurred as the TTA increased total revenue miles by 1.2 percent over the same timeframe. The decrease in per capita revenue miles despite the increase in overall service miles is a result of the service area population growing faster than transit service. Increasing service relative to increases in population is important to maintaining the quality of existing service and ensuring that growing needs of the community are being met.

Passengers per Revenue Mile

Passengers per revenue mile is a comparison of the total passengers carried on a route to the total number of revenue miles operated by the route. The passengers per revenue mile metric helps to indicate how productive service is over the course of an average mile. The fixed route system carried an average of almost one person per mile of service and the paratransit service carried 0.12 passengers per revenue mile in 2019. The full system carried 0.71 passengers per revenue mile in 2019. This represents a decrease in passengers per revenue mile by 2.3 percent since 2015. Relative to other metrics, the passengers per revenue mile has changed very little over the previous five years, indicating that the productivity of TTA service has stayed consistent and if that consistency can be maintained through expansion of transit service, TTA will continue to see

improvements in ridership. **Table 4** documents the passengers per revenue mile by route. The McDonald Hughes and gameday routes are not shown in this breakdown due to their unique service attributes.

Table 4. Passengers Per Revenue Mile (2019)

Route Name	Passengers per Revenue Mile (2019)
Route 1 (Holt)	0.55
Route 2 (McKenzie)	0.87
Route 3 (Greensboro)	1.02
Route 4 (VA)	0.84
Route 5 (Shelton)	0.29
Route 6 (UA)	1.05
Route 7 (Skyland)	0.56

Cost per Revenue Mile

The cost per revenue mile metric examines the operating cost of service against the number of miles of service provided. The cost per revenue mile of TTA service is slightly higher than peer systems. TTA operates relatively cost-efficient paratransit service compared to peers but has room to improve to increase cost efficiency on fixed route services. Increasing the cost efficiency of service will enable TTA to free up resources to increase service and continue its trend of increasing ridership. **Table 5** documents the cost per revenue mile by route.

Table 5. Cost Per Revenue Mile (2019)

Route Name	Cost Per Revenue Mile (2019)
Route 1 (Holt)	\$4.41
Route 2 (McKenzie)	\$6.19
Route 3 (Greensboro)	\$6.55
Route 4 (VA)	\$5.90
Route 5 (Shelton)	\$5.22
Route 6 (UA)	\$6.50
Route 7 (Skyland)	\$4.66

Cost per Trip

Cost per trip examines the operating cost of service against the number of passenger trips provided. In combination with cost per revenue mile, cost per trip helps to indicate how efficiently

a system can deliver service. **Table 6** below shows the cost per trip for each service type and the percent change in cost per trip from 2015 to 2019. **Table 7** shows the cost per trip for each route.

Table 6. Systemwide Cost Per Trip (2019)

Service Type	Cost per Trip (2019)
Paratransit	\$ 61.97
Fixed Route	\$ 6.73
Total	\$ 9.39

While the cost per trip of TTA service has been increasing over the past five years, TTA performs better than its peer agencies. This performance positions TTA to efficiently use new transit funding resources as they become available.

Table 7. Route-by-Route Cost Per Trip (2019)

Route Name	Cost Per Trip (2019)
Route 1 (Holt)	\$8.02
Route 2 (McKenzie)	\$7.14
Route 3 (Greensboro)	\$6.42
Route 4 (VA)	\$7.02
Route 5 (Shelton)	\$18.18
Route 6 (UA)	\$6.21
Route 7 (Skyland)	\$8.35

Farebox Recovery Ratio

The farebox recovery ratio is the amount of revenue generated through fare collection compared to the total operating costs of the system. The farebox recovery ratio between 2015 and 2019 decreased from 11 percent to 6 percent, but despite the decrease, TTA performs similar to its peers. This change reflects both an increase in operating costs and a slight reduction in the amount of fares collected. Maintaining a healthy farebox recovery ratio will be an important consideration moving forward, especially if there are increases in service provided.

Transit Market Analysis

Transit demand is influenced by a variety of demographic, socioeconomic, and employment factors. These factors can be grouped into three general categories: people, prosperity, and employment.

People

The existing TTA routes provide service coverage to most communities in Tuscaloosa who are more likely to ride transit (based on several sources such as American Public Transit Association – Who Rides Public Transportation). The strong access provided by the existing service should be maintained to a base for improving the mobility that future service expansion could provide.

Population Density – All Residents

TTA routes generally serve areas of higher population density in the City of Tuscaloosa. The densest portions of the city are in downtown, the University of Alabama Campus, and along I-20. Other clusters of relatively high population density are in West Tuscaloosa and along portions of Skyland Boulevard.

Population Density – Older Adults (65+)

Just under 12 percent of Tuscaloosa residents are age 65 or older. A few portions of the city, notably the area immediately west and south of Stillman College and the area by US Highway 82 and 15th Street, have high densities of older adults who may no longer prefer driving or have access to a vehicle. Many of the higher density areas of older adults are being served by Tuscaloosa Transit today. Based on the *Comprehensive Five-year Affordable Housing Study* completed in October 2018, Tuscaloosa County will continue to experience an aging population with projections showing that this cohort will be over 16 percent by 2040.

Population Density – Young Adults

Young adults (ages 20-29) make up slightly under 25 percent of Tuscaloosa's total population, with the highest densities of these residents located in the central portion of the city. Areas with some of the highest population densities of young adults are along 10th Avenue, US Highway 82, and 15th Street and are served by current TTA routes.

Minority Populations

Minority populations, as defined by the Federal Transit Administration, include those who identify as: American Indian and Alaskan Native; Asian; Black or African American; Hispanic or Latino; and Native Hawaiian or Other Pacific Islander. The highest concentrations of minority populations are found south of the Black Warrior River and away from the core of the city (Downtown and the University of Alabama campus). Several existing TTA routes serve areas with high concentrations of minority populations. These routes include Route 1 (Holt), Route 2 (McKenzie Court / Stillman College), Route 5 (Shelton State), and Route 7 (Skyland Boulevard).

Prosperity

Socioeconomic trends that can influence transit demand include median income, the number of zero-vehicle households, and the balance of renter-occupied and owner-occupied

units. Providing transit service to people who have less income or less access to a vehicle empowers them to access jobs, services, entertainment, and community assets that are critical in improving quality of life and economic mobility. The existing TTA service provides strong service to people with lower incomes and less vehicle access. This accessibility should be balanced with improvements that can bring increased mobility to the areas not currently being served.

Areas of Tuscaloosa with high populations of university students (downtown and areas near the University of Alabama) have high concentrations of residents without vehicles – almost 50 percent in some areas. There is also a high number of households in West Tuscaloosa without access to a vehicle. Unlike downtown and the University area, West Tuscaloosa also has a high concentration of minority populations and people with lower incomes, suggesting that transit service is especially important in this area.

Areas with higher concentrations of renter-occupied housing units generally have more demand for transit. Higher concentrations of renter-occupied housing units are located in West Tuscaloosa and along Skyland Boulevard.

Employment

Most Tuscaloosa residents both live and work within the city. Longitudinal Employer-Household Dynamics (LEHD) data estimates that as of 2017, there were just under 60,800 jobs available in Tuscaloosa County. Of these, just 17,940, approximately 30 percent of the total available, are held by Tuscaloosa residents. Based on information from the Chamber of Commerce of West Alabama (data retrieved from website as of July 2021), major employers in Tuscaloosa County include the University of Alabama (11,403 jobs); Mercedes-Benz U.S. International (3,900 jobs); DCH Regional Medical Center (3,315 jobs); and the County and City Boards of Education (2,277 and 1,446 jobs, respectively). The existing TTA routes currently serve many of the major employment and residential destinations within the central core of the city.

The most common employment destinations for Tuscaloosa residents are the downtown area and the University of Alabama campus (**Figure 9**). Additionally, 70 percent of the Tuscaloosa workforce lives outside of the city (**Figure 10**). There are several locations outside the city where concentrations of Tuscaloosa workers live, including Northport, Coker, Coaling, Holt, and Moundville.

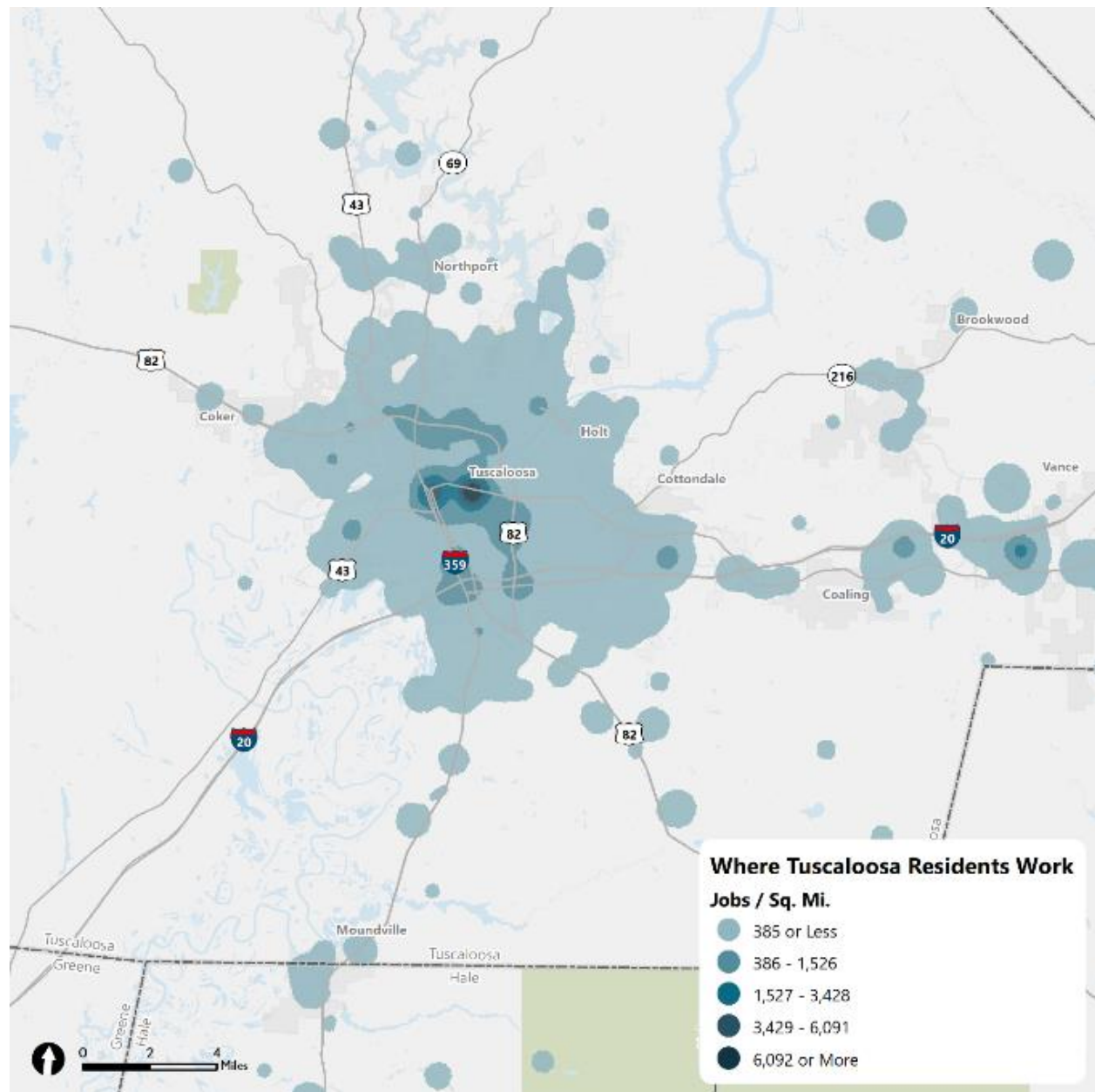


Figure 9. Where Tuscaloosa Residents Work (2017 LEHD)

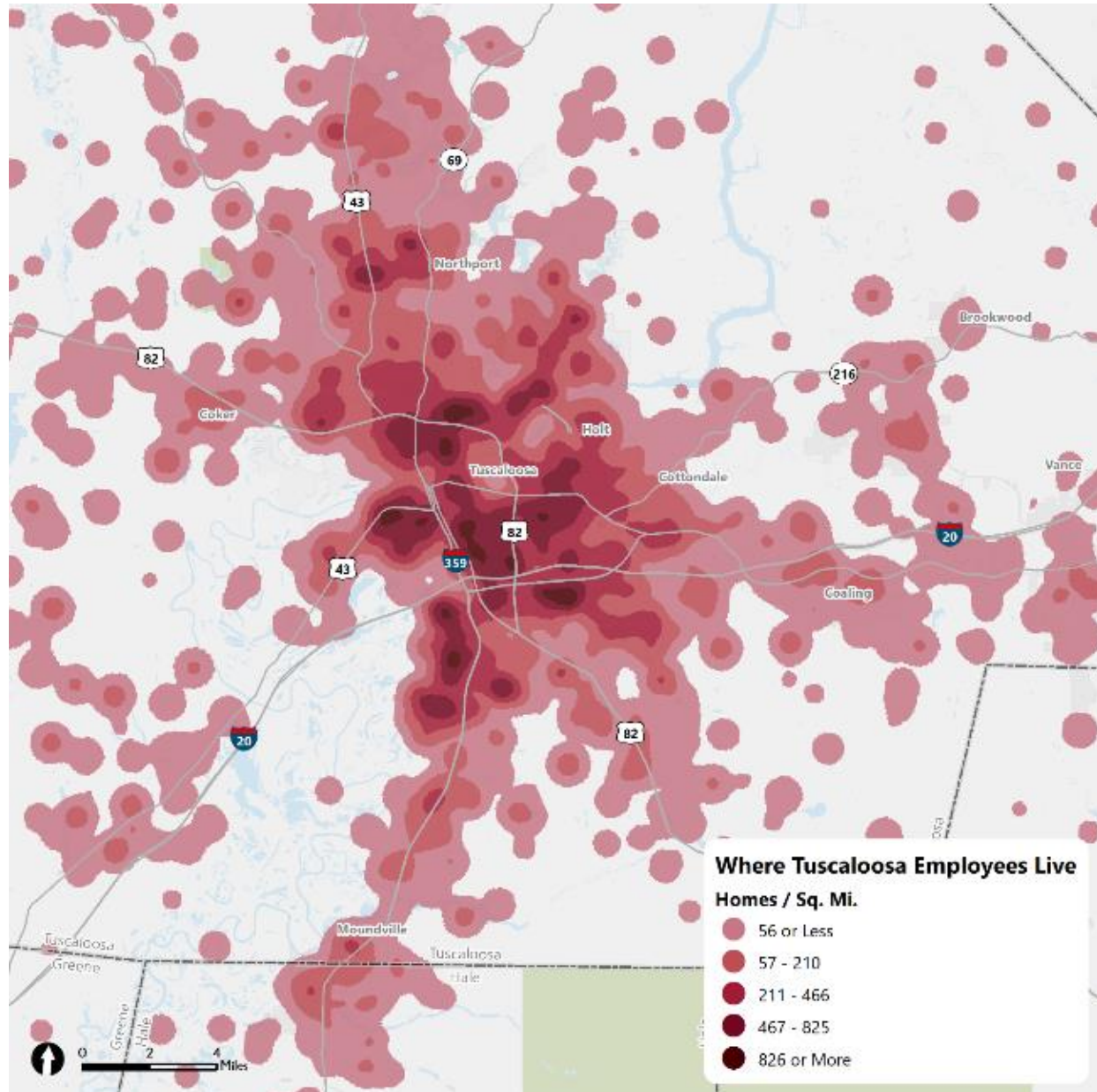


Figure 10. Where Tuscaloosa Workers Live (2017 LEHD)

Previous Plans

The City of Tuscaloosa, in recent years, has completed several plans that played a role in the development of the Tuscaloosa Transit Improvement Plan. These plans provided a foundation for understanding City priorities and served as a starting point to continue to refine during the planning process.

Framework Plan

The Framework Plan is Tuscaloosa's Comprehensive Plan (adopted in February 2021) that guides the intent on how and where the City should grow and develop. One of the focuses of the plan was on mobility and transportation and creating transportation choices for the City's residents. The goal for this area was to create "safe and smart transportation options that serve people of all ages and abilities, with strong connectivity and attractive options for public transportation, biking, and walking". Within that goal, the improvement and expansion of transit services and options were identified as an objectives. Key takeaways that were highlighted as objectives are listed below.

- Objectives specific to transit
 - Expand the city transit system's service area and frequency – priority initiatives included expanding service span, increasing frequency on routes, and expanding service to new areas.
 - Coordinate the Tuscaloosa Transit Authority and Crimson Ride – strategic coordination was suggested to allow better access to the University from other parts of the City
 - Improve transit connection between Tuscaloosa and Birmingham
- Objectives that indirectly influence transit
 - Adopting a complete streets policy
 - Integrating advanced technologies into the transportation system
 - Improving opportunities for alternative modes of transportation, specifically pedestrians and bicyclists
 - Integrating bicycle and pedestrian facilities into new roadway projects
 - Creating a sidewalk repair program
 - Expand the city's multi-use path system
 - Formalize a downtown parking strategy to address needs and improve mobility

As a part of Framework, a Transportation and Mobility Assessment was also completed that included details on different components of a multimodal transportation system and areas where the City could improve. Related to transit access, it was identified that there were shared-use path networks being built out in the City – including those on McFarland Boulevard and portions of University Boulevard. However, in some cases, the shared-use paths were only on one side of roadway corridors. It was also identified that sidewalk availability in Tuscaloosa is highest in and around the Downtown area and along some of the major roadways like 15th Street and University Boulevard. The assessment further detailed that more than half of the existing full network was ADA non-compliant.

West Tuscaloosa Community Inventory

A community inventory was completed in 2018 for the West Tuscaloosa community to identify where targeted reinvestment could or would have a catalytic effect on community reinvestment. The inventory served as a concentrated look at the area prior to Framework. The study also included seven focus areas that ranged from residential neighborhoods to institutional sites and roadway corridors and included specific recommendations to broaden connections to surrounding areas.

Related to public transit, feedback heard from the public during this time was about needing a longer service span (after work hours and weekends). Pedestrian and bicycle networks to support service were also observed as largely incomplete. The inventory identified a need for the City to implement a plan to restore the sidewalk system between residential neighborhoods and points of interest that include commercial activity along Martin Luther King Jr. Boulevard, Stillman Boulevard, and 15th Street.

Stakeholder and Community Engagement

The general public and stakeholders were engaged in the Tuscaloosa Transit Improvement Study to provide input on strengths of and issues with the current TTA service. Transit discussions were held with various local and regional organizations who may be interested in or impacted by transit, local transit operators, the Tuscaloosa Transit Authority Board members, and the general public. The public and stakeholders were engaged throughout the course of the project through various methods, such as focus groups, surveys, and presentations. The following sections summarize this engagement.

Stakeholder Engagement

Local and Regional Organizations

Throughout the fall of 2020, the project team discussed the Tuscaloosa Transit Improvement Study with various local and regional organizations that may be impacted by the study or that the project team believed would be valuable groups within the community to engage. These meetings were facilitated in small groups to ensure ample discussion time was available. The various organizations that were engaged over the two-month period include:

- October 16, 2020: Social Service Organizations
- October 23, 2020: Temporary Emergency Organizations, Young Tuscaloosa, and Latino Coalition
- October 26, 2020: Workforce/Large Employers, Healthcare

- October 29, 2020: Downtown Business and Tourism, University of Alabama, Tuscaloosa City Staff, District 1 City Councilor Phyllis W. Odom, and the Chamber of Commerce of West Alabama
- November 18, 2020: Project Unity - Neighborhood Revitalization & Housing, Project Unity - Youth Sports & Recreation Meeting
- November 19, 2020: Project Unity - Education
- November 20, 2020: Project Unity - Economic & Workforce, Tuscaloosa County Economic Development Authority

During each of the individual presentations, the project team provided an overview of the Tuscaloosa Transit Improvement Study, the plan's purpose, and transit demand analysis. During these presentations, the participants were asked to actively engage in a discussion about TTA in general, what TTA does well, and areas in which TTA could improve. Participants were also asked about their vision for TTA over the next 5-10 years. The responses gathered from the various groups and organizations were noted by the project team and used to shape the Tuscaloosa Transit Improvement Study (**Appendix B – Public Involvement**).

Tuscaloosa Parking and Transit Authority (PATA) Board

The project team virtually presented to the PATA board on January 19, 2021. A slide deck of the presentation can be found in **Appendix B – Public Involvement**.

Transit Operators

Information was collected from transit operators through surveys, and nine operators provided responses. The nine operators represent about half of the total number of operators (a mix of both part-time and paratransit drivers). The operators were asked to answer questions regarding topics such as route improvements, safety concerns, run time issues, recovery time, new areas needing service, frequency of service (increased or decreased), and route or system changes that would benefit the operators. Many of the operators expressed safety concerns regarding rail crossings, unsafe intersections and bus stops, congestion, and pedestrian safety. The transit operator survey responses can be found in **Appendix B – Public Involvement**.

Public Engagement

Due to the COVID-19 pandemic, public engagement for this plan was conducted in a completely virtual environment. A public input survey was created and conducted throughout the month of February 2021 through both online and paper formats. Nearly 1,000 responses were received during this timeframe, with 558 online survey responses (four completed in Spanish), and 432 paper survey responses that were collected via the transit vehicles and other public locations.

Advertisement and Communication of Public Survey

The public survey for the study was advertised in a variety of ways that included traditional press releases, flyers, social media campaigns on the City of Tuscaloosa account, and targeted communication with local organizations. The schedule of advertising is listed below in **Table 8**.

Table 8. Public Survey Advertisement Schedule

Date	Details
2/1/21	Sent out press release
2/1/21	Added Elevate website slider on homepage
2/3/21	Began posting on City social media
2/3/21	Began running billboard space
2/4/21	Posted on NextDoor Mobile App
2/6/21	Advertised on Farmers Market video screens each Saturday of February
Throughout the month of February	Ran flyers in Tuscaloosa City Schools' parent newsletter
	Printed flyers for 1,000 monthly rent statements sent through the Tuscaloosa Housing Authority
	Placed yard signs (QR code and survey URL) throughout the city
	Discussed at multiple Tuscaloosa City Council Pre-Council meetings
	Posted on Mayor's social media account
	Shared information on the Tuscaloosa City employee internal newsletter
	Shared information through Habitat for Humanity's and West Alabama Works' social media pages
	Distributed paper surveys and links to the online survey to a wide variety of stakeholders, groups, and organizations

The local organizations that were contacted included groups such as the Tuscaloosa Housing Authority, various health services, local schools and colleges, and the public library. A full list of nearly 40 organizations who were part of the communication regarding the survey can be found in the Tuscaloosa Transit Survey Summary (April 2021) Report in **Appendix B – Public Involvement**.

Surveys

The surveys were available in both online and paper formats and offered in both English and Spanish. The survey was available online for the entirety of February 2021. The questions within the survey focused on the respondent's experience riding TTA in the year 2019. Experiences from 2020 were excluded due to the ridership and transportation impacts from the COVID-19 pandemic. Participants in the survey were also asked various questions that had an "other" option where they were able to elaborate on their answer in greater detail. The survey also included optional demographic questions for the participants to answer.

Q3: In your opinion, how easy is it to ride the Tuscaloosa transit system?

Figure 11 shows the survey response of TTA riders and non-riders. Of just the rider respondents, the top responses rank the ease of riding as very easy, followed by easy. The top responses for non-riders was moderate, followed by somewhat difficult.

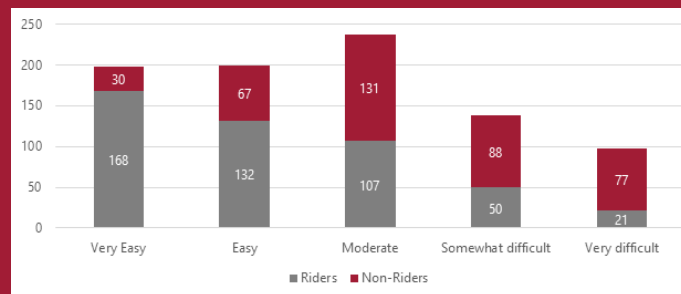


Figure 11. Survey Response Example

Once the online survey was closed and all the paper surveys were collected, the survey results were compiled and summarized by each survey question (**Appendix B – Public Involvement**).

Survey Results Highlights

The following highlights major takeaways based on the results of the public survey:

- Half of the survey respondents (57%) said an aspect of the transit service was confusing or difficult and presented various solutions to make riding transit in Tuscaloosa easier. The top responses regarding what is confusing or difficult was that there is not enough information at bus stops, and they do not know where the buses go.
- Survey respondents want improved bus stop locations with access to sidewalks, as well as improved bus stops with benches, shelter, and signage.
- Survey respondents wanted a longer service span – asking for later weekday service (until at least 6:00 p.m. for transit rider, and 9:00 p.m. for non-transit riders) as well as weekend service (until at least 6:00 p.m. for transit and non-transit riders). *This response is consistent with the findings from the West Tuscaloosa Community Inventory as well as Framework.*

- Both transit rider and non-transit rider respondents showed a strong interest in service outside the city limits, including to places such as Northport, Cottondale, Holt, and Vance.
- Respondents desire more geographic coverage of transit service but also want more frequent service.
- There is an interest in a downtown route that would travel at up to 15-minute frequency for service. Non-riders were willing to wait less time for this route, with most of them selecting the 10-minute frequency option.
- Requests for information or technology/apps that are already in place indicate a need for more educating or marketing of the current offerings of the transit system.

Identified Issues and Opportunities

The purpose of this section is to outline the major takeaways from the Tuscaloosa Transit Improvement Study. The items discussed in this chapter serve as issues and opportunities for TTA to consider when making decisions regarding future transit projects, routes, and investments.

Identified Issues

Operational Challenges

As discussed in the *Stakeholder and Community Engagement* section, transit operators participated in a survey in which they provided details about various operational challenges that they have experienced while operating TTA service. The challenges they noted include:

- Route challenges, such as crossing active railroad tracks
- Navigating the routes in residential areas or entering/exiting private property due to lack of sidewalk infrastructure
- Not offering route-to-route transfers in areas outside of the IMF
- Delays caused by bus stop locations

The operational challenges identified are connected to various opportunities that would improve rider experience and route service. The following sections examine additional identified issues.

Rider Experience

Many of the respondents from the public survey indicated that the bus is confusing or difficult to ride. The survey respondents indicated that there is not enough information at the bus stops, including information regarding where the bus routes travel. Riders and non-riders also reported in the survey that transferring between routes is confusing.

Service Frequency and Routes

TTA currently serves many of the major employment and residential destinations within the city, but service is not always direct or fast, which makes it less attractive to riders who may have other options for getting to work and places additional burdens on communities that depend on transit to access employment. The most common employment destinations for city residents are the downtown area and the University of Alabama campus. Additionally, 70 percent of the Tuscaloosa workforce lives outside of the city in places like Northport, Vance, Coker, Coaling, Holt, and Moundville.

Operators, stakeholders, and public survey respondents noted various suggestions for additional routes / more frequent service to many locations that are currently outside of the service boundaries. The following locations were collected from both operators and the general public for the current transit system to consider additional service:

- Areas north of the river, specifically medical facilities (such as Northport)
- Grocery stores, movie theaters, and shopping centers
- More frequent service within Tuscaloosa – Skyland Boulevard, McFarland Boulevard, Hargrove Road, downtown Tuscaloosa
- Employment opportunities outside the City of Tuscaloosa (various large employers)
- Other areas near Tuscaloosa – Cottondale, Holt, Vance, etc.

Opportunities

Service Span and Frequency

A significant opportunity for TTA to increase ridership is by implementing a longer service span and increasing the frequency of service. Survey respondents referenced in the *Stakeholder and Community Engagement* section indicated that they would be more likely to ride TTA if the services ran longer on weekdays, weekend service was added, and if services were more frequent.

- **Weekdays** – Currently, TTA’s weekday service runs until 6:00 p.m., with the last run out of the IMF at 5:00 p.m. Current riders who responded to the survey expressed a preference for the service to continue to end at 6:00 p.m. while most non-rider respondents expressed that weekday service should run until 9:00 p.m. or even midnight.
- **Weekends** – Currently, TTA does not serve on the weekends. Transit riders and non-transit riders expressed interest in adding weekend service that is in operation until 6:00 p.m.
- **Frequency** – All of TTA services today run on hourly headways with routes that run in one-direction. Survey respondents noted that the buses do not run frequently enough.

New and Enhanced Services

New and enhanced services should be considered by TTA as additional funding becomes available. The opportunities that were identified by technical analysis and confirmed by public feedback are summarized below.

Enhanced Service – West Tuscaloosa

West Tuscaloosa is one of the most densely populated areas in the City of Tuscaloosa and is predominantly home to black and African American communities. The West Tuscaloosa community is under-resourced, since many of the employment, retail, and commercial opportunities are located elsewhere in Tuscaloosa. Many people living in West Tuscaloosa face transportation challenges when looking to access community resources. This suggests that transit service is especially important in this area to ensure that residents can commute to work and maintain a high quality of life. According to the Census LEHD data (2018), more than 60 percent of the residents of West Tuscaloosa worked less than ten miles away. Many of the employment locations for West Tuscaloosa residents include areas that are served by TTA today such as Downtown Tuscaloosa, University of Alabama, Skyland Boulevard, McFarland Boulevard and Veterans Memorial Parkway, for example. LEHD data also highlights residents in West Tuscaloosa who work along the US 82 corridor in Northport.

Just outside of city limits near West Tuscaloosa, there is significant industrial activity just west of Culver Road that includes major employers such as Michelin, B.F. Goodrich, GAF, and Hunt Refining Company. There are additional industrial areas just across the river near the Tuscaloosa Airport as well. Currently, West Tuscaloosa is served by Route 2 that runs in one direction at hourly frequencies. There is an opportunity for West Tuscaloosa to be considered for an alternative service delivery strategy, such as microtransit/on-demand transit (see **Figure 21**), and offer more direct service in this area.

Enhanced Service – Skyland Boulevard

Route 7 was recently implemented by TTA in 2018-2019 and continues to be a successful route, given the commercial and retail opportunities that the corridor offers. The Skyland corridor also has a higher concentration of employment and renter-occupied housing units in comparison to the rest of the city, which may indicate that improved transit service is also needed here. There is an opportunity to further enhance service to the corridor by offering microtransit service and a more direct route through this area.

New Service – Downtown Tuscaloosa

Downtown Tuscaloosa currently includes many of the city's employment and tourism opportunities. Both current riders and non-riders expressed interest in a downtown route with

destinations at restaurants, entertainment venues, and shopping. When asked how frequently the downtown route should operate, respondents suggested 10 to 15 minutes. This is also an area of focus for the City of Tuscaloosa as the downtown and riverfront areas continue to be highlighted as redevelopment and investment opportunities through Elevate Tuscaloosa.

New Service – Areas outside of the City of Tuscaloosa

During this study, there were several locations mentioned that were outside of Tuscaloosa that participants brought up as needing transit options. When asked the purpose of these locations, participants often cited home and/or employment locations, such as the areas near Vance and industrial employers like Mercedes-Benz. Several of the requested locations for service were more than 20 miles away from the IMF. TTA should consider actively tracking these requests and consider expansion of service or alternative service strategies/partnerships into these areas on a limited basis.

New Service – Northport

Service in Northport, just north across the river from Tuscaloosa, was suggested by survey respondents as an area to consider for new transit service. Based on the Census Bureau's LEHD data discussed in the *Transit Market Analysis*, there is a concentration of Tuscaloosa residents who travel to Northport for employment. There is also demand for residents north of the river to travel to the City of Tuscaloosa for employment. Although the City of Northport and Tuscaloosa County do not presently contribute to TTA, there could be a partnership opportunity (i.e., public or private partnerships) in the future to provide transit services to this area.

First-and-Last Mile

Increased access to sidewalks and improved bus stops with benches and shelters were frequently mentioned by the public as needed improvements. These opportunities are often classified as "first-and-last mile" improvements, and these types of infrastructure enhancements are vital in improving overall rider experience. TTA should work with the City of Tuscaloosa Infrastructure Office of and Public Services (IPS) to coordinate investments in pedestrian and bicycling infrastructure in areas with existing stops. Stops with amenities such as benches and shelters should be prioritized for pedestrian enhancements. TTA should also work with IPS to create and maintain a cohesive map of transit assets in order to better coordinate such investments.

Technology and Information Availability

Feedback from the public suggested a variety of needs regarding technology and information availability. One of the needs identified includes promotion of the existing transit bus locator application that highlights the exact location of the buses. Information availability and additional signage were also consistently noted as a need for riders. The public also suggested having Wi-Fi

capabilities on the buses or at bus stops. Many of these improvements may lead to increased ridership, as more people become aware of when and where the system travels, and riders may be more inclined to wait for buses if they know there are more amenities at the stops. Adding informational signs and maps at the bus stops will help reduce confusion and frustration for existing and potential new riders.

Fare Modifications

Based on best practices and a peer review, it was determined that there is an opportunity to adjust the fare types offered today. Additionally, as routes are expanded, modified, or more transit types are utilized in the service area, TTA should continue to consider how services will affect the fare program. The *Fare Analysis* section in this report offers specific recommendations.

Budget Neutral Service Recommendations

The project team developed budget neutral service recommendations for TTA service based on the identified issues and opportunities. The budget neutral service recommendations aim to:

- **Make routes more direct** – More direct routing makes it easier for both existing and future riders to understand where the bus routes go. Having direct routes also offers travel time savings in comparison to more circuitous routes
- **Introduce bidirectionality** – Bidirectional routing means that the bus travels in both directions on a route. This can help reduce overall travel time and allows riders to travel shorter distances to get to their end destination.
 - **Note:** With bidirectionality, the study recommends using the route numbers. The overhead sign, which is the sign mounted on the top of the bus that displays the route information, should include the route number and the end destination of the route itself.
- **Introduce transfer opportunities outside of IMF** – The existing routes today offer transfers only at the IMF. The budget neutral service recommendations introduce strategic transfer opportunities south of the IMF.

Other improvements for the system that would require additional funding are included in the *Additional Transit Improvement Opportunities* section. The seven proposed budget neutral fixed routes are shown in **Figure 12**.

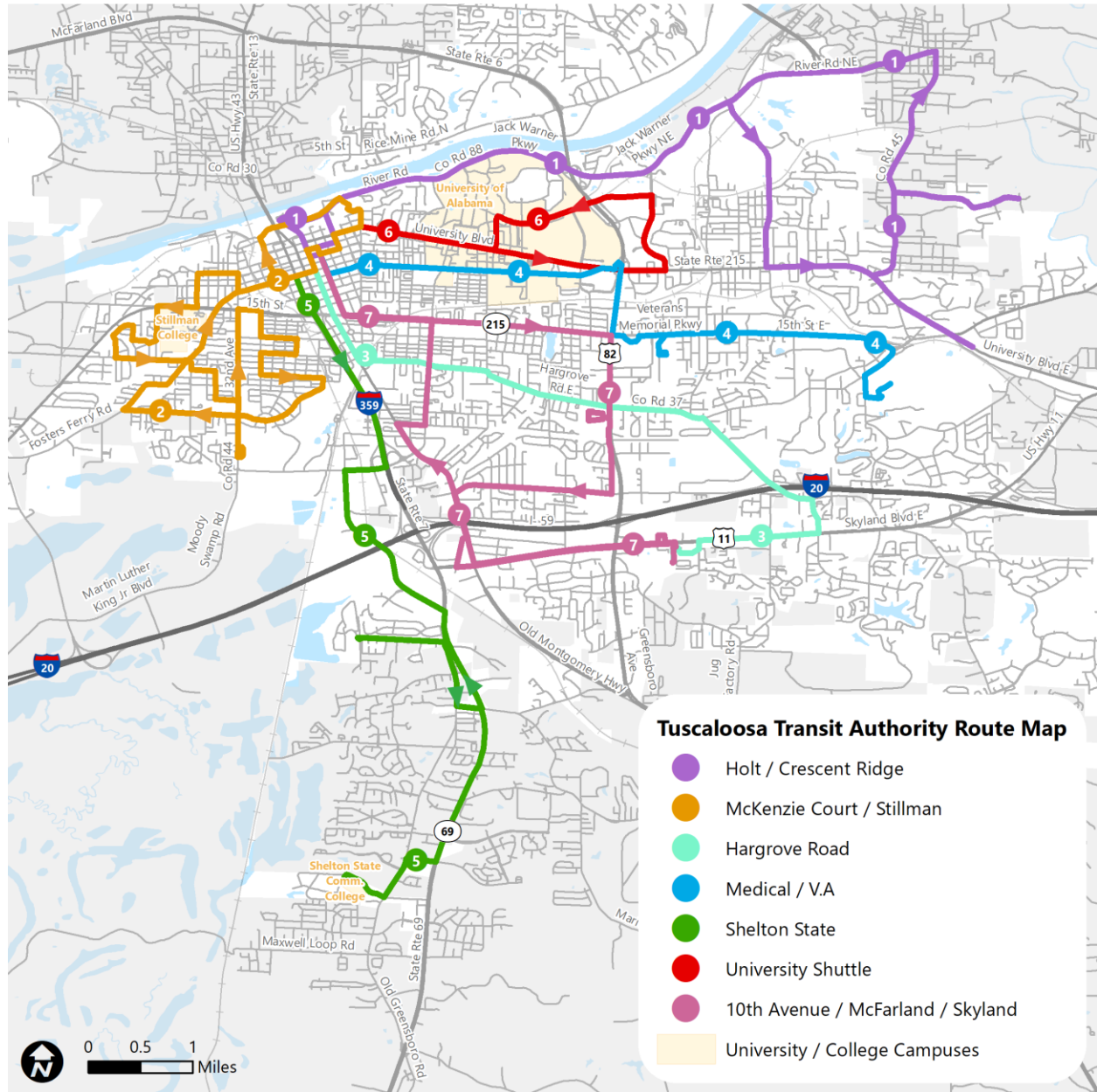


Figure 12. TTA Budget Neutral Proposed Fixed Route Bus Network

The run time for the TTA Budget Neutral Proposed Fixed Route Bus Network is shown in **Table 9**. Three of the routes are now bi-directional, so run time is shown for the total route. The service span and frequency are the same as existing. Six of the seven routes operate from 5:00 a.m. to 6:00 p.m. Monday through Friday, and the Shelton State Route operates from 7:00 a.m. to 4:00 p.m. Monday through Thursday and 7:00 a.m. to 12:00 p.m. on Fridays.

Table 9: Budget Neutral Proposed Fixed Route Run Time

Route	Direction	Total Route Run Time
Proposed Route 1 (Holt-Crescent Ridge)	1	55
Proposed Route 2 (McKenzie Court / Stillman Route)	1	50
Proposed Route 3 (Hargrove Road)	2	50
Proposed Route 4 (Medical/V.A. Route)	2	50
Proposed Route 5 (Shelton State Route)	2	50
Proposed Route 6 (University Shuttle)	1	50
Proposed Route 7 (10 th Avenue / McFarland / Skyland)	1	50

Route 1: Holt / Alberta

Route 1 is planned to remain largely the same as the existing route (**Figure 13**) which currently runs in one-direction. The only modification made for this route is where the bus currently makes a westbound left-turn from Crescent Ridge Road onto Alabama Avenue NE and turns southbound on 36th Avenue NE. The budget neutral service recommendation instead makes a westbound left-turn from Crescent Ridge Road NE to Jack Warner Parkway.

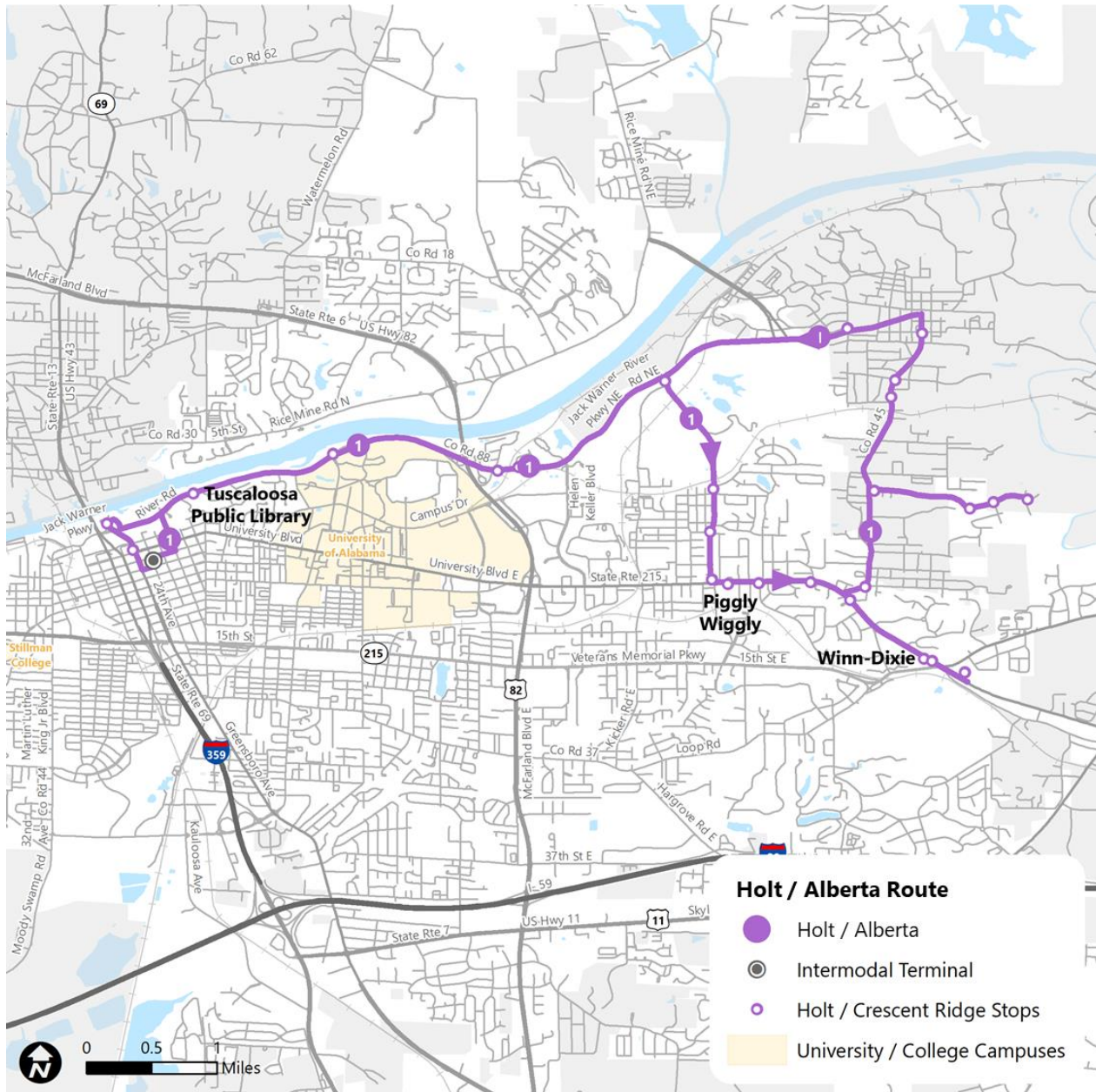


Figure 13. Proposed Route 1 (Holt / Alberta)

Route 2: McKenzie Court/Stillman College

Route 2 is planned to remain the same as the existing route and continue running in one-direction as it does today (**Figure 14**).

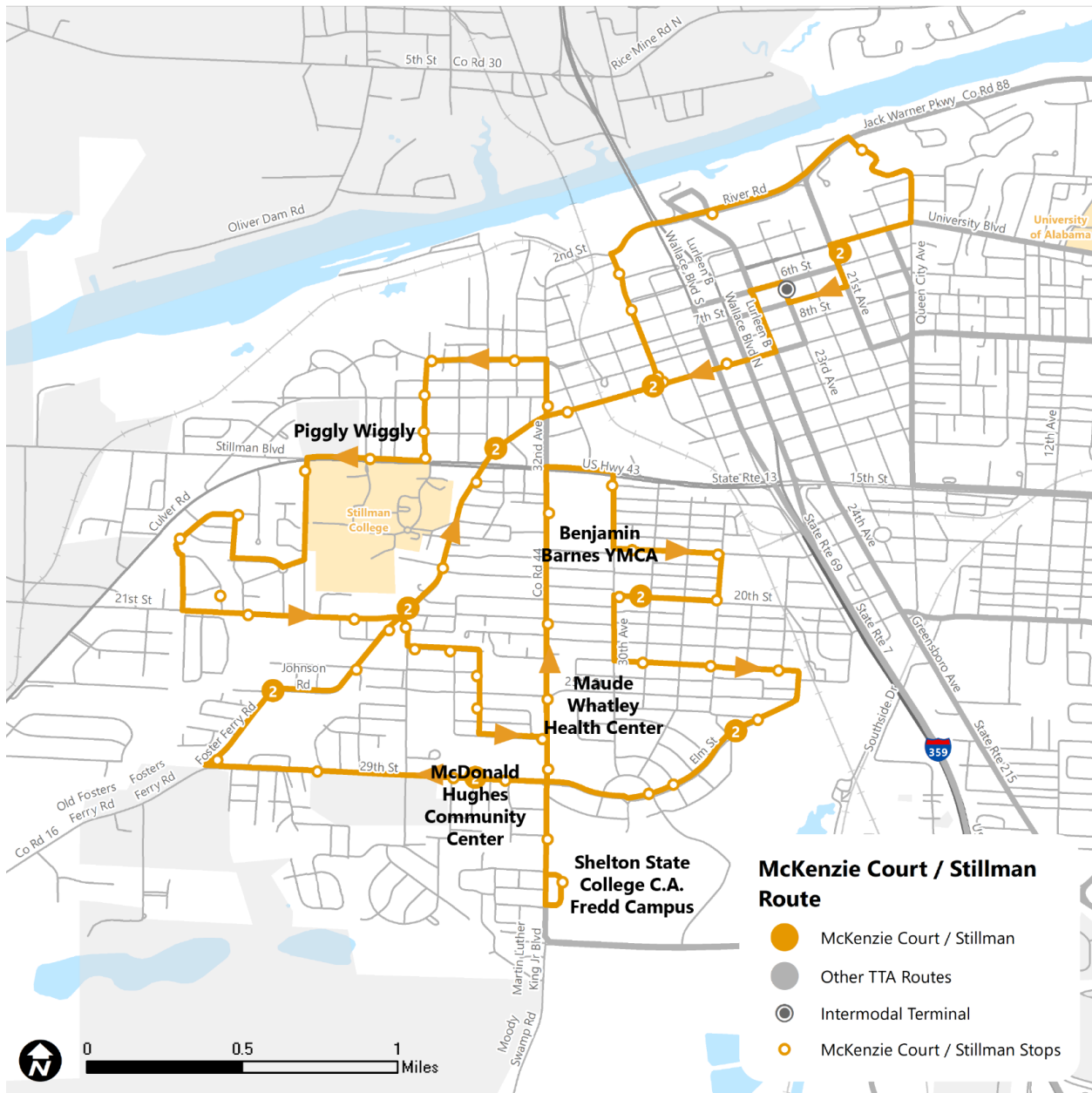


Figure 14. Proposed Route 2 (McKenzie Court / Stillman Route)

Route 3: Hargrove Road

Route 3 is a new, bidirectional route connecting the IMF, Greensboro Avenue, Hargrove Road, and Skyland Boulevard (**Figure 15**). The route provides a more direct connection to destinations along Greensboro Avenue/Hargrove Road and connects to a transfer opportunity with Route 7 along Skyland Boulevard.

- **Southbound** – from the IMF the route travels south on Greensboro Avenue and makes an eastbound left-turn on Hargrove Road. The route continues to travel along Hargrove Road and makes a southbound right-turn on Palisades Drive, then a westbound right-turn on Skyland Boulevard. On Skyland Boulevard, the route will make a left onto 18th Avenue and make stops at the America's Thrift Store and at Walmart as its last stop.
- **Northbound** – There are no changes in the routing moving northbound on this route.

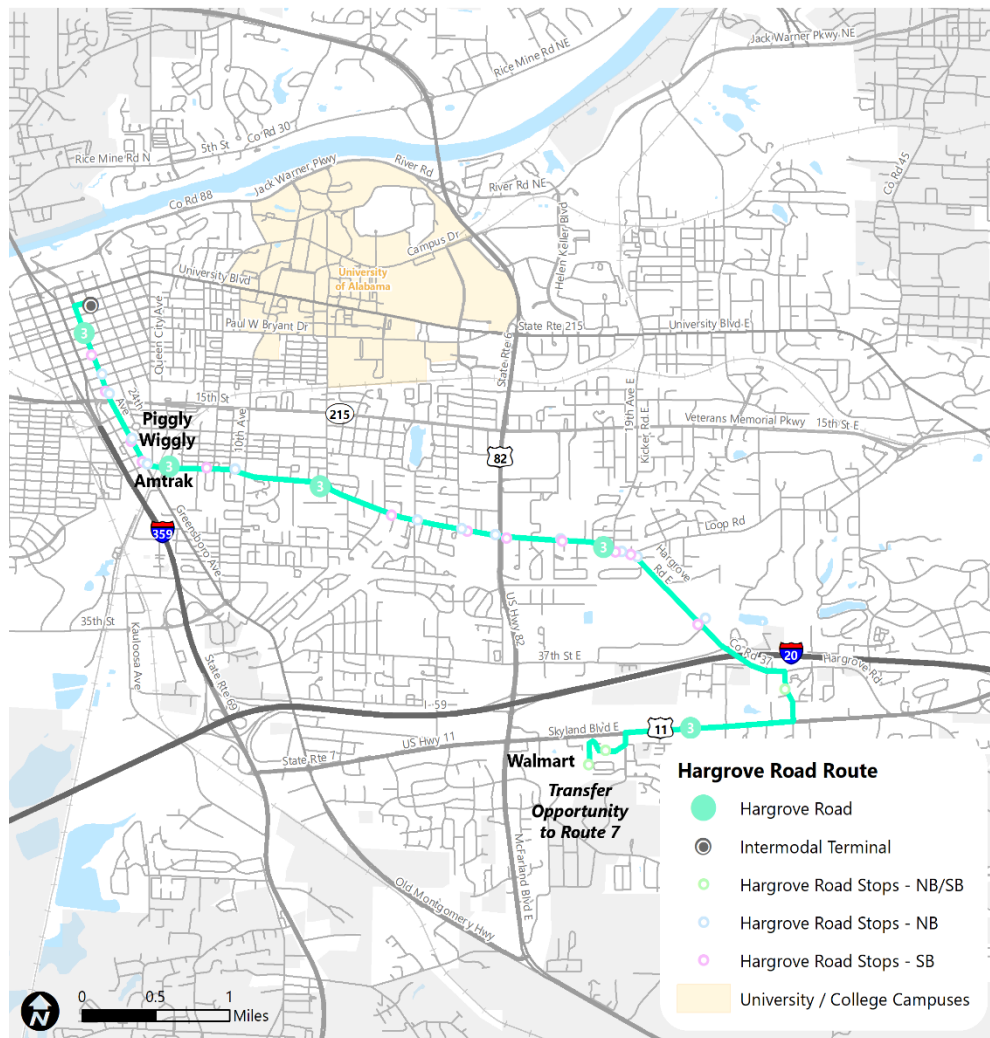


Figure 15. Proposed Route 3 (Hargrove Road)

Route 4: Medical/V.A. Route

Route 4 is a modified bidirectional route connecting the Intermodal Facility to DCH Regional Medical Center, University Mall, and the Tuscaloosa Veterans Affairs Medical Center (V.A.) (**Figure 16**). This route provides more direct connections to two major medical facilities and offers a non-stop ride to the V.A. east of Kicker Road.

- **Eastbound** – From the IMF, the route travels southbound on 23rd Avenue and makes a left on Paul W. Bryant Drive. The route continues until merging with University Boulevard, then travels southbound on McFarland Boulevard. The route then makes an eastbound left-turn on Veterans Memorial Parkway to serve University Mall. The route enters the University Mall property at the northern end and immediately exits the property to continue on Veterans Memorial. The route then stops at Kicker Road before traveling to the V.A. Medical Center.
- **Westbound** – Traveling westbound from the V.A. Medical Center, the route does not stop directly on the University Mall property. The rest of the route is the same as the eastbound.

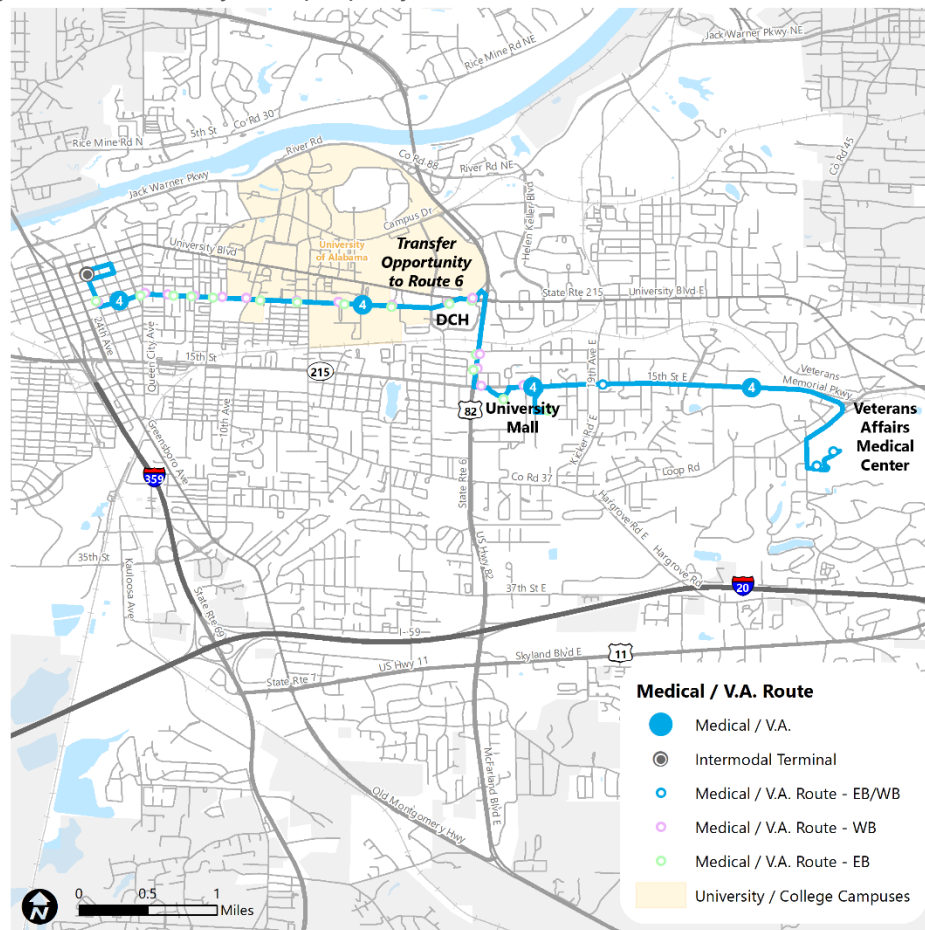


Figure 16. Proposed Route 4 (Medical/V.A. Route)

Route 5: Shelton State Route

Route 5 will operate with limited stops, connecting the IMF to Shelton State Community College's main campus near Highway 69 (**Figure 17**). The route is modified from the existing, one-directional route to provide more direct service as a bidirectional bus route. The Fredd Campus, although not a stop for Route 5, is still connected to TTA through Route 2.

- **Southbound** – The route travels from the IMF to Stillman Boulevard to connect to I-359 and exits the interstate at 35th Street, making a right, westbound turn. The route then makes a left, southbound turn onto Kauloosa Avenue and follows the corridor onto Highway 69 South, then makes a right onto Mimosa Park Road to serve the golf course and residential developments along the road. The route returns eastbound and turns right onto Old Greensboro Road, then makes a left just past Bear Creek Road to stop at the Dollar General. The route returns to Highway 69 South, makes a westbound, right-turn onto Southview Lane and uses Old Greensboro Road to complete the trip to Shelton State.
- **Northbound** – From Shelton State, the route travels north to Southview Lane, and makes a northbound, left-turn onto Highway 69. The northbound route stays on Highway 69 and makes a left on Kauloosa Avenue to finish the rest of the route.

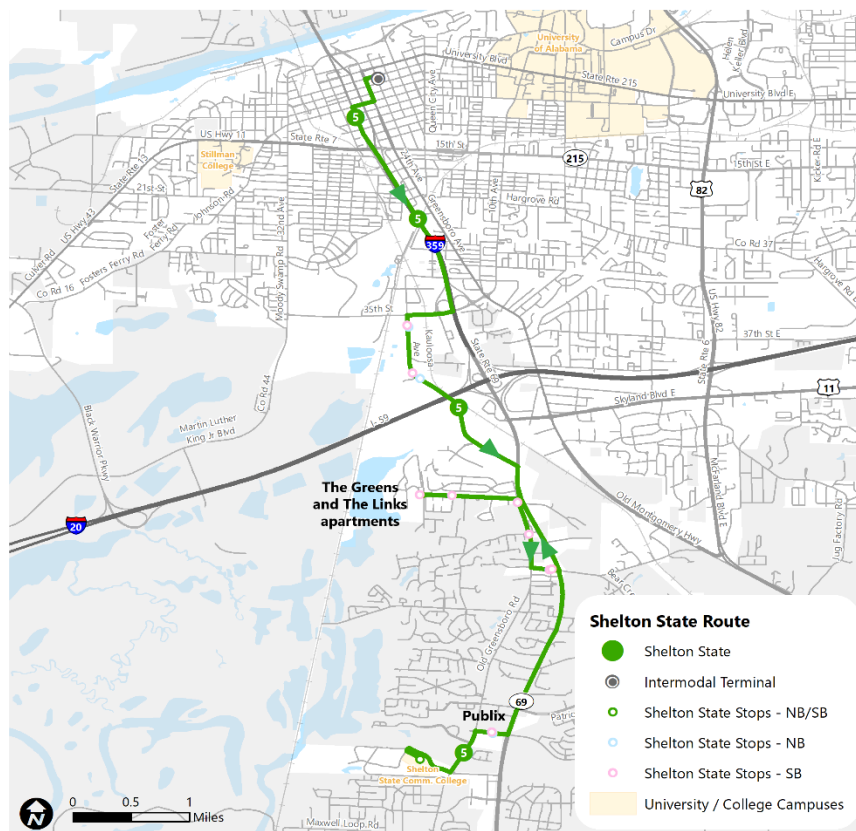


Figure 17. Proposed Route 5 (Shelton State Route)

Route 6: University of Alabama

Route 6 is unchanged and continues traveling in one-direction as it does today (**Figure 18**) at 30-minute frequencies. The operations of this route are reimbursed by UA.

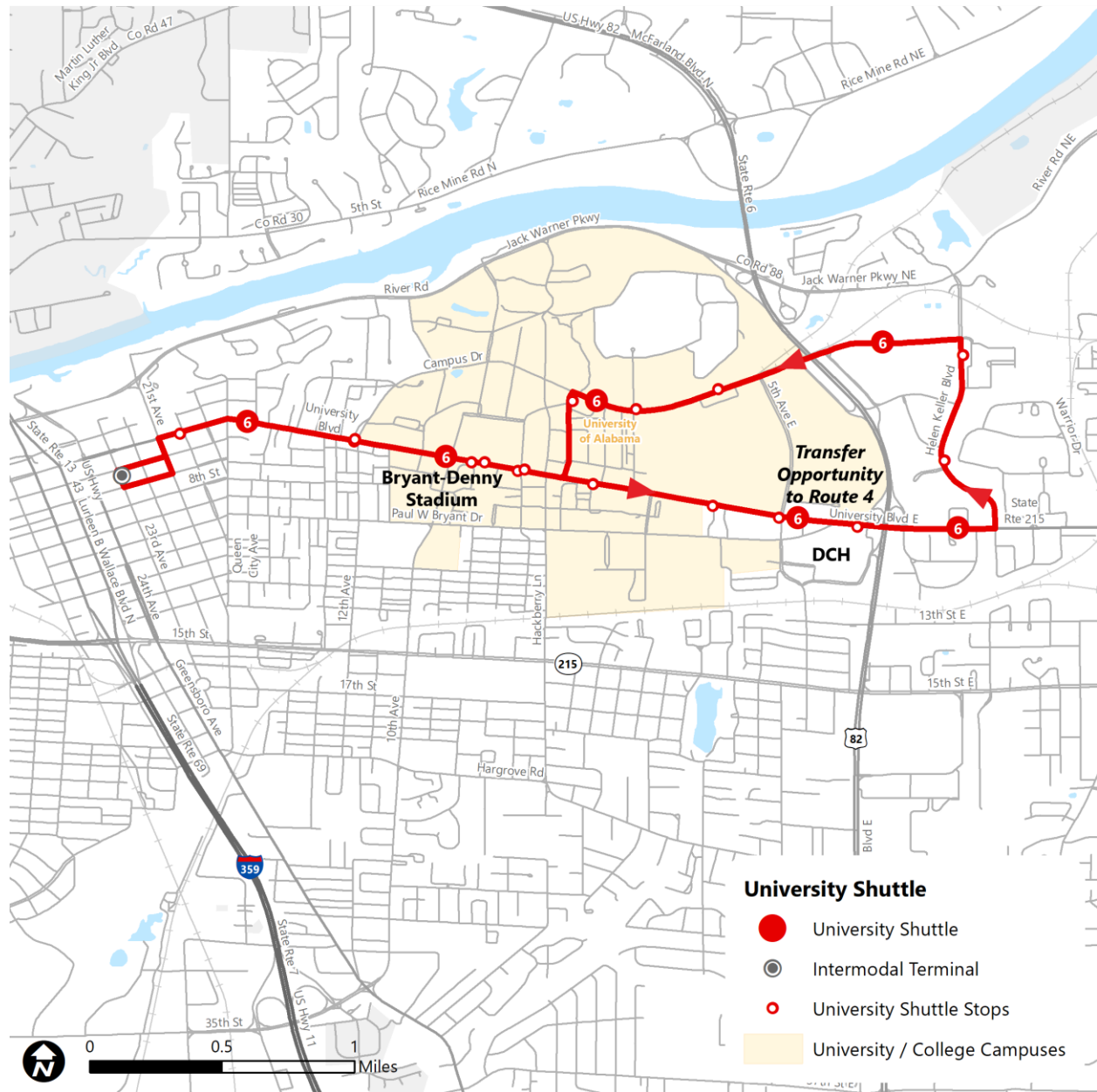


Figure 18. Proposed Route 6 (University Shuttle)

Route 7: 10th Avenue / McFarland / Skyland

Route 7 is a new, one-directional route connecting the IMF, 10th Avenue, 15th Street, McFarland Boulevard, and Skyland Boulevard (**Figure 19**). In the Budget Neutral Recommendations, this route operates as a clockwise loop, where the route would travel eastbound on 15th Street. The route would then head southbound on McFarland, make a westbound right turn on 37th Street East/James I. Harrison Parkway and then head to Skyland Boulevard via Greensboro Avenue. On the return trip, this route heads north on Greensboro Avenue and makes a right-turn at 29th Street to head northbound on 10th Avenue towards 15th Street. The route turns right from 15th Street onto 23rd Avenue and returns to the IMF. Splitting this route into two separate routes is discussed as a future option in the *Additional Transit Improvement Opportunities* section.

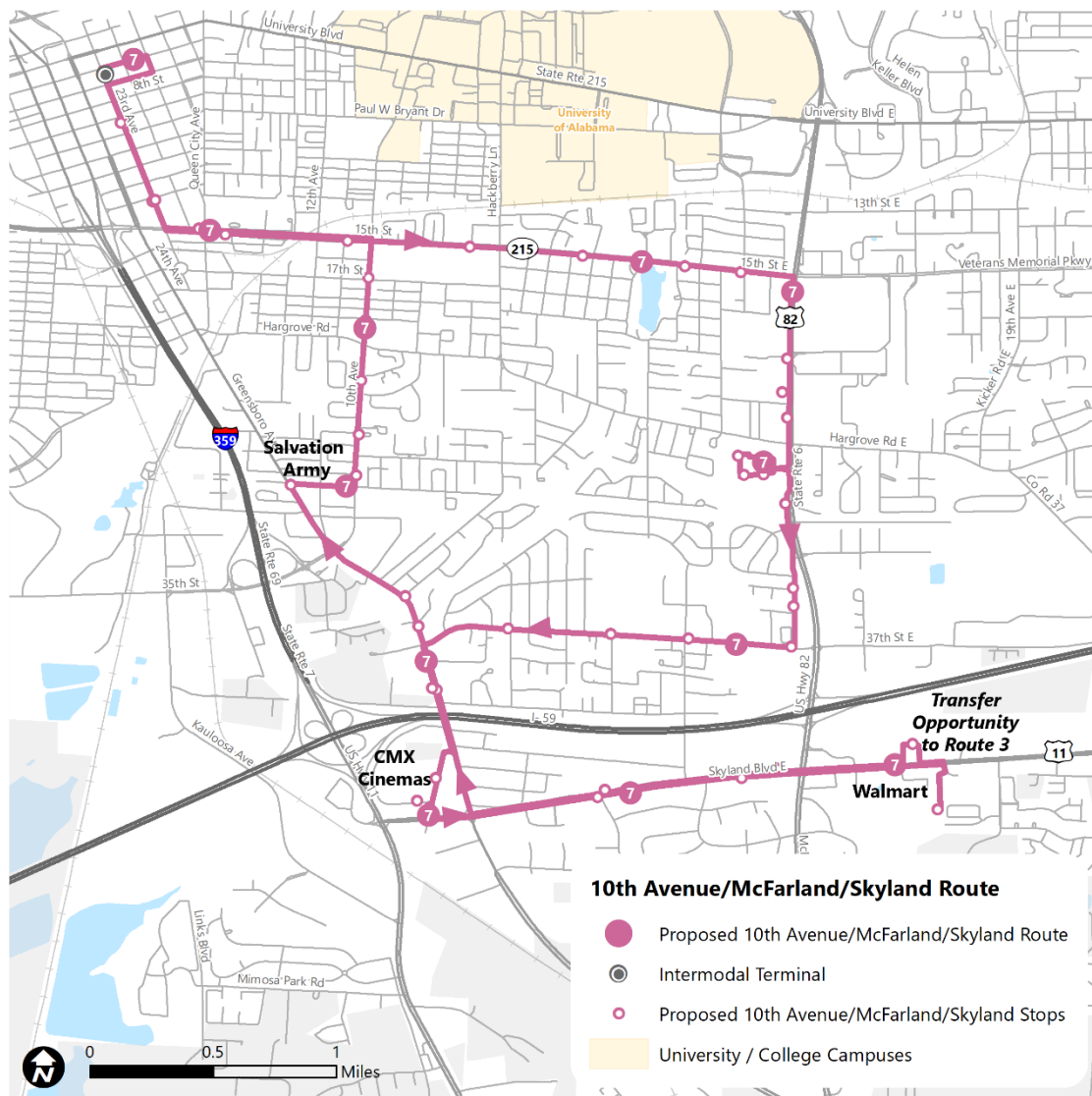


Figure 19. Proposed Route 7 (10th Avenue / McFarland / Skyland)

Capital Improvement Plan

Capital improvements support TTA in offering a quality, reliable service to its customers. To maintain a reliable fleet, a well-funded preventive maintenance program, along with maintenance tools and a place to store and maintain vehicles, are essential. This capital improvement plan identifies existing capital assets and their replacement needs and recommends capital investments needed to accommodate transit system growth. More detailed information on TTA's assets and transit asset management performance targets can be found in the agency's Transit Asset Management Plan (**Appendix C – Transit Asset Management Plan 2019**).

For this plan, agency's existing and planned assets are classified as one of the following:

- **Vehicles** (fixed route buses, paratransit vehicles)
- **Facilities** (vehicle maintenance facilities, administrative, transit centers)
- **Other infrastructure** (bus stops and amenities, fareboxes, information systems, and other technologies)

Existing Capital Assets

Vehicles

The agency owns two categories of vehicles: revenue vehicles and non-revenue vehicles. Revenue vehicles include buses and vans that are used to operate fixed-route and paratransit service, whereas non-revenue vehicles are those used by TTA staff for supervision, support, and maintenance duties.

Revenue Vehicles

The agency currently owns 22 revenue vehicles, including 13 buses and nine vans, as shown in **Table 10** and **Table 11**. These are the vehicles, including spares, that are required to operate the existing amount of transit service provided in Tuscaloosa. Any additional service would require the purchase of additional vehicles.

Table 10: Fixed-Route Buses (2020)

Vehicle #	Purchase Year	Make/Model	Mileage	Minimum Useful Life Mileage	Remaining % Based on Miles	Federal Useful Life (Years)	Actual Years in Service	Remaining Service Life
PATA 12	2010	Transmark	302,315	350,000	13.6%	10	10.6	(0.6)
PATA 13	2010	Transmark	311,955	350,000	10.9%	10	10.6	(0.6)
PATA 14	2010	Transmark	318,399	350,000	9.0%	10	10.6	(0.6)
PATA 19	2016	Glaval	96,853	200,000	51.6%	7	4.4	2.6
PATA 16	2013	Eldorado	181,531	500,000	63.7%	12	9.3	2.7

Vehicle #	Purchase Year	Make/ Model	Mileage	Minimum Useful Life Mileage	Remaining % Based on Miles	Federal Useful Life (Years)	Actual Years in Service	Remaining Service Life
PATA 17	2013	Eldorado	192,031	500,000	61.6%	12	9.3	2.7
PATA 18	2014	Eldorado	197,683	500,000	60.5%	12	6.5	5.5
PATA 20	2017	Eldorado	145,713	500,000	70.9%	12	3.5	8.5
PATA 21	2017	Eldorado	143,747	500,000	71.3%	12	3.5	8.5
PATA 22	2017	Eldorado	111,986	500,000	77.6%	12	3.5	8.5
PATA 23	2018	Eldorado	68,151	500,000	86.4%	12	2.4	9.6
PATA 24	2018	Eldorado	64,113	500,000	87.2%	12	2.3	9.7
PATA 25	2020	Eldorado	2,522	500,000	99.5%	12	0.2	11.8

Table 11: Paratransit Vehicles (2020)

Vehicle #	Purchase Year	Make/ Model	Mileage	Minimum Useful Life Mileage	Remaining % Based on Miles	Federal Useful Life (Years)	Actual Years in Service	Remaining Service Life
CUTAWAY 725	2004	Galvin	134,038	150,000	10.6%	5	16.5	(11.5)
VAN 731	2010	Goshen	101,288	150,000	32.5%	5	10.4	(5.4)
VAN 732	2010	Goshen	101,377	150,000	32.4%	5	10.4	(5.4)
VAN 733	2017	Ford/ Elkhart	76,083	150,000	49.3%	5	3.9	1.1
VAN 734	2017	Ford/ Elkhart	81,079	150,000	45.9%	5	3.9	1.1
VAN 735	2017	Ford/ Elkhart	74,243	150,000	50.5%	5	3.9	1.1
VAN 736	2017	Ford/ Elkhart	74,143	150,000	50.6%	5	3.9	1.1
VAN 737	2017	Ford/ Elkhart	79,343	150,000	47.1%	5	3.9	1.1
VAN 738	2018	Ford/ Elkhart	19,752	150,000	86.8%	5	2.3	2.7

Non-Revenue Vehicles

The agency owns seven non-revenue vehicles that support the operation of TTA service, as shown in **Table 12**.

Table 12. Non-Revenue Vehicles

Vehicle #	Purchase Year	Make/ Model	Mileage	Minimum Useful Life Mileage	Remaining % Based on Miles	Federal Useful Life (Years)	Actual Years in Service	Remaining Service Life
EXPED 801	2004	Expedition	127,797	100,000	-27.8%	5	16.8	(11.8)
F-150 804	2004	F-150	183,151	100,000	-83.2%	5	16.7	(11.7)
F-450 805	2010	F-450	56,402	100,000	43.6%	5	11.6	(6.6)
ESCAPE 806	2010	Escape	64,400	100,000	35.6%	5	10.9	(5.9)
FORD 743	2010	E-350	46,528	100,000	53.5%	5	10.9	(5.9)
TAHOE 807	2013	Tahoe	75,850	100,000	24.2%	5	7.9	(2.9)
FORD 808	2013	E-350	18,095	100,000	81.9%	5	7.8	(2.8)

Facilities

TTA utilizes two facilities for its operations. These include the Maintenance Shop (2450 Hargrove Rd E, Tuscaloosa, AL 35405), which TTA received in-kind from Tuscaloosa County, and the Intermodal Facility (601 23rd Ave., Tuscaloosa, AL 35401), which is owned by the City of Tuscaloosa. Both facilities have capacity for additional vehicles with the growth of TTA service. The Maintenance Shop can accommodate for an additional four to five vehicles at the yard. The IMF can accommodate for two to three more buses on the hour based on scheduling.

Other Infrastructure

The agency owns other infrastructure that supports the operation of TTA service. This includes bus stops, benches, shelters, fareboxes, information systems, and other technology. As TTA service expands and the system improves, additional infrastructure would benefit system operations and the rider experience. The *Additional Transit Improvement Opportunities* section provides additional details on other capital infrastructure improvements.

Existing Capital Asset Replacement Needs

As capital assets age, they will need to be replaced to keep the agency in a state of good repair and to keep TTA service running smoothly. Capital assets are eligible for federal funding from the FTA that provides 80 percent of the cost, in association with 20 percent of the cost from a local source.

Vehicles

As shown in **Table 10** through **Table 12**, several vehicles are beyond their useful lives,¹ including three fixed-route buses, three paratransit vehicles and all of the non-revenue vehicles. Replacement of these vehicles will be critical to keep assets in a state of good repair and keep TTA service running smoothly. Three paratransit vehicles have been ordered and will be arriving in FY 2021, and seven fixed-route buses have been ordered and will be arriving for use starting in FY 2022-2023. The three paratransit vehicles to be replaced are: CUTAWAY 725; VAN 731; and VAN 732. The seven fixed-route buses to be replaced include PATA 12, 13, 14, 15, 16, 17, AND 19. One additional fixed-route bus and five additional paratransit vehicles are anticipated in FY 2026-2027. At this time, PATA 18 (fixed route) is anticipated to be replaced. The projected local funding that will be required from the City of Tuscaloosa to match federal grant funding for vehicle replacements is shown by year in **Table 13**.

Table 13. Local Vehicle Funding by Year (2021)

2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
\$280,500	\$112,500			\$131,536	\$14,761		\$184,519		\$126,730

Facilities

The Maintenance Shop is currently 50 years old but has received improvements to keep it in a state of good repair. Recent improvements to the facility include a security fence, a new metal roof, new air conditioning for the offices, and a new awning. While this facility continues to meet the needs of TTA, future budgets should consider additional improvements to or future replacement of this facility, given its age (the Federal Transit Administration estimates the useful life of transit facilities at 40 to 50 years).

The Intermodal Facility was built in 2010, and \$275,000 of improvements were made to the facility in 2019. These improvements included adding improved LED lighting inside and outside, adding better signage outside, and adding a new entry/exit door to improve pedestrian flows and safety. TTA consistently maintains its facilities to ensure a state of good repair and includes this in its overall operating budgets. This will be important to continue.

Other Infrastructure

Other TTA infrastructure will need to be replaced over time as it ages and no longer meets the needs of TTA operations. TTA's fareboxes (used to collect fares on a bus) will likely need to be replaced in the near-term. The existing fareboxes are aging, expensive to maintain, and do not provide beneficial operations data. Replacement fareboxes will cost approximately \$2,500 per bus,

¹ Useful life varies by capital asset type. See Transit Asset Management Plan (2019) for more information.

and 12 new fareboxes will be needed at current service levels. This replacement value is included in **Table 14** of the Financial Plan.

PATA will also need to replace its security cameras inside buses in the near-term. The existing security cameras operate with outdated technology and do not provide the safety benefits needed for TTA operations. Replacement security cameras will cost approximately \$4,000 per bus, and 12 new security cameras will be needed at current service levels. This replacement value is included in **Table 14** (*Financial Plan* section).

Future Capital Assets Needed to Accommodate Future Service Levels

While additional funding has not yet been allocated for growth of TTA service, it is important to note that any future growth of TTA service will require additional assets, such as vehicles, fareboxes, security cameras, and passenger amenities (benches and shelters). The total cost of commonly needed new capital assets is included in **Table 14** of the *Financial Plan*.

Financial Plan

As part of this transit plan, a financial plan was prepared for TTA that helps the agency forecast future revenue and costs. The plan is built around the system as it stands today, to allow TTA to determine the resources available to implement the recommendations outlined in this transit plan. The financial plan is broken out into operating and capital costs and a baseline projection is outlined from fiscal year 2022 through 2026. Fiscal years end on September 30.

Operating

TTA's operating costs are broken into two categories: bus and paratransit service. Non-modal costs like administration are fully allocated to the modes and are not presented as a separate line item. Operating costs are expected to grow by three percent a year over the life of the plan.

Operating revenues come from Federal Transit Administration 5307 formula funding, the City of Tuscaloosa, University of Alabama, and fares. The Tuscaloosa urbanized area (UZA) receives an apportionment of federal funding from 5307 formula funds. The apportionment of Federal 5307 funds is determined based on population, in which the Tuscaloosa UZA falls within the 50,000 to 199,000 threshold. This means that the amount of 5307 funding that Tuscaloosa receives is calculated with a formula based on the UZA's population and population density. The City of Tuscaloosa provided approximately \$800,000 in FY2019, and the University of Alabama contributed \$85,000 (as a reimbursement for the UA route). Contributions from the City and the University are expected to continue into the planning horizon.

Staffing is a critical part of TTA's success and serve as a cost driver that is incorporated into overall operating costs for the system. As of May 2020, TTA includes the following positions²:

- **Executive Director**
- **Managers** – Shop Manager; Route/Safety Manager; Financial Manager
- **Shop** – Mechanics/Technicians (3); Shop Utility; Part-Time Wash Crew
- **Route/Safety** – Drivers (19 – fixed route, paratransit, floater, part-time)
- **Finance** – CSAA/Security; Scheduler/ADA/DEBLO; Payroll; Transit Clerk

Capital

TTA capital needs are currently funded through a combination of local and federal funds. Federal funding will cover up to 80 percent of capital costs within the maximum total amount allocated, with local funds supplying the remainder. The City of Tuscaloosa has provided local funding matches for capital expenditures for TTA and is expected to continue the match for the planning horizon. A portion of transit needs as a part of potential future expansions will likely be provided, in part, in the next few years through Elevate Tuscaloosa.

Operating and Capital Cost Drivers

Transit agency improvements are affected by a variety of cost drivers. **Table 14** summarizes major cost drivers in operating and capital categories for TTA. This is not intended to be an all-inclusive list of TTA cost drivers but aims to highlight the cost drivers critical to the development of this plan.

² The positions indicate numbers of staff if beyond just one individual. Staffing expenses are rolled into the overall operating expenses and are not shown as a separate line item.

Table 14. Cost Drivers

Cost Driver Categories	Cost	Unit
Operating *		
Fixed Route	\$105.08	Per revenue hour
Paratransit	\$93.65	Per revenue hour
Systemwide Average	\$101.15	Per revenue hour
Capital		
Vehicles (Bus)**	\$405,000	Per Vehicle
Vehicles (Van)**	\$90,000	Per Vehicle
Vehicle (Non-Revenue)	\$30,000-\$40,000	Per Vehicle
Bus Shelter (includes roof, bench, ADA area)***	\$4,800	Per Unit
Bench***	\$700	Per Unit
Concrete Pad for Shelter***	\$250	Per Unit
Concrete Pad for Bench***	\$150	Per Unit
Security Cameras (Bus)	\$4,000	Per Unit/Bus
Farebox Upgrade (Bus)	\$2,500	Per Unit/Bus

*Operating cost per revenue hour is based on 2019 National Transit Database data.

**Vehicle purchases are required to be projected out based on the useful life of vehicles based on type. Bus vehicles have a useful life of 10-12 years, while vans have a useful life of 5 years.

***Labor for set up of shelters, benches, and concrete pads is provided by the Tuscaloosa Department of Transportation at no cost to TTA. The study continues this assumption.

CARES Funding

The Coronavirus Aid, Relief, and Economic Security (CARES) Act provided \$25 billion to transit agencies to help prevent, prepare for, and respond to the COVID-19 pandemic. Transit agencies that receive urbanized and rural area formula funds were provided funding at 100-percent federal share with no local match required. These funds were made available for agencies to use on capital, operating, and other expenses generally eligible under those programs to respond to COVID-19. Operating expenses that were incurred starting January 20, 2020 were eligible, as well as operating expenses to maintain transit services and pay for administrative leave for personnel due to reduced operations. As a part of CARES funding, TTA received a total of \$5,766,327.

CARES funding received by TTA was used to supplement expenditures related to operating assistance, preventive maintenance, and ADA paratransit expenses. Most of the CARES funding is anticipated to be used by December 2021 and was not included in the financial forecast for this short-range plan.

Baseline Projection

To forecast the revenue available for the capital and operating recommendations outlined in this transit plan, a baseline forecast was prepared that illustrates the costs and revenue associated

with the existing service. Several assumptions were made in the development of the baseline projection that are included below:

- **Annual Inflation** – According to the Labor Department’s Bureau of Labor Statistics (BLS), the consumer price index (CPI), for 2019 to 2021 (up to Summer 2021) has been 2.3 percent, 1.4 percent, and 5.4 percent, respectively. To capture an average for inflation, 3 percent was used to calculate the annual inflation for operating expense and funding for TTA. This allows for conservatively forecasted revenues as federal funding streams are constrained.
- **Local Operating**– The City of Tuscaloosa provides both operating and capital assistance to TTA to provide the local matches required to utilize federal revenues. Regarding operating assistance, the baseline projection provides a conservative estimate that builds on the FY2019 and FY2020 budgeted amount of \$655,040. The estimate also includes the operating cost for the Hughes Route. Regarding capital assistance, TTA provides the City with a rolling capital plan to help the City anticipate when a match may be required for capital expenditures. For the purposes of this spreadsheet, the capital assistance is shown as a direct match to the capital expenses that are anticipated.
- **University of Alabama** – The University of Alabama provides funding to TTA to operate Route 6 (the University of Alabama route). This contribution is expected to continue into the planning horizon and assumes a slight increase with a maximum at \$90,000 to accommodate for rising operating costs.
- **Fare Revenues** – Fare Revenues have been assumed to continue at the same levels as in 2019 for both fixed route bus and demand response. Note: During the COVID-19 pandemic, TTA suspended service for several months. As service returned in late calendar year 2020, fares were not charged. FY2020 numbers highlight a drop in bus receipts for weekday travel. Fare charges resumed in late spring/summer 2021.
- **Miscellaneous Income** - TTA receives additional income from sources such as advertising and vending machines. To be conservative, this line item uses FY2020 as its baseline into the planning horizon.

Table 15 summarizes the cost of operating expenses and revenues. Across the planning timeframe FY2022 to FY2026, there is a net surplus of \$18,500. **Table 16** summarizes the cost of capital expenses and revenues.

Table 15. Operating Expenses and Revenues (Budget Neutral) FY 2022-2026

Budget Neutral	Planning Horizon				
	FY2022	FY2023	FY2024	FY2025	FY2026
Operating Expenses					
Existing Fixed Route Service	\$ 2,004,000	\$ 2,064,000	\$ 2,126,000	\$ 2,190,000	\$ 2,256,000
Paratransit	\$ 933,000	\$ 961,000	\$ 990,000	\$ 1,020,000	\$ 1,051,000
Total	\$ 2,937,000	\$ 3,025,000	\$ 3,116,000	\$ 3,210,000	\$ 3,307,000
Operating Revenues					
Federal Funds - Operating	\$ 1,927,570	\$ 1,985,000	\$ 2,045,000	\$ 2,106,000	\$ 2,169,000
Local Funds - Operating	\$ 655,000	\$ 675,000	\$ 695,000	\$ 716,000	\$ 737,000
University of Alabama	\$ 88,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000
Fare Revenues - Bus	\$ 142,000	\$ 142,000	\$ 142,000	\$ 142,000	\$ 142,000
Fare Revenues – Demand Response	\$ 38,000	\$ 38,000	\$ 38,000	\$ 38,000	\$ 38,000
Misc. Income	\$ 105,000	\$ 108,000	\$ 111,000	\$ 114,000	\$ 117,000
Total	\$ 2,955,000	\$ 3,038,000	\$ 3,121,000	\$ 3,206,000	\$ 3,293,000

Table 16. Capital Expenses and Revenues (Budget Neutral) FY 2022-2026

Budget Neutral	Planning Horizon				
	FY2022	FY2023	FY2024	FY2025	FY2026
Capital Expenses					
Existing Fixed Route Service	\$ 2,025,000	\$ 810,000	\$ -	\$ -	\$ -
Paratransit	\$ -	\$ -	\$ -	\$ -	\$ -
Farebox and Cameras	\$ -	\$ 30,000	\$ 48,000	\$ -	\$ -
Total	\$ 2,025,000	\$ 840,000	\$ 48,000	\$ -	\$ -
Capital Revenues					
Federal Funds - Capital	\$ 1,743,750	\$ 715,500	\$ 38,400	\$ -	\$ -
Local Funds - Capital	\$ 281,250	\$ 118,500	\$ 9,600	\$ -	\$ -
Total	\$ 2,025,000	\$ 834,000	\$ 48,000	\$ -	\$ -

Fare Analysis

As a part of this study, a fare analysis was conducted to review current fare policies and pricing structures. Service improvements and expansions have the potential to increase ridership and revenue, as well as operating costs. By examining current industry best practices relative to TTA's peer agencies, as well as existing service conditions in Tuscaloosa, recommendations for changes in the current fare policy were developed with regards to ridership and revenue thresholds.

Existing Fare Media

TTA fare types are based on the cost of a single one-way trip, paid with cash on board the bus. Discounts are available for passengers who are under 3 years old, elderly, handicapped, and K-12 students, who ride for \$0.50 between 6:30 a.m. and 8:00 a.m. and 2:30 p.m. to 4:00 p.m. on school days, only. UA students ride the University Shuttle for free with valid ID. Existing fares are summarized in **Table 17**.

Policy and User Information

All passengers must have a pass or cash when boarding the bus. Passengers desiring a discount must present proper identification when boarding. Tickets may be purchased at the IMF. Passengers may also purchase booklets of 10 tickets for \$10.

COVID-19

TTA currently operates at a maximum of 10 passengers per trip and has resumed charging fares as of Spring 2021, after a period of fare-free service.

Table 17. Current TTA Fares

Fare Type	Fare
Adults	\$1.00
Transfer	\$0.20
Children 3 and Under	Free
UA Students	University Shuttle Free with Valid UA ID
Students K-12	\$0.50
Elderly and Handicapped	\$0.50
Paratransit	\$2.00

Ridership and Revenue

In 2019, TTA provided roughly 298,000 fixed route passenger trips and 15,000 paratransit trips. With a six percent farebox recovery ratio, TTA's annual farebox revenue is roughly \$180,870, with an additional \$13,500 collected on Saturdays during the University of Alabama football season.

Peer Analysis

The planning team identified TTA fare alternatives by documenting and analyzing fares collected by peer jurisdictions. Peers selected have populations, local transit routes, and transit needs similar to Tuscaloosa and TTA. The same peers were examined in the Existing Conditions Assessment (**Appendix A – Existing Services Report**). The three agencies included:

- Athens-Clarke County Transit
- Ozark Regional Transit
- Huntsville Transit

Athens-Clarke County Transit

Athens-Clarke County Transit (ACC) is in Athens, Georgia, serving a population of roughly 127,000. ACC Transit operates 20 fixed routes throughout the day and 10 routes in the evenings (starting at 5:45 p.m.) and on weekends, serving roughly 1,500,000 passengers annually³. Due to COVID-19, service is currently limited to 6:00 a.m.-7:00 p.m. on weekdays and 7:00 a.m.-7:00 p.m. on Saturdays and Sundays; however, prior to COVID-19, service operated until 10:00 p.m. ACC has a hub-and-spoke system, with transfers facilitated at a central point on a timed arrival pulse. Eight routes operate at a frequency of every 20-30 minutes, while the remaining 12 operate at a frequency of 60-75 minutes. ACC's current bus fares are summarized in **Table 18**.

Table 18. Current ACC Bus Fares

Fare Type	Fare
Adult Single Ride	\$1.75
22-Ride Pass	\$31.00
Transfer	Free
Children 18 years old and under	Free
UGA Students, Faculty, and Staff	Free with valid UGA ID card
Elderly and Handicapped*	Free
Medicare Card	\$0.50

**To qualify for fare-free transit, disabled individuals must apply for approval and have a transit ID card made.*

Passes may be purchased at ACC's transit center and through the Token Transit mobile app. Passes purchased on phones are visually validated by operators upon boarding. Operators also accept exact cash fare but do not provide change.

³ "Athens-Clarke County Unified Government dba Athens-Clarke County Transit Department." *National Transit Database*, Federal Transit Administration, 2020, https://cms7.fta.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2019/40047.pdf. Accessed 22 June 2021.

Ozark Regional Transit

Ozark Regional Transit (ORT) in Springdale, Arkansas serves Fayetteville and portions of the Bentonville and Rogers communities. ORT operates eight fixed routes and an on-demand service in Rogers, serving roughly 270,000 passengers annually⁴. Services operate Monday-Friday between 6:00 a.m.-7:30 p.m. ORT has a hub-and-spoke system, with transfers facilitated at a central point on a timed arrival pulse. Two routes operate at a frequency of every 30 minutes, five operate on an hourly frequency, and Route 490 is a peak-only route with two trips operating in the morning and two in the evening. ORT's current bus fares are summarized in **Table 19**.

Table 19. Current ORT Bus Fares

Fare Type	Fare
Adult Single Ride	\$1.25
Day Pass	\$3.00
10-Ride Pass	\$10.00
Monthly Pass	\$30.00
Youth/Student Monthly	\$15.00
Elderly (60-74) and Handicapped Monthly Pass	\$15.00
Children (Under 6)	Free
Transfers	Free
Veterans	Free
Seniors (75 years or older)*	Free

*Seniors (75 years or older) must show a valid Medicare ID, ADA certification ID, or government issued picture ID to receive free transit

Passes may be purchased at ORT's administrative office, online (passes are shipped), from the bus operator with exact change, and through the Token Transit mobile app. Passes purchased on phones are visually validated by operators upon boarding. Operators also accept exact cash fare, but do not provide change.

In 2020, ORT implemented an on-demand transit service featuring designated pick-up spots and typical wait times of 15 minutes. The on-demand service delivered 677 trips in May 2021 and data collected to-date shows early mornings and mid-afternoon were the most popular travel times.

⁴ "Ozark Regional Transit." *National Transit Database*, Federal Transit Administration, 2020, cms7.fta.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2019/60072.pdf. Accessed 22 June 2021.

Huntsville Transit - Orbit

Huntsville Transit is in Huntsville, Alabama and serves residents within the city limits. Orbit operates 11 fixed routes and an on-demand service that serve roughly 749,000 passengers annually⁵. Services operate Monday-Friday between 6:00 a.m.-9:00 p.m. and Saturday from 7:00 a.m.-7:00 p.m. Huntsville has a hub-and-spoke system with transfers facilitated at a central point on a timed arrival pulse. Eight routes operate at a frequency of every 60 minutes and two operate at 30-minute frequencies. The UAH Campus Route operates most Friday evenings from 5:00 p.m.-10:00 p.m. and there is no published schedule. Tickets for Orbit can be purchased at the Huntsville Transit Station. Orbit's current fares are summarized in **Table 20**.

Table 20. Current Orbit Bus Fares

Fare Type	Fare
Adult Single Ride	\$1.00
20-Ride Pass	\$18.00
Transfer	Free
Children under 32"	Free
Children (Under 6)	\$0.50
Elderly and Handicapped	\$0.50
Students	\$0.50

Implementation Recommendations

Based on the fare analysis completed, several recommendations are included for Tuscaloosa's consideration.

Fare Types

The following include specific recommendations regarding restructuring the fare types that are offered by TTA. These recommendations are focused on simplifying the boarding and transfer process for passengers, reducing opportunities for conflict between operators and passengers, and encouraging more ridership by increasing pass availability and offering bulk pass purchase savings.

- **Remove transfer fees** - This will help reduce confusion for occasional TTA riders and visitors to Tuscaloosa as well as shorten boarding time and reduce potential for conflict with operators.
- **Expand pass options to include a monthly pass** - In reviewing peer agencies and current best practices, a slightly discounted bulk pass option is common among pass offerings.

⁵ "City of Huntsville, Alabama dba Department of Parking & Public Transit." *National Transit Database*, Federal Transit Administration, 2020, https://cms7.fta.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2019/40071.pdf. Accessed 22 June 2021.

This reduces the need to purchase passes for those traveling via fixed route more frequently and encourages more ridership by offering a discount for purchase in advance (rather than a single-ride purchase).

- **Provide a discount at a rate of .8 for bulk pass purchases** - Incentivizing transit usage is common among TTA peers and at most transit agencies where bulk passes are offered. The discount rate provides an incentive to buy multiple rides at once, rather than a single ride pass, and the .8 rate is commonly used by peer agencies.

Table 21 illustrates fare recommendations based on TTA's current service levels.

Table 21. Proposed and Existing Fare Type Comparison for Weekday-Only Service

Fare Type	Existing Fare	Proposed Fare
Adults	\$1.00	\$1.00
10-Single rides	Not Available	\$8.00
Monthly Pass	Not Available	\$32.00
Transfer	\$0.20	Free
Children 12 and under (when accompanied by a paying adult)	Children 3 and Under Free	Free
UA Students	University Shuttle Free with Valid UA ID	University Shuttle Free with Valid UA ID
Students K-12	\$0.50	\$0.50
Elderly and Handicapped	\$0.50	\$0.50
Paratransit	\$2.00	\$2.00

Table 22 illustrates fare recommendations if TTA were to expand its current weekday-only service to operate on weekends, as well. In general, the pass offering and pricing recommendations would still accommodate weekday-only commuters with the 10-single ride passes sold at a discounted rate, as well as a discounted monthly pass that accounts for those passengers using the bus more than five days a week.

Table 22. Proposed Fare Types for Expanded Weekend Service

Fare Type	Fare
Adults	\$1.00
10-single rides	\$8.00
Monthly Pass	\$48.00
Transfer	Free
Children 12 and under (when accompanied by a paying adult)	Free
UA Students	University Shuttle Free with Valid UA ID
Students K-12	\$0.50
Elderly and Handicapped	\$0.50
Paratransit	\$2.00

Mobile Ticketing and Ticket Purchases

Mobile Ticketing

Many agencies, including two of TTA's peers, ACC and ORT, offer mobile pass purchasing platforms, which provide benefits for both agencies and customers. For example, mobile pass technology allows for pre-board fare collection, which speeds up the boarding process, reducing overall delays. It also allows for more purchasing flexibility and an account-based system, which provides customers more ways to manage their funds. The strain on fareboxes is also reduced, with the bulk of the use being cash collection, which also reduces maintenance costs, staff time spent counting money, and troubleshooting while in operation. Examples are shown in **Figure 20**.

Mobile ticket platforms take a percentage of each pass purchased or each swipe/scan of a pass. Agencies can anticipate paying between two to three percent of their total annual ridership to the mobile ticket provider to maintain the platform and process the payments. Based on TTA's 2019 annual ridership of 312,941, TTA could expect to pay roughly \$9,400 to a mobile ticketing provider in processing and mobile application maintenance fees.

In addition to the processing and software fees, if an agency decides to use automated validation over visual validation (where the operator visually scans the mobile pass to confirm validity), a free-standing mobile ticket validator can cost between \$1,000-\$5,000 to purchase and must be installed by the agency. Both ORT and ACC utilize mobile ticketing for pass distribution and visual validation of the mobile tickets.

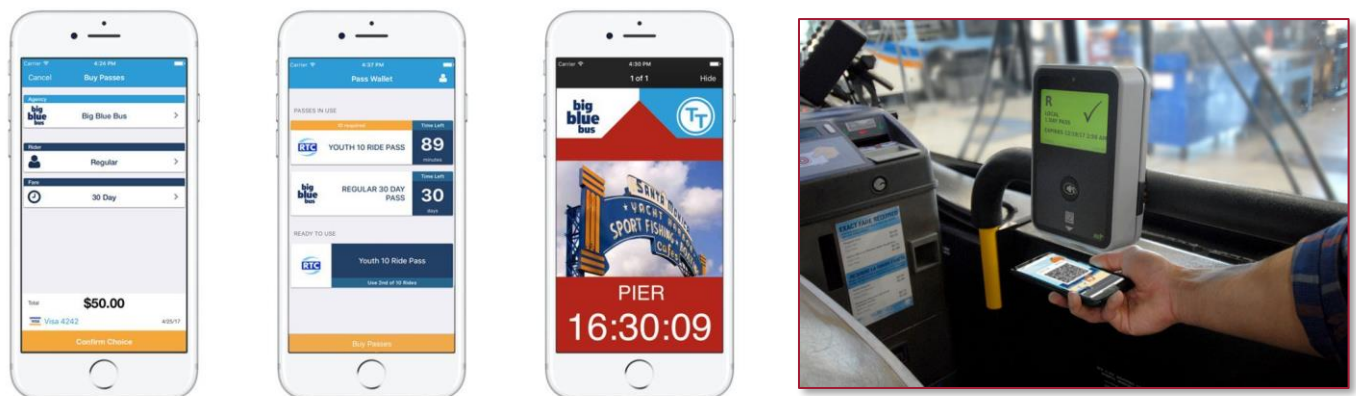


Figure 20. Mobile Ticketing Examples

Equity

Equity is an important topic to the City of Tuscaloosa and continues to drive decision-making at the federal levels. For a transit agency's fare program specifically, providing equitable solutions for the unbanked and passengers without a smart phone will be important with the

implementation of mobile ticketing. Either method of mobile-ticketing validation, visual or validator, will allow for continued use of the existing cash farebox. Passengers without a smart phone should be able to pay in cash on board the bus and/or board with a pass. Passengers with a smart phone but no way to pay via mobile app have options:

- A TTA customer service representative can load cash to a passenger's account via administrator access to the mobile ticketing platform
- VISA, MasterCard, and other same-as-cash gift cards can be used to upload value to a passenger's mobile ticketing account

Additionally, TTA should work with partners to expand pass purchase options to government buildings, hotels, grocery and/or convenience stores, etc. This can improve the overall customer experience by making pass purchases more convenient for passengers.

Additional Transit Improvement Opportunities

Based on what was learned in the *Opportunities section*, there were several additional transit improvement opportunities that are included as a part of this plan that would require additional funding to implement (**Table 23**).

Service Improvements

Service improvements for TTA include additional routes and service types that the transit agency should consider if additional funding were available (). These service improvements were identified through technical analysis and public engagement and provide an opportunity for TTA and the City to continue their commitment to serving Tuscaloosa residents with a high quality of transit service. Each specific improvement is described in detail in this section and includes a planning-level operating cost estimate. The descriptions also indicate if TTA would have to procure additional fleet vehicles to operate the service. It important to note that TTA will need to maintain a spare fleet ratio. Thus, the additional services will likely require a slightly higher number of fleet vehicles than what is indicated in this section.

Categories of service improvements include:

- **New and improved routes** - There are opportunities for several new transit routes within Tuscaloosa. These routes provide more direct connections to employment and reflect improvements desired by survey respondents. Additional funding beyond current levels would be required for implementation of these routes. The planning-level costs for the new routes used base cost driver rates found in **Table 14**. Potential stops have been identified for each of the routes below at a planning level. If the routes move into

implementation, TTA and the City of Tuscaloosa will have to determine the final locations of the transit stops based on a review of existing right-of-way, any design standards/criteria that may exist, and agreements with local businesses and residences.

- **New transit modes** - Microtransit is a form of on-demand public transit service that is technology-based and combines dynamic routing and ride scheduling. Riders can request service in advance or on-demand via a phone app or via a dispatcher over the phone. Microtransit operates in distinct zones in order to minimize wait times and keep the service operating efficiently. Trips can be taken point to point within the zone or microtransit can help people connect between fixed-route service and their origin/destination.
 - Microtransit service requires the purchase of software that dynamically routes and schedules the requested trips. There are several vendors that sell this software, such as Spare, Ecolane, Transloc, and Via. The cost of the software varies by vendor and the features that are included but ranges from approximately \$20,000-\$60,000 (given the size of the TTA system, the cost would likely be at the bottom end of this range). A tablet is also needed on each vehicle operating microtransit service, which costs approximately \$200-\$500 to purchase. If microtransit is included as a service type for TTA, the recommended fare is \$1.00 to remain consistent with the existing adult fares.
 - There are several agencies across the Southeast that have implemented microtransit programs in communities such as Birmingham (AL), Valdosta (GA), and Hall County (GA). Microtransit service is a coverage-type service that works well in serving first- and last-mile trips (e.g., where walking to a bus stop might be difficult due to lack of infrastructure or too long of a journey) and where there are areas that have lower population and employment densities. There are three microtransit zones that were identified for this plan.
- **Capital Improvements** - During public engagement, capital improvements were requested by both existing riders and non-riders of the system. These included improved bus stop signage, pedestrian crosswalks and sidewalks, and transit amenities, such as benches, shelters, and lighting.
- **Technology Improvements** - There are a variety of technology improvements that TTA should consider implementing to make riding Tuscaloosa Transit easier. These include mobile ticketing, a bus locator application, and a trip-planning tool.

To help direct future funding opportunities, the service improvements have been prioritized (low, medium, high) to indicate potential phasing of projects. The prioritization of service improvements is based on public and stakeholder input as well as City and TTA initiatives.

Table 23. Service Improvements

Service Category	Specific Improvements
High Priority Workforce and General Transit	Bus locator application awareness Bus stop signage improvements Transit amenities (benches, shelters, lighting) Pedestrian crosswalks and sidewalks More frequent weekday service Later weekday service West Tuscaloosa Direct Route (with West Tuscaloosa Microtransit)
Medium Priority Workforce and General Transit	West Tuscaloosa to Skyland Express Route Route 7 – Split 10th Ave / McFarland / Skyland Weekend service Mobile ticketing Skyland Microtransit
Low Priority Workforce and General Transit	APC devices Demand response service Trip planning tool Holt/Alberta Microtransit US 82 Route (Northport)
High Priority Downtown Rapid Transit	Phase 1 Route
Low Priority Downtown Rapid Transit	Phase 2 Route
General Service Improvements*	Performance monitoring improvements Marketing and Communications improvements Partnerships with organizations, government agencies, and businesses

**General service improvements are likely able to be completed with little to no cost but are still priority recommendations to carry through.*

High Priority – Workforce and General Transit

Bus Locator Application

TTA currently has a “Where is my bus?” phone application that provides the real time bus locator for all routes. TTA should continue providing this to the public and include the availability of this tool on all marketing materials produced.

Improved Bus Stop Signage

Half of the survey respondents said at least one aspect of the transit service is confusing or difficult, and the top responses regarding what is confusing or difficult were there is not enough information at bus stops and they do not know where the buses go. Bus stop signs for TTA service currently indicate that the location is a bus stop, but they do not include any information about which route(s) stop at the location, where the route(s) go/goes, or what time the bus stop is served. Adding additional information to the bus stop sign, including a map, routes that serve the stop, a schedule, a bus stop ID for real-time tracking, and a QR code linking to the TTA website would be beneficial.

Transit Amenities (Benches, Shelters, Lighting, Etc.)

FTA Title VI Policy (FTA C 4702.1B) requires large transit providers (agencies that operate more than 50 fixed route vehicles in peak service and are in an urbanized area with 200,000 people or more) to develop a policy for service indicators like transit amenity distribution. Although TTA is not currently required to develop such a policy, TTA should consider adopting a shortlist of policies as the budget neutral recommendations are implemented. Some examples of policies regarding where transit amenities are located could include:

- where two or more routes come together to offer a transfer
- where certain stops reach a specific number of riders boarding and alighting
- where certain stops receive business sponsorship of such amenities

Pedestrian Crosswalks and Sidewalks

In the surveys and during stakeholder discussions, participants brought up the need for additional pedestrian crosswalks at major roadways and activity centers. The lack of sidewalks was also cited as a barrier to using public transit in Tuscaloosa. These needs align with those identified by the Framework as well as the West Tuscaloosa Community Inventory. TTA should work with the City of Tuscaloosa to identify opportunities to install crosswalks and sidewalks along roadways. Roadways such as Martin Luther King Junior Boulevard, Stillman Boulevard, Hargrove Road, McFarland Boulevard, 15th Street, Skyland Boulevard, Greensboro Avenue, and University Boulevard, which serve as the primary transit corridors, should be prioritized to continue building out a cohesive pedestrian network.

In addition, as the City or other agency partners undertake roadway projects in the future, adding space for designated bus stops should be considered. For example, this could include space along the right-of-way for the bus to pull over, as well as an inclusion of bus stop amenities such as shelters, benches, and lighting, as a part of the roadway project. Lastly, TTA should work with IPS

to create and maintain a cohesive map of transit assets for the entire network. This should include bus stop locations and amenities at each stop location at a minimum.

More Frequent Weekday Service

TTA service currently operates once an hour on all routes, except for Route 4 (the University route), which currently operates twice an hour. More frequent service was one of the most requested improvements from current riders. The morning and afternoon peak periods (7:00 a.m. to 9:00 a.m.; 4:00 p.m. to 6:00 p.m.) are the times of day most popular for transit ridership. Increasing the frequency of the other routes to twice an hour for two hours in the morning and two hours in the afternoon, would require an additional annual planning-level operating cost of \$485,000 beyond the budget neutral recommendations. This cost estimate assumes that Route 5: Shelton State and Route 6: University Shuttle both maintain their existing service span.

Later Weekday Service

Extending service span on the weekdays was a concern noted by both riders and non-riders. Riders, more frequently than non-riders, stated that having later bus service is a priority. When asked how late the bus should operate on weekdays, the top response for current riders was 6:00 p.m., while non-riders most frequently stated 9:00 p.m. Later weekday service reflects service span extending to 10:00 p.m. and is estimated to have an annual planning-level operating cost of an additional \$715,000 beyond the budget neutral recommendations. An added operating cost of 25 percent was added to this operating number due to late night operations that would require additional staff (e.g. maintenance, security, etc.). This cost estimate assumes that Route 5: Shelton State and Route 6: University Shuttle both maintain their existing service span.

West Tuscaloosa Direct Route

The existing West Tuscaloosa route is circuitous and does not provide those living and working in this area with direct service. With the addition of microtransit service in West Tuscaloosa (see *Microtransit section*), the existing West Tuscaloosa route would be replaced with the more direct route that starts at the IMF, travels westbound on Stillman Boulevard to connect to 21st Street, 25th Street, and Martin Luther King Jr. Boulevard. If considered for future implementation, the West Tuscaloosa microtransit service would be available to pick up riders within the zone and drop them off at the nearest bus stop along the more direct West Tuscaloosa route. This route (**Figure 21**) would operate bi-directionally every 30 minutes and would be a direct cost replacement (capital and operating) to the existing West Tuscaloosa route (the West Tuscaloosa microtransit service that would be needed to supplement this route would require additional capital and operating funding, which is described in the *Microtransit section*).

West Tuscaloosa Microtransit

The West Tuscaloosa microtransit zone covers an area that includes the IMF, Tuscaloosa National Airport, industrial jobs west of Culver Road, and the area currently served by Route 2. The existing route that serves West Tuscaloosa faces challenges regarding roadway connectivity, limited pedestrian infrastructure, and not serving employers that are just outside of the city limits west of Culver Road. This microtransit zone is intended to be implemented with a more direct route that serves West Tuscaloosa and is also shown in **Figure 21**. If considered for future implementation, the West Tuscaloosa microtransit zone can be used for short trips within West Tuscaloosa or to pick up riders within the zone and drop them off at the nearest bus stop along the more direct West Tuscaloosa route. This service is estimated to have a planning-level operating cost range of \$775,500 to \$865,000 that assumes two operating vehicles providing a service span of Monday through Friday, 5:00 a.m. to 6:00 p.m. The wait time assumption built into this operating cost is up to 20 minutes from the request for service. The service would likely be operated with smaller vehicles, which would cost approximately \$90,000 each, for a total of \$180,000.

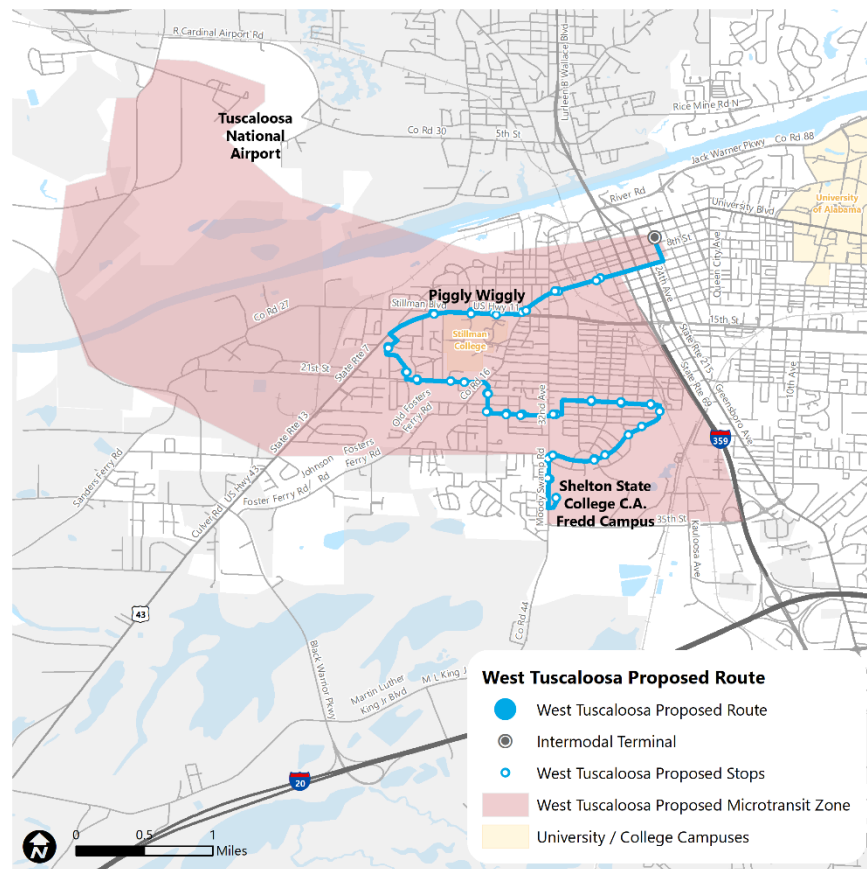


Figure 21. Proposed West Tuscaloosa Microtransit + More Direct Route

Medium Priority – Workforce and General Transit

West Tuscaloosa to Skyland Express

One potential opportunity includes a new bus route providing a bidirectional connection between West Tuscaloosa and Skyland Boulevard (**Figure 22**). A desire for improved connections to the Skyland area was noted by numerous survey respondents, and those coming from West Tuscaloosa must currently travel north to the IMF and transfer to another bus route to access the commercial area along Skyland Boulevard. A route that provides a direct connection between West Tuscaloosa and Skyland Boulevard would allow for more efficient travel to employment and shopping for those living in West Tuscaloosa. If this route were operated from 5:00 a.m. to 6:00 p.m. on weekdays only, it would cost approximately \$345,000 to operate. This new route would also require an additional bus, which costs \$405,000.

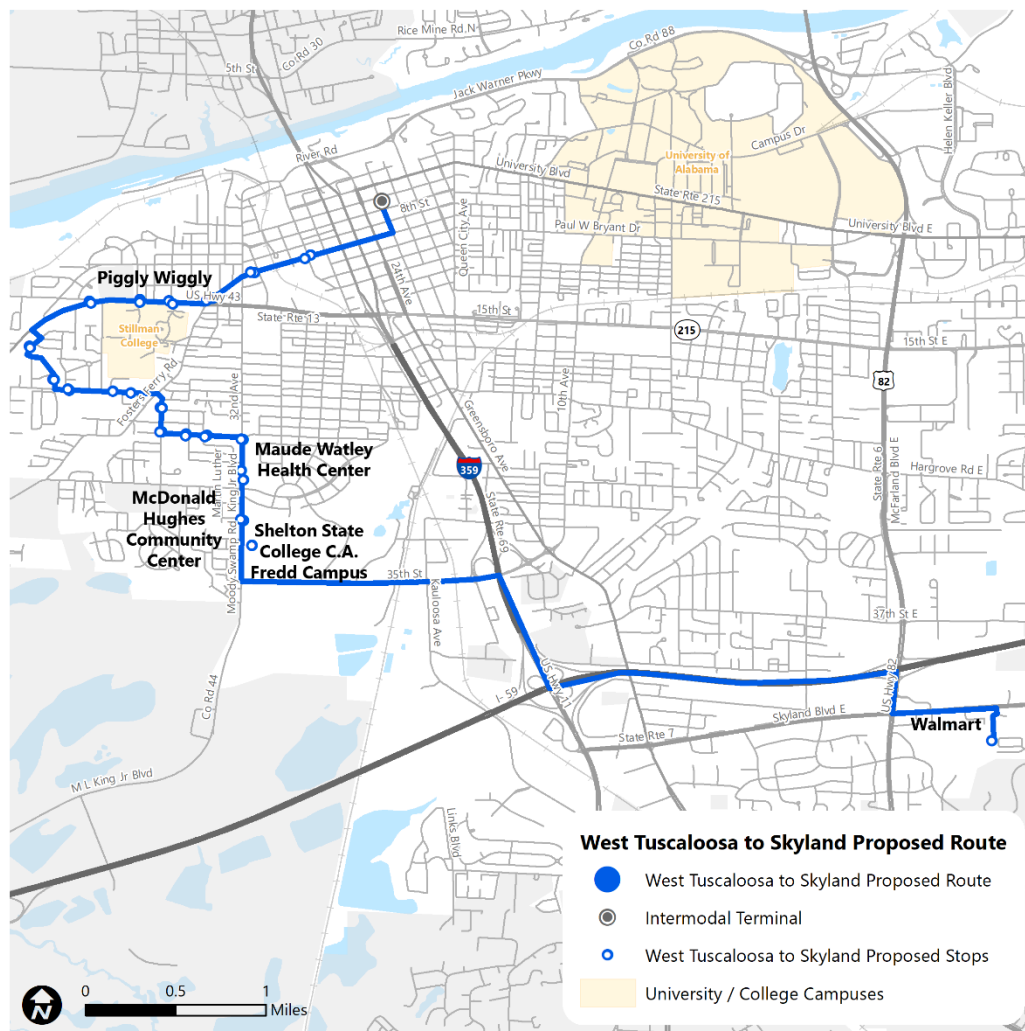


Figure 22. Proposed West Tuscaloosa to Skyland Express Route

Route 7: 10th Avenue / McFarland / Skyland - Split

Route 7: 10th Avenue / McFarland / Skyland in the budget neutral recommendations runs as a loop that serves 10th Avenue in one direction and McFarland Boulevard in another. This recommendation proposes splitting it into two separate, bidirectional routes as a service enhancement (**Figure 26**). This would allow for faster travel times and a more efficient journey for riders. The planning-level operating cost for splitting these two routes is approximately \$640,000 to provide a service span of Monday through Friday, 5:00 a.m. to 6:00 p.m. Splitting this route would require an additional vehicle, which costs \$405,000.

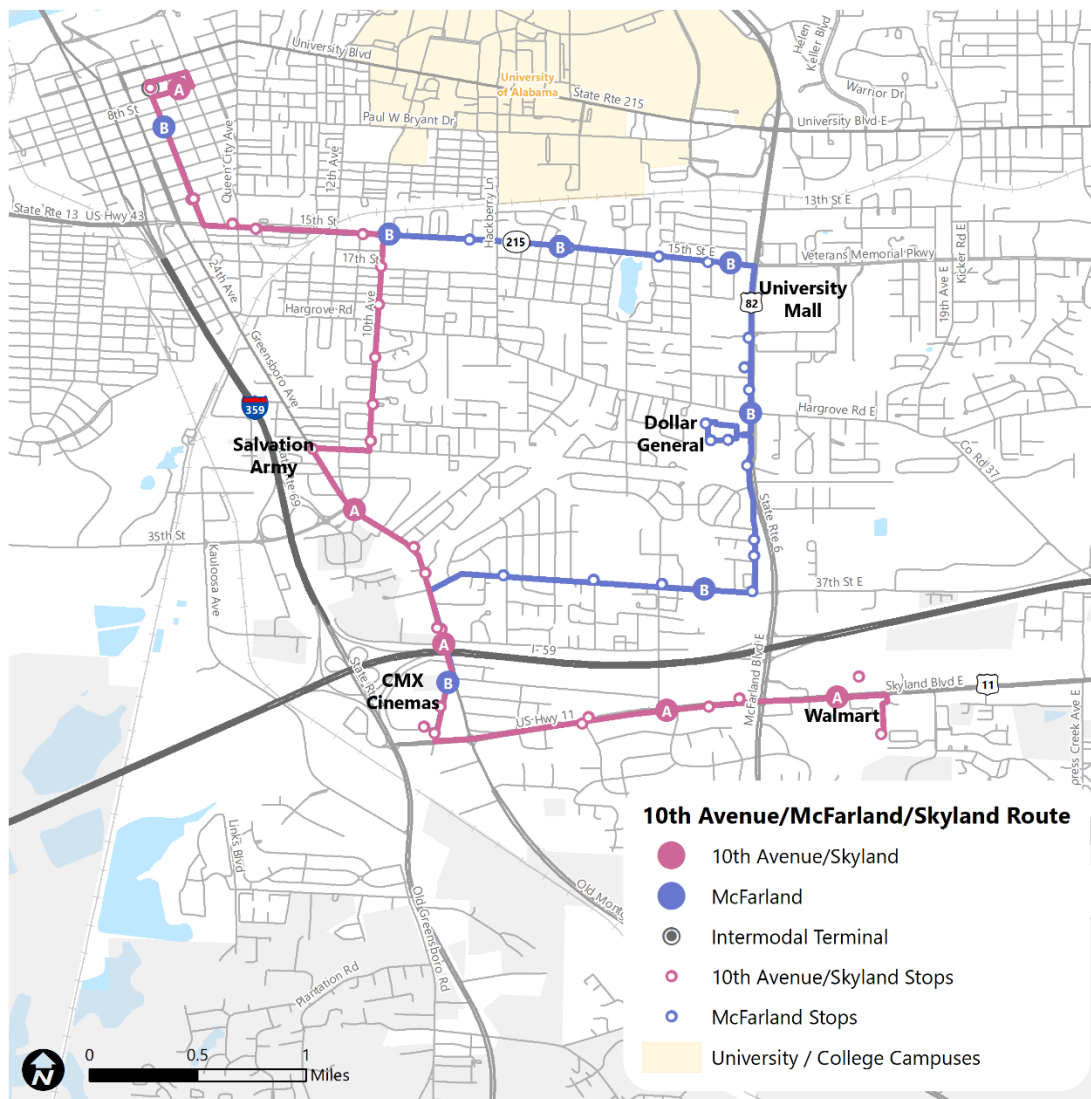


Figure 23. Proposed 10th Avenue / Skyland and McFarland Routes

Weekend Service

Based on public engagement, lack of weekend service was cited as one of the reasons why riding the TTA buses is difficult. Adding weekend service (Saturdays and Sundays) was stated as one of the top three priorities by those who are current riders. Riders and non-riders requested service until 6:00 p.m. on weekends. Building on the budget neutral recommendations, adding weekend service is estimated to have a planning-level operating cost of \$660,000 that assumes providing a service span of Saturday to Sunday, 9:00 a.m. to 6:00 p.m. An added operating cost of 25 percent was added due to operations that would require additional staff (e.g. drivers, maintenance, security, etc.). TTA currently operates eight gameday Saturdays a year and will likely need to hire additional staff to accommodate both services. This cost estimate assumes that Route 5: Shelton State and Route 6: University Shuttle both maintain their existing service span.

Mobile Ticketing

As stated in the *Fare Analysis* section, there are multiple benefits to moving towards a mobile pass offering. Mobile pass technology allows for pre-board fare collection, which speeds up the boarding process, reducing overall delays. It also allows for more purchasing flexibility and an account-based system, which provides customers more ways to manage their funds.

Skyland Microtransit

The Skyland microtransit zone covers an area that is south of I-20, north of Old Montgomery Highway, and covers east-to-west from just west of I-359 to where Skyland Boulevard meets I-20 (**Figure 24**). The existing Route 7 on Skyland faces challenges regarding the roadway connectivity, pedestrian infrastructure, and serving locations off Skyland Boulevard that can cause travel time delays. The Skyland microtransit zone should be implemented with the existing bus routes that serve Skyland Boulevard, as the service should be used to pick up riders within the zone and drop them off at the nearest bus stop within the zone. This service is estimated to have a planning-level operating cost of \$775,500 to \$865,000 that assumes two operating vehicles providing a service span of Monday through Friday, 5:00 a.m. to 6:00 p.m. The wait time assumption built into this operating cost is approximately 20 minutes from the request for service. Two new vehicles would need to be purchased to operate this service and would cost \$90,000 each.

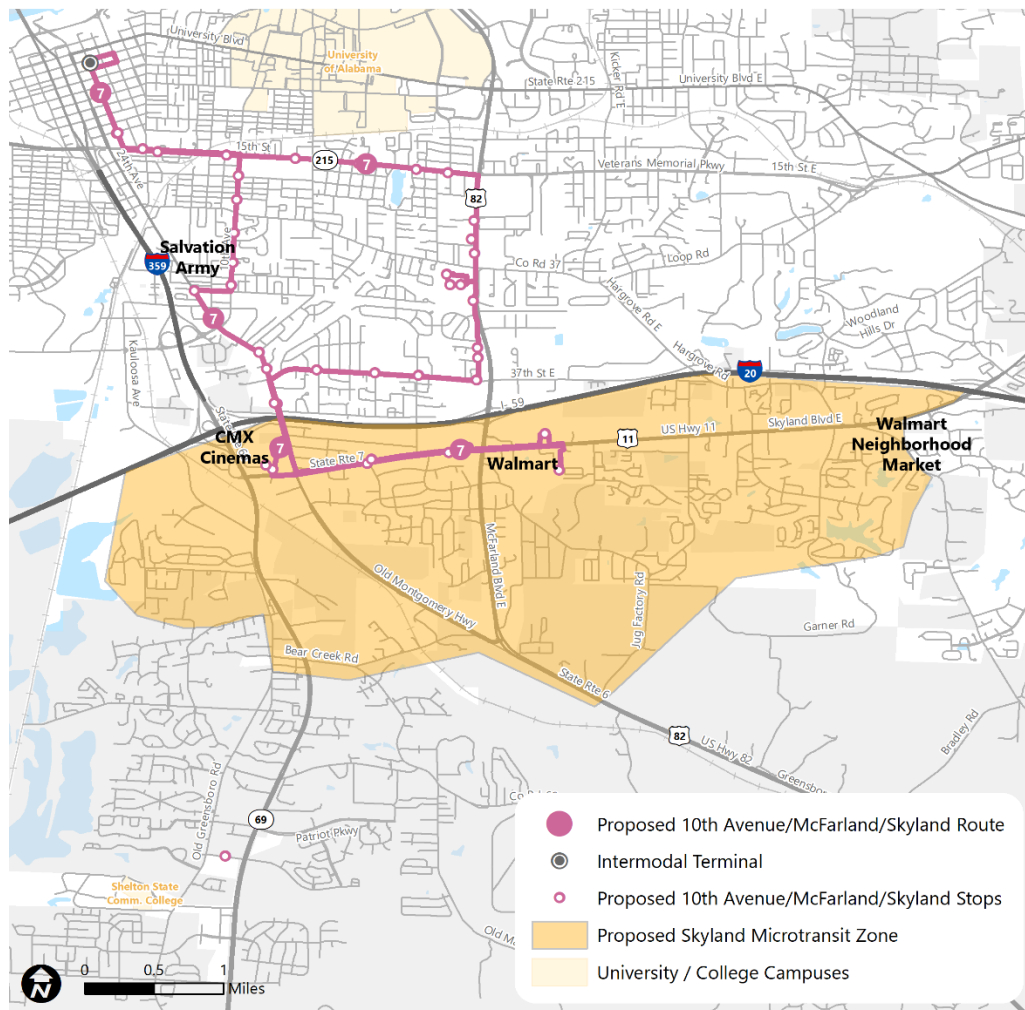


Figure 24. Proposed Skyland Microtransit

Low Priority – Workforce and General Transit

Automatic Passenger Counting (APC) devices

APC devices are electronic devices that are installed onto transit vehicles to accurately record boarding and alighting of passengers. These devices improve the reliability of tracking ridership and are becoming more common among transit operators to be able to properly track and analyze data. TTA does not currently have APC devices but should consider installing them to better evaluate overall performance of the system.

Demand-Response Service

Demand response service is a type of service in which riders call to request a ride in advance. Tuscaloosa's demand response service today specifically caters to individuals who have physical and/or mental challenges. Demand-response service typically charges riders twice the cost of the fixed-route fare since it is less efficient to operate. During public engagement, several respondents noted geographic gaps in service that TTA should consider for service. Some of these locations requested (such as South West End) are in low-density areas in terms of both population and employment and are not markets that a fixed-route bus could efficiently serve. They are also outside of the urbanized area. TTA should consider expanding this service to include individuals may be too far away from a bus stop and/or do not have any other transportation options to make a needed trip. Because of the limitations based on funding and the urbanized area, TTA should consider serving riders in more remote locations on a case-by-case basis and could leverage demand-response services to do so. An additional bus could be needed to operate this service, which would cost \$90,000.

Trip Planning Tool

Transit agencies have engaged Google to include a tool on their websites to help riders plan trips. The tool is relatively simple to use and asks the user to enter an origin and destination address. A sample of this tool is included in **Figure 25**.

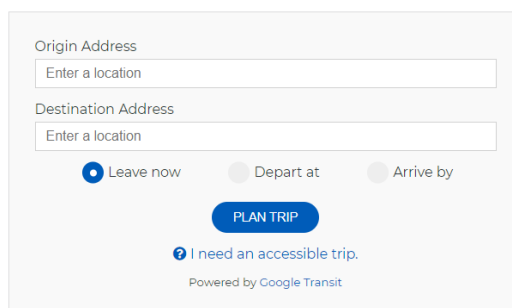
The image shows a web-based trip planning interface. It features two input fields: 'Origin Address' and 'Destination Address', each with a placeholder text 'Enter a location'. Below these fields are three radio buttons for trip type: 'Leave now' (selected), 'Depart at', and 'Arrive by'. A blue 'PLAN TRIP' button is centered below the radio buttons. At the bottom, there is a link that says 'I need an accessible trip.' and a small text 'Powered by Google Transit'.

Figure 25. Trip Planning Tool Example (St. Louis Metro)

Holt / Alberta Microtransit

The Holt / Alberta microtransit zone covers an area that includes the geographic area served by the existing Route 1 (**Figure 26**) and provides an option to replace the fixed route. The current route covers a long distance and, due to lack of connectivity in the roadway network, it provides less efficient service for the Holt/Alberta area. If considered for future implementation, the Holt/Alberta microtransit zone can be used to pick up riders within the zone and drop them off at the nearest bus stop. This service is estimated to have a planning-level operating cost of \$285,000 that assumes one operating vehicle providing a service span of Monday through Friday, 5:00 a.m. to 6:00 p.m. One smaller vehicle would need to be purchased for this service at approximately \$90,000 each.

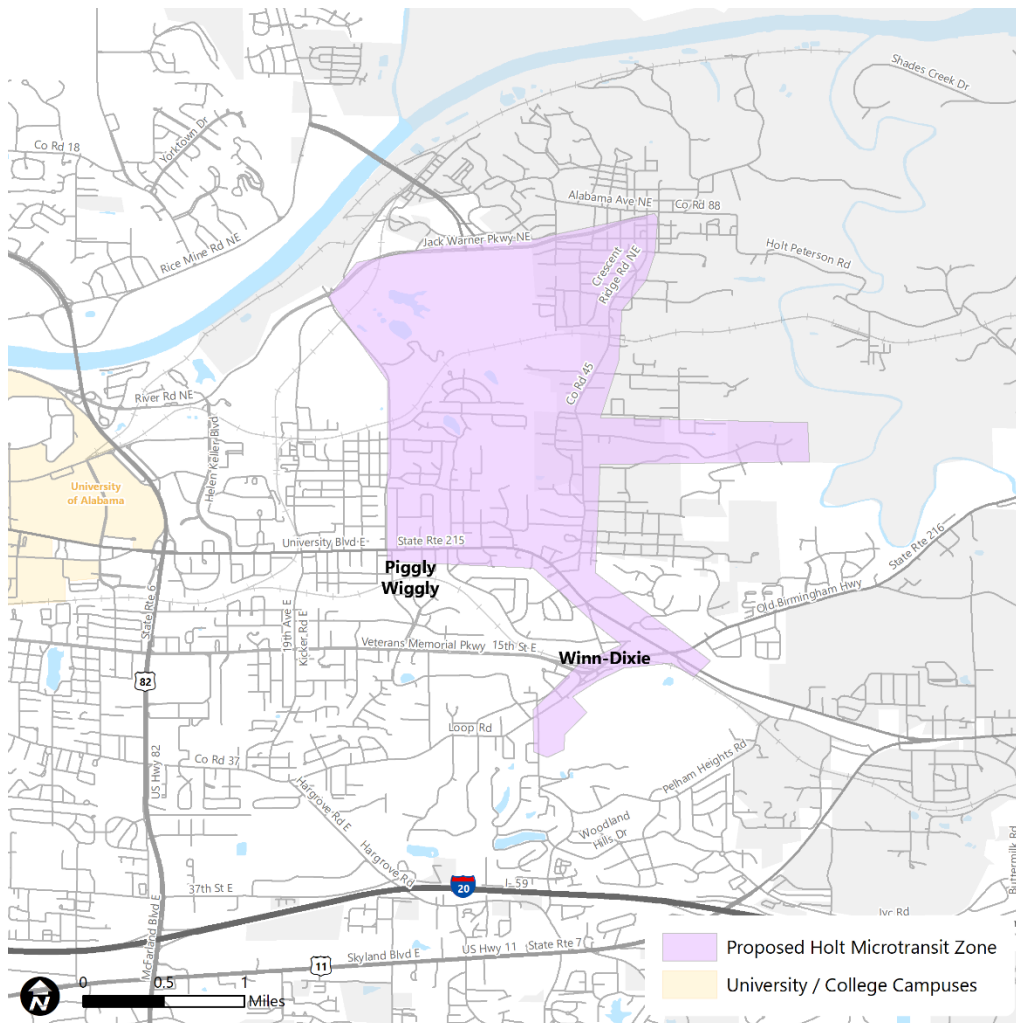


Figure 26. Proposed Holt / Alberta Microtransit

US 82 Route (Northport)

Another potential new bidirectional route opportunity would connect the IMF and Northport via US 82 to Rice Mine Road Loop (**Figure 27**). Based on the U.S. Census Bureau's LEHD data (*Transit Market Analysis* section), the US 82 corridor was determined to be an employment destination for residents of Tuscaloosa. Based on LEHD data, this specific route (with a quarter-mile buffer) could serve up to 15,500 jobs (additional details on work travel for residents of Tuscaloosa can be found in the *Transit Market Analysis* section and in the *Existing Service Report*). Due to the route serving two municipalities, it will require a partnership to fund. This route is estimated to have a planning-level operating cost of \$275,000 that provides a service span of Monday through Friday, 5:00 a.m. to 6:00 p.m. and would require an additional bus, which costs \$405,000.

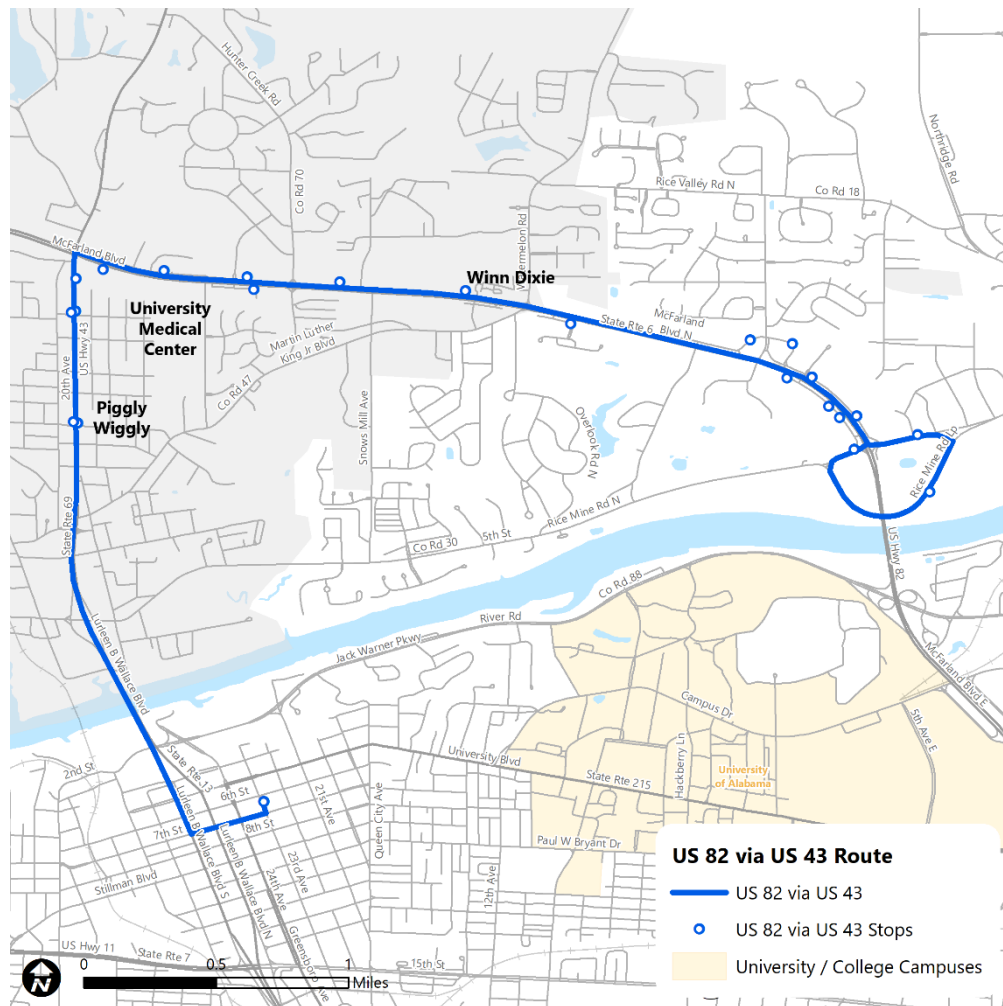


Figure 27. Proposed US 82 Route (Northport)

Downtown Rapid Transit – High

Downtown Route - Phase I

The Downtown Route aims to serve destinations in and around the Downtown Tuscaloosa area including hotels, retail, tourist, and commercial destinations along University Boulevard and Jack Warner Parkway. The route would provide those visiting the area the opportunity to hop on and quickly get to their destination within downtown or along The Strip (**Figure 28**). The Downtown Route aligns with a larger goal identified through Elevate Tuscaloosa, which is to provide rapid transit among popular downtown and riverfront destinations to offer a better, more convenient experience for people spending time in this area. The route also aligns with an action item of Framework, the City's Comprehensive Plan. Assuming a service span of Monday to Friday (11:00 a.m. to 10:00 p.m.), and Weekend Service (11:00 a.m. to 12:00 a.m.), the planning-level operating cost for this route is approximately \$715,000. An added operating cost of 25 percent was added to this operating number due to late night operations that would require additional staff (e.g. maintenance, security, etc.). (Note: Although the planning-level estimate here includes service Monday through Friday, the City and TTA could consider starting with a smaller window, such as Thursday through Sunday, and expand into additional days if demand for this route grows.)

The service would require two new buses to operate in 15-minute frequencies. These vehicles are anticipated to be new additions to the fleet that are low-floor, 27-passenger vans (such as the Champion E-450) which cost \$200,000 each. New shelters and benches would provide a welcoming environment for those visiting Tuscaloosa and would cost \$5,050 per shelter and \$850 per bench. It is assumed that for the Downtown Route, TTA could consider a \$1.00 fare to remain consistent with the rest of the system. TTA could also consider having this route be fare-free, which could help to minimize boarding time for passengers to maximize on-time performance.

One of the challenges with the Downtown Route is the angled parking along various parts of the route. This is due to the American with Disabilities Act (ADA) requirements to facilitate boarding and alighting conditions for transit riders of all abilities. Additionally, front-in angle parking can also include partially obstructed views of the bus and may increase the potential for conflicts and collisions with buses (and passengers). Transit stops have been identified at a planning-level. TTA and the City of Tuscaloosa will have to determine the final locations of the transit stops based on a review of existing right-of-way, any design standards/criteria that may exist, and agreements with local businesses, residences, and the University of Alabama. It is also important to note that this route will likely have to be modified on football game days.

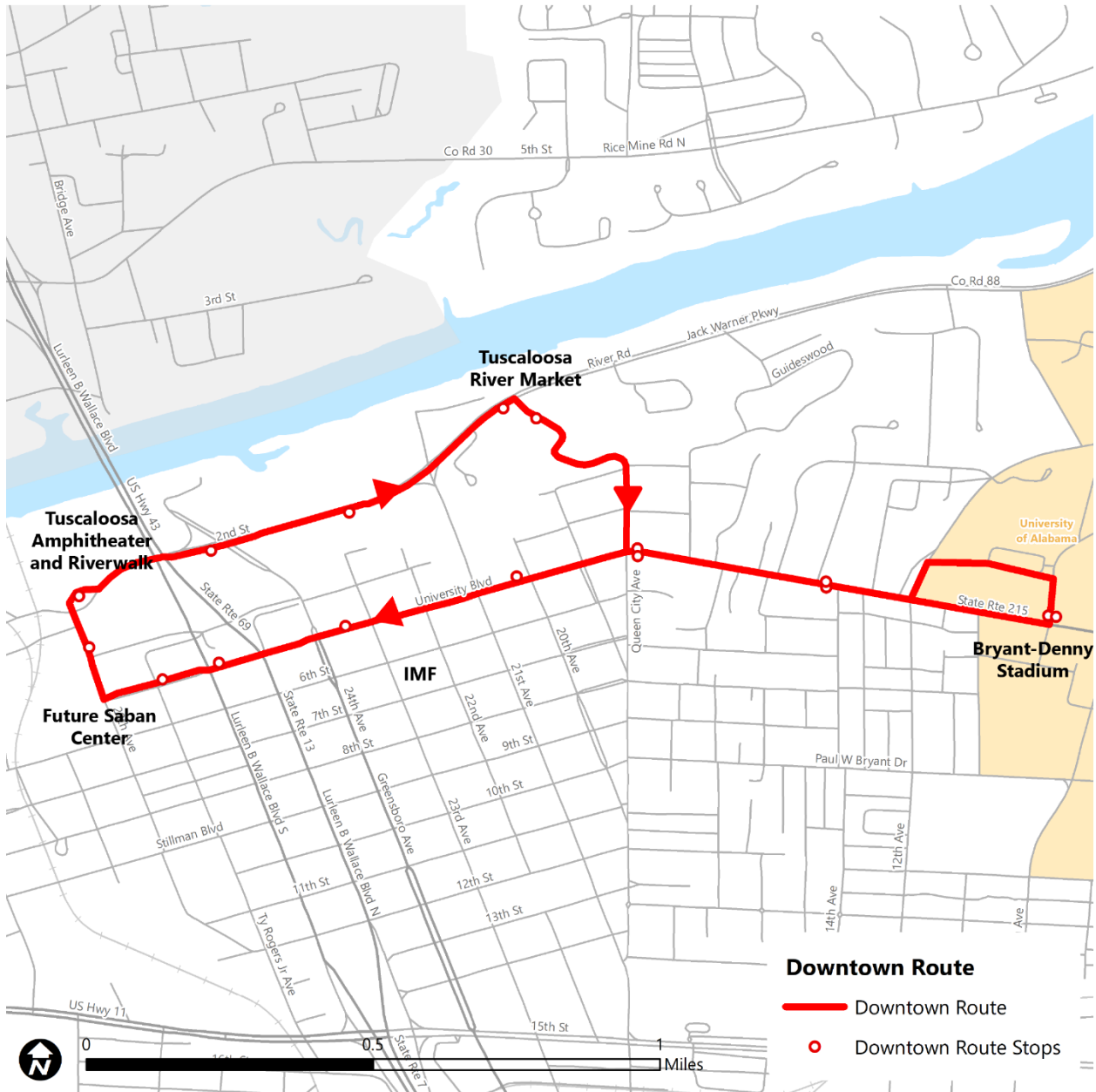


Figure 28. Proposed Downtown Route – Phase I

Downtown Rapid Transit – Low

Downtown Route - Phase II

As the City of Tuscaloosa continues to consider investment in the downtown and riverfront areas, with destinations such as the future Saban Center (identified through Elevate Tuscaloosa), there may be an opportunity for the Downtown Route to include a Phase 2 addition that connects west of the Amphitheater and Riverwalk area (**Figure 29**).

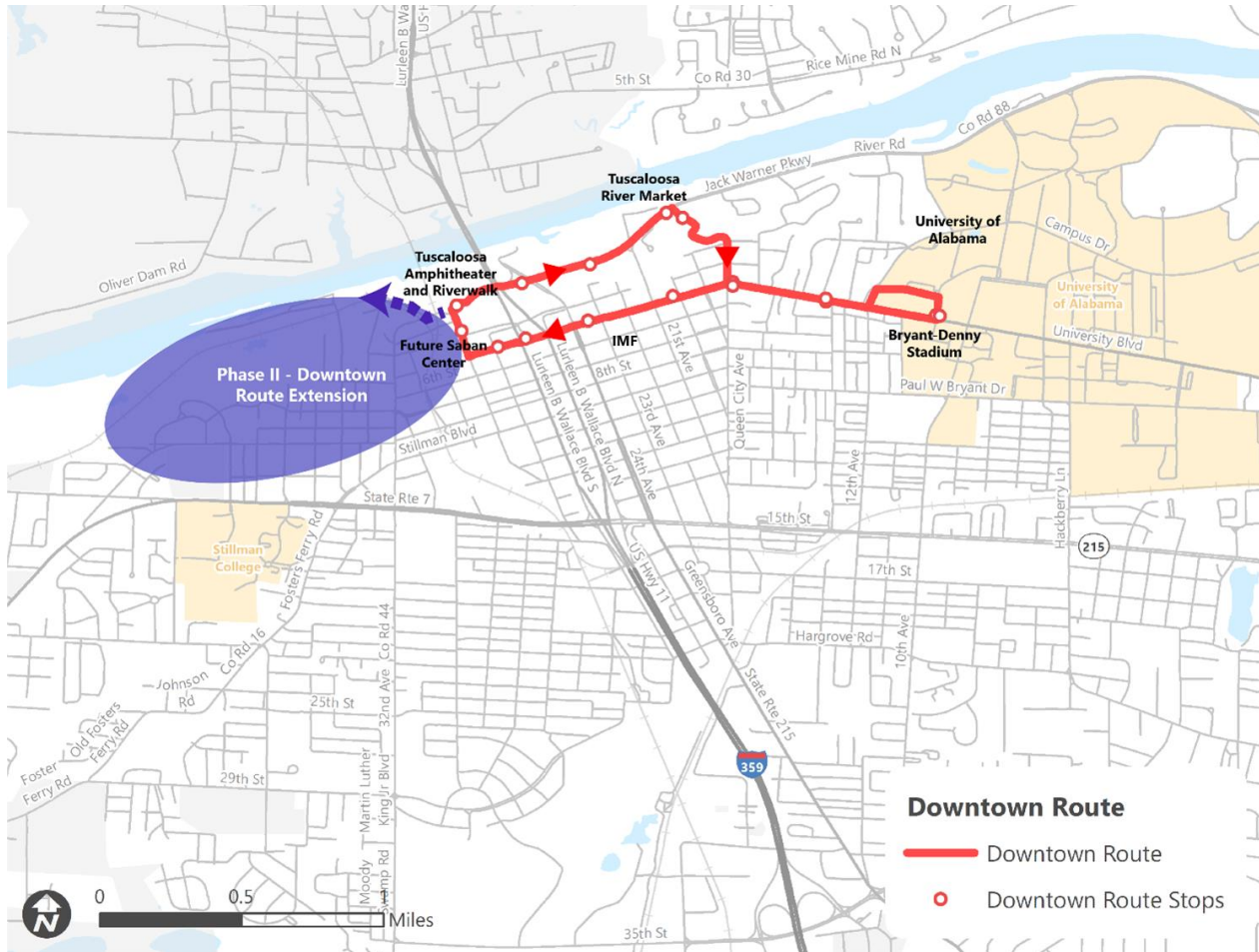


Figure 29. Proposed Downtown Route – Phase II

General Service Improvements

Partnerships with Organizations, Government Agencies, and Businesses

Vanpools are a transit option for those commuting to employment. Vanpool programs benefit businesses and enterprises by having commuters with similar origin locations share a ride to work. Vanpool programs can be implemented by transit agencies, employers, a group of private organizations, or a transportation management association. Offering a vanpool program is a great way for businesses to attract and retain employees, serve trips that are challenging due to work schedule or location, and help transit agencies to test out pilot markets for service. Currently, several cities in Alabama (Birmingham; Huntsville; Mobile; and Montgomery) are engaging CommuteSmart to facilitate vanpool programs to major employers.

Vanpools are typically a group of three or more riders who voluntarily travel together to and from work in a shared van and share in the cost of the commute. Vanpool management is typically

contracted to an external partner, such as Commute with Enterprise, but can also be directly operated by the implementing organization (through direct vehicle purchase or renting, for example). The vanpool coordinator is a voluntary role and takes responsibility for driving. Pricing typically varies based on the trip distance and the size of the van, but the individual cost to vanpool riders is typically comparable to what a driver would pay for just gasoline. This is a low-cost way to serve a specific, and often smaller, travel demand through a transit program – without having to run a more time- and cost-intensive option like a fixed-route bus.

The larger Tuscaloosa area has major employers that are a long distance outside of the core of the city and outside of the census designated urbanized area. One such employer is Mercedes-Benz, which is located near Vance, Alabama, about 20 miles from the IMF. Mercedes-Benz, among other industrial employers, were brought up in discussions during stakeholder meetings, as parties who may be interested in partnerships with the City of Tuscaloosa and TTA to offer transportation options for employees. TTA should consider working with external partners to promote awareness and encourage use of such options to see if demand for a more formalized program grows.

Performance Monitoring Improvements

TTA service would benefit from tracking, monitoring, and evaluating its service with performance metrics. While there are many metrics that can be monitored, ridership by stop and on-time performance data are two metrics that should be prioritized.

Ridership by Stop

TTA today tracks ridership from a route level but does not have ridership by stop data. To do this, transit agencies often install APC devices directly on the buses. Another method is using mobile ticketing validators, as well as manual fare counting by the driver for those who pay in cash.

On-Time Performance

On-time performance illustrates the reliability of transit service. TTA currently uses TransLoc and could work with TransLoc to generate these reports on a more regular basis.

Marketing and Communications Improvements

There are three specific categories of improvements under marketing and communications that are proposed as a part of this plan. These include print and online materials, materials distribution and partnership, and communication and feedback channels.

Print and Online Materials

TTA currently provides both printed and online materials that include information about the system, routes, and administrative information. The following include specific recommendations for TTA to consider for print and online materials:

Paper Route Maps

Currently, the paper route maps include the name of the stops but do not include a map associated with the route. Additionally, the paper route maps should be modified to use route numbers and include a name for the route that is consistent among all materials.

Online Route Maps

For route maps provided online, maps are included in a separate PDF link that does not include a list of specific stops. TTA should consider modifying the existing PDF to include both the route map and an associated list of stops for each of the routes.

Translated Materials

Since many people living and working in Tuscaloosa are native Spanish speakers, TTA should consider offering paper and online materials in Spanish.

Materials Distribution and Partnership

The results of public engagement indicated that both riders and non-riders of the system generally wanted information about the system to be more readily and easily accessible.

Partnership with Organizations, Government Agencies, and Businesses

TTA should partner with local advocacy and non-profit organizations, government agencies, and local businesses to have transit pamphlets, brochures, and route maps available at their facilities.

Communication and Feedback Channels

This category of marketing and communications improvements includes additional content to help train the public for travel, as well as offering opportunities for riders to provide feedback more easily to TTA.

Additional Website Content

TTA should consider creating and hosting “how to ride” videos and pamphlets, as well as hosting sessions with local schools and advocacy and non-profit groups to get people more comfortable with riding with TTA. The hosted sessions could even include bringing a bus to the session and having people get on and off the bus and practice how to ride, including elements such as paying fares and flagging the bus driver for stops along the route.

Create Open Feedback Channels with TTA

TTA should consider including comment cards on buses and at the IMF for customers to provide feedback more easily to the agency. Another feedback channel to consider is a text/SMS option to comment on service. Lastly, TTA should consider creating a comment form or a generalized

email address for customers to offer feedback through the TTA website. Currently, email feedback is directed to a specific member of the TTA team.

Appendices

Appendix A – Existing Services Report

Appendix B – Public Involvement

Appendix C – Transit Asset Management Plan (2019)

Appendix A - Existing Services Report



EXISTING CONDITIONS MEMORANDUM

SEPTEMBER 2021



TUSCALOOSA
TRANSIT PLAN

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Introduction

The Existing Conditions Memorandum for the Tuscaloosa Transit Plan provides an overview of the existing transit service provided by the Tuscaloosa Transit Authority, analyzes the service against common transit performance indicators, and provides analysis of the transit market in Tuscaloosa and the surrounding area. The memorandum establishes the background information that will be used as the basis to develop the remainder of the Tuscaloosa Transit Plan. While the findings in the memorandum are not comprehensive of all the information that will be required to carry out the plan, they are significant in indicating the state of transit in Tuscaloosa currently and in beginning to develop a roadmap to further improve the service provided by the TTA.

Transit in Tuscaloosa

Transit service in the City of Tuscaloosa is provided through the Tuscaloosa Transit Authority (TTA). The TTA operates a total of seven local bus fixed routes, paratransit service within three-quarters of a mile of all fixed routes, and special shuttle services for University of Alabama football gamedays and for a senior program at the McDonald Hughes Community Center. In 2019, the TTA transit service provided more than 300,000 passenger-trips within the City of Tuscaloosa.

Fixed route Local Bus Service

Most of the service provided by the TTA is through the seven fixed routes that follow set routes throughout the city. Routes are generally structured to travel in a loop through one or more city neighborhoods and ultimately connect to the Intermodal Facility Terminal in Downtown Tuscaloosa. The Intermodal Facility Terminal is a major transfer point for the existing system and has additional amenities for passengers including benches and shelters. The fixed route service schedules are set up to facilitate simple transfers between routes by having all routes arriving and departing within a 10-minute window at the top of every hour. Transfers between routes at the Terminal are restricted for the last run, leaving at 5:00 PM, of the existing service.

The fare to use the fixed route service is \$1.00 in cash. For students in K-12, the fare is reduced by 50% on school days between 6:30 AM to 8:00 AM and 2:30 PM to 4:00 PM. Senior citizens over 60 years of age with a senior card and persons living with disabilities with a Medicare card also have a reduced fare by 50%. Transfers between routes are an additional \$0.20 per transfer. The University Shuttle route is free to University of Alabama (UA) students who have a valid UA ID. All routes are free to riders under three years of age. The seven fixed routes are shown in **Figure 1**.

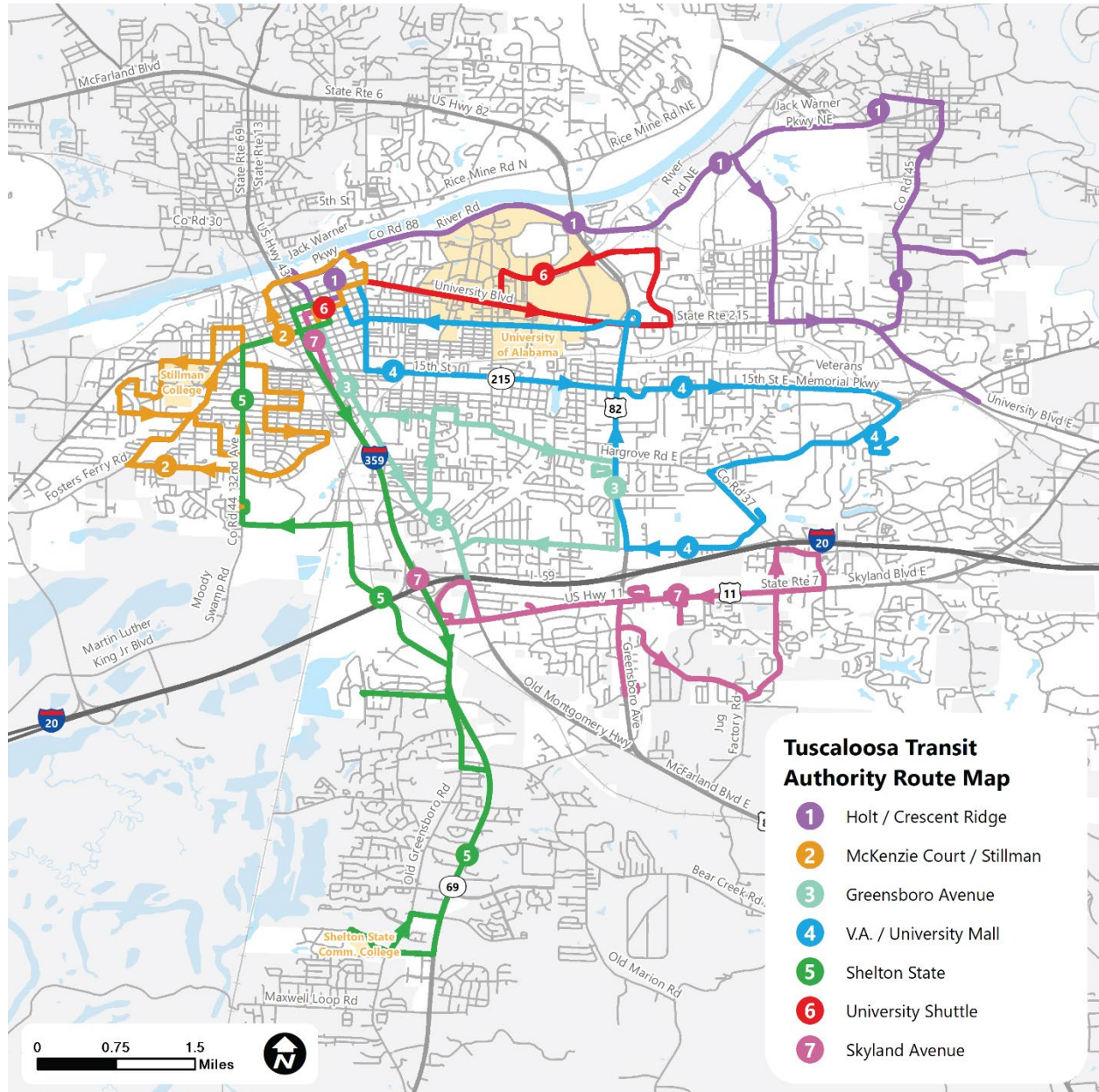
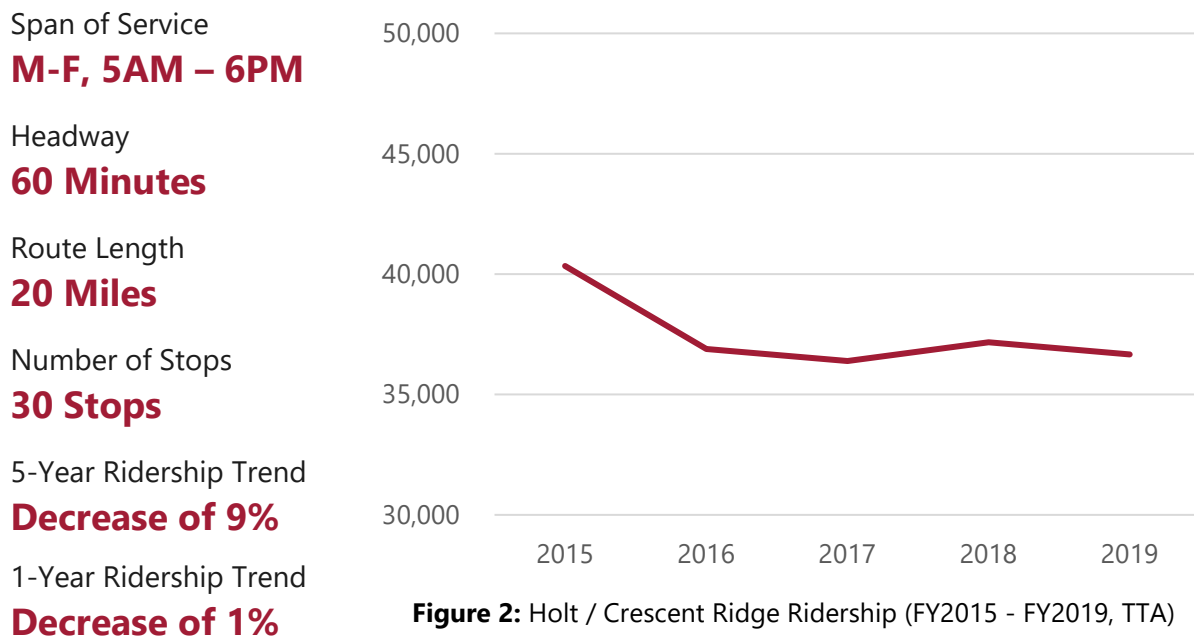


Figure 1: TTA Fixed Route Bus Network

Route 1: Holt / Crescent Ridge

The Holt / Crescent Ridge route connects Downtown Tuscaloosa to several residential neighborhoods in the eastern area of the City, including the Alberta, Westview, and Holt areas. The route connects to the downtown Terminal via Jack Warner Parkway before traveling along a loop that includes 25th Avenue, University Boulevard, and Crescent Ridge Road. Along the loop, the route deviates twice, once to connect to the retail center at the intersection of SR 216 and University Boulevard and once to connect to the public housing along 1st Street. The route also connects to the Tuscaloosa Public Library and the Riverside Medical Plaza. The route operates on weekdays from 5:00 AM to 6:00 PM and stops a total of 30 times over its 20-mile route. The ridership on the route has declined 9% over 5-years but most of the decline occurred between 2015 and 2016, the ridership has steadied since that drop.

Ridership trends for the Holt / Crescent Ridge Route are shown in **Figure 2**. A map of the Holt / Crescent Ridge Route with stops is shown in **Figure 3**.



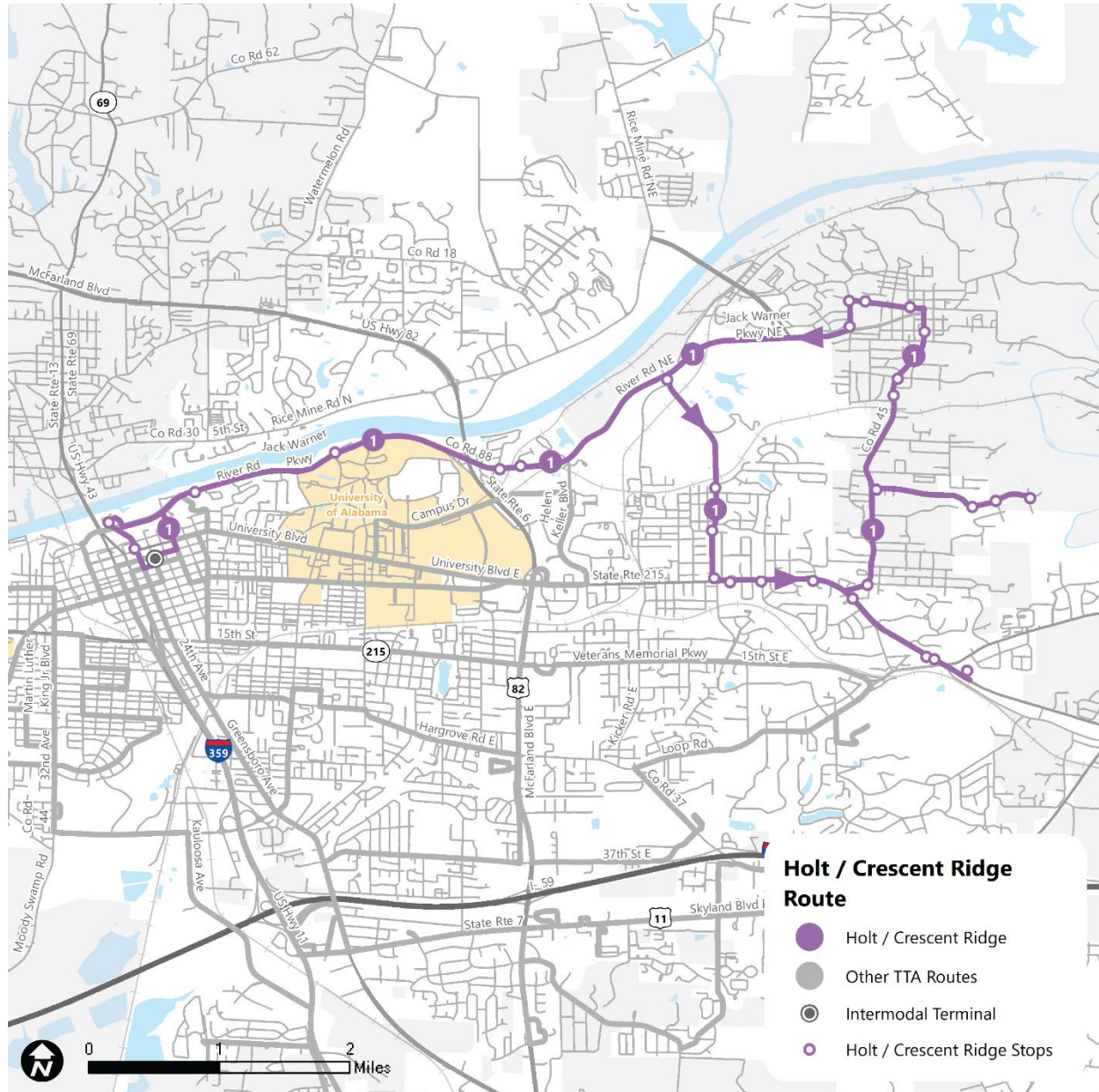


Figure 3: Holt / Crescent Ridge Route

Route 2: McKenzie Court / Stillman College

The McKenzie Court / Stillman College route connects Downtown Tuscaloosa to several residential neighborhoods in the western area of the City, as well as to Stillman College. The route connects to the western residential areas outbound from the downtown Intermodal Terminal via Stillman Boulevard while inbound to the Terminal it navigates north to the river via Nick's Kids Avenue to connect to the Tuscaloosa Public Library before connecting to the Terminal. The route takes a circuitous path through the western area of the City that prioritizes wide accessibility over travel time to most destinations. Despite being the third-shortest route in the system at 14 miles in length, the McKenzie Court / Stillman College route has 55 stops – the most of any route.

The route operates on weekdays from 5:00 AM to 6:00 PM, with a headway of 60 minutes. Ridership on the route has declined 17% over five years, with a noticeable dip in 2017 followed by a rebound in 2018. Ridership trends for the McKenzie Court / Stillman College Route are shown in **Figure 4**. A map of the route is shown in **Figure 5**.

Span of Service

M-F, 5AM – 6PM

Typical Headway

60 Minutes

Route Length

14 Miles

Number of Stops

55 Stops

5-Year Ridership Trend

Decrease of 17%

1-Year Ridership Trend

Decrease of 8%

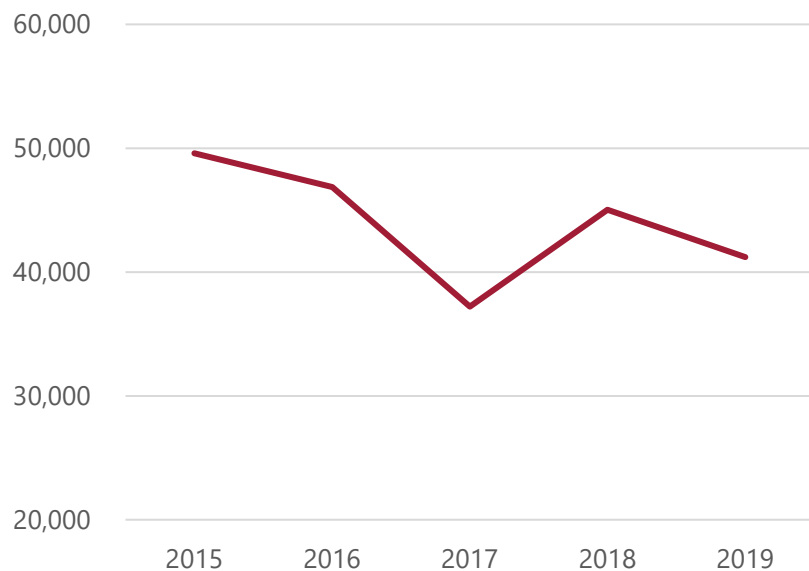
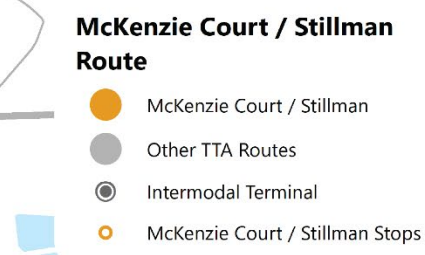


Figure 4: McKenzie Court / Stillman College Ridership (FY2015 - FY2019, TTA)



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Route 3: Greensboro Avenue

The Greensboro Avenue route connects Downtown Tuscaloosa to several residential neighborhoods in the southern portion of the City, as well the city's Amtrak station and a large commercial development on Skyland Boulevard. The outbound portion of the route is structured as a relatively direct service to Skyland Boulevard (south of I-59), while the inbound service includes a one-way loop along 10th Avenue, Hargrove Road, Albright Road, and 37th Street. This structure results in stops along Greensboro Avenue (from 37th Street to 35th Street) and 10th Avenue (from 35th Street to Hargrove Road) being served by inbound service twice in a run. A connection to the downtown Terminal is provided via Greensboro Avenue.

The route operates on weekdays from 5:00 AM to 6:00 PM, making a total of 42 stops along the 14-mile route. The average distance between stops on the Greensboro route is the second shortest in the TTA network, behind only the McKenzie Court / Stillman College route. The Greensboro route is one of the highest-ridership TTA routes, with steady ridership between 2015 and 2018 followed by a sharp 30% decrease in 2019. The 2019 decrease is likely a direct result of the introduction of the Skyland route, which provides faster, direct service between the areas of Skyland Boulevard served by the Greensboro route and the downtown Terminal. Ridership trends for the route are shown in **Figure 6**, and a map of the route is shown in **Figure 7**.

Span of Service

M-F, 5AM – 6PM

Typical Headway

60 minutes

Route Length

14 Miles

Number of Stops

42 Stops

5-Year Ridership Trend

Decrease of 29%

1-Year Ridership Trend

Decrease of 30%

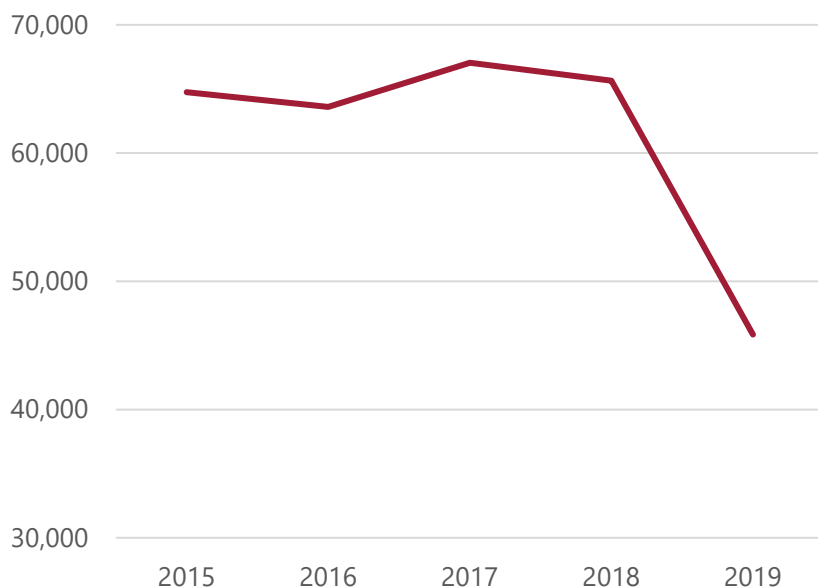


Figure 6: Greensboro Avenue Ridership (FY2015 - FY2019, TTA)



Figure 7: Greensboro Avenue Route

Route 4: V.A. / University Mall

The V.A. / University Mall route connects Downtown Tuscaloosa to the Veteran's Affairs Medical Center, University Mall, and residential neighborhoods in the eastern portion of the City. The route connects to the downtown Terminal via Queen City Avenue (outbound) and Paul Bryant Drive (inbound). Service is provided in a figure-eight pattern, as outbound buses travel along Queen City Avenue to 15th Street and the V.A. Medical Center before returning along Loop Road, Hargrove Road, 37th Street, McFarland Boulevard, and Paul Bryant Drive. Minor deviations are made to serve the University Mall and V.A. Medical Center.

The route operates on weekdays from 5:00 AM to 6:00 PM. A total of 33 stops are made along the 15-mile route. Annual ridership on Route 4 has increased by 9% since 2015, with strong performance in 2018 and 2019 reversing a trend of declining ridership between 2015 – 2017. Ridership trends for the V.A. / University Mall Route are shown in **Figure 8**, and a map of the route is shown in **Figure 9**.

Span of Service
M-F, 5AM – 6PM

Headway
60 Minutes

Route Length
20 Miles

Number of Stops
33 Stops

5-Year Ridership Trend
Increase of 9%

1-Year Ridership Trend
Increase of 13%

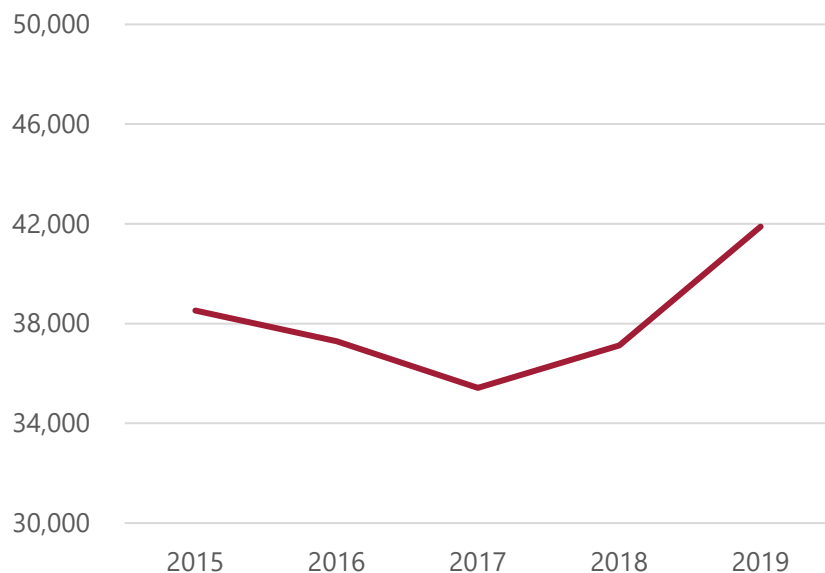


Figure 8: V.A. / University Mall Ridership (FY2015 - FY2019, TTA)



Figure 9: V.A. / University Mall Route

Route 5: Shelton State

The Shelton State route connects Downtown Tuscaloosa to Shelton State Community College and provides service to residential neighborhoods in the western and southwestern portion of the City. From the downtown Terminal, the route travels on I-359 / SR 69, and makes four outbound stops at apartment complexes and commercial developments before reaching its southern terminus at the Shelton State campus. Inbound service does not use I-359, and travels back to downtown along SR 69, Kauloosa Avenue, and Martin Luther King Jr. Boulevard, providing service to west Tuscaloosa and connecting to Shelton State's C.A. Fredd Campus. The majority of the 16 stops along the 17-mile route occurs on inbound service.

The hours of operation for the Shelton State route are shorter than others in the TTA network: 7:00 AM – 4:00 PM Monday to Thursday, and 7:00 AM to 12:00 PM on Friday. Ridership on the route is also lower than other routes, although strong ridership growth in 2018 and 2019 has erased a dip observed in 2016 and 2017. Ridership trends for the route are shown in **Figure 10**, and a map of the route is shown in **Figure 11**.

Span of Service

M-Th, 7AM – 4PM

F, 7AM – 12PM

Headway

60 Minutes

Route Length

17 Miles

Number of Stops

16 Stops

5-Year Ridership Trend

No Change

1-Year Ridership Trend

Increase of 9%

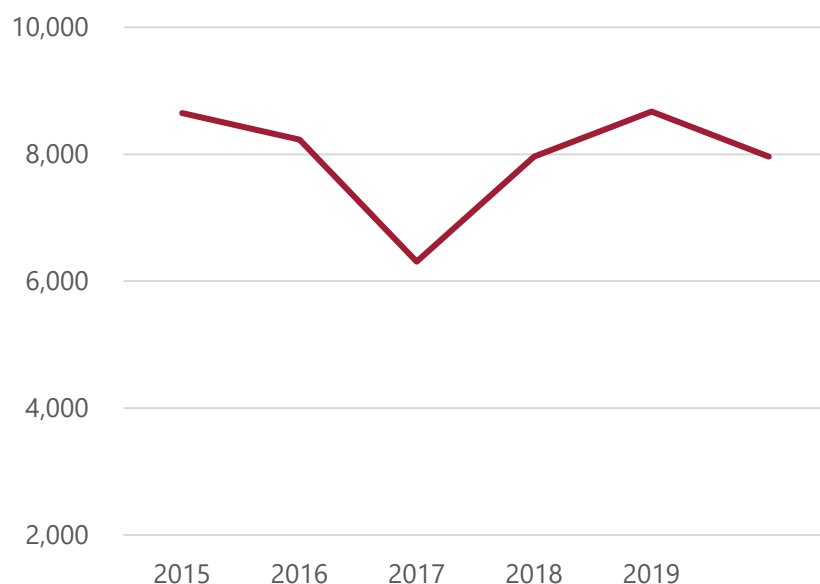


Figure 10: Shelton State Ridership (FY2015 - FY2019, TTA)

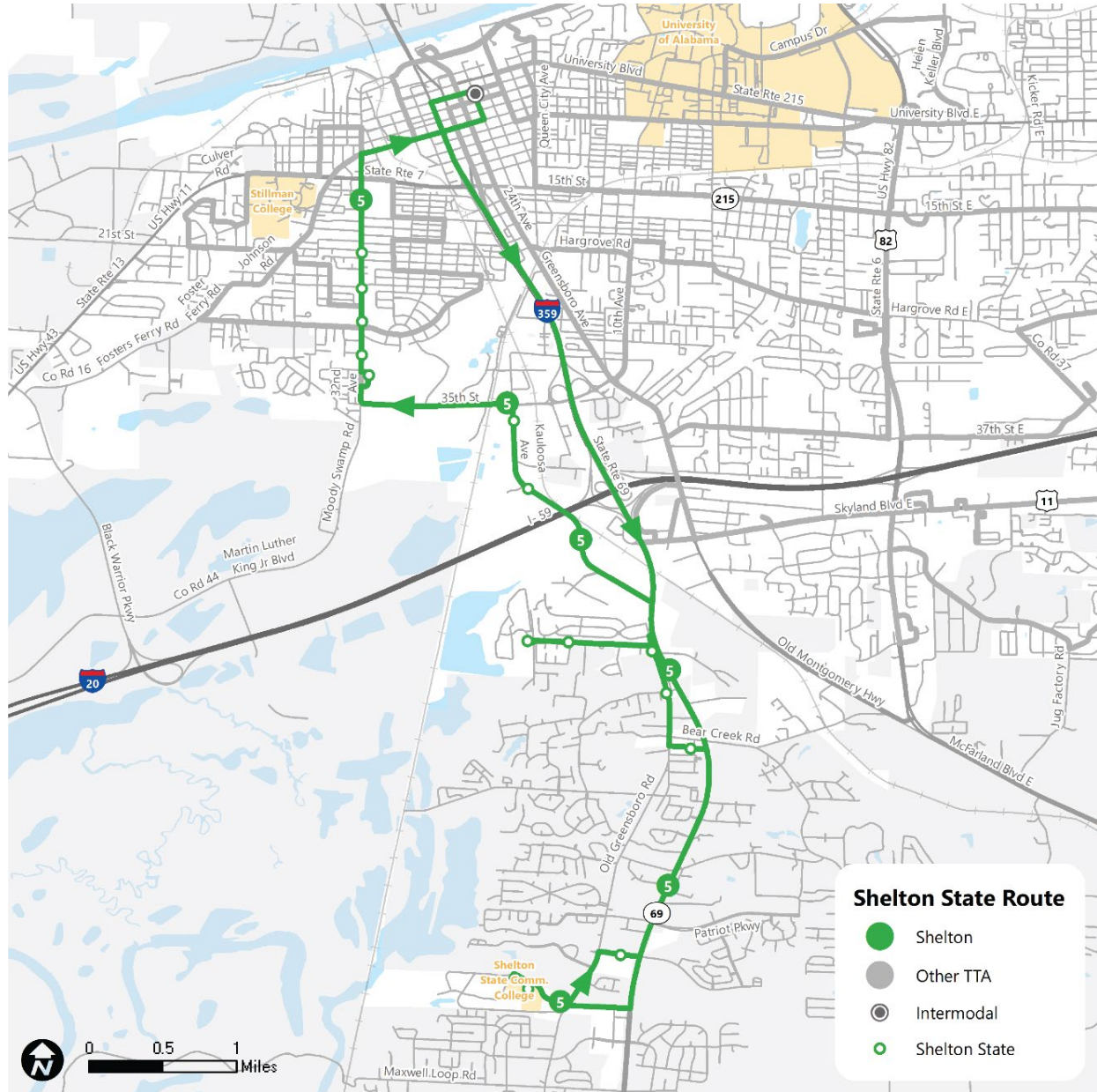


Figure 11: Shelton State Route

Route 6: University Shuttle

The University Shuttle Route connects Downtown Tuscaloosa to the University of Alabama campus and adjacent student housing. The route accesses the downtown Terminal via University Boulevard before traveling in a counterclockwise loop along University Boulevard, Hellen Keller Boulevard, Campus Drive, and Devotie Drive. After completing the one-way loop, the route returns to the downtown Terminal. Depending on the year, the University Shuttle route has either the first- or second-highest annual ridership in the TTA system. The route plays a crucial role in bringing passengers transferring from other routes to the University area.

The route operates from 5:00 AM to 6:00 PM on weekdays and is the only route in the system to have 30-minute headways. A total of 17 stops are made along the 7-mile route. Ridership on the University Shuttle has declined by 24% since 2015, with an 11% dip in ridership in 2019. Ridership trends for the route are shown in **Figure 12**, and a map of the route is shown in **Figure 13**.

Span of Service

M-F, 5AM – 6PM

Headway

30 Minutes

Route Length

7 Miles

Number of Stops

17 Stops

5-Year Ridership Trend

Decrease of 24%

1-Year Ridership Trend

Decrease of 11%

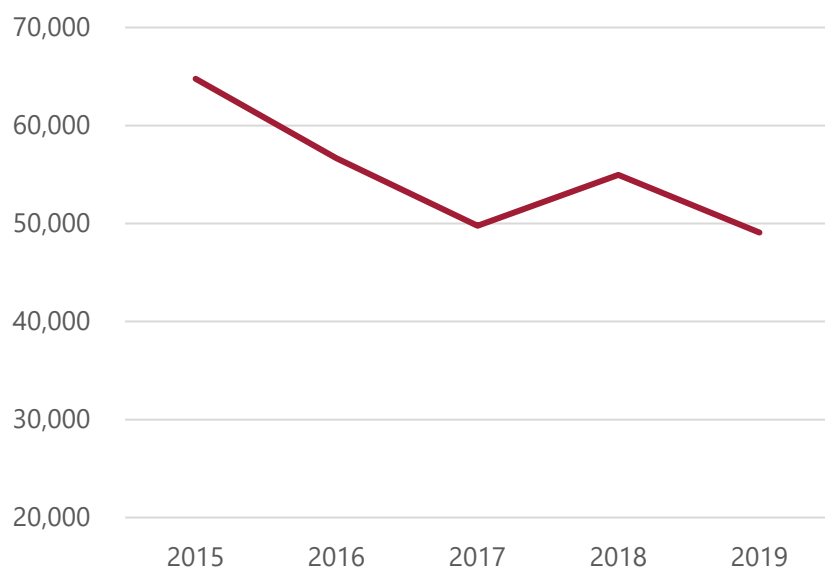


Figure 12: University Shuttle Ridership (FY2015 - FY2019, TTA)

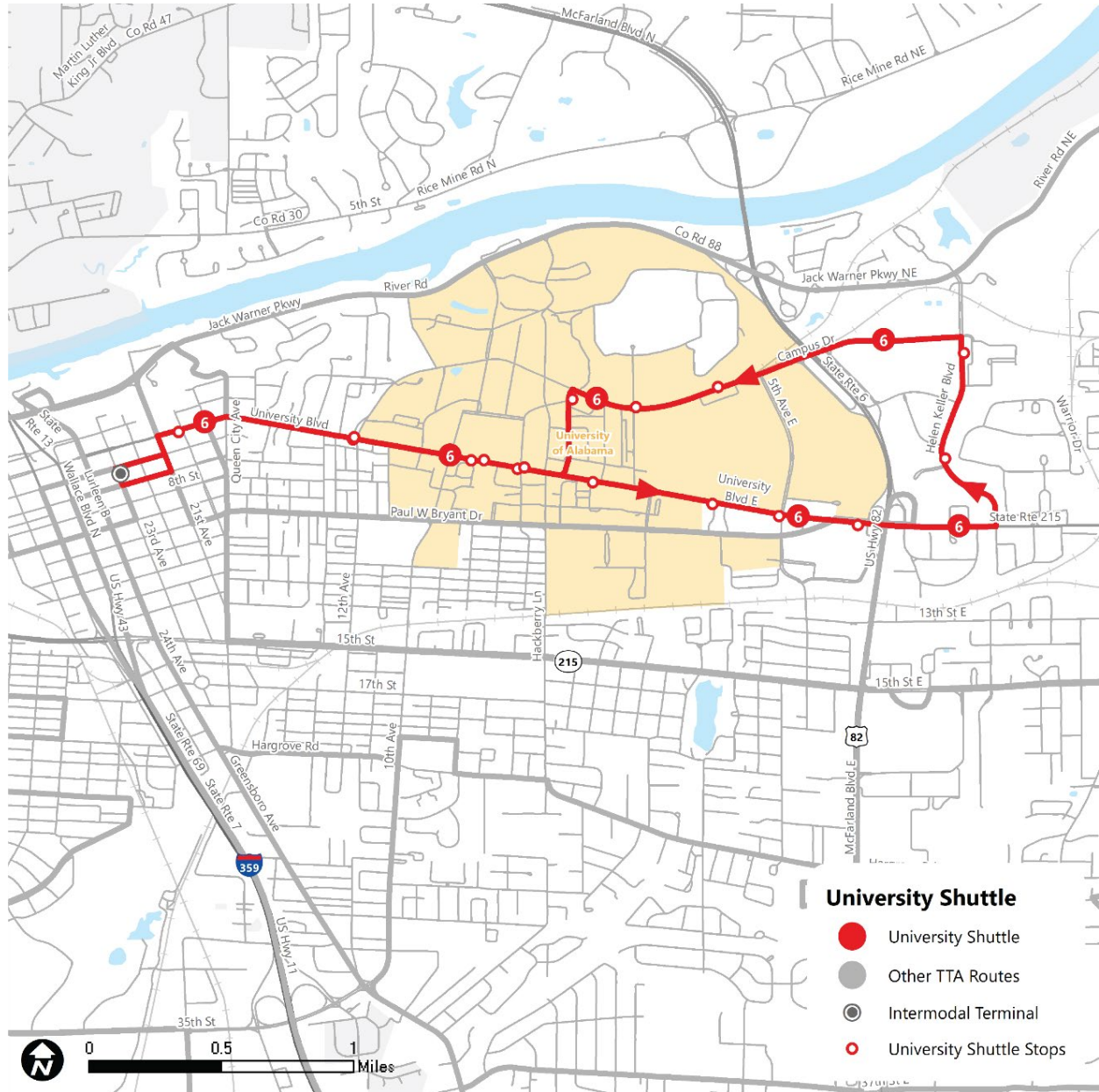


Figure 13: University Shuttle Route

Route 7: Skyland Boulevard

The Skyland route connects Downtown Tuscaloosa to commercial development along Skyland Boulevard. The route accesses the downtown Terminal from I-359, with no outbound or inbound stops made between the Terminal and Skyland Boulevard. In addition to stops along Skyland Boulevard, the route includes a one-way counterclockwise loop along McFarland Boulevard, Jug Factory Road, Cypress Creek Avenue, 26th Avenue, Hargrove Road, and Palisades Drive. A few minor deviations are made to provide service to various shopping centers and government / non-profit services, along with one more substantial deviation along McFarland Boulevard to serve an age-restricted apartment complex and an affordable housing development.

The route operates from 5:00 AM to 6:00 PM on weekdays and has 60-minute headways, with headways decreased to 30 minutes the first five days of the month to increase access to stores along the Skyland Boulevard corridor. A total of 21 stops are made along the 19-mile route. The service was introduced in October 2018, making year-on-year ridership comparison impossible, although average monthly ridership on the route grew 4% between 2018 and 2019. Ridership trends for the route are shown in **Figure 14**, and a map of the route is shown in **Figure 15**.

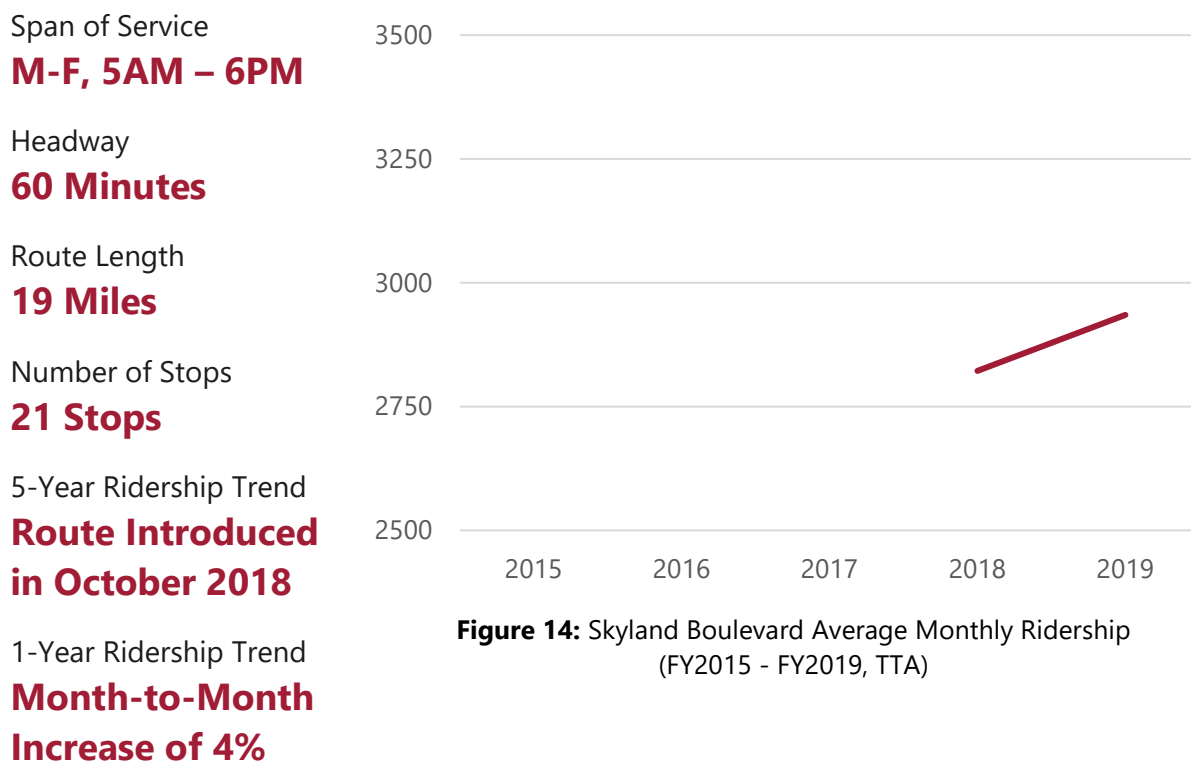


Figure 14: Skyland Boulevard Average Monthly Ridership (FY2015 - FY2019, TTA)

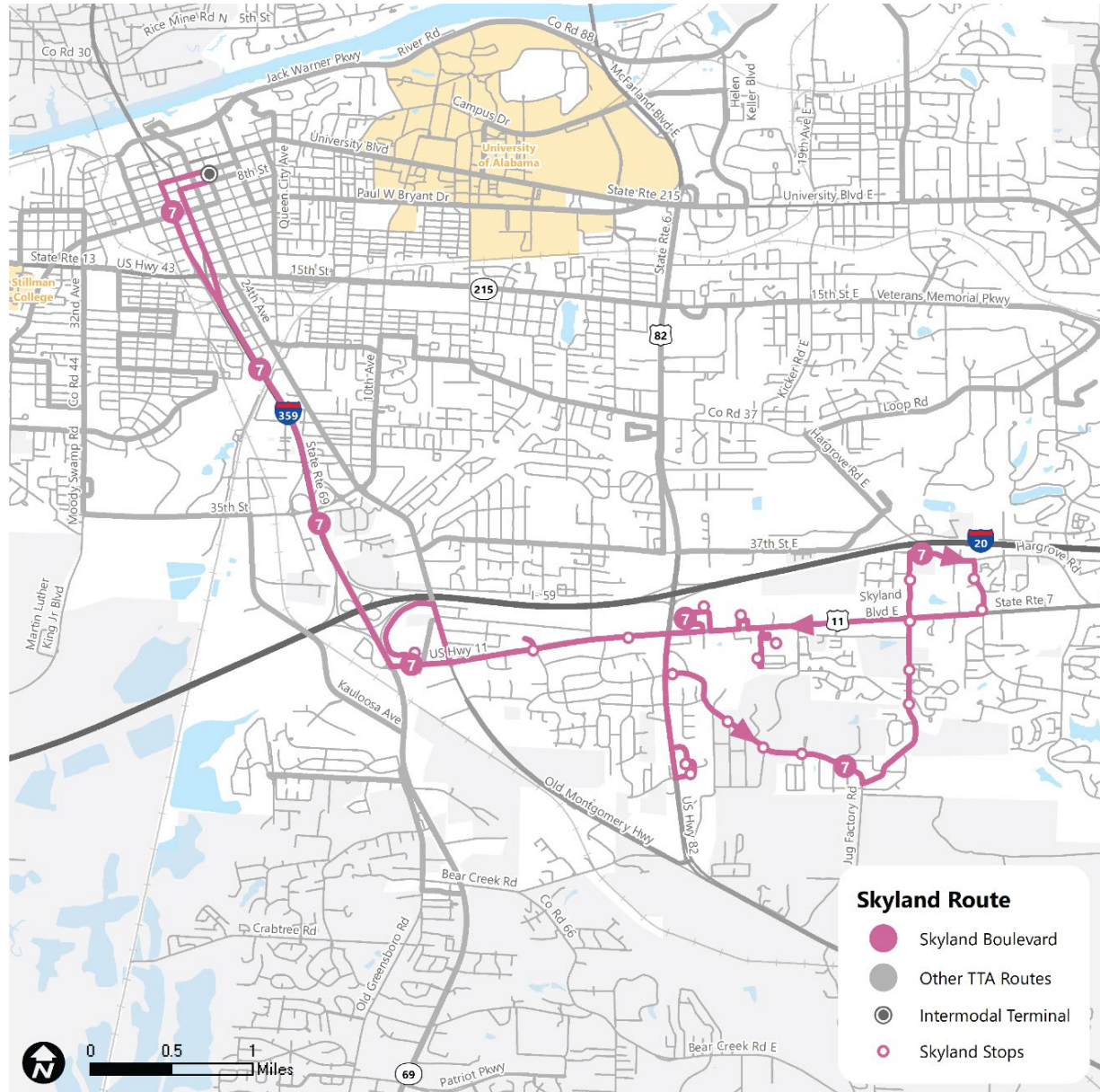


Figure 15: Skyland Boulevard Route

Paratransit Service

Complementing the fixed route service, the Tuscaloosa Transit Authority also provides paratransit services within three-quarters of a mile of any fixed route. The paratransit service is a demand-response service, meaning riders make requests to be taken from one location to another within the service area. The demand response nature of the service means that trip reservations must be made in advance with TTA. The service is limited to persons with disabilities and their caretakers. The cost to use the paratransit service is \$2.00 one-way. In the 2019 calendar year, just over 15,000 trips were taken on the paratransit service, representing growth of 14% over a five-year period from 2015 to 2019.

Other Services

University of Alabama Football Gameday Shuttle

The Gameday Shuttle provides direct service from the downtown Terminal to Calvary Baptist Church (just outside Bryant-Denny Stadium) for University of Alabama home football games. Outbound service to the stadium is provided with 16 buses beginning three hours before scheduled kickoff, with reduced outbound service operating from kickoff until the fourth quarter of the football game. Inbound service from the stadium to the Terminal is provided from the fourth quarter until one hour after the end of the game. The fare structure for the Shuttle is the same as for other TTA fixed route services.

In 2019, almost 4,100 fans used the shuttle for each game. Annual ridership on the route between 2015 and 2019 increased by 8%, with strong year-on-year growth in 2019 (67%) making up for a dip the previous year. Ridership trends for the route are shown in **Figure 16**.

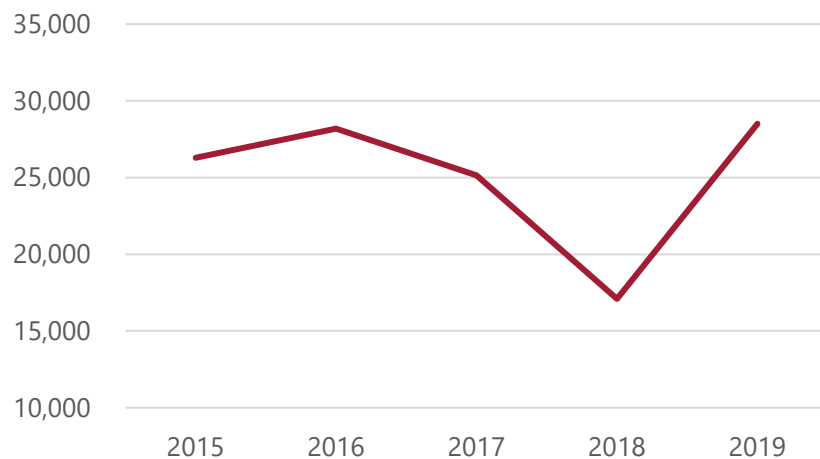


Figure 16: Game Day Shuttle Ridership (2015 – 2019 Seasons, TTA)

McDonald Hughes Community Center Senior Shuttle

In addition to the traditional fixed route and paratransit services, the TTA operates a senior shuttle for programs at the McDonald Hughes Community Center. The shuttle service provides transportation on Mondays and Wednesdays for senior members of the community to attend programming at the facility. Additionally, the service provides transportation to the annual West Alabama Senior Appreciation Day and to one City Council meeting annually. The service is funded through the City of Tuscaloosa.

Performance Indicators

To understand the performance of the existing TTA service, six performance indicators were examined. The six performance indicators used to evaluate existing TTA service are:

- Annual Ridership
- Revenue Miles per Capita
- Passengers per Revenue Mile
- Cost per Revenue Mile
- Cost per Trip
- Farebox Recovery

Data used to determine each of the performance indicators is based on data that TTA reports to the National Transit Database (NTD). NTD data is based on a calendar year and is standardized across agencies, making peer comparison more accurate and insightful. Data presented in this report for 2019 is from the preliminary submittal by TTA to the Federal Transit Administration in January of 2020. For this reason, comparisons to other agencies use data from the 2018 calendar year.

Annual Ridership

Annual ridership represents the number of trips that are taken on transit services during a given year. Ridership was examined for the two main types of service provided by the TTA, fixed route service and paratransit service, as well as for the full system.

Fixed route Ridership

Total ridership on the fixed route services in 2019 was approximately 260,000 trips, representing a 5-year decrease of 3% from 2015. Fixed route ridership declined from 2016 to 2018 but at a slower rate than peer systems, and ridership began to increase in 2018. The 2018-2019 increase in ridership can be attributed to both the introduction of Route 7 in October 2018 that provides a more direct connection to the Skyland Boulevard area and the increase in ridership on the Gameday shuttle that is included in fixed route ridership data. According to NTD data compiled by the American Public Transportation Association¹, agencies serving similar sized populations have seen a decrease in ridership of approximately 10% over the same 5-year period from 2015 to 2019. **Figure 17** shows the annual ridership trend for TTA's fixed route services from 2015 to 2019 based on calendar year TTA data.

¹ <https://www.apta.com/wp-content/uploads/2019-Q4-Ridership-APTA.pdf>; <https://www.apta.com/wp-content/uploads/Resources/resources/statistics/Documents/Ridership/2015-q4-ridership-APTA.pdf>

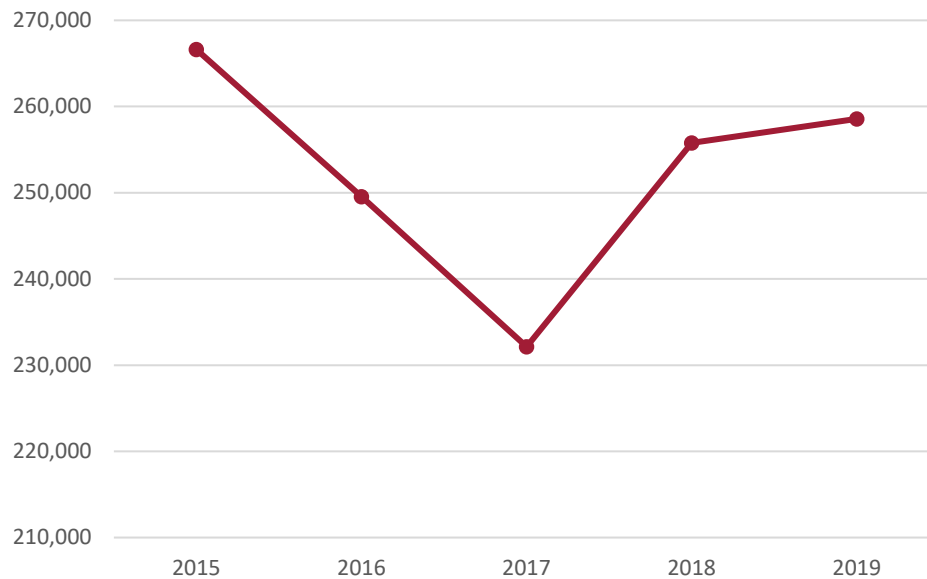


Figure 17: Annual Fixed Route Ridership (2015 - 2019, TTA)

TTA 5-Year Fixed route Ridership Trend

Decrease of 3%

TTA 1-Year Fixed route Ridership Trend

Increase of 1%

National 5-Year Fixed route Ridership Trend

Decrease of 10%

National 1-Year Fixed route Ridership Trend

Decrease of 1%

Paratransit Ridership

Ridership on the paratransit services provided by TTA has been increasing since 2016. In 2019, the paratransit service provided just over 15,000 trips representing a 1% increase from 2018 and a 14% increase from 2015. **Figure 18** shows the annual ridership trend for TTA's paratransit service from 2015 to 2019 based on calendar year data provided by TTA.

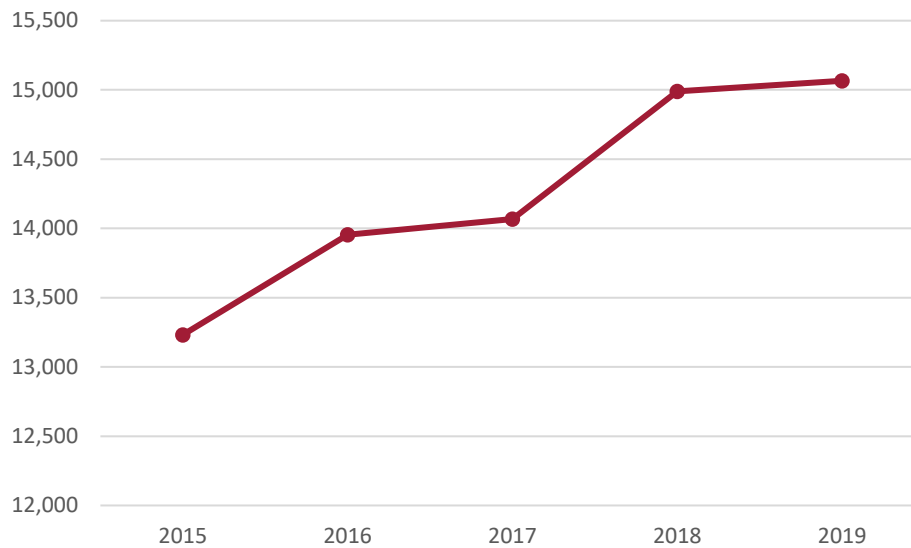


Figure 18: Annual Paratransit Ridership (2015 – 2019, TTA)

National paratransit ridership of transit agencies that report to the National Transit Database observes growth over the same 2015 to 2019 period is lower than the growth seen within TTA; the growth in TTA paratransit ridership shows an increased need in the Tuscaloosa area for transportation services for people with disabilities.

Total Ridership

In 2019, TTA had a total ridership across all services of approximately 303,000. This is a decrease of 2% from 2015 but represents an increase of 5% year-over-year from 2018. **Figure 19** shows the annual ridership trend from 2015 to 2019 based on calendar year TTA data.

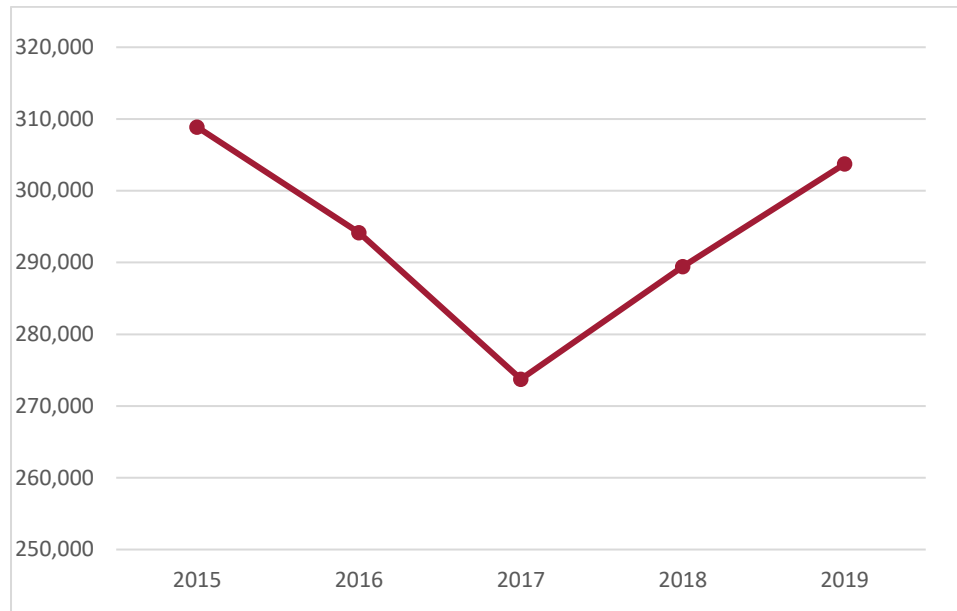


Figure 19: Total Annual TTA Ridership (2015 - 2019, TTA)

Key Takeaways

While total and fixed route ridership were lower in 2019 compared to 2015, the decline was much smaller than the trends seen around the rest of the country and ridership began to increase from 2018 to 2019. The slow decline over the 5-year and slight increase over the 1-year indicates that there is need and demand for transit service in Tuscaloosa. Improvements to the existing service can continue the positive trends in fixed route ridership.

The steady growth of paratransit ridership also indicates an increasing demand for service, particularly as the population continues to age. Paratransit service provides critical transportation to those in the community who may not otherwise be able to access jobs, services, or other community resources.

Revenue Miles per Capita

The revenue miles per capita indicate how much service is delivered based on the population of the service area. A revenue miles metric shows the number of miles that buses travel during scheduled service. The population used for the calculation of revenue miles per capita is from American Community Survey (ACS) estimates for 2015 to 2018. The 2019 population used in the

calculation was based on an average annual growth rate for the 2015 to 2018 data as at the time of this report the 2019 ACS dataset was not available.

In 2019, TTA provided just over 300,000 miles of fixed route service and 125,000 miles of paratransit service. **Figure 20** below shows the historical change in revenue miles for TTA service.

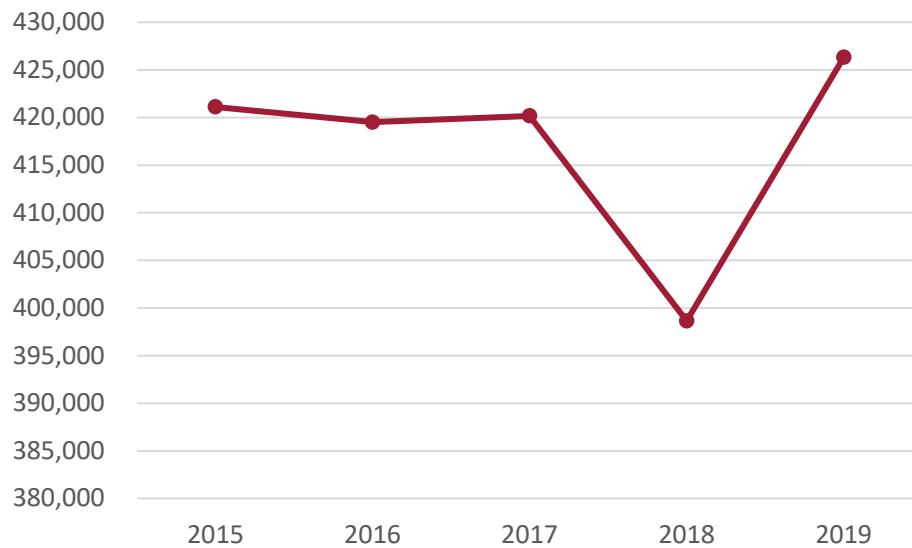


Figure 20: Total Revenue Miles (2015 – 2019, NTD)

In 2019, TTA provided 1.24 revenue miles of paratransit service per capita and 2.94 revenue miles of fixed route service per capita. System wide in 2019, TTA provided 4.17 revenue miles per capita. As seen in **Table 1**, these statistics all represent a slight decrease in revenue miles per capita.

Table 1: Revenue Miles per Capita (2015 – 2019, NTD)

	2019 Revenue Miles Per Capita	5-Year Percent Change (2015 to 2019)
Paratransit	1.24	-2.8%
Fixed route	2.94	-3.0%
All Service Combined	4.17	-2.9%

The decrease in revenue miles per capita over the five-year period is despite the TTA increasing total revenue miles by 1.24% over the same timeframe. The decrease in per capita despite the increase in service miles is a result of the population growing faster than transit service. The service area population grew by approximately 4% from 2015 to 2019 but revenue miles only increased by 1.24%.

Key Takeaways

Increasing service relative to increases in population is important to maintaining the quality of existing service and ensure that growing needs of the community are being met. Over the previous five years TTA service has not increased at the same rate as the population in the Tuscaloosa service area. This indicates there is potential for service growth that will be beneficial to a growing population. The Transit Market Assessment section of the report helps to indicate where growth in Tuscaloosa may be occurring and provides insight on how best to allocate new service growth to make the largest positive impact.

Passengers per Revenue Mile

Passengers per revenue mile is a comparison of the total passengers carried on a route to the total number of revenue miles operated by the route. The passengers per revenue miles metric helps to indicate how productive service is over the course of an average mile. As shown in **Figure 21**, the fixed route system carried an average of almost one person per mile of service and the paratransit service carried 0.12 passengers per revenue mile in 2019. The full system carried 0.71 passengers per revenue mile in 2019. This represents a decrease in passengers per revenue mile by 2.3% since 2015. **Table 2** highlights this statistic broken down by route in 2019.

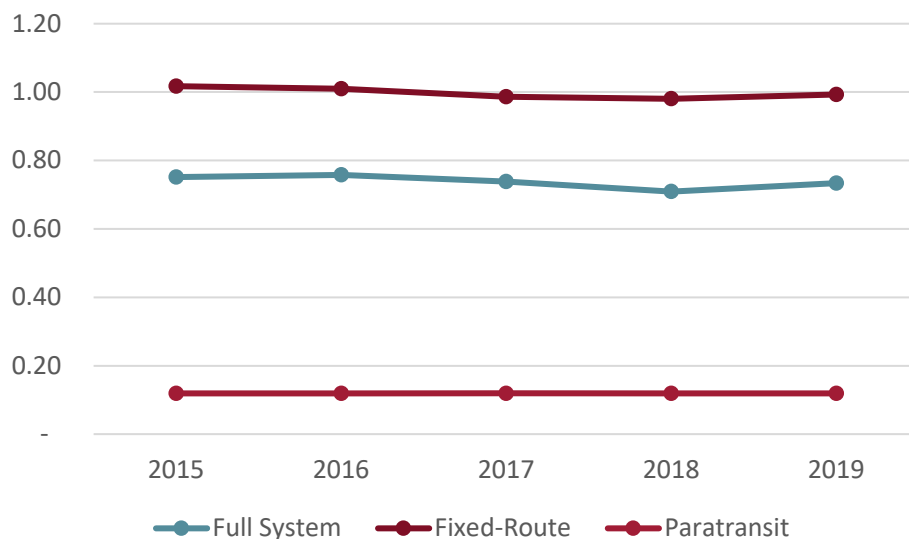


Figure 21: Passengers per Revenue Mile (2015 – 2019, NTD)

Table 2: Revenue Miles per Passenger Mile (2019)

Route Name	Passengers per Revenue Mile (2019)
Route 1 (Holt)	0.55
Route 2 (McKenzie)	0.87
Route 3 (Greensboro)	1.02
Route 4 (VA)	0.84
Route 5 (Shelton)	0.29
Route 6 (UA)	1.05
Route 7 (Skyland)	0.56

Key Takeaways

Relative to other metrics, the passengers per revenue mile has changed very little over the previous five years. This indicates that there is a need for transit service that the TTA system currently meets. The trend in passengers per revenue mile also helps to explain why overall ridership on the TTA service has decreased at a lower rate than the national average. The decreases in TTA ridership (**Figure 19**) have corresponded with decreases in service provided (**Figure 20**). Productivity of the TTA service has stayed consistent and if that consistency can be maintained through expansion of transit service, TTA will continue to see improvements in ridership.

Cost per Revenue Mile

The cost per revenue mile metric examines the operating cost of service against the number of miles of service provided. It is a valuable metric because it enables the cost of service to be evaluated over time even if service levels have changed. **Figure 22** shows the change in operating cost per revenue mile from 2015 to 2018 for paratransit service, fixed route service, and all service combined. **Table 3** highlights cost per revenue mile for each route in 2019.

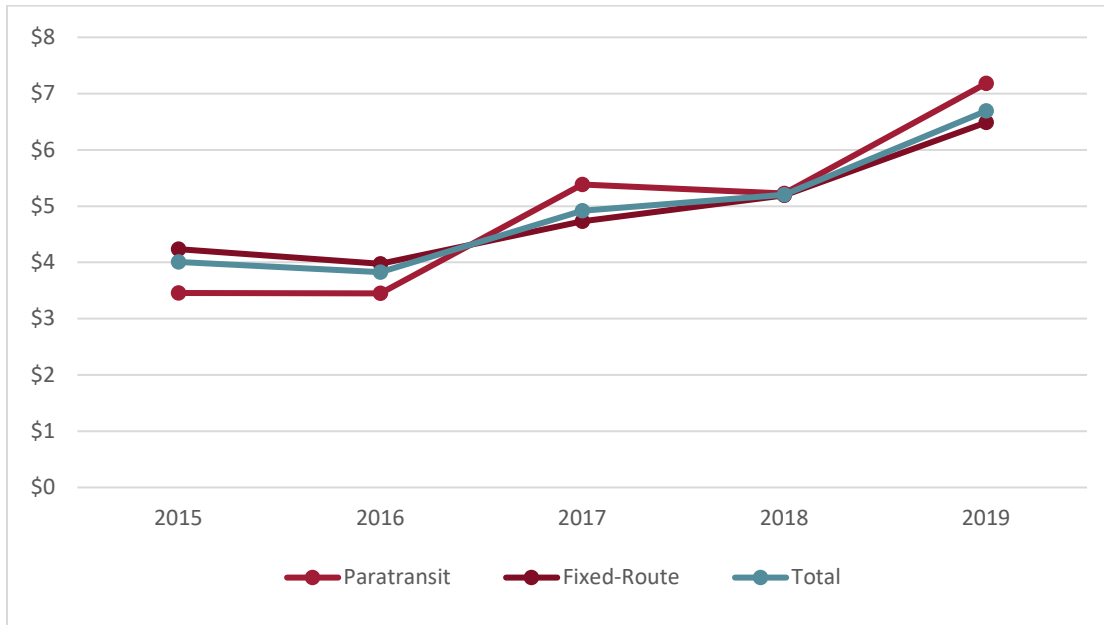


Figure 22: Operating Cost per Revenue Mile (2015 – 2018, NTD)

Table 3: Cost Per Revenue Mile (2019)

Route Name	Cost Per Revenue Mile (2019)
Route 1 (Holt)	\$4.41
Route 2 (McKenzie)	\$6.19
Route 3 (Greensboro)	\$6.55
Route 4 (VA)	\$5.90
Route 5 (Shelton)	\$5.22
Route 6 (UA)	\$6.50
Route 7 (Skyland)	\$4.66

To provide context for the cost per revenue mile metric, data for four peer agencies was taken from the National Transit Database. The four peers examined were: Birmingham-Jefferson County Transit Authority (BJCTA), City of Huntsville, Ozark Regional Transit, and Athens-Clarke County Transit. BJCTA was chosen to provide the context of a major city transit agency, while City of Huntsville, Athens-Clarke County Transit, and Ozark Regional Transit were chosen to be more representative of peers. The City of Huntsville provides the context of being located within the State of Alabama, and Athens-Clarke County Transit and Ozark Regional Transit both serve similar sized urbanized areas with major SEC universities. **Figure 23** below shows a comparison of the TTA cost per revenue mile to the four peer agencies for 2018.

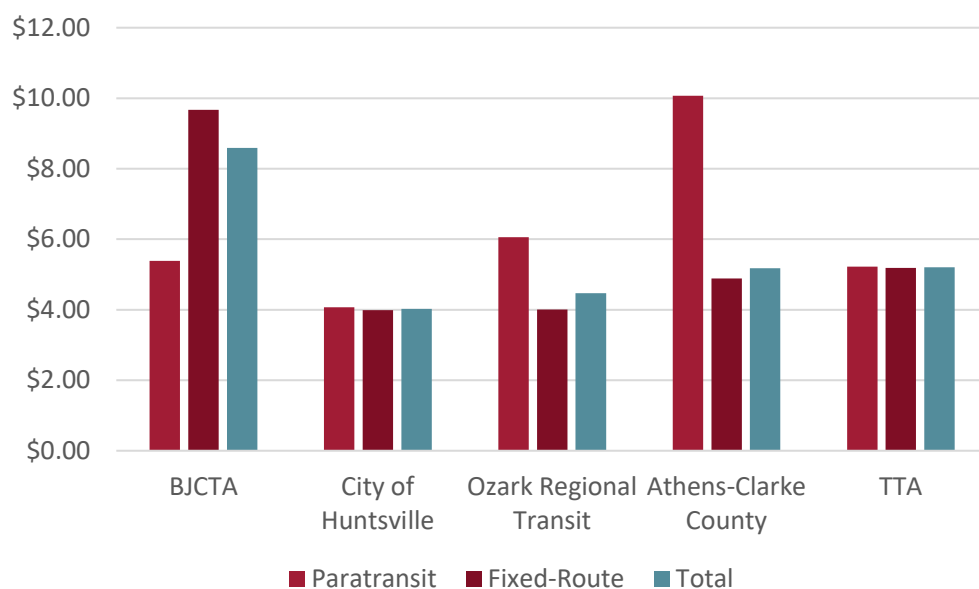


Figure 23: Peer Agency Cost Per Revenue Mile (2018, TTA & NTD)

Apart from BJCTA, TTA has the highest fixed route cost per revenue mile across the agencies. City of Huntsville, Ozark Regional Transit, and Athens-Clarke County Transit all have lower cost per revenue mile for their fixed route service. TTA's paratransit service performs well relative to peers with only the City of Huntsville having a lower cost per revenue mile.

Key Takeaways

The cost per revenue mile of TTA service is slightly higher than peer systems but not by much. TTA operates relatively cost-efficient paratransit service compared to peers but has room to improve to increase cost efficiency on fixed route services. Increasing the cost efficiency of service will enable TTA to free up resources to increase service and continue its trend of increasing ridership.

Cost per Trip

Cost per trip examines the operating cost of service against the number of trips provided with said service. In combination with cost per revenue mile, cost per trip helps to indicate how efficiently a system can deliver service. The cost per trip for paratransit service tends to be significantly higher than the cost per trip for fixed route service because paratransit service is unable to carry as many passengers within the same amount of time. The cost per trip for paratransit service in Tuscaloosa is nine times more than the cost per trip for fixed route service. While the cost per trip for paratransit is higher, it is a federally mandated service that must be provided in conjunction with fixed route service. **Table 4** below shows the cost per trip for each service type and the percent change in cost per trip from 2015 to 2018. **Table 5** breaks this down further for 2019 by route.

Table 4: Cost Per Trip (2015 – 2019, NTD)

	2019 Cost per Trip	5-Year Percent Change (2015 to 2019)
Paratransit	\$61.97	53%
Fixed route	\$6.73	38%
Total	\$9.39	43%

Table 5: Route-by-Route Cost Per Trip (2019)

Route Name	Cost Per Trip
	2019
Route 1 (Holt)	\$8.02
Route 2 (McKenzie)	\$7.14
Route 3 (Greensboro)	\$6.42
Route 4 (VA)	\$7.02
Route 5 (Shelton)	\$18.18
Route 6 (UA)	\$6.21
Route 7 (Skyland)	\$8.35

The change in cost per trip for TTA service matches that of the cost per revenue mile in that it has increased since 2015. The increase is most pronounced for paratransit services where the cost per trip has increased by more than 50%. Despite this increase, the cost of paratransit service per trip relative to peers is still low. As **Figure 24** indicates, TTA paratransit service has a lower cost per trip than three of the four peer agencies.

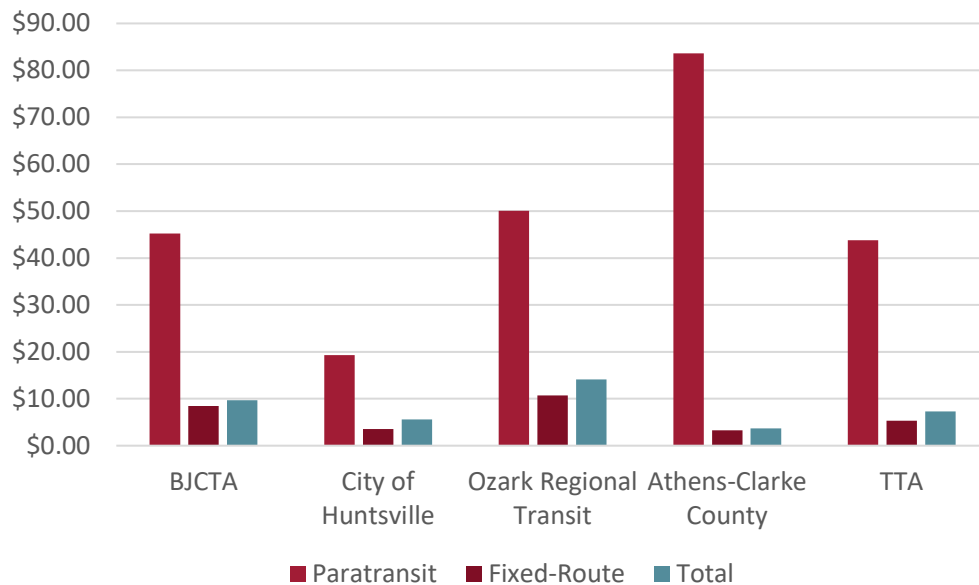


Figure 24: Peer Agency Cost per Trip (2018, TTA & NTD)

Key Takeaways

The cost per trip of TTA service has been increasing over the past five years but in comparison to peer agencies, TTA still has relatively good performance. As with many of the metrics examined so far, the cost per trip metric indicates that TTA service is performing well but is positioned strongly to see impactful improvements to service that would benefit both the riders and the efficiency of the service.

Farebox Recovery Ratio

The farebox recovery ratio is the amount of revenue generated through fare collection compared to the total operating costs of the system. The service operated by TTA has different fares for its different services. Fares for travelers within the county on fixed route service are between \$0.50-\$1.00 and \$2.00 for paratransit service. The farebox recovery ratio between 2015 and 2019 decreased from 11% to 6%. This change reflects both an increase in operating costs and a slight reduction in the amount of fares collected. The amount of fares decreased by 3% during this period and the operating costs increased by 69%. **Table 6** shows the farebox recovery ratio for TTA service between 2015 and 2019.

Table 6: Farebox Recovery Ratio (2015 – 2019, NTD)

	2015	2016	2017	2018	2019
Farebox recovery ratio	11%	11%	9%	8%	6%

As with the other metrics, when compared to the peer agencies TTA falls in the middle in terms of performance for farebox recovery. **Figure 25** shows the farebox recovery ratios for the agencies from 2018.

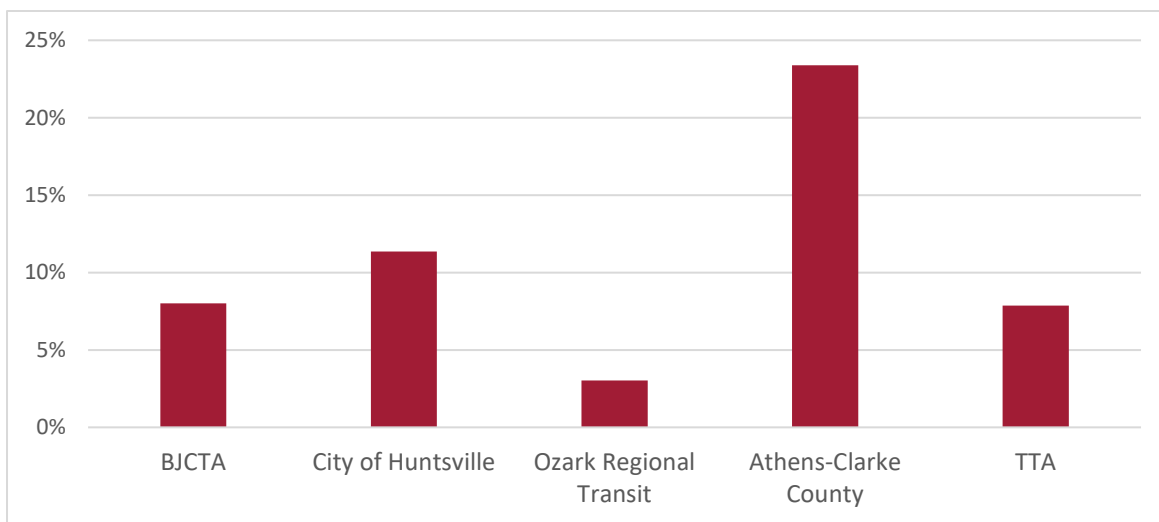


Figure 25: Peer Agency Farebox Recovery Ratios (2018, NTD)

Key Takeaways

The farebox recovery ratio for TTA service has slightly decreased from 2015 but the decrease has not pushed TTA service out of what is common among peers. Maintaining a healthy farebox recovery ratio will be an important consideration moving forward, especially if there are increases in service provided, but it will also be important to ensure that the fare structure of service does not undermine any increase of service. Fares should be balanced to maintain a healthy financial footing without putting an unnecessary burden on riders that could ultimately drive them from the system.

Transit Market Analysis

The propensity of residents in a neighborhood to ride transit is influenced by a variety of demographic, socioeconomic, and employment factors. These factors can be grouped into three general categories:

- **People:** Basic demographics of Tuscaloosa residents.
- **Prosperity:** Socioeconomic data and trends that affect transit propensity.
- **Employment:** Commuting patterns and markets for residents of Tuscaloosa and persons employed in Tuscaloosa.

Overlaying data in these groups with the existing TTA network helps examine how well current transit routes serve areas with a high propensity for transit usage.

People

Relevant demographic data for transit propensity analysis includes general population density, population density for high-ridership groups, and concentrations of minority populations.

Population Density – All Residents

In 2018, Tuscaloosa had a population of just over 101,000. The densest portions of the City are generally located in the area between Downtown, the University of Alabama Campus, and I-20. Other clusters of relatively high population density can be found around Stillman College and along portions of Skyland Boulevard. As shown in **Figure 26**, TTA routes generally serve areas of higher population density. Lower population densities predominate north of the Black Warrior River.

Population Density – Young Adults

Young adults (ages 20-29) make up slightly under 25% of Tuscaloosa's total population, with the highest densities of these residents located in the central portion of the City. Areas with some of the highest population densities of young adults – along 10th Avenue, US 82, and 15th Street – are already served by current TTA routes. Population density for young adults is mapped in **Figure 27**.

Population Density – Senior Citizens

Just under 12% of Tuscaloosa residents are age 65 or older, in line with the percentages for Tuscaloosa County and Alabama as a whole (both around 13%). A few portions of the City – notably the area immediately west and south of Stillman College and the area by US 82 and 15th Street – have high densities of senior citizens. Concentrations of senior citizens throughout Tuscaloosa are shown in **Figure 28**.

Minority Population

Almost 50% of Tuscaloosa's population identifies as a race other than white. As shown in **Figure 29**, the highest concentrations of minority residents are found south of the Black Warrior River and away from the core of the City (Downtown and the University of Alabama campus). Transit connections from these areas to activity centers downtown and at the University provide valuable access to employment opportunities.

Several existing TTA routes serve areas with high concentrations of minorities. These routes include Route 1 (Holt), Route 2 (McKenzie Court / Stillman College), Route 5 (Shelton State), and Route 7 (Skyland Boulevard).

Key Takeaways

The existing TTA routes provide service coverage to most of the concentrations of demographic groups that have a greater propensity to use transit. The coverage of the existing service enables greater access to the Tuscaloosa community by these demographic groups. The strong access provided by the existing service should be maintained and provide a base for improving the mobility that future service could provide.

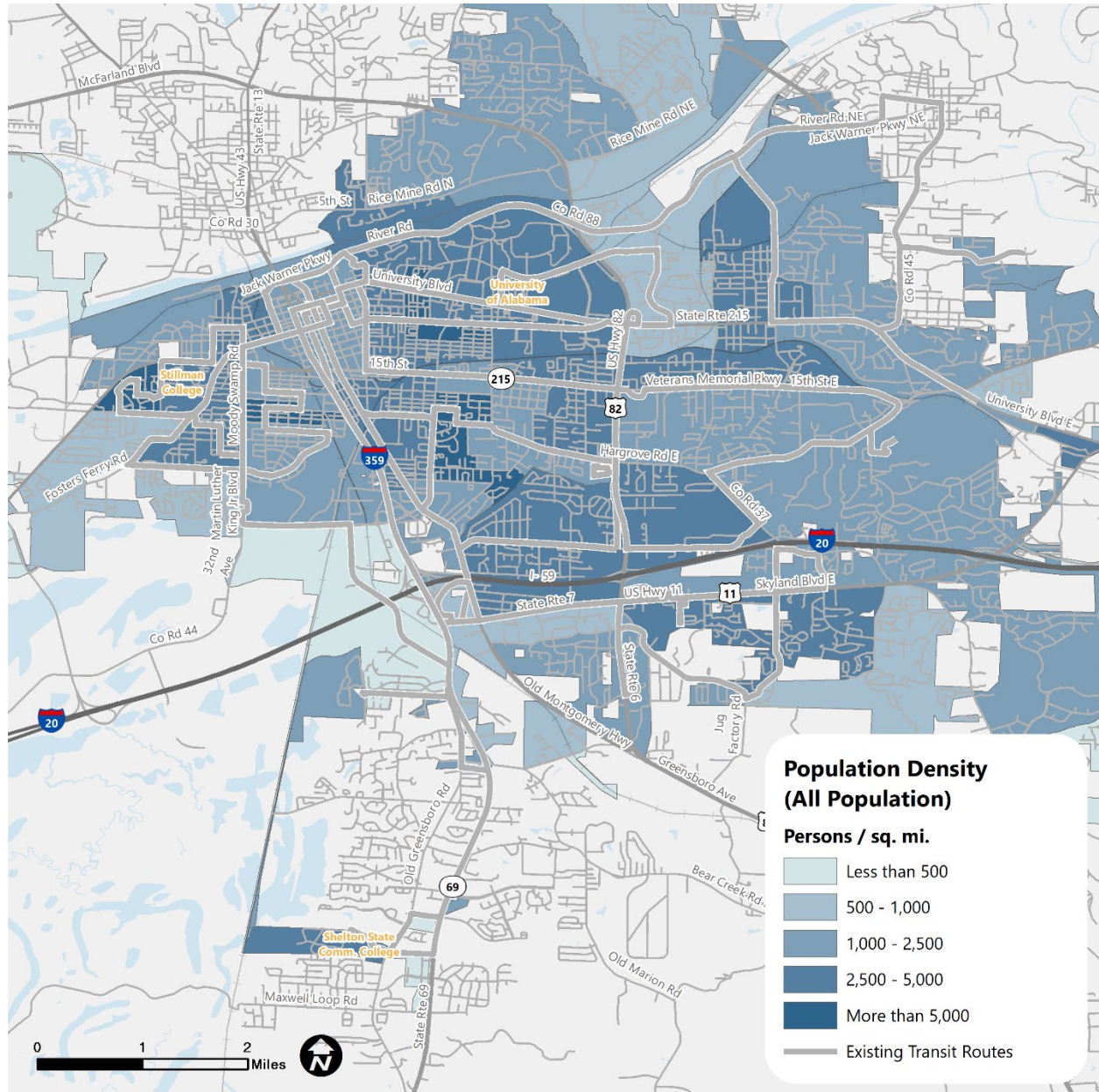


Figure 26: Population Density, General Population (2017 ACS 5-Year)

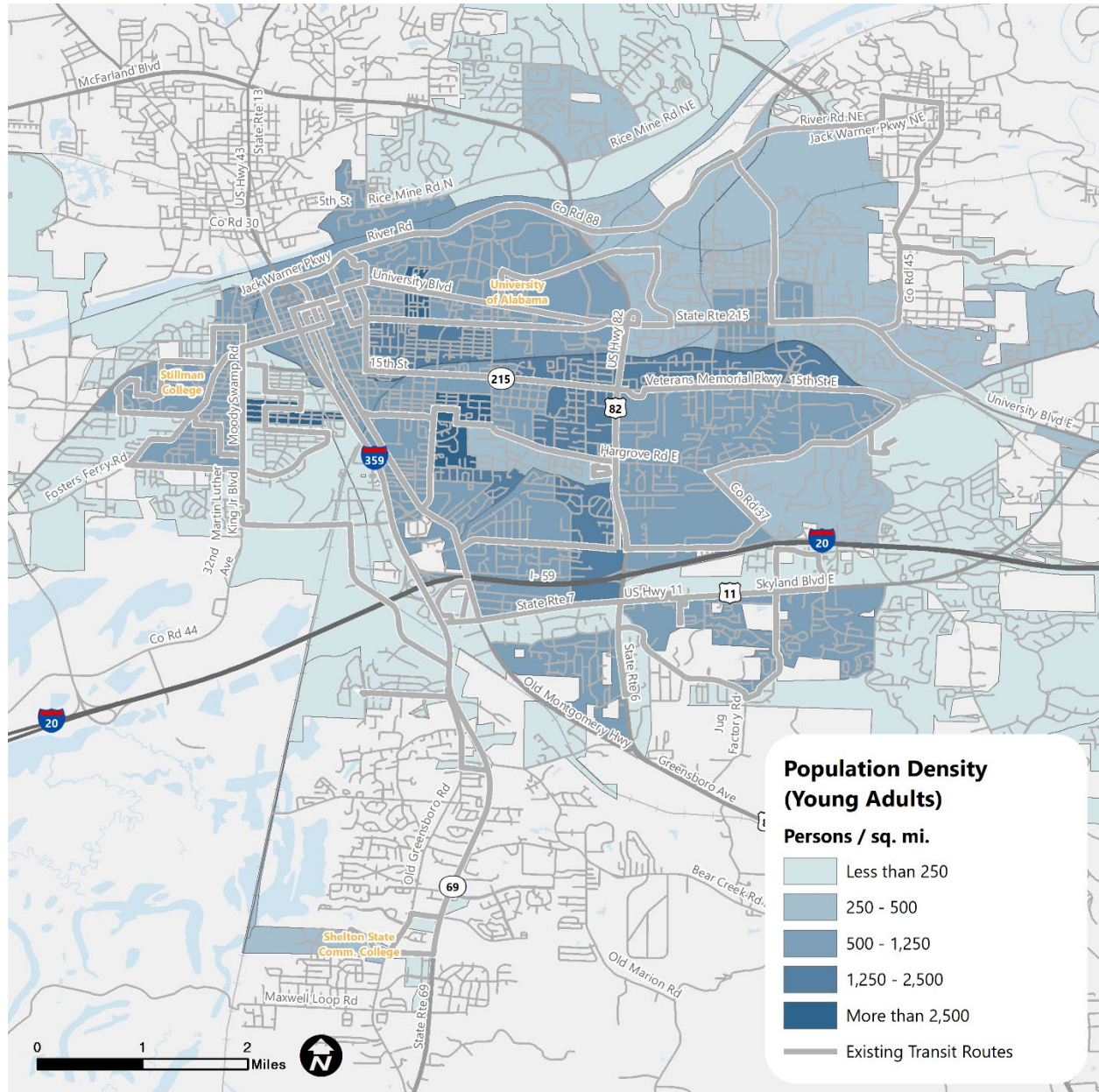


Figure 27: Population Density, Young Adults (2017 ACS 5-Year)

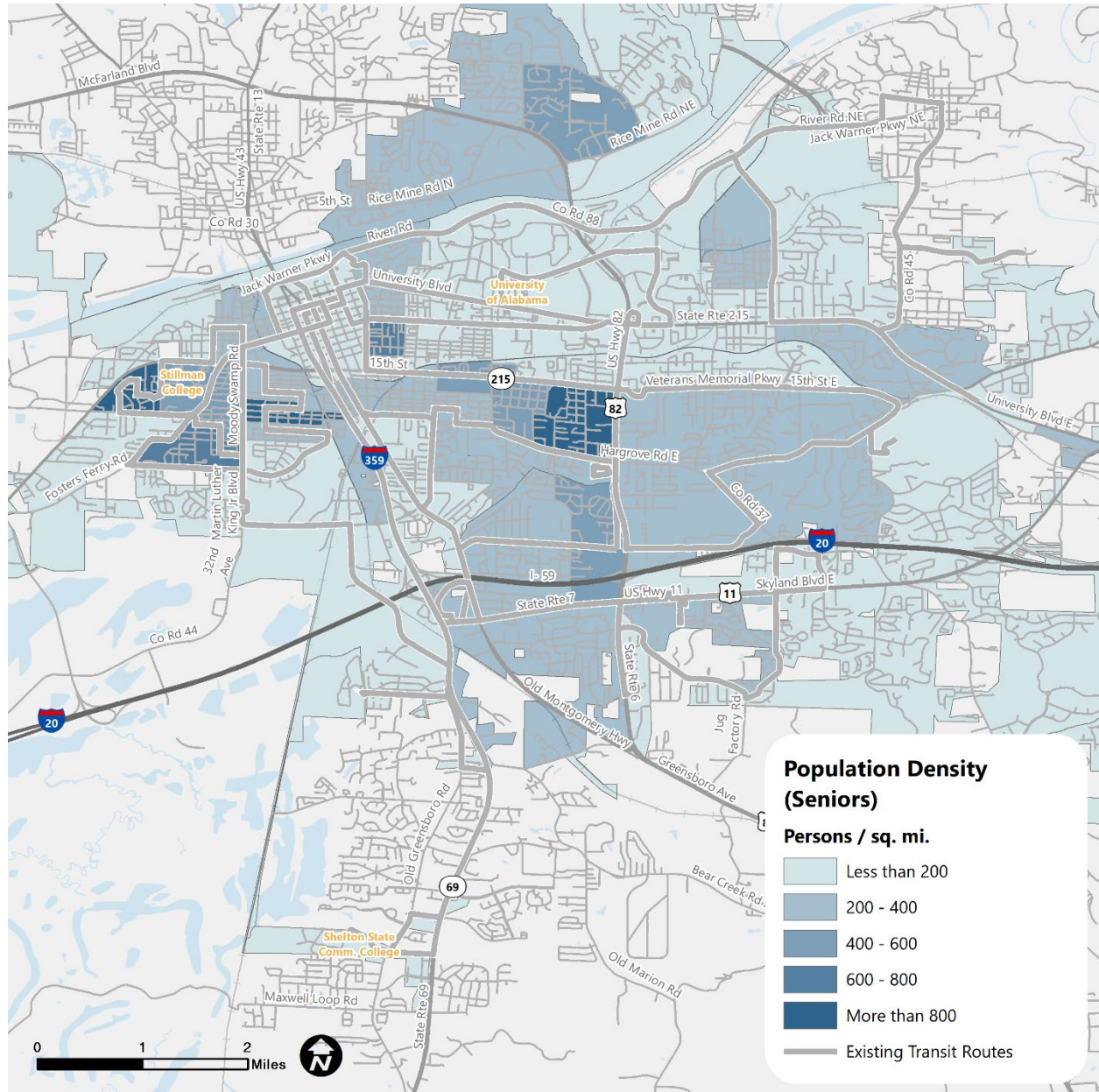


Figure 28: Population Density, Senior Citizens (2017 ACS 5-Year)

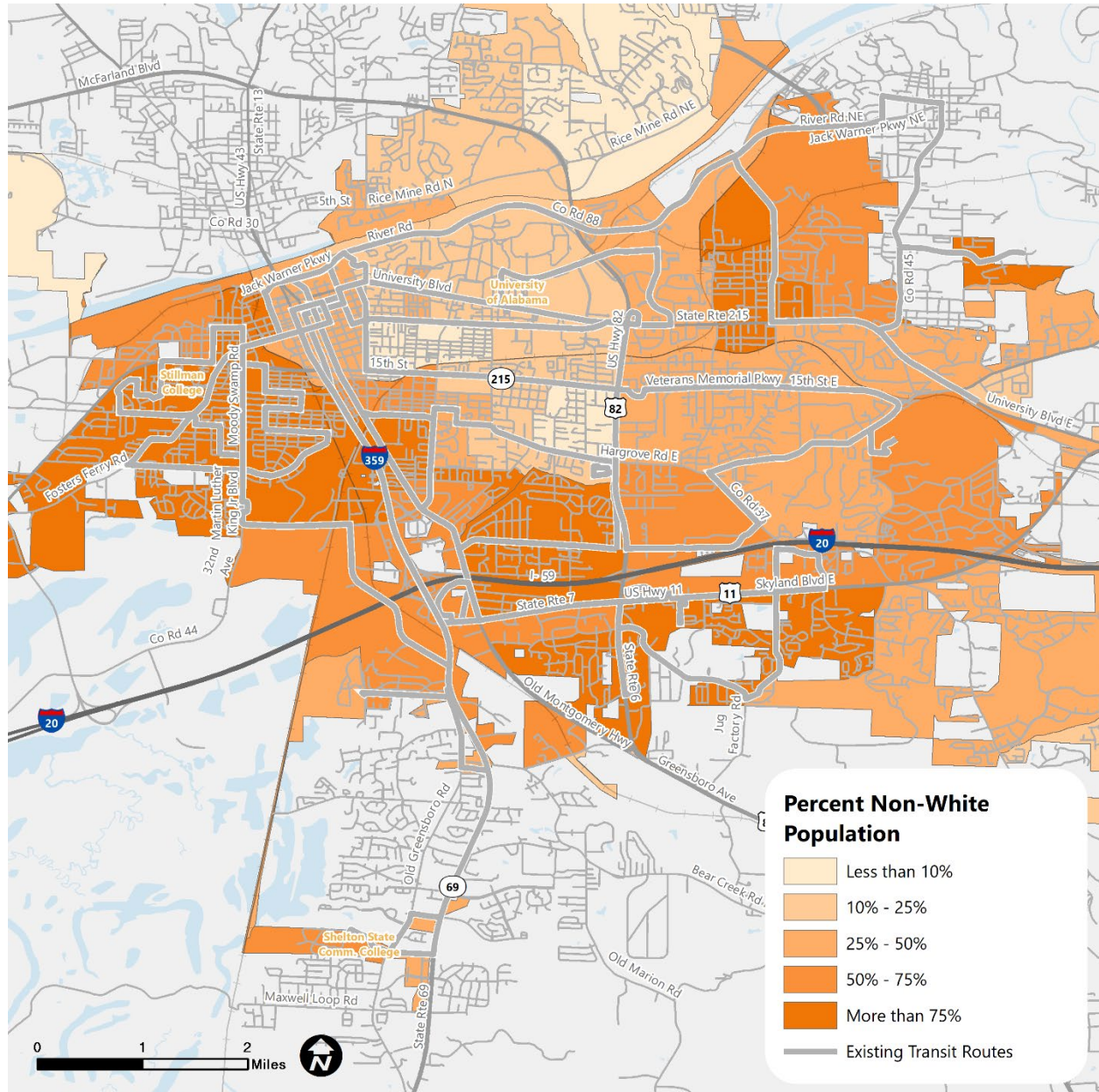


Figure 29: Minority Population (2017 ACS 5-Year)

Prosperity

Socioeconomic trends that can influence transit propensity include median income, the number of zero-vehicle households, and the balance of renter-occupied and owner-occupied units.

Median Household Income

The overall median household income in Tuscaloosa was \$42,430, slightly under the median income for Tuscaloosa County (\$50,500) and the statewide average (\$48,120). Although the average median income for the City is relatively low, there are substantial variations – portions of Tuscaloosa north of the Black Warrior River have median incomes over \$100,000, while almost a quarter of residents live under the poverty line. Median household income throughout the City is shown in **Figure 30**. Existing TTA routes serve most lower-income areas.

Zero-Vehicle Households

Concentrations of households without personal vehicles are mapped in **Figure 31**. Areas of Tuscaloosa with high populations of university students (Downtown and areas near the University of Alabama) unsurprisingly have high concentrations of residents without vehicles – almost 50% in some areas. The western portion of Tuscaloosa (around Stillman College) also stands out for having a high concentration of zero-vehicle households. Unlike Downtown and the University area, the western portion of the City also has a high concentration of minority residents and relatively low median incomes, suggesting that transit service is especially important in this area.

Renter-Occupied and Owner-Occupied Housing Units

The percent of total housing stock that is owner-occupied across Tuscaloosa is shown in **Figure 32**. Like the patterns seen with zero-vehicle households, low concentrations of owner-occupied housing units are seen in West Tuscaloosa and along Skyland Boulevard. This correlation underscores the fact that renters generally have a higher transit propensity than owners.

Key Takeaways

As with the demographic groups with a higher transit propensity, the existing TTA service also does well at providing service to the socioeconomic groups that have a higher transit propensity. These groups have a strong need for transit service to enable them to be able to have access to jobs, services, entertainment, and community assets that are critical in improving quality of life and economic mobility. Again, the existing TTA service provides strong accessibility that should be balanced with improvements that can bring increased mobility to the areas currently being served.

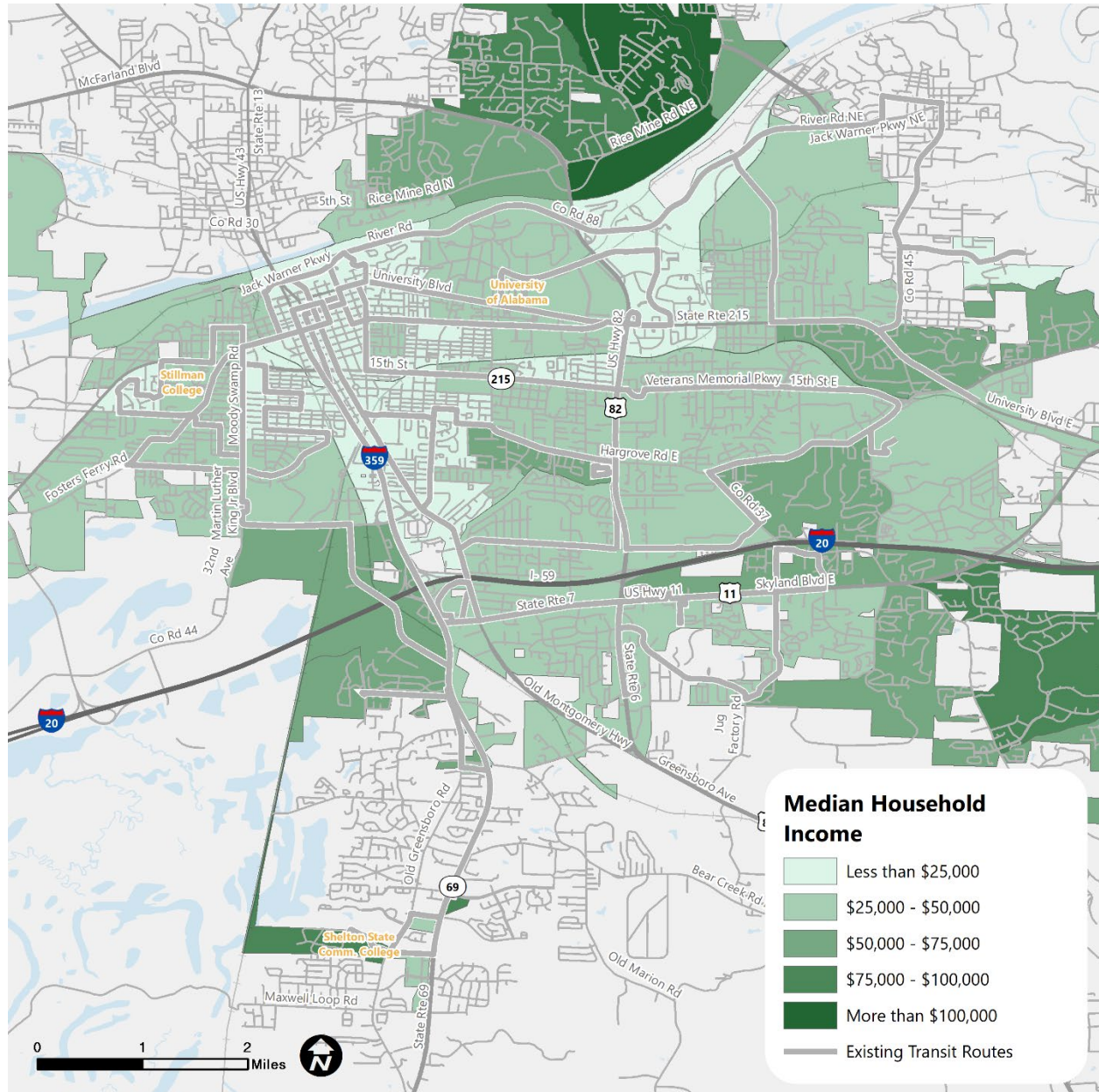


Figure 30: Median Household Income (2017 ACS 5-Year)

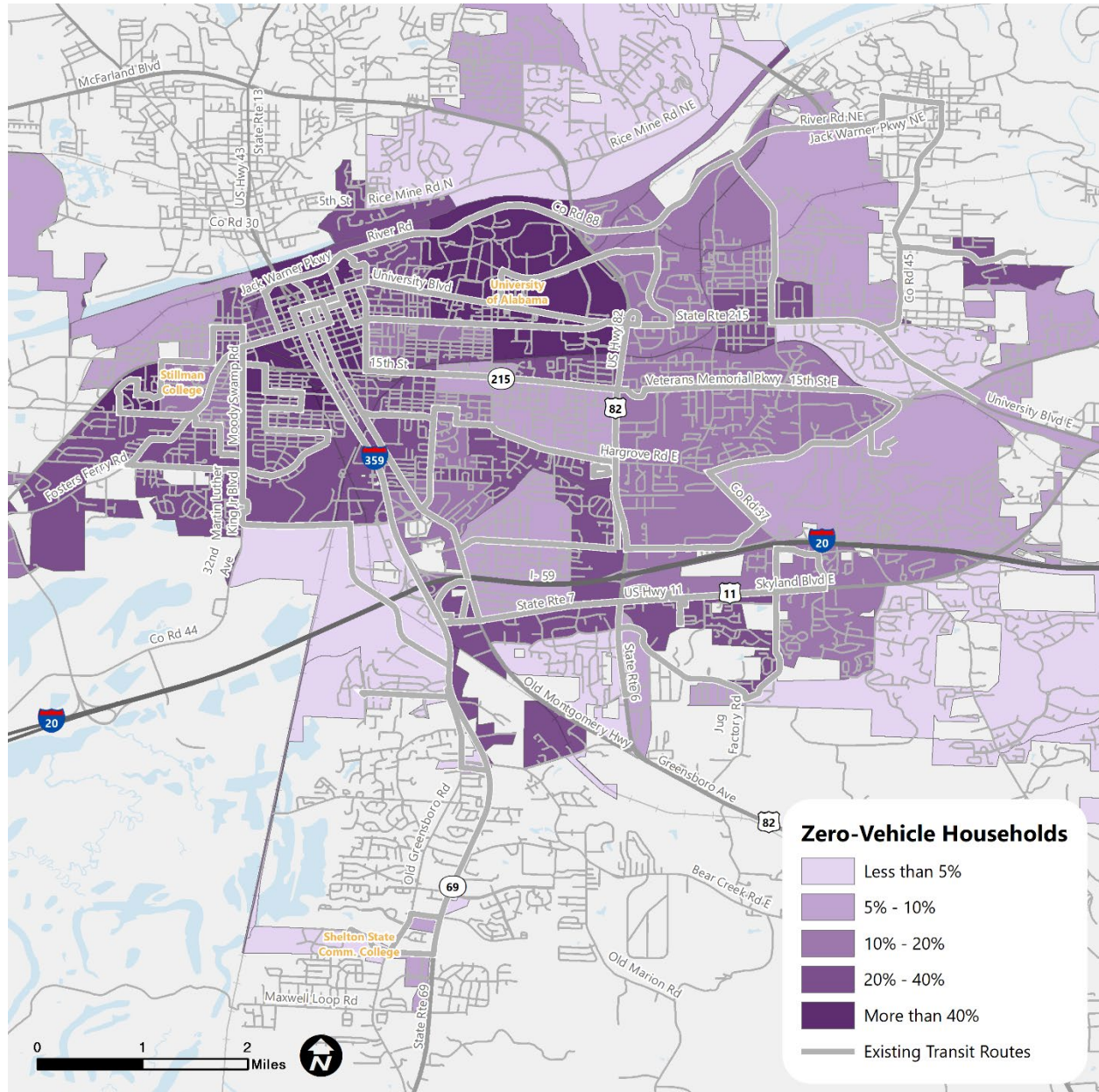


Figure 31: Zero-Vehicle Households (2017 ACS 5-Year)

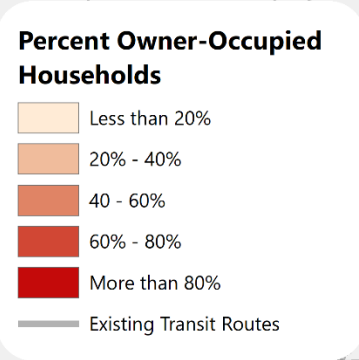


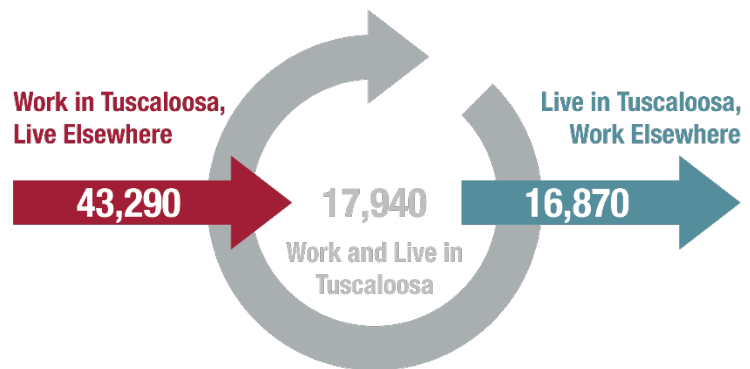
Figure 32: Percent Owner-Occupied Housing Units (2017 ACS 5-Year)

Employment

Transit is a viable commute option for residents only when it connects where they live to where they work. This section uses data from the U.S. Census Bureau's Longitudinal Employment-Home Dynamics (LEHD) survey to examine how well transit serves the commuting market.

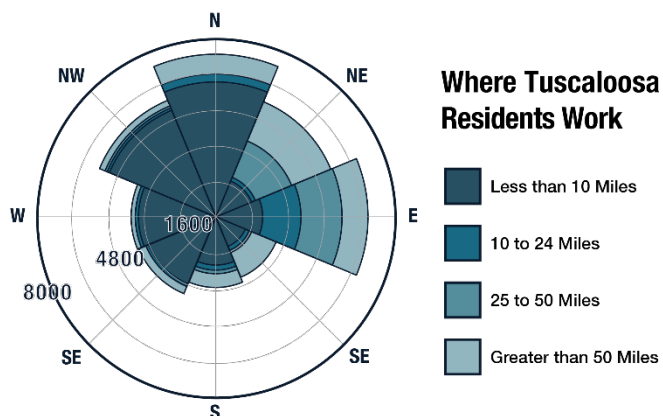
Commute Flows

LEHD data estimates that as of 2017, there are just under 60,800 jobs available in Tuscaloosa. Of these, just 17,940 – approximately 30% of the total available – are held by City residents. Although City residents do not hold the majority of jobs within Tuscaloosa, the majority of Tuscaloosa residents in the labor force work within the City.



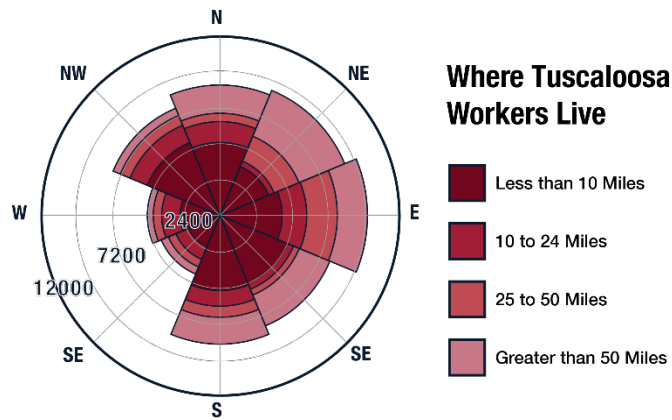
Where Tuscaloosa Residents Work

A slight majority of Tuscaloosa residents in the labor force both live and work within the City. As shown in **Figure 33**, the two most common employment destinations for City residents are the Downtown area and the University of Alabama campus. Employment density in these two activity centers is very high. This fact, combined with the relatively high percentage of residents living within the city near Downtown and the University Campus, suggests that there is a potential market for expanded transit service connecting to these two activity centers.



Where Tuscaloosa Employees Live

Almost 70% of employees who work in Tuscaloosa live outside the City. As shown in **Figure 34**, there is substantial dispersal of these employees within the communities surrounding Tuscaloosa, including a small number of employees who live as far away as Birmingham. Areas with relatively high concentrations of persons employed in Tuscaloosa include Northport, Coker, Coaling, Holt, and Moundville.



Key Takeaways

Most Tuscaloosa residents both live and work within the City. The existing TTA currently serves many of the major employment and residential destinations within the City, but that service is not always direct or fast, making it less attractive to riders who may have other options for getting to work and placing additional burdens on communities that depend on transit to access employment. Additionally, a large portion of the Tuscaloosa workforce lives outside of the City. There are several locations outside the City with concentrations of employees that have potential for transit service to provide connectivity to a currently unmet demand.

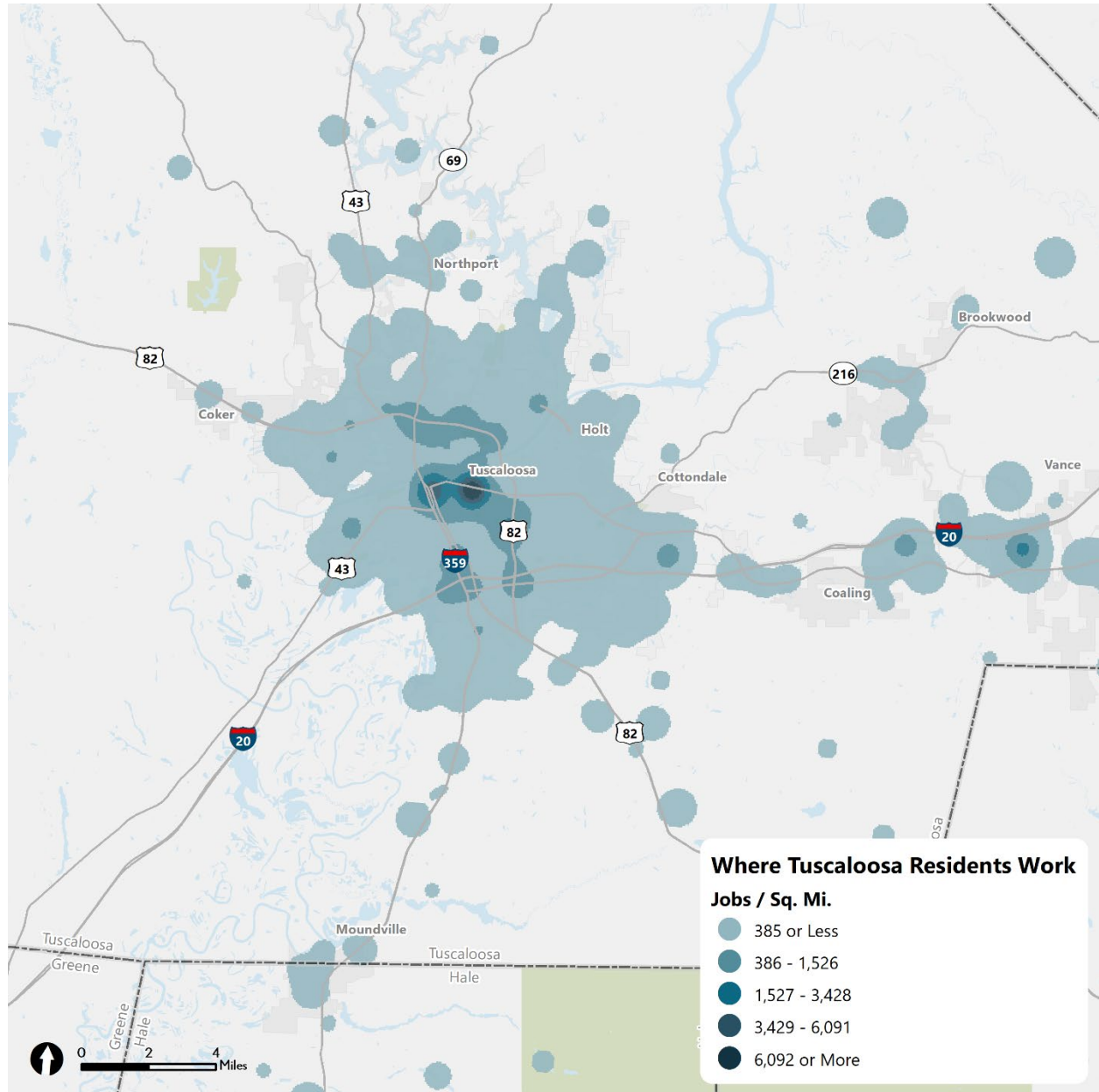


Figure 33: Where Tuscaloosa Residents Work (2017 LEHD)

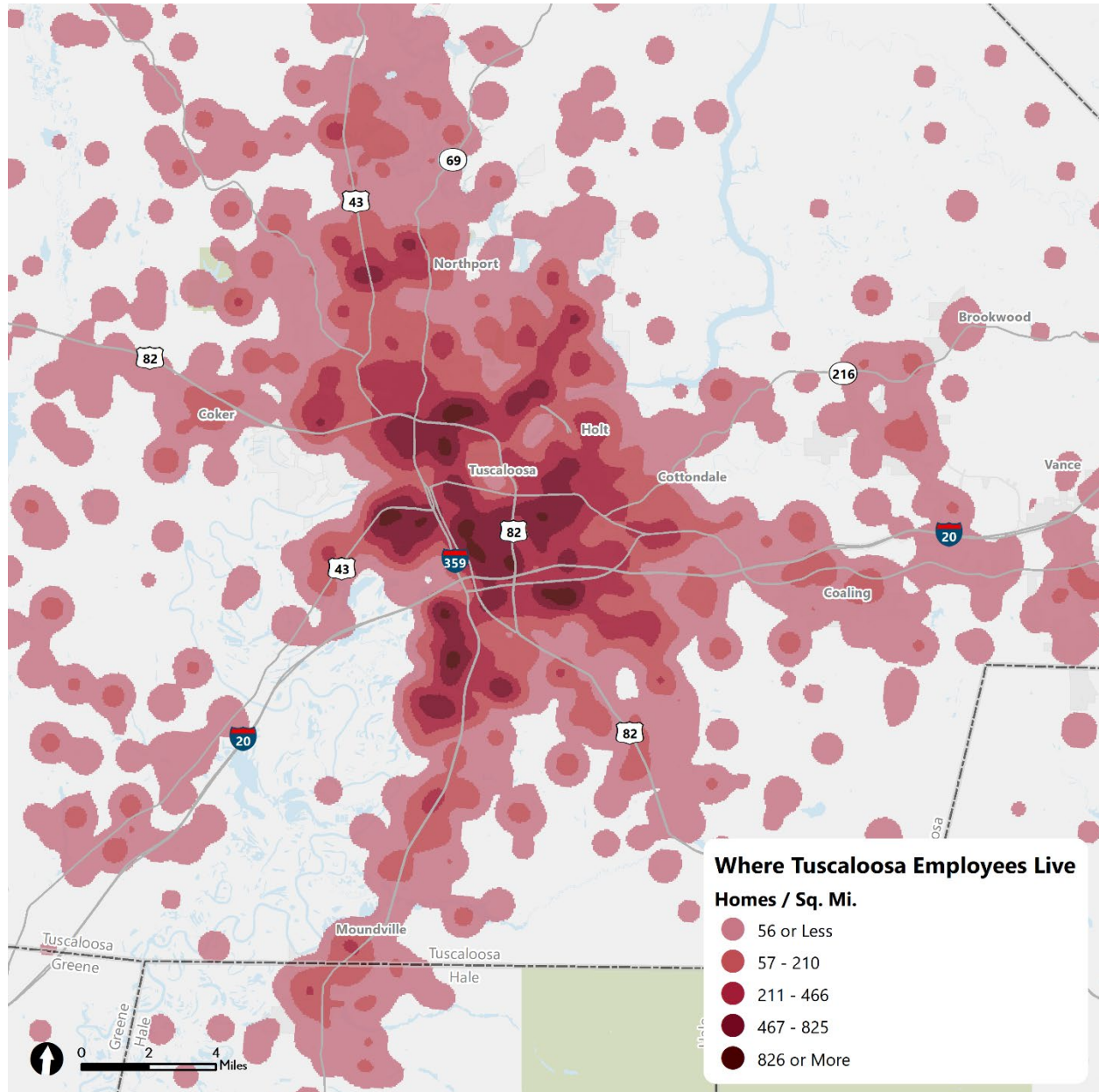


Figure 34: Where Tuscaloosa Employees Live (2017 LEHD)

Conclusion

The seven fixed route services, two special shuttle services, and paratransit service provided by the Tuscaloosa Transit Authority provide a valuable community asset by increasing the accessibility and mobility for residents within the City of Tuscaloosa. Performance indicators for the existing system show that while a slight decrease in performance of some indicators including ridership and costs exist, the system is healthy and successfully providing service where demand currently exists. The healthy performance of the existing system is a result of serving the areas that have the greatest underlying propensity for transit use based on the demographic and socioeconomic characteristics of the City of Tuscaloosa. The existing system provides excellent accessibility across the City but does not always provide the most direct connection between destinations. As the TTA looks to improve and potentially expand service, consideration should be given to improving the mobility while ensuring that the accessibility that creates the value the system has today.

Appendix B - Public Involvement

TUSCALOOSA
TRANSIT PLAN

TUSCALOOSA TRANSIT IMPROVEMENT STUDY

January 19, 2021

Plan Overview

- What is the purpose of the Transit Improvement Study?
 - First time TTA is embarking on a transit study
 - Partnership with Elevate Tuscaloosa
 - Identify who transit is/should be serving
 - Improvements to existing service
 - Look towards the future role of transit in Tuscaloosa

Plan Overview


- What are the major steps to accomplish the plan?
 - Inventory and assessment of **existing conditions** and trends
 - Identify **goals**
 - Identify **short and long-term needs**
 - Recommend **fare policy**
 - Make **short-term and long-term recommendations**

Completed/Ongoing Efforts

- Existing Conditions
- Public Engagement
 - Stakeholders, Agencies/Organizations, etc.
 - Operators Survey
 - Online survey (pending) – English + Spanish

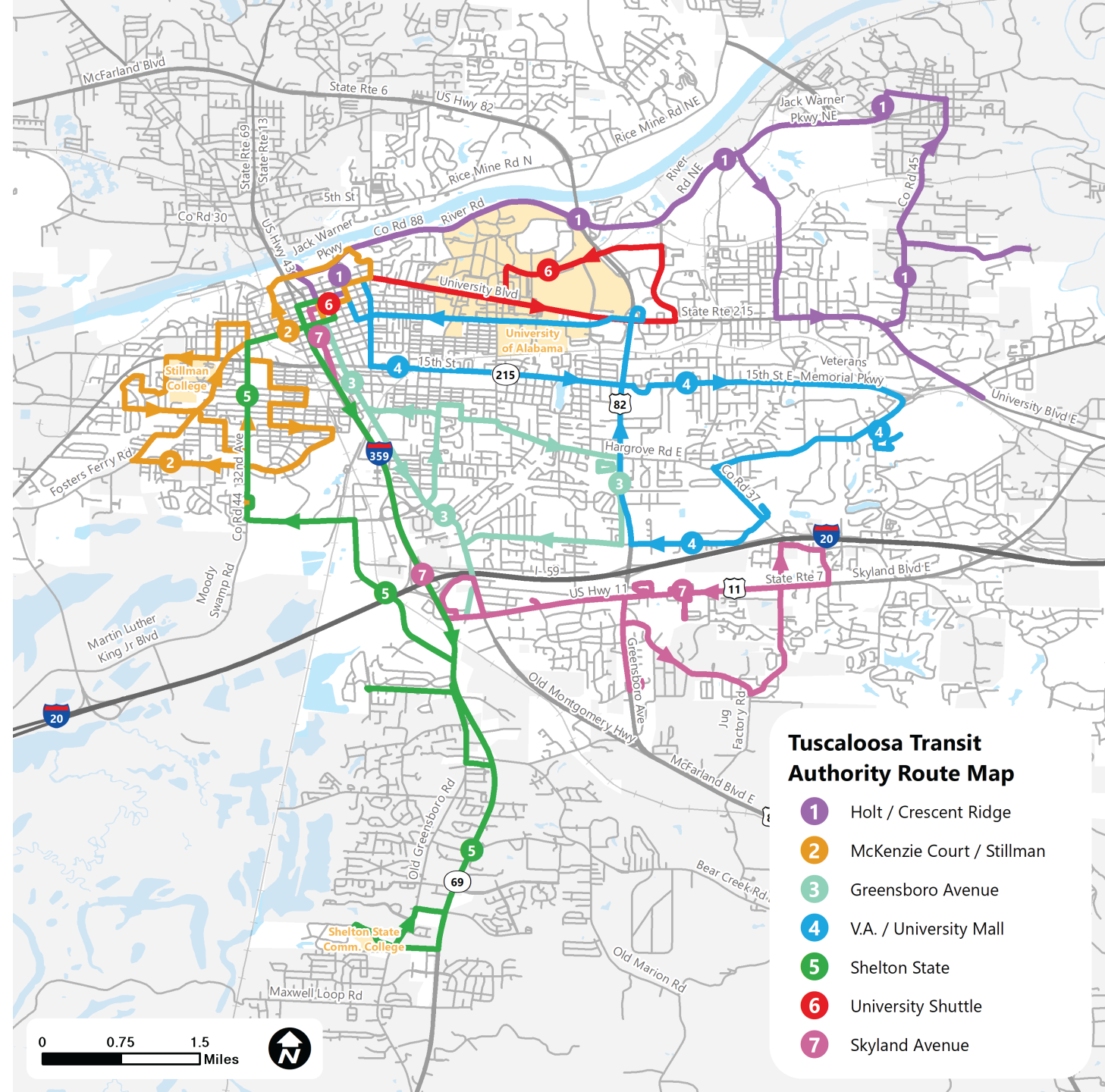
EXISTING SERVICES

Tuscaloosa Transit Service Basics

- Services Provided
 - Fixed Route Local Bus, Complementary Paratransit
 - M-F (5AM to 6PM)
 - TransLoc Rider – app that shows real-time location of buses
 - Fares
 - \$1 for adults, \$0.50 for elderly/Medicare
 - \$0.20 for transfers
 - Ridership
 - Over 300,000 passenger trips in 2019
 - 15,000 paratransit trips
- 

Tuscaloosa Transit Routes

- Seven routes
- Bus comes once an hour on all routes except the University Shuttle (30 minute)
- Stops vary in proximity to each other based on the route
- Other:
 - UA Game Day Shuttle
 - McDonald Hughes Community Center Senior Shuttle



TUSCALOOSA

TRANSIT PLAN

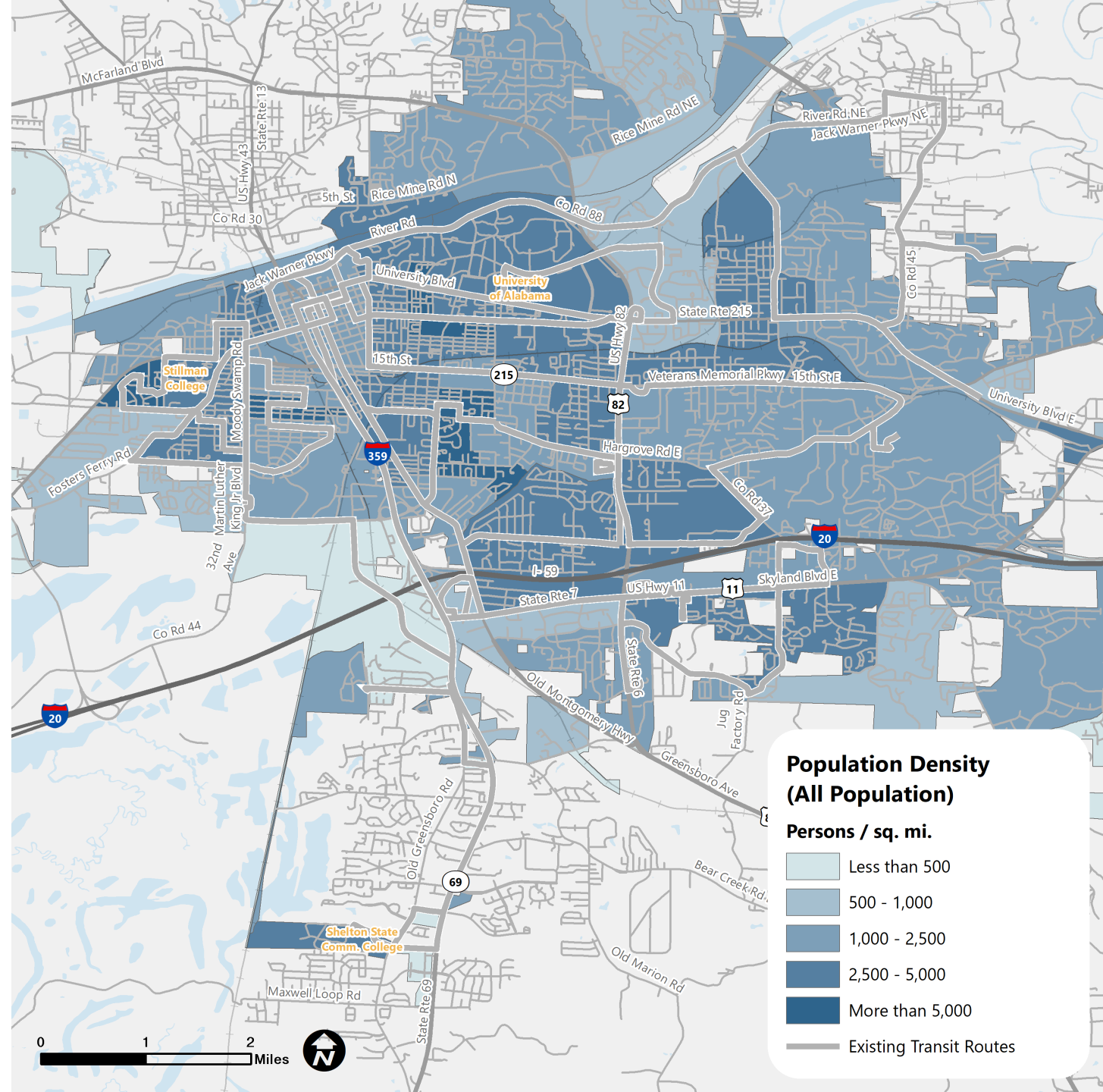
Transit Market Analysis

DEMOGRAPHICS

Population Density: Total Population

The highest population densities in Tuscaloosa are located in the central portion of the city, in the area roughly bounded by Downtown, the University of Alabama, and I-20.

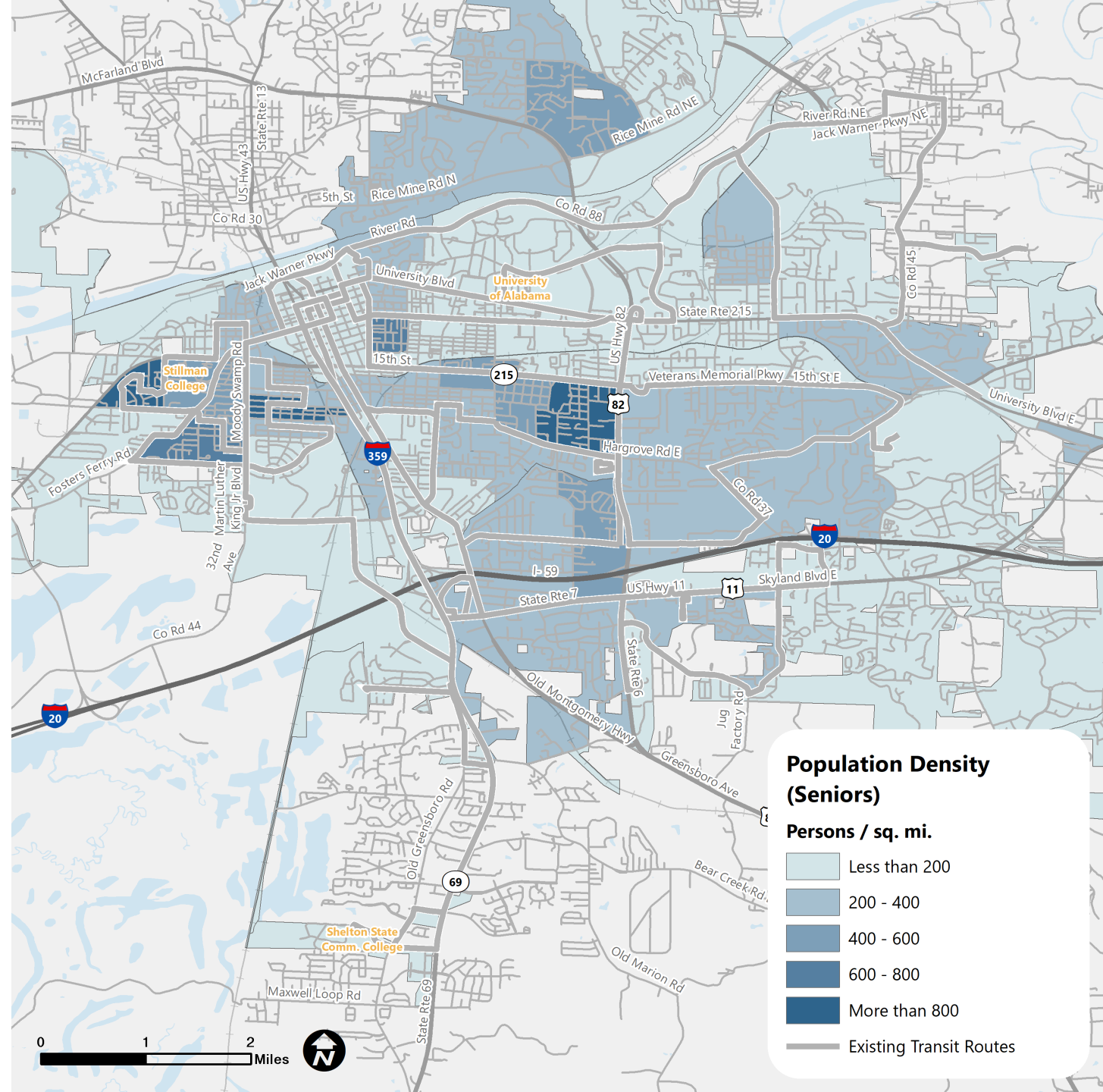
- ~100,000 residents
- 25% are young adults
- 7.8% lives with a disability (under age of 65)



Population Density: Seniors

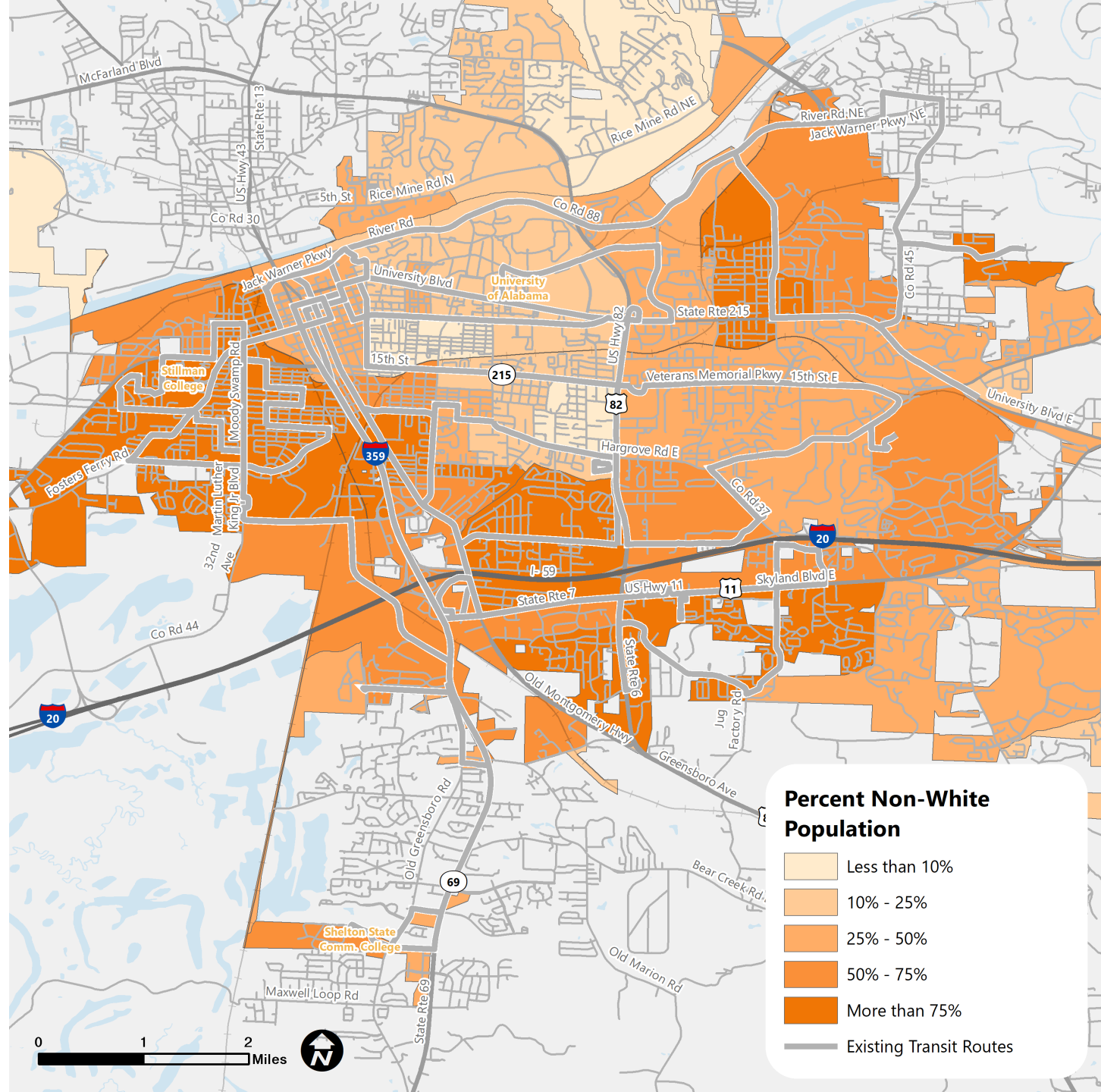
The highest densities of senior population in the City area just west of Stillman College, off Moody Swamp Road, and in the Midtown Village area near University Mall.

- 12% of residents are 65 years and older



Non-White Race and Hispanic

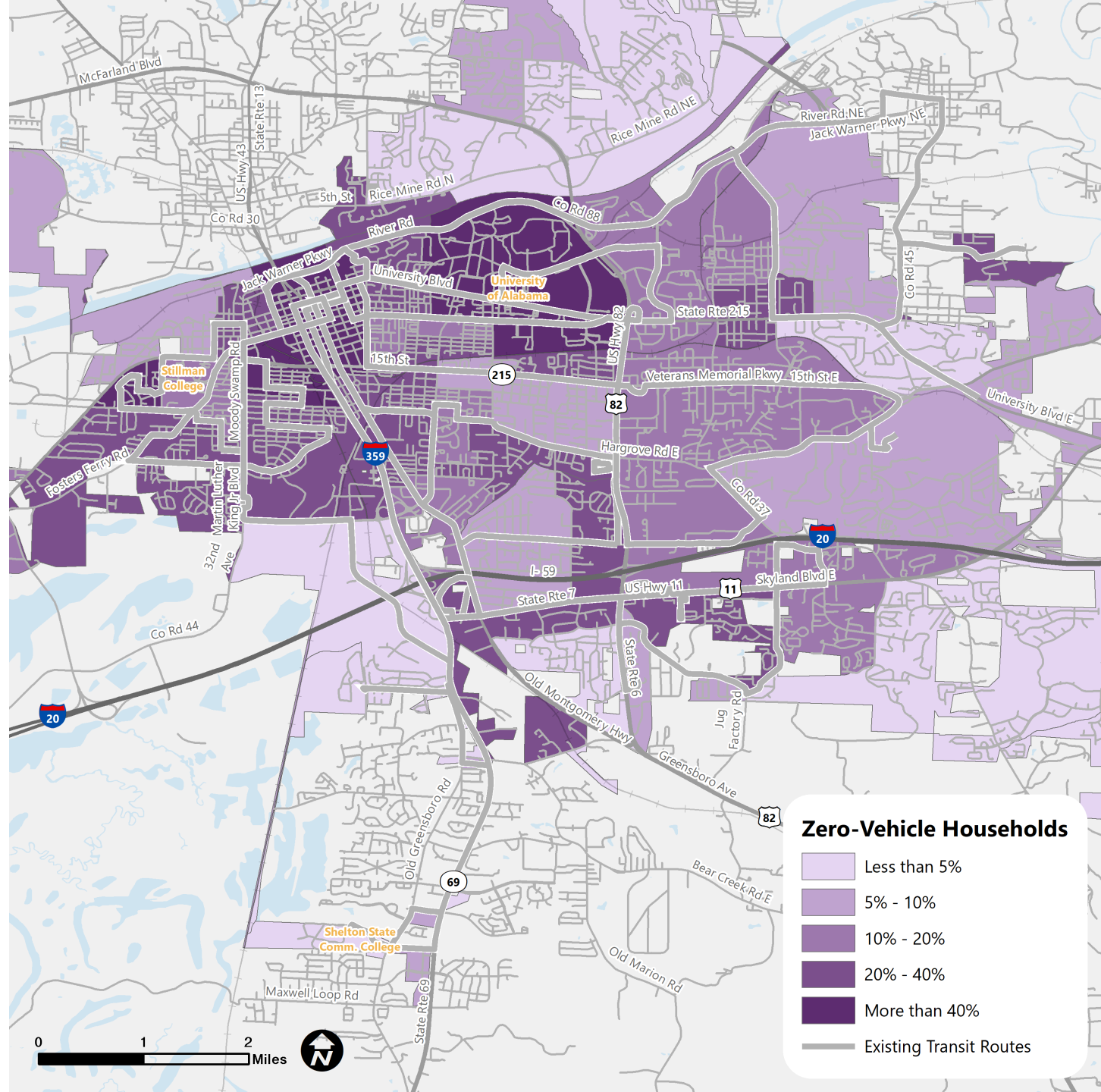
- White – 51.1%
- Black/African American – 44.1%
- American Indian – 0.3%
- Asian – 2.4%
- Two or More Races – 1.1%
- Hispanic/Latino – 3.1%



Zero-Vehicle Households

The highest proportions of households without access to personal vehicles can be found in central Tuscaloosa, especially near the University of Alabama and Stillman College.

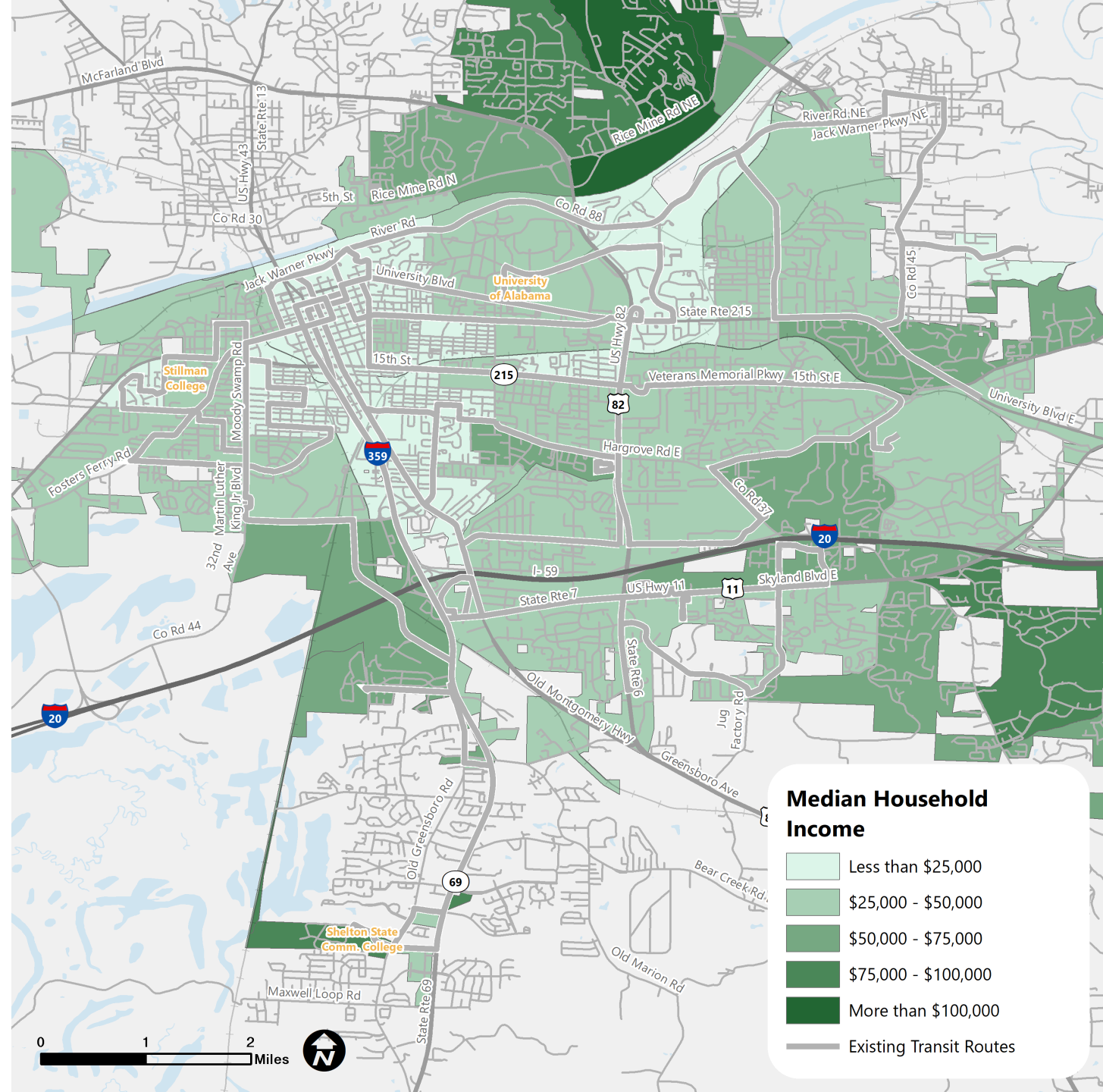
- Some areas in City have more than 20% of the population with no access to a personal vehicle



Median Household Income and Poverty

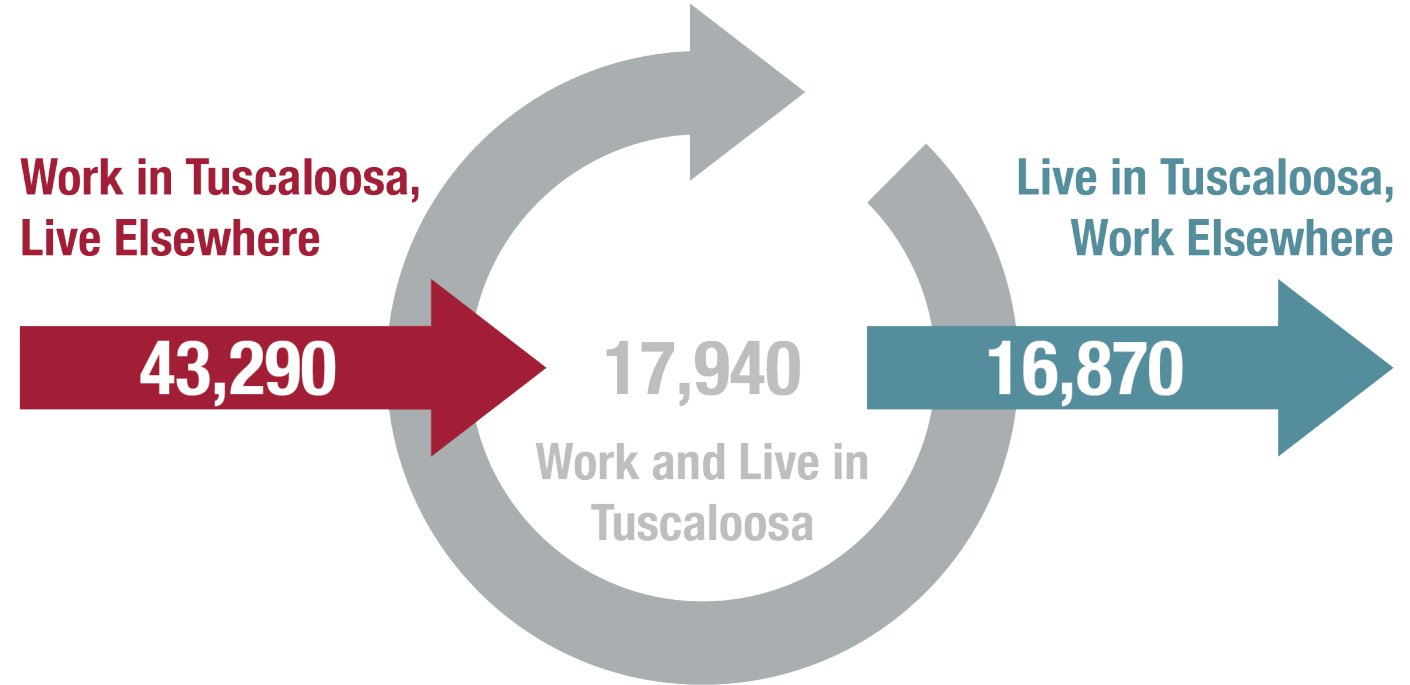
Overall median household income in Tuscaloosa is \$42,430 – which is lower than both the County (\$50,500) and the statewide average (\$48,120).

- 24.2% of City's population considered persons in poverty



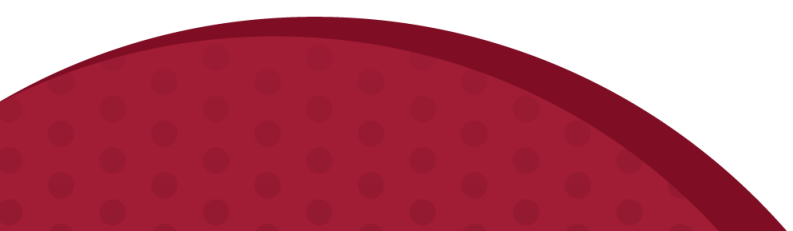
Commuting Patterns

- Tuscaloosa is a regional employment center with over 60,000 jobs available.
- 30% of jobs available are held by City residents, with just under 60% of those over the age of 16 in the Civilian Labor Force
- Relatively low average commute distances and times (~20 minutes)
- Some residents commute to jobs in the Birmingham metro area.



STAKEHOLDER QUESTIONS

Questions

- How familiar are you with Tuscaloosa Transit?
 - Do the people you serve ride transit?
 - What does TTA do well? What could TTA improve?
 - What is easy, confusing, or difficult about riding the bus?
 - What would make riding the bus more appealing?
 - Does the bus travel to all the places you want to go? What is missing?
 - What is your vision for TTA in the next 5-10 years?
- 

Stakeholder Engagement

Introduction

Stakeholder engagement efforts were conducted for the Tuscaloosa Transit Improvement Plan to receive input on strengths and issues of the current system. This process included engaging various local and regional groups related to transit, as well as organizations who may be interested in or impacted by transit, local transit operators, the Tuscaloosa Transit Authority Board members, and the general public. These various stakeholders were engaged throughout the course of the project through various methods, such as focus groups, surveys, and presentations. The following sections summarize various engagement efforts with the corresponding populations.

Stakeholder Engagement

Local and Regional Organizations

Throughout October and November 2020, the project team presented about the Tuscaloosa Transit Plan to various local and regional organizations that may be impacted by the plan or that the project team believed to have valuable feedback. The various organizations engaged over the two-month period include:

- October 16, 2020 – Social Organizations (YMCA; Focus 50+; Boys and Girls Club of West Alabama)
- October 23, 2020 - Temporary Emergency Services, Young Tuscaloosa, and Latino Coalition
- October 26, 2020 - Workforce (various large employers) and Healthcare (Veterans Affairs; DCH; Whatley Health Services)
- October 29, 2020 - Downtown Business and Tourism, University of Alabama, Tuscaloosa City Staff, District 1 City Councilor Phyllis W. Odom, and the Chamber of Commerce of West Alabama COO (Donny Jones)
- November 18, 2020 - Project Unity - Neighborhood Revitalization, Project Unity - Youth Sports & Recreation Meeting
- November 19, 2020 - Project Unity -Education
- November 20, 2020 - Project Unity -Economic & Workforce and Tuscaloosa County Economic Development Authority

During each of these presentations, the project team discussed the Tuscaloosa Transit Improvement Plan overview, the purpose of the plan, Tuscaloosa Transit System service existing conditions, and transit market demographics (density, senior populations, minority populations, zero-vehicle households, low-income populations, and commuting patterns). During these

presentations, the participants were asked to engage in a discussion about Tuscaloosa Transit Authority (TTA) in general, what TTA does well, and areas in which TTA could improve. Participants were also asked about their vision for TTA over the next 5-10 years. The responses gathered from the various groups and organizations were noted by the project team and used to shape the Tuscaloosa Transit Improvement Study.

Social Service Organizations

- ◆ Do those you serve take the transit system today?
 - Focus 50+
 - The Focus 50+ scheduling system plans trips at least 2 weeks out, and seniors rely on TTA if they need a ride quickly
 - Boys and Girls Club
 - One of the routes goes to the front of the Barnes YMCA but depending on scheduling, might be able to serve the older population during the day (large % of seniors living nearby)
 - The organization does not use the transit system currently.
 - Other bigger cities have a pass program and that may be a possibility for dreaming/planning for the future - summer programs, for example
 - The Boys and Girls Club picks up kids most of the time during the year (8 elementary schools, 3 middle schools, high school) and brings them to the site
 - 125-150 children/day
 - Some caregivers drop their kids off (minimal)
 - Want to serve more children, but limited in number of buses, staff, etc.
 - Parents pick up children afterwards
 - Right now, limiting transportation (not using vans and using buses for air to flow through)
 - Have had kids all day since last week of March
 - Focus areas:
 - Paul Bryant area to Midtown to work at retail stores like Michael's, Old Navy, and other national partners
 - During summer - children come from all over county, but the club is not responsible for transportation for these children.
 - On-site at MLK Elementary School and Southview Elementary every day
 - On-campus during school year at Paul Bryant High School
- ◆ Are there places that we are not connecting to today?
 - YMCA
 - One street over from the YMCA

- Boys and Girls Club
 - Between the Holt route on 25th Street, and Alberta Parkway
 - Main building on Alberta Parkway
 - Others are all on school sites
- Focus 50+
 - Medical transportation is up for Focus 50+
 - Movement from outside of County into the City
 - Consider how the decision process works for a senior to ride Tuscaloosa Transit vs. the Senior Service
- ◆ Who should Tuscaloosa Transit serve?
 - Jobs, Schools/Education, Seniors, etc.
 - Balance all needs
 - Reputation in the community is great and very positive
 - Transportation services and any services that are offering to children, elderly, and disenfranchised an increase to quality of life, attainable outcomes

Temporary Emergency Organizations

- ◆ Clients utilize the services to catch the bus to get services (Temporary Emergency Services) - on 15th Street
- ◆ Flaws in the services:
 - Frequency of the buses run
 - Issues with knowing how to catch the bus
 - Extending routes to Northport and weekend service
 - Service ends at 6PM which is too early
 - Service area - covering the places that they need to hit or a faster route
 - Time of day - varies and is pretty steady
 - Frequency - tend to linger because the bus doesn't come by enough
 - Customers from all around the Tuscaloosa area
 - Website - doesn't go there (point them to the bus stop), information distribution is very limited and needs help
 - Gives bus fare to ride the bus
 - Fare free - continued from COVID and are continuing fare free
 - Fare
 - Monthly passes
 - Transfer fee removal
 - New fare system (high \$ for maintenance)
 - Vision for system:
 - More buses

- Better way to exchange the fares (card system like Atlanta's MARTA) - mix of cash and cards

Young Tuscaloosa

- ◆ How familiar are you with Tuscaloosa Transit?
 - Student Athletes
 - Aware of the system and unfamiliar with the routes
 - Student athletes have had to use the system over holiday breaks, etc.
 - Flights out of Birmingham - options to fly out of the airport
 - Mercedes - short stints/work folks use the system while they are in Tuscaloosa
 - Real estate
 - Aware that the bus routes exist
 - People aren't aware of the service in the City
 - Plasma donation center
 - Bus stop in front of the building that is used by donors
 - Service needed 69 South
 - Need more marketing/information about the service that exists
 - Liz Moore
 - Grew up in Tuscaloosa and work in the University
 - Worked on coordinating conferences and international contingent had issues with the bus system and were limited in the activities
- ◆ What's working well and what improvements?
 - Marketing of the system should be improved
 - Benefits of even using the transit system
- ◆ Why aren't people riding the bus?
 - Tuscaloosa isn't huge (like the Downtown area)
 - Parking isn't terrible in the City
 - Driving is faster than the bus
 - Was not aware of the bus fare
 - People don't know where it goes or how to ride
 - Congestion in Tuscaloosa isn't bad
- ◆ Are there places where it would be helpful to serve it today?
 - Skyland Boulevard
 - Extend where the interchange and Skyland meet
 - Woodland Hills --> work in the University
 - 69 S - Cottdale area
 - North of the River
 - Church of the Highlands

- ◆ Express routes on Skyland/Downtown to Midtown?
 - None right now
- ◆ Vision for system:
 - Rapid route in Tuscaloosa
 - Manderson Landing/River restaurant, come up to somewhere in the University (DePalma's), hit the strip
 - Midtown to Target/Mall area service
 - Tuscaloosa and Birmingham - commuter bus would be concept
 - Map with an activity center/attraction would be good
- ◆ Areas that are challenging to park in Tuscaloosa:
 - Difficult at UA on the strip (there is a big Publix parking lot, student parking, etc.)
- ◆ Other ideas?
 - Microtransit - pretty interesting especially connecting to Birmingham
 - App for transit fares
- ◆ Do you use Uber/Lyft in the City?
 - A lot of restaurants have Uber/Lyft

Latino Coalition

- ◆ Familiarity with Tuscaloosa Transit
 - Some patients in Whatley ride it, but they do not think that many of the Latino community take the bus
 - Issues with taking transit:
 - Lack of knowledge of where the routes are
 - Fear of taking the bus
 - Lots of people catching the bus in front of DCH
 - Paratransit services is valuable service for those in social services
 - Service to Northport (across the river)
 - Fixed route does not service this area, but paratransit does
 - This population needs services in the County
- ◆ What is working well and not working well?
 - Information/pamphlets - when are they improved, they should be provided in Spanish
 - The community may not know that these services exist
 - Need to connect to communities in Holt/Weissman Road, Northport
 - How can we connect the County (Hwy 69, Shelton State students), crossing the river?
 - Safety
 - Communication can get lost

- Bus stops are only a sign and not protecting you from the traffic - amenities are needed
- Crime - fear of being a minority member and unsure of the route/when the bus comes by is another barrier/challenge
- Based on the route design - design to and from work vs. to and from the store vs. destinations/activity centers
- Highlight the experiences within the City that might encourage ridership from the families
- ◆ What are people using for transportation right now if they are not using public transit?
 - Depend on rides, friends sometimes charge them to come to clinic
- ◆ Other destinations?
 - Access to clinics, hospitals, Wal-Mart and grocery stores, parks, libraries, schools, etc.
 - Funding - make sure to go to the areas of % areas below poverty level is important
- ◆ Dispatchers - do they speak Spanish?
 - Call 311 – bilingual team member will book a ride with paratransit

Workforce / Large Employers

- ◆ Do employees use transit?
 - West Alabama Works/Chamber
 - Chairman sees how active the system is and is sure that their employees use the system itself
 - Interested to hear what other plans there are beyond the existing routes and how that might work to support industry
 - Plant refining company
 - Does not think that employees use transit at the refinery (across from B.F. Goodrich)
 - Riverfront office - not sure about if they use transit
 - Tuscaloosa Career Center
 - Stop close to the building
 - Time to time have job seekers who do not have access to transportation other than public transportation
 - Would be great to have some information about the transit system
 - Mercedes Benz (MBUSI)
 - The Vance/MBUSI plant is outside of town and difficult to get a bus directly out there, but it would be helpful to get some sort of group transportation and supply base around the Vance area.
 - Phifer Wire or PECO

- Both have services right at the main gate
- ◆ Challenges
 - Limits on hours the bus runs - a lot of our folks work after 5PM
 - Expand the coverage of the service
 - There is no app to show where the bus is at
 - Has there been discussion about the industrial parks?
 - Shifts or variety of shifts?
 - Follow close to the standard 2 shifts but in the area there would be 3 shifts
 - Plan to be 5 days next year but currently at 6 days a week
 - 5:30-6:30AM -4PM; 5-6:30PM to morning
 - West Alabama Works/Chamber
 - Could TTA present a route/funding and then talk through funding with them
- ◆ Pedestrian environment at the plants?
 - West Alabama Works/Chamber
 - Buildings aren't as large and are close to the street (a loop adjacent to the airport)
 - How can you get the non-profits centralized in Downtown?
 - Alabama Dining
 - Lots of people are parking at the park and walking up to the Hill to lakeside
 - Plant refining company
 - Unless riders were dropped at the entrance, it would be really far from Stillman Boulevard (up to 1/2 mile)
 - Ferguson Center would be a good stop
- ◆ Vision for system:
 - Different transit types
 - Trains
 - Driverless vehicles
 - How can we reach the people who need to be reached?
 - City/County/Adjoining Counties - that need work
 - Coverage is important
 - Grand central station type - rural area drops off people at a place
 - TDM strategy is needed for the City and County of Tuscaloosa
 - App/information/travel training/google maps integration
 - TransLoc Rider is available, but the trip planning isn't integrated and the brand isn't Tuscaloosa Transit
 - Long-term providing shelters from the weather elements

- Rural suppliers - access larger workforce

Healthcare

- ◆ DCH - Affordable Care Act required hospitals that are not for profit to do a community needs assessment every 3 years (2019 last completed)
 - Every single one has access to care as one of the primary priorities
 - Transportation is always an issue when it comes to healthcare
 - They serve more than just Tuscaloosa County - and Transportation is an issue to see
 - Global need beyond just the City
 - Had a lady from Sumpter County - treatments everyday needed and had no transportation
 - Hospital had to put her up in the hospital instead of going home
 - Is there a more on-demand service that can be operated?
 - People can get to the hospital for emergency service, but can't follow-up because lack of transportation
 - DCH - Northport is also there and needs connections
- ◆ VA Medical Center
 - 20-25 people per day, about 25% are ADA
 - Veterans - can't get them to work and help with homelessness because they're outside of the City
 - Northport - reengaging with them to get involved
 - There are a lot of people who want to go back and forth
- ◆ Whatley Health Services (Tuscaloosa)
 - Some patients are discharged and don't have people to pick them up
 - Wind up calling a cab for them to go home
 - Weekends are hard - no transportation is available and they're doing extended services
 - 20% of people at Whatley come for transportation services
 - Whatley is in West Tuscaloosa
 - Dentists - had to wait in cars to get to service during COVID and a lot of people don't have access to cars
 - COVID - can't ride the bus right now because of what's happening with COVID and the limitations
- ◆ Challenges
 - Service area is challenging - people live outside of the City of Tuscaloosa
 - Service span is challenging
 - ADA accessibility
- ◆ Vision for system:

- Tuscaloosa County
- Birmingham
- Northport
- Integrated transportation system and coordinated between different areas
- Weekend service

Downtown Business and Tourism

- ◆ What is working well and not working well?
 - Do not have a lot of people that currently ride transit
 - Would be nice to have transit that serves shopping areas
 - Holt route serves the hotel well
 - Good website and a good, usable app would be nice
 - Expansion of hours
 - For people working in the evening and for visitors
 - Shops at Legacy would be good to serve
 - Weekend service is needed
 - Good directional signage is needed
 - None of the existing wayfinding signage talks about transit
 - Transit will be important for growing tourism
 - Transit needs to be marketed in Tuscaloosa more
 - Partnership opportunities with Tuscaloosa Tourism
 - First Friday or Art Night could be a good partnership opportunity
 - Cultural Arts Center
 - Stillman students don't make it downtown because they don't have transportation
 - Think that marketing/influencing the transit system and erasing stigma will be important
 - It will be important for people in leadership to start riding transit
 - Could do a Santa on the Bus event
 - It will be important to introduce the bus to families
 - Want people to take more pride in the transit system
 - Want to elevate the entire community
 - Addresses parking concerns downtown
 - People want to know how long they have to wait
 - Downtown route from downtown to hotels to campus
 - Downtown service should be every 15 minutes
 - Different markets: hospitality and workforce
 - Would like a transit map in the chamber community guide
- ◆ Vision for system:

- Support of service to outlying areas
- Lots of support for weekend service and later service
- Express routes to shopping areas from hotels
- Think about connecting to the airport and Amtrak
- Major issue that Northport and Tuscaloosa County don't fund the system
- Maybe rebranding the system would be helpful
 - Interest in wrapping the buses

University of Alabama

- ◆ Partnerships
 - Interested in partnering with the city like UNC did with the City of Chapel Hill
 - Have a great relationship, and it would be great to build a partnership
- ◆ What is working well and not working well?
 - UA gets complaints about the transit system's hours and that it doesn't operate late enough
 - The university transit system operates until 9
 - CoOp students do not have a way to get to Mercedes
 - Some students are used to transit, but others haven't had exposure to it
 - If airport service gets going, it would be great to have transit service there
 - More than 50% of students come from out of state
 - Connections to Atlanta would be helpful because many students fly in/out of Atlanta
 - Improve transit connections to the entertainment center
 - Many students are looking for point to point service
 - Apartments pay for UA shuttle service
 - Regional system could be more efficient than separate transit systems
 - Not many students need to go very far from campus
 - UA transit ridership is down 80%
 - UA dining and custodial staff ride the transit system
 - Intermodal has been a draw for employees to park there and ride the transit system
 - Chapel Hill Transit is fare free. Has Tuscaloosa considered that?
 - Regional transit connections are important
- ◆ Other transportation options
 - Golf carts and bikes have popped up as other transportation options
 - Partnership with Lyft

Tuscaloosa City Staff

- ◆ What is working well and not working well?
 - Could improve the hours of operation and days of operation

- Bus stop amenities seem inconsistent, especially at locations where people are needing to wait a long time
- Internet access on buses and at shelters would be nice
- People seem to know about the transit system
- Transit system does a great job handling upset customers
- ◆ Vision for system:
 - West Tuscaloosa in the underserved area would benefit from additional transit options
 - A Saturday route to the farmers market
 - Providing transit connections to healthy foods is important
 - Connections to recreation facilities
 - Use transit to shuttle people for events
 - Had an experiment with Kenny Chesney concert and went well
 - 24/7 service would give people opportunities
- ◆ Bus Advertisements
 - Wish that it was easier to share city information on buses rather than treating it like advertising
 - Flat screen TV with public information

District 1 City Councilor Phyllis W. Odom

- ◆ People concerned about safety related to COVID
 - Maybe consider Plexiglas
- ◆ Vision for system:
 - Constituents are interested in a trolley like other large cities have
 - McKenzie Court would like more shelters and benches
 - West Tuscaloosa
 - Color Grove
 - Johnson Grove
 - Transit service on Saturdays would be helpful
 - Trash containers at shelters have been helpful

Chamber of Commerce of West Alabama CEO (Donny Jones)

- ◆ Challenges:
 - Public transit has too many stops, so it takes too long for people to get to work
 - Need to think about shift times
 - From a workforce perspective, needs to expand beyond city boundaries
 - Need to get companies on board
 - Many of these companies have a 60% turnover rate
- ◆ Opportunities:
 - Partnership with plants and job seekers

- Connect with affordable housing

Project Unity - Neighborhood Revitalization, Project Unity

- ◆ Additional opportunities:
 - Saturday service would be beneficial
 - Service to Vance and Cottondale would be helpful
 - Service to Mercedes and the airport would be helpful
- ◆ What is working well and what is not working well?
 - Appreciate the fares being low
 - Travel times can take a while with people needing to go to the multimodal transit center to transfer
 - People can't take jobs because of transportation

Project Unity - Youth Sports & Recreation Meeting

- ◆ What is working well and what is not working well?
 - Opportunities are limited based on service availability
 - No transport to court system/juvenile system
 - Off of 82 near the Coke plant
 - Serve the Tuscaloosa Housing Authority apartments by Tuscaloosa Ford
 - No route to the parks north of the river for soccer, flag football
 - Some kids will not register on the participatory factor of availability of transportation
 - Encourage people to the services and partner with Transit
 - There are not routes that go over the river
 - West end kids can not get to things like soccer
 - Northport is underserved (up to Sokol Park and back around to Tuscaloosa)
 - McKenzie court transportation is a struggle
 - Time schedule
 - Hourly service is an issue
 - The system isn't traditional
 - Takes too long to get to places
 - Need vs the demand
 - Need access to extracurricular opportunities
 - Criminal defense - getting to court
- ◆ Other transportation concerns:
 - Sidewalks from MLK McDonald Hughes to Palomar? Park/Splash Park
 - Down Fosters Ferry Road
- ◆ Vision for system:
 - Service up to 9-10PM on weekdays, Saturday mornings

Project Unity - Education

- ◆ What is working well and what is not working well?
 - Shelton State
 - Student lack transportation between the two campuses
 - More frequent service between the campuses
 - Connection to McKenzie Court
 - Bus route or service to juvenile court would be beneficial
 - Service doesn't operate late enough
 - 9pm might be better
 - Need to pick kids up from daycare
 - Vance area jobs need service
 - Buses don't operate late enough for parents and kids to get home from sports and other extracurriculars
 - Game day shuttles are really nice and helpful
 - Operators area excellent; friendly drivers
 - Having to transfer buses can be confusing
- ◆ Vision for system:
 - Service to Northport
 - Industrial area near the airport
 - Woodland Forest area
 - More shelters
 - McAbee Center; hope for it to be the senior center
 - Later service

Project Unity – IDA

- ◆ What is working well and what is not working well?
 - Jobs out to Birmingham - where are they going? Do they need transit?
 - Existing industries - manufacturing is hard to get to work
- ◆ Vision for system:
 - Low cost to ride - coupons/waivers for public transportation, subsidized form of transportation
 - Microtransit - Uber/Lyft would be of interest

Project Unity -Economic & Workforce and Project Unity

- ◆ What is working well and what is not working well?
 - One hour seems to be a long time to be functional
 - People don't mind walking a bit longer to get to a more frequent bus system
 - Is there a discussion about of a regional bus line to get to Birmingham and Northport?
 - Route 2 - is too circuitous

- Need to straighten out the routes
- Need smaller vehicles instead of buses
 - Uber/Lyft - can they fit into that scheme
 - Uber - mostly based on the campus/students
- Need to have buses go where they want to go - Mercedes, plants, hospitals
- Need more awareness of routes
- ◆ Vision for system:
 - Airport shuttle
 - Long-term infrastructure - self driving cars (capital investments)
 - Greensboro - people who are commuting into the City to work here
 - Downtown loop - frequently 15-20 min for businesses in the campus/riverfront area
 - Amphitheater - unique routes to serve that
 - Increased branding/identity for buses
 - Vanpool/shuttle service might be an option

Tuscaloosa Transit Survey Summary (April 2021)

Introduction

Public engagement efforts were conducted for the Tuscaloosa Transit Improvement Plan to receive input on strengths and issues of the current Tuscaloosa Transit System. As part of this effort, a public input survey was conducted throughout the month of February 2021. Nearly 1,000 responses were received during this timeframe, with 558 online survey responses (four completed in Spanish), and 432 paper copy responses.

Advertisement and Communication

The public survey for the study was advertised in a variety of ways that included traditional press releases, flyers, social media campaigns on the City of Tuscaloosa account, and targeted communication with local organizations. The surveys were available in both online and paper formats and offered in English and Spanish.

Date	Details
2/1/21	Sent out press release
2/1/21	Added Elevate website slider on homepage
2/3/21	Began posting on City social media
2/3/21	Began running billboard space
2/4/21	Posted on NextDoor Mobile App
2/6/21	Advertised on Farmers Market video screens each Saturday of February
Throughout the month of February	Ran flyers in Tuscaloosa City Schools' parent newsletter
	Printed flyers for 1,000 monthly rent statements sent through the Tuscaloosa Housing Authority
	Placed yard signs (QR code and survey URL) throughout the city
	Discussed at multiple Tuscaloosa City Council Pre-Council meetings
	Posted on Mayor's social media account
	Shared information on the Tuscaloosa City employee internal newsletter
	Shared information through Habitat for Humanity's and West Alabama Works' social media pages
	Distributed paper surveys and links to the online survey to a wide variety of stakeholders, groups, and organizations

Notice of surveys was communicated to the following organizations:

- Boys and Girls Clubs of West Alabama
- City of Tuscaloosa Planning and Zoning Commission, Historic Preservation Commission, and Zoning Board of Adjustment members
- Tuscaloosa Housing Authority
- FOCUS 50+
- Tuscaloosa County Parking and Transit Authority
- Alabama Power
- Community Service Programs of West Alabama
- Temporary Emergency Services
- University of Alabama Panhellenic Association
- The Arts & Humanities Council and member organizations
- Chamber of Commerce of West Alabama
- Elevate Tuscaloosa Advisory Council
- Whatley Health Services
- Tuscaloosa Association of Realtors
- Shelton State Community College
- Stillman College
- Tuscaloosa City Schools
- Tuscaloosa Latino Coalition
- Tuscaloosa Tourism and Sports
- Young Tuscaloosa
- Tuscaloosa County Economic Development Authority
- Alabama Career Center System (Tuscaloosa)
- University of Alabama Transportation Services
- The Edge Incubator and Accelerator
- Diverse Business Council of West Tuscaloosa
- City of Tuscaloosa's Project Unity members
- YMCA of Tuscaloosa
- City of Tuscaloosa employees
- Habitat for Humanity (Tuscaloosa)
- West Alabama Works
- Tuscaloosa Ministerial Alliance
- Tuscaloosa's One Place
- The Arc of Tuscaloosa County
- Sealy Management Company
- Dept. of Veterans Affairs - Tuscaloosa VA Medical Center

- Tuscaloosa Public Library

Survey Results

The following section breaks down each survey question and the responses that were received.

Did you ride the Tuscaloosa transit system in 2019?

Half of the respondents said that they rode the system in 2019.

- Yes: 487 responses
- No: 469 responses

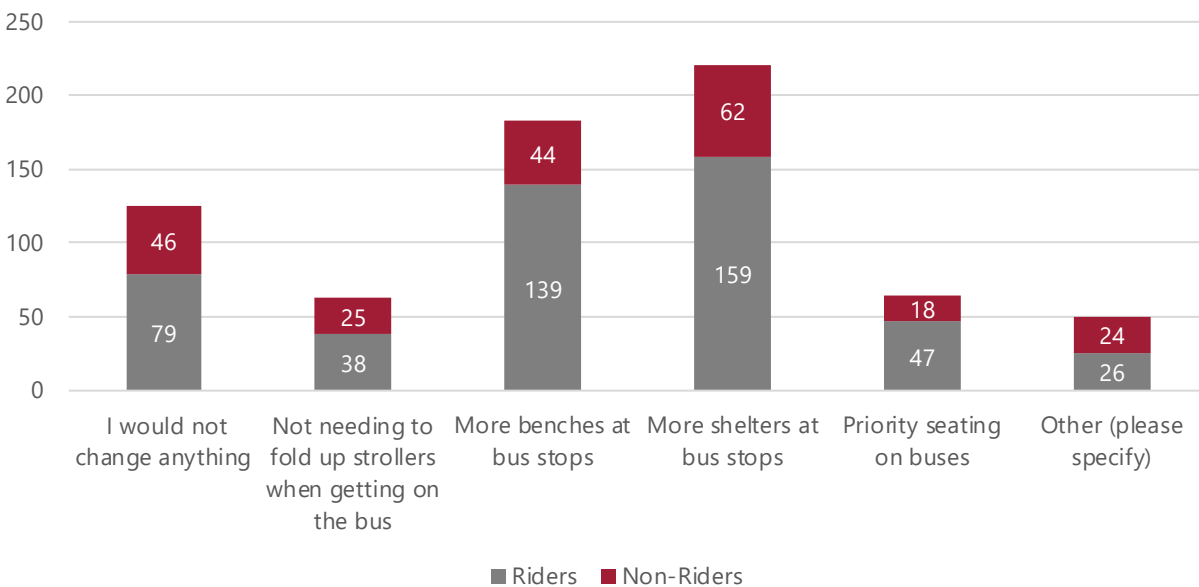
Do you ride the bus with children under the age of 5?

Just over 100 respondents said that they rode the bus with a child under the age of 5.

- Yes: 129 responses
- No: 811 responses

If yes to "did you ride the bus with children under the age of 5," is there anything that would make riding the bus with children easier?

Several respondents who did not ride the bus with a child under the age of 5 also answered this question – the responses have been noted as non-riders in the table below. The top response for this secondary question was more shelters at bus stop followed by more benches at bus stops.

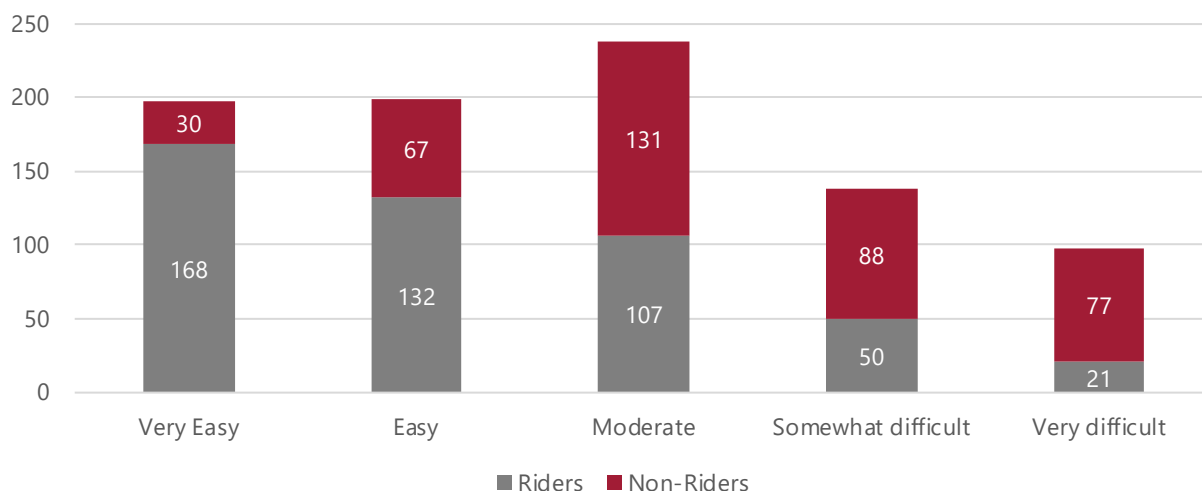


Survey respondents were given an “Other” option and asked to specify what other improvements would be important. The comments included:

- Bike racks on buses
- Priority seating for people with disabilities
- Transit for kids/parents to medical facilities in Tuscaloosa and Birmingham
- Covering and heating at bus stops
- Better advertisement of routes
- Clearer announcement of stops on buses
- Safer bus stop locations
- Seatbelt options for children

In your opinion, how easy is it to ride the Tuscaloosa transit system?

Of just the rider respondents, the top responses rank the ease of riding as Very Easy, followed by Easy. The top responses for non-riders rank the ease of riding the Tuscaloosa transit system as Moderate, followed by Somewhat Difficult.



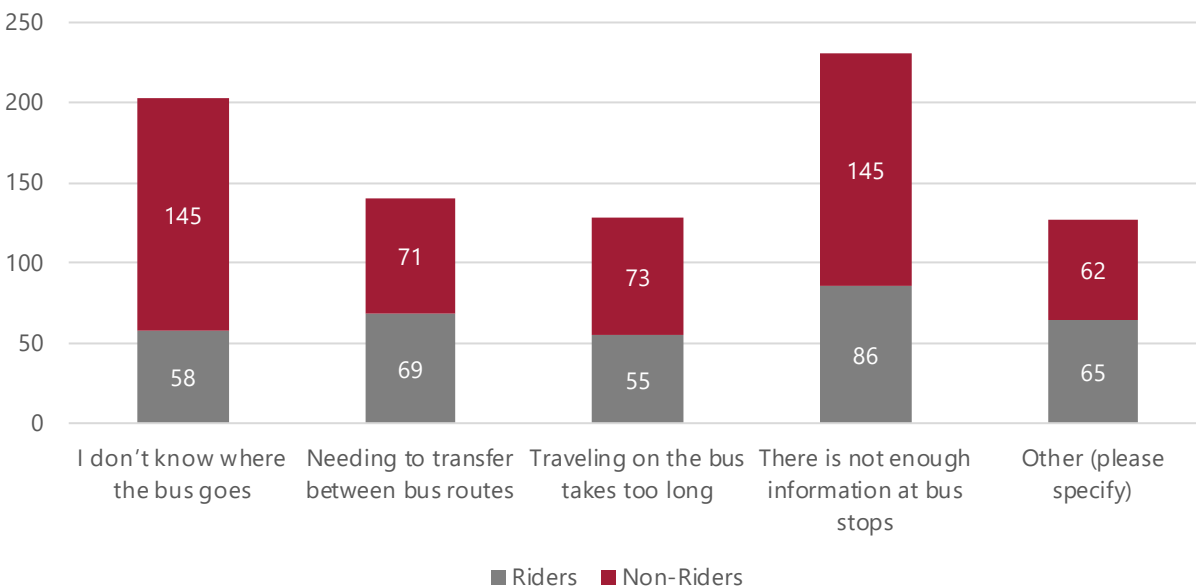
Is there an aspect of riding the bus that makes it confusing or difficult?

Of the total responses, 512 responded that there is an aspect that makes riding the bus confusing or difficult.

- Yes: 512 responses
- No: 346 responses

If yes to the above question, what is confusing or difficult of riding the bus?

When breaking down rider-only responses, the top responses were “there is not enough information at bus stops” and “I don’t know where the bus goes.” For non-riders, the top response is also “there is not enough information at bus stops,” followed by “needing to transfer between bus routes.”

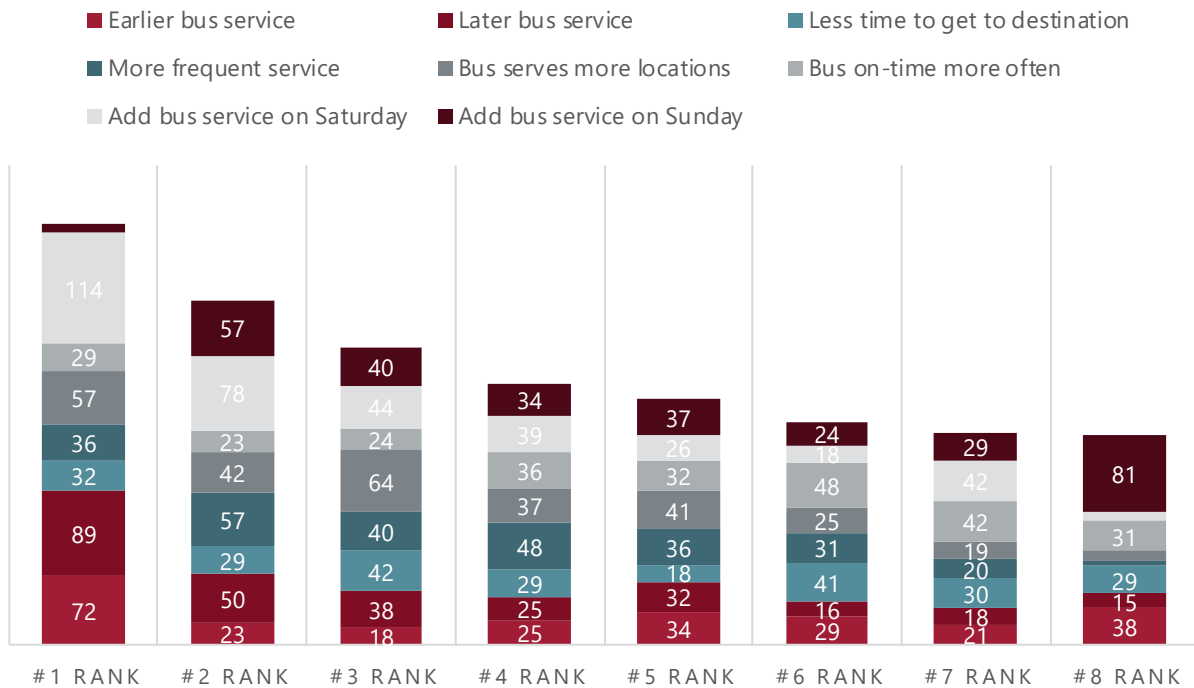


Survey respondents were given an “Other” option and asked to specify why riding the bus was confusing or difficult. The comments included:

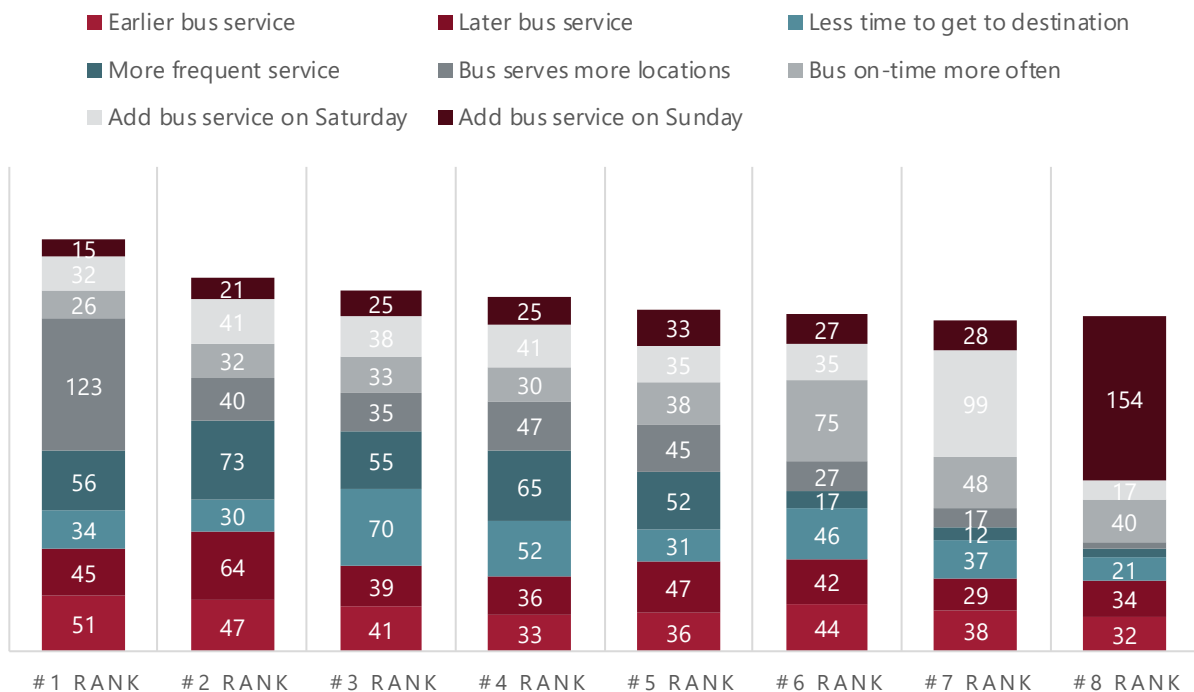
- Not enough information on bus routes or stop locations
- Buses do not run frequently enough, do not run late enough, run inconsistently, or do not cover needed geographic area
- Not enough sidewalks near bus stops
- Routing is not available in map form (such as Google Maps) which makes route planning more difficult
- Difficulties with the bus app
- Lack of weekend bus service

What would make riding the bus more appealing to you? Please rank these improvements in order of greatest priority to you (1=highest priority and 6=lowest priority).

The top three priorities of respondents who are current riders are adding bus service on Saturday, adding bus service on Sunday, and more frequent service.



The top three priorities of respondents who are non-riders are buses serving more locations, more frequent service, and less time to get to destination.



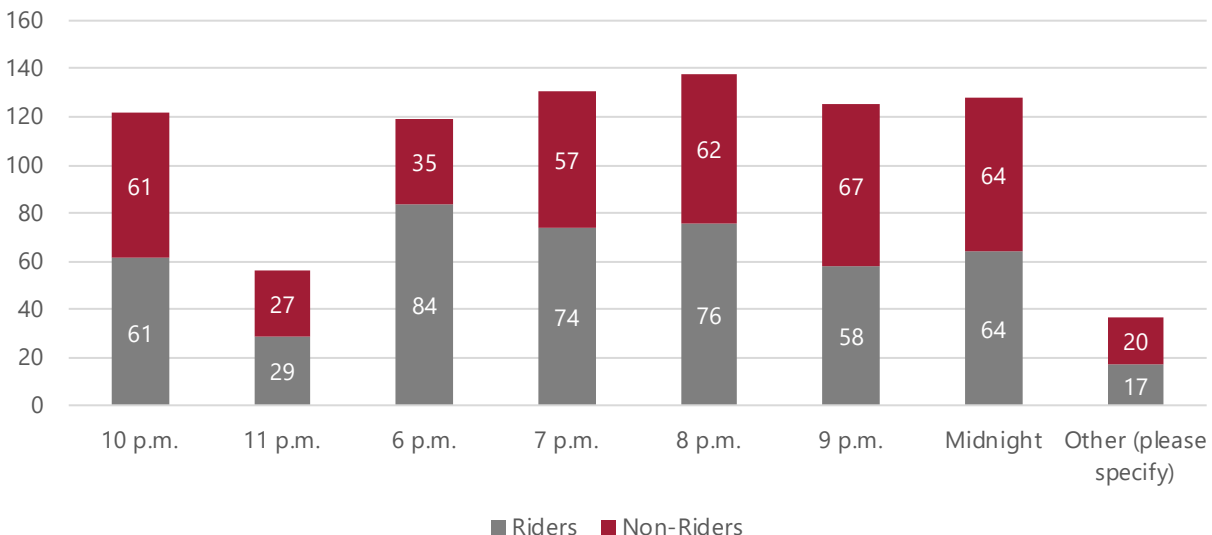
Are there any locations the bus does not travel to that you feel are important to have service?

Comments included:

- Northport
- Grocery stores, movie theaters, shopping centers
- Areas north of the river (specifically medical facilities)
- Areas around the university
- Cottondale
- Holt
- Vance
- Kings Acres Subdivision
- Clara Verner Towers, Cottondale Efficiency Apartments, Rivermont Apartments
- 62nd and 63rd Avenue off Martin Luther King Jr Boulevard
- Culver Road near Greenview Drive and Oakdale Elementary School
- More service along Skyland Boulevard and McFarland Boulevard

How late would you like the bus to operate on weekdays?

The top response for riders is operating buses until 6pm, followed closely by 8pm and 7pm for second and third responses. When compared to non-rider responses, the top response was 9pm, followed by midnight and 8pm.



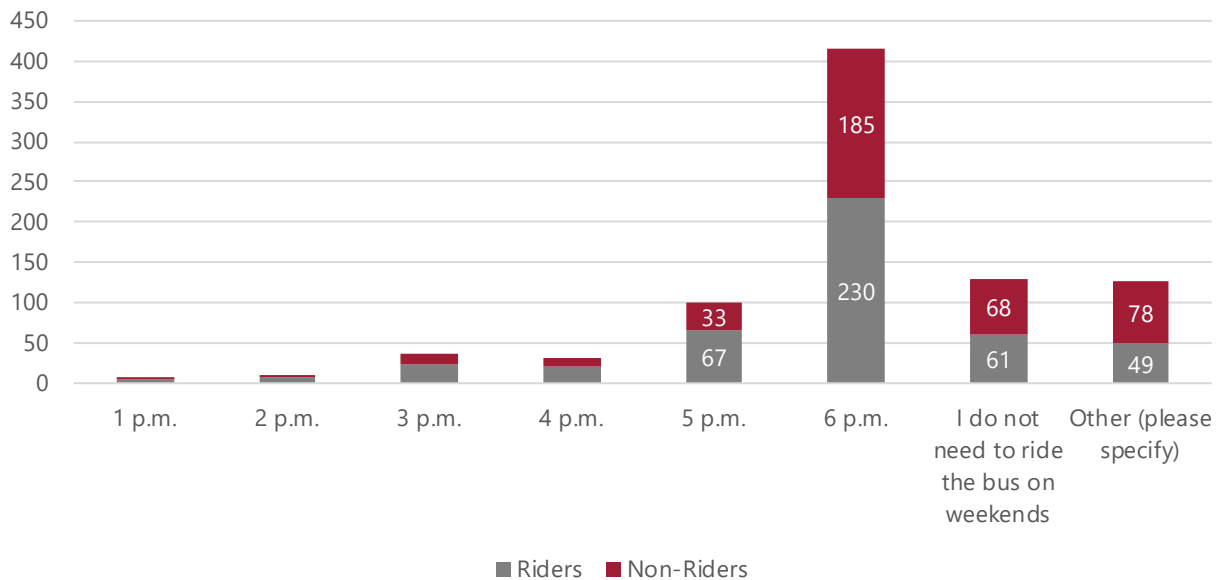
Survey respondents were given an "Other" option and asked to specify what other hours the transit agency should consider operating on weekdays. The comments included:

- Running the buses 24 hours

- Running buses when shift workers arrive/end work

How late would you like the bus to operate on weekends?

The below chart shows the rider and non-rider responses to the question above. The top response for both riders and non-riders is operating buses on weekends until 6pm.

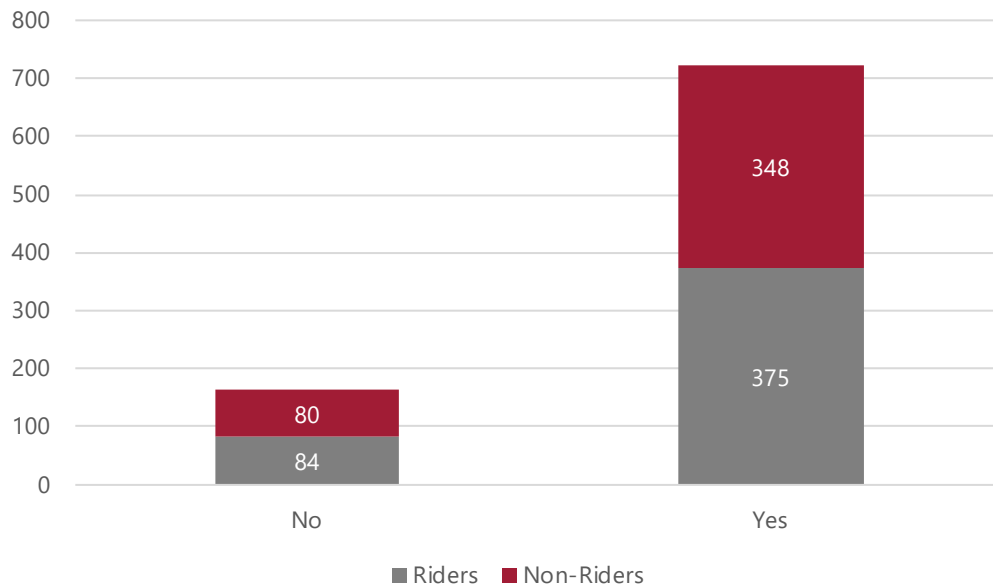


Survey respondents were given an "Other" option and asked to specify what other hours the transit agency should consider operating on weekends. The comments included:

- Running buses between 8pm and midnight on the weekend
- Running buses until bars close for safety.

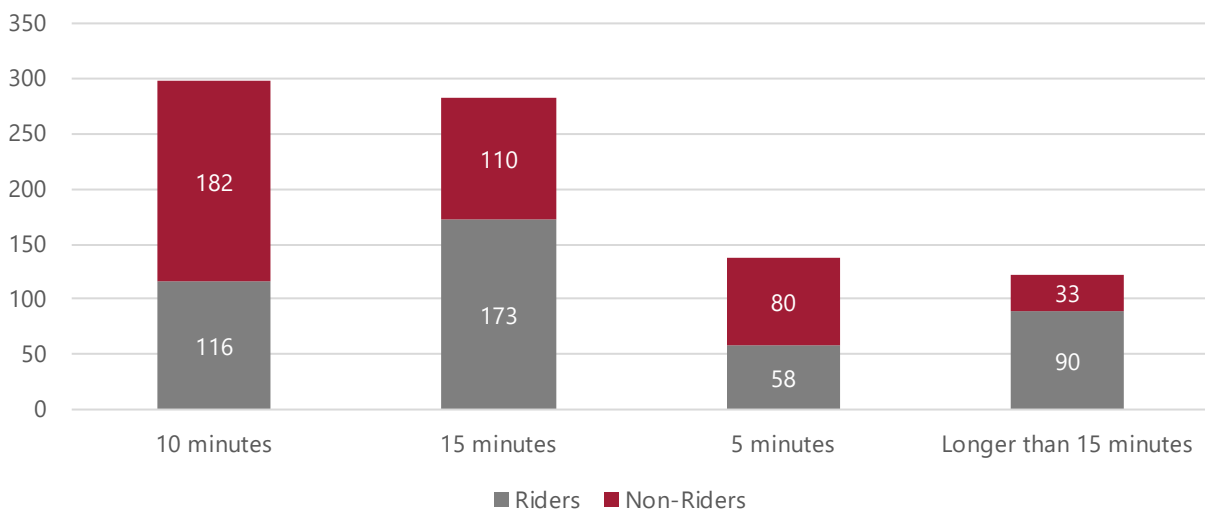
Would you be interested in using a bus route specifically for the downtown and riverfront areas? (Destinations could include restaurants, entertainment venues, or shopping)

Both riders and non-riders showed interest in a downtown specific route.



For a downtown and riverfront specific route, how long would you be willing to wait for a bus to pick you up?

The most common responses for willingness to wait for a downtown specific route was 10 to 15 minutes.



Please share any other comments related to strengths of the current bus system, issues with the current bus system, or improvements that you would like to see to the bus system:

General comments regarding the existing bus system were shared by survey respondents. Some of the comments received highlighted a need for an educational campaign regarding Tuscaloosa

Transit, as several comments, such as discounted fares for the elderly or bus tracking applications, are current offerings of the system.

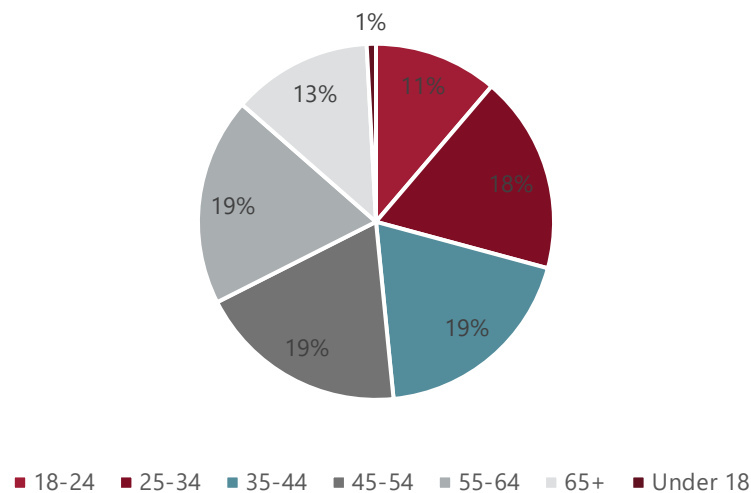
- Offering weekend service and later weekday service
- Offering more frequent, consistent service times and covering more areas (specifically the downtown and university areas)
- Increasing dependability of app and tracking function
- Safer stop locations and sidewalk access to those stop locations
- Easier access to information on bus routes/stop
- Adding bus lanes so buses can avoid traffic
- Lack of parking at bus stops
- Improved benches and signage at bus stops
- More training for drivers on ramp use/assisting people with disabilities
- Providing monthly fares, reduced fares for 65+
- Integrating Tuscaloosa transit bus routes with university system bus routes
- Issues with the final bus service cutting off early and leaving riders stranded at stops

Demographics

The demographics section of the survey was optional and thus, not every respondent took this portion of the survey. The responses that were received have been documented below. The graphs in the following section show total rider and non-rider responses.

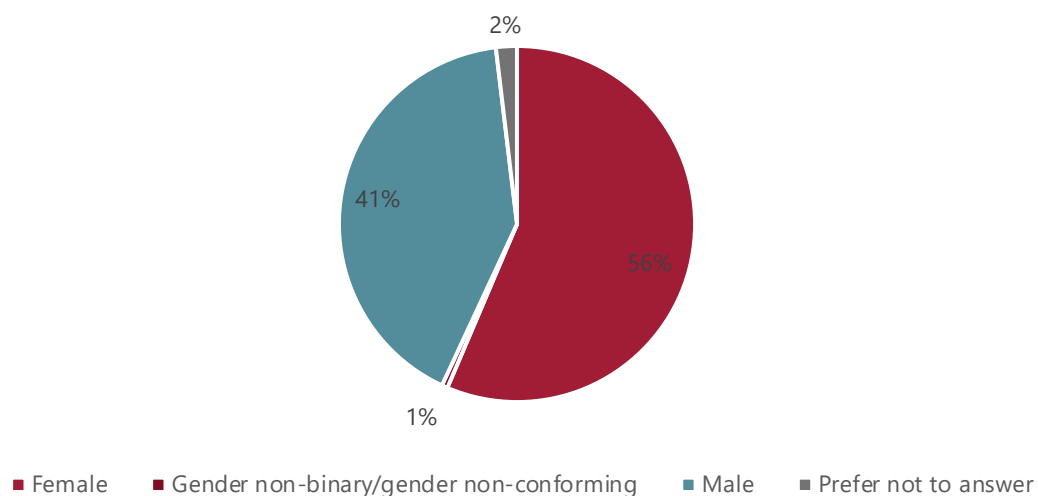
What is your age?

Survey responses were almost evenly split between the 35-44, 45-54, and 55-64 age groups, followed closely by the 25-34 age group.



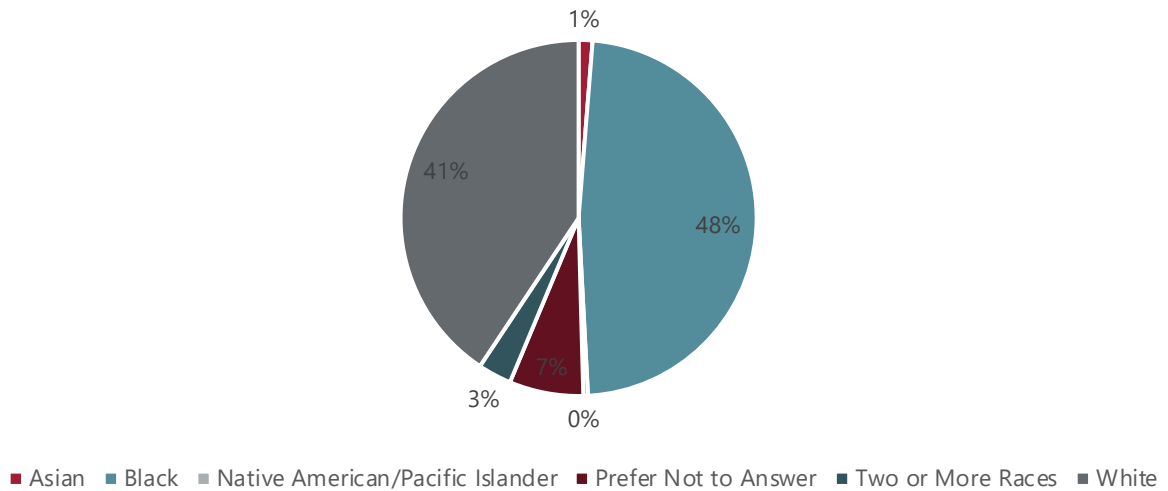
With which gender do you identify?

Most respondents identify as female for both the total rider and non-rider group.



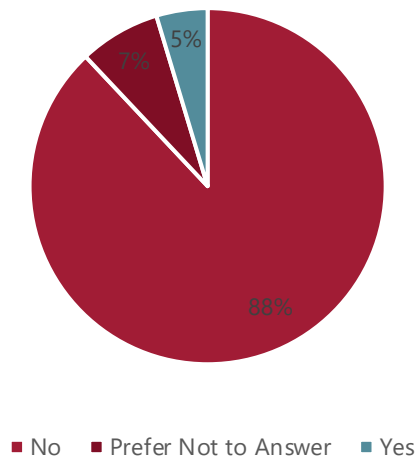
With which race(s) do you identify?

Of the total rider and non-rider group, approximately 48% of responders identify as black and approximately 41% identify as white.



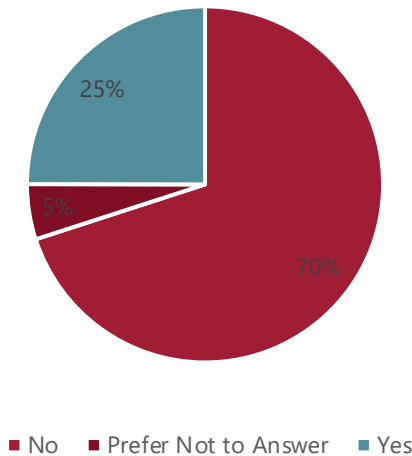
Do you identify as Hispanic or Latino?

Approximately 5% of respondents identify as Hispanic or Latino.



Do you identify yourself as a person with a disability?

Of the 917 survey respondents that answered this question, approximately 25% identify as a person with a disability.



Conclusion

The results of the stakeholder engagement survey indicate the following takeaways:

- Half of the survey respondents said that the service was confusing or difficult and presented various solutions for this
- Survey respondents want improved bus stop locations with access to sidewalks, as well as improved bus stops with benches, shelter, and signage
- Survey respondents wanted a longer service span – asking for later weekday service and weekend service
- Survey respondents showed a strong interest in service outside the City limits such as Northport, Cottondale, Holt, and Vance
- Respondents want more geographic coverage of transit service but also want more frequent service
- There is an interest in a downtown route that would travel at up to 15 min frequencies for service
- Requests for information or technology/apps that are already in place indicate a need for more educating or marketing about the current offerings of the transit system

Operator Survey

- Which route(s) do you operate?

Shelton

- What time of day do you drive?

6:30 - 4:00

- What would you do to improve the routes that you are responsible for?

eliminate CA Fredd

- What safety concerns do you have regarding the route(s) that you currently or previously operate?

VA coming from Health Dept. driver
are constantly running light.

- Do any of your routes have any running time issues? If so, where?

UA skyland & VA

- Do your routes have sufficient layover/recovery time?

yes

(turn over)

- What Tuscaloosa area locations do current passengers ask for service to that aren't currently served?

McKenzie & VA

- Are there any locations in Tuscaloosa that should be served by bus service but aren't currently served?

- Are there any locations in Tuscaloosa that should have more frequent bus service than is currently provided?

- Are there any stops, route segments, or areas that currently have service that either shouldn't have service or should receive less service?

Crescent East

- Are there any changes that could be made to either the routes or the system that would make your job easier?



Operator Survey

- Which route(s) do you operate?

Greesboro A

- What time of day do you drive?

4:30 to 12:pm

- What would you do to improve the routes that you are responsible for?

If you didnt HAVE to CROSS RAILROAD TRACKS
4 Times

- What safety concerns do you have regarding the route(s) that you currently or previously operate?

N/A

- Do any of your routes have any running time issues? If so, where?

NO

- Do your routes have sufficient layover/recovery time?

NO

(turn over)

- What Tuscaloosa area locations do current passengers ask for service to that aren't currently served?

BRASCOMB on 69

- Are there any locations in Tuscaloosa that should be served by bus service but aren't currently served?

LOWE'S

- Are there any locations in Tuscaloosa that should have more frequent bus service than is currently provided?

N/A

- Are there any stops, route segments, or areas that currently have service that either shouldn't have service or should receive less service?

NO

- Are there any changes that could be made to either the routes or the system that would make your job easier?

NO

Operator Survey

- Which route(s) do you operate?

Skyland

- What time of day do you drive?

4:30 AM - 12pm

- What would you do to improve the routes that you are responsible for?

Everything is okay w/ the route

- What safety concerns do you have regarding the route(s) that you currently or previously operate?

none

- Do any of your routes have any running time issues? If so, where?

no

- Do your routes have sufficient layover/recovery time?

no

(turn over)

- What Tuscaloosa area locations do current passengers ask for service to that aren't currently served?

TO Branscomb Apartment off 69 Sate
Branscomb apartment (move stop to neighborhood)

- Are there any locations in Tuscaloosa that should be served by bus service but aren't currently served?

The Lowes (Lowes Dept store)
Shelton States bus could go in and get out easy.

- Are there any locations in Tuscaloosa that should have more frequent bus service than is currently provided?

- Are there any stops, route segments, or areas that currently have service that either shouldn't have service or should receive less service?

- Are there any changes that could be made to either the routes or the system that would make your job easier?

Please put warning signs on back of
Buses & Vans

* This^o Vehic Makes frequent Stops *
A lot of times we are about to get rear ended²



Operator Survey

- Which route(s) do you operate?

University Shuttle

- What time of day do you drive?

4:30 am to 12:30pm

- What would you do to improve the routes that you are responsible for?

NA

- What safety concerns do you have regarding the route(s) that you currently or previously operate?

None

- Do any of your routes have any running time issues? If so, where?

yes (University Shuttle)

- Do your routes have sufficient layover/recovery time?

No

(turn over)

- What Tuscaloosa area locations do current passengers ask for service to that aren't currently served?

Northport, AL (Tuscaloosa County)

- Are there any locations in Tuscaloosa that should be served by bus service but aren't currently served?

Northport, AL (Tuscaloosa County)

- Are there any locations in Tuscaloosa that should have more frequent bus service than is currently provided?

No

- Are there any stops, route segments, or areas that currently have service that either shouldn't have service or should receive less service?

Skyland Route (Dollar Tree, ~~Jug Factor Road~~)

- Are there any changes that could be made to either the routes or the system that would make your job easier?

Breaks
University Shuttle reroute for football season

Operator Survey

- Which route(s) do you operate?
Regular Fixed/Shuttle Routes
- What time of day do you drive?
PM shift 11-5pm
- What would you do to improve the routes that you are responsible for?
The number 1 change would be to remove any stops or routing that required going in residential neighborhoods or onto private property. 2nd Reroute to avoid train tracks. Make routes more visible less complicated.
- What safety concerns do you have regarding the route(s) that you currently or previously operate?
The main safety concern is in regards to pedestrians on private property (ie parking lots) and children in residential neighborhoods.
- Do any of your routes have any running time issues? If so, where?
Greensboro route has major time issue @train tracks at the light @ Skyland (crossing over both directions)
SHELTON SHUTTLE can experience the train delays also & the light @ chevron
Pre COVID-19 any route could run into issues for any number of reasons see below
- Do your routes have sufficient layover/recovery time?
Routes currently have sufficient layover/recovery time. However, pre-COVID-19 quarantine we often faced insufficient time and delays. Often due to train traffic, work traffic, stop over activity, road work ... you name it.
(turn over)

I believe it would be helpful to have routes that circulated on both sides of the main roads C/E McFarland Blvd, Skyland Blvd, 215' ...)

Also if routes crossed for perpendicular interchange — better for transfers eliminates everyone having to come to terminal.

- What Tuscaloosa area locations do current passengers ask for service to that aren't currently served? *The entire distance of Skyland Blvd., McFarland Blvd., nor Hargrove Rd, University Blvd beyond 5pts over the bridges.*
- Are there any locations in Tuscaloosa that should be served by bus service but aren't currently served? *Further down Skyland AND McFarland*
This depends also on what specifically is deemed Tuscaloosa
we do not cross over either bridge even in areas that
are not considered Northport. Neither do we service areas
like Cottondale & Duncanville
- Are there any locations in Tuscaloosa that should have more frequent bus service than is currently provided? *Yes Skyland, McFarland Blvd, 15th Street (Veteran Memorial Hwy Hwy 215) Hargrove Rd*
- Are there any stops, route segments, or areas that currently have service that either shouldn't have service or should receive less service?
Any routing over train tracks can be rerouted to avoid hold-ups (delays) and probably be more effective for providing stops that are needed.
- Are there any changes that could be made to either the routes or the system that would make your job easier?
I believe the system has to decide who it is serving and how those individuals will be served for the greater good. There should not be courtesy provisions made on scheduled routes. Being firm is affirmative action in action.
All other aspects of my job itself is easy enough.
Pay increases are always welcome. ☺
Better benefits
more concern for our safety
increase in training

Operator Survey

- Which route(s) do you operate?
Skyland
- What time of day do you drive?
evening
- What would you do to improve the routes that you are responsible for?
Cut some of the route down
- What safety concerns do you have regarding the route(s) that you currently or previously operate? *Traffic*
- Do any of your routes have any running time issues? If so, where?
Skyland due to the Traffic
- Do your routes have sufficient layover/recovery time?
Sometimes

(turn over)

- What Tuscaloosa area locations do current passengers ask for service to that aren't currently served? *Northport*
- Are there any locations in Tuscaloosa that should be served by bus service but aren't currently served? *Cottdale*
- Are there any locations in Tuscaloosa that should have more frequent bus service than is currently provided? *west Tuscaloosa*
- Are there any stops, route segments, or areas that currently have service that either shouldn't have service or should receive less service? *The dake Tree*
- Are there any changes that could be made to either the routes or the system that would make your job easier? *Cut down on some of these routes that we don't pick up anybody from*

Operator Survey

- Which route(s) do you operate?

Greensboro

- What time of day do you drive?

Afternoon

- What would you do to improve the routes that you are responsible for?

Buffalo Wild Wings stop unnecessary in my opinion

- What safety concerns do you have regarding the route(s) that you currently or previously operate?

James O Ellis health center stop right after curve
(cars come close to hitting back of bus)

- Do any of your routes have any running time issues? If so, where?

Only time there is an issue with time is when
there is a train delay

- Do your routes have sufficient layover/recovery time? yes

(turn over)

- What Tuscaloosa area locations do current passengers ask for service to that aren't currently served? *none*
- Are there any locations in Tuscaloosa that should be served by bus service but aren't currently served? *no*
- Are there any locations in Tuscaloosa that should have more frequent bus service than is currently provided? *no*
- Are there any stops, route segments, or areas that currently have service that either shouldn't have service or should receive less service? *no*
- Are there any changes that could be made to either the routes or the system that would make your job easier? *Maybe an overpass over train track*

Operator Survey

- Which route(s) do you operate?

UA

- What time of day do you drive?

2nd shift

- What would you do to improve the routes that you are responsible for?

Not stop at UA hub unless I have passengers to
Drop off, Due too Lack of Room From University Buses

- What safety concerns do you have regarding the route(s) that you currently or previously operate?

Stopping on skyland Blvd at pizza hut, due to cash saver
being eliminated

- Do any of your routes have any running time issues? If so, where?

No

- Do your routes have sufficient layover/recovery time?

Yes

(turn over)

- What Tuscaloosa area locations do current passengers ask for service to that aren't currently served? ~~East~~ North port
- Are there any locations in Tuscaloosa that should be served by bus service but aren't currently served? North port
- Are there any locations in Tuscaloosa that should have more frequent bus service than is currently provided? Skyland, Greensboro, McKenzie, VA At least until 7PM
- Are there any stops, route segments, or areas that currently have service that either shouldn't have service or should receive less service?
N/A
- Are there any changes that could be made to either the routes or the system that would make your job easier?
Daily Breaks

- What Tuscaloosa area locations do current passengers ask for service to that aren't currently served? *Community service*

- Are there any locations in Tuscaloosa that should be served by bus service but aren't currently served? *Mid Town Town Village*

- Are there any locations in Tuscaloosa that should have more frequent bus service than is currently provided? *Mid Town Village*

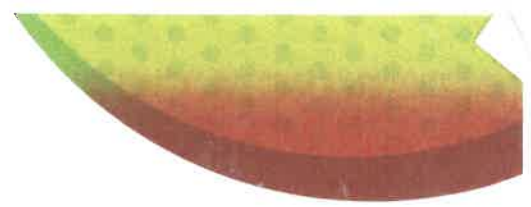
- Are there any stops, route segments, or areas that currently have service that either shouldn't have service or should receive less service?

~~The area of at the library.~~

The street on stop at the library. The street is too dangerous meeting on coming traffic especially big truck.

- Are there any changes that could be made to either the routes or the system that would make your job easier?

The Bryant drive is too congested especially at Tutwiler crossing.



Operator Survey

- Which route(s) do you operate?
- What time of day do you drive?
- What would you do to improve the routes that you are responsible for?
- What safety concerns do you have regarding the route(s) that you currently or previously operate?
- Do any of your routes have any running time issues? If so, where?
- Do your routes have sufficient layover/recovery time?

(turn over)

TUSCALOOSA TRANSIT IMPROVEMENT STUDY

November 18, 2020

Plan Overview

- What is the purpose of the Transit Improvement Study?
 - First time TTA is embarking on a transit study
 - Partnership with Elevate Tuscaloosa
 - Identify who transit is/should be serving
 - Improvements to existing service
 - Look towards the future role of transit in Tuscaloosa

Plan Overview

- What are the major steps to accomplish the plan?
 - Inventory and assessment of **existing conditions** and trends
 - Identify **goals**
 - Identify **short and long-term needs**
 - Recommend **fare policy**
 - Make **short-term and long-term recommendations**

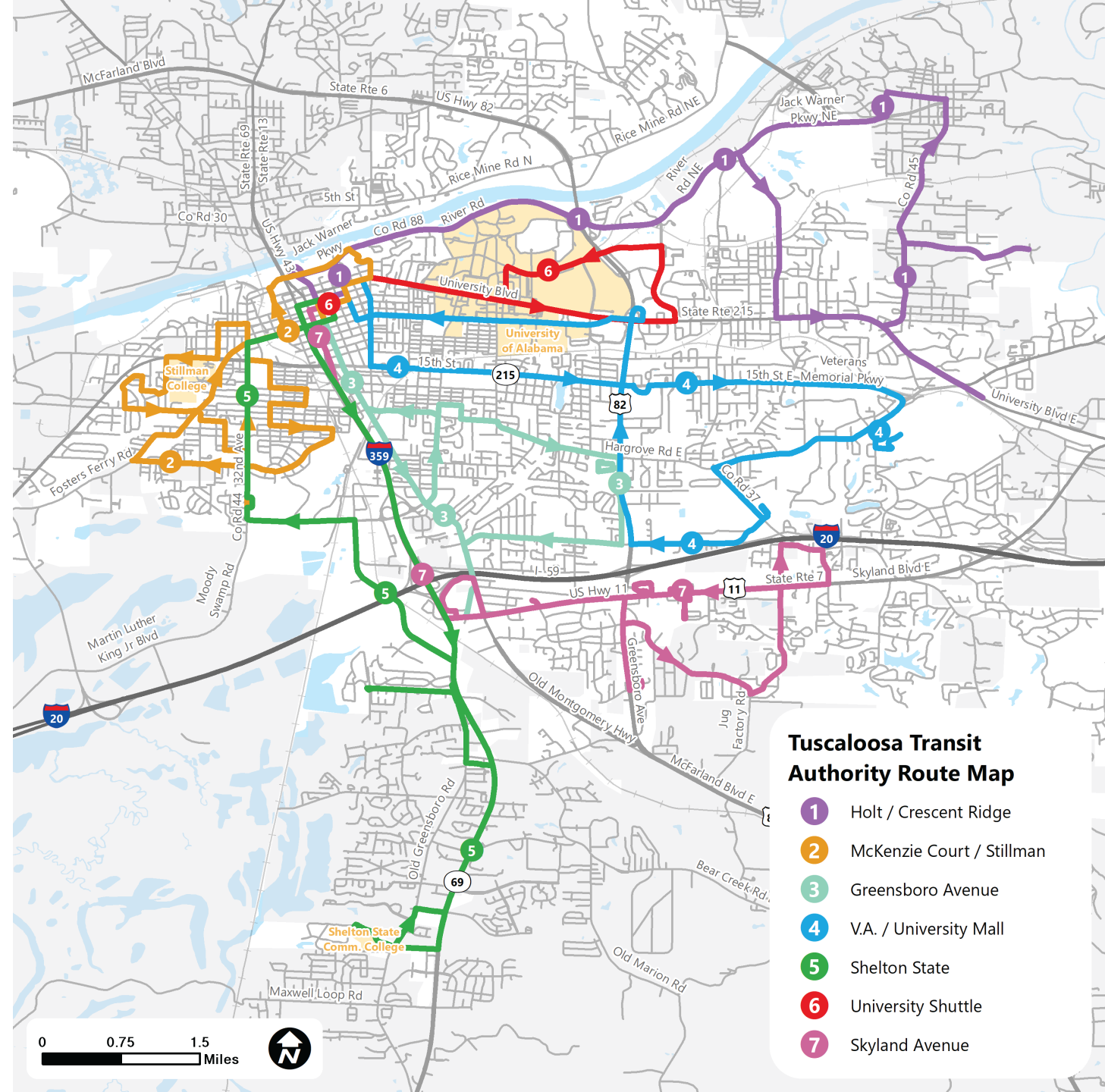
EXISTING SERVICES

Tuscaloosa Transit Service Basics

- Services Provided
 - Fixed Route Local Bus, Complementary Paratransit
 - M-F (5AM to 6PM)
 - TransLoc Rider – app that shows real-time location of buses
- Fares
 - \$1 for adults, \$0.50 for elderly/Medicare
 - \$0.20 for transfers
- Ridership
 - Over 300,000 passenger trips in 2019
 - 15,000 paratransit trips

Tuscaloosa Transit Routes

- Seven routes
- Bus comes once an hour on all routes except the University Shuttle (30 minute)
- Stops vary in proximity to each other based on the route
- Other:
 - UA Game Day Shuttle
 - McDonald Hughes Community Center Senior Shuttle



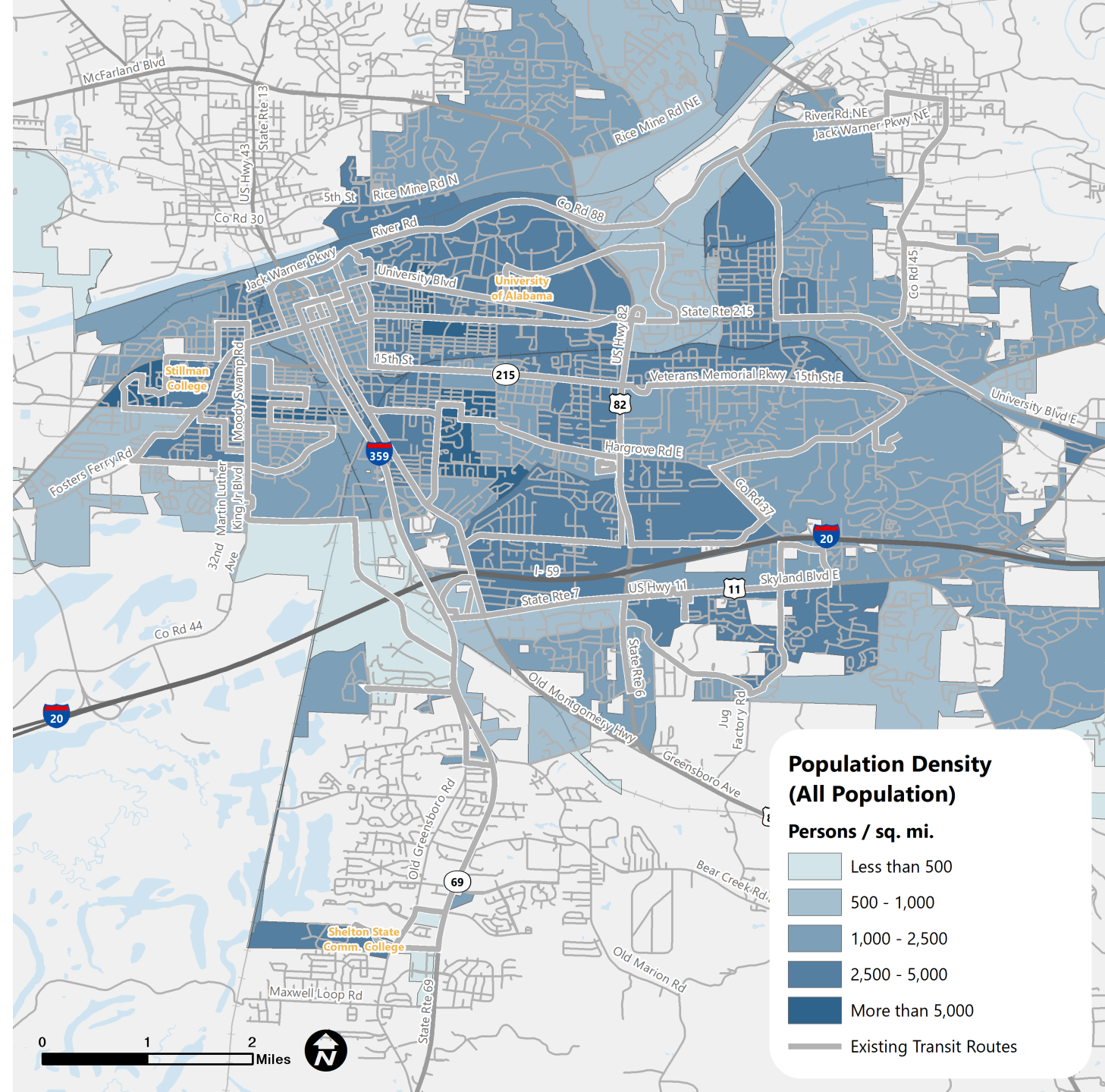
Transit Market Analysis

DEMOGRAPHICS

Population Density: Total Population

The highest population densities in Tuscaloosa are located in the central portion of the city, in the area roughly bounded by Downtown, the University of Alabama, and I-20.

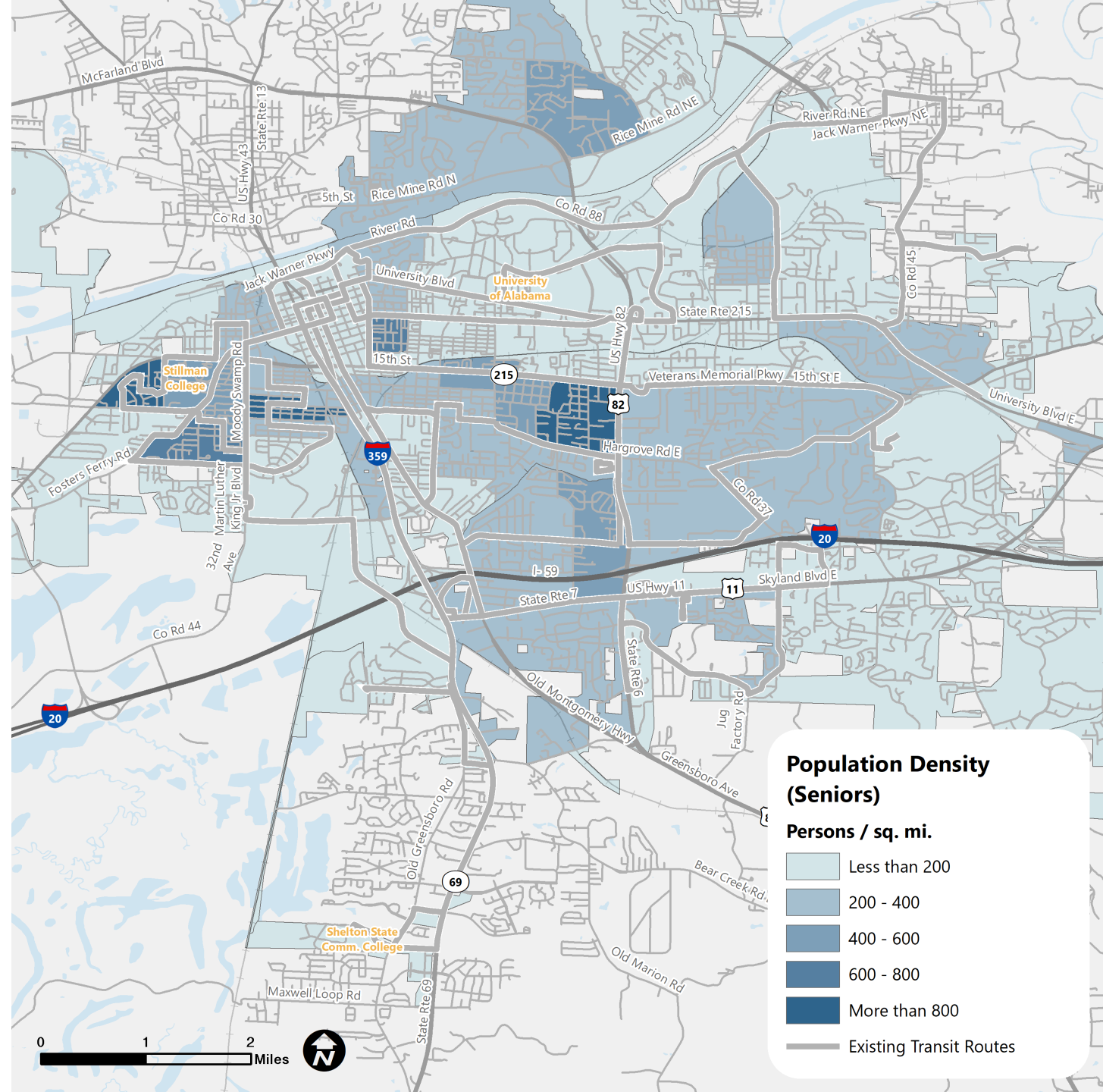
- ~100,000 residents
- 25% are young adults
- 7.8% lives with a disability (under age of 65)



Population Density: Seniors

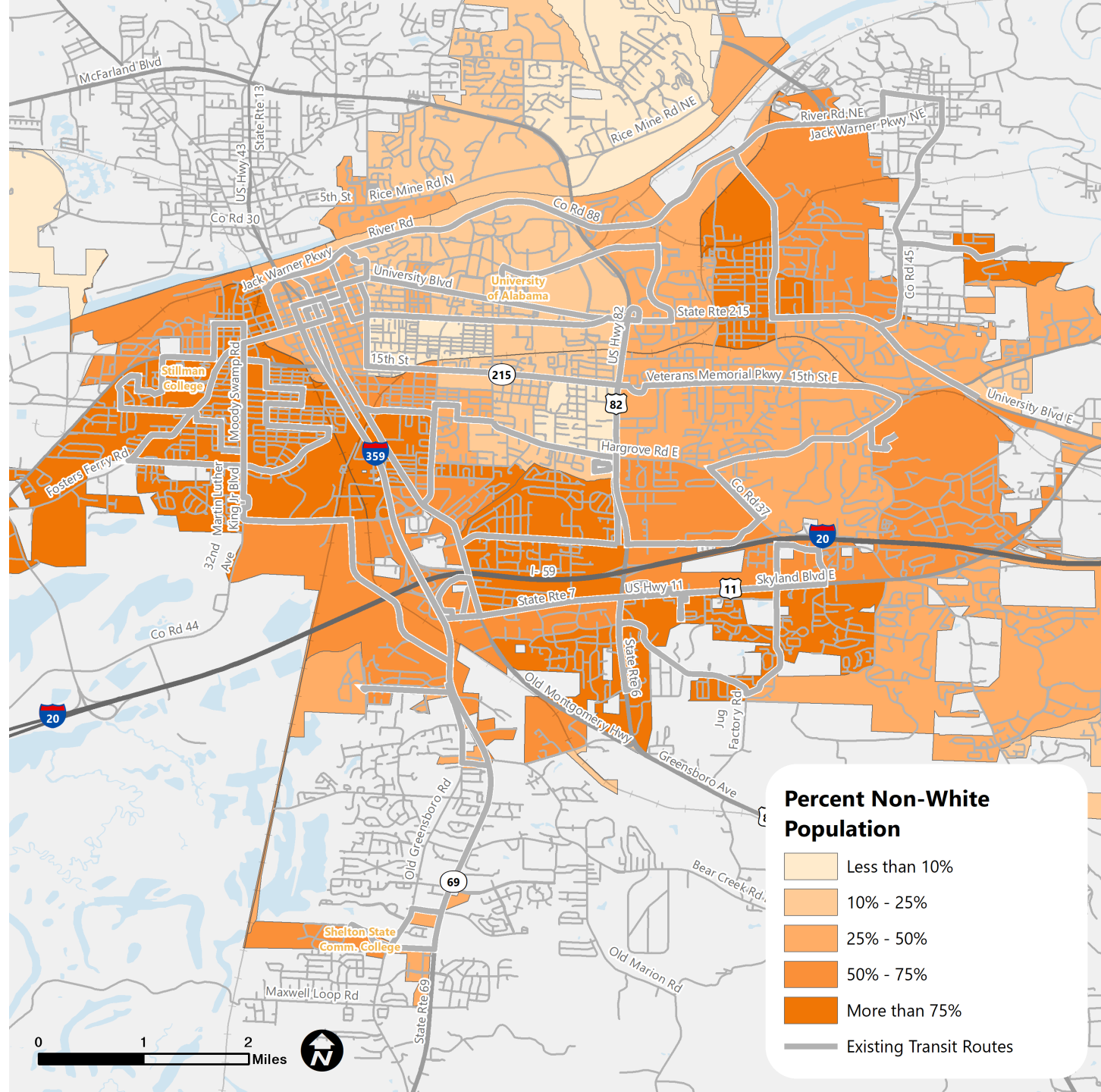
The highest densities of senior population in the City area just west of Stillman College, off Moody Swamp Road, and in the Midtown Village area near University Mall.

- 12% of residents are 65 years and older



Non-White Race and Hispanic

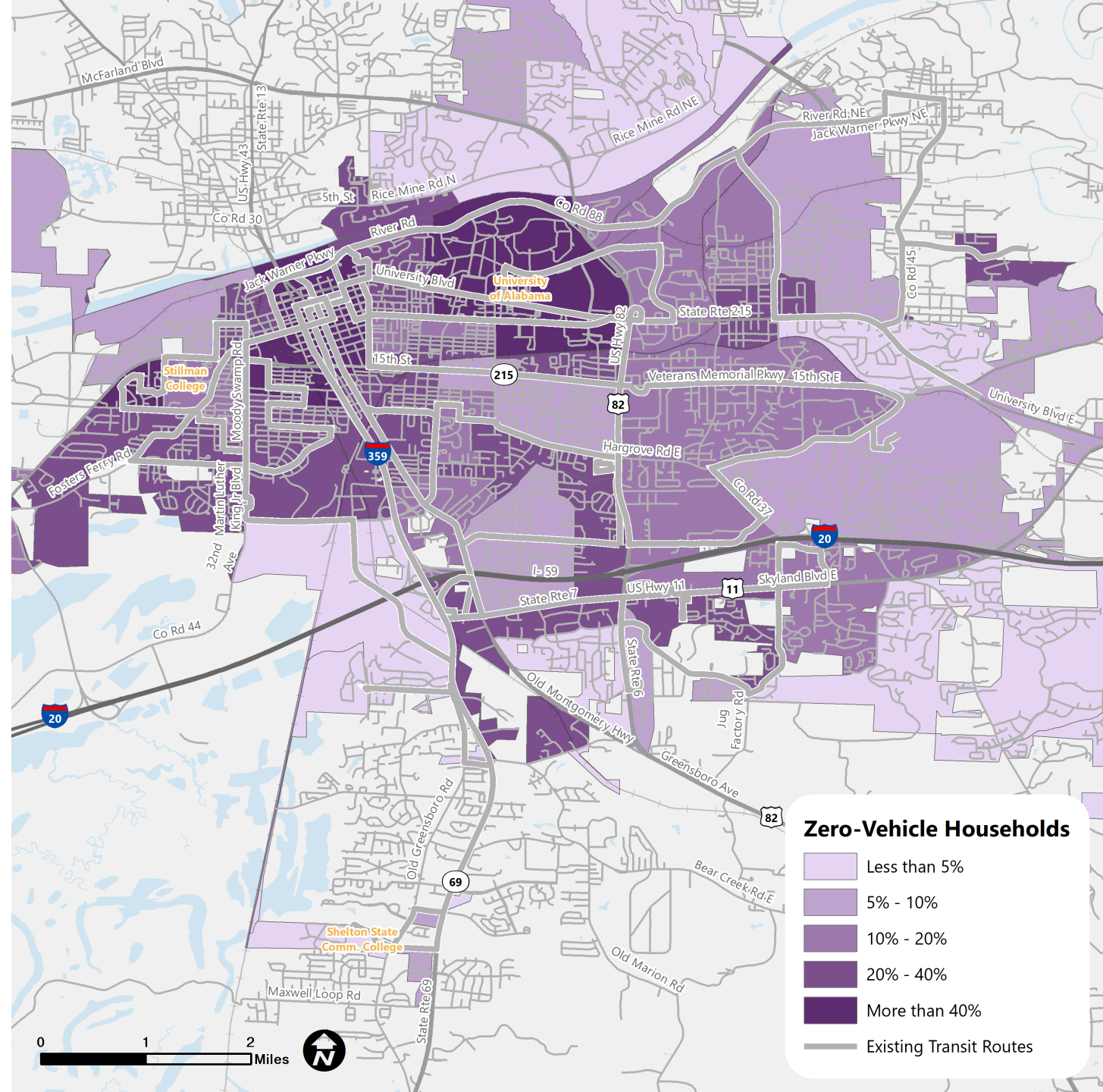
- White – 51.1%
- Black/African American – 44.1%
- American Indian – 0.3%
- Asian – 2.4%
- Two or More Races – 1.1%
- Hispanic/Latino – 3.1%



Zero-Vehicle Households

The highest proportions of households without access to personal vehicles can be found in central Tuscaloosa, especially near the University of Alabama and Stillman College.

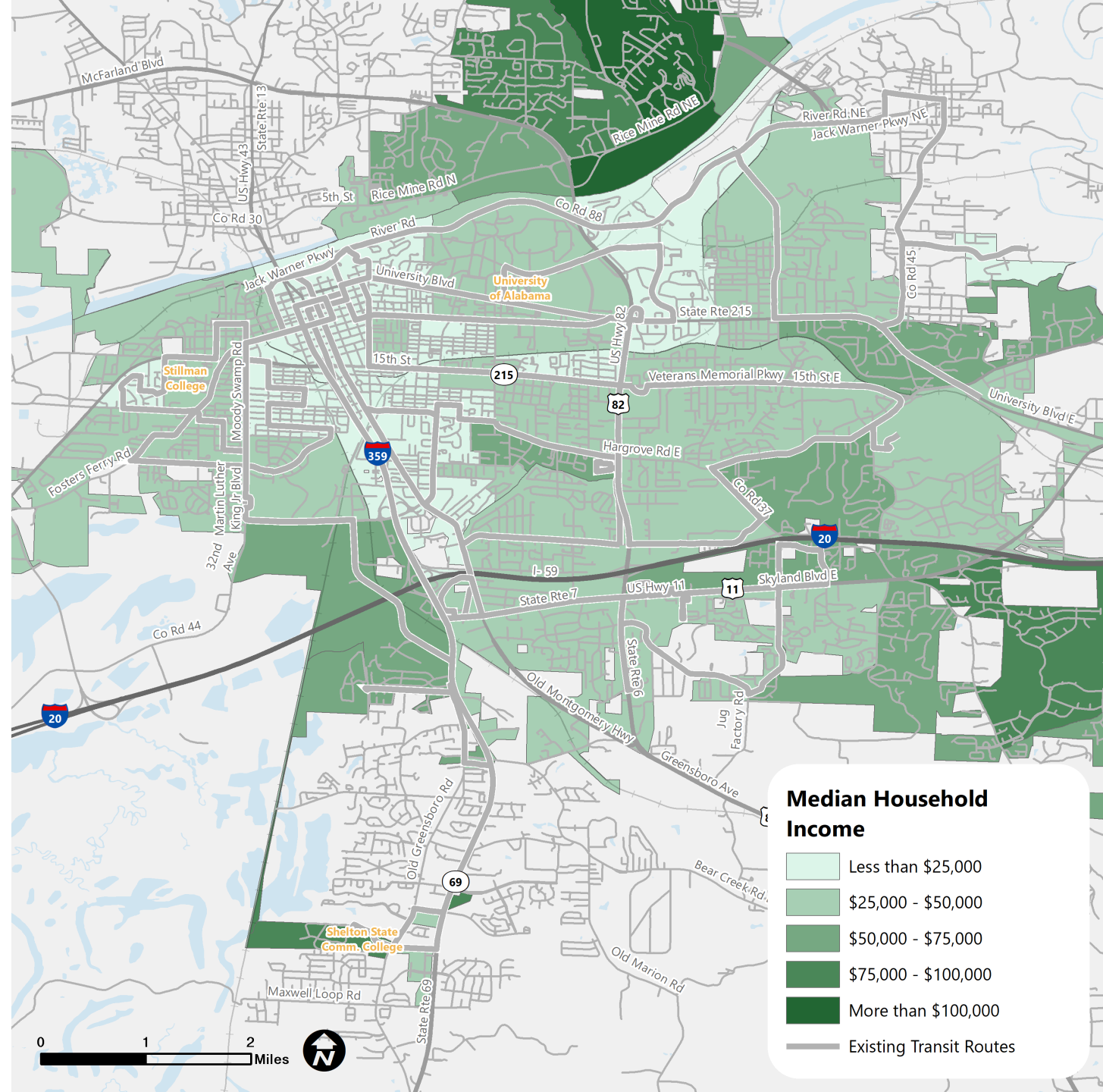
- Some areas in City have more than 20% of the population with no access to a personal vehicle



Median Household Income and Poverty

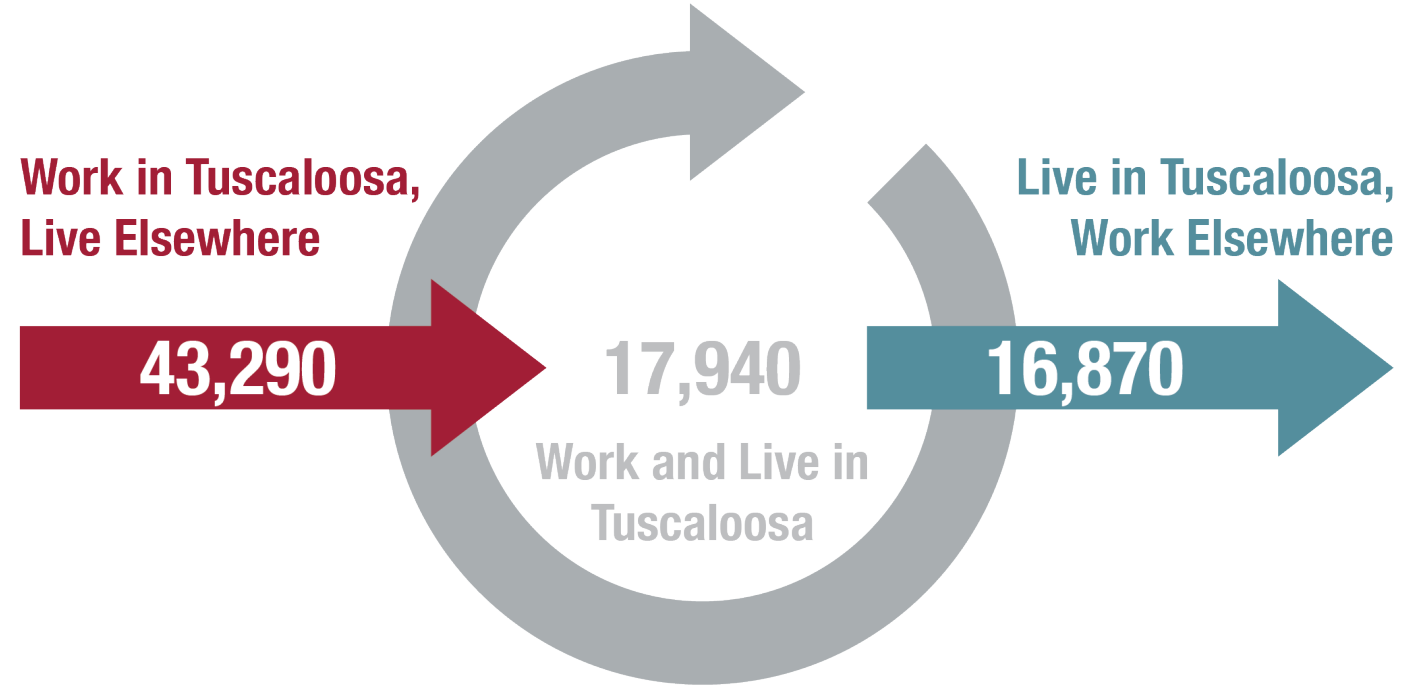
Overall median household income in Tuscaloosa is \$42,430 – which is lower than both the County (\$50,500) and the statewide average (\$48,120).

- 24.2% of City's population considered persons in poverty



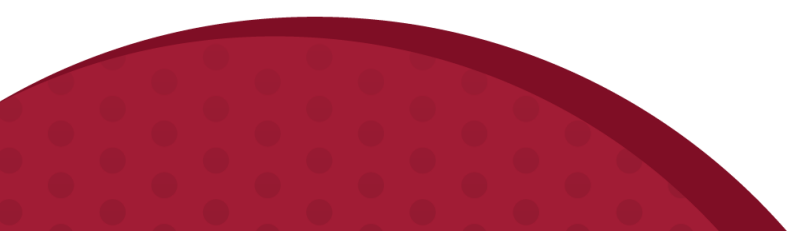
Commuting Patterns

- Tuscaloosa is a regional employment center with over 60,000 jobs available.
- 30% of jobs available are held by City residents, with just under 60% of those over the age of 16 in the Civilian Labor Force
- Relatively low average commute distances and times (~20 minutes)
- Some residents commute to jobs in the Birmingham metro area.



STAKEHOLDER QUESTIONS

Questions

- How familiar are you with Tuscaloosa Transit?
 - Do the people you serve ride transit?
 - What does TTA do well? What could TTA improve?
 - What is easy, confusing, or difficult about riding the bus?
 - What would make riding the bus more appealing?
 - Does the bus travel to all the places you want to go? What is missing?
 - What is your vision for TTA in the next 5-10 years?
- 

Appendix C - Transit Asset Management Plan (2019)

TUSCALOOSA COUNTY PARKING AND TRANSIT AUTHORITY
(TCPTA)

Transit Asset Management Final Rule
49 CFR Part 625

The Federal Transit Administration issued a final rule on the Transit Asset Management that was made effective on October 1, 2016. This final rule requires public transportation providers to develop and implement transit asset management plans. The TAM plans must include an asset inventory, condition assessments of inventoried assets and a prioritized list of investments to improve the state of good repair of their capital assets.

The final rule also establishes a state good repair (SGR) standard and four state of good repair (SGR) performance measures. Transit Providers are required to set performance targets for their capital assets based on the SGR measures and report their targets as well as information related to the conditions of their capital assets, to the National Transit Databases.

Performance Targets – Initial Targets (Section 625.41)

TCPTA is its own TAM Plan Sponsor. Transit agencies in Alabama are defined as Tier II Providers. “Tier II providers are those transit operators that do not operate rail fixed-guideway public transportation systems and have either one hundred (100) or fewer vehicles in fixed-route revenue service during peak regular service or have one hundred (100) or fewer vehicles in general demand response service during peak regular service hours.”

TCPTA has set the performance targets under the SGR by January 1, 2019 as follows:

TCPTA Transit Asset Performance Measures – Tier II			
Asset Category	Performance Measures	Performance Targets	Comments
*Rolling Stock <i>All Revenue Vehicles</i> (See Attachment)	Age - % of revenue vehicles within a particular asset class that have met or exceed their Useful Life Benchmark	Vans – reduce by 5% of current active inventory	Benchmarks have been set for each class of vehicle based on its current active inventory
		Cutaway Buses – reduce by 5% of current active inventory	
		Body-in-Chassis – reduce by 5% of current active inventory	
		Full Size Buses – reduce by 5% of current active inventory	

TCPTA has set a target to reduce vehicles that have exceeded their useful life by 12% each year. In order to meet this target, at least one bus and one van will be replaced each year. TCPTA also plans to replace at least one full size bus that has exceeded its useful life in 2019. At the end of 2019, TCPTA will evaluate whether or not the 12% reduction target has been met. If not, TCPTA will revisit the target to ensure that it is realistic and if so, TCPTA will revise methodologies to meet the target in future years. **ASSET CONDITION RATINGS: 1 = WORN, 2 = MARGINAL, 3 = FAIR, 4 = GOOD, 5 = EXCELLENT**

TCPTA Transit Asset Performance Measures -- Tier II (Continued)			
Asset Category	Performance Measures	Performance Targets	Comments
Equipment <i>Non-revenue vehicles</i> (See Attachment)	Age - % of non-revenue vehicles within a particular asset class that have met or exceed their Useful Life Benchmark	Overall reduction that current inventory by 5%	Equipment is defined as nonexpendable, tangible property, having a useful life of at least one year. TCPTA will inventory only FTA purchased equipment over \$25,000
Facilities – <i>Intermodal Facility</i> 60123 rd Ave <i>Bus Maintenance Facility</i> 2450 Hargrove Rd E	Conditions-- % of facilities with a condition rating below 3.0 on a FTA Transit Economic Requirement Model (TERM) Scale	No more than 20% of FTA funder Facilities to have a rating of below 3.0 (Fair) Condition	TCPTA will only rate FTA funded facilities.

Asset Prioritization

TCPTA classifies assets by priority groups based on needs with 1 being the highest priority to 4 being the lowest priority:

1. Revenue Rolling Stock (Buses and ADA Paratransit Vans)
2. Maintenance Shop
3. Intermodal Facility
4. Non-Revenue Program Administration Vehicles

The basis used to define and categorize assets on priority level takes into account the mission of TCPTA to provide a safe and reliable option of transportation for citizens in Tuscaloosa County.